

**SUSITNA
HYDROELECTRIC PROJECT**
FEDERAL ENERGY REGULATORY COMMISSION
PROJECT NUMBER 7114

**GLACIAL LAKE PHYSICAL
LIMNOLOGY STUDIES:
EKLUTNA LAKE, ALASKA**

VOLUME 2

APPENDICES

PREPARED BY:

R&M
R&M CONSULTANTS, INC.
ENGINEERS GEOLOGISTS HYDROLOGISTS SURVEYORS
ANCHORAGE, ALASKA

UNDER CONTRACT TO:
HARZA-EBASCO
SUSITNA JOINT VENTURE
ANCHORAGE, ALASKA

DRAFT REPORT

JUNE 1985

DOCUMENT NO.

ALASKA POWER AUTHORITY

ALASKA POWER AUTHORITY
SUSITNA HYDROELECTRIC PROJECT
Federal Energy Regulatory Commission
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Prepared By:
R&M Consultants, Inc.
Anchorage, Alaska

Under Contract To:
Harza-Ebasco Susitna Joint Venture
Anchorage, Alaska

R24/5 51

APPENDIX A
SUMMARY OF DATA COLLECTED
IN EKLUTNA LAKE

TABLE A.1
SUMMARY OF DATA COLLECTED AT EKLUITNA LAKE
December 10, 1982 to November 26, 1984

Date	Personnel	Sample Stations and Depth of Sample			Remarks
		Temp. & Cond	Secchi Disk	Turbidity	
12/10/82				Quantum	
01/11/83	JB, CL	5, 9 & 11			Pickup Ryans from lake
01/13/83	BJ, CL				
02/15/83	RFB, CL	5, 9 & 11			
02/18/83					
03/21/83	JB, JBJ	13			13
03/29/83	JBJ				
04/30/83	JBJ				
05/14/83	JB, RFB	5 & 9			
06/01/83	JB, LF				
06/02/83	JB, LF	2, 5, 7, 9 10, 11, 13 & 15	2, 5, 7, 9 10, 11, 13 & 15		7
06/17/83	JBJ				Install- ed Ryans at Sta 9
07/05/83	JB, LF				
07/06/83	JB, LF	2, 3, 5, 7, 9, 11, 13 & 15	2, 3, 5, 7, 9 11 & 13		
08/02/83	RFB, JBJ	2, 5, 7, 9, 10 11 & 15	2, 7 & 11		2, 7 & 11
08/03/83	RFB, JBJ				15
09/07/83	RFB, LF	2, 5, 7, 8, 9, 10, 11 & 15	2, 7, 9, 11 & 15		
09/08/83	RFB, LF				
10/05/83	RFB, JC	2, 5, 7, 8, 9 11 & 15	2, 5, 7, 8, 9, 11 & 15		
10/06/83	RFB, JC				
11/01/83	RFB, LS	2, 5, 7, 9, 11 & 15	2, 5, 7, 9, 11 & 15		
12/03/83	JC				Ice Obsv.
12/04/83	JC, LS	15			Ice Obsv.
12/06/83	JC, LS				Ice Obsv.
01/12/84	JC, LS	5, 9 & 15			
01/16/84	JC, LS				
02/16/84	RFB, LS	5, 9 & 15			Ice Obsv.
03/23/84	RFB, BCP	2, 5, 9 & 15			

NOTE: Percent transmittance was measured at Station 13 on March 29, 1983.

TABLE A.1, CONT.
SUMMARY OF DATA COLLECTED AT EKLUITNA LAKE
December 10, 1982 to November 26, 1984

Date	Personnel	Temp. & Cond	Secchi Disk	Sample Stations and Depth of Sample		Remarks
				Turbidity	TSS	
04/20/84	JC, WSA	11, 15	11, 15	11 1 & 5m	11 1 & 5m	11, 15
				15 2 & 24m	15 2 & 24m	
05/17/84	JC, WSA	5, 9, 15	5, 9, 15	5 2 & 20m	5 2 & 20m	5, 9, 15
				9 4 & 20m	9 4 & 20m	
06/05/84	RFB, BCP	2, 5, 9, 11, 15	2, 5, 9, 11, 15	2 0 & 13.5m	2 0 & 13.5m	Installed Ryan string
				5 0 & 9m	5 0 & 9m	
06/21/84	JC, SB	1, 2, 3, 9, 15	1, 2, 3, 9, 15	9 0 & 13m	9 0 & 13m	1, 2, 3, 9
				11 0 & 3m	11 0 & 3m	
07/05/84	JC, SC	1, 2, 3, 9, 15	1, 2, 3, 9, 15	15 0 & 0m	15 0 & 0m	1, 2, 3, 9
				1 11m	1 11m	
07/19/84	WSA, SC	1, 2, 3, 9, 15	1, 2, 3, 9, 15	2 10, 14, 20m	2 10, 14, 20m	1, 2, 3, 9
				3 2, 7, 12, 20m	3 2, 7, 12, 20m	
07/19/84	WSA, SC	1, 2, 3, 9, 15	1, 2, 3, 9, 15	9 2, 6, 20m	9 2, 6, 20m	1, 2, 3, 9
				15 4m	15 4m	
07/19/84	WSA, SC	1, 2, 3, 9, 15	1, 2, 3, 9, 15	1 20m	1 20m	1, 2, 3, 9
				2 4, 9, 20m	2 4, 9, 20m	
07/19/84	WSA, SC	1, 2, 3, 9, 15	1, 2, 3, 9, 15	3 2, 8, 16, 24m	3 2, 8, 16, 24m	1, 2, 3, 9
				9 2, 14, 32m	9 2, 14, 32m	
07/19/84	WSA, SC	1, 2, 3, 9, 15	1, 2, 3, 9, 15	15 4m	15 4m	1, 2, 3, 9
				1 2, 6m	1 2, 6m	
08/03/84	WSA, MD	1, 2, 3, 9, 15	1, 2, 3, 9, 15	2 6, 10, 16, 28m	2 6, 10, 16, 28m	1, 2, 3, 9
				3 2, 8, 16, 28m	3 2, 8, 16, 28m	
08/03/84	WSA, MD	1, 2, 3, 9, 15	1, 2, 3, 9, 15	9 4, 16, 36m	9 4, 16, 36m	1, 2, 3, 9
				15 4m	15 4m	
08/16/84	WSA, SC	15	15	1 1, 3m	1 1, 3	15
				2 4, 8, 16, 32m	2 4, 8, 16, 32	
08/17/84	WSA, SC	10, 11, 12, 13, 14	10, 11, 12, 13, 14	3 2, 8, 16, 28m	3 2, 8, 16, 28	10, 11, 12, 13, 14
				9 6, 28m	9 6, 28	
08/17/84	WSA, SC	10, 11, 12, 13, 14	10, 11, 12, 13, 14	15 Profile	15 Profile	10, 11, 12, 13, 14
				10 Profile	10 Profile	
08/17/84	WSA, SC	10, 11, 12, 13, 14	10, 11, 12, 13, 14	11 Profile	11 6, 16, 36m	10, 11, 12, 13, 14
				12 Profile	12 2, 16m	
08/17/84	WSA, SC	10, 11, 12, 13, 14	10, 11, 12, 13, 14	13 Profile	13 2, 12, 24m	10, 11, 12, 13, 14
				14 Profile	14 2, 10, 20m	

NOTE: Percent transmittance was measured at Stations 1, 2, 3, 9, and 15 on August 3, 1984 and at Station 15 on August 16, 1984 and Stations 10, 11, 12, 13, and 14 on August 17, 1984.

TABLE A.1, CONT.
SUMMARY OF DATA COLLECTED AT EKLUTNA LAKE
December 10, 1982 to November 26, 1984

Date	Personnel	Temp. & Cond	Sample Stations and Depth of Sample			Quantum	Remarks
			Secchi Disk	Turbidity	TSS		
08/18/84	SG, WSA	9	9	Profile	9	6, 16, 44m	9
08/19/84	SF, WSA	5, 6, 7, 8	5, 6, 7, 8	5 Profile 6 Profile 7 Profile 8 Profile	5, 6, 7, 8	4, 24, 44m 2, 20, 44m 6, 20, 40m 24, 44m	Quantum meas. at 5&6 suspect.
08/20/84	SF, WSA	1, 2, 3, 4	1, 2, 3, 4	1 Profile 2 Profile 3 0.20, 44m 4 Profile	1, 2, 3, 4	6, 12m 2, 16, 36m 6, 20m 8, 24, 44m	Quantum sensor not working
09/03/84	SG, WSA	1, 2, 3, 9, 15	1, 2, 3, 9, 15	1 Profile 2 Profile 3 Profile 9 Profile 15 Profile	1, 2, 3, 9, 15	6, 12, 24m 4, 24, 44m 0, 20, 44m 4, 20, 44m 4m	No Quantum meas. instr. being re-calibrat.
09/15/84	SG, WSA	1, 2, 3, 9, 15	1, 2, 3, 9, 15	1 1m 2 2, 10, 20m 3 1, 10, 28m 9 Profile 15 Profile	1, 2, 3, 9, 15	1m 2, 10, 20m 1, 10, 28m 6, 20, 56m 6m	
10/01/84	JC, SG	1, 2, 3, 9, 15	1, 2, 3, 9	1 Profile 2 Profile 3 Profile 9 Profile 15 4m	1, 2, 3, 9	2m 4, 20m 4, 16, 28m 4, 24, 48, 56m 4m	No Sta. 15 Quantum & secchi, too dark
10/15/84	WSA, SG	1, 2, 3, 9, 15	1, 2, 3, 9, 15	1 1m 2 4, 12, 24, 44m 3 1, 6, 16, 36m 9 10, 20, 40, 56m 15 2, 12m	1, 2, 3, 9	1m 4, 12, 24, 44m 1, 6, 16, 36m 10, 20, 40, 56m 2, 12m	Pump did not work
10/29/84	SG, DS	1, 2, 3, 9, 15	1, 2, 3, 9, 15	1 1m 2 4, 12, 28, 40m 3 4, 16, 32, 44m 9 6, 20, 36, 52m 15 2, 12m	1, 2, 3, 9, 15	1m 4, 12, 28, 40m 4, 16, 32, 44m 6, 20, 36, 52m 2, 12m	Pump did not work
11/12/84	SG, RFB	1, 2, 3, 9, 15	1, 2, 3, 9, 15	1 1m 2 4, 16, 28, 40m 3 4, 16, 28, 40m 9 4, 16, 32, 48m 15 1, 12m	1, 2, 3, 9, 15	1m 4, 16, 40m 4, 16, 40m 4, 16, 48m 1m	Too cold to run nephelometer.

NOTE: Percent transmittance was measured at Stations 9 on August 18, 1984; 5, 6, 7 and 8 on August 19, 1984; and 1, 2, 3, and 9 on August 20, 1984.

TABLE A.1, cont.
 SUMMARY OF DATA COLLECTED AT EKLUTNA LAKE
 December 10, 1982 to November 26, 1984

Date	Personnel	Sample Stations and Depth of Sample					Remarks
		Temp. & Cond	Secchi Disk	Turbidity	ISS	Quantum	
11/26/84	SG, WSA	1, 2, 3, 9, 15	1, 2, 3, 9, 15	1m	1	1m	Pulled Ryans. 100 cold to run nepheio- meter.
				4, 12, 40m	2	4, 12, 40m	
				4, 20, 40m	3	4, 20, 40m	
				2, 16, 32, 52m	9	2, 16, 32, 52m	
			15	10m	15	10m	

R24/5 52

APPENDIX B
WEATHER DATA SUMMARIES

TABLE B.1

R & M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING December, 1982

DAY	MAX.	MIN.	MEAN	RES.	RES.	AVG.	MAX.	MAX.	P'VAL	MEAN	MEAN	PRECIP	DAY'S SOLAR ENERGY WH/SHM
	TEMP.	TEMP.	TEMP.	WIND	WIND	WIND	GUST	GUST		RH	DP		
	DEG C	DEG C	DEG C	DIR. DEG	SPD. M/S	SPD. M/S	DIR. DEG	SPD. M/S	DIR.	%	DEG C	MM	
1	-12.6	-15.3	-14.0	131	.5	.7	356	3.2	SE	**	*****	****	348 1
2	-14.1	-26.1	-20.1	143	.6	.7	142	2.5	SSE	**	*****	****	340 2
3	-21.1	-27.0	-24.1	149	.8	.9	156	2.5	SSE	**	*****	****	338 3
4	1.0	-26.7	-12.9	138	.7	.7	138	5.7	SE	**	*****	****	335 4
5	5.1	-.2	2.5	138	3.6	3.7	117	8.9	SE	**	*****	****	200 5
6	6.0	1.8	3.9	144	2.8	3.3	157	12.7	SE	**	*****	****	273 6
7	6.0	2.4	4.2	148	5.6	5.7	149	15.2	SSE	**	*****	****	328 7
8	7.0	.1	3.6	144	2.3	3.2	145	11.4	SE	**	*****	****	315 8
9	.6	-12.3	-5.9	332M	.7M	.8M	273M	1.9M	N (M)	**	*****	****	468 9
10	-7.6	-15.0	-11.3	***	****	****	***	****	***	**	*****	****	405 10
11	-3.2	-8.4	-5.8	***	****	****	***	****	***	**	*****	****	450 11
12	2.8	-8.1	-2.7	142M	.7M	.9M	125M	5.7M	SE (M)	**	*****	****	338 12
13	4.2	-.6	1.8	146	2.1	2.6	085	10.2	SSE	**	*****	****	278 13
14	1.9	-2.8	-.5	109	.3	.8	327	2.5	ESE	**	*****	****	425 14
15	6.1	-1.7	2.2	146	.7	1.1	123	5.7	SSE	**	*****	****	410 15
16	5.9	.5	3.2	136	2.0	2.3	136	9.5	SE	**	*****	****	290 16
17	6.0	-8.6	-1.3	130	.9	1.4	136	6.3	SE	**	*****	****	360 17
18	-6.1	-12.6	-9.4	145	.6	.6	172	1.9	SE	**	*****	****	460 18
19	3.9	-10.9	-3.5	124	1.0	1.5	117	6.3	SE	**	*****	****	438 19
20	1.4	-8.5	-3.6	052	.4	1.0	128	8.9	NNE	**	*****	****	425 20
21	-7.0	-16.9	-12.0	149	.7	.7	203	2.5	SSE	**	*****	****	453 21
22	-14.6	-19.4	-17.0	149	.6	.6	162	1.9	SSE	**	*****	****	438 22
23	-12.4	-20.2	-16.3	144	.6	.6	117	1.9	SE	**	*****	****	443 23
24	-8.4	-15.2	-11.8	135M	.5M	.5M	155M	1.9M	SE (M)	**	*****	****	438 24
25	3.4	-17.0	-6.8	143M	1.3M	1.4M	145M	9.5M	SE (M)	**	*****	****	425 25
26	6.2	2.6	4.4	149	8.0	8.0	150	16.5	SSE	**	*****	****	143 26
27	6.8	3.5	5.2	142	7.5	7.6	146	18.4	SE	**	*****	****	120 27
28	7.9	2.7	5.3	145	7.0	7.0	140	19.7	SE	**	*****	****	188 28
29	6.2	-1.1	2.6	143	4.8	5.2	140	19.7	SE	**	*****	****	180 29
30	-.7	-7.5	-4.1	097	.3	.7	048	3.8	SE	**	*****	****	478 30
31	-3.2	-8.4	-5.8	123	.5	.6	155	2.5	ESE	**	*****	****	395 31
MONTH	7.9	-27.0	-4.8	143M	2.1M	2.4M	140M	19.7M	SE (M)	**	*****	****	10918

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 16.5
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 14.6
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 17.1
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 14.6

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

FIGURE B.1

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA WEATHER STATION
December, 1982

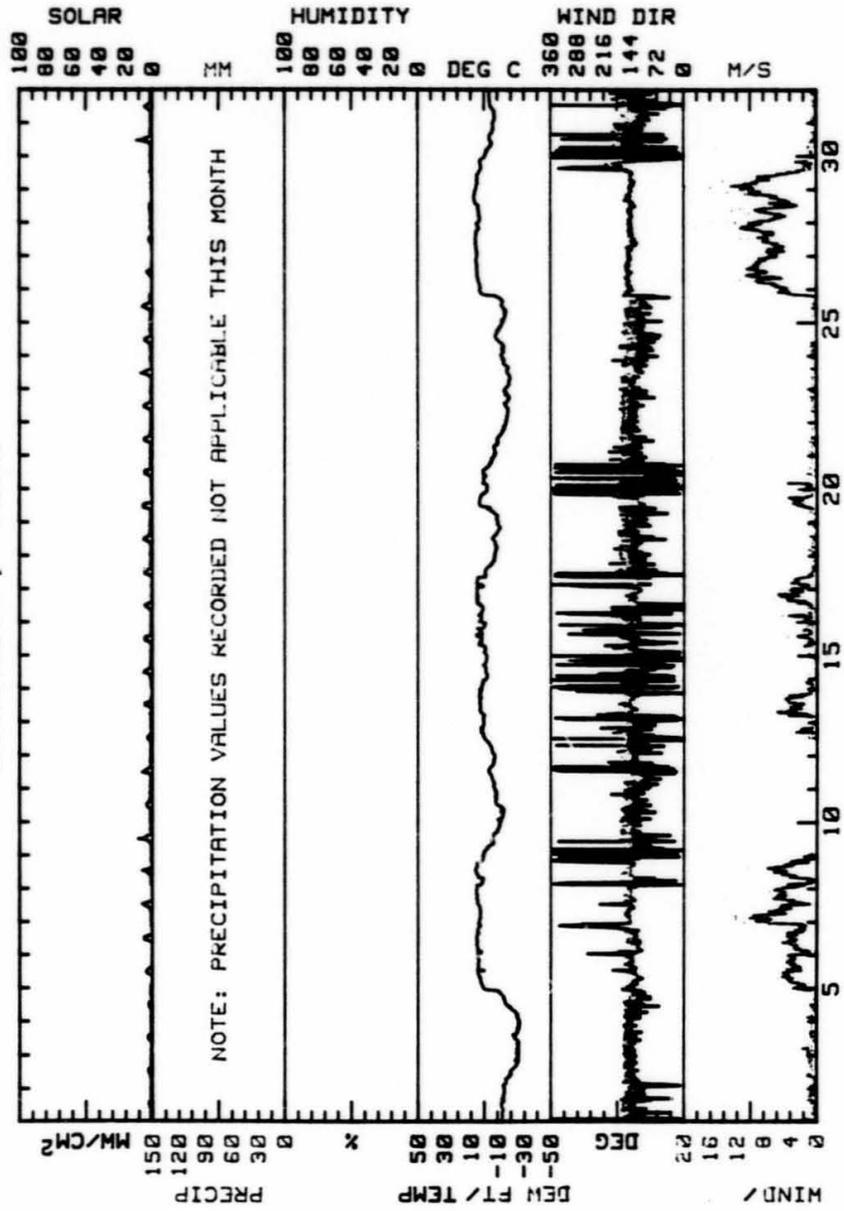


TABLE B.2

R & M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA LAKE WEATHER STATION
DATA TAKEN DURING January, 1983

DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AUG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
1	-1.9	-3.5	-2.7	119	.3	.6	351	2.5	SSE			XXXX	373	1
2	-2.3	-5.5	-3.9	133	.5	.7	143	3.2	SE			XXXX	398	2
3	-5.0	-7.9	-6.5	090	.2	.5	144	1.9	SE			XXXX	413	3
4	-5.0	-7.9	-6.5	090	.2	.5	144	1.9	SE			XXXX	413	4
5	-17.2	-26.8	-22.0	139M	.4M	.4M	170M	1.9M	SSE(M)			XXXX	343	5
6	-17.3	-29.0	-22.7	003M	.9M	.9M	000M	2.5M	N (M)			XXXX	318	6
7	-19.6	-29.1	-23.9	021	.3	.5	352	2.5	N			XXXX	313	7
8	-29.4M	-32.6M	-31.0M	135M	.4M	.4M	154M	1.9M	SE(M)			XXXX	329M	8
9	-32.1M	-32.1M	-32.1M	107M	.2M	.2M	107M	.6M	ESE(M)	XXXX	XXXX	XXXX	1M	9
10	-22.2M	-25.4M	-24.3M	350M	.2M	.2M	350M	1.3M	N (M)	XXXX	XXXX	XXXX	240M	10
11	-22.1M	-27.8M	-25.1M	142M	.5M	.5M	073M	1.9M	SSE(M)	72M	-29.3M	XXXX	213M	11
12	-20.2	-29.5	-24.9	130	.4	.5	154	2.5	SSE	73	-27.3	XXXX	393	12
13	-19.4	-27.8	-23.1	118	.3	.4	174	1.9	SE	72	-29.7	XXXX	418	13
14	-13.9	-22.3	-18.1	120	.3	.4	147	1.9	ESE	77	-21.6	XXXX	460	14
15	.9	-13.6	-6.4	100	.5	.8	059	3.8	ESE	82	-8.0	XXXX	293	15
16	3.3	-3.9	-.3	042	.3	1.0	059	7.0	SE			XXXX	258	16
17	-3.1	-9.2	-6.3	114	.2	.3	155	1.3	ESE	XX	XXXX	XXXX	250	17
18	4.2	-6.7	-1.3	156	1.0	1.3	148	6.3	SE	97	.2	XXXX	188	18
19	3.7	-5.9	-1.1	125	1.1	2.8	153	9.3	SSE	71	-5.9	XXXX	428	19
20	3.4	-4.9	-.8	136	1.5	2.5	123	7.6	SE	52	-8.6	XXXX	698	20
21	6.2	-9.0	-1.4	139	1.5	2.6	142	10.8	SE	39	-13.2	XXXX	775	21
22	-9.4	-18.9	-14.2	142	.6	.8	070	3.2	SSE	78	-16.8	XXXX	648	22
23	-14.1	-20.2	-17.2	136	.6	.7	158	2.5	SSE	82	-19.8	XXXX	595	23
24	-6.7	-20.5	-13.6	142	.6	.7	159	3.2	SSE	94	-16.3	XXXX	398	24
25	-7.3	-11.1	-9.2	141	.6	.8	126	2.5	SSE	89	-10.2	XXXX	568	25
26	7.7	-8.1	-.2	146	1.5	2.0	143	9.9	SSE	78	.1	XXXX	383	26
27	2.6	-6.0	-1.7	135	.6	.7	117	2.5	SSE			XXXX	664	27
28	-3.1	-12.9	-8.0	142	.5	.6	193	2.5	SSE			XXXX	695	28
29	-10.1	-16.2	-13.2	139	.4	.4	151	1.9	SE	91	-14.1	XXXX	660	29
30	.9	-14.2	-6.7	062	.2	.3	343	3.8	ESE	92	-4.6	XXXX	515	30
31	6.4	0.0	3.2	144	2.1	2.8	147	10.2	SE			XXXX	558	31
MONTH	7.7M	-32.6M	-11.3M	133M	.6M	1.0M	142M	10.9M	SSE(M)	51M	-16.5M	XXXX	13195M	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 6.3
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 7.6
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 10.2
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 9.3

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

**** SEE NOTES AT THE BACK OF THIS REPORT ****

FIGURE B.2

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA LAKE WEATHER STATION
January, 1983

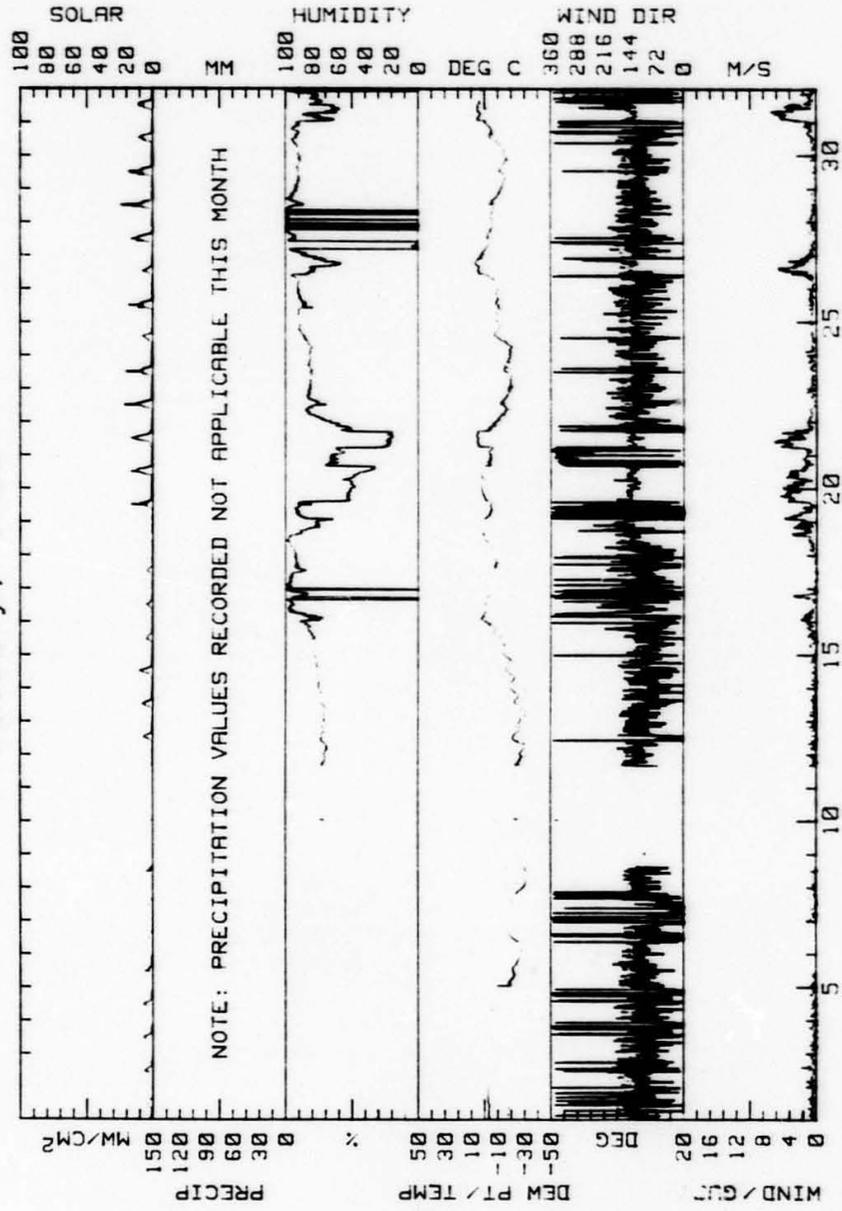


TABLE B.3

R & M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA LAKE WEATHER STATION
DATA TAKEN DURING February, 1983

DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SGM	DAY
1	7.7	.4	4.1	148	1.7	2.1	158	11.4	SSE			****	760	1
2	5.9	.9	3.4	148	3.0	3.5	144	11.4	SSE			****	633	2
3	4.8	.4	2.6	155	1.1	1.6	132	8.9	SSE			****	645	3
4	5.1	-7.7	2.2	149	1.2	1.9	159	11.4	SSE			****	950	4
5	4.3	-3.4	.5	151	1.2	1.8	155	8.3	SSE			****	578	5
6	.2	-3.3	-1.6	040M	.2M	.4M	159M	1.9M	N (M)	****	****	****	273	6
7	-2.3	-4.4	-3.4	152M	.5M	.4M	162M	2.5M	SSE (M)			****	350	7
8	-2.1	-7.2	-4.7	144M	.4M	.4M	169M	2.5M	SSE (M)			****	288	8
9	-7.7M	-23.9M	-15.8M	315M	.3M	.2M	297M	1.3M	NE (M) **	****	****	****	643M	9
10	****	****	****	***	****	****	***	****	*** **	****	****	****	****	10
11	****	****	****	***	****	****	***	****	*** **	****	****	****	****	11
12	****	****	****	***	****	****	***	****	*** **	****	****	****	****	12
13	****	****	****	***	****	****	***	****	*** **	****	****	****	****	13
14	****	****	****	***	****	****	***	****	*** **	****	****	****	****	14
15	****	****	****	***	****	****	***	****	*** **	****	****	****	****	15
16	****	****	****	***	****	****	***	****	*** **	****	****	****	****	16
17	-18.2M	-23.6M	-20.9M	138M	.3M	.5M	259M	1.9M	SSE (M) **	****	****	****	436M	17
18	-7.3M	-11.9M	-9.6M	010M	.3M	.9M	176M	3.2M	N (M)			****	144M	18
19	3.4	-10.1	-3.4	134	.6	1.2	125	8.3	SE			****	1643	19
20	1.4	-8.0	-3.3	012	.5	1.1	002	4.4	N			****	1250	20
21	7.0	-5.8	.6	138	1.7	2.1	149	8.9	SE			****	1823	21
22	6.5	-5.9	.3	130	.4	1.1	142	7.0	SE	66	-3.6	****	2190	22
23	5.3	-7.7	-1.2	042	.2	.8	358	3.8	N	86	-4.5	****	1455	23
24	7.1	-11.4	-2.2	139	2.2	2.5	131	8.9	SE			****	1953	24
25	-2.5	-16.7	-9.6	119	.3	.6	112	2.5	SSE	83	-10.5	****	2200	25
26	7.7	-6.4	.7	118	.9	1.6	138	7.0	SE	68	-3.0	****	2193	26
27	.9	-7.0	-3.1	077	.1	.6	349	2.5	SSE			****	1105	27
28	2.9	-9.2	-3.2	113	.2	.5	148	1.9	ESE			****	1723	28
MONTH	7.7M	-23.9M	-3.2M	139M	.8M	1.3M	158M	11.4M	SSE (M) M	M	M	****	23231M	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 10.8
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 10.8
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 11.4
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 10.2

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

**** SEE NOTES AT THE BACK OF THIS REPORT ****

FIGURE B.3

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA LAKE WEATHER STATION
February, 1983

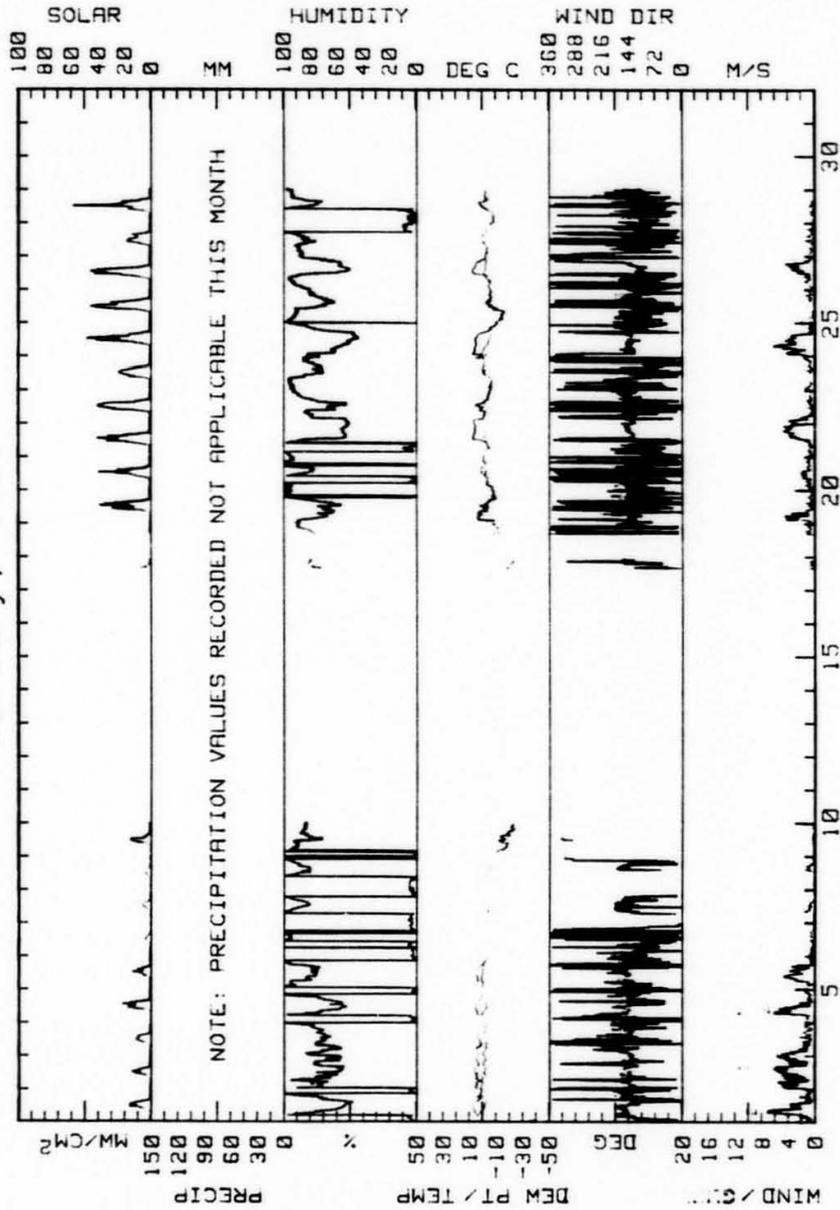


TABLE B.4

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA LAKE WEATHER STATION
DATA TAKEN DURING March, 1983

DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SGH	DAY
1	2.9	-5.0	-1.1	174	.6	.9	201	3.8	S			****	2533	1
2	-8	-17.1	-9.0	142	.2	.6	160	1.9	SSE			****	3038	2
3	-1.5	-21.1	-11.3	128	.2	.5	144	1.9	SSE	89	-18.7	****	2938	3
4	2.2	-17.5	-7.7	102	.2	.6	145	3.8	SE	68	-12.5	****	2653	4
5	2.4	-10.0	-3.8	087	.1	.6	144	1.9	N	66	-8.2	****	3123	5
6	2.9	-13.9	-5.5	124	.3	.6	176	1.9	SSE	82	-10.1	****	2973	6
7	2.8	-16.2	-6.7	122	.3	.5	166	1.9	SSE	83	-13.6	****	3130	7
8	2.1	-19.4	-8.7	136	.3	.6	175	2.5	SE	89	-17.9	****	3335	8
9	.9	-21.0	-10.1	137	.3	.6	180	2.5	SE	58	-14.6	****	3370	9
10	-1.2	-14.2	-7.7	024	.2	.7	288	2.5	N	73	-11.2	****	2428	10
11	6.8	-11.5	-2.4	014	.4	.9	328	5.7	N	73	-5.4	****	2883	11
12	9.1	-3.7	2.7	127	.7	1.3	145	6.3	SE			****	2863	12
13	9.9	-4.1	2.9	109	.2	.6	164	1.9	SSE			****	3368	13
14	9.2	-3.3	3.0	095	.2	.5	028	1.9	ESE			****	3040	14
15	7.3	-5.3	1.0	137	1.6	1.8	149	7.0	SE			****	2923	15
16	6.2	-5.9	.2	104	.2	.6	158	5.1	SE			****	2948	16
17	5.9	-9.4	-1.8	096	.2	.6	226	2.5	SSE			****	4133	17
18	5.1	-13.2	-4.1	128	.2	.6	148	2.5	SSE			****	4273	18
19	4.3	-13.3	-4.5	126	.2	.7	169	2.5	SSE	70	-10.5	****	4298	19
20	5.7	-11.5	-2.9	119	.2	.6	343	2.5	S	69	-7.3	****	3430	20
21	4.6	-9.8	-2.6	090	.1	.5	349	3.2	SSE	58	-6.6	****	4013	21
22	5.7	-11.6	-3.0	086	.1	.6	163	1.9	NNW			****	4508	22
23	6.3M	-14.3M	-4.0M	077	.2	.6	095	2.5	SSE	37	-10.5	****	4688M	23
24	4.8	-5.9	-.6	077	.1	.6	357	1.9	SE	57	-4.9	****	3408	24
25	6.1	-8.8	-1.4	109	.4	1.0	135	5.1	SSE			****	2743	25
26	8.1	-3.8	2.2	073	.2	.7	164	3.2	NNE	82	-3.6	****	3418	26
27	8.5	-6.2	1.2	145	1.7	2.2	155	9.5	SSE			****	4648	27
28	8.5	-3.4	2.6	140	.9	1.4	143	6.3	SE	48	-5.4	****	4183	28
29	6.0	-7.6	-.8	020	.2	.7	005	3.2	N			****	4870	29
30	6.0	-9.3	-1.7	034	.1	.6	357	3.2	N			****	5163	30
31	7.4	-3.7	1.9	032	.1	.8	353	3.2	SE			****	4623	31
MONTH	9.9M	-21.1M	-2.7M	123	.3	.8	155	9.5	SSE	M	M	****	109934M	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 8.3
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 7.6
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 8.9
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 7.0

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

**** SEE NOTES AT THE BACK OF THIS REPORT ****

FIGURE B.4

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA LAKE WEATHER STATION
March, 1983

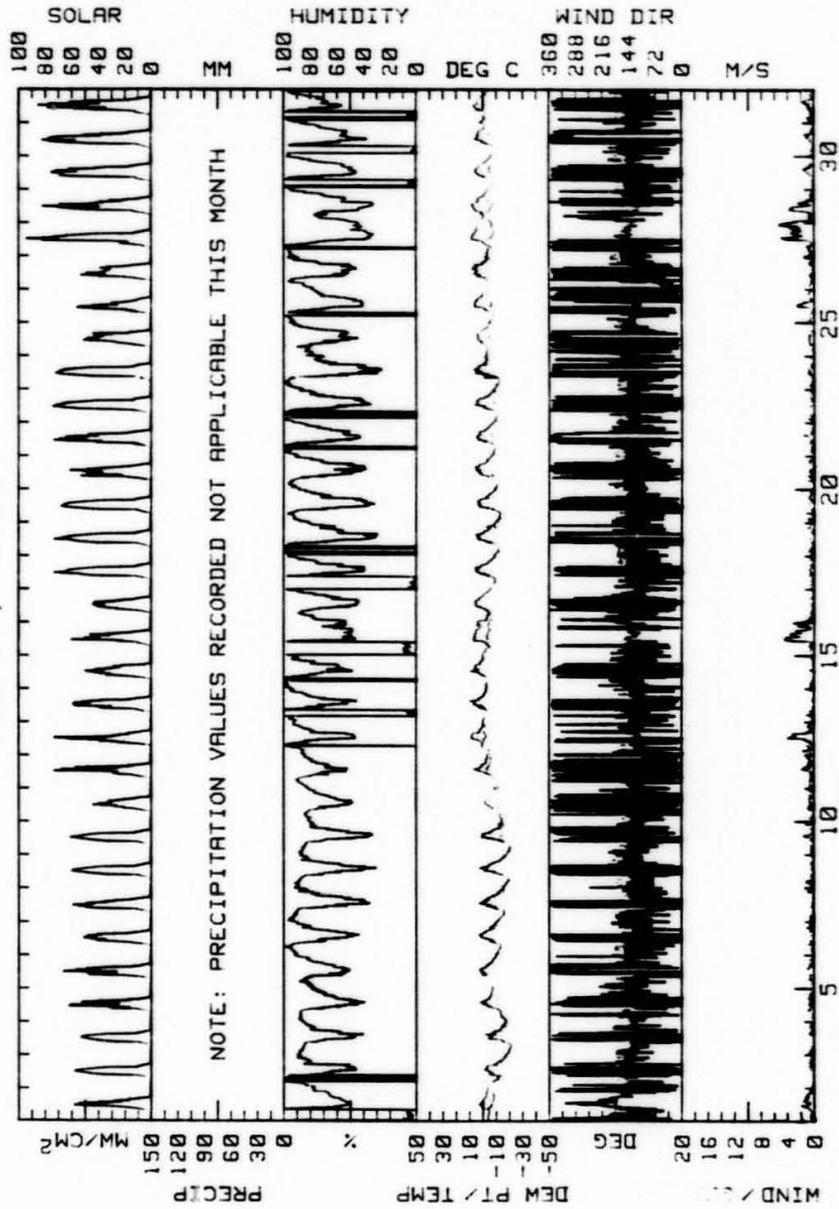


TABLE B.5

R & M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA LAKE WEATHER STATION
DATA TAKEN DURING April, 1983

DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
1	8.5	-5.4	1.6	126	.3	1.1	139	7.0	SSE			0.0	5225	1
2	7.1	-7.2	-1.1	087	.1	.6	131	1.9	SSE			0.0	5608	2
3	7.8	-6.5	.7	150	2.5	2.7	160	10.2	SSE			4.0	5010	3
4	3.6	.1	1.9	119	.5	1.3	153	8.3	NNE			8.2	1243	4
5	7.0	.1	3.6	151	4.1	4.2	159	10.2	SSE	56	-4.2	11.2	5628	5
6	5.7	-4.4	.7	146	1.6	2.0	157	8.9	SSE	48	-7.4	0.0	5385	6
7	6.0	-7.9	-1.0	029	.1	.8	136	2.5	SSE			0.0	5840	7
8	3.4	-5.4	-1.0	358	.5	1.2	359	4.4	N	67	-4.8	0.0	6550	8
9	.7	-4.5	-1.9	353	.4	1.0	345	3.2	NNW			0.0	3323	9
10	4.1	-7.7	-1.8	026	.3	1.0	000	3.8	SE			0.0	6503	10
11	4.0	-10.8	-3.4	151	3.8	4.2	161	13.3	SSE	60	-5.4	0.0	3253	11
12	5.6	-1.7	2.0	102M	.3M	2.4M	152M	8.3M	SSE(M)			0.0	4605	12
13	3.4	-4.8	-1.7	017M	.2M	.3M	006M	1.3M	N (M)			6.0	3105	13
14	8.4	-1.2	3.6	143	3.0	3.4	154	11.4	SE			.4	5160	14
15	5.2	.9	3.1	139	5.1	5.2	147	12.1	SE	57	-3.3	0.0	2873	15
16	4.3	-1.8	1.3	341	.4	.8	001	3.8	NNW			.4	4540	16
17	5.1	-1.6	1.8	347	1.1	1.3	306	5.1	N			0.0	5470	17
18	6.0	-1.6	2.2	144	3.7	3.9	156	8.9	SE			0.0	5978	18
19	5.8	-1.2	2.3	146	1.9	2.5	168	10.8	SSE			0.0	5893	19
20	6.2	-1.4	2.4	152	1.0	1.3	135	5.7	SSE			0.0	5488	20
21	7.8	-1.1	3.4	130	1.5	1.8	134	6.3	SE	55	-2.9	0.0	4565	21
22	10.6	-.5	5.1	144	2.5	2.9	146	8.3	SSE	54	-1.8	0.0	6578	22
23	11.7	-1.7	5.0	154	.9	2.0	163	7.6	SSE	51	-2.3	0.0	3898	23
24	12.4	-3.7	4.4	035	.1	1.0	359	3.2	SSE			0.0	7723	24
25	17.0	-2.2	7.4	139	.5	1.3	166	7.0	SSE			0.0	7735	25
26	10.9	-2.9	4.0	360	.3	1.0	341	3.2	NNW			0.0	7725	26
27	12.0	-.9	5.6	002	.4	1.1	354	3.8	NNW			0.0	7625	27
28	6.6	-1.5	2.6	357	.2	.7	156	2.5	N			.2	3203	28
29	5.8	1.6	3.7	347	.4	.7	343	3.2	N			4.8	3520	29
30	12.0	-.8	5.6	346	.3	1.0	200	3.2	N			2.6	6774	30
MONTH	17.0	-10.8	2.1	140M	1.0M	1.8M	161M	13.3M	SSE(M)	M	M	37.8	158021	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 10.8
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 12.7
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 10.8
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 10.8

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

**** SEE NOTES AT THE BACK OF THIS REPORT ****

FIGURE B.5
 R&M CONSULTANTS, INC.
 SUSITNA HYDROELECTRIC PROJECT
 EKLUTNA LAKE WEATHER STATION
 April, 1983

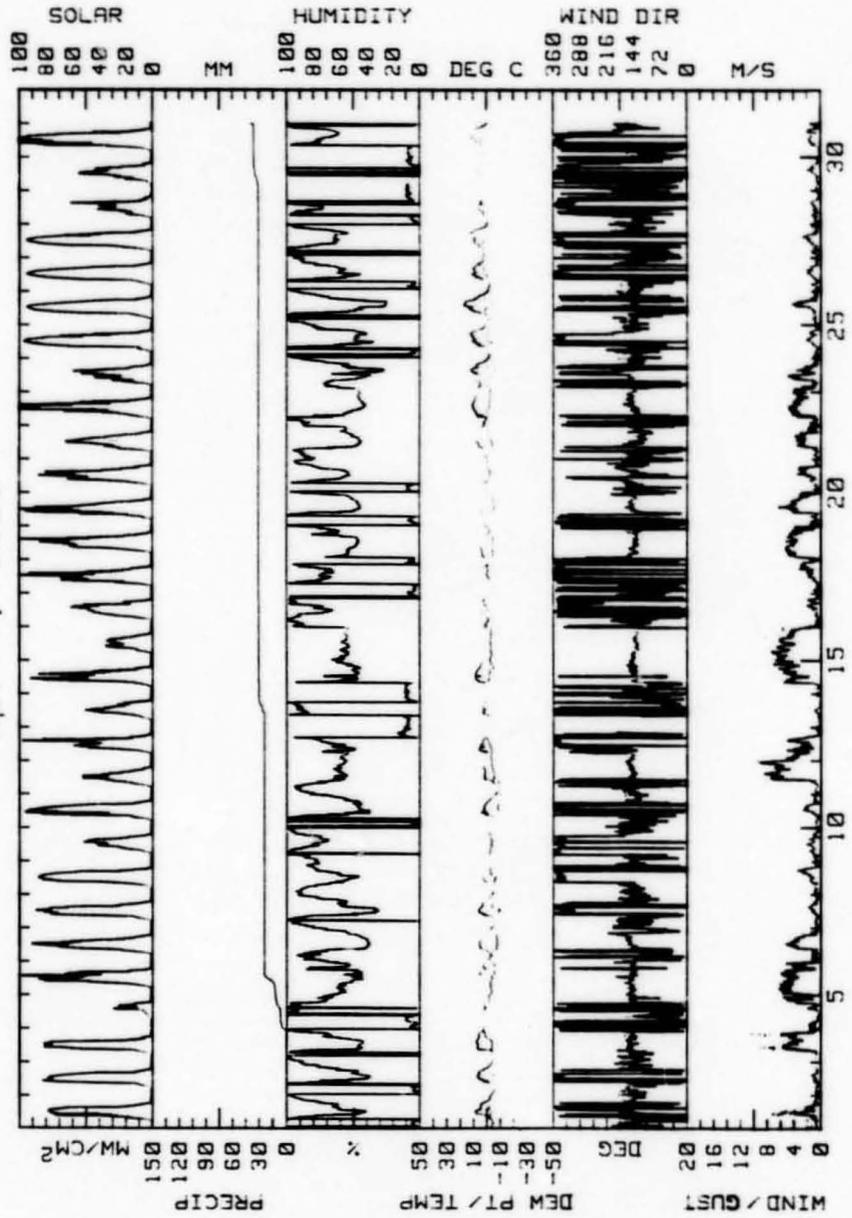


TABLE B.6

R & M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA LAKE WEATHER STATION
DATA TAKEN DURING May, 1983

DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/50M
1	11.5m	-2.3m	4.6m	346	.7	1.3	215	5.1	NNW			0.0	7384 M 1
2	5.6	1.2	3.4	352	.8	1.2	347	5.7	NNW			0.0	4258 2
3	6.3	.4	3.4	353	.8	1.0	001	3.8	N			0.0	6965 3
4	8.2	-.7	3.8	140	1.3	1.8	135	7.6	SE			0.0	5798 4
5	9.4	-1.2	4.1	132	.6	1.3	153	5.7	SSE			0.0	5958 5
6	10.8	-2.5	4.2	146	.6	1.4	123	5.1	SSE			0.0	5456m 6
7	12.5m	-2.8m	4.9m	355m	.3m	1.0m	347m	3.8m	NNW(m)			0.0	7946m 7
8	13.2	-1.7	5.6	003	.6	1.1	037	5.7	N			.2	7028 8
9	13.3	-1.6	5.9	148	2.8	3.1	153	8.3	SSE			0.0	8307 9
10	12.9	1.9	7.4	148	2.5	2.9	151	8.3	SSE	29	-9.2	0.0	6903 10
11	13.6	1.0	7.3	158	1.1	1.6	156	6.3	S	33	-5.1	0.0	5358 11
12	13.0	3.1	8.1	148	1.8	2.0	149	7.0	SSE	44	-.1	0.0	6588 12
13	17.1	3.1	10.1	159	.8	1.8	155	7.0	SSE	49	1.3	0.0	8268 13
14	14.4	3.6	9.0	154	1.6	2.1	153	7.6	SSE			.4	6555 14
15	14.4	.1	7.3	150	2.8	3.1	152	9.5	SSE			0.0	8858 15
16	11.1	4.6	7.9	146	3.3	3.5	147	10.2	SE	46	-1.0	0.0	2270 16
17	13.8	2.7	8.3	137	2.5	3.0	140	9.5	SE			0.0	7940 17
18	11.5	-.8	5.4	146	2.4	2.6	139	7.0	SE	51	-.9	0.0	7005 18
19	13.2m	-2.5m	5.4m	007	.7	1.3	351	5.1	N			0.0	7510m 19
20	15.5	-.2	7.7	011	.7	1.3	023	4.4	N			0.0	8253 20
21	10.6	1.5	6.1	356	1.0	1.4	353	5.7	N			0.0	5893 21
22	12.4	4.2	8.3	057	.3	1.0	161	7.6	NNW			0.0	6285 22
23	10.6	5.3	8.0	146	2.8	3.3	143	9.5	SE			0.0	4245 23
24	12.7	6.4	9.6	148	1.4	2.1	145	7.0	SSE	53	.5	0.0	6828 24
25	12.7	4.6	8.7	006	.5	1.1	262	5.1	N			0.0	5551m 25
26	12.6	6.2	9.4	146	3.1	3.2	158	8.3	SE			0.0	7148 26
27	11.9	2.2	7.1	175	.2	.9	204	4.4	SSE			.4	5962 27
28	16.3	2.6	9.5	145	2.1	2.4	156	8.3	SSE			0.0	7384m 28
29	19.0	8.9	14.0	147	2.2	2.5	152	8.9	SSE	52	5.9	0.0	6760 29
30	19.6	9.6	14.6	129	.6	1.6	158	7.6	SE			3.2	3720 30
31	13.6	8.2	10.9	148	2.3	2.5	146	10.2	SSE			1.0	4764m 31
MONTH	19.6m	-2.8m	7.4m	141m	1.1m	2.0m	147m	10.2m	SSE(m)M		M	5.2	199142m

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 7.6
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 8.3
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 7.0
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 7.0

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

**** SEE NOTES AT THE BACK OF THIS REPORT ****

FIGURE B.6

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA LAKE WEATHER STATION

May, 1983

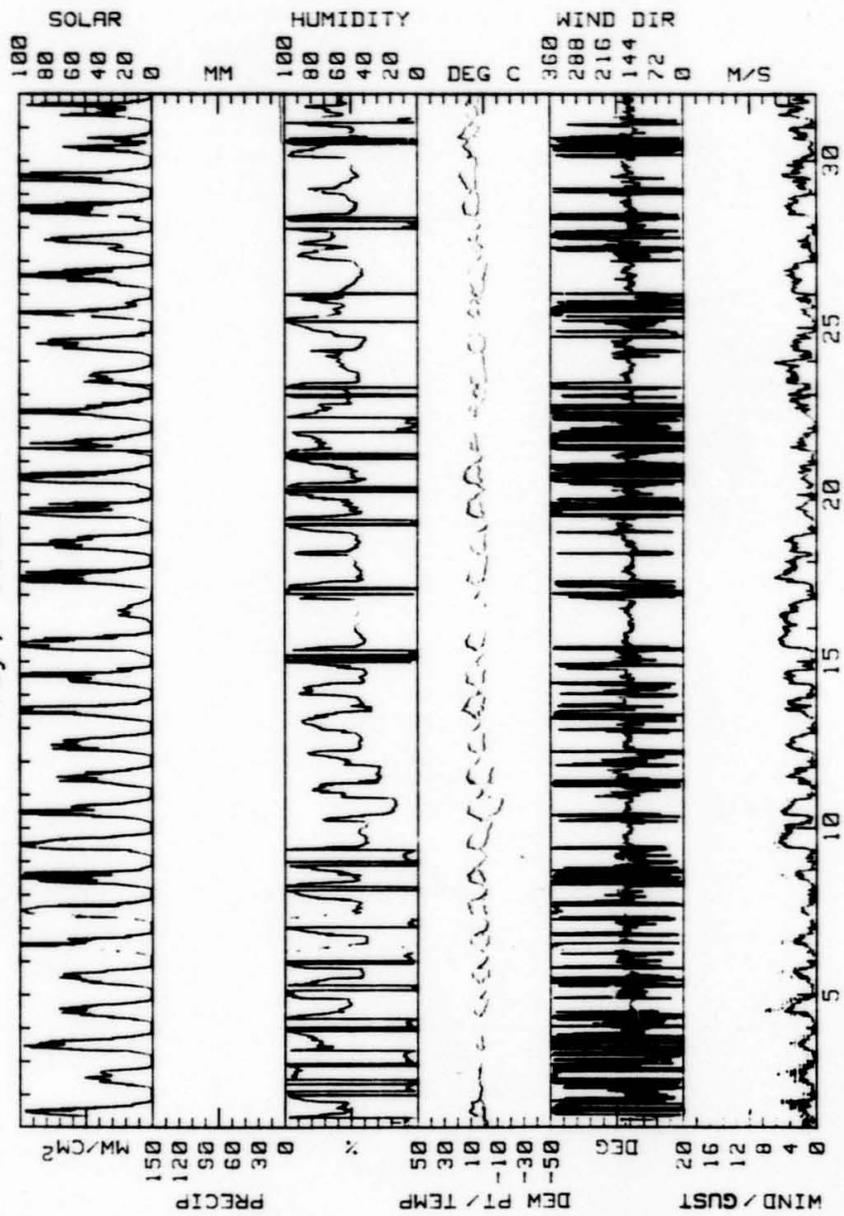


TABLE B.7

R & M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA LAKE WEATHER STATION
DATA TAKEN DURING June, 1983

DAY	MAX.	MIN.	MEAN	RES.	RES.	AVG.	MAX.	MAX.	P'VAL	MEAN	MEAN	PRECIP	DAY'S	
	TEMP.	TEMP.	TEMP.	WIND	WIND	WIND	GUST	GUST						
	DEG C	DEG C	DEG C	DIR.	SPD.	SPD.	DIR.	SPD.	DIR.	RH	DP	MM	SOLAR	
				DEG	M/S	M/S	DEG	M/S		%	DEG C		WH/SQM	
1	14.4	6.7	10.6	075M	.7M	2.1M	143M	8.3M	N (M)			0.0	7374	1
2	11.8	6.7	9.3	359M	.7M	.9M	001M	4.4M	N (M)			4.4	5239	2
3	12.3	6.0	9.2	035M	.6M	1.5M	139M	7.0M	N (M)			.2	4557	3
4	10.7	5.3	8.0	002M	.4M	.7M	353M	2.5M	N (M)			0.0	3567	4
5	15.9	3.7	9.8	353M	.7M	1.1M	359M	4.4M	N (M)			0.0	10490	5
6	16.4M	1.1M	8.8M	016M	.6M	1.2M	008M	4.4M	N (M)			0.0	9061M	6
7	17.9M	-.1M	8.9M	008M	.5M	1.1M	000M	3.8M	N (M)			0.0	9549M	7
8	17.0M	-.3M	8.4M	050M	.1M	.7M	339M	2.5M	S (M)			0.0	6973M	8
9	10.8	1.2	6.0	142M	.2M	.7M	356M	3.2M	SSE (M)			21.6	2677	9
10	15.8M	3.0M	9.4M	019M	.3M	.9M	338M	3.8M	NNW (M)			.2	9365M	10
11	16.4M	6.3M	11.4M	141M	1.7M	2.4M	138M	8.9M	SE (M)			.2	9913M	11
12	15.4M	8.8M	12.1M	153M	2.6M	2.7M	135M	6.3M	SSE (M)			0.0	8225M	12
13	17.3M	5.7M	11.5M	031M	.5M	1.1M	136M	5.1M	N (M)			0.0	9731M	13
14	17.0M	4.0M	10.5M	147M	1.6M	2.0M	168M	7.6M	SSE (M)			0.0	8784M	14
15	14.5M	4.1M	9.3M	358M	.7M	.9M	006M	3.2M	N (M)			0.0	7005M	15
16	17.4M	5.4M	11.4M	007M	.7M	1.1M	320M	5.1M	N (M)			0.0	8687M	16
17	20.9M	3.6M	12.3M	357M	.7M	1.1M	346M	3.8M	N (M)			0.0	12080M	17
18	24.2M	3.3M	13.8M	159M	1.1M	1.8M	182M	7.0M	SSE (M)			0.0	10379M	18
19	18.4M	6.9M	12.7M	360M	1.1M	1.4M	359M	4.4M	N (M)			0.0	11924M	19
20	19.8M	3.5M	11.7M	003M	.8M	1.2M	011M	4.4M	N (M)			0.0	11534M	20
21	26.4M	4.3M	12.4M	359M	.9M	1.2M	004M	3.8M	N (M)			0.0	10722M	21
22	21.5	9.0	15.3	358M	.5M	1.0M	335M	3.8M	NNW (M)			0.0	9400	22
23	20.6M	7.4M	14.0M	137M	1.2M	1.9M	138M	7.0M	SE (M)			0.0	8546M	23
24	23.3M	5.5M	14.4M	357M	.5M	1.0M	333M	3.8M	NNW (M)			0.0	9345M	24
25	23.4M	3.4M	13.4M	101M	.5M	1.5M	140M	7.6M	SE (M)			0.0	7605M	25
26	17.8M	8.2M	13.0M	063M	.6M	1.5M	141M	7.0M	N (M)			0.0	5333M	26
27	19.4M	6.8M	13.1M	019M	.8M	1.4M	096M	6.3M	N (M)			0.0	8075M	27
28	18.1M	6.1M	12.1M	148M	2.0M	2.2M	134M	7.6M	SSE (M)			0.0	6738M	28
29	16.8M	4.9M	10.9M	002M	.6M	1.0M	350M	3.2M	N (M)			0.0	5291M	29
30	20.4	8.2	14.3	009M	.8M	1.1M	005M	4.4M	N (M)			0.0	9450	30
MONTH	24.2M	-.3M	11.2M	069M	.3M	1.4M	138M	8.9M	N (M)	M	M	26.6	246621	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 7.6
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 6.3
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 7.6
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 7.6

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

**** SEE NOTES AT THE BACK OF THIS REPORT ****

FIGURE B.7

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA LAKE WEATHER STATION
June, 1983

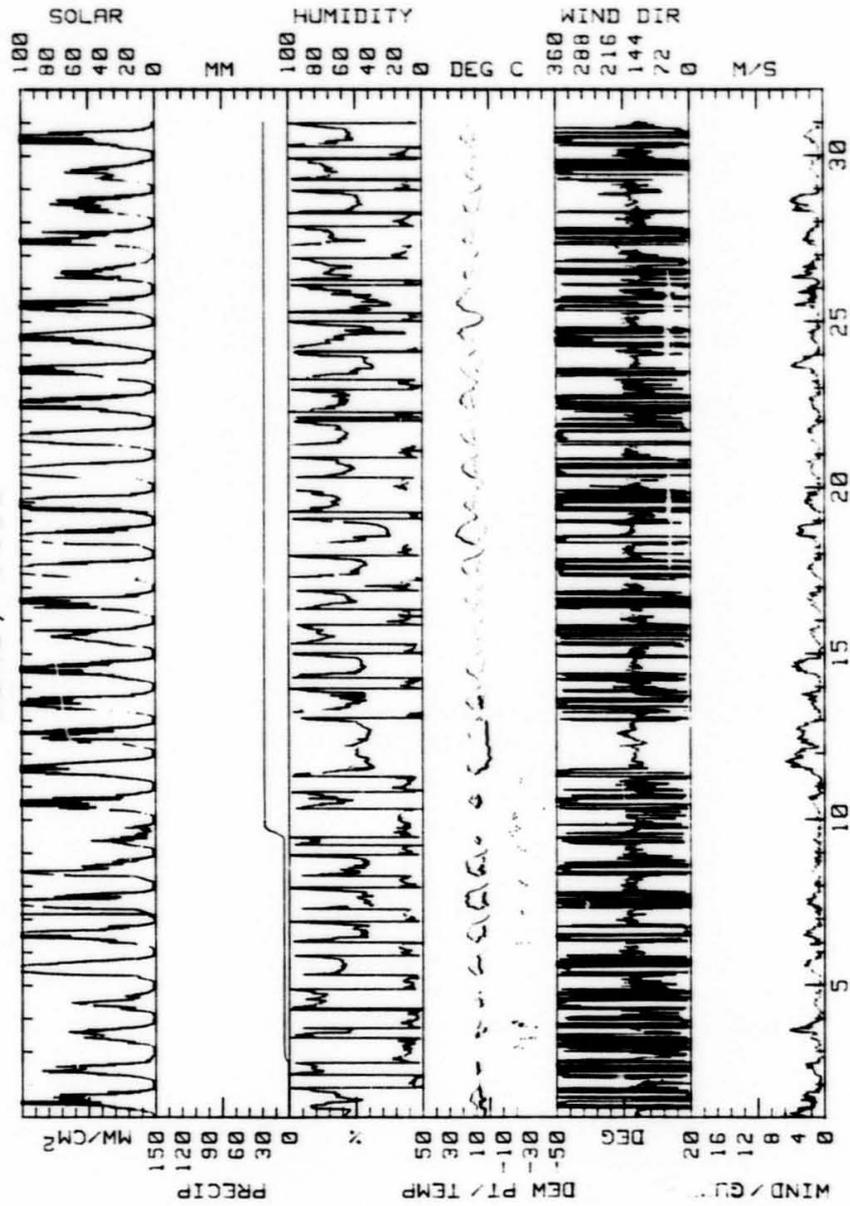


TABLE B.8

R & M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA LAKE WEATHER STATION
DATA TAKEN DURING July, 1983

DAY	MAX.	MIN.	MEAN	RES.	RES.	AVG.	MAX.	MAX.	P'VAL	MEAN	NEAN	PRECIP	DAY'S	
	TEMP.	TEMP.	TEMP.	WIND	WIND	WIND	GUST	GUST		DIR.	RH		DP	SOLAR
	DEG C	DEG C	DEG C	DEG	M/S	M/S	DEG	M/S		%	DEG C	MM	WH/SGM	
1	15.4M	10.1M	12.8M	355M	.8M	1.0M	000M	4.4M	N(M)			6.0	4549M	1
2	18.1M	9.7M	13.9M	007M	.8M	1.1M	005M	3.8M	N(M)			.2	7960M	2
3	20.6M	8.0M	14.3M	002M	.7M	1.1M	344M	3.8M	N(M)			0.0	10365M	3
4	18.3M	10.2M	14.3M	005M	.5M	.9M	000M	3.2M	N(M)			0.0	4694M	4
5	18.1M	11.6M	14.9M	356M	.6M	.9M	000M	3.8M	N(M)			6.0	5697M	5
6	13.8M	10.4M	12.1M	039M	.1M	.6M	178M	2.5M	NNW(M)			1.8	2059M	6
7	18.4M	10.4M	14.4M	023M	.3M	1.2M	146M	6.3M	NNW(M)			.4M	6729M	7
8	15.1M	8.6M	11.9M	139M	1.4M	1.6M	136M	6.3M	SE(M)			0.0	2860M	8
9	18.0M	7.6M	12.8M	144M	2.4M	2.4M	145M	8.3M	SE(M)			0.0	6634M	9
10	16.6M	4.7M	10.7M	003M	.6M	.9M	353M	4.4M	N(M)			.8	6209M	10
11	12.2M	9.1M	10.7M	147M	.2M	.7M	025M	2.5M	SSE(M)			2.0M	2062M	11
12	13.2M	7.5M	10.4M	352M	.8M	.9M	350M	3.8M	N(M)			.8	4344M	12
13	17.0M	4.7M	10.9M	142M	.4M	.8M	165M	4.4M	S(M)			1.6M	4459M	13
14	20.3M	4.4M	12.4M	182M	.2M	.9M	349M	3.8M	SSE(M)			.2M	7823M	14
15	21.6M	4.6M	13.1M	162M	.2M	1.0M	351M	3.2M	SSE(M)			0.0	8420M	15
16	18.7M	7.4M	13.1M	028M	.1M	.8M	004M	3.2M	N(M)			0.0M	5358M	16
17	14.7M	9.3M	12.0M	128M	.1M	.7M	038M	2.5M	SSE(M)			1.6M	3223M	17
18	15.9M	7.4M	11.7M	011M	.6M	1.1M	355M	4.4M	N(M)			2.8	6816M	18
19	18.9M	8.5M	13.7M	015M	.4M	.9M	348M	3.2M	N(M)			2.8M	7271M	19
20	15.4M	9.5M	12.5M	131M	.4M	.6M	157M	2.5M	SSE(M)			.2M	4478M	20
21	26.0M	8.8M	14.4M	004M	.5M	1.0M	000M	3.8M	N(M)			0.0	6840M	21
22	19.7M	6.8M	13.3M	002M	.7M	1.1M	008M	3.8M	N(M)			0.0	7335M	22
23	14.2M	8.5M	11.4M	107M	.2M	.7M	346M	3.2M	SSE(M)			7.4	3337M	23
24	18.5M	4.5M	11.5M	356M	.5M	1.2M	000M	5.1M	N(M)			0.0	9394M	24
25	19.2M	1.4M	10.3M	004M	.6M	1.2M	003M	4.4M	N(M)			0.0	9396M	25
26	18.8M	3.3M	11.1M	011M	.6M	1.1M	354M	3.8M	N(M)			0.0	5997M	26
27	20.0M	8.0M	14.0M	347M	.3M	1.0M	358M	4.4M	SSE(M)			0.0	8186M	27
28	22.9M	4.8M	13.9M	007M	.2M	1.2M	349M	4.4M	SSE(M)			0.0	9894M	28
29	17.0M	6.1M	11.6M	002M	.3M	.7M	327M	2.5M	NNW(M)			0.0M	3875M	29
30	18.1M	4.9M	11.5M	007M	.3M	1.0M	002M	3.8M	N(M)			0.0	5533M	30
31	18.9M	3.6M	11.3M	041M	.1M	.9M	000M	3.8M	SSE(M)			.8	6161M	31
MONTH	22.9M	1.4M	12.5M	026M	.3M	1.0M	145M	8.3M	N(M)	M	M	29.4M	187559M	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 6.3
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 7.0
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 7.6
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 7.0

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

**** SEE NOTES AT THE BACK OF THIS REPORT ****

FIGURE B.8

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUKNA LAKE WEATHER STATION
July, 1983

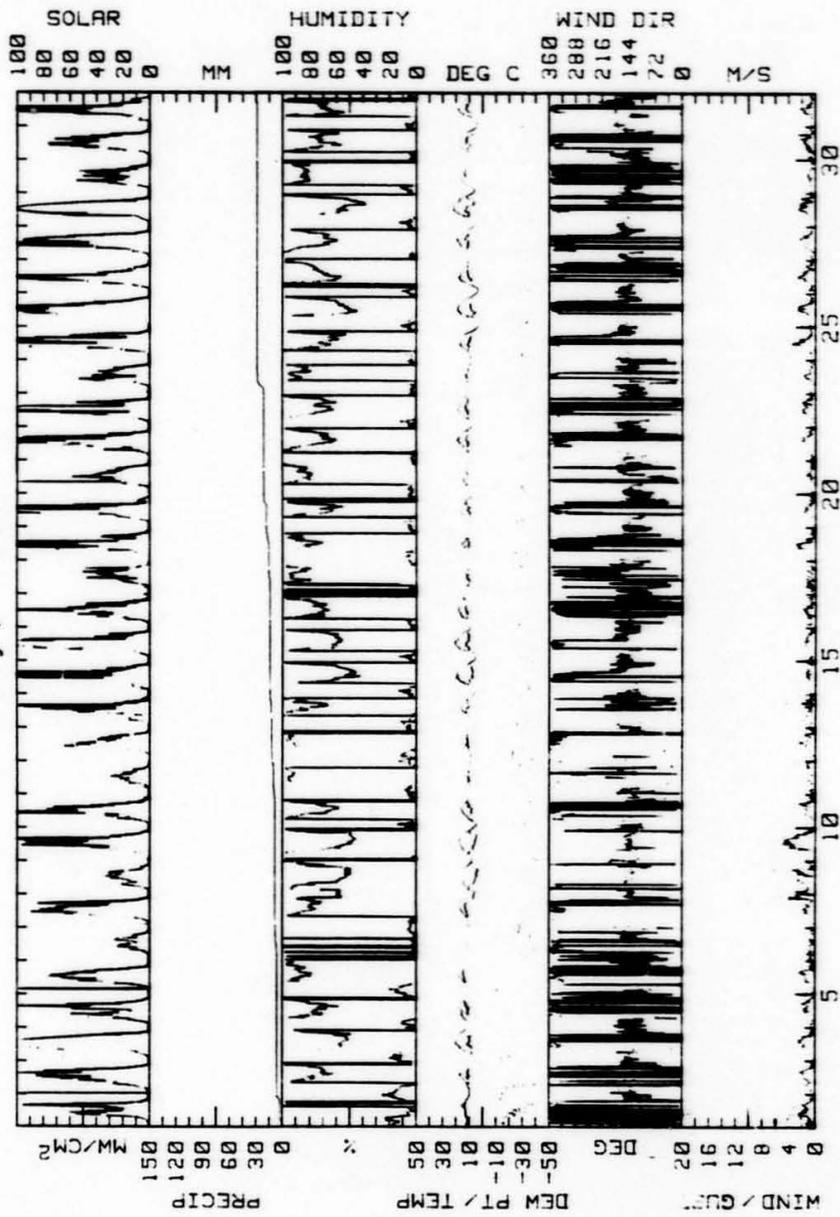


TABLE B.9

R & M CONSULTANTS, INC.
SUSTITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA LAKE WEATHER STATION
DATA TAKEN DURING August, 1983

DAY	MAX.	MIN.	MEAN	RES.	RES.	AVG.	MAX.	MAX.	P'VAL	MEAN	MEAN	PRECIP	DAY'S SOLAR ENERGY DAY WH/SDM
	TEMP. DEG C	TEMP. DEG C	TEMP. DEG C	WIND DIR. DEG	WIND SPD. M/S	WIND SPD. M/S	WIND DIR. DEG	WIND SPD. M/S		RH %	DP DEG C		
1	19.5m	8.9m	14.2m	165m	.3m	.7m	278m	3.2m	SE (m)			1.8	5384m 1
2	21.1m	7.4m	14.3m	011m	.6m	1.1m	005m	5.1m	N (m)			.2	7353m 2
3	23.4m	4.3m	13.9m	014m	.1m	1.1m	169m	4.3m	SSE (m)			0.0	9511m 3
4	16.7m	9.1m	12.9m	116m	.5m	1.7m	139m	9.5m	SE (m)			0.0	2625m 4
5	14.9m	9.4m	12.2m	074m	.2m	.7m	148m	4.4m	N (m)			1.6	2583m 5
6	18.7m	8.0m	13.4m	141m	2.1m	2.3m	145m	8.0m	SE (m)			.4	5643m 6
7	18.0m	12.4m	15.2m	141m	4.1m	4.2m	140m	13.3m	SE (m)			1.0	3520m 7
8	19.6m	11.1m	15.4m	147m	4.6m	5.1m	147m	14.0m	SSE (m)			4.6	4393m 8
9	15.2m	9.7m	12.5m	346m	.4m	.7m	323m	4.9m	N (m)			.2	3653m 9
10	17.8m	6.5m	11.8m	048m	.2m	.8m	357m	3.8m	SSE (m)			0.0	5308m 10
11	18.5m	1.8m	10.2m	017m	.5m	1.0m	356m	3.8m	N (m)			.2	6309m 11
12	15.5m	8.8m	12.2m	009m	.5m	.9m	357m	4.4m	N (m)			.6	4438m 12
13	13.6m	6.0m	9.8m	354m	.2m	.8m	359m	2.5m	NNW (m)			1.0	4060m 13
14	14.0m	1.2m	7.6m	139m	.2m	1.1m	354m	3.8m	SSE (m)			7.8	5122m 14
15	14.8m	2.5m	8.7m	067m	.2m	.9m	358m	4.4m	SE (m)			2.6	5520m 15
16	16.9m	5.6m	11.3m	349m	.6m	1.1m	324m	3.2m	NNW (m)			0.0	10389m 16
17	15.0m	6.9m	11.0m	021m	.7m	1.1m	001m	4.4m	N (m)			0.0	5513m 17
18	18.8m	1.8m	10.3m	007m	.3m	1.1m	348m	4.4m	SSE (m)			0.0	6490m 18
19	18.9m	1.1m	10.0m	001m	.2m	1.0m	353m	3.8m	SSE (m)			0.0	7541m 19
20	15.7m	6.1m	10.9m	148m	2.5m	2.6m	143m	9.4m	SSE (m)			.2	2313m 20
21	13.0m	7.2m	10.1m	025m	.2m	.6m	356m	3.2m	E (m)			7.2	2840m 21
22	15.3m	6.8m	11.1m	039m	.2m	.8m	002m	3.8m	SSE (m)			.4	4795m 22
23	14.0m	3.1m	11.1m	032m	.2m	.7m	353m	4.5m	ESE (m)			8.0	3666m 23
24	11.9m	7.0m	9.5m	008m	.2m	.7m	165m	2.5m	NNW (m)			1.8m	3009m 24
25	8.3	3.1	5.7	156	.5	.6	188	2.5	SSE			14.8	1445 25
26	15.2	3.5	9.4	045	.2	.8	359	3.8	SSE			.4	5303 26
27	18.2	4.0	11.1	012	.1	.8	001	3.2	SSE			0.0	6438 27
28	18.7	2.6	10.7	119	.2	.8	325	2.5	SSE			0.0	5560 28
29	17.3	3.1	10.2	151	1.5	1.9	158	8.3	SSE			0.0	2443 29
30	16.3	8.5	12.4	034	.6	1.2	155	7.0	N			8.6	3295 30
31	11.9	4.2	8.1	125	.2	.6	342	2.5	SE			.8	2845 31
MONTH	23.4m	1.1m	11.2m	127m	.5m	1.3m	147m	14.0m	SSE (m)			69.2m	148302m

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 10.2
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 10.8
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 13.0
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 12.1

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

FIGURE B.9

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUKNA LAKE WEATHER STATION
August, 1983

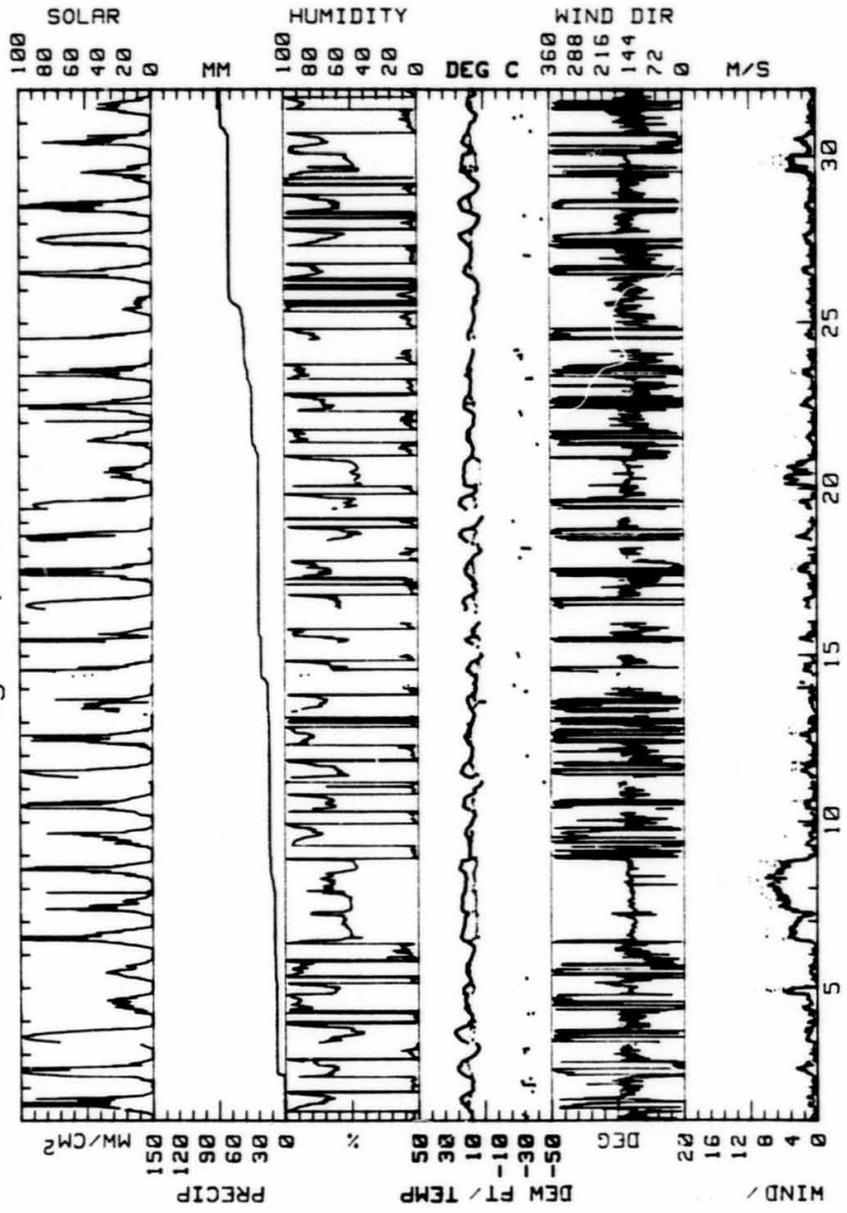


TABLE B.10

R & M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA LAKE WEATHER STATION
DATA TAKEN DURING September, 1983

DAY	MAX. TEMP. DEC C	MIN. TEMP. DEC C	MEAN TEMP. DEC C	RES. WIND DIR. DEC	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEC	MAX. GUST SPD. M/S	P'VAL	MEAN RH %	MEAN DP DEC C	PRECIP MM	DAY'S SOLAR ENERGY WH/SDH	DAY
1	11.8	4.4	8.1	117	.2	.6	167	1.9	SSE			.8	2330	1
2	13.7	2.0	7.9	006	.5	1.0	311	4.4	N			1.4	5618	2
3	11.5	4.0	7.8	047	.4	1.0	029	4.4	SSE			8.6	3250	3
4	9.9	-1.2	4.4	113	.3	.7	004	3.8	SE			2.0	2820	4
5	12.7	-1.4	5.7	029	.3	1.1	356	4.4	SSE			0.0	5840	5
6	14.0	-2.8	5.6	344	.1	1.0	007	4.4	SSE			0.0	5518	6
7	14.4	-3.2	5.6	102	.1	.8	347	3.2	SSE			0.0	4800	7
8	13.5M	-1.5M	6.0M	089M	.3M	1.0M	133M	5.7M	SSE(M)			0.0M	4187M	8
9	11.9M	4.8M	8.4M	133M	.3M	.4M	319M	1.3M	SSE(M) **	****		.2M	706M	9
10	12.8	-.5	6.2	163	.2	.6	324	2.5	S			0.0	3423	10
11	12.9	-.2	6.4	058	.0	.7	354	3.2	SSE			0.0	3218	11
12	14.0	-1.7	6.2	144	2.0	2.1	156	7.6	SSE			0.0	3280	12
13	13.2	9.3	11.3	134	3.0	3.1	138	9.5	SE	49	.8	0.0	3953	13
14	9.1	3.2	6.2	351	.7	1.0	347	3.8	N			6.8	1868	14
15	8.5	-1.6	3.5	276	.0	.8	325	2.5	SSE			.8	3403	15
16	11.1	-3.6	3.8	343	.1	.9	336	3.2	NNW			0.0	4688	16
17	12.7	-4.0	4.4	168	.2	.8	322	2.5	SSE			0.0	4570	17
18	12.8	-3.8	4.5	148	1.9	2.1	148	9.5	SSE			0.0	2385	18
19	12.8	5.9	9.4	139	2.2	2.5	141	10.2	SE			1.8	1520	19
20	13.2	3.6	8.4	108	.2	.8	124	5.7	SSE			8.6	1215	20
21	9.4	3.1	6.3	145	.3	.5	150	1.9	SSE			11.0	1083	21
22	10.4	.5	5.5	029	.3	1.0	036	7.0	ESE			17.4	2050	22
23	1.5	-2.9	-.7	014	1.5	1.8	020	5.7	N			1.0	638	23
24	-.3	-8.4	-4.4	358	1.2	1.8	028	5.1	NNE	69	-8.1	.6	1595	24
25	.9	-10.0	-4.6	151	.7	1.0	234	3.2	SE	68	-9.1	1.8	4790	25
26	3.2	-11.8	-4.3	153	.9	1.1	268	3.2	SSE	62	-9.9	1.2	4175	26
27	7.9	-9.3	-.7	145	.9	2.1	148	8.9	SSE	63	-3.6	.8	2558	27
28	11.7	2.9	7.3	335	1.0	2.1	136	9.5	NNW	72	1.1	0.0	1160	28
29	13.6	6.8	10.2	137	6.6	6.7	145	15.9	SE	67	5.5	26.8	1173	29
30	12.7	4.3	8.5	130	1.0	1.8	130	8.9	SE			0.0	1605	30
MONTH	14.1M	-11.8M	5.1M	126M	.6M	1.5M	145M	15.9M	SE(M) M	M	M	21.6M	89413M	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 14.0
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 14.0
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 14.0
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 12.7

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

FIGURE B.10

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA LAKE WEATHER STATION
September, 1983

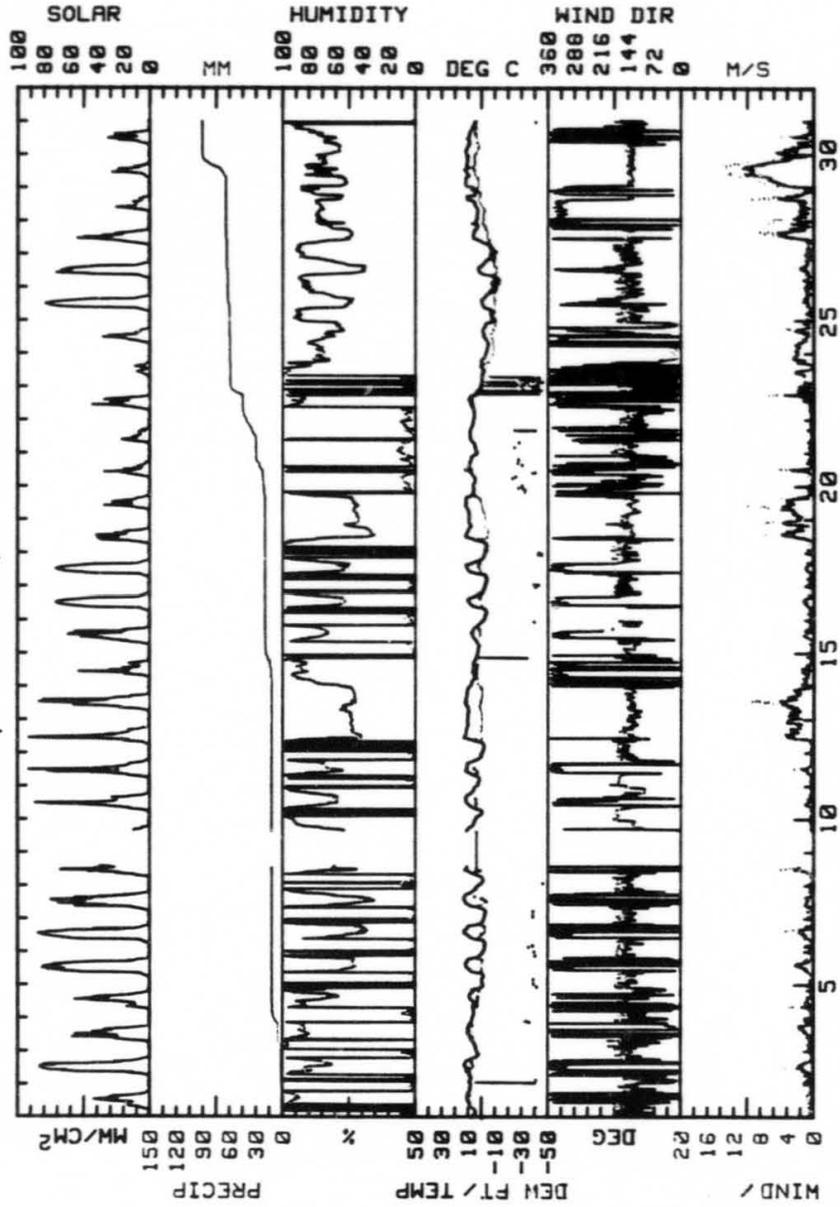


TABLE B.11

R & M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA LAKE WEATHER STATION
DATA TAKEN DURING October, 1983

DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY DAY WH/SGH	
1	9.9	1.6	5.8	141	1.2	1.5	138	8.3	SE	54	-1.6	0.0	1118	1
2	10.2	1.6	5.9	334	.5	1.4	130	7.6	NNW	63	.6	.4	2038	2
3	6.2	-3.4	1.4	049	.1	1.1	026	5.1	SSE	47	-6.7	0.0	2513	3
4	6.3	-6.3	0.0	154	.5	1.0	359	3.8	SSE	61	-7.6	0.0	3043	4
5	8.7	-3.2	2.8	159	.5	.8	168	2.5	SSE	55	-5.3	.4	1900	5
6	5.1	-6.1	-5	358	.5	1.5	015	8.3	SSE	56	-7.2	3.4	2218	6
7	2.6	-8.5	-3.0	133	.2	1.1	357	4.4	SSE	57	-11.2	0.0	3113	7
8	2.6	-11.0	-4.2	141	.1	1.0	354	5.1	SSE	49	-13.4	0.0	2615	8
9	8.8	-2.0	3.4	140	2.2	2.9	132	11.4	SE	70	-.4	2.8	455	9
10	12.9	2.6	7.8	141	6.6	6.7	147	14.6	SE	60	2.1	25.0	593	10
11	11.5	2.3	6.9	141	2.5	2.9	138	12.1	SE	55	.5	2.4	1118	11
12	7.6	-.6	3.5	094	.1	1.0	355	4.4	SE	74	.0	.2	2933	12
13	6.2	-5.0	.6	159	.6	1.0	176	3.8	S	62	-4.2	0.0	2525	13
14	8.1	-7.4	.4	165	.4	.8	315	2.5	SSE	60	-8.8	0.0	2403	14
15	7.0	-5.8	.6	160	.6	.9	167	4.4	SSE	58	-6.8	0.0	1805	15
16	3.3	-6.7	-1.7	095	.1	.9	332	3.8	SE	69	-5.7	0.0	1225	16
17	7.1	-1.1	3.0	140	.5	.9	146	4.4	SSE	76	-.5	0.0	960	17
18	9.3	-4.3	2.5	185	.2	1.0	322	3.2	SSE	72	-2.0	0.0	1888	18
19	4.7	-5.8	-.6	139	.4	.8	341	3.8	SSE	85	-2.8	0.0	1688	19
20	6.8	-1.6	2.6	150	.2	1.1	132	5.7	SE	82	-.5	0.0	945	20
21	7.6	.1	3.9	117	.2	.9	337	3.8	SE	77	-.1	0.0	1065	21
22	7.7	-4.7	1.5	143	1.6	1.7	130	8.3	SE	51	-7.5	0.0	1690	22
23	2.3	-5.9	-1.8	144	.6	.9	156	4.4	SE	66	-8.4	0.0	748	23
24	1.3	-5.0	-1.9	160	.1	1.0	324	4.4	SSE	68	-6.4	0.0	1175	24
25	-1.9	-6.0	-4.0	354	1.0	1.3	349	4.4	NNW	70	-8.7	0.0	478	25
26	-1.6	-10.1	-5.9	019	.5	1.1	343	4.4	N	83	-7.7	0.0	203	26
27	-.1	-6.7	-3.4	159	.4	.7	338	4.4	SSE	83	-6.5	0.0	135	27
28	1.0	-6.0	-2.5	332	.4	.9	328	5.1	SSE	86	-2.4	.2	220	28
29	1.3	-6.8	-2.8	327	.2	.8	204	3.8	S	88	-2.8	.2	265	29
30	.5	-5.1	-2.3	354	1.2	.9	350	5.1	N	85	-3.3	0.0	172	30
31	-1.2	-10.2	-5.7	***	***	.8	***	5.1	***	89	-3.7	0.0	50	31
MONTH	12.9	-11.0	.4	138	.6	1.3	147	14.6	SSE	66	-4.5	35.0	41730	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 14.0
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 13.3
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 12.7
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 13.3

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

FIGURE B.11

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA LAKE WEATHER STATION
October, 1983

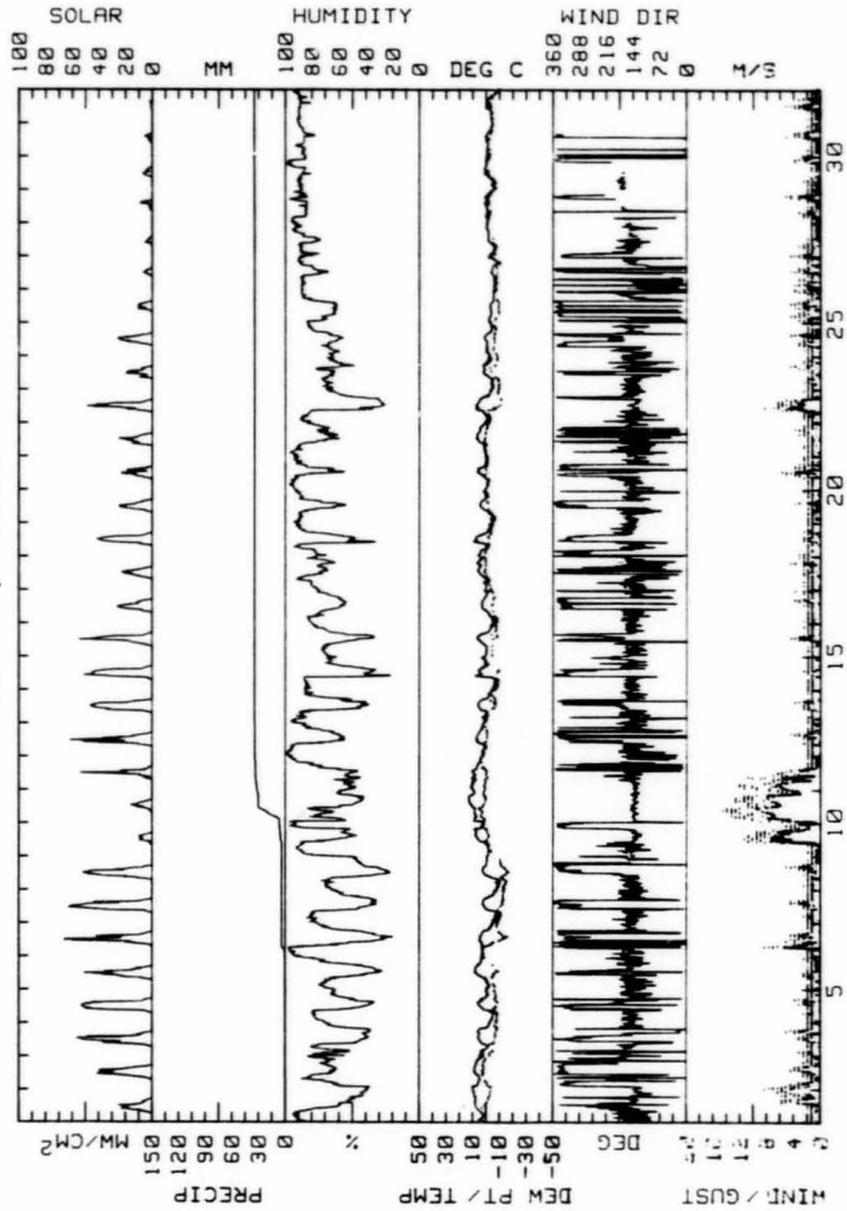


TABLE B.12

R & M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA LAKE WEATHER STATION
DATA TAKEN DURING November, 1983

DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SGN	DAY
1	-1.2	-10.0	-5.6	118	1.0	.7	***	2.5	ESE	87	-5.6	****	373	1
2	7.5	-3.4	2.1	140	2.2	2.1	142	10.8	SE	61	-2.8	****	1158	2
3	4.0	-5.2	-6	152	.5	.9	070	2.5	SSE	85	-3.1	****	830	3
4	1.1	-9.2	-4.1	151	.5	.8	351	3.2	SSE	87	-7.3	****	585	4
5	-2.0	-5.4	-3.7	157	.8	.9	178	2.5	SSE	91	-5.3	****	345	5
6	-2.9	-13.4	-8.2	159	1.0	1.0	038	3.8	SSE	88	-10.3	****	433	6
7	7.4	-6.2	.6	146	6.0	6.3	140	15.9	SSE	39	-8.1	****	303	7
8	8.8	-2.8	3.0	138	2.9	3.3	142	12.1	SE	46	-6.1	****	440	8
9	8.5	-5.9	1.3	149	1.5	1.7	144	7.6	SSE	56	-8.0	****	1070	9
10	7.4	.6	4.0	146	1.0	1.5	126	7.6	SF	63	-2.4	****	585	10
11	6.5	-3.1	1.7	157	.4	.9	266	3.2	SSE	74	-3.8	****	665	11
12	2.2	-5.1	-1.5	150	.8	.9	141	2.5	SSE	76	-6.0	****	778	12
13	-3.4	-12.2	-7.8	155	1.0	1.0	163	2.5	SSE	83	-11.1	****	663	13
14	-3.6	-11.4	-7.5	156	.8	.9	161	2.5	SSE	87	-10.1	****	453	14
15	3.0	-9.2	-3.1	148	.6	1.0	343	5.7	SSE	88	-4.3	****	318	15
16	-.6	-11.5	-6.1	330	1.2	.9	334	3.8	WNW	88	-7.7	****	423	16
17	-1.8	-11.8	-6.8	***	****	.8	***	2.5	***	88	-9.2	****	355	17
18	-6.6	-14.2	-10.4	***	****	.8	***	1.9	***	84	-13.3	****	410	18
19	-5.5	-16.6	-11.1	***	****	.8	***	1.9	***	84	-13.6	****	355	19
20	5.3	-17.4	-6.1	140	6.7	5.1	138	14.6	SE	47	-9.0	****	278	20
21	6.1	1.2	3.7	141	4.9	5.4	143	14.6	SE	53	-3.9	****	343	21
22	7.0	-1.6	2.7	132	1.0	1.4	130	7.0	ESE	60	-3.7	****	525	22
23	.2	-2.4	-1.1	340	.8	1.4	343	3.8	NNW	92	-2.2	****	165	23
24	-1.8	-9.4	-5.6	157	.2	1.1	343	5.1	SSE	84	-7.0	****	168	24
25	-3.0	-10.8	-6.9	153	.7	.8	173	2.5	SSE	85	-9.8	****	258	25
26	-.8	-5.8	-3.3	155	.6	.8	321	4.4	SSE	89	-5.0	****	235	26
27	7.0	-4.8	1.1	146	1.3	1.6	130	9.5	SSE	66	-4.2	****	230	27
28	8.2	5.4	6.8	147	7.3	7.3	143	17.1	SSE	42	-4.8	****	318	28
29	10.6	7.6	9.1	150	5.8	6.2	***	15.9	SSE	**	*****	****	540	29
30	*****	*****	*****	***	****	****	***	****	***	**	*****	****	*****	30
MONTH	10.6	-17.4	-2.2	146	1.8	2.0	143	17.1	SSE	67	-6.7	****	13595	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 13.3
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 14.0
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 15.2
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 14.6

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

FIGURE B.12

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUKNA LAKE WEATHER STATION
November, 1983

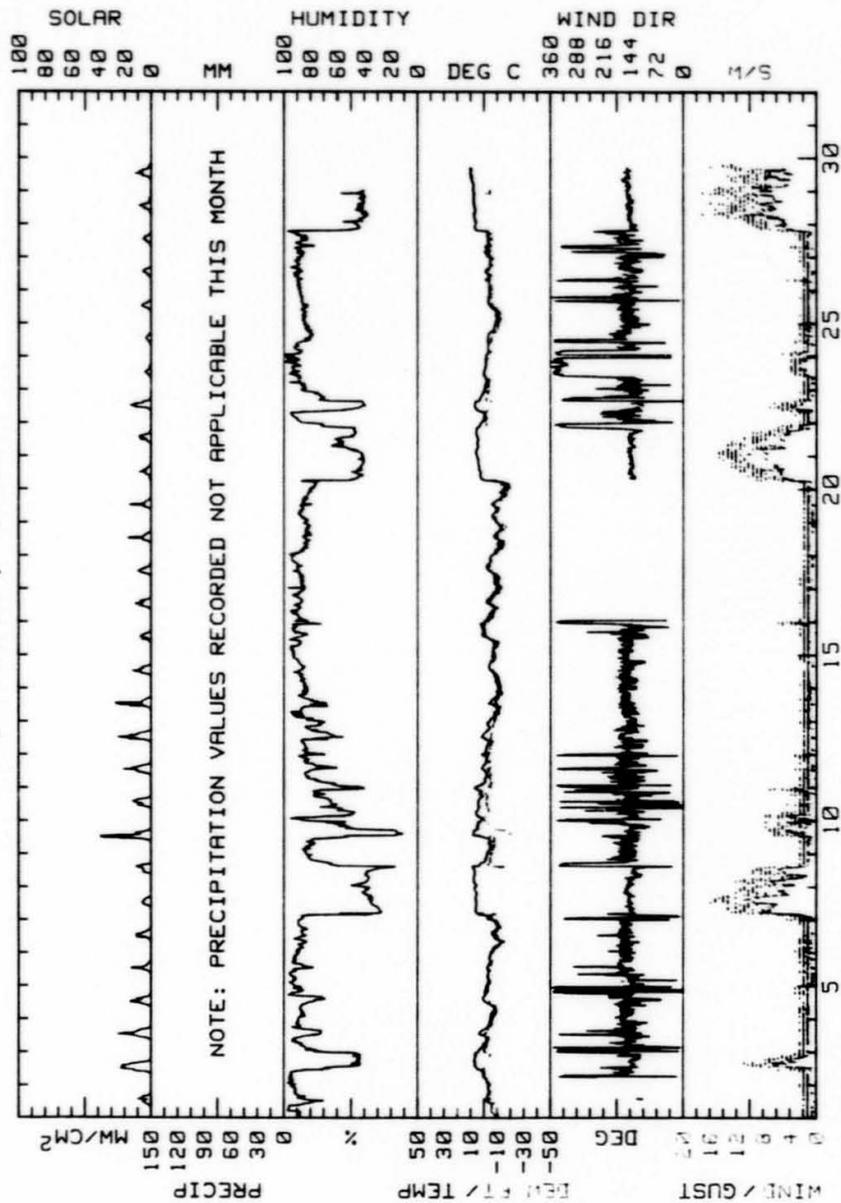


TABLE B.13

R & M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA LAKE WEATHER STATION
DATA TAKEN DURING December, 1983

DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SGH
1	****	****	****	***	****	****	***	****	***	**	****	****	*****
2	****	****	****	***	****	****	***	****	***	**	****	****	*****
3	****	****	****	***	****	****	***	****	***	**	****	****	*****
4	****	****	****	***	****	****	***	****	***	**	****	****	*****
5	****	****	****	***	****	****	***	****	***	**	****	****	*****
6	-7.0	-10.1	-8.6	152	.9	.9	154	2.5	SSE	93	-9.9	****	0
7	-7.5	-12.0	-9.8	157	.9	.9	157	2.5	SSE	90	-11.2	****	135
8	-10.6	-14.3	-12.5	155	.9	.9	160	1.9	SSE	90	-13.9	****	140
9	-5.0	-15.8	-10.4	139	.4	.7	333	3.2	SSE	90	-10.8	****	110
10	-6.2	-9.8	-8.0	002	.4	.7	329	4.4	NNW	91	-9.1	****	65
11	-4.8	-13.0	-8.9	128	.5	.6	033	2.5	SSE	91	-9.3	****	150
12	-7.0	-13.1	-10.1	142	.6	.7	036	2.5	SSE	91	-11.5	****	100
13	-6.1	-10.6	-8.4	075	.1	.4	140	1.9	NNW	94	-9.5	****	5
14	-9.8	-22.1	-16.0	***	****	****	***	****	E	89	-14.3	****	30
15	-18.2	-25.4	-21.8	***	****	****	***	****	SE	79	-26.2	****	65
16	-8.0	-17.3	-12.7	092	.2	.3	082	1.9	SE	87	-16.4	****	35
17	-6.0	-11.1	-8.6	059	.1	.3	038	1.9	ESE	92	-8.8	****	15
18	-9.9	-18.1	-14.0	***	****	****	***	****	SE	89	-16.4	****	55
19	-5.9	-18.4	-12.2	128	.3	.3	144	2.5	SE	85	-19.6	****	40
20	-2.3	-6.0	-4.2	118	.2	.2	085	1.9	SE	95	-5.9	****	5
21	-2.3	-13.2	-7.8	116	.2	.2	120	1.3	SE	93	-8.6	****	50
22	-13.4	-18.5	-16.0	***	****	****	***	****	SE	87	-17.5	****	50
23	-17.4	-19.7	-18.6	***	****	****	***	****	SE	83	-21.1	****	50
24	-15.1	-19.2	-17.2	130	.3	.3	151	1.3	SE	84	-19.5	****	40
25	-10.9	-15.2	-13.1	128	.4	.4	124	1.3	SE	**	****	****	35
26	-13.4	-17.7	-15.6	131	.2	.2	117	1.3	ESE	87	-17.5	****	35
27	-16.7	-19.4	-18.1	***	****	****	***	****	SE	84	-20.0	****	30
28	-18.7	-21.7	-20.2	***	****	****	***	****	SE	81	-22.5	****	30
29	-21.0	-23.9	-22.5	***	****	****	***	****	SE	80	-25.0	****	30
30	-10.9	-24.1	-17.5	125	.1	.1	137	1.3	SE	80	-23.9	****	30
31	-8.8	-12.9	-10.9	124	.2	.2	143	1.3	ESE	91	-12.5	****	35
MONTH	-2.3	-25.4	-13.2	136	.3	.5	329	4.4	SE	86	-15.2	****	1365

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 3.2
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 3.8
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 3.2
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 2.5

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

FIGURE B.13

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUKTA LAKE WEATHER STATION
December, 1983

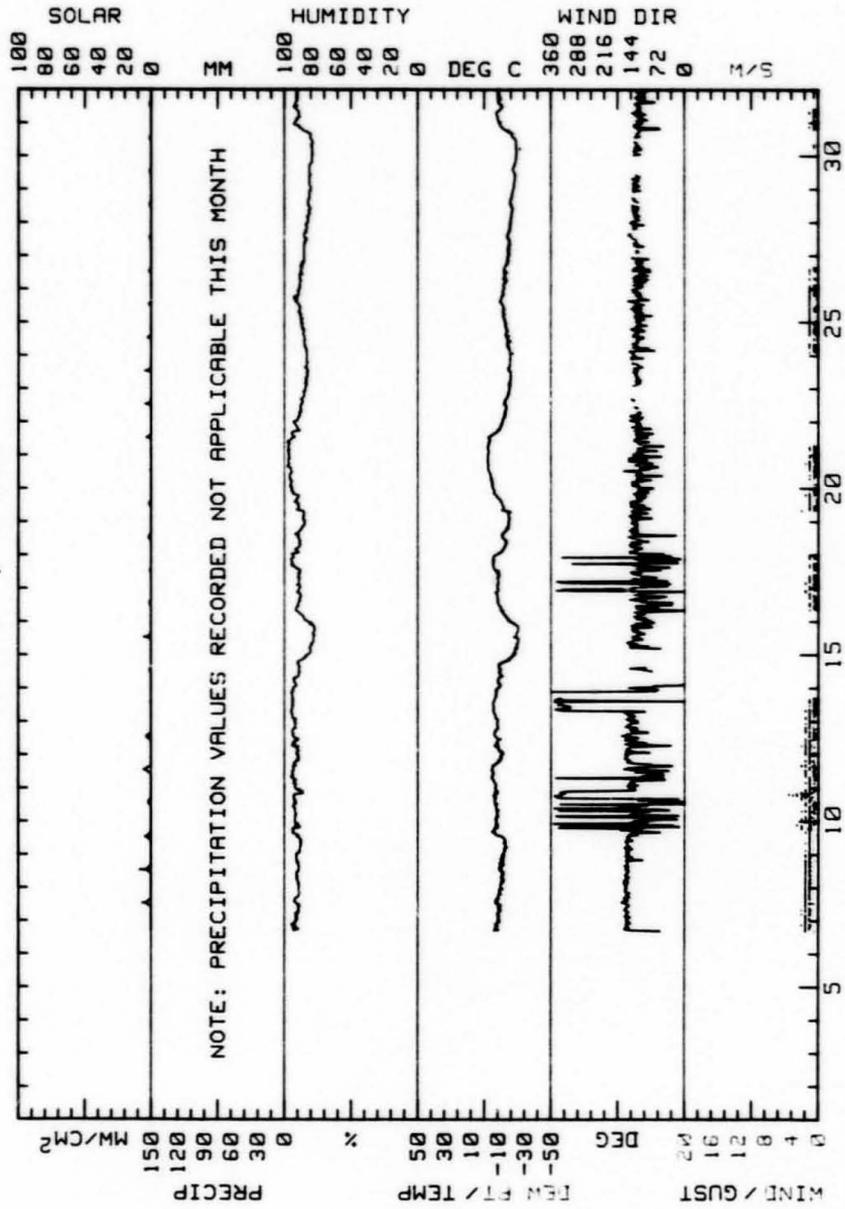


TABLE B.14

R & M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING January, 1984

DAY	MAX.	MIN.	MEAN	RES.	RES.	AVG.	MAX.	MAX.	P'VAL	MEAN	MEAN	PRECIP	DAY'S	
	TEMP.	TEMP.	TEMP.	WIND	WIND	WIND	GUST	GUST		DIR.	RH		DP	ENERGY
	DEG C	DEG C	DEG C	DEG	M/S	M/S	DEG	M/S	DIR.	%	DEG C	MM	WH/SQH	
1	-1.6	-11.7	-6.7	121	.1	.1	143	1.3	ESE	96	-3.3	****	25	1
2	7.5	-2.9	2.3	140	5.5	5.6	135	12.7	SE	73	-1.7	****	195	2
3	6.9	-1.2	2.9	134	3.6	4.3	139	11.4	SE	60	-2.5	****	135	3
4	-1.6	-27.9	-14.8	350	1.4	1.8	358	5.7	NNW	89	-10.1	****	110	4
5	-6.7	-32.0	-19.4	169	.3	1.0	336	5.1	SSE	83	-16.9	****	130	5
6	-9.5	-16.2	-12.9	160	.8	.8	225	3.2	SSE	94	-11.7	****	160	6
7	-13.6	-21.6	-17.6	152	.5	.6	159	1.9	SSE	85	-20.6	****	165	7
8	0.0	-22.6	-11.3	***	****	****	***	****	SSE	85	-19.8	****	175	8
9	-1.2	-14.6	-7.9	***	****	****	***	****	SSE	93	-10.0	****	120	9
10	6.4	-3.3	1.6	144	1.1	1.8	136	8.3	SSE	83	-.6	****	90	10
11	5.6	-4.5	.6	138	4.4	5.0	138	16.5	SE	70	-2.1	****	180	11
12	7.5	4.4	6.0	141	8.3	8.4	142	17.8	SE	66	.1	****	130	12
13	7.2	-.6	3.3	141	2.8	3.0	141	12.1	SE	58	-2.7	****	185	13
14	.7	-2.9	-1.1	128	.5	.6	145	2.5	SE	89	-2.3	****	95	14
15	-2.6	-19.9	-11.3	***	****	****	***	****	***	82	-15.0	****	120	15
16	-7.9	-20.2	-14.1	***	****	****	***	****	***	81	-16.7	****	85	16
17	-4.1	-10.9	-7.5	***	****	****	***	****	***	86	-8.8	****	45	17
18	-3.5	-6.2	-4.9	***	****	****	***	****	***	86	-7.1	****	65	18
19	-6.2	-19.6	-12.9	***	****	****	***	****	***	84	-12.9	****	45	19
20	-17.1	-24.6	-20.9	***	****	****	***	****	***	76	-24.5	****	145	20
21	-16.3	-27.1	-21.7	***	****	****	***	****	***	74	-25.7	****	135	21
22	-15.4	-30.4	-22.9	***	****	****	***	****	***	75	-25.1	****	75	22
23	-29.6	-35.2	-32.4	***	****	****	***	****	***	65	-37.0	****	165	23
24	-30.0	-37.8	-33.9	***	****	****	***	****	***	61	-40.2	****	195	24
25	-19.0	-36.9	-28.0	***	****	****	***	****	***	65	-34.8	****	130	25
26	-13.7	-23.2	-18.5	***	****	****	***	****	***	75	-21.4	****	160	26
27	-10.1	-20.7	-15.4	***	****	****	***	****	***	79	-17.1	****	75	27
28	2.7	-27.0	-12.2	145	5.0	5.0	137	12.1	SE	73	-19.0	****	85	28
29	5.6	1.8	3.7	142	5.4	5.5	146	14.0	SE	49	-6.0	****	420	29
30	5.1	-2.8	1.2	132	1.1	1.7	131	8.3	SE	50	-7.2	****	410	30
31	-1.7	-11.4	-6.6	170	.3	.5	185	2.5	S	81	-6.7	****	345	31
MONTH	7.5	-37.8	-10.7	139	2.4	2.9	142	17.8	SE	75	-13.8	****	4595	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 16.5
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 14.6
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 17.8
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 17.8

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

FIGURE B.14

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA WEATHER STATION
January, 1984

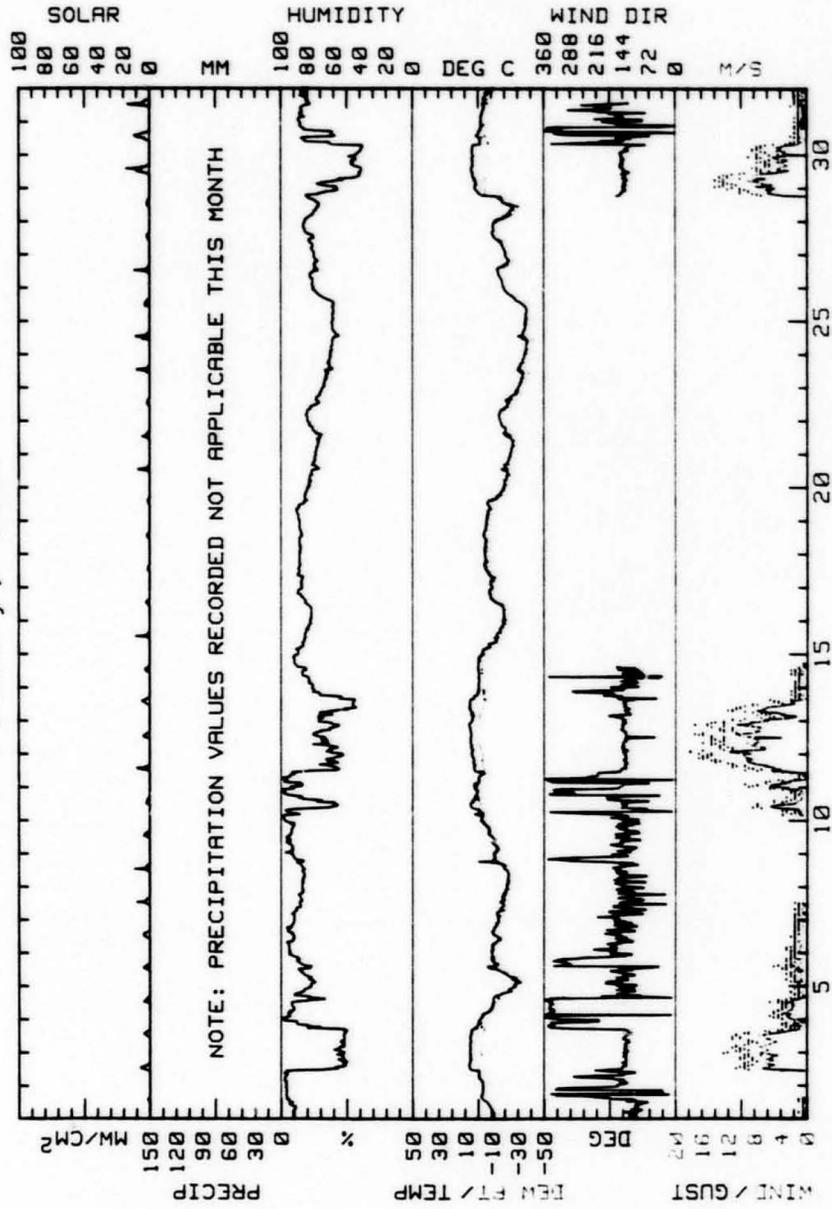


TABLE B.15

R & M CONSULTANTS, INC.

SUSTYNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA WEATHER STATION

DATA TAKEN DURING February, 1984

DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SGM	DAY
1	-4.2	-17.5	-10.9	***	****	.5	***	1.9	***	82	-13.0	****	200	1
2	-5.4	-10.1	-7.8	***	****	.4	***	1.9	***	**	****	****	200	2
3	-7.4	-12.5	-10.0	***	****	.4	***	1.9	***	**	****	****	130	3
4	3.1	-8.3	-2.6	092	.6	2.6	155	10.8	NNW	76	-7.5	****	600	4
5	-8.1	-15.1	-11.6	005	.2	.8	349	3.8	SSE	81	-12.8	****	190	5
6	.7	-17.6	-8.5	150	.7	1.1	144	8.9	ESE	59	-13.4	****	185	6
7	-6.5	-12.9	-9.7	347	1.3	1.2	340	7.0	NNW	80	-11.9	****	135	7
8	-11.7	-27.7	-19.7	093	.1	.5	356	3.2	SSE	80	-14.5	****	360	8
9	-22.1	-32.9	-27.5	145	.2	.4	160	1.9	SSE	**	****	****	505	9
10	-13.6	-33.8	-23.7	090	.1	.5	178	2.5	SSE	**	****	****	210	10
11	-9.2	-22.2	-15.7	160	.3	.5	160	2.5	SSE	81	-17.8	****	550	11
12	-9.4	-21.7	-15.6	133	.3	.6	153	1.9	SE	80	-18.4	****	535	12
13	-8.9	-20.9	-14.9	***	****	.5	***	1.9	***	**	****	****	350	13
14	-4.5	-17.5	-11.0	***	****	.9	***	5.1	***	76	-10.8	****	390	14
15	-8.6	-21.9	-15.3	***	****	.5	***	2.5	***	83	-13.1	****	415	15
16	1.4	-10.4	-4.5	213	.3	1.2	259	7.6	SE	74	-5.7	****	176	16
17	4.3	-1.8	1.3	140	1.6	2.4	128	9.5	SE	**	****	****	900	17
18	1.0	-5.9	-2.5	148	.1	.7	125	9.5	NW	**	****	****	165	18
19	-5.1	-14.3	-9.7	334	.6	.7	335	3.8	NNW	**	****	****	155	19
20	-12.5	-21.6	-17.1	023	.5	.6	022	2.5	NNE	**	****	****	205	20
21	2.1	-20.3	-9.1	139	2.4	2.6	150	13.3	SE	**	****	****	1365	21
22	.8	-8.9	-4.1	000	.4	.8	071	5.1	NNE	**	****	****	1360	22
23	-7.3	-20.3	-13.8	131	.2	.5	156	2.5	SSE	**	****	****	2020	23
24	-5.1	-22.1	-13.6	151	.4	.7	143	2.5	SE	**	****	****	1460	24
25	-3.3	-9.2	-4.8	144	.1	.7	334	2.5	SSE	**	****	****	1790	25
26	1.2	-11.0	-4.9	140	.1	.5	146	1.9	SSE	**	****	****	2290	26
27	-.5	-11.4	-6.0	116	.1	.6	314	2.5	SE	**	****	****	1765	27
28	.6	-13.4	-6.4	111	.2	.6	134	1.9	SE	**	****	****	2625	28
29	-2.1	-16.2	-9.2	136	.5	.7	129	2.5	SSE	**	****	****	1615	29
MONTH	4.3	-33.8	-10.6	125	.3	.8	150	13.3	SE	75	-12.6	****	22846	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 8.9

GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 10.2

GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 11.4

GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 10.2

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

FIGURE B.15

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA WEATHER STATION
February, 1984

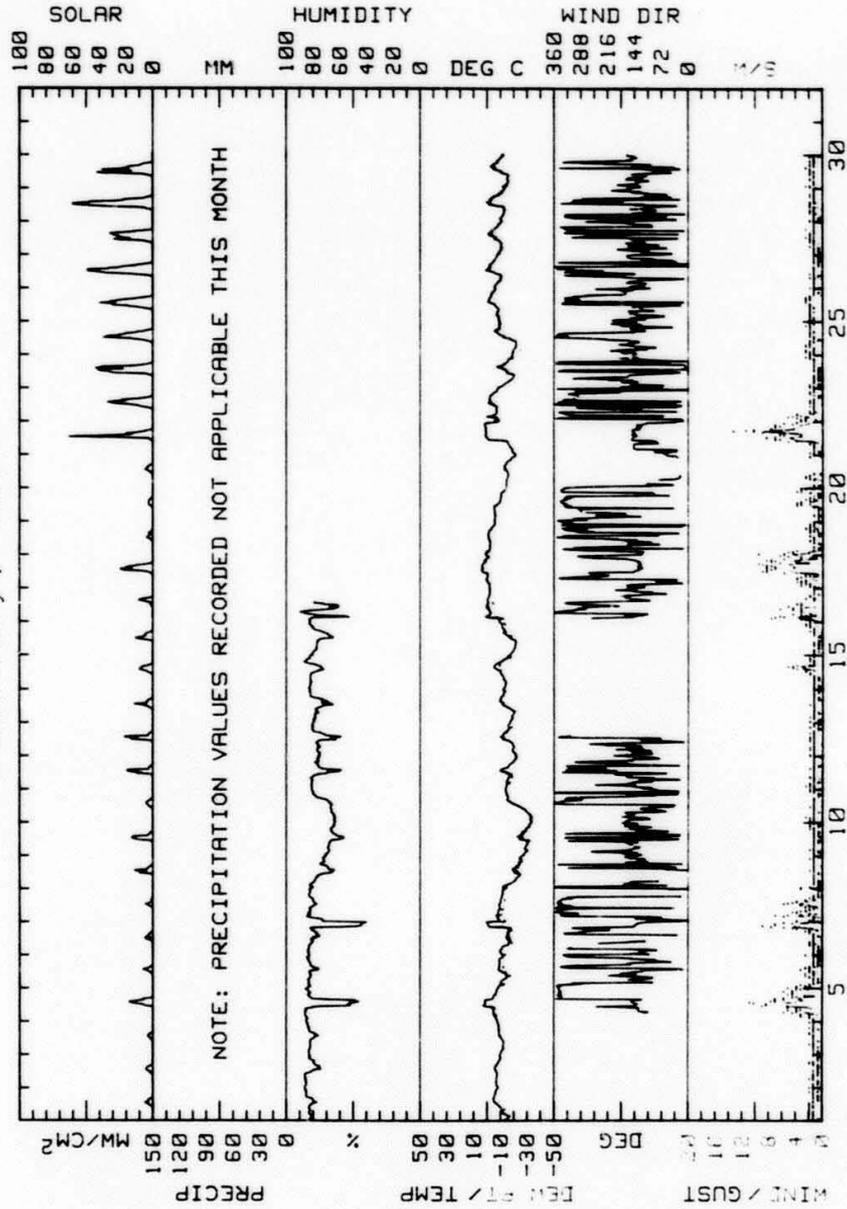


TABLE B.16

R & M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING March, 1984

DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SGH	DAY
1	1.6	-15.4	-6.9	155	.2	.5	346	2.5	SSE	**	*****	****	1885	1
2	3.5	-17.7	-7.1	155	.5	1.2	147	11.4	SE	**	*****	****	2000	2
3	6.6	-7	3.0	141	4.6	4.9	162	17.1	SE	**	*****	****	1355	3
4	8.8	1.0	4.9	134	4.7	5.0	139	15.2	SE	**	*****	****	1690	4
5	11.1	.9	6.0	136	2.6	3.6	138	10.8	SE	**	*****	****	1505	5
6	9.6	-2.0	3.8	140	.9	1.3	134	7.6	SE	**	*****	****	2870	6
7	9.8	.7	5.3	164	.2	.8	332	4.4	SE	**	*****	****	2590	7
8	10.5	-7	4.9	142	.8	1.5	354	7.6	SE	**	*****	****	715	8
9	10.7	2.1	6.4	137	1.1	2.1	135	10.2	SE	**	*****	****	2230	9
10	10.5	1.6	6.1	140	1.4	1.9	142	8.9	SE	**	*****	****	2840	10
11	11.0	-1.7	4.7	149	.2	.8	334	3.8	SE	**	*****	****	2510	11
12	5.5	-5.2	.2	141	.2	.6	161	1.9	SSE	**	*****	****	3545	12
13	6.1	-7.0	-5	182	.3	.7	192	2.5	SSE	**	*****	****	3360	13
14	5.3	-6.3	-5	154	.3	.7	327	2.5	SSE	**	*****	****	3585	14
15	7.3	-6.1	.6	144	1.4	1.7	129	6.3	SSE	**	*****	****	3260	15
16	6.0	-3.7	1.2	116	.1	.7	145	1.9	SE	**	*****	****	3870	16
17	5.2	-5.8	-3	138	.1	.7	347	3.2	NNW	**	*****	****	3970	17
18	3.8	-9.6	-2.9	192	.1	.7	343	2.5	SSE	**	*****	****	3935	18
19	4.1	-10.9	-3.4	150	.3	.7	141	2.5	SSE	**	*****	****	4080	19
20	4.2	-8.1	-2.0	132	.2	.9	357	3.2	SSE	**	*****	****	3155	20
21	3.5	-9.8	-3.2	167	.1	.7	329	2.5	SSE	**	*****	****	4370	21
22	4.9	-11.2	-3.2	202	.1	.7	338	3.2	SSE	**	*****	****	4410	22
23	2.4	-11.2	-4.4	216	.1	.8	155	2.5	SSE	**	*****	****	4505	23
24	4.4	-11.6	-3.6	184	.1	1.0	332	3.8	SSE	**	*****	****	4065	24
25	4.0	-2.1	1.0	317	.2	.7	341	3.2	NW	**	*****	****	3655	25
26	7.4	-1.9	2.8	147	1.8	1.8	137	8.3	SSE	**	*****	****	3020	26
27	7.2	-2.7	2.3	143	3.0	3.2	145	8.3	SE	**	*****	****	4675	27
28	7.6	-6.7	.5	135	1.2	1.7	138	8.3	SE	**	*****	****	4875	28
29	3.7	-1.6	1.1	169	1.0	1.3	149	7.0	S	**	*****	****	2150	29
30	.9	-2.6	-.9	333	.4	.5	338	1.9	NNW	**	*****	****	1565	30
31	7.4	-7.4	0.0	142	3.4	2.6	145	10.2	SE	**	*****	****	3965	31
MONTH	11.1	-17.7	.5	142	.9	.8	162	17.1	SE	**	*****	****	95195	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 5.1
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 4.4
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 15.2
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 14.0

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

FIGURE B.16

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA WEATHER STATION
March, 1984

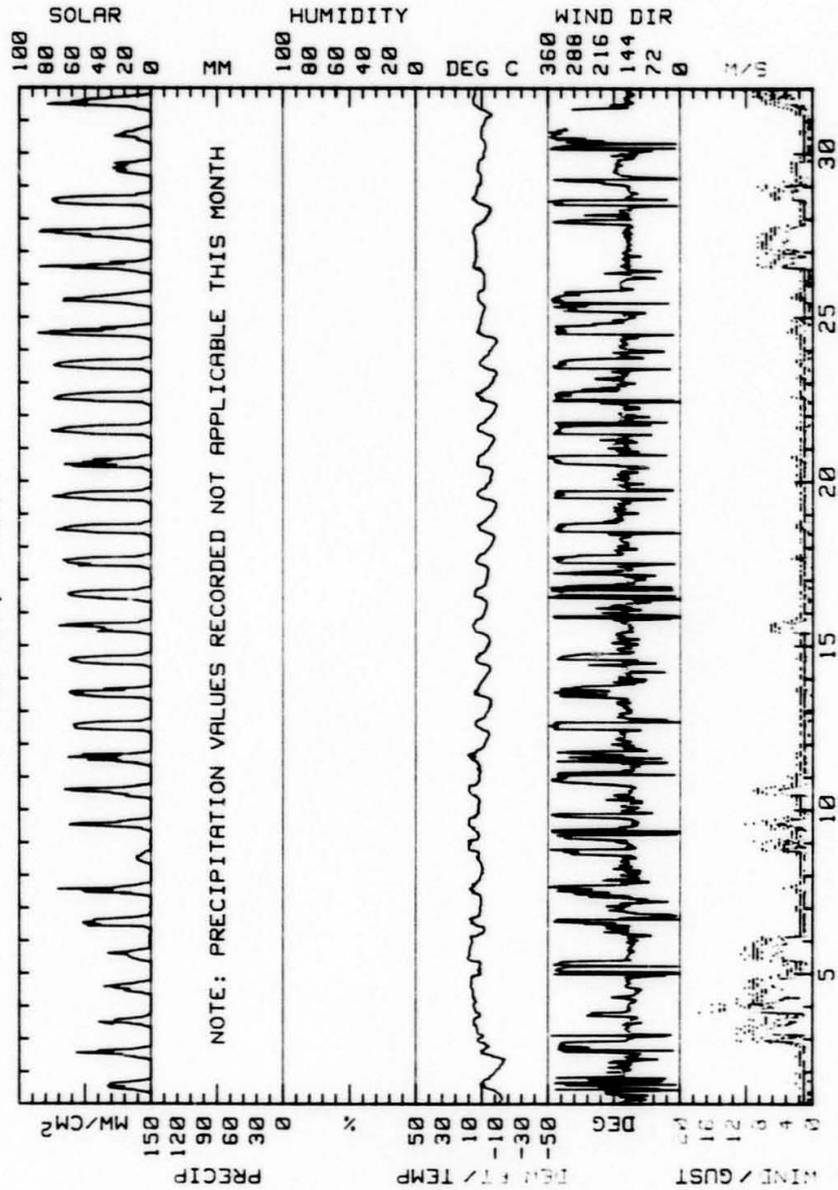


TABLE B.17

R & M CONSULTANTS, INC.
SUSTITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUITNA WEATHER STATION
DATA TAKEN DURING April, 1984

DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY DAY WH/SGM
1	6.9	.1	3.5	115	.8	1.7	127	8.3	SE	**	*****	3.4	4530
2	4.6	-1.4	1.6	336	.7	.7	344	3.2	NNW	**	*****	4.4	4790
3	4.1	-2.4	.9	350	.3	.7	345	3.8	NNW	**	*****	0.0	4610
4	8.8	-6.5	1.2	096	.4	1.1	126	5.7	ESE	**	*****	0.0	4960
5	8.2	-1.6	3.3	093	.5	1.8	130	8.9	SE	**	*****	0.0	4645
6	2.8	-8.2	-2.7	338	.8	.8	348	3.2	NNW	**	*****	1.8	5485
7	2.8	-2.8	0.0	338	.8	1.0	334	4.4	NNW	**	*****	0.0	5325
8	5.8	-5.4	.2	137	1.5	2.0	138	8.3	SE	**	*****	.2	5500
9	6.8	-2.4	2.2	221	.2	1.0	244	3.2	SE	**	*****	0.0	3950
10	2.2	-3.0	-.4	332	.9	1.2	343	4.4	NNW	**	*****	0.0	4935
11	3.0	-4.5	-.8	343	.5	.8	335	3.2	NNW	**	*****	3.2	5940
12	7.4	-6.6	.4	010	.3	.9	062	5.1	NNW	**	*****	0.0	5740
13	8.3	-3.8	2.3	147	1.2	1.5	138	8.3	SSE	**	*****	.2	3800
14	6.8	-3.5	1.7	332	.4	1.1	339	3.8	NNW	**	*****	0.0	6220
15	3.2	-4.0	-.4	343	.7	1.3	342	5.7	NNW	**	*****	0.0	5220
16	.2	-3.9	-1.9	340	.7	.8	346	3.8	NNW	**	*****	3.0	1595
17	2.1	-3.3	-.6	335	.7	.5	329	1.9	NNW	**	*****	6.6	3445
18	3.9	-3.6	.2	315	.4	.9	174	3.8	NNW	**	*****	6.6	4715
19	6.8	-7.3	-.3	343	.1	.8	347	3.8	NNW	**	*****	0.0	5725
20	7.4	-1.1	3.2	148	.2	.9	021	8.3	SSE	**	*****	4.8	4250
21	6.5	-2.5	2.0	159	1.1	2.0	140	7.0	SSE	**	*****	4.0	3630
22	2.5	-5.0	-1.3	329	.6	1.3	346	5.1	NNW	**	*****	2.6	7605
23	5.5	-9.6	-2.1	152	.3	1.2	144	5.1	SSE	**	*****	0.0	7790
24	6.7	-5.3	.7	159	1.4	1.8	151	7.6	SSE	**	*****	0.0	7950
25	7.0	-7.5	-.3	142	2.3	2.6	135	8.3	SE	**	*****	0.0	7940
26	7.2	2.4	4.8	124	3.2	3.4	126	7.6	SE	**	*****	0.0	4410
27	10.6	.9	5.8	103	.9	2.0	121	10.2	SE	**	*****	0.0	4585
28	11.7	3.6	7.7	128	3.8	4.0	132	10.8	SE	**	*****	0.0	6640
29	10.4	3.8	7.1	097	.8	2.2	130	7.6	SE	**	*****	0.0	4365
30	11.9	2.6	7.3	138	2.9	3.1	130	8.3	SE	**	*****	0.0	6255
MONTH	11.9	-9.6	1.5	122	.5	1.5	132	10.8	NNW	**	*****	40.8	156550

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 8.3
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 10.2
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 10.8
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 7.6

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

FIGURE B.17

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA WEATHER STATION
April, 1984

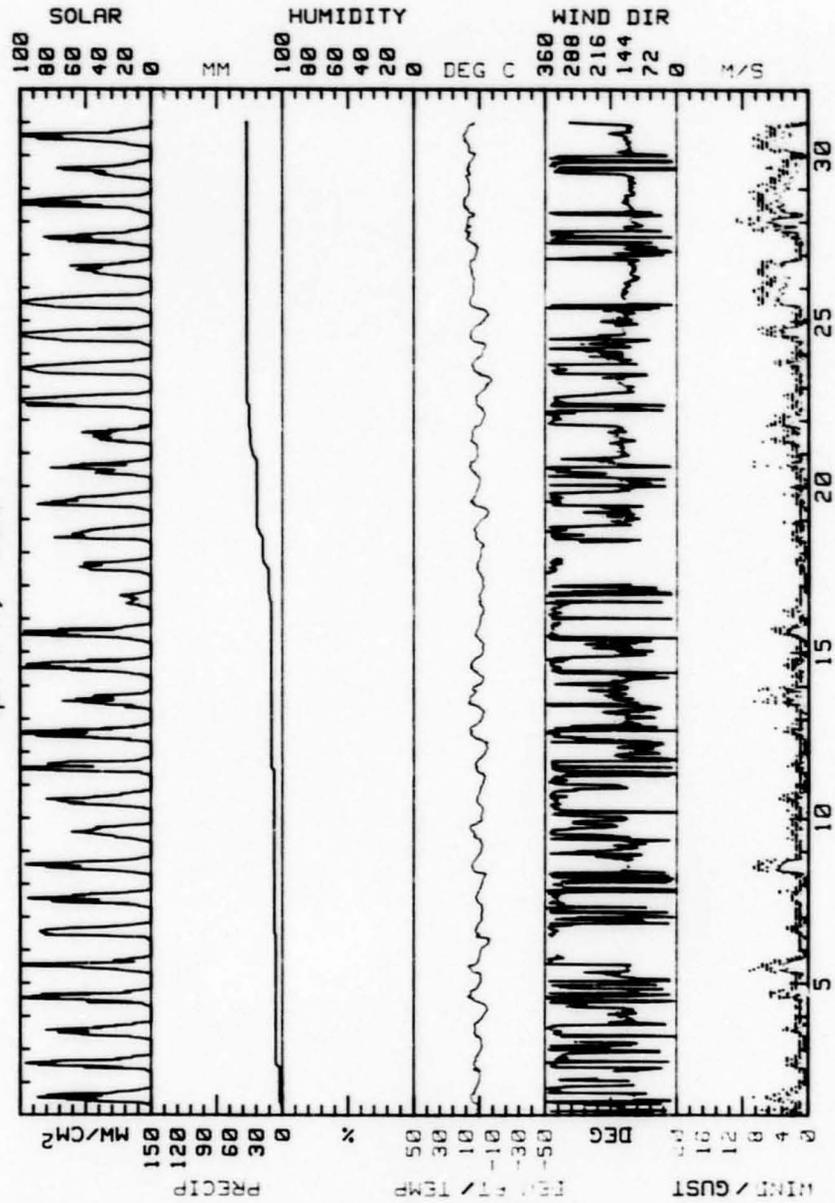


TABLE B.18

R & M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING May, 1984

DAY	MAX.	MIN.	MEAN	RES.	RES.	AVG.	MAX.	MAX.	P'VAL	MEAN	MEAN	PRECIP	DAY'S	
	TEMP.	TEMP.	TEMP.	WIND	WIND	WIND	GUST	GUST	DIR.	RH	DP		MM	
	DEG C	DEG C	DEG C	DEG	SPD.	SPD.	DIR.	SPD.	DIR.	%	DEG C		ENERGY	DAY
					M/S	M/S	DEG	M/S					WH/50M	
1	10.8	.8	5.8	040	.6	1.7	129	7.0	NNW	**	*****	0.0	5870	1
2	8.8	-2.1	3.4	140	1.5	2.1	136	7.6	SE	**	*****	0.0	7555	2
3	9.7	-2.0	3.4	139	1.0	1.9	313	7.6	SE	**	*****	0.0	7225	3
4	9.4	-1.6	3.9	142	1.1	2.0	121	7.6	SE	**	*****	0.0	6570	4
5	9.3	-1.7	3.8	058	.2	1.8	142	6.3	SSE	**	*****	0.0	8265	5
6	9.6	-5.0	2.3	131	.9	1.8	151	7.0	SSE	**	*****	0.0	9275	6
7	12.3	-3.2	4.6	226	.2	1.2	339	3.8	SSE	**	*****	0.0	8645	7
8	16.1	-3.5	6.3	228	.3	1.3	293	4.4	SSE	**	*****	0.0	8910	8
9	15.3	-1.2	7.1	331	.4	1.3	346	4.4	SSE	**	*****	0.0	8795	9
10	14.2	-1.8	6.2	341	.5	1.2	341	3.8	NNW	**	*****	0.0	8095	10
11	11.1	-2.1	4.5	342	1.0	1.7	344	6.3	NNW	**	*****	0.0	8515	11
12	11.4	-3.9	3.8	335	.5	1.3	337	3.8	SSE	**	*****	0.0	7595	12
13	13.1	-2.5	5.3	342	.4	1.3	343	3.8	SSE	**	*****	0.0	7685	13
14	15.6	-2.4	6.6	153	.9	1.8	152	7.0	SSE	**	*****	0.0	9145	14
15	14.7	-.8	7.0	141	2.0	2.3	160	7.0	SE	**	*****	0.0	8260	15
16	16.1	4.2	10.2	161	1.0	1.8	141	5.7	SSE	**	*****	0.0	6950	16
17	16.7	-.2	8.3	135	1.9	2.8	147	10.8	SE	**	*****	0.0	8320	17
18	15.5	6.1	10.8	135	2.4	3.0	128	8.9	SE	**	*****	0.0	8265	18
19	13.4	4.6	9.0	349	.6	1.1	352	5.1	NNW	**	*****	.2	6830	19
20	16.3	2.9	9.6	131	.9	1.6	134	6.3	SSE	**	*****	0.0	5540	20
21	13.2	6.3	9.8	129	.9	1.8	133	7.0	SE	**	*****	0.0	4965	21
22	11.1	.9	6.0	345	.7	1.1	347	5.1	NNW	**	*****	0.0	5870	22
23	12.0	-2.2	7.4	153	.5	1.6	168	6.3	SSE	**	*****	0.0	8520	23
24	13.8	.5	7.2	352	1.0	1.6	348	5.1	NNW	**	*****	0.0	9810	24
25	16.1	.8	8.5	358	.4	1.0	339	4.4	SSE	**	*****	0.0	6170	25
26	17.3	.6	9.0	***	***	***	***	***	***	**	*****	0.0	7310	26
27	18.8	-3.3	7.8	***	***	***	***	***	***	**	*****	0.0	8870	27
28	21.2	-6.5	7.4	***	***	***	***	***	***	**	*****	0.0	9513	28
29	15.1	-3.3	5.9	***	***	***	***	***	***	**	*****	3.6	3780	29
30	13.7	-.2	6.8	***	***	***	***	***	***	**	*****	1.2	6640	30
31	15.3	1.0	8.2	***	***	***	***	***	***	**	*****	.8	7075	31
MONTH	21.2	-6.5	6.6	125	.4	1.7	147	10.8	SSE	**	*****	5.8	233853	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 9.5
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 8.9
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 9.5
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 9.5

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

FIGURE B.18

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA WEATHER STATION

May, 1984

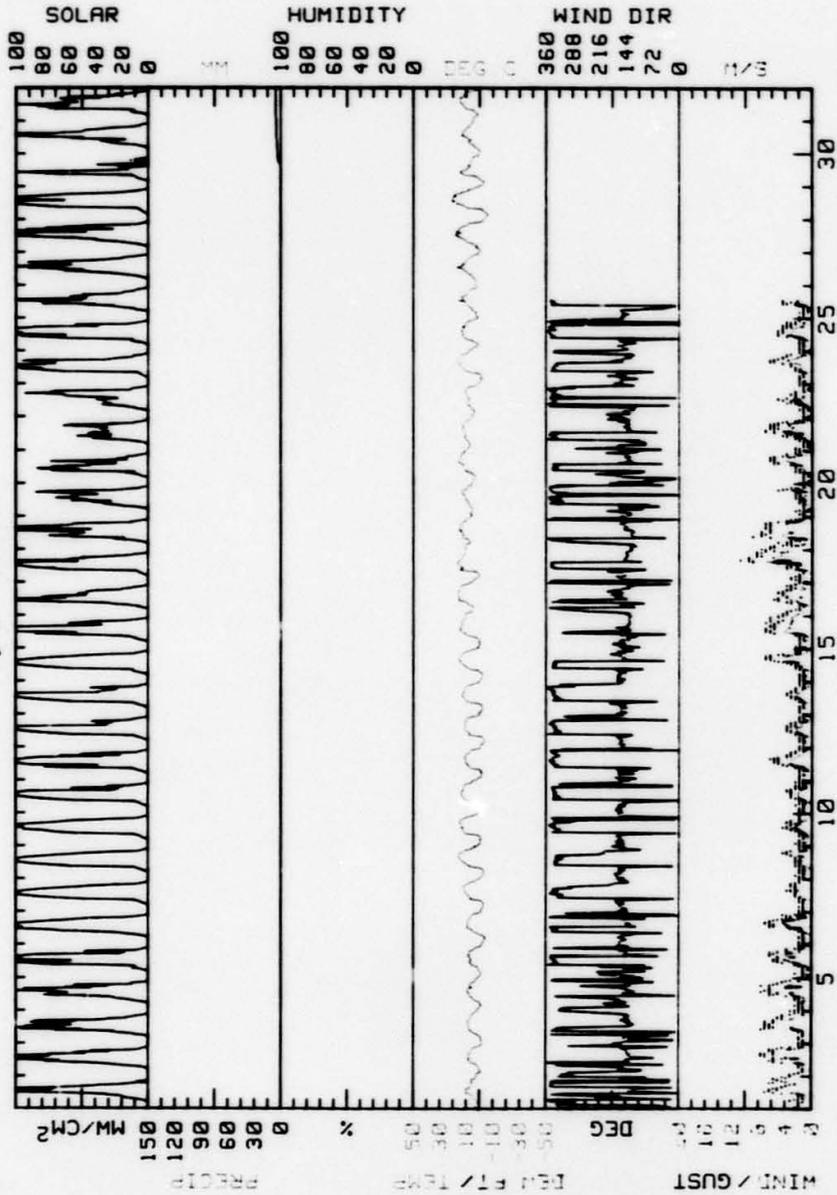


TABLE B.19

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUINA WEATHER STATION
 DATA TAKEN DURING June, 1984

DAY	MAX.	MIN.	MEAN	RES.	RES.	AVG.	MAX.	MAX.	P'VAL	MEAN	MEAN	PRECIP	DAY'S	
	TEMP.	TEMP.	TEMP.	WIND	WIND	WIND	GUST	GUST		DIR.	RH		DP	SOLAR
	DEG C	DEG C	DEG C	DIR.	SPD.	SPD.	DIR.	SPD.	DIR.	%	DEG C	MM	WH/SGM	
1	19.6	-1.9	9.9	090	.4	1.4	333	3.8	SE	**	*****	0.0	7660	1
2	19.5	-.4	9.6	348	.4	1.1	012	3.8	ESE	**	*****	0.0	10130	2
3	19.0	.1	9.6	006	.3	1.3	333	5.1	SE	**	*****	0.0	9125	3
4	20.4	.5	10.5	345	.2	1.2	329	5.1	ESE	**	*****	0.0	10595	4
5	24.0	1.6	12.8	346	.2	1.0	194	4.4	ESE	**	*****	.6	8795	5
6	13.0	3.9	8.5	020	.4	1.2	043	5.1	NNW	**	*****	6.2	4510	6
7	15.3	-1.4	7.5	000	.5	1.3	000	5.7	E	**	*****	0.0	7235	7
8	16.2	5.9	11.1	352	.8	1.1	002	4.4	N	**	*****	.2	6785	8
9	15.6	5.1	10.4	350	.6	1.2	352	5.1	N	**	*****	.6	8955	9
10	17.4	4.1	10.8	001	.7	1.2	359	3.8	N	**	*****	0.0	9300	10
11	16.1	6.1	11.1	350	.5	.9	137	4.4	NNW	**	*****	0.0	6960	11
12	14.9	8.9	11.9	107	.2	.7	043	2.5	SE	**	*****	2.8	3565	12
13	15.1	6.9	11.0	147	1.2	1.7	138	7.0	SSE	**	*****	0.0	5660	13
14	14.6	3.1	8.9	156	1.1	1.5	163	7.0	SSE	**	*****	1.8	4995	14
15	10.4	6.0	8.2	350	.4	.9	002	4.4	N	**	*****	7.0	4625	15
16	13.3	7.4	8.9	347	.4	.9	358	3.2	N	**	*****	6.0	3325	16
17	16.3	7.8	12.1	355	.8	1.2	000	3.8	N	**	*****	1.2	11120	17
18	20.2	4.3	12.3	355	.3	1.0	358	3.2	NNW	**	*****	0.0	9905	18
19	19.1	3.8	11.5	348	.3	1.0	354	3.8	S	**	*****	0.0	10455	19
20	20.1	4.1	12.1	353	.6	1.1	359	4.4	NNW	**	*****	0.0	9575	20
21	19.4	4.6	12.0	354	.5	1.0	346	3.8	NNW	**	*****	0.0	10545	21
22	21.2	3.4	12.3	318	.1	1.0	348	3.8	S	**	*****	0.0	9660	22
23	19.7	3.9	11.8	154	1.1	1.9	160	7.0	SSE	**	*****	0.0	7355	23
24	18.2	8.3	13.3	157	2.1	2.3	148	8.3	SSE	**	*****	0.0	6275	24
25	17.8	10.2	14.0	154	2.2	2.3	139	7.0	SSE	**	*****	0.0	5770	25
26	15.3	8.7	12.0	002	.3	.9	121	4.4	NNW	**	*****	.4	4905	26
27	12.0	6.0	9.0	015	.9	1.2	020	4.4	N	**	*****	3.4	3885	27
28	19.7	4.6	12.2	149	1.0	2.0	157	8.9	SSE	**	*****	0.0	8795	28
29	18.9	13.6	16.3	148	3.9	4.0	131	8.3	SSE	**	*****	0.0	9875	29
30	17.8	9.2	13.5	033	.5	1.3	148	5.7	N	**	*****	0.0	8670	30
MONTH	24.0	-1.9	11.1	107	.2	1.4	157	8.9	SSE	**	*****	30.2	226410	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 8.3
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 7.6
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 8.9
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 7.6

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

FIGURE B.19

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA WEATHER STATION
June, 1984

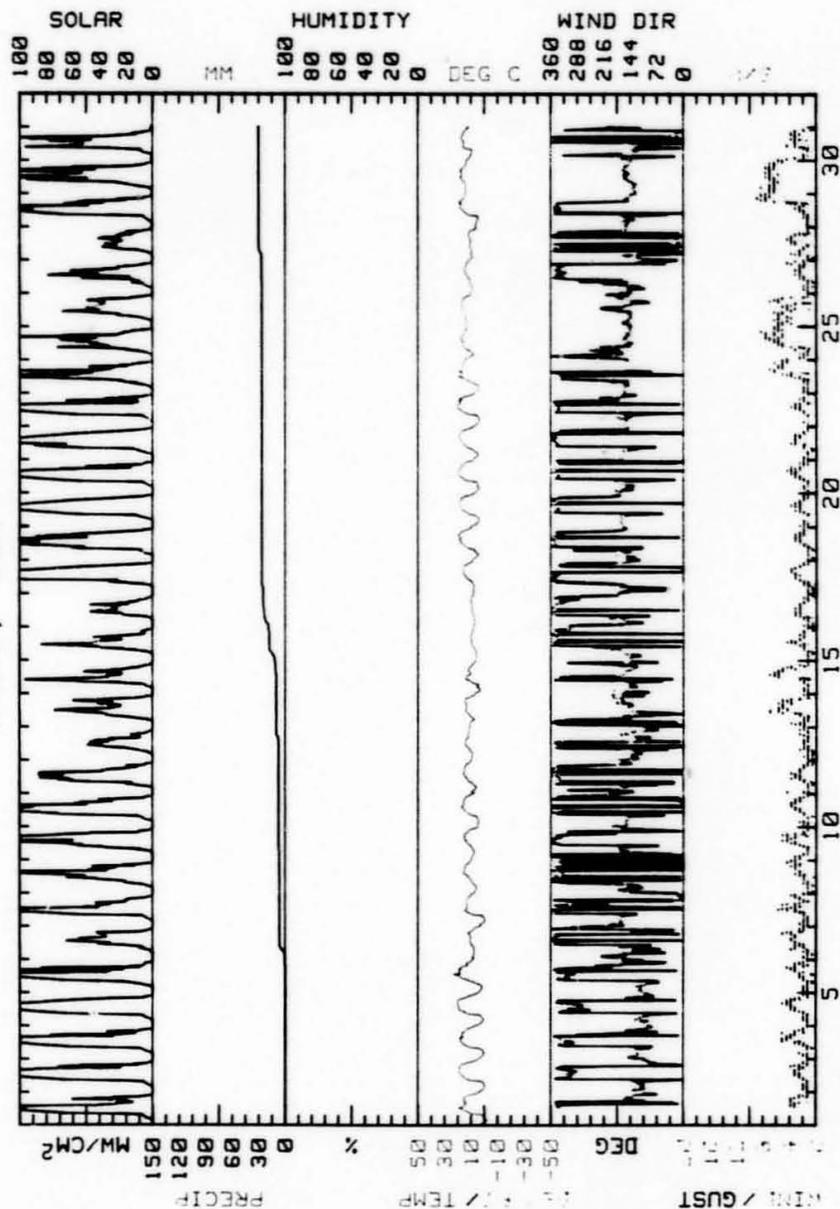


TABLE B.20

P & M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EXLUTNA WEATHER STATION
DATA TAKEN DURING July, 1984

DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RFS. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SGM	DAY
1	12.5	9.6	11.1	354	.4	.7	357	3.2	NNW	**	*****	1.6	3930	1
2	14.6	8.1	11.4	351	.3	.7	354	3.2	NNW	**	*****	1.2	6090	2
3	14.9	9.2	12.1	176	.3	.7	176	2.5	SSE	**	*****	.2	3655	3
4	21.5	8.3	14.9	353	.5	1.0	359	4.4	N	**	*****	0.0	9700	4
5	22.0	10.7	16.4	017	.2	1.0	013	4.4	NNW	**	*****	.2	7585	5
6	22.3	8.7	15.5	002	.4	1.0	002	3.8	N	**	*****	.2	7735	6
7	21.0	7.1	14.1	009	.3	1.2	000	5.1	N	**	*****	0.0	9545	7
8	13.3	8.8	11.1	163	.1	.8	350	3.2	SSE	**	*****	4.0	3150	8
9	16.7	7.6	12.2	359	.4	1.1	359	4.4	N	**	*****	1.4	7510	9
10	15.2	7.5	11.4	143	1.0	1.6	145	6.3	SSE	**	*****	3.4	1640	10
11	18.9	6.8	12.9	135	.9	1.9	142	5.1	SSE	**	*****	0.0	9665	11
12	19.9	4.1	12.6	026	.3	1.1	091	5.1	SSE	**	*****	.2	6990	12
13	17.8	9.9	13.4	033	.1	1.0	013	5.7	SSE	**	*****	6.0	3015	13
14	12.9	3.4	8.2	173	.1	.7	336	1.9	SSE	**	*****	1.4	3655	14
15	19.0	3.1	11.1	312	.2	.9	347	3.2	NNW	**	*****	0.0	7665	15
16	13.4	10.0	11.7	019	.4	.8	351	3.2	N	**	*****	1.4	3695	16
17	12.5	9.4	11.0	046	.2	.7	354	3.2	N	**	*****	1.0	1200	17
18	13.0	8.4	10.7	353	.4	.8	351	3.2	N	**	*****	.6	3700	18
19	14.7	9.4	12.1	355	.3	.8	013	4.4	NNW	**	*****	0.0	3990	19
20	13.4	9.1	11.3	343	.3	.7	359	3.2	NNW	**	*****	.4	3160	20
21	18.4	8.5	13.5	355	.5	1.1	000	4.4	N	**	*****	0.0	7185	21
22	16.4	8.8	12.6	330	.1	.8	327	2.5	NNW	**	*****	0.0	4080	22
23	20.0	11.1	15.6	335	.4	.8	003	3.8	NNW	**	*****	0.0	6405	23
24	18.7	11.0	14.9	007	.2	.8	350	3.2	N	**	*****	0.0	4970	24
25	14.9	10.6	12.8	350	.2	.6	338	2.5	NNW	**	*****	2.6	3580	25
26	15.3	9.3	12.2	204	.1	.7	334	2.5	SSE	**	*****	1.0	1545	26
27	17.0	9.3	13.3	203	.1	.7	170	1.9	SSE	**	*****	0.0	3575	27
28	16.3	10.8	13.6	188	.2	.9	242	2.5	S	**	*****	.2	3600	28
29	16.2	9.4	12.8	006	.7	1.2	000	5.1	N	**	*****	.6	5230	29
30	19.4	7.5	13.5	354	.5	1.0	349	3.8	NNW	**	*****	0.0	6410	30
31	17.8	9.1	13.5	000	1.0	1.3	359	4.4	N	**	*****	.4	6030	31
MONTH	22.3	3.1	12.6	012	.2	.3	145	6.3	SSE	**	*****	28.0	163285	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 5.1
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 5.7
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 6.3
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 5.1

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

FIGURE B.20
 R&M CONSULTANTS, INC.
 SUSITNA HYDROELECTRIC PROJECT
 EKLUTNA WEATHER STATION
 July, 1984

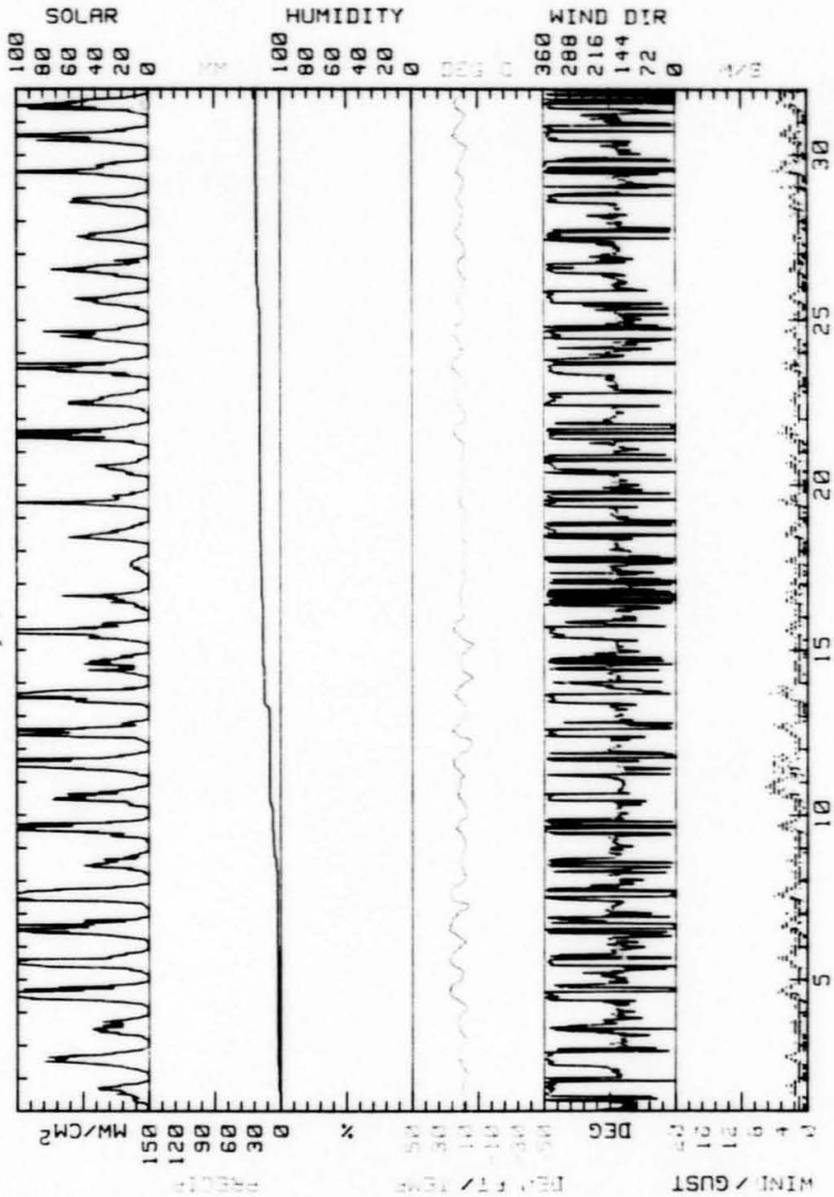


TABLE B.21

R & M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUENA WEATHER STATION
DATA TAKEN DURING August, 1983

DAY	MAX.	MIN.	MEAN	RES.	RES.	AVG.	MAX.	MAX.	P'VAL	MEAN	MEAN	PRECIP	DAYS SOLAR ENERGY DAY	
	TEMP. DEG C	TEMP. DEG C	TEMP. DEG C	WIND DIR. DEG	WIND SPD. M/S	WIND SPD. M/S	GUST DIR. DEG	GUST SPD. M/S		RH %	DP DEG C			mm
1	15.6	10.3	13.0	351	.4	.8	357	3.2	NNW	**	*****	0.0	4130	1
2	17.8	9.6	13.7	353	.3	.9	354	3.2	NNW	**	*****	0.0	4235	2
3	18.7	12.1	15.4	330	.2	.8	357	3.8	SSE	**	*****	.2	4160	3
4	20.7	11.3	16.0	179	.2	1.0	339	3.2	SSE	**	*****	0.0	6640	4
5	16.4	11.6	14.0	196	.1	.7	376	2.5	S	**	*****	4.8	2765	5
6	17.4	8.8	13.1	286	.1	.8	346	2.5	NNW	**	*****	.4	3905	6
7	20.7	5.7	15.2	313	.1	.9	350	3.2	S	**	*****	1.0	6490	7
8	17.2	11.5	14.4	332	.1	.8	340	2.5	SSE	**	*****	.4	5350	8
9	17.4	9.0	13.2	152	.2	.9	301	4.4	S	**	*****	10.6	5130	9
10	19.0	8.4	13.7	177	.4	.7	167	2.5	S	**	*****	5.4	3025	10
11	19.2	8.2	13.7	175	.3	.7	323	2.5	S	**	*****	1.0	5235	11
12	20.2	3.1	11.7	351	.1	1.1	000	5.1	S	**	*****	0.0	7730	12
13	20.2	2.9	11.6	318	.2	1.0	340	3.8	S	**	*****	0.0	7505	13
14	21.7	2.5	12.1	134	.1	1.0	356	4.4	S	**	*****	0.0	7300	14
15	21.7	3.4	12.6	208	.1	.9	350	3.2	S	**	*****	0.0	7220	15
16	21.1	6.0	13.6	193	.2	.8	334	3.2	S	**	*****	0.0	5950	16
17	19.0	4.1	11.2	096	.1	1.7	149	7.6	N	**	*****	0.0	5940	17
18	15.9	11.3	13.6	150	2.1	2.8	160	10.2	SSE	**	*****	0.0	1605	18
19	15.4	10.1	12.8	084	.2	1.6	161	8.3	NNW	**	*****	.6	3860	19
20	17.0	9.5	13.2	359	.8	1.1	035	5.1	NNW	**	*****	.2	5960	20
21	16.1	8.9	12.5	153	3.8	3.1	162	6.3	SSE	**	*****	0.0	3190	21
22	15.7	9.5	12.6	039	.4	1.2	142	6.3	N	**	*****	.8	2625	22
23	13.7	6.9	10.3	184	.1	.5	262	1.9	SSE	**	*****	1.2	2540	23
24	16.5	7.5	12.0	148	1.8	2.1	150	9.5	SSE	**	*****	7.0	1500	24
25	11.1	6.0	8.7	026	.9	1.5	356	9.5	NNE	**	*****	10.0	1575	25
26	12.1	-1.5	5.3	016	1.8	2.1	357	7.0	NE	**	*****	3.2	5560	26
27	12.8	-3.6	4.6	302	.2	1.0	322	4.4	SSE	**	*****	0.0	6415	27
28	12.4	-4.7	3.9	341	.1	.9	339	3.2	S	**	*****	0.0	5300	28
29	12.6	-3.6	4.5	004	.2	1.1	356	4.4	S	**	*****	0.0	5765	29
30	12.3	-3.0	4.7	194	.1	.9	345	3.2	S	**	*****	0.0	5385	30
31	11.1	-4.4	3.4	007	.2	1.0	359	5.1	S	**	*****	0.0	5710	31
MONTH	21.7	-4.7	11.2	116	.2	1.2	160	10.2	S	**	*****	45.8	117660	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 9.5
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 8.3
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 7.6
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 7.0

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

FIGURE B.21
 R&M CONSULTANTS, INC.
 SUSITNA HYDROELECTRIC PROJECT
 EKLUTNA WEATHER STATION
 August, 1984

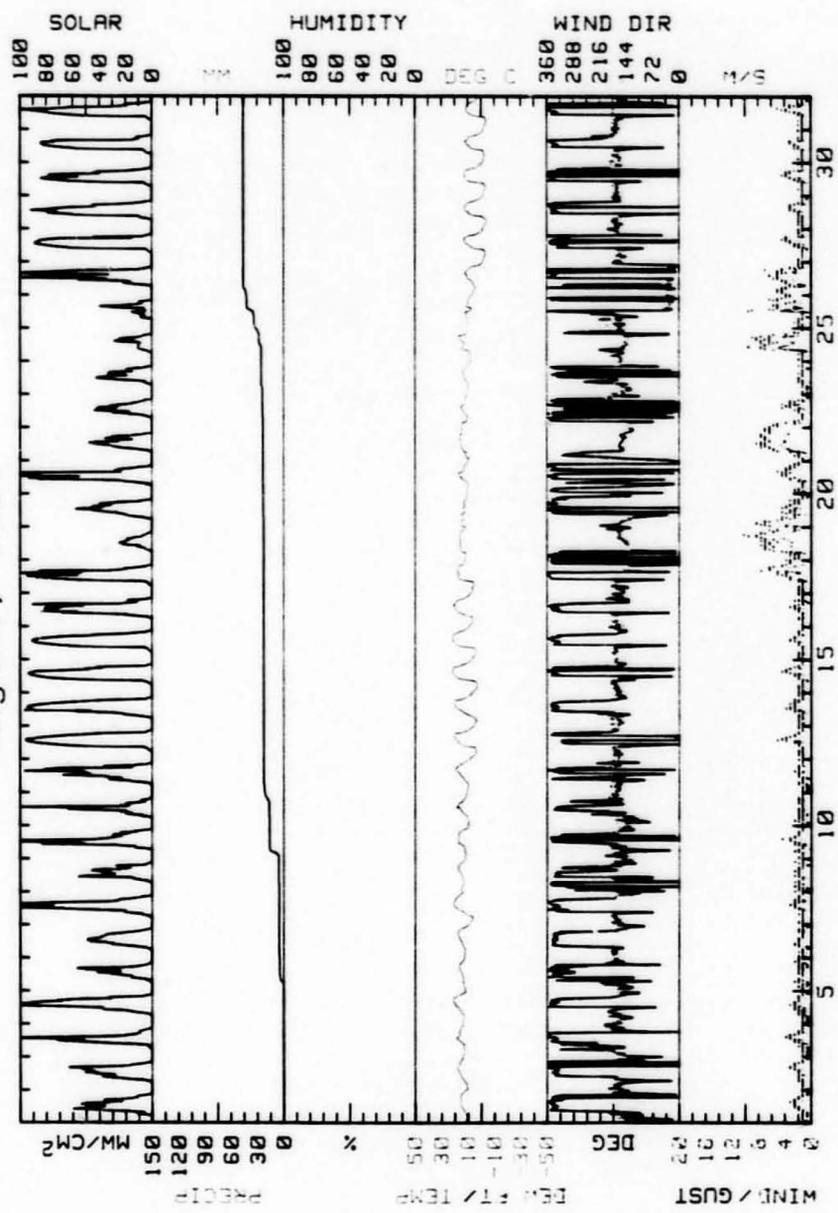


TABLE B.22

P & M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKUTNA WEATHER STATION
DATA TAKEN DURING September, 1984

DAY	MAX.	MIN.	MEAN	RES.	RES.	AVG.	MAX.	MAX.	P-VAL	MEAN	MEAN	PRECIP	DAY'S SOLAR ENERGY DAY
	TEMP.	TEMP.	TEMP.	WIND	WIND	WIND	GUST	GUST		RH	DP		
	DEG C	DEG C	DEG C	DEG	SPD.	SPD.	DIR.	SPD.	DIR.	%	DEG C		
1	14.6	-1.5	7.1	201	.2	.8	338	2.5	S	**	*****	0.0	4968 1
2	15.6	-2.0	6.8	189	.3	.9	358	3.8	S	**	*****	0.0	5335 2
3	16.1	-2.2	7.0	205	.2	.8	335	2.5	S	**	*****	0.0	4985 3
4	10.8	.3	5.6	158	6	.6	165	1.9	SSE	**	*****	0.0	3424 4
5	14.4	-1.9	6.3	207	.1	.8	343	3.2	SSE	49	1.7	0.0	4870 5
6	15.6	-2.0	6.8	126	.7	1.5	128	6.3	SSE	41	-1.0	0.0	4160 6
7	15.2	1.8	8.5	149	1.2	1.5	141	5.7	SE	40	-1.9	0.0	3515 7
8	16.9	1.9	9.4	143	1.3	1.4	144	5.7	SSE	29	-3.7	0.0	4635 8
9	16.0	-1.8	7.6	196	.1	.7	322	2.5	SSE	41	.9	0.0	4265 9
10	15.8	-1.1	7.4	190	.2	.8	339	3.2	SSE	52	3.7	0.0	4790 10
11	13.9	-1.3	6.7	173	.3	.8	314	6.3	SSE	54	2.7	0.0	3210 11
12	14.3	.2	7.3	117	6	1.5	131	5.7	SSE	45	.7	0.0	3930 12
13	14.1	7.4	10.8	158	1.2	1.6	123	7.6	SE	41	-1.1	.2	1890 13
14	11.1	5.9	8.5	165	.4	.9	215	3.8	SE	62	.9	6.0	1815 14
15	13.6	1.8	7.7	149	1.1	1.1	136	5.7	SSE	48	1.3	.4	1815 15
16	14.4	.6	7.5	202	.1	.8	335	3.8	SSE	58	4.0	0.0	3360 16
17	12.5	4.4	8.5	355	.1	.7	356	3.8	SSE	63	2.9	0.0	1965 17
18	11.3	3.4	7.4	007	.1	1.0	349	4.4	SSE	40	-5.0	2.2	1975 18
19	11.9	1.1	6.5	023	.6	1.4	006	9.3	SSE	62	.1	11.0	3670 19
20	8.3	-1.2	3.8	163	.3	.9	337	3.8	SSE	80	1.3	3.2	3330 20
21	11.7	-2.9	4.4	244	.1	.9	323	2.5	SSE	61	-1.1	.2	3930 21
22	13.7	-3.4	5.2	172	.3	.9	330	3.2	SSE	58	-3.0	0.0	3315 22
23	14.3	2.6	8.5	144	2.5	2.5	158	8.3	SE	22	-10.5	0.0	1335 23
24	13.0	8.1	10.6	125	3.6	3.7	126	8.3	SE	26	-7.7	0.0	1070 24
25	12.7	4.9	8.8	212	.1	1.4	124	5.7	WNW	52	-.7	.4	3105 25
26	12.3	-1.6	5.4	185	.3	1.0	319	4.4	SSE	68	.4	0.0	3175 26
27	12.2	-1.0	5.6	189	.4	.9	276	3.2	SSE	66	-1.0	0.0	2350 27
28	12.8	2.6	7.7	138	.6	.9	131	6.3	SE	53	-1.3	0.0	1120 28
29	19.7	6.4	8.6	336	.4	.9	211	4.4	WNW	67	2.8	24.8	530 29
30	12.6	3.2	7.9	143	1.9	2.1	146	10.8	SE	65	1.1	4.2	1385 30
MONTH	16.9	-3.4	7.3	144	.6	1.2	146	10.8	SSE	48	-1.4	52.6	92056

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 10.2
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 9.5
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 10.8
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 7.6

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

FIGURE B.22

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA WEATHER STATION
September, 1984

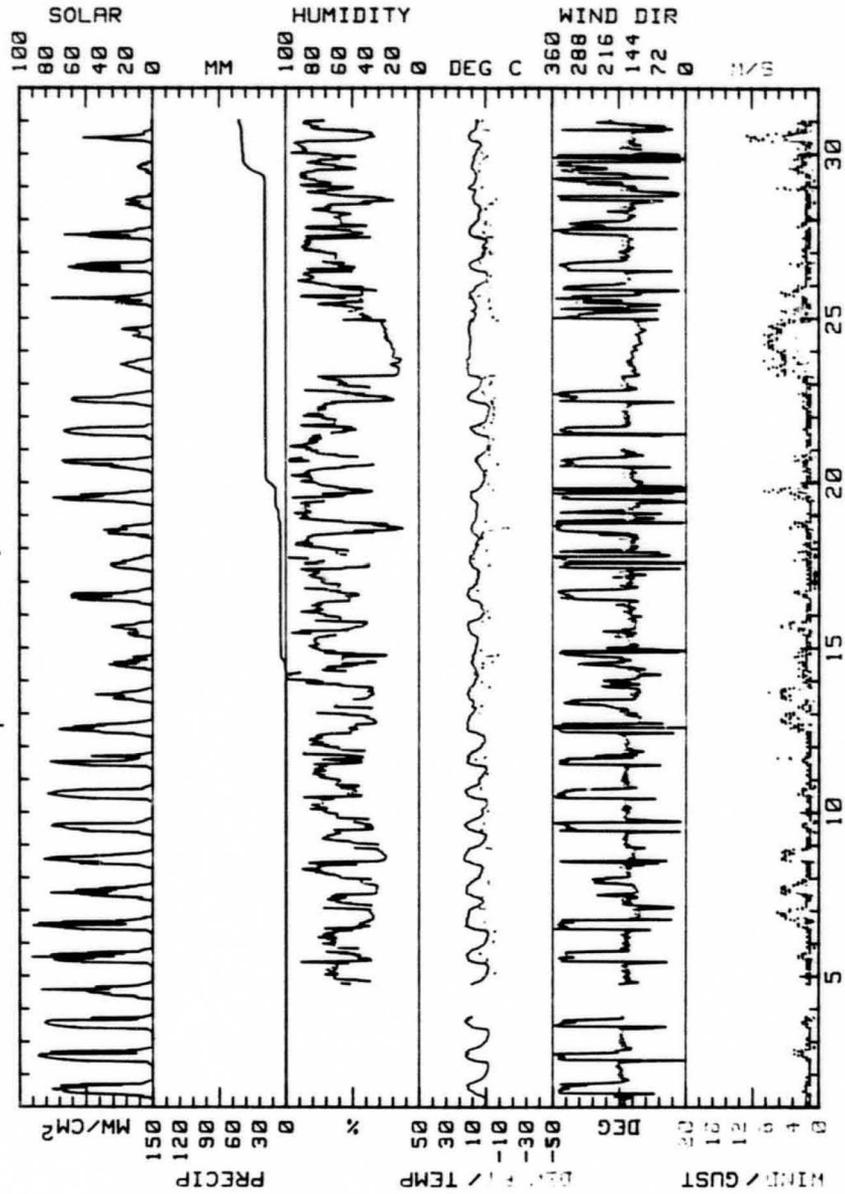


TABLE B.23

R & M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING October, 1984

DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	PVAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY KWH/SQ M
1	12.8	4.9	8.9	127	1.5	1.8	142	6.3	SE	58	2.1	.2	1920
2	12.6	6.3	9.5	134	2.4	2.6	128	7.6	SE	46	-1.1	.4	2780
3	12.2	-2.5	4.9	160	.8	1.1	167	5.1	SSE	52	-2.9	0.0	2670
4	10.0	-4.9	2.6	176	.4	.9	152	2.5	SSE	62	-6.0	0.0	2900
5	11.6	.7	6.2	156	1.1	1.6	121	7.6	S	46	-2.5	.6	1330
6	11.8	2.6	7.2	133	1.8	1.9	109	7.6	SE	56	.2	.2	1750
7	7.6	3.6	5.2	183	.1	.7	340	3.2	SSE	67	.3	.6	1305
8	1.7	2.1	3.4	078	.8	.9	346	3.8	SSE	72	-.8	11.6	500
9	6.8	-3.2	2.3	159	.4	.8	168	2.5	SSE	75	-1.6	0.0	2285
10	5.0	-3.7	.7	167	.7	.8	170	1.9	SSE	71	-6.1	0.0	1560
11	3.9	-4.7	-1.5	165	.7	.8	165	2.5	SSE	71	-4.7	1.0	1150
12	7.0	-3.5	1.8	176	.4	.8	145	2.5	SSE	59	-5.3	0.0	2365
13	6.0	-5.5	.3	181	.6	.9	160	2.5	SSE	63	-6.3	0.0	2380
14	2.9	-7.5	-2.3	306	.3	1.0	336	3.2	SSE	66	-8.4	0.0	2295
15	3.4	-8.5	-2.6	168	.5	.9	183	2.5	SSE	67	-9.2	0.0	1295
16	6.1	-7.5	-.7	172	.9	1.0	159	2.5	SSE	64	-9.6	0.0	2255
17	4.8	-9.9	-2.6	168	1.0	1.1	175	3.2	SSE	56	-12.8	0.0	2385
18	2.4	-10.3	-4.0	168	.9	1.0	158	3.2	SSE	63	-12.9	0.0	1185
19	4.0	-4.0	0.0	161	.6	.8	173	2.5	SSE	59	-8.2	0.0	775
20	1.8	-.8	.5	162	.5	.5	181	1.9	SSE	**	*****	1.6	595
21	9.9	-.1	4.9	351	.4	1.9	161	9.5	WNW	67	-1.5	7.2	930
22	11.3	1.9	6.6	139	3.6	4.7	148	13.3	SSE	55	-1.3	6.4	935
23	1.7	-6.0	-2.2	352	.3	1.4	019	4.4	WNW	76	-4.2	2.6	775
24	-1.4	-9.2	-5.3	175	.8	.9	167	2.5	S	72	-10.5	0.0	960
25	.1	-10.9	-5.4	157	1.1	1.1	168	3.2	SSE	67	-12.4	0.0	1545
26	-1.1	-12.7	-6.9	170	1.0	1.1	***	3.2	SSE	67	-14.1	0.0	1560
27	-1.0	-13.3	-7.2	178	.9	1.1	***	2.5	S	69	-13.8	0.0	1485
28	-.6	-13.9	-7.3	182	1.0	1.1	187	2.5	S	69	-14.8	0.0	1430
29	-2.4	-16.7	-9.6	285	.6	1.1	***	2.5	W	66	-17.5	0.0	1370
30	-.3	-12.0	-6.2	248	.3	1.1	338	4.4	S	65	-11.3	0.0	795
31	5.0	-8.6	-1.5	142	2.1	2.3	139	7.0	SE	39	-10.2	0.0	940
MONTH	12.8	-16.7	.0	148	.8	1.3	148	13.3	SSE	62	-6.9	32.6	48315

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 5.7
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 9.5
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 9.5
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 9.5

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

FIGURE B.23

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA WEATHER STATION
October, 1984

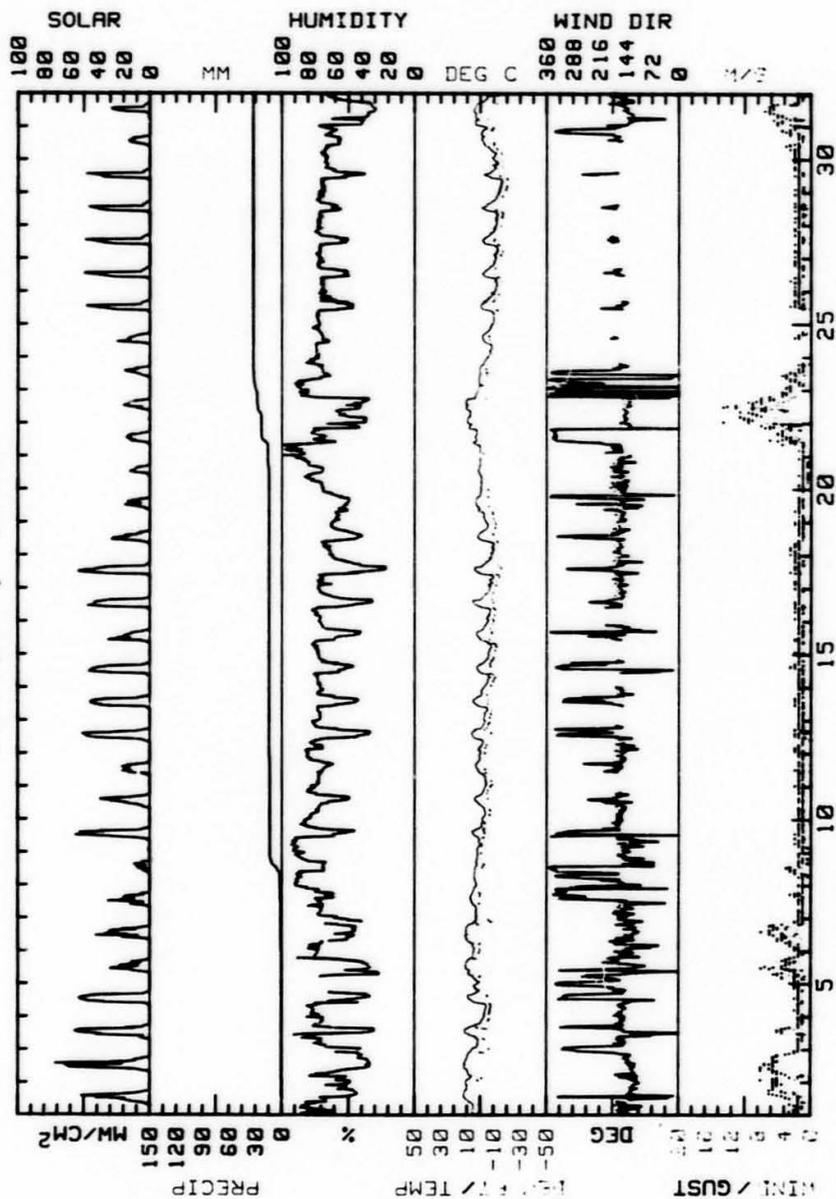


TABLE B.24

R & M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKUTNA WEATHER STATION
DATA TAKEN DURING November, 1984

DAY	MAX.	MIN.	MEAN	RES.	RES.	AVG.	MAX.	MAX.	P'VAL	NEAR	NEAR	PRECIP	DAYS	
	TEMP.	TEMP.	TEMP.	WIND	WIND	WIND	GUST	GUST						
	DEG C	DEG C	DEG C	DIR.	SPD.	SPD.	DIR.	SPD.	DIR.	RH	DP	MM	SOLAR	
				DEG	M/S	M/S	DEG	M/S	%	DEG C		WH/SOH	DAY	
1	-1.5	-13.7	-7.6	167	1.1	1.1	159	2.5	SSE	67	-15.0	****	1205	1
2	-4.3	-15.1	-9.7	167	1.1	1.1	169	2.5	SSE	68	-18.1	****	1032	2
3	-2.2	-13.7	-8.0	165	1.2	1.2	169	3.2	SSE	62	-15.6	****	1210	3
4	-1.2	-13.4	-7.3	168	1.1	1.1	170	3.2	SSE	66	-11.0	****	1110	4
5	6.5	-4.2	1.2	106	.4	1.7	121	7.0	NNW	53	-6.7	****	395	5
6	3.7	-1.3	1.2	145	.2	.9	023	3.2	SSE	58	-5.8	****	965	6
7	1.3	-5.9	-2.3	149	.2	.8	116	3.2	SSE	63	-5.9	****	425	7
8	-1.8	-12.5	-7.2	162	.8	.9	150	1.9	SSE	70	-13.6	****	490	8
9	-6.9	-15.4	-11.2	167	1.0	1.0	170	1.9	SSE	68	-16.8	****	670	9
10	-6.8	-15.7	-11.3	168	1.0	1.0	169	2.5	SSE	69	-17.2	****	470	10
11	-8.8	-18.6	-13.7	162	1.1	1.1	177	3.2	SSE	68	-19.3	****	685	11
12	-12.2	-21.4	-16.8	165	1.2	1.2	160	2.5	SSE	66	-22.1	****	590	12
13	-12.9	-22.5	-17.7	166	1.2	1.2	179	2.5	SSE	64	-23.8	****	470	13
14	-4.5	-21.1	-12.8	222	.2	1.3	334	4.4	SSE	64	-17.8	****	295	14
15	-2.7	-6.8	-4.8	323	.2	1.3	337	5.1	SSE	63	-11.2	****	365	15
16	-4.1	-11.4	-7.8	167	.9	.9	167	2.5	SSE	72	-12.1	****	355	16
17	-3.3	-11.3	-7.3	168	.8	.8	167	2.5	SSE	71	-10.8	****	365	17
18	-5.6	-10.3	-8.0	169	.8	.9	160	2.5	SSE	72	-12.4	****	165	18
19	6.3	-12.3	-3.0	157	1.8	1.9	154	12.1	SSE	52	-9.9	****	300	19
20	6.4	2.4	4.4	150	4.5	4.9	144	14.6	SE	54	-4.8	****	130	20
21	6.0	-.2	2.9	135	1.2	1.6	134	9.9	SE	59	-3.9	****	65	21
22	.1	-7.9	-3.9	***	****	.6	***	1.9	***	82	-4.7	****	95	22
23	-2.4	-5.9	-4.2	***	****	.6	***	2.5	***	71	-3.1	****	115	23
24	-4.2	-7.5	-5.9	***	****	.9	***	3.2	***	71	-9.5	****	55	24
25	-7.7	-18.6	-13.2	***	****	.9	***	2.5	***	70	-18.4	****	100	25
26	-10.8	-18.9	-14.9	***	****	.8	***	2.5	***	68	-21.1	****	70	26
27	-10.5	-15.3	-12.9	***	****	.8	***	1.9	***	70	-16.5	****	80	27
28	-6.1	-12.0	-9.1	***	****	.6	***	1.9	***	72	-15.1	****	85	28
29	-7.0	-13.4	-10.2	***	****	.5	***	1.9	***	73	-13.1	****	85	29
30	2.7	-18.5	-3.9	***	****	.6	***	5.1	***	72	-7.6	****	115	30
MONTH	6.5	-22.5	-7.5	160	1.0	1.1	144	14.6	SSE	65	-13.0	****	12567	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 7.6
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 12.1
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 13.3
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 12.1

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

FIGURE B.24

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA WEATHER STATION
November, 1984

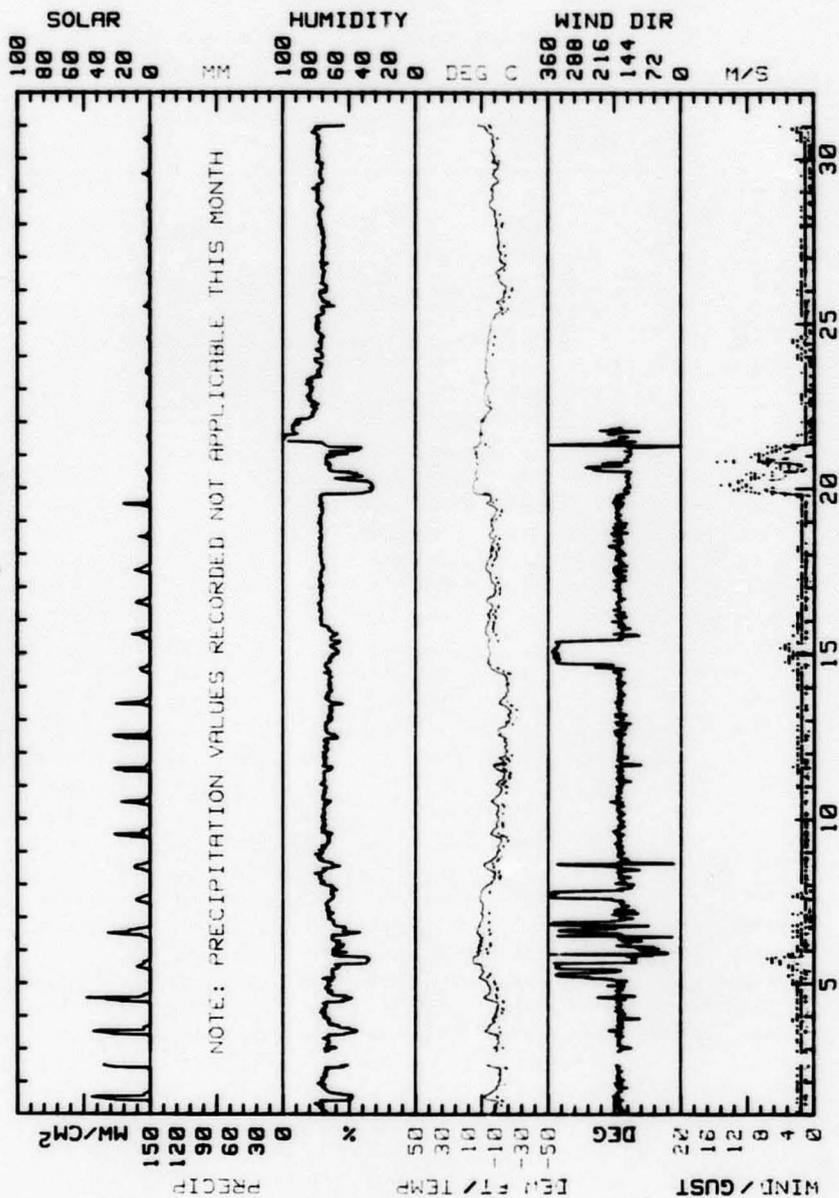


TABLE B.25

R & M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUINA WEATHER STATION
DATA TAKEN DURING December, 1984

DAY	MAX.	MIN.	MEAN	RES.	RES.	AVG.	MAX.	MAX.	P'VAL	MEAN	MEAN	PRECIP	DAY'S	
	TEMP.	TEMP.	TEMP.	WIND	WIND	WIND	GUST	GUST		RH	DP			ENERGY
	DEG C	DEG C	DEG C	DIR.	SPD.	SPD.	DIR.	SPD.	DIR.	%	DEG C	MM	WH/50M	
1	5.7	-9	2.4	139	3.2	3.3	148	8.9	SE	38	-8.9	****	370	1
2	5.1	-1	2.5	147	.9	1.6	126	7.0	SE	49	-8.0	****	145	2
3	7.9	-8	3.6	143	3.4	3.4	131	9.5	SE	56	-3.7	****	230	3
4	6.3	1.7	4.0	138	1.4	2.5	136	10.2	SE	75	.1	****	190	4
5	7.2	.7	4.0	143	2.2	2.6	133	10.8	SE	65	-7	****	160	5
6	1.8	-7.0	-2.6	150	.5	.6	121	1.9	SSE	95	-5.4	****	165	6
7	-3.5	-9.3	-6.3	152	.5	.7	356	3.8	SSE	92	-6.7	****	155	7
8	-3.6	-14.9	-9.3	339	.4	.7	004	3.8	NW	89	-5.6	****	15	8
9	-14.8	-17.7	-16.3	***	***	.6	***	1.9	***	85	-17.8	****	0	9
10	****	****	****	***	****	****	***	****	***	**	****	****	****	10
11	****	****	****	***	****	****	***	****	***	**	****	****	****	11
12	****	****	****	***	****	****	***	****	***	**	****	****	****	12
13	****	****	****	***	****	****	***	****	***	**	****	****	****	13
14	****	****	****	***	****	****	***	****	***	**	****	****	****	14
15	****	****	****	***	****	****	***	****	***	**	****	****	****	15
16	****	****	****	***	****	****	***	****	***	**	****	****	****	16
17	****	****	****	***	****	****	***	****	***	**	****	****	****	17
18	****	****	****	***	****	****	***	****	***	**	****	****	****	18
19	****	****	****	***	****	****	***	****	***	**	****	****	****	19
20	****	****	****	***	****	****	***	****	***	**	****	****	****	20
21	****	****	****	***	****	****	***	****	***	**	****	****	****	21
22	****	****	****	***	****	****	***	****	***	**	****	****	****	22
23	****	****	****	***	****	****	***	****	***	**	****	****	****	23
24	****	****	****	***	****	****	***	****	***	**	****	****	****	24
25	****	****	****	***	****	****	***	****	***	**	****	****	****	25
26	****	****	****	***	****	****	***	****	***	**	****	****	****	26
27	****	****	****	***	****	****	***	****	***	**	****	****	****	27
28	****	****	****	***	****	****	***	****	***	**	****	****	****	28
29	****	****	****	***	****	****	***	****	***	**	****	****	****	29
30	****	****	****	***	****	****	***	****	***	**	****	****	****	30
31	****	****	****	***	****	****	***	****	***	**	****	****	****	31
MONTH	7.9	-17.7	-3.0	142	1.5	1.9	133	10.8	SE	59	-6.3	****	1340	

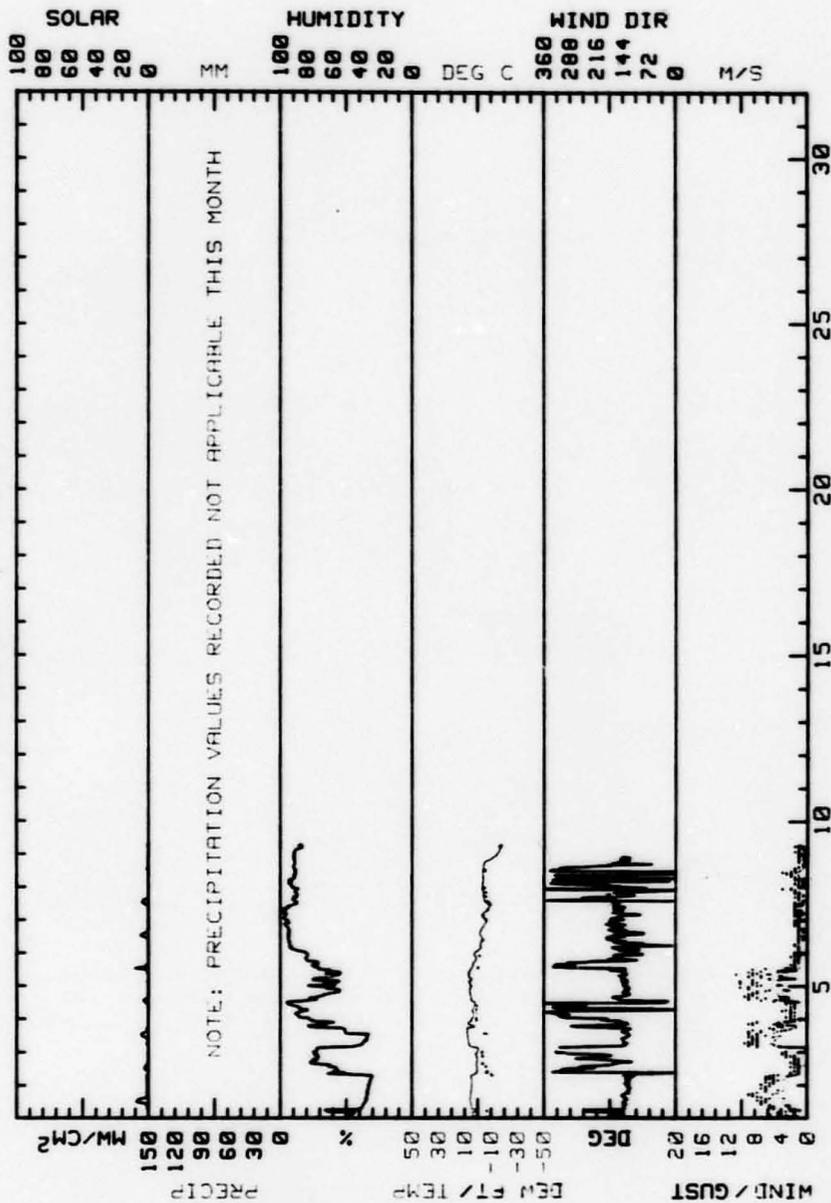
GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 7.0
 GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 8.3
 GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 7.6
 GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 8.3

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

FIGURE B.25

R&M CONSULTANTS, INC.
SUSITNA HYDROELECTRIC PROJECT
EKLUTNA WEATHER STATION
December, 1984



APPENDIX C

ICE OBSERVATIONS AND FIELD WEATHER OBSERVATIONS

Ice Conditions at Eklutna Lake - Winter of 1983-84

With the importance of the ice cover to the winter energy balance (and thus to the DYRESM modelling), special efforts were made to document the timing, extent, and characteristics of the lake freeze-up and breakup processes. Sources of information were field observations by R&M staff, Chugach State Park Rangers, and USGS personnel, and information published in an Anchorage newspaper. The following is a summary of freezeup and breakup lake observations.

The various field observations from the period of advanced fall overturn in November, through freeze-up and winter ice cover, to final disappearance of the lake ice in May are listed in Table 1. Important aspects worthy of note are:

- The temperature of outflow (at the powerhouse) first dropped to 4°C on November 22, 1983, indicating the water in the lake at the north end may have cooled sufficiently to begin cooling and freezing the surface water.
- The first ice on the lake was observed December 3 and December 4, 1983. A bridge had apparently formed across the narrow part of the lake near Station 10. Once the bridge forms, movement of surface waves along the lake is inhibited, which will enhance the freeze-up process.
- The north half of the lake was essentially ice covered on December 8, 1983. The south end was still open on December 9, 1983.
- The south half of the lake had developed its ice cover by December 12 - December 14, 1983.

- The ice thickness was approximately 30 cm at Station 15 on January 1, 1984.
- The snow on the lake melted during a rainy thaw period around January 12, 1984, but the surface had re-frozen solidly by January 16, 1984. The ice thickness on January 16, 1984 averaged 28 cm at 3 stations.
- The ice thickness on February 16 averaged 36 cm at 3 stations.
- Rain fell at the lake in early March.
- The March 23, 1984 ice thickness averaged 41 cm at 4 stations.
- The area near the power intake was the first to melt open, starting to lose its ice cover by April 15, 1984.
- The lake was still covered with ice and snow on April 20, 1984, but overflow and rainfall that day probably saturated all the snow and reduced its insulation effectiveness.
- The open area near the power intake had grown by May 6, 1984, and there may have been a continuous open lead up the whole length of the lake by then.
- The lake was completely open on May 17, 1984.

TABLE C.1
Summary of Eklutna Lake Ice Observations, Winter of 1983-84

Date	Source of Information	Description
11/01/83	R&M Field Trip	Lake profiles taken. Lake isothermal at 5-6°C (a little cooler at North end).
11/22/83	Ak Power Admin.	Outflow temperature first drops to 4°C (back up to 5°C the next day).
12/03/83	R&M Observation	No ice on lake as far as visible from north end except for small (180 m ²) free-floating piece. May be continuous ice cover further south, starting near Station 10. Ice along north shore in very small, local pockets. Ground at lake level is about 5% snow-covered, 100% snow-covered above 900 m level. Took photos.
12/04/83	R&M Observation	Ice in place along SW shore at 10:30 a.m. near Stations 11 and 12 but broken up by SE wind by 12:30 p.m. Climbed up hill to north of lake and observed ice bridge across lake near Station 10. Ice stayed intact through wind. Lake surface was open further south.
12/06/83	R&M Field Trip	Ice sheet across lake near Station 10 (see Figure 1). Area covered was about 50 ha. Ice thickness ranged from 3-10 cm,

TABLE C.1, cont.

		thicker further south. Water temperature ranged from 1.4° at the surface to 3.5°C at the bottom (21m) at Station 15. Later in the day, cold temperatures and calm winds allowed formation of a skim of ice on the southwest half of the open water from Station 10 to the northwest end of the lake. Noted that sun never shone on north half of lake at all (blocked by mountains). Took photos.
12/08/83	R&M Observation, QUADRA Surveyor	North half of lake is frozen completely except for 2 small open areas, one about 1 ha and the other about 100 m ² . Heard from surveyor working in the area that large area had frozen up since yesterday: a 30 m wide corridor along the northeast shore from the northwest tip of the lake to almost Station 11 (roughly 10 ha, total).
12/09/83	Chugach State Park (CSP)	Ranger returned from a glacier trip today. No ice at south end of lake. The north end is frozen.
12/12 - 12/14/83	CSP Ranger	Lake frozen completely, except at the edges (observation made sometime in 12/12-12/14 period).
12/17/83	Newspaper Report	Anchorage Daily News started weekly feature of reporting snow and weather conditions for local recreation areas Reports

TABLE C.1, cont.

		obtained from Chugach State Park rangers. Reported 20 cm snowfall this week, unknown accumulation after settling. Lake frozen but ice questionable.
12/24/83	Newspaper Report	Surface condition unknown, likely hardpack around lake. No new snow; accumulation about 4 cm. Lake partially frozen; use caution.
12/26/83	CSP Ranger	Snowmachines on lake, people running around. Two inches snow cover and surface hoar on lake.
12/31/83	Newspaper Report	No new snow in past week, accumulation about 4 cm. Lake partially frozen.
01/01/84	R&M Observation	Ice thickness = 30 cm near Station 15. Depth of snow and surface hoar frost on ice is 3-5 cm. Weather has been cold and calm the past few days. Freezing rain today, about -3°C. Noted transverse line of rough ice across lake between Stations 9 and 5 (which were both marked with buoys), probably due to ice being stacked up by wind and waves from the southeast prior to freeze-up.
01/03/84	USGS	Went up to maintain lake level recorder. Weather was very warm and quite windy. Quite a bit of overflow and lots of water on the ice.

TABLE C.1, cont.

01/05/84	CSP Ranger	Total snow accumulation of 20 cm.
01/12/84	R&M Field Trip	Strong, warm southeast wind over lake, air temperature = 6°C at 10:00 a.m. Much ponded water on lake and patches of open water along the shore. Took photos.
01/15/84	R&M Observation	Clear, calm, and very cold (-18°C at 5:00 p.m.). Sharp contrast to today's weather in Anchorage (which is wet, foggy, about 0°C all day). Eklutna had low-level fog over most of the lake. There was 10 cm of fresh, light snow on the lake, which had probably fallen yesterday (when it snowed in Anchorage also). No evidence of snow thawing after it fell. Skiers who went to near Station 10 or 9 reported no open water.
01/16/84	R&M Field Trip	Clear, calm and cold (0°F) at the lake. Ice thicknesses of 29 cm, 28 cm, and 24 cm at Stations 15, 9 and 5 respectively. Three inches of fresh, light snow at each station.
01/21/84	Newspaper Report	Lake well frozen, 5-9 cm snow over glare ice. Area open to snowmachines.
01/27/84	USGS	Lake frozen, about 5 cm snow on ice.
01/28/84	Newspaper Report	Six inches of powder remains on the lake.

TABLE C.1, cont.

02/04/84	Newspaper Report	Trace of new snow, 7-10 cm old snow on lake.
02/16/84	R&M Field Trip	Overcast, slight breeze, snowing, about 15°F. Ice thicknesses of 41 cm, 36 cm and 33 cm at Stations 15, 9, and 5, respectively. Snow depths (same order) were 9 cm, 24 cm, 28 cm. Encountered overflow 8-10 cm deep just to north of Station 5.
02/18/84	Newspaper Report	Settled powder, ski conditions good on the road. New snow data unavailable; base about 30-36 cm settled. Snowmachining good on the lake with areas of overflow at far end (south end) of lake.
02/25/84	Newspaper Report	Powder; skiing excellent. No new snow. Snowmachining excellent.
03/03/84	R&M Observation	Mostly clear sky, moderate south breeze, heavy clouds to south (over mountains and glaciers), 1°C. Sun shone on entire lake today from fairly high angle - probably has been shining onto whole lake for several weeks.
03/03/84	Newspaper Report	Trace of new snow, settled accumulation about 40 cm.
03/10/84	Newspaper Report	Hard-packed and icy. Rain in recent days. Settled accumulation about 20-25

TABLE C.1, cont.

		cm. Snowmachining discouraged on lake due to overflow.
03/23/84	R&M Field Trip	Clear sky, no wind all day, temperature = 3°C at 1445 AST at weather station. Ice thicknesses of 45 cm, 45 cm, 40 cm, and 35 cm at Stations 15, 9, 5, and 2, respectively. Lake clear of snow. All overflow on lake frozen. Lots of cracking of ice today. Lots of snow on hills above 600 m elevation, almost bare below 600 m.
04/15/84	R&M Observation	Lake still ice-covered except for open water area (approximately 100 m long, 50 m wide) next to shore at power plant intake and small open lead (approximately 2 m x 4 m) at mouth of stream flowing out of north end parking lot. Parking lot stream is still ice-covered. No snow or overflow on top of lake ice. Snow almost completely gone from hills around lake except on north-facing slopes. Ice thickness of 38 cm at Station 15. Weather: overcast but clearing at 10:30 a.m. Light and steady north wind, snow flurries, approximately 4°C.
04/20/84	R&M Field Trip	High overcast with 8-12 m/sec wind from southeast. It has snowed several nights this week already (storm on April 15 left 15 cm wet snow in the Anchorage bowl, up to 20 cm on Anchorage hillside. Anchorage weather today is snowing ,

TABLE C.1, cont.

calm, 0°C, 2 cm snow accumulated overnight). Weather at lake (weather station) at 1600 AST = overcast, light drizzle, light wind variable between southeast and northwest, temperature = 7.1°C. Encountered rain/sleet and strong southeast wind after that, which made snow on lake surface all wet.

Ice thicknesses of 36 cm and 34 cm at Stations 15, and 11, respectively. Lake has snow over entire surface but 1.5 km or so at south end has overflow within the snow - flow is apparently coming from mouth of stream or that vicinity.

05/06/84	R&M Observation	<p>Still mostly ice-covered, with large open-water area along NE shore up to near Station 10 (approximately 5 km long by 0.2 km = 1.0 square km). The rest of the ice on the lake is dark, obviously floating and saturated. Distinct difference in color between floating (dark) and grounded (white) ice. Weather: clear, calm, nearly dark at 10:00 p.m. AST, approximately 3°C. The open water along the shore is probably due to solar melting. The solar effects are probably stronger at the south end of the lake, so it may also be open.</p>
05/06/84	CSP Ranger	<p>Lake ice is pretty broken up - suspect there's open water continuous from end to end.</p>

TABLE C.1, cont.

05/17/84	R&M Field Trip	Lake complete open. Clear, sunny day, moderate breeze from northwest, air temperature approximately 15°C. Lake surface (water) temperature was 6-7°C, bottom temperature about 4°C.
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**Summary of Eklutna Lake Freeze-Up Observations
November through December, 1984**

Special efforts were again undertaken in the late fall of 1984 to observe ice formation on Eklutna Lake. All observations were taken by R&M personnel during lake profiling and ice observation trips.

- ° The first ice was observed on Eklutna Lake near the mouth of Eklutna Creek on November 12. Shelf ice had formed at the shore of the lake near the streams mouth and frazil collected in the immediate area. Water temperatures at the inflow stream previous week (11/9) ranged from 0.0 °C to 0.1 °C. Lake temperatures at sampling stations ranged from a low of 3.0 °C on the surface at Station 1 to 4.6 °C throughout Station 9.
- ° Drifting frazil ice covered approximately 8% of the lake surface during the profiling trip of November 26. The ice was confined mainly to the center of the of the lake between Stations 7 and 8 in the coves of the SW shore. The lake had overturned with bottom temperatures at around 3.5 °C, being warmer than those at the surface generally 2.5 °C.
- ° On November 30 the entire southern section of the lake had frozen comprising 75% of the lake surface area. The ice was thickest (12 cm near the shore) at the narrowest section, and thinner farther south (2 cm near the shore). Drifting ice was seen in the northern open section.
- ° A Chinook wind blew warm weather and rain into the area between November 30 and December 3. On December 3 the same areas of the lake were frozen as on November 30. No frazil ice was seen, and there was water over the ice on the southern section. Ice thickness measurements near the same location as the previous trip indicated that the ice was thicker at 3 cm.

- Falling temperatures and continued cold weather caused the lake to be 90% frozen by December 7. Large areas of drifting ice covered much of the northern end of the lake.
- By December 10 the lake was 99% frozen. The only open portion was an area approximately 4,000 square meters along 80 meters of the southern shore in the northern part of the lake.
- On December 14th the lake was 100% frozen.

Attached is a tabulation of weather observations made during field trips since the start of the glacial lake study at Eklutna Lake in May 1982.

Three types of observations are included in the list. The source of each observation is also identified in the list. The types are:

1. Observations by R&M crews during data-collection trips to the lake;
2. Notes by visitors to the cabin at the south end of the lake, transcribed from the cabin logbook; and
3. Observations made by USGS personnel during installation or maintenance of their lake level recorder since June 1983.

TABLE C.2
EKLUTNA LAKE WEATHER OBSERVATIONS
May 1982 Through January 1984

<u>Date</u>	<u>Time</u>	<u>Source</u>	<u>Observation</u>
5-16-82		2	Clear, calm, snow and ice on road
5-25-82		1	Cloudy
5-29-82		2	Windy from North
5-30-82		2	Clear
6-8-82		1	Clear, windy
6-10-82		2	Light rain, warm
6-12-82		2	Cloudy, high winds
6-17-82	1100	1	Partly sunny, light breeze from SE, 11.5°C
6-24-82		2	Clear, hot
6-25-82		1,2	Clear, calm, 60°F
7-1-82		1	Strong wind from SE, 55°F
7-9-82		1	Overcast, 55-60°F
7-14-82		1	Clear, wind from NW starting at 1245
7-15-82		1	Partly cloudy, calm in AM
7-20-82		2	Windy at noon, calm in PM
7-24-82		2	Raining
7-27-82		1	Clear, light NW wind, 70°F
7-28-82	0900	1	80 percent cloud cover, calm, 60°F
7-31-82		2	Clear, calm
8-5-82		2	Clear, calm
8-8-82		2	Intermittent rain and sun
8-10-82		1	Overcast, wind in afternoon, snow at 5000 ft
8-11-82		1	Overcast, rain all night stopped in AM, strong wind
8-12-82		1	Calm, 48-50°F in AM, SE breeze at noon, NW in evening
8-24-82		1	Partly cloudy, wind from NW
8-25-82		1	Overcast, calm, 15°C, light rain starting at noon.
8-29-82		2	Rain, snow in mountains
9-9-82	AM	1	Partly cloudy, calm 17°C
	1000	1	Clear, SE, wind, 19°C
9-18-82		2	Windy
9-19-82		2	Raining
9-21-82	AM	1	SE winds
	Noon	1	Calm, downpour
	evening	1	Clear, NW wind
9-30-82		2	Snow, wind

1) R&M field observations; 2) notes from cabin log at S end of lake.
3) USGS field notes.

TABLE C.2, cont.
 EKLUTNA LAKE WEATHER OBSERVATIONS
 May 1982 Through January 1984
 (cont')

<u>Date</u>	<u>Time</u>	<u>Source</u>	<u>Observation</u>
10-4-82		2	Calm, rainy
10-5-82		2	Clear, calm
10-8-82		1,2	6-10 inches new snow
10-9-82	0000- 1700	1	Snowing, 9 inches new snow, 33°F
10-14-82	AM	1	Snowing, slight wind from N, 0°C
	noon	1	Clearing, 2.4°C
10-30-82		2	Clear
10-31-82		2	22°F, 6-12 inches snow on ground, no ice on lake
11-1-82		2	Raining
11-3-82		2	Snowing, mid 20°, no ice on lake
11-4-82		1	Overcast, snow flurries, variable N breeze, 26°F
11-6-82		2	Overcast, some snow
11-7-82		2	Clear
11-23-82		2	Cloudy, 25°F, 6-10 inches snow on ground Thin layer of ice on lake
12-23-82		2	Clear, windy, -8°F
12-24-82		2	Partly cloudy
1-11-83		1	Clear, calm, cold, variable winds
1-15-83		2	Cloudy and mild
1-29-83		2	Clear and calm
2-11-83		2	-10°F
2-15-83		1	Clear, calm, -22°C
2-18-83		1	Overcast, calm, -6°C
2-20-83		2	Clear, calm
2-21-83		2	Partly sunny, 1" new snow
3-3-83		2	Clear, calm, 30°F
3-4-83		2	Clear
3-18-83		2	Clear, calm, 30+°F
3-22-83		2	Clear, 40°F
3-23-83		1	Clear, calm
3-27-83		2	Clear

1) R&M field observations; 2) notes from cabin log at S end of lake.
 3) USGS field notes.

TABLE C.2, cont.
 EKLUTNA LAKE WEATHER OBSERVATIONS
 May 1982 Through January 1984
 (cont')

<u>Date</u>	<u>Time</u>	<u>Source</u>	<u>Observation</u>
4-17-83		2	Overcast
4-24-83		2	Clear
5-8-83	AM	2	Few clouds, temperature 51°F
5-14-83	1045	1	Overcast, slight wind from S, 55°F
5-22-83		2	Rainy
5-27-83		2	Clear, windy
5-28-83		2	Windy
5-30-83		2	Overcast, drizzling
6-1-83	0830	1	Broken overcast, wind from N, 50°F
	1200	1	Clear, east wind
	1800	1	Clear, north wind
6-2-83		1	Overcast and drizzle, wind from N
6-4-83		2	Cloudy, cool
6-12-83		2	Cloudy
6-17-83		1,2,3	Clear and hot
6-18-83		2	Clear and hot
6-21-83		1,2	Clear and hot
6-22-83		2,3	Clear, windy
6-29-83		2	Windy
7-2-83		2	Light rain
7-5-83		1	Partly sunny, light N wind, 60°F
7-6-83	1100	1	Overcast, drizzle, 11°C
	1500	1	Rain stopped
7-9-83		2	Windy
7-24-83		2	Cloudy
8-2-83		1,3	Clear and calm
8-3-83	1000	1	Clear, calm
	1500	1	Wind from N
8-6-83		2	Light rain
8-19-83		2	Light rain
8-21-83	1340	2	Cloudy, occasional light rain, light winds, 58°F
8-22-83		2	Rained all night
8-23-83		3	Partly sunny, calm

1) R&M field observations; 2) notes from cabin log at S end of lake.
 3) USGS field notes.

TABLE C.2, cont.
 EKLUTNA LAKE WEATHER OBSERVATIONS
 May 1982 Through January 1984
 (cont')

<u>Date</u>	<u>Time</u>	<u>Source</u>	<u>Observation</u>
9-3-83		2	Cloudy, 50°F
9-4-83		2	Rainy, fog, 40°F
9-5-83		2	Nice day
9-7-83		1,2	Partly sunny, calm, 50°F
9-8-83		3	Cloudy, slight mist, drizzle
9-17-83		2	Sunny and glorious
9-27-83		2	Rainy evening
10-5-83	AM	1	Partly cloudy, high thin clouds, S wind, 40°
	1200	1	N breeze, 7.4°C
10-6-83	AM	1	Cloudy, rain changing to snow, wind from W, 40°F temperature dropped from 36 to 33°F between 0700 and 0800, stopped snowing and blowing at 0900. Clearing toward noon with slight breeze from W
11-1-83		1	Partly cloudy, calm, 10 inches new snow on ground
12-3-83		1	Clear, calm, 20°F
12-4-83		1	Overcast, wind from SE, 30°F
12-5-83		2,3	Clear, shore ice on lake, open in center
12-6-83		1	Clear, calm, 20°F
12-7-83		2	Clear
12-8-83	1145	1,2	Clear calm, 17°F at N end of lake northern ½ of lake almost 100% ice covered
12-9-83		2	Clear
12-10-83		2	Light snow last night, +6°F
12-21-83		2	Clear
12-22-83		2	Clear
12-26-83		2	Nice

1) R&M field observations; 2) notes from cabin log at S end of lake.
 3) USGS field notes.

TABLE C.2, cont.
 EKLUTNA LAKE WEATHER OBSERVATIONS
 May 1982 Through January 1984
 (cont')

<u>Date</u>	<u>Time</u>	<u>Source</u>	<u>Observation</u>
1-1-84	1145	1	Overcast, snowing, calm, 18°F
	1330	1	Raining, calm, 25°F, 2 inches snow at S end
	1530	1	Light drizzle, 26°F
1-6-84		2	Clear, cold
1-7-84		2	Clear, cold
1-12-84		1	Overcast, raining, strong SE wind, 42°F
1-15-84	1700	1	Clear, calm, 0°F at N end of lake
1-16-84	AM	1	Clear, calm, 0°F, 3 inches new snow
	1600	1	Overcast, calm
1-27-84		3	Lake frozen, about 2 inches snow on ice

1) R&M field observations; 2) notes from cabin log at S end of lake.
 3) USGS field notes.

R24/5 54

APPENDIX D

INFLOW WATER QUALITY DATA - EAST FORK AND GLACIER FORK

NOTE FOR DRAFT: Tables D.1 and D.2 are included for July 1984 only. Tables for other months (May, June, and August-November 1984) will be included in the final report.

TABLE D.1

EAST FORK

MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

A. INFLOW/OUTFLOW DATA
(East Fork)

Date	Time AST	Gage Height (ft)	Mean Daily Q (cfs)	Water Temp. (°C)	Conductivity @25°C (µmho/cm)	Secchi Disk (ft)	Instant Q (cfs)	Turbidity (NTU)	TSS (mg/l)	Remarks
7/3/84	1045	2.90	170	4.9	85	0.5	170	110	48	
7/6/84	0920	3.26	371	6.4	N/A	0.2	321	180	156	Temp at 1110 AST Secchi from LB d/s of bridge
7/10/84	1119	3.27	331	6.0	78	0.5	326	110	72.5	Temp, turb, TSS, Cond & Secchi from LB 10m d/s of bridge
7/13/84	1056	3.11	248	5.0	75	0.5	261	80	53	T=Tryan + 0.5°C
7/17/84	0953	3.06	235	4.6	76	0.5	227	82	50	
7/20/84	1600	3.08	223	6.1	75	0.8	235	98	45	
	1800	3.09		5.6	74	0.7	240	110	61	
	2000	3.09		5.6	73	0.7	240	110	64	
	2200	3.08		5.6	73	0.6	235	108	50	
	2400	3.07		5.0	73	N/A	231	108	50	
7/21/84	0200	3.06	261	5.0	74	N/A	227	105	45	
	0400	3.06		4.4	78	0.7	227	107	42	
	0545	3.06		4.4	78	0.7	227	83	38	
	0830	3.05		5.3	82	0.8	223	83	46	
	1030	3.07		6.4	71	0.7	231	91	45	
	1230	3.12		8.3	69	0.5	252	128	73	
	1430	3.16		8.9	69	0.5	271	155	102	
	1630	3.21		8.9	61	0.4	295	200	188	
7/24/84	1010	3.20	321	5.8	62	N/A	290	196	132	
7/27/84	1010	3.11	275	5.6	67	0.5	248	44	53	All cond. & turb. values for 8/27 & 8/31 are from Chem/Geo.
7/31/84	1025	3.16	280	6.1	56	0.6	271	50	58	

NOTE: Abbreviations used - N/A = Not Available, EF = East Fork, GF = Glacier Fork, TR = Tailrace, TSS = Total Suspended Solids, Chem/Geo = Chemical & Geological Laboratories of Alaska, Inc.

TABLE D.2
GLACIER FORK

MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUNNA LAKE

MONTH: July 1984

B. INFLOW/OUTFLOW DATA (Glacier Fork)

Date	Time AST	Gage Height (ft.)	Mean Daily Q (cfs)	Water Temp. (°C)	Conductivity @25°C (Umho/cm)	Secchi Disk (ft.)	Instant Q (cfs)	Turbidity (NTU)	TSS (mg/l)	Remarks
7/3/84	1120	3.94	356	1.4	34	0.2	356	580	514	
7/6/84	1610	4.54	597	1.6	N/A	0.2	647	430	568	
7/10/84	1226	4.46	603	N/A	55	0.2	622	500	572	
7/13/84	1207	4.23	480	N/A	49	0.2	490	430	417	
7/17/84	1050	4.07	417	0.9	44	0.3	412	220	248	
7/20/84	1640	4.16	431	0.8	35	0.4	455	220	264	
	1830	4.10		1.6	34	0.4	426	220	246	
	2030	4.15		1.6	34	0.4	450	230	216	
	2230	4.11		1.6	38	0.4	431	220	216	
7/21/84	0030	4.11	511	1.6	38	N/A	431	230	226	
	0230	4.10		1.6	38	N/A	426	250	213	
	0430	4.11		1.6	38	0.4	431	240	259	
	0610	4.12		1.6	41	0.4	436	210	263	
	0900	4.14		1.4	43	0.3	445	250	247	
	1100	4.21		1.9	39	0.3	480	260	293	
	1300	4.32		2.5	32	0.3	539	240	271	
	1500	4.35		2.5	30	0.3	526	260	313	
	1700	4.39		1.6	27	0.3	579	310	493	
7/24/84	1120	4.39	591	1.8	34	0.3	579	300	228	
7/27/84	1050	4.31	533	1.7	36	0.3	533	144	297	
7/31/84	1105	4.33	550	1.7	34	0.2	545	146	373	

NOTE: Abbreviations used - N/A = Not Available, EF = East Fork, GF = Glacier Fork, TR = Tail race, TSS = Total Suspended Solids, Chem/Geo = Chemical & Geological Laboratories of Alaska, Inc.

APPENDIX E
INFLOW QUANTITY DATA - EAST FORK AND GLACIER FORK

TABLE E.1
1983 EAST FORK MEAN DAILY DISCHARGE

Day	May		June		July		August		September		October	
	GH ft	Q cfs	GH ft	Q cfs	GH ft	Q cfs	GH ft	Q cfs	GH ft	Q cfs	GH ft	Q cfs
1			3.20	290	3.54	502	3.37	384	3.00	204	2.86	157
2			3.15	266	3.53	494	3.44	429	3.00	204	2.78	135
3			3.09	240	3.53	494	3.48	457	2.94*	183	2.70	115
4			3.00	204	3.59	541	3.56	517	2.88*	164	2.65	104
5			2.97	193	3.62	566	3.62	566	2.82*	146	2.63	100
6			3.05	223	3.62	566	3.54	502	2.76*	130	2.61	96
7			3.07	231	3.56	517	3.53	494	2.68	111		
8			3.11	248	3.55	509	4.03	1014	2.69	113		
9			3.09	240	3.48	457	3.65	592	2.68	111		
10			3.02	212	3.41	409	3.50	472	2.67	108		
11			3.03	215	3.37	384	3.38	390	2.64	102		
12			3.04	219	3.36	378	3.31	348	2.61	96		
13			3.03	215	3.40	403	3.26	321	2.61	96		
14	2.53	81	3.08	235	3.43	423	3.16	271	2.59	92		
15	2.54	83	3.10	244	3.47	450	3.05	223	2.56	86		
16	2.55	84	3.12	253	3.52	486	2.98	197	2.54	83		
17	2.5*	76	3.14	261	3.54	502	2.98	197	2.52	79		
18	2.6*	94	3.23	305	3.45	436	3.00	204	2.50	76		
19	2.6*	94	3.30	343	3.42	416	3.01	208	2.50	76		
20	2.6*	94	3.42	416	3.43	423	3.02	212	2.76	130		
21	2.7*	115	3.41	409	3.42	416	3.05	223	2.86	157		
22	2.7*	115	3.43	423	3.44	429	3.03	215	2.89	167		
23	2.6*	94	3.55	509	3.65	592	3.05	223	2.74	125		
24	2.8*	140	3.53	494	3.55	509	3.01	208	2.71	117		
25	2.7*	115	3.52	486	3.45	436	3.04	219	2.65	104		
26	2.9*	170	3.51	479	3.38	390	3.01	208	2.61	96		
27	3.0*	204	3.53	494	3.40	403	3.01	208	2.59	92		
28	3.1*	244	3.55	509	3.45	436	3.05	223	2.58	90		
29	3.3*	343	3.47	450	3.49	464	3.08	235	2.82	146		
30	3.3*	343	3.46	443	3.44	429	3.11	248	3.17	275		
31	3.45*	436			3.39	396	3.04	219				
Tot		2,925		9,749		14,256		10,427		3,759		707
Avg		162		325		460		336		125		118
Max		436		509		566		1,014		275		157
Min		81		193		378		197		76		96

* Estimated

TABLE E.2
1984 EAST FORK EKLUTNA CREEK
MEAN DAILY DISCHARGE (C.F.S.)

Day	May		June		July		August		September		October		Nov
	GH ft	Q cfs	GH ft	Q cfs	GH ft	Q cfs	GH ft	Q cfs	GH ft	Q cfs	GH ft	Q cfs	Q*
1			2.45	87	3.00	277	3.18	386	2.66	140	2.98	266	37
2			2.52	103	2.94	247	3.24	429	2.64	134	2.79	183	37
3			2.61	125	2.90	228	3.30*	476	2.63	131	2.68	146	37
4			2.67	143	2.98	266	3.38*	546	2.64	134	2.62	128	33
5			2.73	162	3.22	414	3.44*	603	2.64	134	2.59	120	38
6			2.81	191	3.35	519	3.46*	623	2.63	131	2.58	117	44
7			2.76	172	3.42	583	3.42*	483	2.62	128	2.56	112	39
8			2.74	165	3.36	527	3.38	546	2.63	131	2.57	115	35
9			2.79	183	3.34	510	3.43	593	2.61	125	2.52	103	35
10			2.80	187	3.28	460	3.32	493	2.61	125	2.48	94	32
11			2.79	183	3.22	414	3.28	460	2.61	125	2.46	89	30
12			2.80	187	3.17	379	3.22	414	2.60	123	2.44	85	27
13			2.84	203	3.14	359	3.16	372	2.63	131	2.41	80	25
14			2.82	195	3.11	340	3.15	365	2.80	187	2.39	76	25
15			2.78	179	3.09	327	3.19	392	2.81	191	2.37	72	25
16			2.79	183	3.11	340	3.24	429	2.66	140	2.36	71	25
17			2.82	195	3.08	321	3.23	421	2.62*	128	2.34	67	
18	2.43	83	2.90	228	3.07	316	3.27	452	2.56	112	2.33	66	
19	2.45	87	2.97	261	3.06	310	3.63	818	2.54	107	2.33	66	
20	2.47	92	3.06	310	3.05	304	3.40	564	2.48	94	2.32	64	
21	2.48	94	3.09	327	3.16	372	3.19	392	2.47*	92	2.32	64	
22	2.48	94	3.05	304	3.24	429	3.20	400	2.46	89	2.41	80	
23	2.45	87	3.06	310	3.26	444	3.17	379	2.43	83	2.38	74	
24	2.48	94	3.08	321	3.26	444	3.35	519	2.41*	80	2.33	66	
25	2.49	96	3.15	365	3.22	414	3.46	623	2.43*	83	2.29	59	
26	2.47	92	3.12	346	3.17	379	3.20	400	2.42	81	2.26	55	
27	2.46	89	3.01	282	3.17	379	2.99	271	2.40	78	2.25	54	
28	2.46	89	2.95	251	3.18	386	2.88	219	2.43	83	2.22	50	
29	2.47	92	3.06	310	3.18	386	2.82	195	3.45	613	2.20	47	
30	2.46	89	3.03	293	3.18	386	2.74	165	3.11	340	2.18	45	
31	2.42	81			3.20	400	2.70	152			2.16	42	
Tot		1,259		6,751		11,860		13,580		4,278		2,756	
Avg		90		225		383		438		143		89	
Max		96		365		583		818		613		266	
Min		81		87		228		152		78		42	

* Estimated

TABLE E.3
1983 GLACIER FORK MEAN DAILY DISCHARGE

Day	June		July		August		September		October	
	GH ft	Q cfs	GH ft	Q cfs	GH ft	Q cfs	GH ft	Q cfs	GH ft	Q cfs
1	3.15	130	4.08	417	4.31	533	-	-	3.16	132
2	3.08	118	4.11	431	4.32	539	-	-	3.06	114
3	2.94	96	4.18	465	4.44	609	-	-	2.95	97
4	2.78	74	4.3*	528	4.49	641	-	-	2.81	78
5	2.75	71	4.32	539	4.56	687	-	-	2.70	65
6	2.82	79	4.27	511	4.52	660	-	-	2.63	58
7	2.85	83	4.28	517	4.56	687	-	-		
8	2.92	93	4.28	517	5.16	1197	3.13	127		
9	2.95	97	4.23	490	5.03	1068	3.10	121		
10	2.93	94	4.13	440	4.86	915	3.08	118		
11	3.02	108	4.06	408	4.60	715	3.03	110		
12	2.96	99	4.05	403	4.48	635	2.96	99		
13	3.02	108	4.08	417	4.36	562	3.02	108		
14	3.08	118	4.23	490	4.12	436	2.87	86		
15	3.05	113	4.22	485	3.95	360	2.72	67		
16	3.06	114	4.27	511	3.83	314	2.62	57		
17	3.16	132	4.24	495	3.82	310	2.57	52		
18	3.36	174	4.23	490	3.82	310	2.52	48		
19	3.61	241	4.31	533	3.80	303	2.58	53		
20	3.72	275	4.34	550	3.85	321	2.88	87		
21	3.67	259	4.32	539	3.94	356	3.21	142		
22	3.71	272	4.37	567	3.89	336	3.13	127		
23	3.77	292	4.49	641	3.97	369	3.02	108		
24	3.83	314	4.47	628	3.94	356	2.88	87		
25	3.88	333	4.38	573	3.87	329	2.81	78		
26	3.94	356	4.32	539	3.76	289	2.78	74		
27	4.00	381	4.29	522	3.84	317	2.72	67		
28	3.98	373	4.38	573	3.85	321	2.63	58		
29	3.97	369	4.43	603	3.87	329	2.90	90		
30	3.99	377	4.33	545	-	-	3.63	247		
31			4.31	533	-	-	-	-		
Tot		5,743		15,900		14,804		2,211		544
Avg		191		513		510		92		91
Max		381		641		1,197		247		132
Min		71		403		289		48		58

* Estimated

No Record for May

TABLE E.4
1984 GLACIER FORK EKLUTNA RIVER
MEAN DAILY DISCHARGE (C.F.S.)

Day	May		June		July		August		September		October		Nov
	GH ft.	Q cfs	GH ft.	Q cfs	GH ft.	Q cfs	GH ft.	Q cfs	GH ft.	Q cfs	GH ft.	Q cfs	Q*
1			2.00	17	3.87	329	4.33	545	3.44	194	3.48	204	19
2			2.14	23	3.87	329	4.44	609	3.38	179	3.22	144	18
3			2.30	32	3.94	356	4.56	687	3.36	174	3.03	110	17
4			2.47	44	4.18	465	4.63	736	3.30	161	2.93	94	16
5			2.63	58	4.33	545	4.74	818	3.25	150	2.86	85	18
6			2.92	93	4.42	597	4.66	757	3.23	146	2.85	83	15
7			2.92	93	4.42	597	4.68	772	3.25	150	2.75	71	13
8			2.98	102	4.38	573	4.68	772	3.25	150	2.71	66	12
9			2.95	97	4.39	579	4.72	802	3.18	136	2.59	54	10
10			2.95	97	4.43	603	4.57	694	3.13	128	2.49	45	10
11			2.99	103	4.39	579	4.54	634	3.11	123	2.44	41	10
12			3.09	118	4.24	495	4.45	616	3.14	129	2.39	38	10
13			3.17	134	4.21	480	4.38	573	3.18	136	2.34	34	10
14			3.09	118	4.15	450	4.36	562	3.46	199	2.31	32	10
15			3.04	111	4.12	436	4.36	562	3.48	204		30*	
16			3.01	106	4.12	436	4.46	622	3.21	142		28*	
17			3.07	116	4.08	417	4.44	609	3.12	125		27*	
18		Gage Started	3.20	140	4.04	399	4.57	694	3.14	129		26*	
19	1.96	15	3.44	194	4.06	408	4.81	873	3.13	128		24*	
20	2.08	20	3.72	272	4.11	431	4.61	722	2.95	97		24*	
21	2.18	25	3.67	259	4.27	511	4.42	597	2.82	79		23*	
22	2.07	20	3.66	256	4.35	556	4.63	736	2.79	76		33*	
23	1.95	15	3.72	272	4.40	585	4.49	641	2.75	71		28*	
24	2.05	19	3.80	303	4.41	591	4.59	707	2.72	67	2.18	25*	
25	2.03	18	3.83	314	4.38	573	4.81	873	2.73	69		25*	
26	1.98	16	3.84	252	4.31	533	4.46	622	2.66	61	2.18	25*	
27	1.94	15	3.82	310	4.31	533	4.15	450	2.62	57		24*	
28	1.92	14	3.81	306	4.31	533	4.00	381	2.67	62		22*	
29	1.92	14	3.94	356	4.32	539	3.82	310	3.90	342		21*	
30	1.97	16	3.92	348	4.35	556	3.67	259	3.60	238	2.08	20*	
31	1.95	15			4.34	550	3.53	217				20*	
Tot		222		5,044		15,564		19,452		4,102		1,526	
Avg		17		168		502		627		137		49	
Max		25		356		603		873		342		204	
Min		14		17		329		217		57		20	

* Estimated

TABLE E.5
EKLUTNA LAKE
INFLOW DISCHARGE MEASUREMENTS

Date	East Fork		Glacier Fork	
	Discharge (cfs)	Stage (ft)	Discharge (cfs)	Stage (ft)
05/18/84	77	2.40	16	2.03
06/12/84	-	-	114	3.08
06/15/84	194	2.78	-	-
07/06/84	481	3.36	-	-
08/28/84	216	2.86	297	4.01
10/05/84	129	2.48	-	-
10/12/84	-	-	32	2.42
10/26/84	49	2.26	-	-
05/14/83	80*	2.53	14	-
06/01/83	295	3.23	126	3.15
07/05/83	500	3.58	-	-
08/02/83	-	-	589	4.45
05/25/83	70*	-	15*	2.87
06/08/82	220*	3.0	110	3.0
06/25/82	320	3.21	230	3.47
07/09/82	370	3.38	350*	3.61
07/29/82	770	2.80	800	4.75
08/12/82	260	3.16	300	3.75
09/25/82	-	-	117	3.16
10/08/82	-	-	75	2.3

Rating Curves:

$$\text{Glacier Fork 1982 - 1984 Discharge} = \frac{(\text{Stage})^{4.49256}}{1.06532} \quad R^2=0.99$$

$$\text{East Fork 1984 Discharge} = 0.5326 \text{ Stage}^{5.6914} \quad R^2=0.99$$

$$\text{East Fork 1982 - 1983 Discharge} = \frac{(\text{Stage})^{5.43243}}{1.12702} \quad R^2=0.99$$

*poor measurement, not used for rating curve.

