APPENDICES FOR SECTION 2

WATER QUALITY

INLAND BAYS CHARACTERIZATION

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Prepared for the University of Delaware

by

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DELAWARE'S INLAND BAYS CHARACTERIZATION

APPENDICES FOR SECTION 2, WATER QUALITY

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APPENDIX 2.1

Freshwater discharge estimates for the Inland Bays basin

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INDIAN RIVER BASIN RANKINGS.

OBS	YEAR	QYRANK	INDIINYR	REHOINYR
1	1897	0.55319	14.8360	14.7324
2	1898	0.73404	13.0822	13.0198
3	1899	0.61702	14.4116	14.3517
4	1900	0.85106	10.8794	10.8583
5	1901	0.95745	9.1392	9.1525
6	1902	0.47872	16.5521	16.5386
7	1903	0.13830	22.9707	22.9516
8	1904	0.93617	9.6214	9.6324
9	1905	0.27660	18.8416	18.6995
10	1906	0.06383	27.0962	26.9155
11	1907	0.24468	19.6697	19.6784
12	1908	0.63830	14.2674	14.2647
13	1909	0.59574	14.5753	14.5591
14	1910	0.64894	14.1183	14.0746
15	1911	0.32979	18.1864	18.2552
16	1912	0.52128	15.3114	15.3806
17	1913	0.94681	9.2445	9.2709
18	1914	0.79787	11.8740	11.8603
19	1915	0.58511	14.6115	14.6441
20	1916	0.87234	10.7224	10.7151
21	1917	0.34043	18.0869	18.1651
22	1918	0.76596	12.4890	12.5466
23	1919	0.22340	20.0035	20.0409
24	1920	0.12766	23.2922	23.2128
25	1921	0.89362	10.1507	10.1507
26	1922	0.71277	13.2820	13.2496
27	1923	0.45745	16.6354	16.6194
28	1924	0.29787	18.5604	18.6252
29	1925	0.86170	10.7863	10.8035
30	1926	0.39362	17.4703	17.5240
31	1927	0.84043	11.4273	11.4557
32	1928	0.44681	16.7136	16.7415
33	1929	0.65957	14.0865	14.0975
34	1930	1.00000	6.8269	6.8616
35	1931	0.98936	7.0580	7.0905
36	1932	0.48936	16.2515	16.2756
37	1933	0.21277	20.3088	20.2847
38	1934	0.20213	20.4666	20.4297
39	1935	0.09574	24.2412	24.2383
40	1936	0.25532	19.3629	19.4349
41	1937	0.04255	27.9178	27.8477
42	1938	0.35106	18.0841	18.0491
43	1939	0.31915	18.1890	18.2631
44	1940	0.57447	14.7396	14.7817
45	1941	0.92553	9.6625	9.7016
46	1942	0.80851	11.7459	11.7509
47	1943	0.74468	12.8904	12.8062
48	1944	0.62766	14.3520	14.2268
49	1945	0.14894	22.8119	22.1453
50	1946	0.40426	17.3730	16.9411
51	1947	0.81915	11.4773	11.3598
52	1948	0.01064	33.8191	33.2817
53	1949	0.26596	19.3586	19.0051
54	1950	0.88298	10.5081	10.8059
55	1951	0.67021	14.0587	14.8501
56	1952	0.17021	22.1588	23.1466
57	1953	0.30851	18.4230	18.9794
58	1954	0.82979	11.4614	11.6344
59	1955	0.56383	14.7418	14.6633
60	1956	0.36170	17.8880	18.0296
61	1957	0.53191	15.2565	15.9337
62	1958	0.02128	30.1079	31.9386
63	1959	0.46809	16.5597	17.7466
64	1960	0.28723	18.7795	19.7876
65	1961	0.10638	23.6885	24.1930
66	1962	0.37234	17.8345	18.1624
67	1963	0.69149	13.6883	13.8888
68	1964	0.43617	16.9442	17.1387
69	1965	0.91489	9.6684	10.1449
70	1966	0.96809	9.0099	9.1985
71	1967	0.38298	17.7529	18.6065
72	1968	0.78723	12.2149	12.6053
73	1969	0.51064	15.5769	15.5268
74	1970	0.42553	17.0280	17.5244
75	1971	0.23404	19.6898	20.6970
76	1972	0.05319	27.7154	27.8026
77	1973	0.41489	17.1140	17.8622
78	1974	0.75532	12.6340	13.2052
79	1975	0.11702	23.5698	24.0590
80	1976	0.68085	13.9803	14.6480
81	1977	0.90426	9.9729	9.9646
82	1978	0.18085	21.9479	22.3101
83	1979	0.03191	28.2393	26.6914

INDIAN RIVER BASIN RANKINGS

OBS	YEAR	QYRANK	INDIINYR	REHOINYR
84	1980	0.50000	16.1768	16.9830
85	1981	0.97872	8.2340	9.0968
86	1982	0.72340	13.1514	13.0157
87	1983	0.08511	25.0067	24.7159
88	1984	0.15957	22.5288	22.7166
89	1985	0.60638	14.4945	10.8302
90	1986	0.77660	12.4419	10.4804
91	1987	0.19149	20.8495	14.6098
92	1988	0.70213	13.4716	10.3465
93	1989	0.07447	26.5878	25.2968
94	1990	0.54255	15.1293	15.9098

INDIAN RIVER BASIN RANKINGS BY SEASON

SEASON=SPRING Inches - March to June

OBS	YEAR	QSRANK	INDIINSE	REHOINSE
1	1897	0.74468	5.5253	5.4821
2	1898	0.67021	5.7639	5.7368
3	1899	0.24468	9.4746	9.4412
4	1900	0.68085	5.7338	5.7291
5	1901	0.75532	5.5178	5.5127
6	1902	0.34043	8.4728	8.4677
7	1903	0.15957	10.1147	10.1283
8	1904	0.54255	6.7299	6.7168
9	1905	0.05319	13.1835	13.0964
10	1906	0.13830	10.4359	10.3805
11	1907	0.19149	9.9264	9.9121
12	1908	0.57447	6.1986	6.1975
13	1909	0.32979	8.7650	8.7481
14	1910	0.70213	5.6924	5.6763
15	1911	0.53191	6.7386	6.7366
16	1912	0.27660	9.1362	9.1892
17	1913	0.88298	4.4739	4.5049
18	1914	0.60638	5.8944	5.8679
19	1915	0.92553	4.2602	4.2648
20	1916	0.73404	5.5543	5.5503
21	1917	0.26596	9.3045	9.3120
22	1918	0.37234	8.2783	8.3219
23	1919	0.43617	7.3292	7.3382
24	1920	0.28723	9.1337	9.1304
25	1921	0.86170	4.7367	4.7336
26	1922	0.62766	5.8708	5.8755
27	1923	0.30851	8.9364	8.9367
28	1924	0.09574	11.1411	11.1755
29	1925	0.94681	3.9015	3.9136
30	1926	0.93617	4.2184	4.2340
31	1927	0.91489	4.3659	4.3613
32	1928	0.45745	7.1811	7.1785
33	1929	0.36170	8.2797	8.2850
34	1930	0.98936	3.2285	3.2526
35	1931	0.65957	5.8051	5.8206
36	1932	0.40426	7.6314	7.6441
37	1933	0.44681	7.2093	7.2479
38	1934	0.06383	12.7042	12.7075
39	1935	0.47872	7.1553	7.1506
40	1936	0.22340	9.6878	9.7115
41	1937	0.20213	9.8714	9.8557
42	1938	0.79787	5.2580	5.2391
43	1939	0.23404	9.6718	9.6858
44	1940	0.18085	9.9728	9.9949
45	1941	0.81915	5.1116	5.1222
46	1942	0.51064	6.9680	6.9481
47	1943	0.52128	6.8304	6.7557
48	1944	0.42553	7.3735	7.3252
49	1945	0.78723	5.2649	5.1667
50	1946	0.61702	5.8832	5.7278
51	1947	0.84043	4.8607	4.8890
52	1948	0.02128	14.8928	14.6344
53	1949	0.41489	7.4410	7.3507
54	1950	0.69149	5.7127	5.9352
55	1951	0.90426	4.3694	4.4583
56	1952	0.12766	10.4924	10.9018
57	1953	0.35106	8.3153	8.6709
58	1954	0.72340	5.6233	5.5253
59	1955	0.71277	5.6790	5.7257
60	1956	0.63830	5.8480	6.1401
61	1957	0.55319	6.6579	6.9346
62	1958	0.01064	14.9639	15.2547
63	1959	0.76596	5.4769	5.7134
64	1960	0.56383	6.6250	7.2486
65	1961	0.11702	10.6479	11.3537
66	1962	0.29787	9.0752	9.2459
67	1963	0.38298	8.1625	8.0893
68	1964	0.31915	8.7699	8.9256
69	1965	0.89362	4.3956	4.7027
70	1966	0.77660	5.2837	5.1150
71	1967	0.87234	4.6037	4.9887
72	1968	0.58511	6.1749	6.2352
73	1969	0.80851	5.2402	5.1203
74	1970	0.39362	7.6357	7.9326
75	1971	0.48936	7.0806	7.5921
76	1972	0.17021	10.1054	10.2789
77	1973	0.59574	6.0644	6.6090
78	1974	0.82979	5.0485	5.4196
79	1975	0.25532	9.3147	9.5539
80	1976	0.95745	3.5811	4.1110
81	1977	0.97872	3.2629	3.4528

INDIAN RIVER BASIN RANKINGS BY SEASON

SEASON=SPRING
(continued)

OBS	YEAR	QSRANK	INDIINSE	REHOINSE
82	1978	0.07447	11.4168	11.6356
83	1979	0.08511	11.3182	11.0576
84	1980	0.21277	9.8308	10.0621
85	1981	0.85106	4.7727	5.2635
86	1982	0.64894	5.8238	6.0843
87	1983	0.04255	13.5748	13.5535
88	1984	0.03191	13.6643	13.7082
89	1985	1.00000	2.8348	2.9969
90	1986	0.96809	3.5178	4.0794
91	1987	0.10638	10.8831	7.5472
92	1988	0.46809	7.1735	5.6454
93	1989	0.14894	10.2355	10.5005
94	1990	0.50000	6.9758	7.4518

INDIAN RIVER BASIN RANKINGS BY SEASON

SEASON=SUMMER Inches July-Oct.

OBS	YEAR	QSRANK	INDIINSE	REHOINSE
95	1897	0.42553	1.82707	1.80231
96	1898	0.85106	0.62319	0.62002
97	1899	0.89362	0.54460	0.54259
98	1900	0.97872	0.34238	0.34199
99	1901	0.91489	0.48179	0.48189
100	1902	0.81915	0.67131	0.66896
101	1903	0.80851	0.67705	0.67736
102	1904	0.94681	0.42173	0.42091
103	1905	0.27660	2.62191	2.57722
104	1906	0.02128	7.94358	7.85303
105	1907	0.46809	1.72613	1.72646
106	1908	0.69149	1.05912	1.05744
107	1909	0.54255	1.36162	1.34962
108	1910	0.57447	1.30430	1.28834
109	1911	0.36170	2.13871	2.17770
110	1912	0.82979	0.66691	0.67452
111	1913	0.93617	0.43011	0.43451
112	1914	0.95745	0.39904	0.39629
113	1915	0.50000	1.57417	1.58750
114	1916	0.92553	0.47293	0.47304
115	1917	0.47872	1.68345	1.72511
116	1918	0.87234	0.60538	0.60781
117	1919	0.07447	5.33626	5.36119
118	1920	0.20213	3.42719	3.38392
119	1921	0.90426	0.51959	0.51627
120	1922	0.58511	1.28242	1.26246
121	1923	0.84043	0.62930	0.62916
122	1924	0.55319	1.35854	1.36913
123	1925	1.00000	0.25224	0.25325
124	1926	0.06383	5.45350	5.46898
125	1927	0.77660	0.75312	0.76406
126	1928	0.29787	2.58270	2.60252
127	1929	0.79787	0.68358	0.68450
128	1930	0.98936	0.29222	0.29757
129	1931	0.88298	0.60495	0.60981
130	1932	0.75532	0.78637	0.78952
131	1933	0.12766	4.66986	4.61104
132	1934	0.35106	2.16661	2.15008
133	1935	0.15957	4.17487	4.15663
134	1936	0.71277	0.93985	0.95416
135	1937	0.22340	3.10290	3.08309
136	1938	0.14894	4.22095	4.19928
137	1939	0.45745	1.74011	1.77941
138	1940	0.65957	1.14761	1.15144
139	1941	0.86170	0.60756	0.61776
140	1942	0.96809	0.38591	0.38476
141	1943	0.76596	0.76502	0.75767
142	1944	0.70213	0.98472	0.99500
143	1945	0.04255	5.98557	5.74249
144	1946	0.17021	4.06535	3.96291
145	1947	0.64894	1.16080	1.16779
146	1948	0.08511	5.25623	5.08422
147	1949	0.59574	1.24779	1.21399
148	1950	0.52128	1.39607	1.56346
149	1951	0.28723	2.58408	2.84665
150	1952	0.26596	2.69372	2.91856
151	1953	0.25532	2.93404	2.95028
152	1954	0.60638	1.23701	1.40691
153	1955	0.19149	3.79086	3.97708
154	1956	0.31915	2.26621	2.43999
155	1957	0.72340	0.91947	1.30892
156	1958	0.05319	5.93156	6.95938
157	1959	0.18085	3.90213	4.49739
158	1960	0.23404	3.05839	3.67453
159	1961	0.48936	1.65519	2.14110
160	1962	0.53191	1.36779	1.79895
161	1963	0.51064	1.50110	1.78997
162	1964	0.67021	1.07676	1.42015
163	1965	0.38298	2.04068	1.93195
164	1966	0.56383	1.33063	1.62914
165	1967	0.03191	7.02637	7.48552
166	1968	0.63830	1.18935	1.34805
167	1969	0.11702	5.15366	5.19000
168	1970	0.34043	2.18175	2.24193
169	1971	0.30851	2.34733	2.76945
170	1972	0.13830	4.23859	4.38389
171	1973	0.24468	3.02246	3.00454
172	1974	0.44681	1.75653	1.90829
173	1975	0.09574	5.21895	5.12972
174	1976	0.68085	1.06424	1.22523
175	1977	0.74468	0.79223	0.95456

INDIAN RIVER BASIN RANKINGS BY SEASON

SEASON=SUMMER
(continued)

OBS	YEAR	QSRANK	INDIINSE	REHOINSE
176	1978	0.41489	1.89084	2.39184
177	1979	0.21277	3.28896	3.28098
178	1980	0.62766	1.20616	1.43417
179	1981	0.61702	1.22937	1.40521
180	1982	0.40426	1.93504	1.92637
181	1983	0.32979	2.21142	2.37026
182	1984	0.37234	2.06506	2.27645
183	1985	0.10638	5.19256	2.26671
184	1986	0.78723	0.71796	1.13158
185	1987	0.73404	0.82545	1.45502
186	1988	0.43617	1.78670	1.45677
187	1989	0.01064	9.49739	7.98936
188	1990	0.39362	1.97028	2.29206

Annual ranks - discharge @ Millsboro 1943-1991

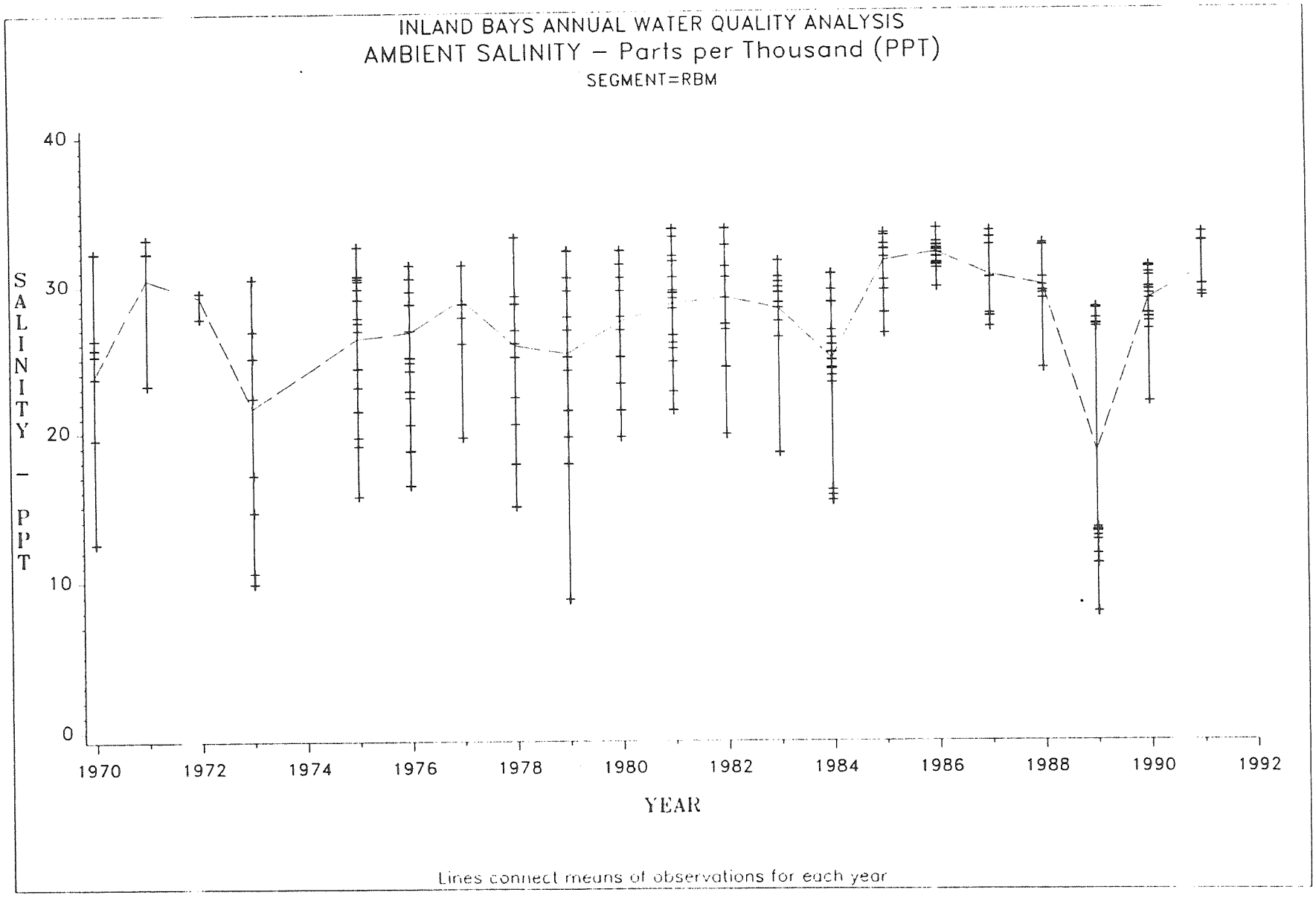
OBS	YEAR	MILQYRMN	RMILQYR
1	1948	2.60303	0.02041
2	1958	2.38780	0.04082
3	1972	2.07327	0.06122
4	1983	2.05767	0.08163
5	1991	1.99992	0.10204
6	1979	1.93553	0.12245
7	1989	1.91723	0.14286
8	1945	1.82783	0.16327
9	1975	1.81894	0.18367
10	1952	1.75593	0.20408
11	1961	1.75484	0.22449
12	1984	1.71417	0.24490
13	1978	1.64420	0.26531
14	1971	1.52280	0.28571
15	1949	1.51108	0.30612
16	1953	1.44787	0.32653
17	1956	1.42374	0.34694
18	1960	1.40867	0.36735
19	1946	1.37530	0.38776
20	1962	1.35711	0.40816
21	1973	1.28464	0.42857
22	1959	1.28234	0.44898
23	1964	1.27831	0.46939
24	1967	1.27361	0.48980
25	1970	1.25729	0.51020
26	1980	1.24437	0.53061
27	1957	1.17024	0.55102
28	1969	1.16982	0.57143
29	1951	1.16585	0.59184
30	1990	1.13573	0.61224
31	1955	1.10206	0.63265
32	1987	1.09718	0.65306
33	1944	1.08200	0.67347
34	1963	1.05260	0.69388
35	1976	1.02250	0.71429
36	1982	0.98400	0.73469
37	1974	0.92596	0.75510
38	1968	0.88954	0.77551
39	1947	0.87148	0.79592
40	1985	0.87018	0.81633
41	1954	0.86401	0.83673
42	1950	0.85810	0.85714
43	1986	0.80654	0.87755
44	1988	0.76756	0.89796
45	1977	0.71965	0.91837
46	1965	0.71217	0.93878
47	1966	0.63505	0.95918
48	1981	0.62491	0.97959
49	1943	0.62130	1.00000

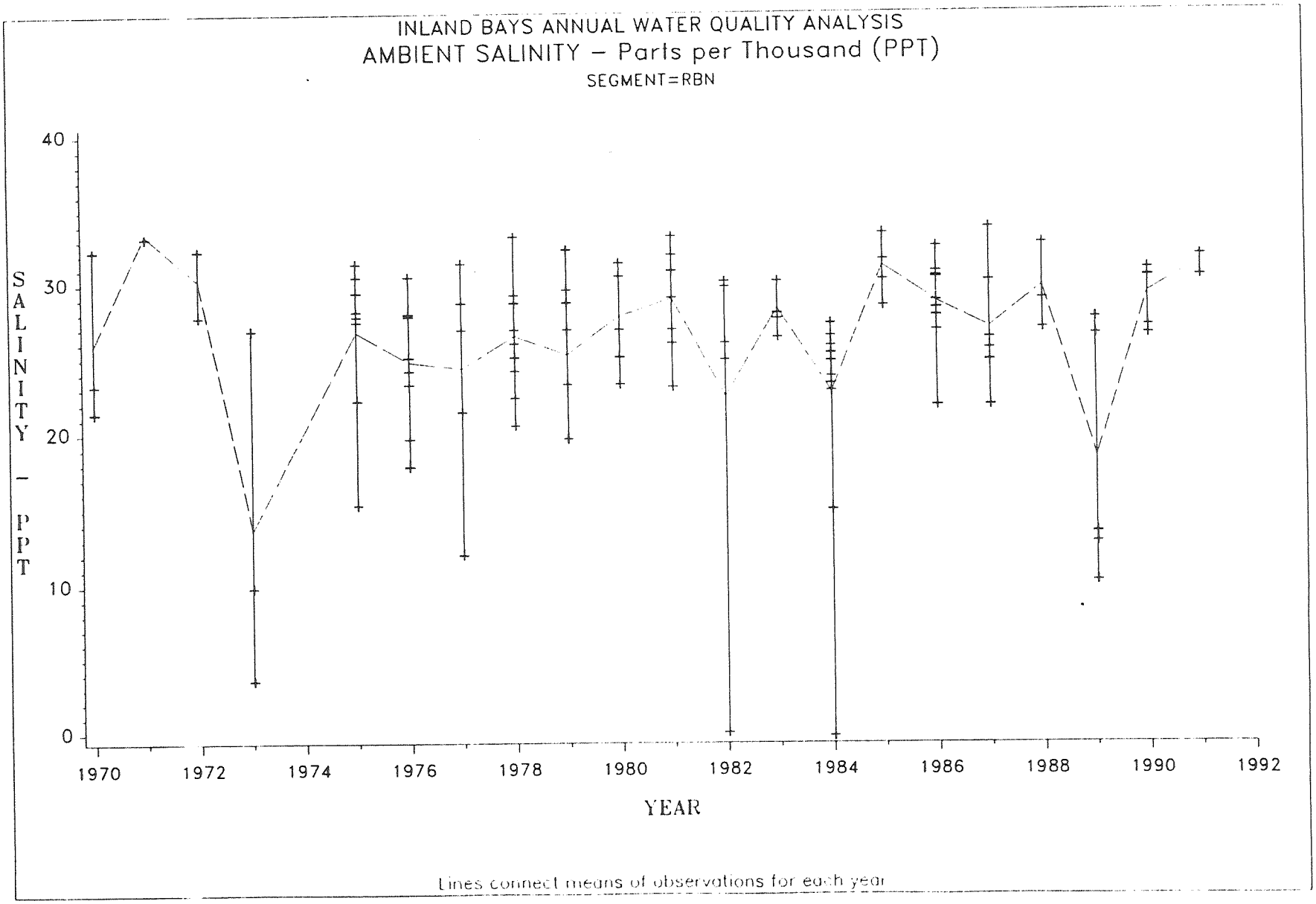
Spring ranks - discharge @ Millsboro 1943-1991

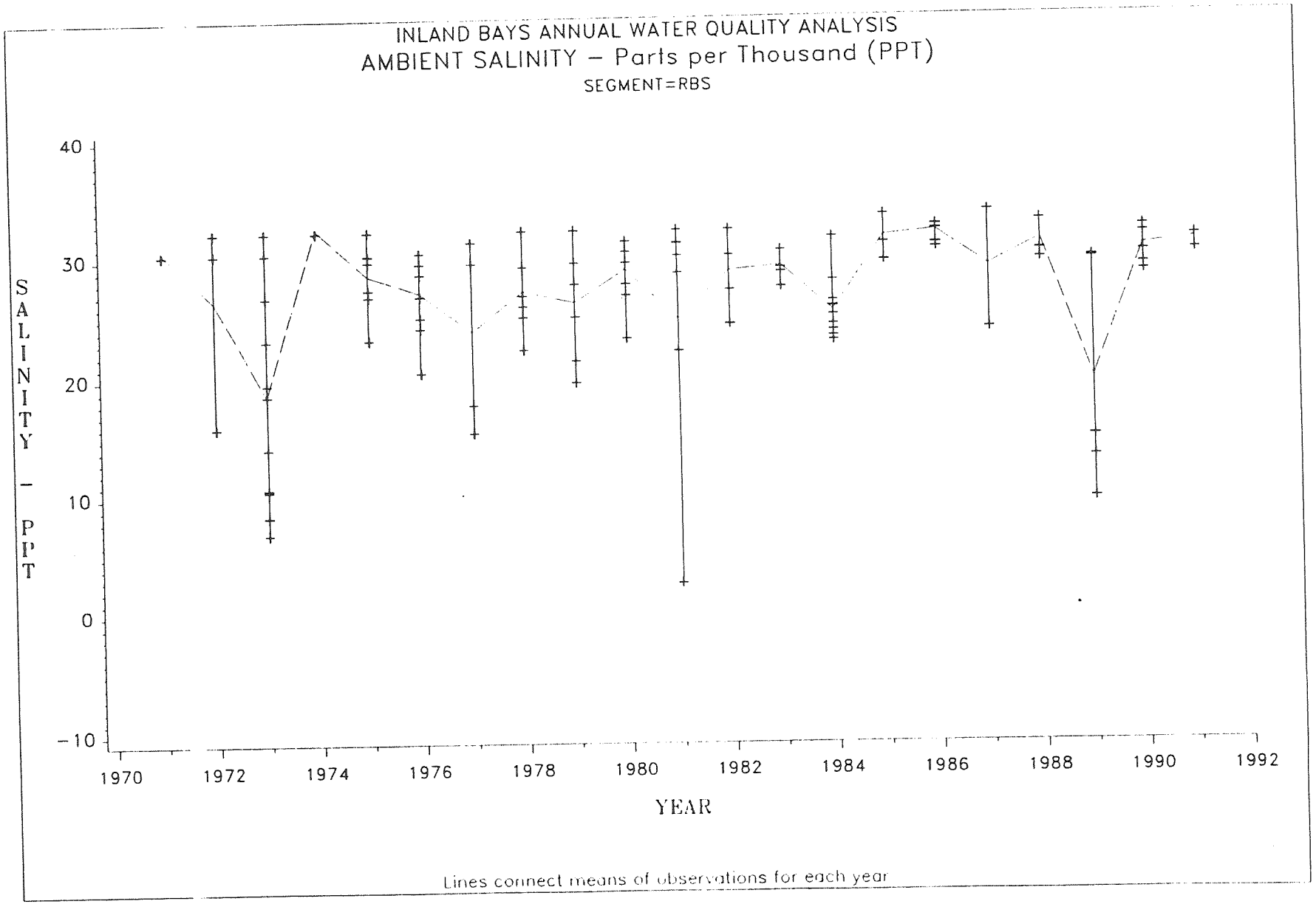
OBS	SEASON	YEAR	SEA	MILQSEMN.	RMILQSE
1	Spring	1958	S3456	3.52631	0.02041
2	Spring	1948	S3456	3.45326	0.04082
3	Spring	1983	S3456	3.31967	0.06122
4	Spring	1984	S3456	3.11710	0.08163
5	Spring	1978	S3456	2.62201	0.10204
6	Spring	1979	S3456	2.58244	0.12245
7	Spring	1961	S3456	2.54364	0.14286
8	Spring	1952	S3456	2.53254	0.16327
9	Spring	1980	S3456	2.36125	0.18367
10	Spring	1972	S3456	2.29008	0.20408
11	Spring	1989	S3456	2.20686	0.22449
12	Spring	1991	S3456	2.19417	0.24490
13	Spring	1962	S3456	2.14085	0.26531
14	Spring	1975	S3456	2.11128	0.28571
15	Spring	1964	S3456	2.01211	0.30612
16	Spring	1953	S3456	1.98004	0.32653
17	Spring	1963	S3456	1.90089	0.34694
18	Spring	1987	S3456	1.73882	0.36735
19	Spring	1970	S3456	1.73383	0.38776
20	Spring	1949	S3456	1.69972	0.40816
21	Spring	1944	S3456	1.65702	0.42857
22	Spring	1960	S3456	1.62464	0.44898
23	Spring	1971	S3456	1.61166	0.46939
24	Spring	1957	S3456	1.53704	0.48980
25	Spring	1990	S3456	1.49481	0.51020
26	Spring	1950	S3456	1.43724	0.53061
27	Spring	1956	S3456	1.43693	0.55102
28	Spring	1946	S3456	1.39939	0.57143
29	Spring	1973	S3456	1.39203	0.59184
30	Spring	1968	S3456	1.37060	0.61224
31	Spring	1982	S3456	1.32634	0.63265
32	Spring	1988	S3456	1.30874	0.65306
33	Spring	1959	S3456	1.29834	0.67347
34	Spring	1943	S3456	1.27171	0.69388
35	Spring	1954	S3456	1.26596	0.71429
36	Spring	1955	S3456	1.24672	0.73469
37	Spring	1945	S3456	1.22528	0.75510
38	Spring	1981	S3456	1.13690	0.77551
39	Spring	1966	S3456	1.11876	0.79592
40	Spring	1969	S3456	1.10327	0.81633
41	Spring	1974	S3456	1.05681	0.83673
42	Spring	1967	S3456	1.05494	0.85714
43	Spring	1947	S3456	1.05259	0.87755
44	Spring	1965	S3456	1.01958	0.89796
45	Spring	1951	S3456	1.01739	0.91837
46	Spring	1986	S3456	0.93332	0.93878
47	Spring	1976	S3456	0.82030	0.95918
48	Spring	1977	S3456	0.72785	0.97959
49	Spring	1985	S3456	0.63415	1.00000

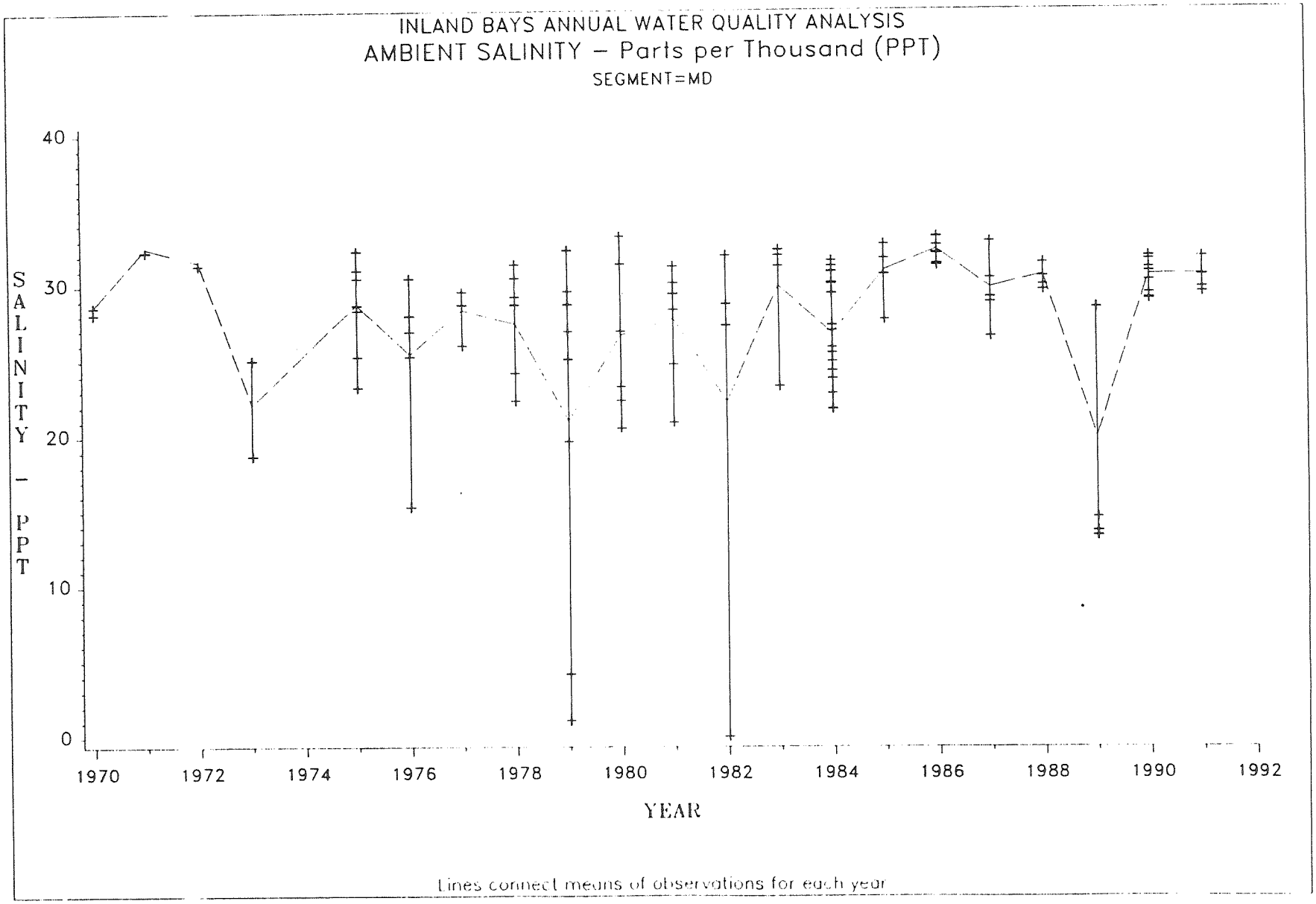
APPENDIX 2.2

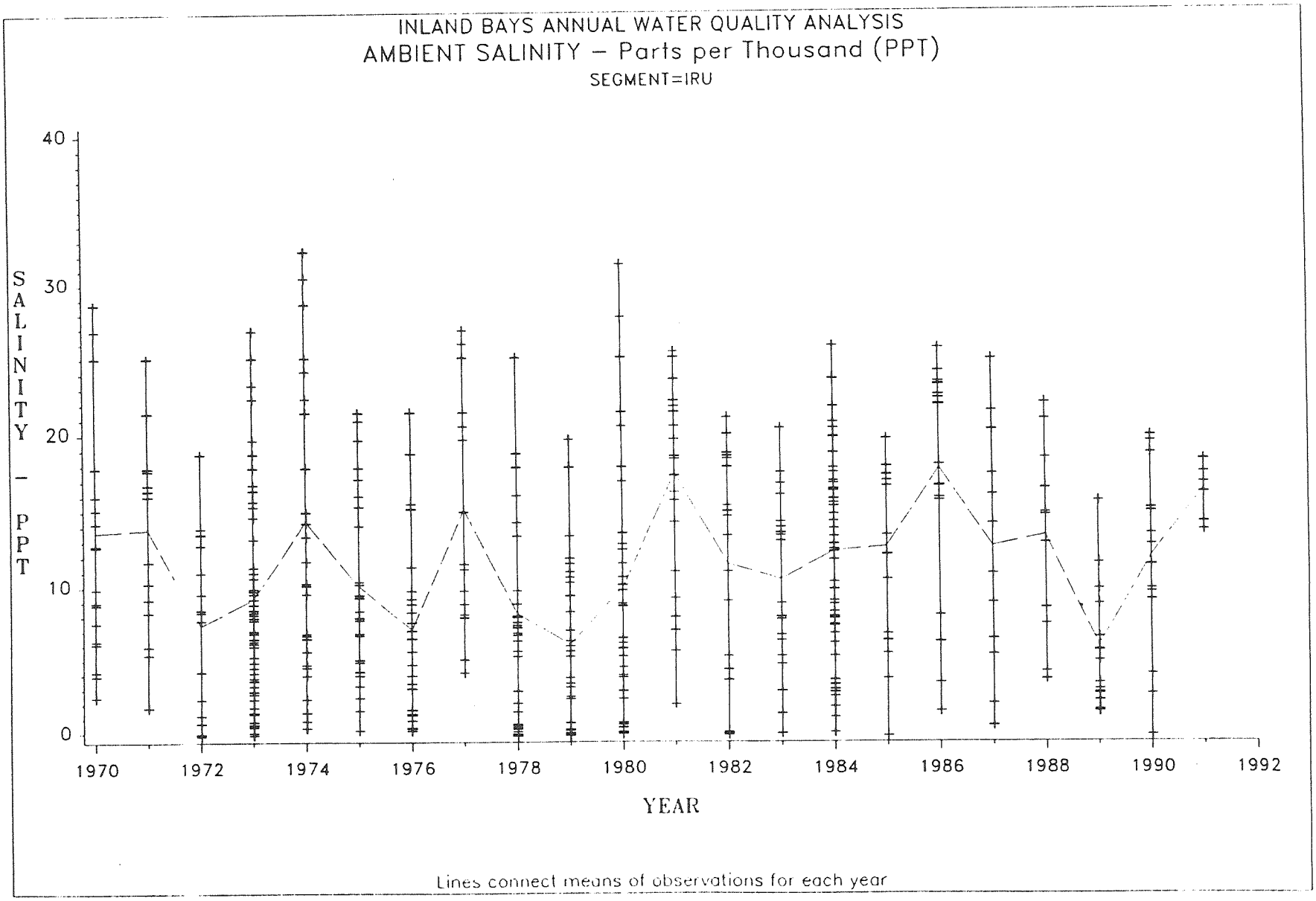
Annual and seasonal salinity plots
for the tidal waters of the Inland Bays

