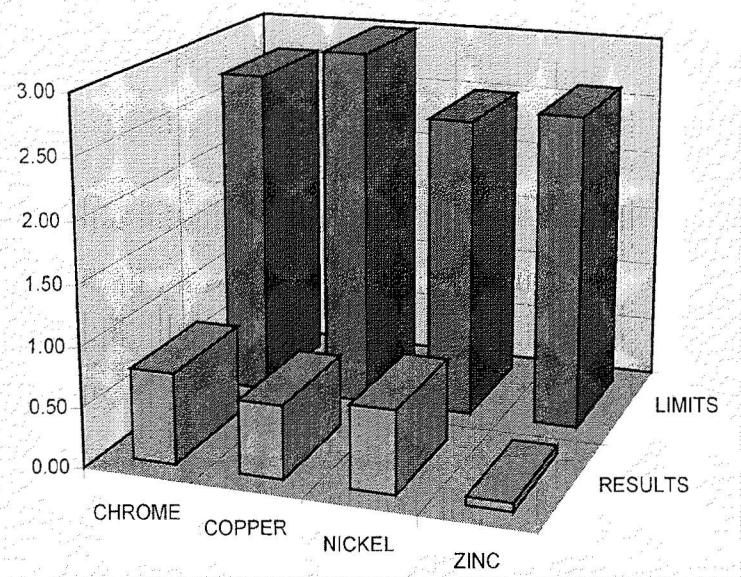
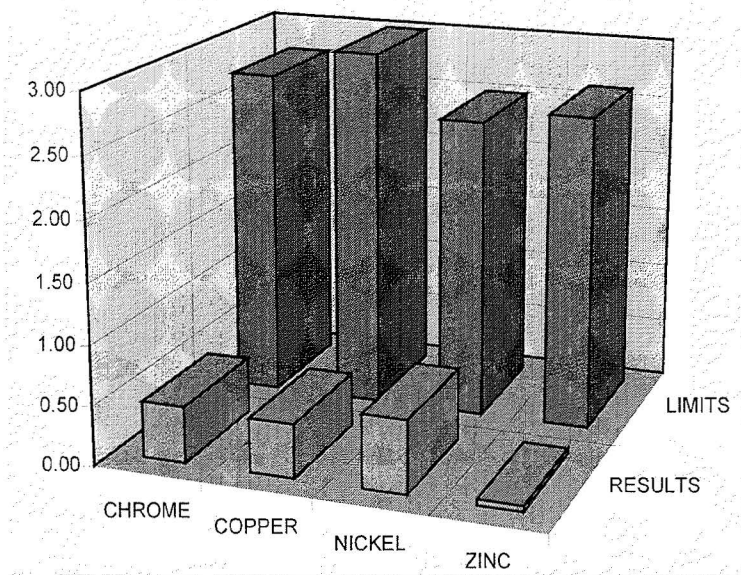
AUGUST
METRO LIMITS



ALASKAN COPPER WORKS
3200 FACILITY
AUGUST 2, 2001
COMPOSITE M85925



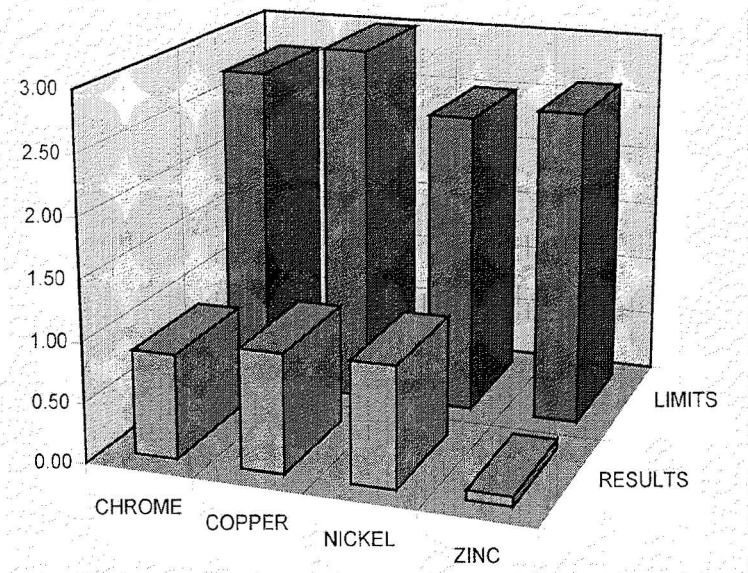
ALASKAN COPPER WORKS
3200 FACILITY
AUGUST 9, 2001
COMPOSITE M66599