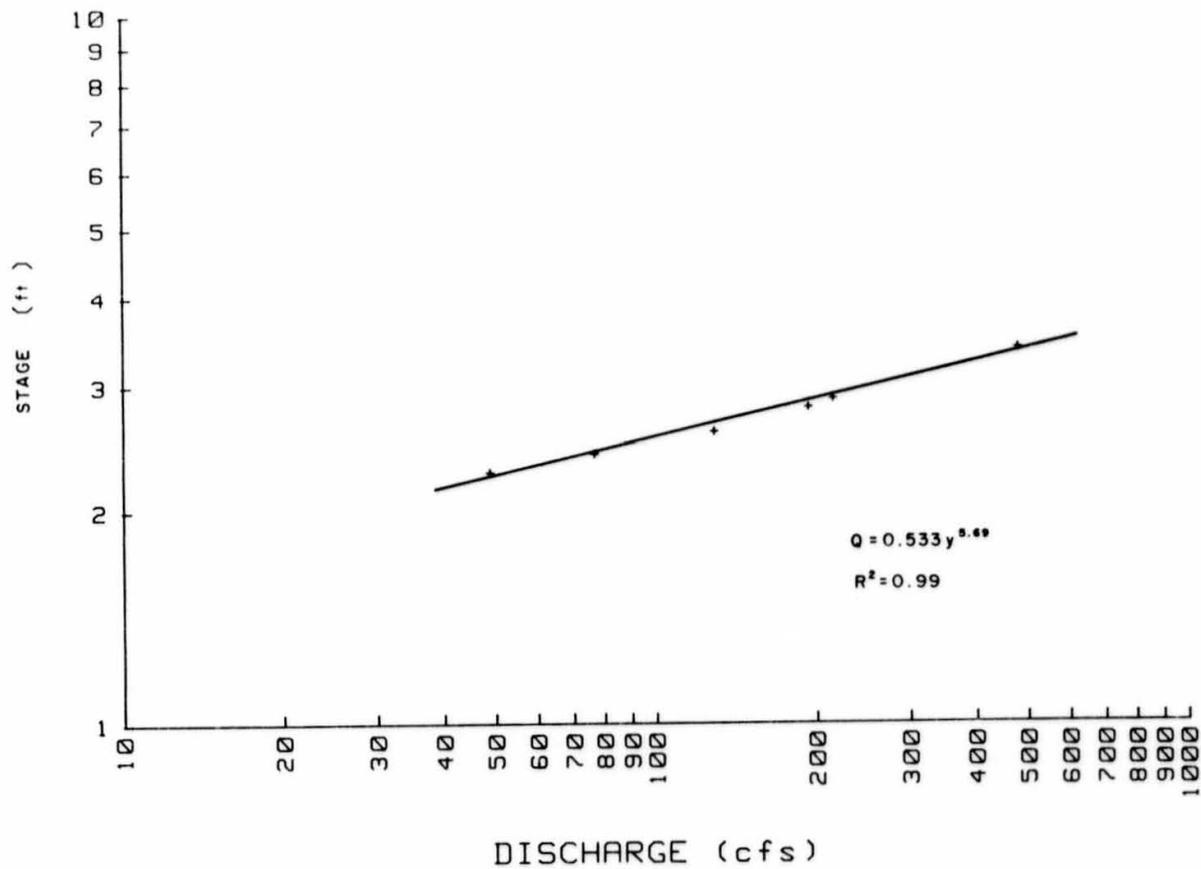


FIGURE E.1

PREPARED BY:

R&M
R&M CONSULTANTS, INC.
 ENGINEERS GEOLOGISTS HYDROLOGISTS SURVEYORS

**1984 EAST FORK DATA:
 STAGE
 vs.
 DISCHARGE RATING CURVE**

PREPARED FOR:

HARZA-EBASCO
 SUSITNA JOINT VENTURE

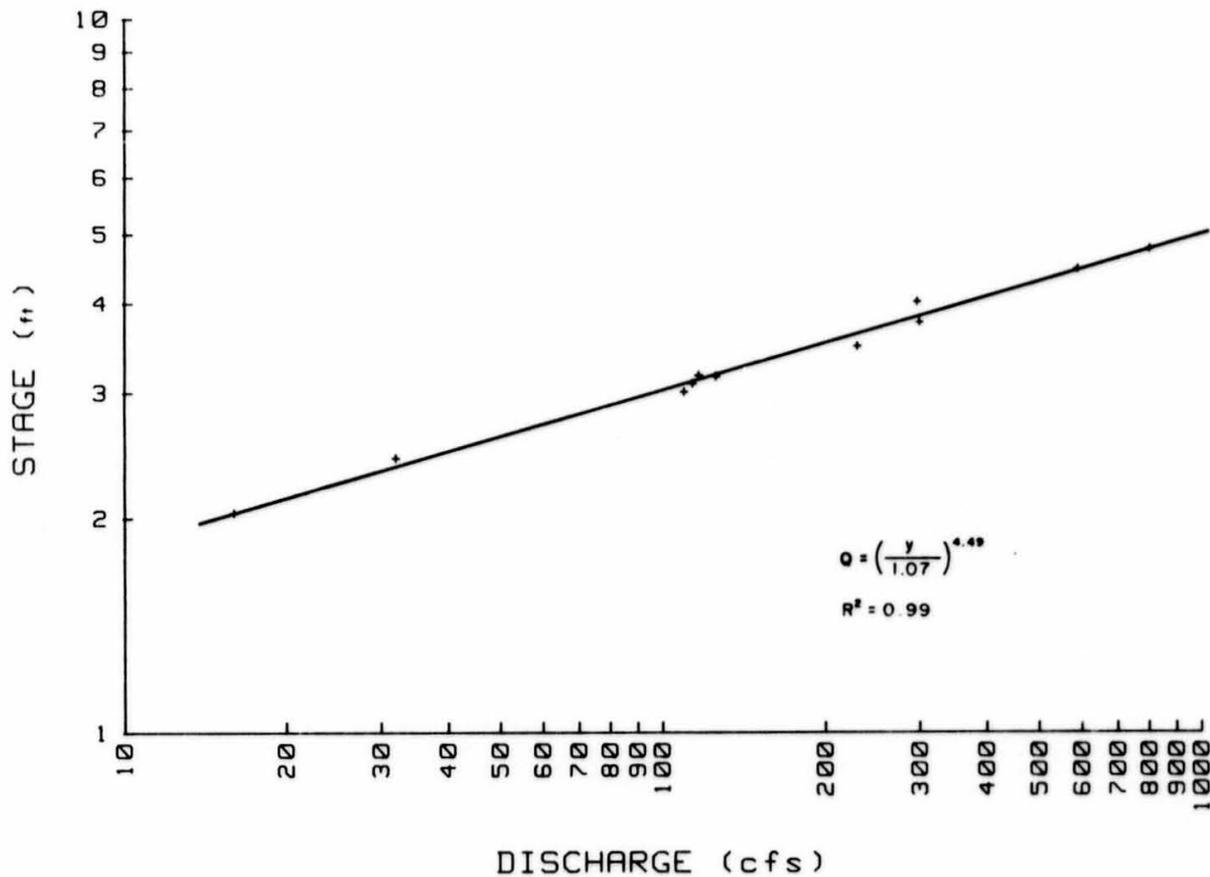


FIGURE E.2

PREPARED BY:

RSM

R&M CONSULTANTS, INC.

ENGINEERS GEOLOGISTS HYDROLOGISTS SURVEYORS

**GLACIER FORK DATA:
STAGE
vs.
DISCHARGE RATING CURVE**

PREPARED FOR:

HARZA-EBASCO

SUSITNA JOINT VENTURE

APPENDIX F

PARTICLE-SIZE DISTRIBUTIONS - EAST FORK,
GLACIER FORK, AND TAILRACE (1984)

TABLE F.1

PARTICLE SIZE ANALYSIS BY ELZONE METHOD—PARTICLE DATA LABORATORIES, LTD.
 115 MAHN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312)832-5658

CLIENT: R & M CONSULTANTS
 SAMPLE: EAST FORK 7/20/84

2000

5 SEP 84 :DATE
 8213 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4
 =====

INDICES

VOLUME MODE = 4.86 MEDIAN = 4.86 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 5.18 +/- 20.35 (393.15%) SKEWNESS = .02

ARITHMETIC VOLUME MEAN = 16.64 +/- 30.44 (182.91%) SKEWNESS = .39

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 239.90 MICRONS AND LARGER
 PERCENTILE: 01.0% OF VOLUME IS AT 155.55 MICRONS AND LARGER
 PERCENTILE: 06.0% OF VOLUME IS AT 71.32 MICRONS AND LARGER
 PERCENTILE: 22.0% OF VOLUME IS AT 17.83 MICRONS AND LARGER
 PERCENTILE: 50.0% OF VOLUME IS AT 4.86 MICRONS AND LARGER
 PERCENTILE: 78.0% OF VOLUME IS AT 1.45 MICRONS AND LARGER
 PERCENTILE: 94.0% OF VOLUME IS AT .43 MICRONS AND LARGER
 PERCENTILE: 99.0% OF VOLUME IS AT .14 MICRONS AND LARGER
 PERCENTILE: 99.9% OF VOLUME IS AT .06 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5
 =====

INDICES

COUNTS MODE = .05 MEDIAN = .08 MICRONS AND LARGER

GEOMETRIC COUNTS MEAN = .10 +/- .07 (74.81%) SKEWNESS = .59

ARITHMETIC COUNTS MEAN = .12 +/- .13 (112.77%) SKEWNESS = .49

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNTS IS AT 1.58 MICRONS AND LARGER
 PERCENTILE: 01.0% OF COUNTS IS AT .61 MICRONS AND LARGER
 PERCENTILE: 06.0% OF COUNTS IS AT .28 MICRONS AND LARGER
 PERCENTILE: 22.0% OF COUNTS IS AT .14 MICRONS AND LARGER
 PERCENTILE: 50.0% OF COUNTS IS AT .08 MICRONS AND LARGER
 PERCENTILE: 78.0% OF COUNTS IS AT .06 MICRONS AND LARGER
 PERCENTILE: 94.0% OF COUNTS IS AT .05 MICRONS AND LARGER
 PERCENTILE: 99.0% OF COUNTS IS AT .05 MICRONS AND LARGER
 PERCENTILE: 99.9% OF COUNTS IS AT .05 MICRONS AND LARGER

TABLE F.2

PARTICLE SIZE ANALYSIS BY ELZONE METHOD—PARTICLE DATA LABORATORIES, LTD.
115 HAWN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312)832-5658

CLIENT: R & H CONSULTANTS

18 NOV 84 :DATE

SAMPLE: E. FORK EKLUTNA CREEK 1030 8/28/84

8426 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4

INDICES

VOLUME MODE = 32.19 MEDIAN = 16.09 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 15.34 +/- 47.78 (311.60Z) SKEWNESS = -.35

ARITHMETIC VOLUME MEAN = 36.12 +/- 47.40 (131.25Z) SKEWNESS = .08

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1Z OF VOLUME IS AT 292.11 MICRONS AND LARGER
 PERCENTILE: 01.0Z OF VOLUME IS AT 213.16 MICRONS AND LARGER
 PERCENTILE: 06.0Z OF VOLUME IS AT 128.76 MICRONS AND LARGER
 PERCENTILE: 22.0Z OF VOLUME IS AT 56.76 MICRONS AND LARGER
 PERCENTILE: 50.0Z OF VOLUME IS AT 16.09 MICRONS AND LARGER
 PERCENTILE: 78.0Z OF VOLUME IS AT 4.29 MICRONS AND LARGER
 PERCENTILE: 94.0Z OF VOLUME IS AT 1.67 MICRONS AND LARGER
 PERCENTILE: 99.0Z OF VOLUME IS AT .73 MICRONS AND LARGER
 PERCENTILE: 99.9Z OF VOLUME IS AT .37 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5

INDICES

COUNTS MODE = .29 MEDIAN = .57 MICRONS AND LARGER

GEOMETRIC COUNTS MEAN = .63 +/- .55 (86.73Z) SKEWNESS = .63

ARITHMETIC COUNTS MEAN = .80 +/- .82 (101.33Z) SKEWNESS = .64

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1Z OF COUNTS IS AT 8.05 MICRONS AND LARGER
 PERCENTILE: 01.0Z OF COUNTS IS AT 3.78 MICRONS AND LARGER
 PERCENTILE: 06.0Z OF COUNTS IS AT 1.89 MICRONS AND LARGER
 PERCENTILE: 22.0Z OF COUNTS IS AT 1.01 MICRONS AND LARGER
 PERCENTILE: 50.0Z OF COUNTS IS AT .57 MICRONS AND LARGER
 PERCENTILE: 78.0Z OF COUNTS IS AT .37 MICRONS AND LARGER
 PERCENTILE: 94.0Z OF COUNTS IS AT .30 MICRONS AND LARGER
 PERCENTILE: 99.0Z OF COUNTS IS AT .29 MICRONS AND LARGER
 PERCENTILE: 99.9Z OF COUNTS IS AT .29 MICRONS AND LARGER

TABLE F.3

PARTICLE SIZE ANALYSIS BY ELZOME METHOD—PARTICLE DATA LABORATORIES, LTD.
 115 HAWK STREET - ELMHURST, IL. 60126 - TELEPHONE: (312)832-5658

CLIENT: R & M CONSULTANTS

18 NOV 84 :DATE

SAMPLE: E. FORK EKLUTNA CR 1130 10/23/84

8426 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4

INDICES

VOLUME MODE = 27.50 MEDIAN = 14.99 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 9.14 +/- 27.22 (297.72%) SKEWNESS = -.67

ARITHMETIC VOLUME MEAN = 17.45 +/- 15.15 (86.79%) SKEWNESS = -.66

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 65.40 MICRONS AND LARGER
 PERCENTILE: 01.0% OF VOLUME IS AT 57.43 MICRONS AND LARGER
 PERCENTILE: 06.0% OF VOLUME IS AT 44.29 MICRONS AND LARGER
 PERCENTILE: 22.0% OF VOLUME IS AT 29.99 MICRONS AND LARGER
 PERCENTILE: 50.0% OF VOLUME IS AT 14.99 MICRONS AND LARGER
 PERCENTILE: 78.0% OF VOLUME IS AT 2.43 MICRONS AND LARGER
 PERCENTILE: 94.0% OF VOLUME IS AT .66 MICRONS AND LARGER
 PERCENTILE: 99.0% OF VOLUME IS AT .53 MICRONS AND LARGER
 PERCENTILE: 99.9% OF VOLUME IS AT .51 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5

INDICES

COUNTS MODE = .51 MEDIAN = .61 MICRONS AND LARGER

GEOMETRIC COUNTS MEAN = .66 +/- .23 (35.25%) SKEWNESS = .63

ARITHMETIC COUNTS MEAN = .70 +/- .41 (59.04%) SKEWNESS = .46

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNTS IS AT 4.65 MICRONS AND LARGER
 PERCENTILE: 01.0% OF COUNTS IS AT 2.04 MICRONS AND LARGER
 PERCENTILE: 06.0% OF COUNTS IS AT 1.16 MICRONS AND LARGER
 PERCENTILE: 22.0% OF COUNTS IS AT .75 MICRONS AND LARGER
 PERCENTILE: 50.0% OF COUNTS IS AT .61 MICRONS AND LARGER
 PERCENTILE: 78.0% OF COUNTS IS AT .53 MICRONS AND LARGER
 PERCENTILE: 94.0% OF COUNTS IS AT .51 MICRONS AND LARGER
 PERCENTILE: 99.0% OF COUNTS IS AT .51 MICRONS AND LARGER
 PERCENTILE: 99.9% OF COUNTS IS AT .51 MICRONS AND LARGER

TABLE F.4
PARTICLE SIZE ANALYSIS BY ELZONE METHOD—PARTICLE DATA LABORATORIES, LTD.
115 MAHN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312)832-5658

CLIENT: R & H CONSULTANTS, INC.
SAMPLE: GLACIER FORK 7/20/84 1640

5 SEP 84 :DATE
8213 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4

INDICES

VOLUME MODE = 6.87 MEDIAN = 9.72 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 9.15 +/- 42.78 (467.69%) SKEWNESS = .05

ARITHMETIC VOLUME MEAN = 28.85 +/- 42.15 (146.09%) SKEWNESS = .52

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 285.28 MICRONS AND LARGER
PERCENTILE: 01.0% OF VOLUME IS AT 201.73 MICRONS AND LARGER
PERCENTILE: 06.0% OF VOLUME IS AT 109.99 MICRONS AND LARGER
PERCENTILE: 22.0% OF VOLUME IS AT 46.25 MICRONS AND LARGER
PERCENTILE: 50.0% OF VOLUME IS AT 9.72 MICRONS AND LARGER
PERCENTILE: 78.0% OF VOLUME IS AT 2.23 MICRONS AND LARGER
PERCENTILE: 94.0% OF VOLUME IS AT .56 MICRONS AND LARGER
PERCENTILE: 99.0% OF VOLUME IS AT .15 MICRONS AND LARGER
PERCENTILE: 99.9% OF VOLUME IS AT .06 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5

INDICES

COUNTS MODE = .05 MEDIAN = .08 MICRONS AND LARGER

GEOMETRIC COUNTS MEAN = .09 +/- .06 (70.47%) SKEWNESS = .59

ARITHMETIC COUNTS MEAN = .11 +/- .12 (111.11%) SKEWNESS = .47

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNTS IS AT 1.45 MICRONS AND LARGER
PERCENTILE: 01.0% OF COUNTS IS AT .56 MICRONS AND LARGER
PERCENTILE: 06.0% OF COUNTS IS AT .26 MICRONS AND LARGER
PERCENTILE: 22.0% OF COUNTS IS AT .13 MICRONS AND LARGER
PERCENTILE: 50.0% OF COUNTS IS AT .08 MICRONS AND LARGER
PERCENTILE: 78.0% OF COUNTS IS AT .06 MICRONS AND LARGER
PERCENTILE: 94.0% OF COUNTS IS AT .05 MICRONS AND LARGER
PERCENTILE: 99.0% OF COUNTS IS AT .05 MICRONS AND LARGER
PERCENTILE: 99.9% OF COUNTS IS AT .05 MICRONS AND LARGER

TABLE F.5

PARTICLE SIZE ANALYSIS BY ELZOME METHOD—PARTICLE DATA LABORATORIES, LTD.
115 HAWN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312)832-5658

CLIENT: R & M CONSULTANTS

1300 8

18 NOV 84 :DATE

SAMPLE: GLACIER FORK EKLUTNA CREEK 1990 10/28/84 8426 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4

INDICES

VOLUME MODE = 13.32 MEDIAN = 17.14 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 18.01 +/- 50.63 (281.07%) SKEWNESS = .09

ARITHMETIC VOLUME MEAN = 40.89 +/- 58.60 (143.29%) SKEWNESS = .47

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 400.29 MICRONS AND LARGER
 PERCENTILE: 01.0% OF VOLUME IS AT 292.11 MICRONS AND LARGER
 PERCENTILE: 06.0% OF VOLUME IS AT 155.55 MICRONS AND LARGER
 PERCENTILE: 22.0% OF VOLUME IS AT 53.29 MICRONS AND LARGER
 PERCENTILE: 50.0% OF VOLUME IS AT 17.14 MICRONS AND LARGER
 PERCENTILE: 78.0% OF VOLUME IS AT 6.25 MICRONS AND LARGER
 PERCENTILE: 94.0% OF VOLUME IS AT 2.14 MICRONS AND LARGER
 PERCENTILE: 99.0% OF VOLUME IS AT .89 MICRONS AND LARGER
 PERCENTILE: 99.9% OF VOLUME IS AT .44 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5

INDICES

COUNTS MODE = .37 MEDIAN = .65 MICRONS AND LARGER

GEOMETRIC COUNTS MEAN = .75 +/- .60 (79.96%) SKEWNESS = .64

ARITHMETIC COUNTS MEAN = .94 +/- .98 (104.54%) SKEWNESS = .58

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNTS IS AT 11.03 MICRONS AND LARGER
 PERCENTILE: 01.0% OF COUNTS IS AT 4.86 MICRONS AND LARGER
 PERCENTILE: 06.0% OF COUNTS IS AT 2.14 MICRONS AND LARGER
 PERCENTILE: 22.0% OF COUNTS IS AT 1.14 MICRONS AND LARGER
 PERCENTILE: 50.0% OF COUNTS IS AT .65 MICRONS AND LARGER
 PERCENTILE: 78.0% OF COUNTS IS AT .47 MICRONS AND LARGER
 PERCENTILE: 94.0% OF COUNTS IS AT .39 MICRONS AND LARGER
 PERCENTILE: 99.0% OF COUNTS IS AT .37 MICRONS AND LARGER
 PERCENTILE: 99.9% OF COUNTS IS AT .37 MICRONS AND LARGER

TABLE F.6

PARTICLE SIZE ANALYSIS BY ELZONE METHOD--PARTICLE DATA LABORATORIES, LTD.
115 HAWK STREET - ELMHURST, IL. 60126 - TELEPHONE: (312)832-5658

CLIENT: R & M CONSULTANTS

18 NOV 84 :DATE

SAMPLE: GLACIER FORK EKLUTNA CR 1420 10/23/84

8426 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4

INDICES

VOLUME MODE = 4.65 MEDIAN = 4.09 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 4.23 +/- 10.01 (236.70%) SKEWNESS = -.04

ARITHMETIC VOLUME MEAN = 8.73 +/- 11.84 (135.62%) SKEWNESS = .34

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 77.78 MICRONS AND LARGER
 PERCENTILE: 01.0% OF VOLUME IS AT 55.00 MICRONS AND LARGER
 PERCENTILE: 06.0% OF VOLUME IS AT 34.15 MICRONS AND LARGER
 PERCENTILE: 22.0% OF VOLUME IS AT 11.07 MICRONS AND LARGER
 PERCENTILE: 50.0% OF VOLUME IS AT 4.09 MICRONS AND LARGER
 PERCENTILE: 78.0% OF VOLUME IS AT 1.45 MICRONS AND LARGER
 PERCENTILE: 94.0% OF VOLUME IS AT .66 MICRONS AND LARGER
 PERCENTILE: 99.0% OF VOLUME IS AT .51 MICRONS AND LARGER
 PERCENTILE: 99.9% OF VOLUME IS AT .51 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5

INDICES

COUNTS MODE = .51 MEDIAN = .61 MICRONS AND LARGER

GEOMETRIC COUNTS MEAN = .69 +/- .29 (42.34%) SKEWNESS = .62

ARITHMETIC COUNTS MEAN = .75 +/- .45 (60.45%) SKEWNESS = .53

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNTS IS AT 5.30 MICRONS AND LARGER
 PERCENTILE: 01.0% OF COUNTS IS AT 2.54 MICRONS AND LARGER
 PERCENTILE: 06.0% OF COUNTS IS AT 1.33 MICRONS AND LARGER
 PERCENTILE: 22.0% OF COUNTS IS AT .82 MICRONS AND LARGER
 PERCENTILE: 50.0% OF COUNTS IS AT .61 MICRONS AND LARGER
 PERCENTILE: 78.0% OF COUNTS IS AT .53 MICRONS AND LARGER
 PERCENTILE: 94.0% OF COUNTS IS AT .51 MICRONS AND LARGER
 PERCENTILE: 99.0% OF COUNTS IS AT .51 MICRONS AND LARGER
 PERCENTILE: 99.9% OF COUNTS IS AT .51 MICRONS AND LARGER

TABLE F.7

PARTICLE SIZE ANALYSIS BY ELZONE METHOD--PARTICLE DATA LABORATORIES, LTD.
115 MAHN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312)832-5658

CLIENT: R & M CONSULTANTS

6 SEP 84 :DATE

SAMPLE: TAILRACE 7/21/84 2000

8213 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4
=====

INDICES

VOLUME MODE = .71 MEDIAN = 1.15 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 1.58 +/- 3.37 (212.46%) SKEWNESS = .26

ARITHMETIC VOLUME MEAN = 4.39 +/- 12.08 (275.15%) SKEWNESS = .30

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 119.15 MICRONS AND LARGER
PERCENTILE: 01.0% OF VOLUME IS AT 73.74 MICRONS AND LARGER
PERCENTILE: 06.0% OF VOLUME IS AT 13.39 MICRONS AND LARGER
PERCENTILE: 22.0% OF VOLUME IS AT 3.17 MICRONS AND LARGER
PERCENTILE: 50.0% OF VOLUME IS AT 1.15 MICRONS AND LARGER
PERCENTILE: 78.0% OF VOLUME IS AT .64 MICRONS AND LARGER
PERCENTILE: 94.0% OF VOLUME IS AT .47 MICRONS AND LARGER
PERCENTILE: 99.0% OF VOLUME IS AT .36 MICRONS AND LARGER
PERCENTILE: 99.9% OF VOLUME IS AT .29 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5
=====

INDICES

COUNTS MODE = .51 MEDIAN = .51 MICRONS AND LARGER

GEOMETRIC COUNTS MEAN = .53 +/- .23 (43.80%) SKEWNESS = .07

ARITHMETIC COUNTS MEAN = .57 +/- .26 (46.35%) SKEWNESS = .21

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNTS IS AT 3.06 MICRONS AND LARGER
PERCENTILE: 01.0% OF COUNTS IS AT 1.53 MICRONS AND LARGER
PERCENTILE: 06.0% OF COUNTS IS AT .91 MICRONS AND LARGER
PERCENTILE: 22.0% OF COUNTS IS AT .68 MICRONS AND LARGER
PERCENTILE: 50.0% OF COUNTS IS AT .51 MICRONS AND LARGER
PERCENTILE: 78.0% OF COUNTS IS AT .41 MICRONS AND LARGER
PERCENTILE: 94.0% OF COUNTS IS AT .30 MICRONS AND LARGER
PERCENTILE: 99.0% OF COUNTS IS AT .24 MICRONS AND LARGER
PERCENTILE: 99.9% OF COUNTS IS AT .20 MICRONS AND LARGER

TABLE F.9

PARTICLE SIZE ANALYSIS BY ELZOME METHOD—PARTICLE DATA LABORATORIES, LTD.
115 HAHN STREET - ELNHURST, IL. 60126 - TELEPHONE: (312)832-5658

CLIENT: R & M CONSULTANTS

18 NOV 84 :DATE

SAMPLE: EKUTNA POWER PLANT TAILRACE 900 10/23 8426 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4
=====

INDICES

VOLUME MODE = .51 MEDIAN = 3.75 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 4.03 +/- 13.82 (342.42%) SKEWNESS = .26

ARITHMETIC VOLUME MEAN = 10.58 +/- 13.89 (131.30%) SKEWNESS = .72

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 71.32 MICRONS AND LARGER
 PERCENTILE: 01.0% OF VOLUME IS AT 59.97 MICRONS AND LARGER
 PERCENTILE: 06.0% OF VOLUME IS AT 38.89 MICRONS AND LARGER
 PERCENTILE: 22.0% OF VOLUME IS AT 17.07 MICRONS AND LARGER
 PERCENTILE: 50.0% OF VOLUME IS AT 3.75 MICRONS AND LARGER
 PERCENTILE: 78.0% OF VOLUME IS AT .86 MICRONS AND LARGER
 PERCENTILE: 94.0% OF VOLUME IS AT .56 MICRONS AND LARGER
 PERCENTILE: 99.0% OF VOLUME IS AT .51 MICRONS AND LARGER
 PERCENTILE: 99.9% OF VOLUME IS AT .51 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5
=====

INDICES

COUNTS MODE = .51 MEDIAN = .58 MICRONS AND LARGER

GEOMETRIC COUNTS MEAN = .64 +/- .20 (31.02%) SKEWNESS = .66

ARITHMETIC COUNTS MEAN = .67 +/- .30 (44.60%) SKEWNESS = .54

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNTS IS AT 3.59 MICRONS AND LARGER
 PERCENTILE: 01.0% OF COUNTS IS AT 1.65 MICRONS AND LARGER
 PERCENTILE: 06.0% OF COUNTS IS AT 1.07 MICRONS AND LARGER
 PERCENTILE: 22.0% OF COUNTS IS AT .75 MICRONS AND LARGER
 PERCENTILE: 50.0% OF COUNTS IS AT .58 MICRONS AND LARGER
 PERCENTILE: 78.0% OF COUNTS IS AT .53 MICRONS AND LARGER
 PERCENTILE: 94.0% OF COUNTS IS AT .51 MICRONS AND LARGER
 PERCENTILE: 99.0% OF COUNTS IS AT .51 MICRONS AND LARGER
 PERCENTILE: 99.9% OF COUNTS IS AT .51 MICRONS AND LARGER

APPENDIX G

LAKE PROFILING DATA
JANUARY 1983-NOVEMBER 1984

TITLE: EKLUTNA LAKE
 DATE: JANUARY 13, 1983
 STATION NUMBER: 5
 STARTING TIME: 1230 (1305 THRU ICE)
 ENDING TIME: 1415
 SECCHI DISC: N/A
 SURFACE TEMP: 0.0
 LAKE DEPTH: 60.1

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	0.0				
1.0	0.16				18.0
2.0	0.62	40	86		
4.0	2.02				
6.0	2.67	49	83		
8.0	2.90	44	74		
10.0	3.12				
12.0	3.27	62	102		20.0
14.0	3.43				
16.0	3.60	72	119		
18.0	3.66				
20.0	3.67	82	135		
23.0	3.79				
24.0	3.81	88	145		16.5
28.0	3.94	90	145		
30.0	3.96				
32.0	3.97				24.0
36.0	3.98	93	150		
40.0	3.96				
44.0	3.93	99	159		
48.0	3.90	80	132		18.0
50.0	3.87	103	170		
52.0	3.88	105	173		18.0
54.0	3.83				
56.0	3.63	108	178		

!WEATHER MOSTLY CLEAR, COLD CALM TO LIGHT NORTH WIND
 !TURBIDITY RUN IN LAB 1 FEB 83, VALUES VARIED +/- 2NTU.
 !ICE THICKNESS 13", 1.5" SNOW
 !E0113E

TITLE: EKLUTNA LAKE
 DATE: January 13, 1983
 STATION NUMRER: 9
 STARTING TIME: 0920
 ENDING TIME: 1118
 SECCHI DISC:
 SURFACE TEMP: *
 LAKE DEPTH: *

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	0.00				
1.0	.02				21.0
2.0	.40	64	115 *		
4.0	2.02	64	108 *		
6.0	2.50	64	106 *		
8.0	2.82				
10.0	3.00				
12.0	3.21				20.0
14.0	3.35				
16.0	3.44	62	102 *		
18.0	3.55				
20.0	3.61	67	108 *		
22.0	3.69				
24.0	3.79	76	122 *		
26.0	3.81	93	150 *		
30.0	3.81				
32.0	3.82	101	163 *		22.5
34.0	3.83				
36.0	3.80	108	174 *		
38.0	3.80				
40.0	3.79				
44.0	3.66	112	180 *		
48.0	3.53	101	163 *		25.0
52.0	3.66	102	164 *		25.0
56.0	3.58				43.0
56.0	3.58	134	216 *		

!Cold, mostly clear, 1 Inch of snow on ice.
 !E01131

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUTNA LAKE
 DATE: JANUARY 11, 1983
 STATION NUMBER: 11
 STARTING TIME: 0920
 ENDING TIME: 1215
 SECCHI DISC: N/A
 SURFACE TEMP: 0.0
 LAKE DEPTH: 60.1

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0	0.0				
1	0.88				26
2	1.18				
3	1.48				
4.0	1.67				
6.0	2.22				
8.0	2.48				20
10.0	2.75				
12.0	2.82	66	90		
14.0	3.02				
16.0	3.17	76	104		23
18.0	3.29				
20.0	3.39				
22.0	3.46				
24.0	3.63				
26.0	3.64				
28.0	3.66				
30.0	3.55	104	146		54
32.0	3.53				19
34.0	3.51	105	148		
36.0	3.46	105	150		
38.0	3.44				
40.0	3.45	107	152		
44.0	3.59	109	154		
48.0	3.59				20.5
50.0	3.80	118	160		24
52.0	3.92	127	182		

WEATHER: CLEAR AND COLD, BRISK NORTH WIND
 ICE THICKNESS 17.5 INCHES, 0.75 INCHES SNOW ON TOP
 WATER SURFACE 2 INCHES BELOW ICE
 TURBIDITIES RUN IN LAB, JAN. 17, 1983, ALL HIGHLY VARIABLE, 17-5 NTU
 E0111K:HC,0,1

TITLE: EKLUTNA LAKE
 DATE: February 18, 1983
 STATION NUMBER: 5
 STARTING TIME: 1400
 ENDING TIME: 1550
 SECCHI DISC: N/A
 AIR TEMP: -7 C
 LAKE DEPTH: 58.3

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	0.54	108	157		
1.0	1.07	109	150		
2.0	1.57	108	142		
3.0	1.95	107	145		
4.0	2.17	105	166		
6.0	2.71	105	166		
8.0	2.93	103	161		
0.0	3.06	103	157		
2.0	3.18	103	170		
6.0	3.37	104	173		
8.0	3.52	99	169		9
0.0	3.56	99	165		9
2.0	3.60	94	162		9
4.0	3.67	95	163		
6.0	3.68	103	175		
8.0	3.68	105	168		
0.0	3.67	105	172		
4.0	3.64	105	168		
8.0	3.55	107	163		
2.0	3.45	107	163		
6.0	3.41	109	160		
0.0	3.40	109	164		
4.0	3.50	110	159		
8.0	3.52	111	154		
0.0	3.51	111	148		

Ice thickness: 20.5 inches

Partly sunny, Low clouds on Mitre, Mod. to brisk north wind.

E0218E

TITLE: EKLUTNA LAKE
 DATE: February 18, 1983
 STATION NUMBER: 9
 STARTING TIME: 1205
 ENDING TIME: 1345
 SECCHI DISC: N/A
 AIR TEMP: -6 C
 LAKE DEPTH: 58.3

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0	-0.09	106	117		
1.0	0.25	106	112		11
2.0	1.05	101	99		
4.0	1.98	95	89		
6.0	2.35	96	94		8
8.0	2.63	98	97		
10.0	2.91	103	122		
12.0	3.09	104	121		
14.0	3.32	103	120		
16.0	3.50	105	123		
18.0	3.64	104	125		
20.0	3.65	104	132		
22.0	3.68	104	134		
24.0	3.68	104	134		14
26.0	3.66	104	136		
28.0	3.64	104	136		
30.0	3.67	104	135		
34.0	3.60	106	137		
38.0	3.56	107	138		
42.0	3.56	107	139		
46.0	3.58	108	141		
50.0	3.59	109	142		11.5
52.0	3.73	109	143		
54.0	3.79	110	144		
58.0	3.86	114	150		

! BOTTOM @ 59 M.
 ! Mostly cloudy mod north breeze
 ! Ice thickness 21.5 inches
 ! E02181

TITLE: EKLUTNA LAKE
 DATE: FEBRUARY 18, 1983
 STATION NUMBER: 11
 STARTING TIME: 0850 (THRU ICE 1010AST)
 ENDING TIME: 1145
 ECCHI DISC: N/A
 SURFACE TEMP: 0.48
 LAKE DEPTH: 58.3

DEPTH meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	0.48				
1.0	1.17				11
2.0	1.54	88			
3.0	1.77				
4.0	1.99	90			
6.0	2.49	89			
8.0	2.82	93			
10.0	3.07	94			
12.0	3.23	96			
14.0	3.40	100			12
16.0	3.57	100			
18.0	3.66	101			
20.0	3.73	101			
22.0	3.75	101			
24.0	3.73	101			11
26.0	3.72	102			
28.0	3.69	102			
30.0	3.66	103			12.5
34.0	3.66	103			
36.0	3.67	104			12.5
38.0	3.74	104			
40.0	3.74	104			
44.0	3.84	106			
50.0	4.24	137			

BOTTOM
 WEATHER OVERCAST AIR TEMP -6 C. PARTLY SUNNY BY 1000, CALM.
 ICE THICKNESS 25 INCHES

TITLE: EKLUITNA LAKE
 DATE: May 14, 1983
 STATION NUMBER: 5
 STARTING TIME: 1820
 ENDING TIME: 2000
 SECCHI DISC: 4.7 ft.
 SURFACE TEMP: 4.2
 LAKE DEPTH: 51.7

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0	4.21		*	*	3
1	4.21				
2	4.19				
4	4.16				
6	4.18				
8	4.12				9
12	4.06				
16	4.05				
20	4.03				
24	3.96				8
28	3.83				
32	3.80				
40	3.73				8
48	3.41				

!Conductivity data is unreliable.
 !Overcast.
 !E0514E

TITLE: EKLUTNA LAKE
 DATE: May 14, 1983
 STATION NUMBER: 9
 STARTING TIME: 2040
 ENDING TIME: 2049
 SECCHI DISC: 4.9 ft.
 SURFACE TEMP: 4.4
 LAKE DEPTH: 51.7

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0	4.41	*	*	*	*
1	4.47				
2	4.5				
4	4.53				
6	4.51				
8	4.49				12
10	4.43				
12	4.35				
16	3.86				
20	3.76				
24	3.67				7
28	3.66				
32	3.67				
40	3.70				13
48	3.80				

(No conductivity available---data unreliable)
 !Calm,
 !E0514I

TITLE: EKLUTNA LAKE
 DATE: June 2, 1983
 STATION NUMBER: 2
 STARTING TIME: 1521
 ENDING TIME: 1535
 SECCHI DISC: 3.2 ft.
 SURFACE TEMP: 7.0
 LAKE DEPTH: 50.5

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0	7.04	*	*	*	*
1	7.04				
2	7.02				
4	7.00				
6	6.97				
7	6.88				
8	6.83				7
9	6.77				
10	6.75				
11	6.73				
12	6.72				
14	6.68				
16	6.50				
18	6.39				
20	6.23				11
22	6.15				
24	5.86				26
26	5.64				
28	5.30				
30	4.91				
32	4.79				
34	4.78				
36	4.74				
38	4.68				
40	4.72				12.5
44	4.67				
48	4.67				

!North wind, overcast, raining.
 !No conductivity available)
 !E0602B

TITLE: EKLUTNA
 DATE: June 2, 1983
 STATION NUMBER: 5
 STARTING TIME: 1555
 ENDING TIME: 1608
 SECCHI DISC: 3.0 ft.
 SURFACE TEMP: 6.1
 LAKE DEPTH: 50.5

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0	6.12	*	*	*	*
1	6.11				
2	6.09				
4	5.85				
7	5.83				
8	5.71				
10	5.67				
12	5.63				
14	5.57				
20	5.51				
24	5.41				
28	5.39				
32	5.33				
36	5.31				
40	5.14				
44	5.07				
48	5.01				

!Light N wind, misty, overcast.
 !No conductivity available>
 !E0602E

TITLE: EKLUTNA LAKE
 DATE: June 2, 1983
 STATION NUMBER: 7
 STARTING TIME: 1418
 ENDING TIME: 1447
 SECCHI DISC: 2.9 ft.
 SURFACE TEMP: 6.2
 LAKE DEPTH: 50.5

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TUREIDITY (NTU)
=====	=====	=====	=====	=====	=====
0	6.20	*	*	*	*
1	6.19				
2	6.18				
3	6.17				
4	6.17				
5	6.17				15
6	6.11				
7	5.58				
8	5.49				6
9	5.42				
10	5.39				
12	5.31				
14	5.22				
16	5.17				
18	5.12				
20	5.11				
22	5.08				
24	5.01				
26	4.99				14
28	4.96				
30	4.92				
32	4.85				
36	4.41				
40	4.47				
44	4.46				16
48	4.50				

!Moderate North wind, overcast, drizzle.
 !No conductivity available--data unreliable.
 !Main inlet channel temp. 6.2 deg Cel.
 !E0602G

TITLE: EKLUTNA LAKE
DATE: June 2, 1983
STATION NUMBER: 9
STARTING TIME: 1629
ENDING TIME: 1635
SECCHI DISC: 3.7 ft.
SURFACE TEMP: 6.2
LAKE DEPTH: 50.5

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0	6.18	*	*	*	*
2	6.14				
4	6.12				
6	6.10				
8	6.02				
10	5.96				
12	5.90				
16	5.56				
20	5.20				
24	5.01				
28	4.97				
32	4.92				
36	4.80				
40	4.70				
44	4.69				
48	4.69				

!Raining cats and dogs, slight N wind.
!E0602I

TITLE: EKLUTNA LAKE
 DATE: June 2, 1983
 STATION NUMBER: 11
 STARTING TIME: 1709
 ENDING TIME: 1719
 SECCHI DISC: 3.7
 SURFACE TEMP: 6.3
 LAKE DEPTH: 50.5

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0	6.28	*	*	*	15
2	6.27				
4	6.27				
6	6.27				
10	6.27				
12	6.27				
14	6.27				
20	6.23				
22	5.83				
24	5.70				
26	5.00				
28	4.88				
32	4.76				
36	4.65				
40	4.56				
44	4.56				

!Light Northerly breeze, overcast and raining.
 !E0602K

TITLE: EKLUTNA LAKE
 DATE: June 2, 1983
 STATION NUMBER: 10
 STARTING TIME: 1646
 ENDING TIME: 1654
 SECCHI DISC: 3.7 ft.
 SURFACE TEMP: 6.7
 LAKE DEPTH: 50.5

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0	6.66	*	*	*	*
2	6.65				
4	6.64				
6	6.63				
8	6.62				
10	6.60				
12	6.44				
13	6.20				
14	6.08				
16	5.60				
18	4.72				
20	4.53				
22	4.50				
24	4.42				
28	4.65				
32	4.67				

!Bottom at 32 m.
 !Overcast, raining, light N wind.
 !E0602J

TITLE: EKLUTNA LAKE
 DATE: June 2, 1983
 TITLE: EKLUTNA LAKE
 DATE: June 2, 1983
 STATION NUMBER: 13
 STARTING TIME: 1726
 ENDING TIME: 1735
 SECCHI DISC: 3.6 ft.
 SURFACE TEMP: 6.7
 LAKE DEPTH: 50.5

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0	6.66	*	*	*	*
2	6.66				
6	6.62				
8	6.60				
10	6.48				
11	6.00				
12	5.51				
13	5.38				
14	5.31				
16	5.15				
18	5.00				
20	4.90				
22	4.82				
24	4.78				
29	4.50				
32	4.48				

!Bottom at 32 m.
 !Overcast, raining, almost calm.
 !No conductivity available
 !E0602M

TITLE: EKLUTNA LAKE
DATE: June 2, 1983
STATION NUMBER: 15
STARTING TIME: 1740
ENDING TIME: 1743
SECCHI DISC: 3.5 ft.
SURFACE TEMP: 6.25
LAKE DEPTH: 50.5

.....

DEPTH (meter) =====	TEMP. (celsius) =====	CONDUCTIVITY (umho) =====	CORR. CONDUCT. (umho) =====	TRANSMISS. (%) =====	TURBIDITY (NTU) =====
0	6.25	*	*	*	*
2	6.11				
4	5.85				
6	5.75				

!Bottom at 7.0 m.

!Calm, overcast, raining

!E06020

TITLE: EKLUTNA LAKE
 DATE: July 6, 1983
 STATION NUMBER: 2
 STARTING TIME: 1057
 ENDING TIME: 1130
 SECCHI DISC: 2.2 ft.
 SURFACE TEMP: 14.3
 LAKE DEPTH: 51.9

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0	14.28			*	*
2	14.24				
4	13.94				
6	13.28				16
8	10.56				45
9	10.20				
10	9.93				44
11	9.65				
12	9.55				
14	8.68				
16	7.50				
18	6.68				
20	6.55				
22	6.36				
24	6.21				18.5
28	5.68				
32	5.67				
36	5.57				
40	5.53				
44	5.40				

!Bottom at 46.2 m.

!Air temp. 11.4, Misty.

!Main inlet channel temp. 3.70

!E0706B

TITLE: EKLUTNA LAKE
 DATE: July 6, 1983
 STATION NUMBER: 3
 STARTING TIME: 1213
 ENDING TIME: 1230
 SLOTTED DISC: 2.9 ft.
 SURFACE TEMP: 14.3
 LAKE DEPTH: 51.9 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
*	14.29	*	*	*	*
	14.25				
	13.7				
	12.16				
	11.64				
	11.08				73
	10.66				
	10.24				75
	9.98				
	9.22				
	8.65				
	7.98				
	6.61				
	6.30				
	6.14				
	5.98				
	5.84				
	5.54				
	5.23				

bottom at 39.6+/- m.
 no conductivity this station
 0706C

TITLE: EKLUTNA LAKE
 DATE: July 6, 1983
 STATION NUMBER: 5
 STARTING TIME: 1256
 ENDING TIME: 1310
 SECCHI DISC: 2.3 ft.
 SURFACE TEMP: 13.9
 LAKE DEPTH: 51.9

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0	13.91				
2	13.67				
4	13.30				
6	11.30				
8	10.00				
10	9.76				
12	9.25				
16	8.23				
20	6.5				
24	6.11				
28	5.67				
32	5.42				
36	5.28				
40	5.21				
44	5.02				
48	4.91				

!Bottom at 48.8 m.

!Conductivity not available--data unreliable.

!E0706E

TLE: EKLUTNA LAKE
 DATE: July 6, 1983
 STATION NUMBER: 7
 STARTING TIME: 1324
 ENDING TIME: 1335
 SUCCHI DISC: 2.1 ft.
 SURFACE TEMP: 14.0
 LAKE DEPTH: 51.9 m.

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=====
DEPTH      TEMP.      CONDUCTIVITY  CORR. CONDUCT.  TRANSMISS.  TURBIDITY
(meter)    (celsius)   (umho)        (umho)         (%)          (NTU)
=====
           14.0          *              *              *              *
           13.73
           13.23
           12.14
           10.24
            8.90
            8.21
            7.39
            6.35
            5.80
            5.57
            5.41
            5.16
            5.06
            4.94
            4.83
  
```

Bottom at 50.8 m.
 Conductivity not available.
 0706G

TITLE: EKLUTNA LAKE
 DATE: July 6, 1983
 STATION NUMBER: 9
 STARTING TIME: 1455
 ENDING TIME: 1508
 SECCHI DISC: 2.1 ft.
 SURFACE TEMP: 13.6
 LAKE DEPTH: 51.9

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0	13.65	*	*	*	*
2	13.17				
4	12.8				
6	11.00				
8	10.00				
10	9.63				
12	8.52				
16	7.34				
20	6.44				
24	6.03				
28	5.80				
32	5.47				
36	5.42				
40	5.26				
44	4.96				
48	4.88				

!Bottom at 49.6 m.

!Conductivity unavailable--data unreliable)

!Overcast, drizzle.

!E07061

TLE: EKLUTNA LAKE
 TE: July 6, 1983
 ATION NUMBER: 11
 ARTING TIME: 1535
 IDING TIME: 1544
 CCHI DISC: 1.9 ft.
 RFACE TEMP: 13.0
 KE DEPTH: 51.9

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
	12.91	*	*	*	*
	12.83				
	12.23				
	11.14				
	10.64				
	10.12				
	9.59				
	8.3				
	6.7				
	6.08				
	5.6				
	5.42				
	5.34				
	5.21				

bottom at 42.2 m.
 0706K

TITLE: EKLUTNA LAKE
 DATE: July 6, 1983
 STATION NUMBER: 13
 STARTING TIME: 1519
 ENDING TIME: 1530
 SECCHI DISC: 2.0 ft.
 SURFACE TEMP: 12.8
 LAKE DEPTH: 51.9 m

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=====
DEPTH          TEMP.          CONDUCTIVITY   CORR. CONDUCT.  TRANSMISS.     TURBIDITY
(meter)        (celsius)     (umho)         (umho)          (%)             (NTU)
=====
0              12.75         *              *               *              *
2              12.52
4              11.38
6              10.66
8              10.3
10             9.64
12             9.22
14             8.83
16             8.47
18             7.00
20             6.12
22             5.54
24             5.37
  
```

!Bottom at 32.3 m.
 Drizzle stopped at 1500.
 E0706M

TLE: EKLUTNA LAKE
TE: July 6, 1983
ATION NUMBER: 15
ARTING TIME: 1553
DING TIME: 1556
RFACE TEMP: 12.8
KE DEPTH: 51.9

=====

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
	12.80				
	12.56				
	12.44				
	12.09				
	11.80				

Bottom at 7.1 m.
07060

TITLE: EKLUTNA LAKE
 DATE: August 3, 1983
 STATION NUMBER: 2
 STARTING TIME: 1417
 ENDING TIME: 1440
 SECCHI DISC: 1.8 FT.
 SURFACE TEMP: 16.8
 LAKE DEPTH: 55.4 m.

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
2	16.53	102	117	*	*
4	16.18	101	117		
5	15.25	92	109		
6	14.37	96	117		
7	10.94	80	104		
8	10.47	72	94		
10	9.88	70	93		
12	9.22	69	94		
14	8.73	70	93		
16	8.42	68	93		
18	8.25	70	96		
20	7.8	75	106		
22	7.19	79	112		
24	6.64	80	116		
26	6.39	80	119		
28	6.2	80	118		
32	5.97	80	119		
36	5.91	80	119		
40	5.7	79	118		
44	5.6	79	118		
48	5.50	78	118		
52	5.40	80	122		

!Bottom at 50 m.
 !YSI S-C-T 17 deg., 104 Micromhos at surface.
 !E0803B

TITLE: EKLUTNA LAKE
 DATE: August 3, 1983
 STATION NUMBER: 5
 STARTING TIME: 1440
 ENDING TIME: 1500
 SURFACE TEMP: 16.9
 LAKE DEPTH: 55.4 m.

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0	16.92	97	111	*	*
1	16.06	93	108		
2	15.63	97	113		
3	15.38	95	111		
4	14.8	94	113		
5	12.89	90	113		
6	11.6	76	98		
7	11.02	71	95		
8	10.68	68	90		
9	10.41	70	92		
10	10.16	70	93		
12	10.16	70	93		
14	9.09	71	97		
16	8.8	71	98		
18	8.53	71	99		
20	7.83	76	108		
22	7.62	78	110		
22	7.62	78	110		
24	6.76	79	115		
26	6.39	79	116		
28	6.18	80	118		
32	5.96	79	118		
36	5.96	79	118		
40	5.72	79	118		
44	5.45	78	118		
48	5.22	78	119		
52	5.09	79	119		

!Bottom at 52.7 m)
 !Clear, calm, hot.
 !E0803E

TITLE: EKLUTNA LAKE
 DATE: August 3, 1983
 STATION NUMBER: 7
 STARTING TIME: 1505
 ENDING TIME: 1520
 SECCHI DISC: 2.0 ft.
 SURFACE TEMP: 17.2
 LAKE DEPTH: 55.4 m.

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0	17.19	98	112	*	*
1	16.1	98	113		
2	15.77	96	113		
3	15.51	96	112		
4	14.59	95	113		
5	12.63	88	112		
6	10.88	81	107		
7	10.15	76	102		
8	9.93	73	98		40
9	9.56	72	97		
10	9.33	73	100		46
12	9.02	72	99		
14	8.76	73	101		
16	8.24	75	104		
18	7.98	76	107		
20	7.76	77	108		
22	7.33	78	112		
24	6.85	79	115		
26	6.62	80	116		
28	6.45	80	116		
32	6.08	81	119		
36	5.75	79	118		
40	5.49	80	119		
44	5.4	80	119		
48	5.26	79	120		
52	5.1	79	120		
54	5.07	74	121		

!Bottom at 55.0 m.
 !Clear, Calm, Hot.

TITLE: EKLUTNA LAKE
 DATE: August 3, 1983
 STATION NUMBER: 9
 STARTING TIME: 1500
 ENDING TIME: 1515
 SURFACE TEMP: 16.00
 LAKE DEPTH: 55.4 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
	16.00	100	114	*	*
	15.94	99	115		
	15.49	99	116		
	15.18	99	116		
	15.09	98	115		
	13.53	97	118		
	11.42	89	113		
	10.37	79	105		
	10.23	78	102		
	10.06	77	102		
	9.76	76	103		
	9.18	76	103		
	8.73	76	104		
	8.39	79	108		
	8.06	80	112		
	7.43	82	117		
	7.03	82	117		
	6.79	83	118		
	6.55	83	119		
	6.32	84	121		
	6.12	83	121		
	5.96	82	122		
	5.87	83	122		
	5.67	83	121		
	5.64	82	122		
	5.55	83	122		
	5.17	83	123		

bottom at 53.2 m.
 and from North starting again.
 08031

TITLE: EKLOTNA LAKE
 DATE: August 3, 1983
 STATION NUMBER: 10
 STARTING TIME: 1626
 ENDING TIME: 1645
 SURFACE TEMP: 15.1
 LAKE DEPTH: 55.4 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0	15.09	99	115	*	*
1	15.03	98	115		
2	15.05	99	115		
3	14.97	98	115		
4	12.51	93	116		
5	12.09	89	112		
6	11.2	84	107		
7	10.95	81	105		
8	10.76	80	102		
9	9.8	79	103		
10	9.76	79	103		
12	9.5	80	105		
14	9.32	81	108		
16	8.98	81	109		
18	8.80	87	113		
20	7.8	85	117		
22	6.65	85	120		
24	6.03	85	124		
26	5.89	85	123		
28	5.76	85	124		
30	5.63	86	124		
32	5.51	85	124		
36	5.26	84	124		

!Bottom at 36.7 m.

E0803J

TITLE: EKLUTNA LAKE
 DATE: August 3, 1983
 STATION NUMBER: 11
 STARTING TIME: 1650
 ENDING TIME: 1705
 TIDY DISC: 1.9 ft.
 SURFACE TEMP: 15.22
 LAKE DEPTH: 55.4 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
	15.22	99	115	*	*
	15.07	98	115		
	14.27	99	117		
	13.6	97	117		
	12.66	96	117		
	12.16	93	116		
	11.29	90	114		
	10.44	85	109		
	10.32	80	104		
	10.05	80	104		
	9.69	80	106		
	9.50	81	106		
	8.92	86	114		
	8.44	85	116		
	8.00	84	116		
	7.30	85	119		
	7.08	86	120		
	6.75	86	122		
	6.39	86	124		
	6.06	85	123		
	5.96	85	124		
	5.79	86	124		
	5.68	85	125		
	5.63	86	125		

Bottom at 46.2 m.
 10803K
 Light North wind.

TITLE: EKLUTNA LAKE
DATE: August 3, 1983
STATION NUMBER: 15
STARTING TIME: 1715
ENDING TIME: 1720
SECCHI DISC: N/A
SURFACE TEMP: 13.74
LAKE DEPTH: 55.4 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0	13.74	93	117	*	*
2	13.40	96	117		
4	12.21	95	118		
6	11.47	90	114		
7	11.37	89	113		
9	10.82	86	111		

: Clear, calm, hot
!E08030

TLE: EKLUTNA LAKE
 DATE: September 7, 1983
 STATION NUMBER: 2
 STARTING TIME: 1600
 ENDING TIME: 1620
 WIND DISC: 3.0
 SURFACE TEMP: 12.29
 LAKE DEPTH: 60.1 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	12.29	72	95 *		
1.0	12.33	73	96 *		
2.0	12.00	73	96 *		
3.0	11.74	73	96 *		
4.0	11.46	73	99 *		
5.0	11.40	72	97 *		
6.0	11.39	72	97 *		
7.0	11.33	72	97 *		
8.0	11.24	72	97 *		
9.0	11.00	72	97 *		
10.0	10.73	72	97 *		
11.0	10.27	72	99 *		
12.5	9.97	70	97 *		
14.0	9.65	68	94 *		
16.0	9.39	67	94 *		
18.0	9.26	67	94 *		
20.0	9.09	65	92 *		18.0
22.0	8.76	63	89 *		
24.0	8.53	65	92 *		
26.0	8.00	65	94 *		
28.0	7.69	66	96 *		
30.0	7.36	68	101 *		
32.0	7.15	70	104 *		27.0
34.0	6.99	71	106 *		
36.0	6.85	71	106 *		
38.0	6.71	72	107 *		
40.0	6.60	72	107 *		
42.0	6.45	71	109 *		
44.0	6.37	72	110 *		23.0
46.0	6.27	72	110 *		
48.0	6.10	72	110 *		

aim cloudy

TITLE: EKLUTNA LAKE
 DATE: September 7, 1983
 STATION NUMBER: 5
 STARTING TIME: 1515
 ENDING TIME: 1540
 SECCHI DISC: *
 SURFACE TEMP: 11.96
 LAKE DEPTH: 60.1 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	11.96	68	90 *		
0.5	11.59	68	90 *		
1.0	11.43	68	92 *		
2.0	11.26	68	92 *		
3.0	11.23	67	90 *		
4.0	11.20	68	92 *		
5.0	11.17	68	92 *		
6.0	11.15	67	90 *		
7.0	11.13	67	90 *		
8.0	11.07	67	90 *		
9.0	11.02	67	90 *		
10.0	10.65	68	92 *		
11.0	10.01	63	87 *		
12.0	9.52	60	83 *		
13.0	9.24	58	82 *		
14.0	8.99	57	80 *		
16.0	8.69	56	79 *		
18.0	8.51	58	82 *		
20.0	8.21	60	87 *		
22.0	7.91	60	87 *		
24.0	7.61	62	90 *		
26.0	7.33	63	94 *		
28.0	7.03	65	97 *		
30.0	6.85	67	100 *		
32.0	6.69	66	98 *		
36.0	6.35	67	103 *		
40.0	6.16	68	104 *		
44.0	6.02	67	103 *		
48.0	5.95	65	99 *		

Calm, cloudy.
 E0907E.

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUTNA LAKE
 DATE: September 7, 1983
 STATION NUMBER: 7
 STARTING TIME: 1430
 ENDING TIME: 1500
 SODIUM DISC: 3.1 ft.
 SURFACE TEMP: 12.26
 LAKE DEPTH: 60.1 m

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DEPTH          TEMP.          CONDUCTIVITY    CORR.CONDUCT.   TRANSMISS.      TURBIDITY
(meter)        (celsius)      (umho)          (umho)          (%)              (NTU)
=====
0.0            12.26          68              90 *
.5             11.60          68              90 *
1.0            11.47          68              92 *
2.0            11.37          66              89 *
3.0            11.31          67              90 *
4.0            11.19          67              90 *
5.0            11.08          66              89 *
6.0            10.98          65              88 *
7.0            10.84          63              85 *
8.0            10.47          61              84 *
9.0            9.88           58              80 *
10.0           9.56           57              79 *
11.0           9.32           56              79 *
12.0           9.16           54              76 *
14.0           8.80           53              75 *
16.0           8.58           53              75 *
18.0           8.21           56              81 *
20.0           7.90           58              84 *
22.0           7.48           61              91 *
24.0           7.30           60              89 *
26.0           7.17           62              92 *
28.0           6.97           63              94 *
30.0           6.82           65              97 *
32.0           6.65           66              98 *
34.0           6.42           65              99 *
36.0           6.23           66              101 *
38.0           6.05           65              99 *
42.0           5.95           63              96 *
46.0           5.90           65              99 *
  
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alm. cloudy.
 0907G

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUTNA LAKE
DATE: September 7, 1983
STATION NUMBER: 8
STARTING TIME: 1710
ENDING TIME: 1725
SECCHI DISC: *
SURFACE TEMP: 11.29
LAKE DEPTH: 60.1 m

=====

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	11.29	75	101 *		
.5	11.30	77	104 *		
2.0	11.22	77	104 *		
4.0	11.01	76	103 *		
6.0	10.96	76	103 *		
8.0	10.85	76	103 *		
9.0	10.72	75	101 *		
10.0	9.83	75	104 *		
11.0	9.40	68	96 *		
12.0	9.24	66	93 *		
14.0	8.85	66	93 *		
16.0	8.71	66	93 *		
18.0	8.46	66	96 *		
20.0	8.21	66	96 *		
22.0	7.83	67	97 *		
24.0	7.27	72	107 *		
26.0	7.00	73	109 *		
28.0	6.87	75	112 *		
30.0	6.70	75	112 *		
32.0	6.60	75	112 *		
36.0	6.40	75	115 *		
40.0	6.27	77	118 *		
44.0	6.12	76	116 *		
48.0	6.01	76	116 *		
52.0	5.93	76	116 *		
56.0	5.86	75	115 *		

Calm, cloudy.
E0907H

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TLE: EKLUTNA LAKE
 TE: September 7, 1983
 ATION NUMBER: 9
 ARTING TIME: 1130
 DING TIME: 1200
 CCHI DISC: 2.7 ft.
 RFACE TEMP: 10.97
 KE DEPTH: 60.1 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	10.97	71	96 *		
0.5	10.96	72	97 *		
1.0	10.94	72	97 *		
2.0	10.91	72	97 *		
3.0	10.86	71	96 *		
4.0	10.80	71	96 *		
5.0	10.73	72	97 *		
6.0	10.66	71	96 *		
7.0	10.63	72	97 *		
8.0	10.63	72	97 *		
9.0	10.62	71	96 *		
10.0	10.62	71	96 *		
2.0	10.38	70	97 *		
3.0	9.85	66	91 *		
4.0	9.61	66	91 *		
6.0	9.03	62	87 *		
7.0	8.73	61	86 *		33.0
8.0	8.67	62	87 *		
10.0	8.23	62	90 *		
2.0	8.01	63	91 *		
4.0	7.72	65	94 *		31.0
6.0	7.38	66	98 *		
8.0	7.30	67	100 *		
10.0	7.19	67	100 *		
2.0	6.98	68	101 *		
6.0	6.60	70	104 *		
10.0	6.27	68	104 *		18.5
4.0	6.08	68	104 *		

alm,cloudy.
 0907I

TE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUTNA LAKE
 DATE: September 7, 1983
 STATION NUMBER: 10
 STARTING TIME: 1100
 ENDING TIME: 1130
 SECCHI DISC: *
 SURFACE TEMP: 10.82
 LAKE DEPTH: 60.1 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	10.82	71	96 *		
.5	10.82	72	97 *		
1.0	10.81	71	96 *		
2.0	10.72	70	95 *		
4.0	10.59	70	95 *		
6.0	10.46	68	94 *		
8.0	10.36	70	97 *		
10.0	10.22	68	94 *		
11.0	9.73	63	87 *		
12.0	9.47	66	93 *		
13.0	9.16	62	87 *		
14.0	9.00	62	87 *		
16.0	8.66	63	89 *		
18.0	8.52	65	92 *		
20.0	8.48	66	96 *		
22.0	8.27	66	96 *		
24.0	8.11	66	96 *		
26.0	7.75	67	97 *		
28.0	7.26	70	104 *		
30.0	6.79	70	104 *		
32.0	6.60	71	106 *		

Calm, cloudy.
 !E0907J

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TLE: EKLUTNA LAKE
 DATE: September 7, 1983
 STATION NUMBER: 11
 STARTING TIME: 1035
 STOPPING TIME: 1100
 SOND DISC: 2.7 ft.
 SURFACE TEMP: 10.64
 LAKE DEPTH: 60.1 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	10.64	72	97 *		
0.5	10.67	75	101 *		
1.0	10.64	73	99 *		
2.0	10.60	72	97 *		
3.0	10.44	72	99 *		
4.0	10.36	71	98 *		
5.0	10.26	71	98 *		
6.0	10.26	72	99 *		
7.0	10.25	72	99 *		
8.0	10.26	72	99 *		
9.0	10.21	71	98 *		
10.0	9.98	71	98 *		
11.0	9.60	71	98 *		
12.0	9.21	66	93 *		
13.0	8.95	63	89 *		
14.0	8.83	63	89 *		
15.0	8.65	65	92 *		
16.0	8.43	65	94 *		
17.0	8.04	66	96 *		
18.0	7.68	68	99 *		
19.0	7.27	70	104 *		
20.0	6.87	71	106 *		
21.0	6.73	70	104 *		
22.0	6.43	72	110 *		
23.0	6.34	72	110 *		
24.0	6.27	72	110 *		
25.0	6.23	71	109 *		

aim, cloudy.
 0907K

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUTNA LAKE
 DATE: September 7, 1983
 STATION NUMBER: 15
 STARTING TIME: 1000
 ENDING TIME: 1025
 SECCHI DISC: 2.4 ft.
 SURFACE TEMP: 10.28
 LAKE DEPTH: 60.1 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	10.28	72	99 *		
.5	10.27	73	101 *		
2.0	10.00	72	99 *		
4.0	9.88	72	99 *		
6.0	9.50	71	98 *		
8.0	9.09	68	96 *		
10.0	8.98	67	94 *		

Calm, cloudy.
 E09070

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUTNA LAKE
 DATE: October 05, 1983
 STATION NUMBER: 2
 STARTING TIME: 1315
 ENDING TIME: 1330
 SECCHI DISC: 2.8 ft
 SURFACE TEMP: 7.46
 LAKE DEPTH: 61 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY, (NTU)
0.0	7.46	83	124 *		
2.0	7.35	83	124 *		
4.0	7.30	83	124 *		
6.0	7.30	83	124 *		
8.0	7.30	83	124 *		
12.0	7.30	82	122 *		
16.0	7.29	83	124 *		
20.0	7.29	83	124 *		
24.0	7.29	83	124 *		6.4
28.0	7.28	83	124 *		
32.0	7.27	84	125 *		
36.0	7.04	83	124 *		
40.0	6.89	83	124 *		15.0
44.0	6.85	84	125 *		
48.0	6.74	85	127 *		
52.0	6.60	86	128 *		

!Conductivity data is unreliable,
 !Calm cloudy
 !E1005B

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUTNA LAKE
DATE: October 05, 1983
STATION NUMBER: 7
STARTING TIME: 1145
ENDING TIME: 1200
SECCHI DISC: 2.9 ft
SURFACE TEMP: 7.47
LAKE DEPTH: 61 m

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DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
2.0	7.40	81	121 *		
4.0	7.35	81	121 *		
6.0	7.34	81	121 *		
8.0	7.33	81	121 *		
10.0	7.34	81	121 *		
12.0	7.33	81	121 *		
14.0	7.33	81	121 *		
16.0	7.33	81	121 *		
20.0	7.33	80	119 *		
24.0	7.33	81	121 *		
28.0	7.32	81	121 *		
32.0	7.24	82	122 *		
36.0	7.12	82	122 *		
40.0	7.05	82	122 *		
44.0	6.98	82	122 *		
48.0	6.90	83	124 *		
52.0	6.58	84	125 *		
56.0	6.42	85	130 *		

!Conductivity data is unreliable,
!Partly sunny
!E1005G

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUTNA LAKE

DATE: October 05, 1983

STATION NUMBER: 8

STARTING TIME: 1445

ENDING TIME: 1500

SECCHI DISC: 2.6 ft

SURFACE TEMP: 7.35

LAKE DEPTH: 61 m

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DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
2.0	7.24	82	122 *		
4.0	7.22	81	121 *		
6.0	7.21	82	122 *		
8.0	7.22	82	122 *		
10.0	7.22	82	122 *		
12.0	7.22	82	122 *		
16.0	7.22	83	124 *		
20.0	7.22	82	122 *		
24.0	7.21	83	124 *		
28.0	7.20	82	122 *		
32.0	7.14	83	124 *		
36.0	7.04	83	124 *		
40.0	6.93	83	124 *		
44.0	6.85	82	122 *		
48.0	6.72	84	125 *		
52.0	6.62	84	125 *		
56.0	6.43	85	130 *		

!Conductivity data is unreliable,
!Partly sunny
!E1005H

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUTNA LAKE
DATE: October 05, 1983
STATION NUMBER: 9
STARTING TIME: 0916
ENDING TIME: 0940
SECCHI DISC: 2.7 ft
SURFACE TEMP: 7.27
LAKE DEPTH: 61 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
1.0	7.28	82	122 *		
2.0	7.28	84	125 *		
3.0	7.28	83	124 *		
4.0	7.28	83	124 *		
5.0	7.27	83	124 *		
6.0	7.28	84	125 *		
8.0	7.28	84	125 *		
12.0	7.28	83	124 *		
16.0	7.28	83	124 *		
20.0	7.27	83	124 *		
24.0	7.27	84	125 *		6.9
28.0	7.24	84	125 *		
30.0	7.15	84	125 *		
32.0	7.09	85	127 *		
36.0	7.04	84	125 *		
40.0	6.96	85	127 *		10.0
44.0	6.82	86	128 *		
48.0	6.76	86	128 *		
50.0	6.71	85	127 *		
52.0	6.62	86	128 *		
54.0	6.56	86	128 *		

!Conductivity data is unreliable
!Partly sunny
!E1005I

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUTNA LAKE
 DATE: October 05, 1983
 STATION NUMBER: 11
 STARTING TIME: 0845
 ENDING TIME: 0900
 SECCHI DISC: 2.6 ft
 SURFACE TEMP: 7.25
 LAKE DEPTH: 61m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
1.0	7.26	84	125 *		
2.0	7.25	84	125 *		
3.0	7.26	84	125 *		
4.0	7.26	84	125 *		
5.0	7.25	83	124 *		
6.0	7.25	84	125 *		
7.0	7.25	84	125 *		
8.0	7.25	84	125 *		
9.0	7.25	83	124 *		
10.0	7.25	83	124 *		
11.0	7.26	84	125 *		
12.0	7.25	84	125 *		
13.0	7.27	84	125 *		
14.0	7.26	84	125 *		
16.0	7.26	83	124 *		
18.0	7.26	84	125 *		
20.0	7.25	84	125 *		
24.0	7.24	84	125 *		
28.0	7.21	84	125 *		
30.0	7.05	85	127 *		
34.0	6.89	87	130 *		
38.0	6.80	87	130 *		
42.0	6.59	87	130 *		
46.0	6.52	87	130 *		
50.0	6.44	87	133 *		

!Conductivity data is unreliable
 !Partly sunny
 !E1005K

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUTNA LAKE
DATE: October 05, 1983
STATION NUMBER: 15
STARTING TIME: 0825
ENDING TIME: 0835
SECCHI DISC: 2.6 ft
SURFACE TEMP: 7.14
LAKE DEPTH: 61m

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DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
1.0	7.15	80	119 *		
2.0	7.14	80	119 *		
4.0	7.14	80	119 *		
6.0	7.14	80	119 *		
8.0	7.15	80	119 *		
10.0	7.15	80	119 *		

!Conductivity data is unreliable,
!Partly cloudy
!L10050

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUTNA LAKE
DATE: November 01, 1983
STATION NUMBER: 7
STARTING TIME: 1140
ENDING TIME: 1150
SECCHI DISC: 3.0'
SURFACE TEMP: 5.62
LAKE DEPTH: 60m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
2.0	5.62	77	118 *		
4.0	5.64	77	118 *		
8.0	5.63	77	118 *		
12.0	5.64	77	118 *		
16.0	5.64	77	118 *		
20.0	5.65	77	118 *		
24.0	5.66	78	119 *		
28.0	5.65	78	119 *		
32.0	5.64	77	118 *		
36.0	5.65	77	118 *		
40.0	5.65	77	118 *		
44.0	5.64	77	118 *		
48.0	5.65	77	118 *		
52.0	5.64	77	118 *		
56.0	5.64	77	118 *		

!Cloudy, calm
!E1101G

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUTNA LAKE
DATE: November 01, 1983
STATION NUMBER: 9
STARTING TIME: 0940
ENDING TIME: 0950
SECCHI DISC: 3.1'
SURFACE TEMP: 5.51
LAKE DEPTH: 60m

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DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
2.0	5.54	83	127 *		
4.0	5.56	84	129 *		
8.0	5.56	83	127 *		
12.0	5.59	84	129 *		
16.0	5.57	83	127 *		
20.0	5.57	83	127 *		
24.0	5.58	84	129 *		14.0
28.0	5.56	84	129 *		
32.0	5.57	84	129 *		
36.0	5.58	84	129 *		
40.0	5.56	84	129 *		16.0
44.0	5.56	82	125 *		
48.0	5.58	81	124 *		
52.0	5.56	82	125 *		
56.0	5.50	82	125 *		

!Cloudy, calm
!E11011

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUTNA LAKE
DATE: November 01, 1983
STATION NUMBER: 11
STARTING TIME: 0905
ENDING TIME: 0915
SECCHI DISC: 3.0'
SURFACE TEMP: 5.24
LAKE DEPTH: 60m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
1.0	5.29	84	132 *		
2.0	5.28	84	132 *		
3.0	5.28	83	130 *		
4.0	5.28	84	132 *		
6.0	5.29	84	132 *		
8.0	5.28	84	132 *		
10.0	5.28	84	132 *		
12.0	5.28	84	132 *		
16.0	5.28	84	132 *		
24.0	5.28	84	132 *		
28.0	5.29	84	132 *		
32.0	5.29	84	132 *		
36.0	5.29	84	132 *		
40.0	5.28	84	132 *		
44.0	5.28	85	133 *		
48.0	5.28	85	133 *		
52.0	5.22	85	133 *		

!Cloudy, calm
!E1101K

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUTNA LAKE
DATE: November 01, 1983
STATION NUMBER: 15
STARTING TIME: 0845
ENDING TIME: 0900
SECCHI DISC: 3.1ft
SURFACE TEMP: 4.92
LAKE DEPTH: 60m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
1.0	5.01	82	129 *		
2.0	5.02	83	130 *		
3.0	5.06	82	129 *		
5.0	5.07	83	130 *		
6.0	5.09	83	130 *		
8.0	5.09	83	130 *		
10.0	5.07	83	130 *		
12.0	5.05	83	130 *		
15.0	5.01	83	130 *		

!Partly cloudy, calm
!E11010

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUTNA LAKE
 DATE: December 06, 1983
 STATION NUMBER: 15
 STARTING TIME: 1155
 ENDING TIME: 1225
 SECCHI DISC: 3.6'
 SURFACE TEMP: 1.4
 LAKE DEPTH: 61.6

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0	1.43	69	118		
0.67	2.24	70	117	x	x
1.33	2.93	71	117		
2	3.00	73	120		
3	3.00	71	117		
4	3.00	71	117		
5	3.15	71	116		
6	3.23	72	118		
8	3.28	72	118		
10	3.31	72	117		
12	3.34	72	117		
15	3.36	73	119		
18	3.38	73	119		
20	3.44	73	119		
21	3.46	73	119		

!Bottom at 21 m.
 !Corrected Conductivities are computed
 !Clear, calm and air temp. of 20 F
 !E12060

TITLE: EKLUTNA LAKE
 DATE: January 16, 1984
 STATION NUMBER: 5
 STARTING TIME: 1610
 ENDING TIME: 1630
 SECCHI DISC: N/A
 SURFACE TEMP: 1.00
 LAKE DEPTH: 60m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0	1.00	72	124		
0.5	1.49			*	*
1	1.67	85	145		
1.5	1.88				
2	2.12				
3	2.84				
4	2.96				
5	3.16				
6	3.44				
8	3.64				
10	3.86				
12	3.94				
16	3.98				
20	4.01				
24	3.98				
28	3.98				
32	3.95				
36	3.95				
40	3.95				
44	3.94				
48	3.92				
52	3.94				
56	3.92				
60	3.91				
64	3.92				

!Bottom at 64 m.
 !Overcast. Calm
 !E0116E

TITLE: EKLUTNA LAKE
 DATE: January 16, 1984
 STATION NUMBER: 9
 STARTING TIME: 1150
 ENDING TIME: 1220
 SECCHI DISC: N/A
 SURFACE TEMP: 0.35
 LAKE DEPTH: 60m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0	0.35	68	122		
0.5	0.61		x	x	x
1	1.18				
1.5	1.36				
2	1.60				
3	2.50				
4	2.58				
5	2.74				
6	3.02				
8	3.48				
10	3.62				
12	3.74				
16	3.93				
20	3.94				
24	3.94	78	132		
32	3.95				
40	3.91	79	132		
48	3.91				
56	4.02				
60	4.12				
64	4.16				

!Bottom at 64 m.
 !Partly cloudy, calm
 !E01161

TITLE: EKLUTNA LAKE
 DATE: January 16, 1984
 STATION NUMBER: 15
 STARTING TIME: 1030
 ENDING TIME: 1105
 SECCHI DISC: N/A
 SURFACE TEMP: 0.3
 LAKE DEPTH: 60

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0	0.35	78	136		
0.5	0.92		x	x	x
1	1.20				
1.5	2.04				
2	2.22				
3	2.47				
4	2.79				
5	3.10	72	124		
6	3.33				
8	3.59				
10	3.70	76	128		
15	3.86				
18	4.01				

!Bottom at 18 m.
 !Clear, calm and air temp. of -19 C
 !E01160

TITLE: EKIUTNA LAKE
 DATE: February 16, 1984
 STATION NUMBER: 5
 STARTING TIME: 1126
 ENDING TIME: 1132
 SECCHI DISC: N/A
 SURFACE TEMP: 0.20
 LAKE DEPTH: 57.6

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0	0.20	*	*	*	
1	0.99				
2	2.10				
3	2.59				
4	3.36				
5	3.46				
6	3.48				
7	3.51				
8	3.51				
9	3.51				
10	3.52				
12	3.52				
16	3.51				
20	3.51				
24	3.57				
28	3.56				
32	3.52				
36	3.54				
40	3.52				
44	3.50				
48	3.41				
52	3.44				
56	3.44				
60	3.62				

!Bottom at 60 m.
 !Snowing and calm
 !E0216E

TITLE: EKLUTNA LAKE
 DATE: February 16, 1984
 STATION NUMBER: 9
 STARTING TIME: 1000
 ENDING TIME: 1021
 SECCHI DISC: N/A
 SURFACE TEMP: 0.20
 LAKE DEPTH: 57.6

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0	0.20	*	*	*	
1	1.10				
2	1.70				
3	2.34				
4	2.50				
5	2.62				
6	2.70				
7	2.78				
8	2.88				
9	2.94				
10	3.04				
12	3.15				
16	3.30				
20	3.33				
24	3.38				5.6
28	3.35				
32	3.28				
36	3.20				
40	3.19				6.8
44	3.21				
48	3.20				
52	3.29				
56	3.53				
60	3.54				

!Bottom at 60 m.
 !Partly cloudy, light breeze
 !E02161

TITLE: EKLUTNA LAKE
DATE: February 16, 1984
STATION NUMBER: 15
STARTING TIME: 0904
ENDING TIME: 0912
SECCHI DISC: N/A
SURFACE TEMP: 0.20
LAKE DEPTH: 57.6

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DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0	0.20	*	*	*	*
1	0.76				
2	1.69				
3	2.40				
4	2.92				
5	3.19				
6	3.34				
7	3.38				
8	3.39				
10	3.42				
12	3.44				

!Bottom at 12 m.
!Clear and Calm
!E02160

TITLE: EKLUTNA LAKE
DATE: March 23, 1984
STATION NUMBER: 2
STARTING TIME: 1400
ENDING TIME: 1420
SECCHI DISC: N/A
SURFACE TEMP: 0.63
LAKE DEPTH: 54.8

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0	0.63	*	*	*	
0.5	3.72				
1	3.81				
2	3.48				6.4

!Bottom at 2.5m.
!Clear and Calm
!E0323R

TITLE: EKLUTNA LAKE
 DATE: March 23, 1984
 STATION NUMBER: 5
 STARTING TIME: 1315
 ENDING TIME: 1344
 SECCHI DISC: N/A
 SURFACE TEMP: 1.7
 LAKE DEPTH: 54.8

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0	1.7	*	*	*	*
1	3.94				
2	4.18				
3	4.18				
4	4.15				
5	4.13				
6	4.10				
7	4.08				
8	4.08				
9	4.08				
10	4.06				
12	4.06				
16	4.07				
20	3.95				43.2
24	3.90				
28	3.90				
32	3.89				
36	3.88				
40	3.89				6.1
44	3.92				
48	3.94				
52	4.10				
56	4.06				

!Bottom at 56 m.
 !Clear and Calm
 !E0323E

TITLE: EKLUTNA LAKE
 DATE: March 23, 1984
 STATION NUMBER: 9
 STARTING TIME: 1030
 ENDING TIME: 1048
 SECCHI DISC: N/A
 SURFACE TEMP: 0.31
 LAKE DEPTH: 54.8

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0	0.31	*	*	*	
1	3.32				
2	3.50				
3	3.93				
4	3.97				
5	4.03				
6	4.04				
7	4.05				
8	4.05				
9	4.05				
10	4.06				
12	4.06				
16	4.05				
20	4.04				4.2
24	4.04				
28	4.07				
32	4.03				
36	4.01				
40	4.06				4.2
44	4.11				
48	4.16				
52	4.35				
56	4.35				

!Bottom at 56 m.
 !Clear and Calm
 !E03231

TITLE: EKLOTNA LAKE
 DATE: March 23, 1984
 STATION NUMBER: 15
 STARTING TIME: 0920
 ENDING TIME: 0930
 SECCHI DISC: N/A
 SURFACE TEMP: 1.60
 LAKE DEPTH: 54.8

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0	1.60	*	*	*	
1	3.79				
2	4.07				
3	4.16				
4	4.15				
5	4.12				3.1
6	4.09				
7	4.12				
8	4.11				
9	4.15				

!Bottom at 9 m.
 !Clear and Calm
 !E03230

TITLE: EKLUTNA LAKE
 DATE: April 20, 1984
 STATION NUMBER: 11
 STARTING TIME: 1220
 ENDING TIME: 1320
 SECCHI DISC: 6.3 ft
 SURFACE TEMP: 0.6
 LAKE DEPTH: 52.1 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0	0.6	*	*	*	
0.5	2.7				
1	3.3				
1.5	3.6				
2	3.6				2.6
4	3.7				
6	3.5				
8	3.4				
12	3.2				
16	3.2				
20	3.2				
24	3.3				1.8
28	3.3				
32	3.4				
36	3.4				
40	3.5				
42	3.6				

!Bottom at 42m.

Overcast and light breeze

E0420K

TITLE: EKLUTNA LAKE
 DATE: April 20, 1984
 STATION NUMBER: 15
 STARTING TIME: 0950
 ENDING TIME: 1110
 CATCH DISC: 7.5 ft
 SURFACE TEMP: 0.6
 LAKE DEPTH: 52.1 m