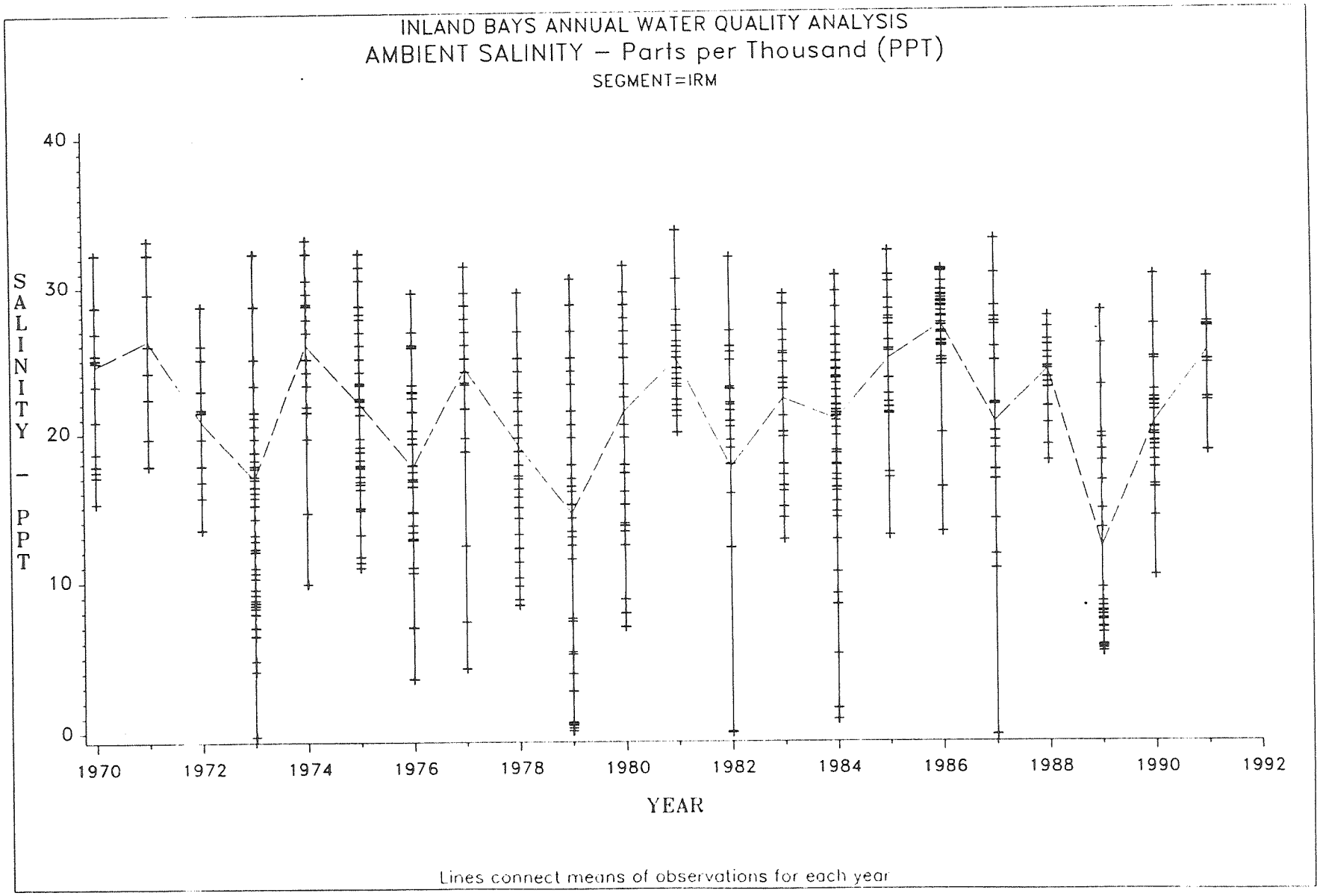

INLAND BAYS ANNUAL WATER QUALITY ANALYSIS
AMBIENT SALINITY – Parts per Thousand (PPT)
SEGMENT=RBM
SALINITY – PPT
40
30
20
10
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations for each year

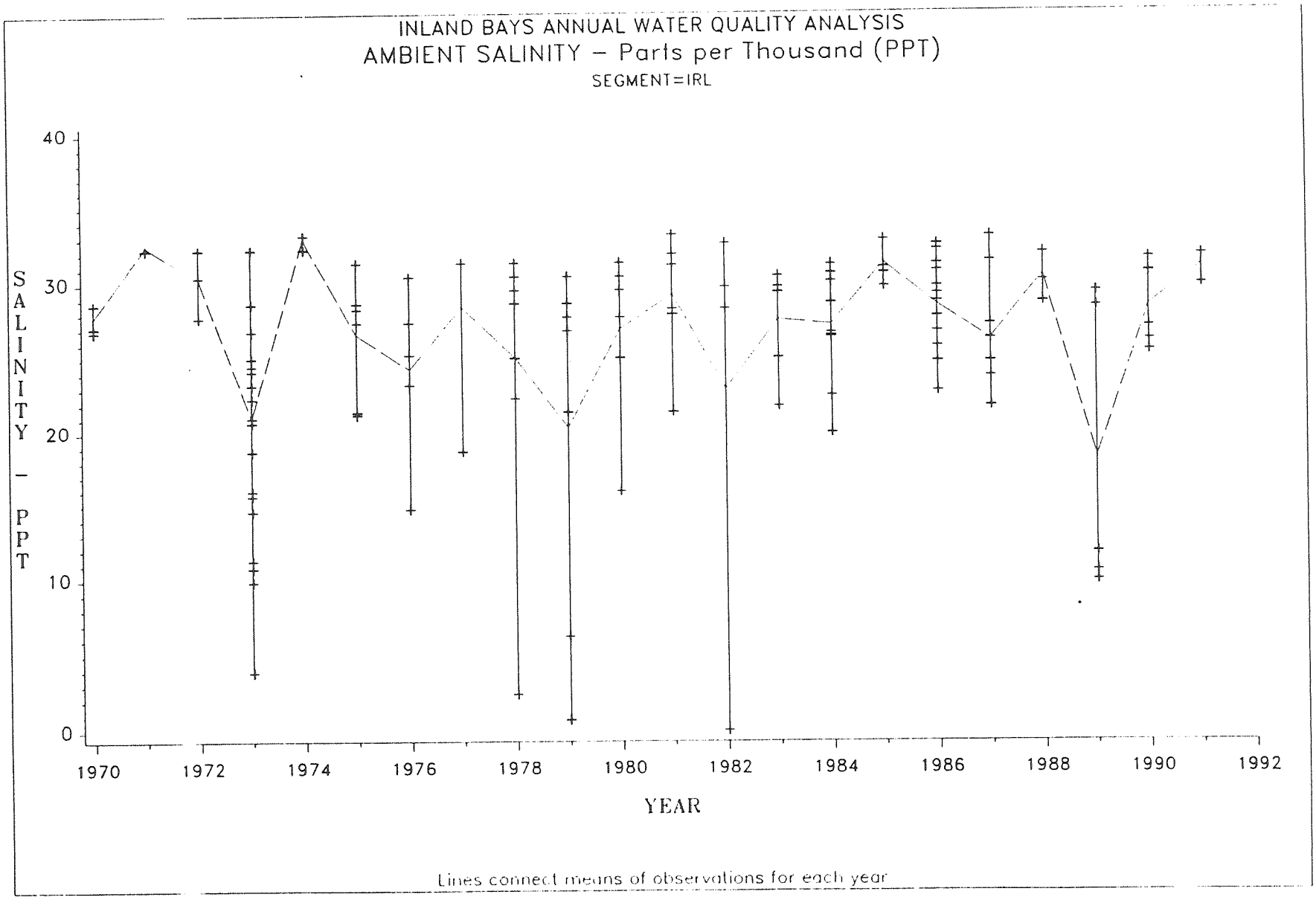

INLAND BAYS ANNUAL WATER QUALITY ANALYSIS
AMBIENT SALINITY – Parts per Thousand (PPT)
SEGMENT=RBN
SALINITY - PPT
40
30
20
10
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations for each year

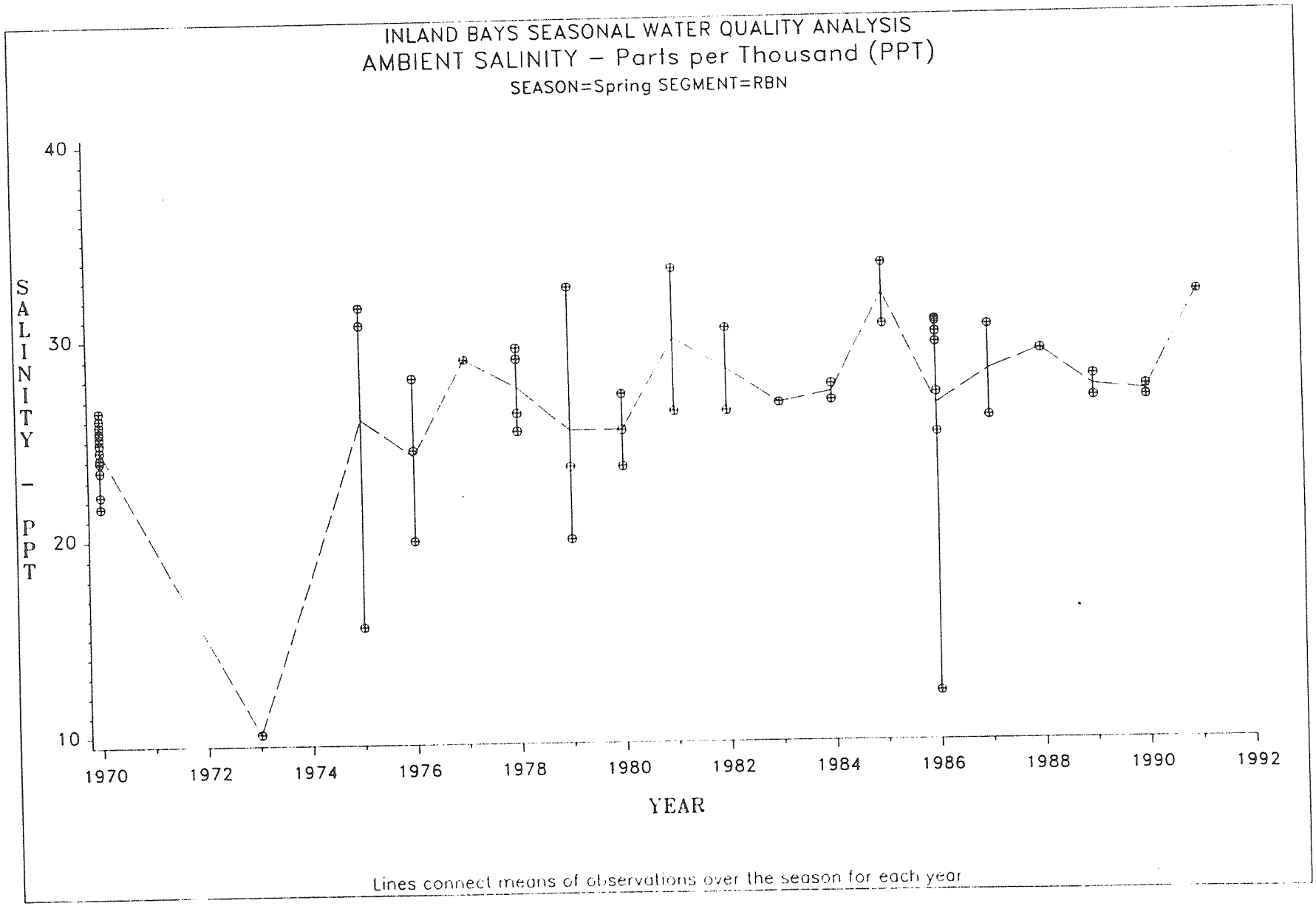

INLAND BAYS ANNUAL WATER QUALITY ANALYSIS
AMBIENT SALINITY – Parts per Thousand (PPT)
SEGMENT=RBS
SALINITY - PPT
40
30
20
10
0
-10
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations for each year

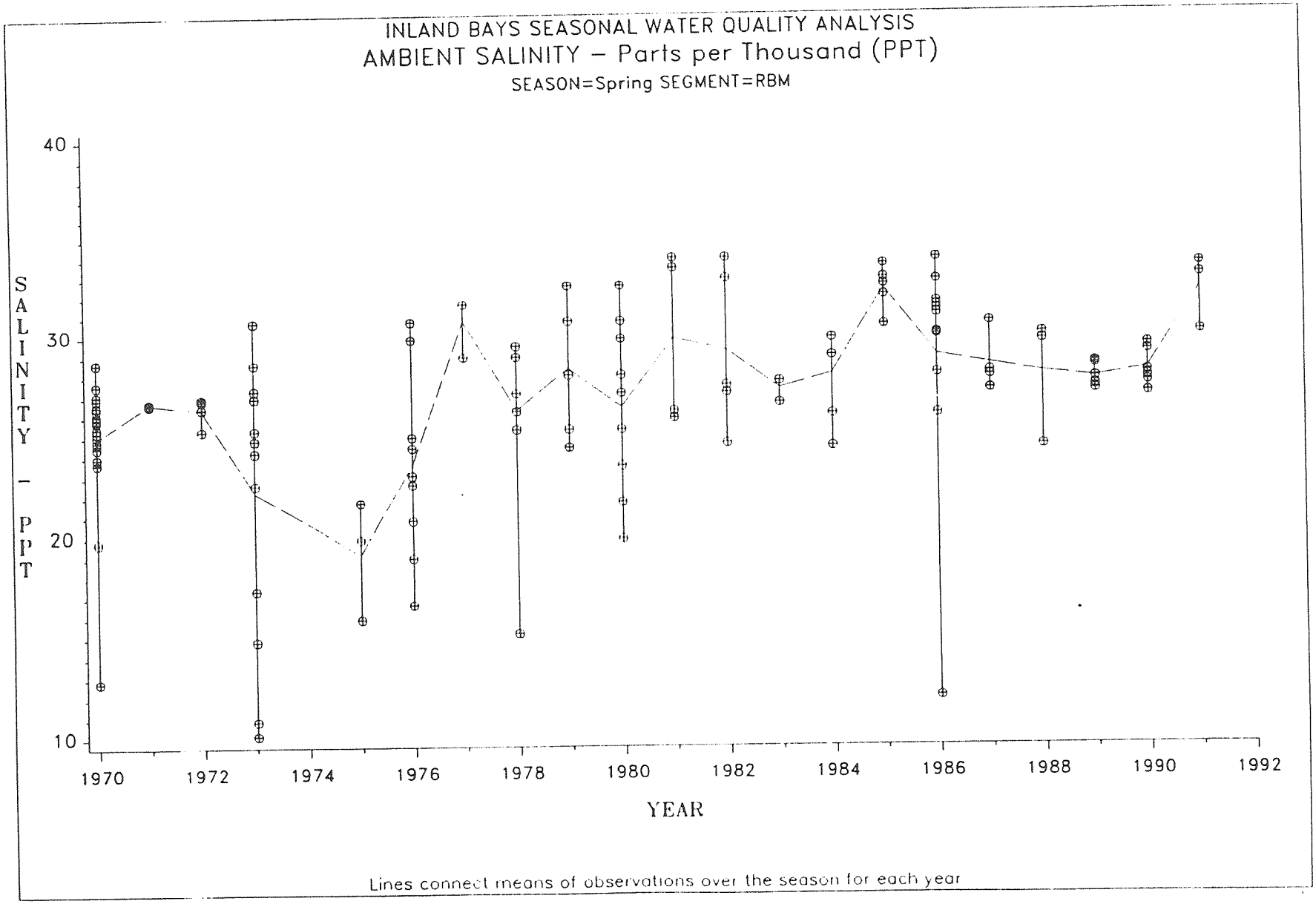

INLAND BAYS ANNUAL WATER QUALITY ANALYSIS
AMBIENT SALINITY – Parts per Thousand (PPT)
SEGMENT=MD
SALINITY - PPT
40
30
20
10
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations for each year

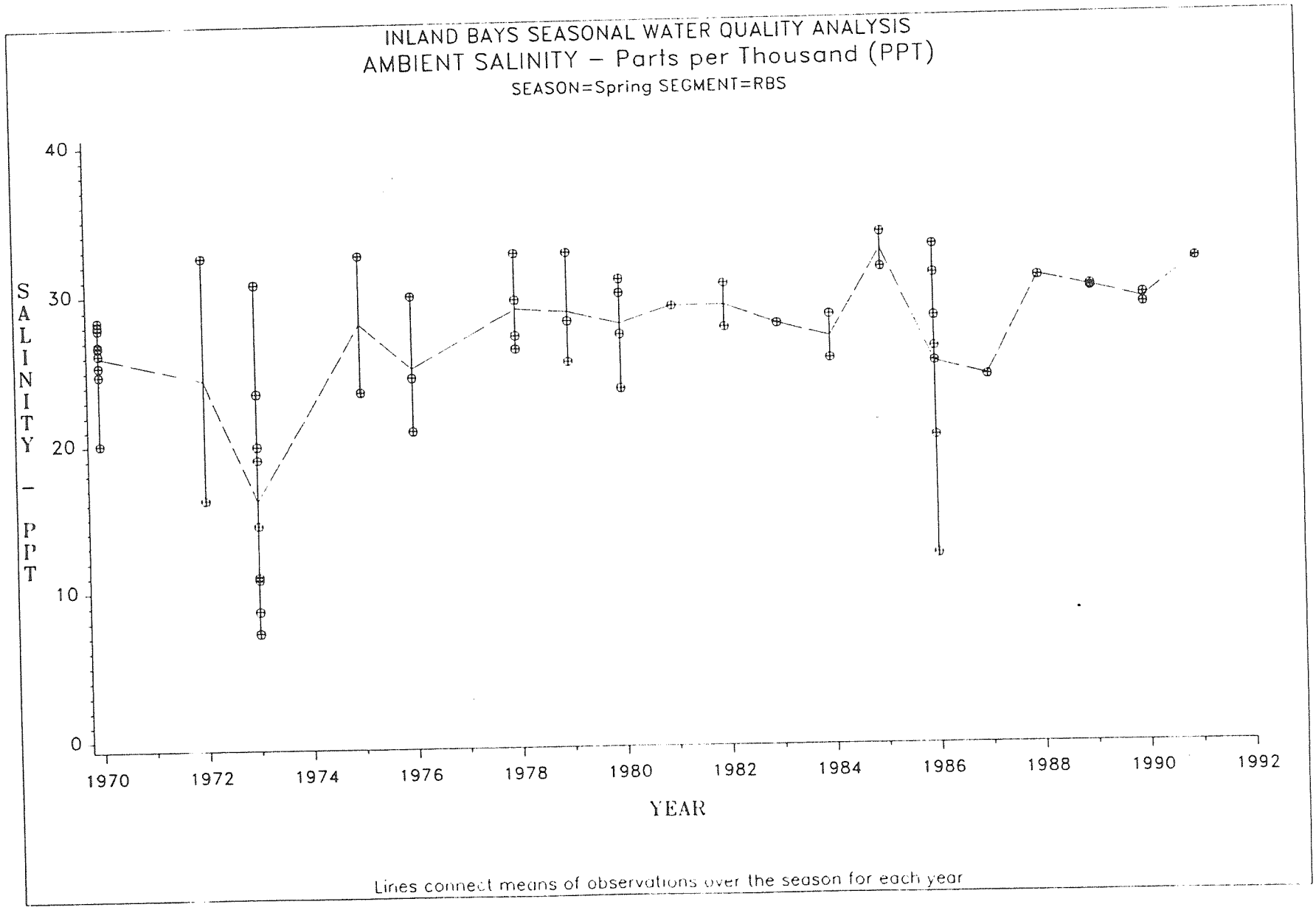

INLAND BAYS ANNUAL WATER QUALITY ANALYSIS
AMBIENT SALINITY – Parts per Thousand (PPT)
SEGMENT=IRU
SALINITY - PPT
40
30
20
10
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations for each year

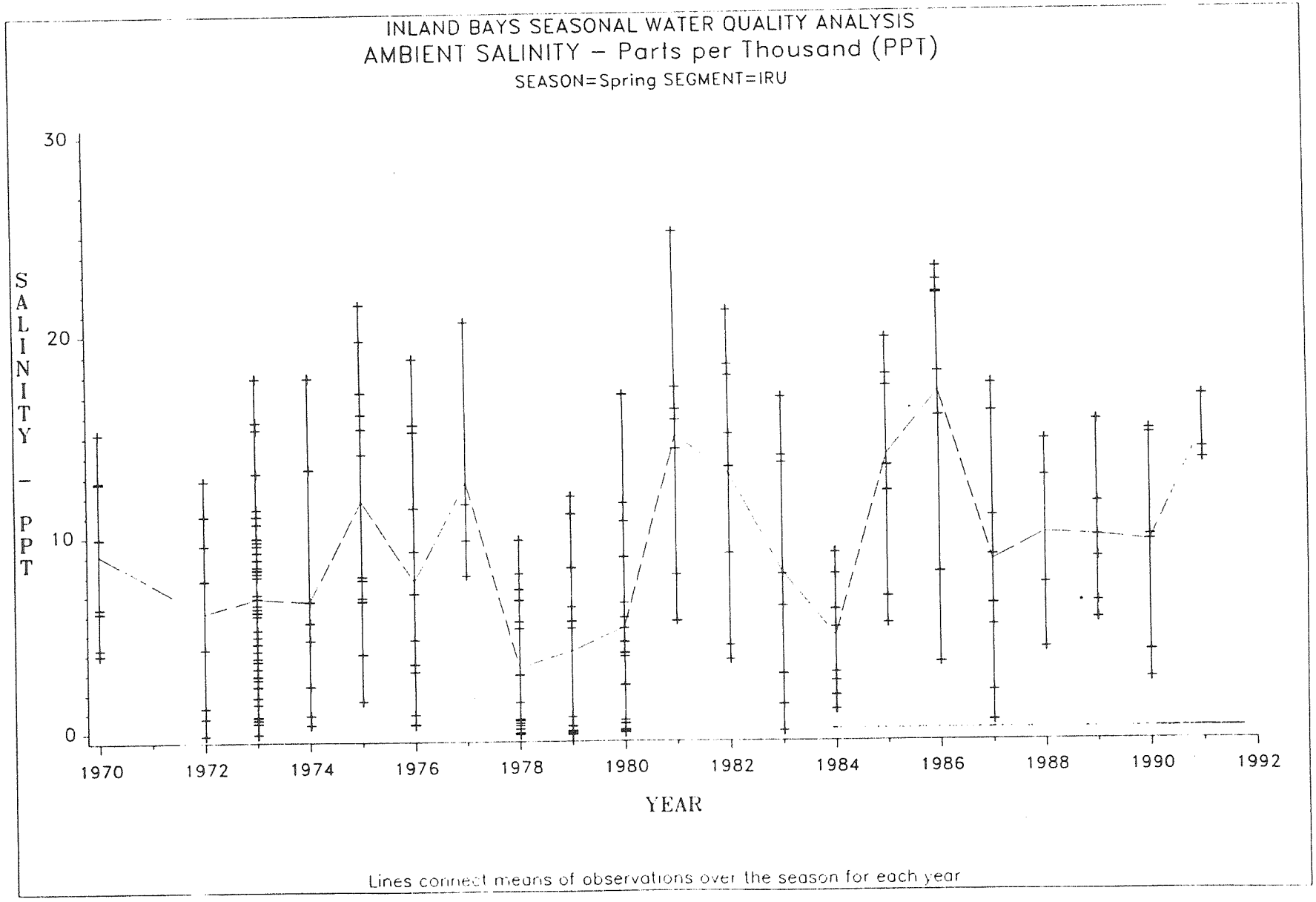

INLAND BAYS ANNUAL WATER QUALITY ANALYSIS
AMBIENT SALINITY – Parts per Thousand (PPT)
SEGMENT=IRM
SALINITY - PPT
40
30
20
10
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations for each year

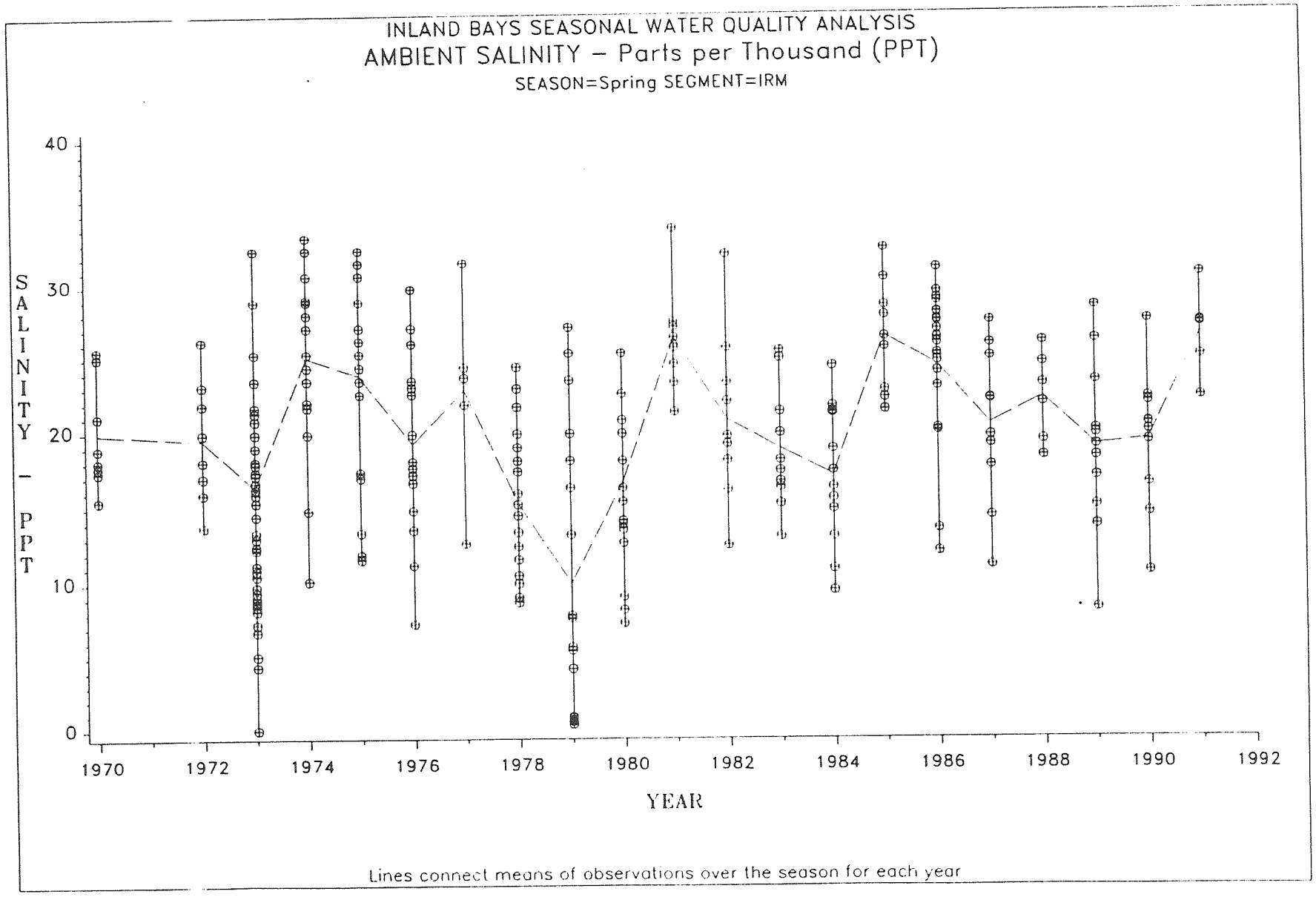

INLAND BAYS ANNUAL WATER QUALITY ANALYSIS
AMBIENT SALINITY – Parts per Thousand (PPT)
SEGMENT=IRL
SALINITY - PPT
40
30
20
10
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations for each year

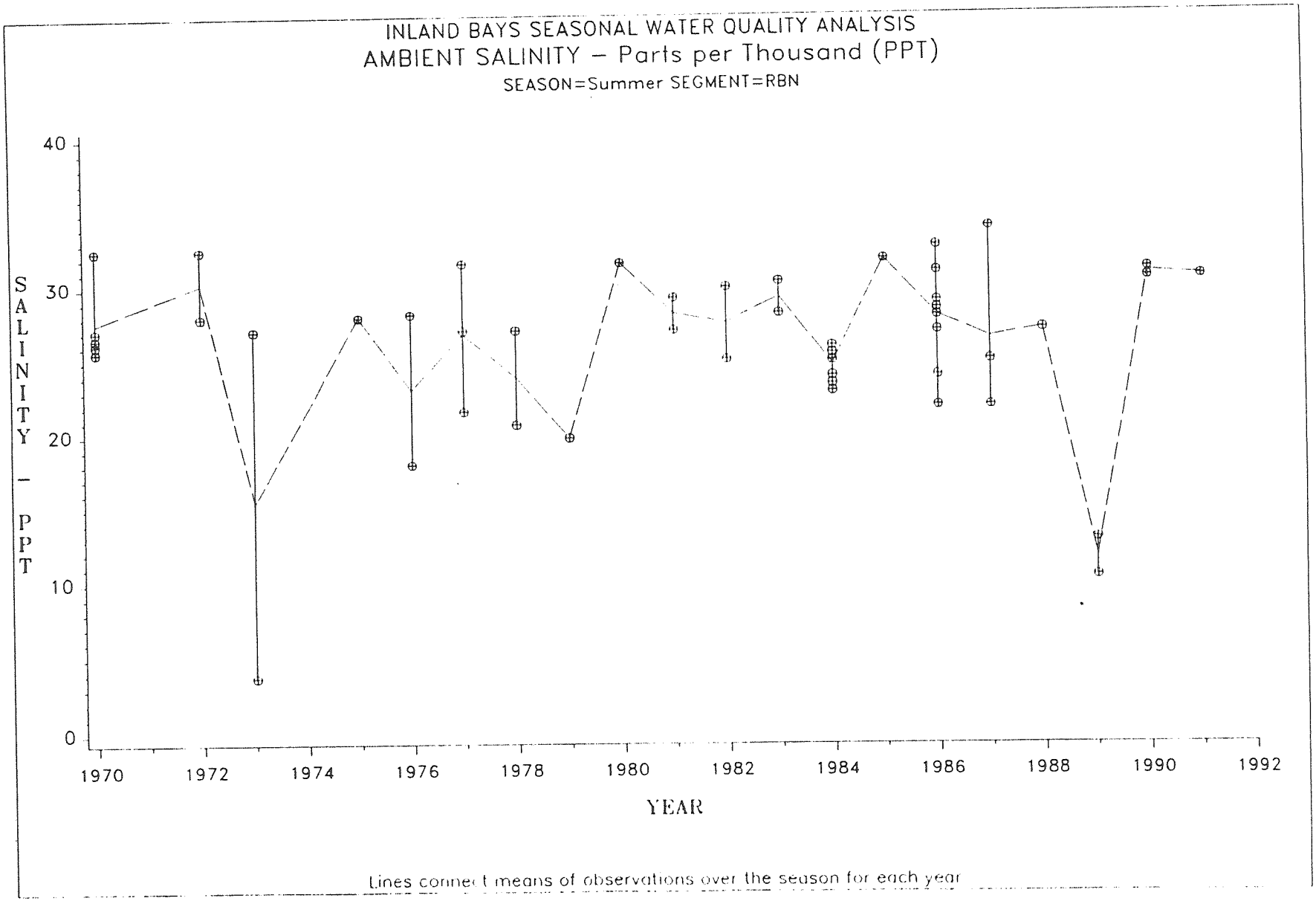

INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT SALINITY – Parts per Thousand (PPT)
SEASON=Spring SEGMENT=RBN
SALINITY – PPT
40
30
20
10
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year

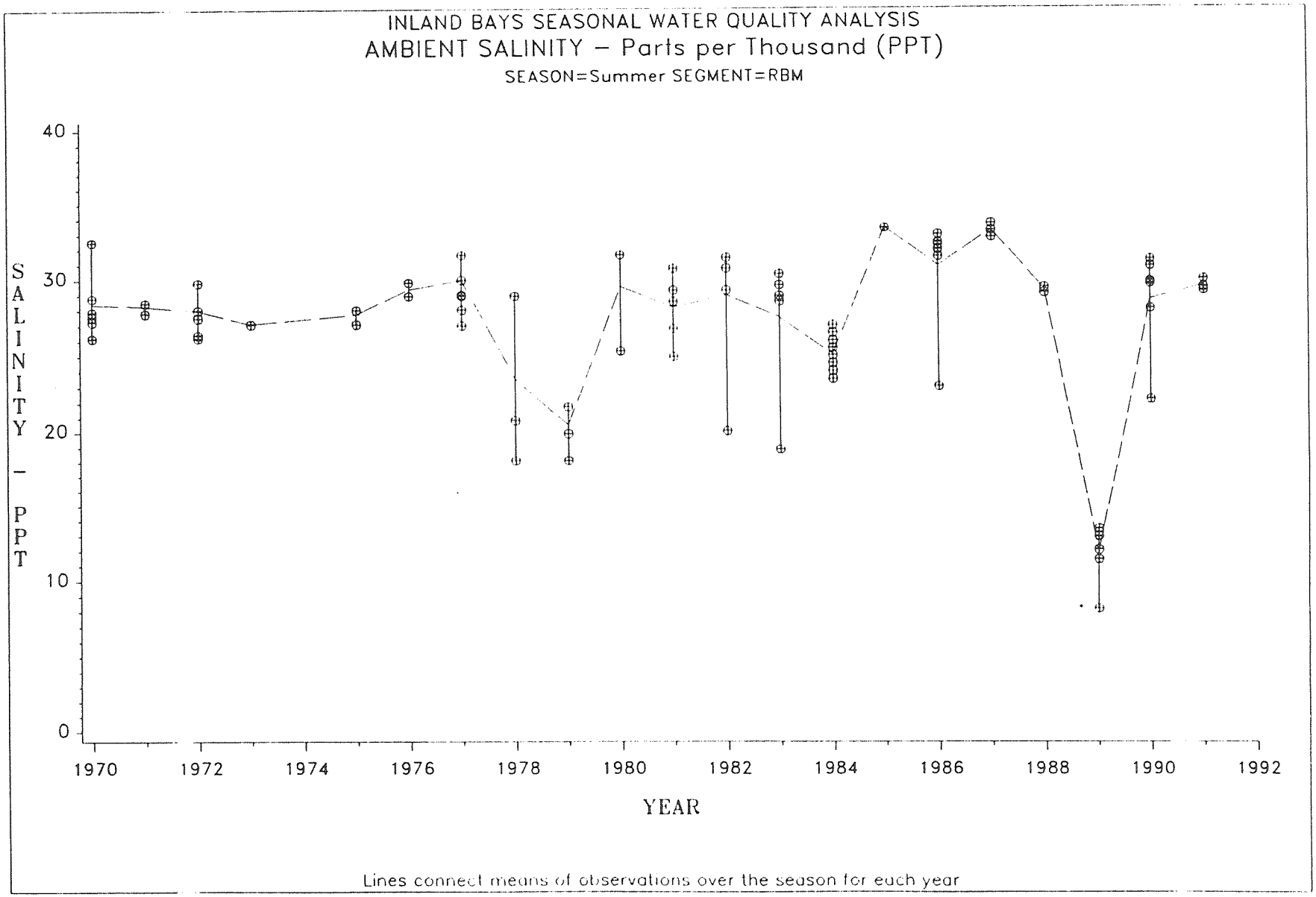

INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT SALINITY – Parts per Thousand (PPT)
SEASON=Spring SEGMENT=RBM
SALINITY - PPT
40
30
20
10
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year

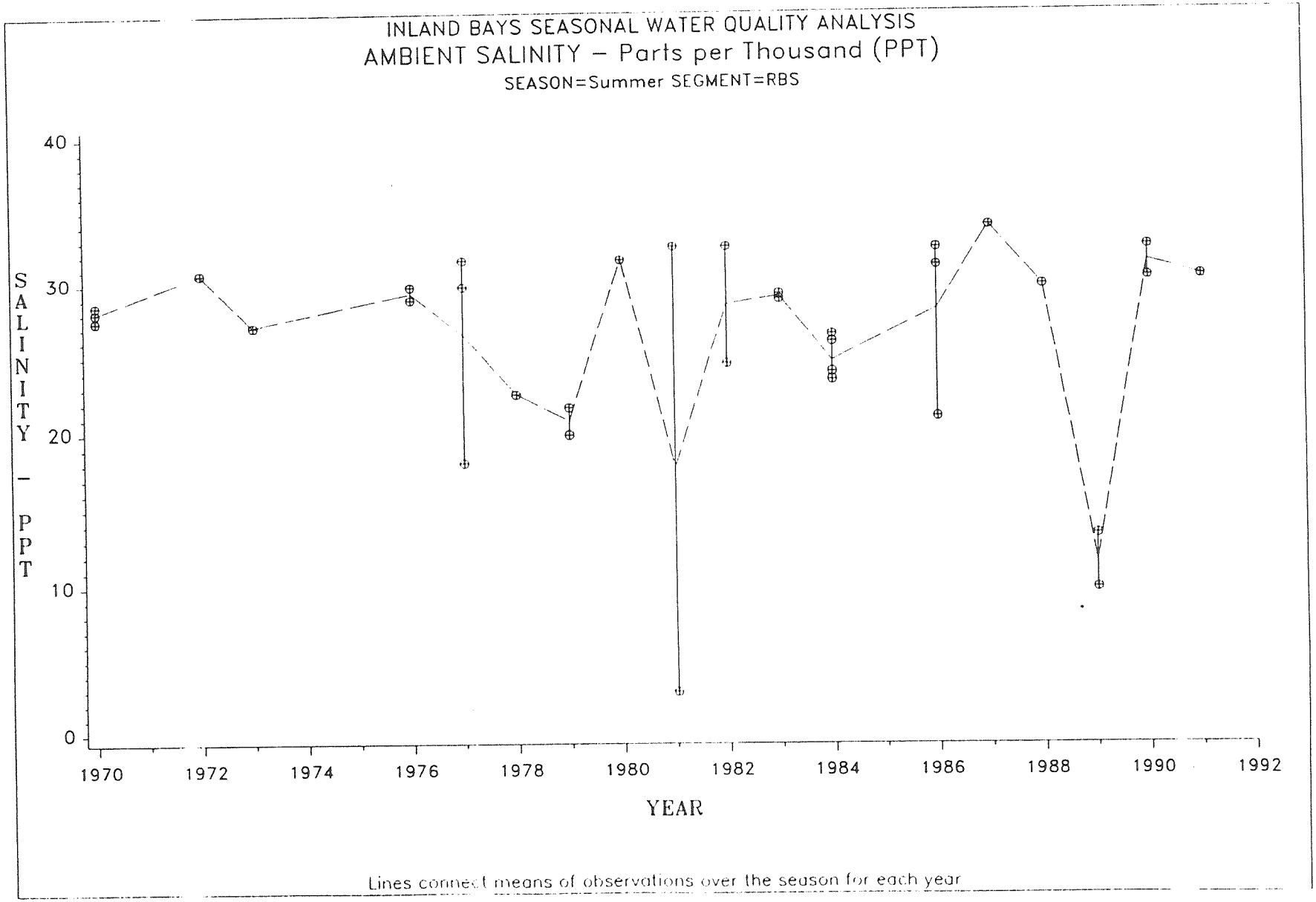

INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT SALINITY – Parts per Thousand (PPT)
SEASON=Spring SEGMENT=RBS
SALINITY - PPT
40
30
20
10
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year