VISUAL REPRESENTATION OF THE LAB RESULTS

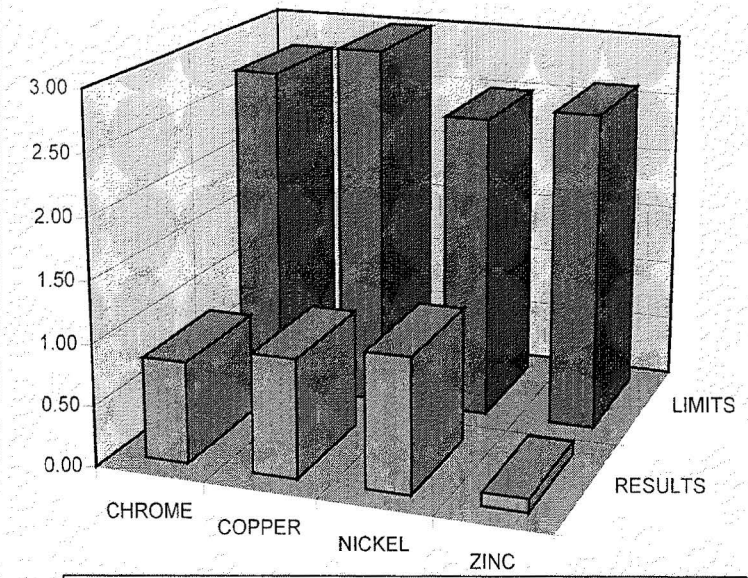
	CHROME	COPPER	NICKEL	ZINC
RESULTS	0.76	0.61	0.69	0.07
LIMITS	2.75	3.00	2.50	2.61

	CHROME	COPPER	NICKEL	ZINC
RESULTS	0.47	0.45	0.61	0.05
LIMITS	2.75	3.00	2.50	2.61

AUGUST
METRO LIMITS



ALASKAN COPPER WORKS
3200 FACILITY
AUGUST 16, 2001
COMPOSITE M86002



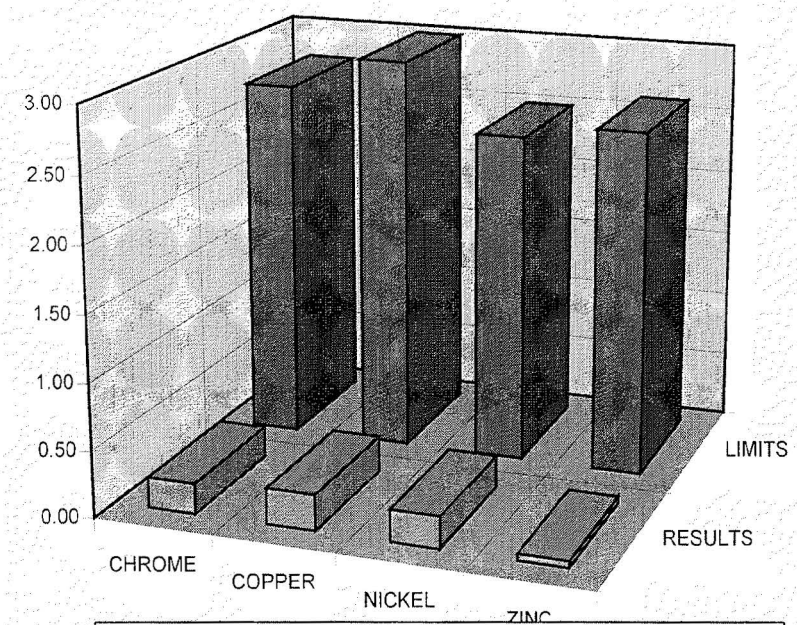
ALASKAN COPPER WORKS
3200 FACILITY
AUGUST 23, 2001
COMPOSITE M86076