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=====
DEPTH          TEMP.          CONDUCTIVITY    CORR. CONDUCT.  TRANSMISS.      TURBIDITY
(meter)        (celsius)      (umho)         (umho)          (%)              (NTU)
=====
.5             0.6            *              *               *
              0.9
              3.0
              3.5
              3.4
              -
.5             3.3
  
```

Bottom at 5.5m.
 overcast and light breeze
 04200

TITLE: EKLUTNA LAKE
DATE: May 17, 1984
STATION NUMBER: 5
STARTING TIME: 1415
ENDING TIME: 1505
SECCHI DISC: 6.7 ft
SURFACE TEMP: 6.1
LAKE DEPTH: 50.5 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	5.84	70	102		
0.5	5.90	71	103		
1.0	5.80	70	103		
2.0	5.62	70	102		
4.0	5.10	70	102		2.5
8.0	4.89	69	102		
12.0	4.70	69	102		
16.0	4.55	68	102		
20.0	4.15	67	102		2.1
24.0	3.90	68	102		
28.0	3.87	67	102		
32.0	3.85	68	103		
35.0	3.75	69	103		

TURBIDITIES RUN IN THE LAB ON 5/21/84.
WEATHER PARTLY CLOUDY, STRONG BREEZE FROM SE.
WAVES 1 FT.
L0517E

TITLE: EKLUTNA LAKE
DATE: MAY 17, 1984
STATION NUMBER: 9
STARTING TIME: 1050
ENDING TIME: 1105
SOUNDING DISC: 6.4 ft
SURFACE TEMP: 7.0
LAKE DEPTH: 50.5

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	6.84				
0.5	6.84				
1.0	6.84				
2.0	6.67				
4.0	6.31				3.8
8.0	5.52				
2.0	5.09				
6.0	4.94				
0.0	4.69				3.5
4.0	4.48				
8.0	4.41				
2.0	4.28				
6.0	4.21				
0.0	4.13				
4.0	4.02				
6.0	3.79				

WEATHER SUNNY AND CLEAR, WIND FROM NW.
SWITCHED FROM SE.
L05171

TITLE: EKLUTNA LAKE
DATE: MAY 17, 1984
STATION NUMBER: 15
STARTING TIME: 1245
ENDING TIME: 1320
SECCHI DISC: 7.0 ft
SURFACE TEMP: 7.4
LAKE DEPTH: 50.5 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	7.20	69	98		
0.5	7.19	69	100		
1.0	7.13	70	101		
2.0	7.09	69	100		
4.0	6.93	68	98		
6.4	6.19	67	98		3.0

!WEATHER SUNNY, MODERATE BREEZE FROM NW.
!WAVES 0.3 FT.
!L05170

TITLE: EKLOTNA LAKE

DATE: JUNE 6, 1984

STATION NUMBER: 2

STARTING TIME: *

ENDING TIME: *

SECCHI DISC: 7.5 ft

SURFACE TEMP: 11.4

LAKE DEPTH: 50.1 m

.....

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	11.13	104			3.3
1.0	11.20	104			
2.0	11.19	104			
4.0	11.03	104			
6.0	10.20	103			
7.0	10.16	101			
8.0	9.82	100			
9.0	9.19	99			
10.0	8.71	99			
12.0	6.87	98			
13.5					4.4
14.0	6.61	95			
16.0	6.01	92			
20.0	5.38	90			
24.0	5.11	90			
28.0	4.90	*			
32.0	4.82	*			
36.0	4.72	*			
40.0	4.73	*			

!TURBIDITIES RUN IN THE LAB ON 06/07/84.
 !BOUY DEPLOYED AT THIS SITE.
 !E0606B

TITLE: EKLUTNA LAKE
DATE: June 6, 1984
STATION NUMBER: 5
STARTING TIME: *
ENDING TIME: *
SECCHI DISC: 9.0 ft.
SURFACE TEMP: 10.8
LAKE DEPTH: 50.1 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	10.67	104			
1.0	10.66	103			2.1
2.0	10.67	103			
4.0	10.66	104			
6.0	10.00	103			
7.0	9.67	102			
8.0	9.04	101			
9.0	8.14	100			4.3
10.0	7.17	98			
12.0	6.39	96			
14.0	6.17	94			
16.0	5.85	93			
20.0	5.36	91			
24.0	5.01	91			
28.0	4.82	90			
32.0	4.56	90			
36.0	4.35	90			
40.0	4.13	90			
44.0	4.08	89			

!wind coming from North. bouv deployed at this site.
!E0606E

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUINA LAKE
 DATE: JUNE 6, 1984
 STATION NUMBER: 9
 STARTING TIME: *
 ENDING TIME: *
 SECCHI DISC: 8.0 ft
 SURFACE TEMP: 10.2
 LAKE DEPTH: 50.1 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	9.96	102			2.1
1.0	9.99	101			
2.0	10.00	102			
3.0	9.99	101			
4.0	9.57	101			
5.0	9.52	100			
6.0	9.44	100			
7.0	9.41	100			
8.0	9.03	99			
9.0	8.81	99			
10.0	8.41	98			
12.0	8.02	98			
13.0					2.3
14.0	6.93	94			
16.0	6.50	92			
18.0	5.70	91			
20.0	5.61	91			
24.0	5.11	90			
28.0	4.80	90			
32.0	4.57	89			
36.0	4.46	89			
40.0	4.31	89			
44.0	4.17	89			

TURBIDITIES RUN IN THE LAB ON 06/07/84.
 006061

TITLE: EKLUTNA LAKE
DATE: JUNE 6, 1984
STATION NUMBER: 11
STARTING TIME: 1109
ENDING TIME: *
SECCHI DISC: 8.5 ft
SURFACE TEMP: 9.9
LAKE DEPTH: 50.1 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	9.78	98			2.1
1.0	9.72	94			
2.0	8.70	97			2.2
3.0	8.21	95			
4.0	7.87	94			
5.0	7.42	93			
6.0	7.08	92			
7.0	6.96	92			
8.0	6.86	91			
9.0	6.75	91			
10.0	6.60	90			
12.0	6.62	90			
14.0	5.78	89			
16.0	5.62	89			
20.0	5.34	88			
24.0	5.09	88			
28.0	4.73	88			
32.0	4.46	87			

TURBIDITIES RUN IN THE LAB ON 06/07/84.
E0606K

TITLE: EKLOTRA LAKE
 DATE: June 6, 1984
 STATION NUMBER: 15
 STARTING TIME: 1052
 ENDING TIME:
 SECCHI DISC: 8.5 ft.
 SURFACE TEMP: 9.5
 LAKE DEPTH: 50.1 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	9.30	94			5.2
1.0	9.26	94			
2.0	9.12	94			
3.0	8.92	94			
4.0	8.89	94			
6.0	7.69	94			
8.0	6.50	90			

100% overcast. light rain. 50 degrees F. calm.
 1205060

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLETHA LAKE
 DATE: June 21, 1984
 STATION NUMBER: 1
 STARTING TIME: 1705
 ENDING TIME: 1745
 SECCHI DISC: 3.2 ft
 SURFACE TEMP: 14.8
 LAKE DEPTH: 49.7 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	14.89	97			
0.5	14.75	97			
1.0	14.50	96			
2.0	14.31	95			
3.0	14.26	94			
4.0	14.17	95			
5.0	13.78	92			
6.0	13.80	90			
7.0	13.73	91			
8.0	13.20	89			
9.0	12.32	86			
10.0	12.00	84			
10.5	10.42	82			
11.0	8.00	83			71
11.5	7.60	82			
12.0	7.20	80			
13.0	6.90	81			
14.0	6.73	79			
15.0	6.64	81			

*creek water is very turbid, anchored 100 feet from creek slope.
 *E0621a

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLOTNA LAKE

DATE: June 21, 1984

STATION NUMBER: 2

STARTING TIME: 1550

ENDING TIME: 1654

SECCHI DISC: 3.6 ft

SURFACE TEMP: 14.5

LAKE DEPTH: 49.7 m

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DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	14.34	72			
0.5	14.36	71			
1.0	14.37	77			
2.0	14.36	80			
3.0	14.31	80			
4.0	14.26	82			
5.0	14.24	84			
6.0	14.21	84			
7.0	14.00	85			
8.0	13.74	85			
8.5	13.10	83			
9.0	10.62	79			
10.0	10.00	78			30
12.0	8.64	78			
13.0	7.20	74			
14.0	6.88	73			15.0
16.0	6.82	72			
20.0	5.98	75			6.4
24.0	5.74	74			
28.0	5.65	74			
32.0	5.50	73			
36.0	5.72	73			

may be problem with creek effecting the temperatures, creek mouth is 200yds
1E0621B

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN

TITLE: EKLUINA LAKE

DATE: June 21, 1984

STATION NUMBER: 3

STARTING TIME: 1440

ENDING TIME: 1540

SECCHI DISC: 3.8 ft

SURFACE TEMP: 13.9

LAKE DEPTH: 49.7 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	13.85	80			
0.5	13.91	82			
1.0	13.92	82			
2.0	13.91	83			7.2
3.0	13.84	84			
4.0	13.80	84			
5.0	13.76	85			
6.0	13.60	86			
6.5	13.15	86			
7.0	12.38	82			14.0
8.0	12.13	83			
9.0	10.80	81			
10.0	10.16	80			
12.0	8.66	79			28
16.0	7.40	76			
20.0	5.60	-			6.4
24.0	5.17	72			
28.0	5.11	72			
32.0	4.87	66			
35.0	4.70	55			

marker buoy is labelled "5". moved from 5 today.
 1E0621C

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUTNA LAKE
 DATE: June 21, 1984
 STATION NUMBER: 9
 STARTING TIME: 1218
 ENDING TIME: 1420
 SECCHI DISC: 6 ft
 SURFACE TEMP: 13.2
 LAKE DEPTH: 49.7 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	13.14	83			
0.5	13.13	84			
1.0	13.13	84			
2.0	12.94	83			4.8
3.0	12.59	84			
4.0	12.40	83			
5.0	12.25	85			
6.0	11.45	94			6.2
8.0	9.86	83			
10.0	8.54	79			
12.0	7.87	80			
16.0	6.71	77			
20.0	5.58	77			3.4
24.0	5.07	75			
28.0	4.98	74			
32.0	4.89	72			
36.0	4.80	63			
40.0	4.54	65			
44.0	4.43	65			
45.0	4.36	32			

1F06211

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUINA LAKE
 DATE: June 21, 1984
 STATION NUMBER: 15
 STARTING TIME: 1110
 ENDING TIME: 1205
 SECCHI DISC: 4.5 ft
 SURFACE TEMP: 11.6
 LAKE DEPTH: 49.7 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	11.55	85			
0.5	11.54	85			
1.0	11.51	86			
2.0	11.40	85			
3.0	11.29	87			
4.0	11.13	86			5.0
5.0	11.12	86			
6.0	11.02	86			
7.0	-	-			
8.0	10.11	82			

WIND FROM WSW STARTING TO MAKE WHITE CAPS (0.4 ft WAVES).
 #E06210

NOTE: "*" INDICATES COMPUTED CORRECTED CONDUCTIVITY VALUE SHOWN.

TITLE: EKLUINA LAKE

DATE: JULY 5, 1984

STATION NUMBER: 1

STARTING TIME: 1638

ENDING TIME: 1754

SECCHI DISC: 2.5 ft

SURFACE TEMP: 15.9

LAKE DEPTH: 50.7 m

.....

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	15.80	90			
0.5	15.72	90			
1.0	15.58	86			
2.0	15.20	82			
3.0	14.66	70			
4.0	14.76	74			
5.0	13.90	78			
6.0	13.00	80			
7.0	12.80	86			
8.0	12.59	88			
9.0	12.30	90			
10.0	11.40	86			
11.0	12.15	89			
12.0	12.00	88			
13.0	11.50	87			
14.0	11.80	87			
15.0	11.70	87			
16.0	11.20	89			
17.0	11.40	86			
18.0	9.80	85			
19.0	9.60	84			
20.0	9.60	79			
24.0	9.10	76			
25.5	8.80	78			

130

!PROFILE DIFFICULT TO INTERPRET BECAUSE OF WANDERING STREAM PLUM
!L0705A

TITLE: EKLUINA LAKE
 DATE: JULY 5, 1984
 STATION NUMBER: 2
 STARTING TIME: 1528
 ENDING TIME: 1620
 SECCHI DISC: 1.95 ft
 SURFACE TEMP: 15.4
 LAKE DEPTH: 50.7 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	15.33	76			
0.5	15.34	75			
1.0	15.35	75			
2.0	15.19	69			
4.0	15.12	58			6.4
5.0	14.10	83			
6.0	13.53	87			
8.0	12.61	81			
9.0	12.42	84			
10.0	10.48	83			80
12.0	9.59	81			
14.0					
16.0	7.59	85			
20.0	5.82	85			6.8
24.0	5.78	85			
27.0	bottom				

MOSTLY CLOUDY WITH HAZE
 WIND FROM NNW
 WAVES 0.3 ft
 L0705E

TITLE: EKLOTNA LAKE

DATE: JULY 5, 1984

STATION NUMBER: 3

STARTING TIME: 1415

ENDING TIME: 1518

SECCHI DISC: 2.0 ft

SURFACE TEMP: 15.7

LAKE DEPTH: 50.7 m

.....

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	15.56	116			
0.5	15.52	119			
1.0	15.38	119			
2.0	15.00	119			6.6
3.0	13.86	109			
4.0	13.75	82			
6.0	13.00	69			
7.0	12.30	81			
8.0	11.30	55			21
10.0	10.66	74			
12.0	9.43	81			
16.0	7.95	80			10.0
20.0	5.82	82			
24.0	5.37	81			3.5
28.0	5.27	82			
32.0	5.19	83			
36.0	5.00	83			
37.1	4.94	83			

! SCATTERED CLOUDS. MOSTLY SUNNY

! WAVES 0.5 ft

! WIND FROM NW

! L07050

TITLE: EKLOTNA LAKE

DATE: JULY 5, 1984

STATION NUMBER: 9

STARTING TIME: 1253

ENDING TIME: 1355

SECCHI DISC: 1.9 ft

SURFACE TEMP: 14.6

LAKE DEPTH: 50.7 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	14.63	124			
0.5	14.58	124			
1.0	14.38	124			
2.0	14.05	123			13.0
4.0	12.85	120			
6.0	11.55	115			
8.0	11.15	112			
10.0	9.80	107			
12.0	8.76	75			
14.0					26
16.0	7.10	71			
20.0	6.34	78			
24.0	5.91	82			
28.0	5.70	82			
32.0	5.36	82			3.4
36.0	5.30	82			
40.0	5.04	84			
44.0	4.65	86			
46.0	4.43	88			
46.0 bottom					

HL0705I

TITLE: EKLOTNA LAKE
 DATE: JULY 5, 1984
 STATION NUMBER: 15
 STARTING TIME: 1155
 ENDING TIME: 1235
 SECCHI DISC: 1.6 ft
 SURFACE TEMP: 12.0
 LAKE DEPTH: 50.7 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	12.75	116			
0.5	12.57	118			
1.0	12.57	118			
2.0	12.42	117			
4.0	11.90	116			14.0
6.0	11.33	113			
7.5	11.19	112			
7.5 bottom					

!SCATTERED CLOUDS
 !WIND FROM WSW
 !WAVES 0.3 ft
 !L07050

TITLE: ERJUTNA LAKE
 DATE: JULY 19, 1984
 STATION NUMBER: 1
 STARTING TIME: 1530
 ENDING TIME: 1600
 SECCHI DISC: 1.2 ft
 SURFACE TEMP: 14.3
 LAKE DEPTH: 53.0 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	14.30	112			
0.5	14.34	112			
1.0	14.31	113			
2.0	14.23	113			26
3.0	14.23	112			
4.0	8.50	61			
5.0	5.96	58			
6.0	6.95	67			64
7.0	7.80	69			
7.5 bottom					

(PROFILE DIFFICULT TO INTERPRET BECAUSE OF WANDERING STREAM PLUM.
 JL07:96

TITLE: EKLUINA LAKE
 DATE: JULY 19, 1984
 STATION NUMBER: 2
 STARTING TIME: 1350
 ENDING TIME: 1410
 SECCHI DISC: 1.3 ft
 SURFACE TEMP: 13.6
 LAKE DEPTH: 53.0

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DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	13.80	61			
0.5	13.84	66			
1.0	13.88	62			
2.0	13.92	58			
4.0	13.94	60			
6.0	13.94	76			28
8.0	13.28	74			
10.0	10.51	76			63
12.0	9.67	81			
14.0					
16.0	8.33	82			56
20.0	7.50	81			
24.0	6.04	85			
28.0	5.59	87			18.0
32.0	5.18	88			
36.0	4.96	88			
39.0	bottom				

COMPLETE OVERCAST
 15 MPH WIND FROM NW
 10719B

TITLE: ERLOTNA LAKE
DATE: JULY 19, 1984
STATION NUMBER: 3
STARTING TIME: 1245
ENDING TIME: 1305
SECCHI DISC: 1.3 ft
SURFACE TEMP: 13.9
LAKE DEPTH: 53.0 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	14.08	71			
0.5	14.05	75			
1.0	14.09	79			
2.0	14.05	81			26
4.0	13.96	83			
6.0	12.95	78			
8.0	11.60	79			58
10.0	10.32	75			
12.0	9.32	80			
14.0					
16.0	8.30	82			58
20.0	7.42	85			
24.0	6.03	88			
28.0	5.50	87			16.0
32.0	5.20	83			
36.0	5.05	81			
39.0 bottom					

OVERCAST, WIND FROM NW 5 TO 10 MPH
L0719C

TITLE: EKLUTNA LAKE
 DATE: JULY 19, 1984
 STATION NUMBER: 9
 STARTING TIME: 1040
 ENDING TIME: 1105
 SECCHI DISC: 1.2 ft
 SURFACE TEMP: 13.3
 LAKE DEPTH: 53.0 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	13.45	104			
0.5	13.43	105			
1.0	13.42	105			
2.0	13.23	107			
4.0	12.92	106			52
6.0	11.44	98			
8.0	10.32	76			
10.0	9.92	83			
12.0	9.40	86			
16.0	8.60	92			37
20.0	7.24	93			
24.0	6.30	88			
28.0	5.88	86			
32.0	5.66	86			
36.0	5.48	86			35
40.0	5.10	86			
44.0	4.80	88			
48.0	4.63	89			
50.0	bottom				

BROKEN CLOUDS WITH SUNSHINE
 L07191

TITLE: EKLUOTNA LAKE

DATE: JULY 19, 1984

STATION NUMBER: 15

STARTING TIME: 0945

ENDING TIME: *

SECCHI DISC: 1.3 ft

SURFACE TEMP: 12.8

LAKE DEPTH: 53.0 m

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DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	12.68	97			
0.5	12.42	99			
1.0	12.39	98			
2.0	12.11	98			
4.0	11.76	97			
6.0	11.53	97			
8.0	11.24	99			
10.0	10.63	100			

56

OVERCAST WITH PATCHES OF BLUE SKY. OCCASIONAL DRIZZLE
 LIGHT BREEZE FROM NW
 107190

TITLE: EKLOTNA LAKE
DATE: AUGUST 3, 1984
STATION NUMBER: 1
STARTING TIME: 1100
ENDING TIME: 1200
SECCHI DISC: 1.9 ft
SURFACE TEMP: 15.8
LAKE DEPTH: 55.0 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	15.35			13.1	
0.5	15.12			11.9	
1.0	14.99			10.1	9.5
1.5				8.8	
2.0	13.41			<5.0	
3.0	9.05			<5.0	29
3.5 bottom					

!OVERCAST. NO RAIN
!WIND FROM N
!L0803A

TITLE: EKLUINA LAKE

DATE: AUGUST 3, 1984

STATION NUMBER: 2

STARTING TIME: 1215

ENDING TIME: 1400

SECCHI DISC: 1.7 ft

SURFACE TEMP: 16.5

LAKE DEPTH: 55.0 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
-----	-----	-----	-----	-----	-----
0.0	16.49			9.6	
0.5	15.70			9.6	
1.0	15.67			10.0	
2.0	15.13			10.3	
3.0				10.3	
4.0	14.54			10.3	9.8
5.0				<5.0	
6.0	13.18			<5.0	
7.0				<5.0	
8.0	11.13			<5.0	20
10.0	10.63			<5.0	
12.0	10.27			<5.0	
16.0	10.22			<5.0	48
20.0	9.67			<5.0	
24.0	7.14			<5.0	
28.0	6.41			21.8	
32.0	5.97			30.9	5.6
36.0	5.89			36.9	
40.0	5.74				
43.0 bottom					

!OVERCAST WITH PATCHES OF BLUE

!WIND FROM N

!L0803B

TITLE: EKLOTNA LAKE

DATE: AUGUST 3, 1984

STATION NUMBER: 3

STARTING TIME: 1420

ENDING TIME: 1540

SECCHI DISC: 2.0 ft

SURFACE TEMP: 15.7

LAKE DEPTH: 55.0 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	15.74			11.0	
0.5	15.77			11.0	
1.0	15.77			10.9	
2.0	15.75			10.8	11.0
3.0				10.4	
4.0	14.85			10.2	
5.0				8.6	
6.0	12.96			5.1	
8.0	11.15			<5.0	22
10.0	10.63			<5.0	
12.0	9.98			<5.0	
16.0	9.50			<5.0	43
20.0	8.93			<5.0	
24.0	7.38			6.8	
28.0	6.32			26.0	7.4
32.0	5.96			31.6	
36.0	5.70			36.6	
40.0	5.61				
41.0 bottom					

EL0803C

TITLE: EKLUTNA LAKE
DATE: AUGUST 3, 1984
STATION NUMBER: 9
STARTING TIME: 1610
ENDING TIME: 1800
SECCHI DISC: 1.8 ft
SURFACE TEMP: 14.3
LAKE DEPTH: 55.0 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	14.25			8.4	
0.5	14.37			8.6	
1.0	14.42			8.5	
2.0	14.30			8.1	
3.0				7.5	
4.0	13.60			6.7	
6.0	11.66			<5.0	22
8.0	10.58			<5.0	
9.0				<5.0	
10.0	9.94			<5.0	
12.0	9.53			<5.0	
16.0	9.10			<5.0	
20.0	8.25			<5.0	
24.0	6.80			12.2	
28.0	6.35			18.4	7.4
32.0	6.08			24.4	
36.0	5.87			29.6	
40.0	5.70			32.4	
44.0	5.55			37.5	
48.0	5.40				
52.0	5.10				
55.0	bottom				

!OVERCAST, NO BLUE
!WIND FROM NNW
!L0803I

TITLE: EKLOTNA LAKE

DATE: AUGUST 3, 1984

STATION NUMBER: 15

STARTING TIME: 2040

ENDING TIME: 2130

SECCHI DISC: 1.5 ft

SURFACE TEMP: 13.0

LAKE DEPTH: 55.0 m

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DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	12.96			6.6	
0.5	12.98			6.4	
1.0	12.75			6.1	
2.0	12.69			5.8	
3.0				5.7	
4.0	11.95			5.3	13.0
5.0				5.4	
6.0	11.71			<5.0	
7.0				<5.0	
8.0	11.31			<5.0	
10.0	10.84			<5.0	
12.0	10.53			<5.0	
16.0	9.57				
17.0	BOTTOM				

! CALM AND OVERCAST
! L08030

TITLE: EKLUINA LAKE
DATE: AUGUST 20, 1984
STATION NUMBER: :
STARTING TIME: 1551
ENDING TIME: 1658
SECCHI DISC: 1.5 ft
SURFACE TEMP: 12.9
LAKE DEPTH: 57.8 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	12.87	102		<5.0	32
0.5	12.85	101		<5.0	--
1.0	12.84	103		<5.0	36
2.0	12.82	104		<5.0	33
4.0	12.82	104		<5.0	22
6.0	12.79	105		<5.0	35
8.0	12.77	105		<5.0	35
10.0	12.10	101		<5.0	60
12.0	11.97	96		<5.0	100

!WEATHER MOSTLY CLOUDY. WIND FROM NORTH
!WAVES 0.6ft
!L0820A

TITLE: EKLOTNA LAKE
 DATE: AUGUST 20, 1984
 STATION NUMBER: 2
 STARTING TIME: 1330
 ENDING TIME: *
 SECCHI DISC: 1.4 ft
 SURFACE TEMP: 12.9
 LAKE DEPTH: 57.8 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	12.95	99		<5.0	34
0.5	12.90	99		<5.0	--
1.0	12.83	101		<5.0	35
2.0	12.75	101		<5.0	36
4.0	12.33	99		<5.0	34
6.0	12.26	95		<5.0	34
8.0	12.20	92		<5.0	36
10.0	11.66	88		<5.0	35
12.0	10.80	84		<5.0	46
16.0	9.38	78		<5.0	115
20.0	8.94	77		<5.0	90
24.0	8.56	78		<5.0	77
28.0	7.00	84		<5.0	100
32.0	6.16	87		<5.0	17.8
36.0	5.77	91		28.5	12.5

WEATHER MOSTLY CLOUDY. WIND FROM NORTH
 WAVES 0.9 ft. TROUGH TO CREST
 10820B

TITLE: EKLUTNA LAKE
DATE: AUGUST 20, 1984
STATION NUMBER: 3
STARTING TIME: 1154
ENDING TIME: 1325
SECCHI DISC: 1.4 ft
SURFACE TEMP: 12.5
LAKE DEPTH: 57.8 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	12.62	90		<5.0	35
0.5	12.59	92		<5.0	--
1.0	12.58	98		<5.0	33
2.0	12.60	98		<5.0	33
4.0	12.47	95		<5.0	37
6.0	12.24	92		<5.0	40
8.0	12.22	94		<5.0	35
10.0	11.66	95		<5.0	62
12.0	10.52	90		<5.0	90
16.0	9.07	80		<5.0	64
20.0	8.39	79		<5.0	72
24.0	8.23	78		<5.0	125
28.0	6.50	94		<5.0	24
30.0	----	--		8.8	11.5

WEATHER PARTLY CLOUDY, WIND FROM NW
WAVES 0.5 ft
L0820C

TITLE: EKLUTNA LAKE
 DATE: AUGUST 20, 1984
 STATION NUMBER: 4
 STARTING TIME: 0905
 ENDING TIME: 1130
 SECCHI DISC: 1.6 ft
 SURFACE TEMP: 12.5
 LAKE DEPTH: 57.8 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	12.52	104		<5.0	36
0.5	12.47	104		<5.0	--
1.0	12.46	105		<5.0	33
2.0	12.35	104		<5.0	33
4.0	12.22	97		<5.0	34
6.0	12.20	98		<5.0	35
8.0	12.11	101		<5.0	37
10.0	11.60	102		<5.0	46
12.0	10.10	94		<5.0	76
16.0	9.50	88		<5.0	76
20.0	8.50	92		<5.0	63
24.0	8.00	94		<5.0	50
28.0	6.55	101		<5.0	33
32.0	6.08	101		16.8	23
36.0	5.76	102		33.1	16.0
40.0	5.51	102		44.6	8.9
44.0	5.36	103		50.5	8.5
46.0	----	----		----	9.5
48.0	5.22	104		51.5	----
52.0	5.09	102		50.5	11.5
56.0	4.97	104		----	----

WEATHER OVERCAST WITH A FEW PATCHES OF BLUE SKY
 WIND FROM SSE
 100820D

TITLE: EKLUTNA LAKE
 DATE: AUGUST 19, 1984
 STATION NUMBER: 5
 STARTING TIME: 1645
 ENDING TIME: 1850
 SFCCHI DJSC: 1.1 ft
 SURFACE TEMP: 11.8
 LAKE DEPTH: 57.8 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	11.84	91		<5.0	40
0.5	11.84	95		<5.0	--
1.0	11.82	98		<5.0	42
2.0	11.80	100		<5.0	42
4.0	11.46	97		<5.0	40
6.0	11.11	95		<5.0	45
8.0	10.83	95		<5.0	48
10.0	10.60	92		<5.0	57
12.0	10.53	92		<5.0	60
16.0	9.55	91		<5.0	47
20.0	8.94	88		<5.0	68
24.0	8.72	85		<5.0	65
28.0	7.96	91		<5.0	65
32.0	7.22	93		<5.0	19.5
36.0	6.23	98		15.6	14.0
40.0	5.95	98		31.1	11.5
44.0	5.80	100		36.2	10.5
48.0	5.66	99		45.6	13.8
52.0	5.22	101		40.2	16.5

WEATHER HTGH OVERCAST WITH A FEW PATCHES OF BLUE SKY
 160819E

TITLE: EKLUINA LAKE
 DATE: AUGUST 19, 1984
 STATION NUMBER: 6
 STARTING TIME: 1400
 ENDING TIME: 1600
 SECCHI DISC: 1.0 ft
 SURFACE TEMP: 10.6
 LAKE DEPTH: 57.8 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	10.64	93		<5.0	54
0.5	10.62	94		<5.0	--
1.0	10.63	96		<5.0	52
2.0	10.63	96		<5.0	48
4.0	10.60	96		<5.0	54
6.0	10.37	92		<5.0	56
8.0	10.00	92		<5.0	61
10.0	9.88	90		<5.0	75
12.0	9.74	86		<5.0	68
16.0	9.29	86		<5.0	70
20.0	9.16	86		<5.0	70
24.0	8.94	87		<5.0	69
28.0	8.22	86		<5.0	56
32.0	7.86	84		<5.0	75
36.0	7.06	83		<5.0	65
40.0	6.70	92		<5.0	32
42.0	----	--		<5.0	--
44.0	6.40	95		---	25

WEATHER OVERCAST WITH STRONG WIND FROM NNW
 WAVES 1.0 ft
 L0819F

TITLE: EKLOTNA LAKE
 DATE: AUGUST 19, 1984
 STATION NUMBER: 7
 STARTING TIME: 0825
 ENDING TIME: 1125
 SECCHI DISC: 1.1 ft
 SURFACE TEMP: 13.4
 LAKE DEPTH: 57.8 m

DEPTH (meter)	TEMP. (Celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	13.56	100		<5.0	32
0.5	13.52	101		<5.0	--
1.0	13.52	100		<5.0	31
2.0	13.19	99		<5.0	31
4.0	12.52	98		<5.0	31
6.0	11.90	96		<5.0	35
8.0	10.96	93		<5.0	34
10.0	10.51	94		<5.0	35
12.0	10.24	95		<5.0	36
16.0	9.03	93		<5.0	43
20.0	8.72	93		<5.0	48
24.0	8.16	97		<5.0	30
28.0	7.63	95		5.7	19.6
32.0	6.60	97		28.3	4.9
36.0	5.88	97		41.6	6.6
40.0	5.38	96		47.6	5.3
44.0	5.26	94		49.8	4.8
48.0	5.16	96		49.4	---

WEATHER MOSTLY OVERCAST WITH SOME BLUE PATCHES, LIGHT RAIN
 WINDS CALM, WAVES 0.1 ft
 AT 0840, WIND STARTED BLOWING FROM N AND STARTED RAINING
 L0819G

TITLE: EKLUINA LAKE
 DATE: AUGUST 19, 1984
 STATION NUMBER: 8
 STARTING TIME: 1150
 ENDING TIME: 1345
 SECCHI DISC: 1.5 ft
 SURFACE TEMP: 13.4
 LAKE DEPTH: 57.8 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	13.36	102		<5.0	31
0.5	13.36	108		<5.0	--
1.0	13.36	110		<5.0	34
2.0	13.31	110		<5.0	33
4.0	12.06	102		<5.0	42
6.0	10.98	95		<5.0	56
8.0	9.80	90		<5.0	54
10.0	9.19	88		<5.0	50
12.0	8.97	85		<5.0	54
16.0	8.82	82		<5.0	63
20.0	8.49	85		<5.0	58
24.0	7.93	86		<5.0	56
28.0	7.33	93		<5.0	25
32.0	6.54	95		13.6	15.5
36.0	5.77	97		31.7	5.5
40.0	5.44	96		39.6	7.5
44.0	5.35	95		46.6	4.7
46.0	----	--		----	4.5
48.0	5.16	96		46.6	---
52.0	5.07	96		----	---

WEATHER OVERCAST WITH DRIZZLE
 WIND FROM NNW
 1:0819H

TITLE: EKLOTNA LAKE
 DATE: AUGUST 18, 1984
 STATION NUMBER: 9
 STARTING TIME: 0745
 ENDING TIME: 1030
 SECCHI DISC: 1.5 ft
 SURFACE TEMP: 13.8
 LAKE DEPTH: 57.8 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	13.78	115		5.4	26
0.5	13.79	115		5.5	--
1.0	13.80	115		5.4	26
2.0	13.76	116		5.3	26
4.0	12.78	108		<5.0	26
6.0	10.25	94		<5.0	30
8.0	10.04	89		<5.0	65
10.0	9.72	87		<5.0	50
12.0	9.50	87		<5.0	69
16.0	8.74	82		<5.0	75
20.0	8.63	78		<5.0	67
24.0	8.31	82		<5.0	51
28.0	7.67	84		8.5	13.0
32.0	6.13	91		19.9	12.6
36.0	5.73	90		28.2	10.5
40.0	5.54	89		32.5	7.1
44.0	5.39	88		42.6	5.5
48.0	5.14	88		41.8	
50.0					7.6
52.0	4.94	88		42.6	
54.0					29

WEATHER OVERCAST. MEDIUM WIND FROM NNW
 WAVES 0.3 ft
 L0818T

TITLE: EKLUITNA LAKE
 DATE: AUGUST 17, 1984
 STATION NUMBER: 10
 STARTING TIME: 1810
 ENDING TIME: 1950
 SECCHI DISC: 1.6 ft
 SURFACE TEMP: 15.1
 LAKE DEPTH: 57.8 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	15.19	97		6.4	25
0.5	15.17	103		6.4	--
1.0	15.16	103		6.4	23
2.0	15.14	99		6.4	25
4.0	12.15	96		<5.0	40
6.0	10.62	80		<5.0	42
8.0	9.68	76		<5.0	52
10.0	9.38	74		<5.0	55
12.0	9.16	73		<5.0	62
16.0	8.73	76		<5.0	65
20.0	8.30	76		<5.0	30
24.0	7.65	80		5.8	24
28.0	6.53	79		20.8	15.2
30.0					10.2
32.0	5.70	80		32.7	

WEATHER HIGH OVERCAST. WIND FROM NNW
 :LOR17J

TITLE: EKLOTNA LAKE
 DATE: AUGUST 17, 1984
 STATION NUMBER: 11
 STARTING TIME: 1425
 ENDING TIME: 1715
 SECCHI DISC: 1.4 ft
 SURFACE TEMP: 14.9
 LAKE DEPTH: 57.8 m

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DEPTH (meter)	TEMP. (Celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	14.96	108		6.1	26
0.5	14.94	108		6.3	--
1.0	14.90	108		6.4	25
2.0	14.68	108		6.1	25
4.0	12.74	102		<5.0	37
6.0	11.68	95		<5.0	42
8.0	10.43	88		<5.0	47
10.0	9.82	86		<5.0	43
12.0	9.54	84		<5.0	38
16.0	9.15	81		<5.0	35
20.0	8.67	78			56
24.0	8.06	74		<5.0	43
28.0	6.88	80		12.7	20
32.0	5.84	82		28.7	11.9
36.0	5.57	84		36.8	9.0
40.0	5.47	85		37.8	8.5
42.0				37.0	
44.0	5.30	84			9.5

WEATHER MOSTLY CLOUDY, LIGHT WINDS FROM NW
 110817K

TITLE: EKLUINA LAKE
 DATE: AUGUST 17, 1984
 STATION NUMBER: 12
 STARTING TIME: 1300
 ENDING TIME: 1350
 SECCHI DISC: 1.3 ft
 SURFACE TEMP: 13.9
 LAKE DEPTH: 57.8 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	14.04	98		5.6	32
0.5	14.00	100		5.8	--
1.0	13.92	106		5.6	28
2.0	13.60	105		5.2	32
4.0	13.16	98		<5.0	47
6.0	11.12	80		<5.0	41
8.0	10.50	76		<5.0	40
10.0	9.98	78		<5.0	39
12.0	9.45	77		<5.0	55
16.0	8.64	76		<5.0	47
20.0	8.15	75		<5.0	43
24.0	7.62	75		<5.0	45

WEATHER MOSTLY CLOUDY, WIND FROM NW
 WAVES 0.5 ft
 L0817L

TITLE: EKLUTNA LAKE
 DATE: AUGUST 17, 1984
 STATION NUMBER: 13
 STARTING TIME: 1047
 ENDING TIME: *
 SECCHI DISC: 1.4 ft
 SURFACE TEMP: 14.9
 LAKE DEPTH: 57.8 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	14.88	82		6.5	28
0.5	14.85	85		6.6	--
1.0	14.78	93		6.4	27
2.0	14.15	95		6.2	30
4.0	12.33	90		<5.0	47
6.0	11.14	84		<5.0	48
8.0	10.46	89		<5.0	40
10.0	9.86	90		<5.0	40
12.0	9.45	93		<5.0	44
16.0	8.88	88		<5.0	45
20.0	8.56	86		<5.0	42
24.0	7.82	83		<5.0	43
28.0	7.21	86		14.0	25

150% CLOUDY. SUN STILL OUT ON UPPER LAKE
 WIND FROM WNW
 WIND BLEW BOAT, DRAGGING ANCHOR APPROX. 150m UP LAKE
 LOB17M

TITLE: EKUITNA LAKE
 DATE: AUGUST 17, 1984
 STATION NUMBER: 14
 STARTING TIME: 0830
 ENDING TIME: 0950
 SECCHI DISC: 1.3 ft
 SURFACE TEMP: 14.7
 LAKE DEPTH: 57.8 m

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DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	14.69	83		<5.0	25
0.5	14.70	86		6.6	--
1.0	14.44	107		6.6	36
2.0	13.85	109		6.2	38
4.0	12.12	90		<5.0	55
6.0	11.30	97		<5.0	52
8.0	10.45	93		<5.0	49
10.0	9.70	100		<5.0	47
12.0	9.28	95		<5.0	50
16.0	8.76	90		<5.0	54
20.0	8.42	88		<5.0	58
24.0	7.86	89		<5.0	57

WEATHER MOSTLY SUNNY. LIGHT BREEZE FROM SOUTHEAST
 FOG JUST CLEARED LAKE
 10817N

TITLE: EKLUITMA LAKE
 DATE: AUGUST 16, 1984
 STATION NUMBER: 15
 STARTING TIME: 1640
 ENDING TIME: 1840
 SECCHI DISC: 1.4 ft
 SURFACE TEMP: 15.8
 LAKE DEPTH: 56.4 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	15.92	74		6.1	35
0.5	15.85	73		6.1	35
1.0	15.79	46		6.1	35
2.0	14.10	43		6.0	40
4.0	12.60	51		<5.0	50
6.0	11.13	78		<5.0	46
8.0	9.99	86		<5.0	44
10.0	9.45	81		<5.0	42
12.0	9.17	84		<5.0	44
16.0	8.86	78		<5.0	45
16.5					

WEATHER MOSTLY SUNNY. LIGHT WIND FROM THE EAST
 WAVES 0.2 ft
 L08160

TITLE: EKLUITNA LAKE
 DATE: SEPTEMBER 3, 1984
 STATION NUMBER: 3
 STARTING TIME: 1427
 ENDING TIME: 1542
 SECCHI DISC: 1.5 ft
 SURFACE TEMP: 12.9
 LAKE DEPTH: 60.3 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	12.93	96			20
0.5	11.11	96			--
1.0	10.85	93			21
2.0	10.63	92			22
4.0	10.55	92			23
6.0	10.51	90			22
8.0	10.46	84			22
10.0	10.35	79			22
12.0	9.79	82			30
16.0	8.62	79			40
20.0	8.22	78			37
24.0	7.70	77			35
28.0	7.00	81			25
32.0	6.50	83			19.0
36.0	6.22	83			17.4
40.0	5.95	83			13.2
44.0	5.77	83			12.9
47.5	bottom				

! SUNNY, WINDS CALM
 ! ROLLING WAVES 0.1 ft
 ! L0903B

TITLE: EKLUINA LAKE
DATE: SEPTEMBER 3, 1984
STATION NUMBER: 1
STARTING TIME: 1550
ENDING TIME: 1650
SECCHI DISC: 1.6 ft
SURFACE TEMP: 12.7
LAKE DEPTH: 60.3 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	12.57	89			40
0.5	11.70	92			--
1.0	10.85	96			45
2.0	10.66	94			45
4.0	10.51	95			40
6.0	10.48	94			55
8.0	10.47	96			29
10.0	10.32	94			35
12.0	9.62	88			35
16.0	8.60	84			34
20.0	8.24	83			34
24.0	7.60	86			33
25.6 bottom					

*CLEAR WITH A FEW CLOUDS
*LIGHT BREEZE FROM SSE
*L0903A

TITLE: EKLUTNA LAKE
 DATE: SEPTEMBER 3, 1984
 STATION NUMBER: 5
 STARTING TIME: 1705
 ENDING TIME: 1755
 SECCHI DISC: 1.6 ft
 SURFACE TEMP: 12.6
 LAKE DEPTH: 60.3 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	12.46	105			
0.5	11.76	106			
1.0	11.02	105			
2.0	10.68	104			
4.0	10.54	102			
6.0	10.47	101			
8.0	10.45	99			
10.0	10.40	99			
12.0	9.89	94			
16.0	8.68	89			
20.0	8.16	88			
24.0	7.88	89			
28.0	6.90	95			
32.0	6.52	98			
36.0	6.21	98			
40.0	5.88	101			
44.0	5.54	100			
47.0 bottom					

HL0903C

TITLE: EKOUTNA LAKE
 DATE: SEPTEMBER 3, 1984
 STATION NUMBER: 9
 STARTING TIME: 1200
 ENDING TIME: 1412
 SECCHI DISC: 1.4 ft
 SURFACE TEMP: 11.4
 LAKE DEPTH: 60.3 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	11.43	83			22
0.5	10.70	90			--
1.0	10.65	88			22
2.0	10.58	82			22
4.0	10.46	84			22
6.0	10.40	80			25
8.0	10.36	82			25
10.0	10.25	81			27
12.0	10.24	85			37
16.0	8.99	81			40
20.0	8.33	79			50
24.0	7.84	80			34
28.0	7.42	82			36
32.0	7.03	86			24
36.0	6.32	88			17.5
40.0	6.06	90			16.0
44.0	5.84	90			13.1
48.0	5.67	90			14.1
52.0	5.43	90			14.0
56.0	5.26	90			11.7
57.0	bottom				

WIND FROM NW STARTED AT 1309
 WAVES APPROX. 0.3 ft
 L09031

TITLE: EKLOTNA LAKE
DATE: SEPTEMBER 3, 1984
STATION NUMBER: 15
STARTING TIME: 1035
ENDING TIME: 1125
SECCHI DISC: 1.4 ft
SURFACE TEMP: 10.6
LAKE DEPTH: 60.3 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	10.70	70			24
0.5	10.50	88			--
1.0	10.23	88			24
2.0	10.10	78			26
4.0	10.10	82			25
6.0	10.07	77			27
8.0	10.00	83			25
10.0	9.90	77			26
12.0	9.75	82			27
14.0	---	--			29
16.0	9.04	75			--
16.8 bottom					

!CLEAR, NO CLOUDS
!SLIGHT BREEZE FROM SSE
!L09030

TITLE: EKLUINA LAKE

DATE: SEPTEMBER 17, 1984

STATION NUMBER: 1

STARTING TIME: 1720

ENDING TIME: 1737

SECCHI DISC: 1.4 ft

SURFACE TEMP: 10.8

LAKE DEPTH: 60.8 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	10.85	96			
0.5	10.75	96			
1.0	8.95	98			
1.5	7.35	94			14.5
1.7 bottom					

OVERCAST, CALM
 10917A

TITLE: EKLUTNA LAKE
 DATE: SEPTEMBER 17, 1984
 STATION NUMBER: 2
 STARTING TIME: 1555
 ENDING TIME: 1700
 SECCHI DISC: 1.5 ft
 SURFACE TEMP: 10.5
 LAKE DEPTH: 60.8 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	10.49	92			
0.5	10.46	93			
1.0	10.46	95			
2.0	10.43	95			
4.0	10.28	87			15.0
6.0	9.94	87			
8.0	9.87	89			
10.0	9.84	89			17.5
12.0	9.82	92			
16.0	8.69	90			
20.0	8.14	89			25
24.0	7.40	89			
28.0	6.95	93			
32.0	6.46	94			
36.0	6.25	96			
40.0	6.10	97			10.5
44.0	5.87	98			
47.5	bottom				

!OVERCAST
 !BREEZE FROM N
 !WAVES 0.5 ft
 !L0917B

TITLE: EKLUTNA LAKE
 DATE: SEPTEMBER 17, 1984
 STATION NUMBER: 3
 STARTING TIME: 1415
 ENDING TIME: 1545
 SECCHI DISC: 1.5 ft
 SURFACE TEMP: 10.9
 LAKE DEPTH: 60.8 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	11.89	92			
0.5	10.52	91			
1.0	10.36	93			15.5
2.0	10.18	91			
4.0	10.15	91			
6.0	10.13	88			
8.0	10.11	89			
10.0	9.95	88			17.0
12.0	9.46	89			
16.0	8.81	86			
20.0	8.19	85			
24.0	7.64	85			
28.0	6.74	90			17.8
32.0	6.38	92			
36.0	6.18	94			
40.0	5.88	94			9.5
44.0	5.70	96			
47.5 bottom					

OVERCAST, CALM.
 SKIPS CLEARING OVER GLACIER.
 AT 1520, WIN INCREASING FROM THE WEST, WAVES 0.3 ft.
 120917C

TITLE: EKLUINA LAKE

DATE: SEPTEMBER 17, 1984

STATION NUMBER: 9

STARTING TIME: 1130

ENDING TIME: 1400

SECCHI DISC: 1.7 ft

SURFACE TEMP: 10.4

LAKE DEPTH: 60.8 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	10.39	97			23
0.5	10.28	97			--
1.0	10.20	97			23
2.0	10.12	92			24
4.0	10.09	92			24
6.0	10.08	91			23
8.0	9.96	91			25
10.0	9.64	92			25
12.0	9.20	92			26
16.0	8.70	89			33
20.0	8.17	85			29
24.0	7.92	84			32
28.0	7.46	86			30
32.0	7.07	88			24
36.0	6.80	91			19.5
40.0	6.19	94			14.0
44.0	5.90	94			15.0
48.0	5.70	95			17.0
52.0	5.25	96			16.0
56.0	5.18	97			18.0
59.0 bottom					

!OVERCAST. CALM.
 !WIND FROM NW AT 1140, DIED DOWN AT 1240.
 !L09171

TITLE: EKLOTNA LAKE
DATE: SEPTEMBER 17, 1984
STATION NUMBER: 15
STARTING TIME: 0920
ENDING TIME: 1110
SECCHI DISC: 1.6 ft
SURFACE TEMP: 10.0
LAKE DEPTH: 60.8 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	10.08	99			26
0.5	10.08	98			--
1.0	10.08	97			27
2.0	10.06	94			23
4.0	10.05	90			24
6.0	10.05	88			30
8.0	10.03	88			29
10.0	9.99	86			30
12.0	9.78	84			36
16.0	8.50	86			34
19.8	BOTTOM				

!PARTLY CLOUDY
!LIGHT WIND FROM SSE
!L09170

TITLE: EKLOTNA LAKE
DATE: OCTOBER 1, 1984
STATION NUMBER: 1
STARTING TIME: 1100
ENDING TIME: 1210
SECCHI DISC: 0.6 ft
SURFACE TEMP: 7.0
LAKE DEPTH: 61.2 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	7.0	88			25
0.5	7.2	88			71
1.0	6.5	81			163
2.0	4.0	82			220
2.2 bottom					

WEATHER CALM, LIGHT INTERMITTENT RAIN, OVERCAST
READINGS VERY UNSTABLE BECAUSE OF WANDERING STREAM PLUME
LI001A

TITLE: EKLUTNA LAKE
 DATE: OCTOBER 1, 1984
 STATION NUMBER: 2
 STARTING TIME: 1240
 ENDING TIME: 1420
 SECCHI DISC: 2.2 ft
 SURFACE TEMP: 9.0
 LAKE DEPTH: 61.2 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
-----	-----	-----	-----	-----	-----
0.0	9.00	87			12.7
0.5	8.94	88			-----
1.0	8.96	91			12.8
2.0	8.77	90			12.9
4.0	8.74	92			13.0
6.0	8.72	91			14.0
8.0	8.70	91			15.0
10.0	8.68	86			14.2
12.0	8.62	86			14.5
16.0	8.49	91			14.7
20.0	8.20	92			18.2
24.0	7.96	92			24
28.0	7.54	91			32
32.0	7.13	93			
34.0					15.0
36.0	6.53	95			
38.0					18.5
40.0	6.37	96			
42.0					16.0
44.0	6.30	97			
46.0					18.0
47.1	6.23	98			
47.1	bottom				

WIND FROM NNW AT 6 MPH, GUSTING TO 7 MPH.
 L1001B

TITLE: ERLUTNA LAKE
 DATE: OCTOBER 1, 1984
 STATION NUMBER: 3
 STARTING TIME: 1430
 ENDING TIME: 1600
 SECCHI DISC: 2.3 ft
 SURFACE TEMP: 9.1
 LAKE DEPTH: 61.2 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	9.11	86			12.0
0.5	9.06	86			12.0
1.0	9.03	89			12.0
2.0	8.96	89			12.0
4.0	8.83	88			12.0
6.0	8.81	84			12.0
8.0	8.80	85			13.0
10.0	8.80	85			13.0
12.0	8.73	85			13.0
16.0	8.40	86			16.0
20.0	7.80	87			18.0
24.0	7.62	87			17.0
28.0	7.35	89			16.0
32.0	6.94	90			15.0
36.0	6.64	91			13.5
40.0	6.38	92			15.3
44.0	6.84	90			11.6
48.0	6.74	89			
49.8	6.72	89			

!PARTLY SUNNY. OVERCAST.
 !WIND FROM ESE AT 9 MPH.
 !L1001C

TITLE: EKLUUTNA LAKE
 DATE: OCTOBER 1, 1984
 STATION NUMBER: 9
 STARTING TIME: 1620
 ENDING TIME: *
 SPECCHI DISC: 2.5 ft
 SURFACE TEMP: 8.8
 LAKE DEPTH: 61.2 m

DEPTH (meter)	TEMP. (Celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	8.91	97			13.1
0.5	8.90	97			
1.0	8.88	98			16.0
2.0	8.83	97			13.7
4.0	8.81	95			19.0
6.0	8.79	95			13.6
8.0	8.77	97			14.0
10.0	8.75	97			15.0
12.0	8.72	97			15.0
16.0	8.61	98			13.8
20.0	8.57	97			14.6
22.0	8.25				
24.0	7.81	97			15.0
28.0	6.93	100			14.7
32.0	6.73	100			13.0
36.0	6.56	101			12.0
40.0	6.20	102			11.5
44.0	5.95	103			17.8
48.0	5.71	102			26.
50.0	5.98	102			
52.0	6.13	102			62
56.0	6.29	101			75
58.0	6.33				
59.0	6.33	100			
59.3 bottom					

BROKEN CLOUDS, OVERCAST.
 WIND FROM SE AT 6 MPH.
 WIND PICKED UP TO 18 MPH FROM S AT 1850.
 110011

TITLE: EKLUINA LAKE
DATE: OCTOBER 1, 1984
STATION NUMBER: 15
STARTING TIME: 1920
ENDING TIME: 1935
SECCHI DISC: *
SURFACE TEMP: 8.8
LAKE DEPTH: 61.2 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	8.82	105			
1.0	8.82	104			
2.0	8.83	105			
4.0	8.82	101			10.3
6.0	8.82	101			
8.0	8.82	102			
10.0	8.82	102			
12.0	8.82	103			
14.0	8.82	104			
16.5	8.82	103			
18.5 bottom					

WIND PICKED UP AT STATION 9 TO STEADY 18 MPH FROM S
WAVES 1.5 TO 2.0 ft
L10010

TITLE: EKLOTNA LAKE
DATE: OCTOBER 15, 1984
STATION NUMBER: 1
STARTING TIME: 1115
ENDING TIME: 1135
SECCHI DISC: 3.9 ft
SURFACE TEMP: 1.5
LAKE DEPTH: 61.8 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	1.12	92			
0.5	1.60	93			
1.0	1.54	94			6.5
1.5 Bottom					

*LIGHT OVERCAST
*SLIGHT BREEZE FROM SSE
*LI015A

TITLE: EKLOTNA LAKE
 DATE: OCTOBER 15, 1984
 STATION NUMBER: 2
 STARTING TIME: 1145
 ENDING TIME: 1230
 SECCHI DISC: 2.6 ft
 SURFACE TEMP: 7.5
 LAKE DEPTH: 61.8 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	7.32	85			
0.5	7.31	86			
1.0	7.32	87			
2.0	7.32	87			
4.0	7.33	87			11.2
6.0	7.33	81			
8.0	7.32	82			
10.0	7.32	82			
12.0	7.31	80			11.2
16.0	7.30	81			
20.0	7.29	82			
24.0	7.16	82			11.2
28.0	6.84	86			
32.0	6.58	88			
36.0	6.45	88			
40.0	6.24	89			
44.0	6.22	89			17.8
48.0	6.15	89			
49.0	bottom				

1L1015B

TITLE: EKLOTNA LAKE
 DATE: OCTOBER 15, 1984
 STATION NUMBER: 5
 STARTING TIME: 0835
 ENDING TIME: 1050
 SECCHI DISC: 2.5 ft
 SURFACE TEMP: 7.5
 LAKE DEPTH: 61.8 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	7.25	89			
0.5	7.30	83			
1.0	7.31	82			11.6
2.0	7.31	71			
4.0	7.29	68			
6.0	7.29	64			11.8
8.0	7.29	64			
10.0	7.29	77			
12.0	7.29	76			
16.0	7.26	75			12.6
20.0	7.29	74			
24.0	7.00	82			
28.0	6.81	84			
32.0	6.68	85			
36.0	6.34	88			17.2
40.0	6.28	89			
44.0	6.17	89			
48.0	6.03	90			
49.0 bottom					

WEATHER SLIGHTLY HAZY
 :L1015C

TITLE: EKLUTNA LAKE
 DATE: OCTOBER 15, 1984
 STATION NUMBER: 9
 STARTING TIME: 1320
 ENDING TIME: 1510
 SECCHI DISC: 2.7 ft
 SURFACE TEMP: 7.6
 LAKE DEPTH: 61.8 m

DEPTH (meter)	TEMP. (Celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	7.49	79			
0.5	7.45	80			
1.0	7.47	81			
2.0	7.45	82			11.4
4.0	7.42	82			
6.0	7.41	81			
8.0	7.41	80			
10.0	7.41	81			11.7
12.0	7.40	82			
16.0	7.39	82			
20.0	7.39	82			12.4
24.0	7.39	81			
28.0	7.15	83			
32.0	6.75	84			
36.0	6.47	85			
40.0	6.30	86			18.4
44.0	6.18	86			
48.0	6.11	86			
52.0	6.01	87			
56.0	5.80	86			21
60.0	5.70	87			
60.0	bottom				

OVERCAST WITH HIGH THIN HAZE
 WINDS CALM. WAVES < 0.1 ft
 110151

TITLE: EKLUINA LAKE
 DATE: OCTOBER 15, 1984
 STATION NUMBER: 15
 STARTING TIME: 1530
 ENDING TIME: *
 SECCHI DISC: 2.7 ft
 SURFACE TEMP: 7.5
 LAKE DEPTH: 61.8 m

DEPTH (meter)	TEMP. (Celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	7.25	83			
0.5	7.25	83			
1.0	7.25	83			
2.0	7.25	83			10.6
4.0	7.21	82			
6.0	7.20	82			
8.0	7.19	81			
10.0	7.18	82			
12.0	7.16	82			11.1
16.0	7.19	82			
19.0 bottom					

MOSTLY CLEAR
 15 TO 4 MPH WINDS FROM W
 10150

TITLE: ERKUTNA LAKE
DATE: OCTOBER 29, 1984
STATION NUMBER: 1
STARTING TIME: 1355
ENDING TIME: 1420
SECCHI DISC: 2.5 ft
SURFACE TEMP: 5.2
LAKE DEPTH: 61.7 m

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DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	4.62	75			
0.5	4.70	76			
1.0	4.70	78			8.4
2.0	4.39	78			
2.0 bottom					

WEATHER VERY CLEAR, WIND FROM SE
11029A

TITLE: EKLOTNA LAKE
 DATE: OCTOBER 29, 1984
 STATION NUMBER: 2
 STARTING TIME: 1240
 ENDING TIME: 1330
 SECCHI DISC: 2.1 ft
 SURFACE TEMP: 6.0
 LAKE DEPTH: 61.7 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	5.88	76			
0.5	5.96	79			
1.0	5.92	79			
2.0	5.96	80			
4.0	5.96	79			11.0
6.0	5.95	79			
8.0	5.94	62			
10.0	5.94	60			
12.0	5.94	63			10.9
16.0	5.93	63			
20.0	5.92	64			
24.0	5.93	65			
28.0	5.93	66			11.3
32.0	5.93	69			
36.0	5.93	70			
40.0	5.90	70			11.2
44.0	5.85	71			
47.5	bottom				

WEATHER CLEAR, NO WIND
 110298

TITLE: EKLUINA LAKE
 DATE: OCTOBER 29, 1984
 STATION NUMBER: 3
 STARTING TIME: 0940
 ENDING TIME: 1215
 SECCHI DISC: 2.1 ft
 SURFACE TEMP: 6.2
 LAKE DEPTH: 61.7 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	5.73		73		
0.5	5.74		79		
1.0	5.76		79		
2.0	5.76		79		
4.0	5.77				11.0
6.0	5.76				
8.0	5.75				
10.0	5.75	66			
12.0	5.75	69			
16.0	5.75	66			11.0
20.0	5.75	71			
24.0	5.76	72			
28.0	5.76	72			
32.0	5.73	73			10.8
36.0	5.69	73			
40.0	5.66	74			
44.0	5.65	76			10.9
48.0	5.55	76			
48.9 bottom					

!WEATHER MOSTLY CLEAR
 !SLIGHT WIND FROM SE
 !L1029C

TITLE: EKLUINA LAKE
 DATE: OCTOBER 29, 1984
 STATION NUMBER: 9
 STARTING TIME: 1515
 ENDING TIME: *
 SECCHI DISC: 2.1 ft
 SURFACE TEMP: 6.3
 LAKE DEPTH: 61.7 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	5.60	81			
0.5	5.78	81			
1.0	5.77	81			
2.0	5.82	82			
4.0	5.82	81			
6.0	5.83	83			
8.0	5.85	82			11.3
10.0	5.85	82			
12.0	5.85	74			
16.0	5.86	73			
20.0	5.86	72			11.5
24.0	5.86	71			
28.0	5.86	71			
32.0	5.87	72			
36.0	5.86	72			11.0
40.0	5.87	72			
44.0	5.87	72			
48.0	5.87	73			
52.0	5.87	74			
56.0	5.86	74			11.2
59.3	5.87	74			
59.3	bottom				

WEATHER CLEAR
 WIND FROM NW 5 MPH
 WAVES 0.4 ft
 110291

TITLE: EKLUTNA LAKE
DATE: OCTOBER 29, 1984
STATION NUMBER: 15
STARTING TIME: 1640
ENDING TIME: *
SECCHI DISC: 2.6 ft
SURFACE TEMP: 5.5
LAKE DEPTH: 61.7 m

=====

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	5.07	81			
0.5	5.19	81			
1.0	5.21	81			
2.0	5.22	82			10.2
4.0	5.28	82			
6.0	5.28	83			
8.0	5.29	79			
10.0	5.28	79			
12.0	5.28	77			11.0
16.0	5.25	76			
20.0	5.23	76			
21.0 bottom					

WEATHER MOSTLY CLEAR, NO WIND
GETTING DARK.
LI10290

TITLE: EKLUTNA LAKE
DATE: NOVEMBER 12, 1984
STATION NUMBER: 1
STARTING TIME: 0945
ENDING TIME: 1030
SECCHI DISC: 2.6 ft
SURFACE TEMP: 4.0
LAKE DEPTH: 61.0 m

=====

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	3.72	75			
0.5	3.73	72			
1.0	3.75	72			
2.0	3.77	80			11.0
2.0 bottom.					

!WEATHER CLEAR
!LIGHT BREEZE FROM SE
!FOG MOVING TOWARD NW
!L1112A

TITLE: EKLUTNA LAKE
 DATE: NOVEMBER 12, 1984
 STATION NUMBER: 2
 STARTING TIME: 1040
 ENDING TIME: 1210
 SECCHI DISC: 2.7 ft
 SURFACE TEMP: 4.8
 LAKE DEPTH: 61.0 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	4.48	67			
0.5	4.56	69			
1.0	4.56	74			
2.0	4.58	71			
4.0	4.57	70			11.3
6.0	4.61	71			
8.0	4.60	76			
10.0	4.61	76			
12.0	4.60	78			
16.0	4.59	79			11.0
20.0	4.59	79			
24.0	4.61	79			
28.0	4.60	79			10.0
32.0	4.60	80			
36.0	4.59	79			
40.0	4.59	80			9.4
44.0	4.59	79			
48.0	4.49	70			
48.5 bottom					

!WEATHER CLEAR, CALM
 !SOME FOG
 !L1112B

TITLE: EKLUINA LAKE
 DATE: NOVEMBER 12, 1984
 STATION NUMBER: 5
 STARTING TIME: 1225
 ENDING TIME: *
 SECCHI DISC: 2.6 ft
 SURFACE TEMP: 4.6
 LAKE DEPTH: 61.0 m

DEPTH (meter)	TEMP. (degrees)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	4.30	74			
0.5	4.32	74			
1.0	4.32	73			
2.0	4.31	73			
4.0	4.39	69			8.4
6.0	4.40	70			
8.0	4.41	71			
10.0	4.41	71			
12.0	4.40	72			
16.0	4.46	73			9.6
20.0	4.46	73			
24.0	4.44	73			
28.0	4.43	74			9.6
32.0	4.38	75			
36.0	4.36	75			
40.0	4.31	76			9.7
44.0	4.22	76			
45.5	BOTTOM				

111120

TITLE: EKLOTNA LAKE
 DATE: NOVEMBER 12, 1984
 STATION NUMBER: 9
 STARTING TIME: 1400
 ENDING TIME: *
 SECCHI DISC: 2.8 ft
 SURFACE TEMP: 4.8
 LAKE DEPTH: 61.0 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY .. (NTU)
0.0	4.57	83			
0.5	4.55	83			
1.0	4.57	83			
2.0	4.60	83			
4.0	4.60	83			10.6
6.0	4.61	78			
8.0	4.61	76			
10.0	4.61	74			
12.0	4.61	76			
16.0	4.61	76			10.8
20.0	4.62	77			
24.0	4.61	77			
28.0	4.61	78			
32.0	4.62	78			11.0
36.0	4.62	79			
40.0	4.62	79			
44.0	4.61	78			
48.0	4.61	79			9.8
52.0	4.61	79			
56.0	4.66	79			
56.0 bottom					

111121

TITLE: EKIJUTNA LAKE
DATE: NOVEMBER 12, 1984
STATION NUMBER: 15
STARTING TIME: 1600
ENDING TIME: 1620
SECCHI DISC: 2.6 ft
SURFACE TEMP: 4.2
LAKE DEPTH: 61.0 m

=====

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	3.88	86			
0.5	3.82	87			
1.0	3.84	87			10.8
2.0	3.92	85			
4.0	3.96	76			
6.0	3.92	76			
8.0	3.93	78			
10.0	3.92	79			
12.0	3.93	78			10.4
14.0	4.00	79			
16.5 bottom					

1L11120

TITLE: EKLUJNA LAKE
 DATE: NOVEMBER 26, 1984
 STATION NUMBER: 1
 STARTING TIME: 0950
 ENDING TIME: 1040
 SECCHI DISC: 2.7 ft
 SURFACE TEMP: 2.1
 LAKE DEPTH: 60.6 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	2.40	72			
0.5	2.53	72			
1.0	2.65	73			
2.0	2.97	68			9.0
2.5 bottom					

WEATHER CLEAR, CALM
 LIGHT BREEZE FROM S
 11264

TITLE: EKLUTNA LAKE
 DATE: NOVEMBER 26, 1984
 STATION NUMBER: 2
 STARTING TIME: 1045
 ENDING TIME: 1145
 SECCHI DISC: 3.0 ft
 SURFACE TEMP: 3.5
 LAKE DEPTH: 60.6 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
=====	=====	=====	=====	=====	=====
0.0	3.25	77			
0.5	3.34	77			
1.0	3.48	77			
2.0	3.50	74			
4.0	3.63	72			8.2
6.0	3.65	69			
8.0	3.68	70			
10.0	3.66	69			
12.0	3.68	70			
16.0	3.68	70			
20.0	3.68	70			7.9
24.0	3.67	70			
28.0	3.66	70			
32.0	3.66	70			
36.0	3.68	70			
40.0	3.67	70			8.4
44.0	3.65	71			
48.0	3.61	70			
48.1 bottom					

SLIGHT AND VARIABLE WIND
 SLIGHTLY OVERCAST
 L1126B

TITLE: EKLUTNA LAKE
DATE: NOVEMBER 26, 1984
STATION NUMBER: 3
STARTING TIME: 1155
ENDING TIME: 1240
SECCHI DISC: 3.0 ft
SURFACE TEMP: 2.8
LAKE DEPTH: 60.6 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	2.56	74			
0.5	2.58	74			
1.0	2.61	74			
2.0	2.75	73			
4.0	2.97	73			8.2
6.0	3.00	70			
8.0	3.10	71			
10.0	3.21	70			
12.0	3.26	71			
16.0	3.22	70			
20.0	3.22	71			7.9
24.0	3.27	71			
28.0	3.32	72			
32.0	3.40	72			
36.0	3.42	72			
40.0	3.41	72			8.4
44.0	3.41	72			
44.5 bottom					

!WEATHER OVERCAST
!LIGHT AND VARIABLE WIND
!L1126C

TITLE: EKLUINA LAKE
 DATE: NOVEMBER 26, 1984
 STATION NUMBER: 9
 STARTING TIME: 1300
 ENDING TIME: 1410
 SECCHI DISC: 3.0 ft
 SURFACE TEMP: 1.9
 LAKE DEPTH: 60.6 m

DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	2.10	77			
0.5	2.14	77			
1.0	2.14	77			
2.0	2.25	75			8.8
4.0	2.62	74			
6.0	2.92	71			
8.0	3.26	73			
10.0	3.50	75			
12.0	3.58	75			
16.0	3.61	77			9.2
20.0	3.62	76			
24.0	3.64	77			
28.0	3.63	76			
32.0	3.62	77			9.0
36.0	3.62	77			
40.0	3.63	77			
44.0	3.64	77			
48.0	3.62	77			
52.0	3.61	78			8.2
56.0	3.66	78			
58.0	bottom				

WEATHER CLEAR OVER LAKE
 OVERCAST OVER GLACIER
 LIGHT BREEZE FROM NNE
 111267

TITLE: EKLUTNA LAKE
DATE: NOVEMBER 26, 1984
STATION NUMBER: 15
STARTING TIME: 1420
ENDING TIME: *
SECCHI DISC: 3.0 ft
SURFACE TEMP: 2.5
LAKE DEPTH: 60.6 m

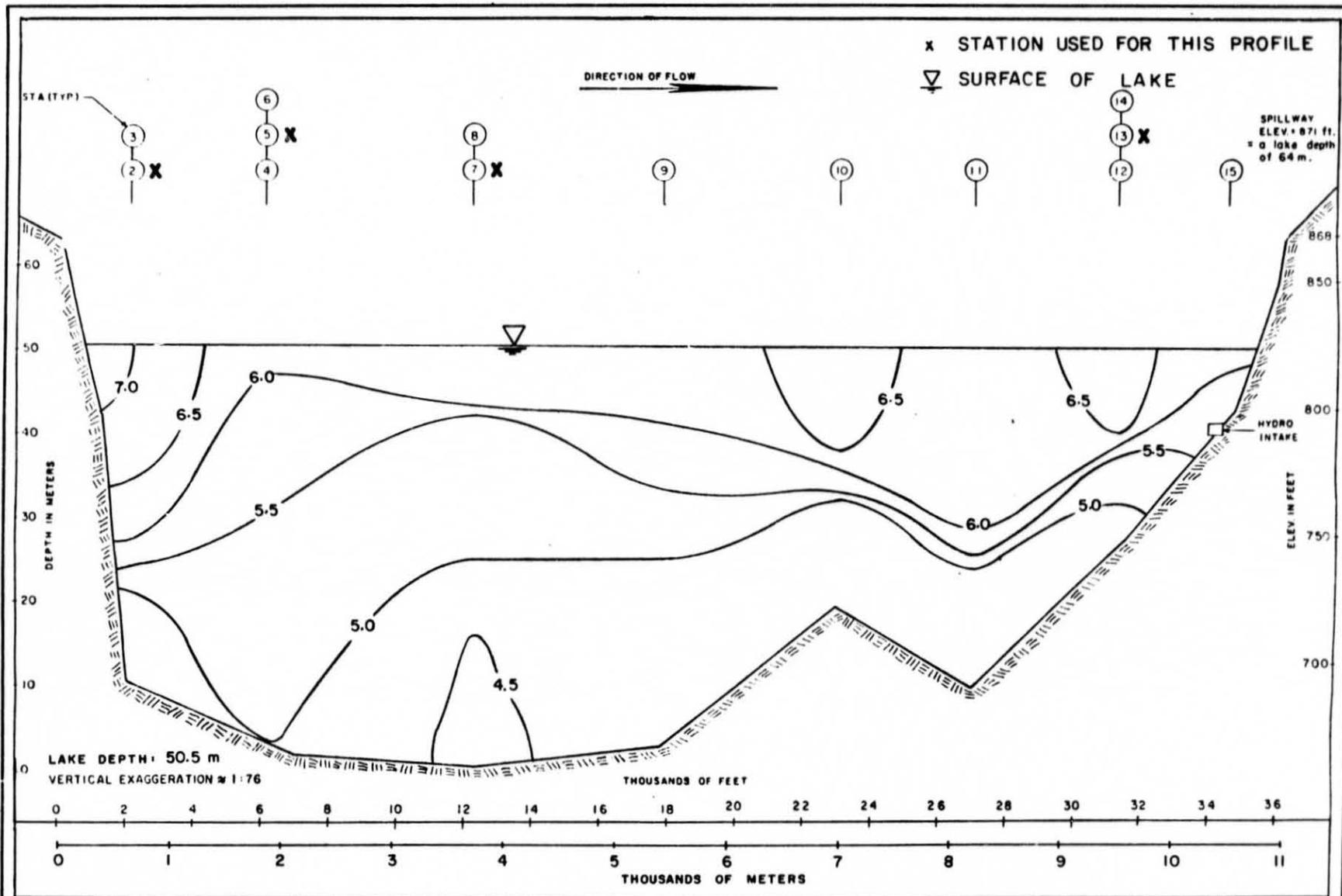
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DEPTH (meter)	TEMP. (celsius)	CONDUCTIVITY (umho)	CORR. CONDUCT. (umho)	TRANSMISS. (%)	TURBIDITY (NTU)
0.0	2.72	83			
0.5	2.74	83			
1.0	2.77	83			
2.0	2.82	83			
4.0	2.92	77			
6.0	3.13	79			
8.0	3.24	81			
10.0	3.28	79			9.2
12.0	3.31	81			
15.0	3.42	80			
19.6 bottom					

WEATHER CLEAR
15 MPH BREEZE FROM NW
THIN FOG ON LAKE
L11260

R24/5 62

APPENDIX H
LAKE TEMPERATURE ISOPLETHS



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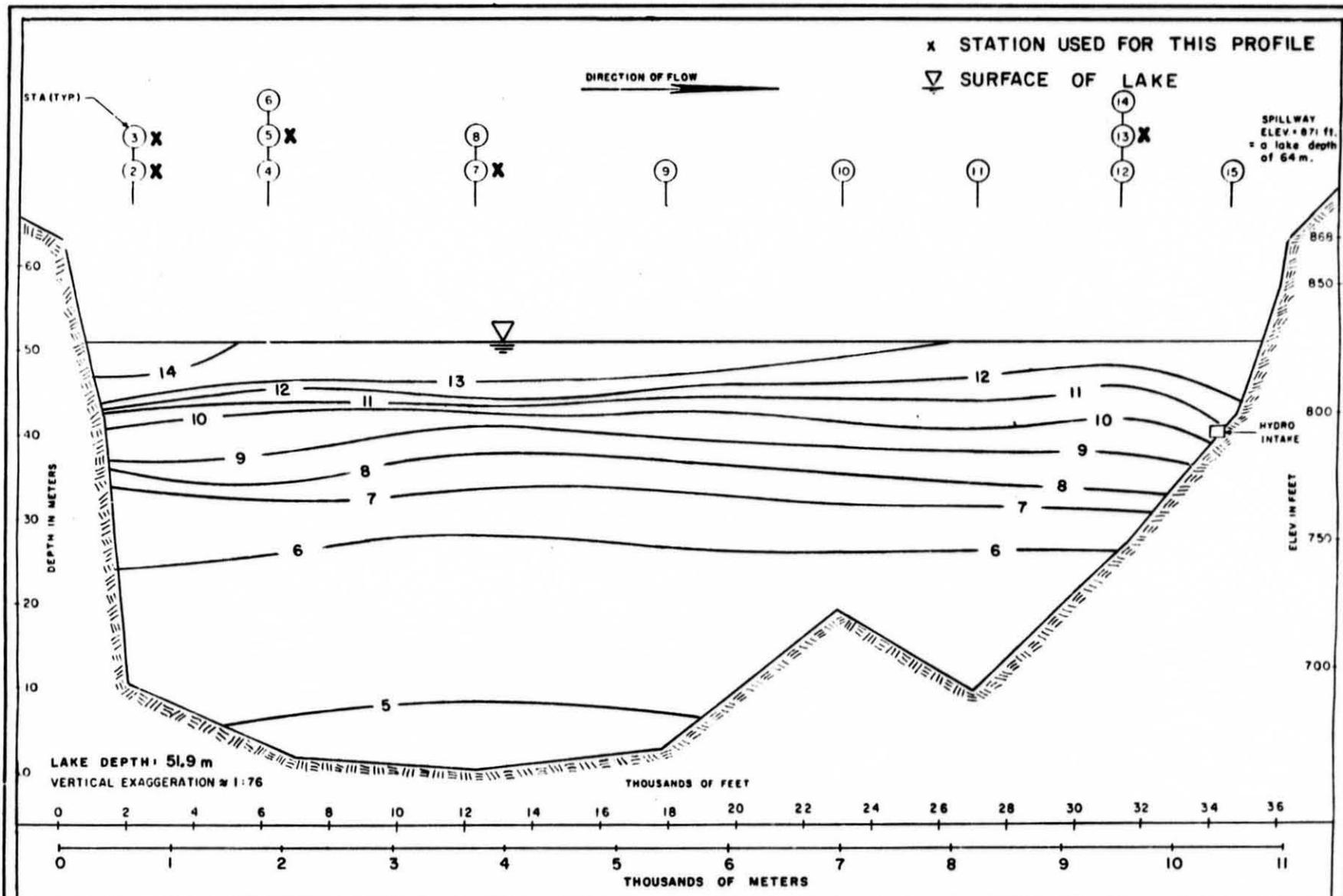
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EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
JUNE 2, 1983

FIGURE H.1

PREPARED FOR:

HARZA-EBASCO
 SUSITNA JOINT VENTURE



PREPARED BY:

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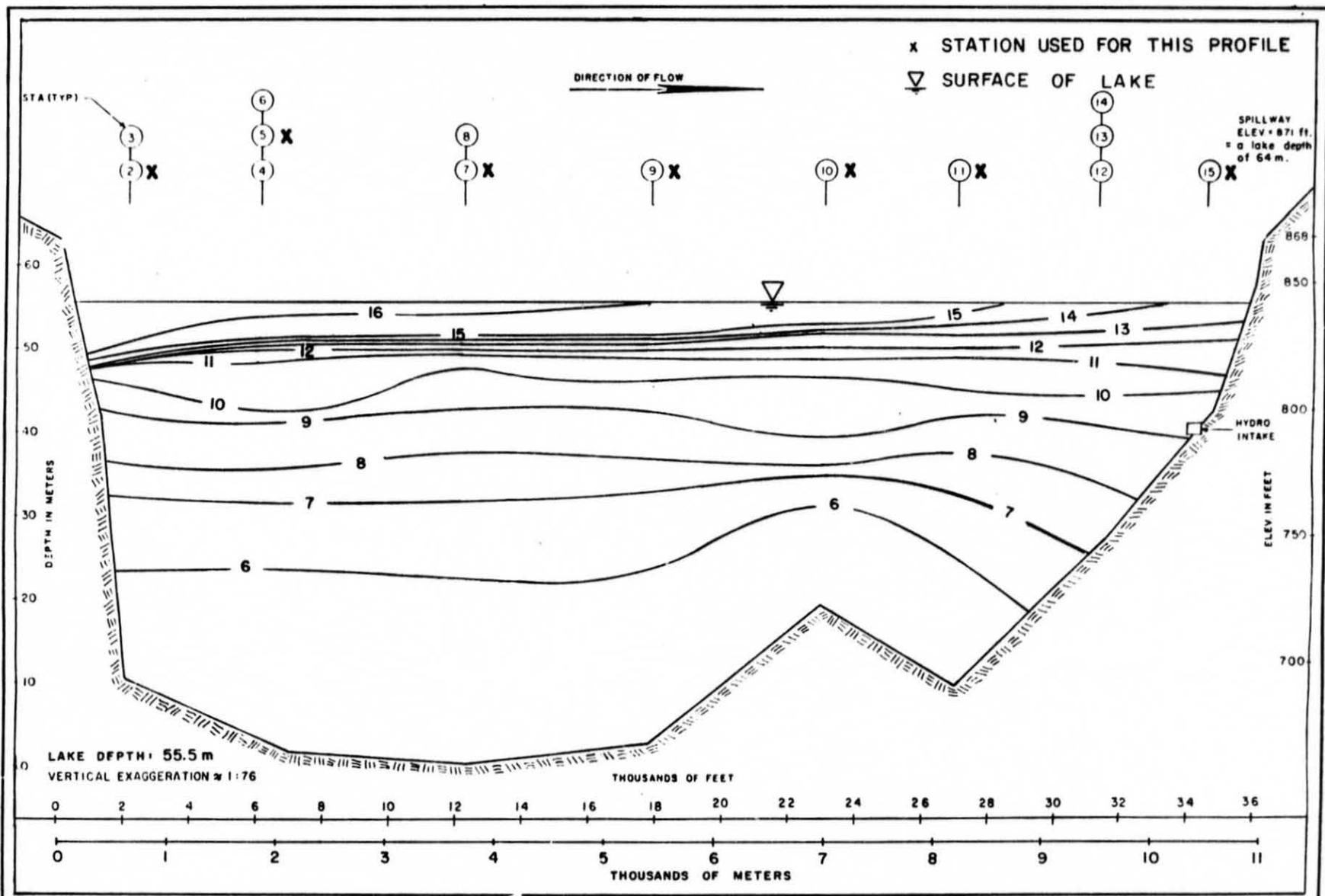
EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
JULY 6, 1983

FIGURE H.2

PREPARED FOR:

HARZA-EBASCO

SUSITNA JOINT VENTURE



PREPARED BY:

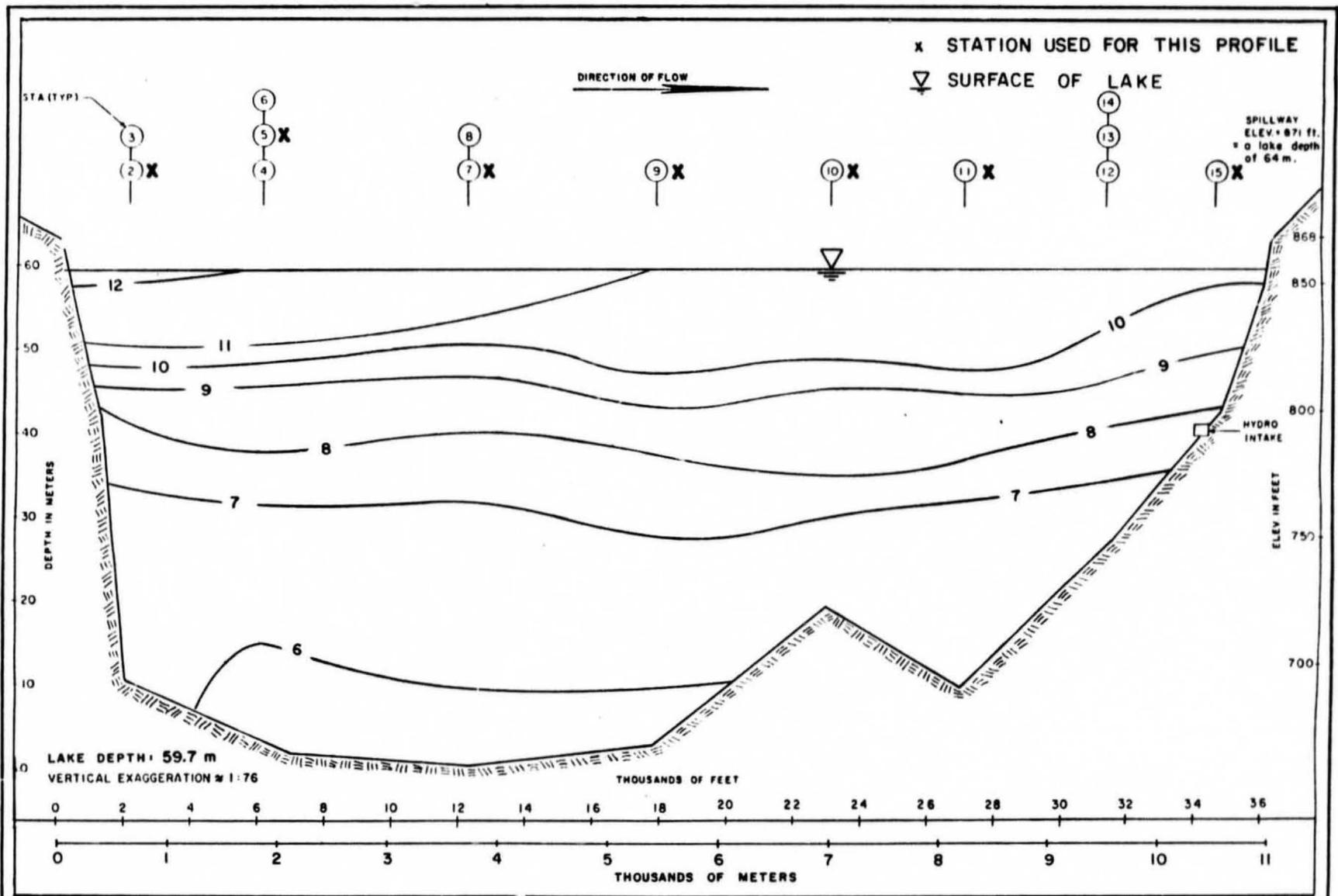
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EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
AUGUST 3, 1983

FIGURE H.3

PREPARED FOR:

HARZA-EBASCO
 SUSITNA JOINT VENTURE



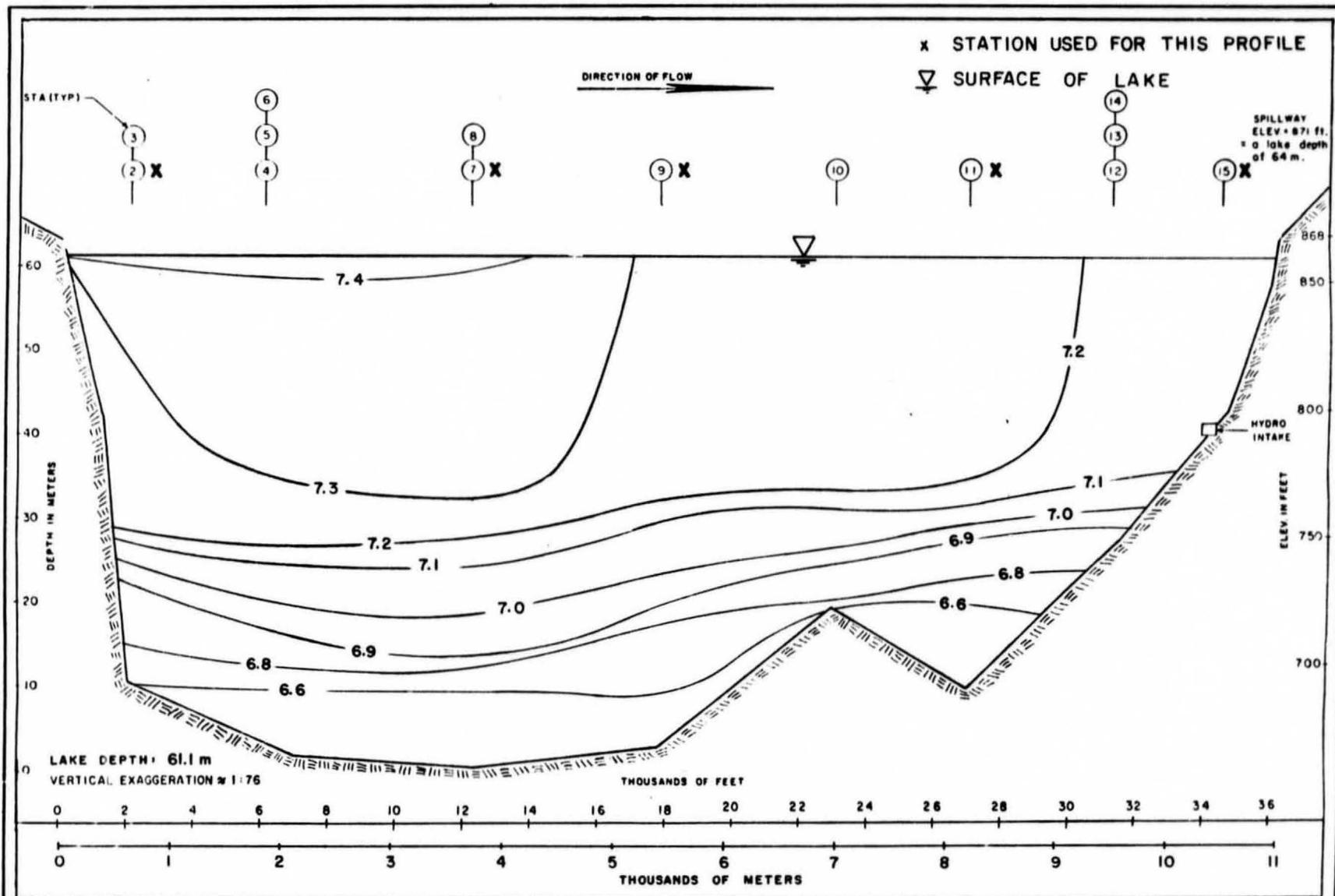
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EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
SEPTEMBER 7, 1983

FIGURE H.4

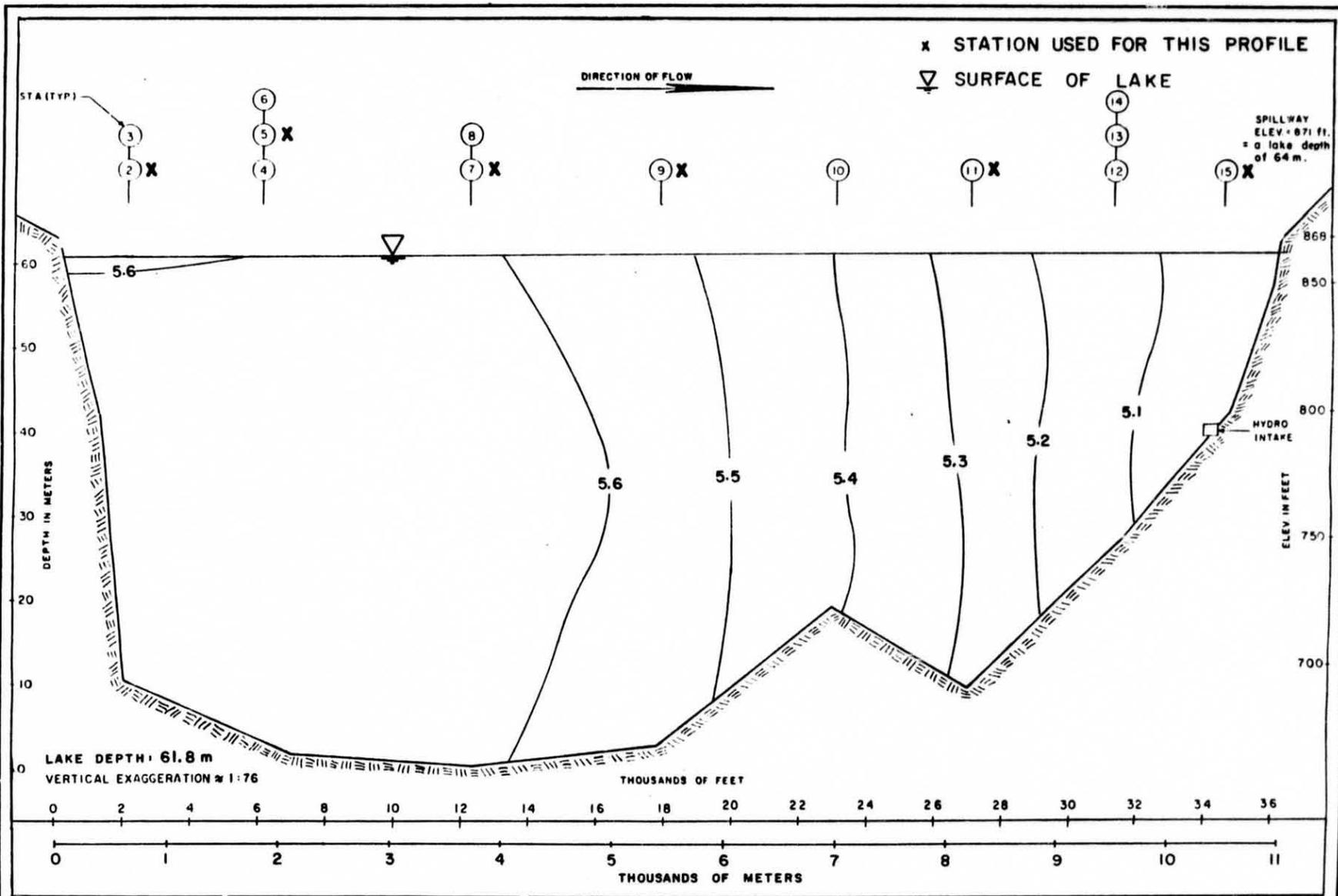
PREPARED FOR:
HARZA-EBASCO
 SUSITNA JOINT VENTURE



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EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
OCTOBER 5, 1983

FIGURE H.5
 PREPARED FOR:
HARZA-EBASCO
 SUSITNA JOINT VENTURE



PREPARED BY:

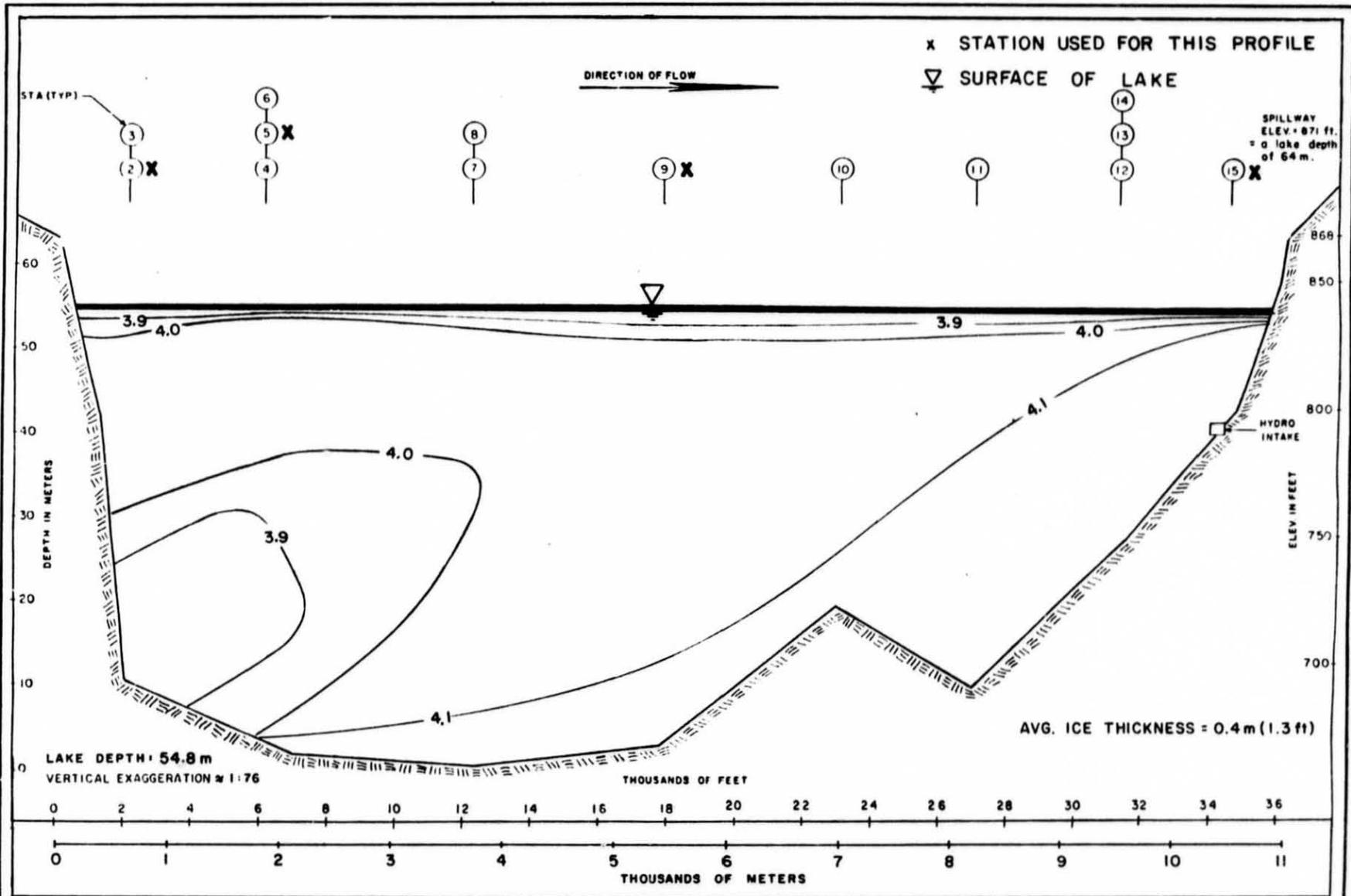
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EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
NOVEMBER 1, 1983

FIGURE H.6

PREPARED FOR:

HARZA-EBASCO
 SUSITNA JOINT VENTURE



PREPARED BY:

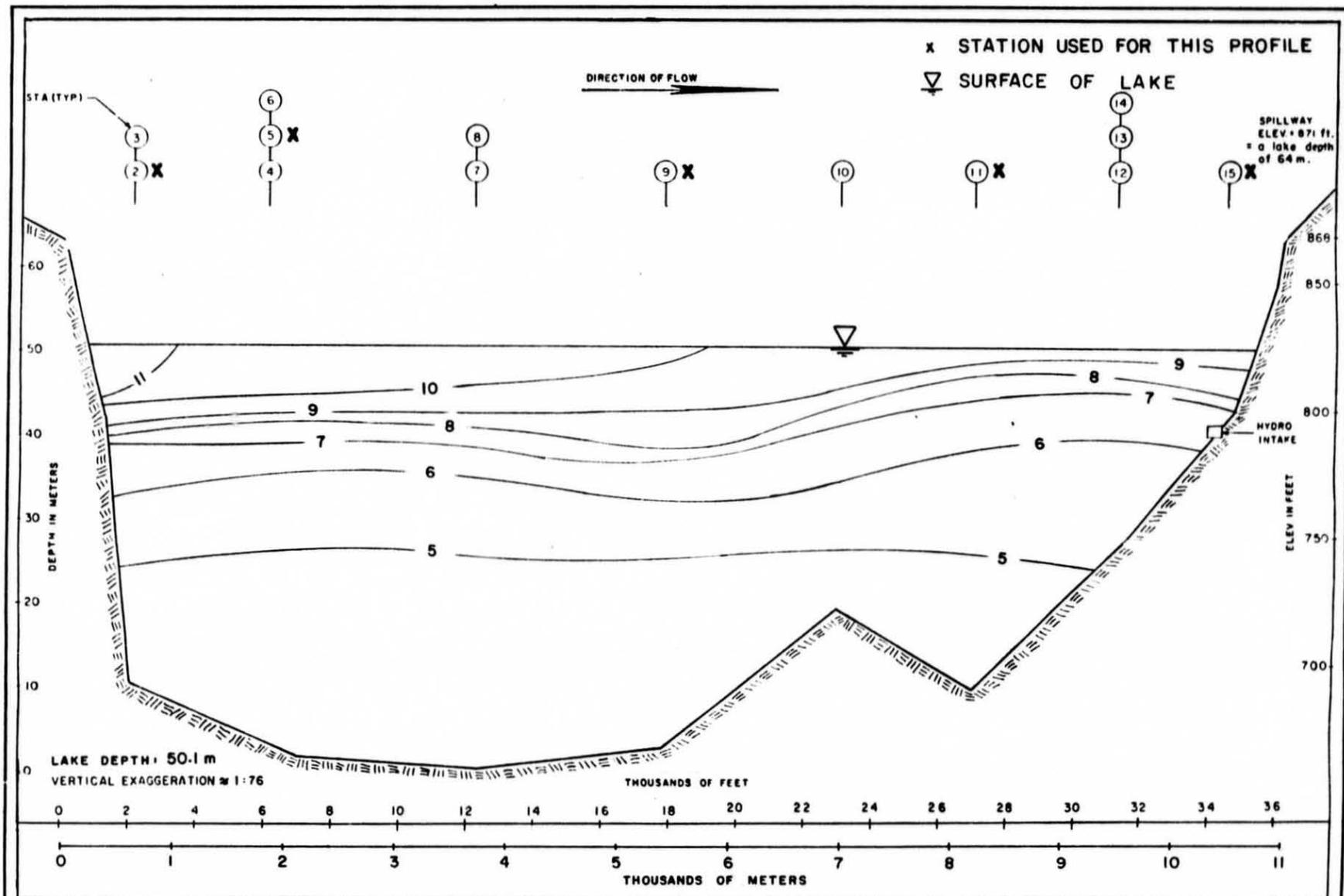
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EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
MARCH 23, 1984

FIGURE H.7

PREPARED FOR:

HARZA-EBASCO
 SUSITNA JOINT VENTURE



PREPARED BY:

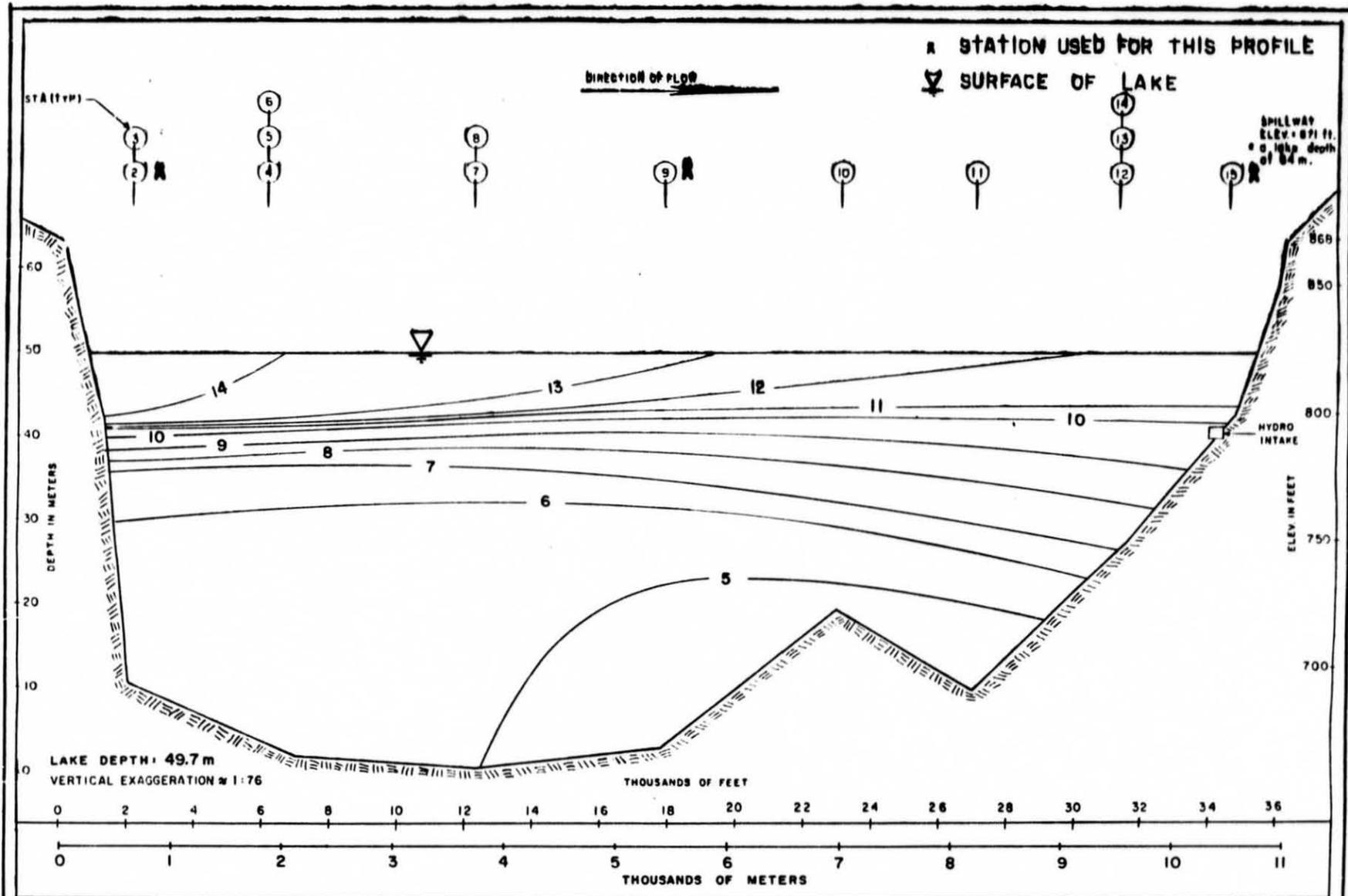
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EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
JUNE 6, 1984

FIGURE H.8

PREPARED FOR:

HARZA-EBASCO
 SUSITNA JOINT VENTURE



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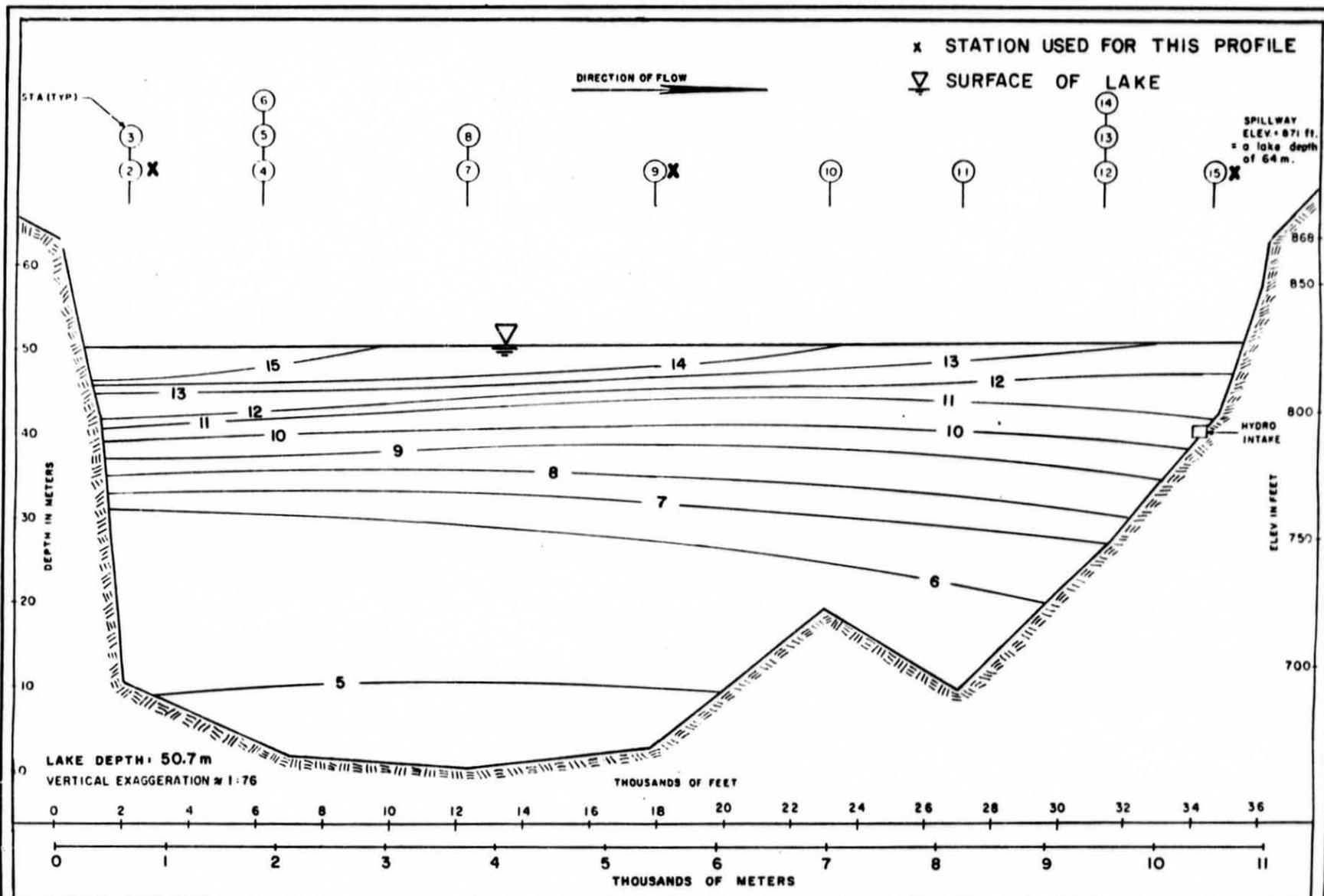
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EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
JUNE 21, 1984

FIGURE H.9

PREPARED FOR:

HARZA-EBASCO
 SUSITNA JOINT VENTURE



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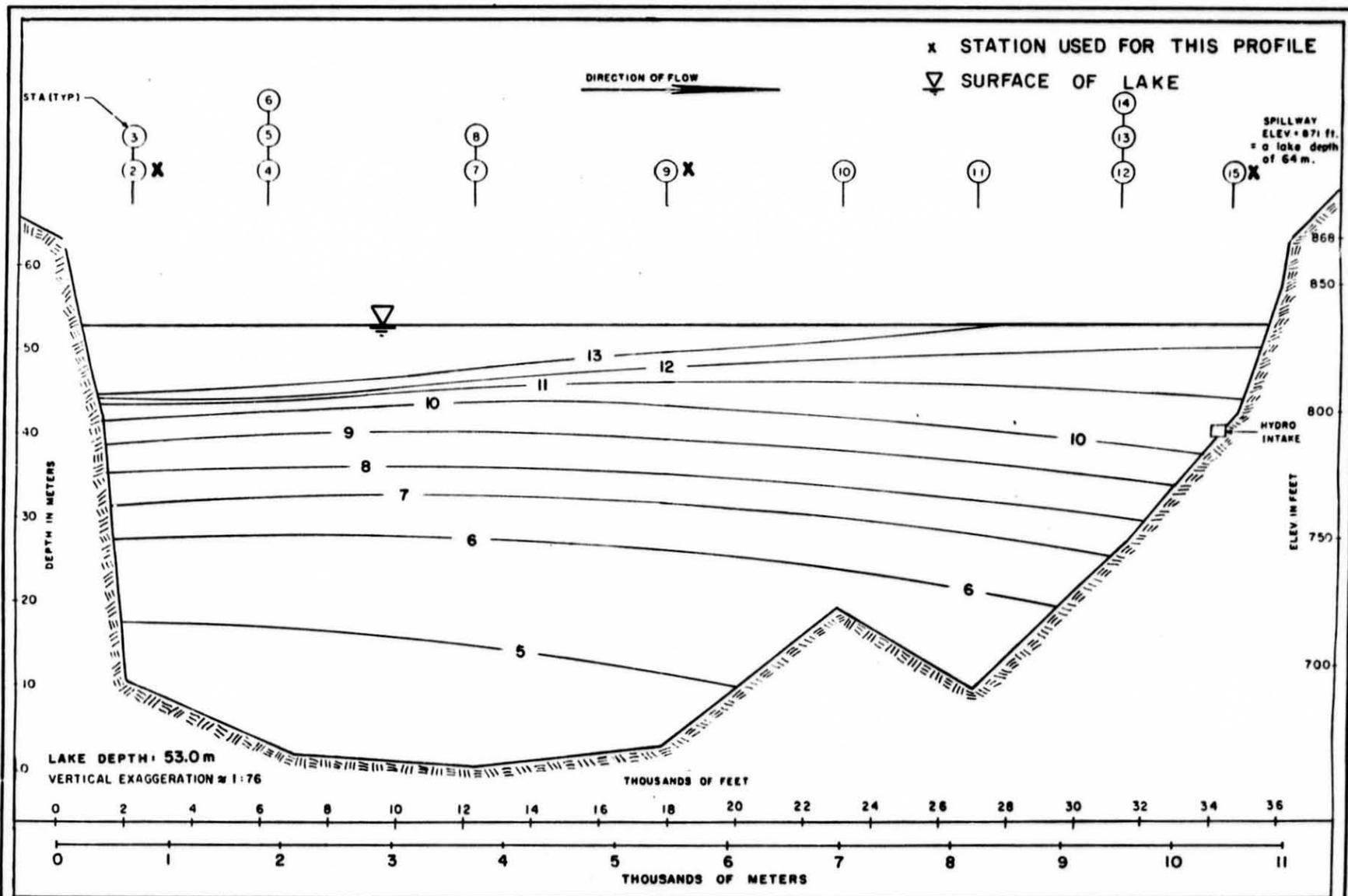
EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
JULY 5, 1984

FIGURE H.10

PREPARED FOR:

HARZA-EBASCO

SUSITNA JOINT VENTURE



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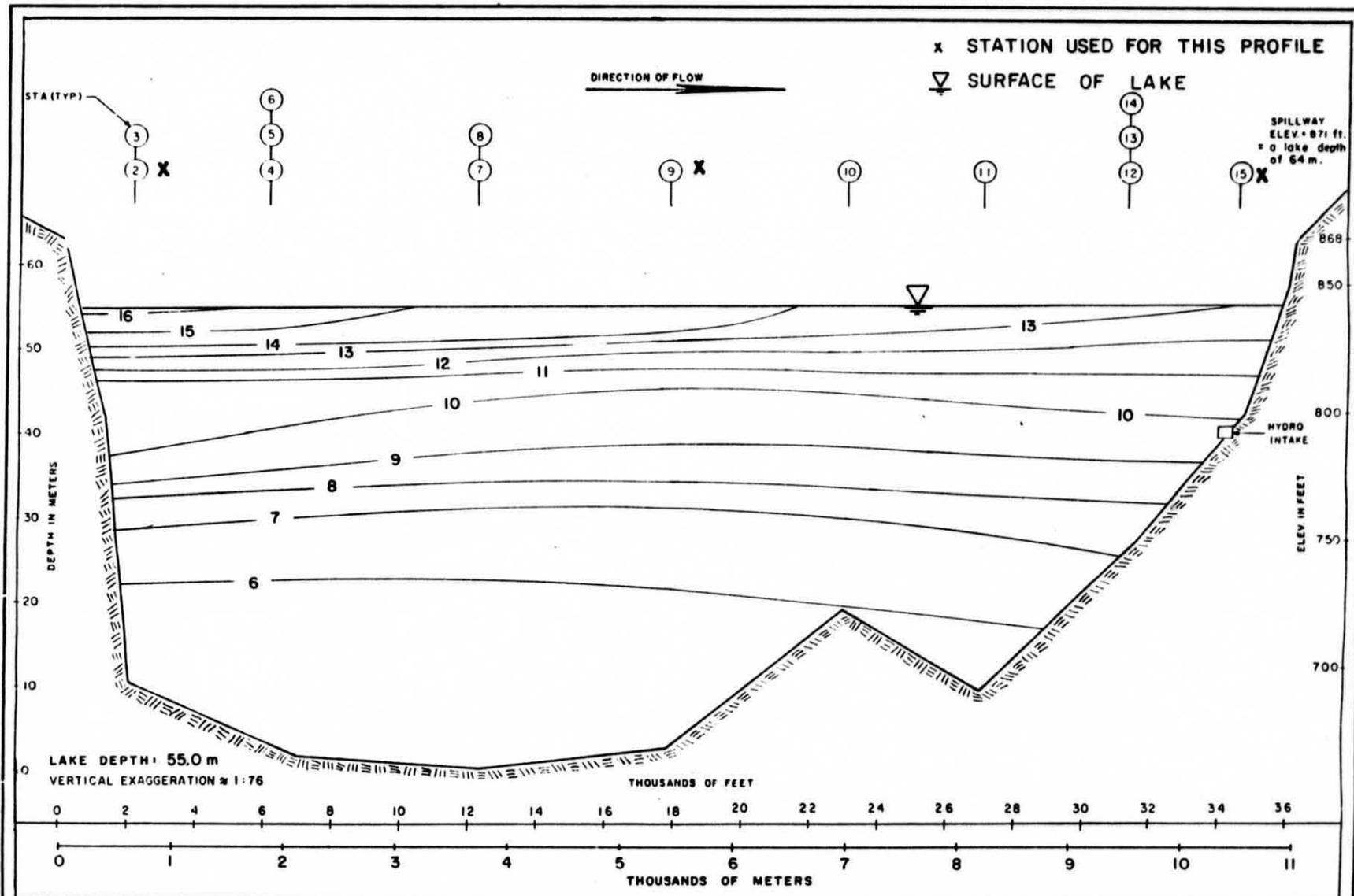
**EKLUTNA LAKE
 TEMPERATURE PROFILE (°C)
 JULY 19, 1984**

FIGURE H.11

PREPARED FOR:

HARZA-EBASCO

SUSITNA JOINT VENTURE



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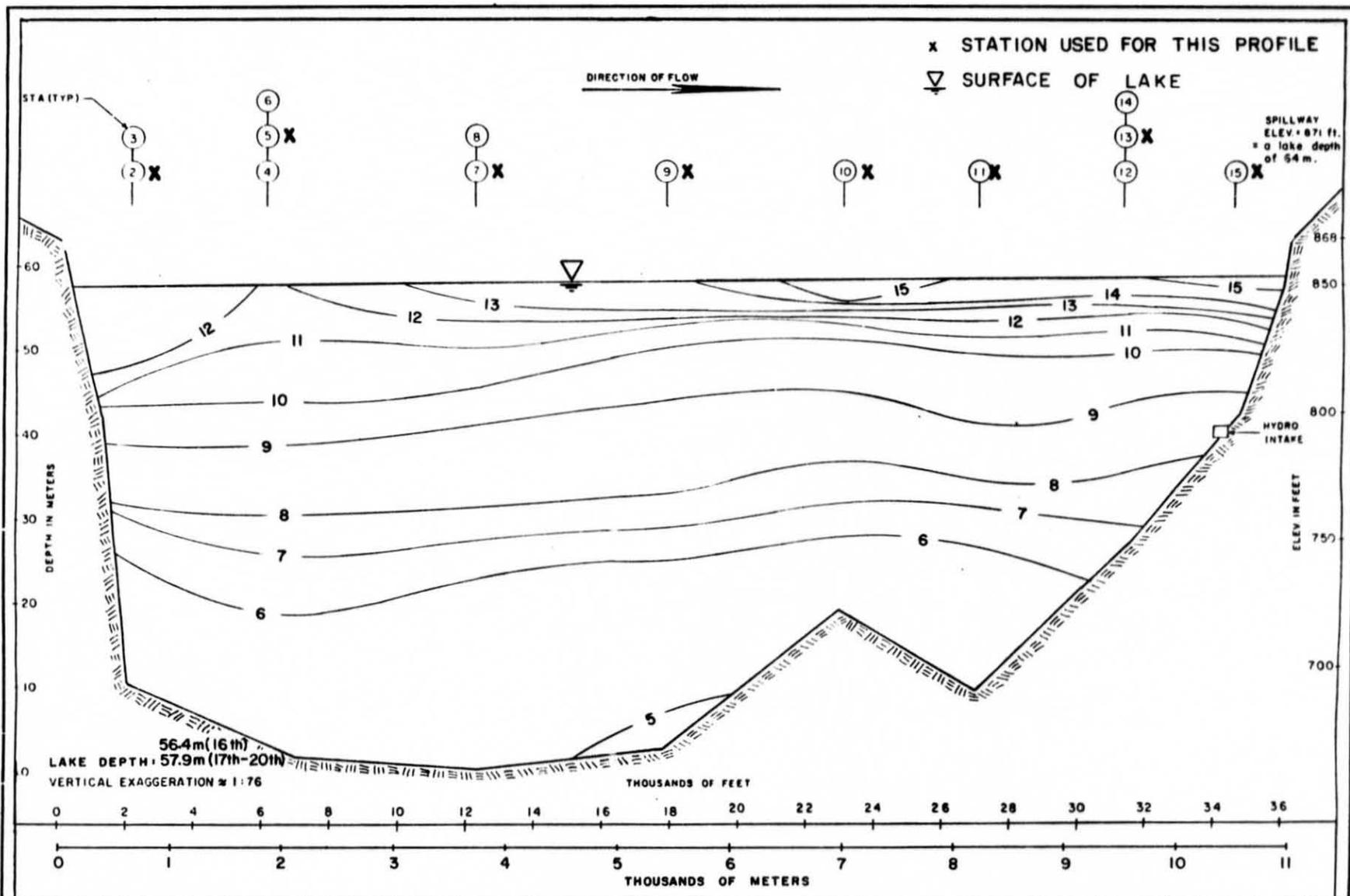
EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
AUGUST 3, 1984

FIGURE H.12

PREPARED FOR:

HARZA-EBASCO

SUSITNA JOINT VENTURE



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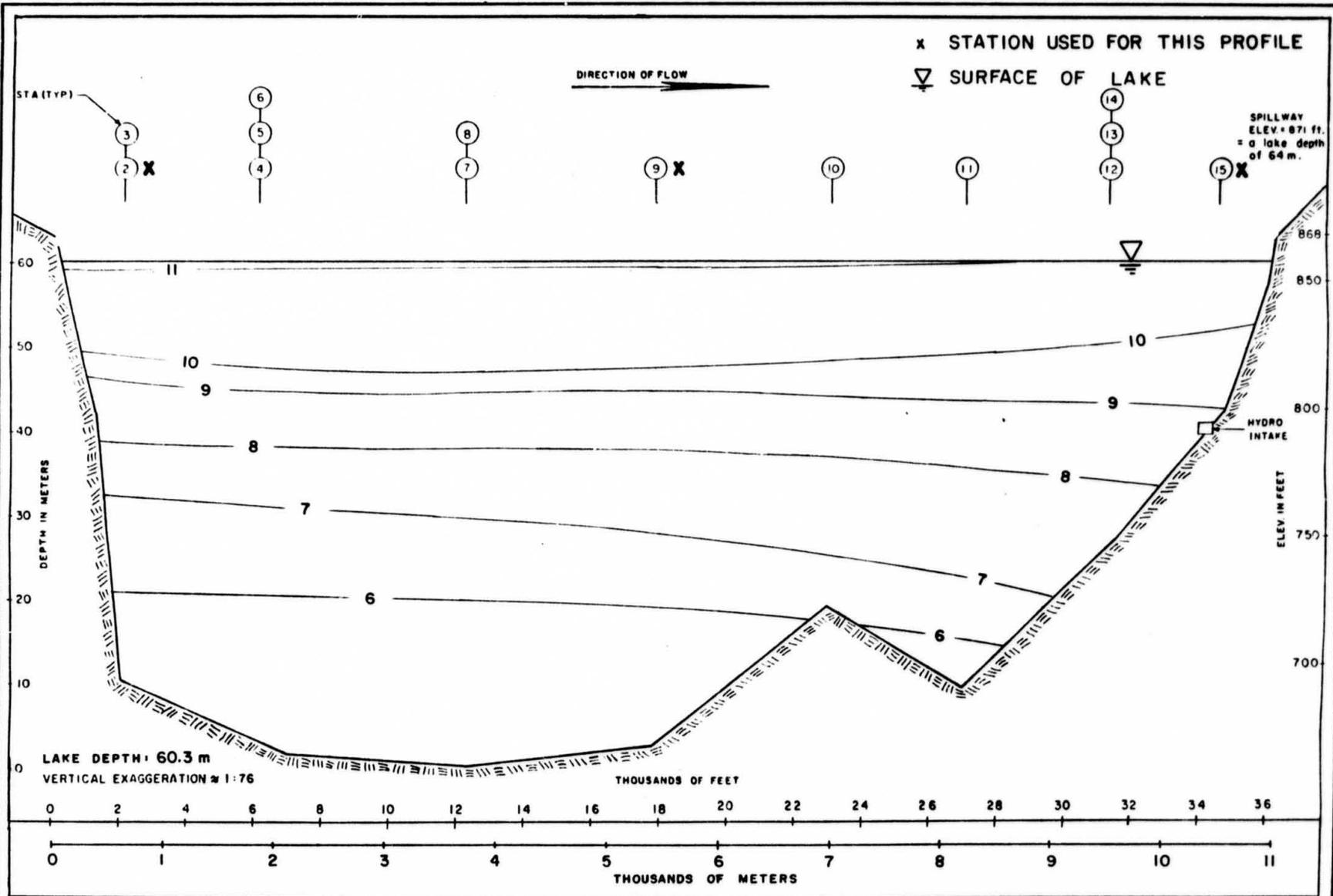
**EKLUTNA LAKE
 TEMPERATURE PROFILE (°C)
 AUGUST 16-20, 1984**

FIGURE H.13

PREPARED FOR:

HARZA-EBASCO

SUSITNA JOINT VENTURE



PREPARED BY:

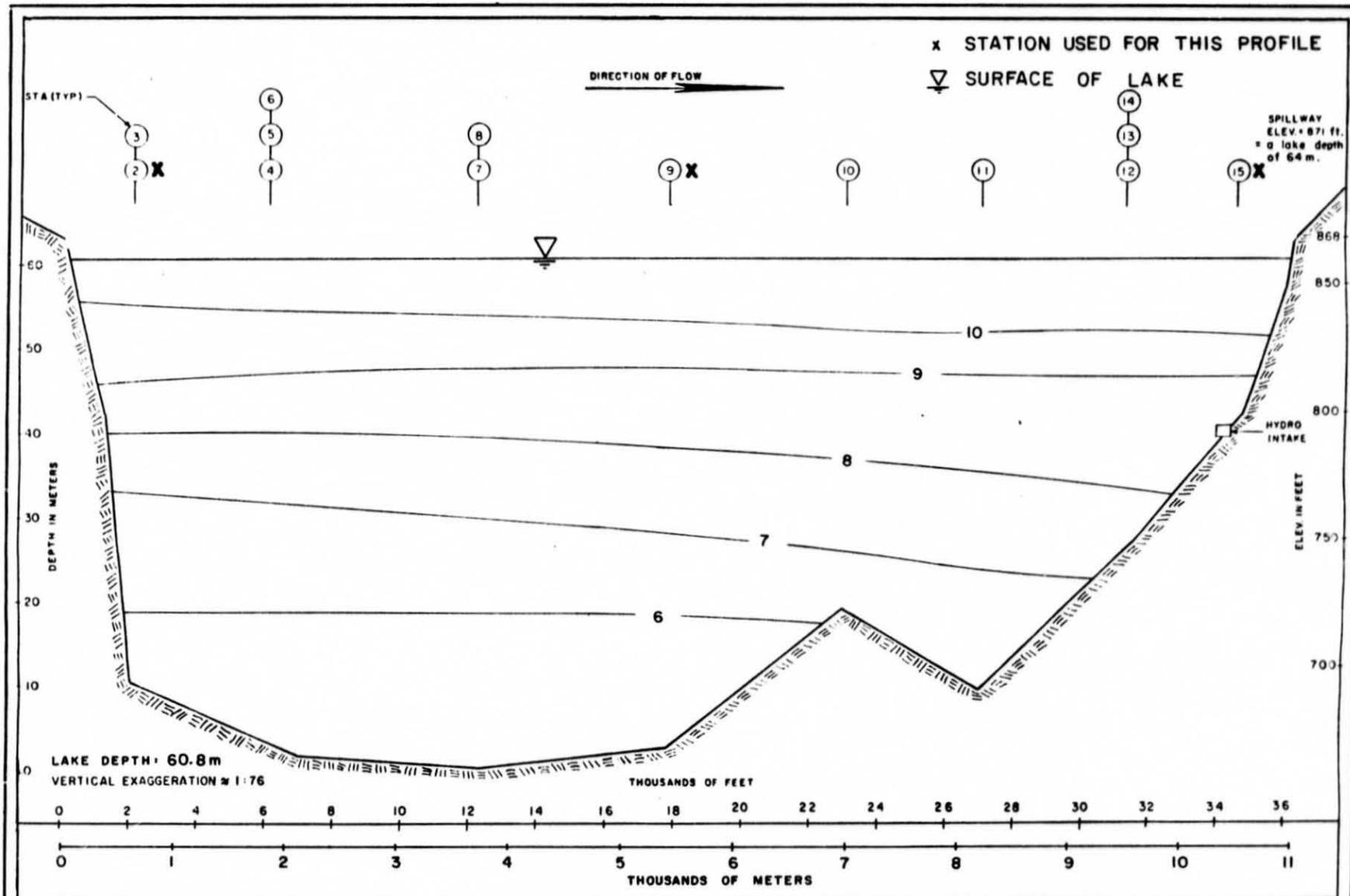
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EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
SEPTEMBER 3, 1984

FIGURE H.14

PREPARED FOR:

HARZA-EBASCO
 SUSITNA JOINT VENTURE



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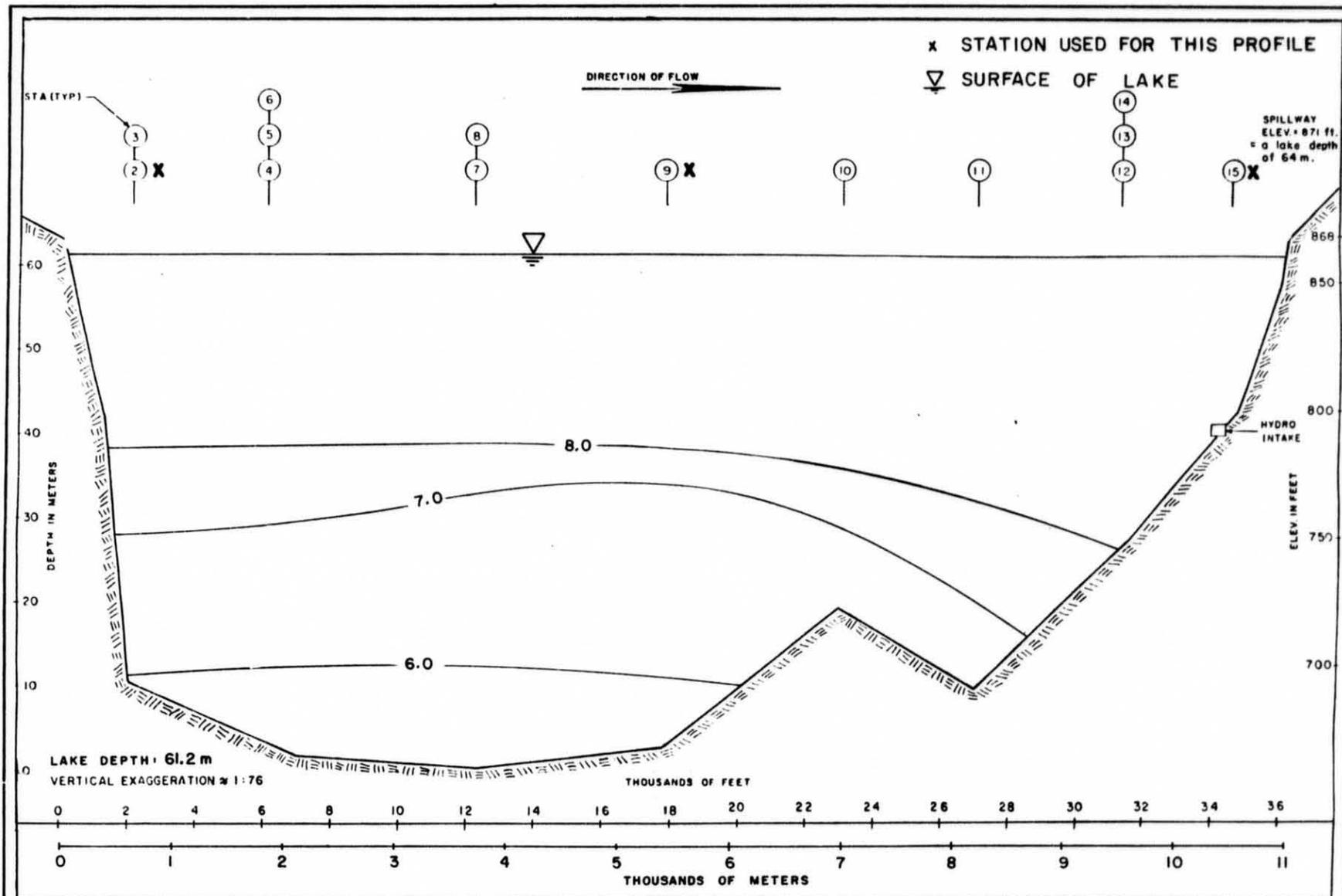
EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
SEPTEMBER 17, 1984

FIGURE H.15

PREPARED FOR:

HARZA-EBASCO

SUSITNA JOINT VENTURE



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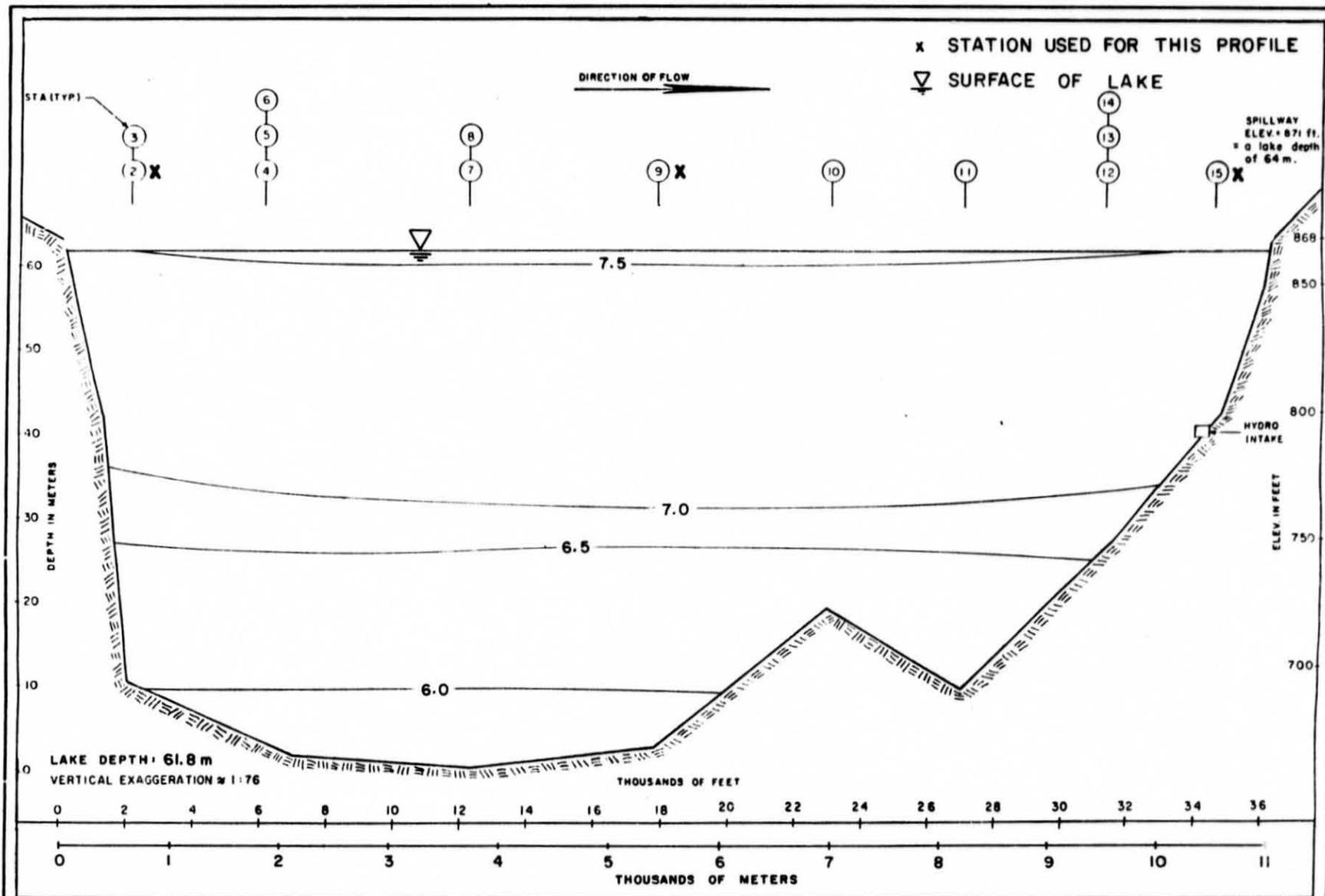
EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
OCTOBER 1, 1984

FIGURE H.10

PREPARED FOR:

HARZA-EBASCO

SUSITNA JOINT VENTURE



PREPARED BY:

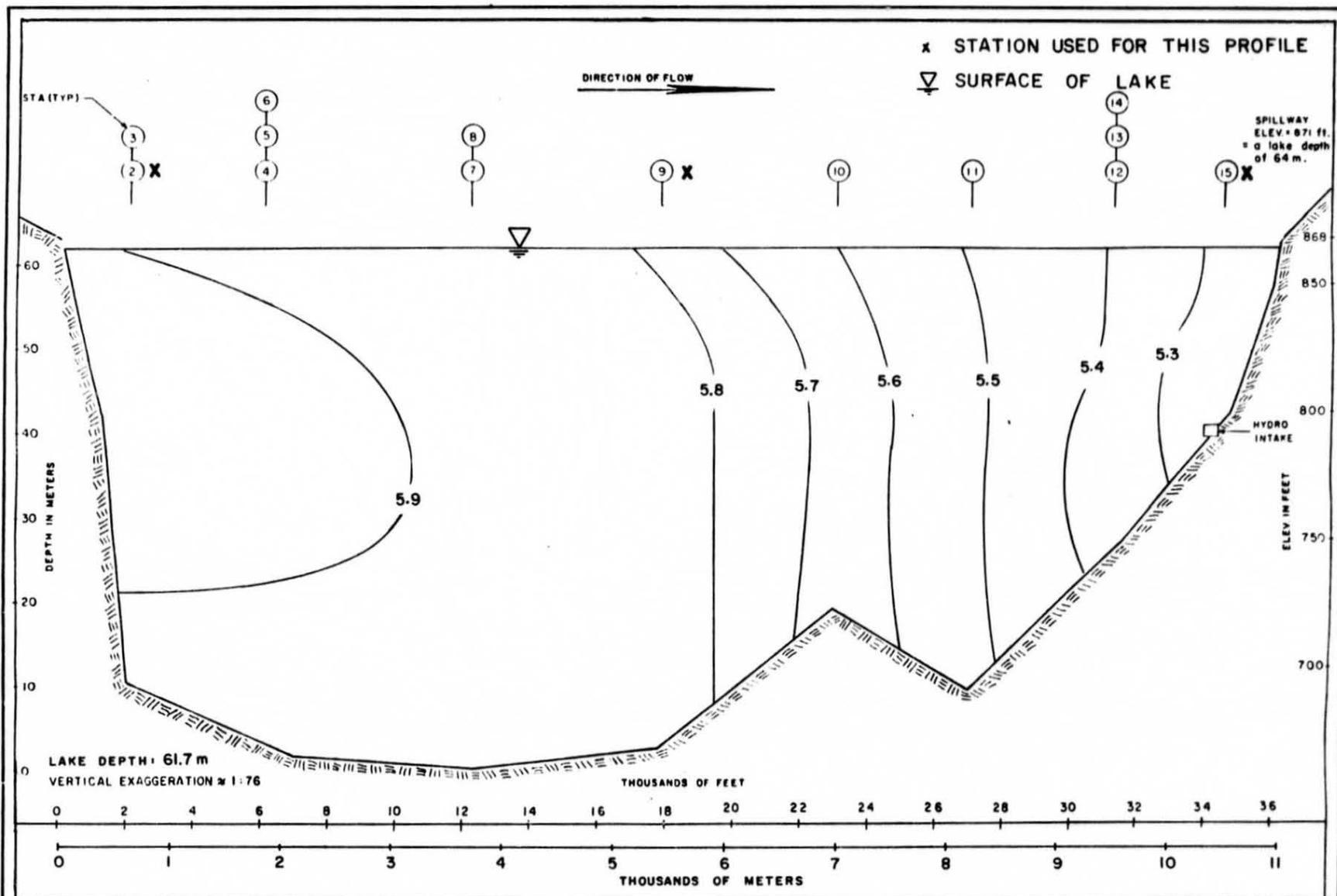
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EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
OCTOBER 15, 1984

FIGURE H.17

PREPARED FOR:

HARZA-EBASCO
 SUSITNA JOINT VENTURE



PREPARED BY:

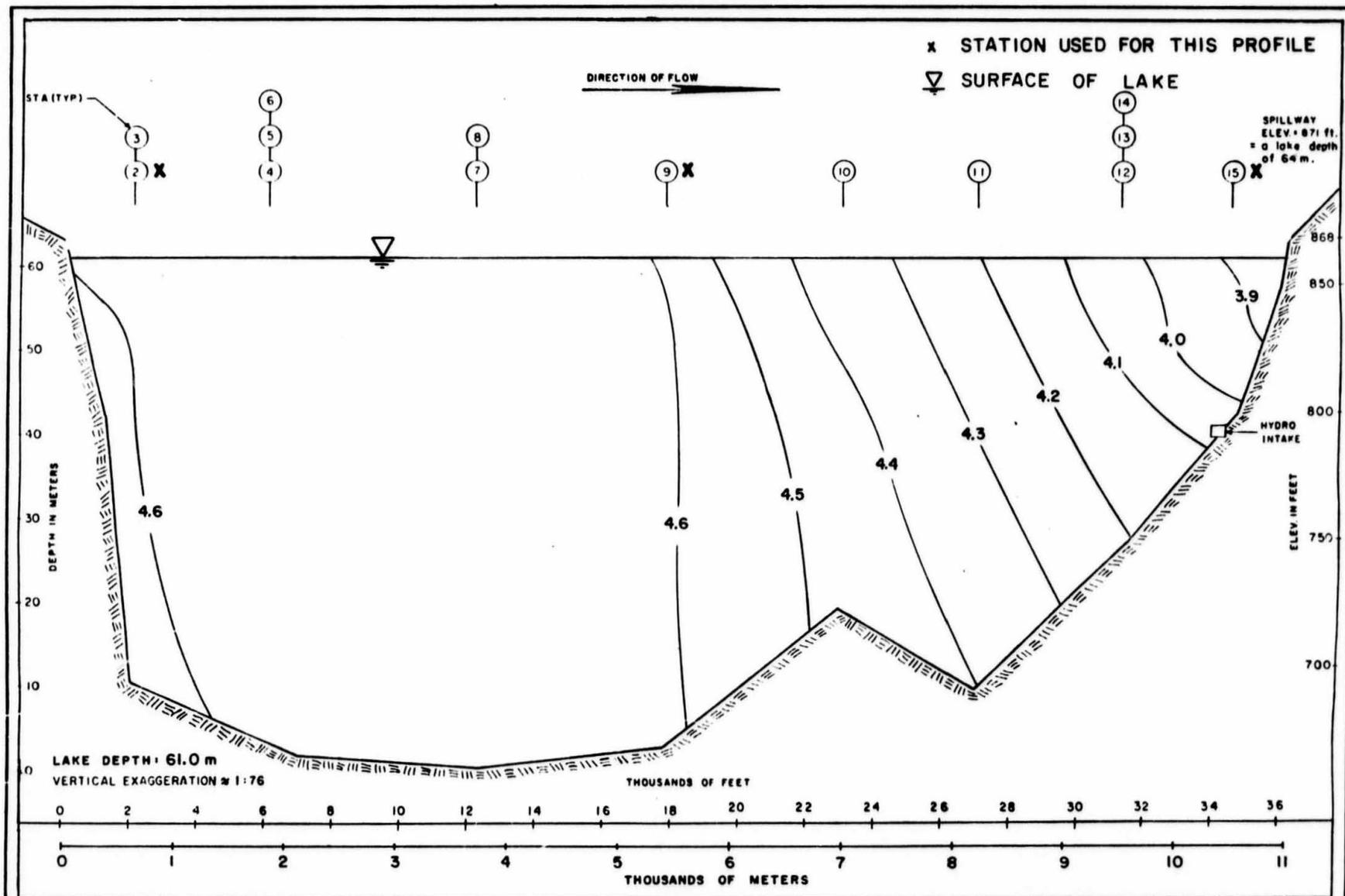
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EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
OCTOBER 29, 1984

FIGURE H.18

PREPARED FOR:

HARZA-EBASCO
 SUSITNA JOINT VENTURE



PREPARED BY:

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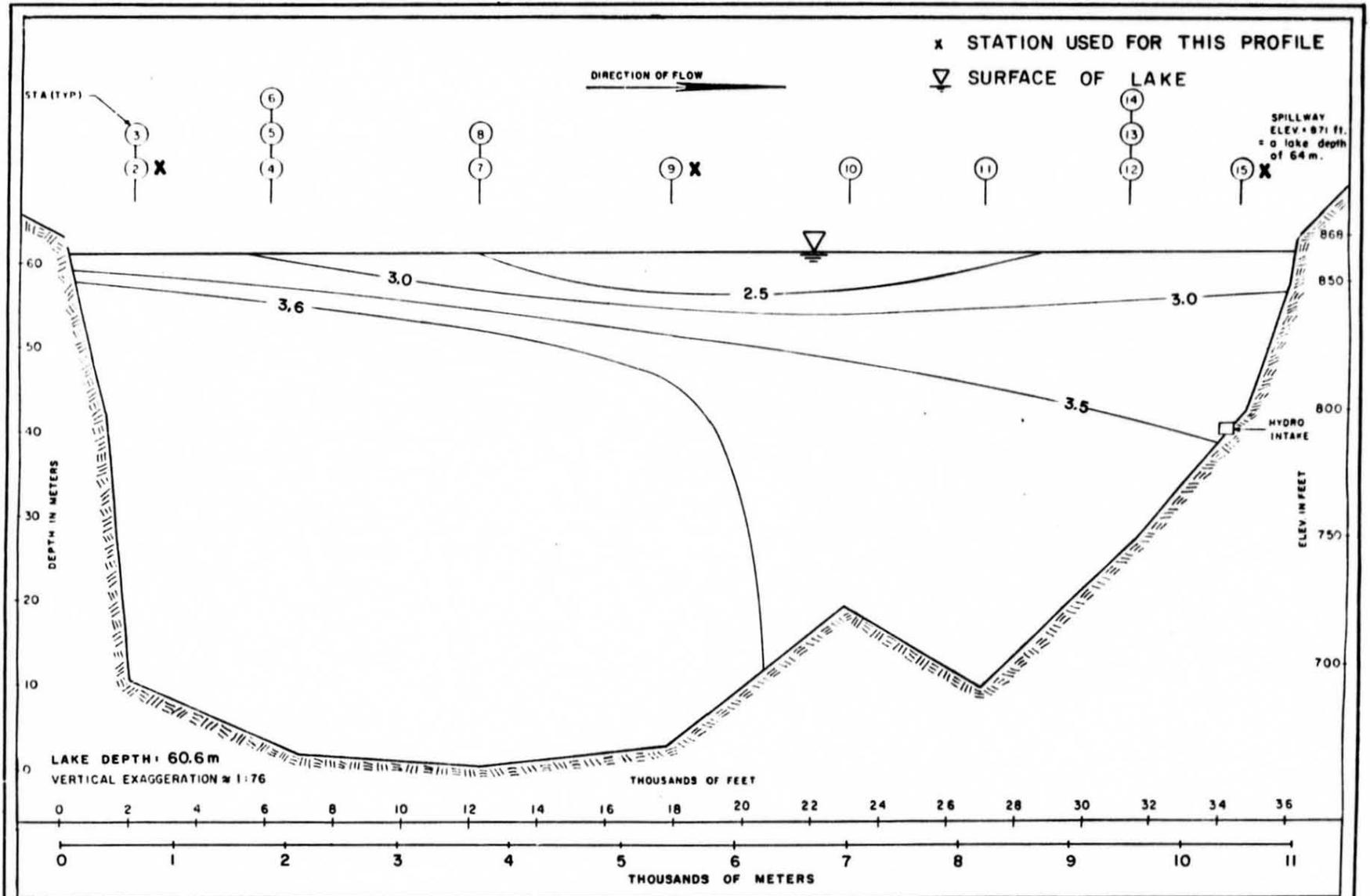
EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
NOVEMBER 12, 1984

FIGURE H.19

PREPARED FOR:

HARZA-EBASCO

SUSITNA JOINT VENTURE



PREPARED BY:

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EKLUTNA LAKE
TEMPERATURE PROFILE (°C)
NOVEMBER 26, 1984

FIGURE H.20

PREPARED FOR:

HARZA-EBASCO

SUSITNA JOINT VENTURE

APPENDIX I

EKLUTNA LAKE LIGHT PENETRATION MEASUREMENTS

M:5/47 1

TABLE 1.1

EKLUTNA LAKE LIGHT PENETRATION IN-SITU MEASUREMENTS

Date	03/29/83	06/02/83	08/03/83	08/03/83	08/03/83	09/07/83	04/20/84	04/20/84
Station	13	7	2	7	11	15	11	15
Time (AST)	1600	1420	N/A	N/A	N/A	1000	1220	1125
Irradiance (Microeinsteins per square centimeter per second)								
Sensor in Air	340	460	1500	1400	1550	800	850	580
Depth (m)								
Surface	145	420	1450	1450	1400	730	800	520
0.5	-	-	630	550	273	400	390	250
1.0	60	97	268	238	159	165	250	160
1.45	-	-	-	-	-	-	200	110
1.9	31	42	57	48	30	43	155	74
2.35	-	-	-	-	-	-	120	53
2.8	13	14.5	12	11	5.6	12.5	94	41
3.3	-	-	-	-	-	-	70	30
3.8	5.8	6.0	2.7	1.9	0.65	3.5	55	24
4.3	-	-	-	-	-	-	43	19
4.8	2.7	2.05	0.55	0.18	0.00	0.95	34	15
5.3	-	-	-	-	-	-	26	11
5.8	1.15	0.66	0.066	0.00	-	0.20	18	9.5*
6.3	-	-	-	-	-	-	13	-
6.8	0.55	0.3	-	-	-	0	9.6	-
7.3	-	-	-	-	-	-	6.9	-
7.8	0.2	-	-	-	-	-	4.8	-
8.3	-	-	-	-	-	-	3.0	-
8.8	-	-	-	-	-	-	-	-
Extinction								
Coefficient (/m)	0.83	1.05	1.69	1.82	1.93	1.40	0.60	0.66
r ²	0.99	0.99	0.99	0.99	0.99	1.00	0.99	0.97
Secchi Trans (/m)	N/A	1.13	1.82	1.73	1.73	1.37	0.48	0.44

* Lake bottom at 5.8m

Radiation measurements taken with Li-Cor submersible light sensor

N/A - Not Available

TABLE 1.1, cont.

EKLUINA LAKE LIGHT PENETRATION IN-SITU MEASUREMENTS

Date	05/17/84	05/17/84	05/17/84	06/21/84	06/21/84	06/21/84	06/21/84	06/21/84
Station	9	15	5	15	9	3	2	1
Time (AST)	1330	1300	1430	1200	1400	1530	1650	1740
Irradiance (Microeinsteins per square centimeter per second)								
Sensor in Air	1500	1530	N/A	1580	1580	1350	1000	940±20
Depth (m)								
0.0	1550±50	1450±100	810±20	1490	1490	1350±100	1000	860±50
0.5	1100±50	1100±100	630±20	930	1010	730±50	710	550±30
1.0	820±30	900±50	790±10	630	760	450±20	480	265±20
1.45	-	-	-	-	-	-	-	-
1.9	620±20	580±10	600±20	290	415	185	208	66
2.35	-	-	-	-	-	-	-	-
2.8	420±10	375	295	179	233	75	109	6.0±0.2
3.3	-	-	-	-	-	-	-	-
3.8	245	230	210	87	100	32	45	0
4.3	-	-	-	-	-	-	-	-
4.8	174	149	150-175	42	47	4	17.6	-
5.3	-	-	-	-	-	-	-	-