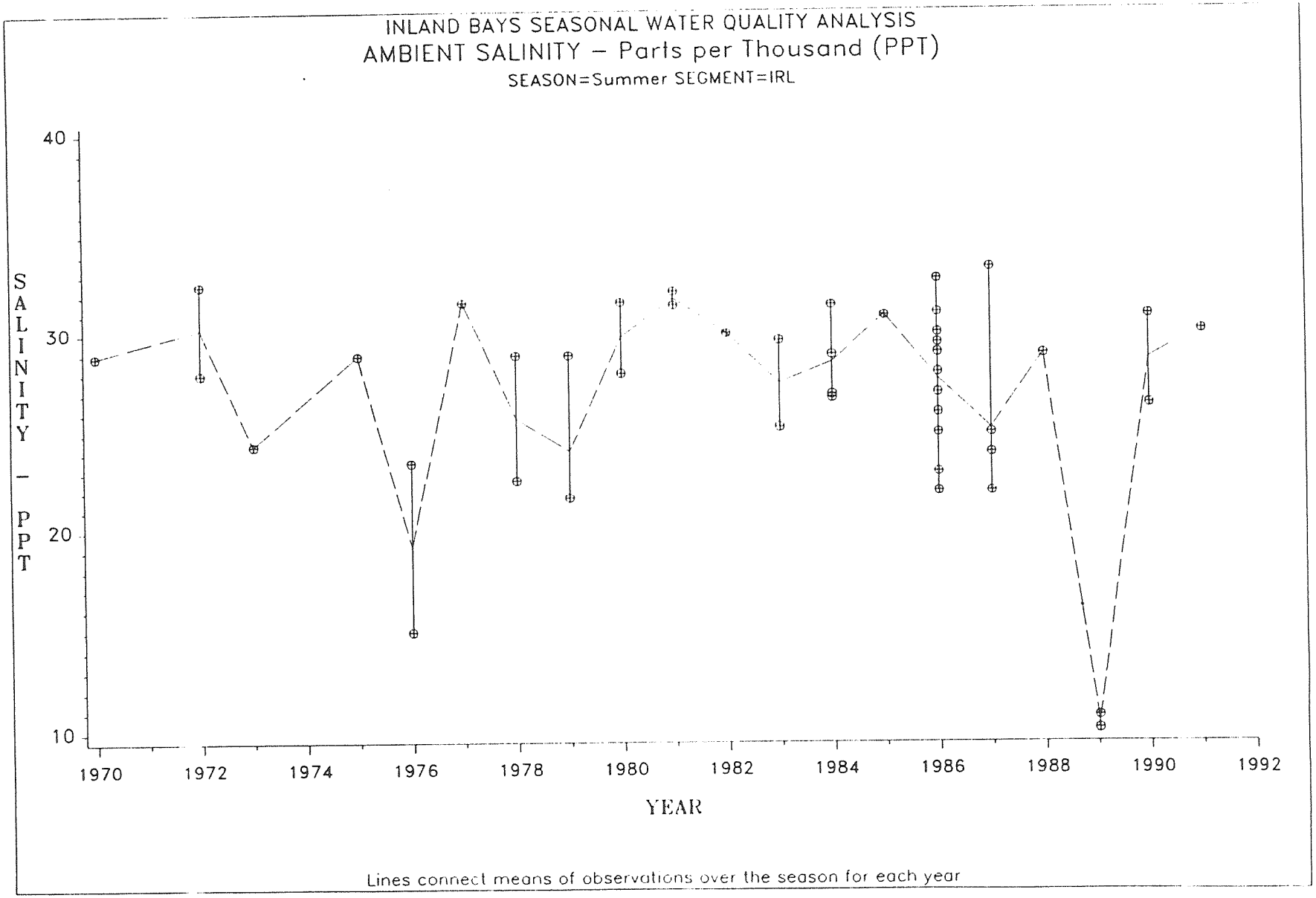

INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT SALINITY – Parts per Thousand (PPT)
SEASON=Spring SEGMENT=IRU
SALINITY - PPT
30
20
10
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year

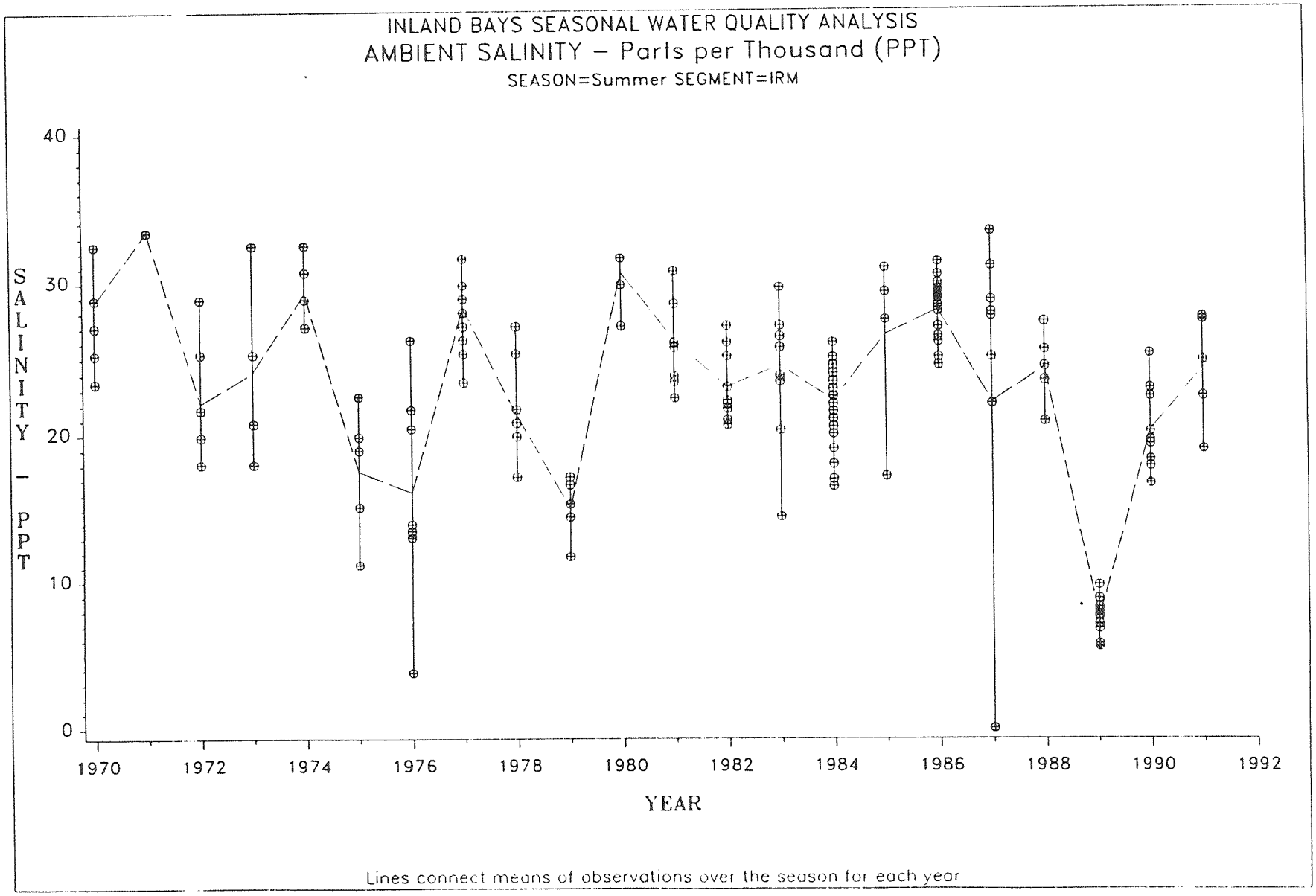

INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT SALINITY – Parts per Thousand (PPT)
SEASON=Spring SEGMENT=IRM
SALINITY - PPT
40
30
20
10
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year

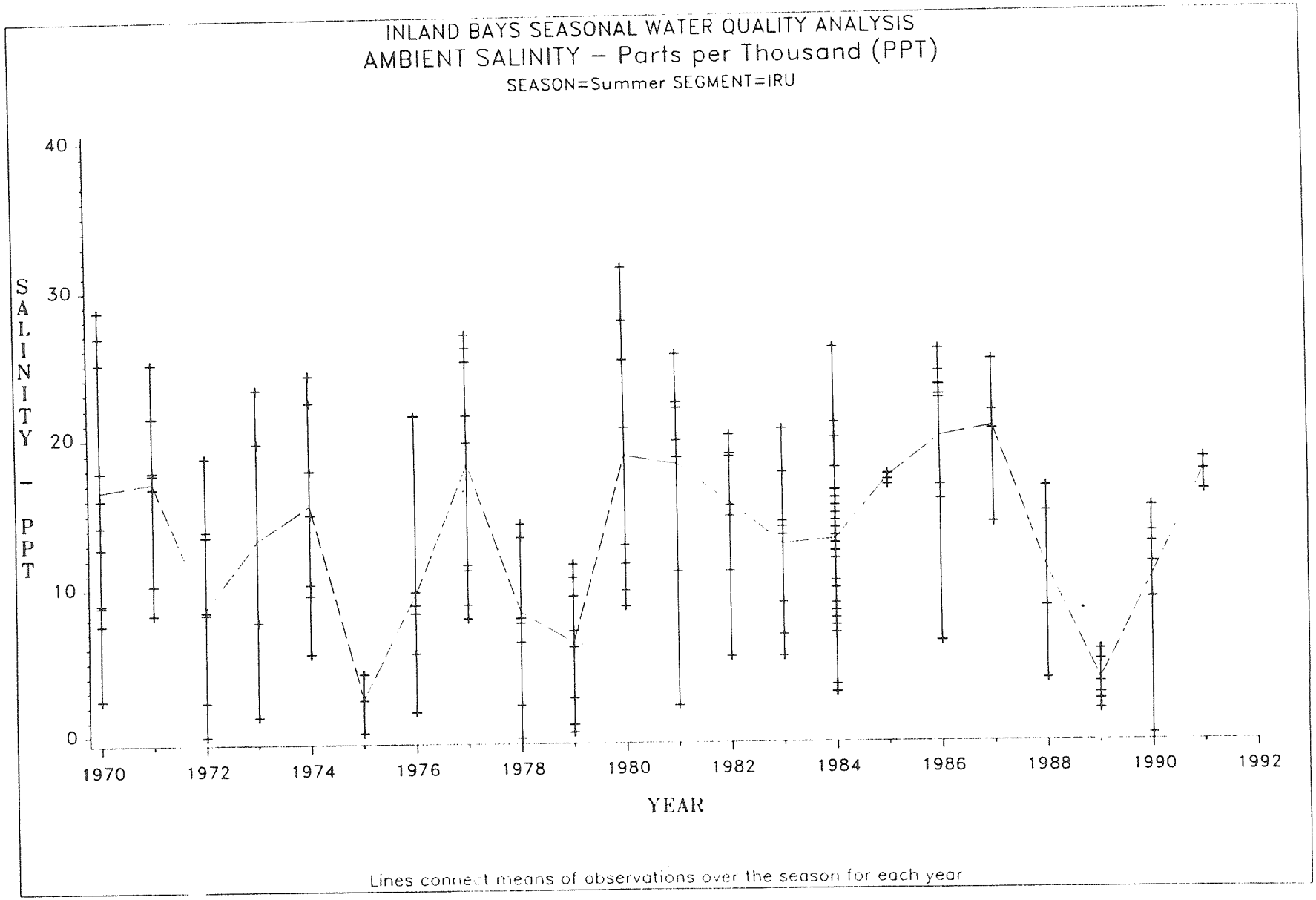

INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT SALINITY – Parts per Thousand (PPT)
SEASON=Summer SEGMENT=RBN
SALINITY - PPT
40
30
20
10
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year

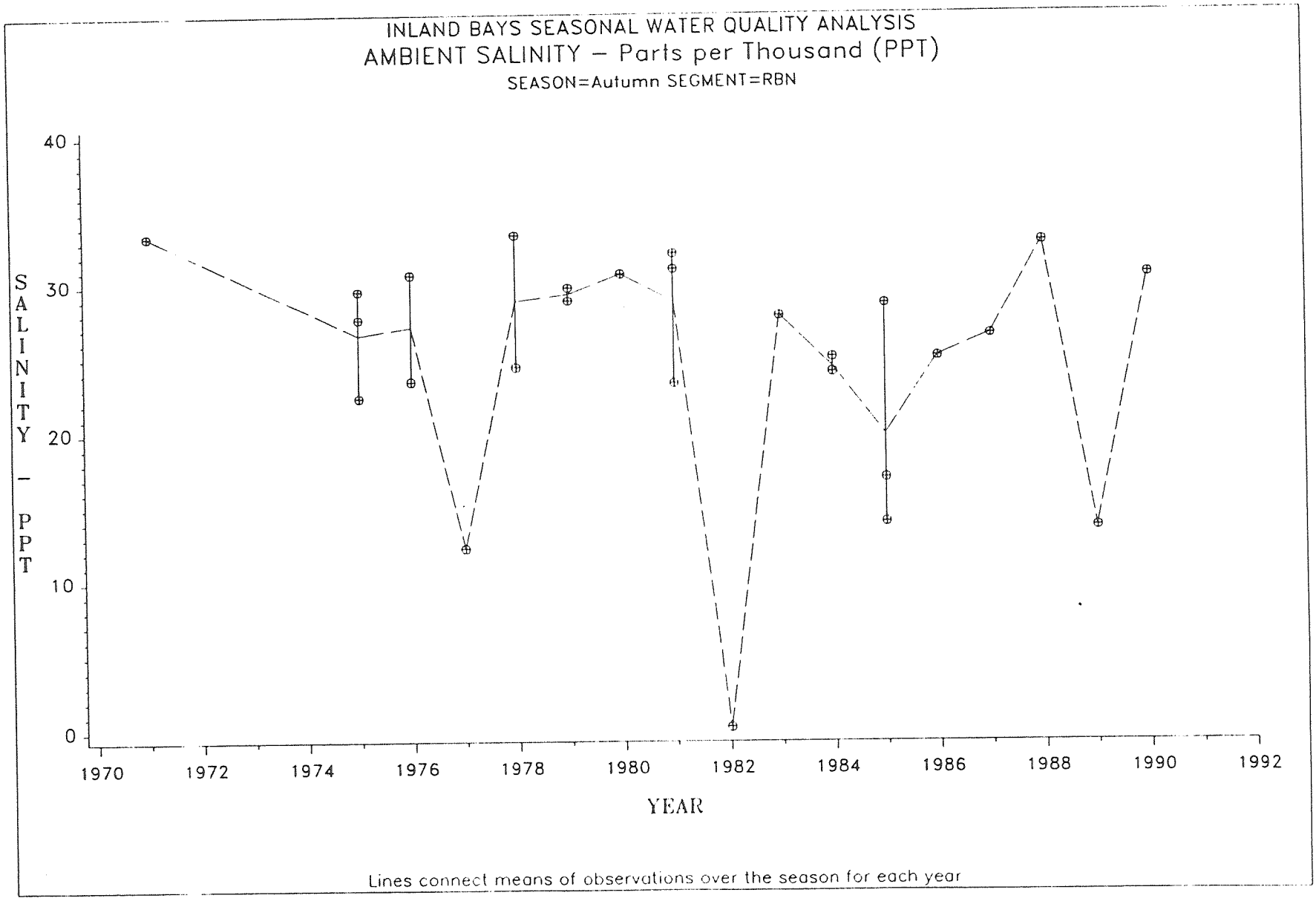

INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT SALINITY – Parts per Thousand (PPT)
SEASON=Summer SEGMENT=RBM
SALINITY - PPT
40
30
20
10
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year

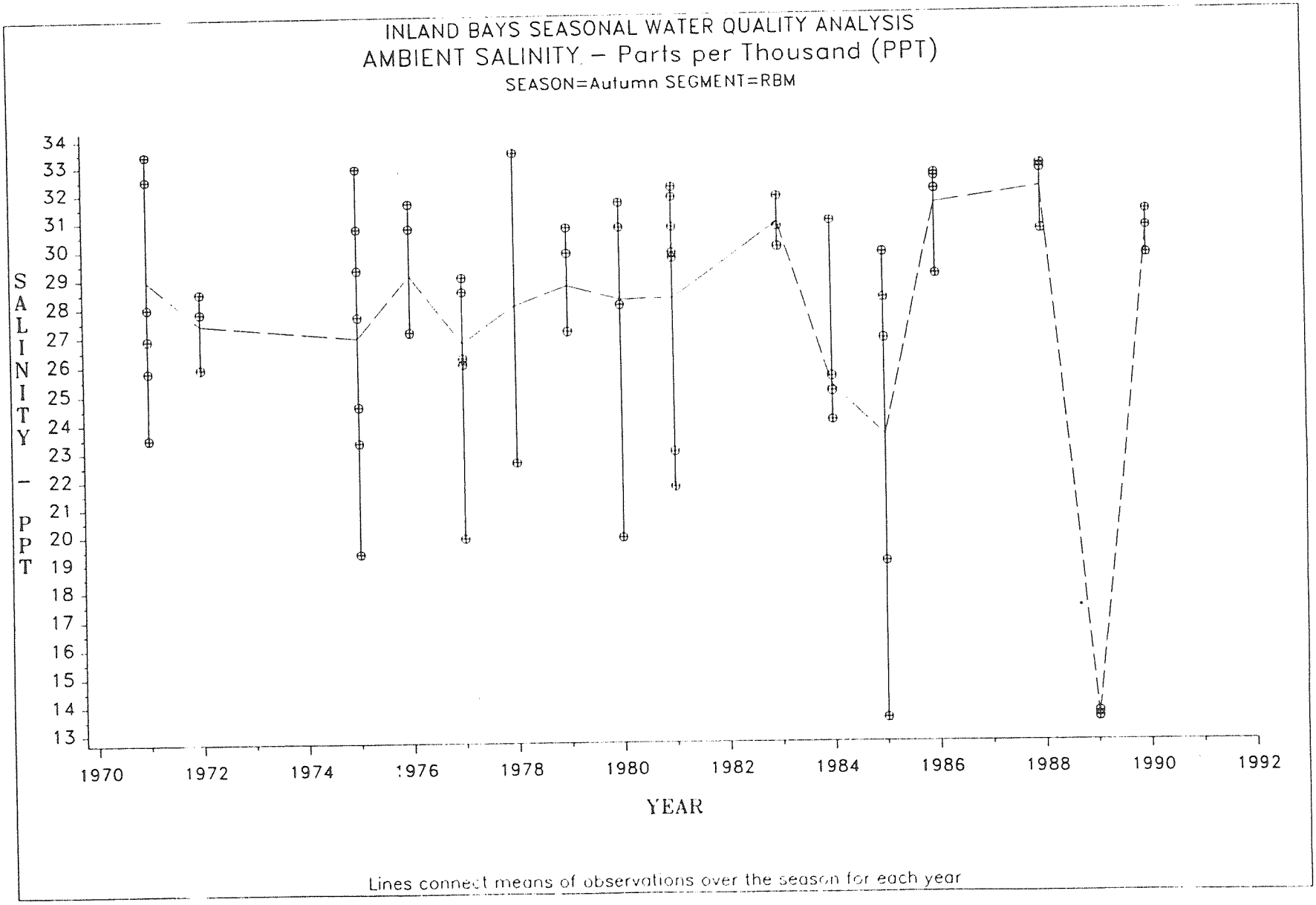

INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT SALINITY – Parts per Thousand (PPT)
SEASON=Summer SEGMENT=RBS
SALINITY – PPT
40
30
20
10
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year

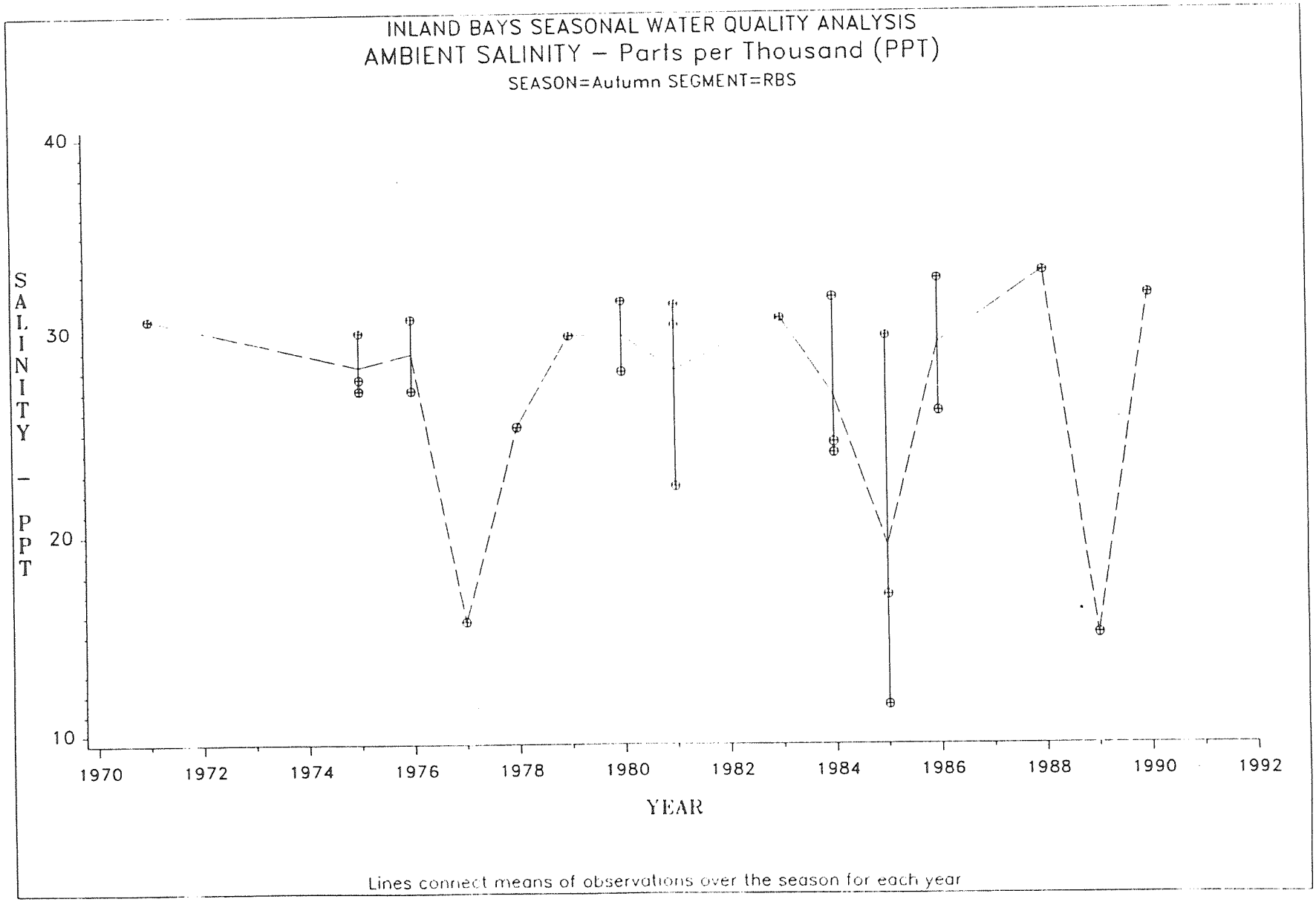

INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT SALINITY – Parts per Thousand (PPT)
SEASON=Summer SEGMENT=IRL
SALINITY - PPT
40
30
20
10
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year

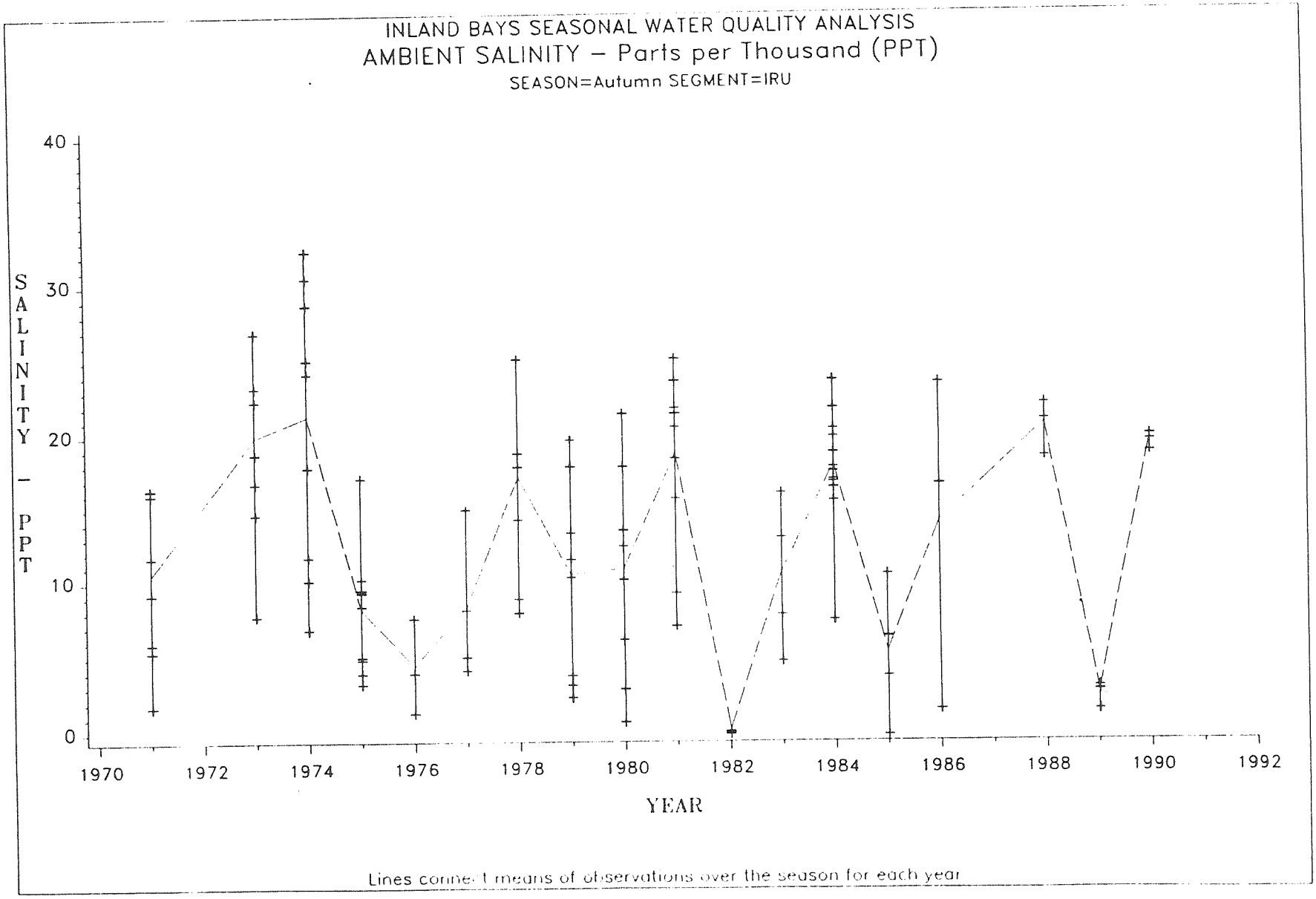

INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT SALINITY – Parts per Thousand (PPT)
SEASON=Summer SEGMENT=IRM
SALINITY – PPT
40
30
20
10
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year

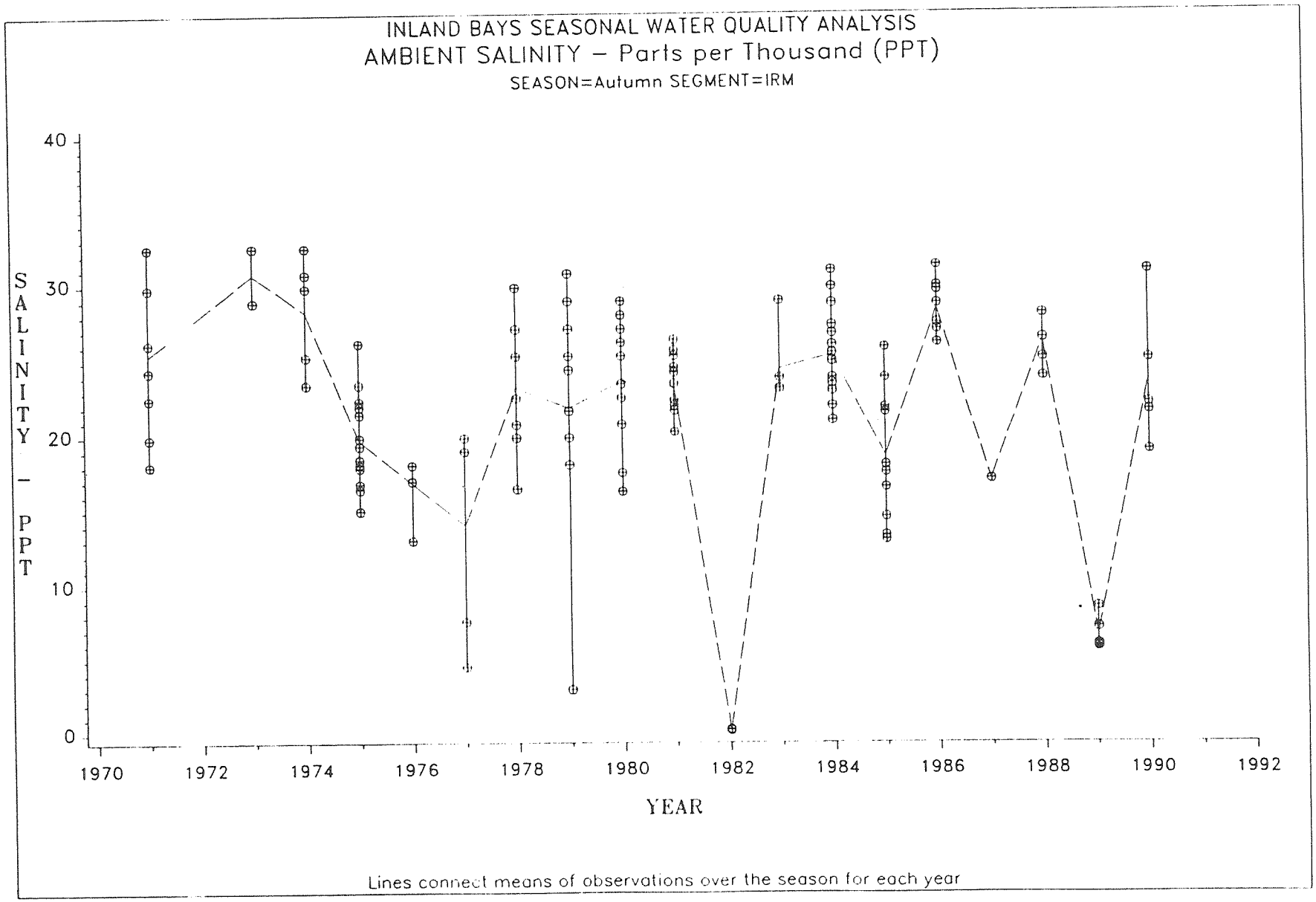

INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT SALINITY – Parts per Thousand (PPT)
SEASON=Summer SEGMENT=IRU
SALINITY – PPT
40
30
20
10
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year

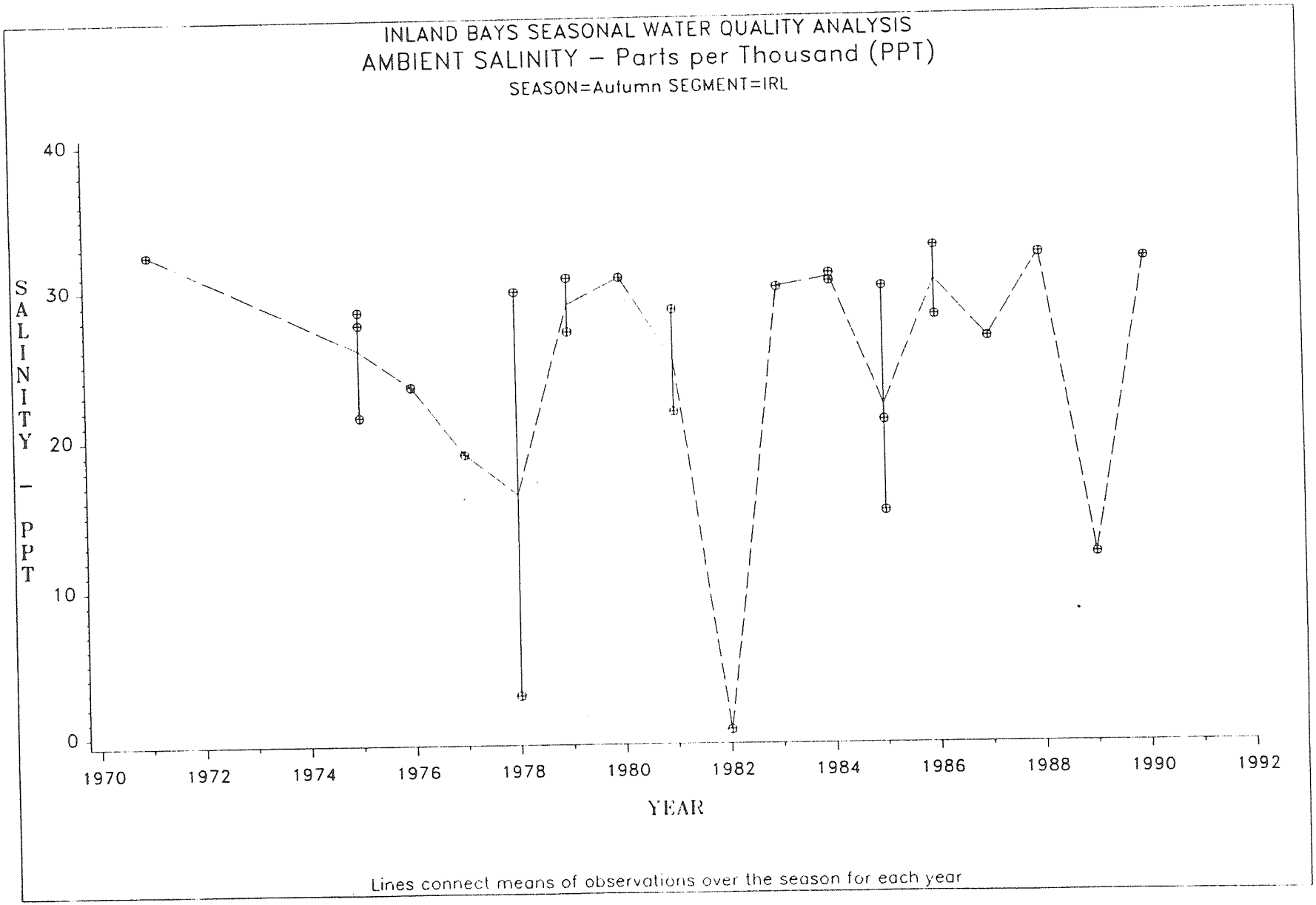

INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT SALINITY – Parts per Thousand (PPT)
SEASON=Autumn SEGMENT=RBN
SALINITY - PPT
40
30
20
10
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year


INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT SALINITY – Parts per Thousand (PPT)
SEASON=Autumn SEGMENT=RBM
SALINITY - PPT
34
33
32
31
30
29
28
27
26
25
24
23
22
21
20
19
18
17
16
15
14
13
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year


INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT SALINITY – Parts per Thousand (PPT)
SEASON=Autumn SEGMENT=RBS
SALINITY - PPT
40
30
20
10
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year

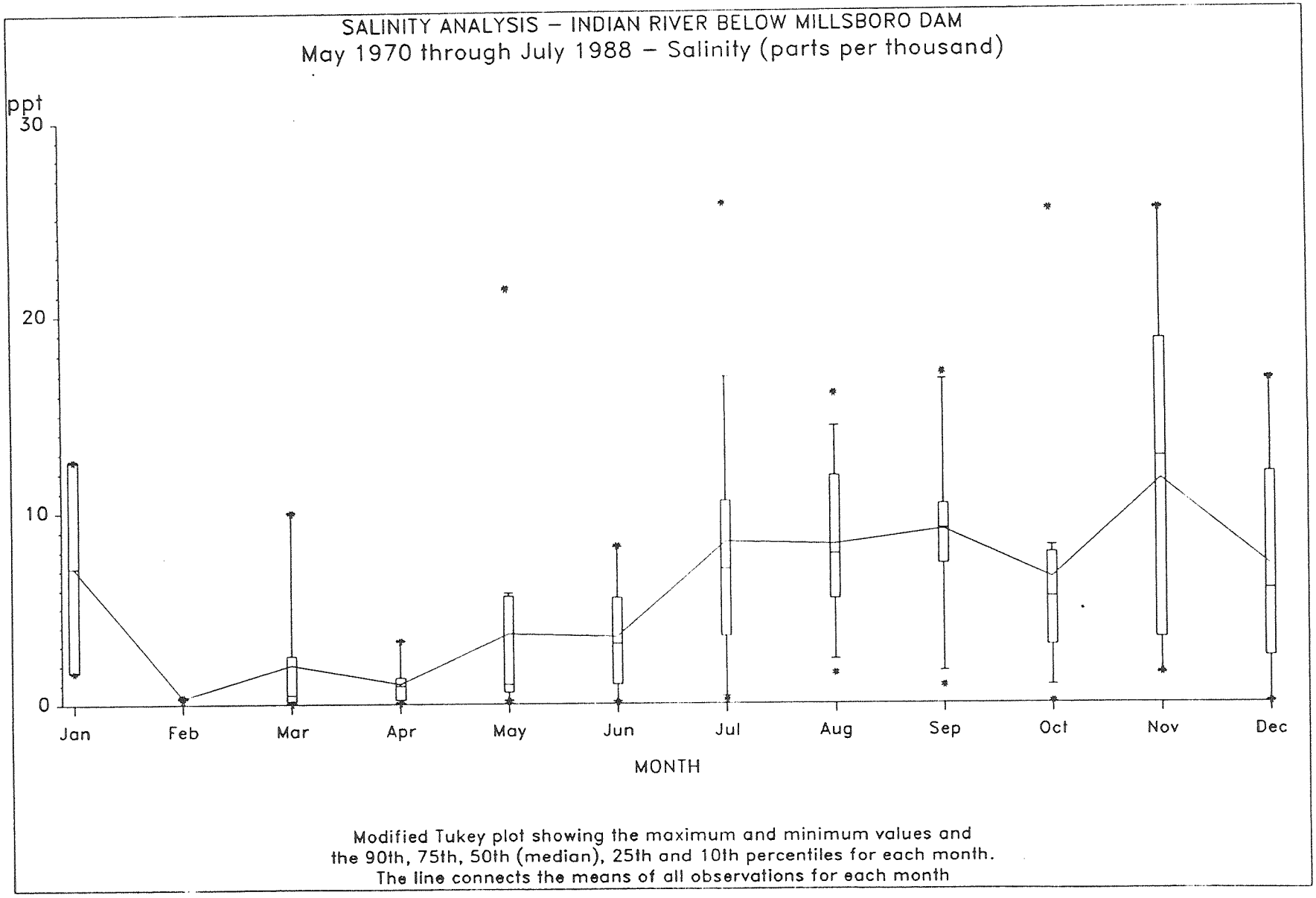

INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT SALINITY – Parts per Thousand (PPT)
SEASON=Autumn SEGMENT=IRU
SALINITY - PPT
40
30
20
10
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year