VISUAL REPRESENTATION OF THE LAB RESULTS

	CHROME	COPPER	NICKEL	ZINC
RESULTS	0.87	0.99	1.00	0.08
LIMITS	2.75	3.00	2.50	2.61

	CHROME	COPPER	NICKEL	ZINC
RESULTS	0.83	0.97	1.10	0.11
LIMITS	2.75	3.00	2.50	2.61

AUGUST
METRO LIMITS



ALASKAN COPPER WORKS
3200 FACILITY
AUGUST 31, 2001
COMPOSITE M66744

VISUAL REPRESENTATION OF THE LAB RESULTS

	CHROME	COPPER	NICKEL	ZINC
RESULTS	0.23	0.27	0.24	0.05
LIMITS	2.75	3.00	2.50	2.61

King County
Department of Natural Resources

Waste Discharge Self-Monitoring Report

Mail or fax to: King County Industrial Waste
130 Nickerson St., Suite 200
Seattle, WA 98109-1658
Phone (206) 263-3000 / FAX (206) 263-3001

AKC-0009583

Company Name: Alaskan Copper Works Month: August 20 01 No. of Employees (per day) Average ____ Maximum ____

Sample Site No.: A-4010 Permit/DA No.: 7238 All units mg/l unless otherwise noted Industry Type ____

Sample Date (circle)	Sample Type C (composite) or G (grab)	pH Min	pH Max	Cadmium, Cd	Chromium, Cr	Copper, Cu	Lead, Pb	Mercury, Hg	Nickel, Ni	Silver, Ag	Zinc, Zn	Cyanide, CN,A	Cyanide, CN,T	Fats, Oils and Grease (FOG)	Total Toxic Organics (TTO)	Other Parameters			✓ check maximum	Flow (GPD) Industrial	Notes (Indicate Batch Discharges)
1		10.0	10.1																	2028	
2	C	9.6	10.3		.76	.61			.69		.07								✓	3758	
3		10.0	10.0																	2200	
4		—	—																	—	
5		—	—																	—	
6		9.6	9.7																	1443	
7		9.7	10.0																	2236	
8		9.7	10.0																	2312	
9	C	9.8	10.1		.47	.45			.61		.05									1539	
10		9.9	10.1																	2305	
11		—	—																	—	
12		—	—																	—	
13		9.7	11.8																	1580	
14		10.4	11.7																	2858	
15		10.0	10.4																	2436	
16	C	10.1	10.3		.87	.99			1.0		.08									2411	
17		10.1	10.1																	1101	
18		—	—																	—	
19		—	—																	—	
20		10.1	10.4																	1250	
21		10.1	10.4																	1685	
22		10.0	10.1																	1763	
23	C	9.8	9.9		.83	.97			1.1		.11									3022	
24		9.8	9.9																	1446	
25		—	—																	—	
26		—	—																	—	
27		9.8	9.9																	1555	
28		9.9	10.0																	2230	
29		9.8	9.9																	1335	
30		10.0	10.2																	2167	
31	C	10.1	10.2		.23	.27			.24		.05									2834	
Monthly Minimum		9.6																		1101	
Monthly Maximum		11.8																		3758	
Average		10.0																		47,504	Total Monthly Flow (Gallons)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further certify that all data requiring a laboratory analysis were analyzed by a Washington State Department of Ecology accredited laboratory for each parameter tested.

Signature of Principal Executive or Authorized Agent: [signature] Date: 9/13/01

Please circle all permit violations

1330 (Rev. 1/00)

KING COUNTY
Department of Natural Resources

Waste Discharge Self-Monitoring Report

Mail or fax to: King County Industrial Waste
130 Nickerson St., Suite 200
Seattle, WA 98109-1658
Phone (206) 263-3000 / FAX (206) 263-3001

AKC-0009584

Company Name: Alaskan Copper Works Month: August 20 01 No. of Employees (per day) Average ____ Maximum ____

Sample Site No.: A-4009 Permit/DA No.: 7201 All units mg/l unless otherwise noted Industry Type ____