5.8	116	97	115	22.3	21.4	0.3	4.1	-
6.3	-	73	-	-	-	-	0.7	-
6.8	78	-	69	10.8	11.0	-	-	-
7.3	-	-	-	-	-	-	-	-
7.8	48	-	47	-	5.1	-	-	-
8.3	-	-	-	-	-	-	-	-
8.8	32	-	32	-	-	-	-	-
Extinction								
Coef. (/m)	0.43	0.47	0.38	0.71	0.73	1.33	1.04	1.76
r ²	1.00	1.00	0.98	1.00	1.00	0.96	0.96	0.97
Secchi Trans (/m)	0.51	0.47	0.49	0.73	0.55	0.86	0.91	1.02

Radiation measurements taken with Li-Cor submersible light sensor

N/A - Not Available

TABLE 1.1, cont.

EKLUTNA LAKE LIGHT PENETRATION IN-SITU MEASUREMENTS

Date	07/05/84	07/05/84	07/05/84	07/05/84	07/05/84	07/19/84	07/19/84	07/19/84	07/19/84	07/19/84
Station	15	9	3	2	1	15	9	3	2	1
Time (AST)	1230	1330	1500	1600	1740	1000	1130	1300	1410	1550
Irradiance (Microeinsteins per square centimeter per second)										
Sensor in Air	1500	1250	487	420	230	440	470	300	295	310
Depth (m)										
0.0	1500±100	1190±10	390±10	390±10	195±5	370	410	210	245	190
0.5	650±50	720±10	182	190	82	105	145	57	66	40
1.0	238	258	77	73	36	29	41	21	22	14
1.45	-	-	-	-	-	13.5	12.5	9.1	8.7	4.5
1.9	54	69	20	18.5	9.5	4.1	4.6	3.3	3.3	2.3
2.35	-	-	-	-	-	1.1	1.90	1.45	1.5	0.7
2.8	13.1	17.0	5.75	5.05	2.1	0.3	0.70	0.60	0.6	0.45
3.3	-	-	-	-	-	0.15	0.20	0.25	0.25	0.10
3.8	2.8	4.6	1.58	1.27	0.25	-	0.10	0.10	.05	-
4.3	-	-	-	-	-	-	-	-	-	-
4.8	0.58	0.97	0.42	0.36	0.01	-	-	-	-	-
5.3	-	-	-	-	-	-	-	-	-	-
5.8	0.15±.05	0.22	0.08	0.08	-	-	-	-	-	-
6.3	-	-	-	-	-	-	-	-	-	-
6.8	-	0.04	-	-	-	-	-	-	-	-
7.3	-	-	-	-	-	-	-	-	-	-
7.8	-	-	-	-	-	-	-	-	-	-
8.3	-	-	-	-	-	-	-	-	-	-
8.8	-	-	-	-	-	-	-	-	-	-
Extinction Coef. (/m)	1.59	1.51	1.43	1.45	1.96	2.43	2.24	1.99	2.13	2.18
r ²	1.00	1.00	1.00	1.00	0.98	1.00	1.00	1.00	1.00	0.99
Secchi Trans. (/m)	2.05	1.73	1.64	1.64	1.31	2.52	2.73	2.52	2.52	2.73

Radiation measurements taken with Li-Cor submersible light sensor

N/A - Not Available

TABLE 1.1, cont.

EKLUTNA LAKE LIGHT PENETRATION IN-SITU MEASUREMENTS										
Date	08/03/84	08/03/84	08/03/84	08/03/84	08/03/84	08/03/84	08/16/84	08/17/84	08/17/84	08/17/84
Station	1	2	2	3	9	15	15	14	13	11
Time (AST)	1130	1320	1330	1510	1640	2100	1710	0900	1120	1510
Irradiance (Microeinsteins per square centimeters per second)										
Sensor in Air	1400	660	1050	490	220	19.0	830±30	820	970	630
Depth (m)										
0.0	1250	460	880	320	170	11.4	780±50	720	1400	550
0.5	450	250	370	110	43	2.4	255	245	410	152
1.0	155	95	165	46	16.0	0.96	73.0	80	59.0	48
1.45	75	54	57	20.0	6.6	0.25	23.5	32	19.0	10.8
1.9	28	18.0	25.5	10.0	3.1	0.10	9.8	10.5	8.3	8.3
2.35	2.9	7.9	11.0	4.4	1.2		1.23	4.8	4.0	3.45
2.8	0.4	4.0	5.1	1.7	0.5		0.95	1.45	1.5	1.3
3.3		1.45	1.9	0.63	0.18		0.15	0.50	0.58	0.39
3.8		0.60	0.85	0.30	0.05			0.10	0.17	0.14
4.3		0.30	0.35	0.10						
4.8		0.10	0.10							
5.3										
5.8										
6.3										
6.8										
7.3										
7.8										
8.3										
8.8										
Extinction Coef. (/m)	2.74	1.78	1.87	1.85	2.05	2.47	2.58	2.28	2.29	2.11
r ²	0.95	1.00	1.00	1.00	1.00	0.99	0.99	1.00	0.99	0.99
Secchi Trans. (/m)	1.73	1.93	1.93	1.64	1.82	2.19	2.34	1.44	2.34	2.34

Radiation measurements taken with Li-Cor submersible light sensor

N/A - Not Available

TABLE 1.1, cont.

EKLUTNA LAKE LIGHT PENETRATION IN-SITU MEASUREMENTS

Date	08/17/84	08/18/84	09/17/84	09/17/84	09/17/84	09/17/84	09/17/84	09/17/84	10/01/84	10/01/84	10/01/84
Station	10	9	15	9	3	2	1	1	1	2	3
Time (AST)	1830	0830	1020	1220	1450	1630	1730	1130	1130	1310	1450
Irradiance (Microeinsteins per square centimeter per second)											
Sensor in Air	120	77	325	460	180	115	126	420	420	420	291
Depth (m)											
0.0	88	71	300	409	190	100	108	350	365	365	260
0.5	18.0	23.5	127	203	89	49	46	(0.1m)54	168	168	125
1.0	9.2	5.6	65	81	38	18.5	16.5	(0.2)14.5	82	82	57.5
1.45	2.45	1.62	31	32	17.5	8.8	5.9	(0.3)4.7	37.5	37.5	31.5
1.9	1.00	0.70	15.8	16.7	7.45	4.7	1.45	(0.4)1.4	22.3	22.3	16.2
2.35	0.45	0.38	7.9	8.6	4.10	2.20		(0.5)0.8	13.2	13.2	10.7
2.8	0.20	0.09	3.7	3.9	2.17	1.15		(0.6)0.06	7.15	7.15	5.9
3.3	0.05		1.81	1.90	1.00	0.55			3.91	3.91	3.4
3.8			0.82	0.80	0.44	0.25			2.12	2.12	1.79
4.3			0.41	0.38		0.12			1.12	1.12	1.03
4.8			0.18						0.59	0.59	0.58
5.3									0.34	0.34	0.32
5.8											
6.3											
6.8											
7.3											
7.8											
8.3											
8.8											
Extinction Coef. (/m)	2.17	2.34	1.54	1.64	1.60	1.57	2.24	13.1	1.30	1.30	1.24
r ²	0.99	0.99	1.00	1.00	1.00	1.00	0.99	0.98	1.00	1.00	1.00
Secchi Trans. (/m)	2.05	2.19	2.05	1.93	2.19	2.19	2.34	5.47	1.49	1.49	1.43

Radiation measurements taken with Li-Cor submersible light sensor

N/A - Not Available

TABLE 1.1, cont.

EKLUTNA LAKE LIGHT PENETRATION IN-SITU MEASUREMENTS										
Date	10/01/84	10/15/84	10/15/84	10/15/84	10/15/84	10/15/84	10/29/84	10/29/84	10/29/84	10/29/84
Station	9	3	1	2	9	15	3	2	1	9
Time (AST)	1640	1000	1130	1220	1500	1550	1100	1300	1410	1600
Irradiance (Microeinsteins per square centimeter per second)										
Sensor in Air	83	120	422	319	215	98	300	410	84	45
Depth (m)										
0.0	67	119	360	320	215	93	125	120	74	35
0.5	33	63	228	137	114	49	52	32	30	17.6
1.0	15.9	31.4	137	73	56.5	24.7	15.7	15.5	16.2	7.4
1.45	7.0	-	85	-	-	-	-	-	-	-
1.9	4.4	8.55	-	22.3	17.0	7.71	4.65	4.7	8.3	2.26
2.35	2.46	-	-	-	-	-	-	-	-	-
2.8	1.42	2.96	-	7.5	6.1	2.88	1.31	1.25	4.9	0.73
3.3	0.82	-	-	-	-	-	-	-	-	-
3.8	0.31	0.89	-	2.26	1.86	0.95	0.42	0.45	-	0.20
4.3	0.22	-	-	-	-	-	-	-	-	-
4.8	0.14	0.30	-	0.75	0.61	0.32	0.11	0.10	-	-
5.3	-	-	-	-	-	-	-	-	-	-
5.8	-	0.07	-	0.26	0.19	0.07	-	-	-	-
6.3	-	-	-	-	-	-	-	-	-	-
6.8	-	-	-	0.09	-	-	-	-	-	-
7.3	-	-	-	-	-	-	-	-	-	-
7.8	-	-	-	-	-	-	-	-	-	-
8.3	-	-	-	-	-	-	-	-	-	-
8.8	-	-	-	-	-	-	-	-	-	-
Extinction Coef. (/m)	1.30	1.27	1.00	1.19	1.21	1.21	1.34	1.40	1.42	1.36
r ²	0.99	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99	1.00
Secchi Trans (/m)	1.43	1.31	0.84	1.26	1.22	1.22	1.56	1.56	1.31	1.56

Radiation measurements taken with Li-Cor submersible light sensor

N/A - Not Available

TABLE 1.1, cont.

EKLUTNA LAKE LIGHT PENETRATION IN-SITU MEASUREMENTS

Date	10/29/84	11/12/84	11/12/84	11/12/84	11/12/84	11/12/84	11/26/84	11/26/84	11/26/84	11/26/84	11/26/84
Station	15	1	2	3	9	15	1	2	3	9	15
Time (AST)	1640	1030	1200	1240	1420	1610	1030	1130	1220	1330	1430
Irradiance (Microeinsteins per square centimeter per second)											
Sensor in Air	20.5	58	320	250	57	21.4	41.0	83	130	82	52
Depth (m)											
0.0	19.0	49	165	250	37	18	38.5	67	115	67	45
0.5	6.8	25	82	130	24	10.05	20.0	42	61	33	20.5
1.0	3.3	12	37	55	9.2	4.60	11.5	24.5	38	17	9.8
1.45	2.05	6.5	-	-	-	2.40	7.1	-	-	-	-
1.9	0.35	4.2	12.5	20	3.25	1.44	5.0	8.9	15	7.0	3.7
2.35	0.15	-	-	-	-	0.97	2.9	-	-	-	-
2.8	-	-	4.2	6.5	1.20	0.61	-	3.7	5.5	2.95	1.48
3.3	-	-	-	-	-	-	-	-	-	-	-
3.8	-	-	1.42	2.3	0.32	0.22	-	0.85	2.3	1.1	0.47
4.3	-	-	-	-	-	-	-	-	-	-	-
4.8	-	-	-	0.7	0.14	-	-	0.15	0.35	0.45	0.15
5.3	-	-	-	-	-	-	-	-	-	-	-
5.8	-	-	-	-	-	-	-	-	0.10	0.10	-
6.3	-	-	-	-	-	-	-	-	-	-	-
6.8	-	-	-	-	-	-	-	-	-	-	-
7.3	-	-	-	-	-	-	-	-	-	-	-
7.8	-	-	-	-	-	-	-	-	-	-	-
8.3	-	-	-	-	-	-	-	-	-	-	-
8.8	-	-	-	-	-	-	-	-	-	-	-
Extinction Coef. (/m)	2.04	1.32	1.25	1.21	1.19	1.17	1.07	1.24	1.01	1.06	1.16
r ²	0.97	1.00	1.00	1.00	0.99	0.99	1.00	0.99	1.00	1.00	1.00
Secchi Trans (/m)	1.26	1.26	1.22	1.26	1.17	1.26	1.22	1.09	1.09	1.09	1.09

Radiation measurements taken with Li-Cor submersible light sensor

N/A - Not Available

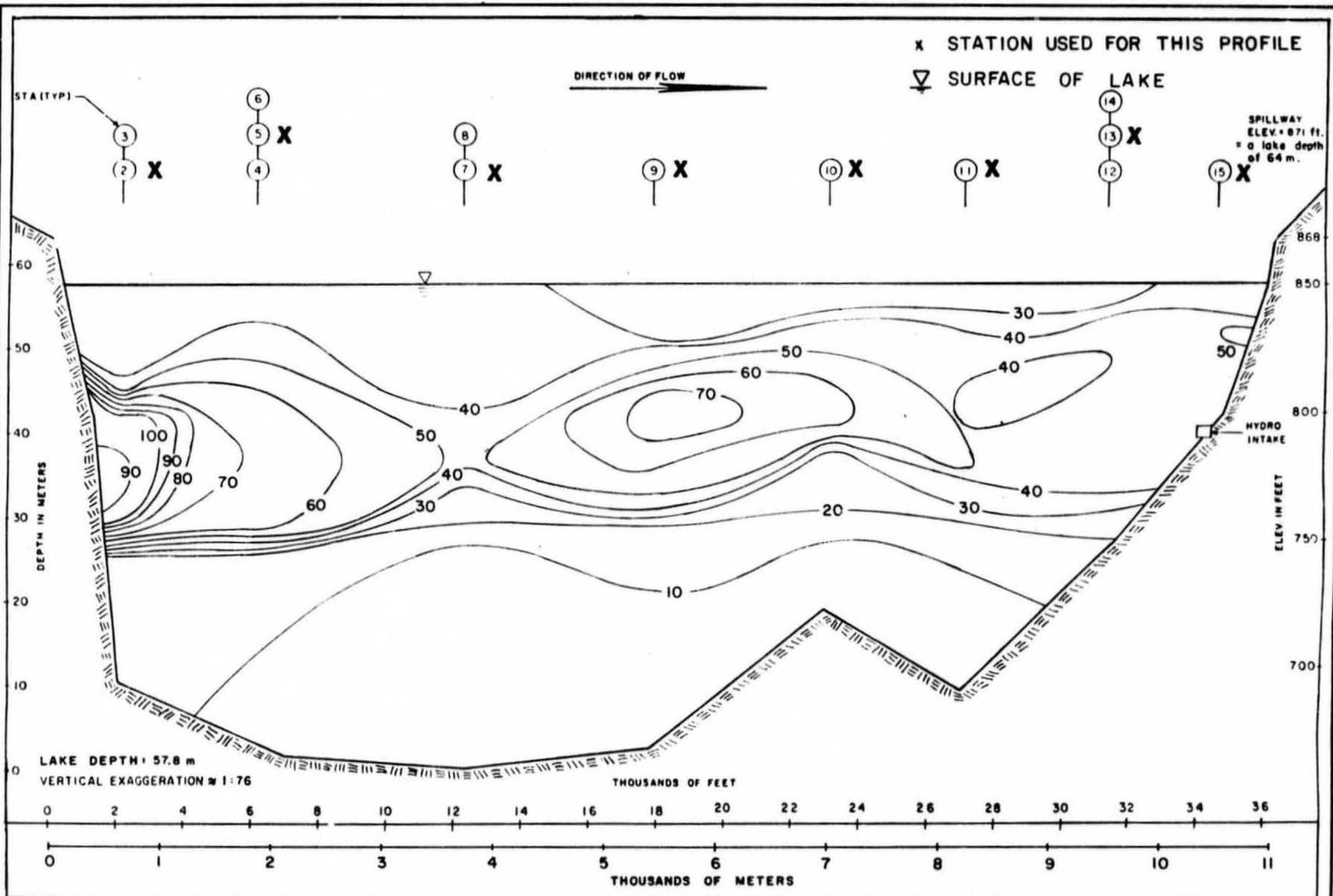
TABLE I.2
EKLUTNA LAKE SECCHI DISK MEASUREMENTS (FEET) (1983-84)

Date	Lake Sampling Station									
	2	3	5	7	8	9	10	11	13	15
5/14/83	-	-	4.7	-	-	4.9	-	-	-	-
6/02/83	3.2	-	3.0	2.9	-	3.7	3.7	3.7	3.6	3.5
7/06/83	2.2	2.9	2.3	2.1	-	2.1	-	1.9	2.0	-
8/03/83	1.8	-	-	1.9	-	-	-	1.9	-	-
9/07/83	3.0	-	-	3.1	-	2.7	-	2.7	-	2.4
10/05/83	2.8	-	2.7	2.9	2.6	2.7	-	2.6	-	2.6
11/01/83	3.1	-	3.0	3.0	-	3.1	-	3.0	-	3.1
12/06/83	-	-	-	-	-	-	-	-	-	3.6
4/20/84	-	-	-	-	-	-	-	6.3	-	7.5
5/17/84	-	-	6.7	-	-	6.4	-	-	-	7.0
6/06/84	7.5	-	9.0	-	-	8.0	-	8.5	-	8.5
6/21/84	3.6	3.8	-	-	-	6.0	-	-	-	4.5
7/05/84	1.95	2.0	-	-	-	1.9	-	-	-	1.6
7/19/84	1.3	1.3	-	-	-	1.2	-	-	-	1.3
8/03/84	1.7	2.0	-	-	-	1.8	-	-	-	1.5
8/16-20/84	1.4	1.4	1.1	1.1	1.5	1.5	1.6	1.4	1.4	1.4
9/03/84	1.5	1.6	-	-	-	1.4	-	-	-	1.4
9/17/84	1.5	1.5	-	-	-	1.7	-	-	-	1.6
10/01/84	2.2	2.3	-	-	-	2.3	-	-	-	-
10/15/84	2.6	2.5	-	-	-	2.7	-	-	-	2.7
10/29/84	2.1	2.1	-	-	-	2.1	-	-	-	2.6
11/12/84	2.7	2.6	-	-	-	2.8	-	-	-	2.6
11/26/84	3.0	3.0	-	-	-	3.0	-	-	-	3.0

R24/5 64

APPENDIX J

EKLUTNA LAKE TURBIDITY AND LIGHT
TRANSMISSION AUGUST 16-20, 1984



PREPARED BY:

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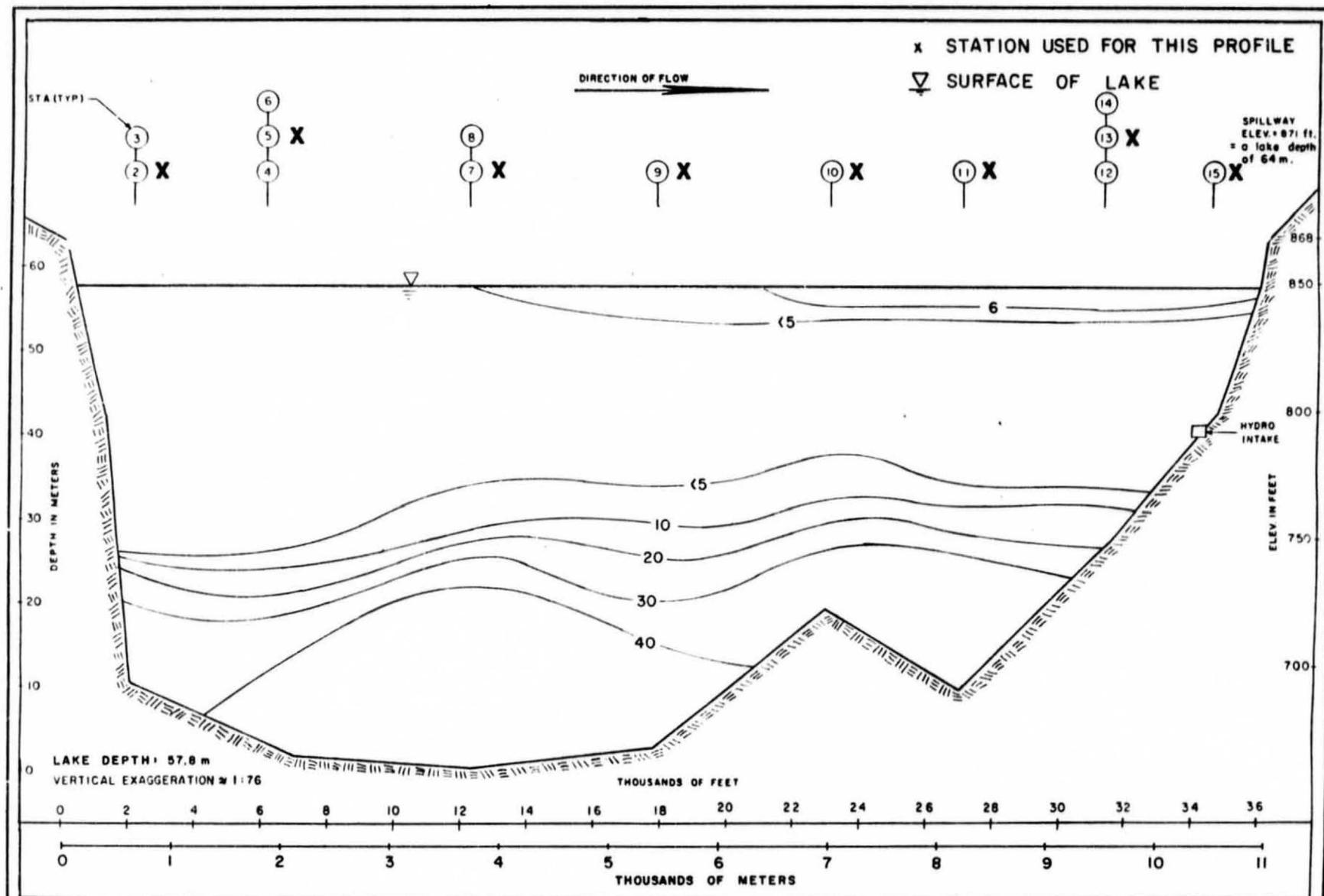
EKLUTNA LAKE
TURBIDITY PROFILE (NTU)
AUGUST 16-20, 1984

FIGURE J.1

PREPARED FOR:

HARZA-EBASCO

SUSITNA JOINT VENTURE



PREPARED BY:

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R&M CONSULTANTS, INC.
 ENGINEERS GEOLOGISTS HYDROLOGISTS SURVEYORS

EKLUTNA LAKE
LIGHT TRANSMISSION PROFILE (%)

AUGUST 16-20, 1984

FIGURE J.2

PREPARED FOR:
HARZA-EBASCO

SUSITNA JOINT VENTURE

R24/5 65

APPENDIX K

MONTHLY SUMMARIES OF FIELD OBSERVATIONS

M14/56

TABLE K.1

MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

Month: March, 1984

1. LAKE DATA - GENERAL

Date	Lake Elevation	Lake Depth	Q in (Mean Daily)	Q in (Mean Daily)	Q out (Mean Daily)	Q out (Mean Daily)	Stations		
<u>Sampled</u>	<u>(ft,msl)</u>	<u>(m)</u>	<u>3 3</u> <u>(10 m /day)</u>	<u>(cfs)</u>	<u>3 3</u> <u>(10 m /day)</u>	<u>(cfs)</u>	<u>Profiled</u>	<u>Weather</u>	<u>Remarks</u>
3/23	837.9	54.2			1261	516	2,5,9,15	Clear & calm.	

2. LAKE DATA SUMMARY - TURBIDITY/SEDIMENT

Date	Time AST	Station	Depth (m)	Temp. °C	Cond. (@ 25°C) (umho/cm)	Secchi Disk at surface (ft)	Quantum Extinction Coefficient (/m)	Depth for 99% Extinction (m)	Turbidity (NTU)	TSS (mg/l)	Remarks
3/23	1315	5	20	4.0	N/A	N/A	N/A	N/A	3.2	3.7	Ice thickness= 16".
			40	3.9	N/A	N/A	N/A	N/A	6.1	2.7	
	1030	9	20	4.0	N/A	N/A	N/A	N/A	4.2	2.1	Ice thickness= 18".
			40	4.1	N/A	N/A	N/A	N/A	4.2	2.3	
	0920	15	5	4.1	N/A	N/A	N/A	N/A	3.1	2.8	Ice thickness= 18".

NOTE: N/A = Not Available.

M14/56

TABLE K.2
MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

Month: April, 1984

1. LAKE DATA - GENERAL

Date	Lake Elevation	Lake Depth	Q in (Mean Daily) 3 3 (10 m /day)	Q in (Mean Daily) (cfs)	Q out (Mean Daily) 3 3 (10 m /day)	Q out (Mean Daily) (cfs)	Stations	Weather	Remarks
<u>Sampled</u>	<u>(ft,msl)</u>	<u>(m)</u>	<u>(10 m /day)</u>	<u>(cfs)</u>	<u>(10 m /day)</u>	<u>(cfs)</u>	<u>Profiled</u>	<u>Weather</u>	<u>Remarks</u>
4/20/84	830.8	51.1m	120 (est.)	49 (est.)	1164	476	15 & 11	Overcast, light breeze	Ice Thickness= 13.5-14"

2. LAKE DATA SUMMARY - TURBIDITY/SEDIMENT

Date	Time AST	Station	Depth (m)	Temp. °C	Cond.(@ 25°C) (umho/cm)	Secchi Disk at surface (ft)	Quantum Extinction Coefficient (/m)	Depth for 99% Extinction (m)	Turbidity (NTU)	TSS (mg/l)	Remarks
4/20	1110	15	1	3.0	N/A	7.5	0.66	6.2	2.1	1.3	Ice = 14' Secchi and quantum done through ice.
			5	3.4	131						
	1330	11	2	3.6	129	6.8	0.60	7.05	2.6	1.1	Ice = 13.5" secchi and quantum done through ice.
			24	3.3	N/A						

NOTE: N/A = Not Available.

M14/56

TABLE K.3
MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

Month: May, 1984

1. LAKE DATA - GENERAL

Date	Lake Elevation (ft,msl)	Lake Depth (m)	Q in (Mean Daily) 3 3 (10 m /day)	Q in (Mean Daily) (cfs)	Q out (Mean Daily) 3 3 (10 m /day)	Q out (Mean Daily) (cfs)	Stations Profiled	Weather	Remarks
5/17/84	826.1	50.6m	245 (est.)	100 (est.)	1102	450	5,9&15	Sunny, clear	

2. LAKE DATA SUMMARY - TURBIDITY/SEDIMENT

Date	Time AST	Station	Depth (m)	Temp. °C	Cond. (@ 25°C) (umho/cm)	Secchi Disk at surface (ft)	Quantum Extinction Coefficient (/m)	Depth for 99% Extinction (m)	Turbidity (NTU)	TSS (mg/l)	Remarks																						
5/17/84	1415	5	4	5.1	127	6.7	0.38	9 m	2.5	1.0	Var. sun- shine during quantum.																						
			20	4.2	127				2.1	2.0			1050	9	4	6.3	130	6.4	0.43	9 m	3.8	1.7		20	4.7	130	3.5	2.0		1245	15	4	6.9
	1050	9	4	6.3	130	6.4	0.43	9 m	3.8	1.7																							
			20	4.7	130				3.5	2.0			1245	15	4	6.9	130	7.0	0.47	6.4 m	3.0	1.5	bottom - 6.4m										
	1245	15	4	6.9	130	7.0	0.47	6.4 m	3.0	1.5	bottom - 6.4m																						

3. INFLOW/OUTFLOW DATA

Date	Time AST	Site	Gage Height (ft)	Instant. Q (cfs)	Mean Daily Q (cfs)	Water Temp. (°C)	Conductivity @ 25°C(umho/cm)	Secchi Disk (ft)	Turbidity (NTU)	TSS (mg/l)	Remarks
5/18	1200	EF	2.43	77	65	5.7	153	N/A	2.9	3.7	Gaging stations installed Q's from measurements
	1700	GF	2.00	16	N/A	7.4	77	N/A	38	48	
5/22	N/A	EF	2.48	73	73	5.6	140	N/A	3.2	2.2	
	N/A	GF	2.07	20	20	2.2	93	N/A	45	18.9	
	N/A	TR	N/A			6.7	129	N/A	4.2	2.5	
5/25	N/A	EF	2.49	74	74	4.4	N/A	N/A	N/A	2.3	
	N/A	GF	2.03	18	18	3.9	N/A	N/A	N/A	11	
	N/A	TR	N/A			6.1	N/A	N/A	N/A	2.4	
5/29	N/A	EF	2.47	71	71	2.0	132	N/A	2.7	0.8	
	N/A	GF	1.93	14	14	0.0	113	N/A	22	6.4	
	N/A	TR	N/A			7.2	148	N/A	3.7	1.6	

NOTE: Abbreviations used - N/A Not Available, EF = East Fork, GF = Glacier Fork, TR = Tailrace, TSS = Total Suspended Solids.

TABLE K.4, cont.

Month: June, 1984

3. INFLOW/OUTFLOW DATA

Date	Time AST	Site	Gage Height (ft)	Instant. Q (cfs)	Mean Daily Q (cfs)	Water Temp. (°C)	Conductivity @ 25°C (umho/cm)	Secchi Disk (ft)	Turbidity (NTU)	TSS (mg/l)	Remarks
6/1	1200	EF	2.43	83	87	7.1	N/A	N/A	4.8	3.2	
	1100	GF	1.90	13	17	5.9	N/A	N/A	32	7.6	
	N/A	TR	N/A	N/A	375	7.8	N/A	N/A	4.3	0.9	
6/5	1128	EF	2.73	162	162	6.4	120	N/A	12	12	
	1025	GF	N/A	N/A	58	2.6	71	N/A	77	77	
	N/A	TR	N/A	N/A	345	N/A	128	N/A	4.0	1.5	
6/8	1245	EF	2.71	155	165	5.6	123	N/A	12	4.0	
	1220	GF	3.05	113	102	1.9	81	N/A	120	301	
	1444	TR	N/A	N/A	392	8.5	150	N/A	3.0	0.5	
6/12	1130	EF	2.80	187	187	5.1	110	1.5	2.4	12	
	1250	GF	3.08	118	118	1.9	64	0.4	120	128	
	N/A	TR	N/A	N/A	405	11.3	144	4.0+	4.6	2	
6/15	1255	EF	2.78	179	179	4.8	108	1.5	21	6	
	1335	GF	3.07	116	111	1.6	60	0.4	140	135	
	1547	TR	N/A	N/A	480	11.6	144	4.0+	5.6	2	
6/19	1050	EF	2.92	237	261	6.2	104	1.1	34	26	
	1130	GF	3.37	177	194	2.4	77	0.2	500	526	
	1410	TR	N/A	N/A	460	11.2	143	4.0	8	4.0	
6/22	1050	EF	2.97	261	304	5.9	91	0.5	78	77	
	1050	GF	3.66	256	256	2.3	59	0.3	180	154	
	1355	TR	N/A	N/A	430	12.8	149	3.3	8.0	2.4	
6/26	1045	EF	3.09	327	346	4.1	86	0.3	290	257	
	1130	GF	3.84	317	252	1.4	66	0.25	420	341	
	N/A	TR	N/A	0	0	-	-	-	-	-	Power plant shut down.
6/29	1000	EF	2.99	271	310	5.5	80	0.5	130	83	
	1025	GF	3.90	340	356	2.4	55	0.25	350	297	
	N/A	TR	N/A	N/A	184	N/A	N/A	N/A	N/A	N/A	No sample taken.

NOTE: Abbreviations used - N/A Not Available, EF = East Fork, GF = Glacier Fork, TR = Tailrace, TSS = Total Suspended Solids.

TABLE K.5
MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

Month: July 1984

1. LAKE DATA - GENERAL

Date	Lake Elevation	Lake Depth	Q in (Mean Daily) 3 3 (10 m /day)	Q in (Mean Daily) (cfs)	Q out (Mean Daily) 3 3 (10 m /day)	Q out (Mean Daily) (cfs)	Stations	Weather	Remarks
Sampled	(ft,msl)	(m)					Profiled		
7/5/84	826.4	50.7	2,560	1,046	1,074	439	1,2,3,9,15	Clear to overcast, winds first out of WSW, then NNW	Qin does not include streams on the north shore
7/19/84	835.1	53.4	1,956	799	406	166	1,2,3,9,15	Overcast, some drizzle winds from calm to strong, from the NW.	Lake elevation is that given for 7/20 in the AP Admin monthly summary. Qin includes the two major streams draining the north shore.

2. LAKE DATA SUMMARY - TURBIDITY/SEDIMENT

Date	Time AST	Station	Depth (m)	Temp. °C	Cond. (@ 25°C) (umho/cm)	Secchi Disk at surface (ft)	Quantum Extinction Coefficient (/m)	Depth for 99% Extinction	Turbidity (NTU)	TSS (mg/l)	Remarks
7/05/84	1730	1	20	9.6	111	2.5	1.96	2.5	128	202	
	1600	2	4.0	15.1	71	2.0	1.45	3.1	6.4	5.0	
	-	-	9.0	12.4	110	-	-	-	80	115	
	-	-	20	5.8	131	-	-	-	6.8	8.0	
	1445	3	2.0	15.0	145	2.0	1.43	3.1	6.6	6.0	
	-	-	8.0	11.3	75	-	-	-	22	13	
	-	-	16	8.0	116	-	-	-	18	22	
	-	-	24	5.4	126	-	-	-	3.5	5.0	
	1330	9	2.0	14.0	154	1.9	1.51	3.1	13	9.0	
	-	-	14	7.9	106	-	-	-	26	15	
	-	-	32	5.4	127	-	-	-	3.4	3.0	
	1220	15	4.0	11.9	153	1.6	1.59	2.8	14	8.0	
	7/19/84	1515	1	2.0	14.2	128	1.2	2.18	2.0	26	3.0
-		-	6.0	7.0	112	-	-	-	64	29	
1400		2	6.0	13.9	125	1.3	2.13	2.1	28	2.0	
-		-	10	10.5	113	-	-	-	61	25	
-		-	16	8.3	119	-	-	-	56	7.7	
-		-	28	5.6	132	-	-	-	18	3.6	
1300		3	2.0	14.0	128	1.3	1.99	2.2	26	2.1	
-		-	8.0	11.6	125	-	-	-	58	4.9	
-		-	16	8.3	116	-	-	-	58	12.4	
-		-	28	5.3	125	-	-	-	16	5.0	

TABLE K.5, cont.
MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

Month: July 1984

2. LAKE DATA SUMMARY - TURBIDITY/SEDIMENT (Continued)

Date	Time AST	Station	Depth (m)	Temp. °C	Cond. (@ 25°C) (umho/cm)	Secchi Disk at surface (ft)	Quantum Extinction Coefficient (/m)	Depth for 99% Extinction	Turbidity (NTU)	TSS (mg/l)	Remarks
7/19/84	1050	9	4.0	12.9	125	1.2	2.24	2.02	52	3.3	The light extinction measurements were run twice yielding different values.
	-	-	16.0	8.6	125	-	2.25	1.98	37	4.6	
	-	-	36.0	5.5	125	-	-	-	35	3.8	
0950	15	4.0	11.8	125	1.3	2.43	1.89	56	4.4		

3. INFLOW/OUTFLOW DATA

Date	Time AST	Site	Gage Height (ft)	Instant. Q (cfs)	Mean Daily Q (cfs)	Water Temp. (°C)	Conductivity @ 25°C (umho/cm)	Secchi Disk (ft)	Turbidity (NTU)	TSS (mg/l)	Remarks	
7/3/84	1045	EF	2.90	228	228	4.9	85	0.5	88	48	Gage height from staff near the right edge of water	
	1120	GF	3.94	356	356	1.4	34	0.2	580	514		
	N/A	TR	1.84	N/A	434	11.9	144	1.8	18	6.0		
7/6/84	0920	EF	3.26	444	519	6.4	N/A	0.2	140	156		Temp at 1110 AST Secchi from LB d/s of bridge
	1610	GF	4.54	674	597	1.6	N/A	0.2	430	568		
	2014	TR	1.90	N/A	355	12.2	N/A	1.8	17	4.7		
7/10/84	1119	EF	3.27	452	460	6.0	78	0.5	88	72.5	Temp, turb, TSS, Cond & Secchi from LB 10m d/s of bridge	
	1226	GF	4.46	622	603	N/A	55	0.2	500	572		
	1518	TR	1.73	N/A	156	N/A	142	1.4	22	9.0		
7/13/84	1056	EF	3.11	340	359	5.0	75	0.5	64	53	T=Tryan + 0.5°C	
	1207	GF	4.23	490	480	N/A	49	0.2	430	417		
	1425	TR	1.19	N/A	160	N/A	143	1.1	28	18		
7/17/84	0953	EF	3.06	310	321	4.6	76	0.5	66	50		
	1050	GF	4.07	412	417	0.9	44	0.3	220	248		
	1319	TR	0.91	N/A	156	10.0	134	1.3	31	9.0		

NOTE: Abbreviations used - N/A = Not Available, EF = East Fork, GF = Glacier Fork, TR = Tailrace, TSS = Total Suspended Solids.

TABLE K.5, cont.
MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

Month: July 1984

3. INFLOW/OUTFLOW DATA (Continued)

Date	Time AST	Site	Gage Height (ft)	Instant. Q (cfs)	Mean Daily Q (cfs)	Water Temp. (°C)	Conductivity @ 25°C (umho/cm)	Secchi Disk (ft)	Turbidity (NTU)	TSS (mg/L)	Remarks
7/20/84	1600	EF	3.08	321	304	6.1	75	0.8	98	45	
	1640	GF	4.16	455	431	0.8	35	0.4	216	264	
	1800	EF	3.09	327		5.6	74	0.7	110	61	
	1830	GF	4.10	426		1.6	34	0.4	224	246	
	2000	EF	3.09	327		5.6	73	0.7	110	64	
	2030	GF	4.15	450		1.6	34	0.4	232	216	
	2200	EF	3.08	321		5.6	73	0.6	108	50	
	2230	GF	4.11	431		1.6	38	0.4	224	216	
	2400	EF	3.07	316		5.0	74	N/A	108	50	
	7/21/84	0030	GF	4.11	431	511	1.6	38	N/A	230	226
0200		EF	3.06	310	372	5.0	74	N/A	105	45	
0230		GF	4.10	426		1.6	38	N/A	250	213	
0400		EF	3.06	310		4.4	78	0.7	107	42	
0430		GF	4.11	431		1.6	38	0.4	240	259	
0545		EF	3.06	310		4.4	78	0.7	83	38	
0610		GF	4.12	436		1.6	41	0.4	210	263	
0830		EF	3.05	304		5.3	82	0.8	66	46	
0900		GF	4.14	445		1.4	37	0.3	250	247	
1030		EF	3.07	316		6.4	71	0.7	73	45	
1100		GF	4.21	480		1.9	39	0.3	260	293	
1230		EF	3.12	346		8.3	69	0.5	102	73	
1300		GF	4.32	539		2.5	32	0.3	250	271	
1430		EF	3.16	372		8.9	69	0.5	124	102	
1500		GF	4.35	556		2.5	30	0.3	260	313	
1630		EF	3.21	407		8.9	61	0.4	160	188	
1700	GF	4.39	579		1.6	27	0.3	310	493		
2000	TR	0.72	N/A	144	11.9	135	1.2	31	6.1		
7/24/84	1010	EF	3.20	400	444	5.8	62	N/A	196	132	
	1120	GF	4.39	579	591	1.8	34	0.3	370	228	
	1440	TR	1.49	N/A	164	11.7	130	1.4	36	6.8	
7/27/84	1010	EF	3.11	340	379	5.6	67	0.5	44	53	All cond & turb values for these dates are from Chem/Geo.
	1050	GF	4.31	533	533	1.7	36	0.3	144	297	
	1320	TR	1.21	N/A	144	11.4	130	1.4	20	36	
7/31/84	1025	EF	3.16	372	400	6.1	56	0.6	50	58	
	1105	GF	4.33	545	550	1.7	34	0.2	146	373	
	1410	TR	1.41	N/A	147	11.4	120	1.4	18	3.3	

NOTE: Abbreviations used - N/A = Not Available, EF = East Fork, GF = Glacier Fork, TR = Tailrace, TSS = Total Suspended Solids. Chem/Geo = Chemicals & Geological Laboratories of Alaska, Inc., d/s = Downstream, LB = Left Bank, RB = Right Bank

TABLE K.6
MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

Month: August, 1984

1. LAKE DATA - GENERAL

Date	Lake Elevation (ft.,msl)	Lake Depth (m)	Q in (Mean Daily) 3 3 (10 m /day)	Q in (Mean Daily) (cfs)	Q out (Mean Daily) 3 3 (10 m /day)	Q out (Mean Daily) (cfs)	Stations Profiled	Weather
8/3	840.6	55.0	3040	1243	329	134	1,2,3,9,15	Overcast. Calm in the morning, strong-wind out the W in the afternoon, abating in the evening.
8/16- 8/20	845.2- 849.8	56.4- 57.9	2790-4360 Qm=3575	1140-1782 Qm = 1461	340-347 Qm=345	139-142 Qm=141	1-15	8/16. Mostly sunny with a light wind from the east. Waves approx. 0.2ft. 8/17. Mostly cloudy to overcast. Light to strong wind moving from SSE early to WNW in the afternoon, to NNW in the evening. NW later. 8/18. Overcast. Strong wind first from NNW, then shifting at 1050 to blow from SSE. Waves 1-2 ft. 8/19. Light rain in the morning, ending after noon. Winds from NNW calm early building in the afternoon raising the wave height from 0.1 to 1 ft. 8/20. Mostly cloudy. Wind shifted from SSE in the morning to NW after noon.

2. LAKE DATA SUMMARY

Date	Time AST	Station	Depth (m)	Temp. °C	Cond. (@ 25°C) (umho/cm)	Secchi Disk at surface (ft)	Quantum Extinction Coefficient (/m)	Depth for 99% Extinction (m)	Turbidity (NTU)	TSS (mg/l)	Remarks
8/03	1130	1	1.0	15.0	137	1.9	2.75	1.9	9.5	3.7	
			3.0	9.0	116						
	1300	2	4.0	14.5	133	1.7	1.78	2.7	9.8	2.6	
			8.0	11.1	125						
			16	10.2	106						
			32	6.0	138						
	1500	3	2.0	15.7	135	2.0	1.85	2.5	5.6	11	
			8.0	11.1	121						
			16	9.5	103						
			28	6.3	132						
	1700	9	6.0	11.7	120	1.8	2.05	2.1	8.7	9.5	

TABLE K.6, cont.
MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

Month: August 1984

2. LAKE DATA SUMMARY

Date	Time AST	Station	Depth (m)	Temp. °C	Cond. (@ 25°C) (umho/cm)	Secchi Disk at surface (ft)	Quantum Extinction Coefficient (/m)	Depth for 99% Extinction (m)	Turbidity (NTU)	TSS (mg/l)	Remarks
8/03	2100	15	28	6.4	136	1.5	2.47	1.8	7.4	3.5	
			4.0	11.9	131				13	2.3	
8/16	1740	15	6.0	11.1	105	1.4	2.58	1.8	46	11	
8/17	0910	14	2.0	13.8	137	1.3	2.28	2.1	38	4.2	
			10	9.7	139				47	8.7	
	1150	13	20	8.4	126	1.4	2.29	1.8	58	11	
			2.0	14.2	118				30	4.2	
	1330	12	12	9.4	130	1.3	N/A	N/A	44	5.5	
			28	7.2	127				25	6.4	
	1600	11	2.0	13.6	133	1.4	2.11	2.1	32	3.9	
			16	8.6	109				47	4.4	
	1900	10	6.0	11.7	126	1.6	2.17	2.0	42	13	
			16	9.2	113				35	3.9	
			36	5.6	130				9.0	1.2	
			30	6.1	122				10.2	2.0	
8/18	0910	9	6.0	10.2	129	1.5	2.34	1.9	30	5.9	
			16	8.7	116				75	31	
			44	5.4	136				5.5	1.1	
8/19	1250	8	6.0	11.0	128	1.5	N/A	N/A	56	26	
			24	7.9	125				56	27	
	1000	7	44	5.4	147	1.1	N/A	N/A	4.7	1.9	
			6.0	11.5	131				35	3.9	
	1500	6	20	8.7	132	1.0	N/A	N/A	48	21	
			40	5.4	149				5.3	2.3	
	1750	5	2.0	10.6	131	1.1	N/A	N/A	48	23	
			20	9.2	120				70	35	
			44	6.4	143				25	21	
			4.0	11.5	130				40	13	
			24	8.7	121				65	30	
			44	5.8	154				10.5	4.0	
8/20	1020	4	8.0	12.1	133	1.6	N/A	N/A	37	7.8	
			24	8.0	136				50	28	
			44	5.4	160				8.5	3.0	
	1240	3	6	12.2	121	1.4	N/A	N/A	40	6.8	
			20	8.4	113				72	40	
	1430	2	30	6.0	148	1.4	N/A	N/A	11.5	10	
			2	12.8	132				36	8.0	
	1630	1	16	9.4	109	1.5	N/A	N/A	115	61	
			36	5.8	140				12.5	11	
			1	12.8	134				36	9.4	
			6	12.8	136				35	4.0	
			12	12.0	127				100	47	

TABLE K.6, cont.

MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

3. INFLOW/OUTFLOW DATA

MONTH: August, 1984

Date	Time AST	Site	Gage Height (ft)	Instant. Q (cfs)	Mean Daily Q (cfs)	Water Temp. (°C)	Conductivity @ 25°C (umho/cm)	Secchi Disk (ft)	Turbidity (NTU)	TSS (mg/l)	Remarks
8/3	1134	EF	N/A	N/A	476	7.0	N/A	N/A	70	126	Mean Daily Q is estimated for EF
	1237	GF	4.61	722	687	2.7	N/A	N/A	130	380	
	1520	TR	1.57	N/A	134	11.5	N/A	N/A	16	4.2	
8/7	1030	EF	3.36	527	483	6.5	50	0.3	85	143	Mean daily Q estimated for EF
	1300	GF	4.74	818	772	2.7	20	0.2	156	470	
	1530	TR	1.80	N/A	146	11.4	121	1.3	20	5.1	
8/10	1121	EF	3.28	460	493	5.1	N/A	0.6	55	75	
	1210	GF	4.55	680	694	1.4	N/A	0.2	140	370	
	1410	TR	1.67	N/A	143	10.8	N/A	1.4	19	3.2	
8/14	1015	EF	3.10	333	365	4.7	65	0.6	76	44	
	1100	GF	4.29	522	562	1.6	27	0.3	196	262	
	1200	EF	3.13	352		6.2	61	0.6	84	89	
	1230	GF	4.41	591		1.9	24	0.2	220	217	
	1400	EF	3.17	379		7.5	60	0.6	104	56	
	1500	GF	4.45	616		1.7	24	0.2	228	349	
	1600	EF	3.20	400		7.5	57	0.6	96	82	
	1700	GF	4.49	641		1.4	21	0.4	220	336	
	1800	EF	3.24	429		6.8	55	0.5	132	123	
	1900	GF	4.45	616		1.3	19	0.3	204	290	
	1930	EF	3.25	436		5.9	58	0.4	120	110	
	2015	GF	4.46	622		1.2	21	0.4	180	235	
	2300	EF	3.24	429		4.5	64	N/A	116	N/A	
	2330	GF	4.35	556		1.1	26	N/A	188	N/A	
	2400	EF	3.22	414		4.4	61	N/A	108	78	
8/15	0030	GF	4.34	550	562	1.0	26	N/A	160	215	Staff gage removed from TR.
	0200	EF	3.18	385	392	4.1	64	N/A	120	96	
	0230	GF	4.28	517		1.0	31	N/A	180	228	
	0430	EF	3.16	372		4.0	61	N/A	96	66	
	0500	GF	4.26	506		0.9	N/A	N/A	180	244	
	0600	EF	3.14	359		3.9	64	0.5	80	51	
	0630	GF	4.22	485		1.0	31	0.3	188	226	
	0800	EF	3.12	346		3.9	64	0.5	88	48	
	0830	GF	4.20	475		1.0	26	0.3	192	216	
	1000	EF	3.12	346		4.6	72	0.6	66	51	
	1030	GF	4.22	485		1.3	42	0.2	196	225	
	1200	EF	3.14	359		6.5	113	0.6	72	48	
	1230	GF	4.38	573		1.8	89	0.2	180	331	
	N/A	TR	N/A	N/A	146	10.0	N/A	1.1	26	3.0	
	8/17	1130	EF	N/A	N/A	421	5.8	N/A	N/A	100	
1215		GF	4.47	628	609	1.5	N/A	N/A	205	247	
1440		TR	N/A	N/A	143	9.5	N/A	N/A	38	26	

NOTE: Abbreviations used - N/A = Not Available, EF = East Fork, GF = Glacier Fork, TR = Tailrace, TSS = Total Suspended Solids.

TABLE K.6, cont.
 MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

Month: August, 1984

3. INFLOW/OUTFLOW DATA (Continued)

Date	Time AST	Site	Gage Height (ft)	Instant. Q (cfs)	Mean Daily Q (cfs)	Water Temp. (°C)	Conductivity @ 25°C (umho/cm)	Secchi Disk (ft)	Turbidity (NTU)	TSS (mg/l)	Remarks
8/21	1035	EF	3.12	346	392	4.8	N/A	0.7	110	91	
	1111	GF	4.41	591	597	1.5	N/A	0.3	370	429	
	1307	TR	N/A	N/A	143	11.4	N/A	1.4	46	19	
8/24	1110	EF	3.06	310	519	5.0	N/A	1.0	53	76	
	1200	GF	4.55	680	707	2.0	N/A	0.5	170	270	
	1410	TR	N/A	N/A	139	10.5	N/A	1.1	12	15	
8/28	1030	EF	2.86	211	219	3.7	N/A	0.9	27	18	Q Inst. From discharge measurements on EF & GF
	1300	GF	4.01	386	381	1.4	N/A	0.2	220	280	
	1930	TR	N/A	N/A	146	10.3	N/A	1.3	26	5.0	

NOTE: Abbreviations used - N/A = Not Available, EF = East Fork, GF = Glacier Fork, TR = Tailrace, TSS = Total Suspended Solids. Chem/Geo = Chemical & Geological Laboratories of Alaska, Inc., d/s = Downstream, LB = Left Bank, RB = Right Bank

M14/30

TABLE K.7
MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

Month: September, 1984

1. LAKE DATA - GENERAL

Date	Lake Elevation	Lake Depth	Q in (Mean Daily) 3 3 (10 m /day)	Q in (Mean Daily) (cfs)	Q out (Mean Daily) 3 3 (10 m /day)	Q out (Mean Daily) (cfs)	Stations	Weather
Sampled	(ft,msl)	(m)					Profiled	
9/3	858.4	60.5	947	387	350	143	1,2,3,9,15	Clear, calm.
9/17	860.2	61.0	819	335	390	159	1,2,3,9,15	Overcast, calm.

2. LAKE DATA SUMMARY

Date	Time AST	Station	Depth (m)	Temp. °C	Cond. (@ 25°C) (umho/cm)	Secchi Disk at surface (ft)	Quantum Extinction Coefficient (/m)	Depth for 99% Extinction (m)	Turbidity (NTU)	TSS (mg/l)	Remarks			
9/03	1620	1	6.0	10.5	129	1.6	N/A	N/A	55	2.6				
			12	9.6	122				35	13				
			24	7.6	126				33	12				
	1510	2	4.0	10.6	125	1.5	N/A	N/A	23	6.1				
			24	7.7	112				35	15				
			40	6.0	127				13.2	4.7				
	1730	3	0.0	12.5	138	1.6	N/A	N/A	22	4.2				
			20	8.2	126				16.0	8.5				
			44	5.5	155				7.6	3.4				
			9	4.0	10.5				114	1.4	N/A	N/A	22	3.2
				20	8.3				114				50	21
			44	5.8	139				13.1	1.9				
1100	15	4.0	10.1	113	1.4	N/A	N/A	25	3.4					
9/17	1730	1	1.0	9.0	138	1.4	2.24	2.1	14.5	7.1				
			2	10.4	130				16.0	3.4				
			10	9.8	124				17.5	3.2				
	1500	3	20	8.1	129	1.5	1.60	2.9	25	8.1				
			40	6.1	148				10.5	2.9				
			1	10.4	127				15.5	3.1				
			10	10.0	121				17.0	1.9				
			28	6.7	135				17.8	3.1				
			40	5.9	144				9.5	3.0				
	1245	9	6.0	10.1	126	1.7	1.64	2.79	23	2.0				
			20	8.2	122				29	3.6				
			56	5.2	151				18	2.0				
	1000	15	6.0	10.0	121	1.6	1.54	2.97	30	1.6				

TABLE K.7, cont.
MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

3. INFLOW/OUTFLOW DATA

MONTH: September, 1984

Date	Time AST	Site	Gage Height (ft)	Instant. Q (cfs)	Mean Daily Q (cfs)	Water Temp. (°C)	Conductivity @ 25°C (umho/cm)	Secchi Disk (ft)	Turbidity (NTU)	TSS (mg/l)	Remarks
9/1	1100	EF	2.65	137	140	4.2	104	1.4	7.0	7.4	
	1145	GF	3.41	186	194	1.1	40	0.4	120	203	
	1500	TR	N/A	N/A	147	9.1	92	1.1	36	11	
9/4	1315	EF	2.61	96	102	5.5	105	1.4	9.0	4.6	
	1420	GF	3.30	161	161	1.4	29	0.5	85	87	
	2055	TR	N/A	N/A	149	9.5	102	1.1	32	2.8	
9/6	1030	EF	2.59	120	131	3.9	104	1.4	10.5	5.4	
	1115	GF	3.19	138	146	1.5	46	0.6	95	107	
	1330	TR	N/A	N/A	141	9.5	116	1.4	25	9.3	
9/11	1010	EF	2.58	117	125	3.8	104	1.4	10.6	0.8	
	1050	GF	3.02	108	123	1.1°C	43	0.5	90	102	
	1314	TR	N/A	N/A	161	9.1	111	1.4	24	4.4	
9/14	1023	EF	2.69	149	187	4.7	104	1.4	17.5	16	
	1106	GF	3.29	159	199	1.1	35	0.4	57	183	
	1310	TR	N/A	N/A	141	9.9	116	1.7	19.7	4.5	
9/18	1030	EF	2.56	112	112	4.5	112	1.4	11.5	4.4	
	1117	GF	3.13	127	129	1.4	48	0.5	127	126	
	1300	TR	N/A	N/A	159	9.1	113	1.6	24	5.6	
9/21	1045	EF	2.47	92	92	2.7	108	1.4	2.9	3.8	GH & Mean Daily Q est for EF.
	1120	GF	2.82	79	79	0.7	70	0.5	100	72	
	1310	TR	N/A	N/A	169	8.9	98	1.6	13.4	5.2	
9/25	1100	EF	2.42	81	83	4.6	131	1.4	2.2	1.7	GH & Mean Daily Q est for EF
	1130	GF	2.70	65	69	1.6	54	0.8	49	45	
	1345	TR	N/A	N/A	168	8.9	129	1.7	13.3	2.5	
9/28	1115	EF	2.40	78	83	4.3	N/A	1.3	1.95	1.1	
	1145	GF	2.61	56	62	1.3	52	N/A	31	36	
	1310	TR	N/A	N/A	150	8.1	112	2.0	12.0	5.0	

NOTE: Abbreviations used: N/A = Not Available, EF = East Fork, GF = Glacier Fork, TR = Tailrace, TSS = Total Suspended Solids. Chem/Geo = Chemical & Geological Laboratories of Alaska, Inc., d/s = Downstream, LB = Left Bank, RB = Right Bank.

M14/56

TABLE K.8
MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

Month: October, 1984

1. LAKE DATA - GENERAL

Date	Lake Elevation (ft. msl)	Lake Depth (m)	Q in (Mean Daily) 3 3 (10 m /day)	Q in (Mean Daily) (cfs)	Q out (Mean Daily) 3 3 (10 m /day)	Q out (Mean Daily) (cfs)	Stations Profiled	Weather	Remarks
10/01	861.9	61.5	1350	552	459	187	1,2,3,9,15	Calm in a.m. Wind picking up to 18 mph in p.m. in- termittent rain.	Light extinction measurement and turbidity pro- file were not run at Sta. 15 because of darkness.
10/15	862.7	61.8	349	143	401	164	1,2,3,9,15	Cloudy, cold mostly calm.	Turbidity pro- file not run; pump not func- tioning.
10/29	862.4	61.7	216	88	912	373	1,2,3,9,15	Clear, calm, cold.	Turbidity pro- file was not run because of a pump malfunction.

2. LAKE DATA SUMMARY

Date	Time AST	Station	Depth (m)	Temp. °C	Cond. (@ 25°C) (umho/cm)	Secchi Disk at surface (ft)	Quantum Extinction Coefficient (/m)	Depth for 99% Extinction (m)	Turbidity (NTU)	TSS (mg/l)	Remarks	
10/01	1130	1	2.0	4.0	132	0.6	13.1	0.3	220	95	Too dark for light extinc- tion and secchi mea- surements.	
			4.0	8.7	131	2.2	1.30	3.4	13.0	3.7		
	1515	3	20	8.2	132	2.3	1.24	3.5	18.2	1.1		
			46	6.3	147				18	4.8		
			4.0	8.8	125				12	1.6		
			16	8.4	123				16	3.1		
			28	7.4	131				16	1.7		
			4.0	8.8	135				19	2.9		
	1730	9	24	7.6	143	2.3	1.30	3.4	15	2.0		
			48	5.7	157				26	14		
			56	6.3	154				75	39		
			4.0	8.8	143				N/A	N/A		N/A
	10/15	1130	1	1.0	1.3	161	3.9	1.00	4.6	6.5		0.86
				4.0	7.3	129	2.6	1.19	3.6	11.2		1.5
1210		2	12	7.3	118	2.6	1.19	3.6	11.2	0.22		
			24	7.2	122				11.2	0.46		
			44	6.2	134				17.8	3.9		

TABLE K.8, cont.
MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

Month: October, 1984

2. LAKE DATA SUMMARY (continued)

Date	Time AST	Station	Depth (m)	Temp. °C	Cond. (@ 25°C) (umho/cm)	Secchi Disk at surface (ft)	Quantum Extinction Coefficient (/m)	Depth for 99% Extinction (m)	Turbidity (NTU)	TSS (mg/l)	Remarks
10/15	0940	3	1.0	7.3	121	2.5	1.27	3.6	11.6	0.96	
			6.0	7.3	94				11.8	0.41	
			16	7.3	111				12.6	0.27	
	1420	9	36	6.3	134	2.7	1.21	3.7	17.2	4.0	
			2	7.4	120				11.4	2.6	
			10	7.4	119				11.7	1.5	
			20	7.4	120				12.4	2.0	
			40	6.3	130				18.4	5.9	
			56	5.8	132				21	8.3	
	1550	15	2	7.2	122	2.7	1.21	3.8	10.6	0.33	
			12	7.2	121				11.1	1.8	
	10/29	1400	1	1	4.7	123	2.5	1.42	3.2	8.4	
1300		2	4	6.0	120	2.1	1.40	3.0	11.0	6.4	
			12	5.9	96				10.9	6.5	
			28	5.9	101				11.3	6.0	
			40	5.9	107				11.2	5.4	
1100		3	4	5.8	129	2.1	1.34	3.2	11.0	4.3	
			16	5.8	102				11.0	5.7	
			32	5.7	112				10.8	5.5	
			44	5.6	117				10.9	5.7	
1600		9	6	5.8	127	2.1	1.36	3.3	11.3	6.6	
			20	5.9	110				11.5	4.6	
			36	5.9	111				11.0	5.3	
			56	5.9	114				11.2	6.1	
1700		15	2	5.2	128	2.6	2.04	2.3	10.2	5.4	
			12	5.3	120				11.0	6.7	

3. INFLOW/OUTFLOW DATA

Date	Time AST	Site	Gage Height (ft)	Instant. Q (cfs)	Mean Daily Q (cfs)	Water Temp. (°C)	Conductivity @ 25°C (umho/cm)	Secchi Disk (ft)	Turbidity (NTU)	TSS (mg/l)	Remarks
10/2	1330	EF	2.75	168	183	4.9	106	1.3	30	35	
	1430	GF	3.23	146	144	1.7	77	0.3	338	190	
	1630	TR			177	8.9	115	2.3	10.5	3.2	
10/5	1000	EF	2.57	129	120	3.5	125	3.0	7.4	7.9	Secchi at EF indicates clear view to bottom at a deep scour area d/s of gage. Q inst at EF is from a discharge measurement.
	1200	GF	2.86	85	85	1.7	90	0.3	160	107	
	1620	TR			190	9	119	1.8	12.0	3.5	

" " indicates that the secchi disc was visible to the bottom.

TABLE K.8, cont.

MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

3. INFLOW/OUTFLOW DATA (Continued)

MONTH: October, 1984

Date	Time AST	Site	Gage Height (ft)	Instant. Q (cfs)	Mean Daily Q (cfs)	Water Temp. (°C)	Conductivity @ 25°C (umho/cm)	Secchi Disk (ft)	Turbidity (NTU)	TSS (mg/l)	Remarks
10/9	1215	EF	2.54	107	103	3.3	130	>3.0	3.2	3.3	
	1300	GF	2.59	54	54	1.3	85	0.5	95	78	
	1450	TR			155	8.0	115	2.1	15.5	6.0	
10/12	1250	EF	2.44	85	85	2.9	128	>3.0	2.1	1.1	Q inst at GF is from a discharge measurement.
	1030	GF	2.42	40	38	0.5	89	0.7	63	41	
	1530	TR			155	8.0	105	2.1	8.6	2.4	
10/16	1030	EF	2.37	72	71	1.3	142	>3.0	1.6	0.15	Stilling well frozen at GF from this date on Q estimated for GF.
	1115	GF	N/A	28	28	0.3	84	0.9	54	16	
	1400	TR			159	7.4	117	2.7	11.4	0.56	
10/19	1130	EF	2.33	66	66	2.2	142	>3.0	1.1	2.1	
	1200	GF	N/A	25	24	0.0	85	0.4	50	40	
	1400	TR			209	7.1	111	2.6	10.5	6.9	
10/23	1130	EF	2.38	74	74	2.2	145	>3.0	1.6	1.1	Q inst at GF is from a discharge measurement Q MD for GF is estimated.
	1330	GF	N/A	25	28	0.7	95	1.0	45	30	
	0900	TR			309	6.9	113	2.7	11.3	4.4	
10/26	1030	EF	2.26	55	55	N/A	152	>3.0	0.9	1.8	Q inst at EF is from a discharge measurement. QMD and Q inst estimated for GF.
	1250	GF	N/A	24	25	0.0	102	1.0	50	23	
	1440	TR			349	6.2	123	2.3	11.5	3.4	
10/30	1217	EF	2.18	45	45	1.7	151	>3.0	1.3	4.1	GH estimated for EF, water surface is below orifice in stilling well. Q inst & QMD estimated for GF.
	1317	GF	N/A	20	20	0.0	109	1.0	47	14	
	1440	TR			356	5.7	128	2.3	12.2	4.0	

" " indicates that the secchi disc was visible to the bottom.

M14/87

TABLE K.9
MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

Month: November, 1984

1. LAKE DATA - GENERAL

Date	Lake Elevation (ft,msl)	Lake Depth (m)	Q in (Mean Daily) 3 3 (10 m /day)	Q in (Mean Daily) (cfs)	Q out (Mean Daily) 3 3 (10 m /day)	Q out (Mean Daily) (cfs)	Stations Profiled	Weather
11/12	859.6	61.0	159*	65*	868	355	1,2,3,9,15	-10°F, foggy calm.
11/26	859.0	60.8	159*	65*	783	320	1,2,3,9,15	5°F, clear light breeze variable.

2. LAKE DATA SUMMARY

Date	Time AST	Station	Depth (m)	Temp. °C	Cond. (@ 25°C) (umho/cm)	Secchi Disk at surface (ft)	Quantum Extinction Coefficient (/m)	Depth for 99% Extinction (m)	Turbidity (NTU)	TSS (mg/l)	Remarks
11/12	1000	1	1	3.8	117	2.6	1.32	3.5	11.0	4.2	Cond from field YSI
	1130	2	4 16 28 40	4.6 4.6 4.6 4.6	112 126 126 127	2.7	1.25	3.6	11.3 11.0 10.0 9.4	3.4 3.3 N/A 3.1	
	1300	3	4 16 28 40	4.4 4.5 4.4 4.3	110 115 117 116	2.6	1.21	3.7	8.4 9.6 9.6 9.7	2.5 5.4 N/A 2.4	
	1500	9	4 16 32 48	4.6 4.6 4.6 4.6	133 121 124 126	2.8	1.19	3.8	10.6 10.8 11.0 9.8	3.3 3.2 N/A 3.0	
	1630	15	1 12	3.8 3.9	141 128	2.6	1.17	3.8	10.8 10.4	2.4 N/A	
11/26	0930	1	1	2.6	122	2.7	1.07	4.23	9.0	3.3	
	1120	2	4 12 40	3.6 3.7 3.7	117 113 114	3.0	1.24	3.9	8.8 9.6 8.6	3.0 3.4 3.3	
	1220	3	4 20 40	3.0 3.2 3.4	120 117 117	3.0	1.01	4.5	8.2 7.9 8.4	3.8 3.6 3.4	

* Estimate

NOTE: Abbreviations used - N/A = Not Available, EF = East Fork, GF = Glacier Fork, TR = Tailrace, TSS = Total Suspended Solids.

TABLE K.9, cont.
MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

2. LAKE DATA SUMMARY

Month: November, 1984

Date	Time AST	Station	Depth (m)	Temp. °C	Cond. (@ 25°C) (umho/cm)	Secchi Disk at surface (ft)	Quantum Extinction Coefficient (/m)	Depth for 99% Extinction (m)	Turbidity (NTU)	TSS (mg/l)	Remarks
11/26	1330	9	2	2.2	127	3.0	1.06	4.2	8.8	3.2	
			16	3.6	125				9.2	3.9	
			32	3.6	125				9.0	5.0	
			52	3.6	127				8.2	4.0	
	1440	15	10	3.3	130	3.0	1.16	3.8	9.2	4.7	

3. INFLOW/OUTFLOW DATA

Date	Time AST	Site	Gage Height (ft)	Instant. Q (cfs)	Mean Daily Q (cfs)	Water Temp. (°C)	Conductivity @ 25°C (umho/cm)	Secchi Disk (ft)	Turbidity (NTU)	TSS (mg/l)	Remarks
11/2	1315	EF	2.11	37	37*	0.9	149	> 3	0.8	0.61	EF GH from levels.
	1230	GF	N/A	18*	18*	0.0	N/A	1.0*	N/A	N/A	GF has ice dam d/s of gage and water over, inbetween, and below ice.
	1550	TR			355	5.5	122	2.4	10.2	7.6	
11/6	1300	EF	2.17	44	44*	2.1	142	> 3	0.74	0.38	EF GH from levels.
	1230	GF	N/A	15*	15*	0.0	102	1.0	41	27	
	1450	TR			332	5.4	113	2.5	9.8	5.3	
11/9	1220	EF	N/A	35*	35*	0.1	146	> 3	0.85	0.30	
	1130	GF	N/A	N/A	10*	0.0	103	1.0	40	19	
	1400	TR			343	5.0	139	2.8	10.2	3.2	
11/13	1330	EF	N/A	27*	25*	-0.1	168	> 3	0.98	1.7	Ice damming, anchor ice, Shelf ice at EF.
	1430	GF	N/A	N/A	10*	-0.2	114	1.0*	36	24	
	1550	TR			355	4.3	128	2.6	8.5	7.5	
11/16	1200	EF	N/A	27*	25*	1.0	156	> 3	0.85	0.60	
	1230	GF	N/A	N/A	10*	-0.1	112	1.0	35	17	
	1340	TR			362	4.0	125	2.7	9.5	4.2	
11/23	1500	TR			292	3.8	127	2.6	6.6	2.3	
11/30	1400	TR			357	N/A	129	2.6	6.7	2.2	

* Estimate

NOTE: Abbreviations used - N/A = Not Available, EF = East Fork, GF = Glacier Fork, TR = Tailrace, TSS = Total Suspended Solids.

R24/5 67

APPENDIX L

OUTFLOW WATER QUALITY DATA - POWERPLANT TAILRACE

TABLE L.1

SUMMARY OF TAILRACE WATER QUALITY DATA

NOTE FOR DRAFT: Table L.1 is included for July 1984 only.

Tables for other months (May, June, and August-
November 1984) will be included in the final
report.

MONTHLY SUMMARY OF FIELD OBSERVATIONS - EKLUTNA LAKE

C. INFLOW/OUTFLOW DATA (Tailrace)
 MONTH: July 1984

<u>Date</u>	<u>Time AST</u>	<u>Gage Height (ft)</u>	<u>Mean Daily Q (cfs)</u>	<u>Water Temp. (°C)</u>	<u>Conductivity @25°C(Umho/cm)</u>	<u>Secchi Disk (ft)</u>	<u>Instant Q (cfs)</u>	<u>Turbidity (NTU)</u>	<u>TSS (mg/l)</u>	<u>Remarks</u>
7/3/84	N/A	1.84	435	11.9	144	1.8	N/A	18	6.0	Gage height from staff near the right edge of water
7/6/84	2014	1.90	335	12.2	N/A	1.8	N/A	17	9.0	
7/10/84	1518	1.73	106	N/A	142	1.4	N/A	22	9.0	
7/13/84	1425	1.19	160	N/A	143	1.1	N/A	28	18	
7/17/84	1319	0.91	106	10.0	134	1.3	N/A	31	9.0	
7/21/84	2000	0.72	144	11.9	162	1.2	N/A	31	6.1	
7/24/84	1440	1.49	164	11.7	130	1.4	N/A	29	6.8	
7/27/84	1320	1.21	144	11.4	130	1.4	N/A	16	36	
7/31/84	1410	1.41	147	11.4	120	1.4	N/A	14	3.3	

NOTE: Abbreviations used - N/A = Not Available, EF = East Fork, GF = Glacier Fork, TR = Tailrace, TSS = Total Suspended Solids, Chem/Geo = Chemical & Geological Laboratories of Alaska, Inc.

R24/5 68

APPENDIX M

DATA FROM EKLUTNA WATER PROJECT

TABLE M.1
RAW WATER ANALYSES DURING PILOT STUDY¹

Parameter	JMM	ChemLab
Physical		
Turbidity (NTU)	7.5-68	—
Temperature (°F)	39-56	—
pH	7.7-8.2	—
Color Units	3-10 ²	10-25 ³
Taste Threshold (No Units)	—	1-2
Odor Threshold (No Units)	—	1-2
General Mineral		
Ca	18.2-20.5	17-23
K	0.3-0.6	0.5-2
Mg	2.9-3.4	2.7-3.4
Na	2.4-2.9	1.0-2.3
HCO ₃	55.9-66.0	—
CO ₃	0.07-0.5	—
Cl	0.1-0.3	<1.0
SO ₄	9.5-16.3	5-14
F	<0.1	—
NO ₃	<0.4	—
Alkalinity as CaCO ₃	46-55	48-64
Hardness as CaCO ₃	58-65	54-71
TDS	70-86	60-74
Conductivity (micromhos/cm)	129-145	100-130
Fe	0.17-0.84	—
Mn	<0.03	—
Cu	<0.012	—
Zn	0.02-0.12	—
Silica	3.1-4.4	—
MBAS	<0.04	—
Asbestos (million fibers/liter)	<0.5	—
Trace Metals		
Ag	<0.005	—
As	<0.001	—
Ba	<0.04	—
Cd	<0.003	—
Cr	<0.029	—
Hg	<0.0003	—
Pb	<0.002	—
Se	<0.009	—
Organics		
TOC	0.17-0.61	—
TPTHM ⁴	0.016-0.018	—
Endrin	<0.0001	—
Lindane	<0.0001	—
Methoxychlor	<0.0001	—
Toxaphene	<0.0005	—
2,4-D	<0.0001	—
2,4,5-TP Silvex	<0.0001	—
Radionuclides		
Gross Alpha (pCi/l)	0.0-0.3 (+0.1-0.6)	—
Gross Beta (pCi/l)	0.3-1.5 (+0.4-1.0)	—
Microbiology		
Total Plate Count (per 100 ml)	—	30-2,500
Total Coliforms (per 100 ml)	—	<2

Notes:

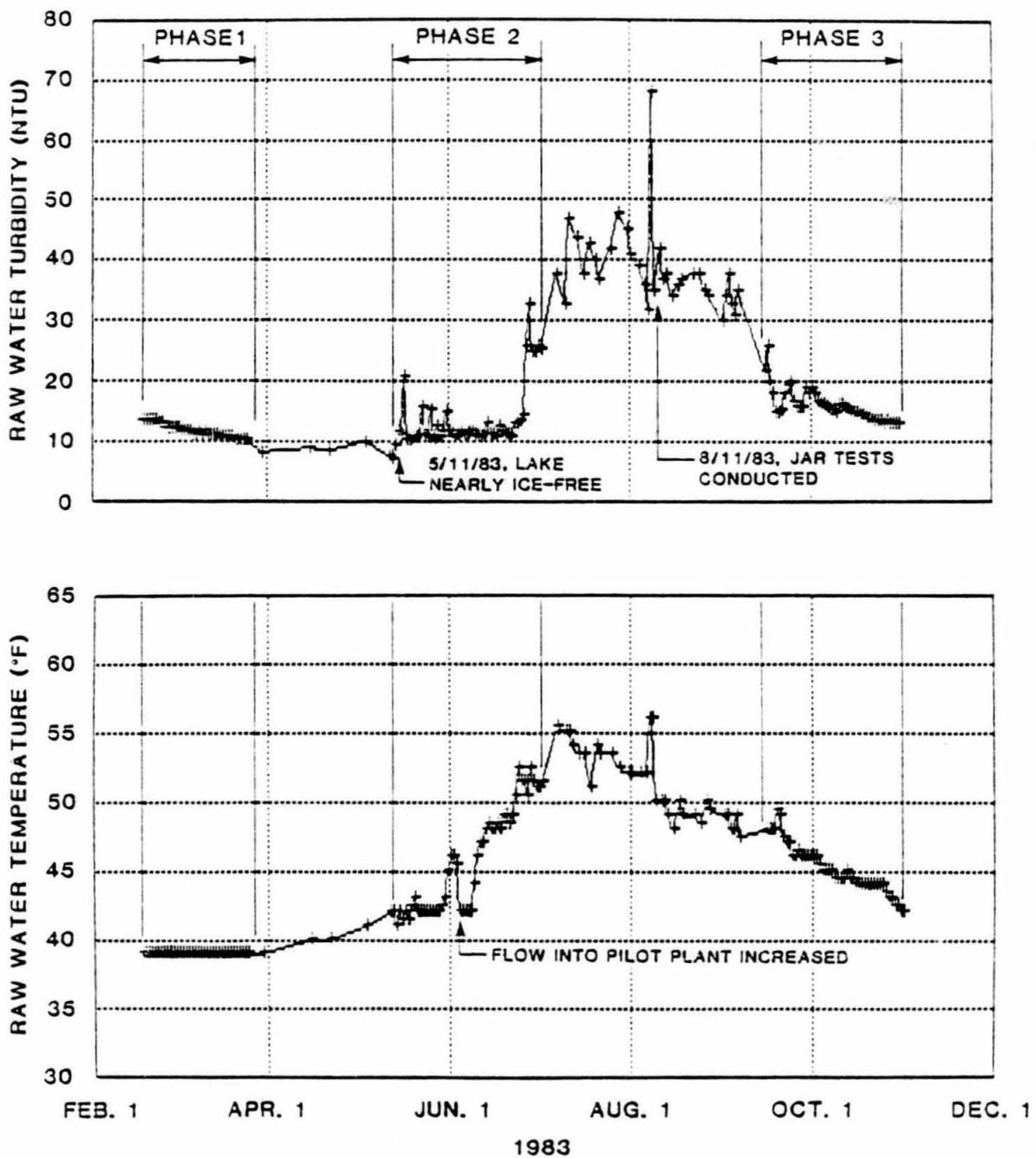
1. All results reported in mg/l unless otherwise noted. They include the ranges observed during the three testing phases.
2. True color, measured after filtration.
3. Apparent color, measured before filtration.
4. TPTHM = Total Potential Trihalomethanes
5. Source: Montgomery Engineers (1984).

TABLE M.2

TSS MEASUREMENTS OF RAW WATER

<u>Date</u>	<u>Turbidity (NTU)</u>	<u>TSS (mg/l)¹</u>			<u>Approximate Median Particle Size (microns)²</u>
		<u>Particles Larger than 0.7 micron</u>	<u>Particles Larger than 0.2 micron</u>	<u>Particles Larger than 0.1 micron</u>	
PHASE 1					
03/17/83	11.5	1.3	5.3	6.3	0.4
03/23/83	11.0	2.6	5.1	6.0	0.6
PHASE 2					
05/23/83	15.2	2.3	6.7	9.0	0.5
05/23/83	16.0	6.6	7.6	9.8	1.2
06/28/83	26	14	16	17	>1.2
06/29/83	27	7	13	17	0.6
PHASE 3					
08/11/83	42	23	25	26	>1.2
09/21/83	18.0	3.5	5.0	6.0	0.8
10/20/83	13.0	1.9	2.8	4.1	0.6

1. Three different aliquots of the same sample were applied to filters having the approximate pore sizes shown.
2. Median particle size for particles larger than 0.1 micron. This was determined by plotting the data (in terms of percent passing a certain size) on probability graph paper as demonstrated in Figure 4-5.
3. Source: Montgomery Engineers (1984).



SOURCE: MONTGOMERY ENGINEERS (1984).

FIGURE M.1
 RAW WATER TURBIDITY AND
 TEMPERATURE



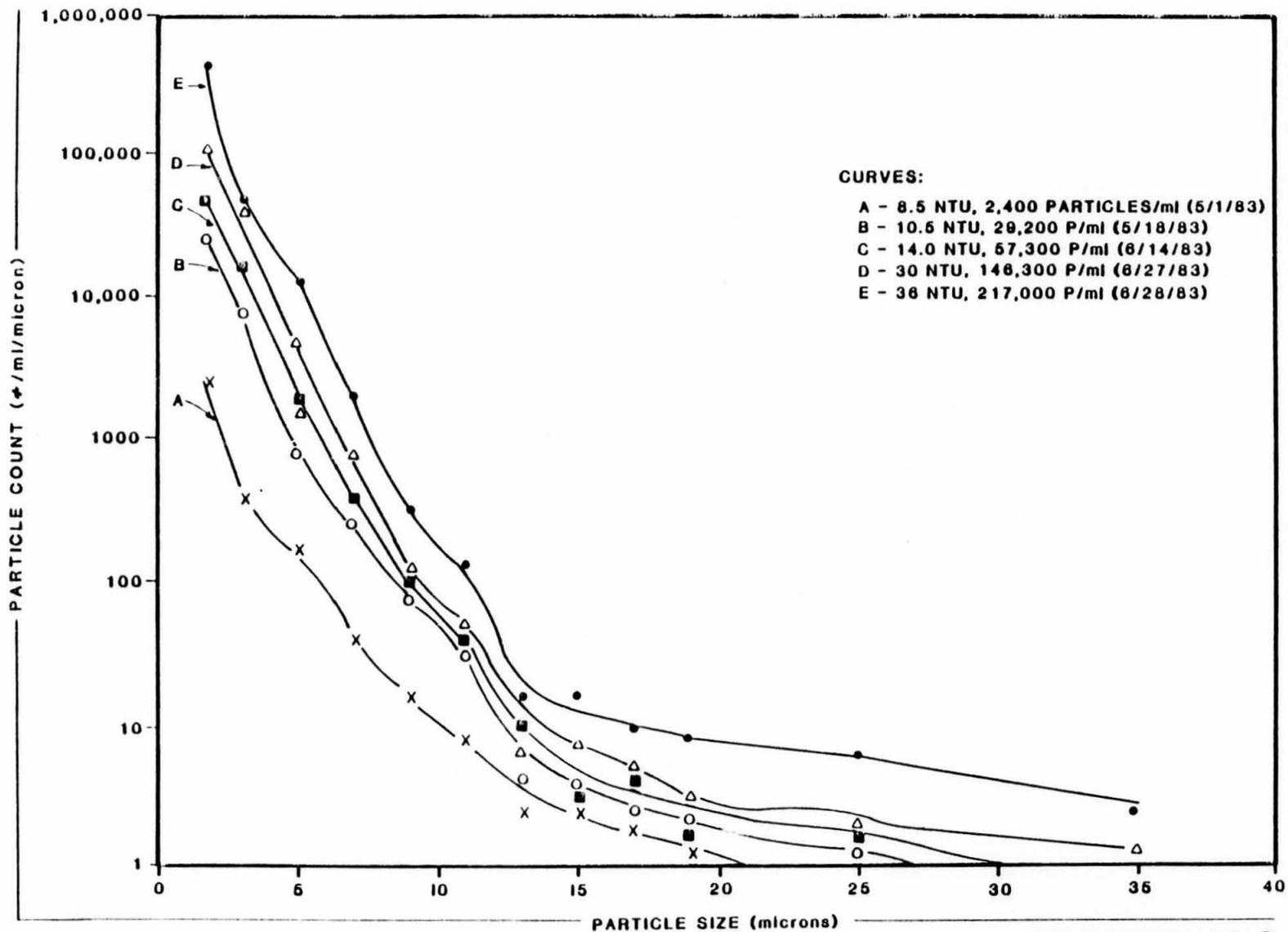


FIGURE M.2
RAW WATER PARTICLE
SIZE DISTRIBUTIONS DURING PHASE 2
 SOURCE: MOPON/UMMEI ENGINEERS (1984)

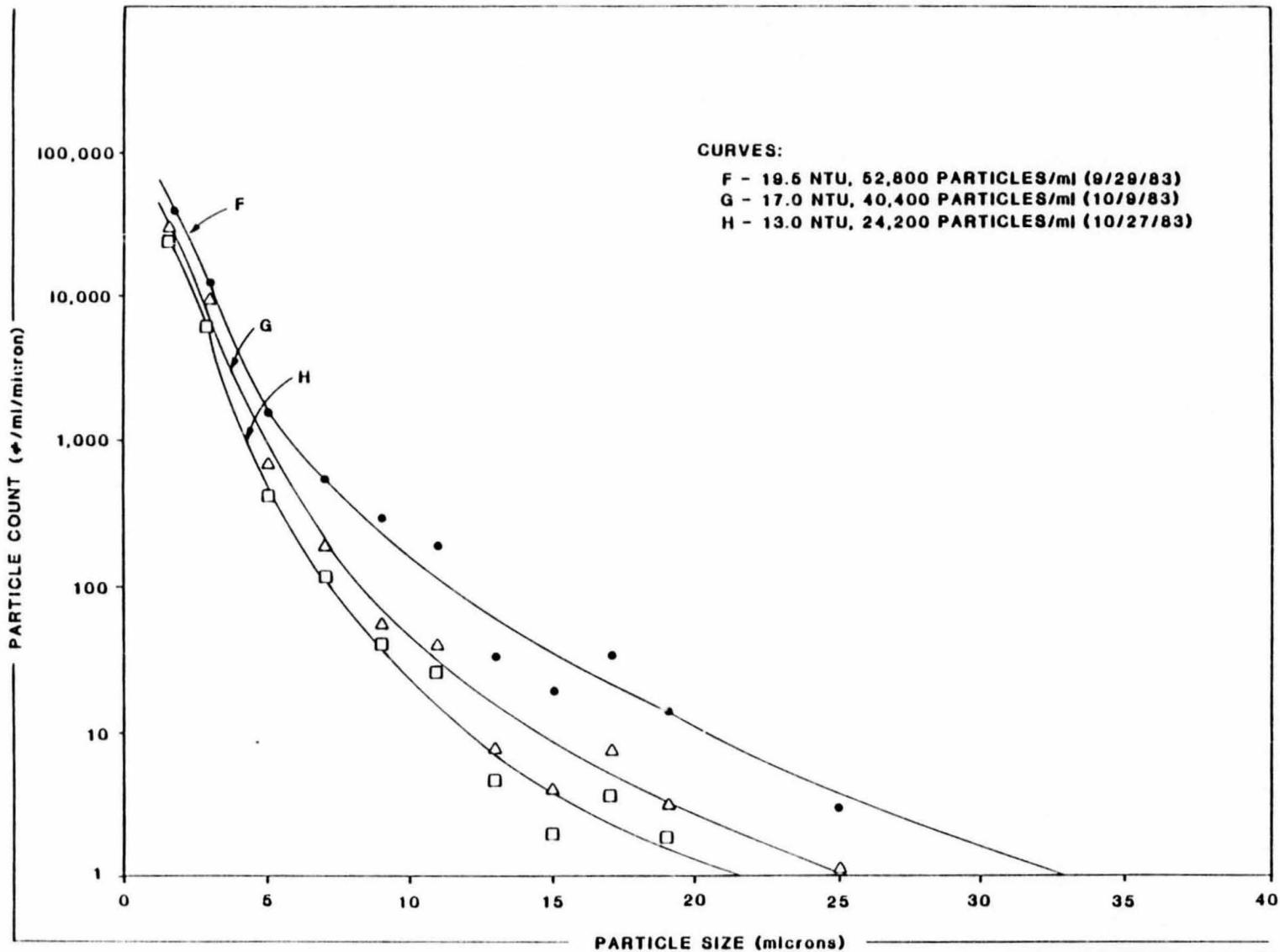


FIGURE M.3
RAW WATER PARTICLE
SIZE DISTRIBUTIONS DURING PHASE 3

SOURCE: MONTGOMERY ENGINEERS (1984).



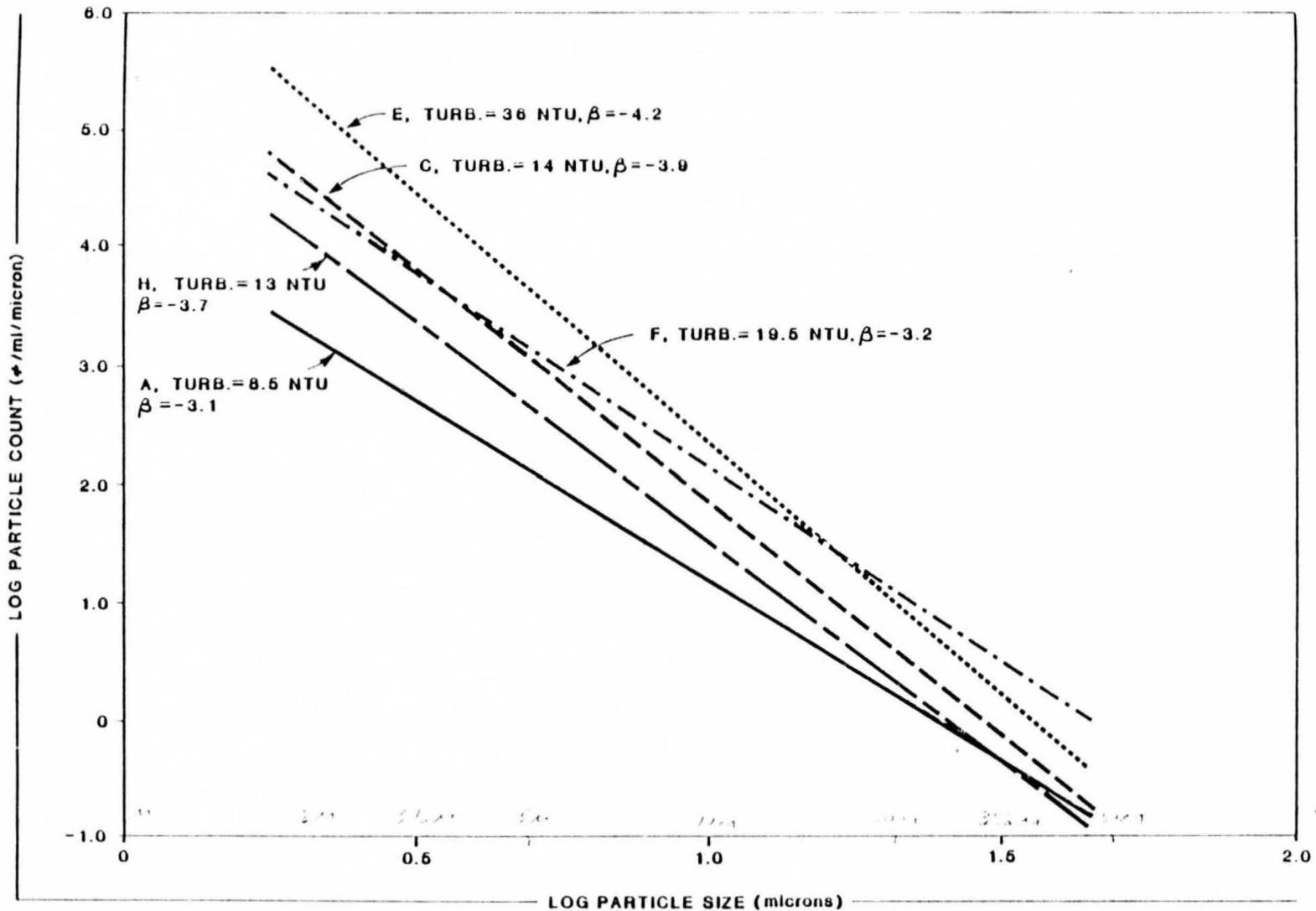


FIGURE M.4
LOGARITHMIC RAW WATER
PARTICLE SIZE DISTRIBUTIONS
 SOURCE: MONTGOMERY ENGINEERS (1984).



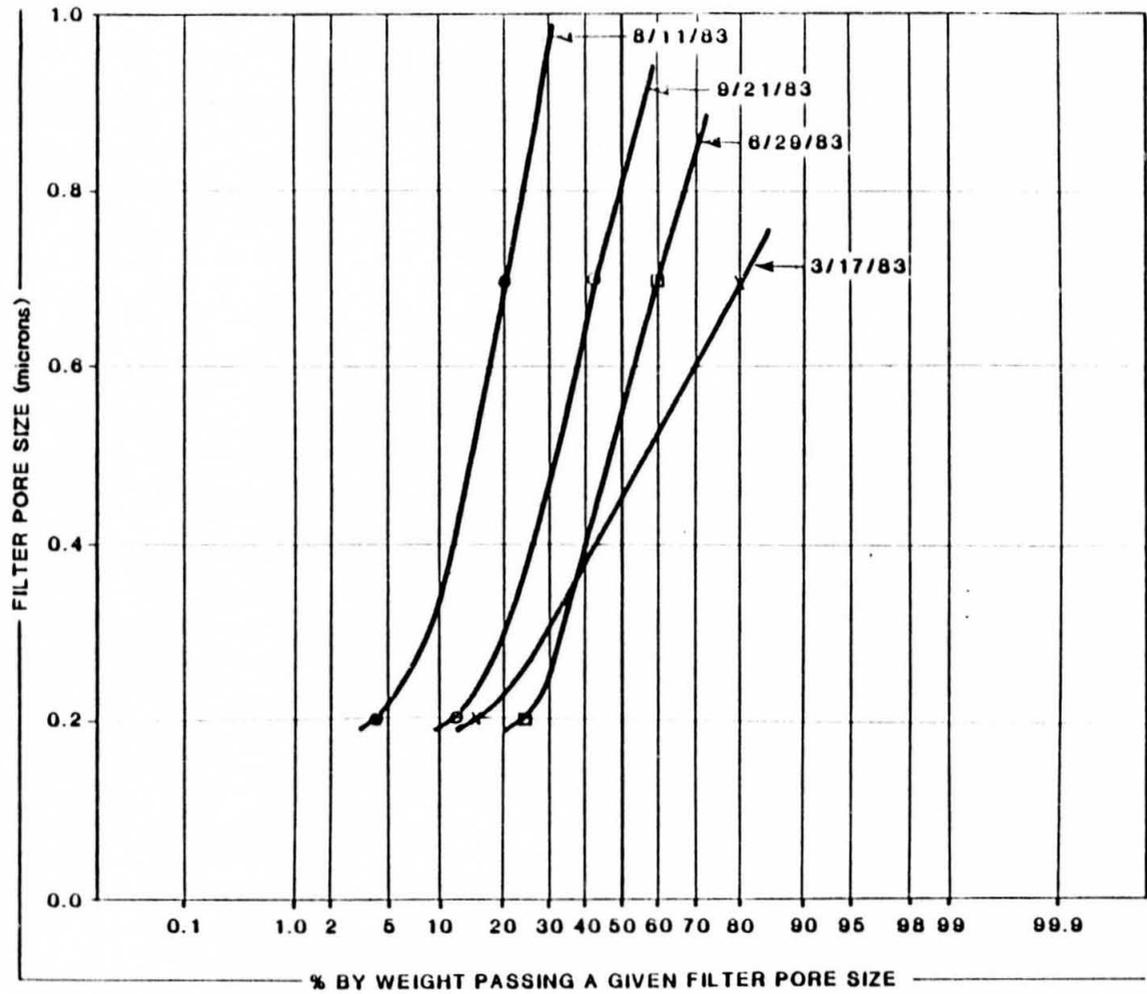


FIGURE M.5
PROBABILITY PLOTS OF
TSS DATA TO PREDICT
MEDIAN PARTICLE SIZE

SOURCE : MONTGOMERY ENGINEERS (1984).



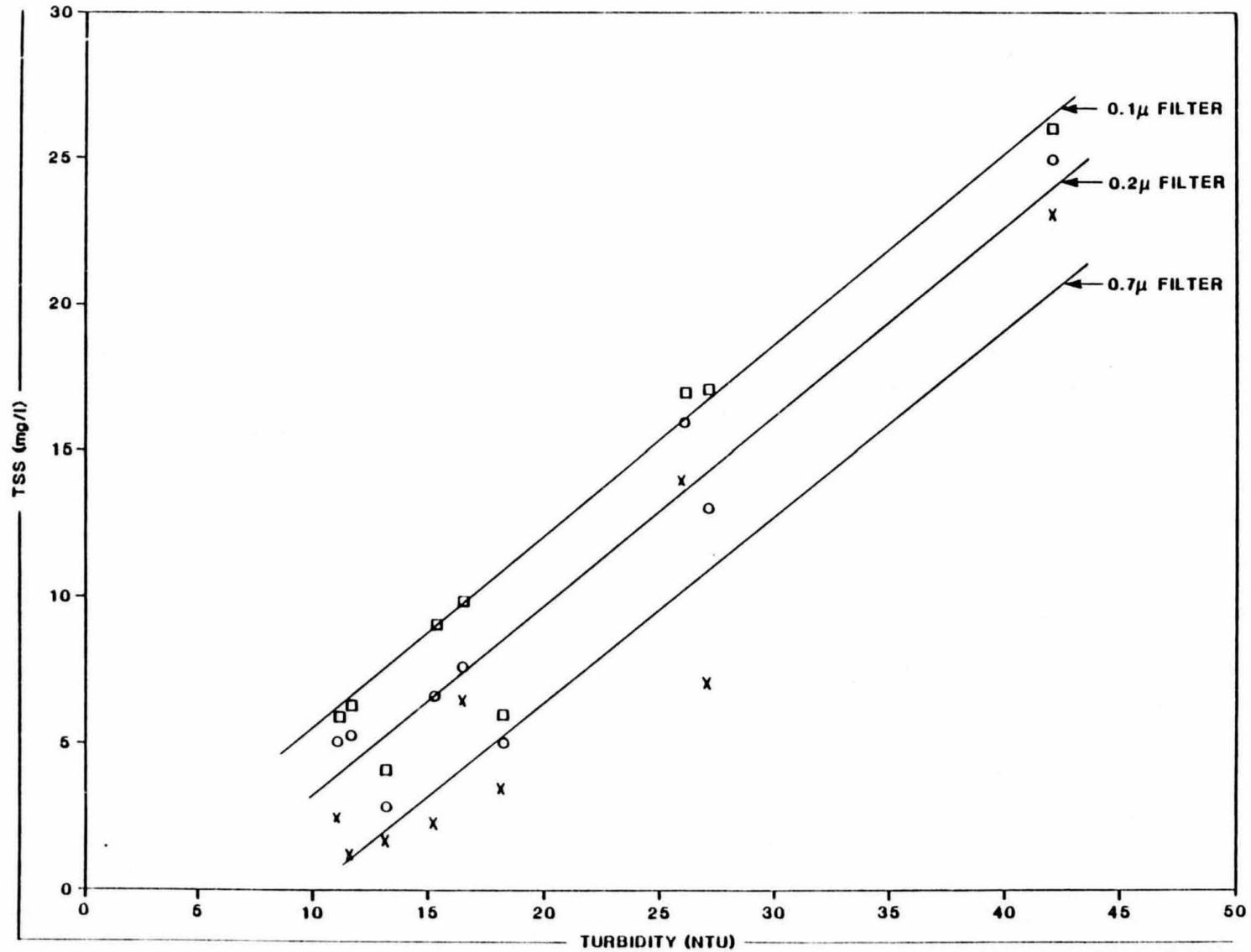
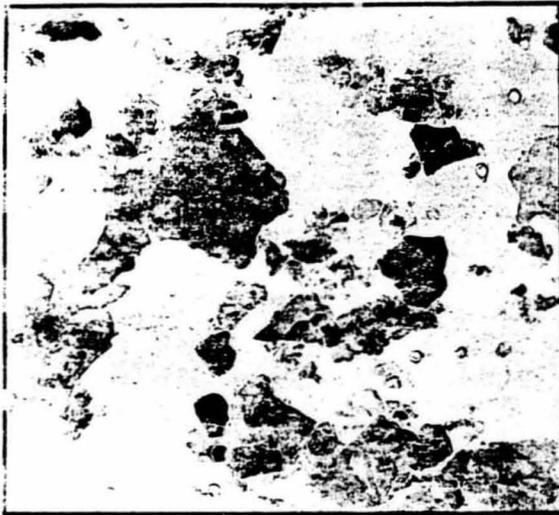


FIGURE M.6
RAW WATER TURBIDITY
VERSUS TSS



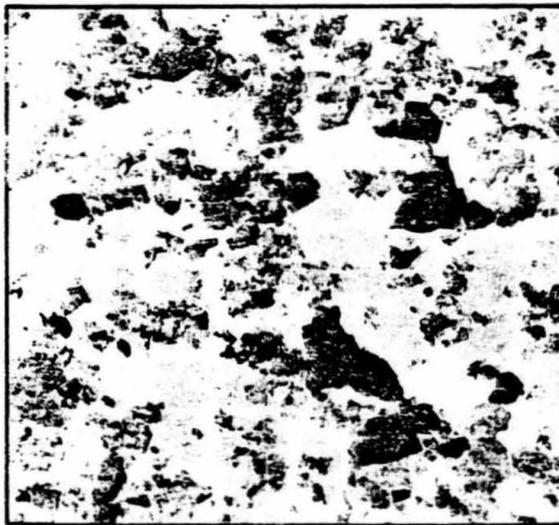
SOURCE : MONTGOMERY ENGINEERS (1984).



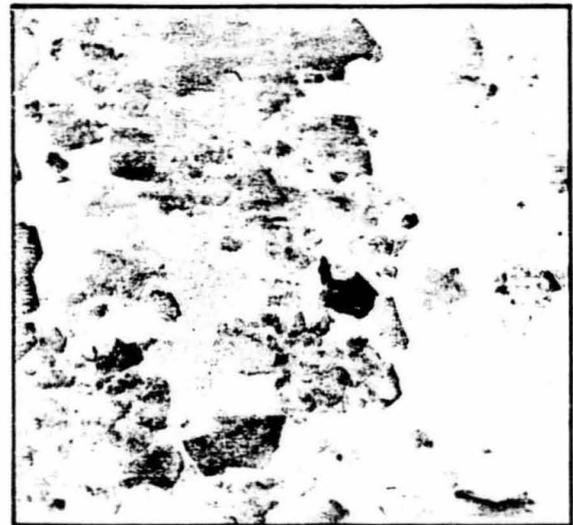
20,000x



8,000x



8,000x



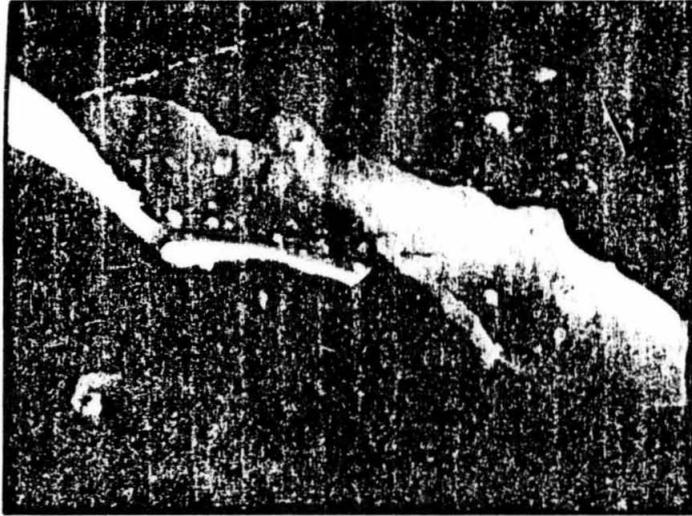
20,000x

PHOTO M.1

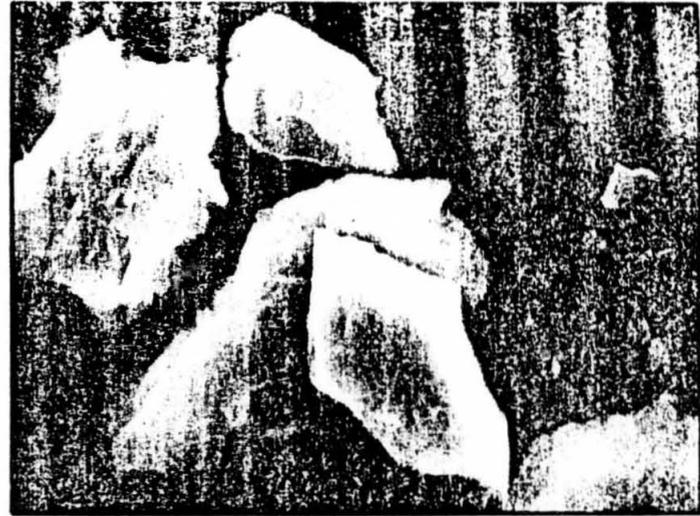
TEM PHOTOGRAPHS OF
OF RAW WATER PARTICLES

SOURCE : MONTGOMERY ENGINEERS (1984).





1,500x



2,000x



5,000x



15,000x



PHOTO M.2

SEM PHOTOGRAPHS OF
RAW WATER PARTICLES

SOURCE : MONTGOMERY ENGINEERS (1984).

R24/5 69

APPENDIX N
DYRESM INPUT DATA

APPENDIX N.1. EKLUTNA LAKE PHYSICAL DATA

Spillway Level	64.3
Bottom Offtake Level	40.73
Length at Crest of Spillway	11,000
Length @ Bottom Offtake	9,800
Width at Crest of Spillway	1,260
Width at Bottom Offtake	1,005
Bottom Offtake Diameter	2.74

- NOTES: 1. Dimensions are in meters.
2. Levels are referenced to lake bottom at 201 meters (660 feet).

APPENDIX N.2. WEATHER DATA

	1	2	3	4	5	6	7
02552	1656.0	1.0	-14.0	1.91	0.7	4.50	
02553	1629.0	1.0	-20.1	0.74	0.7	0.50	
02554	1617.0	0.8	-24.1	0.51	0.7	0.00	
02555	1609.0	0.6	-12.9	1.55	0.7	0.00	
02559	1602.0	1.0	2.5	5.83	5.7	0.00	
02560	1582.0	1.0	5.9	6.62	5.5	0.00	
02561	1151.0	0.5	4.2	6.84	5.7	15.20	
02342	1139.0	0.5	5.0	5.95	3.2	0.00	
02563	1654.0	0.0	-5.9	5.05	0.5	0.00	
02564	1650.0	0.0	-11.5	1.76	0.0	0.00	
02565	1620.0	0.0	-2.0	2.59	0.0	0.00	
02566	1216.0	1.0	-2.7	5.71	0.9	2.00	
02567	1000.0	1.0	1.4	5.91	2.0	0.50	
02568	1250.0	1.0	-0.5	0.59	0.0	5.00	
02569	1476.0	1.0	2.2	5.06	1.1	0.20	
02570	1094.0	0.0	5.2	5.92	2.5	0.20	
02571	1420.0	0.5	-1.5	4.77	1.4	0.00	
02572	1656.0	0.0	-9.4	2.52	0.9	0.00	
02575	1577.0	0.0	-5.2	5.80	1.5	0.00	
02579	1550.0	0.0	-5.5	5.26	1.0	0.00	
02575	1551.0	0.0	-12.0	1.05	0.7	0.00	
02580	1577.0	0.0	-17.0	1.15	0.0	0.00	
02577	1599.0	0.0	-16.5	1.05	0.0	0.00	
02576	1577.0	0.0	-11.0	1.85	0.5	0.00	
02589	1550.0	0.0	-0.0	2.96	1.4	0.00	
02590	0142.0	1.0	-5.9	5.06	0.0	0.00	
02591	452.0	1.0	5.5	6.94	7.0	0.00	
02592	0772.0	1.0	5.5	6.52	7.0	7.20	
02593	0902.0	1.0	2.0	5.45	5.2	0.50	
02594	1721.0	0.0	-4.1	5.80	0.7	0.00	
02595	1027.0	0.0	-5.5	5.05	0.0	0.00	
05001	1505.0	1.0	-2.7	5.05	0.0	0.00	
05002	1455.0	0.9	-5.9	5.70	0.7	0.00	
05003	1487.0	1.0	-6.5	2.96	0.5	0.00	
05004	1477.0	0.5	-0.5	1.94	0.5	0.14	
05005	1250.0	0.1	-22.0	0.57	0.4	0.00	
05006	1145.0	0.5	-22.7	0.12	0.9	0.00	
05007	1127.0	0.7	-25.9	0.50	0.5	0.16	
05008	1120.0	0.1	-51.0	0.16	0.4	0.00	
05009	359.0	0.0	-52.1	0.15	0.2	0.00	
05010	089.0	0.4	-24.5	0.20	0.2	0.00	
05011	702.0	0.0	-25.1	0.21	0.5	0.00	
05012	1513.0	0.5	-24.9	0.25	0.5	0.00	
05013	1501.0	0.5	-25.1	0.41	0.4	0.00	
05014	1050.0	0.7	-16.1	0.66	0.4	0.00	
05015	1055.0	1.0	-0.4	2.56	0.0	0.00	
05016	969.0	1.0	-0.5	4.85	1.0	0.50	
05017	960.0	1.0	-0.5	2.91	0.5	0.05	
05018	677.0	1.0	-1.5	4.59	1.5	0.15	
05019	1501.0	0.9	-1.1	4.90	2.0	0.21	
05020	2515.0	0.9	-0.0	4.46	2.5	0.00	
05021	2700.0	0.9	-1.4	5.75	2.5	0.00	
05022	2555.0	0.0	-14.2	1.29	0.0	0.00	
05023	2146.0	0.0	-17.2	0.94	0.7	0.00	
05024	1655.0	0.7	-15.0	1.09	0.7	0.00	
05025	2005.0	0.9	-5.2	1.50	0.0	0.00	
05026	1579.0	1.0	-0.2	5.90	2.0	0.06	
05027	2570.0	0.9	-1.7	4.05	0.7	0.00	
05028	0500.0	0.0	-0.0	2.57	0.0	0.00	
05029	2570.0	0.5	-15.2	1.59	0.9	0.00	
05030	1500.0	0.9	-6.7	2.77	0.5	0.01	
05031	0000.0	1.0	5.2	6.22	2.0	0.00	

LEGEND

- 1 Date
(Year-Julian Day)
- 2 Daily Shortwave
Radiation Intensity
(Kilojoules/meters squared)
- 3 Cloud Cover
(Sky fraction in tenths)
- 4 Median Air Temperature
(Degrees Celsius)
- 5 Vapor Pressure
(Millibars)
- 6 Average Windspeed
(Meters per second)
- 7 Precipitation
(Millimeters)

APPENDIX N.2. WEATHER DATA, cont.

	1	2	3	4	5	6	7
FEBRUARY	05052	2736.0	1.0	4.1	6.30	2.1	0.06
	05053	2279.0	1.0	5.4	6.47	3.3	0.04
	05054	2522.0	0.9	2.6	5.45	1.6	0.00
	05055	5420.0	1.0	2.2	5.01	1.9	0.00
	05056	2081.0	0.6	0.5	4.56	1.8	0.00
	05057	985.0	1.0	-1.6	4.19	0.4	0.14
	05058	1260.0	1.0	-5.4	3.91	0.4	0.59
	05059	1051.0	1.0	-4.7	3.12	0.4	0.20
	05060	2515.0	0.0	-15.0	1.22	0.2	0.00
	05061	2515.0	0.2	-15.0	1.50	0.2	0.00
	05062	2515.0	0.2	-15.0	1.29	0.2	0.00
	05063	2315.0	0.2	-15.8	1.29	0.2	0.00
	05064	2515.0	0.2	-15.0	1.29	0.2	0.00
	05065	1570.0	0.5	-20.9	0.73	0.5	0.00
	05066	1570.0	0.5	-20.9	0.75	0.5	0.00
	05067	1570.0	0.5	-20.9	0.89	0.5	0.00
	05068	1570.0	0.5	-20.9	0.72	0.5	0.00
	05069	518.0	0.9	-5.0	2.04	0.9	0.00
	05070	5915.0	0.0	-5.4	5.68	1.2	0.00
	05071	4505.0	1.0	-5.5	5.45	1.1	0.00
	05072	6505.0	0.9	0.6	4.46	2.1	0.00
	05073	7884.0	0.0	0.5	4.57	1.1	0.00
	05074	5250.0	1.0	-1.2	5.57	0.8	0.00
	05075	7051.0	0.7	-2.2	5.26	2.5	0.00
	05076	7520.0	0.0	-9.0	2.10	0.6	0.00
	05077	7895.0	1.0	0.7	4.50	1.0	0.00
	05078	7978.0	0.9	-5.1	5.75	0.6	0.02
	05079	8205.0	0.9	-5.2	5.85	0.5	0.00
	05080	9115.0	1.0	-1.1	4.52	0.9	0.00
	05081	10957.0	0.0	-9.0	2.15	0.6	0.00
	05082	10577.0	0.2	-11.5	1.69	0.5	0.00
	05083	9551.0	0.7	-7.7	1.07	0.6	0.00
	05084	11245.0	1.0	-5.0	3.07	0.6	0.00
	05085	10705.0	1.0	-9.5	2.52	0.5	0.00
	05086	11205.0	0.7	-6.7	2.53	0.5	0.00
	05087	12005.0	0.0	-8.7	2.07	0.5	0.00
	05088	12155.0	0.0	-10.1	1.65	0.6	0.00
	05089	7731.0	1.0	-7.7	2.05	0.7	0.00
	05090	10375.0	0.9	-2.4	5.75	0.9	0.00
	05091	10507.0	1.0	2.7	5.27	1.3	0.00
	05092	12175.0	0.9	2.9	4.96	0.6	0.00
	05093	10904.0	1.0	5.0	4.55	0.5	0.00
	05094	10525.0	1.0	1.0	4.75	1.8	0.00
	05095	10615.0	1.0	0.2	4.52	0.6	0.00
	05096	13675.0	0.1	-1.5	5.92	0.6	0.00
	05097	15353.0	0.2	-4.1	5.05	0.6	0.00
	05098	15073.0	0.5	-4.5	2.85	0.7	0.00
	05099	12508.0	1.0	-2.9	3.02	0.6	0.00
	05100	10007.0	0.7	-2.0	5.20	0.5	0.00
	05101	11229.0	0.5	-5.0	5.04	0.6	0.00
	05102	10877.0	0.5	-0.0	2.71	0.6	0.00
	05103	12275.0	1.0	-0.0	4.01	0.6	0.00
	05104	5075.0	0.9	-1.4	5.66	1.0	0.00
	05105	10505.0	1.0	2.2	5.79	0.7	0.00
	05106	16733.0	0.0	1.2	5.60	2.2	0.00
	05107	15079.0	0.9	2.0	4.70	1.0	0.00
	05108	17532.0	0.0	-0.8	5.52	0.7	0.00
	05109	18567.0	0.5	-1.7	5.08	0.9	0.00
	05110	16045.0	0.6	1.9	4.27	0.5	0.00

LEGEND

- 1 Date (Year-Julian Day)
- 2 Daily Shortwave Radiation Intensity (Kilojoules/meters squared)
- 3 Cloud Cover (Sky fraction in tenths)
- 4 Median Air Temperature (Degrees Celsius)
- 5 Vapor Pressure (Millibars)
- 6 Average Windspeed (Meters per second)
- 7 Precipitation (Millimeters)

MARCH

APPENDIX N.2. WEATHER DATA, cont.

	1	2	3	4	5	6	7
APRIL	05091	15167.0	0.0	1.0	4.32	1.1	0.00
	05092	14152.0	0.0	-0.1	5.94	0.0	0.00
	05093	12029.0	0.7	-0.7	4.09	2.7	4.00
	05094	5153.0	1.0	1.9	5.69	1.3	8.20
	05095	10105.0	0.9	3.0	5.19	4.0	11.20
	05096	17570.0	0.0	0.7	5.79	2.0	0.00
	05097	10712.0	0.0	-1.0	5.82	0.0	0.00
	05098	10500.0	1.0	-1.0	4.10	1.2	0.00
	05099	8570.0	0.9	-1.0	5.34	1.0	0.00
	05100	10300.0	0.1	-1.0	5.20	1.0	0.00
	05101	0110.0	0.9	-3.4	5.70	4.2	0.00
	05102	11000.0	1.0	2.0	6.21	2.4	0.00
	05103	7320.0	1.0	-0.7	5.19	0.3	6.00
	05104	13005.0	1.0	3.0	5.50	3.9	0.10
	05105	7000.0	1.0	3.1	5.59	3.2	0.00
	05106	11440.0	1.0	1.3	6.04	0.0	0.40
	05107	13704.0	0.0	1.0	5.15	1.3	0.00
	05108	15005.0	1.0	2.2	5.00	3.9	0.00
	05109	14851.0	1.0	2.3	5.30	2.5	0.00
	05110	13030.0	1.0	2.4	5.49	1.3	0.00
05111	11509.0	1.0	5.4	5.00	1.3	0.00	
05112	10300.0	0.9	5.1	5.10	2.9	0.00	
05113	9323.0	1.0	3.1	4.74	2.0	0.00	
05114	17462.0	0.0	0.4	5.32	1.0	1.00	
05115	17092.0	0.1	7.4	6.10	1.3	0.00	
05116	17050.0	0.0	0.0	5.77	1.0	0.00	
05117	17010.0	0.1	3.0	6.10	1.1	0.00	
05118	0170.0	1.0	2.0	5.39	0.7	0.20	
05119	8070.0	1.0	3.7	7.09	0.7	4.80	
05120	0240.0	0.3	3.6	6.27	1.0	2.00	
05121	10007.0	0.0	4.0	5.90	-1.3	0.00	
05122	10730.0	1.0	3.4	6.20	-1.2	0.00	
05123	17550.0	1.0	3.4	6.10	1.0	0.00	
05124	10011.0	1.0	3.0	6.01	1.3	0.00	
05125	13019.0	1.0	4.1	5.81	1.3	0.00	
05126	13709.0	0.9	4.2	5.19	1.4	0.00	
05127	00000.0	0.7	4.9	5.20	1.0	0.00	
05128	17011.0	0.7	3.0	5.37	1.1	0.20	
05129	00000.0	0.7	3.4	5.50	3.1	0.00	
05130	17000.0	1.0	7.0	5.30	2.9	0.00	
05131	13502.0	1.0	7.3	4.91	1.3	0.00	
05132	16002.0	1.0	0.1	6.00	2.0	0.00	
05133	00800.0	0.7	10.1	6.00	1.0	0.00	
05134	16514.0	1.0	9.0	6.43	2.1	0.40	
05135	22300.0	0.9	7.3	6.29	3.1	0.00	
05136	5700.0	1.0	7.9	7.30	3.0	0.00	
05137	00000.0	1.0	0.3	7.12	3.0	0.00	
05138	17000.0	0.0	3.4	5.20	2.0	0.00	
05139	10000.0	0.1	3.4	5.11	1.3	0.00	
05140	01700.0	0.0	7.7	5.57	1.3	0.00	
05141	00000.0	1.0	0.1	6.21	1.4	0.00	
05142	10000.0	1.0	0.3	7.00	1.0	0.00	
05143	10697.0	1.0	0.0	7.19	3.3	0.00	
05144	17007.0	1.0	4.0	6.13	2.1	0.00	
05145	10000.0	0.0	0.7	6.30	1.1	0.00	
05146	10018.0	0.9	9.4	5.90	3.0	0.00	
05147	10000.0	1.0	7.1	6.55	0.9	0.40	
05148	10007.0	0.9	9.0	4.07	2.4	0.00	
05149	17000.0	1.0	14.0	12.47	2.3	0.00	
05150	7500.0	1.0	14.0	12.40	1.0	0.00	
05151	12005.0	1.0	10.9	0.60	2.0	3.20	

LEGEND

- 1** Date
(Year-Julian Day)
- 2** Daily Shortwave
Radiation Intensity
(Kilojoules/meters squared)
- 3** Cloud Cover
(Sky fraction in tenths)
- 4** Median Air Temperature
(Degrees Celsius)
- 5** Vapor Pressure
(Millibars)
- 6** Average Windspeed
(Meters per second)
- 7** Precipitation
(Millimeters)

APPENDIX N.2. WEATHER DATA, cont.

JUNE

	1	2	3	4	5	6	7
65152	17362.0	1.0	10.6	8.51	2.1	1.00	
65153	13692.0	0.9	9.5	8.67	0.9	0.00	
65154	11461.0	1.0	9.2	8.26	1.3	0.40	
65155	8989.0	1.0	8.0	7.29	0.7	0.20	
65156	26475.0	0.4	9.5	7.99	1.1	0.00	
65157	22359.0	0.6	8.5	6.30	1.2	0.00	
65158	20096.0	0.5	8.9	5.29	1.1	0.00	