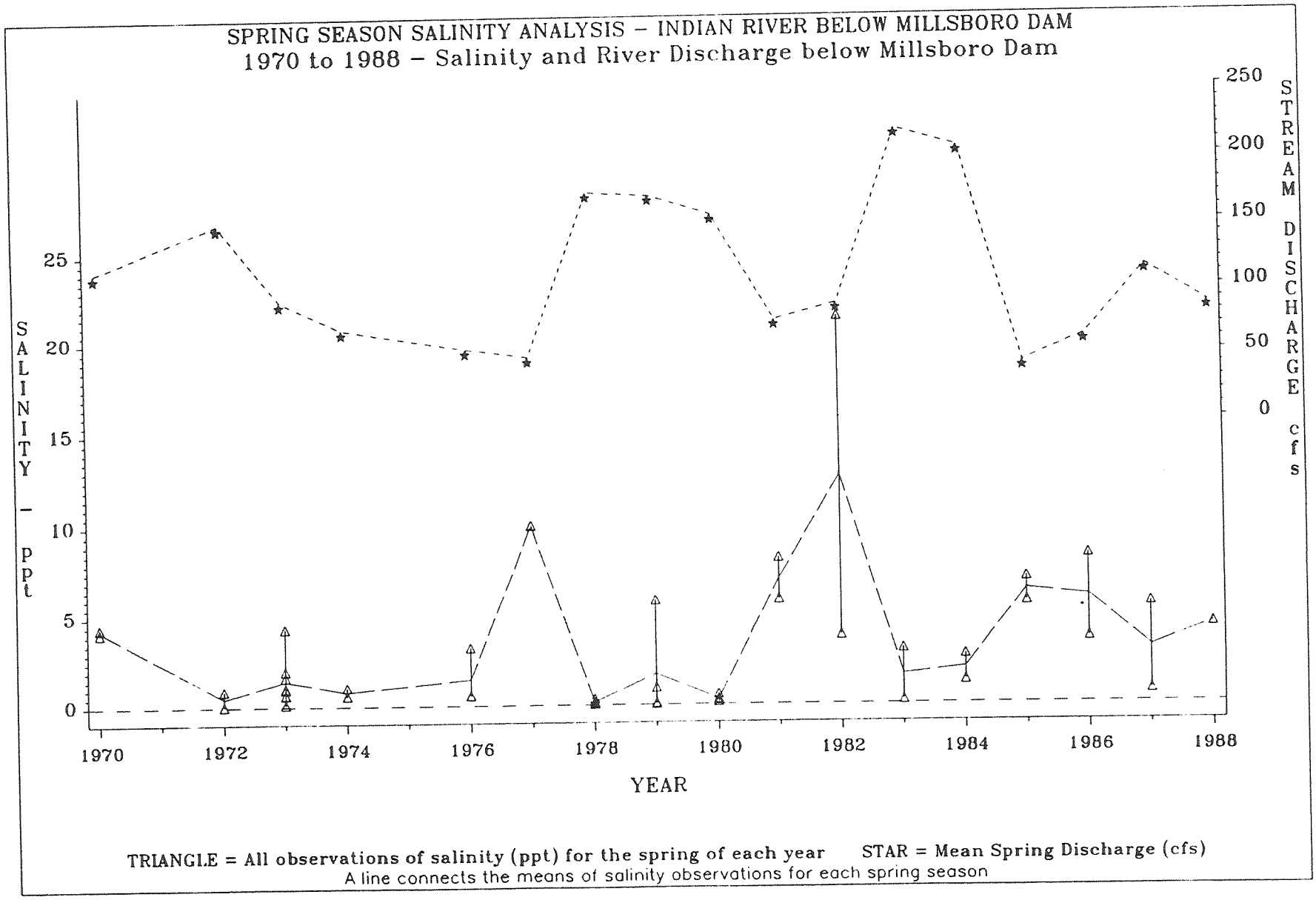

INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT SALINITY – Parts per Thousand (PPT)
SEASON=Autumn SEGMENT=IRM
SALINITY - PPT
40
30
20
10
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year

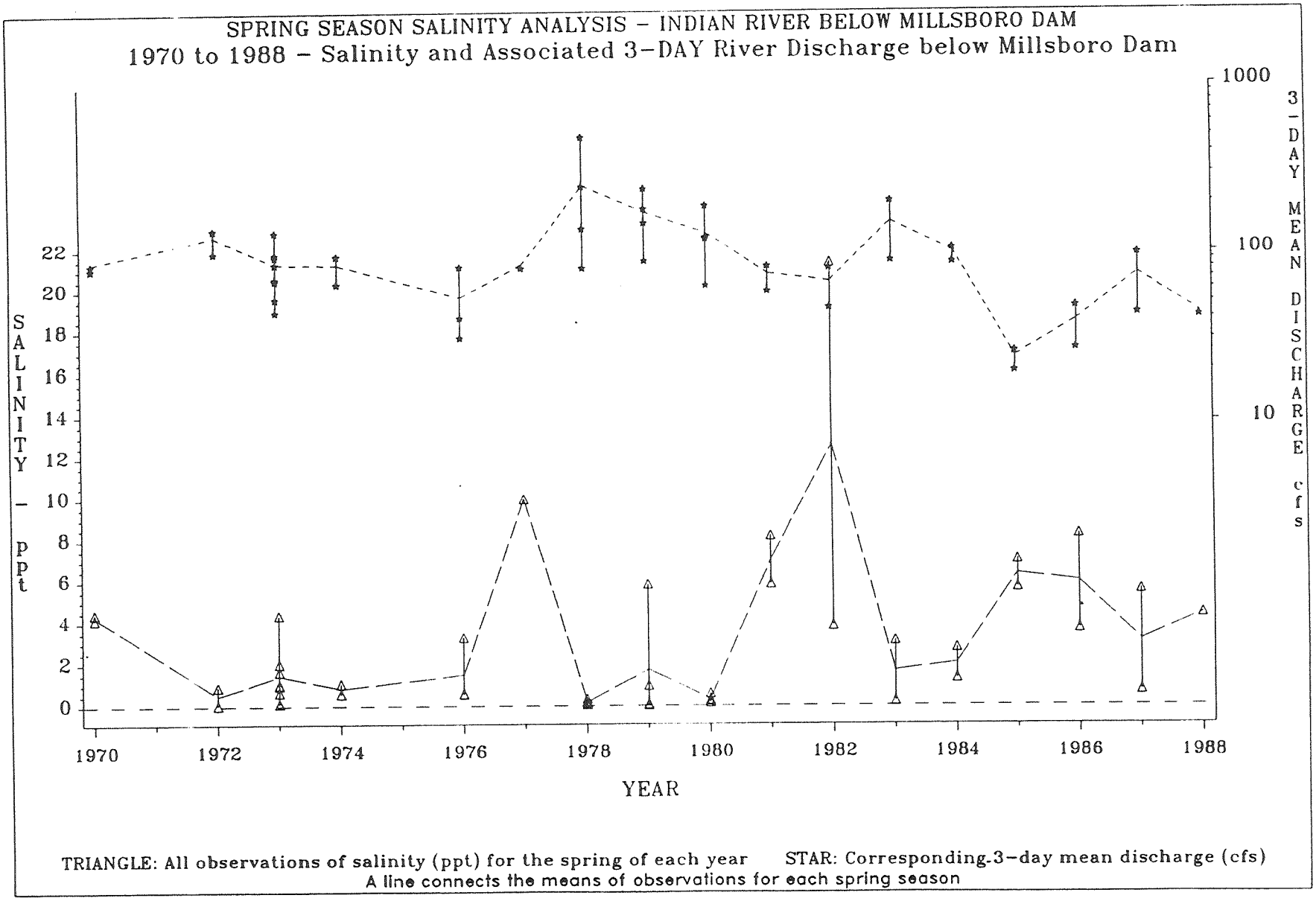

INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT SALINITY – Parts per Thousand (PPT)
SEASON=Autumn SEGMENT=IRL
SALINITY - PPT
40
30
20
10
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year

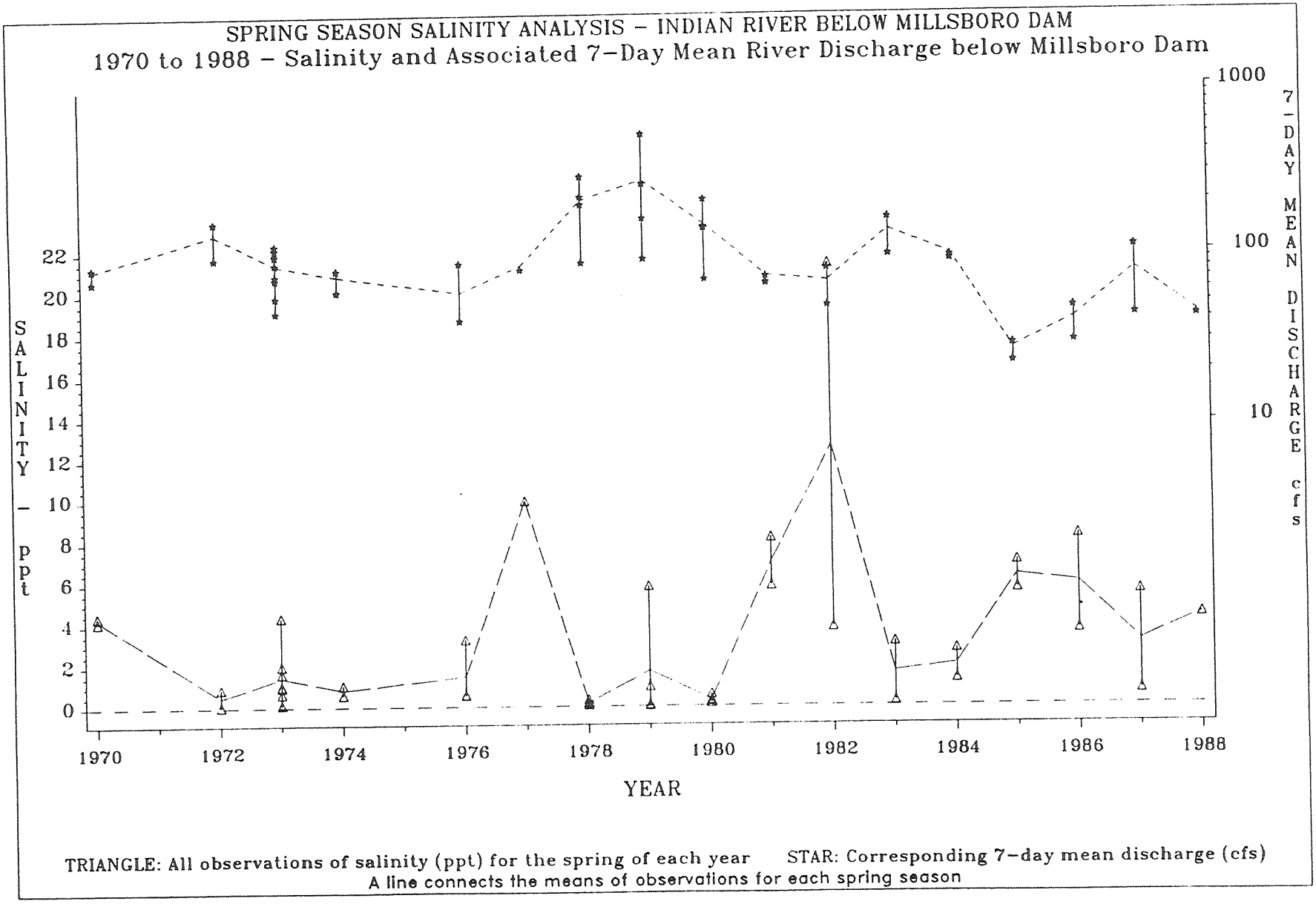
APPENDIX 2.3

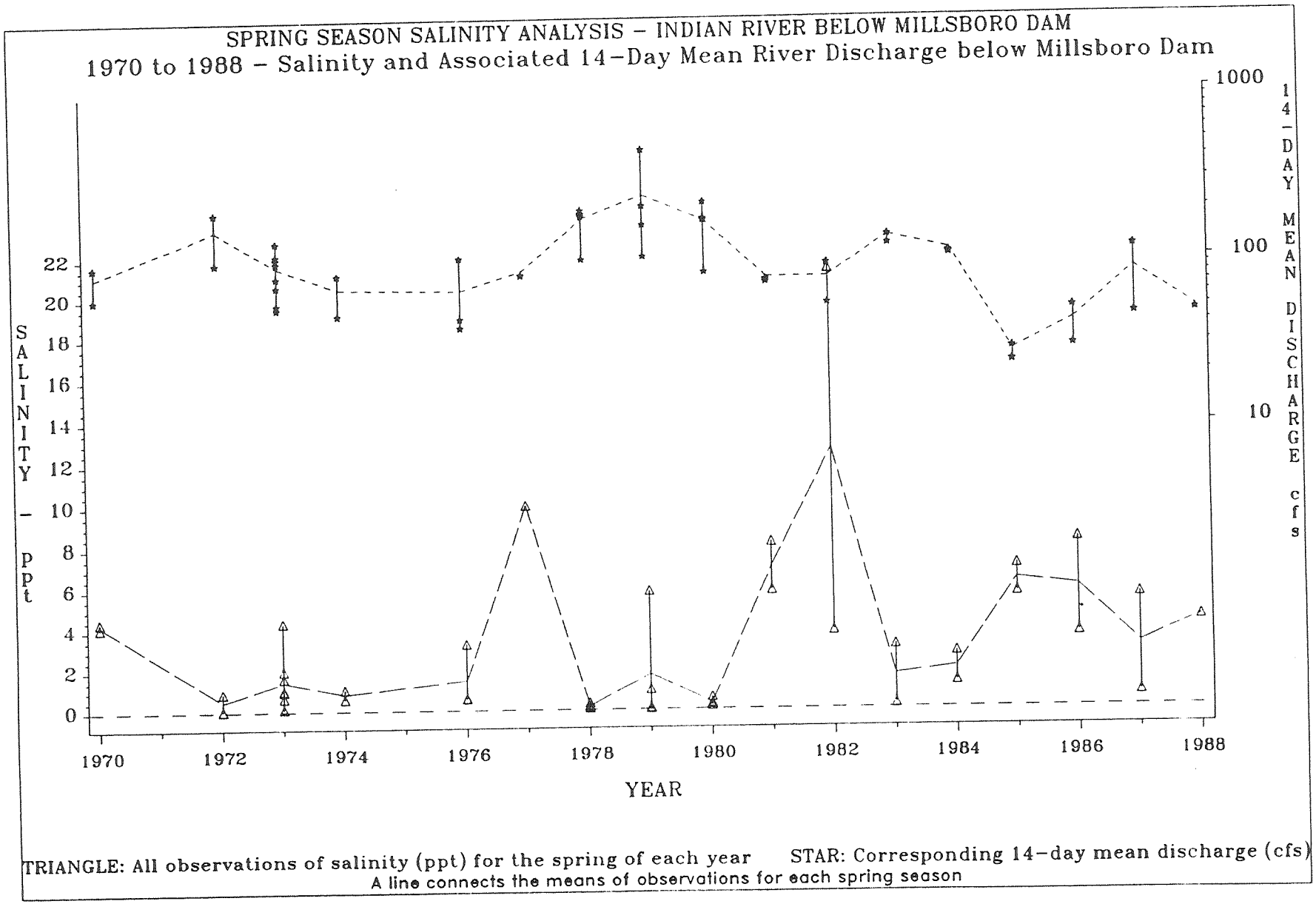
Modified Tukey box plots of monthly salinity observations
for the tidal waters of the Inland Bays

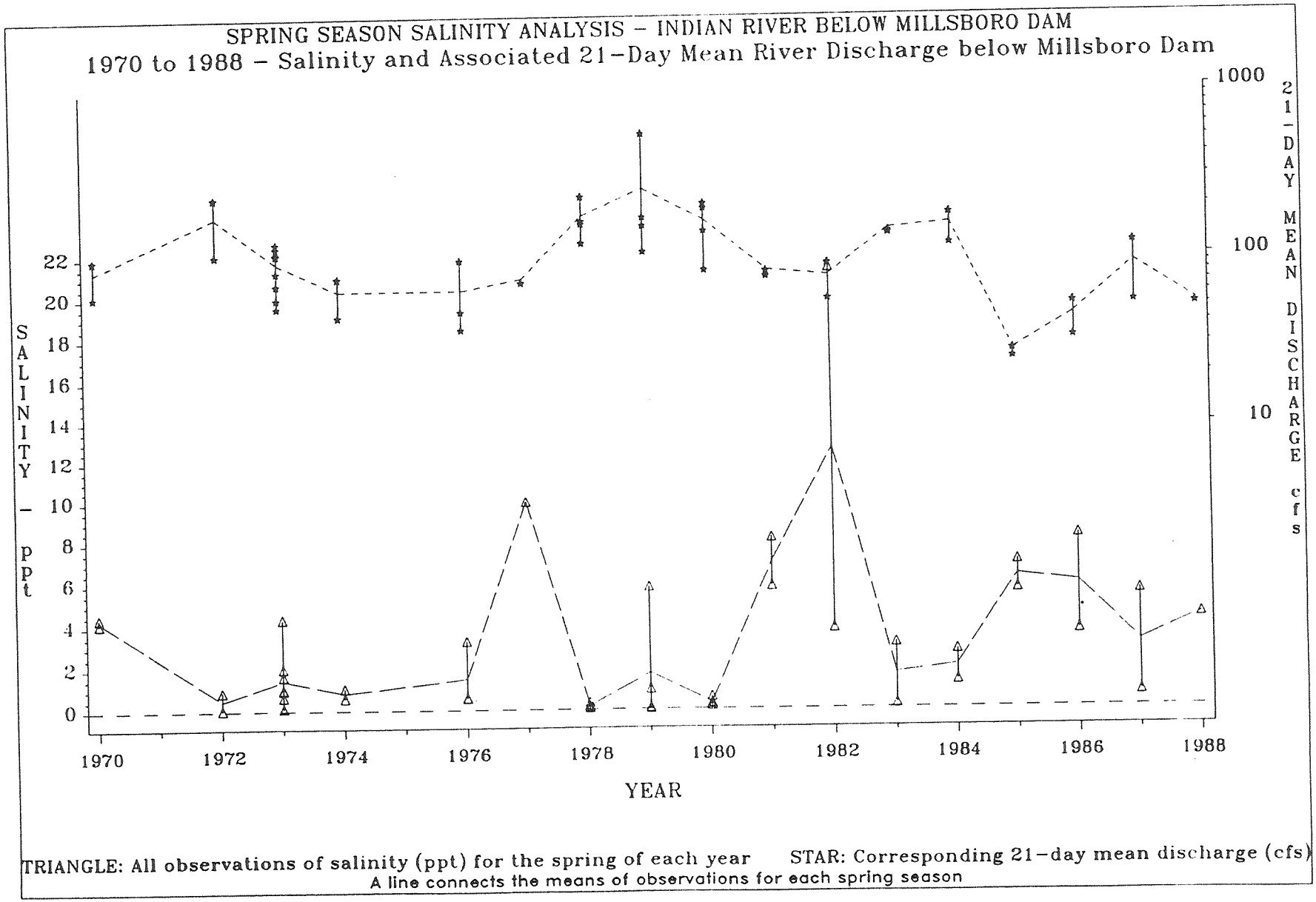

SALINITY ANALYSIS – INDIAN RIVER BELOW MILLSBORO DAM
May 1970 through July 1988 – Salinity (parts per thousand)
ppt
30
20
10
0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
MONTH
Modified Tukey plot showing the maximum and minimum values and
the 90th, 75th, 50th (median), 25th and 10th percentiles for each month.
The line connects the means of all observations for each month

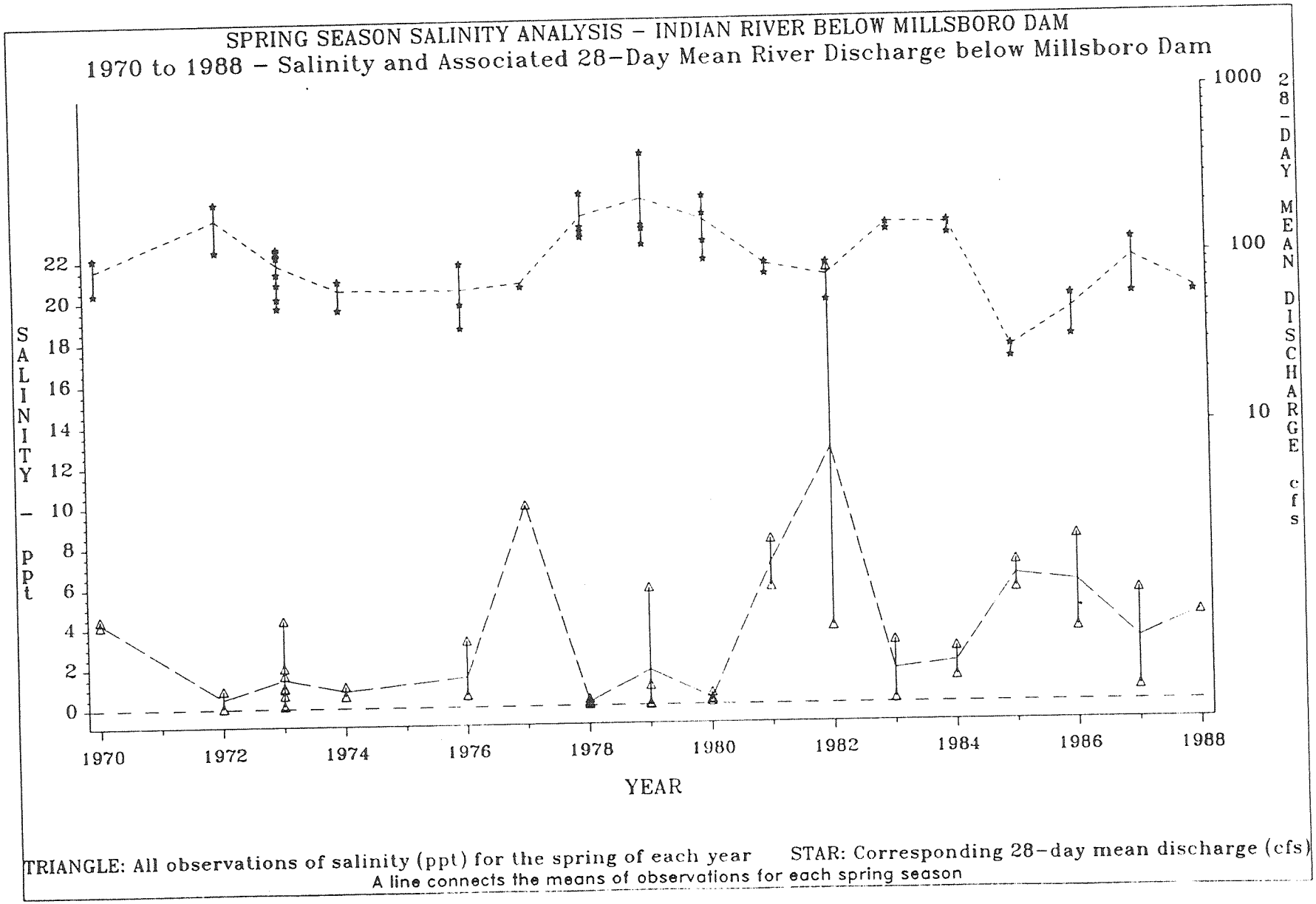

SPRING SEASON SALINITY ANALYSIS – INDIAN RIVER BELOW MILLSBORO DAM
1970 to 1988 – Salinity and River Discharge below Millsboro Dam
SALINITY – ppt
STREAM DISCHARGE cfs
0
5
10
15
20
25
0
50
100
150
200
250
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
YEAR
TRIANGLE = All observations of salinity (ppt) for the spring of each year
STAR = Mean Spring Discharge (cfs)
A line connects the means of salinity observations for each spring season


SPRING SEASON SALINITY ANALYSIS – INDIAN RIVER BELOW MILLSBORO DAM
1970 to 1988 – Salinity and Associated 3–DAY River Discharge below Millsboro Dam
SALINITY – ppt
0
2
4
6
8
10
12
14
16
18
20
22
3–DAY MEAN DISCHARGE cfs
10
100
1000
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
YEAR
TRIANGLE: All observations of salinity (ppt) for the spring of each year
STAR: Corresponding-3–day mean discharge (cfs)
A line connects the means of observations for each spring season


SPRING SEASON SALINITY ANALYSIS – INDIAN RIVER BELOW MILLSBORO DAM
1970 to 1988 – Salinity and Associated 7–Day Mean River Discharge below Millsboro Dam
SALINITY – ppt
0
2
4
6
8
10
12
14
16
18
20
22
7–DAY MEAN DISCHARGE cfs
10
100
1000
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
YEAR
TRIANGLE: All observations of salinity (ppt) for the spring of each year
STAR: Corresponding 7–day mean discharge (cfs)
A line connects the means of observations for each spring season

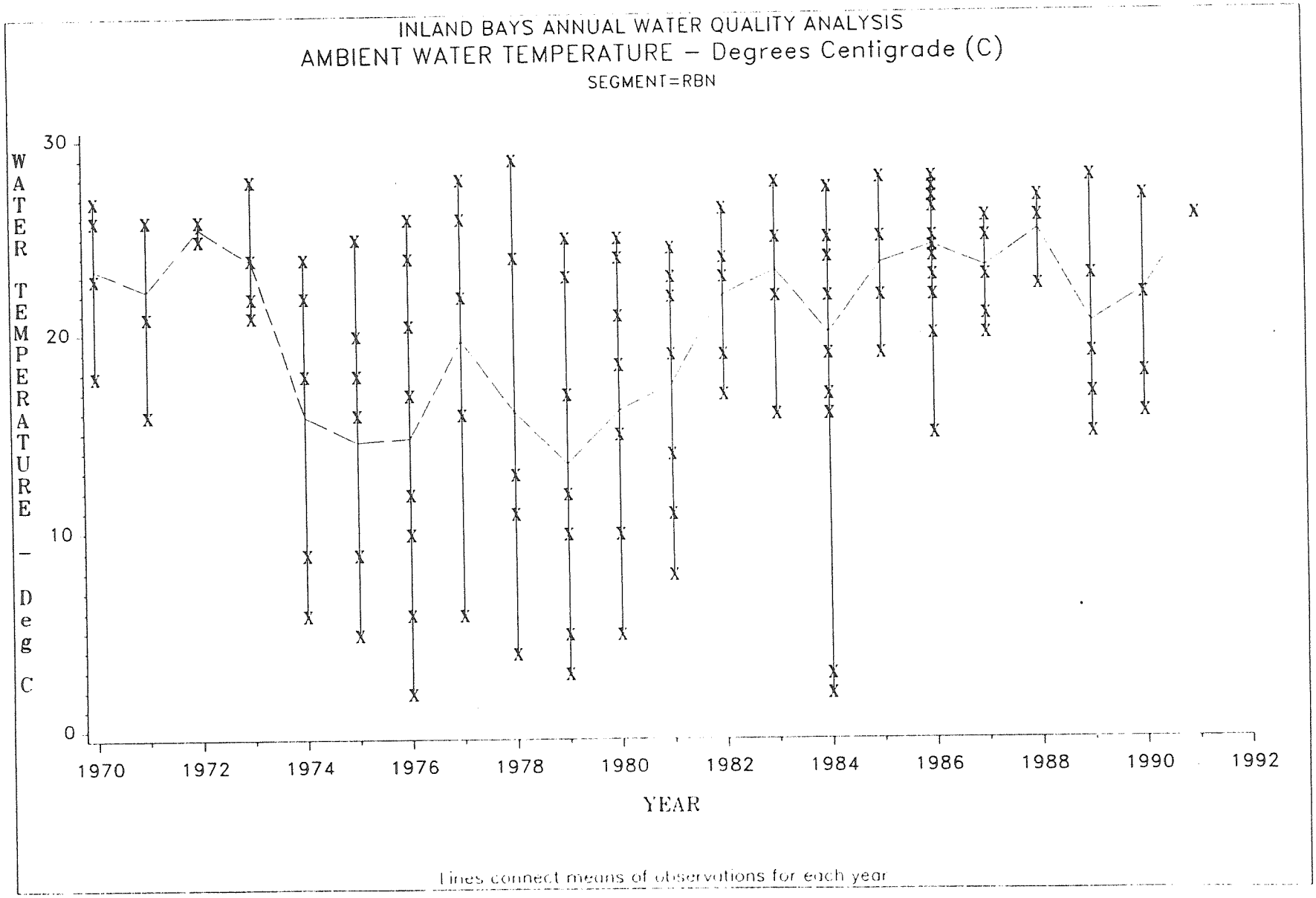

SPRING SEASON SALINITY ANALYSIS – INDIAN RIVER BELOW MILLSBORO DAM
1970 to 1988 – Salinity and Associated 14–Day Mean River Discharge below Millsboro Dam
SALINITY – PPt
0
2
4
6
8
10
12
14
16
18
20
22
14–DAY MEAN DISCHARGE cfs
10
100
1000
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
YEAR
TRIANGLE: All observations of salinity (ppt) for the spring of each year
STAR: Corresponding 14–day mean discharge (cfs)
A line connects the means of observations for each spring season

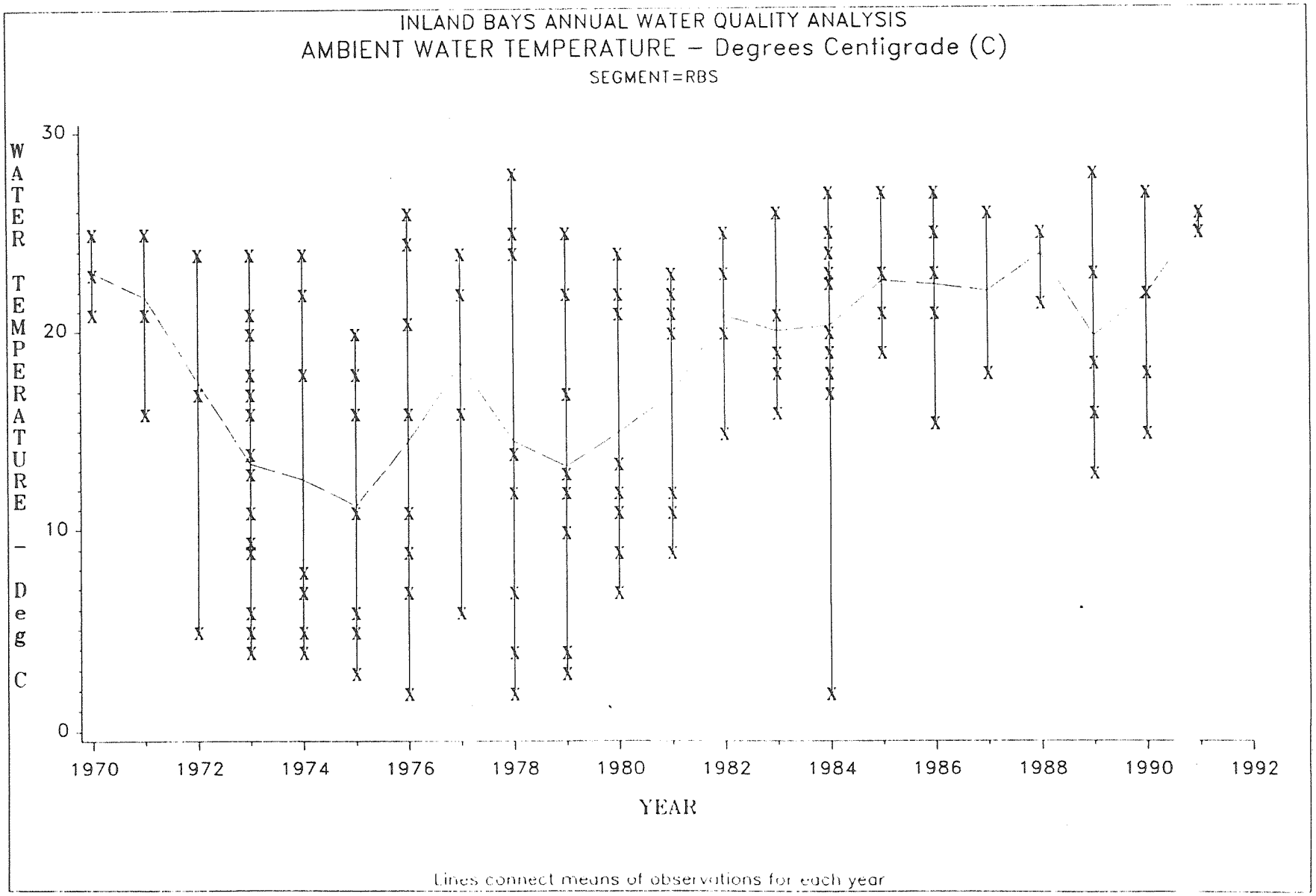

SPRING SEASON SALINITY ANALYSIS – INDIAN RIVER BELOW MILLSBORO DAM
1970 to 1988 – Salinity and Associated 21–Day Mean River Discharge below Millsboro Dam
SALINITY – ppt
0
2
4
6
8
10
12
14
16
18
20
22
21–DAY MEAN DISCHARGE cfs
10
100
1000
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
YEAR
TRIANGLE: All observations of salinity (ppt) for the spring of each year
STAR: Corresponding 21–day mean discharge (cfs)
A line connects the means of observations for each spring season

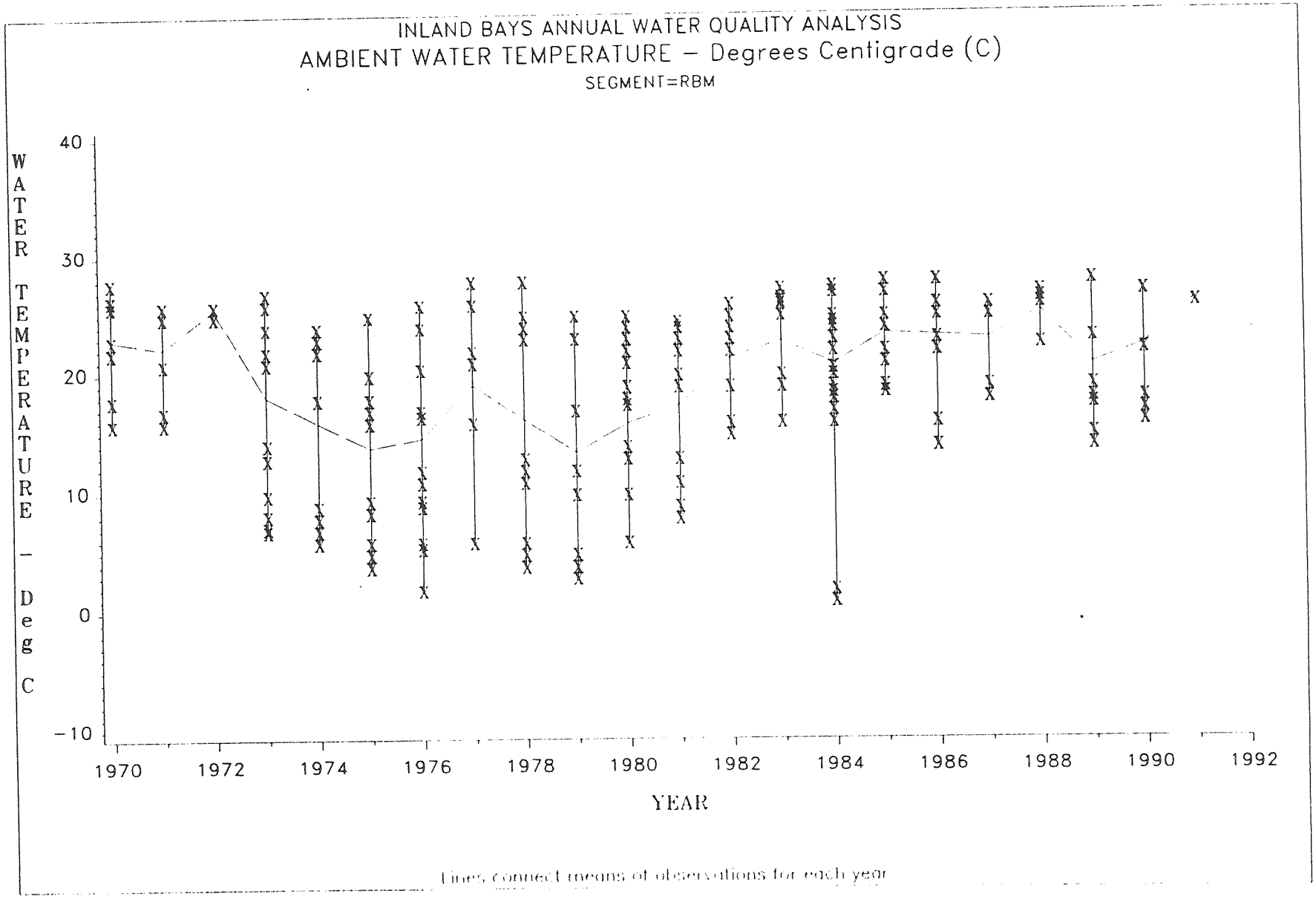

SPRING SEASON SALINITY ANALYSIS – INDIAN RIVER BELOW MILLSBORO DAM
1970 to 1988 – Salinity and Associated 28–Day Mean River Discharge below Millsboro Dam
SALINITY – PPt
28–DAY MEAN DISCHARGE cfs
1000
100
10
22
20
18
16
14
12
10
8
6
4
2
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
YEAR
TRIANGLE: All observations of salinity (ppt) for the spring of each year
STAR: Corresponding 28–day mean discharge (cfs)
A line connects the means of observations for each spring season

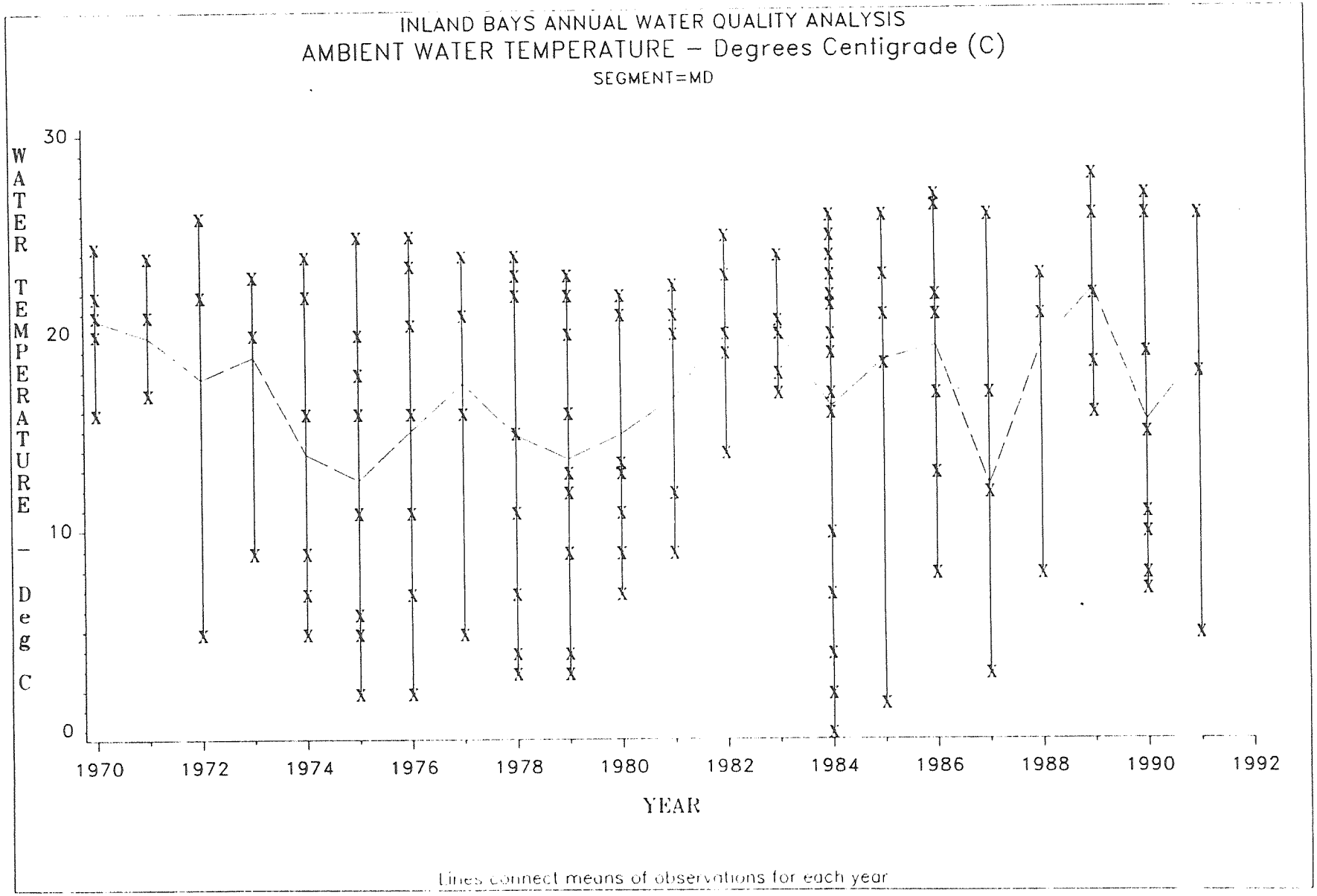
APPENDIX 2.4

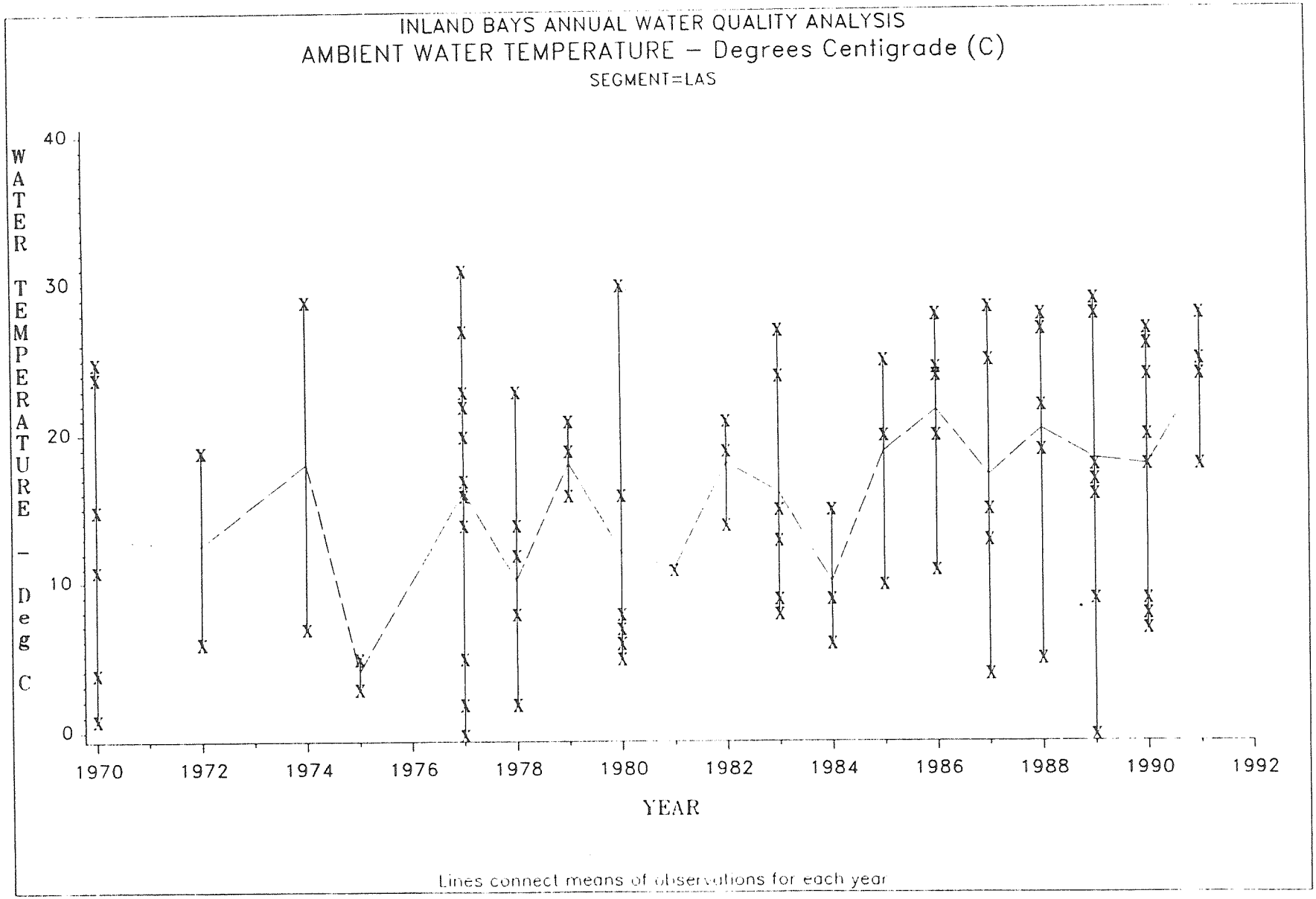
- Annual water temperature observations for the tidal waters of the Inland Bays
- System-wide modified Tukey box plots of seasonal water temperature for the tidal waters of the Inland Bays
- Seasonal water temperature observations for the tidal waters of the Inland Bays