Sample Date (circle)	Sample Type C (composite) or G (grab)	pH Min	pH Max	Cadmium, Cd	Chromium, Cr	Copper, Cu	Lead, Pb	Mercury, Hg	Nickel, Ni	Silver, Ag	Zinc, Zn	Cyanide, CN,A	Cyanide, CN,T	Fats, Oils and Grease (FOG)	Total Toxic Organics (TTO)	Other Parameters			✓ check maximum	Flow (GPD) Industrial	Notes (Indicate Batch Discharges)
1																					
2																					
3																					
4																					
5																					
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28																					
29																					
30																					
31																					
Monthly Minimum																					
Monthly Maximum																					
Average																				Total Monthly Flow (Gallons)	

NOT IN USE THIS MONTH

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further certify that all data requiring a laboratory analysis were analyzed by a Washington State Department of Ecology accredited laboratory for each parameter tested.

James Hazen 9/13/01
Signature of Principal Executive or Authorized Agent Date

Please circle all permit violations

1330 (Rev. 1/00)

REF. DWG NO. 500-0007 REV. A 1594

DAILY LOG

DAY	DATE	TIME	CAUSTIC LEVEL	FLOC. LEVEL	pH READING PROCESS MONITOR	pH READING OUTPUT MONITOR	pH PAPER PROCESS MONITOR	pH PAPER OUTPUT MONITOR	FLOWMETER	CYCLES	TEMP F° LARGE TANK	TEMP F° SMALL TANK	TEMP F° OAKITE TANK	REVETMENT LARGE RINSE	REVETMENT LARGE ACID	REVETMENT SMALL TANKS	COMMENTS, PROBLEMS, & REMARKS (W/O#)
MONDAY	4/26	7 AM	27.9	12	10.53	9.83	—	—	1555/3001	94/227	127	126	111				3001 1446 1555
		3 PM	27.4	15	9.50	9.89	—	—	580	27	125	129	121				
		11PM	27.4	14	9.88	9.93	—	—	1728	49	120	121	114				227 173
TUESDAY	4/27	7 AM	27.4	13	10.61	10.01	—	—	2230	49	121	120	119				
		3 PM	26.9	12	9.61	10.03	—	—	148	40	123	129	120				
		11PM	25.7	10	10.05	9.93	—	—	1335	113	121	125	128				
WEDNESDAY	4/28	7 AM	24.8	9	9.77	9.93	—	—	1335	156	119	120	130				3200 Start @ 4:30 Am
		3 PM	24.3	7	10.80	9.87	—	—	1214	35	124	120	123				
		11PM	23.8	3	10.05	9.95	—	—	1943	66	128	120	129				
THURSDAY	4/30	7 AM	23.3	3	10.14	10.03	—	—	2167	94	122	118	128				forgot to Record flow & cycles 3200 Start @ 4:30 Am
		3 PM	22.7	14	10.26	10.14	—	—	3041	119	121	128	123				
		11PM	22.2	8	10.68	10.27	—	—	4697	171	120	130	128				
FRIDAY	5/1	7 AM	21.7	8	10.08	10.20	—	—	2834/5001	109/203	118	115	130				3200 Start @ 4:30 Am 2833 94 109 4551 2167 2834
		3 PM	21.4	7	9.92	10.13	—	—	634	28	124	123	122				
		11PM	21.4	5	10.15	10.24	—	—	1102	57	118	124	126				
SATURDAY																	
SUNDAY																	