65159	17376.0	0.2	6.9	7.71	0.9	0.00	
65160	6796.0	1.0	6.0	7.67	0.7	21.50	
65161	21960.0	0.7	9.4	7.90	0.9	0.20	
65162	29981.0	0.7	11.4	7.14	2.4	0.20	
65163	20767.0	1.0	12.1	7.90	2.7	0.00	
65164	20566.0	1.0	11.5	11.12	1.1	0.00	
65165	22152.0	0.9	10.5	7.11	2.0	0.00	
65166	17655.0	0.9	9.5	7.61	0.9	0.00	
65167	21691.0	0.6	11.4	8.09	1.1	0.00	
65168	50922.0	0.0	12.5	7.57	1.1	0.00	
65169	60170.0	0.5	15.0	7.57	1.8	0.00	
65170	50909.0	0.6	12.7	8.66	1.4	0.00	
65171	29065.0	0.6	11.7	7.77	1.2	0.00	
65172	27919.0	0.9	12.4	7.20	1.2	0.00	
65173	25696.0	0.6	15.5	9.21	1.0	0.00	
65174	21549.0	0.9	14.0	8.07	1.9	0.00	
65175	23599.0	0.6	14.4	8.53	1.0	0.00	
65176	14175.0	0.6	15.4	8.50	1.5	0.00	
65177	13679.0	0.9	15.0	9.62	1.5	0.00	
65178	20349.0	0.9	15.1	8.54	1.4	0.00	
65179	17980.0	1.0	12.1	8.99	2.2	0.00	
65180	15530.0	1.0	10.9	8.80	1.0	0.00	
65181	23619.0	1.0	14.5	10.27	1.1	0.00	

LEGEND

- 1 Date (Year-Julian Day)
- 2 Daily Shortwave Radiation Intensity (Kilojoules/meters squared)
- 3 Cloud Cover (Sky fraction in tenths)
- 4 Median Air Temperature (Degrees Celsius)
- 5 Vapor Pressure (Millibars)
- 6 Average Windspeed (Meters per second)
- 7 Precipitation (Millimeters)

JULY

65182	11786.0	1.0	12.6	12.71	1.0	8.00	
65183	20616.0	0.9	15.9	9.69	1.1	0.20	
65184	26875.0	0.2	14.5	10.27	1.1	0.00	
65185	12675.0	0.6	19.5	10.92	0.9	0.00	
65186	10795.0	0.7	14.9	12.54	0.9	1.00	
65187	5555.0	1.0	12.1	11.80	0.9	0.40	
65188	17428.0	0.9	14.4	11.65	1.2	0.00	
65189	7007.0	1.6	11.9	10.39	1.3	0.20	
65190	17186.0	0.9	12.6	10.20	2.4	0.00	
65191	19081.0	0.6	10.7	8.19	0.9	0.80	
65192	5396.0	1.0	10.7	7.59	0.7	2.00	
65193	11266.0	1.0	16.4	10.72	0.9	0.20	
65194	11979.0	0.9	10.9	9.52	0.9	1.80	
65195	20661.0	0.5	12.4	9.65	0.9	0.20	
65196	17906.0	0.5	15.1	10.10	1.0	0.00	
65197	15677.0	1.0	15.1	11.50	0.9	0.00	
65198	8596.0	0.6	12.0	8.69	0.7	1.60	
65199	17955.0	0.9	11.7	8.80	1.1	2.50	
65200	18092.0	0.5	15.7	9.87	0.9	2.80	
65201	11353.0	1.0	12.5	9.02	0.9	0.20	
65202	17719.0	0.9	14.4	11.52	1.0	0.00	
65203	10997.0	0.6	15.5	9.77	1.1	0.00	
65204	9161.0	1.0	11.4	9.76	0.7	7.20	
65205	23550.0	0.9	11.5	8.95	1.2	0.00	
65206	29359.0	0.9	10.5	7.60	1.2	0.00	
65207	15536.0	0.9	11.1	9.46	1.1	0.00	
65208	21606.0	0.9	14.0	11.63	1.0	0.00	
65209	26551.0	0.9	15.9	10.52	1.2	0.00	
65210	10679.0	1.0	11.6	10.82	0.7	0.00	
65211	14350.0	1.0	11.5	9.65	1.0	0.00	
65212	15957.0	0.9	11.5	10.51	0.9	0.50	

APPENDIX N.2. WEATHER DATA, cont.

	1	2	3	4	5	6	7
85213	13500.00	0.7	14.2	11.80	0.7	1.20	
85214	13000.00	0.4	14.5	12.71	1.1	0.20	
85215	22000.00	0.5	15.9	9.21	1.1	0.00	
85216	20000.00	1.0	12.9	11.60	1.7	0.90	
85217	30000.00	1.0	12.2	12.00	0.7	12.40	
85218	14700.00	1.0	15.4	10.61	2.0	0.00	
85219	8000.00	1.0	15.2	10.30	4.2	1.00	
85220	10500.00	1.0	15.4	11.90	5.1	4.20	
85221	8700.00	0.0	9.0	7.00	0.7	0.20	
85222	15200.00	0.7	11.0	9.90	0.9	0.00	
85223	15000.00	0.0	10.2	8.85	1.1	0.20	
85224	9200.00	1.0	12.2	9.52	0.9	0.60	
85225	11500.00	1.0	9.0	7.99	0.0	0.20	
85226	12100.00	0.7	9.0	8.24	0.0	0.00	
85227	25000.00	0.0	7.9	7.50	1.0	0.00	
85228	22000.00	0.0	11.5	9.77	1.1	0.00	
85229	15500.00	1.0	11.0	9.97	1.2	0.00	
85230	10700.00	0.2	10.5	9.52	1.1	0.00	
85231	17600.00	0.4	10.1	9.40	1.0	0.00	
85232	8000.00	1.0	10.9	7.95	2.0	0.20	
85233	2100.00	1.0	10.2	10.50	0.0	6.40	
85234	12300.00	1.0	11.1	10.57	0.0	0.40	
85235	9000.00	1.0	11.1	10.37	0.0	7.20	
85236	9000.00	1.0	7.5	7.77	0.0	1.90	
85237	3000.00	0.9	5.9	7.55	0.0	14.90	
85238	15400.00	0.0	9.2	0.75	0.0	0.60	
85239	10200.00	0.5	12.1	10.87	0.0	0.00	
85240	14000.00	0.5	10.7	9.59	0.0	0.00	
85241	6100.00	1.0	10.2	8.83	1.7	0.00	
85242	8500.00	0.4	12.5	9.27	1.5	0.60	
85243	7200.00	0.7	8.1	7.80	0.6	0.80	

LEGEND

- 1 Date (Year-Julian Day)
- 2 Daily Shortwave Radiation Intensity (Kilojoules/meters squared)
- 3 Cloud Cover (Sky fraction in tenths)
- 4 Median Air Temperature (Degrees Celsius)
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- 6 Average Windspeed (Meters per second)
- 7 Precipitation (Millimeters)

SEPTEMBER

87244	6000.00	1.00	8.10	9.14	0.60	0.40
87245	14200.00	0.60	7.90	8.01	1.00	1.90
87246	4200.00	1.00	7.00	10.25	1.00	5.40
87247	7100.00	0.60	5.40	5.02	0.70	3.90
87248	14700.00	0.60	5.70	5.73	1.10	0.20
87249	15400.00	0.10	5.60	5.61	1.00	0.00
87250	12000.00	0.50	5.60	5.82	0.40	0.00
87251	9200.00	0.50	6.00	7.25	1.00	0.00
87252	2542.00	0.40	8.40	7.21	0.40	0.00
87253	8600.00	0.50	5.20	7.89	0.60	0.00
87254	8100.00	0.60	6.40	8.28	0.70	0.00
87255	8500.00	0.80	5.20	6.87	2.10	0.00
87256	10000.00	1.00	11.50	6.90	3.10	0.00
87257	4700.00	1.00	5.20	6.25	1.00	5.80
87258	4600.00	0.70	5.50	5.95	0.80	0.80
87259	11900.00	0.10	3.40	5.81	0.30	0.00
87260	11500.00	0.00	4.40	4.06	0.40	0.00
87261	6000.00	1.00	9.50	6.08	2.10	0.00
87262	3400.00	1.00	9.40	6.85	2.50	1.40
87263	3120.00	1.00	8.90	8.56	0.80	8.40
87264	2700.00	1.00	6.50	8.75	0.50	11.00
87265	5200.00	1.00	5.50	7.59	1.00	17.40
87266	1600.00	1.00	-0.70	2.73	1.60	1.00
87267	4000.00	0.70	-4.40	2.12	1.80	0.60
87268	12000.00	0.20	-4.60	2.37	1.00	1.40
87269	10500.00	0.30	-4.30	2.65	1.10	1.20
87270	6400.00	1.00	-0.70	3.44	2.10	0.40
87271	2300.00	1.00	7.30	5.13	2.10	0.00
87272	3000.00	1.00	10.20	7.05	6.70	16.80
87273	2000.00	0.90	8.50	6.89	1.40	0.00

APPENDIX N.2. WEATHER DATA, cont.

OCTOBER

	1	2	3	4	5	6	7
83274	5500.00	1.00	5.80	6.39	1.50	0.00	
83275	5600.00	1.00	5.90	6.13	1.40	0.00	
83276	4800.00	0.20	1.40	3.63	1.10	0.00	
83277	8100.00	0.50	0.00	3.85	1.00	0.00	
83278	5200.00	1.00	2.80	5.39	0.80	0.10	
83279	6000.00	0.70	-0.50	4.11	1.50	3.10	
83280	8500.00	0.40	-3.00	2.77	1.10	0.00	
83281	7100.00	0.80	-9.20	2.91	1.00	0.00	
83282	1600.00	1.00	3.40	4.67	2.40	2.40	
83283	2000.00	1.00	7.80	6.00	5.70	25.00	
83284	3500.00	0.90	6.90	6.24	2.40	2.10	
83285	5500.00	0.70	3.50	5.62	1.00	0.20	
83286	6400.00	0.60	0.60	5.23	1.00	0.00	
83287	6600.00	0.20	0.90	4.24	0.80	0.00	
83288	5000.00	0.70	0.60	3.84	0.90	0.00	
83289	3500.00	1.00	-1.70	3.64	0.90	0.00	
83290	2800.00	0.90	3.00	4.24	0.90	0.00	
83291	5200.00	0.80	2.50	4.84	1.00	0.00	
83292	3100.00	1.00	-0.60	4.92	0.80	0.00	
83293	2800.00	1.00	2.80	4.29	1.10	0.00	
83294	2400.00	1.00	3.90	4.98	0.90	0.00	
83295	4700.00	1.00	1.50	4.81	1.70	0.20	
83296	2400.00	1.00	-1.80	4.29	0.40	0.00	
83297	3400.00	1.00	-1.90	3.60	1.00	0.00	
83298	1600.00	0.10	-4.00	2.38	1.50	0.00	
83299	870.00	1.00	-5.30	3.41	1.10	2.00	
83300	780.00	1.00	-5.40	3.61	0.70	0.00	
83301	980.00	1.00	-2.50	4.77	0.90	0.20	
83302	1100.00	1.00	-2.80	4.57	0.70	0.20	
83303	780.00	1.00	-2.50	4.33	0.20	1.00	
83304	470.00	0.90	-5.70	3.44	0.40	0.00	

LEGEND

- 1 Date (Year-Julian Day)
- 2 Daily Shortwave Radiation Intensity (Kilojoules/meters squared)
- 3 Cloud Cover (Sky fraction in tenths)
- 4 Median Air Temperature (Degrees Celsius)
- 5 Vapor Pressure (Millibars)
- 6 Average Windspeed (Meters per second)
- 7 Precipitation (Millimeters)

NOVEMBER

83305	930.00	1.00	-5.10	3.23	0.70	0.00	
83306	2420.00	0.90	2.10	4.41	2.10	0.00	
83307	2090.00	1.00	-0.60	3.99	0.90	0.00	
83308	1470.00	1.00	-4.10	3.41	0.80	0.00	
83309	870.00	0.60	-3.70	3.22	0.30	0.00	
83310	1090.00	1.00	-4.20	2.99	1.00	0.00	
83311	740.00	1.00	0.60	3.25	6.50	0.00	
83312	1560.00	1.00	3.00	3.41	4.53	0.00	
83313	2700.00	0.90	1.30	3.64	1.70	0.00	
83314	1470.00	1.00	4.00	3.52	1.50	0.00	
83315	1640.00	1.00	1.70	3.81	0.90	0.00	
83316	1960.00	0.90	-1.50	4.22	0.90	0.00	
83317	1670.00	0.00	-7.80	2.87	1.00	0.00	
83318	1140.00	0.90	-7.50	2.74	0.90	0.00	
83319	800.00	1.00	-3.10	3.64	1.00	0.00	
83320	1070.00	0.90	-6.10	3.34	0.90	0.00	
83321	490.00	1.00	-6.80	2.90	0.80	0.00	
83322	1050.00	0.70	-10.40	2.91	0.80	0.00	
83323	890.00	0.10	-11.10	2.17	0.80	0.00	
83324	700.00	1.00	-6.10	2.62	5.10	0.00	
83325	840.00	1.00	3.70	4.30	5.40	0.00	
83326	1320.00	1.00	2.70	4.67	1.40	0.00	
83327	420.00	1.00	-1.10	4.25	1.40	0.00	
83328	420.00	0.40	-3.60	3.05	1.10	0.00	
83329	650.00	1.00	-6.30	2.64	0.50	0.00	
83330	590.00	1.00	-3.50	3.05	0.80	0.00	
83331	540.00	0.50	1.10	3.32	1.50	0.00	
83332	800.00	1.00	6.80	4.14	7.50	0.00	
83333	1360.00	1.00	4.10	4.10	5.20	0.00	
83334	790.00	1.00	-4.00	4.05	1.70	0.00	

APPENDIX N.2. WEATHER DATA, cont.

	1	2	3	4	5	6	7
83335	700.00	1.00	-4.00	3.90	1.70	0.00	0.00
83336	700.00	0.10	-4.00	3.63	1.00	0.00	0.00
83337	700.00	1.00	-4.00	3.37	1.00	0.00	0.00
83338	700.00	1.00	-4.00	3.84	1.00	0.00	0.00
83339	700.00	1.00	-4.00	4.35	1.00	0.00	0.00
83340	300.00	0.90	-3.60	3.44	0.30	0.00	0.00
83341	770.00	0.90	-3.80	3.00	0.30	0.00	0.00
83342	770.00	0.90	-12.50	2.44	0.90	0.00	0.00
83343	560.00	0.10	-10.40	2.66	0.70	0.00	0.00
83344	550.00	1.00	-8.00	2.19	0.70	0.00	0.00
83345	690.00	1.00	-3.90	2.54	0.60	0.00	0.00
83346	660.00	0.90	-10.10	2.64	0.70	0.00	0.00
83347	300.00	1.00	-3.40	3.11	0.30	0.00	0.00
83348	420.00	1.00	-15.00	2.34	0.00	0.00	0.00
83349	620.00	0.50	-21.80	1.74	0.00	0.00	0.00
83350	500.00	0.40	-12.70	1.88	0.20	0.00	0.00
83351	390.00	1.00	-8.60	2.53	0.20	0.00	0.00
83352	480.00	1.00	-14.00	2.41	0.00	0.00	0.00
83353	430.00	1.00	-12.20	2.66	0.20	0.00	0.00
83354	580.00	1.00	-4.20	3.24	0.20	0.00	0.00
83355	470.00	1.00	-7.80	3.66	0.10	0.00	0.00
83356	480.00	0.40	-15.00	2.65	0.00	0.00	0.00
83357	430.00	0.00	-13.60	2.03	0.00	0.00	0.00
83358	440.00	0.40	-17.20	2.04	0.20	0.00	0.00
83359	430.00	0.60	-13.10	3.03	0.40	0.00	0.00
83360	540.00	0.00	-15.60	2.67	0.10	0.00	0.00
83361	490.00	0.00	-13.10	2.05	0.00	0.00	0.00
83362	540.00	0.60	-20.20	1.91	0.00	0.00	0.00
83363	530.00	0.40	-22.50	1.53	0.00	0.00	0.00
83364	490.00	0.00	-17.50	1.79	0.10	0.00	0.00
83365	450.00	1.00	-10.90	2.22	0.10	0.00	0.00

DECEMBER

LEGEND

- 1 Date (Year-Julian Day)
- 2 Daily Shortwave Radiation Intensity (Kilojoules/meters squared)
- 3 Cloud Cover (Sky fraction in tenths)
- 4 Median Air Temperature (Degrees Celsius)
- 5 Vapor Pressure (Millibars)
- 6 Average Windspeed (Meters per second)
- 7 Precipitation (Millimeters)

84001	65.00	1.00	-5.70	3.02	0.10	0.00	0.00
84002	490.00	1.00	2.30	4.73	3.10	0.00	0.00
84003	340.00	1.00	2.40	4.87	4.30	0.00	0.00
84004	280.00	0.70	-13.80	1.83	1.80	0.00	0.00
84005	330.00	0.80	-19.40	1.78	1.00	0.00	0.00
84006	400.00	1.00	-12.90	2.42	0.30	0.00	0.00
84007	420.00	0.70	-17.60	2.44	0.40	0.00	0.00
84008	440.00	0.30	-11.30	2.12	0.00	0.00	0.00
84009	300.00	1.00	-7.90	2.40	0.00	0.00	0.00
84010	230.00	1.00	1.60	3.15	1.60	0.00	0.00
84011	450.00	1.00	0.60	4.43	5.00	0.00	0.00
84012	330.00	1.00	4.00	4.98	4.40	0.00	0.00
84013	470.00	0.80	5.30	5.14	4.00	0.00	0.00
84014	240.00	1.00	-1.10	5.09	0.50	0.00	0.00
84015	390.00	1.00	-11.30	4.68	2.40	0.00	0.00
84016	210.00	1.00	-14.10	3.95	2.30	0.00	0.00
84017	110.00	1.00	-7.50	3.54	2.40	0.00	0.00
84018	160.00	1.00	-9.90	3.87	2.30	0.00	0.00
84019	110.00	1.00	-12.90	2.94	2.40	0.00	0.00
84020	360.00	0.00	-20.30	2.13	2.40	0.00	0.00
84021	340.00	0.90	-21.70	1.85	2.40	0.00	0.00
84022	190.00	0.00	-22.40	1.45	2.40	0.00	0.00
84023	420.00	0.00	-12.40	1.07	2.40	0.00	0.00
84024	490.00	0.00	-33.30	0.98	2.40	0.00	0.00
84025	330.00	0.70	-23.00	0.94	2.40	0.00	0.00
84026	400.00	0.20	-13.50	1.61	2.40	0.00	0.00
84027	170.00	1.00	-13.40	1.71	2.40	0.00	0.00
84028	210.00	1.00	-12.20	1.95	3.00	0.00	0.00
84029	1060.00	1.00	3.70	3.32	3.50	0.00	0.00
84030	1030.00	1.00	1.20	4.25	1.70	0.00	0.00
84031	870.00	0.90	-5.60	3.44	0.50	0.00	0.00

JANUARY

APPENDIX N.2. WEATHER DATA, cont.

	1	2	3	4	5	6	7
84032	500.00	1.00	-10.90	2.60	0.50	0.00	0.00
84033	500.00	1.00	-7.80	2.21	0.40	0.00	0.00
84034	350.00	1.00	-10.00	2.07	0.40	0.00	0.00
84035	1510.00	1.00	-2.60	3.32	2.60	0.00	0.00
84036	480.00	1.00	-11.60	2.74	0.90	0.00	0.00
84037	470.00	1.00	-4.50	2.32	1.10	0.00	0.00
84038	370.00	0.90	-9.70	2.25	1.20	0.00	0.00
84039	410.00	1.00	-14.70	1.64	0.50	0.00	0.00
84040	1270.00	0.20	-27.50	1.22	0.90	0.00	0.00
84041	530.00	1.00	-23.70	1.30	0.50	0.00	0.00
84042	1320.00	0.50	-15.70	1.26	0.50	0.00	0.00
84043	1350.00	1.00	-15.60	2.03	0.60	0.00	0.00
84044	850.00	1.00	-18.90	2.12	0.50	0.00	0.00
84045	980.00	0.90	-11.00	2.54	0.30	0.00	0.00
84046	1050.00	0.80	-15.30	2.88	0.50	0.00	0.00
84047	440.00	1.00	-4.50	2.86	1.20	0.00	0.00
84048	2720.00	1.00	1.20	3.52	2.40	0.00	0.00
84049	420.00	1.00	-2.50	3.33	0.70	0.00	0.00
84050	390.00	1.00	-4.70	1.92	0.70	0.00	0.00
84051	520.00	0.80	-17.10	1.21	0.20	0.00	0.00
84052	3440.00	0.90	-9.10	1.86	2.60	0.00	0.00
84053	3430.00	1.00	-4.10	2.92	0.80	0.00	0.00
84054	5090.00	0.70	-13.80	2.92	0.50	0.00	0.00
84055	3680.00	0.80	-13.60	2.92	0.70	0.00	0.00
84056	4510.00	1.00	-4.80	3.01	0.70	0.00	0.00
84057	5770.00	1.00	-4.90	3.51	0.50	0.00	0.00
84058	4450.00	1.00	-6.00	2.27	0.60	0.00	0.00
84059	6620.00	0.80	-6.40	2.66	0.60	0.00	0.00
84060	4070.00	0.80	-9.20	2.41	0.70	0.00	0.00

LEGEND

- 1 Date (Year-Julian Day)
- 2 Daily Shortwave Radiation Intensity (Kilojoules/meters squared)
- 3 Cloud Cover (Sky fraction in tenths)
- 4 Median Air Temperature (Degrees Celsius)
- 5 Vapor Pressure (Millibars)
- 6 Average Windspeed (Meters per second)
- 7 Precipitation (Millimeters)

	1	2	3	4	5	6	7
84061	4750.00	1.00	-6.90	2.50	0.50	0.00	0.00
84062	5040.00	1.00	-7.10	3.21	1.20	0.00	0.00
84063	3420.00	0.80	3.00	3.73	4.70	0.00	0.00
84064	4260.00	1.00	4.90	4.54	5.00	0.00	0.00
84065	3790.00	1.00	6.00	4.89	3.60	0.00	0.00
84066	7230.00	0.70	3.80	4.67	1.20	0.00	0.00
84067	6500.00	0.90	5.30	4.90	0.80	0.00	0.00
84068	1800.00	1.00	4.90	5.12	1.50	0.00	0.00
84069	5620.00	1.00	6.40	5.07	2.10	0.00	0.00
84070	7160.00	1.00	5.10	4.74	1.30	0.00	0.00
84071	6325.00	0.70	4.70	5.20	0.80	0.00	0.00
84072	8930.00	0.20	0.20	4.37	0.50	0.00	0.00
84073	8470.00	0.90	-0.50	4.13	0.70	0.00	0.00
84074	9030.00	0.70	-0.50	4.15	0.70	0.00	0.00
84075	8220.00	0.90	0.60	3.68	1.70	0.00	0.00
84076	9750.00	0.60	1.20	3.42	0.70	0.00	0.00
84077	10000.00	0.70	-0.50	3.07	0.70	0.00	0.00
84078	9920.00	0.90	-2.40	2.77	0.70	0.00	0.00
84079	10400.00	0.10	-3.40	3.25	0.70	0.00	0.00
84080	7450.00	0.80	-2.00	3.00	0.30	0.00	0.00
84081	11000.00	0.60	-3.20	3.07	0.70	0.00	0.00
84082	11100.00	0.30	-3.20	2.90	0.70	0.00	0.00
84083	11600.00	0.10	-4.40	2.77	0.40	0.00	0.00
84084	10700.00	0.80	-3.60	2.62	1.00	0.00	0.00
84085	9690.00	1.00	1.00	3.20	0.70	0.00	0.00
84086	8110.00	0.90	2.80	4.71	1.30	0.00	0.00
84087	12400.00	1.00	2.40	4.69	3.20	0.00	0.00
84088	12400.00	0.20	0.50	3.92	1.20	0.00	0.00
84089	5400.00	1.00	1.10	4.39	1.30	0.00	0.00
84090	3360.00	0.20	-0.90	4.40	0.50	0.00	0.00
84091	10500.00	1.00	0.00	4.64	2.50	0.00	0.00

MARCH

APPENDIX N.2. WEATHER DATA, cont.

	1	2	3	4	5	6	7
APRIL	84092	11900.00	1.00	3.50	4.91	1.70	3.40
	84093	12000.00	0.70	1.60	4.91	0.70	4.40
	84094	12100.00	0.70	0.70	3.60	0.70	0.00
	84095	12900.00	0.70	1.20	4.36	1.10	0.00
	84096	12200.00	1.00	3.30	5.05	1.80	0.00
	84097	14400.00	0.80	-2.70	4.41	0.90	1.80
	84098	13900.00	0.90	0.00	4.77	1.00	0.00
	84099	14500.00	1.00	0.20	4.40	2.00	0.20
	84100	10500.00	1.00	2.20	3.55	1.00	0.00
	84101	12900.00	1.00	-0.40	2.55	1.20	0.00
	84102	15500.00	0.80	-0.80	3.20	0.80	3.20
	84103	14900.00	0.80	0.40	3.65	0.70	0.00
	84104	10100.00	1.00	2.30	3.91	1.30	0.20
	84105	16200.00	0.60	1.70	4.71	1.10	0.00
	84106	13600.00	1.00	-0.40	4.79	1.30	0.00
	84107	4500.00	1.00	-1.90	3.94	0.80	3.00
	84108	9100.00	1.00	-0.60	3.92	0.30	5.60
	84109	12400.00	0.20	0.20	2.59	0.30	6.60
	84110	14900.00	0.90	-0.30	3.35	0.90	0.00
	84111	14800.00	1.00	3.20	5.19	0.70	4.40
	84112	9614.00	1.00	2.00	4.92	2.00	1.00
84113	19651.00	0.00	-1.30	3.11	1.30	2.60	
84114	20185.00	0.60	-2.10	2.97	1.20	0.00	
84115	20551.00	0.40	0.70	3.41	1.80	0.00	
84116	20538.00	0.10	-0.30	3.77	2.60	0.00	
84117	11668.00	1.00	4.40	4.95	3.40	0.00	
84118	12096.00	1.00	5.80	5.23	2.00	0.00	
84119	17312.00	0.90	7.70	5.48	4.00	0.00	
84120	11567.00	1.00	7.10	5.22	2.20	0.00	
84121	16292.00	1.00	7.30	5.50	3.10	0.00	
MAY	84122	15304.00	1.00	5.80	5.89	1.70	0.00
	84123	19517.00	1.00	5.40	4.84	2.10	0.00
	84124	18744.00	1.00	3.40	5.05	1.30	0.00
	84125	17035.00	1.00	3.40	5.29	2.00	0.00
	84126	21344.00	0.70	3.80	5.16	1.80	0.00
	84127	23902.00	0.80	2.30	4.88	1.80	0.00
	84128	22302.00	0.10	4.60	4.36	1.20	0.00
	84129	23020.00	0.10	5.30	4.19	1.30	0.00
	84130	22694.00	0.60	7.10	4.29	1.30	0.00
	84131	20941.00	0.00	6.20	4.65	1.20	0.00
	84132	21974.00	0.00	4.50	3.13	1.70	0.00
	84133	19706.00	0.00	5.80	3.44	1.30	0.00
	84134	19409.00	0.10	5.30	4.69	1.30	0.00
	84135	23600.00	0.80	5.00	5.42	1.80	0.00
	84136	21382.00	0.90	7.00	5.49	2.30	0.00
	84137	18114.00	1.00	10.20	5.29	1.80	0.00
	84138	21515.00	0.70	4.30	5.98	2.70	0.00
	84139	20428.00	0.90	10.80	6.37	3.00	0.00
	84140	15196.00	0.90	9.00	6.82	1.10	0.00
	84141	13961.00	0.90	9.60	6.54	1.60	0.00
	84142	12512.00	1.00	9.80	6.54	1.30	0.00
84143	14792.00	0.80	6.00	6.04	1.10	0.00	
84144	20966.00	0.60	7.40	6.80	1.80	0.00	
84145	24721.00	0.80	7.20	6.05	1.00	0.00	
84146	15548.00	1.00	3.30	6.32	1.00	0.00	
84147	18421.00	1.00	9.00	6.23	1.40	0.00	
84148	22352.00	1.00	7.40	5.63	1.40	0.00	
84149	23973.00	0.20	7.40	5.65	1.40	0.00	
84150	9526.00	0.90	5.30	6.17	1.40	3.50	
84151	14735.00	1.00	5.80	6.44	1.40	1.20	
84152	17824.00	0.90	3.20	6.76	1.40	0.00	

LEGEND

- 1 Date (Year-Julian Day)
- 2 Daily Shortwave Radiation Intensity (Kilojoules/meters squared)
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- 5 Vapor Pressure (Millibars)
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- 7 Precipitation (Millimeters)

APPENDIX N.2. WEATHER DATA, cont.

1 2 3 4 5 6 7

JUNE

84153	19305.00	0.20	8.90	7.14	1.40	0.00
84154	25524.00	0.20	9.60	6.89	1.10	0.00
84155	22995.00	0.60	9.60	6.72	1.50	0.00
84156	26629.00	0.30	10.50	6.62	1.20	0.20
84157	22165.00	0.40	12.80	7.35	1.00	0.60
84158	11365.00	1.00	8.50	7.15	1.20	6.20
84159	18232.00	0.90	7.50	7.35	1.30	0.00
84160	17094.00	1.00	11.10	7.93	1.10	0.20
84161	22567.00	0.80	10.40	7.19	1.20	0.60
84162	23436.00	1.20	10.80	6.99	1.20	0.00
84163	17539.00	1.00	11.10	7.59	0.90	0.00
84164	8984.00	0.90	11.90	8.10	0.70	2.80
84165	14263.00	1.00	11.00	7.46	1.70	0.00
84166	13000.00	0.80	8.90	7.33	1.50	1.90
84167	11655.00	1.00	9.20	7.90	0.90	7.00
84168	8474.00	1.00	8.90	8.45	0.90	6.00
84169	28022.00	0.60	12.10	8.13	1.20	1.20
84170	24261.00	0.80	12.30	8.41	1.00	0.00
84171	26347.00	0.50	11.50	7.81	1.00	0.00
84172	24129.00	0.50	12.10	8.41	1.10	0.00
84173	26460.00	0.60	12.00	8.29	1.00	0.00
84174	22831.00	0.20	12.30	8.56	1.00	0.00
84175	18535.00	0.90	11.80	8.69	1.00	0.00
84176	15815.00	0.90	13.30	8.33	2.30	0.00
84177	14540.00	1.00	14.00	8.14	2.40	0.00
84178	12361.00	1.00	12.00	8.22	0.90	0.00
84179	9790.00	0.90	9.00	8.01	1.20	3.40
84180	22163.00	0.80	12.20	8.50	2.00	0.00
84181	24845.00	1.00	16.40	7.63	4.00	0.00
84182	16808.00	0.90	13.50	7.77	1.40	0.00

LEGEND

- 1 Date (Year-Julian Day)
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- 5 Vapor Pressure (Millibars)
- 6 Average Windspeed (Meters per second)
- 7 Precipitation (Millimeters)

JULY

84183	7132.00	0.90	11.10	8.76	0.70	1.50
84184	15347.00	1.00	11.40	8.47	0.70	1.20
84185	9211.00	0.70	12.10	9.17	0.70	0.20
84186	24844.00	0.60	14.30	9.99	1.00	0.00
84187	19114.00	0.80	16.40	9.96	1.00	0.20
84188	19631.00	0.70	15.50	9.89	1.00	0.20
84189	24872.00	0.70	14.10	8.44	1.20	0.00
84190	4492.00	1.00	11.10	9.65	0.90	3.70
84191	17732.00	1.00	12.20	9.62	1.10	1.40
84192	12250.00	0.90	11.40	8.90	1.60	3.40
84193	24935.00	1.00	12.90	8.39	1.40	0.00
84194	18157.00	0.90	12.00	8.06	1.10	0.20
84195	20727.00	1.00	13.40	8.94	1.00	4.00
84196	9790.00	1.00	8.20	7.87	0.70	1.40
84197	19832.00	0.60	11.10	8.77	0.90	0.00
84198	7295.00	1.00	11.70	8.98	0.80	1.10
84199	3528.00	1.00	11.00	9.10	0.70	1.00
84200	9866.00	1.00	10.70	9.04	0.80	0.60
84201	10554.00	1.00	12.10	8.82	0.80	0.00
84202	5766.00	1.00	11.30	9.25	0.70	0.10
84203	14623.00	0.90	13.50	9.77	1.10	0.00
84204	10798.00	1.00	12.50	10.14	0.90	0.00
84205	16657.00	0.90	13.60	9.83	0.90	0.00
84206	13066.00	1.00	14.90	9.67	0.80	0.00
84207	9563.00	1.00	12.80	11.06	0.60	2.60
84208	11983.00	0.80	12.20	10.64	0.70	1.00
84209	3513.00	0.90	13.20	10.43	0.70	0.00
84210	4584.00	1.00	13.60	9.90	0.90	0.20
84211	13709.00	1.00	12.80	9.67	1.20	0.60
84212	16670.00	1.00	13.50	10.04	1.00	0.00
84213	15687.00	1.00	13.50	10.04	1.30	0.40

APPENDIX N.2. WEATHER DATA, cont.

	1	2	3	4	5	6	7
84214	15506.00	1.00	13.00	10.83	0.80	0.00	
84215	15966.00	1.00	13.70	11.20	0.30	0.00	
84216	15678.00	1.00	13.40	11.11	0.40	0.20	
84217	24424.00	0.80	15.00	12.17	1.00	0.00	
84218	10728.00	1.00	14.00	11.44	0.70	4.40	
84219	14760.00	0.70	13.10	11.31	0.40	0.40	
84220	24102.00	0.90	13.20	11.35	0.90	0.00	
84221	12794.00	1.00	14.40	10.86	0.40	0.40	
84222	19224.00	0.50	13.20	9.95	0.30	10.50	
84223	11440.00	1.00	15.70	9.97	0.70	5.40	
84224	19728.00	0.50	13.70	10.86	0.70	1.00	
84225	24512.00	0.20	11.70	8.53	1.10	0.00	
84226	27702.00	0.40	11.60	8.72	1.00	0.00	
84227	26464.00	0.70	12.10	9.17	1.00	0.00	
84228	26658.00	0.40	12.60	10.60	0.90	0.70	
84229	21742.00	1.00	13.60	10.31	0.90	0.00	
84230	22046.00	1.00	11.20	9.15	1.70	0.00	
84231	6544.00	1.00	13.60	10.57	2.40	0.00	
84232	18670.00	1.00	12.90	9.35	1.60	0.60	
84233	22122.00	1.00	13.20	9.85	1.10	0.20	
84234	12312.00	1.00	12.50	8.80	3.10	0.00	
84235	10206.00	1.00	12.60	9.49	1.20	0.40	
84236	9428.00	0.70	10.50	9.35	0.30	1.20	
84237	6102.00	1.00	12.00	10.44	2.10	7.00	
84238	6408.00	0.80	8.70	8.52	1.50	10.00	
84239	20736.00	0.40	5.40	4.47	2.10	3.20	
84240	23778.00	0.10	4.80	4.63	1.00	0.00	
84241	21654.00	1.00	5.40	5.05	0.40	0.00	
84242	19492.00	0.30	3.50	5.84	1.10	0.00	
84243	20088.00	0.50	4.70	4.56	0.40	0.00	
84244	21222.00	0.70	3.40	5.35	1.00	0.00	

AUGUST

LEGEND

- 1 Date (Year-Julian Day)
- 2 Daily Shortwave Radiation Intensity (Kilojoules/meters squared)
- 3 Cloud Cover (Sky fraction in tenths)
- 4 Median Air Temperature (Degrees Celsius)
- 5 Vapor Pressure (Millibars)
- 6 Average Windspeed (Meters per second)
- 7 Precipitation (Millimeters)

84245	14558.00	0.40	7.10	0.00	0.80	0.00	
84246	19436.00	0.00	5.40	0.00	0.40	0.00	
84247	14954.00	0.00	7.00	0.00	0.30	0.00	
84248	14872.00	0.20	5.10	0.00	0.80	0.00	
84249	19234.00	0.30	6.30	0.00	0.80	0.00	
84250	15696.00	0.80	5.80	0.00	1.50	0.00	
84251	13320.00	1.00	8.50	0.00	1.50	0.00	
84252	17924.00	0.30	3.40	0.00	1.40	0.00	
84253	16002.00	1.00	7.60	0.00	0.70	0.00	
84254	17928.00	0.50	7.40	0.00	0.80	0.00	
84255	12258.00	0.20	5.70	0.00	0.80	0.00	
84256	14832.00	1.00	7.30	0.00	1.50	0.00	
84257	7448.00	1.00	10.80	0.00	1.60	0.20	
84258	6480.00	1.00	4.50	0.00	0.30	6.00	
84259	7182.00	1.00	7.70	0.00	1.10	0.40	
84260	12690.00	0.60	7.50	0.00	0.80	0.00	
84261	7650.00	0.90	8.50	0.00	0.70	0.00	
84262	7740.00	1.00	7.40	0.00	1.00	2.20	
84263	13698.00	1.00	6.50	0.00	1.40	11.00	
84264	12636.00	0.70	5.60	0.00	0.30	3.20	
84265	14724.00	0.20	4.40	0.00	0.40	0.20	
84266	12546.00	1.00	5.20	0.00	0.90	0.00	
84267	5416.00	1.00	4.50	0.00	2.50	0.00	
84268	8698.00	1.00	10.60	0.00	3.70	0.00	
84269	8190.00	1.00	9.80	0.00	1.40	0.00	
84270	12042.00	0.50	5.40	0.00	1.00	0.00	
84271	9126.00	0.90	5.60	0.00	0.30	0.00	
84272	8604.00	1.00	7.70	0.00	0.30	0.00	
84273	2520.00	1.00	8.60	0.00	0.40	24.40	
84274	5540.00	1.00	7.90	0.00	2.10	4.20	

SEPTEMBER

NO DATA

APPENDIX N.2. WEATHER DATA, cont.

	1	2	3	4	5	6	7
OCTOBER	84275	7246.00	0.00	3.90	0.00	1.80	0.00
	84276	10566.00	0.00	3.50	0.00	2.60	0.00
	84277	10206.00	0.00	4.40	0.00	1.10	0.00
	84278	11052.00	0.00	2.60	0.00	0.90	0.00
	84279	5435.00	0.00	5.20	0.00	1.60	0.00
	84280	6840.00	0.00	7.20	0.00	1.90	0.00
	84281	5238.00	0.00	5.20	0.00	0.70	0.00
	84282	2322.00	0.00	3.90	0.00	0.30	0.00
	84283	7844.00	0.00	2.30	0.00	0.80	0.00
	84284	5616.00	0.00	0.70	0.00	0.80	0.00
	84285	4140.00	0.00	-0.50	0.00	0.80	0.00
	84286	4514.00	0.00	1.80	0.00	0.80	0.00
	84287	4564.00	0.00	0.50	0.00	0.90	0.00
	84288	3252.00	0.00	-2.50	0.00	1.00	0.00
	84289	4662.00	0.00	-2.60	0.00	0.90	0.00
	84290	4114.00	0.00	-0.70	0.00	1.00	0.00
	84291	4546.00	0.00	-2.60	0.00	1.10	0.00
	84292	1266.00	0.00	-4.00	0.00	1.00	0.00
	84293	2790.00	0.00	0.00	0.00	0.80	0.00
	84294	2142.00	0.00	0.50	0.00	0.30	0.00
	84295	3344.00	0.00	4.90	0.00	1.40	0.00
	84296	3366.00	0.00	5.60	0.00	4.70	0.00
	84297	2790.00	0.00	-2.20	0.00	1.40	0.00
	84298	3456.00	0.00	-3.10	0.00	0.70	0.00
	84299	5562.00	0.00	-5.40	0.00	1.10	0.00
	84300	5616.00	0.00	-5.90	0.00	1.10	0.00
	84301	5346.00	0.00	-7.20	0.00	1.10	0.00
	84302	5144.00	0.00	-7.30	0.00	1.10	0.00
	84303	4942.00	0.00	-9.60	0.00	1.10	0.00
	84304	2538.00	0.00	-5.20	0.00	1.10	0.00
	84305	3444.00	0.00	-1.50	0.00	2.50	0.00
	84306	4344.00	0.00	-2.60	0.00	1.10	0.00
84307	3715.00	0.00	-9.70	0.00	1.10	0.00	
84308	4356.00	0.00	-5.00	0.00	1.20	0.00	
84309	3976.00	0.00	-7.50	0.00	1.10	0.00	
84310	1422.00	0.00	1.20	0.00	1.70	0.00	
84311	3546.00	0.00	1.20	0.00	0.40	0.00	
84312	1540.00	0.00	-2.30	0.00	0.40	0.00	
84313	1764.00	0.00	-7.20	0.00	0.40	0.00	
84314	2412.00	0.00	-11.20	0.00	1.00	0.00	
84315	1692.00	0.00	-11.30	0.00	1.00	0.00	
84316	2178.00	0.00	-13.70	0.00	1.10	0.00	
84317	2174.00	0.00	-15.80	0.00	1.20	0.00	
84318	1692.00	0.00	-17.70	0.00	1.20	0.00	
84319	1026.00	0.00	-12.80	0.00	1.50	0.00	
84320	1314.00	0.00	-9.80	0.00	1.50	0.00	
84321	1278.00	0.00	-7.80	0.00	0.90	0.00	
84322	1314.00	0.00	-7.30	0.00	0.80	0.00	
84323	594.00	0.00	-8.00	0.00	0.40	0.00	
84324	1344.00	0.00	-3.00	0.00	1.70	0.00	
84325	468.00	0.00	4.40	0.00	4.40	0.00	
84326	274.00	0.00	2.90	0.00	1.60	0.00	
84327	342.00	0.00	-3.40	0.00	0.60	0.00	
84328	414.00	0.00	-4.20	0.00	0.50	0.00	
84329	198.00	0.00	-5.90	0.00	0.40	0.00	
84330	360.00	0.00	-13.20	0.00	0.30	0.00	
84331	252.00	0.00	-14.90	0.00	0.80	0.00	
84332	288.00	0.00	-12.90	0.00	0.40	0.00	
84333	106.00	0.00	-9.10	0.00	0.60	0.00	
84334	106.00	0.00	-10.20	0.00	0.50	0.00	
84335	414.00	0.00	-5.40	0.00	0.60	0.00	

LEGEND

- 1 Date (Year-Julian Day)
- 2 Daily Shortwave Radiation Intensity (Kilojoules/meters squared)
- 3 Cloud Cover (Sky fraction in tenths)
- 4 Median Air Temperature (Degrees Celsius)
- 5 Vapor Pressure (Millibars)
- 6 Average Windspeed (Meters per second)
- 7 Precipitation (Millimeters)

APPENDIX N.3. WIND SPEED DATA

DECEMBER

DATE	WINDSPEED (meters/sec.)			
	0600	1200	1800	2400
02353	-0.50	0.50	0.50	0.70
02356	0.50	3.70	0.70	0.90
02357	1.00	0.90	0.70	0.90
02358	0.70	0.50	0.50	0.90
02359	2.90	4.50	5.50	5.90
02300	2.10	5.90	5.50	2.20
02301	5.00	5.40	5.80	5.00
02342	1.00	3.30	5.30	-0.30
02343	-0.70	0.00	0.00	0.00
02344	0.00	0.00	0.00	0.00
02345	0.00	0.00	0.00	0.00
02346	0.00	0.00	0.50	0.50
02347	-0.30	3.70	5.70	0.90
02348	0.20	0.50	0.00	-0.50
02349	0.60	0.70	1.00	0.50
02350	1.50	0.60	2.40	5.70
02351	1.00	0.90	0.50	0.50
02352	0.50	0.50	0.70	0.50
02353	0.70	0.90	2.90	0.50
02354	-0.50	-0.20	-0.50	0.70
02355	0.70	0.00	0.50	0.50
02356	0.50	0.70	0.50	0.50
02357	0.50	0.50	0.50	0.50
02358	0.50	0.50	0.00	0.00
02359	0.50	0.40	0.50	5.50
02300	0.60	8.40	0.50	0.00
02301	6.50	7.20	7.70	9.70
02302	0.50	7.10	5.50	5.90
02303	10.10	7.00	1.00	0.70
02304	-0.50	0.00	0.50	0.50
02305	0.50	0.00	-0.50	0.50

NOTE:

1. Positive values indicate wind blowing generally southerly, or "down" the lake.
2. Negative values indicate generally northerly winds, or "up" the lake.
3. Absolute values are mean vector resultant windspeeds for values recorded in the preceding six hour interval.

JANUARY

03001	0.34	0.28	0.26	0.24
03002	0.54	0.55	0.45	0.52
03003	0.03	0.54	-0.20	-0.55
03004	0.45	0.54	-0.20	-0.55
03005	0.40	0.55	0.50	0.50
03006	0.50	0.50	0.50	-0.40
03007	-0.54	-0.25	-0.55	0.17
03008	0.00	0.45	0.20	0.50
03009	0.50	0.50	0.50	0.20
03010	0.50	0.50	0.50	-0.20
03011	0.50	0.50	0.50	0.00
03012	0.50	0.20	0.20	0.40
03013	0.55	0.50	0.55	0.20
03014	0.20	0.50	0.47	0.44
03015	0.03	0.50	0.50	0.50
03016	-0.27	0.40	-0.10	-0.50
03017	0.10	0.10	0.41	0.19
03018	0.04	0.20	1.50	1.75
03019	-0.04	-1.20	2.50	-0.20
03020	5.14	5.15	1.20	-1.50
03021	-0.27	0.55	2.10	0.50
03022	0.50	0.60	0.42	0.70
03023	0.50	0.65	0.47	0.50
03024	0.70	0.50	0.55	0.55
03025	0.50	0.45	0.60	0.50
03026	0.47	0.30	5.30	1.07
03027	0.70	0.50	0.50	0.50
03028	0.50	0.50	0.50	0.50
03029	0.50	0.50	0.50	0.50
03030	0.50	0.50	0.50	0.50
03031	1.50	0.50	0.40	0.50

APPENDIX N.3. WIND SPEED DATA, cont.

FEBRUARY

DATE	WINDSPEED (meters/sec.)			
	0600	1200	1800	2400
05052	0.07	0.50	1.11	0.64
05053	2.82	2.30	4.14	2.60
05054	2.92	0.45	0.49	0.79
05055	-0.10	5.24	0.75	0.20
05056	0.70	5.24	0.60	0.40
05057	0.89	0.10	-0.55	-0.19
05058	0.85	0.69	0.50	0.10
05059	1.07	0.31	0.95	0.17
05060	-2.52	-0.20	-0.50	0.77
05061	1.01	0.77	-0.51	-0.77
05062	2.05	-1.52	-1.02	0.00
05063	-1.53	1.52	1.99	-0.77
05064	-1.55	-2.29	2.69	-2.09
05065	2.04	2.29	2.04	1.27
05066	1.70	2.29	2.04	1.27
05067	1.55	1.55	5.00	0.00
05068	1.27	1.11	0.20	0.30
05069	5.05	-5.07	-0.20	-0.11
05070	1.20	0.50	0.70	0.55
05071	0.84	-1.04	-0.47	-0.84
05072	0.85	0.41	2.80	5.05
05073	1.55	-0.19	-0.45	0.70
05074	0.15	0.45	0.45	-0.07
05075	1.05	0.14	2.50	0.44
05076	0.15	0.24	0.15	0.51
05077	-1.55	0.22	2.70	0.51
05078	-0.05	-0.27	0.10	0.25
05079	0.50	0.21	0.25	0.54

NOTE:

1. Positive values indicate wind blowing generally southerly, or "down" the lake.
2. Negative values indicate generally northerly winds, or "up" the lake.
3. Absolute values are mean vector resultant windspeeds for values recorded in the preceding six hour interval.

MARCH

23060	0.50	0.20	-1.00	2.50
23061	0.30	0.15	-0.10	0.65
05082	0.50	0.19	-0.20	0.74
05083	0.52	0.57	-0.50	0.50
05084	0.45	0.50	-0.65	0.54
05085	0.05	0.15	0.21	0.55
05086	0.05	0.19	0.10	0.40
05087	0.75	0.19	-0.21	0.50
05088	0.09	0.20	0.20	0.50
05089	0.33	-0.22	-0.64	0.20
05090	0.45	-0.22	-0.49	-0.74
05091	0.46	-0.31	1.45	0.44
05092	0.40	0.14	-0.21	0.52
05093	0.39	0.24	-0.40	0.00
05094	0.55	1.20	5.55	1.25
05095	0.84	0.22	-0.55	0.50
05096	0.10	0.25	-0.05	0.45
05097	0.00	-0.25	-0.50	0.60
05098	0.49	0.15	-0.09	0.70
05099	0.50	0.05	-0.40	0.40
05100	0.00	0.10	-0.04	0.40
05101	0.00	0.20	-0.57	0.55
05102	0.43	0.50	-0.50	0.29
05103	1.17	-0.15	-0.55	0.54
05104	0.81	0.26	0.55	-0.75
05105	0.84	-0.20	-0.59	0.70
05106	0.45	-0.50	5.29	5.54
05107	0.00	2.14	0.51	0.40
05108	0.55	-0.40	-0.49	0.52
05109	0.45	-0.21	-0.07	0.55
05110	0.02	-0.15	-1.10	0.45

APPENDIX N.3. WIND SPEED DATA, cont.

	WINDSPEED (meters/sec.)				
	DATE	0600	1200	1800	2400
APRIL	05071	0.50	0.70	-0.50	0.50
	05072	0.50	-0.70	-0.70	0.50
	05073	0.50	5.00	4.10	2.20
	05074	-1.00	-0.10	-0.50	2.20
	05075	0.70	0.90	0.40	2.50
	05076	-0.30	1.00	5.80	0.70
	05077	0.60	-0.70	-1.20	0.50
	05078	0.70	-0.50	-2.10	-0.20
	05079	-0.20	-1.20	-1.10	0.50
	05100	0.50	-0.50	-2.70	0.50
	05101	0.50	1.20	0.70	0.90
	05102	3.40	-0.20	-2.70	-0.10
	05103	0.00	-0.40	-0.50	-0.20
	05104	-0.20	2.90	1.10	5.50
	05105	0.20	5.50	5.50	5.50
	05106	0.50	-0.50	-1.10	-2.20
	05107	0.20	-0.70	-1.60	-2.20
	05108	5.20	1.80	4.40	2.50
	05109	-0.90	1.40	4.40	2.30
	05110	0.60	0.70	2.40	0.40
05111	0.40	1.80	2.60	1.10	
05112	-0.50	5.50	5.80	5.10	
05113	1.10	2.10	-0.20	0.50	
05114	0.60	-0.50	-1.20	0.70	
05115	0.70	-0.50	1.00	0.10	
05116	0.20	-0.80	-1.50	0.50	
05117	0.50	-0.50	-1.60	0.60	
05118	0.70	-0.40	-0.20	-0.20	
05119	0.20	-0.40	-1.50	-0.10	
05120	0.20	-1.10	-1.10	0.10	
05121	0.30	-0.70	-1.50	-0.40	
05122	0.20	-1.00	-2.00	-0.50	
05123	-0.20	-1.00	-1.50	-0.10	
05124	-0.10	0.20	5.20	1.20	
05125	0.00	-0.20	2.40	0.20	
05126	0.10	-0.10	2.10	0.20	
05127	0.50	-1.20	-1.60	0.60	
05128	0.60	-0.90	-2.10	0.10	
05129	0.70	1.20	5.10	4.50	
05130	2.00	1.20	4.20	2.00	
05131	0.10	0.70	2.60	0.80	
05132	0.50	2.40	5.60	0.60	
05133	1.10	-1.20	1.50	2.20	
05134	0.50	2.20	4.10	-0.50	
05135	-0.60	1.00	5.20	4.50	
05136	1.20	0.70	5.50	1.20	
05137	-0.50	1.40	5.10	3.50	
05138	2.20	3.00	5.70	1.10	
05139	0.00	-0.40	-2.10	-0.50	
05140	0.80	-0.70	-1.80	-1.00	
05141	0.50	-1.80	-2.10	-0.80	
05142	0.10	1.20	-1.00	1.80	
05143	1.50	1.50	5.50	4.50	
05144	1.00	2.20	1.50	-0.90	
05145	0.20	-1.10	-0.50	-0.50	
05146	5.20	5.10	5.00	2.60	
05147	5.50	0.20	0.20	-0.10	
05148	0.00	1.20	2.50	2.50	
05149	0.20	0.10	5.50	2.60	
05150	0.50	-0.60	-0.60	2.50	
05151	0.50	5.60	5.20	2.50	

NOTE:

1. Positive values indicate wind blowing generally southerly, or "down" the lake.
2. Negative values indicate generally northerly winds, or "up" the lake.
3. Absolute values are mean vector resultant windspeeds for values recorded in the preceding six hour interval.

APPENDIX N.3. WIND SPEED DATA, cont.

JUNE

DATE	WINDSPEED (meters/sec.)			
	0600	1200	1800	2400
05170	3.40	-1.50	-1.40	-0.40
05171	-0.10	-1.20	-1.40	-0.20
05172	-0.20	-1.10	1.00	-1.50
05173	0.20	-0.40	-0.60	-0.20
05174	0.20	-1.10	-2.10	-0.20
05175	0.20	-0.20	-2.00	0.50
05176	0.60	-0.40	-0.20	-0.20
05177	0.70	-0.20	-1.60	-0.60
05178	0.70	-0.50	0.40	0.40
05179	0.50	-0.60	-0.70	0.50
05180	0.50	-1.20	5.50	5.80
05181	2.00	2.70	5.10	2.20
05182	0.20	-0.20	-1.50	0.70
05183	0.50	1.00	5.00	1.20
05184	0.50	-0.20	-1.50	-0.20
05185	0.50	-0.50	-1.70	-0.20
05186	0.40	-1.00	-1.70	0.20
05187	0.60	-0.40	2.50	1.70
05188	0.50	-1.40	-2.50	-0.70
05189	0.50	-1.00	-1.70	-0.50
05190	0.50	-1.20	-1.70	-0.90
05191	0.50	-1.00	-1.50	0.50
05192	0.50	-1.00	2.20	2.40
05193	0.40	-1.00	-1.40	0.40
05194	0.50	-0.60	-0.20	1.20
05195	-0.40	1.00	-0.20	-0.60
05196	0.20	-1.10	-2.00	-0.50
05197	0.30	2.60	0.00	1.20
05198	0.60	-0.70	-1.00	-0.40
05199	0.50	-1.00	-2.10	-0.40

NOTE:

1. Positive values indicate wind blowing generally southerly, or "down" the lake.
2. Negative values indicate generally northerly winds, or "up" the lake.
3. Absolute values are mean vector resultant windspeeds for values recorded in the preceding six hour interval.

JULY

05192	-0.40	-1.10	-1.40	-0.50
05193	0.50	-0.70	-1.70	-0.20
05194	0.10	-0.50	-1.40	0.50
05195	0.50	-0.80	-1.40	-0.60
05196	0.20	-1.00	-1.70	0.10
05197	-0.10	-0.60	0.20	0.50
05198	-0.20	-0.70	-1.50	1.10
05199	0.80	1.20	2.10	0.60
05200	0.70	1.00	5.90	0.90
05201	0.40	-0.70	-1.40	0.50
05202	0.50	0.50	0.20	-0.10
05203	0.70	-1.20	-1.50	-0.50
05204	0.20	0.50	0.50	0.40
05205	0.70	-0.50	0.40	0.10
05206	0.50	-0.20	-1.20	0.20
05207	0.70	-0.40	-0.70	0.50
05208	0.20	-0.40	-0.20	0.50
05209	0.60	-1.50	-0.70	0.50
05210	0.60	-0.50	-0.90	0.50
05211	0.50	-0.50	-0.70	0.40
05212	0.50	-0.10	-1.50	0.50
05213	0.30	-0.10	-1.50	-0.40
05214	0.50	-0.40	-0.50	0.50
05215	0.50	-0.70	-1.70	0.70
05216	0.20	-0.50	-1.50	0.60
05217	0.70	-0.70	-1.70	-0.50
05218	0.20	-1.00	-1.20	0.70
05219	0.70	-0.40	-0.40	-0.50
05220	0.60	-0.70	-1.00	-0.40
05221	0.50	0.50	-1.40	0.70
05222	0.70	-0.10	-0.50	0.50

APPEND N.3. WIND SPEED DATA, cont.

DATE	WINDSPEED (meters/sec.)			
	0600	1200	1800	2400
83213	0.35	-0.32	0.01	0.21
83214	0.20	-0.25	0.25	0.22
83215	0.23	-0.07	-0.39	0.45
83216	0.30	0.15	-0.37	1.78
83217	0.25	0.07	0.09	0.40
83218	0.26	0.55	2.17	2.14
83219	1.18	2.52	2.89	3.34
83220	3.34	3.29	2.62	0.76
83221	0.12	-0.09	-0.57	0.13
83222	0.20	0.09	0.07	0.26
83223	0.18	0.16	0.15	0.22
83224	0.27	0.07	-0.17	0.10
83225	0.22	-0.22	-0.15	0.08
83226	0.64	-0.22	0.01	0.29
83227	-0.34	-0.34	0.31	0.55
83228	-0.59	-0.59	-0.27	0.23
83229	0.33	-0.01	0.29	0.38
83230	0.25	-0.18	-0.24	0.15
83231	0.24	-0.57	-0.21	0.27
83232	0.45	2.12	1.72	0.49
83233	0.28	-0.13	-0.05	0.22
83234	0.22	0.11	0.05	0.22
83235	0.22	0.04	-0.30	0.37
83236	0.38	-0.01	-0.31	0.14
83237	0.25	0.22	0.14	0.27
83238	0.23	0.22	-0.20	0.40
83239	0.27	-0.01	-0.35	0.24
83240	0.26	0.18	-0.15	0.34
83241	0.29	0.25	0.52	1.76
83242	0.43	0.48	5.14	0.24
83243	0.26	0.10	0.00	0.27

AUGUST

NOTE:

1. Positive values indicate wind blowing generally southerly, or "down" the lake.
2. Negative values indicate generally northerly winds, or "up" the lake.
3. Absolute values are mean vector resultant windspeeds for values recorded in the preceding six hour interval.

83244	0.34	0.32	-0.07	0.27
83245	0.32	-0.09	-0.31	0.28
83246	0.26	0.14	0.25	0.34
83247	0.25	0.25	0.23	0.38
83248	0.26	0.02	0.00	0.18
83249	0.31	-0.10	-0.56	0.22
83250	0.29	0.12	-0.20	0.33
83251	0.25	0.32	0.34	0.34
83252	0.20	0.10	0.20	0.23
83253	0.04	-0.13	0.02	0.33
83254	0.04	-0.14	-0.15	0.51
83255	0.25	0.23	1.53	2.12
83256	2.38	2.41	2.48	1.35
83257	-0.21	-0.98	-0.15	0.34
83258	0.44	0.17	-0.62	0.34
83259	0.29	0.05	-0.37	0.31
83260	0.51	-0.10	-0.29	0.30
83261	0.20	0.25	2.20	1.34
83262	1.71	2.72	1.44	-0.14
83263	0.13	2.73	2.64	0.72
83264	0.21	0.08	0.24	0.26
83265	0.37	0.01	0.00	0.24
83266	-0.03	-0.13	0.15	1.10
83267	0.72	-0.57	-0.63	0.33
83268	0.53	0.31	-0.01	0.57
83269	0.58	0.24	0.24	0.53
83270	0.37	0.42	2.19	-0.30
83271	-0.04	-0.84	0.63	-0.32
83272	3.56	5.60	6.53	2.37
83273	2.75	0.14	-0.05	0.30

SEPTEMBER

APPENDIX N.3. WIND SPEED DATA, cont.

	WINDSPEED (meters/sec.)					
	DATE	0600	1200	1800	2400	
OCTOBER	83274	0.70	0.50	1.40	2.30	
	83275	-0.10	0.00	-1.80	-0.30	
	83276	0.20	0.10	-0.60	0.40	
	83277	0.80	0.40	0.10	0.30	
	83278	0.80	0.40	0.20	0.50	
	83279	0.80	-2.20	-1.70	0.30	
	83280	1.00	0.10	-1.30	0.30	
	83281	1.00	0.30	-1.40	0.20	
	83282	0.60	2.30	6.00	-0.10	
	83283	5.30	8.50	7.20	5.30	
	83284	5.80	4.20	0.20	0.30	
	83285	0.70	0.50	-1.30	0.30	
	83286	0.60	0.90	0.30	0.70	
	83287	0.80	0.20	-0.20	0.50	
	83288	0.70	0.20	0.60	0.30	
	83289	0.90	0.30	-1.10	0.30	
	83290	0.80	0.50	-0.20	0.30	
	83291	-0.40	0.40	-0.40	0.30	
	83292	0.80	0.50	-0.40	0.50	
	83293	0.70	-0.30	-0.20	0.50	
	83294	0.60	0.50	-0.40	-0.10	
	83295	0.80	2.10	2.70	0.50	
	83296	0.90	0.50	0.40	0.70	
	83297	0.70	-0.80	-0.40	0.80	
	83298	-1.00	-1.30	-1.30	-0.40	
	83299	-0.60	-1.00	-1.10	0.30	
	83300	-0.20	0.70	0.40	0.40	
	83301	-0.30	-0.40	0.30	-0.30	
	83302	0.70	0.50	0.30	-1.10	
	83303	-0.60	-0.50	-1.70	-0.50	
	83304	-0.60	-1.30	-0.90	-0.50	
	NOVEMBER	83305	-0.60	0.20	1.00	1.00
		83306	-0.60	0.80	4.30	1.70
83307		0.20	0.80	0.50	0.30	
83308		1.00	0.90	0.50	-0.50	
83309		0.60	0.80	0.90	1.10	
83310		1.00	1.00	0.80	0.20	
83311		2.20	7.00	9.10	5.50	
83312		5.40	3.80	1.70	0.20	
83313		1.00	1.00	2.50	1.40	
83314		2.00	0.80	0.50	0.30	
83315		0.90	0.80	0.20	0.70	
83316		0.80	0.80	0.80	1.00	
83317		0.90	1.00	1.00	1.10	
83318		1.00	0.80	0.60	0.40	
83319		0.80	0.80	0.70	-0.20	
83320		-1.20	1.00	1.00	1.00	
83321		1.00	1.00	1.00	1.00	
83322		1.00	2.00	2.00	1.50	
83323		1.60	2.00	2.00	1.50	
83324		1.60	5.40	6.30	8.70	
83325	8.20	5.10	5.20	-0.10		
83326	0.70	1.00	1.00	0.30		
83327	0.60	-0.20	-2.00	-1.50		
83328	-0.90	-0.20	1.00	1.00		
83329	0.20	0.80	0.50	0.40		
83330	0.80	0.30	0.60	0.90		
83331	0.50	0.20	0.80	3.30		
83332	5.80	8.20	7.20	8.20		
83333	6.80	4.30	5.40	1.20		
83334	1.30	1.30	1.10	1.20		

NOTE:

1. Positive values indicate wind blowing generally southerly, or "down" the lake.
2. Negative values indicate generally northerly winds, or "up" the lake.
3. Absolute values are mean vector resultant windspeeds for values recorded in the preceding six hour interval.

APPENDIX N.3. WIND SPEED DATA, cont.

DATE	WINDSPEED (meters/sec.)			
	0600	1200	1800	2400
83335	1.30	1.30	1.10	1.20
83336	1.30	1.30	1.10	1.20
83337	1.30	1.00	1.10	1.20
83338	1.00	1.00	1.10	1.30
83339	1.00	1.00	1.10	1.30
83340	1.00	1.00	0.70	0.30
83341	1.00	0.90	0.90	0.30
83342	0.90	1.00	0.80	0.30
83343	0.80	0.80	0.40	-0.30
83344	-0.30	-0.20	-0.60	-0.70
83345	0.50	0.40	0.40	0.70
83346	0.70	0.60	0.60	0.70
83347	0.60	-0.30	-0.30	0.30
83348	0.40	0.30	0.30	0.30
83349	0.40	0.30	0.30	0.30
83350	0.40	0.20	-0.20	0.20
83351	-0.20	0.10	0.10	0.30
83352	0.40	0.30	0.30	0.30
83353	0.40	0.30	0.40	0.20
83354	0.00	0.10	0.20	0.20
83355	0.20	0.00	0.00	0.30
83356	0.40	0.30	0.30	0.30
83357	0.40	0.30	0.30	0.30
83358	0.20	0.20	0.20	0.10
83359	0.40	0.40	0.40	0.30
83360	0.10	0.00	0.10	0.30
83361	0.10	0.10	0.10	0.10
83362	0.10	0.10	0.10	0.10
83363	0.00	0.00	0.00	0.00
83364	0.00	0.10	0.00	0.20
83365	0.10	0.20	0.00	0.10

DECEMBER

NOTE:

1. Positive values indicate wind blowing generally southerly, or "down" the lake.
2. Negative values indicate generally northerly winds, or "up" the lake.
3. Absolute values are mean vector resultant windspeeds for values recorded in the preceding six hour interval.

84001	0.20	0.00	0.00	0.20
84002	1.00	1.60	5.80	5.30
84003	6.40	5.80	3.20	-1.10
84004	-3.00	-2.20	-1.10	0.50
84005	0.80	0.80	-0.60	0.30
84006	1.00	0.80	0.70	0.50
84007	0.50	0.40	0.00	0.50
84008	0.50	0.40	0.20	0.40
84009	0.40	2.80	1.00	0.40
84010	0.40	2.80	1.00	0.50
84011	1.20	0.80	6.20	2.30
84012	8.60	7.70	8.80	8.20
84013	3.80	5.80	1.40	0.50
84014	0.60	0.60	0.60	2.30
84015	2.30	2.20	2.00	2.30
84016	2.30	2.20	2.00	2.30
84017	2.30	2.20	2.00	2.30
84018	2.30	2.20	2.00	2.30
84019	2.30	2.20	2.00	2.30
84020	2.30	2.20	2.00	2.30
84021	2.30	2.20	2.00	2.30
84022	2.30	2.20	2.00	2.30
84023	2.30	2.20	2.00	2.30
84024	2.30	2.20	2.00	2.30
84025	2.30	2.20	2.00	2.30
84026	2.30	2.20	2.00	2.30
84027	2.30	2.20	2.00	2.30
84028	2.30	2.20	2.00	5.20
84029	7.10	6.00	3.60	1.10
84030	3.20	0.80	-0.20	-0.20
84031	0.40	0.20	0.80	-0.20

JANUARY

APPENDIX N.3. WIND SPEED DATA, cont.

	WINDSPEED (meters/sec.)				
	DATE	0600	1200	1800	2400
FEBRUARY					
84032	1.00	1.00	0.20	-0.20	
84033	1.00	1.20	1.00	-1.00	
84034	1.50	1.80	1.30	-2.70	
84035	2.00	2.00	1.30	-2.70	
84036	-0.80	0.50	-0.30	-0.10	
84037	0.30	0.40	-0.40	2.30	
84038	-1.00	-1.40	-1.70	-0.30	
84039	-0.20	0.40	-0.20	0.40	
84040	0.40	0.20	-0.20	0.20	
84041	0.50	0.40	-0.40	0.30	
84042	0.60	0.80	0.20	0.30	
84043	0.50	0.30	0.20	0.30	
84044	0.50	0.30	0.20	0.30	
84045	0.30	0.40	0.20	0.30	
84046	0.30	0.50	0.20	0.30	
84047	1.20	1.00	-0.20	0.40	
84048	0.60	0.20	0.50	1.30	
84049	1.10	0.30	-0.30	-0.50	
84050	0.10	-0.40	-1.20	-0.20	
84051	0.00	-0.60	0.20	-0.20	
84052	-0.20	1.80	5.00	2.30	
84053	-1.00	-0.20	-0.50	-0.40	
84054	0.40	0.10	-0.40	0.40	
84055	0.60	0.50	-0.20	0.70	
84056	0.60	0.60	-1.00	0.30	
84057	0.40	0.20	-0.30	0.30	
84058	0.40	0.40	-0.50	0.20	
84059	-0.20	0.50	-0.10	0.50	
84060	0.70	0.50	0.50	0.30	

NOTE:

1. Positive values indicate wind blowing generally southerly, or "down" the lake.
2. Negative values indicate generally northerly winds, or "up" the lake.
3. Absolute values are mean vector resultant windspeeds for values recorded in the preceding six hour interval.

MARCH				
84061	0.60	0.20	-0.20	0.30
84062	0.50	0.50	-0.10	1.20
84063	3.90	5.40	2.80	6.10
84064	6.50	4.00	5.40	2.30
84065	1.40	1.60	5.20	5.30
84066	2.70	0.60	-0.10	0.30
84067	0.60	0.40	-0.50	0.50
84068	0.80	0.30	-0.30	1.70
84069	0.60	0.40	3.60	-0.10
84070	0.80	1.40	4.20	-0.30
84071	-0.30	0.50	0.30	0.40
84072	0.50	0.20	-0.60	0.20
84073	0.60	0.40	-0.60	0.50
84074	0.60	0.50	-0.40	0.50
84075	0.60	1.80	3.20	0.20
84076	0.60	0.20	-0.60	0.20
84077	0.30	0.50	-1.00	0.50
84078	0.60	0.10	-1.40	0.30
84079	0.60	0.40	-0.80	0.30
84080	0.70	0.70	-1.10	0.50
84081	0.60	0.30	-0.90	0.30
84082	0.70	0.20	-1.00	0.30
84083	0.80	0.20	-1.20	0.40
84084	0.80	0.40	-1.40	0.30
84085	0.30	-0.40	-1.30	0.40
84086	0.50	0.40	3.60	2.30
84087	1.00	4.00	3.50	0.50
84088	0.60	-0.10	1.40	3.70
84089	0.50	1.40	1.80	0.50
84090	-0.10	-0.30	-0.70	-0.50
84091	0.30	0.20	3.60	4.50

APPENDIX N.3. WIND SPEED DATA, cont.

		WINDSPEED (meters/sec.)			
		0600	1200	1800	2400
APRIL	84092	1.20	0.30	1.80	-0.50
	84093	0.10	-0.30	-1.50	-0.30
	84094	0.10	-0.40	-1.40	0.50
	84095	0.60	-0.20	-1.00	0.30
	84096	0.90	2.40	-1.70	-0.50
	84097	0.60	-0.40	-1.50	-0.20
	84098	-0.30	-0.70	-1.40	-1.00
	84099	-0.40	1.70	4.10	0.50
	84100	0.60	0.30	-0.90	0.50
	84101	-0.30	-1.30	-2.00	-0.20
	84102	-0.50	-0.50	-1.30	0.20
	84103	0.40	-0.20	-1.40	0.50
	84104	0.50	-0.70	2.10	2.30
	84105	0.40	-0.20	-1.70	-0.20
	84106	0.50	-0.20	-2.80	-0.30
	84107	-1.00	-1.00	-0.70	-0.20
	84108	0.20	-0.40	-0.90	-0.30
	84109	-0.40	-0.60	-0.90	0.50
	84110	0.40	-0.10	-1.10	0.20
	84111	0.40	-0.50	-0.60	0.30
	84112	1.20	2.30	2.00	-1.10
84113	-1.80	-0.30	-1.50	0.50	
84114	0.80	-0.30	-0.50	1.30	
84115	0.60	-0.10	3.20	2.00	
84116	0.70	-0.40	4.50	4.40	
84117	3.60	3.80	4.10	1.50	
84118	0.40	-0.40	-1.10	4.10	
84119	3.50	3.40	4.30	4.30	
84120	3.40	1.70	-1.80	-1.30	
84121	2.10	4.30	3.70	2.10	
MAY	84122	-0.60	0.50	1.10	0.70
	84123	-0.30	0.70	3.60	1.70
	84124	0.60	-2.00	3.50	1.20
	84125	0.20	0.40	3.00	1.30
	84126	0.50	7.80	1.10	0.30
	84127	0.90	-0.70	3.50	0.50
	84128	0.80	-0.40	-1.70	1.10
	84129	0.90	-0.40	-1.40	1.30
	84130	0.90	-0.30	-2.20	0.00
	84131	0.80	-0.40	-2.10	0.50
	84132	0.90	-0.70	-3.10	-0.30
	84133	0.90	-0.50	-2.10	-0.20
	84134	0.90	-0.40	2.10	-0.20
	84135	0.90	-0.50	1.10	2.00
	84136	1.00	0.10	3.70	3.50
	84137	0.60	0.10	2.20	1.30
	84138	0.60	-0.60	2.60	3.30
	84139	2.00	2.20	3.90	1.40
	84140	0.70	-0.50	-1.30	-1.20
	84141	0.40	-0.50	1.50	2.10
	84142	0.50	-1.20	2.40	2.30
84143	2.00	-1.00	-1.90	-0.20	
84144	0.80	-0.40	0.60	1.30	
84145	0.70	-0.90	-2.40	-2.30	
84146	0.60	-1.10	0.20	1.30	
84147	0.70	-0.20	0.20	1.00	
84148	0.70	-0.20	0.20	1.30	
84149	0.70	-0.20	0.20	1.30	
84150	0.70	-0.20	0.10	1.30	
84151	0.70	-0.20	0.10	1.30	
84152	0.70	-0.20	0.10	1.30	

NOTE:

1. Positive values indicate wind blowing generally southerly, or "down" the lake.
2. Negative values indicate generally northerly winds, or "up" the lake.
3. Absolute values are mean vector resultant windspeeds for values recorded in the preceding six hour interval.

APPENDIX N.3. WIND SPEED DATA, cont.

	WINDSPEED (meters/sec.)				
	DATE	0600	1200	1800	2400
JUNE	84153	0.70	-0.20	-1.20	1.20
	84154	0.80	-0.50	-1.60	0.50
	84155	0.70	-0.40	-2.10	0.30
	84156	0.70	-0.40	-1.70	0.30
	84157	0.70	-2.00	-1.10	0.50
	84158	0.40	0.30	-1.70	0.30
	84159	0.70	0.60	-1.10	1.30
	84160	0.40	-0.50	-1.50	-1.50
	84161	0.70	0.10	-1.90	0.40
	84162	0.70	-0.50	2.00	-0.70
	84163	0.60	-0.90	-1.50	0.10
	84164	0.40	0.60	0.30	0.50
	84165	-0.50	1.40	2.70	1.30
	84166	0.70	-0.30	3.20	0.30
	84167	0.60	-0.20	-1.50	-0.50
	84168	0.40	0.20	-1.20	-0.30
	84169	0.40	-0.90	-2.00	-0.40
	84170	0.60	-0.50	-1.60	0.10
	84171	0.70	-0.40	-1.60	-0.10
	84172	0.70	-0.20	-2.00	-0.50
84173	0.70	-0.60	-1.70	0.20	
84174	0.70	0.40	-1.40	0.30	
84175	0.70	-0.30	1.00	3.30	
84176	0.50	1.50	3.10	3.40	
84177	2.70	2.50	1.50	2.30	
84178	0.60	1.60	-1.30	0.50	
84179	0.40	-0.90	2.10	0.70	
84180	0.50	-0.40	-1.10	5.30	
84181	4.10	3.90	4.30	3.50	
84182	0.60	0.80	1.70	1.30	

NOTE:

1. Positive values indicate wind blowing generally southerly, or "down" the lake.
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3. Absolute values are mean vector resultant windspeeds for values recorded in the preceding six hour interval.

JULY	84183	0.30	-0.30	-1.00	-0.70
	84184	0.40	-0.20	-1.30	-0.20
	84185	0.50	0.10	0.40	0.50
	84186	0.50	-0.60	-1.00	0.20
	84187	0.40	-0.50	-1.60	0.30
	84188	0.60	-0.50	-1.70	0.20
	84189	0.50	-0.10	-2.20	0.30
	84190	0.70	-0.20	-0.50	0.50
	84191	0.50	0.20	-2.00	-0.30
	84192	0.80	0.30	0.40	2.30
	84193	1.10	1.80	1.10	-0.30
	84194	0.60	-0.40	-1.40	0.20
	84195	0.50	-0.10	-1.50	0.70
	84196	0.50	0.20	-0.30	0.30
	84197	0.80	-0.30	-1.30	0.40
	84198	0.60	-0.70	-1.10	-0.30
	84199	-0.20	0.30	-0.50	-0.20
	84200	0.50	-0.60	-1.20	-0.20
	84201	0.50	-0.80	-1.20	0.20
	84202	0.40	-0.20	-1.10	-0.40
84203	0.50	-0.50	-1.80	-0.20	
84204	0.60	-0.10	-1.00	0.20	
84205	0.30	-0.50	-1.40	0.10	
84206	0.40	-0.30	-1.20	0.20	
84207	0.40	0.10	-1.10	-0.30	
84208	0.50	-0.20	-0.60	0.50	
84209	0.70	-0.20	-0.60	0.40	
84210	0.60	1.10	-0.80	0.30	
84211	-0.40	-0.20	-2.10	-0.50	
84212	0.50	0.00	-1.70	-0.50	
84213	0.30	-0.60	-2.30	-1.30	

APPENDIX N.3. WIND SPEED DATA, cont.

DATE	WINDSPEED (meters/sec.)			
	0600	1200	1800	2400
AUGUST				
84214	0.30	-0.50	-1.30	-0.10
84215	0.50	-0.10	-1.40	-0.40
84216	0.30	-0.40	-1.40	0.50
84217	0.50	0.20	-1.40	0.70
84218	0.50	-0.10	-0.60	0.50
84219	0.80	-0.60	-0.20	0.50
84220	0.60	-0.20	-1.50	0.50
84221	-0.50	-0.30	-0.40	0.50
84222	0.50	0.50	-1.10	0.20
84223	0.60	0.20	0.30	0.70
84224	0.40	0.40	-0.40	0.50
84225	0.70	0.10	-1.80	0.50
84226	0.80	0.20	-1.30	0.20
84227	0.80	0.60	-1.70	0.50
84228	0.70	0.20	-1.30	0.30
84229	0.60	-0.10	-0.80	0.30
84230	0.80	-0.30	-0.70	-0.90
84231	-1.10	2.90	4.00	2.70
84232	2.60	-0.60	-1.60	-0.40
84233	-0.30	-0.40	-1.70	-1.20
84234	-0.30	3.50	0.20	3.20
84235	1.70	-0.60	-1.50	-0.20
84236	0.40	0.50	-0.60	0.20
84237	0.60	2.70	3.20	0.20
84238	0.70	0.40	-2.70	2.20
84239	-2.30	-2.00	-2.60	-0.70
84240	0.60	-0.10	-1.60	0.20
84241	0.70	0.20	-2.00	0.50
84242	0.70	0.30	-1.10	0.50
84243	0.70	0.10	-1.90	0.20
84244	0.70	0.10	-1.90	0.20
SEPTEMBER				
84245	0.60	-0.10	-0.80	0.50
84246	0.70	0.10	-0.40	0.50
84247	0.70	0.20	-0.60	0.50
84248	0.70	0.20	0.40	0.50
84249	0.70	0.10	-1.20	0.50
84250	0.70	0.05	-0.90	2.20
84251	0.70	0.80	3.00	0.80
84252	0.60	0.40	2.60	1.50
84253	0.60	0.10	-0.80	0.50
84254	0.80	0.10	-1.00	0.50
84255	0.70	0.20	3.40	1.30
84256	0.70	-0.20	-1.00	2.40
84257	0.80	0.60	2.90	0.50
84258	0.80	0.60	0.70	-0.30
84259	0.60	0.60	2.40	0.30
84260	0.80	0.40	-1.30	0.30
84261	0.50	-0.04	-0.80	-0.20
84262	0.60	0.60	-1.60	-0.30
84263	0.20	-0.30	-1.20	-1.20
84264	0.70	0.50	-1.10	0.20
84265	0.80	0.60	-0.70	0.80
84266	0.90	0.40	-0.90	0.50
84267	1.00	3.10	2.80	3.10
84268	4.20	4.10	3.80	2.20
84269	0.30	-0.20	0.40	-0.20
84270	0.90	0.30	-1.00	0.30
84271	0.80	1.00	-0.50	0.50
84272	0.80	0.80	-0.40	1.10
84273	0.20	-0.10	-0.80	-1.70
84274	0.80	3.30	2.70	0.50

NOTE:

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3. Absolute values are mean vector resultant windspeeds for values recorded in the preceding six hour interval.

APPENDIX N.3. WIND SPEED DATA, cont.

	WINDSPEED (meters/sec.)				
	DATE	0600	1200	1800	2400
OCTOBER					
84275	0.80	0.80	1.30	3.10	
84276	1.80	3.50	3.30	1.30	
84277	0.40	0.40	1.60	0.30	
84278	1.00	0.80	-0.50	0.20	
84279	0.80	1.60	1.80	0.90	
84280	0.80	2.10	3.00	1.30	
84281	0.80	0.60	-0.50	-0.40	
84282	0.30	-0.80	-0.40	0.50	
84283	0.70	0.60	-0.40	0.70	
84284	0.80	0.70	0.60	0.30	
84285	0.80	0.70	0.60	0.90	
84286	0.80	0.50	-0.90	0.30	
84287	1.00	1.00	0.50	0.70	
84288	1.00	-0.50	-0.80	1.30	
84289	1.00	0.90	0.20	0.90	
84290	1.00	1.00	0.90	1.30	
84291	1.20	1.00	0.70	1.10	
84292	1.30	1.00	0.40	0.30	
84293	0.80	0.80	0.30	0.40	
84294	0.50	0.40	0.50	0.50	
84295	0.50	-0.60	-2.40	1.50	
84296	5.80	5.60	4.80	-2.10	
84297	-1.00	-2.00	0.20	0.30	
84298	1.20	1.00	0.80	0.50	
84299	1.20	0.40	1.30	0.50	
84300	1.20	1.00	1.00	0.50	
84301	1.20	0.70	1.00	0.50	
84302	1.20	0.60	1.00	0.50	
84303	1.20	0.90	0.60	0.50	
84304	1.20	0.90	0.60	-0.70	
84305	2.00	3.10	2.80	0.90	
84306	1.10	1.00	1.10	1.10	
84307	1.10	1.00	1.10	1.30	
84308	1.10	1.20	1.10	1.20	
84309	1.10	1.10	0.90	1.10	
84310	0.40	-0.60	1.30	1.20	
84311	0.80	0.40	-0.30	-0.20	
84312	0.60	0.70	-0.80	0.30	
84313	0.90	0.80	0.30	1.00	
84314	1.00	1.00	1.00	1.00	
84315	-1.00	1.00	0.90	1.00	
84316	1.00	1.00	1.00	1.00	
84317	1.20	1.30	1.10	1.10	
84318	1.20	1.20	1.20	1.10	
84319	1.20	1.10	0.30	-1.90	
84320	-2.10	-0.50	0.80	1.00	
84321	1.00	0.20	0.80	0.30	
84322	0.90	0.70	0.70	0.30	
84323	0.90	0.90	0.80	0.70	
84324	0.80	0.80	0.80	4.30	
84325	6.90	4.90	1.80	5.50	
84326	4.00	-0.70	0.60	0.50	

NOTE:

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NOVEMBER

APPENDIX N.4. INFLOW DATA

DECEMBER

	1	2	3	4	5	6	7
02555	100.	0.1	0.0	20.	0.1	0.0	
02556	80.	0.1	0.0	20.	0.1	0.0	
02557	81.	0.1	0.0	20.	0.1	0.0	
02558	67.	0.1	0.0	20.	0.1	0.0	
02559	62.	0.1	0.0	20.	0.1	0.0	
02560	75.	0.1	0.0	20.	0.1	0.0	
02561	75.	0.1	0.0	20.	0.1	0.0	
02562	69.	0.1	0.0	20.	0.1	0.0	
02563	64.	0.1	0.0	10.	0.1	0.0	
02564	60.	0.1	0.0	10.	0.1	0.0	
02565	60.	0.1	0.0	10.	0.1	0.0	
02566	60.	0.1	0.0	10.	0.1	0.0	
02567	60.	0.1	0.0	10.	0.1	0.0	
02568	60.	0.1	0.0	10.	0.1	0.0	
02569	60.	0.1	0.0	10.	0.1	0.0	
02570	60.	0.1	0.0	10.	0.1	0.0	
02571	60.	0.1	0.0	10.	0.1	0.0	
02572	60.	0.1	0.0	10.	0.1	0.0	
02573	60.	0.1	0.0	10.	0.1	0.0	
02574	60.	0.1	0.0	10.	0.1	0.0	
02575	60.	0.1	0.0	10.	0.1	0.0	
02576	60.	0.1	0.0	10.	0.1	0.0	
02577	60.	0.1	0.0	10.	0.1	0.0	
02578	60.	0.1	0.0	10.	0.1	0.0	
02579	60.	0.1	0.0	10.	0.1	0.0	
02580	60.	0.1	0.0	10.	0.1	0.0	
02581	60.	0.1	0.0	10.	0.1	0.0	
02582	60.	0.1	0.0	10.	0.1	0.0	
02583	60.	0.1	0.0	10.	0.1	0.0	
02584	60.	0.1	0.0	10.	0.1	0.0	
02585	60.	0.1	0.0	10.	0.1	0.0	

LEGEND

- Date
1 (Year-Julian Day)
- East Fork & Glacier Fork
- 2 Inflow
(1000 cubic meters/day)
- 3 Inflow Temperature
(Degrees Celsius)
- 4 Inflow Salinity
(parts per thousand)
- Minor Tributaries
- 5 Inflow
(1000 cubic meters/day)
- 6 Inflow Temperature
(Degrees Celsius)
- 7 Inflow Salinity
(parts per thousand)

JANUARY

05001	60.	0.1	0.0	0.	0.0	0.0	
05002	60.	0.1	0.0	0.	0.0	0.0	
05003	60.	0.1	0.0	0.	0.0	0.0	
05004	60.	0.1	0.0	0.	0.0	0.0	
05005	60.	0.1	0.0	0.	0.0	0.0	