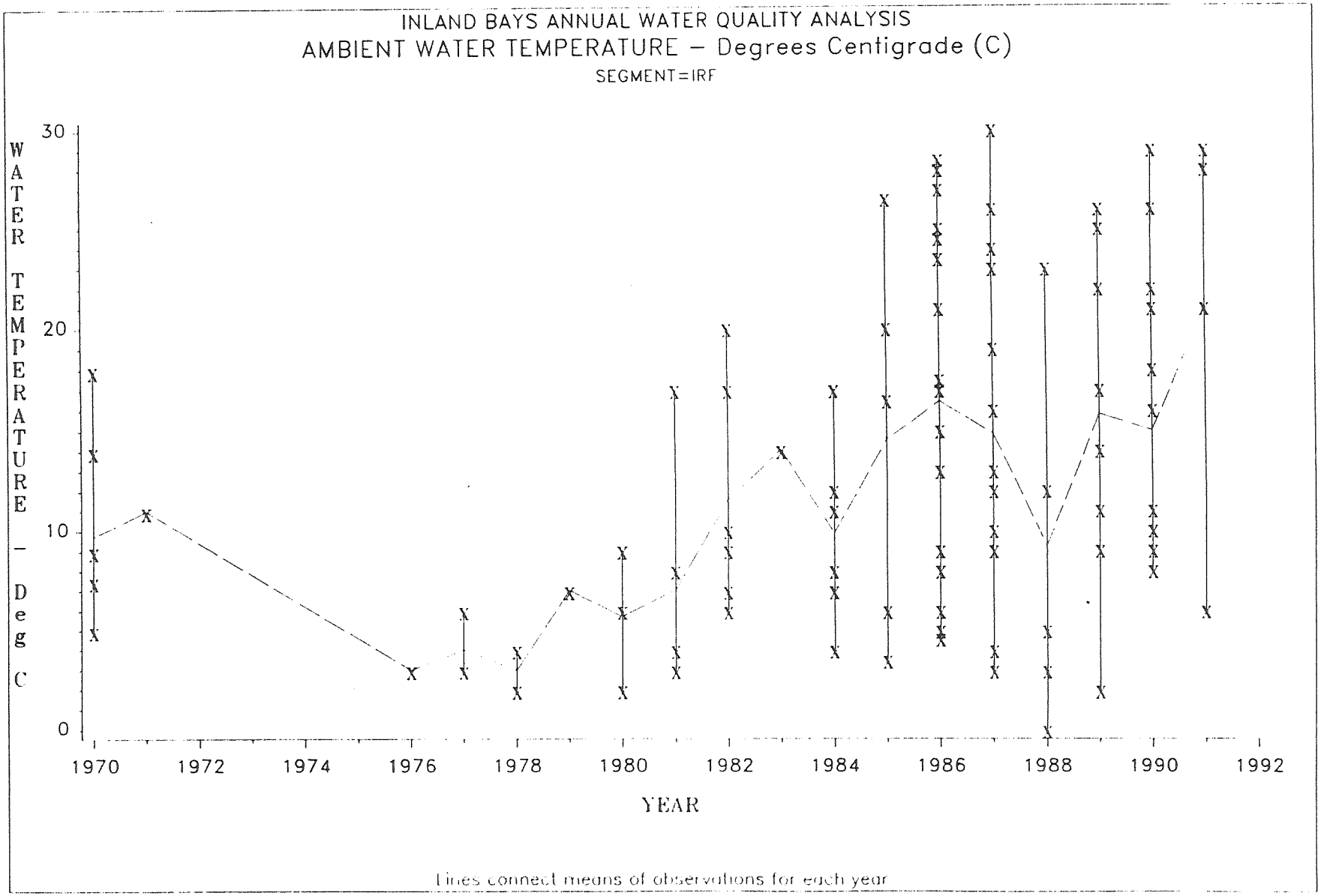

INLAND BAYS ANNUAL WATER QUALITY ANALYSIS
AMBIENT WATER TEMPERATURE – Degrees Centigrade (C)
SEGMENT=RBN
WATER TEMPERATURE – Deg C
30
20
10
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations for each year

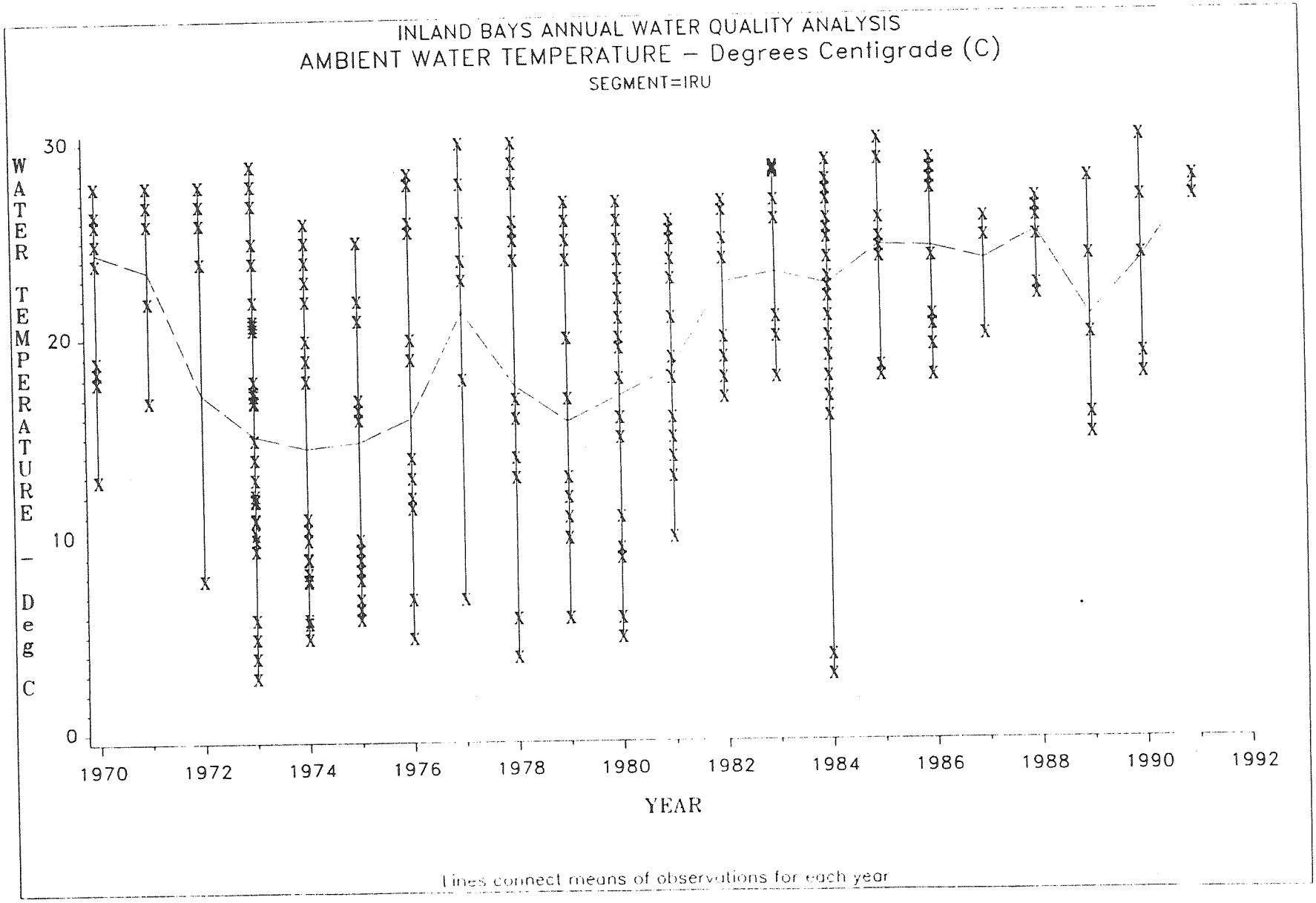

INLAND BAYS ANNUAL WATER QUALITY ANALYSIS
AMBIENT WATER TEMPERATURE – Degrees Centigrade (C)
SEGMENT=RBS
WATER TEMPERATURE – Deg C
30
20
10
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations for each year

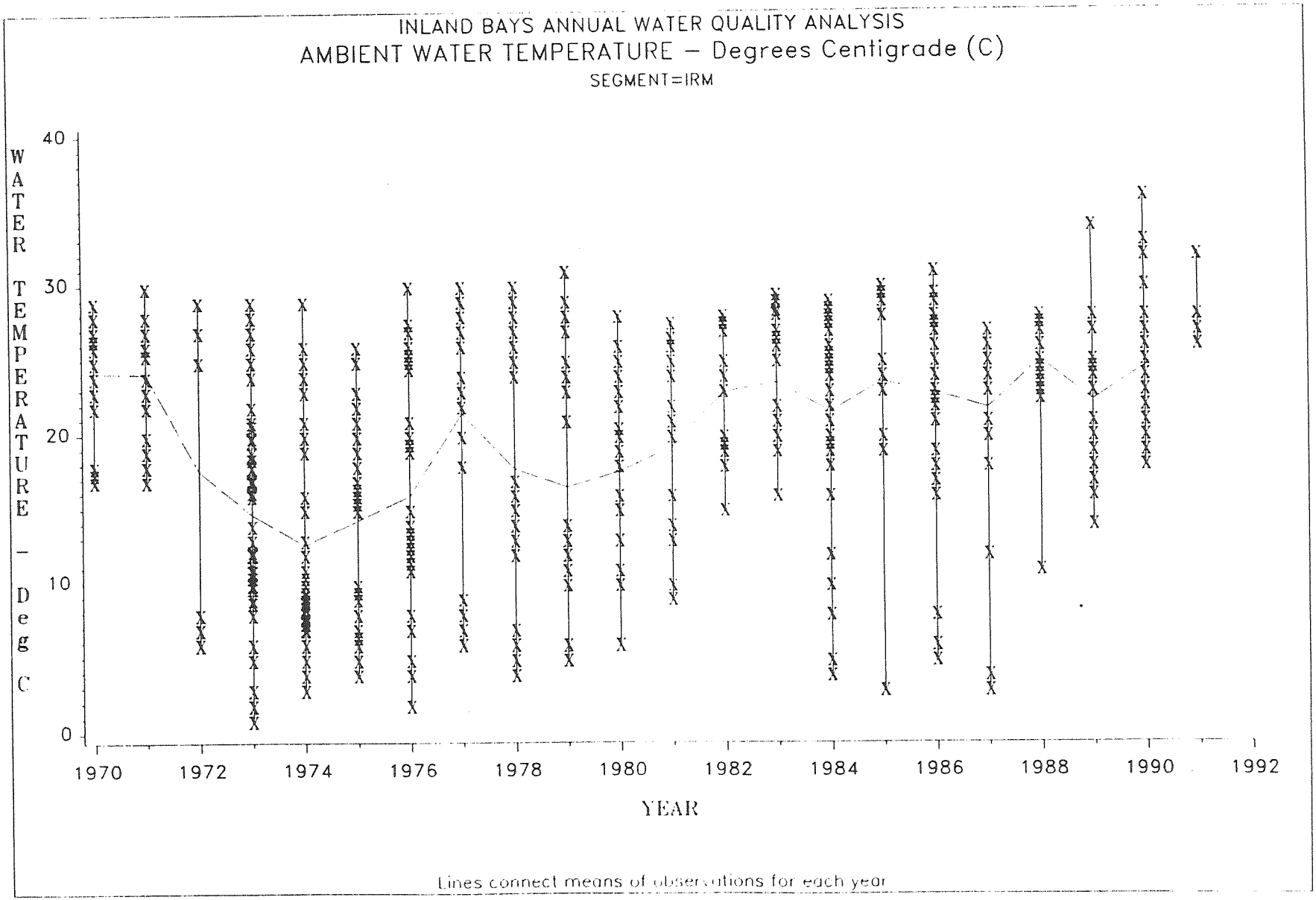

INLAND BAYS ANNUAL WATER QUALITY ANALYSIS
AMBIENT WATER TEMPERATURE – Degrees Centigrade (C)
SEGMENT=RBM
WATER TEMPERATURE – Deg C
40
30
20
10
0
-10
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations for each year


INLAND BAYS ANNUAL WATER QUALITY ANALYSIS
AMBIENT WATER TEMPERATURE – Degrees Centigrade (C)
SEGMENT=MD
WATER TEMPERATURE – Deg C
30
20
10
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations for each year


INLAND BAYS ANNUAL WATER QUALITY ANALYSIS
AMBIENT WATER TEMPERATURE – Degrees Centigrade (C)
SEGMENT=LAS
WATER TEMPERATURE – Deg C
40
30
20
10
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations for each year


INLAND BAYS ANNUAL WATER QUALITY ANALYSIS
AMBIENT WATER TEMPERATURE – Degrees Centigrade (C)
SEGMENT=IRF
WATER TEMPERATURE – Deg C
30
20
10
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations for each year


INLAND BAYS ANNUAL WATER QUALITY ANALYSIS
AMBIENT WATER TEMPERATURE – Degrees Centigrade (C)
SEGMENT=IRU
WATER TEMPERATURE – Deg C
30
20
10
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations for each year


INLAND BAYS ANNUAL WATER QUALITY ANALYSIS
AMBIENT WATER TEMPERATURE – Degrees Centigrade (C)
SEGMENT=IRM
WATER TEMPERATURE – Deg C
40
30
20
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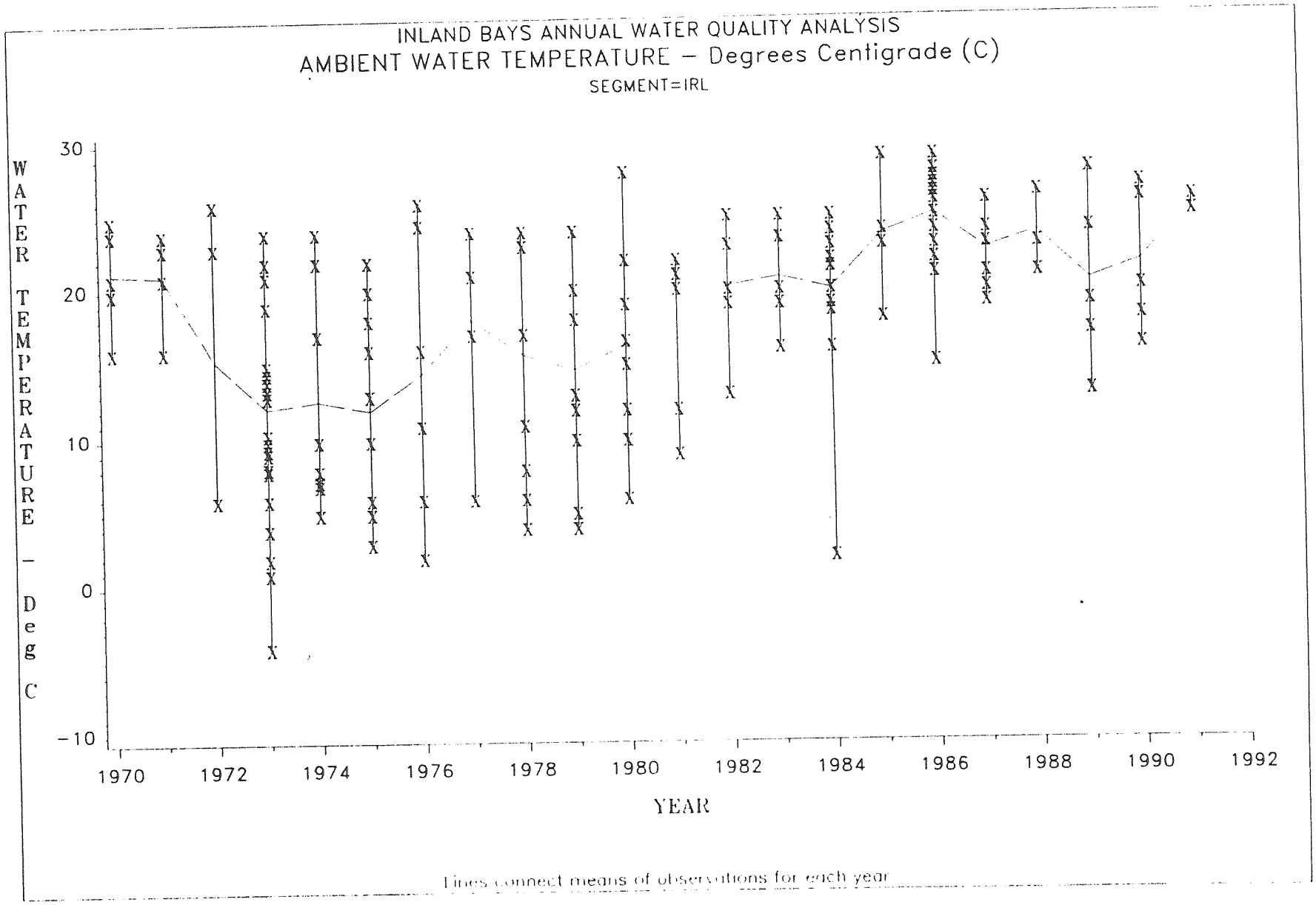
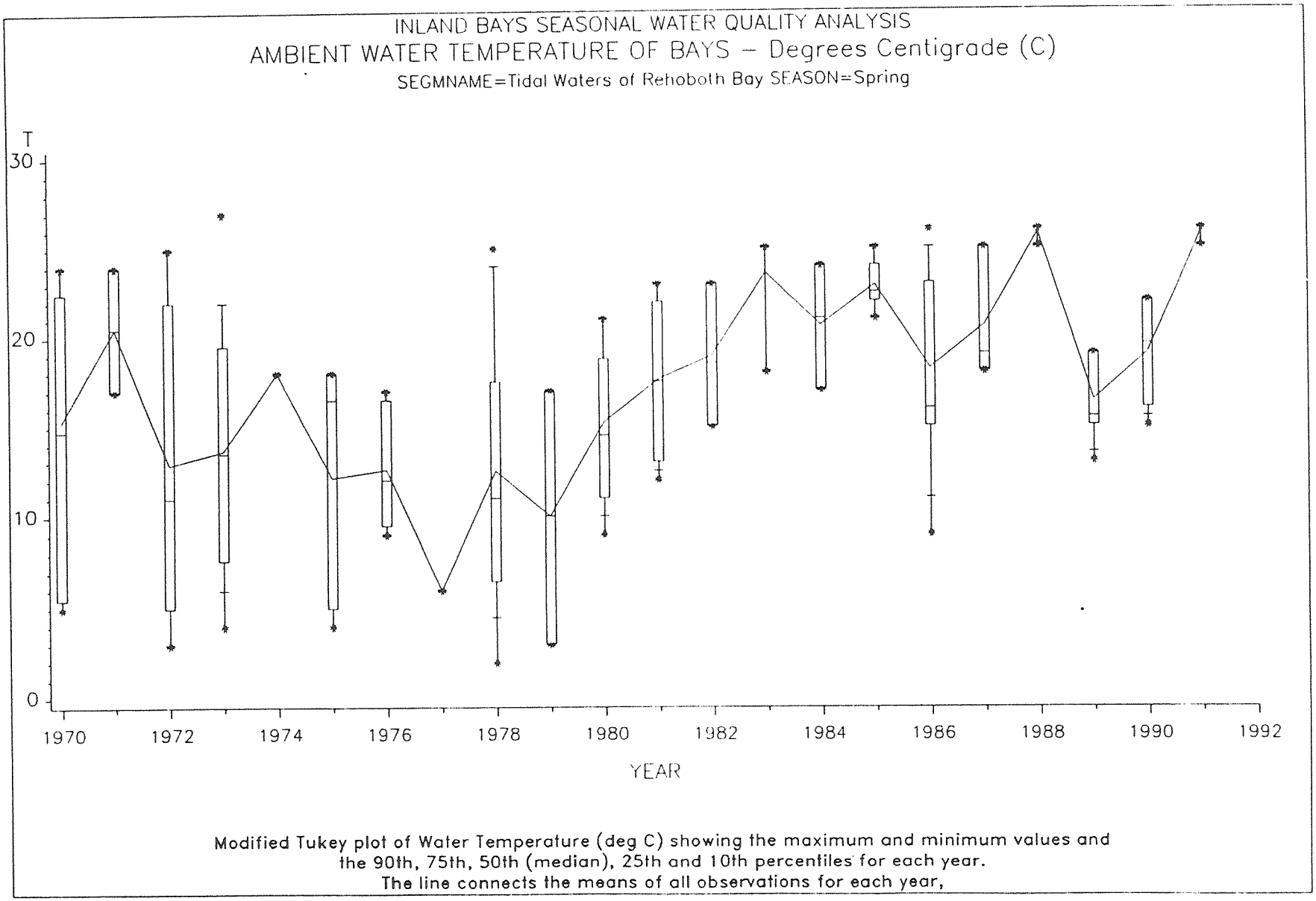
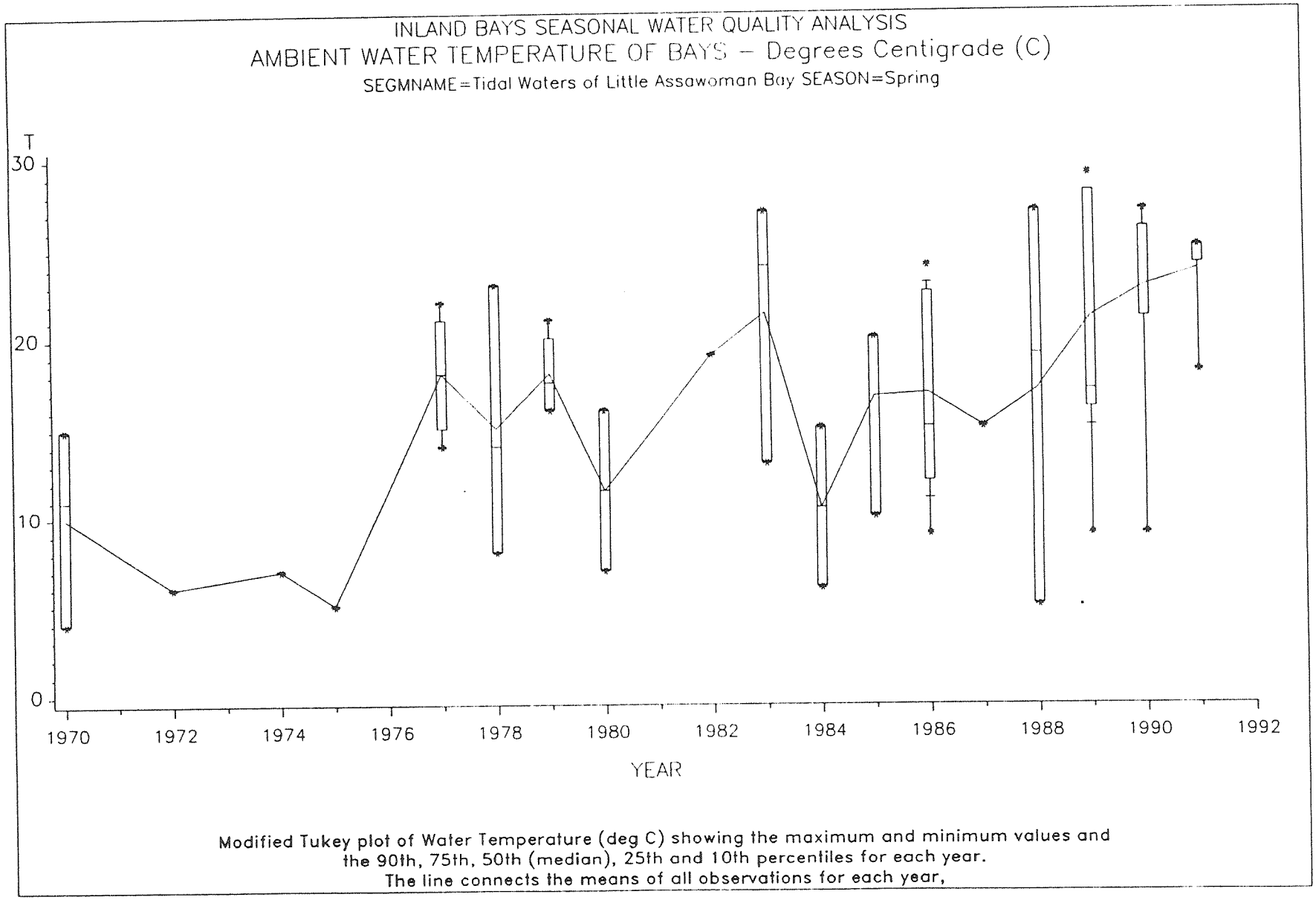
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations for each year

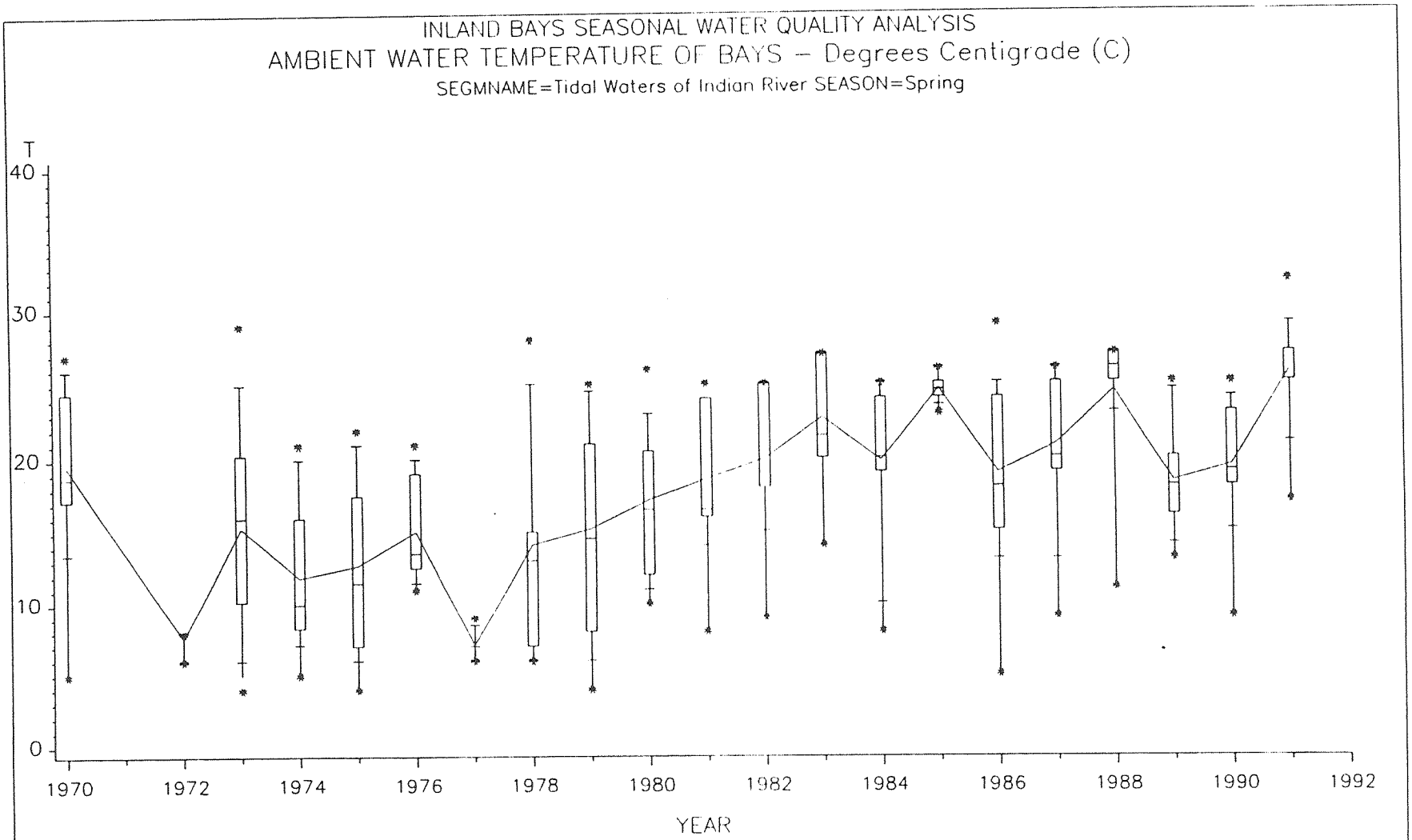

INLAND BAYS ANNUAL WATER QUALITY ANALYSIS
AMBIENT WATER TEMPERATURE – Degrees Centigrade (C)
SEGMENT=IRL
WATER TEMPERATURE – Deg C
30
20
10
0
-10
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations for each year



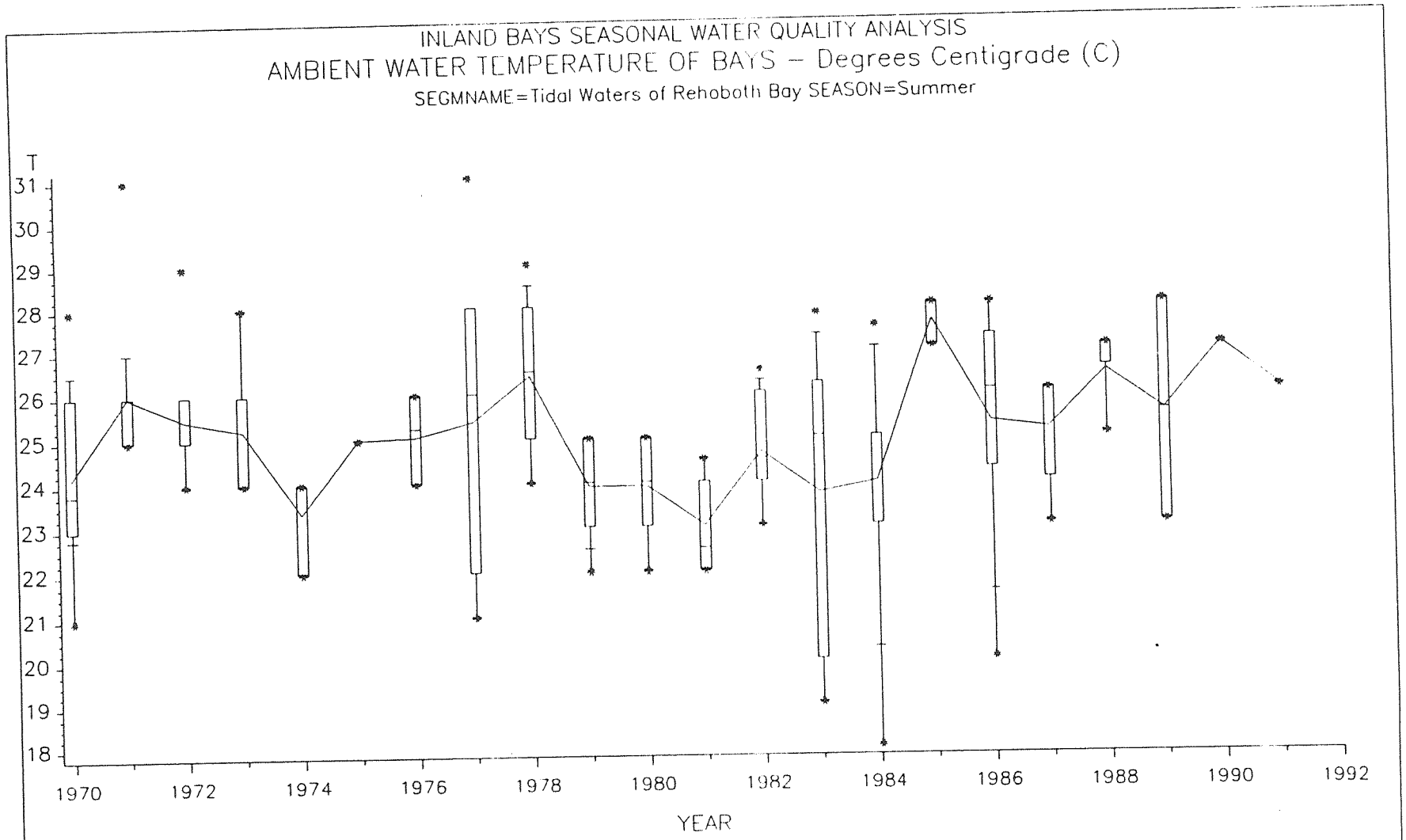
Modified Tukey plot of Water Temperature (deg C) showing the maximum and minimum values and the 90th, 75th, 50th (median), 25th and 10th percentiles for each year. The line connects the means of all observations for each year,



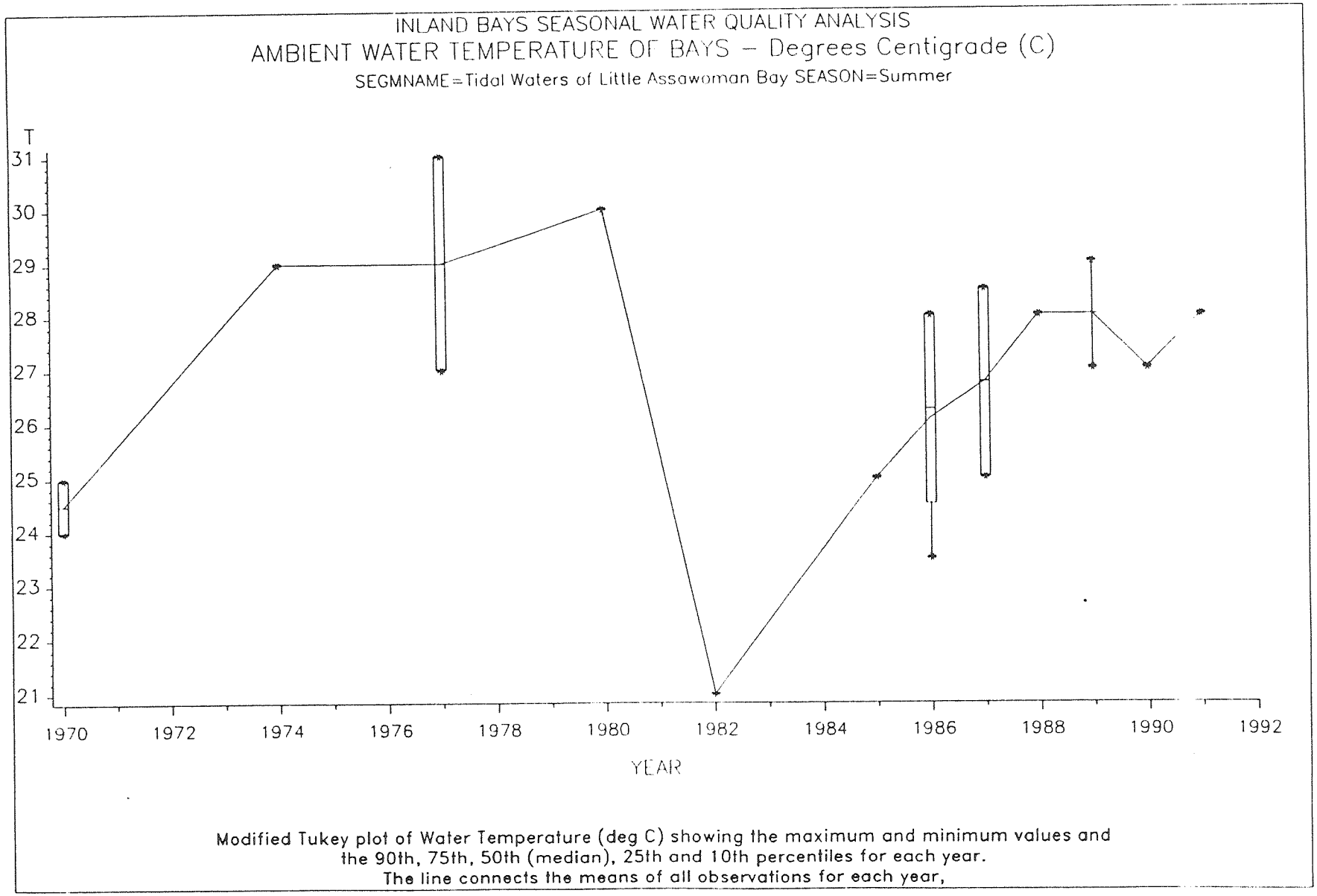
Modified Tukey plot of Water Temperature (deg C) showing the maximum and minimum values and the 90th, 75th, 50th (median), 25th and 10th percentiles for each year. The line connects the means of all observations for each year,