..\WOUT\500-0007, 03/04/99

AKC-0009585

REF. DWG NO. 500-0007 REV. A 1594

DAILY LOG

DAY	DATE	TIME	CAUSTIC LEVEL	FLOC. LEVEL	pH READING PROCESS MONITOR	pH READING OUTPUT MONITOR	pH PAPER PROCESS MONITOR	pH PAPER OUTPUT MONITOR	FLOWMETER	CYCLES	TEMP F° LARGE TANK	TEMP F° SMALL TANK	TEMP F° OAKITE TANK	REVETMENT LARGE RINSE	REVETMENT LARGE ACID	REVETMENT SMALL TANKS	COMMENTS,PROBLEMS,& REMARKS (W/O#)
MONDAY	8/23	7 AM	32.9	6	10.99	10.11	—	—	125	74	121	128	78				not sure what problem was with flow meter on Friday but was working fine when I came in.
		3 PM	32.9	18	10.76	10.41	—	—	1185	94	125	128	176				
		11PM	32.3	16	10.16	10.44	—	—	1685	127	124	130	126				forgot to Reset cycles
TUESDAY	8/24	7 AM	32.3	15	12.31	10.43	—	—	1685	131	115	121	128				
		3 PM	31.7	12	10.01	10.25	—	—	756	28	119	125	120				
		11PM	31.5	8	9.69	10.15	—	—	1463	52	125	121	130				
WEDNESDAY	8/22	8 AM	31.6	7	10.08	10.00	—	—	1796	56	120	120	127				
		3 PM	31.2	3	9.87	10.17	—	—	1063	30	119	124	128				
		11PM	31.0	0	9.75	10.03			3022	43	119	125	127				
THURSDAY	8/23	7 AM	31.1	15	9.63	9.96	—	—	3022	46	115	116	126				
		3 PM	30.2	11	9.69	9.85	—	—	510	53	122	123	122				
		11PM	29.5	8	9.63	9.88	—	—	1115	117	126	122	127				
FRIDAY	8/24	7 AM	29.4	7	9.62	9.86	—	—	1446	133	120	126	126				forgot to Reset flow & cycles
		3 PM	28.8	20	9.98	9.92	—	—	2246	175	115	122	123				
		11PM	27.9	17	9.61	9.99	—	—	2773	222	125	124	127				
SATURDAY																	
SUNDAY																	

..\WOUT\500-0007, 03/04/99

AKC-0009586

REF. DWG NO. 500-0007 REV. A 1594

DAILY LOG

DAY	DATE	TIME	CAUSTIC LEVEL	FLOC. LEVEL	pH READING PROCESS MONITOR	pH READING OUTPUT MONITOR	pH PAPER PROCESS MONITOR	pH PAPER OUTPUT MONITOR	FLOWMETER	CYCLES	TEMP F° LARGE TANK	TEMP F° SMALL TANK	TEMP F° DAKITE TANK	REVETMENT LARGE RINSE	REVETMENT LARGE ACID	REVETMENT SMALL TANKS	COMMENTS,PROBLEMS,& REMARKS (W/O#)
MONDAY	8/15	7 AM	7.8	13	9.76	9.71	–	–	1590	88	120	123	86	–	–	–	
		3 PM	7.5	7	10.63	9.91	–	–	1549	24	126	121	111				
		11PM	7.3	5	9.67	11.87	–	–	2760	212	115	113	110				
TUESDAY	8/14	7 AM	6.7	5	9.88	11.79	–	–	2858	26	119	120	94				
		3 PM	6.0	15	9.67	10.61	–	–	1020	37	124	126	114				
		11PM	5.5	13	9.89	10.44	–	–	2436	62	123	127	125				
WEDNESDAY	8/15	7 AM	5.5	13	10.00	10.43	–	–	2436	69	119	123	128				
		3 PM	5.2	7	9.55	10.26	–	–	3409	111	126	128	123				
		11PM	3.9	5	9.53	10.09	–	–	4551	171	120	130	128				
THURSDAY	8/16	7 AM	3.9	5	9.53	10.11	–	–	2411 / 4887	169 / 178	120	123	127				
		3 PM	3.6	18	10.51	10.77	–	–	557	31	120	123	123				
		11PM	1.2	12	10.38	10.15	–	–	1101	159	127	121	129				
FRIDAY	8/17	7 AM	1.0	11	11.53	10.15	–	–	1101	165	121	121	127				Accidentally Reset flow meter
		3 PM	32.8	8	9.87	10.16	–	–	201	28	122	126	124				
		11PM	32.8	6	9.88	10.17	–	–	000?	68	121	125	128				
SATURDAY																	
SUNDAY																	