05006	60.	0.1	0.0	0.	0.0	0.0	
05007	60.	0.1	0.0	0.	0.0	0.0	
05008	60.	0.1	0.0	0.	0.0	0.0	
05009	60.	0.1	0.0	0.	0.0	0.0	
05010	60.	0.1	0.0	0.	0.0	0.0	
05011	60.	0.1	0.0	0.	0.0	0.0	
05012	60.	0.1	0.0	0.	0.0	0.0	
05013	60.	0.1	0.0	0.	0.0	0.0	
05014	60.	0.1	0.0	0.	0.0	0.0	
05015	60.	0.1	0.0	0.	0.0	0.0	
05016	60.	0.1	0.0	0.	0.0	0.0	
05017	60.	0.1	0.0	0.	0.0	0.0	
05018	60.	0.1	0.0	0.	0.0	0.0	
05019	60.	0.1	0.0	0.	0.0	0.0	
05020	60.	0.1	0.0	0.	0.0	0.0	
05021	60.	0.1	0.0	0.	0.0	0.0	
05022	60.	0.1	0.0	0.	0.0	0.0	
05023	60.	0.1	0.0	0.	0.0	0.0	
05024	60.	0.1	0.0	0.	0.0	0.0	
05025	60.	0.1	0.0	0.	0.0	0.0	
05026	60.	0.1	0.0	0.	0.0	0.0	
05027	60.	0.1	0.0	0.	0.0	0.0	
05028	60.	0.1	0.0	0.	0.0	0.0	
05029	60.	0.1	0.0	0.	0.0	0.0	
05030	60.	0.1	0.0	0.	0.0	0.0	
05031	60.	0.1	0.0	0.	0.0	0.0	

APPENDIX N.4. INFLOW DATA, cont.

FEBRUARY

	1	2	3	4	5	6	7
05052	50.	0.1	0.3	0.	0.0	0.0	
05053	50.	0.1	0.3	0.	0.0	0.0	
05054	50.	0.1	0.3	0.	0.0	0.0	
05055	50.	0.1	0.3	0.	0.0	0.0	
05056	50.	0.1	0.3	0.	0.0	0.0	
05057	50.	0.1	0.3	0.	0.0	0.0	
05058	50.	0.1	0.3	0.	0.0	0.0	
05059	50.	0.1	0.3	0.	0.0	0.0	
05060	50.	0.1	0.3	0.	0.0	0.0	
05061	50.	0.1	0.3	0.	0.0	0.0	
05062	50.	0.1	0.3	0.	0.0	0.0	
05063	50.	0.1	0.3	0.	0.0	0.0	
05064	50.	0.1	0.3	0.	0.0	0.0	
05065	50.	0.1	0.3	0.	0.0	0.0	
05066	50.	0.1	0.3	0.	0.0	0.0	
05067	50.	0.1	0.3	0.	0.0	0.0	
05068	50.	0.1	0.3	0.	0.0	0.0	
05069	50.	0.1	0.3	0.	0.0	0.0	
05070	50.	0.1	0.3	0.	0.0	0.0	
05071	50.	0.1	0.3	0.	0.0	0.0	
05072	50.	0.1	0.3	0.	0.0	0.0	
05073	50.	0.1	0.3	0.	0.0	0.0	
05074	50.	0.1	0.3	0.	0.0	0.0	
05075	50.	0.1	0.3	0.	0.0	0.0	
05076	50.	0.1	0.3	0.	0.0	0.0	
05077	50.	0.1	0.3	0.	0.0	0.0	
05078	50.	0.1	0.3	0.	0.0	0.0	
05079	50.	0.1	0.3	0.	0.0	0.0	
05080	50.	0.1	0.3	0.	0.0	0.0	

MARCH

05081	50.	0.1	0.3	0.	0.0	0.0	
05082	50.	0.1	0.3	0.	0.0	0.0	
05083	50.	0.1	0.3	0.	0.0	0.0	
05084	50.	0.1	0.3	0.	0.0	0.0	
05085	50.	0.1	0.3	0.	0.0	0.0	
05086	50.	0.1	0.3	0.	0.0	0.0	
05087	50.	0.1	0.3	0.	0.0	0.0	
05088	50.	0.1	0.3	0.	0.0	0.0	
05089	50.	0.1	0.3	0.	0.0	0.0	
05090	50.	0.1	0.3	0.	0.0	0.0	
05091	50.	0.1	0.3	0.	0.0	0.0	
05092	50.	0.1	0.3	0.	0.0	0.0	
05093	50.	0.1	0.3	0.	0.0	0.0	
05094	50.	0.1	0.3	0.	0.0	0.0	
05095	50.	0.1	0.3	0.	0.0	0.0	
05096	50.	0.1	0.3	0.	0.0	0.0	
05097	50.	0.1	0.3	0.	0.0	0.0	
05098	50.	0.1	0.3	0.	0.0	0.0	
05099	50.	0.1	0.3	0.	0.0	0.0	
05100	50.	0.1	0.3	0.	0.0	0.0	

LEGEND

- 1** Date
(Year-Julian Day)
 - 2** Inflow
(1000 cubic meters/day)
 - 3** Inflow Temperature
(Degrees Celsius)
 - 4** Inflow Salinity
(parts per thousand)
 - 5** Inflow
(1000 cubic meters/day)
 - 6** Inflow Temperature
(Degrees Celsius)
 - 7** Inflow Salinity
(parts per thousand)
- East Fork & Glacier Fork
- Minor Tributaries

APPENDIX N.4. INFLOW DATA, cont.

APRIL

	1	2	3	4	5	6	7
85091	100.	0.1	0.0	10.	0.0	0.0	
85092	100.	0.1	0.0	50.	0.1	0.0	
85093	120.	0.1	0.0	50.	0.1	0.0	
85094	120.	0.1	0.0	50.	0.1	0.0	
85095	120.	0.2	0.0	50.	0.1	0.0	
85096	120.	0.3	0.0	50.	0.2	0.0	
85097	120.	0.4	0.0	50.	0.4	0.0	
85098	120.	0.5	0.0	50.	0.4	0.0	
85099	120.	0.5	0.0	50.	0.5	0.0	
85100	120.	0.6	0.0	50.	0.6	0.0	
85101	120.	0.6	0.0	50.	0.7	0.0	
85102	120.	0.7	0.0	50.	0.8	0.0	
85103	120.	0.7	0.0	50.	0.9	0.0	
85104	120.	0.8	0.0	50.	1.0	0.0	
85105	120.	0.9	0.0	50.	1.0	0.0	
85106	100.	1.0	0.0	20.	1.1	0.0	
85107	100.	1.0	0.0	20.	1.1	0.0	
85108	100.	1.1	0.0	20.	1.2	0.0	
85109	100.	1.1	0.0	20.	1.3	0.0	
85110	100.	1.2	0.0	20.	1.4	0.0	
85111	100.	1.3	0.0	20.	1.4	0.0	
85112	100.	1.3	0.0	20.	1.5	0.0	
85113	100.	1.4	0.0	20.	1.6	0.0	
85114	100.	1.5	0.0	20.	1.6	0.0	
85115	100.	1.6	0.0	20.	1.7	0.0	
85116	100.	1.6	0.0	20.	1.7	0.0	
85117	100.	1.7	0.0	20.	1.7	0.0	
85118	100.	1.8	0.0	20.	1.8	0.0	
85119	100.	1.9	0.0	20.	1.9	0.0	
85120	100.	2.0	0.0	20.	2.0	0.0	

LEGEND

- 1 Date (Year-Julian Day)
- East Fork & Glacier Fork
- 2 Inflow (1000 cubic meters/day)
- 3 Inflow Temperature (Degrees Celsius)
- 4 Inflow Salinity (parts per thousand)
- Minor Tributaries
- 5 Inflow (1000 cubic meters/day)
- 6 Inflow Temperature (Degrees Celsius)
- 7 Inflow Salinity (parts per thousand)

MAY

85121	100.	2.0	0.0	20.	2.0	0.0	
85122	100.	2.0	0.0	20.	2.0	0.0	
85123	100.	2.0	0.0	20.	2.1	0.0	
85124	100.	2.0	0.0	20.	2.2	0.0	
85125	175.	2.1	0.0	50.	2.5	0.0	
85126	100.	2.2	0.0	50.	2.4	0.0	
85127	150.	2.3	0.0	50.	2.5	0.0	
85128	145.	2.2	0.0	50.	2.6	0.0	
85129	200.	2.3	0.0	50.	2.7	0.0	
85130	200.	2.4	0.0	50.	2.8	0.0	
85131	212.	2.4	0.0	50.	2.9	0.0	
85132	210.	2.7	0.0	50.	3.0	0.0	
85133	224.	2.6	0.0	50.	3.1	0.0	
85134	230.	2.6	0.0	50.	3.2	0.0	
85135	241.	2.7	0.0	50.	3.3	0.0	
85136	255.	3.0	0.0	50.	3.4	0.0	
85137	257.	2.9	0.0	50.	3.5	0.0	
85138	263.	3.0	0.0	50.	3.5	0.0	
85139	273.	3.0	0.0	50.	3.7	0.0	
85140	255.	3.1	0.0	50.	3.7	0.0	
85141	266.	3.3	0.0	50.	3.7	0.0	
85142	270.	3.2	0.0	50.	4.0	0.0	
85143	285.	3.2	0.0	50.	4.1	0.0	
85144	100.	3.4	0.0	50.	4.2	0.0	
85145	100.	3.3	0.0	50.	4.2	0.0	
85146	100.	3.3	0.0	50.	4.4	0.0	
85147	100.	3.3	0.0	50.	4.5	0.0	
85148	750.	3.5	0.0	50.	4.6	0.0	
85149	770.	4.0	0.0	50.	4.7	0.0	
85150	1000.	3.7	0.0	50.	4.8	0.0	
85151	1500.	4.0	0.0	50.	4.9	0.0	

APPENDIX N.4. INFLOW DATA, cont.

	1	2	3	4	5	6	7
05152	975.	5.2	9.0	80.	5.0	0.0	
05153	776.	5.1	9.0	80.	5.2	0.0	
05154	675.	5.1	9.0	80.	5.7	0.0	
05155	808.	5.1	9.0	80.	5.9	0.0	
05156	527.	5.1	9.0	80.	6.1	0.0	
05157	607.	5.1	9.0	80.	6.5	0.0	
05158	650.	5.0	9.0	80.	6.6	0.0	
05159	609.	5.0	9.0	80.	6.8	0.0	
05160	678.	5.0	9.0	80.	7.0	0.0	
05161	611.	5.0	9.0	80.	7.2	0.0	
05162	645.	5.0	9.0	80.	7.4	0.0	
05163	657.	5.7	9.0	80.	7.6	0.0	
05164	645.	5.0	9.0	80.	7.8	0.0	
05165	707.	5.0	9.0	80.	8.0	0.0	
05166	717.	5.5	9.0	80.	8.2	0.0	
05167	759.	5.9	9.0	80.	8.4	0.0	
05168	892.	5.7	9.0	175.	8.6	0.0	
05169	1009.	5.8	9.0	175.	8.7	0.0	
05170	1204.	5.7	9.0	175.	9.0	0.0	
05171	1521.	5.5	9.0	175.	9.0	0.0	
05172	1965.	5.9	9.0	175.	9.0	0.0	
05173	1942.	5.0	9.0	175.	9.0	0.0	
05174	1904.	5.7	9.0	175.	9.0	0.0	
05175	1910.	5.5	9.0	175.	9.0	0.0	
05176	1927.	5.5	9.0	175.	9.0	0.0	
05177	1955.	5.2	9.0	175.	9.0	0.0	
05178	1947.	5.4	9.0	175.	9.0	0.0	
05179	1970.	5.1	9.0	175.	9.0	0.0	
05180	1895.	5.1	9.0	175.	9.0	0.0	
05181	1905.	5.0	9.0	225.	9.0	0.0	

JUNE

LEGEND

- 1 Date (Year-Julian Day)
- East Fork & Glacier Fork
- 2 Inflow (1000 cubic meters/day)
- 3 Inflow Temperature (Degrees Celsius)
- 4 Inflow Salinity (parts per thousand)
- Minor Tributaries
- 5 Inflow (1000 cubic meters/day)
- 6 Inflow Temperature (Degrees Celsius)
- 7 Inflow Salinity (parts per thousand)

05182	2041.	3.3	9.0	225.	9.0	0.0	
05183	2050.	5.0	9.0	225.	9.0	0.0	
05184	2104.	5.5	9.0	225.	9.0	0.0	
05185	2290.	5.2	9.0	225.	9.0	0.0	
05186	2103.	5.0	9.0	225.	9.0	0.0	
05187	2224.	5.0	9.0	225.	9.0	0.0	
05188	2500.	5.5	9.0	225.	9.0	0.0	
05189	2279.	5.0	9.0	225.	9.0	0.0	
05190	2067.	5.0	9.0	225.	9.0	0.0	
05191	1991.	5.2	9.0	225.	9.0	0.0	
05192	1723.	5.2	9.0	225.	9.0	0.0	
05193	1595.	5.0	9.0	225.	9.0	0.0	
05194	1700.	5.0	9.0	225.	9.0	0.0	
05195	1590.	5.2	9.0	225.	9.0	0.0	
05196	2057.	5.0	9.0	225.	9.0	0.0	
05197	2230.	5.0	9.0	225.	9.0	0.0	
05198	2210.	5.2	9.0	225.	9.0	0.0	
05199	2227.	5.1	9.0	225.	9.0	0.0	
05200	2074.	5.2	9.0	225.	9.0	0.0	
05201	2120.	5.0	9.0	225.	9.0	0.0	
05202	2035.	5.1	9.0	225.	9.0	0.0	
05203	2103.	5.0	9.0	225.	9.0	0.0	
05204	2294.	5.2	9.0	225.	9.0	0.0	
05205	2324.	5.1	9.0	225.	9.0	0.0	
05206	2215.	5.0	9.0	225.	9.0	0.0	
05207	2020.	5.1	9.0	225.	9.0	0.0	
05208	2015.	5.5	9.0	225.	9.0	0.0	
05209	2215.	5.2	9.0	225.	9.0	0.0	
05210	2257.	5.0	9.0	225.	9.0	0.0	
05211	2152.	5.1	9.0	225.	9.0	0.0	
05212	2205.	5.1	9.0	225.	9.0	0.0	

JULY

APPENDIX N.4. INFLOW DATA, cont.

	1	2	3	4	5	6	7
AUGUST							
83213	2290.	5.0	0.0	150.	7.5	0.0	
83214	2370.	5.5	0.0	150.	7.2	0.0	
83215	2610.	5.1	0.0	150.	7.9	0.0	
83216	2840.	2.9	0.0	150.	7.2	0.0	
83217	3070.	3.4	0.0	150.	7.2	0.0	
83218	2850.	3.5	0.0	150.	7.2	0.0	
83219	2890.	3.3	0.0	150.	7.2	0.0	
83220	5110.	3.4	0.0	150.	7.2	0.0	
83221	4060.	3.1	0.0	150.	7.2	0.0	
83222	5344.	3.0	0.0	150.	7.2	0.0	
83223	2705.	3.1	0.0	150.	7.2	0.0	
83224	2402.	2.7	0.0	150.	7.2	0.0	
83225	2150.	3.1	0.0	150.	7.2	0.0	
83226	1720.	3.2	0.0	150.	7.2	0.0	
83227	1452.	3.2	0.0	150.	7.2	0.0	
83228	1248.	3.2	0.0	150.	7.2	0.0	
83229	1157.	3.0	0.0	150.	7.2	0.0	
83230	1259.	3.2	0.0	150.	7.2	0.0	
83231	1251.	3.2	0.0	150.	7.2	0.0	
83232	1306.	3.2	0.0	150.	7.2	0.0	
83233	1418.	3.2	0.0	150.	7.2	0.0	
83234	1353.	3.2	0.0	150.	7.2	0.0	
83235	1452.	3.1	0.0	150.	7.2	0.0	
83236	1382.	3.1	0.0	150.	7.2	0.0	
83237	1344.	3.2	0.0	150.	7.2	0.0	
83238	1217.	3.5	0.0	150.	7.2	0.0	
83239	1287.	3.2	0.0	150.	7.2	0.0	
83240	1336.	3.5	0.0	150.	7.2	0.0	
83241	1384.	3.5	0.0	150.	7.2	0.0	
83242	1440.	3.5	0.0	150.	7.2	0.0	
83243	1320.	3.2	0.0	150.	7.2	0.0	

LEGEND

- 1** Date (Year-Julian Day)
- East Fork & Glacier Fork
- 2** Inflow (1000 cubic meters/day)
- 3** Inflow Temperature (Degrees Celsius)
- 4** Inflow Salinity (parts per thousand)
- Minor Tributaries
- 5** Inflow (1000 cubic meters/day)
- 6** Inflow Temperature (Degrees Celsius)
- 7** Inflow Salinity (parts per thousand)

SEPTEMBER							
83244	1200.	3.5	0.0	150.	7.0	0.0	
83245	1200.	3.5	0.0	150.	6.3	0.0	
83246	1100.	3.2	0.0	150.	6.5	0.0	
83247	470.	3.2	0.0	150.	6.4	0.0	
83248	850.	3.5	0.0	150.	6.2	0.0	
83249	730.	3.5	0.0	150.	5.7	0.0	
83250	580.	3.4	0.0	150.	5.5	0.0	
83251	540.	3.5	0.0	150.	5.5	0.0	
83252	567.	3.4	0.0	150.	5.5	0.0	
83253	548.	3.4	0.0	150.	5.5	0.0	
83254	518.	3.4	0.0	150.	5.3	0.0	
83255	471.	3.5	0.0	150.	5.5	0.0	
83256	424.	3.4	0.0	150.	5.5	0.0	
83257	440.	3.6	0.0	150.	5.5	0.0	
83258	375.	2.9	0.0	150.	5.5	0.0	
83259	339.	3.0	0.0	150.	5.5	0.0	
83260	318.	3.0	0.0	150.	5.2	0.0	
83261	297.	3.2	0.0	150.	5.5	0.0	
83262	310.	3.0	0.0	150.	5.5	0.0	
83263	553.	3.0	0.0	150.	5.5	0.0	
83264	737.	2.3	0.0	150.	3.2	0.0	
83265	720.	2.4	0.0	150.	5.5	0.0	
83266	563.	2.4	0.0	150.	3.5	0.0	
83267	503.	2.9	0.0	140.	5.5	0.0	
83268	451.	2.9	0.0	150.	5.5	0.0	
83269	412.	2.4	0.0	120.	5.7	0.0	
83270	385.	2.9	0.0	110.	5.5	0.0	
83271	362.	3.0	0.0	100.	5.5	0.0	
83272	580.	3.1	0.0	50.	5.2	0.0	
83273	1273.	2.8	0.0	50.	5.5	0.0	

APPENDIX N.4. INFLOW DATA, cont.

	1	2	3	4	5	6	7
83274	704	2.1	0.0	50	5.1	0.0	
83275	610	2.1	0.0	50	4.7	0.0	
83276	518	2.1	0.0	50	4.3	0.0	
83277	441	2.1	0.0	50	3.9	0.0	
83278	400	2.2	0.0	50	3.9	0.0	
83279	372	2.2	0.0	50	3.0	0.0	
83280	370	2.2	0.0	50	2.5	0.0	
83281	360	2.2	0.0	50	2.5	0.0	
83282	360	2.2	0.0	50	2.4	0.0	
83283	900	2.1	0.0	50	2.3	0.0	
83284	550	2.1	0.0	50	2.2	0.0	
83285	520	1.1	0.0	50	2.1	0.0	
83286	480	1.0	0.0	50	2.0	0.0	
83287	440	1.1	0.0	50	1.5	0.0	
83288	410	1.1	0.0	50	1.0	0.0	
83289	360	1.1	0.0	50	0.7	0.0	
83290	340	1.2	0.0	50	0.5	0.0	
83291	330	1.2	0.0	50	0.5	0.0	
83292	330	1.2	0.0	50	0.5	0.0	
83293	320	1.1	0.0	50	0.5	0.0	
83294	320	1.1	0.0	50	0.5	0.0	
83295	300	1.1	0.0	50	0.5	0.0	
83296	300	0.6	0.0	50	0.5	0.0	
83297	290	0.6	0.0	50	0.5	0.0	
83298	240	0.6	0.0	50	0.5	0.0	
83299	240	0.5	0.0	50	0.5	0.0	
83300	280	0.5	0.0	50	0.5	0.0	
83301	270	0.5	0.0	50	0.5	0.0	
83302	270	0.5	0.0	50	0.3	0.0	
83303	260	0.5	0.0	50	0.5	0.0	
83304	260	0.5	0.0	50	0.5	0.0	

OCTOBER

LEGEND

- 1 Date (Year-Julian Day)
- East Fork & Glacier Fork
- 2 Inflow (1000 cubic meters/day)
- 3 Inflow Temperature (Degrees Celsius)
- 4 Inflow Salinity (parts per thousand)
- Minor Tributaries
- 5 Inflow (1000 cubic meters/day)
- 6 Inflow Temperature (Degrees Celsius)
- 7 Inflow Salinity (parts per thousand)

83305	250	0.5	0.0	50	0.5	0.0	
83306	250	0.5	0.0	50	0.5	0.0	
83307	250	0.5	0.0	50	0.5	0.0	
83308	250	0.5	0.0	50	0.5	0.0	
83309	250	0.5	0.0	50	0.5	0.0	
83310	250	0.5	0.0	50	0.5	0.0	
83311	250	0.5	0.0	50	0.5	0.0	
83312	230	0.6	0.0	50	0.5	0.0	
83313	230	0.6	0.0	50	0.5	0.0	
83314	230	0.6	0.0	50	0.5	0.0	
83315	230	0.6	0.0	50	0.5	0.0	
83316	230	0.6	0.0	50	0.5	0.0	
83317	230	0.6	0.0	50	0.5	0.0	
83318	230	0.6	0.0	50	0.5	0.0	
83319	190	0.7	0.0	50	0.5	0.0	
83320	180	0.7	0.0	20	0.5	0.0	
83321	180	0.7	0.0	20	0.5	0.0	
83322	180	0.7	0.0	20	0.5	0.0	
83323	180	0.7	0.0	20	0.5	0.0	
83324	180	0.7	0.0	20	0.5	0.0	
83325	150	0.8	0.0	20	0.5	0.0	
83326	150	0.8	0.0	20	0.5	0.0	
83327	150	0.8	0.0	20	0.5	0.0	
83328	150	0.8	0.0	20	0.5	0.0	
83329	150	0.8	0.0	20	0.5	0.0	
83330	150	0.8	0.0	20	0.5	0.0	
83331	150	0.8	0.0	20	0.5	0.0	
83332	150	0.8	0.0	20	0.5	0.0	
83333	140	0.9	0.0	20	0.5	0.0	
83334	140	0.9	0.0	20	0.5	0.0	

NOVEMBER

APPENDIX N.4. INFLOW DATA, cont.

	1	2	3	4	5	6	7	
DECEMBER	83335	140.	0.4	0.0	20.	0.5	0.0	
	83336	140.	0.4	0.0	20.	0.5	0.0	
	83337	140.	0.4	0.0	20.	0.5	0.0	
	83338	140.	0.4	0.0	20.	0.5	0.0	
	83339	140.	0.4	0.0	20.	0.5	0.0	
	83340	140.	0.4	0.0	20.	0.5	0.0	
	83341	140.	0.4	0.0	20.	0.5	0.0	
	83342	140.	0.4	0.0	20.	0.5	0.0	
	83343	125.	0.4	0.0	20.	0.5	0.0	
	83344	125.	0.4	0.0	20.	0.5	0.0	
	83345	125.	0.4	0.0	20.	0.5	0.0	
	83346	125.	0.4	0.0	20.	0.5	0.0	
	83347	125.	0.4	0.0	20.	0.5	0.0	
	83348	125.	0.4	0.0	20.	0.5	0.0	
	83349	125.	0.4	0.0	20.	0.5	0.0	
	83350	125.	0.1	0.0	10.	0.1	0.0	
	83351	125.	0.1	0.0	10.	0.1	0.0	
	83352	120.	0.1	0.0	10.	0.1	0.0	
	83353	120.	0.1	0.0	10.	0.1	0.0	
	83354	120.	0.1	0.0	10.	0.1	0.0	
	83355	120.	0.1	0.0	10.	0.1	0.0	
	83356	120.	0.1	0.0	10.	0.1	0.0	
	83357	120.	0.1	0.0	10.	0.1	0.0	
	83358	100.	0.1	0.0	10.	0.1	0.0	
	83359	100.	0.1	0.0	10.	0.1	0.0	
	83360	95.	0.1	0.0	10.	0.1	0.0	
	83361	95.	0.1	0.0	10.	0.1	0.0	
	83362	95.	0.1	0.0	10.	0.1	0.0	
	83363	95.	0.1	0.0	10.	0.1	0.0	
	83364	95.	0.1	0.0	10.	0.1	0.0	
	83365	95.	0.1	0.0	10.	0.1	0.0	
	JANUARY	84001	85.	0.1	0.0	0.	0.0	0.0
		84002	85.	0.1	0.0	0.	0.0	0.0
84003		85.	0.1	0.0	0.	0.0	0.0	
84004		85.	0.1	0.0	0.	0.0	0.0	
84005		85.	0.1	0.0	0.	0.0	0.0	
84006		85.	0.1	0.0	0.	0.0	0.0	
84007		85.	0.1	0.0	0.	0.0	0.0	
84008		85.	0.1	0.0	0.	0.0	0.0	
84009		85.	0.1	0.0	0.	0.0	0.0	
84010		85.	0.1	0.0	0.	0.0	0.0	
84011		85.	0.1	0.0	0.	0.0	0.0	
84012		85.	0.1	0.0	0.	0.0	0.0	
84013		85.	0.1	0.0	0.	0.0	0.0	
84014		85.	0.1	0.0	0.	0.0	0.0	
84015		85.	0.1	0.0	0.	0.0	0.0	
84016		75.	0.1	0.0	0.	0.0	0.0	
84017		75.	0.1	0.0	0.	0.0	0.0	
84018		75.	0.1	0.0	0.	0.0	0.0	
84019		75.	0.1	0.0	0.	0.0	0.0	
84020		75.	0.1	0.0	0.	0.0	0.0	
84021		75.	0.1	0.0	0.	0.0	0.0	
84022	75.	0.1	0.0	0.	0.0	0.0		
84023	75.	0.1	0.0	0.	0.0	0.0		
84024	75.	0.1	0.0	0.	0.0	0.0		
84025	75.	0.1	0.0	0.	0.0	0.0		
84026	75.	0.1	0.0	0.	0.0	0.0		
84027	75.	0.1	0.0	0.	0.0	0.0		
84028	75.	0.1	0.0	0.	0.0	0.0		
84029	75.	0.1	0.0	0.	0.0	0.0		
84030	75.	0.1	0.0	0.	0.0	0.0		
84031	75.	0.1	0.0	0.	0.0	0.0		

LEGEND

- 1** Date
(Year-Julian Day)
- East Fork & Glacier Fork
- 2** Inflow
(1000 cubic meters/day)
- 3** Inflow Temperature
(Degrees Celsius)
- 4** Inflow Salinity
(parts per thousand)
- Minor Tributaries
- 5** Inflow
(1000 cubic meters/day)
- 6** Inflow Temperature
(Degrees Celsius)
- 7** Inflow Salinity
(parts per thousand)

APPENDIX N.4. INFLOW DATA, cont.

	1	2	3	4	5	6	7
84032	75.	0.1	0.0	0.	0.0	0.0	0.0
84033	75.	0.1	0.0	0.	0.0	0.0	0.0
84034	75.	0.1	0.0	0.	0.0	0.0	0.0
84035	75.	0.1	0.0	0.	0.0	0.0	0.0
84036	75.	0.1	0.0	0.	0.0	0.0	0.0
84037	75.	0.1	0.0	0.	0.0	0.0	0.0
84038	75.	0.1	0.0	0.	0.0	0.0	0.0
84039	75.	0.1	0.0	0.	0.0	0.0	0.0
84040	75.	0.1	0.0	0.	0.0	0.0	0.0
84041	75.	0.1	0.0	0.	0.0	0.0	0.0
84042	75.	0.1	0.0	0.	0.0	0.0	0.0
84043	75.	0.1	0.0	0.	0.0	0.0	0.0
84044	75.	0.1	0.0	0.	0.0	0.0	0.0
84045	75.	0.1	0.0	0.	0.0	0.0	0.0
84046	75.	0.1	0.0	0.	0.0	0.0	0.0
84047	75.	0.1	0.0	0.	0.0	0.0	0.0
84048	75.	0.1	0.0	0.	0.0	0.0	0.0
84049	75.	0.1	0.0	0.	0.0	0.0	0.0
84050	75.	0.1	0.0	0.	0.0	0.0	0.0
84051	75.	0.1	0.0	0.	0.0	0.0	0.0
84052	75.	0.1	0.0	0.	0.0	0.0	0.0
84053	75.	0.1	0.0	0.	0.0	0.0	0.0
84054	75.	0.1	0.0	0.	0.0	0.0	0.0
84055	75.	0.1	0.0	0.	0.0	0.0	0.0
84056	75.	0.1	0.0	0.	0.0	0.0	0.0
84057	75.	0.1	0.0	0.	0.0	0.0	0.0
84058	75.	0.1	0.0	0.	0.0	0.0	0.0
84059	75.	0.1	0.0	0.	0.0	0.0	0.0
84060	75.	0.1	0.0	0.	0.0	0.0	0.0

FEBRUARY

MARCH

84061	50.	0.1	0.0	0.	0.0	0.0	0.0
84062	50.	0.1	0.0	0.	0.0	0.0	0.0
84063	50.	0.1	0.0	0.	0.0	0.0	0.0
84064	50.	0.1	0.0	0.	0.0	0.0	0.0
84065	50.	0.1	0.0	0.	0.0	0.0	0.0
84066	50.	0.1	0.0	0.	0.0	0.0	0.0
84067	50.	0.1	0.0	0.	0.0	0.0	0.0
84068	50.	0.1	0.0	0.	0.0	0.0	0.0
84069	50.	0.1	0.0	0.	0.0	0.0	0.0
84070	50.	0.1	0.0	0.	0.0	0.0	0.0
84071	50.	0.1	0.0	0.	0.0	0.0	0.0
84072	50.	0.1	0.0	0.	0.0	0.0	0.0
84073	50.	0.1	0.0	0.	0.0	0.0	0.0
84074	50.	0.1	0.0	0.	0.0	0.0	0.0
84075	50.	0.1	0.0	0.	0.0	0.0	0.0
84076	50.	0.1	0.0	0.	0.0	0.0	0.0
84077	50.	0.1	0.0	0.	0.0	0.0	0.0
84078	50.	0.1	0.0	0.	0.0	0.0	0.0
84079	50.	0.1	0.0	0.	0.0	0.0	0.0
84080	50.	0.1	0.0	0.	0.0	0.0	0.0
84081	50.	0.1	0.0	0.	0.0	0.0	0.0
84082	50.	0.1	0.0	0.	0.0	0.0	0.0
84083	50.	0.1	0.0	0.	0.0	0.0	0.0
84084	50.	0.1	0.0	0.	0.0	0.0	0.0
84085	50.	0.1	0.0	0.	0.0	0.0	0.0
84086	50.	0.1	0.0	0.	0.0	0.0	0.0
84087	50.	0.1	0.0	0.	0.0	0.0	0.0
84088	50.	0.1	0.0	0.	0.0	0.0	0.0
84089	50.	0.1	0.0	0.	0.0	0.0	0.0
84090	50.	0.1	0.0	0.	0.0	0.0	0.0
84091	50.	0.1	0.0	0.	0.0	0.0	0.0

LEGEND

- 1 Date
(Year-Julian Day)
- 2 Inflow
(1000 cubic meters/day)
- 3 Inflow Temperature
(Degrees Celsius)
- 4 Inflow Salinity
(parts per thousand)
- 5 Inflow
(1000 cubic meters/day)
- 6 Inflow Temperature
(Degrees Celsius)
- 7 Inflow Salinity
(parts per thousand)

Minor Tributaries

Estimated by Harza

APPENDIX N.4. INFLOW DATA, cont.

	1	2	3	4	5	6	7
84092	50.	0.5	0.0	0.	0.0	0.0	0.0
84093	50.	0.5	0.0	0.	0.0	0.0	0.0
84094	50.	0.5	0.0	0.	0.0	0.0	0.0
84095	50.	0.5	0.0	0.	0.0	0.0	0.0
84096	50.	0.5	0.0	0.	0.0	0.0	0.0
84097	50.	1.0	0.0	0.	0.0	0.0	0.0
84098	50.	1.0	0.0	0.	0.0	0.0	0.0
84099	50.	1.0	0.0	0.	0.0	0.0	0.0
84100	50.	1.0	0.0	0.	0.0	0.0	0.0
84101	50.	1.0	0.0	0.	0.0	0.0	0.0
84102	50.	1.0	0.0	0.	0.0	0.0	0.0
84103	50.	1.0	0.0	0.	0.0	0.0	0.0
84104	50.	1.0	0.0	0.	0.0	0.0	0.0
84105	50.	1.0	0.0	0.	0.0	0.0	0.0
84106	50.	1.5	0.0	0.	0.0	0.0	0.0
84107	70.	1.5	0.0	0.	0.0	0.0	0.0
84108	70.	1.5	0.0	0.	0.0	0.0	0.0
84109	70.	1.5	0.0	0.	0.0	0.0	0.0
84110	70.	1.5	0.0	0.	0.0	0.0	0.0
84111	70.	2.0	0.0	0.	0.0	0.0	0.0
84112	70.	2.0	0.0	10.	1.0	0.0	0.0
84113	70.	2.0	0.0	10.	1.0	0.0	0.0
84114	70.	2.0	0.0	10.	1.0	0.0	0.0
84115	70.	2.0	0.0	10.	1.0	0.0	0.0
84116	70.	2.5	0.0	10.	1.0	0.0	0.0
84117	70.	2.5	0.0	10.	1.0	0.0	0.0
84118	70.	2.5	0.0	10.	1.0	0.0	0.0
84119	70.	2.5	0.0	10.	1.0	0.0	0.0
84120	70.	2.5	0.0	10.	1.0	0.0	0.0
84121	70.	2.5	0.0	10.	1.0	0.0	0.0

APRIL

LEGEND

- 1 Date
(Year-Julian Day)
- East Fork & Glacier Fork
- 2 Inflow
(1000 cubic meters/day)
- 3 Inflow Temperature
(Degrees Celsius)
- 4 Inflow Salinity
(parts per thousand)
- Minor Tributaries
- 5 Inflow
(1000 cubic meters/day)
- 6 Inflow Temperature
(Degrees Celsius)
- 7 Inflow Salinity
(parts per thousand)

84122	85.	2.9	0.0	20.	2.0	0.0	0.0
84123	85.	2.9	0.0	20.	2.0	0.0	0.0
84124	85.	2.9	0.0	20.	2.0	0.0	0.0
84125	85.	2.9	0.0	20.	2.0	0.0	0.0
84126	85.	3.4	0.0	20.	2.0	0.0	0.0
84127	90.	3.3	0.0	20.	2.0	0.0	0.0
84128	100.	3.4	0.0	20.	2.0	0.0	0.0
84129	100.	3.4	0.0	20.	2.0	0.0	0.0
84130	100.	3.4	0.0	20.	2.0	0.0	0.0
84131	120.	3.9	0.0	20.	2.0	0.0	0.0
84132	120.	3.9	0.0	30.	3.5	0.0	0.0
84133	150.	3.8	0.0	30.	3.5	0.0	0.0
84134	150.	3.8	0.0	30.	3.5	0.0	0.0
84135	150.	4.3	0.0	30.	3.5	0.0	0.0
84136	150.	4.3	0.0	30.	3.5	0.0	0.0
84137	185.	4.2	0.0	30.	3.5	0.0	0.0
84138	185.	4.2	0.0	30.	3.5	0.0	0.0
84139	238.	4.5	0.0	30.	3.5	0.0	0.0
84140	250.	4.7	0.0	30.	3.5	0.0	0.0
84141	274.	4.6	0.0	30.	3.5	0.0	0.0
84142	241.	4.4	0.0	30.	4.0	0.0	0.0
84143	270.	4.5	0.0	30.	4.0	0.0	0.0
84144	250.	4.7	0.0	30.	4.0	0.0	0.0
84145	277.	5.2	0.0	30.	4.0	0.0	0.0
84146	270.	4.5	0.0	30.	4.0	0.0	0.0
84147	264.	4.7	0.0	30.	4.0	0.0	0.0
84148	255.	5.3	0.0	30.	4.0	0.0	0.0
84149	252.	5.4	0.0	30.	4.0	0.0	0.0
84150	259.	5.0	0.0	30.	4.0	0.0	0.0
84151	257.	4.7	0.0	30.	4.0	0.0	0.0
84152	255.	5.1	0.0	30.	4.0	0.0	0.0

MAY

APPENDIX N.4. INFLOW DATA, cont.

	1	2	3	4	5	6	7
84153	255.	5.7	0.0	90.	4.5	0.0	
84154	308.	5.6	0.0	90.	4.5	0.0	
84155	384.	5.4	0.0	90.	4.5	0.0	
84156	458.	5.2	0.0	90.	4.5	0.0	
84157	538.	5.1	0.0	90.	4.5	0.0	
84158	614.	5.0	0.0	90.	4.5	0.0	
84159	648.	4.9	0.0	90.	4.5	0.0	
84160	650.	4.7	0.0	90.	4.5	0.0	
84161	685.	4.8	0.0	90.	4.5	0.0	
84162	695.	4.8	0.0	150.	5.0	0.0	
84163	700.	4.4	0.0	150.	5.0	0.0	
84164	747.	5.1	0.0	150.	5.0	0.0	
84165	825.	5.1	0.0	150.	5.0	0.0	
84166	766.	5.1	0.0	150.	5.0	0.0	
84167	710.	5.2	0.0	150.	5.0	0.0	
84168	707.	5.5	0.0	150.	5.0	0.0	
84169	761.	4.8	0.0	150.	5.0	0.0	
84170	900.	4.5	0.0	150.	5.0	0.0	
84171	1114.	4.6	0.0	150.	5.0	0.0	
84172	1423.	4.2	0.0	150.	5.0	0.0	
84173	1450.	4.5	0.0	200.	5.5	0.0	
84174	1370.	4.2	0.0	200.	5.5	0.0	
84175	1423.	3.6	0.0	200.	5.5	0.0	
84176	1526.	5.1	0.0	200.	5.5	0.0	
84177	1661.	5.2	0.0	200.	5.5	0.0	
84178	1463.	5.5	0.0	200.	5.5	0.0	
84179	1448.	2.9	0.0	200.	5.5	0.0	
84180	1363.	5.8	0.0	200.	5.5	0.0	
84181	1629.	4.1	0.0	200.	5.5	0.0	
84182	1568.	5.9	0.0	200.	5.5	0.0	

JUNE

LEGEND

- 1 Date (Year-Julian Day)
- 2 East Fork & Glacier Fork Inflow (1000 cubic meters/day)
- 3 Inflow Temperature (Degrees Celsius)
- 4 Inflow Salinity (parts per thousand)
- Minor Tributaries
- 5 Inflow (1000 cubic meters/day)
- 6 Inflow Temperature (Degrees Celsius)
- 7 Inflow Salinity (parts per thousand)

84183	1483.	5.4	0.0	220.	6.0	0.0	
84184	1409.	5.3	0.0	220.	6.0	0.0	
84185	1429.	2.3	0.0	220.	6.0	0.0	
84186	1791.	5.5	0.0	220.	6.0	0.0	
84187	2340.	5.9	0.0	220.	6.0	0.0	
84188	2730.	4.1	0.0	220.	6.5	0.0	
84189	2890.	4.0	0.0	220.	6.5	0.0	
84190	2690.	5.6	0.0	220.	6.5	0.0	
84191	2570.	3.3	0.0	220.	6.5	0.0	
84192	2610.	2.9	0.0	220.	6.5	0.0	
84193	2430.	2.8	0.0	200.	6.5	0.0	
84194	2157.	2.9	0.0	200.	6.5	0.0	
84195	2048.	2.6	0.0	200.	6.5	0.0	
84196	1932.	2.7	0.0	200.	6.5	0.0	
84197	1870.	2.7	0.0	200.	6.5	0.0	
84198	1902.	2.7	0.0	200.	7.0	0.0	
84199	1805.	2.7	0.0	200.	7.0	0.0	
84200	1749.	2.8	0.0	200.	7.0	0.0	
84201	1756.	2.8	0.0	200.	7.0	0.0	
84202	1794.	2.7	0.0	150.	7.0	0.0	
84203	2150.	5.9	0.0	150.	7.0	0.0	
84204	2410.	4.0	0.0	150.	7.0	0.0	
84205	2520.	3.7	0.0	150.	7.0	0.0	
84206	2540.	5.7	0.0	150.	7.5	0.0	
84207	2410.	3.7	0.0	150.	7.5	0.0	
84208	2227.	5.5	0.0	150.	7.5	0.0	
84209	2227.	5.5	0.0	150.	7.5	0.0	
84210	2244.	5.2	0.0	150.	7.5	0.0	
84211	2264.	5.2	0.0	150.	7.5	0.0	
84212	2404.	5.3	0.0	150.	7.5	0.0	
84213	2329.	5.4	0.0	150.	7.5	0.0	

JULY

APPENDIX N.4. INFLOW DATA, cont.

	1	2	3	4	5	6	7
AUGUST							
84214	2274.	5.2	0.0	157.	3.0	0.0	
84215	2540.	5.2	0.0	207.	3.0	0.0	
84216	2940.	5.2	0.0	207.	3.0	0.0	
84217	3140.	5.5	0.0	207.	3.0	0.0	
84218	3450.	5.5	0.0	407.	3.0	0.0	
84219	3370.	5.4	0.0	307.	3.0	0.0	
84220	3070.	5.2	0.0	307.	3.0	0.0	
84221	3230.	5.2	0.0	307.	3.0	0.0	
84222	3410.	5.3	0.0	257.	3.0	0.0	
84223	2710.	5.2	0.0	257.	3.0	0.0	
84224	2640.	5.5	0.0	257.	3.0	0.0	
84225	2520.	5.2	0.0	227.	3.0	0.0	
84226	2310.	5.2	0.0	227.	3.0	0.0	
84227	2253.	5.2	0.0	227.	3.0	0.0	
84228	2429.	5.2	0.0	227.	3.0	0.0	
84229	2570.	5.2	0.0	227.	3.0	0.0	
84230	2520.	5.2	0.0	227.	3.0	0.0	
84231	2810.	5.2	0.0	227.	3.0	0.0	
84232	4140.	5.4	0.0	227.	3.0	0.0	
84233	5170.	5.5	0.0	227.	3.0	0.0	
84234	2419.	5.2	0.0	227.	3.0	0.0	
84235	2779.	5.1	0.0	227.	3.0	0.0	
84236	2497.	5.1	0.0	227.	3.0	0.0	
84237	3000.	5.5	0.0	257.	3.0	0.0	
84238	3660.	5.2	0.0	257.	3.0	0.0	
84239	2439.	5.2	0.0	257.	3.0	0.0	
84240	1753.	5.1	0.0	207.	3.0	0.0	
84241	1468.	5.1	0.0	207.	3.0	0.0	
84242	1245.	5.2	0.0	207.	3.0	0.0	
84243	1034.	5.2	0.0	207.	3.0	0.0	
84244	404.	5.2	0.0	207.	3.0	0.0	

SEPTEMBER							
84245	818.	2.5	0.0	207.	3.0	0.0	
84246	756.	2.6	0.0	207.	3.0	0.0	
84247	747.	2.6	0.0	207.	3.0	0.0	
84248	727.	2.6	0.0	207.	3.0	0.0	
84249	645.	2.7	0.0	207.	3.0	0.0	
84250	678.	2.7	0.0	207.	3.0	0.0	
84251	640.	2.7	0.0	207.	3.0	0.0	
84252	689.	2.7	0.0	207.	3.0	0.0	
84253	519.	2.7	0.0	207.	3.0	0.0	
84254	619.	2.7	0.0	207.	3.0	0.0	
84255	607.	2.8	0.0	207.	3.0	0.0	
84256	617.	2.7	0.0	207.	3.0	0.0	
84257	654.	2.7	0.0	207.	3.0	0.0	
84258	944.	2.7	0.0	207.	3.0	0.0	
84259	966.	2.7	0.0	207.	3.0	0.0	
84260	630.	2.7	0.0	207.	3.0	0.0	
84261	619.	2.8	0.0	207.	3.0	0.0	
84262	590.	2.7	0.0	207.	3.0	0.0	
84263	575.	2.5	0.0	207.	3.0	0.0	
84264	457.	2.7	0.0	207.	3.0	0.0	
84265	418.	2.8	0.0	157.	4.0	0.0	
84266	404.	2.8	0.0	157.	4.0	0.0	
84267	377.	2.8	0.0	157.	4.0	0.0	
84268	360.	2.9	0.0	157.	4.0	0.0	
84269	372.	2.9	0.0	157.	4.0	0.0	
84270	347.	2.9	0.0	157.	4.0	0.0	
84271	340.	2.9	0.0	157.	4.0	0.0	
84272	345.	2.9	0.0	157.	4.0	0.0	
84273	2347.	5.1	0.0	407.	3.0	0.0	
84274	1414.	5.0	0.0	407.	3.0	0.0	

LEGEND

- 1** Date
(Year-Julian Day)
- 2** Inflow
(1000 cubic meters/day)
- 3** Inflow Temperature
(Degrees Celsius)
- 4** Inflow Salinity
(parts per thousand)
- 5** Inflow
(1000 cubic meters/day)
- 6** Inflow Temperature
(Degrees Celsius)
- 7** Inflow Salinity
(parts per thousand)

Minor Tributaries

APPENDIX N.4. INFLOW DATA, cont.

	1	2	3	4	5	6	7
84275	1150.	2.1	0.0	200.	5.0	0.0	
84276	800.	2.1	0.0	200.	5.0	0.0	
84277	625.	2.1	0.0	200.	5.0	0.0	
84278	545.	2.2	0.0	200.	5.0	0.0	
84279	502.	2.2	0.0	150.	4.0	0.0	
84280	449.	2.2	0.0	150.	4.0	0.0	
84281	448.	2.2	0.0	150.	4.0	0.0	
84282	442.	2.3	0.0	100.	5.0	0.0	
84283	364.	2.3	0.0	100.	5.0	0.0	
84284	340.	2.4	0.0	100.	5.0	0.0	
84285	318.	1.4	0.0	100.	5.0	0.0	
84286	301.	1.4	0.0	100.	5.0	0.0	
84287	272.	1.4	0.0	100.	5.0	0.0	
84288	264.	1.4	0.0	100.	5.0	0.0	
84289	249.	1.4	0.0	100.	2.0	0.0	
84290	243.	1.4	0.0	50.	2.0	0.0	
84291	230.	1.4	0.0	50.	2.0	0.0	
84292	225.	1.4	0.0	50.	2.0	0.0	
84293	220.	1.3	0.0	50.	2.0	0.0	
84294	216.	1.3	0.0	50.	2.0	0.0	
84295	213.	0.7	0.0	50.	1.0	0.0	
84296	211.	0.7	0.0	50.	1.0	0.0	
84297	250.	0.7	0.0	50.	1.0	0.0	
84298	222.	0.7	0.0	50.	0.0	0.0	
84299	205.	0.7	0.0	50.	0.0	0.0	
84300	196.	0.7	0.0	50.	0.0	0.0	
84301	191.	0.7	0.0	50.	0.0	0.0	
84302	176.	0.7	0.0	50.	0.0	0.0	
84303	166.	0.7	0.0	50.	0.0	0.0	
84304	153.	0.7	0.0	50.	0.0	0.0	
84305	152.	0.7	0.0	50.	0.0	0.0	

OCTOBER

LEGEND

- 1 Date
(Year-Julian Day)
- East Fork & Glacier Fork
- 2 Inflow
(1000 cubic meters/day)
- 3 Inflow Temperature
(Degrees Celsius)
- 4 Inflow Salinity
(parts per thousand)
- Minor Tributaries
- 5 Inflow
(1000 cubic meters/day)
- 6 Inflow Temperature
(Degrees Celsius)
- 7 Inflow Salinity
(parts per thousand)

APPENDIX N.5. OUTFLOW DATA

DATE	OUTFLOW 1000 m ³ /day	TEMP °C	LAKE LEVEL
			meters
82335	894.80	4.20	61.900
82336	961.80	4.00	61.900
82337	1020.30	4.00	61.800
82338	985.00	3.00	61.800
82339	826.80	3.00	61.800
82340	836.30	3.30	61.700
82341	841.30	3.30	61.700
82342	541.20	3.00	61.700
82343	350.80	3.00	61.600
82344	428.80	3.00	61.600
82345	324.20	3.00	61.500
82346	342.50	3.00	61.500
82347	404.80	3.40	61.500
82348	473.40	3.40	61.400
82349	412.80	3.00	61.400
82350	452.30	3.00	61.300
82351	407.20	3.30	61.300
82352	479.80	3.30	61.300
82353	495.70	3.30	61.200
82354	510.80	3.70	61.200
82355	520.70	4.00	61.100
82356	762.60	3.30	61.000
82357	956.80	3.00	61.000
82358	890.10	3.80	60.900
82359	879.80	3.80	60.900
82360	589.70	4.00	60.800
82361	632.00	4.00	60.800
82362	545.80	3.70	60.800
82363	423.10	4.00	60.700
82364	633.20	3.70	60.700
82365	807.90	3.70	60.700

DECEMBER

NOTE:

1. Outflow is flow through Eklutna power plant reported by the Alaska Power Administration.
2. Lake level is height of lake surface above the minimum lake bottom elevation. Lake level of 50.3 meters equals 825 feet above mean sea level.

83001	968.00	3.30	60.800
83002	1100.00	3.30	60.700
83003	1159.00	3.30	60.600
83004	1184.00	3.50	60.500
83005	1184.00	3.50	60.500
83006	1184.00	3.20	60.400
83007	1184.00	3.00	60.300
83008	1184.00	3.00	60.200
83009	1152.00	3.00	60.100
83010	1079.00	3.00	60.000
83011	1115.00	3.00	59.900
83012	1079.00	3.00	59.800
83013	1079.00	3.00	59.800
83014	1128.00	3.00	59.700
83015	1127.00	3.00	59.600
83016	933.00	3.00	59.500
83017	820.00	3.30	59.400
83018	537.30	3.00	59.300
83019	568.10	2.30	59.200
83020	594.40	3.00	59.200
83021	506.00	3.00	59.100
83022	488.30	3.00	59.000
83023	560.70	3.00	58.900
83024	647.30	3.30	58.800
83025	565.20	3.00	58.800
83026	571.10	3.30	58.700
83027	564.00	3.30	58.600
83028	578.30	3.30	58.600
83029	594.40	3.40	58.600
83030	594.40	3.00	58.600
83031	594.40	3.00	58.600

JANUARY

APPENDIX N.5. OUTFLOW DATA, cont.

DATE	OUTFLOW 1000 m ³ /day	TEMP. °C	LAKE LEVEL
			meters
83032	653.00	3.00	58.600
83033	578.30	3.30	58.600
83034	573.90	3.00	58.600
83035	562.20	3.00	58.600
83036	554.90	3.30	58.600
83037	554.90	3.30	58.700
83038	566.70	3.00	58.700
83039	566.70	3.00	58.700
83040	800.50	3.70	58.700
83041	776.80	3.30	58.700
83042	1071.40	3.00	58.700
83043	1188.80	3.20	58.600
83044	1188.80	3.00	58.600
83045	1011.20	3.00	58.500
83046	836.30	3.00	58.500
83047	836.30	3.00	58.400
83048	836.30	3.00	58.400
83049	836.30	3.00	58.400
83049	1036.10	3.00	58.500
83050	1150.70	3.00	58.200
83051	1137.30	3.00	58.200
83052	1003.40	3.00	58.100
83053	1004.40	3.00	58.000
83054	881.80	3.00	58.000
83055	887.70	3.00	57.900
83056	887.70	3.00	57.800
83057	1047.80	3.00	57.800
83058	1015.50	3.00	57.700
83059	995.30	3.00	57.600

FEBRUARY

NOTE:

1. Outflow is flow through Eklutna power plant reported by the Alaska Power Administration.
2. Lake level is height of lake surface above the minimum lake bottom elevation. Lake level of 50.3 meters equals 825 feet above mean sea level.

83060	1098.80	3.00	57.600
83061	1067.50	3.20	57.400
83062	1081.70	3.20	57.300
83063	679.80	3.00	57.200
83064	959.70	3.20	57.100
83065	900.10	3.00	57.100
83066	1063.40	3.00	57.000
83067	1085.90	3.00	56.900
83068	1093.50	3.00	56.900
83069	1093.50	3.00	56.800
83070	1125.40	3.00	56.700
83071	940.40	3.00	56.600
83072	864.10	3.00	56.500
83073	918.90	3.00	56.500
83074	1090.40	3.00	56.400
83075	1162.30	3.00	56.300
83076	1198.40	3.20	56.200
83077	1198.40	3.00	56.100
83078	1198.40	3.00	56.000
83079	1198.40	3.00	55.900
83080	1198.40	3.00	55.800
83081	1163.60	3.00	55.800
83082	1163.30	3.00	55.700
83083	1174.20	3.00	55.600
83084	1165.20	3.00	55.500
83085	1037.20	3.00	55.400
83086	1022.50	3.00	55.300
83087	1158.40	3.00	55.200
83088	1158.40	3.00	55.200
83089	1164.40	3.00	55.100
83090	1156.90	3.00	55.000

MARCH

APPENDIX N.5. OUTFLOW DATA, cont.

	DATE	OUTFLOW 1000 m ³ /day	TEMP. ° C	LAKE LEVEL meters
APRIL	83091	1156.00	3.00	54.913
	83092	1145.00	3.00	54.826
	83093	1068.00	3.00	54.746
	83094	1117.00	3.00	54.662
	83095	1151.00	3.00	54.575
	83096	1148.00	3.00	54.488
	83097	1159.00	3.50	54.401
	83098	1134.00	3.50	54.317
	83099	1145.00	3.50	54.232
	83100	1144.00	3.80	54.147
	83101	1171.00	4.00	54.061
	83102	1174.00	4.00	53.974
	83103	1164.00	4.00	53.889
	83104	1171.00	4.00	53.803
	83105	1172.00	4.00	53.716
	83106	1162.00	4.00	53.634
	83107	1208.00	4.00	53.546
	83108	1162.00	4.00	53.462
	83109	1168.00	4.00	53.378
	83110	1162.00	4.00	53.294
83111	1171.00	4.00	53.209	
83112	1163.00	4.00	53.125	
83113	1154.00	4.00	53.042	
83114	1090.00	4.20	52.955	
83115	879.00	4.60	52.866	
83116	604.00	4.00	52.870	
83117	604.00	4.60	52.834	
83118	604.00	4.60	52.798	
83119	810.00	4.60	52.746	
83120	1208.00	4.60	52.660	
MAY	83121	1208.00	5.00	52.575
	83122	745.00	5.00	52.526
	83123	604.00	4.50	52.493
	83124	604.00	4.00	52.461
	83125	607.00	4.50	52.429
	83126	873.00	5.00	52.375
	83127	1081.00	5.00	52.305
	83128	861.00	5.00	52.253
	83129	1031.00	5.10	52.183
	83130	1116.00	5.30	52.111
	83131	1111.00	5.40	52.040
	83132	1107.00	5.00	51.969
	83133	1132.00	5.00	51.898
	83134	1108.00	5.00	51.829
	83135	916.00	5.20	51.776
	83136	1097.00	5.80	51.709
	83137	1086.00	5.20	51.644
	83138	1088.00	5.20	51.584
	83139	1077.00	5.80	51.526
	83140	1091.00	5.60	51.469
83141	1058.00	5.80	51.420	
83142	1055.00	5.60	51.373	
83143	1109.00	5.00	51.318	
83144	1113.00	5.60	51.274	
83145	1123.00	5.60	51.225	
83146	1117.00	5.70	51.180	
83147	1109.00	6.50	51.165	
83148	1081.00	6.60	51.151	
83149	1023.00	6.60	51.155	
83150	1066.00	7.00	51.185	
83151	1114.00	7.50	51.222	

NOTE:

1. Outflow is flow through Eklutna power plant reported by the Alaska Power Administration.
2. Lake level is height of lake surface above the minimum lake bottom elevation. Lake level of 50.3 meters equals 825 feet above mean sea level.

APPENDIX N.5. OUTFLOW DATA, cont.

DATE	OUTFLOW 1000 m ³ /day	TEMP °C	LAKE LEVEL meters
83152	1100.00	7.50	51.222
83153	1106.00	6.80	51.215
83154	1094.00	5.80	51.201
83155	1028.00	5.70	51.182
83156	1068.00	6.00	51.157
83157	1106.00	6.20	51.136
83158	1102.00	6.80	51.118
83159	1108.00	6.80	51.103
83160	1111.00	7.20	51.086
83161	1109.00	7.20	51.066
83162	1055.00	8.20	51.053
83163	1082.00	8.40	51.036
83164	1097.00	9.50	51.019
83165	1082.00	9.80	51.008
83166	1090.00	9.80	50.998
83167	1085.00	8.80	50.990
83168	1119.00	8.00	50.983
83169	1149.00	8.70	50.989
83170	1117.00	10.60	51.016
83171	1176.00	9.70	51.059
83172	1117.00	9.50	51.103
83173	1113.00	9.50	51.153
83174	975.00	11.00	51.236
83175	1093.00	12.50	51.310
83176	1137.00	11.70	51.382
83177	1123.00	11.20	51.457
83178	1144.00	10.80	51.539
83179	1166.00	11.70	51.620
83180	1155.00	12.50	51.688
83181	1149.00	10.20	51.757

JUNE

NOTE:

1. Outflow is flow through Eklutna power plant reported by the Alaska Power Administration.
2. Lake level is height of lake surface above the minimum lake bottom elevation. Lake level of 50.3 meters equals 825 feet above mean sea level.

83182	1135.00	11.00	51.847
83183	1126.00	10.80	51.936
83184	1121.00	11.20	52.033
83185	1117.00	11.30	52.152
83186	1139.00	11.80	52.277
83187	1124.00	11.80	52.398
83188	1116.00	12.20	52.509
83189	1153.00	11.50	52.616
83190	1093.00	12.80	52.711
83191	1105.00	12.80	52.786
83192	1118.00	11.20	52.879
83193	1115.00	10.80	52.910
83194	1139.00	11.50	52.977
83195	1096.00	11.80	53.064
83196	859.00	12.00	53.176
83197	607.00	10.70	53.323
83198	607.00	10.70	53.468
83199	723.00	10.80	53.588
83200	807.00	11.30	53.705
83201	731.00	11.70	53.832
83202	709.00	11.30	53.958
83203	833.00	10.80	54.082
83204	794.00	10.70	54.260
83205	791.00	11.20	54.416
83206	709.00	10.30	54.553
83207	709.00	10.20	54.674
83208	741.00	11.00	54.791
83209	709.00	10.70	54.927
83210	709.00	11.00	55.072
83211	755.00	10.80	55.195
83212	704.00	10.30	55.314

JULY

APPENDIX N.5. OUTFLOW DATA, cont.

DATE	OUTFLOW 1000 m ³ /day	TEMP ° C	LAKE LEVEL
			meters
83213	704.00	11.00	55.450
83214	542.00	11.00	55.609
83215	438.00	11.00	55.796
83216	485.00	11.00	55.998
83217	407.00	10.00	56.225
83218	283.00	10.00	56.444
83219	312.00	13.00	56.662
83220	419.00	14.00	57.042
83221	442.00	10.00	57.344
83222	199.00	10.00	57.611
83223	134.00	10.00	57.829
83224	173.00	10.00	58.017
83225	132.00	10.00	58.187
83226	132.00	10.00	58.323
83227	371.00	10.00	58.418
83228	286.00	10.00	58.505
83229	182.00	10.00	58.593
83230	169.00	10.00	58.690
83231	222.00	10.00	58.783
83232	132.00	10.00	58.886
83233	132.00	12.00	58.999
83234	132.00	9.00	59.116
83235	173.00	10.00	59.218
83236	284.00	10.00	59.315
83237	132.00	10.00	59.422
83238	311.00	10.00	59.505
83239	243.00	10.00	59.598
83240	249.00	10.00	59.695
83241	338.00	10.00	59.789
83242	132.00	9.00	59.903
83243	285.00	10.00	59.996

AUGUST

NOTE:

1. Outflow is flow through Eklutna power plant reported by the Alaska Power Administration.
2. Lake level is height of lake surface above the minimum lake bottom elevation. Lake level of 50.3 meters equals 825 feet above mean sea level.

83244	132.00	9.00	60.091
83245	132.00	10.00	60.186
83246	132.00	10.00	60.274
83247	132.00	9.00	60.351
83248	132.00	10.00	60.419
83249	146.00	9.00	60.477
83250	130.00	9.00	60.524
83251	211.00	10.00	60.565
83252	130.00	9.00	60.611
83253	130.00	9.00	60.656
83254	130.00	9.00	60.698
83255	130.00	9.00	60.736
83256	130.00	9.00	60.776
83257	130.00	10.00	60.812
83258	130.00	8.00	60.843
83259	130.00	9.00	60.871
83260	130.00	9.00	60.898
83261	130.00	9.00	60.923
83262	134.00	9.00	60.948
83263	130.00	9.00	60.993
83264	130.00	9.00	61.050
83265	130.00	8.00	61.105
83266	48.00	9.00	61.154
83267	0.00	0.00	61.202
83268	0.00	0.00	61.245
83269	0.00	0.00	61.285
83270	0.00	0.00	61.321
83271	0.00	0.00	61.356
83272	0.00	0.00	61.402
83273	0.00	0.00	61.500

SEPTEMBER

APPENDIX N.5. OUTFLOW DATA, cont.

DATE	OUTFLOW 1000 m ³ /day	TEMP °C	LAKE LEVEL meters
83274	274.00	8.00	61.536
83275	274.00	8.00	61.565
83276	274.00	8.00	61.587
83277	274.00	8.00	61.603
83278	274.00	7.00	61.616
83279	274.00	7.00	61.627
83280	274.00	7.00	61.638
83281	353.00	7.00	61.642
83282	274.00	7.00	61.652
83283	274.00	7.00	61.702
83284	274.00	7.00	61.726
83285	274.00	8.00	61.748
83286	274.00	7.00	61.767
83287	274.00	7.00	61.783
83288	274.00	7.00	61.797
83289	274.00	7.00	61.807
83290	274.00	7.00	61.816
83291	340.00	7.00	61.819
83292	274.00	6.00	61.826
83293	274.00	6.00	61.834
83294	274.00	6.00	61.841
83295	274.00	7.00	61.846
83296	274.00	7.00	61.852
83297	274.00	7.00	61.857
83298	274.00	7.00	61.862
83299	370.00	7.00	61.859
83300	366.00	6.00	61.856
83301	308.00	6.00	61.857
83302	308.00	6.00	61.858
83303	308.00	6.00	61.858
83304	308.00	6.00	61.858

OCTOBER

NOTE:

1. Outflow is flow through Eklutna power plant reported by the Alaska Power Administration.
2. Lake level is height of lake surface above the minimum lake bottom elevation. Lake level of 50.3 meters equals 825 feet above mean sea level.

83305	308.00	5.00	61.800
83306	308.00	6.00	61.800
83307	308.00	6.00	61.800
83308	308.00	6.00	61.800
83309	337.00	6.00	61.800
83310	308.00	6.00	61.800
83311	308.00	6.00	61.800
83312	207.00	6.00	61.800
83311	308.00	6.00	61.800
83312	207.00	6.00	61.800
83313	286.00	6.00	61.800
83314	274.00	6.00	61.800
83315	274.00	6.00	61.800
83316	274.00	5.00	61.800
83317	276.00	5.00	61.800
83318	274.00	5.00	61.900
83319	274.00	5.00	61.900
83320	356.00	5.00	61.900
83321	410.00	5.00	61.900
83322	412.00	5.00	61.900
83323	303.00	5.00	61.900
83324	422.00	5.00	61.900
83325	432.00	5.00	61.800
83326	413.00	4.00	61.800
83327	413.00	5.00	61.800
83328	403.00	5.00	61.800
83329	409.00	4.00	61.800
83330	415.00	4.00	61.800
83331	417.00	4.00	61.800
83332	416.00	4.00	61.800
83333	403.00	4.00	61.800
83334	440.00	4.00	61.800

NOVEMBER

APPENDIX N.5. OUTFLOW DATA, cont.

DECEMBER

DATE	OUTFLOW 1000 m ³ /day	TEMP °C	LAKE LEVEL meters
83335	549.00	4.00	61.600
83336	393.00	4.00	61.600
83337	413.00	4.00	61.600
83338	337.00	4.00	61.600
83339	308.00	4.00	61.500
83340	350.00	4.00	61.600
83341	395.00	4.00	61.500
83342	423.00	4.00	61.500
83343	393.00	4.00	61.500
83344	326.00	4.00	61.500
83345	440.00	4.00	61.500
83346	412.00	4.00	61.500
83347	417.00	4.00	61.400
83348	650.00	4.00	61.400
83349	727.00	4.00	61.400
83350	308.00	4.00	61.300
83351	308.00	4.00	61.300
83352	308.00	4.00	61.300
83353	591.00	4.00	61.300
83354	774.00	4.00	61.300
83355	816.00	4.00	61.200
83356	796.00	4.00	61.200
83357	813.00	4.00	61.100
83358	790.00	4.00	61.100
83359	621.00	4.00	61.000
83360	621.00	4.00	61.000
83361	803.00	4.00	61.000
83362	806.00	4.00	61.000
83363	681.00	4.00	61.000
83364	648.00	4.00	60.900
83365	677.00	4.00	60.900

NOTE:

1. Outflow is flow through Eklutna power plant reported by the Alaska Power Administration.
2. Lake level is height of lake surface above the minimum lake bottom elevation. Lake level of 50.3 meters equals 825 feet above mean sea level.

JANUARY

84001	657.00	4.00	60.900
84002	448.00	4.00	60.900
84003	553.00	4.00	60.700
84004	799.00	4.00	60.600
84005	759.00	4.00	60.600
84006	879.00	4.00	60.500
84007	971.00	4.00	60.500
84008	938.00	4.00	60.400
84009	1010.00	4.00	60.300
84010	1008.00	4.00	60.300
84011	986.00	4.00	60.200
84012	938.00	4.00	60.200
84013	848.00	4.00	60.100
84014	836.00	4.00	60.100
84015	833.00	4.00	60.000
84016	897.00	4.00	60.000
84017	920.00	4.00	59.900
84018	914.00	4.00	59.800
84019	947.00	4.00	59.800
84020	1070.00	4.00	59.700
84021	1050.00	4.00	59.600
84022	1061.00	4.00	59.600
84023	1097.00	4.00	59.500
84024	1139.00	4.00	59.300
84025	1152.00	4.00	59.300
84026	1111.00	4.00	59.200
84027	1096.00	4.00	59.100
84028	1065.00	4.00	59.100
84029	1029.00	4.00	59.000
84030	1078.00	4.00	58.900
84031	1074.00	4.00	58.900

APPENDIX N.5. OUTFLOW DATA, cont.

FEBRUARY

DATE	OUTFLOW 1000 m ³ /day	TEMP ° C	LAKE LEVEL meters
84032	1124.00	4.00	58.800
84033	1161.00	4.00	58.700
84034	1161.00	4.00	58.600
84035	1136.00	4.00	58.500
84036	1074.00	4.00	58.500
84037	1101.00	4.00	58.400
84038	1152.00	4.00	58.300
84039	1189.00	4.00	58.200
84040	1189.00	4.00	58.100
84041	1189.00	4.00	58.000
84042	1120.00	4.00	58.000
84043	1086.00	4.00	57.900
84044	1095.00	4.00	57.800
84045	1098.00	4.00	57.700
84046	1096.00	4.00	57.600
84047	1068.00	4.00	57.600
84048	1077.00	4.00	57.500
84049	1074.00	4.00	57.400
84050	1071.00	4.00	57.300
84051	1108.00	4.00	57.300
84052	1095.00	4.00	57.200
84053	1085.00	4.00	57.100
84054	839.00	4.00	57.000
84055	839.00	4.00	57.000
84056	843.00	4.00	56.900
84057	839.00	4.00	56.900
84058	994.00	4.00	56.800
84059	799.00	4.00	56.700
84060	1026.00	4.00	56.700

NOTE:

1. Outflow is flow through Eklutna power plant reported by the Alaska Power Administration.
2. Lake level is height of lake surface above the minimum lake bottom elevation. Lake level of 50.3 meters equals 825 feet above mean sea level.

MARCH

84061	1026.00	4.00	56.600
84062	1074.00	4.00	56.500
84063	839.00	4.00	56.400
84064	839.00	4.00	56.300
84065	1063.00	4.00	56.300
84066	1038.00	4.00	56.200
84067	1057.00	4.00	56.100
84068	1068.00	4.00	56.000
84069	1077.00	4.00	56.000
84070	1093.00	4.00	55.900
84071	1061.00	4.00	55.800
84072	1075.00	4.00	55.700
84073	1085.00	4.00	55.700
84074	1103.00	4.00	55.600
84075	1112.00	4.00	55.500
84076	1124.00	4.00	55.400
84077	1130.00	4.00	55.300
84078	1111.00	4.00	55.200
84079	1134.00	4.00	55.100
84080	1153.00	4.00	55.100
84081	1165.00	4.00	55.100
84082	1163.00	4.00	55.100
84083	1272.00	4.00	54.800
84084	1282.00	4.00	54.800
84085	1282.00	4.00	54.800
84086	1282.00	4.00	54.800
84087	1282.00	4.00	54.800
84088	1282.00	4.00	54.800
84089	1282.00	4.00	54.800
84090	1282.00	4.00	54.100
84091	1282.00	4.00	54.100

APPENDIX N.5. OUTFLOW DATA, cont.

	DATE	OUTFLOW	TEMP	LAKE LEVEL
		1000 m ³ /day	° C	meters
APRIL	84092	1282.00	4.00	54.100
	84093	1282.00	4.00	54.100
	84094	1282.00	4.00	54.100
	84095	1282.00	4.00	54.100
	84096	1282.00	4.00	54.100
	84097	1282.00	4.00	53.400
	84098	1287.00	4.00	53.400
	84099	1287.00	4.00	53.400
	84100	1287.00	4.00	53.400
	84101	1281.00	4.00	53.400
	84102	1109.00	4.00	53.400
	84103	1124.00	4.00	53.400
	84104	1111.00	4.00	52.700
	84105	1093.00	4.00	52.700
	84106	1089.00	4.00	52.700
	84107	1125.00	4.50	52.700
	84108	1105.00	4.50	52.700
	84109	1131.00	4.50	52.700
	84110	1197.00	4.50	52.700
	84111	1162.00	4.50	52.100
	84112	1100.00	4.00	52.100
84113	1148.00	4.00	52.100	
84114	1118.00	4.50	52.100	
84115	1114.00	4.50	52.100	
84116	997.00	4.50	52.100	
84117	851.00	4.50	52.100	
84118	851.00	5.00	52.100	
84119	851.00	5.00	52.100	
84120	816.00	5.00	52.100	
84121	708.00	5.00	52.100	

NOTE:

1. Outflow is flow through Eklutna power plant reported by the Alaska Power Administration.
2. Lake level is height of lake surface above the minimum lake bottom elevation. Lake level of 50.3 meters equals 825 feet above mean sea level.

MAY	84122	643.00	5.50	52.100
	84123	643.00	5.50	52.100
	84124	628.00	5.50	52.100
	84125	733.00	5.50	52.100
	84126	851.00	5.50	52.100
	84127	851.00	5.50	52.100
	84128	708.00	5.50	52.100
	84129	643.00	6.00	52.100
	84130	643.00	6.00	52.100
	84131	643.00	6.00	52.100
	84132	643.00	5.00	52.100
	84133	830.00	5.00	52.100
	84134	854.00	5.00	52.100
	84135	1107.00	5.00	52.100
	84136	1113.00	6.00	50.600
	84137	1108.00	7.00	50.600
	84138	1111.00	7.00	50.600
	84139	981.00	8.00	50.600
	84140	992.00	8.00	50.600
	84141	865.00	8.00	50.600
	84142	901.00	7.00	50.600
84143	992.00	7.00	50.600	
84144	891.00	7.00	50.600	
84145	820.00	7.00	50.600	
84146	758.00	6.50	50.200	
84147	844.00	6.00	50.200	
84148	565.00	6.50	50.200	
84149	603.00	7.00	50.200	
84150	1006.00	7.00	50.200	
84151	1192.00	7.50	50.200	
84152	926.00	8.00	50.200	

APPENDIX N.5. OUTFLOW DATA, cont.

DATE	OUTFLOW 1000 m ³ /day	TEMP °C	LAKE LEVEL meters
84153	925.00	7.00	50.100
84154	710.00	8.00	50.100
84155	860.00	8.50	50.100
84156	922.00	8.50	50.100
84157	852.00	10.00	50.100
84158	945.00	8.50	50.100
84159	896.00	8.50	50.100
84160	967.00	8.50	49.600
84161	954.00	9.00	49.600
84162	942.00	9.00	49.600
84163	1009.00	9.50	49.600
84164	998.00	10.50	49.600
84165	1231.00	12.00	49.600
84166	1228.00	11.50	49.600
84167	1185.00	12.00	49.700
84168	1131.00	10.00	49.700
84169	1106.00	10.50	49.700
84170	1146.00	10.50	49.700
84171	1135.00	11.00	49.700
84172	1122.00	11.00	49.700
84173	1084.00	11.00	49.700
84174	1061.00	12.00	49.700
84175	1021.00	12.50	49.700
84176	1027.00	13.50	49.700
84177	381.00	13.50	49.700
84178	400.00	13.50	49.700
84179	410.00	13.50	49.700
84180	420.00	13.50	49.700
84181	454.00	14.00	50.700
84182	937.00	13.00	50.700

JUNE

NOTE:

1. Outflow is flow through Eklutna power plant reported by the Alaska Power Administration.
2. Lake level is height of lake surface above the minimum lake bottom elevation. Lake level of 50.3 meters equals 825 feet above mean sea level.

84183	1044.00	11.00	50.700
84184	1097.00	12.00	50.700
84185	1070.00	12.00	50.700
84186	941.00	12.00	50.700
84187	1084.00	11.00	50.700
84188	875.00	12.00	51.200
84189	348.00	12.00	51.200
84190	354.00	12.50	51.200
84191	348.00	13.00	51.200
84192	384.00	12.50	51.200
84193	380.00	13.00	51.200
84194	386.00	12.00	51.200
84195	395.00	12.50	51.200
84196	381.00	12.50	51.200
84197	384.00	13.00	51.200
84198	367.00	11.50	51.200
84199	386.00	11.50	53.000
84200	362.00	12.00	53.000
84201	410.00	11.50	53.000
84202	389.00	11.50	53.400
84203	356.00	12.00	53.400
84204	354.00	12.00	53.400
84205	356.00	12.00	53.400
84206	406.00	11.50	53.400
84207	353.00	11.50	53.400
84208	265.00	11.50	53.400
84209	354.00	11.00	54.400
84210	355.00	10.50	54.400
84211	352.00	10.50	54.400
84212	363.00	10.50	54.400
84213	363.00	10.50	55.000

JULY

APPENDIX N.5. OUTFLOW DATA, cont.

AUGUST	DATE	OUTFLOW	TEMP.	LAKE LEVEL
		1000 m ³ /day	°C	meters
	84214	355.00	11.00	55.000
	84215	355.00	10.50	55.000
	84216	332.00	11.00	55.000
	84217	449.00	11.00	55.000
	84218	363.00	10.50	55.000
	84219	370.00	10.50	55.000
	84220	361.00	10.00	56.400
	84221	368.00	10.00	56.400
	84222	343.00	10.00	56.400
	84223	353.00	9.00	56.400
	84224	365.00	9.50	56.400
	84225	372.00	9.00	56.400
	84226	350.00	9.00	56.400
	84227	351.00	9.50	56.400
	84228	360.00	10.00	56.400
	84229	343.00	9.50	56.400
	84230	253.00	9.50	57.800
	84231	349.00	10.00	57.800
	84232	350.00	9.50	57.800
	84233	350.00	9.50	57.800
	84234	352.00	10.50	57.800
	84235	385.00	11.50	57.800
	84236	362.00	9.50	57.800
	84237	348.00	10.50	57.800
	84238	368.00	10.50	57.800
	84239	373.00	9.50	57.800
	84240	353.00	9.50	57.800
	84241	359.00	10.00	57.800
	84242	348.00	10.00	57.800
	84243	364.00	9.50	57.800
	84244	379.00	9.50	60.300

NOTE:

1. Outflow is flow through Eklutna power plant reported by the Alaska Power Administration.
2. Lake level is height of lake surface above the minimum lake bottom elevation. Lake level of 50.3 meters equals 825 feet above mean sea level.

SEPTEMBER	DATE	OUTFLOW	TEMP.	LAKE LEVEL
		1000 m ³ /day	°C	meters
	84245	362.00	9.00	60.300
	84246	341.00	10.00	60.300
	84247	353.00	9.00	60.300
	84248	368.00	9.50	60.300
	84249	384.00	10.00	60.300
	84250	347.00	9.50	60.300
	84251	346.00	10.00	60.600
	84252	347.00	10.00	60.600
	84253	349.00	9.50	60.600
	84254	349.00	9.00	60.600
	84255	396.00	9.00	60.600
	84256	346.00	9.00	60.600
	84257	349.00	9.50	60.600
	84258	347.00	9.50	60.800
	84259	393.00	9.00	60.800
	84260	363.00	9.00	60.800
	84261	393.00	9.00	60.800
	84262	391.00	9.00	60.800
	84263	406.00	9.00	60.800
	84264	413.00	9.00	60.800
	84265	416.00	9.50	61.100
	84266	349.00	10.00	61.100
	84267	344.00	9.50	61.100
	84268	377.00	9.00	61.100
	84269	413.00	9.00	61.100
	84270	378.00	9.50	61.100
	84271	430.00	9.50	61.100
	84272	369.00	9.00	61.200
	84273	384.00	9.00	61.200
	84274	341.00	9.00	61.200

APPENDIX N.5. OUTFLOW DATA, cont.

OCTOBER

DATE	OUTFLOW 1000 m ³ /day	TEMP ° C	LAKE LEVEL meters
84275	462.00	9.00	61.200
84276	436.00	9.00	61.600
84277	479.00	9.00	61.600
84278	562.00	9.50	61.600
84279	468.00	8.50	61.600
84280	356.00	9.00	61.600
84281	395.00	8.00	61.600
84282	440.00	8.00	61.600
84283	381.00	8.00	61.600
84284	388.00	8.00	61.600
84285	386.00	8.00	61.600
84286	382.00	8.00	61.800
84287	351.00	8.00	61.800
84288	355.00	8.00	61.800
84289	404.00	8.00	61.800
84290	393.00	8.00	61.800
84291	423.00	8.00	61.800
84292	440.00	7.00	61.800
84293	516.00	8.00	61.800
84294	420.00	7.50	61.800
84295	605.00	7.00	61.800
84296	401.00	7.00	61.800
84297	763.00	7.50	61.800
84298	747.00	6.50	61.800
84299	807.00	6.00	61.800
84300	862.00	6.00	61.700
84301	856.00	6.00	61.700
84302	853.00	6.00	61.700
84303	919.00	6.00	61.700
84304	877.00	6.00	61.700
84305	900.00	6.00	61.700

NOTE:

1. Outflow is flow through Eklutna power plant reported by the Alaska Power Administration.
2. Lake level is height of lake surface above the minimum lake bottom elevation. Lake level of 50.3 meters equals 825 feet above mean sea level.

NOVEMBER

84306	893.00	6.00	61.700
84307	875.00	6.00	61.400
84308	817.00	6.00	61.400
84309	794.00	6.00	61.400
84310	845.00	6.00	61.400
84311	818.00	6.00	61.400
84312	854.00	6.00	61.400
84313	862.00	5.50	61.400
84314	845.00	5.50	61.000
84315	819.00	5.00	61.000
84316	815.00	5.00	61.000
84317	876.00	4.50	61.000
84318	876.00	4.50	61.000
84319	699.00	4.50	61.000
84320	1086.00	4.00	61.000
84321	892.00	4.00	60.600
84322	866.00	4.00	60.600
84323	939.00	4.00	60.600
84324	871.00	4.00	60.600
84325	783.00	4.00	60.600
84326	743.00	4.00	60.600
84327	678.00	4.00	60.600
84328	720.00	4.00	60.600
84329	664.00	4.00	60.600
84330	681.00	4.00	60.600
84331	790.00	4.00	60.600
84332	884.00	4.00	60.600
84333	893.00	4.00	60.600
84334	881.00	4.00	60.600
84335	862.00	4.00	60.600

R24/5 73

APPENDIX N.6

INFLOW SEDIMENT DATA

APPENDIX N.6

PREDICTION OF TSS FROM MEAN DAILY DISCHARGE

- NOTE: 1) Values of TSS for Glacier Fork are calculated using the equation:

$$TSS_{GF} = 1.1424Q_{GF}^{0.8947}$$

$$R^2 = 0.90$$

where TSS_{GF} = Total Suspended Solids (mg/l) at Glacier Fork, and Q_{GF} = Mean Daily Discharge (cfs) at Glacier Fork.

This equation was developed using data from 5/18/84 through 9/28/84. Data points from 5/18, 6/8, and 6/19 were excluded since they differed significantly from the values used in the analysis.

- 2) Values of TSS for East Fork are calculated using the equation:

$$TSS_{EF} = 3.2932E^{-5}Q_{EF}^{2.4753}$$

$$R^2 = 0.89$$

where TSS_{EF} = Total Suspended Solids (mg/l) at East Fork, and Q_{EF} = Mean Daily Discharge (cfs) at East Fork.

This equation was developed using data from 5/18/84 through 10/30/84. Data points from 6/26 and 10/30 were excluded from the analysis.

- 3) Data from the following dates were included in the analysis for East Fork, but not for Glacier Fork:

10/2, 10/5, 10/9, 10/12, 10/16, 10/19, 10/23,
10/26, 10/30.

TSS PREDICTION FROM MEAN DAILY Q

EKLUTNA RIVER

TABLE N.6

MAY '84

CK WSP 12/1/84

10/17/84
REVISOR
12/6/84

DATE	Q_{EF} (cfs)	TSS_{EF} (mg/l)	Q_{GF} (cfs)	TSS_{GF} (mg/l)	Q_T (cfs)	TSS_T (mg/l)
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18	83	1.9				
19	87 ✓	2.1 ✓	15 ✓	12.9 ✓	102 ✓	4 ✓
20	92	2.4	20	16.7	112	5
21	94	2.5	25	20.4	119	6
22	94	2.5	20	16.7	114	5
23	87	2.1	15	12.9	102	4
24	94	2.5	19	15.9	113	5
25	96	2.7	15	12.9	111	4
26	92	2.4	16	13.7	108	4
27	89	2.2	15	12.9	104	4
28	89 ✓	2.2 ✓	14 ✓	12.1 ✓	103 ✓	4 ✓
29	92	2.4	14	12.1	106	4
30	89	2.2	16	13.7	105	4
31	81	1.7	15	12.9	96	4

PRELIMINARY

Q_{EF} = MEAN DAILY DISCHARGE AT EAST FORK
 Q_{GF} = " " " " GLACIER FORK
 Q_T = TOTAL FLOW ($Q_{EF} + Q_{GF}$)
 TSS_{EF} = TOTAL SUSPENDED SOLIDS AT EAST FORK
 TSS_{GF} = " " " " GLACIER FORK
 TSS_T = WEIGHTED TOTAL TSS ($TSS_T = \frac{Q_{EF} TSS_{EF}}{Q_T} + \frac{Q_{GF} TSS_{GF}}{Q_T}$)

TSS PREDICTION FROM MEAN DAILY Q

TABLE N.6, cont.

EKLUTNA RIVER

JUNE

184
CK WSA 12/17/84

12/19/84
REVISED 12/6/84

DATE	Q _{EF} (cfs)	TSS _{EF} (mg/l)	Q _{GF} (cfs)	TSS _{GF} (mg/l)	Q _T (cfs)	TSS _T (mg/l) ^T
1	87	2.1	17	14.4	104	4
2	103	3.2	23	18.9	126	6
3	125	5.1	32	25.4	157	9
4	143	7.1	44	33.7	187	13
5	162	9.7	58	43.2	220	18
6	191	14.6	93	65.9	284	31
7	172	11.2	93	65.9	265	30
8	165	10.2	102	71.6	267	24
9	183	13.1	97	68.5	280	32
10	187	13.8	97	68.5	284	32