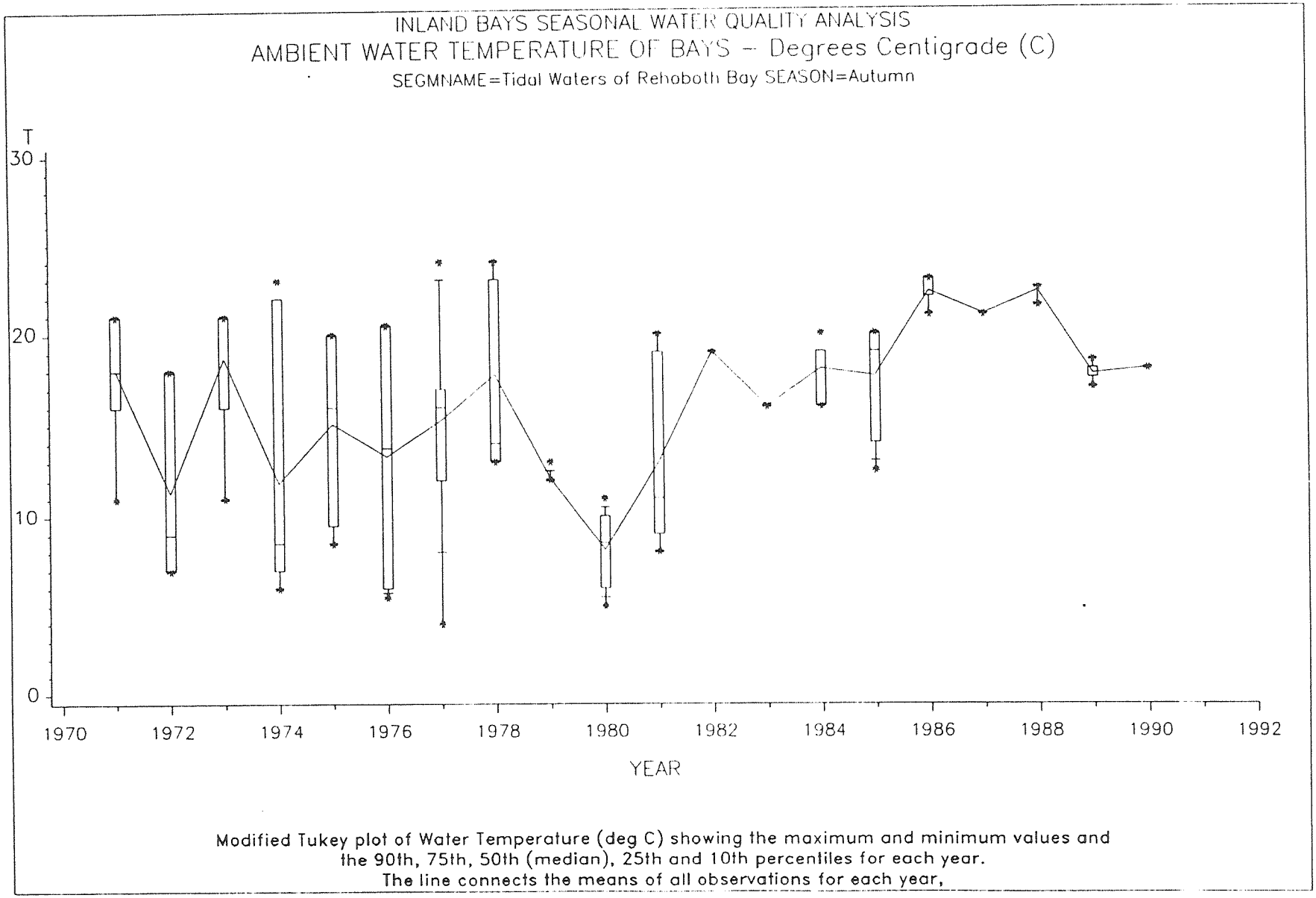
Modified Tukey plot of Water Temperature (deg C) showing the maximum and minimum values and the 90th, 75th, 50th (median), 25th and 10th percentiles for each year. The line connects the means of all observations for each year,



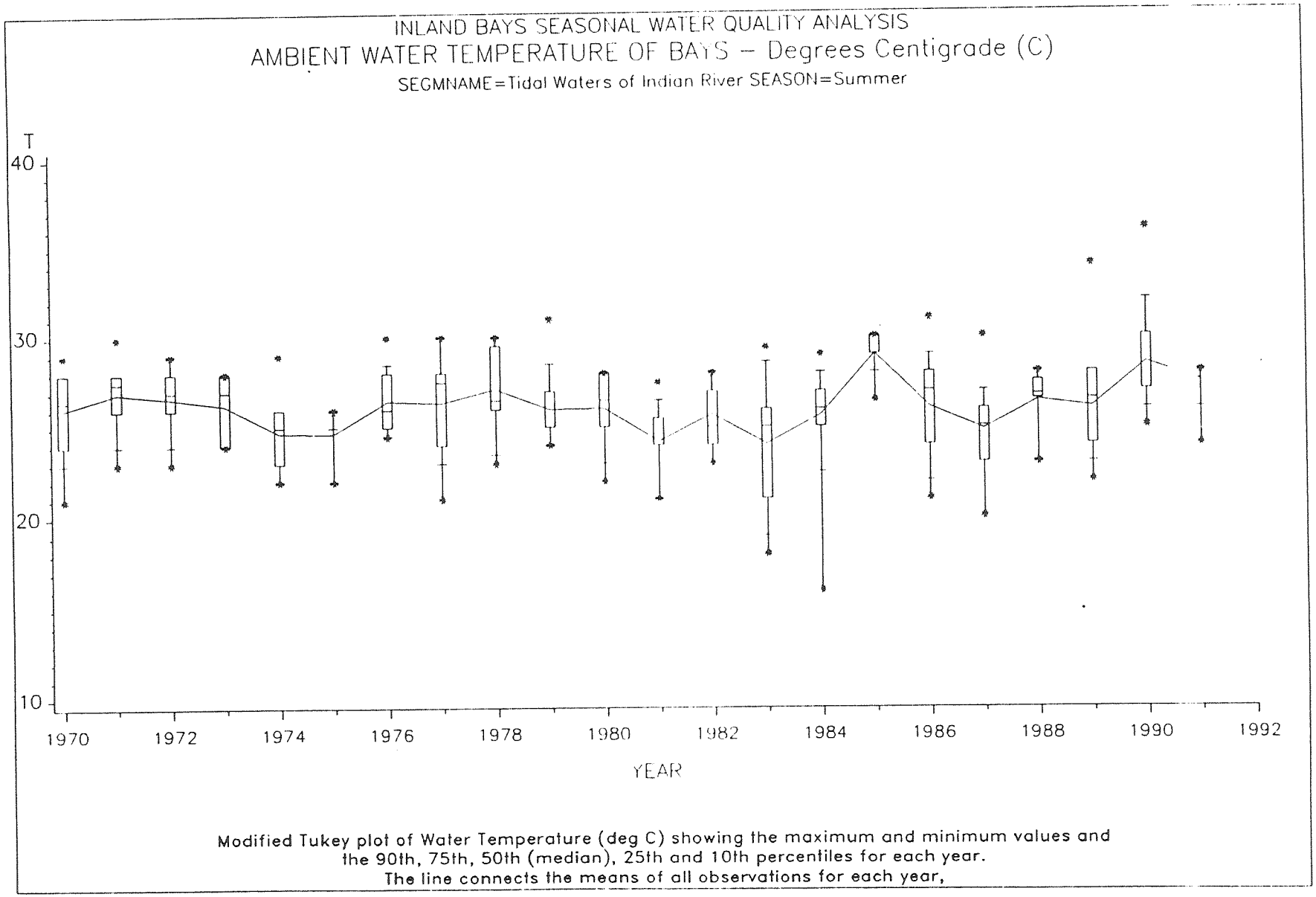
Modified Tukey plot of Water Temperature (deg C) showing the maximum and minimum values and the 90th, 75th, 50th (median), 25th and 10th percentiles for each year.
The line connects the means of all observations for each year,



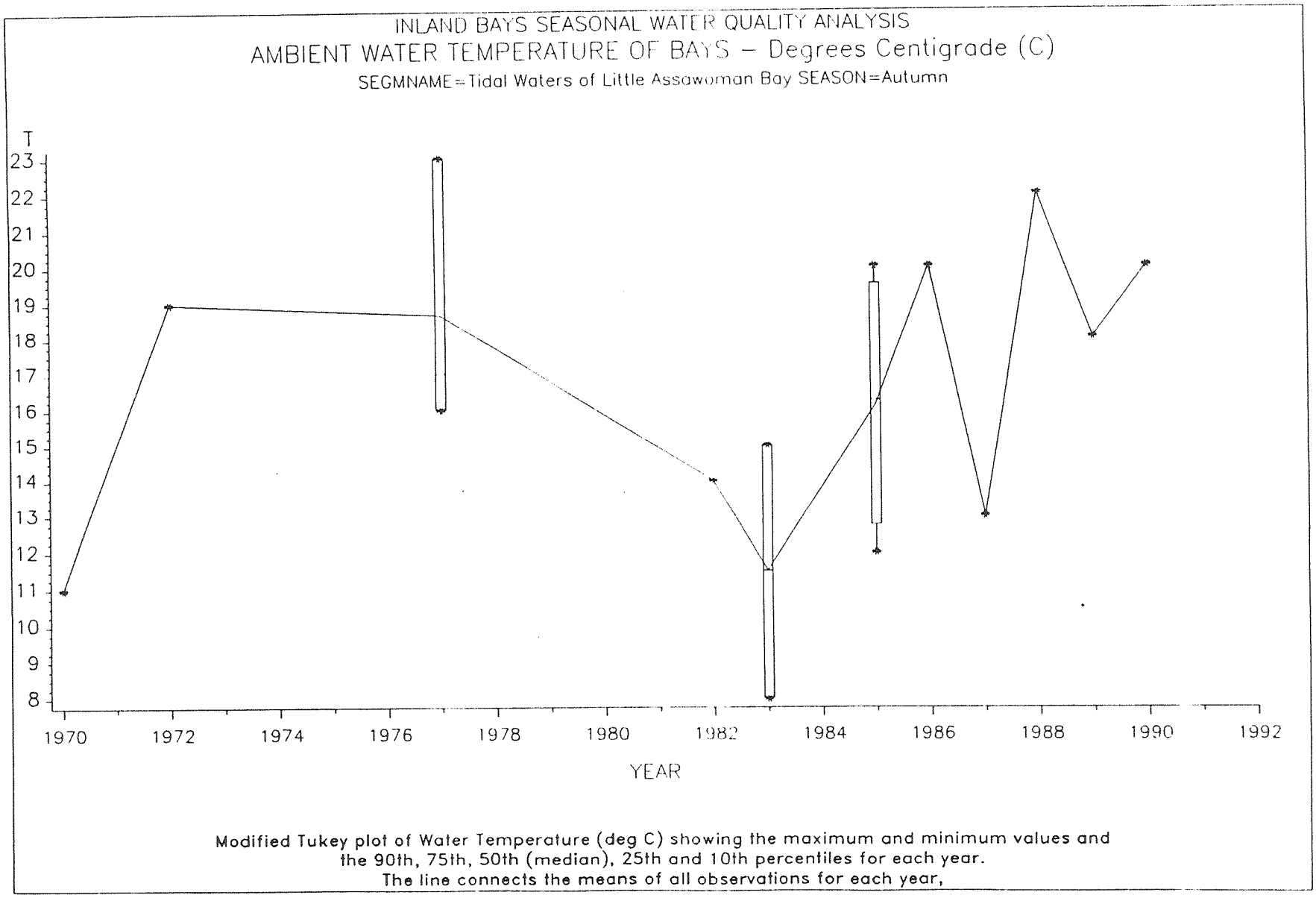
Modified Tukey plot of Water Temperature (deg C) showing the maximum and minimum values and the 90th, 75th, 50th (median), 25th and 10th percentiles for each year. The line connects the means of all observations for each year,



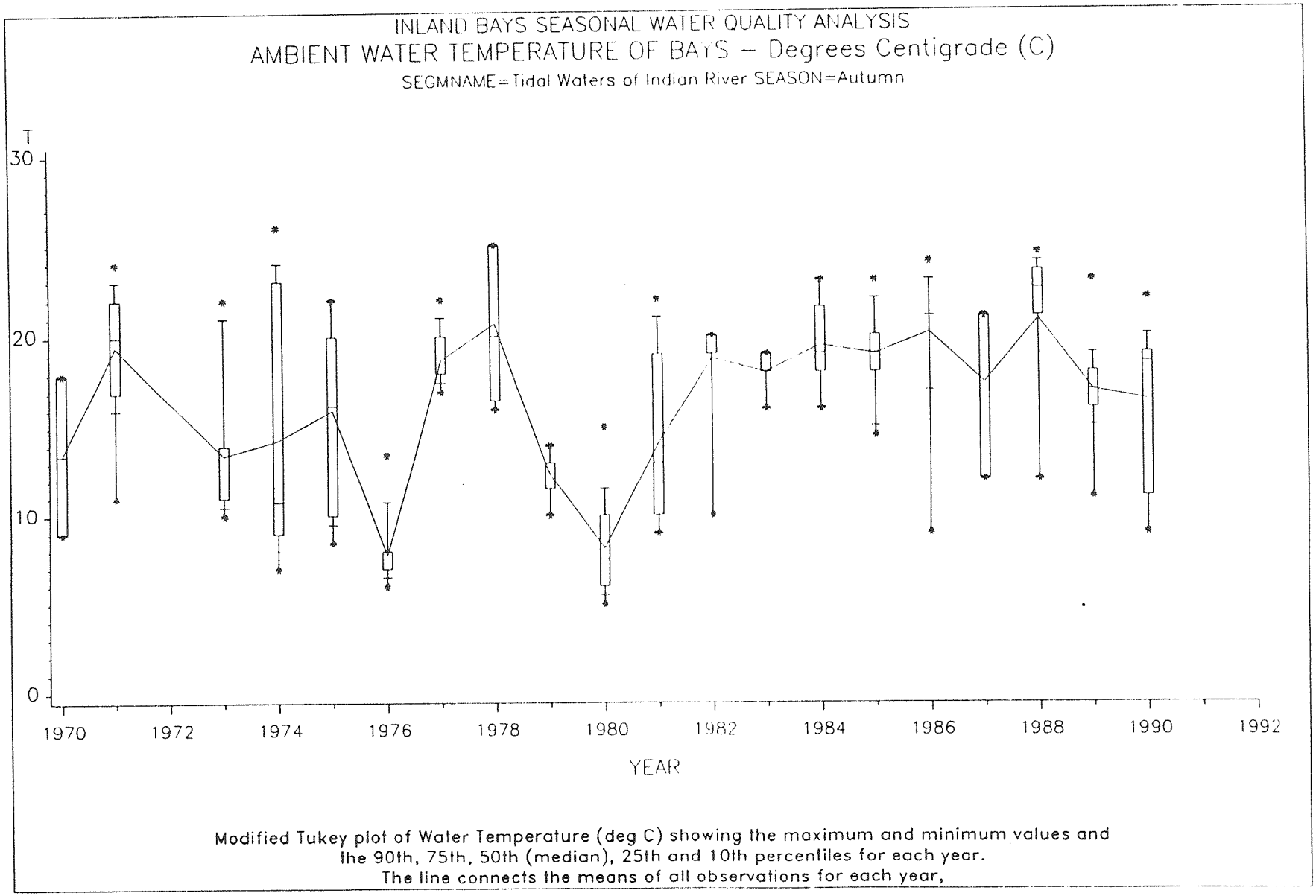
Modified Tukey plot of Water Temperature (deg C) showing the maximum and minimum values and the 90th, 75th, 50th (median), 25th and 10th percentiles for each year.
The line connects the means of all observations for each year,



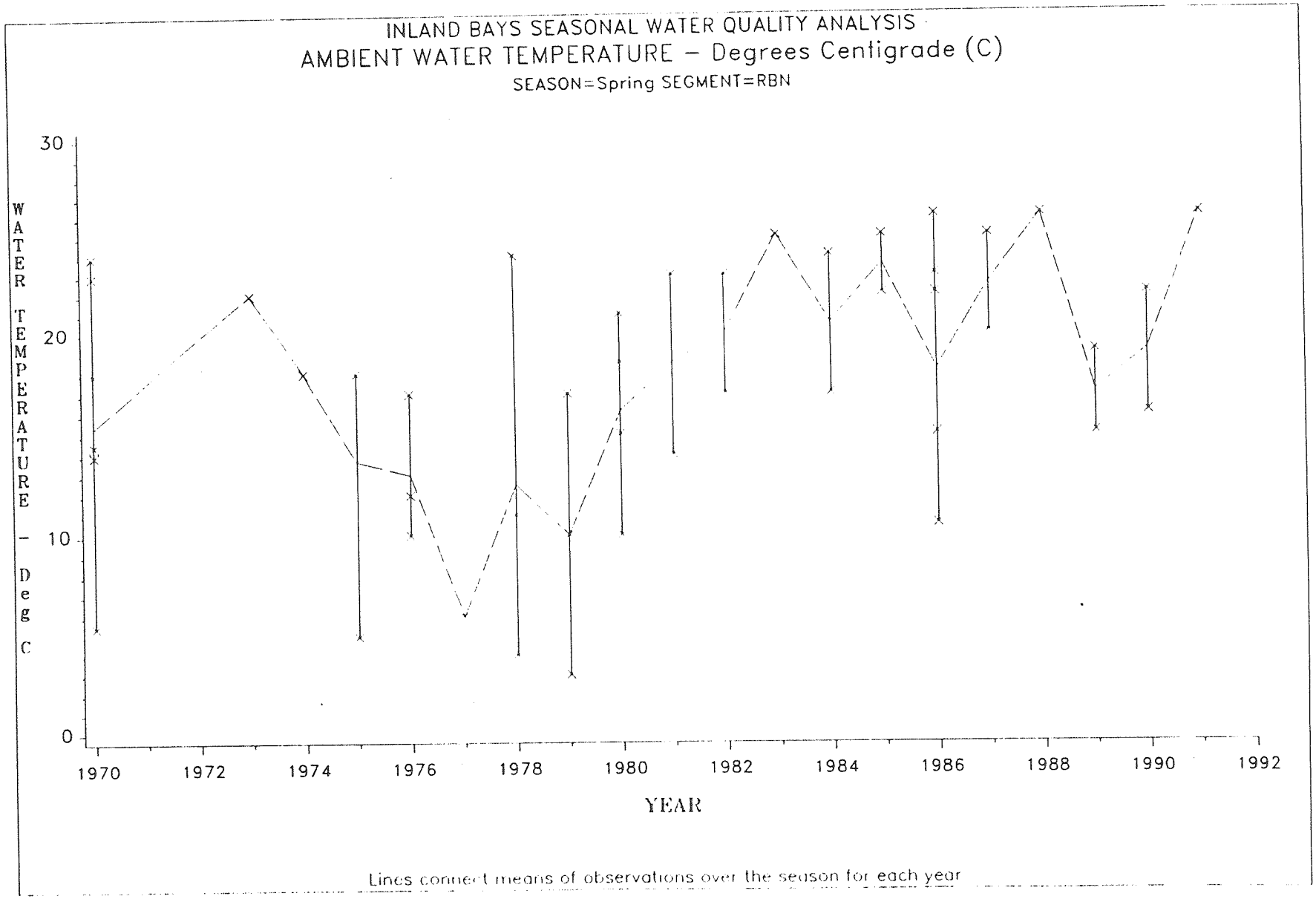
Modified Tukey plot of Water Temperature (deg C) showing the maximum and minimum values and the 90th, 75th, 50th (median), 25th and 10th percentiles for each year. The line connects the means of all observations for each year,

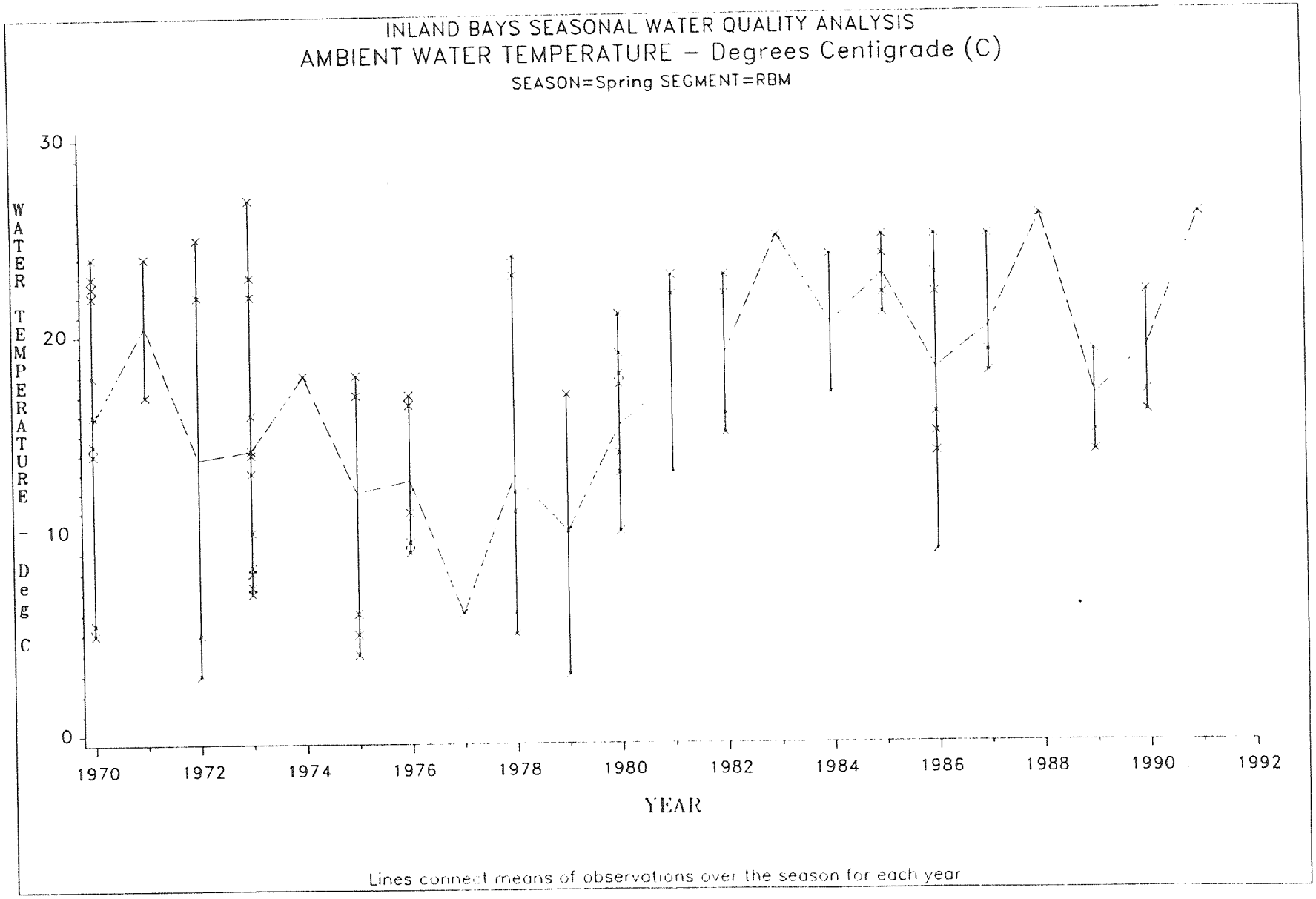


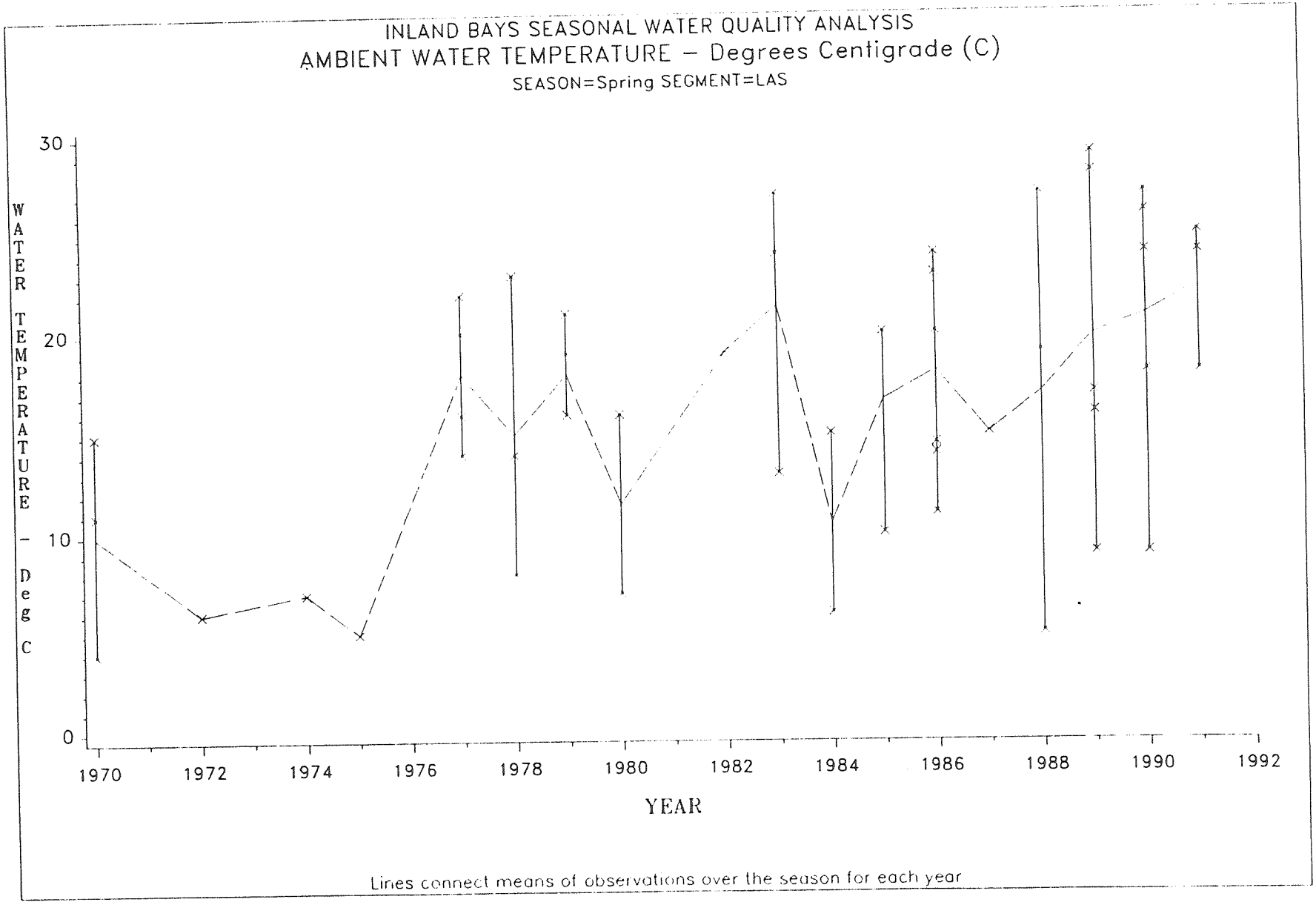
Modified Tukey plot of Water Temperature (deg C) showing the maximum and minimum values and the 90th, 75th, 50th (median), 25th and 10th percentiles for each year.
The line connects the means of all observations for each year,

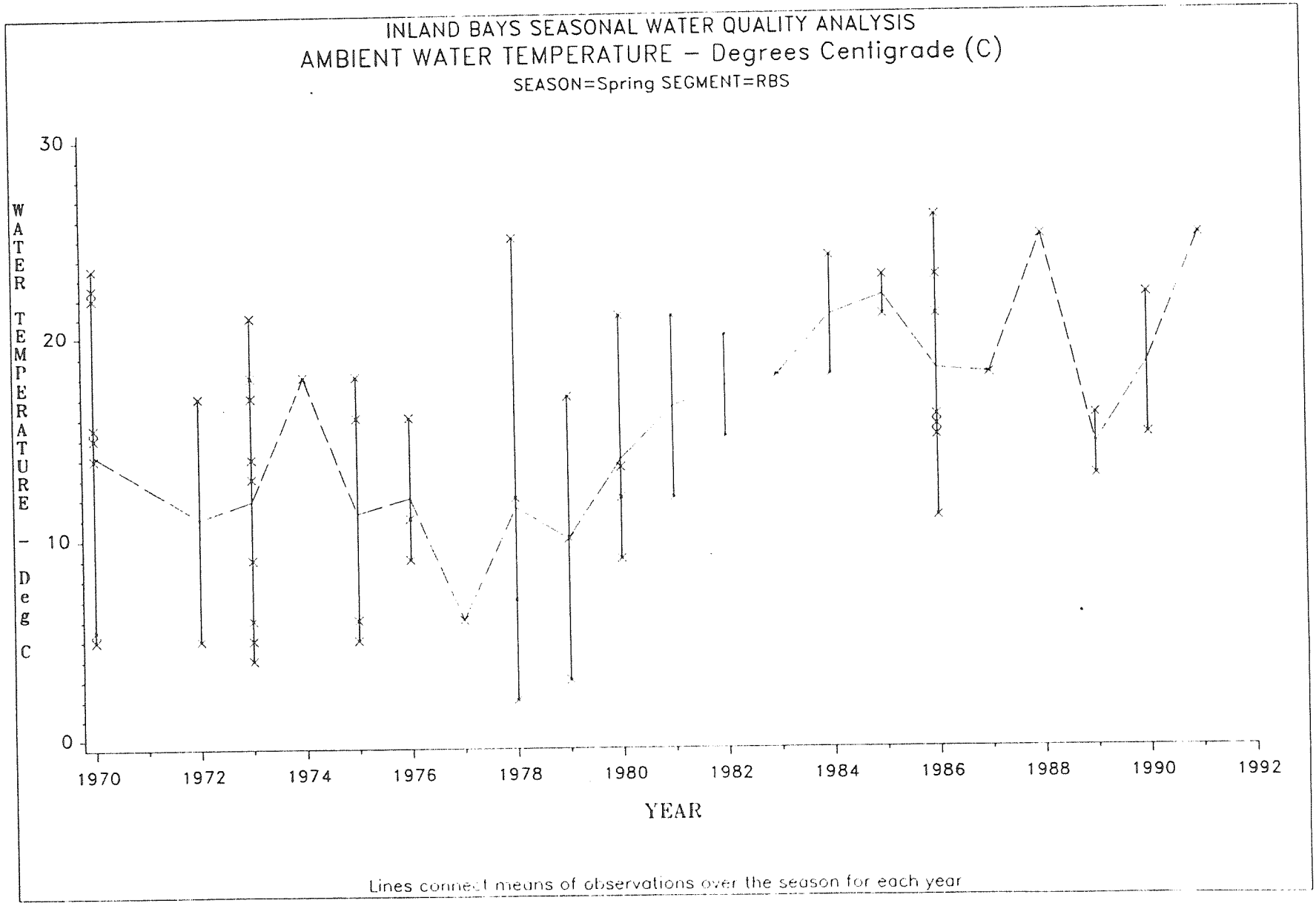


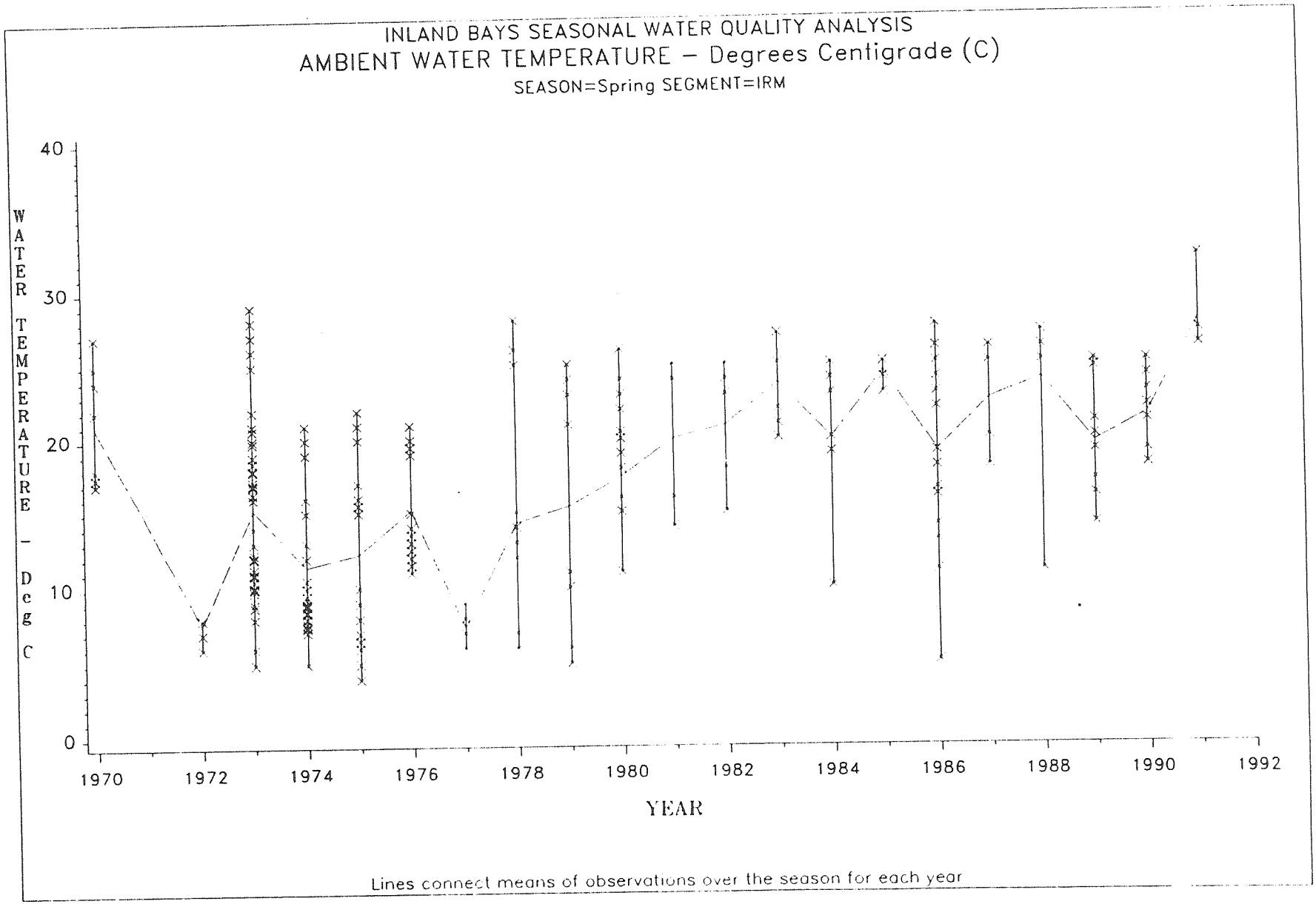
Modified Tukey plot of Water Temperature (deg C) showing the maximum and minimum values and the 90th, 75th, 50th (median), 25th and 10th percentiles for each year. The line connects the means of all observations for each year,

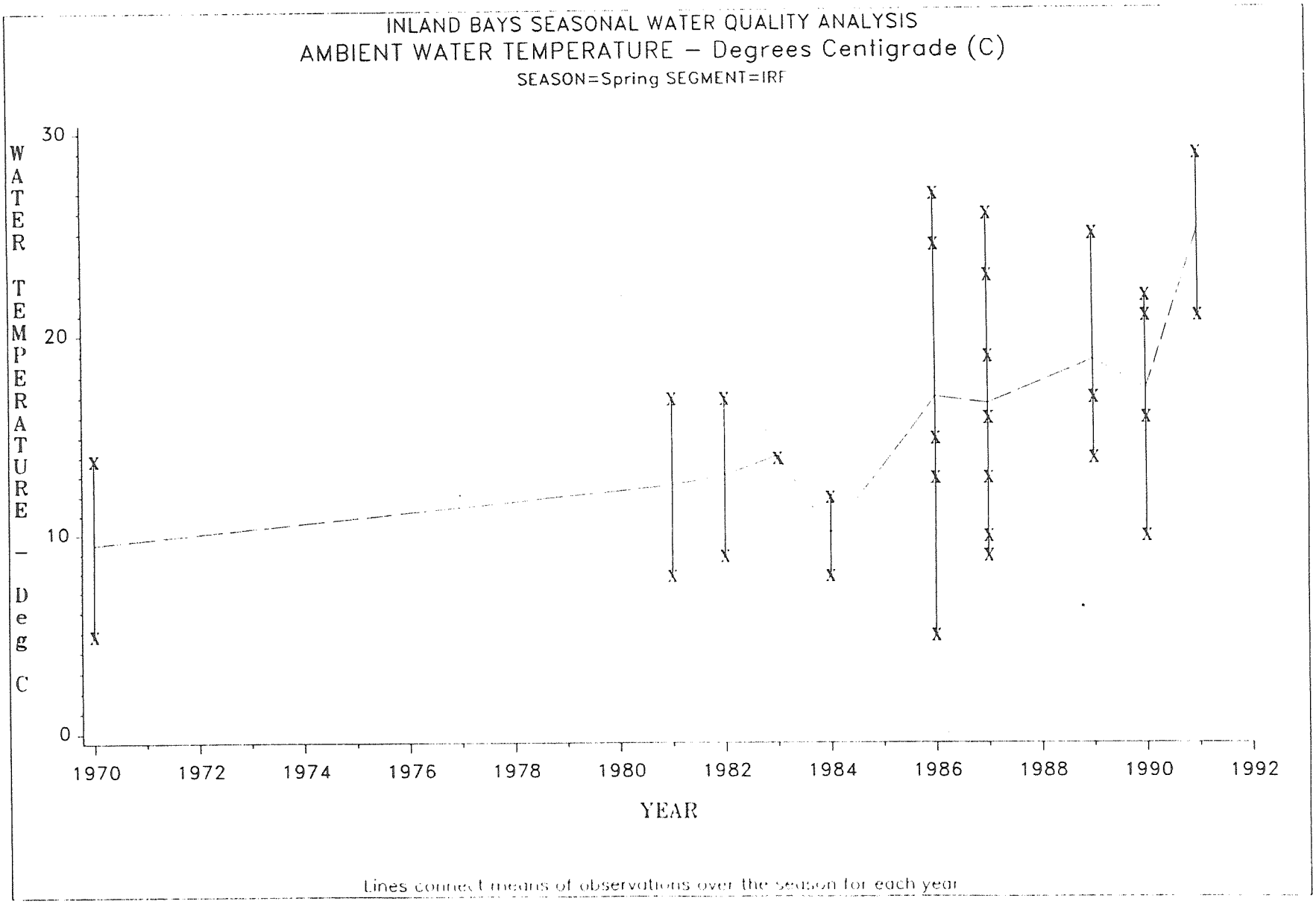

INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT WATER TEMPERATURE – Degrees Centigrade (C)
SEASON=Spring SEGMENT=RBN
WATER TEMPERATURE – Deg C
30
20
10
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year