..\WOUT\500-0007, 03/04/99

AKC-0009587

REF. DWG NO. 500-0007 REV. A 1594

DAILY LOG

DAY	DATE	TIME	CAUSTIC LEVEL	FLOC. LEVEL	pH READING PROCESS MONITOR	pH READING OUTPUT MONITOR	pH PAPER PROCESS MONITOR	pH PAPER OUTPUT MONITOR	FLOWMETER	CYCLES	TEMP F° LARGE TANK	TEMP F° SMALL TANK	TEMP F° OAKITE TANK	REVETMENT LARGE RINSE	REVETMENT LARGE ACID	REVETMENT SMALL TANKS	COMMENTS,PROBLEMS,& REMARKS (W/O#)
MONDAY	8/6	7 AM	17.2	13	9.71	9.70	–	–	1443	60	123	130	111				
		3 PM	15.6	9	10.0	9.65	–	–	1028	58	125	126	128				
		11PM	14.6	6	9.73	9.71	–	–	2236	113	120	123	128				
TUESDAY	8/7	7 AM	14.6	6	9.65	9.70	–	–	2236	122	128	125	130				
		3 PM	14.4	3	11.19	9.95	–	–	926	39	125	120	122				
		11PM	13.3	15	9.75	10.02	–	–	2278	94	117	122	129				
WEDNESDAY	8/8	7 AM	13.0	15	9.77	10.06	–	–	2312	104	121	124	127				
		3 PM	12.3	13	10.01	9.95	–	–	579	58	123	121	122				
		11PM	11.2	10	9.85	9.77	–	–	1430	114	123	120	129				
THURSDAY	8/9	7 AM	11.2	10	9.78	9.81	–	–	1555	118	121	127	126				2568 1539 1029
		3 PM	10.4	6	11.15	9.89	–	–	2568	162	123	122	123				
		11PM	9.4	5	9.97	10.17	–	–	3534	213	121	125	130				
FRIDAY	8/10	7 AM	9.1	5	11.37	10.18	–	–	2305 3844	113 231	120	121	128				231 118 113 3844 1539 2305
		3 PM	9.1	18	9.82	10.04	–	–	427	23	126	120	126				
		11PM	7.8	14	10.23	9.90	–	–	1332	71	126	120	130				
SATURDAY																	
SUNDAY																	

AKC-0009588

..\WOUT\500-0007, 03/04/99

REF. DWG NO. 500-0007 REV. A 1594

DAILY LOG

DAY	DATE	TIME	CAUSTIC LEVEL	FLOC. LEVEL	pH READING PROCESS MONITOR	pH READING OUTPUT MONITOR	pH PAPER PROCESS MONITOR	pH PAPER OUTPUT MONITOR	FLOWMETER	CYCLES	TEMP F° LARGE TANK	TEMP F° SMALL TANK	TEMP F° DAKITE TANK	REVETMENT LARGE RINSE	REVETMENT LARGE ACID	REVETMENT SMALL TANKS	COMMENTS,PROBLEMS,& REMARKS (W/O#)
MONDAY	7/30	7 AM	2.6	3	10.11	10.31	—	—	1600	49	118	129	125				
		3 PM	2.3	15	10.10	10.26	—	—	479	31	123	130	124				
		11PM	1.8	9	9.89	10.39	—	—	1451	58	118	125	123				
TUESDAY	7/31	7 AM	1.8	8	9.58	10.36	—	—	1753	68	121	120	109				
		3 PM	1.2	7	9.98	10.16	-	-	583	28	128	120	122				
		11PM	1.0	3	10.03	10.21	—	—	2003	55	119	121	126				
WEDNESDAY	8/1	7 AM	1.0	3	9.64	10.15	—	—	2028	62	115	128	126				
		3 PM	23.5	14	10.26	10.15	—	—	807	26	126	127	121				
		11PM	23.2	8	9.53	10.04	—	—	3758	57	119	122	129				
THURSDAY	8/2	7 AM	23.2	7	9.95	10.01	—	—	3788	65	116	117	131				
		3 PM	22.8	5	10.26	9.96	—	—	5m 1298	30	126	125	125				
		11PM	21.7	3	9.66	10.05	—	—	1973	81	120	125	129				
FRIDAY	8/3	7 AM	21.7	3	9.72	10.08	—	—	2200	90	117	120	125				
		3 PM	20.4	14	9.86	10.03	—	—	564	50	122	121	125				
		11PM	17.3	13	9.59	10.01	—	—	1443	53?	119	130	128				
SATURDAY																	
SUNDAY																	

..\WOUT\500-0007, 03/04/99

AKC-0009589