11	183	13.1	103	72.2	286	34
12	187	13.8	118	81.6	305	40
13	203	17.0	134	91.4	337	47
14	195	15.4	118	81.6	313	40
15	179	12.4	111	77.2	290	37
16	183	13.1	106	74.1	289	36
17	195	15.4	116	80.3	311	40
18	228	22.6	140	95.1	368	50
19	261	31.6	194	127.3	455	72
20	310	48.4	272	172.2	582	106
21	327	55.2	259	164.8	586	104
22	304	46.1	256	163.1	560	100
23	310	48.4	272	172.2	582	106
24	321	52.7	303	189.7	624	119
25	365	72.5	314	195.8	679	130
26	346	63.5	252	160.8	598	104
27	282	38.3	310	193.6	592	120
28	251	28.7	306	191.3	557	118
29	310	48.4	356	219.1	666	140
30	293	42.1	348	220.2	641	140
31						

PRELIMINARY

Q_{EF} = MEAN DAILY DISCHARGE AT EAST FORK
 Q_{GF} = " " " " GLACIER FORK
 Q_T = TOTAL FLOW (Q_{EF} + Q_{GF})
 TSS_{EF} = TOTAL SUSPENDED SOLIDS AT EAST FORK
 TSS_{GF} = " " " " GLACIER FORK
 TSS_T = WEIGHTED TOTAL TSS (TSS_T = (Q_{EF} / Q_T) * TSS_{EF} + (Q_{GF} / Q_T) * TSS_{GF})

TSS PREDICTION FROM MEAN DAILY Q

TABLE N.6, cont.

RIVER
EKLUTNA GATE

JULY '84

FR
10/19/84
REVISED
12/6/84 BR

DATE	Q _{EF} (cfs)	TSS _{EF} (mg/l)	Q _{GF} (cfs)	TSS _{GF} (mg/l)	Q _T (cfs)	TSS _T (mg/l) ^T
1	277	36.6	329	204.2	606	128
2	247	27.4	329	204.2	576	128
3	228	22.6	356	219.1	584	142
4	266	33.1	465	278.2	731	189
5	414	99.0	545	320.7	959	225
6	519	1173.2	597	347.9	1116	267
7	583	230.9	597	347.9	1180	290
8	527	179.9	573	354.0	1100	271
9	510	165.8	579	338.5	1089	258
10	460	128.5	603	351.0	1063	255
11	414	99.0	579	338.5	993	239
12	379	79.5	495	294.2	874	201
13	359	69.5	480	286.2	839	194
14	340	60.8	450	270.2	790	180
15	327	55.2	436	262.6	763	174
16	340	60.8	436	262.6	776	174
17	321	52.7	417	252.4	738	166
18	316	50.7	399	242.6	715	158
19	310	48.4	408	247.5	718	162
20	304	46.1	431	259.9	735	172
21	372	75.9	511	302.7	883	207
22	429	108.1	556	326.5	985	231
23	441	117.7	585	341.7	1029	245
24	444	117.7	591	344.8	1035	247
25	414	99.0	573	335.4	987	236
26	379	79.5	533	314.4	912	217
27	379	79.5	533	314.4	912	217
28	386	83.2	533	314.4	919	217
29	386	83.2	539	317.5	925	220
30	386	83.2	556	326.5	942	227
31	400	90.9	550	323.3	950	225

PRELIMINARY!

Q_{EF} = MEAN DAILY DISCHARGE AT EAST FORK
 Q_{GF} = " " " " GLACIER FORK
 Q_T = TOTAL FLOW ($Q_{EF} + Q_{GF}$)
 TSS_{EF} = TOTAL SUSPENDED SOLIDS AT EAST FORK
 TSS_{GF} = " " " " GLACIER FORK
 TSS_T = WEIGHTED TOTAL TSS ($TSS_T = \frac{Q_{EF} TSS_{EF}}{Q_T} + \frac{Q_{GF} TSS_{GF}}{Q_T}$)

TSS PREDICTION FROM MEAN DAILY Q

12/16/84
83

TABLE N.6, cont.

EKLUTNA RIVER

OCTOBER '84

ck
with 12/7/84

DATE	Q _{EF} (cfs)	TSS _{EF} (mg/l)	Q _{GF} (cfs)	TSS _{GF} (mg/l)	Q _T (cfs)	TSS _T (mg/l) ^T
1	266	33.1	204	133.1	470	76
2	183	13.1	144	70.2	327	50
3	146	7.5	110	70.2	256	37
4	128	5.4	94	66.6	222	31
5	120	4.6	85	60.8	205	28
6	117	4.3	83	59.5	200	27
7	112	3.9	71	51.8	183	22
8	115	4.2	66	48.5	181	20
9	103	3.2	54	40.5	157	16
10	94	2.5	45	34.4	139	13
11	89	2.2	41	31.7	130	12
12	85	2.0	38	29.6	123	10
13	80	1.7	34	26.8	114	9
14	76	1.5	32	25.4	108	9
15	72	1.3	30 e	24.0	102	8
16	71	1.3	28 e	22.5	99	7
17	67	1.1	27 e	21.8	94	7
18	66	1.1	26 e	21.1	92	7
19	66	1.1	24 e	19.6	90	6
20	64	1.0	24 e	19.6	88	6
21	64	1.0	23 e	18.9	87	6
22	80	1.7	33 e	26.1	113	9
23	74	1.4	28 e	22.5	102	7
24	66	1.1	25 e	20.4	91	6
25	59	0.8	25 e	20.4	84	7
26	55	0.7	25 e	20.4	80	7
27	54	0.6	24 e	19.6	78	6
28	50	0.5	22 e	18.2	72	6
29	47	0.4	21 e	17.4	68	6
30	45	0.4	20 e	16.7	65	5
31	42	0.3	20 e	16.7	62	6

PRELIMINARY

Q_{EF} = MEAN DAILY DISCHARGE AT EAST FORK

Q_{GF} = " " " " " GLACIER FORK

e = ESTIMATED Q_T = TOTAL FLOW (Q_{EF} + Q_{GF})

TSS_{EF} = TOTAL SUSPENDED SOLIDS AT EAST FORK

TSS_{GF} = " " " " " GLACIER FORK

TSS = WEIGHTED TOTAL TSS (TSS_T = (Q_{EF} TSS_{EF}) + (Q_{GF} TSS_{GF}))

TABLE N.6, cont.

EKLUTNA SEDIMENT INFLOW1/24/85
GRC

NOVEMBER 1984

DATE	ISEQ	FLOWINF (1000 m ³ /day)	TSS (mg/l)	"SEDINF" (1000 kg/day)
1	84306	149 E	5 E	0.745 E
2	84307	146	5	0.730
3	84308	143	5	0.715
4	84309	140	5	0.700
5	84310	137	5	0.685
6	84311	134	5	0.670
7	84312	131	5	0.655
8	84313	128	5	0.640
9	84314	125	5	0.625
10	84315	122	5	0.610
11	84316	119	5	0.595
12	84317	116	5	0.580
13	84318	114	5	0.570
14	84319	112	5	0.560
15	84320	110	5	0.550
16	84321	108	3	0.324
17	84322	107	3	0.321
18	84323	106	3	0.318
19	84324	105	3	0.315
20	84325	104	3	0.312
21	84326	103	3	0.309
22	84327	102	3	0.306
23	84328	101	3	0.303
24	84329	100	3	0.300
25	84330	100	3	0.300
26	84331	100	3	0.300
27	84332	99	3	0.297
28	84333	99	3	0.297
29	84334	99	3	0.297
30	84335	98	3	0.204
31				

NOTES: (1) All values are estimates.

(2) FLOWINF = Q_{EF} + Q_{GF}.**PRELIMINARY**

R24/5 70

APPENDIX O

SEDIMENT ANALYSES BY PARTICLE DATA LABORATORIES, LTD.

APPENDIX O

Sediment Analyses by Particle Data Laboratories, Inc.

Following are results of analyses by Particle Data Laboratories, Ltd. (PDL), of suspended-sediment samples collected in Eklutna Lake, the lake inflow streams, and the lake outflow. The samples and included analyses are described in the following table.

The data are arranged in this appendix in the order in which they are listed in the table, generally in chronological order. The PDL correspondence is included for reference and for discussion of the mineralogic characteristics of the sediment that were identified. R&M letters of August 14, 1984 and October 26, 1984, which transmitted the 1984 samples and requested the analyses, are also enclosed.

TABLE O.1

PDL ANALYSES ON EKLUTNA LAKE SUSPENDED-
SEDIMENT SAMPLES (1983-1984)

Sampling Date	Location	Analysis(1)					
		PSD	SEM	OM	MC	MS	TSS
1/13/83	Sta. 5, 32m	X		X	X	X	X
1/13/83	Sta. 5, 48m	X				X	X
1/13/83	Sta. 9, 32m	X		X	X	X	X
1/13/83	Sta. 9, 48m	X				X	X
1/11/83	Sta. 11, 16m	X				X	X
1/11/83	Sta. 11, 28m	X		X	X	X	X
7/20/84	East Fork	X	X		X		
7/20/84	Glacier Fork	X	X		X		
7/21/84	Tailrace	X	X		X		
8/28/84	East Fork	X					
8/28/84	Glacier Fork	X					
8/28/84	Tailrace	X					
10/23/84	East Fork	X					
10/23/84	Glacier Fork	X					
10/23/84	Tailrace	X					

(1) Abbreviations for analyses:

PSD: particle-size distribution, by volume and by count

SEM: scanning electron micrograph(s) of particles, various magnifications

OM: optical microphotograph(s) of particles, various magnifications

MC: mineral characterization of particles

MS: median particle size, by volume (mass) and by count

TSS: total suspended-solids concentration

PARTICLE DATA LABORATORIES, LTD.



115 Hahn Street • Elmhurst, Illinois 60126 • (312) 832-5658

March 10, 1983

R & M Consultants, Inc.
Box 6087
Anchorage, AK 99502

Attention Mr. Brett Jokela

Subject: Particle Size and Gravimetric Suspended Solids
Concentration Analysis of Six Lake Samples

PDL Project: I-7137

Dear Mr. Jokela:

The six Eklutna Lake water samples submitted for particle size and gravimetric suspended solids concentration analysis has been completed. The results are summarized in the following table. The Elzone particle size analysis and the photographs as requested are enclosed.

CONCENTRATION AND PARTICLE SIZE SUMMARY

<u>Sample I.D.</u>	<u>Total Suspended Solids (mg/1)</u>	<u>Mass Median Size (Microns)</u>	<u>Count Median Size (Microns)</u>
Eklutna Lake St. 5, 32M 01/15/83 13	4.9	6.61	1.45
Eklutna Lake St. 5, 48M 01/13/83	1.3	18.00	1.45
Eklutna Lake St. 9, 32M 01/13/83	5.6	12.83	1.81
Eklutna Lake St. 9, 48M 01/13/83	5.2	19.44	1.38
Eklutna Lake St. 11, 16M 01/11/83	3.8	7.42	1.72
Eklutna Lake St. 11, 28M	17.0	5.39	1.72

PARTICLE DATA LABORATORIES, LTD.

R & M Consultants, Inc.
PDL Project: I-7137
March 7, 1983
Page 2

A small quantity of each sample is still on hand. We will hold this for two additional weeks and then discard the contents and return the containers to you by UPS.

If there are any questions, please call us. Thank you for referring to us, and we hope we can be of further help to you in the future.

Sincerely yours,

PARTICLE DATA LABORATORIES, LTD.


Olga Kist
Technical Staff

jc

Enclosures

PARTICLE SIZE ANALYSIS BY ELZONE METHOD - PARTICLE DATA LABORATORIES, LDT.
115 HAHN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312)832-5658

CLIENT: R & M CONSULTANTS 4 MAR 83 :DATE
SAMPLE: EKLUTNA LAKE STS 48M 13-1-83 7137 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4
=====

INDICES

VOLUME MODE = 27.50 MEDIAN = 18.00 MICRONS AND LARGER
GEOMETRIC VOLUME MEAN = 12.89 +/- 27.49 (213.22%) SKEWNESS = -.53
ARITHMETIC VOLUME MEAN = 21.42 +/- 18.45 (86.13%) SKEWNESS = -.33

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 90.73 MICRONS AND LARGER
PERCENTILE: 01.0% OF VOLUME IS AT 74.84 MICRONS AND LARGER
PERCENTILE: 06.0% OF VOLUME IS AT 55.00 MICRONS AND LARGER
PERCENTILE: 22.0% OF VOLUME IS AT 34.65 MICRONS AND LARGER
PERCENTILE: 50.0% OF VOLUME IS AT 18.00 MICRONS AND LARGER
PERCENTILE: 78.0% OF VOLUME IS AT 3.86 MICRONS AND LARGER
PERCENTILE: 94.0% OF VOLUME IS AT 1.86 MICRONS AND LARGER
PERCENTILE: 99.0% OF VOLUME IS AT 1.26 MICRONS AND LARGER
PERCENTILE: 99.9% OF VOLUME IS AT 1.04 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5
=====

INDICES

COUNT MODE = 1.36 MEDIAN = 1.45 MICRONS AND LARGER
GEOMETRIC COUNT MEAN = 1.45 +/- .87 (60.41%) SKEWNESS = .09
ARITHMETIC COUNT MEAN = 1.64 +/- 1.13 (69.09%) SKEWNESS = .24

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNT IS AT 14.57 MICRONS AND LARGER
PERCENTILE: 01.0% OF COUNT IS AT 4.86 MICRONS AND LARGER
PERCENTILE: 06.0% OF COUNT IS AT 3.06 MICRONS AND LARGER
PERCENTILE: 22.0% OF COUNT IS AT 2.04 MICRONS AND LARGER
PERCENTILE: 50.0% OF COUNT IS AT 1.45 MICRONS AND LARGER
PERCENTILE: 78.0% OF COUNT IS AT 1.02 MICRONS AND LARGER
PERCENTILE: 94.0% OF COUNT IS AT .72 MICRONS AND LARGER
PERCENTILE: 99.0% OF COUNT IS AT .54 MICRONS AND LARGER
PERCENTILE: 99.9% OF COUNT IS AT .38 MICRONS AND LARGER

PARTICLE SIZE ANALYSIS BY ELZONE METHOD - PARTICLE DATA LABORATORIES, LTD.
115 HAHN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312)832-5658

CLIENT: R & M CONSULTANTS - 4 MAR 83 :DATE
SAMPLE: EKLUTNA LAKE ST9 32M 13-1-83

7137 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4

INDICES

VOLUME MODE = 21.57 MEDIAN = 12.83 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 10.39 +/- 16.06 (154.61%) SKEWNESS = -.70

ARITHMETIC VOLUME MEAN = 15.04 +/- 11.58 (77.03%) SKEWNESS = -.56

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 61.02 MICRONS AND LARGER
PERCENTILE: 01.0% OF VOLUME IS AT 46.25 MICRONS AND LARGER
PERCENTILE: 06.0% OF VOLUME IS AT 35.05 MICRONS AND LARGER
PERCENTILE: 22.0% OF VOLUME IS AT 23.94 MICRONS AND LARGER
PERCENTILE: 50.0% OF VOLUME IS AT 12.83 MICRONS AND LARGER
PERCENTILE: 78.0% OF VOLUME IS AT 4.09 MICRONS AND LARGER
PERCENTILE: 94.0% OF VOLUME IS AT 2.27 MICRONS AND LARGER
PERCENTILE: 99.0% OF VOLUME IS AT 1.45 MICRONS AND LARGER
PERCENTILE: 99.9% OF VOLUME IS AT 1.06 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5

INDICES

COUNT MODE = 1.72 MEDIAN = 1.91 MICRONS AND LARGER

GEOMETRIC COUNT MEAN = 1.86 +/- 1.24 (66.71%) SKEWNESS = .11

ARITHMETIC COUNT MEAN = 2.14 +/- 1.50 (69.82%) SKEWNESS = .28

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNT IS AT 18.50 MICRONS AND LARGER
PERCENTILE: 01.0% OF COUNT IS AT 6.87 MICRONS AND LARGER
PERCENTILE: 06.0% OF COUNT IS AT 3.99 MICRONS AND LARGER
PERCENTILE: 22.0% OF COUNT IS AT 2.68 MICRONS AND LARGER
PERCENTILE: 50.0% OF COUNT IS AT 1.91 MICRONS AND LARGER
PERCENTILE: 78.0% OF COUNT IS AT 1.28 MICRONS AND LARGER
PERCENTILE: 94.0% OF COUNT IS AT .86 MICRONS AND LARGER
PERCENTILE: 99.0% OF COUNT IS AT .61 MICRONS AND LARGER
PERCENTILE: 99.9% OF COUNT IS AT .45 MICRONS AND LARGER

PARTICLE SIZE ANALYSIS BY ELZONE METHOD - PARTICLE DATA LABORATORIES, LTD.
115 HAHN STREET - ELMHURST, ILL. 60126 - TELEPHONE: (312) 832-5658

CLIENT: R & M CONSULTANTS 4 MAR 83 : DATE
SAMPLE: EMLUTNA LAKE ST9 48M 13-1-83 7137 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4
=====

INDICES

VOLUME MODE = 32.08 MEDIAN = 19.44 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 14.66 +/- 24.17 (164.87%) SKEWNESS = -.72

ARITHMETIC VOLUME MEAN = 21.21 +/- 15.65 (73.77%) SKEWNESS = -.69

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 94.29 MICRONS AND LARGER
PERCENTILE: 01.0% OF VOLUME IS AT 69.29 MICRONS AND LARGER
PERCENTILE: 04.0% OF VOLUME IS AT 47.15 MICRONS AND LARGER
PERCENTILE: 22.0% OF VOLUME IS AT 33.34 MICRONS AND LARGER
PERCENTILE: 50.0% OF VOLUME IS AT 19.44 MICRONS AND LARGER
PERCENTILE: 78.0% OF VOLUME IS AT 5.67 MICRONS AND LARGER
PERCENTILE: 94.0% OF VOLUME IS AT 2.53 MICRONS AND LARGER
PERCENTILE: 99.0% OF VOLUME IS AT 1.47 MICRONS AND LARGER
PERCENTILE: 99.9% OF VOLUME IS AT 1.13 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5
=====

INDICES

COUNT MODE = 1.38 MEDIAN = 1.38 MICRONS AND LARGER

GEOMETRIC COUNT MEAN = 1.34 +/- 1.27 (95.01%) SKEWNESS = -.03

ARITHMETIC COUNT MEAN = 1.69 +/- 1.52 (90.20%) SKEWNESS = .20

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNT IS AT 19.44 MICRONS AND LARGER
PERCENTILE: 01.0% OF COUNT IS AT 6.25 MICRONS AND LARGER
PERCENTILE: 04.0% OF COUNT IS AT 3.55 MICRONS AND LARGER
PERCENTILE: 22.0% OF COUNT IS AT 2.29 MICRONS AND LARGER
PERCENTILE: 50.0% OF COUNT IS AT 1.38 MICRONS AND LARGER
PERCENTILE: 78.0% OF COUNT IS AT .78 MICRONS AND LARGER
PERCENTILE: 94.0% OF COUNT IS AT .47 MICRONS AND LARGER
PERCENTILE: 99.0% OF COUNT IS AT .29 MICRONS AND LARGER
PERCENTILE: 99.9% OF COUNT IS AT .20 MICRONS AND LARGER

PARTICLE SIZE ANALYSIS BY ELZONE METHOD - PARTICLE DATA LABORATORIES, LDT.
115 HAHN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312)832-5658

CLIENT: R & M CONSULTANTS 4 MAR 83 :DATE
SAMPLE: EKLUTNA LAKE ST11 16M 11-1-83 7137 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4
=====

INDICES

VOLUME MODE = 7.42 MEDIAN = 7.42 MICRONS AND LARGER
GEOMETRIC VOLUME MEAN = 7.82 +/- 9.51 (121.70%) SKEWNESS = .04
ARITHMETIC VOLUME MEAN = 11.01 +/- 11.33 (102.91%) SKEWNESS = .32

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 87.30 MICRONS AND LARGER
PERCENTILE: 01.0% OF VOLUME IS AT 61.73 MICRONS AND LARGER
PERCENTILE: 06.0% OF VOLUME IS AT 29.70 MICRONS AND LARGER
PERCENTILE: 22.0% OF VOLUME IS AT 13.75 MICRONS AND LARGER
PERCENTILE: 50.0% OF VOLUME IS AT 7.42 MICRONS AND LARGER
PERCENTILE: 78.0% OF VOLUME IS AT 4.33 MICRONS AND LARGER
PERCENTILE: 94.0% OF VOLUME IS AT 2.34 MICRONS AND LARGER
PERCENTILE: 99.0% OF VOLUME IS AT 1.47 MICRONS AND LARGER
PERCENTILE: 99.9% OF VOLUME IS AT 1.13 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5
=====

INDICES

COUNT MODE = 1.62 MEDIAN = 1.72 MICRONS AND LARGER
GEOMETRIC COUNT MEAN = 1.73 +/- 1.46 (84.08%) SKEWNESS = .07
ARITHMETIC COUNT MEAN = 2.11 +/- 1.60 (75.64%) SKEWNESS = .31

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNT IS AT 14.57 MICRONS AND LARGER
PERCENTILE: 01.0% OF COUNT IS AT 8.18 MICRONS AND LARGER
PERCENTILE: 06.0% OF COUNT IS AT 4.86 MICRONS AND LARGER
PERCENTILE: 22.0% OF COUNT IS AT 2.73 MICRONS AND LARGER
PERCENTILE: 50.0% OF COUNT IS AT 1.72 MICRONS AND LARGER
PERCENTILE: 78.0% OF COUNT IS AT 1.08 MICRONS AND LARGER
PERCENTILE: 94.0% OF COUNT IS AT .68 MICRONS AND LARGER
PERCENTILE: 99.0% OF COUNT IS AT .46 MICRONS AND LARGER
PERCENTILE: 99.9% OF COUNT IS AT .32 MICRONS AND LARGER

PARTICLE SIZE ANALYSIS BY ELZONE METHOD - PARTICLE DATA LABORATORIES, LDT.
115 HAHN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312) 832-5658

CLIENT: R & M CONSULTANTS 3 MAR 83 : DATE
SAMPLE: EKLUTNA LAKE ST11 28M 11-1-83 7137 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4
=====

INDICES

VOLUME MODE = 5.58 MEDIAN = 5.39 MICRONS AND LARGER
GEOMETRIC VOLUME MEAN = 5.46 +/- 4.35 (79.73%) SKEWNESS = -.03
ARITHMETIC VOLUME MEAN = 6.63 +/- 5.37 (81.00%) SKEWNESS = .19

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 49.57 MICRONS AND LARGER
PERCENTILE: 01.0% OF VOLUME IS AT 31.59 MICRONS AND LARGER
PERCENTILE: 06.0% OF VOLUME IS AT 14.23 MICRONS AND LARGER
PERCENTILE: 22.0% OF VOLUME IS AT 7.90 MICRONS AND LARGER
PERCENTILE: 50.0% OF VOLUME IS AT 5.39 MICRONS AND LARGER
PERCENTILE: 78.0% OF VOLUME IS AT 3.56 MICRONS AND LARGER
PERCENTILE: 94.0% OF VOLUME IS AT 2.27 MICRONS AND LARGER
PERCENTILE: 99.0% OF VOLUME IS AT 1.50 MICRONS AND LARGER
PERCENTILE: 99.9% OF VOLUME IS AT 1.13 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5
=====

INDICES

COUNT MODE = 1.72 MEDIAN = 1.72 MICRONS AND LARGER
GEOMETRIC COUNT MEAN = 1.68 +/- 1.66 (98.71%) SKEWNESS = -.02
ARITHMETIC COUNT MEAN = 2.11 +/- 1.50 (71.11%) SKEWNESS = .26

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNT IS AT 10.91 MICRONS AND LARGER
PERCENTILE: 01.0% OF COUNT IS AT 7.28 MICRONS AND LARGER
PERCENTILE: 06.0% OF COUNT IS AT 4.86 MICRONS AND LARGER
PERCENTILE: 22.0% OF COUNT IS AT 2.89 MICRONS AND LARGER
PERCENTILE: 50.0% OF COUNT IS AT 1.72 MICRONS AND LARGER
PERCENTILE: 78.0% OF COUNT IS AT .96 MICRONS AND LARGER
PERCENTILE: 94.0% OF COUNT IS AT .57 MICRONS AND LARGER
PERCENTILE: 99.0% OF COUNT IS AT .32 MICRONS AND LARGER
PERCENTILE: 99.9% OF COUNT IS AT .21 MICRONS AND LARGER

PARTICLE DATA LABORATORIES, LTD.



115 Hahn Street • Elmhurst, Illinois 60126 • (312) 832-5658

March 10, 1983

R & M Consultants, Inc.
Box 6087
Anchorage, AK 99502

Attention Mr. Brett Jokela

PDL Project: I-7137

Gentlemen:

This report covers the optical microscopy performed on the three lake water samples labeled 9-32, 5-32, and 11-28. The specific item of interest was the presence and characterization of calcium carbonate concretions. Some of this material was present in all three samples, with 9-32 having the most, 11-28 less and 5-32 having very little material of any sort. Both calcite and aragonite were present though aragonite was the predominant type.

Particles are present as single crystals, loose agglomerates of such crystals, intergrown agglomerates of large crystals, coarse spherulites or rosetts of large crystals, and hollow spherulites of very small crystals. (Small crystals are less than 3 μm , large from 3 μm to about 25 μm .)

The following table shows the approximate abundance of the various types:

	(C=Calcite, A=Aragonite)			
	9-32		11-28	
Single Crystals	C Trace	A 2-3%	C 3-5%	A 3-5%
Intergrown Agglomerates	C 2-3%	A 30%	C 10%	A 15%
Large Agglomerates	C 1-2%	A 15%	C 5%	A 10%
Rosetts	C Trace	A 10%	C 3%	A 5%
Isolated Spheres	C 1%	A Trace	C 3%	A 5%
Agglomerated Spheres	C 10%	A 10%	C 10%	A 20%
Combination Agglomerates (Spheres and large crystals)	C + A 20%		C + A 10%	

PARTICLE DATA LABORATORIES, LTD.

R & M Consultants, Inc.
PDL Project: I-7137
March 10, 1983
Page 2

Samples 5-32 was different with a few small agglomerates and isolated small single crystals. The crystals were either too small or poorly formed to allow adequate characterization by optical crystallography. In sample 9-32, about 40% of the particles by mass are calcium carbonate, while in sample 11-28, about 5% of the mass is calcium carbonate. Sample 5-32 has a low loading with 5-15% of the material being CaCO_3 . The single crystals in sample 11-28 average about 3 μm , while those in 9-32 are about 8 μm .

The origin of these rather unusual entities may be somewhat difficult to explain. That they form from solution is definite based on their well formed crystals and crystal association. Changes in temperature or CO_2 tension could cause this material to precipitate. The single crystals, large crystal agglomerates, and rosetts are readily explained by some modification of this normal mode of crystal growth.

The rosetts are macrosphereulites which have grown from a central nucleus, while agglomerate formation is expected during crystalization once nucleation has occurred. The hollow spheres of many (200-500) small interlocked crystals is harder to explain. Bubbles could provide a surface for such growth though this would be difficult to prove.

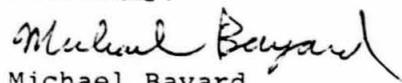
It is possible that these grew on a core of some material which later dissolved or leaked out. Oil would be a possibility, though not a likely one. Biological origin cannot be completely ruled out. They could be poorly preserved foraminifera (salt water single-celled creatures with calcite or aragomite shells), or they could result from a fresh-water amoeba such as difflugia, which is known to cement together particles, usually of one type, into a hollow shell.

It is unlikely that a crystal assemblage this fragile could exist for very long without some form of binder.

The attached micrographs show the material as it can be visualized in the optical unit. Unfortunately, both contrast and depth of field are problems which limit what can be seen by this method. If more definitive views are desired, scanning electron microscopy would be in order.

Thank you for consulting Particle Data Laboratory on this project. It is possible that a study of these concretions would be worth a publication some time in the future.

Sincerely,



Michael Bayard
Research Microscopist



Figure 1. 9-32 Material, 1000X. This clearly shows a group of hollow spheres composed of many small interlocking crystal plates. The magnification is at the reasonable limit for the optical microscope.



Figure 2. 9-32 Material, 1000X. This is a loosely bound agglomerate which has a hierarchy of single crystals and tightly bound groups of several crystals loosely associated.



Figure 3. 9-32 Material, 1000X. This is a macro-agglomerate of rosetts.



Figure 4. 11-28 Material 1000X. As in sample 9-32, hollow spheres are present.

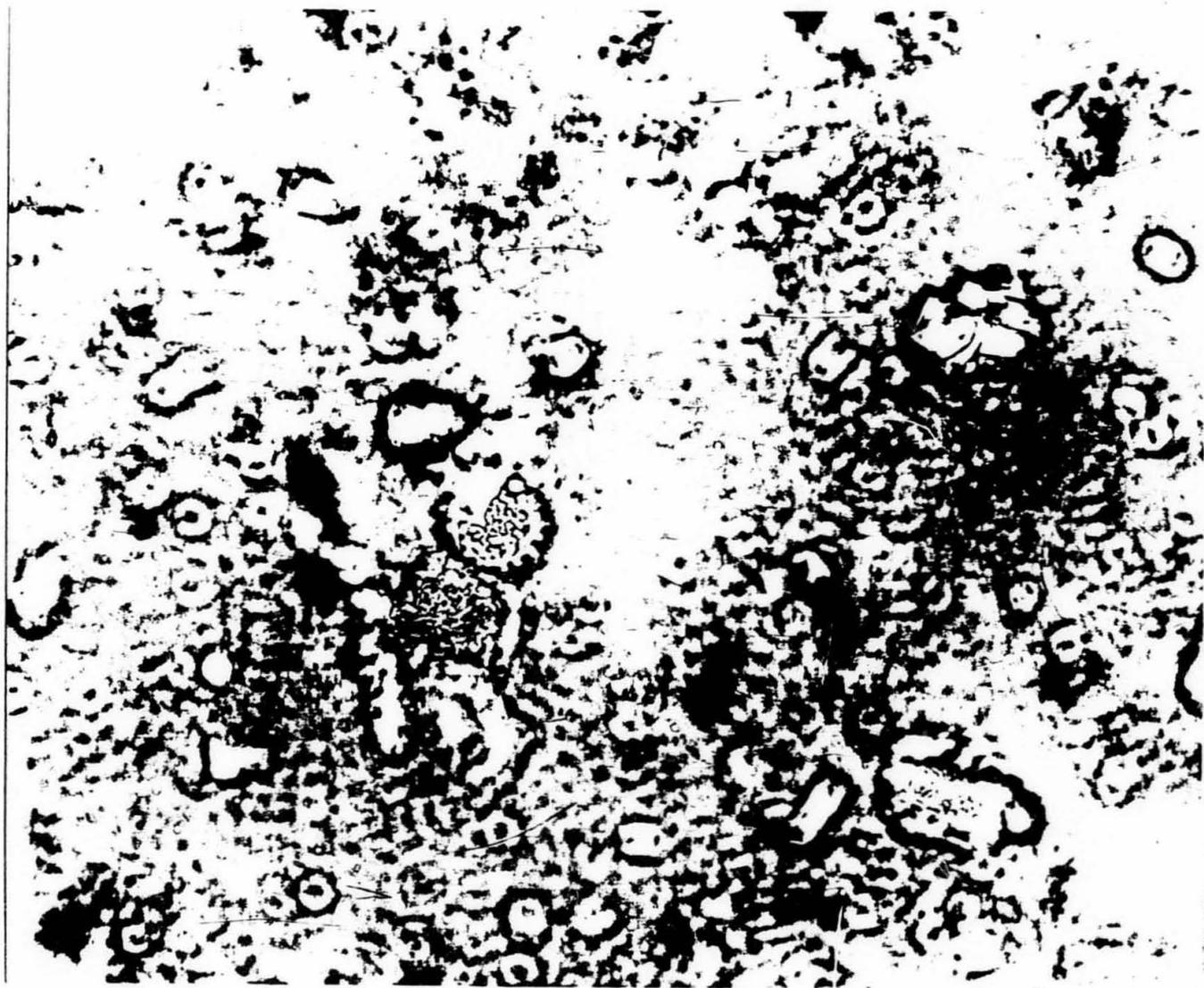


Figure 5. 11-28 Material, 1000X. At the left are spheres; at the right, an intergrown agglomerate.

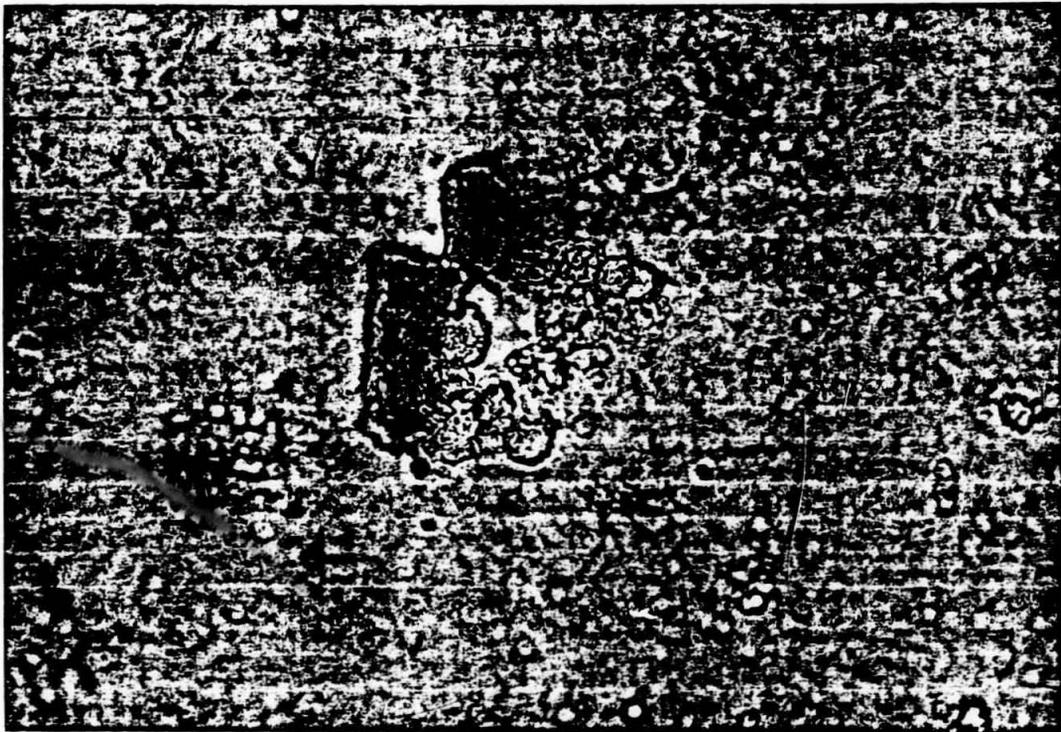


Figure 6. 9-32 Material, 500X. While the true colors can be shown in this type of presentation, color photomicrography usually does not yield the high contrast of black and white. The sample is a multiple agglomerate of the hollow shperes.



Figure 7. 9-32 Material, 500X. This is the same area as in Figure 6 in crossed polars. The preferred orientation of the individual crystals comprising the spheres is shown by the black crosses which correspond to the vibration direction of the polars in the microscope. This type of pattern is associated with crystals which display a radial orientation.

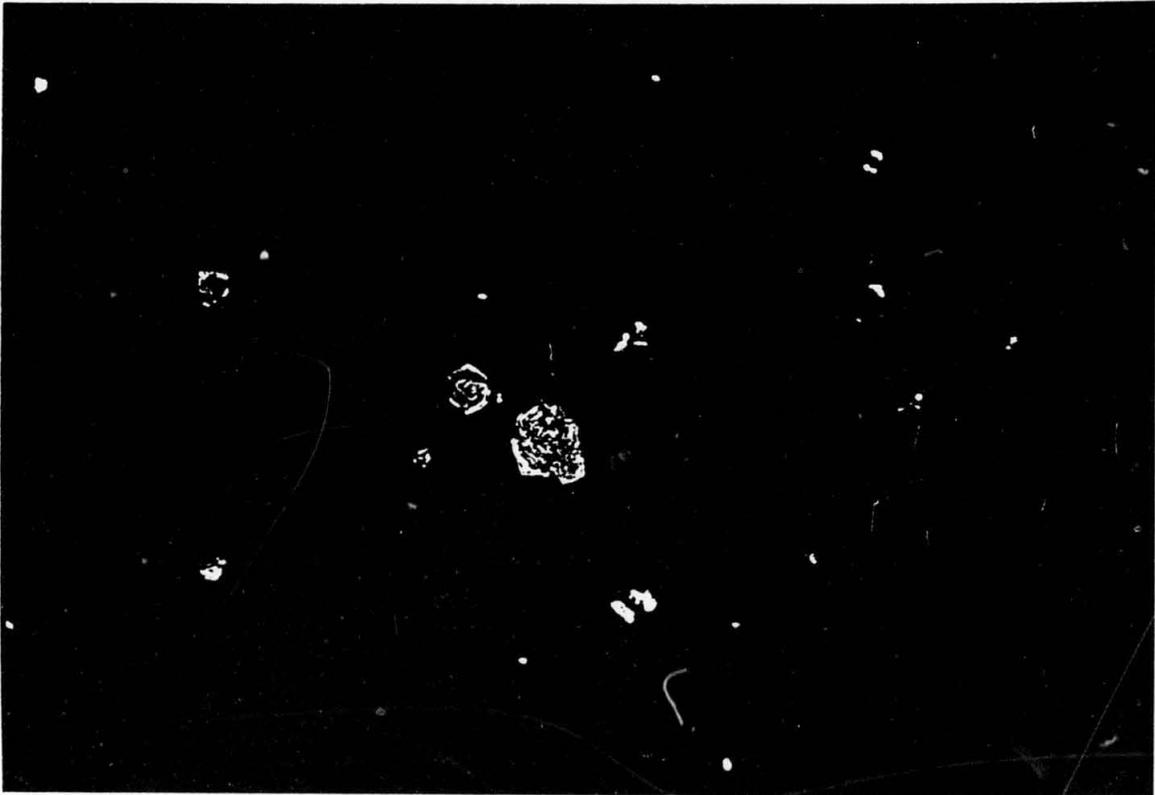


Figure 8. 9-32 Material, 500X. This view shows intergrown crystals.



Figure 9. 9-32 Material, 500X. A large single crystal is seen attached to an agglomerate of smaller ones. There is some radial (rosett) orientation at the bottom of the agglomerate.

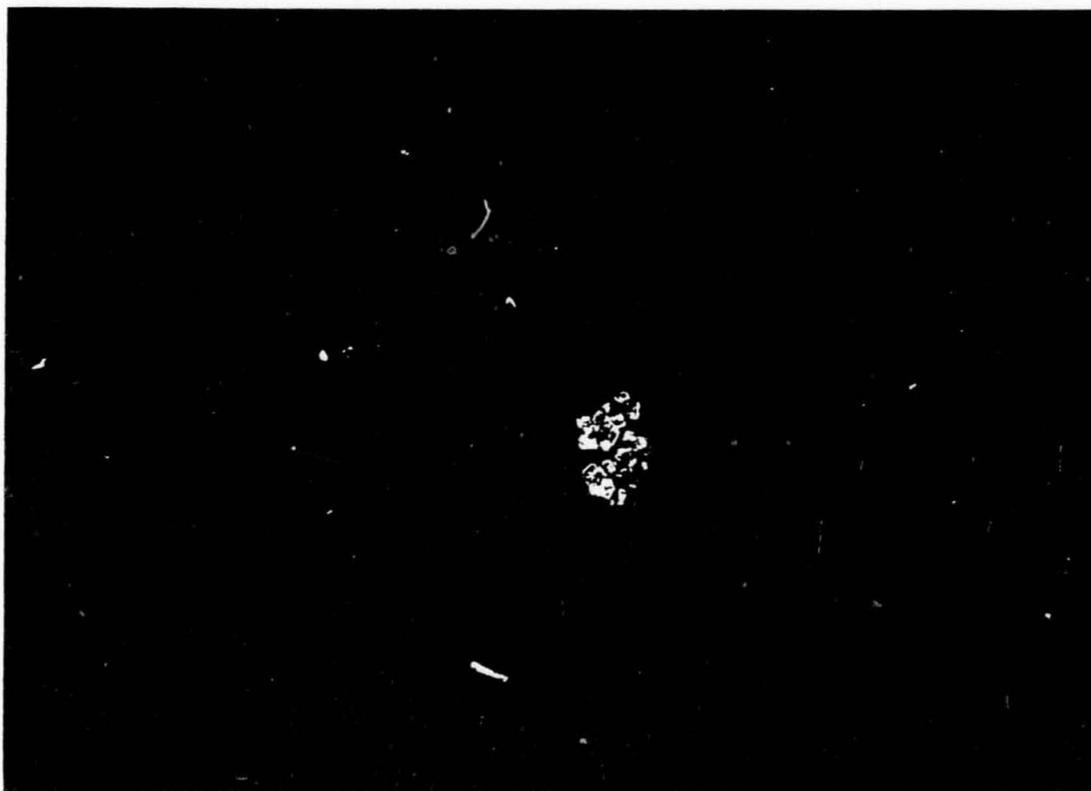


Figure 10. 11-28 Material, 500X. Loose and well bound large crystals.

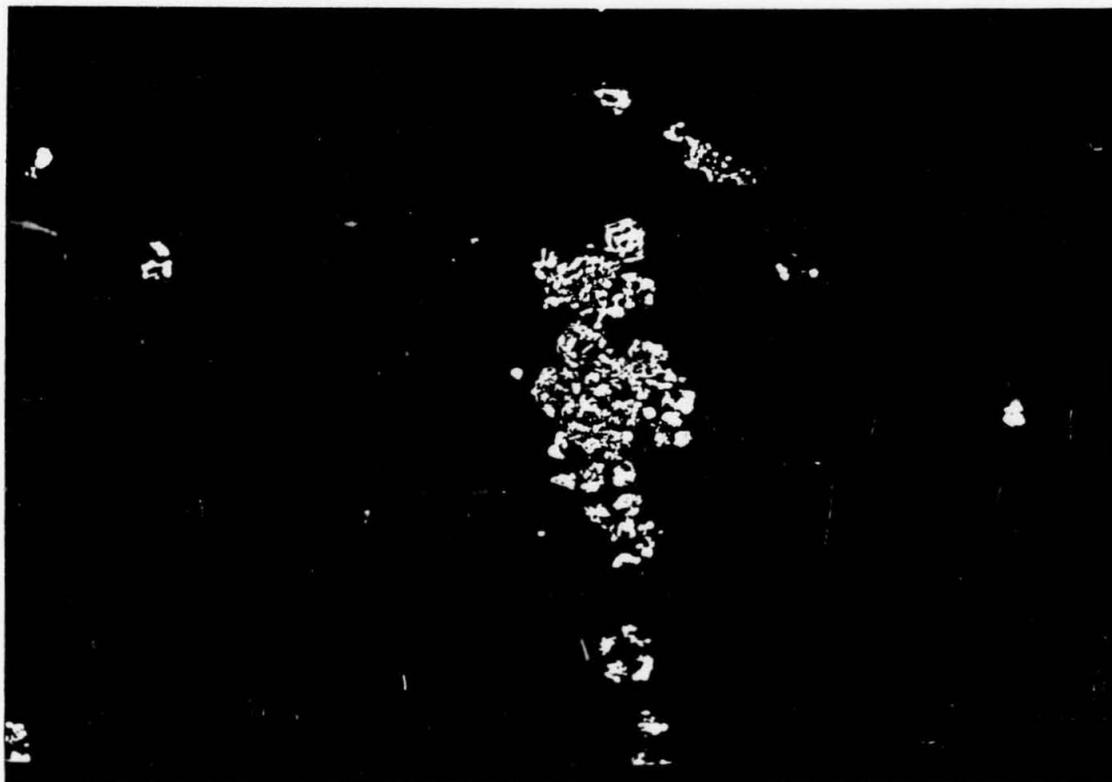


Figure 11. 11-28 Material, 500X. This is a complex agglomerate with a large spherulite at the bottom and some more or less well bound individual crystals.



R&M CONSULTANTS, INC. 1024 COPPERVALE • BOX 5001 • ANCHORAGE, ALASKA 99501 • (907) 561-1111

ENGINEERS
GEOLOGISTS
PLANNERS
SURVEYORS

August 14, 1984

R&M No. : 452418

Particle Data Laboratories
115 Hahn Street
Elmhurst, Illinois 60126

Attention: Mr. H. Batchu

RE: Sediment Analyses for Eklutna Lake and Susitna River

Dear Mr. Batchu:

Enclosed are nine one-liter water samples. Per our discussion of July 18th and August 7th, please analyze the samples according to the following table.

Sample Location and Date	Particle Size Distribution	Microphotos/Petrograph Analysis	Total Suspended Solids
1 East Fork 7/20/84 2000	x	x	
2 Glacier Fork 7/20/84 1640	x	x	
3 Tailrace 7/21/84 2000	x	x	
4 Susitna River 7/31/84	x		x
5 Settling Column 8/01/84 0 hrs	x	x	
6 Settling Column 8/05/84 96 hrs	x	x	
7 Susitna River 8/06/84	x		x
8 Settling Column 8/07/84 0 hrs	x	x	
9 Settling Column 8/11/84 96 hrs	x	x	

Please send us the particle size distribution results in your standard reporting format of tabular and graphic results for the distribution on the basis of both particle count and total particle volume. For the petrographic analysis we expect to receive a density distribution and mineralogic description of the sediment. For the microphotos please split each sample into two subsamples prior to taking scanning electron photomicrographs at 100 power and 400 power magnification. For the photomicrographs use color film to show the typical particle shapes and crystallographic details. Please provide metal shadowed black and white photographs if the level of detail is improved over the color photography.

LT/10
Particle Data Laboratories
August 14, 1984
Page 2

Please use purchase order number 17965 when billing us. Should you have any questions please call me or Jeff Coffin at (907) 561-1733. We look forward to receiving the results as soon as they are available.

Sincerely,
R&M CONSULTANTS, INC.

Bill Ashton

Bill Ashton
Hydrologist

BA;bjc



452418

PARTICLE DATA LABORATORIES, LTD.



115 Hahn Street • Elmhurst, Illinois 60126 • (312) 832-5658

September 18, 1984

rec. 9/24

from sample sent 9/14/84

R & M Consultants, Inc.
5024 Cordova
Box 6087
Anchorage, Alaska 99502

Attention: Mr. Bill Ashton

Subject: Electrozone Analysis - 9 Water Samples - P. O. #17965

PDL Project: I-8213

Gentlemen:

Enclosed please find a copy of the computerized data printout of your sample as generated by the Electrozone Analyzer. If you have any questions, please do not hesitate to call us at Particle Data Laboratories.

It has been a pleasure serving your company, and we look forward to serving you again in the near future.

Respectfully submitted,

PARTICLE DATA LABORATORIES, LTD.

Olga Kist
Technical Staff

OK:cnl
Enc.

P.S. The results of the microscopic evaluation will be mailed by the end of this week.

PARTICLE SIZE ANALYSIS BY ELZONE METHOD--PARTICLE DATA LABORATORIES, LTD.
115 HAHN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312)832-5658

CLIENT: R & M CONSULTANTS
SAMPLE: EAST FORK 7/20/84

2000

5 SEP 84 :DATE
8213 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4
=====

INDICES

VOLUME MODE = 4.86 MEDIAN = 4.86 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 5.18 +/- 20.35 (393.15%) SKEWNESS = .02

ARITHMETIC VOLUME MEAN = 16.64 +/- 30.44 (182.91%) SKEWNESS = .39

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 239.90 MICRONS AND LARGER
PERCENTILE: 01.0% OF VOLUME IS AT 155.55 MICRONS AND LARGER
PERCENTILE: 06.0% OF VOLUME IS AT 71.32 MICRONS AND LARGER
PERCENTILE: 22.0% OF VOLUME IS AT 17.83 MICRONS AND LARGER
PERCENTILE: 50.0% OF VOLUME IS AT 4.86 MICRONS AND LARGER
PERCENTILE: 78.0% OF VOLUME IS AT 1.45 MICRONS AND LARGER
PERCENTILE: 94.0% OF VOLUME IS AT .43 MICRONS AND LARGER
PERCENTILE: 99.0% OF VOLUME IS AT .14 MICRONS AND LARGER
PERCENTILE: 99.9% OF VOLUME IS AT .06 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5
=====

INDICES

COUNTS MODE = .05 MEDIAN = .08 MICRONS AND LARGER

GEOMETRIC COUNTS MEAN = .10 +/- .07 (74.81%) SKEWNESS = .59

ARITHMETIC COUNTS MEAN = .12 +/- .13 (112.77%) SKEWNESS = .49

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNTS IS AT 1.58 MICRONS AND LARGER
PERCENTILE: 01.0% OF COUNTS IS AT .61 MICRONS AND LARGER
PERCENTILE: 06.0% OF COUNTS IS AT .28 MICRONS AND LARGER
PERCENTILE: 22.0% OF COUNTS IS AT .14 MICRONS AND LARGER
PERCENTILE: 50.0% OF COUNTS IS AT .08 MICRONS AND LARGER
PERCENTILE: 78.0% OF COUNTS IS AT .06 MICRONS AND LARGER
PERCENTILE: 94.0% OF COUNTS IS AT .05 MICRONS AND LARGER
PERCENTILE: 99.0% OF COUNTS IS AT .05 MICRONS AND LARGER
PERCENTILE: 99.9% OF COUNTS IS AT .05 MICRONS AND LARGER

PARTICLE SIZE ANALYSIS BY ELZONE METHOD--PARTICLE DATA LABORATORIES, LTD.
115 HAHN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312)832-5658

2

CLIENT: R & M CONSULTANTS, INC.
SAMPLE: GLACIER FORK 7/20/84 1640

5 SEP 84 :DATE
8213 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4
=====

INDICES

VOLUME MODE = 6.87 MEDIAN = 9.72 MICRONS AND LARGER
GEOMETRIC VOLUME MEAN = 9.15 +/- 42.78 (467.69%) SKEWNESS = .05
ARITHMETIC VOLUME MEAN = 28.85 +/- 42.15 (146.09%) SKEWNESS = .52

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 285.28 MICRONS AND LARGER
PERCENTILE: 01.0% OF VOLUME IS AT 201.73 MICRONS AND LARGER
PERCENTILE: 06.0% OF VOLUME IS AT 109.99 MICRONS AND LARGER
PERCENTILE: 22.0% OF VOLUME IS AT 46.25 MICRONS AND LARGER
PERCENTILE: 50.0% OF VOLUME IS AT 9.72 MICRONS AND LARGER
PERCENTILE: 78.0% OF VOLUME IS AT 2.23 MICRONS AND LARGER
PERCENTILE: 94.0% OF VOLUME IS AT .56 MICRONS AND LARGER
PERCENTILE: 99.0% OF VOLUME IS AT .15 MICRONS AND LARGER
PERCENTILE: 99.9% OF VOLUME IS AT .06 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5
=====

INDICES

COUNTS MODE = .05 MEDIAN = .08 MICRONS AND LARGER
GEOMETRIC COUNTS MEAN = .09 +/- .06 (70.47%) SKEWNESS = .59
ARITHMETIC COUNTS MEAN = .11 +/- .12 (111.11%) SKEWNESS = .47

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNTS IS AT 1.45 MICRONS AND LARGER
PERCENTILE: 01.0% OF COUNTS IS AT .56 MICRONS AND LARGER
PERCENTILE: 06.0% OF COUNTS IS AT .26 MICRONS AND LARGER
PERCENTILE: 22.0% OF COUNTS IS AT .13 MICRONS AND LARGER
PERCENTILE: 50.0% OF COUNTS IS AT .08 MICRONS AND LARGER
PERCENTILE: 78.0% OF COUNTS IS AT .06 MICRONS AND LARGER
PERCENTILE: 94.0% OF COUNTS IS AT .05 MICRONS AND LARGER
PERCENTILE: 99.0% OF COUNTS IS AT .05 MICRONS AND LARGER
PERCENTILE: 99.9% OF COUNTS IS AT .05 MICRONS AND LARGER

PARTICLE SIZE ANALYSIS BY ELZONE METHOD--PARTICLE DATA LABORATORIES, LTD.
115 HAHN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312)832-5658

3

CLIENT: R & M CONSULTANTS
SAMPLE: TAILRACE 7/21/84 2000

6 SEP 84 :DATE
8213 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4
=====

INDICES

VOLUME MODE = .71 MEDIAN = 1.15 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 1.58 +/- 3.37 (212.46%) SKEWNESS = .26

ARITHMETIC VOLUME MEAN = 4.39 +/- 12.08 (275.15%) SKEWNESS = .30

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 119.15 MICRONS AND LARGER
PERCENTILE: 01.0% OF VOLUME IS AT 73.74 MICRONS AND LARGER
PERCENTILE: 06.0% OF VOLUME IS AT 13.39 MICRONS AND LARGER
PERCENTILE: 22.0% OF VOLUME IS AT 3.17 MICRONS AND LARGER
PERCENTILE: 50.0% OF VOLUME IS AT 1.15 MICRONS AND LARGER
PERCENTILE: 78.0% OF VOLUME IS AT .64 MICRONS AND LARGER
PERCENTILE: 94.0% OF VOLUME IS AT .47 MICRONS AND LARGER
PERCENTILE: 99.0% OF VOLUME IS AT .36 MICRONS AND LARGER
PERCENTILE: 99.9% OF VOLUME IS AT .29 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5
=====

INDICES

COUNTS MODE = .51 MEDIAN = .51 MICRONS AND LARGER

GEOMETRIC COUNTS MEAN = .53 +/- .23 (43.80%) SKEWNESS = .07

ARITHMETIC COUNTS MEAN = .57 +/- .26 (46.35%) SKEWNESS = .21

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNTS IS AT 3.06 MICRONS AND LARGER
PERCENTILE: 01.0% OF COUNTS IS AT 1.53 MICRONS AND LARGER
PERCENTILE: 06.0% OF COUNTS IS AT .91 MICRONS AND LARGER
PERCENTILE: 22.0% OF COUNTS IS AT .68 MICRONS AND LARGER
PERCENTILE: 50.0% OF COUNTS IS AT .51 MICRONS AND LARGER
PERCENTILE: 78.0% OF COUNTS IS AT .41 MICRONS AND LARGER
PERCENTILE: 94.0% OF COUNTS IS AT .30 MICRONS AND LARGER
PERCENTILE: 99.0% OF COUNTS IS AT .24 MICRONS AND LARGER
PERCENTILE: 99.9% OF COUNTS IS AT .20 MICRONS AND LARGER

#452418

PARTICLE DATA LABORATORIES, LTD.



115 Hahn Street • Elmhurst, Illinois 60126 • (312) 832-5658

September 19, 1984

(samples sent 9/14/84)

Mr. Bill Ashton
R & M Consultants, Inc.
5024 Cordova
Box 6087
Anchorage, Alaska 99502

PDL Project: I-8213

Dear Mr. Ashton:

This report covers the mineral grain characterization performed on the seven samples you requested. Techniques of scanning electron microscopy electron microprobe and petrographic microscopy were used. Mineral identification was taken through general groups such as pyroxenes or feldspars.

Many mineral groups have a range of composition with one species blending into another as the concentration of one or more element changes. Also, comminuted minerals in water show various states of hydration and oxidation (corrosion) which also modify the mineral. As an example, in the pyroxene group there are augite, diopside, hypersthene and augite changing to pigeonite. However, the general form (more or less equant particles) and density range of the pyroxenes are similar.

The attached table shows the approximate volume abundances of the minerals present. Quartz is usually the most abundant species, followed by pyroxenes, feldspars, mica and magnetite. It may be very significant from the point of view of sediment consolidation that samples 3, 6, and 8 contain colloidal silica detectable by SEM-XRF methods. This could in time act to cement other grains together. There is some evidence for this in the optical views.

The appended micrographs show the types of grains seen. Optically there are two views of each area, one in plane polarized light and one with crossed polars and a first order red plate, which results in a pink background and anisotropic minerals in bright interference colors. Many of the individual grains have inclusions, usually magnetite in quartz or feldspars or pyroxenes. Xerox copies of the

PARTICLE DATA LABORATORIES, LTD.

R & M Consultants, Inc.
September 19, 1984
PDL Project: I-8213
Page 2

micrographs are annotated with abbreviations for the major minerals found as follows:

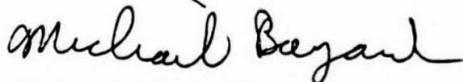
Q - Quartz	L - Limonite
P - Pyroxenes	B - Biotite
F - Feldspars	C - Calcite
M - Magnetite	A - Apatite
	CS - Colloidal Silica

Where a combined grain is present, the first letter is the matrix, the second the included species. The densities of the more important components are: Quartz 2.63 - 2.66, Colloidal Silica 2.17 - 2.20, Magnetite 5.18, Limonite 2.44-3.60, Pyroxenes 2.5 - 3.3 and Feldspars 2.6 - 3.5. These ranges correspond to variable composition and states of hydration. Also, inclusions (liquid or gas) will lighten a grain, while magnetite inclusions will make it heavier.

Thank you for consulting Particle Data Laboratories in this matter.

Sincerely,

PARTICLE DATA LABORATORIES, LTD.



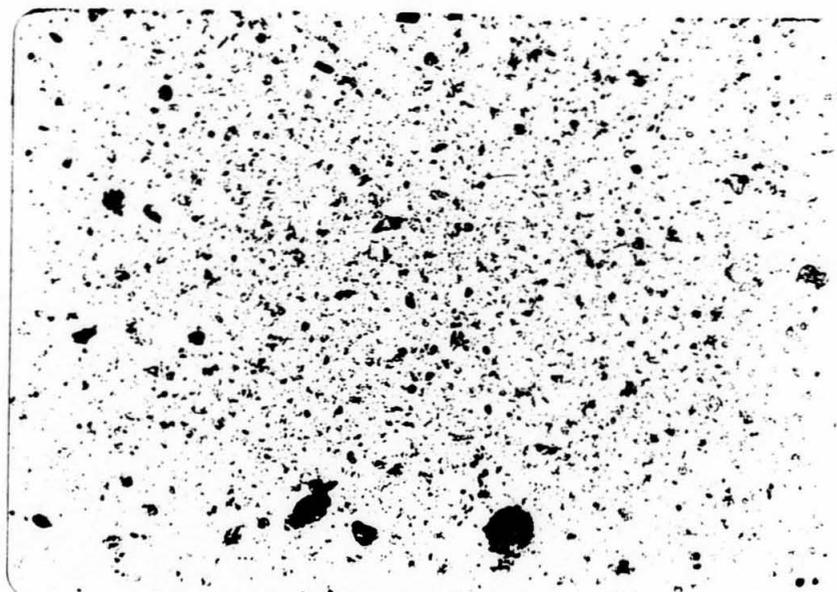
Michael Bayard
Research Microscopist

MB/kb

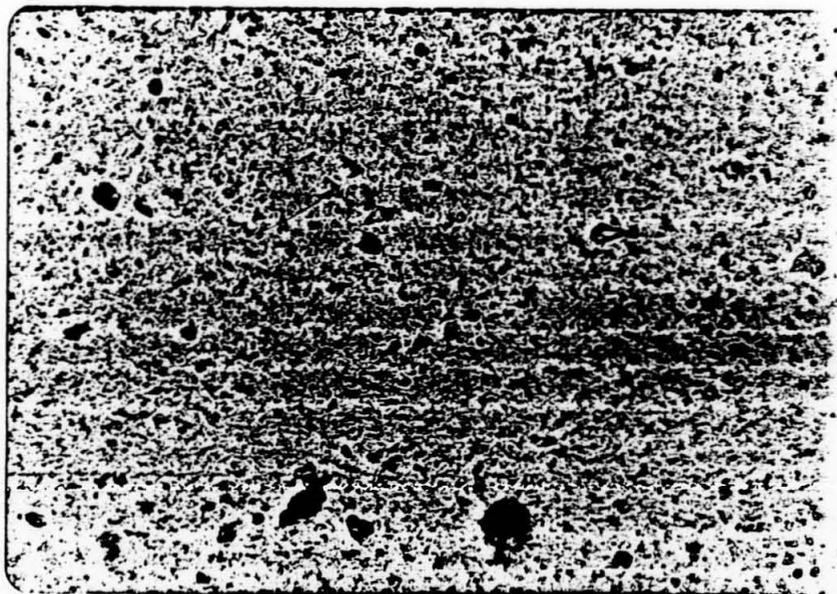
Encs.

MINERAL	SAMPLE NUMBER							
	EF 7/20/84 1	GF 7/20/84 2	TR 7/21/84 3	R#1 0 Hrs 5	Ran #1 96 Hrs 6	percent composition		
						Run #2 96 Hrs 8	Run #2 0 Hrs 9	
Quartz	35	45	10	40	15	15	30	Com. w/ in beyond 10/15/84
Feldspars	25	25	10	20	10	10	15	
Pyroxenes	15	15	5	10	5	10	15	
Biotite	Tr	Tr	-	5	-	-	5	
Muscovite	Tr	Tr	-	Tr	-	-	10	
Hematite	1	Tr	-	Tr	-	-	Tr	
Limonite	5	5	2-3	5	5	5	10	
Magnetite	10	5	20	15	25	25	15	
Illmenite	Tr	-	-	Tr	Tr	-	Tr	
Calcite	Tr	Tr	20	Tr	2-3	-	Tr	
Aragonite	-	-	1-2	-	-	-	Tr	
Clays	1-2	1-2	2-3	1-2	2-3	1-2	1-2	
Rutile	Tr	-	-	Tr	-	-	Tr	
Zircon	Tr	-	-	Tr	-	-	Tr	
Apatite	Tr	Tr	-	Tr	-	-	Tr	
Colloidal Silica	2-3	1-2	30	1-2	30	35	1-2	

Approx. % by volume.
Tr ⇒ trace.



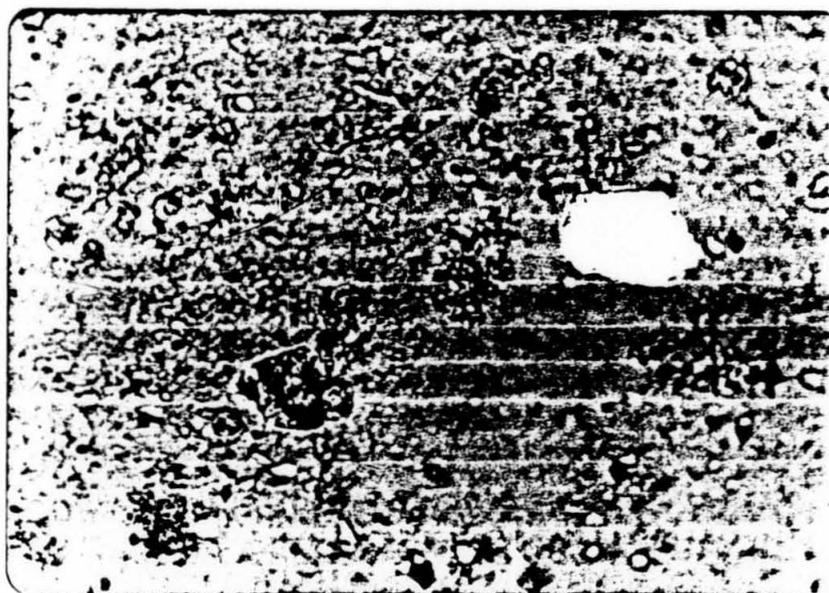
Sample 1, 100X



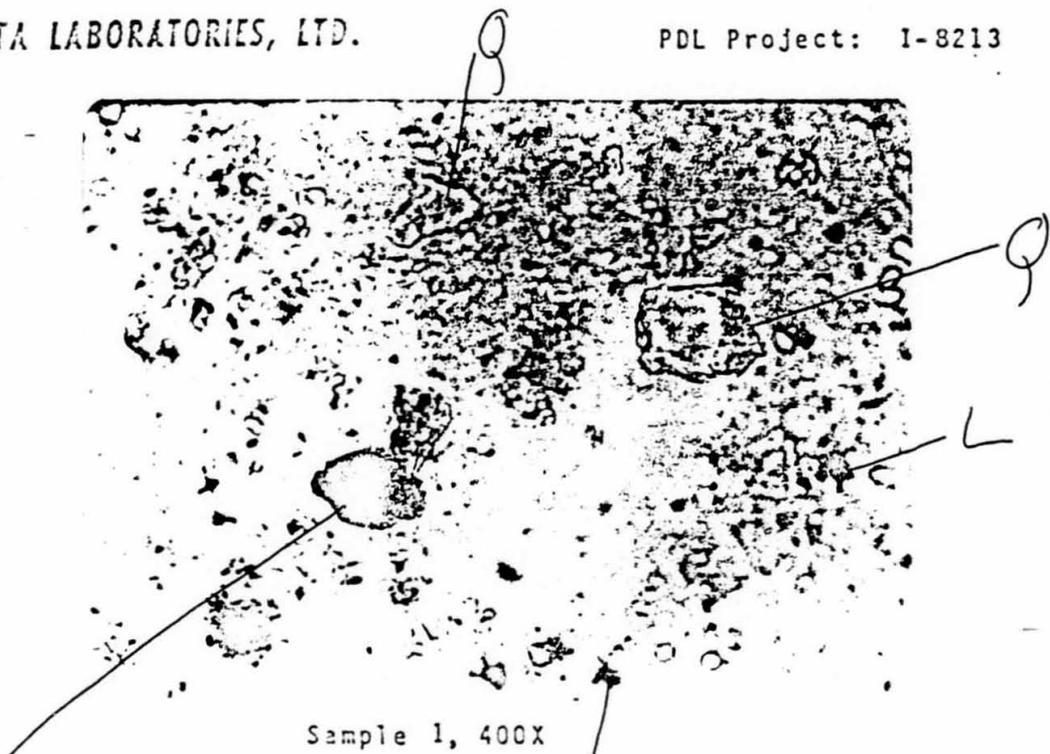
Sample 1, 100X, Crossed Polars



Sample 1, 400X

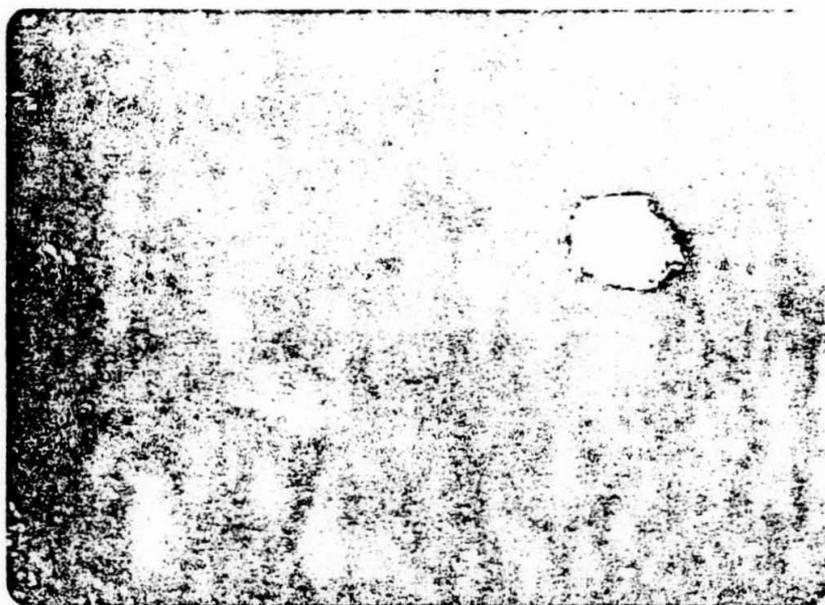


Sample 1, 400X, Crossed Polars

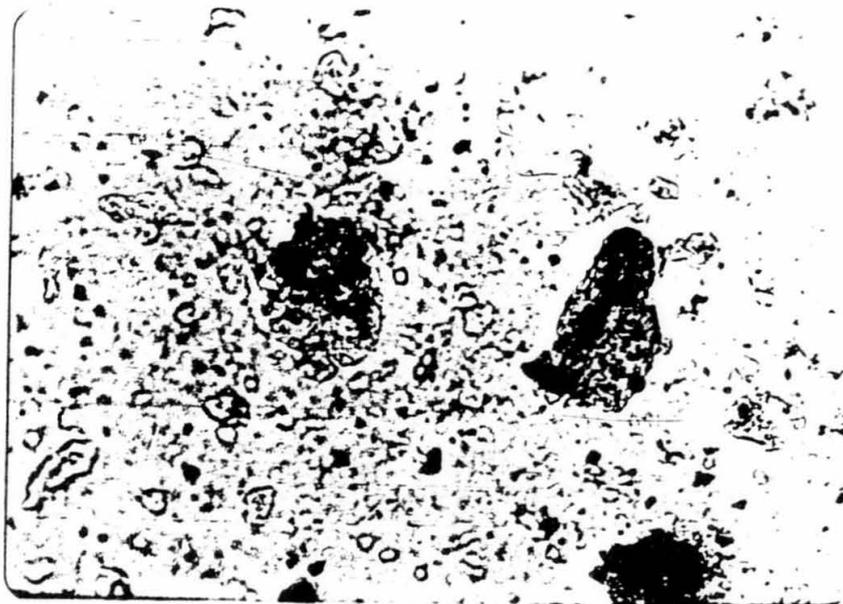


Q/M

Sample 1, 400X



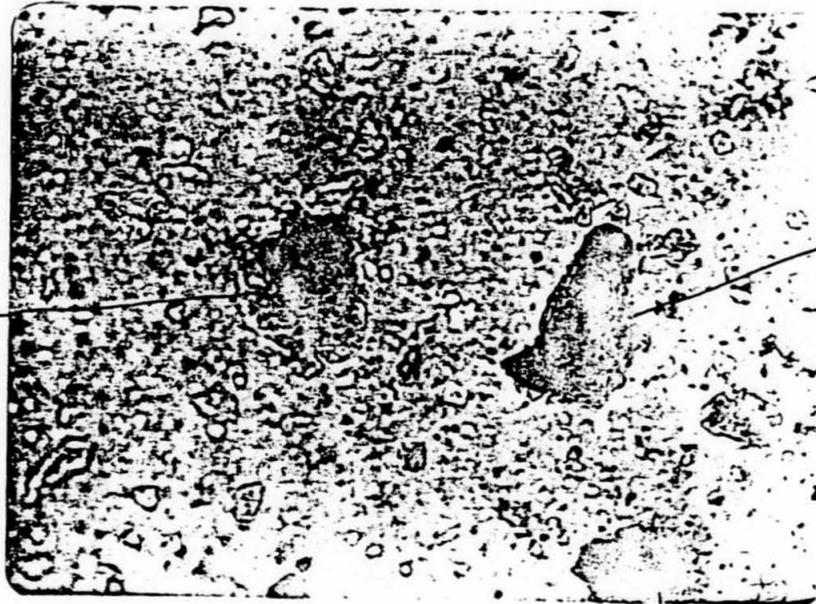
Sample 1, 400X, Crossed Polars



Sample 1, 400X



Sample 1, 400X, Crossed Polars



F/L

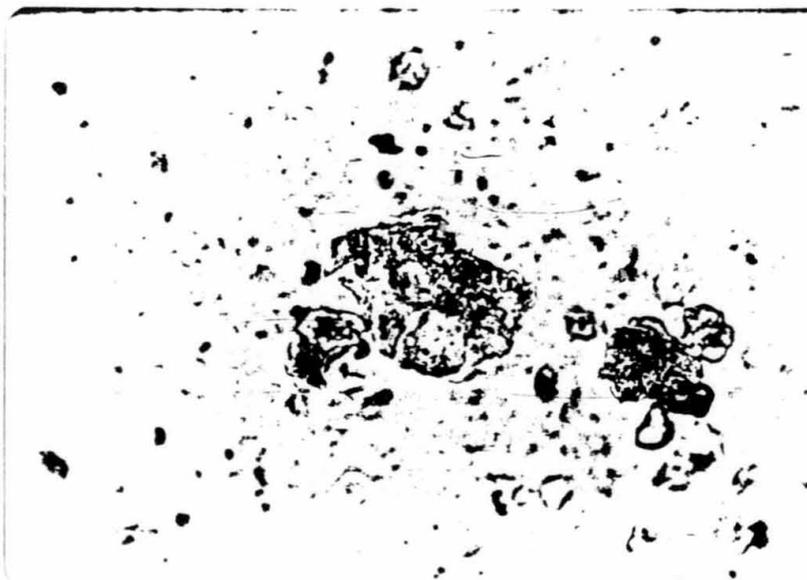
F/M

Sample 1, 400X

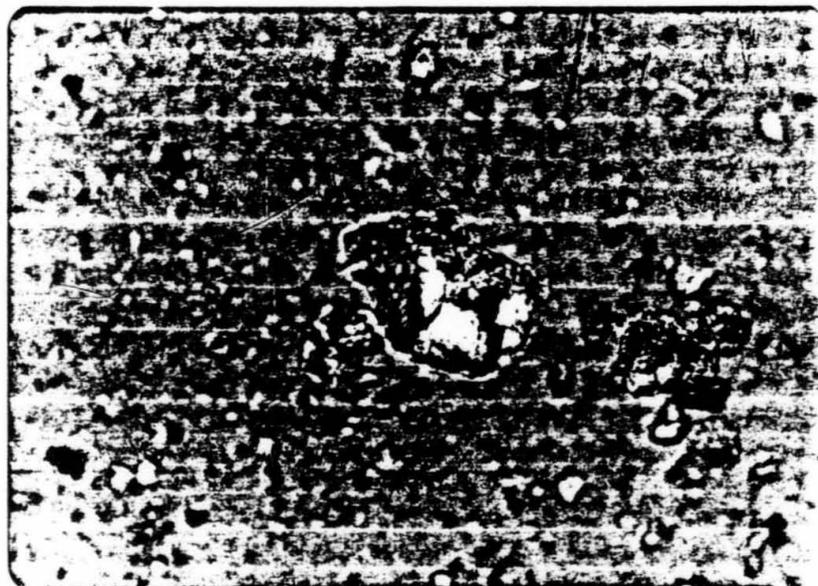
Q/M



Sample 1, 400X, Crossed Polars



Sample 1, 400X

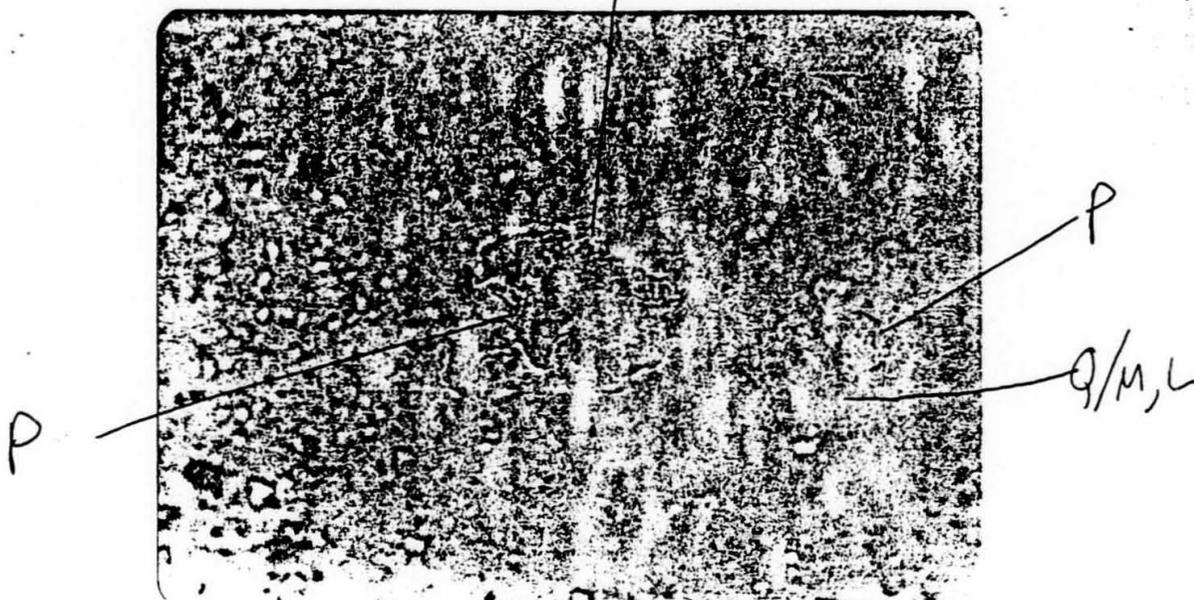


Sample 1, 400X, Crossed Polars

PARTICLE DATA LABORATORIES, LTD.

PDL Project: I-8213

P/M



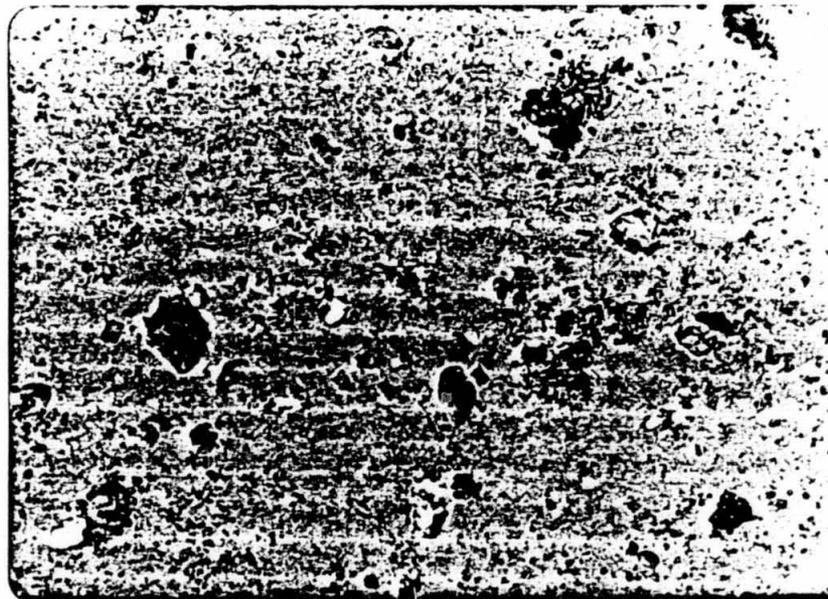
Sample 1, 400X



Sample 1, 400X, Crossed Polars



Sample 1, 400X

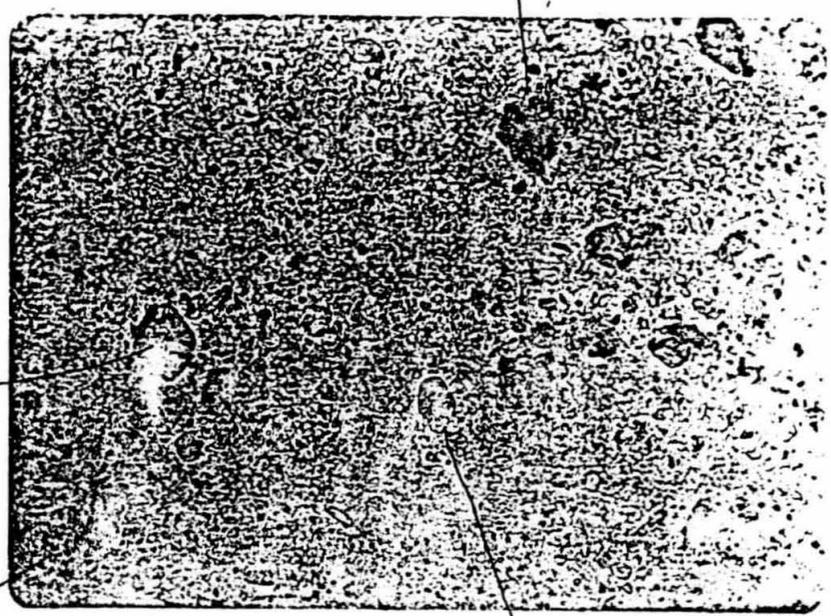


Sample 1, 400X, Crossed Polars

PARTICLE DATA LABORATORIES, LTD.

PDL Project: I-8213

Q/M



Q/M

L

Sample 1, 400X

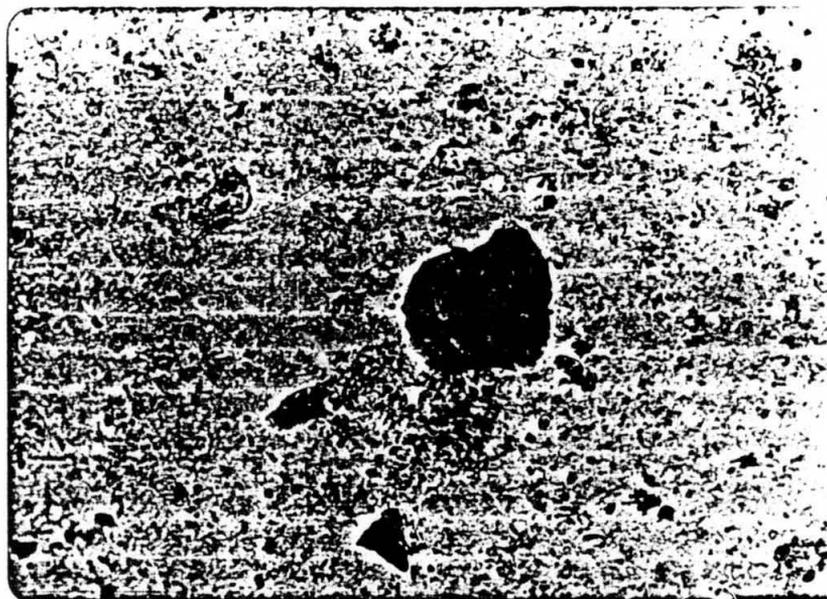
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Sample 1, 400X, Crossed Polars



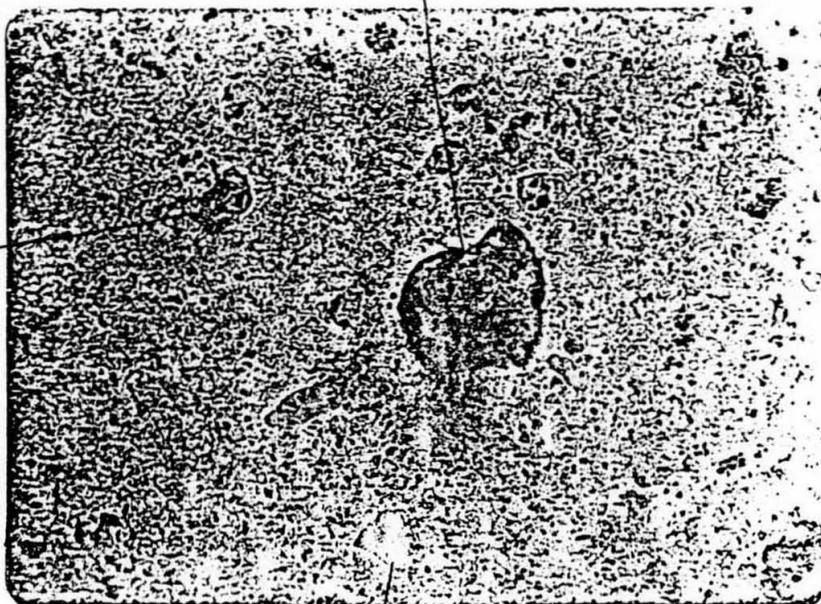
Sample 1, 400X



Sample 1, 400X, Crossed Polars

Q/M

P

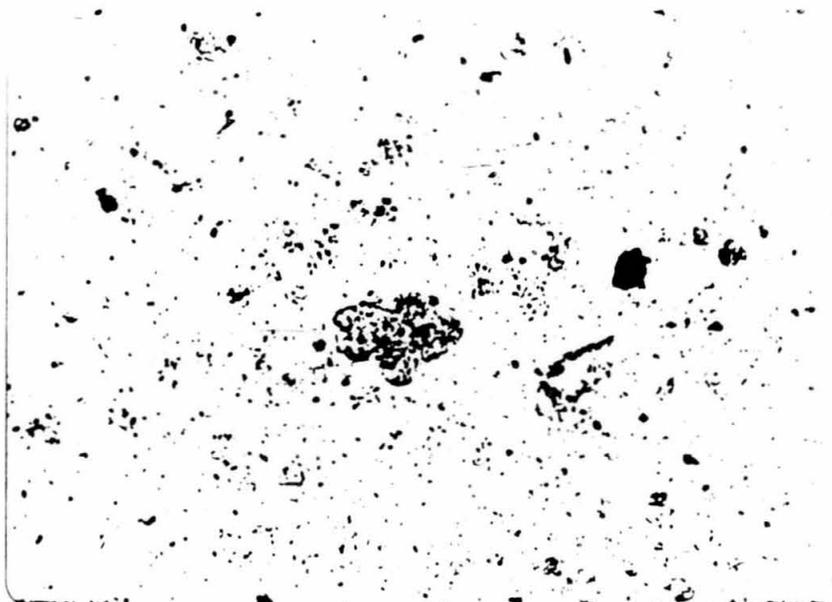


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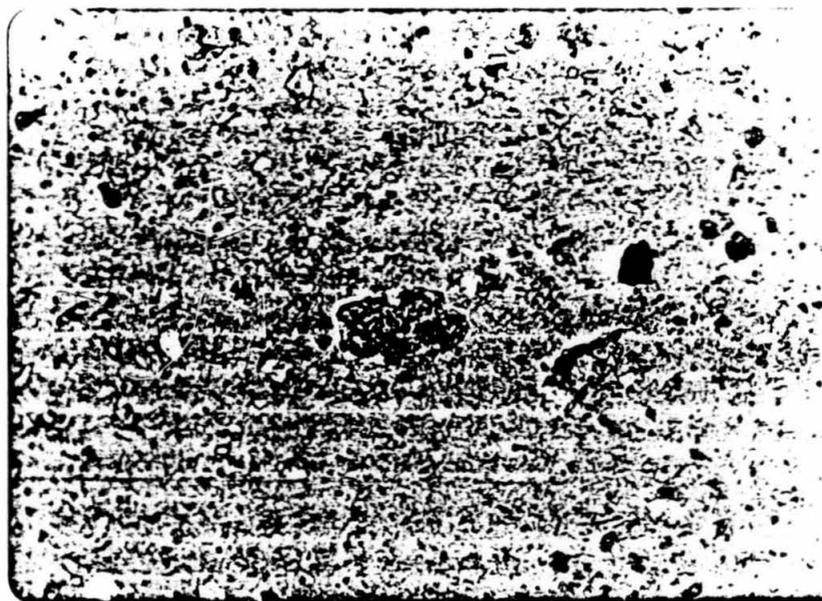
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Sample 1, 400X, Crossed Polars



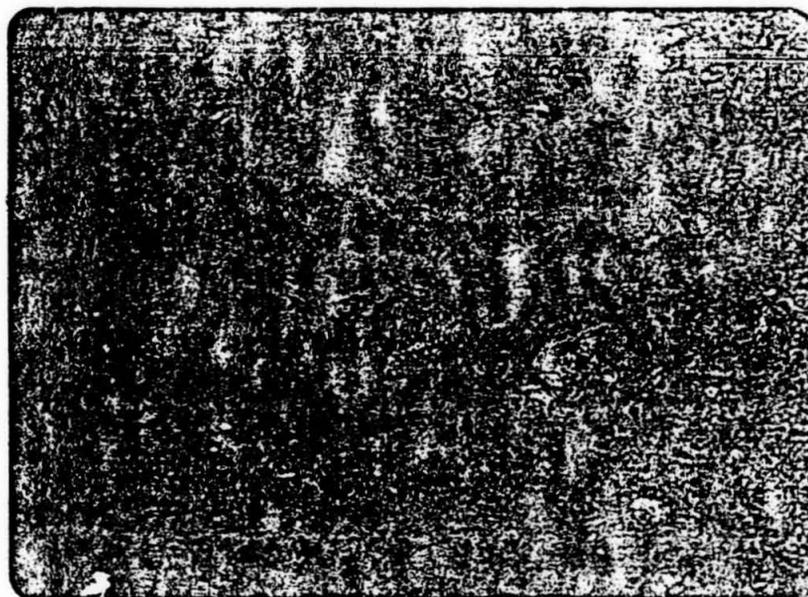
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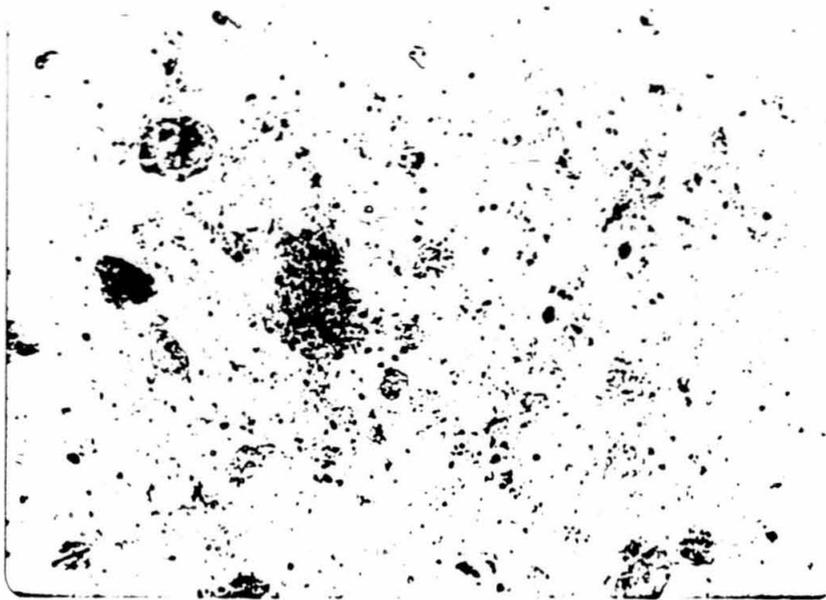
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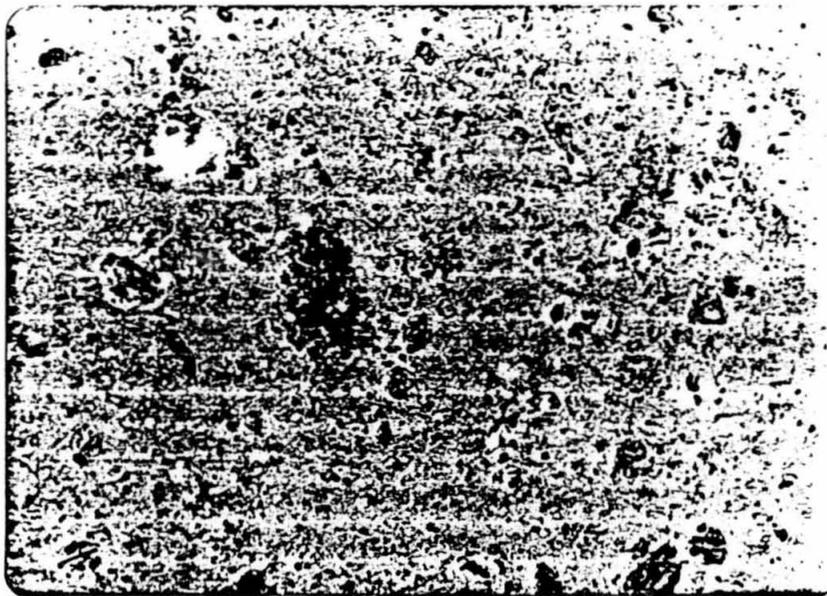
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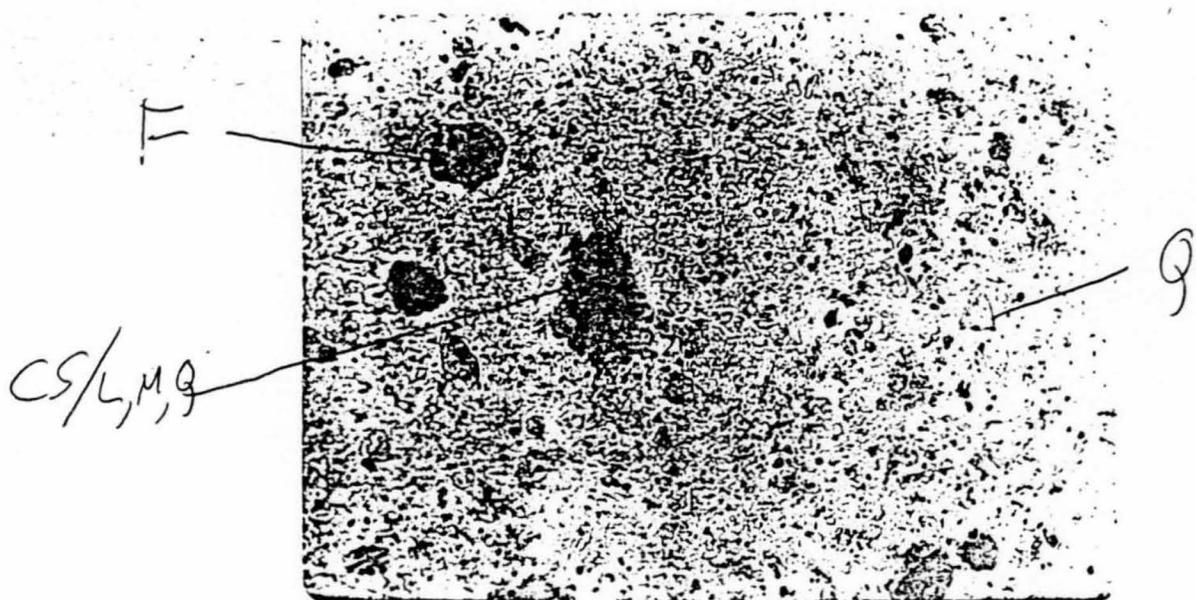
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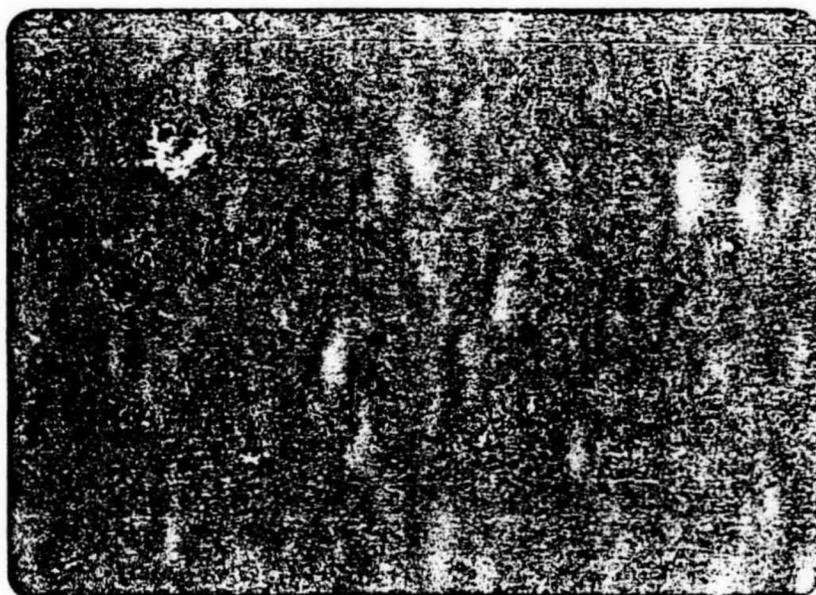
Sample 1, 400X



Sample 1, 400X, Crossed Polars



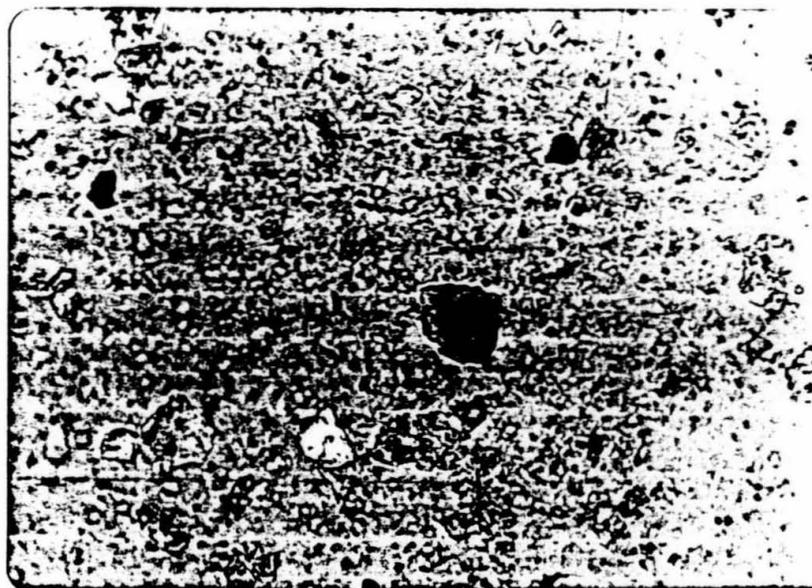
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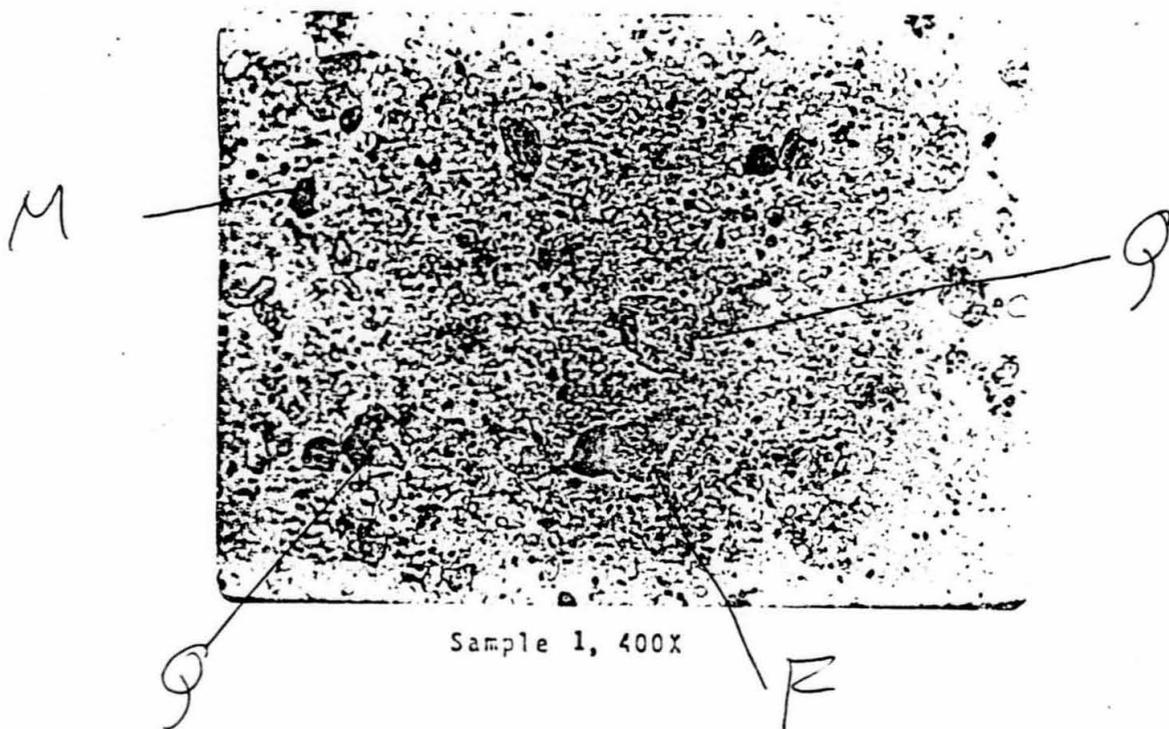
Sample 1, 400X, Crossed Polars



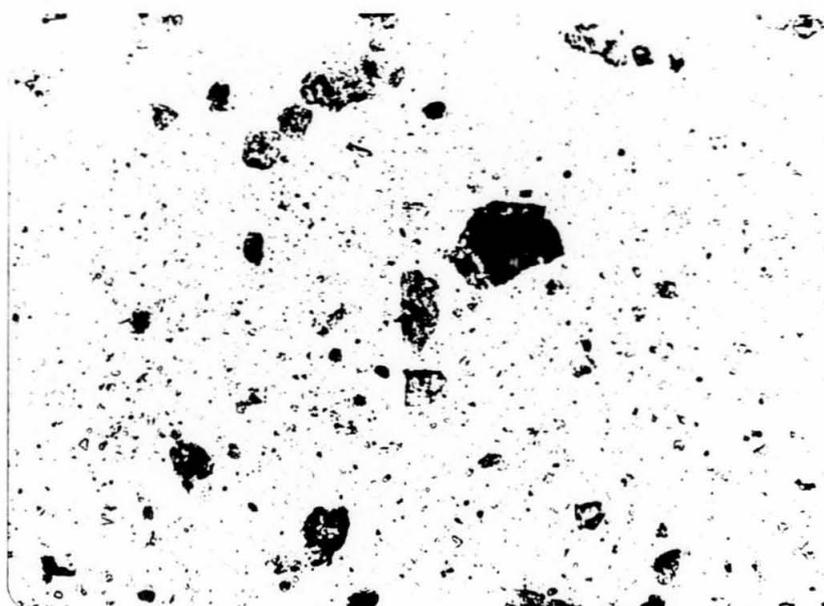
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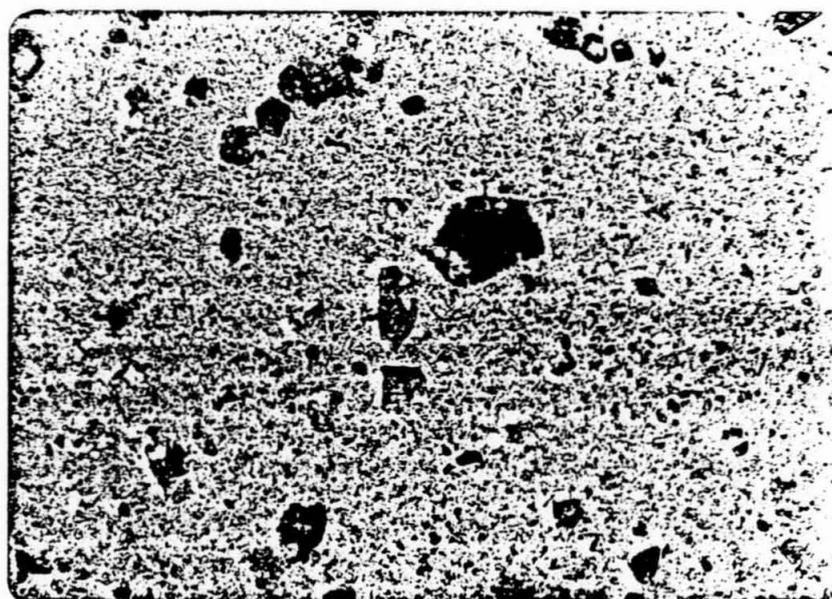
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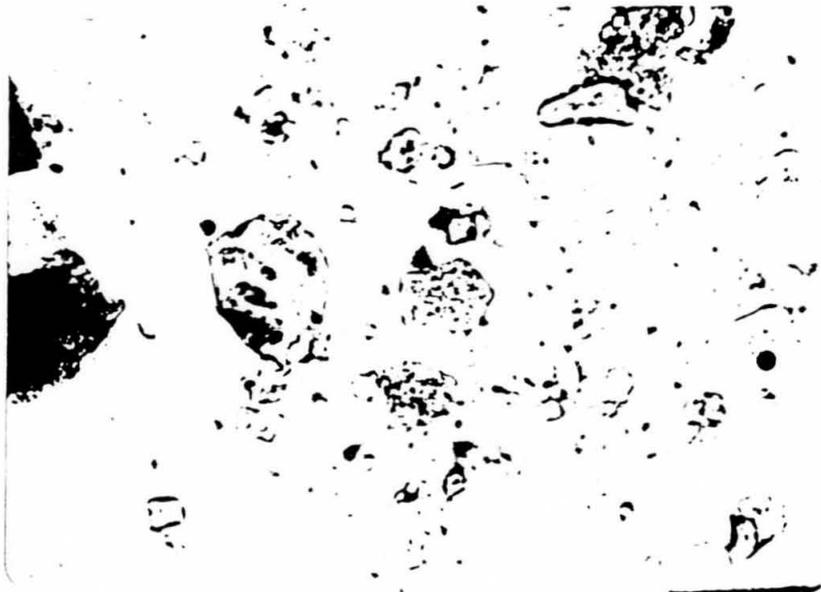
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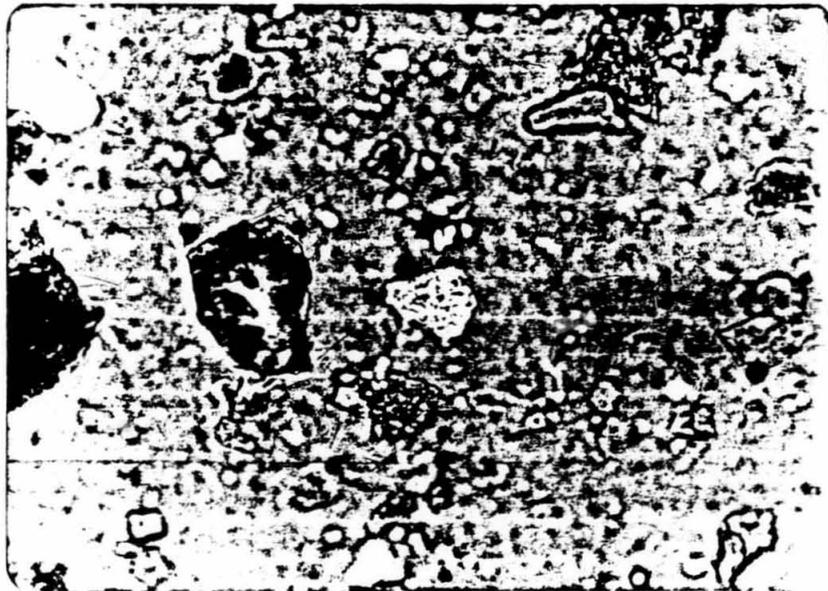
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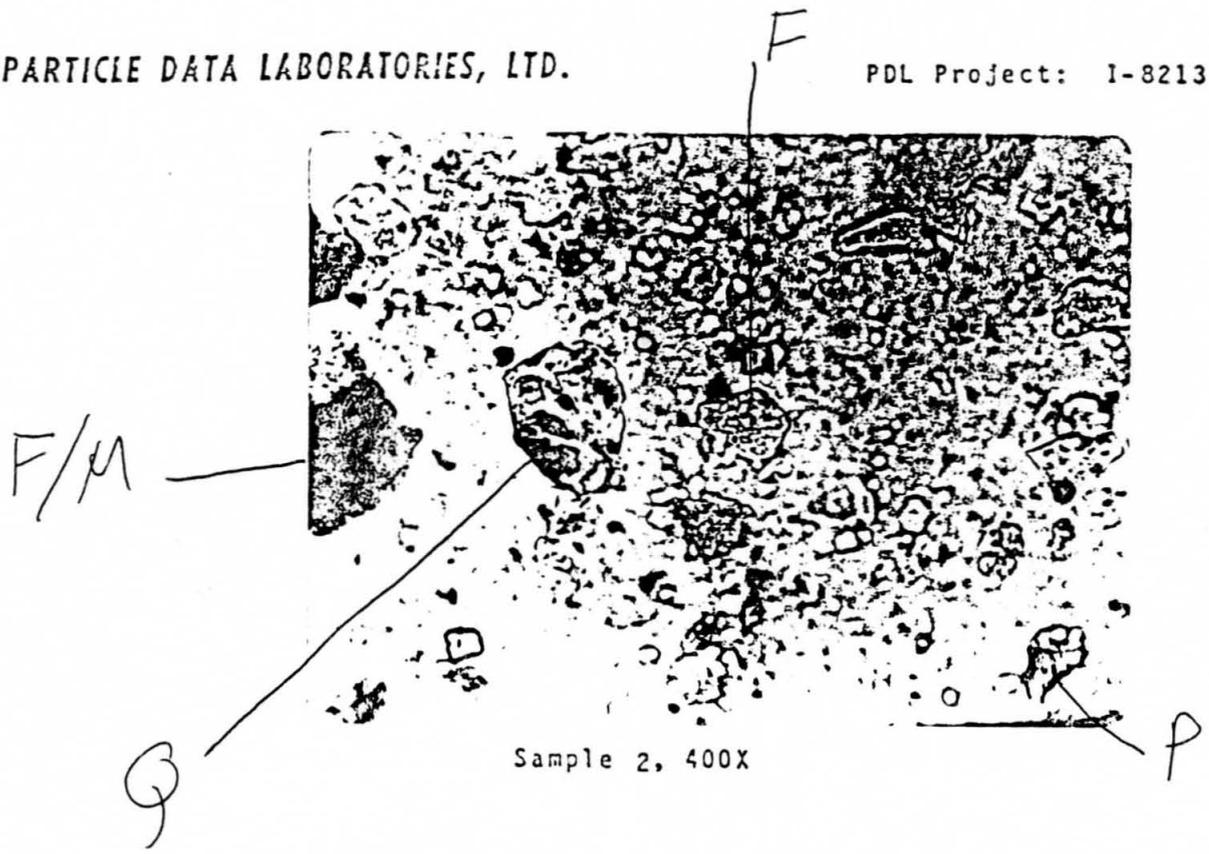
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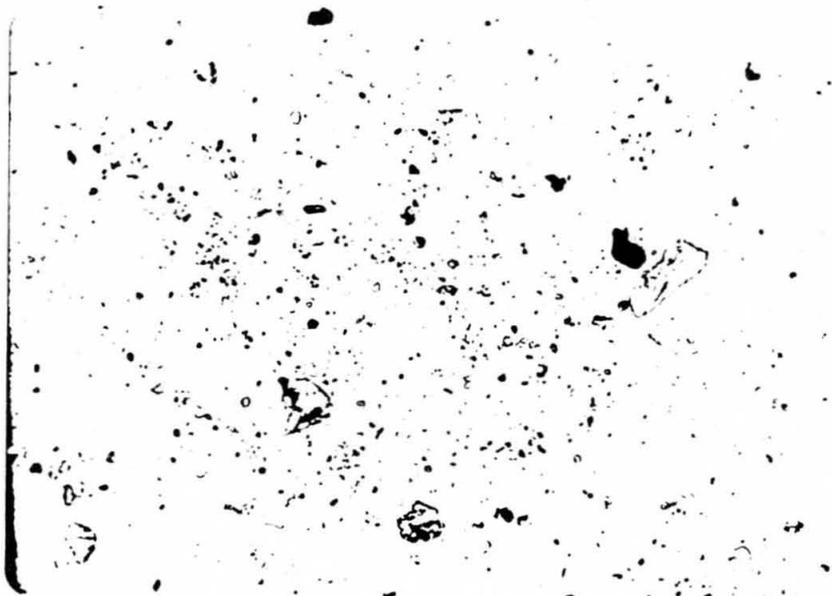
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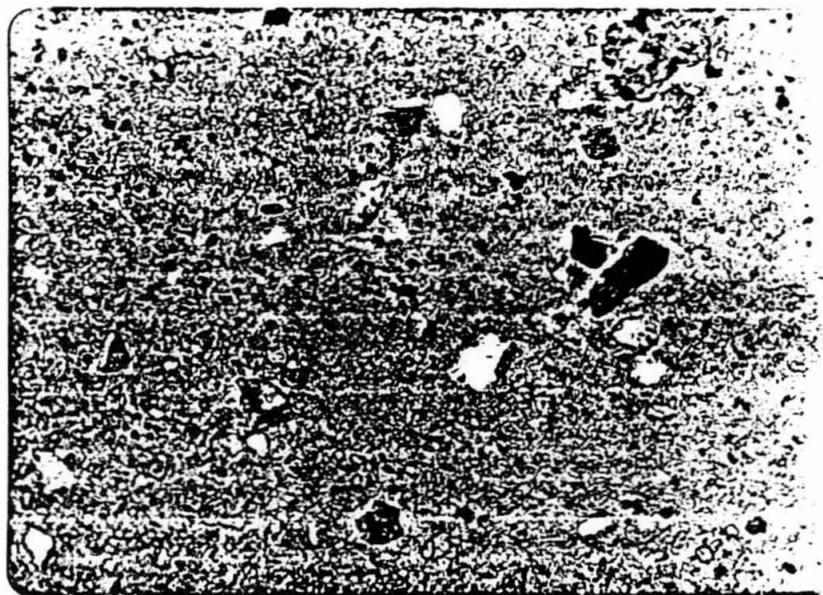
Sample 2, 400X, Crossed Polars



Sample 2, 400X, Crossed Polars



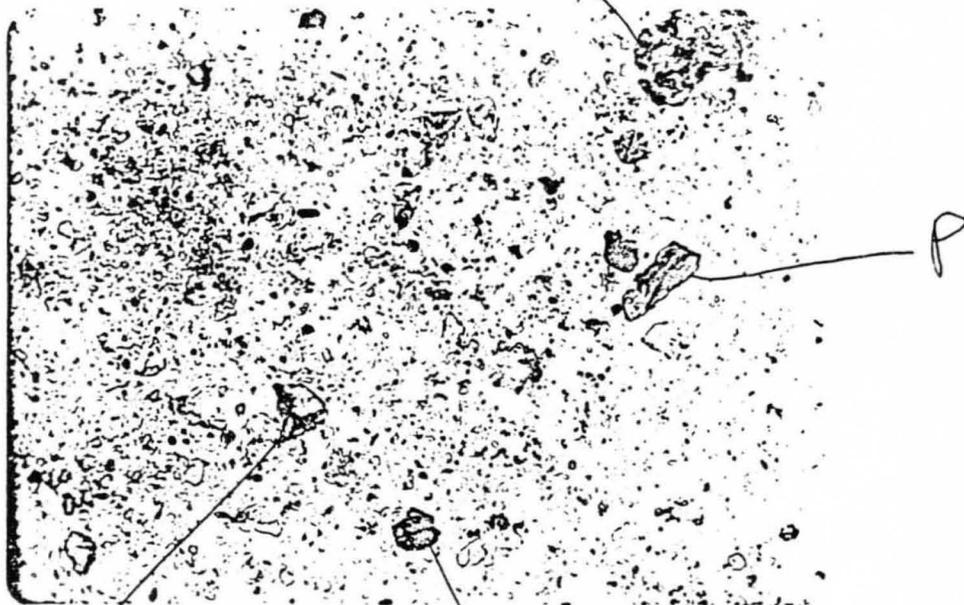
Sample 2, 400X



Sample 2, 400X, Crossed Polars

PARTICLE DATA LABORATORIES, LTD.

PDL Project: I-8213



Sample 2, 400X



Sample 2, 400X, Crossed Polars



Sample 2, 400X



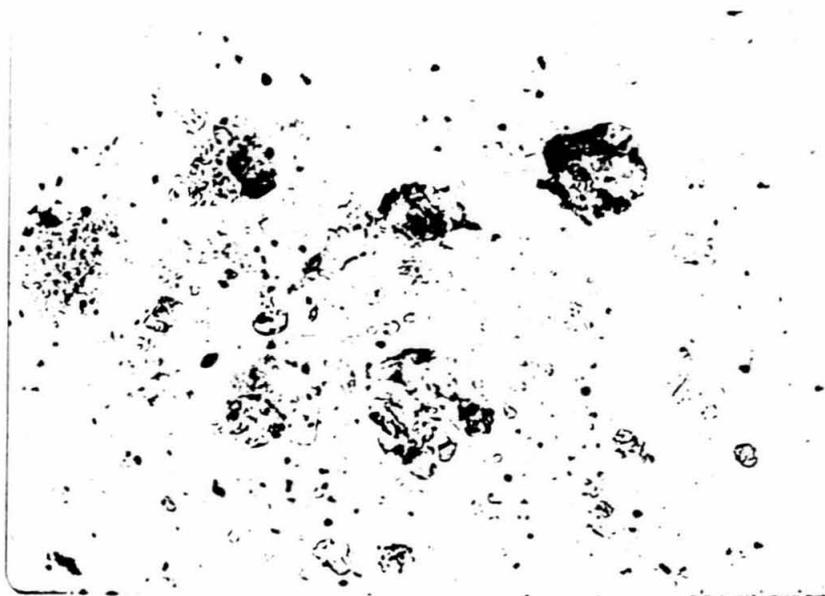
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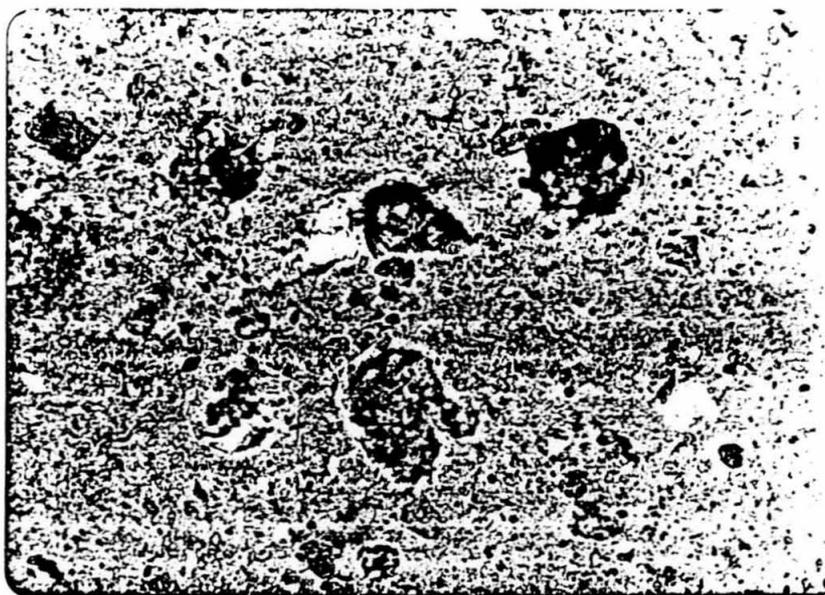
Sample 2, 400X



Sample 2, 400X, Crossed Polars



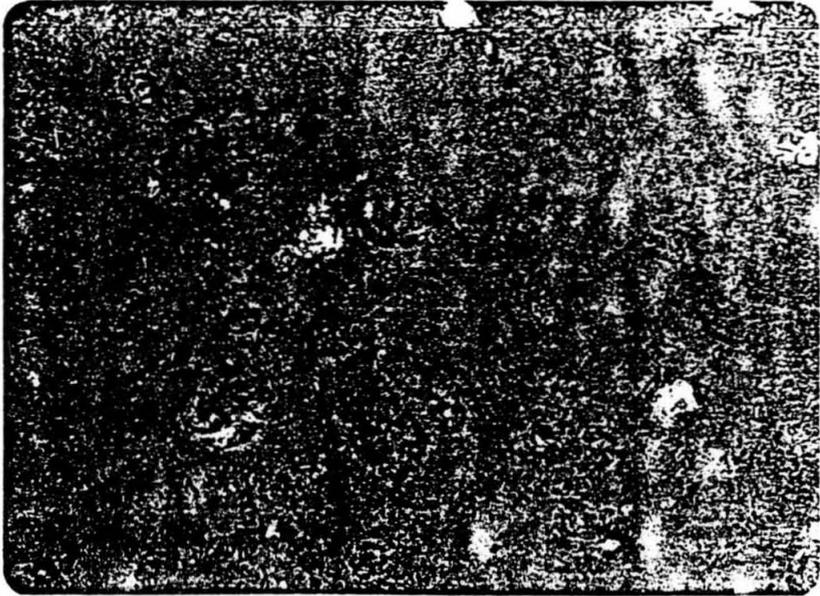
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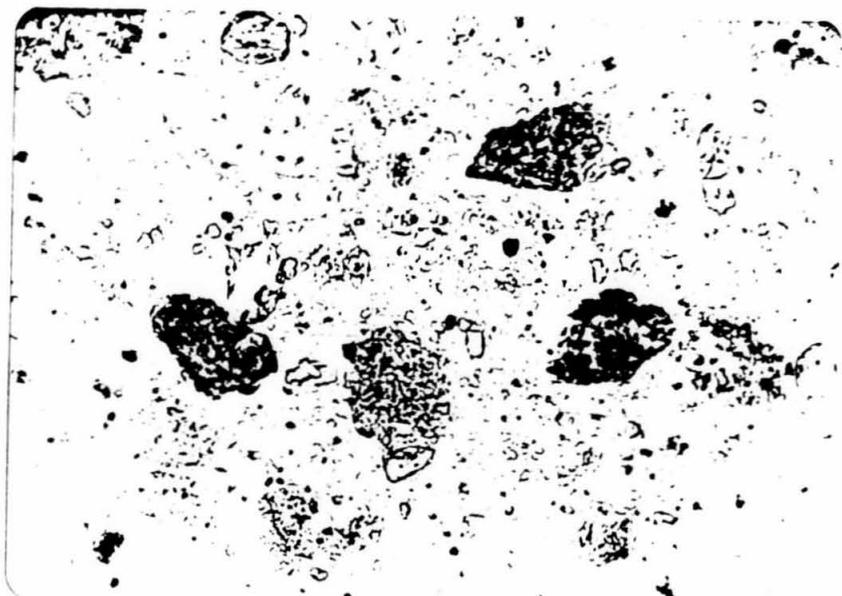
Sample 2, 400X, Crossed Polars



Sample 2, 400X



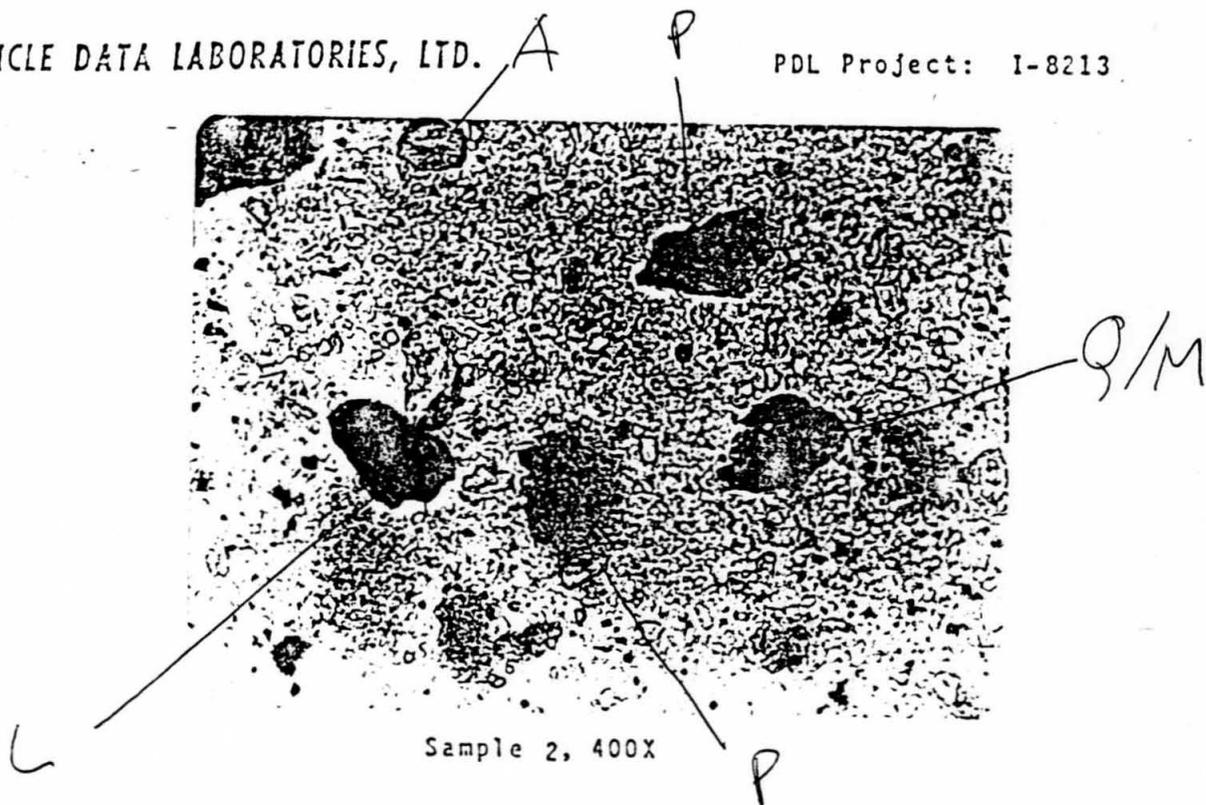
Sample 2, 400X, Crossed Polars



Sample 2, 400X



Sample 2, 400X, Crossed Polars



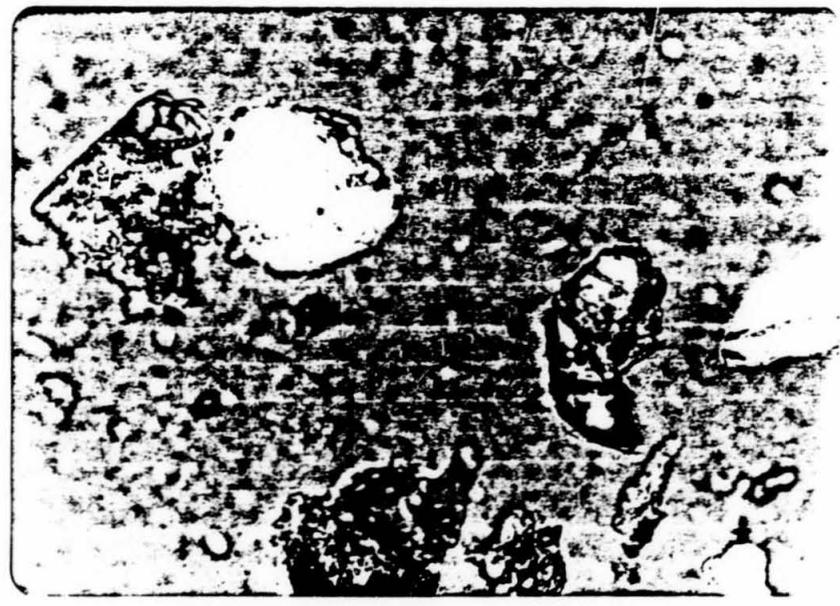
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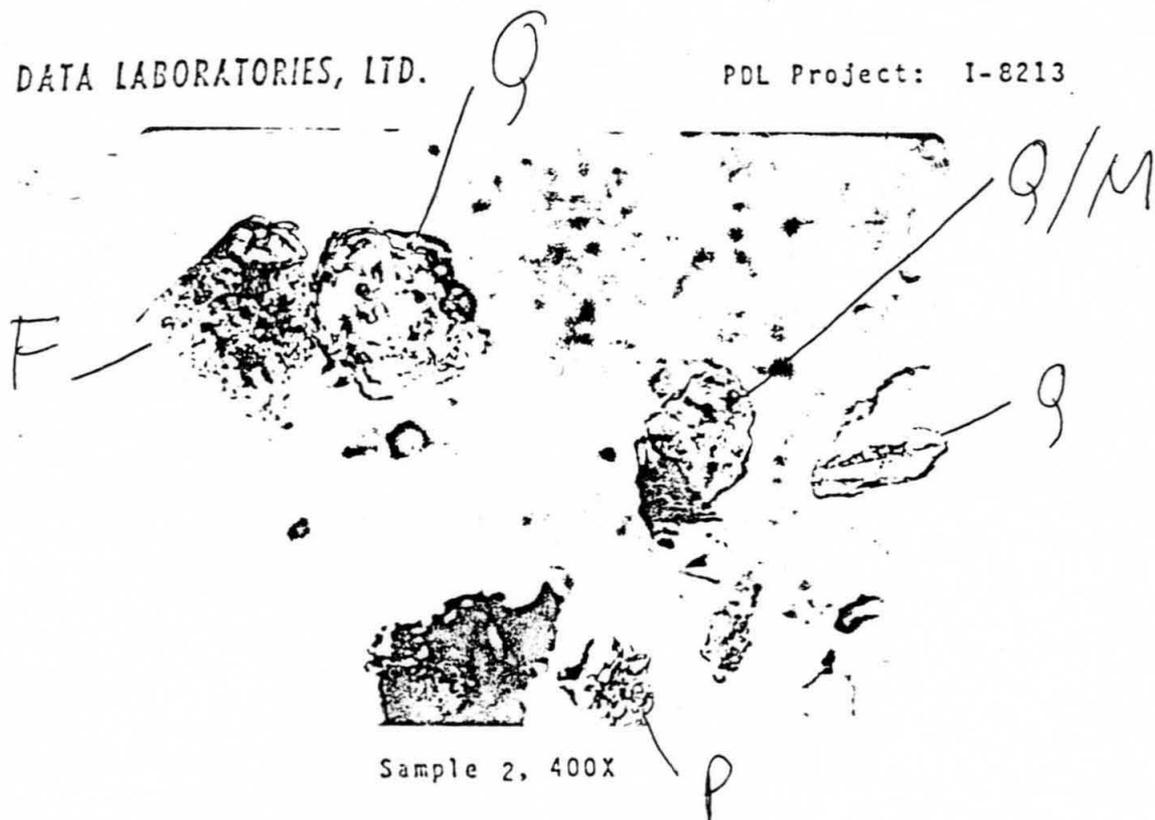
Sample 2, 400X, Crossed Polars



Sample 2, 400X



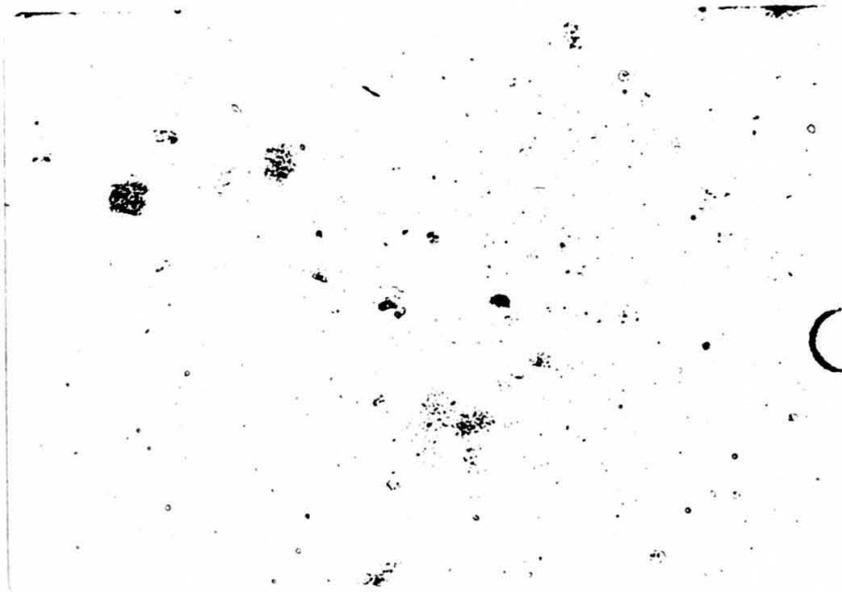
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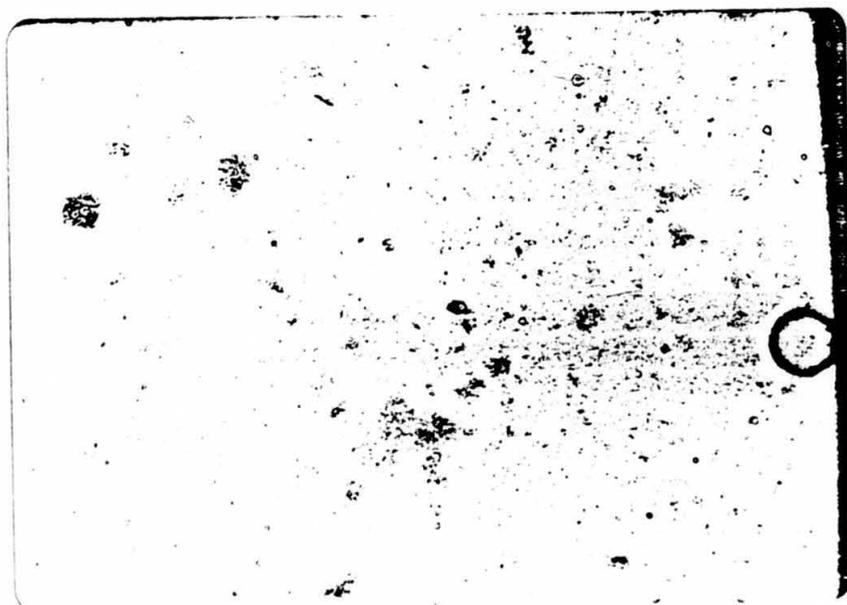
Sample 2, 400X



Sample 2, 400X, Crossed Polars



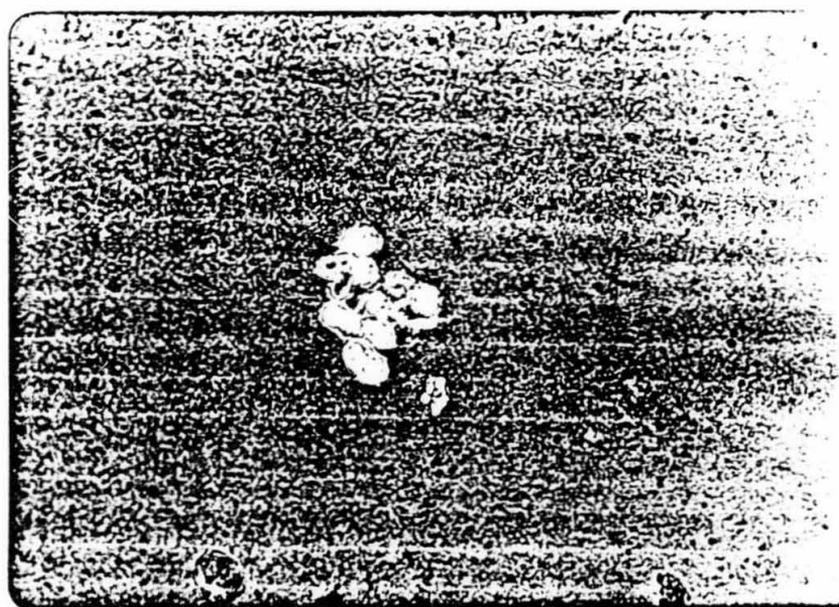
Sample 3, 100X



Sample 3, 100X, Crossed Polars

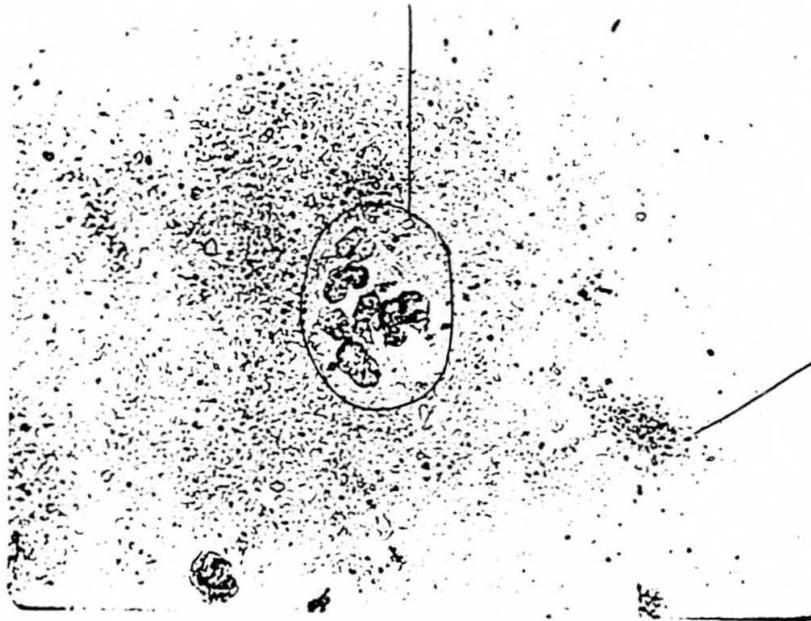


Sample 3, 400X



Sample 3, 400X, Crossed Polars

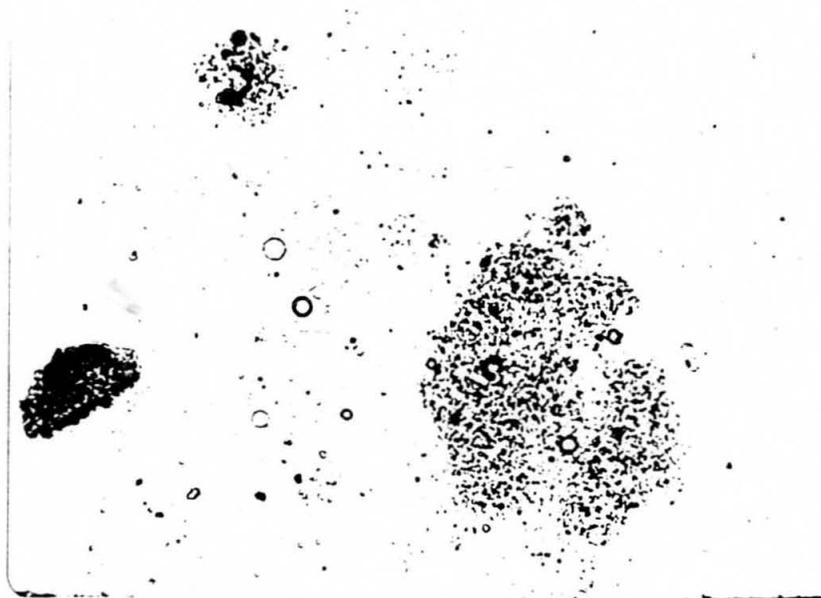
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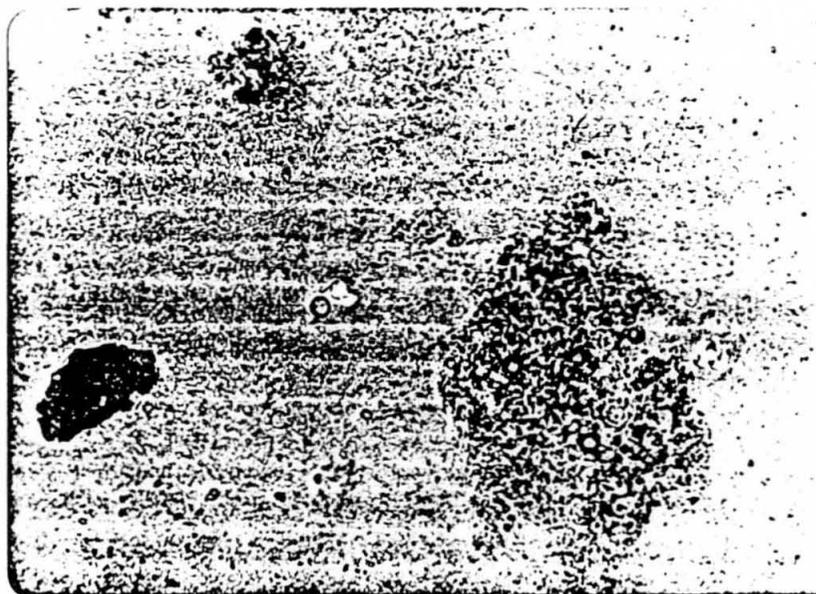
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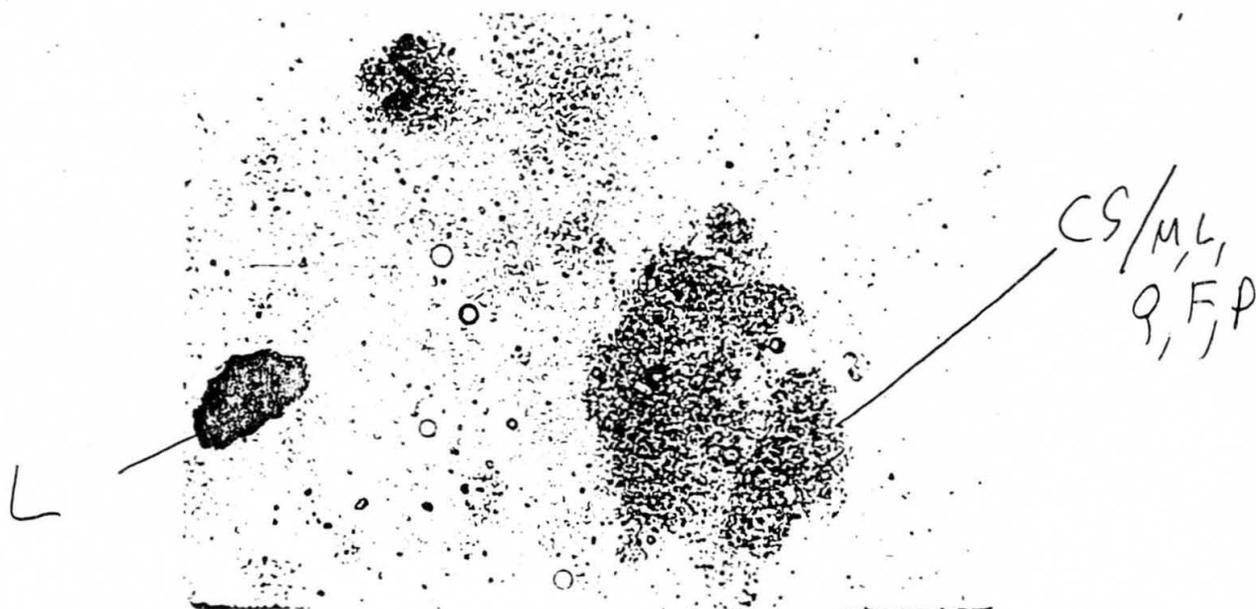
Sample 3, 400X, Crossed Polars



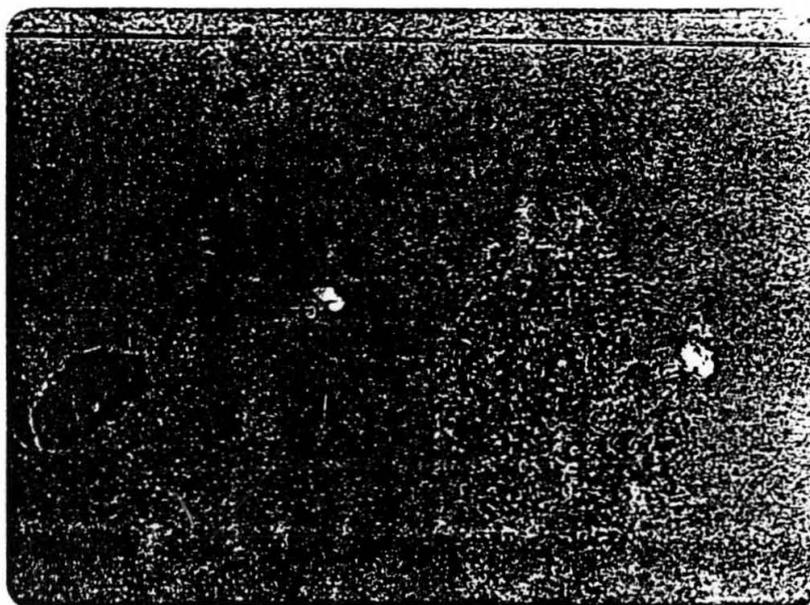
Sample 3, 400X



Sample 3, 400X, Crossed Polars

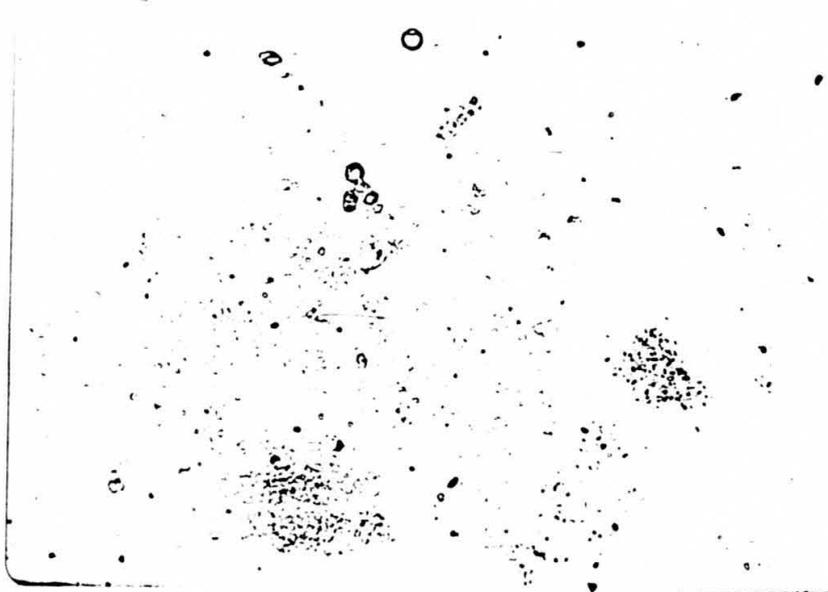


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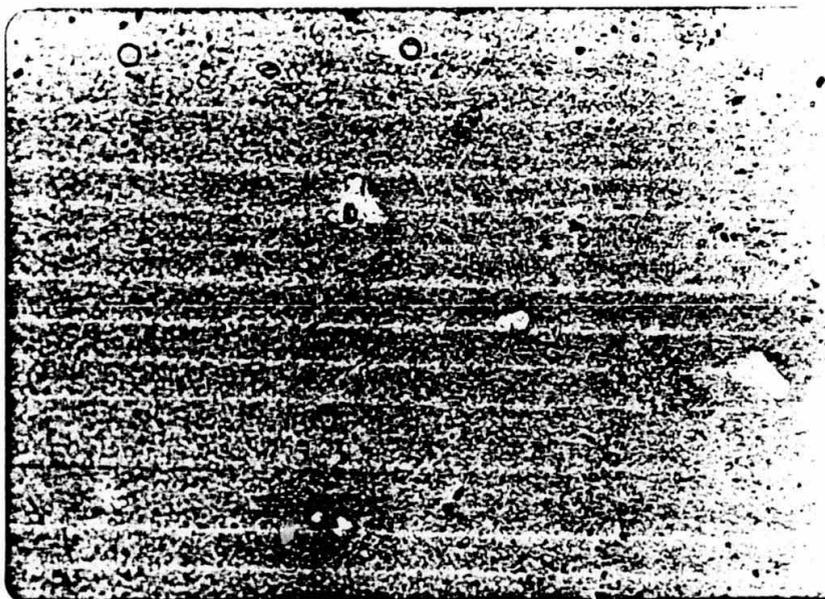


ca

Sample 3, 400X, Crossed Polars



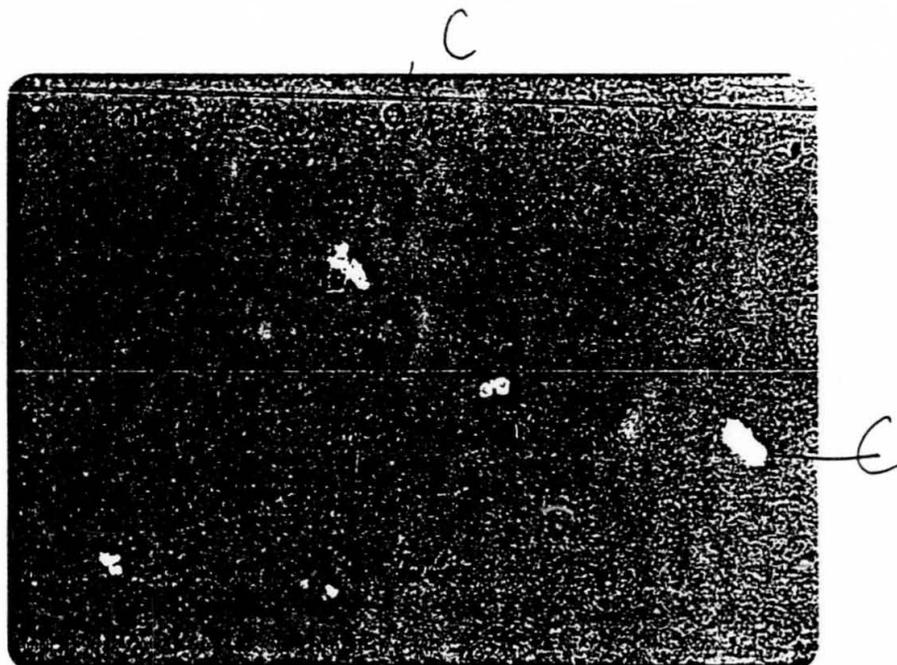
Sample 3, 400X



Sample 3, 400X, Crossed Polars



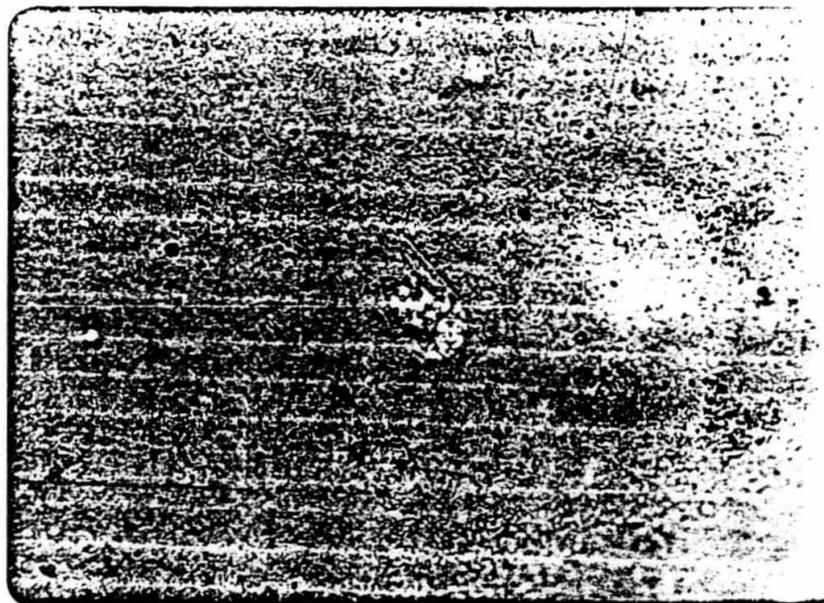
Sample 3, 400X



Sample 3, 400X, Crossed Polars



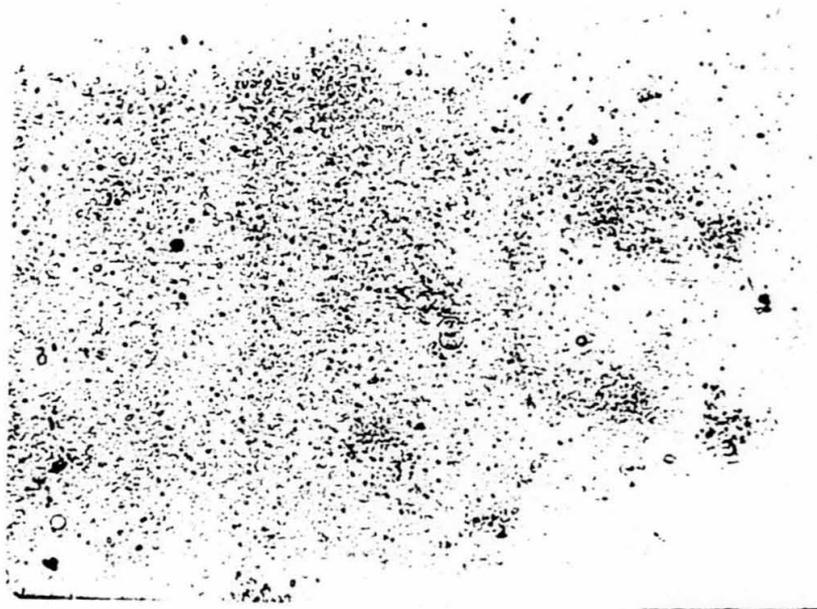
Sample 3, 400X



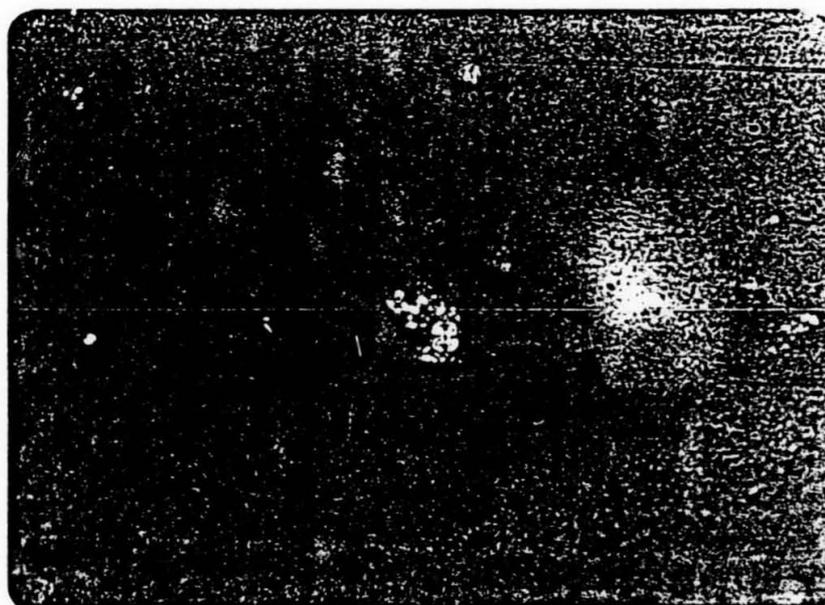
Sample 3, 400X, Crossed Polars

PARTICLE DATA LABORATORIES, LTD.

PDL Project: I-8213



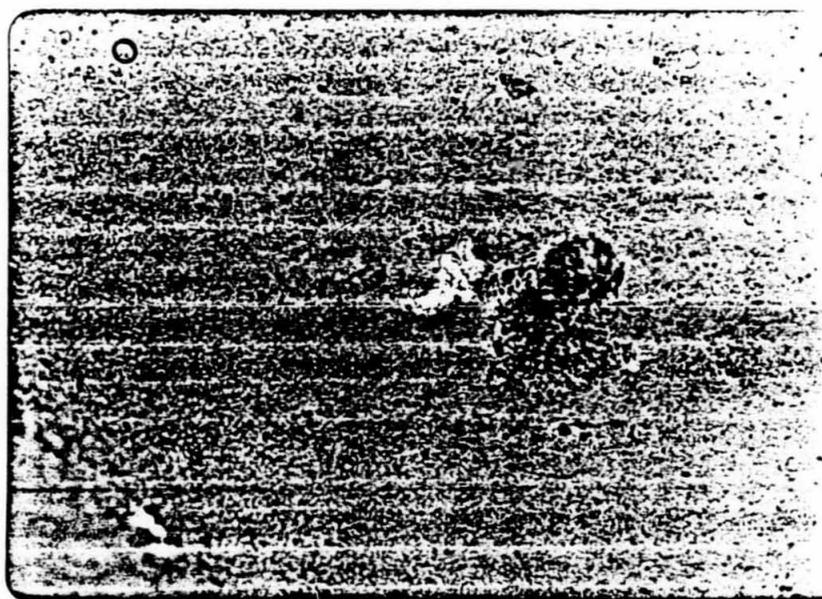
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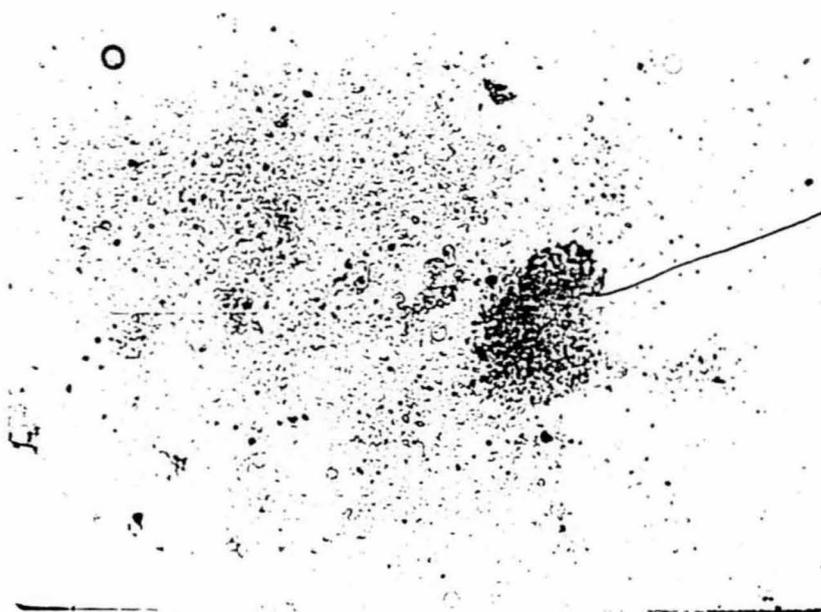
Sample 3, 400X, Crossed Polars



Sample 3, 400X

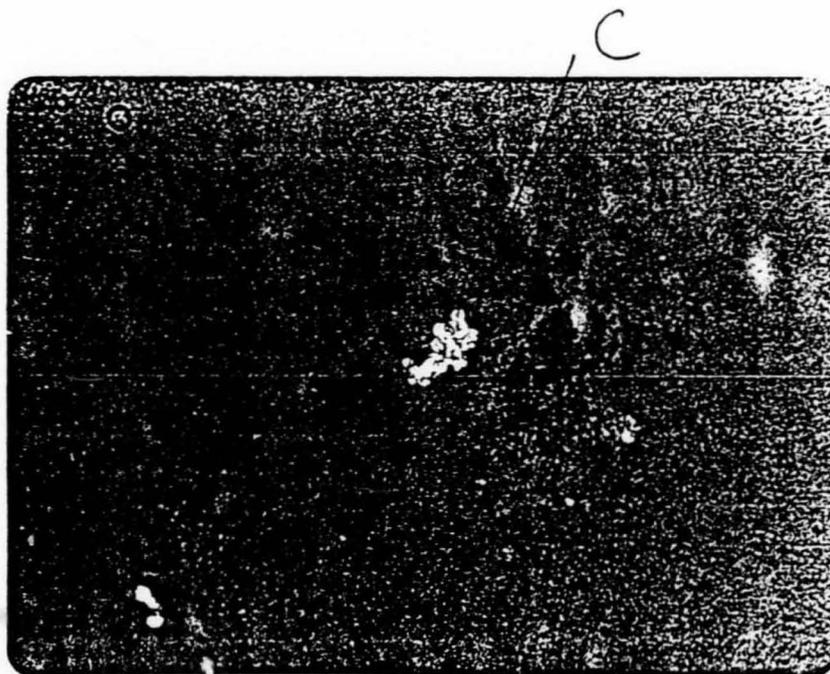


Sample 3, 400X, Crossed Polars

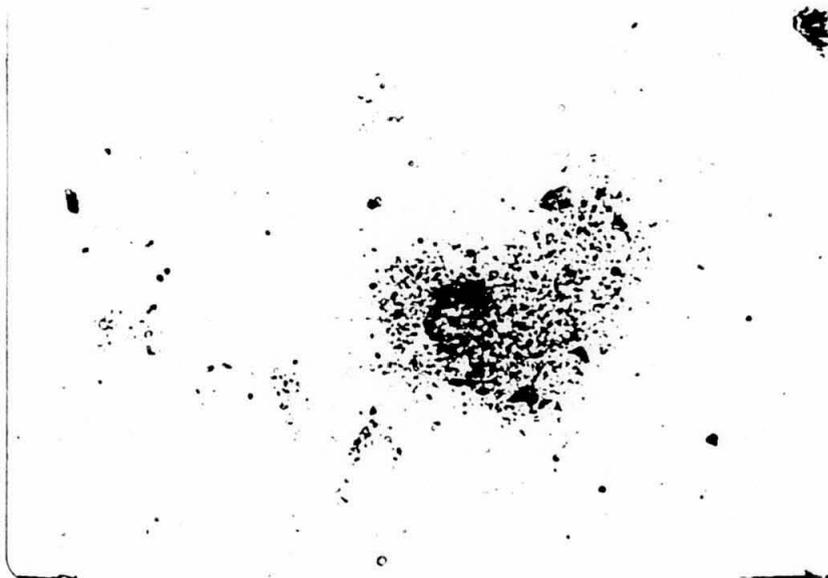


CS/M, L,
F, P, Q

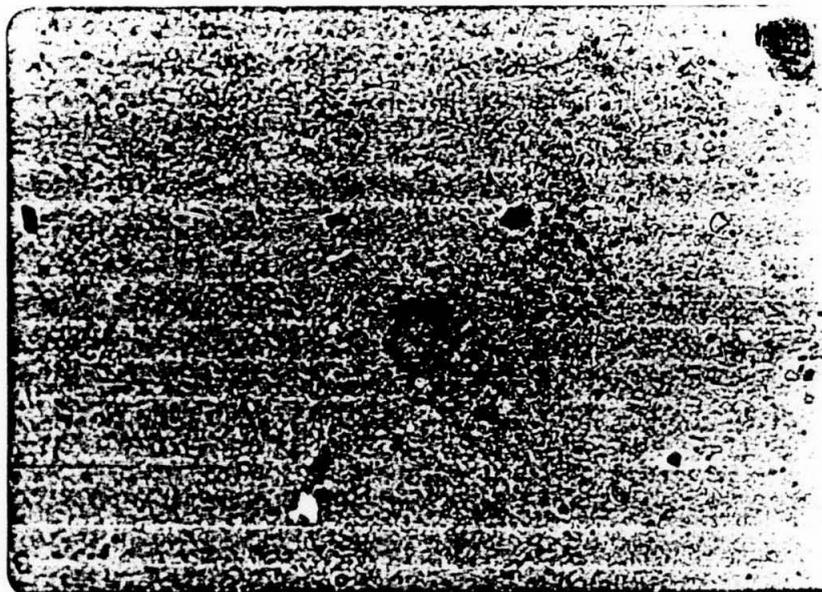
Sample 3, 400X



Sample 3, 400X, Crossed Polars



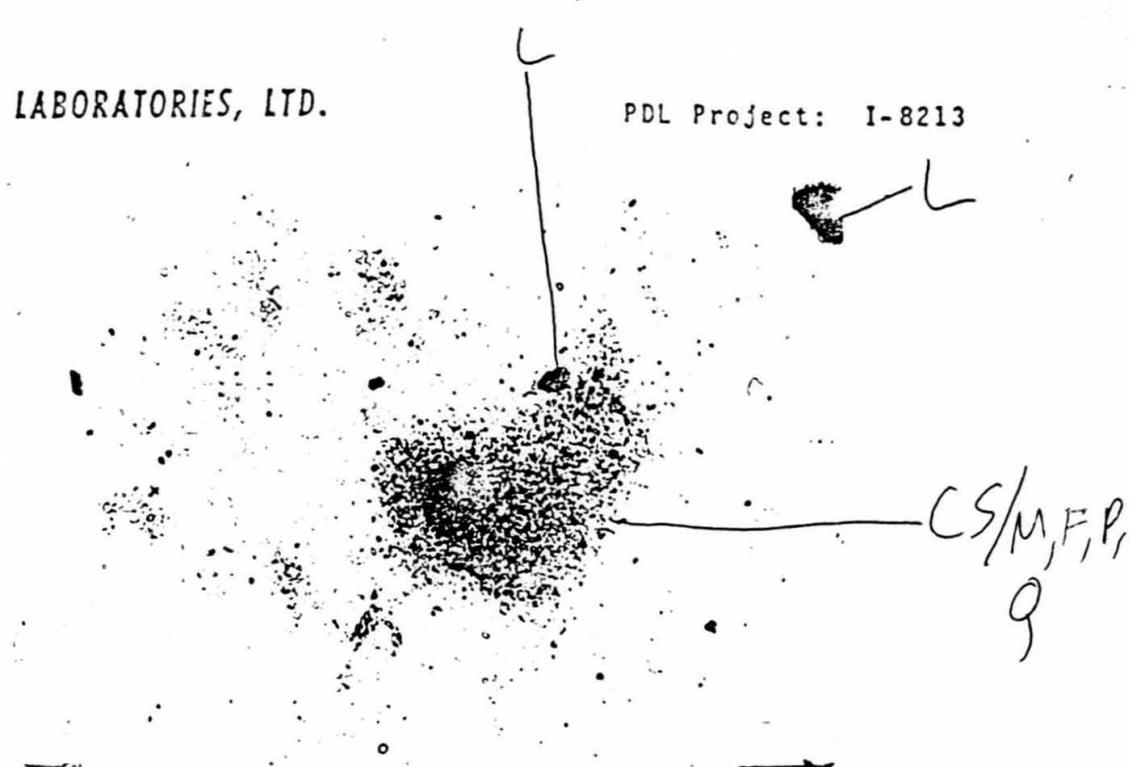
Sample 3, 400X



Sample 3, 400X, Crossed Polars

PARTICLE DATA LABORATORIES, LTD.

PDL Project: I-8213



Sample 3, 400X



Sample 3, 400X, Crossed Polars

LT1/38



R&M CONSULTANTS, INC. 5024 CORDOVA • BOX 6087 • ANCHORAGE ALASKA 99502 • PH: (907) 561-1733

ENGINEERS
GEOLOGISTS
PLANNERS
SURVEYORS

October 26, 1984

R&M No. 452418

Particle Data Laboratories
115 Hahn Street
Elmhurst, Illinois 60126

Attention: Mr. H. Bachu

Re: Sediment Analysis for Eklutna Creek

Dear Mr. Bachu:

Enclosed are six one-liter water samples. Please analyze all the samples for particle size distribution. Please send us the results in your standard reporting format of tabular and graphic results for the distribution on the basis of both particle count and total particle volume. The samples are:

Sample Location	Time (AST)	Date Sampled
E. Fork Eklutna Creek	1030	8/28/84 ✓
Glacier Fork Eklutna Creek	1300	8/28/84
Eklutna Power Plant Tailrace	1930	8/28/84 ✓
E. Fork Eklutna Cr	1130	10/23/84 ✓
Glacier Fork Eklutna Cr	1420	10/23/84 ✓
Eklutna Power Plant Tailrace	0900	10/23/84 ✓

Please use purchase order number 18233 when billing us. Should you have any questions please call me or Chip Green at (907) 561-1733. We look forward to receiving the results as soon as they are available.

Sincerely,

R&M CONSULTANTS, INC.

Bill Ashton
Hydrologist

WSA;bjc

452410

PARTICLE DATA LABORATORIES, LTD.



115 Hahn Street • Elmhurst, Illinois 60126 • (312) 832-5658

November 19, 1984

Rec. 11126194

10/26/84

R & M Consultants, Inc.
5024 Cordova
Box 6087
Anchorage, Alaska 99502

Attention: Mr. Bill Ashton

Subject: Electrozone Analysis - 6 Samples - P. O. # 18233

PDL Project: I-8426

Gentlemen:

Enclosed please find a copy of the computerized data printout of your sample as generated by the Electrozone Analyzer. If you have any questions, please do not hesitate to call us at Particle Data Laboratories.

It has been a pleasure serving your company, and we look forward to serving you again in the near future.

Respectfully submitted,

PARTICLE DATA LABORATORIES, LTD.

Olga Kist
Microscopist

OK:cnl
Enc.

PARTICLE SIZE ANALYSIS BY ELZONE METHOD--PARTICLE DATA LABORATORIES, LTD.
115 HAHN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312)832-5658

CLIENT: R & M CONSULTANTS 1300 8 18 NOV 84 :DATE
SAMPLE: GLACIER FORK EKLUTNA CREEK 1930 10/28/84 8426 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4
=====

INDICES

VOLUME MODE = 13.32 MEDIAN = 17.14 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 18.01 +/- 50.63 (281.07%) SKEWNESS = .09

ARITHMETIC VOLUME MEAN = 40.89 +/- 58.60 (143.29%) SKEWNESS = .47

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 400.29 MICRONS AND LARGER
PERCENTILE: 01.0% OF VOLUME IS AT 292.11 MICRONS AND LARGER
PERCENTILE: 06.0% OF VOLUME IS AT 155.55 MICRONS AND LARGER
PERCENTILE: 22.0% OF VOLUME IS AT 53.29 MICRONS AND LARGER
PERCENTILE: 50.0% OF VOLUME IS AT 17.14 MICRONS AND LARGER
PERCENTILE: 78.0% OF VOLUME IS AT 6.25 MICRONS AND LARGER
PERCENTILE: 94.0% OF VOLUME IS AT 2.14 MICRONS AND LARGER
PERCENTILE: 99.0% OF VOLUME IS AT .89 MICRONS AND LARGER
PERCENTILE: 99.9% OF VOLUME IS AT .44 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5
=====

INDICES

COUNTS MODE = .37 MEDIAN = .65 MICRONS AND LARGER

GEOMETRIC COUNTS MEAN = .75 +/- .60 (79.96%) SKEWNESS = .64

ARITHMETIC COUNTS MEAN = .94 +/- .98 (104.54%) SKEWNESS = .58

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNTS IS AT 11.03 MICRONS AND LARGER
PERCENTILE: 01.0% OF COUNTS IS AT 4.86 MICRONS AND LARGER
PERCENTILE: 06.0% OF COUNTS IS AT 2.14 MICRONS AND LARGER
PERCENTILE: 22.0% OF COUNTS IS AT 1.14 MICRONS AND LARGER
PERCENTILE: 50.0% OF COUNTS IS AT .65 MICRONS AND LARGER
PERCENTILE: 78.0% OF COUNTS IS AT .47 MICRONS AND LARGER
PERCENTILE: 94.0% OF COUNTS IS AT .39 MICRONS AND LARGER
PERCENTILE: 99.0% OF COUNTS IS AT .37 MICRONS AND LARGER
PERCENTILE: 99.9% OF COUNTS IS AT .37 MICRONS AND LARGER

PARTICLE SIZE ANALYSIS BY ELZONE METHOD—PARTICLE DATA LABORATORIES, LTD.
115 HAHN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312)832-5658

CLIENT: R & M CONSULTANTS

18 NOV 84 :DATE

SAMPLE: E. FORK EKLUTNA CREEK 1030 8/28/84

8426 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4
=====

INDICES

VOLUME MODE = 32.19 MEDIAN = 16.09 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 15.34 +/- 47.78 (311.60%) SKEWNESS = -.35

ARITHMETIC VOLUME MEAN = 36.12 +/- 47.40 (131.25%) SKEWNESS = .08

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 292.11 MICRONS AND LARGER
PERCENTILE: 01.0% OF VOLUME IS AT 213.16 MICRONS AND LARGER
PERCENTILE: 06.0% OF VOLUME IS AT 128.76 MICRONS AND LARGER
PERCENTILE: 22.0% OF VOLUME IS AT 56.76 MICRONS AND LARGER
PERCENTILE: 50.0% OF VOLUME IS AT 16.09 MICRONS AND LARGER
PERCENTILE: 78.0% OF VOLUME IS AT 4.29 MICRONS AND LARGER
PERCENTILE: 94.0% OF VOLUME IS AT 1.67 MICRONS AND LARGER
PERCENTILE: 99.0% OF VOLUME IS AT .73 MICRONS AND LARGER
PERCENTILE: 99.9% OF VOLUME IS AT .37 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5
=====

INDICES

COUNTS MODE = .29 MEDIAN = .57 MICRONS AND LARGER

GEOMETRIC COUNTS MEAN = .63 +/- .55 (86.73%) SKEWNESS = .63

ARITHMETIC COUNTS MEAN = .80 +/- .82 (101.33%) SKEWNESS = .64

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNTS IS AT 8.05 MICRONS AND LARGER
PERCENTILE: 01.0% OF COUNTS IS AT 3.78 MICRONS AND LARGER
PERCENTILE: 06.0% OF COUNTS IS AT 1.89 MICRONS AND LARGER
PERCENTILE: 22.0% OF COUNTS IS AT 1.01 MICRONS AND LARGER
PERCENTILE: 50.0% OF COUNTS IS AT .57 MICRONS AND LARGER
PERCENTILE: 78.0% OF COUNTS IS AT .37 MICRONS AND LARGER
PERCENTILE: 94.0% OF COUNTS IS AT .30 MICRONS AND LARGER
PERCENTILE: 99.0% OF COUNTS IS AT .29 MICRONS AND LARGER
PERCENTILE: 99.9% OF COUNTS IS AT .29 MICRONS AND LARGER

4

PARTICLE SIZE ANALYSIS BY ELZONE METHOD--PARTICLE DATA LABORATORIES, LTD.
115 HAHN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312)832-5658

CLIENT: R & M CONSULTANTS 18 NOV 84 :DATE
SAMPLE: GLACIER FORK EKLUTNA CR 1420 10/23/84 8426 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4
=====

INDICES

VOLUME MODE = 4.65 MEDIAN = 4.09 MICRONS AND LARGER
GEOMETRIC VOLUME MEAN = 4.23 +/- 10.01 (236.70%) SKEWNESS = -.04
ARITHMETIC VOLUME MEAN = 8.73 +/- 11.84 (135.62%) SKEWNESS = .34

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 77.78 MICRONS AND LARGER
PERCENTILE: 01.0% OF VOLUME IS AT 55.00 MICRONS AND LARGER
PERCENTILE: 06.0% OF VOLUME IS AT 34.15 MICRONS AND LARGER
PERCENTILE: 22.0% OF VOLUME IS AT 11.07 MICRONS AND LARGER
PERCENTILE: 50.0% OF VOLUME IS AT 4.09 MICRONS AND LARGER
PERCENTILE: 78.0% OF VOLUME IS AT 1.45 MICRONS AND LARGER
PERCENTILE: 94.0% OF VOLUME IS AT .66 MICRONS AND LARGER
PERCENTILE: 99.0% OF VOLUME IS AT .51 MICRONS AND LARGER
PERCENTILE: 99.9% OF VOLUME IS AT .51 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5
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INDICES

COUNTS MODE = .51 MEDIAN = .61 MICRONS AND LARGER
GEOMETRIC COUNTS MEAN = .69 +/- .29 (42.34%) SKEWNESS = .62
ARITHMETIC COUNTS MEAN = .75 +/- .45 (60.45%) SKEWNESS = .53

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNTS IS AT 5.30 MICRONS AND LARGER
PERCENTILE: 01.0% OF COUNTS IS AT 2.54 MICRONS AND LARGER
PERCENTILE: 06.0% OF COUNTS IS AT 1.33 MICRONS AND LARGER
PERCENTILE: 22.0% OF COUNTS IS AT .82 MICRONS AND LARGER
PERCENTILE: 50.0% OF COUNTS IS AT .61 MICRONS AND LARGER
PERCENTILE: 78.0% OF COUNTS IS AT .53 MICRONS AND LARGER
PERCENTILE: 94.0% OF COUNTS IS AT .51 MICRONS AND LARGER
PERCENTILE: 99.0% OF COUNTS IS AT .51 MICRONS AND LARGER
PERCENTILE: 99.9% OF COUNTS IS AT .51 MICRONS AND LARGER

CLIENT: R & M CONSULTANTS
SAMPLE: E. FORK EKLUTNA CR 1130 10/23/84

18 NOV 84 :DATE
8426 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4

INDICES

VOLUME MODE = 27.50 MEDIAN = 14.99 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 9.14 +/- 27.22 (297.72%) SKEWNESS = -.67

ARITHMETIC VOLUME MEAN = 17.45 +/- 15.15 (86.79%) SKEWNESS = -.66

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 65.40 MICRONS AND LARGER
PERCENTILE: 01.0% OF VOLUME IS AT 57.43 MICRONS AND LARGER
PERCENTILE: 06.0% OF VOLUME IS AT 44.29 MICRONS AND LARGER
PERCENTILE: 22.0% OF VOLUME IS AT 29.99 MICRONS AND LARGER
PERCENTILE: 50.0% OF VOLUME IS AT 14.99 MICRONS AND LARGER
PERCENTILE: 78.0% OF VOLUME IS AT 2.43 MICRONS AND LARGER
PERCENTILE: 94.0% OF VOLUME IS AT .66 MICRONS AND LARGER
PERCENTILE: 99.0% OF VOLUME IS AT .53 MICRONS AND LARGER
PERCENTILE: 99.9% OF VOLUME IS AT .51 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5

INDICES

COUNTS MODE = .51 MEDIAN = .61 MICRONS AND LARGER

GEOMETRIC COUNTS MEAN = .66 +/- .23 (35.25%) SKEWNESS = .63

ARITHMETIC COUNTS MEAN = .70 +/- .41 (59.04%) SKEWNESS = .46

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNTS IS AT 4.65 MICRONS AND LARGER
PERCENTILE: 01.0% OF COUNTS IS AT 2.04 MICRONS AND LARGER
PERCENTILE: 06.0% OF COUNTS IS AT 1.16 MICRONS AND LARGER
PERCENTILE: 22.0% OF COUNTS IS AT .75 MICRONS AND LARGER
PERCENTILE: 50.0% OF COUNTS IS AT .61 MICRONS AND LARGER
PERCENTILE: 78.0% OF COUNTS IS AT .53 MICRONS AND LARGER
PERCENTILE: 94.0% OF COUNTS IS AT .51 MICRONS AND LARGER
PERCENTILE: 99.0% OF COUNTS IS AT .51 MICRONS AND LARGER
PERCENTILE: 99.9% OF COUNTS IS AT .51 MICRONS AND LARGER

6

PARTICLE SIZE ANALYSIS BY ELZONE METHOD--PARTICLE DATA LABORATORIES, LTD.
115 HAHN STREET - ELMHURST, IL. 60126 - TELEPHONE: (312)832-5658

CLIENT: R & M CONSULTANTS

18 NOV 84 :DATE

SAMPLE: EKLUTNA POWER PLANT TAILRACE 900 10/23 8426 : JOB NUMBER

VOLUME (MASS) DISTRIBUTION FROM DISPLAY AREA: 4

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INDICES

VOLUME MODE = .51 MEDIAN = 3.75 MICRONS AND LARGER

GEOMETRIC VOLUME MEAN = 4.03 +/- 13.82 (342.42%) SKEWNESS = .26

ARITHMETIC VOLUME MEAN = 10.58 +/- 13.89 (131.30%) SKEWNESS = .72

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF VOLUME IS AT 71.32 MICRONS AND LARGER
PERCENTILE: 01.0% OF VOLUME IS AT 59.97 MICRONS AND LARGER
PERCENTILE: 06.0% OF VOLUME IS AT 38.89 MICRONS AND LARGER
PERCENTILE: 22.0% OF VOLUME IS AT 17.07 MICRONS AND LARGER
PERCENTILE: 50.0% OF VOLUME IS AT 3.75 MICRONS AND LARGER
PERCENTILE: 78.0% OF VOLUME IS AT .86 MICRONS AND LARGER
PERCENTILE: 94.0% OF VOLUME IS AT .56 MICRONS AND LARGER
PERCENTILE: 99.0% OF VOLUME IS AT .51 MICRONS AND LARGER
PERCENTILE: 99.9% OF VOLUME IS AT .51 MICRONS AND LARGER

COUNT (FREQUENCY) DISTRIBUTION FROM DISPLAY AREA: 5

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INDICES

COUNTS MODE = .51 MEDIAN = .58 MICRONS AND LARGER

GEOMETRIC COUNTS MEAN = .64 +/- .20 (31.02%) SKEWNESS = .66

ARITHMETIC COUNTS MEAN = .67 +/- .30 (44.60%) SKEWNESS = .54

FOR PLOTTING PROBABILITY ON LOG PAPER:

PERCENTILE: 00.1% OF COUNTS IS AT 3.59 MICRONS AND LARGER
PERCENTILE: 01.0% OF COUNTS IS AT 1.65 MICRONS AND LARGER
PERCENTILE: 06.0% OF COUNTS IS AT 1.07 MICRONS AND LARGER
PERCENTILE: 22.0% OF COUNTS IS AT .75 MICRONS AND LARGER
PERCENTILE: 50.0% OF COUNTS IS AT .58 MICRONS AND LARGER
PERCENTILE: 78.0% OF COUNTS IS AT .53 MICRONS AND LARGER
PERCENTILE: 94.0% OF COUNTS IS AT .51 MICRONS AND LARGER
PERCENTILE: 99.0% OF COUNTS IS AT .51 MICRONS AND LARGER
PERCENTILE: 99.9% OF COUNTS IS AT .51 MICRONS AND LARGER