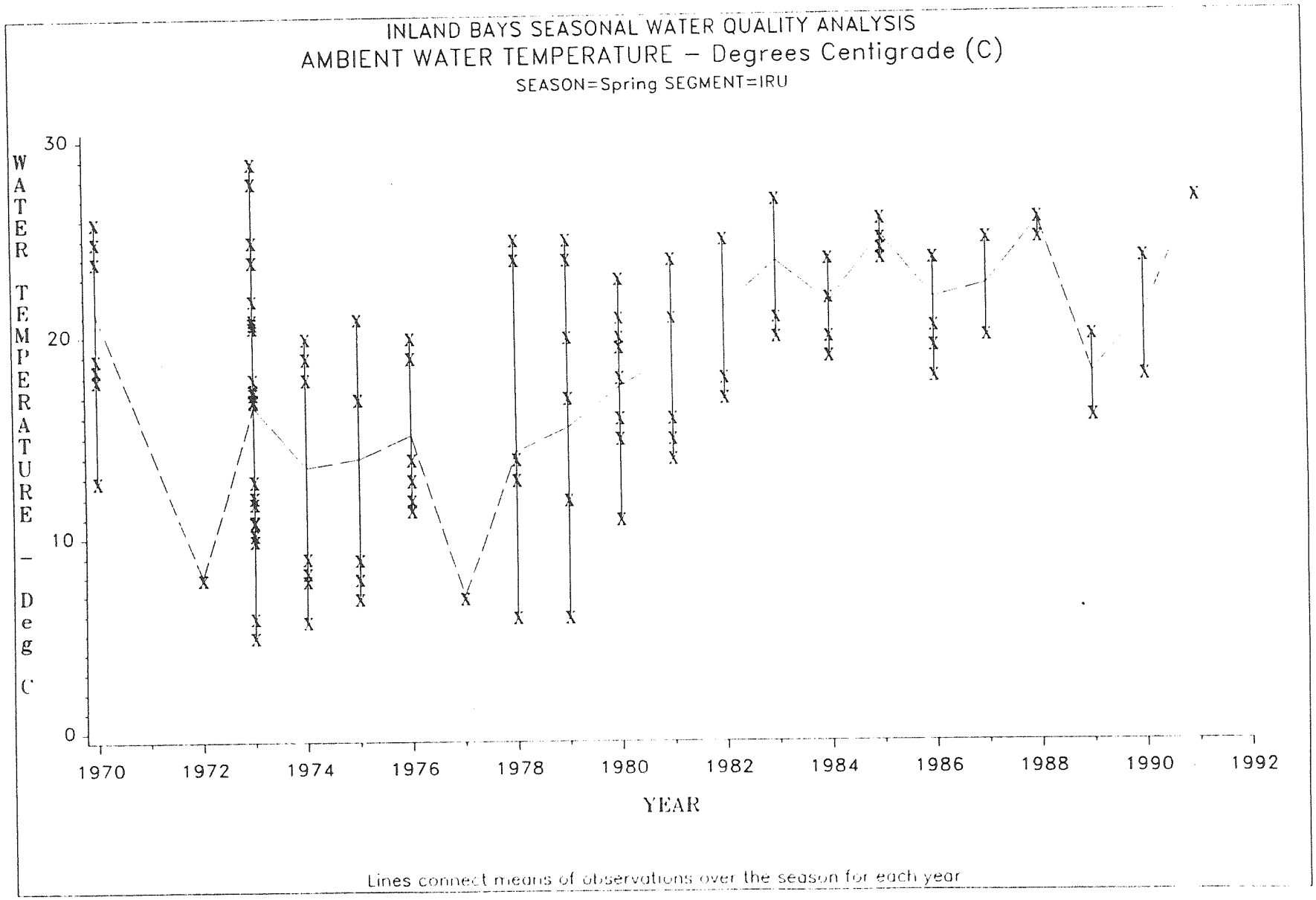

INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT WATER TEMPERATURE – Degrees Centigrade (C)
SEASON=Spring SEGMENT=RBM
WATER TEMPERATURE – Deg C
30
20
10
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year

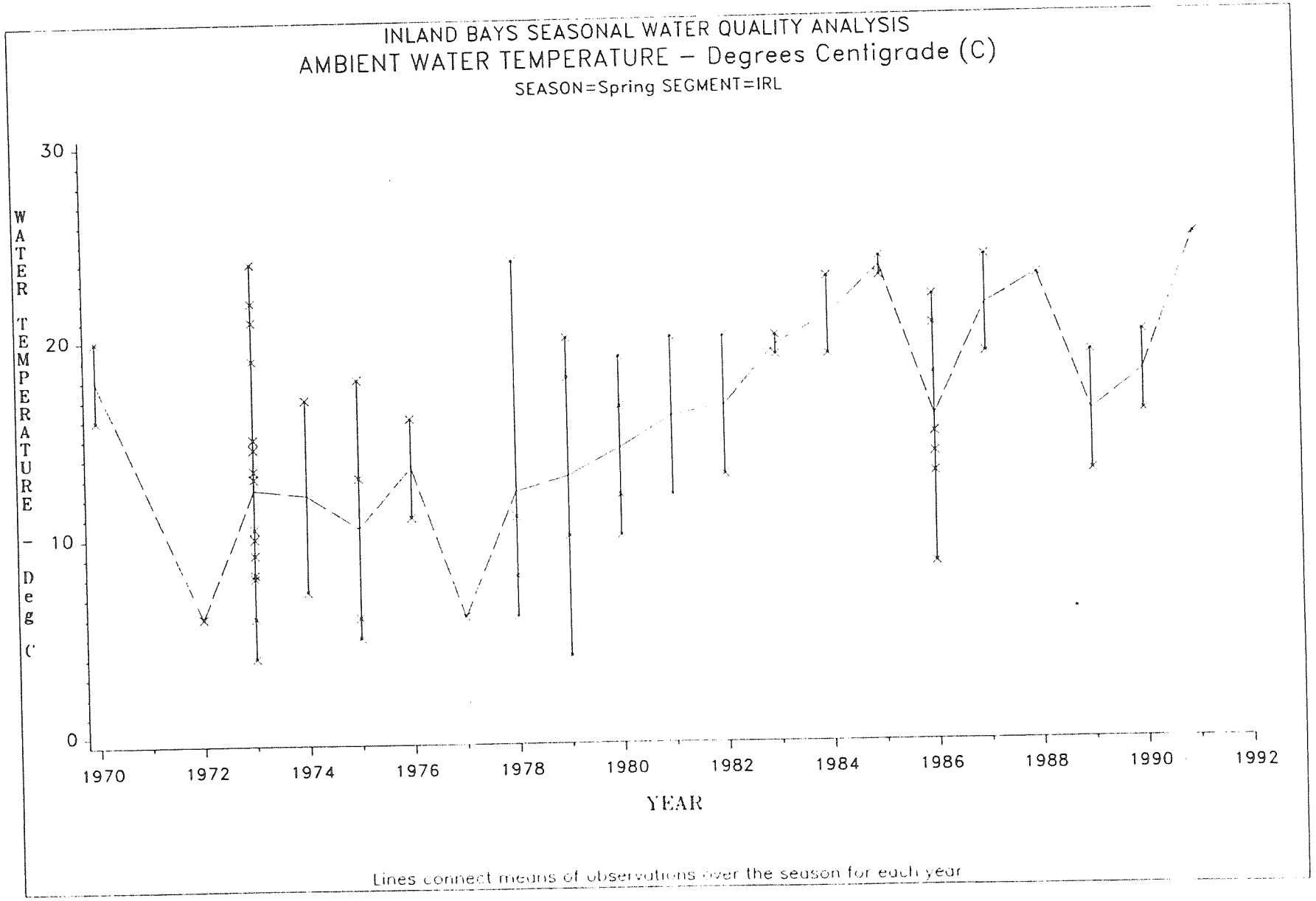

INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT WATER TEMPERATURE – Degrees Centigrade (C)
SEASON=Spring SEGMENT=LAS
WATER TEMPERATURE - Deg C
30
20
10
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year

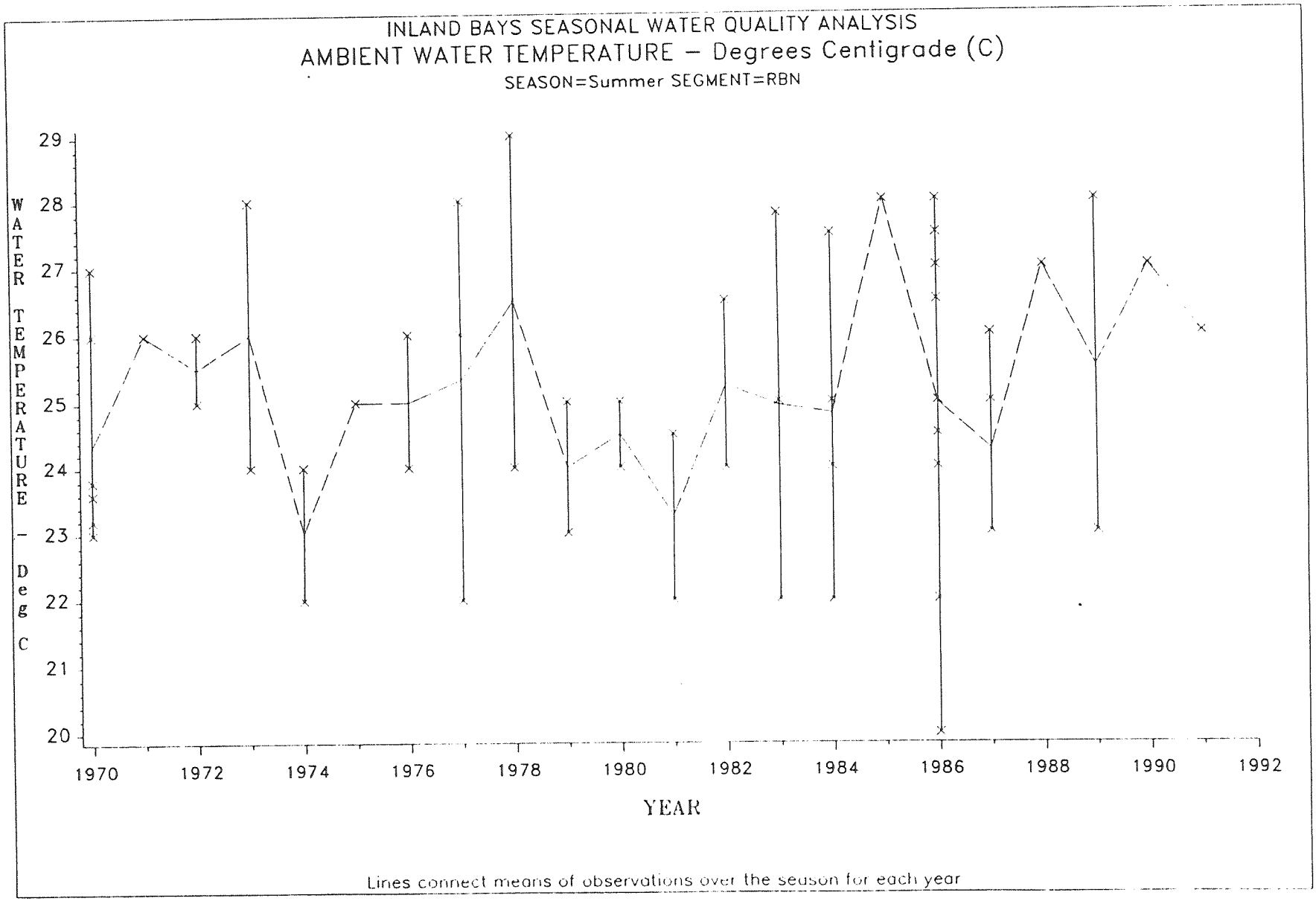

INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT WATER TEMPERATURE – Degrees Centigrade (C)
SEASON=Spring SEGMENT=RBS
WATER TEMPERATURE – Deg C
30
20
10
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year

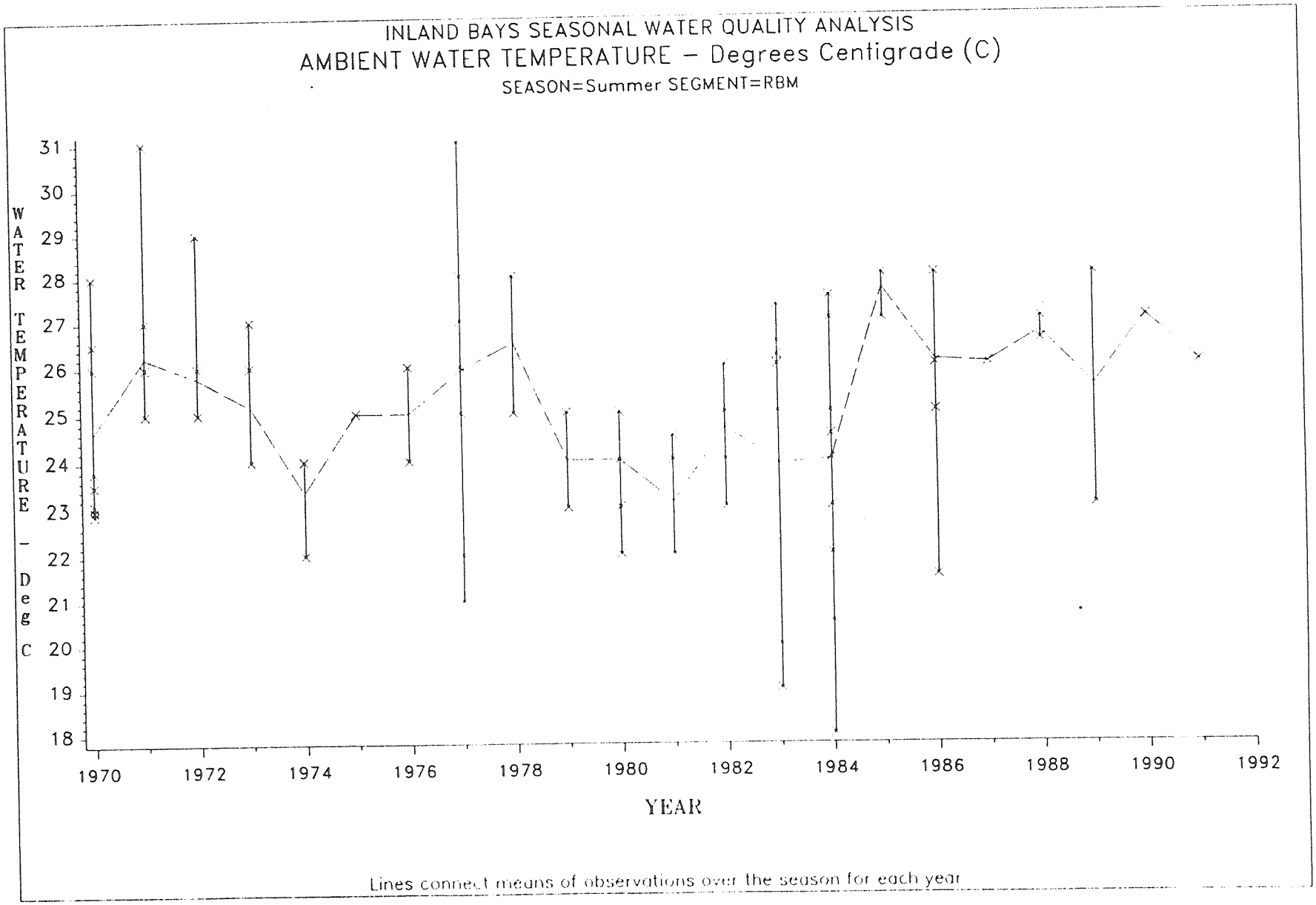

INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT WATER TEMPERATURE – Degrees Centigrade (C)
SEASON=Spring SEGMENT=IRM
WATER TEMPERATURE – Deg C
40
30
20
10
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year

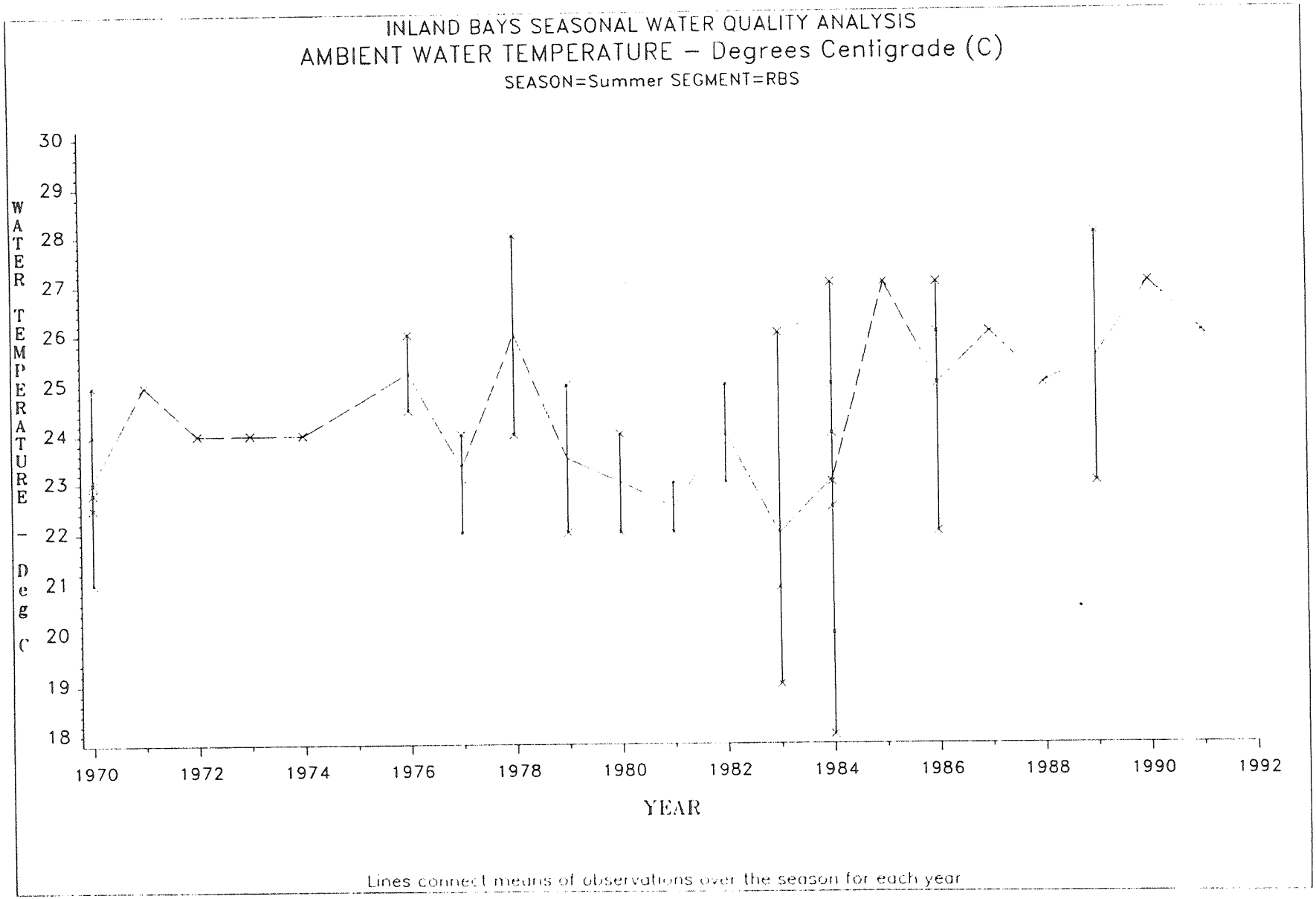

INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT WATER TEMPERATURE – Degrees Centigrade (C)
SEASON=Spring SEGMENT=IRF
WATER TEMPERATURE – Deg C
30
20
10
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year

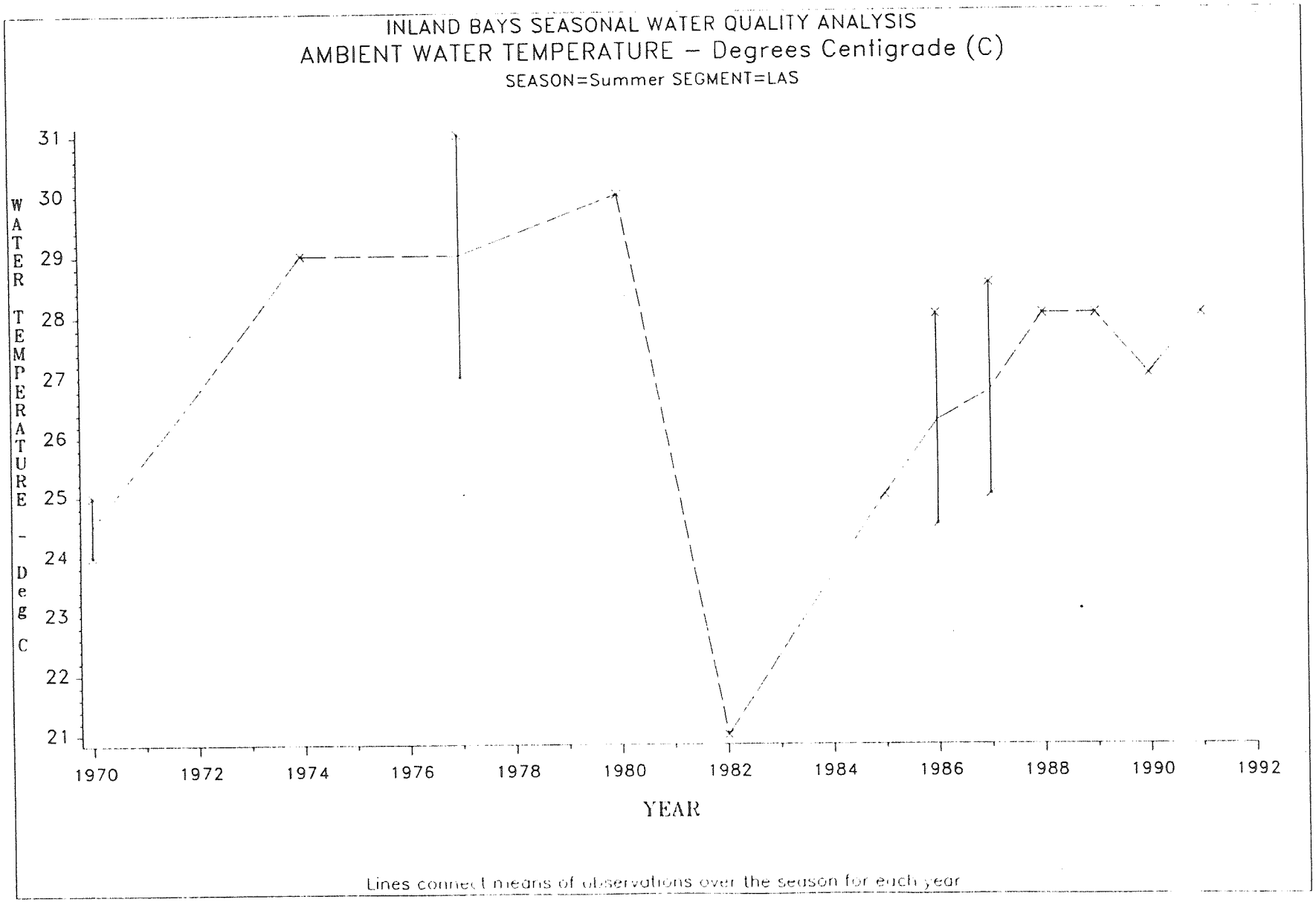

INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT WATER TEMPERATURE – Degrees Centigrade (C)
SEASON=Spring SEGMENT=IRU
WATER TEMPERATURE – Deg C
30
20
10
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year


INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT WATER TEMPERATURE – Degrees Centigrade (C)
SEASON=Spring SEGMENT=IRL
WATER TEMPERATURE – Deg C
30
20
10
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year


INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT WATER TEMPERATURE – Degrees Centigrade (C)
SEASON=Summer SEGMENT=RBN
WATER TEMPERATURE - Deg C
29
28
27
26
25
24
23
22
21
20
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year


INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT WATER TEMPERATURE – Degrees Centigrade (C)
SEASON=Summer SEGMENT=RBM
WATER TEMPERATURE - Deg C
31
30
29
28
27
26
25
24
23
22
21
20
19
18
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year


INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT WATER TEMPERATURE – Degrees Centigrade (C)
SEASON=Summer SEGMENT=RBS
WATER TEMPERATURE – Deg C
30
29
28
27
26
25
24
23
22
21
20
19
18
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year


INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT WATER TEMPERATURE – Degrees Centigrade (C)
SEASON=Summer SEGMENT=LAS
WATER TEMPERATURE - Deg C
31
30
29
28
27
26
25
24
23
22
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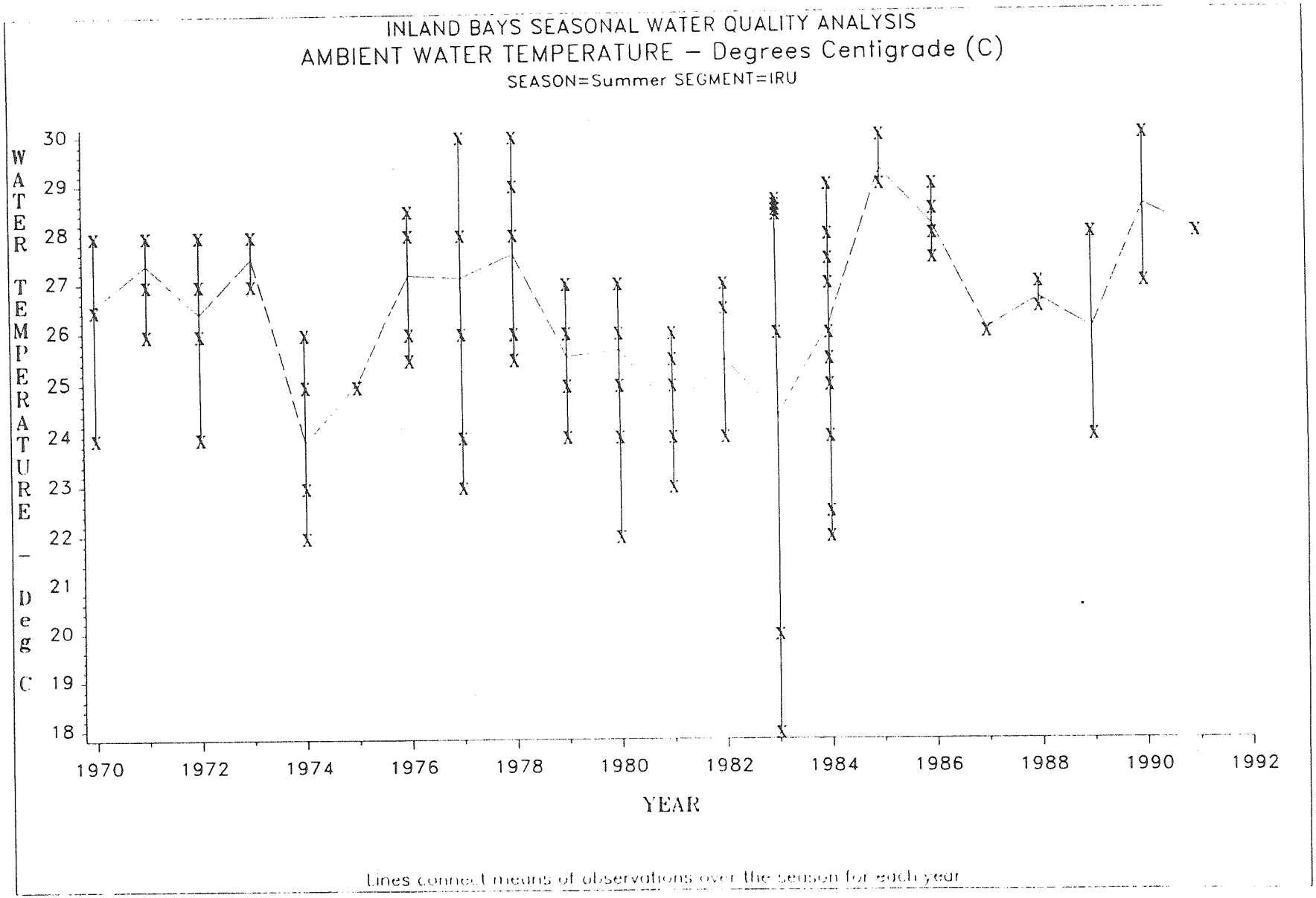
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year


INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT WATER TEMPERATURE – Degrees Centigrade (C)
SEASON=Summer SEGMENT=IRU
WATER TEMPERATURE – Deg C
30
29
28
27
26
25
24
23
22
21
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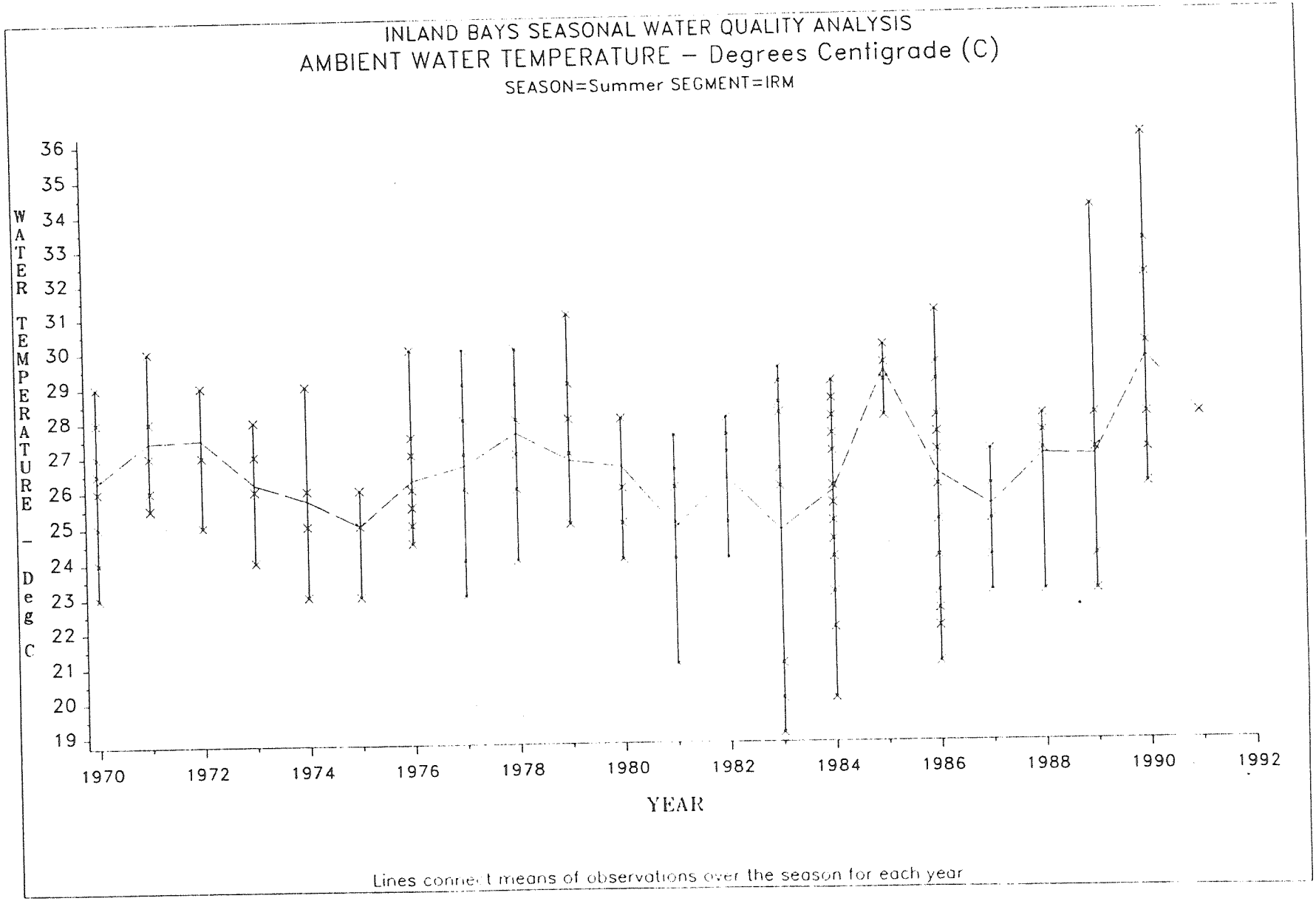
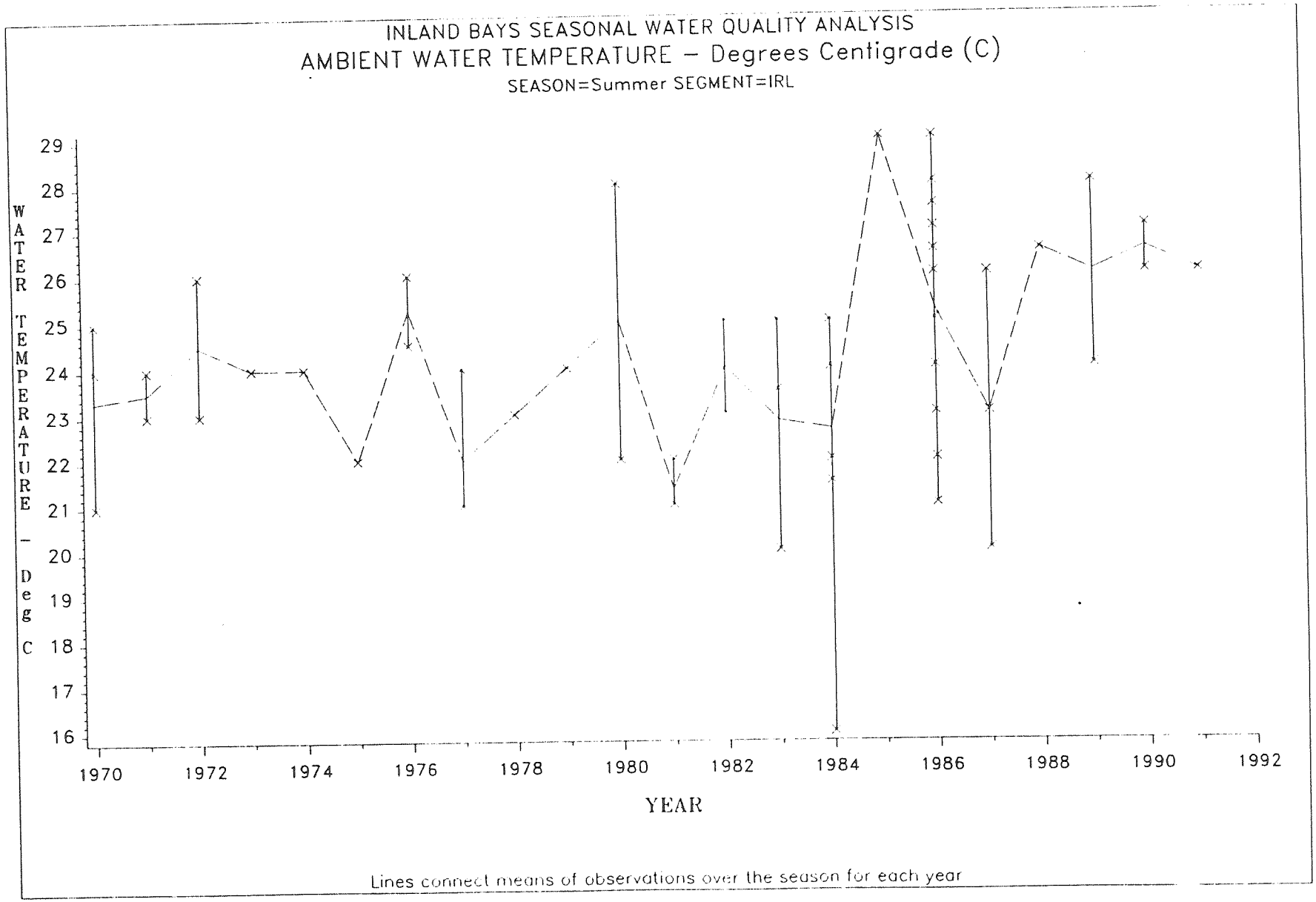
18
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year


INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT WATER TEMPERATURE – Degrees Centigrade (C)
SEASON=Summer SEGMENT=IRM
WATER TEMPERATURE – Deg C
36
35
34
33
32
31
30
29
28
27
26
25
24
23
22
21
20
19
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year


INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT WATER TEMPERATURE – Degrees Centigrade (C)
SEASON=Summer SEGMENT=IRL
WATER TEMPERATURE – Deg C
29
28
27
26
25
24
23
22
21
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19
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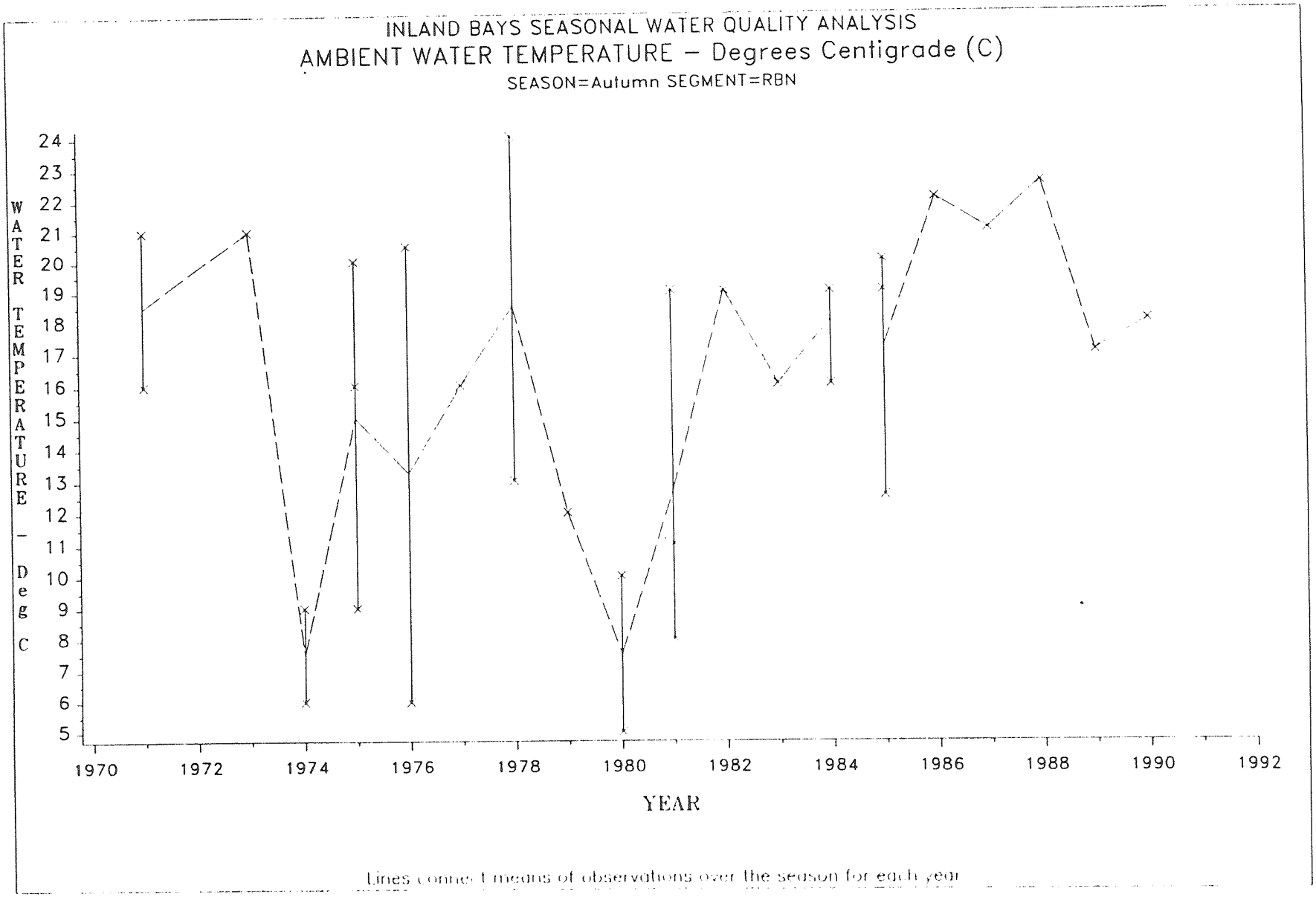
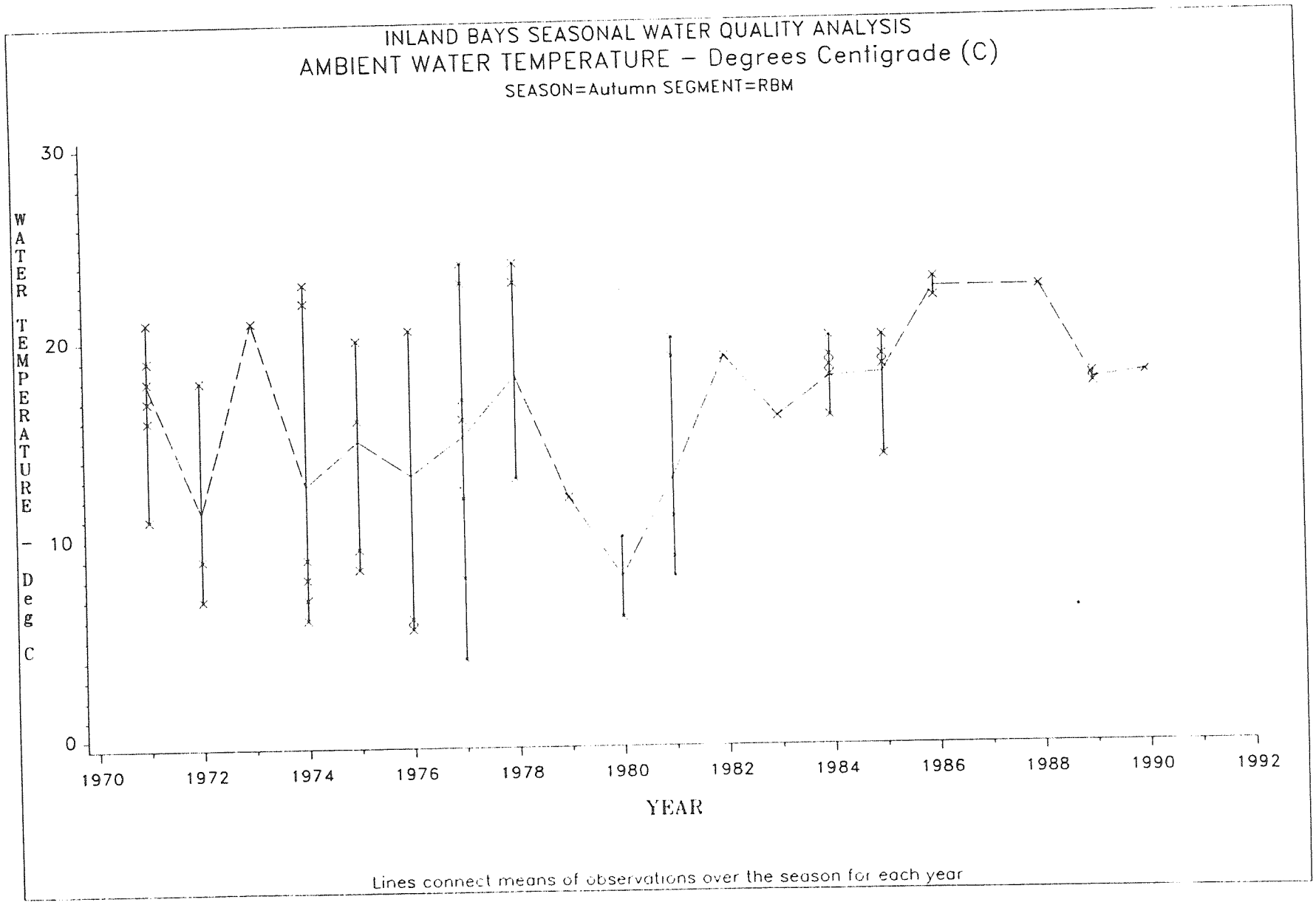
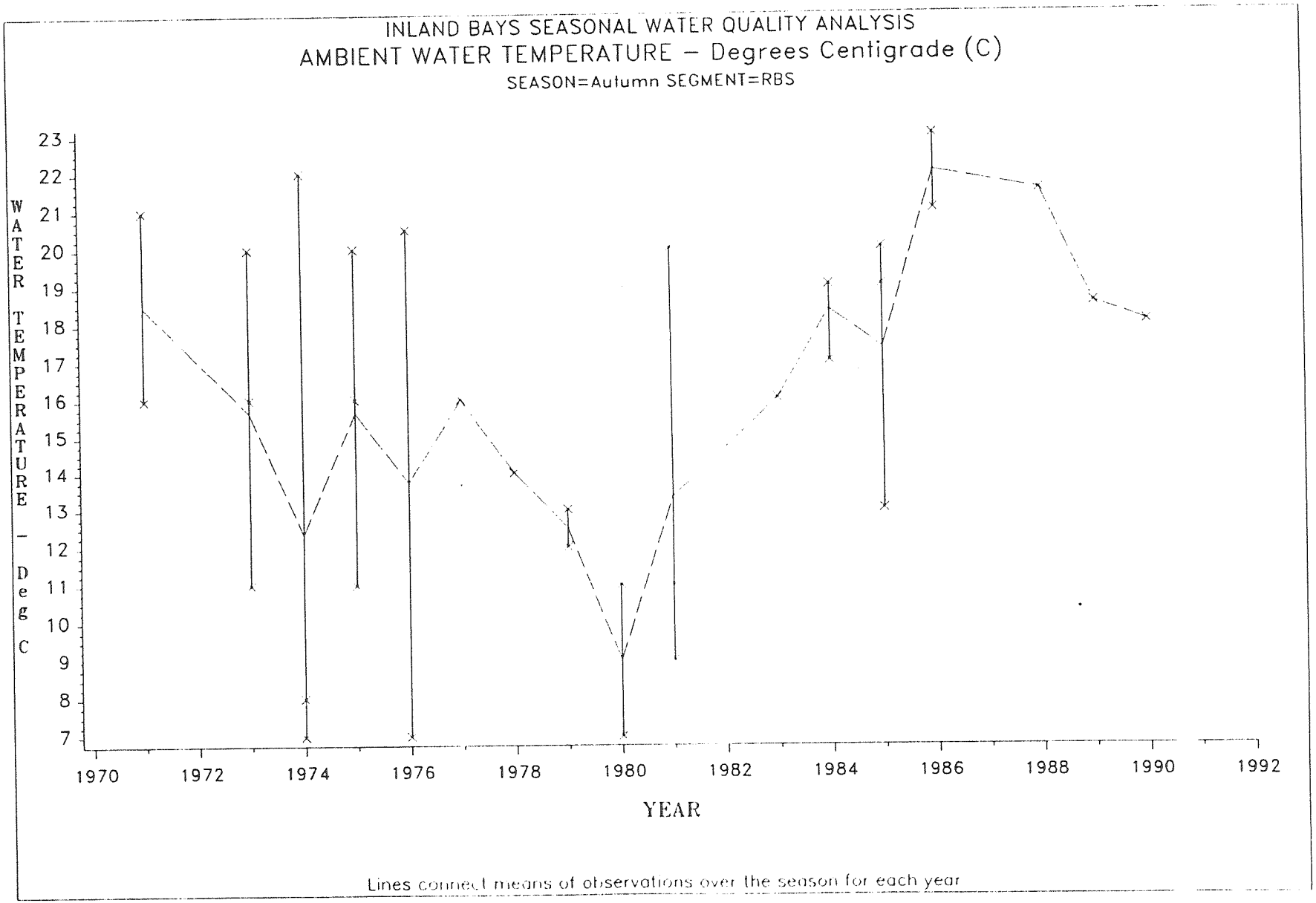
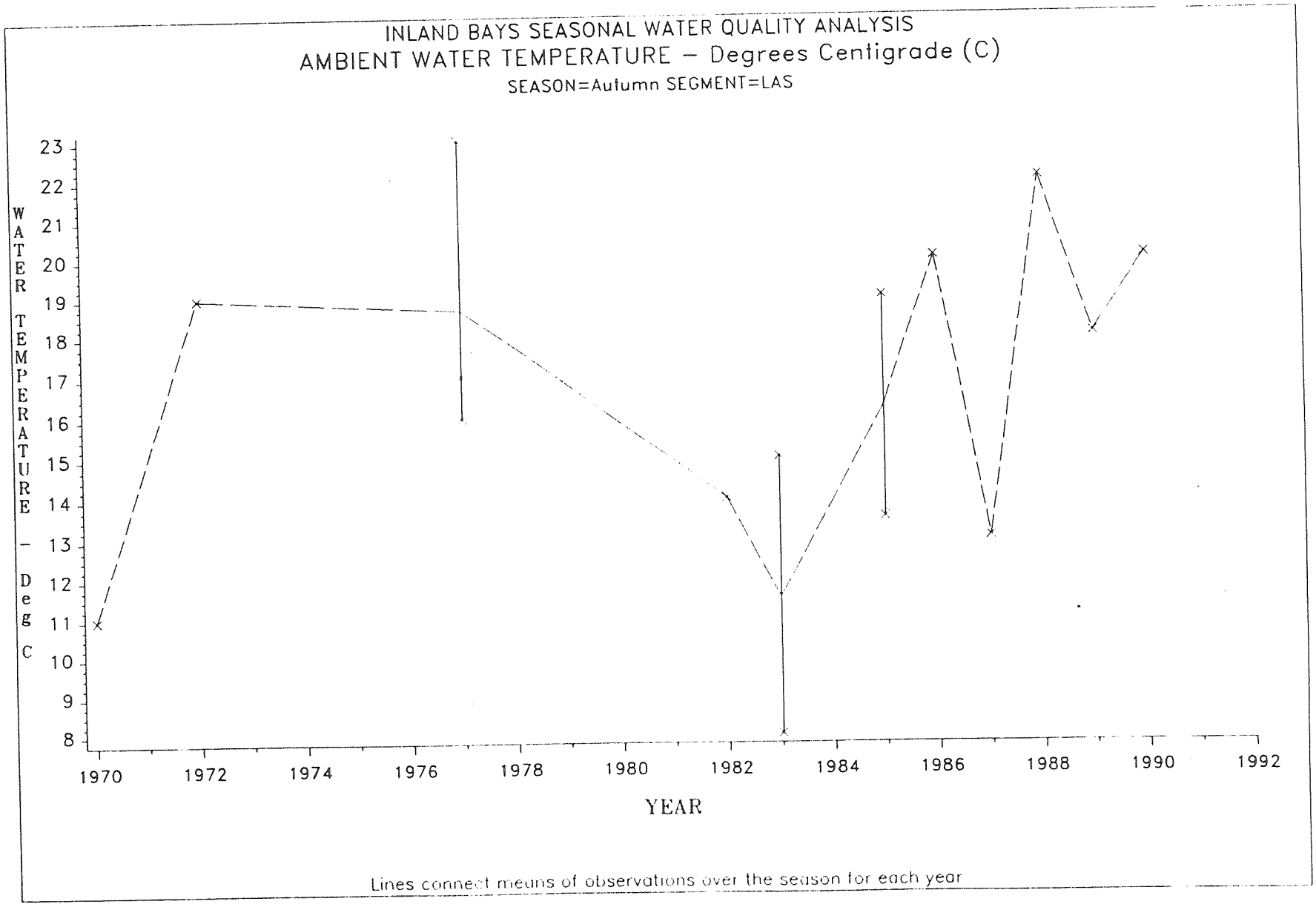
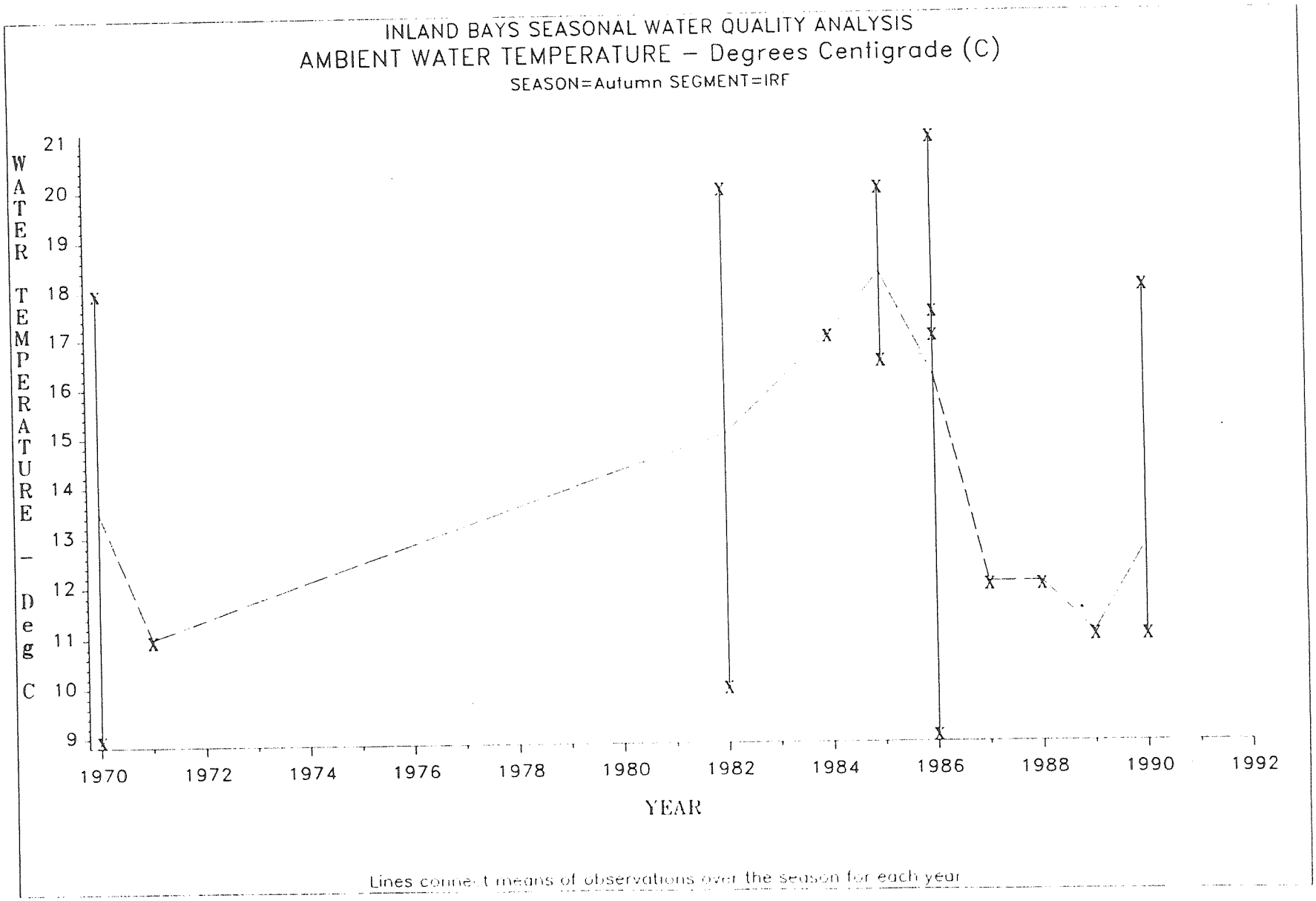
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year

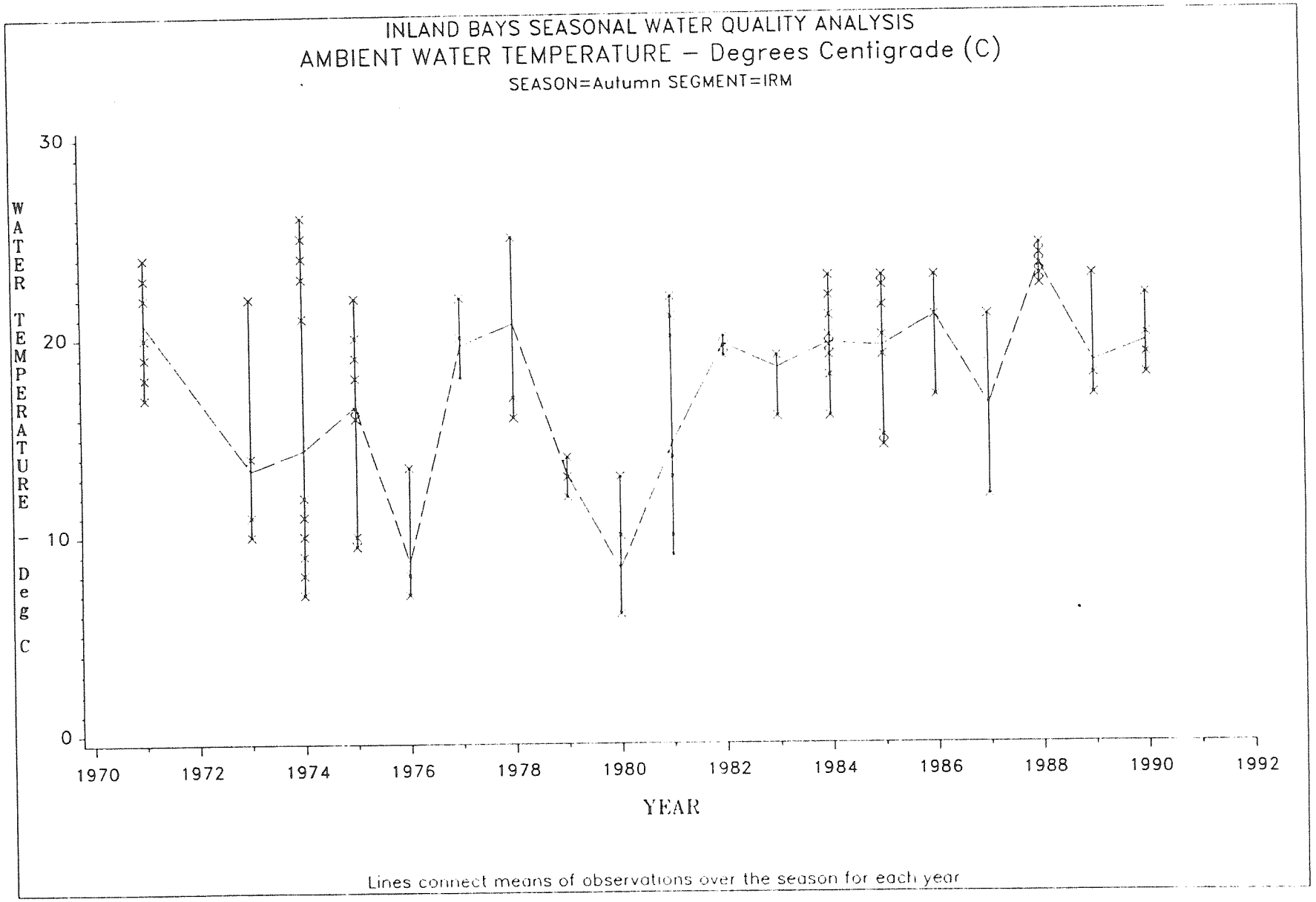

INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT WATER TEMPERATURE – Degrees Centigrade (C)
SEASON=Autumn SEGMENT=RBN
WATER TEMPERATURE – Deg C
24
23
22
21
20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year

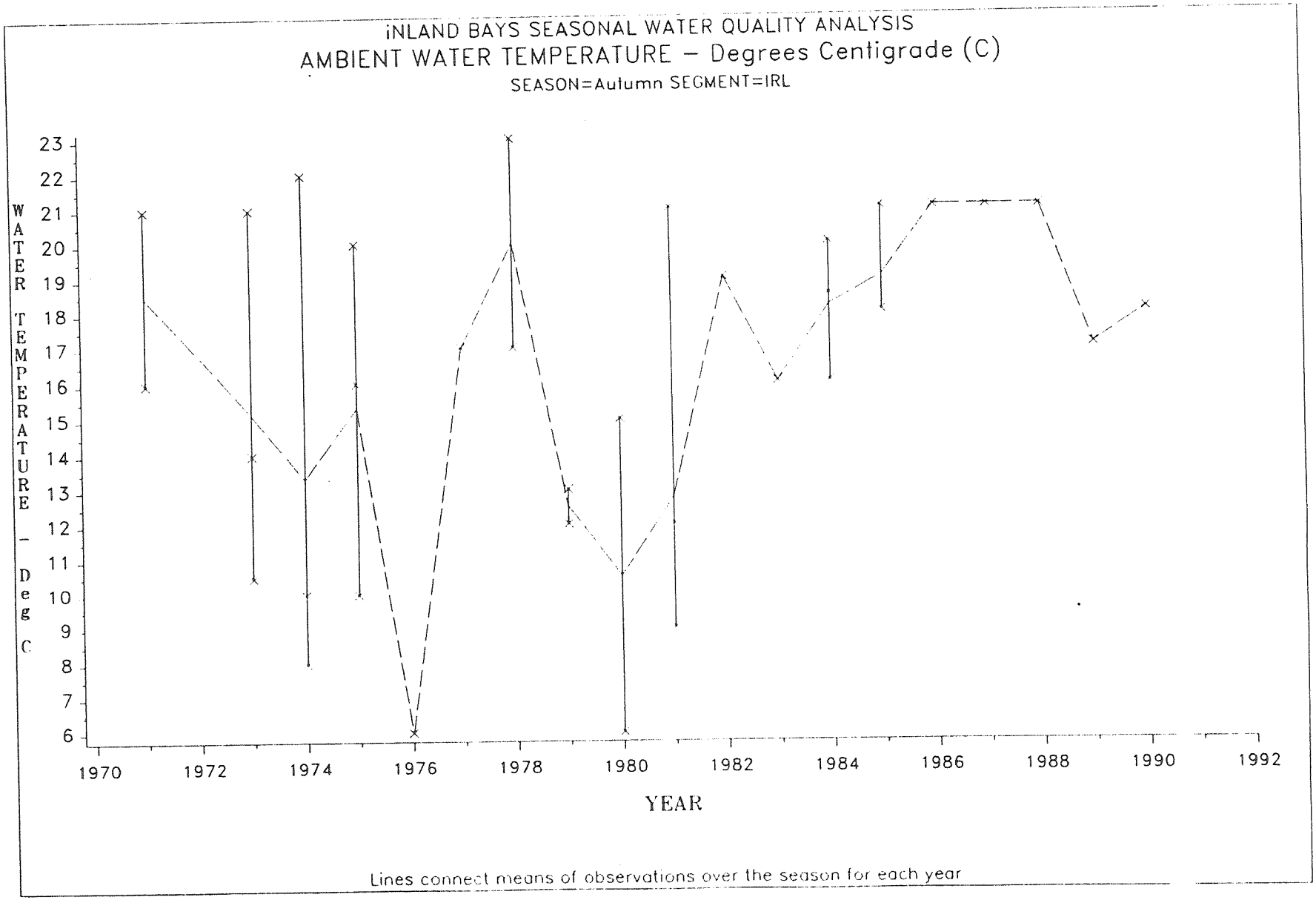

INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT WATER TEMPERATURE – Degrees Centigrade (C)
SEASON=Autumn SEGMENT=RBM
WATER TEMPERATURE – Deg C
30
20
10
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year

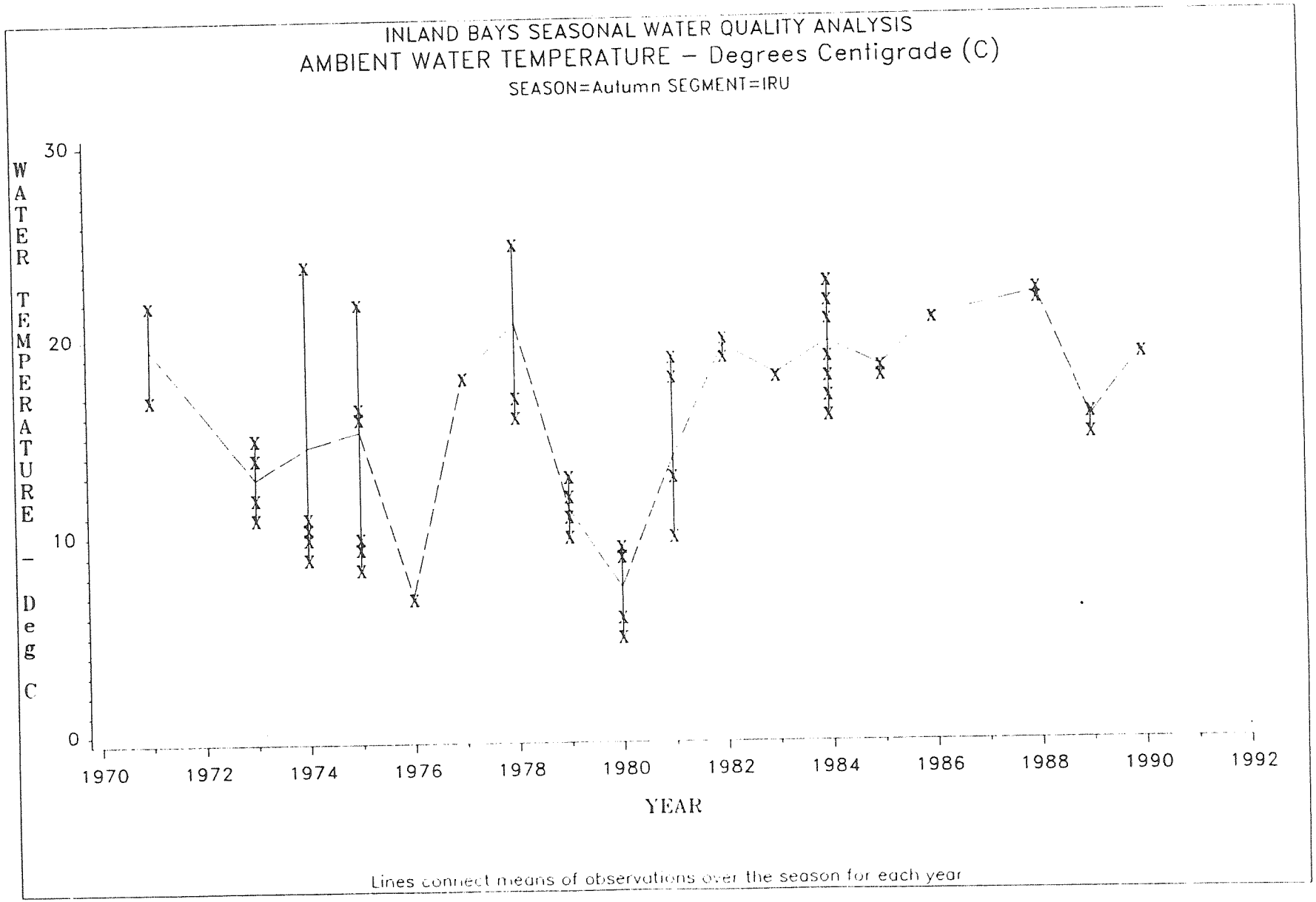

INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT WATER TEMPERATURE – Degrees Centigrade (C)
SEASON=Autumn SEGMENT=RBS
WATER TEMPERATURE – Deg C
23
22
21
20
19
18
17
16
15
14
13
12
11
10
9
8
7
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year


INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT WATER TEMPERATURE – Degrees Centigrade (C)
SEASON=Autumn SEGMENT=LAS
WATER TEMPERATURE – Deg C
23
22
21
20
19
18
17
16
15
14
13
12
11
10
9
8
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year


INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT WATER TEMPERATURE – Degrees Centigrade (C)
SEASON=Autumn SEGMENT=IRF
WATER TEMPERATURE – Deg C
21
20
19
18
17
16
15
14
13
12
11
10
9
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year

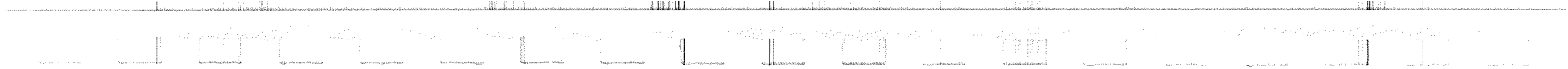

INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT WATER TEMPERATURE – Degrees Centigrade (C)
SEASON=Autumn SEGMENT=IRM
WATER TEMPERATURE – Deg C
30
20
10
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year

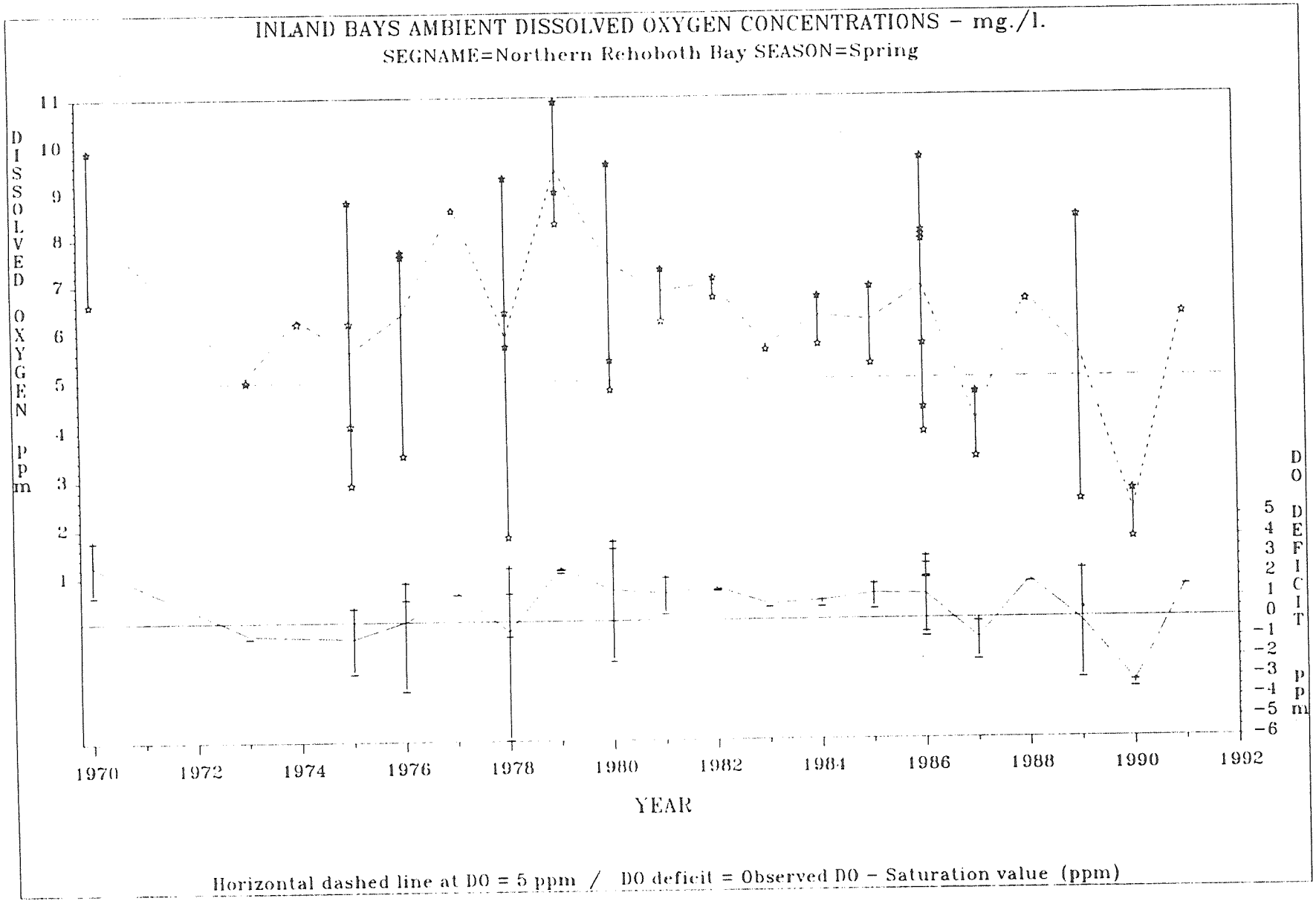

iNLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT WATER TEMPERATURE – Degrees Centigrade (C)
SEASON=Autumn SEGMENT=IRL
WATER TEMPERATURE – Deg C
23
22
21
20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year

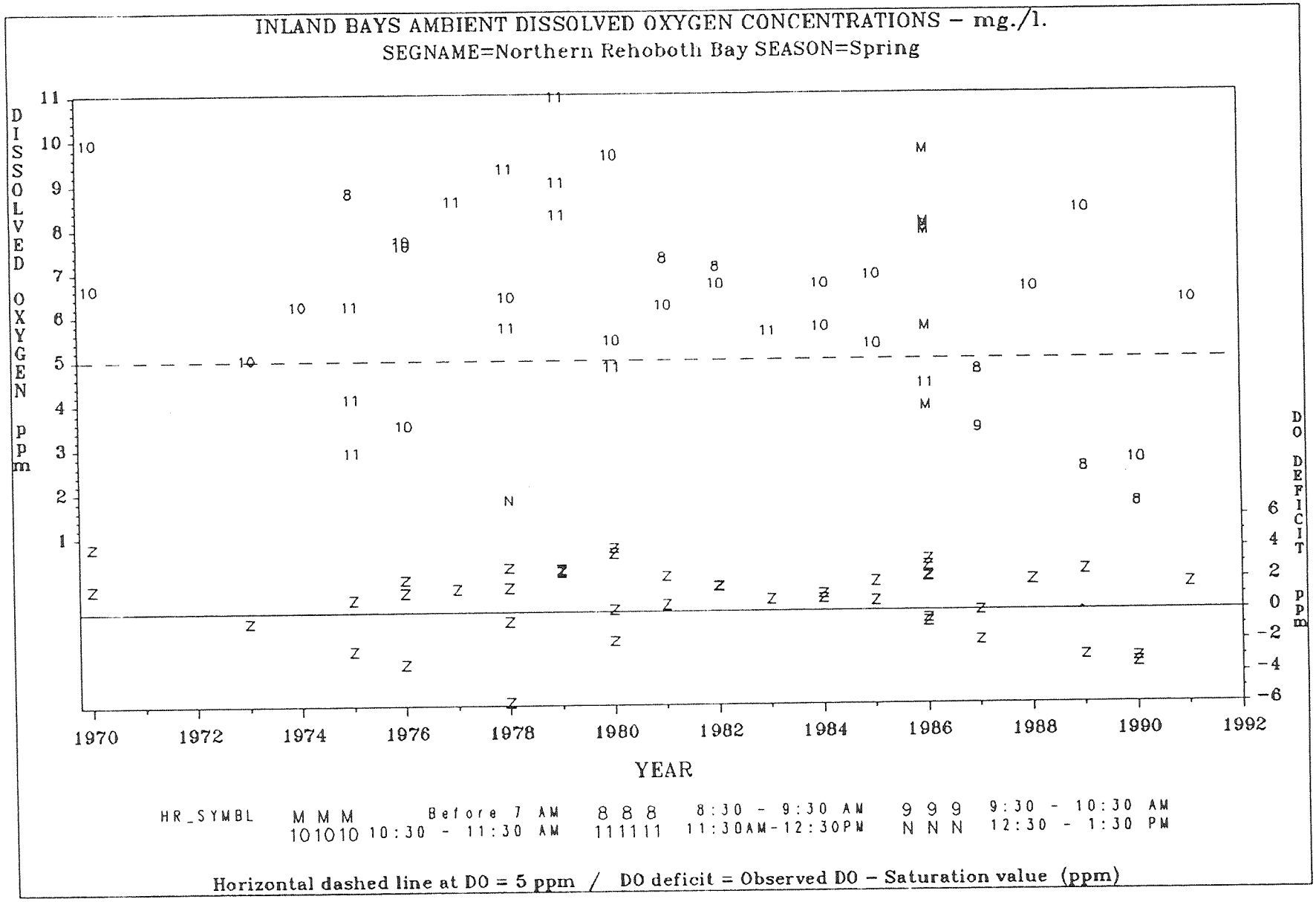

INLAND BAYS SEASONAL WATER QUALITY ANALYSIS
AMBIENT WATER TEMPERATURE – Degrees Centigrade (C)
SEASON=Autumn SEGMENT=IRU
WATER TEMPERATURE – Deg C
30
20
10
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Lines connect means of observations over the season for each year

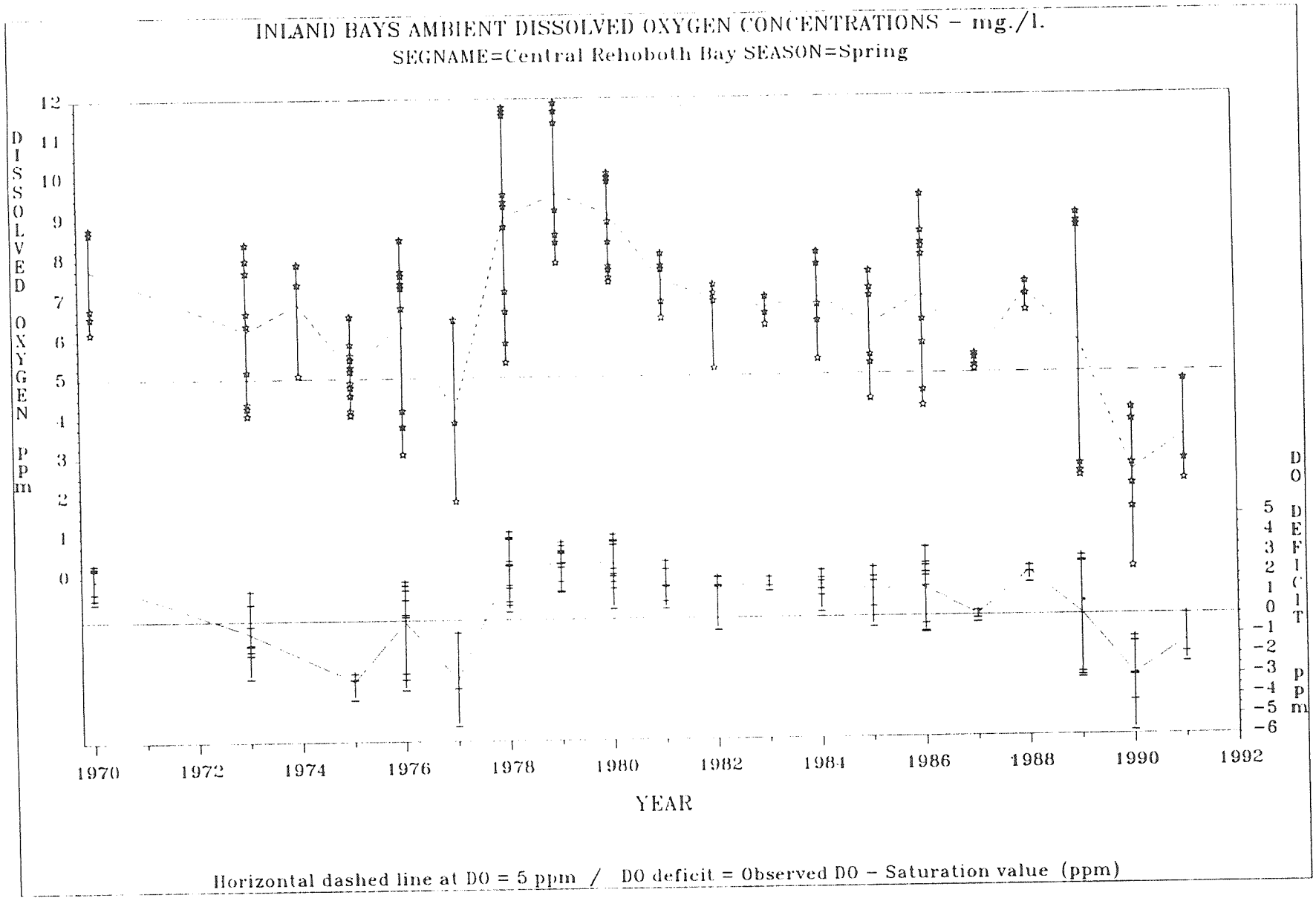
APPENDIX 2.5

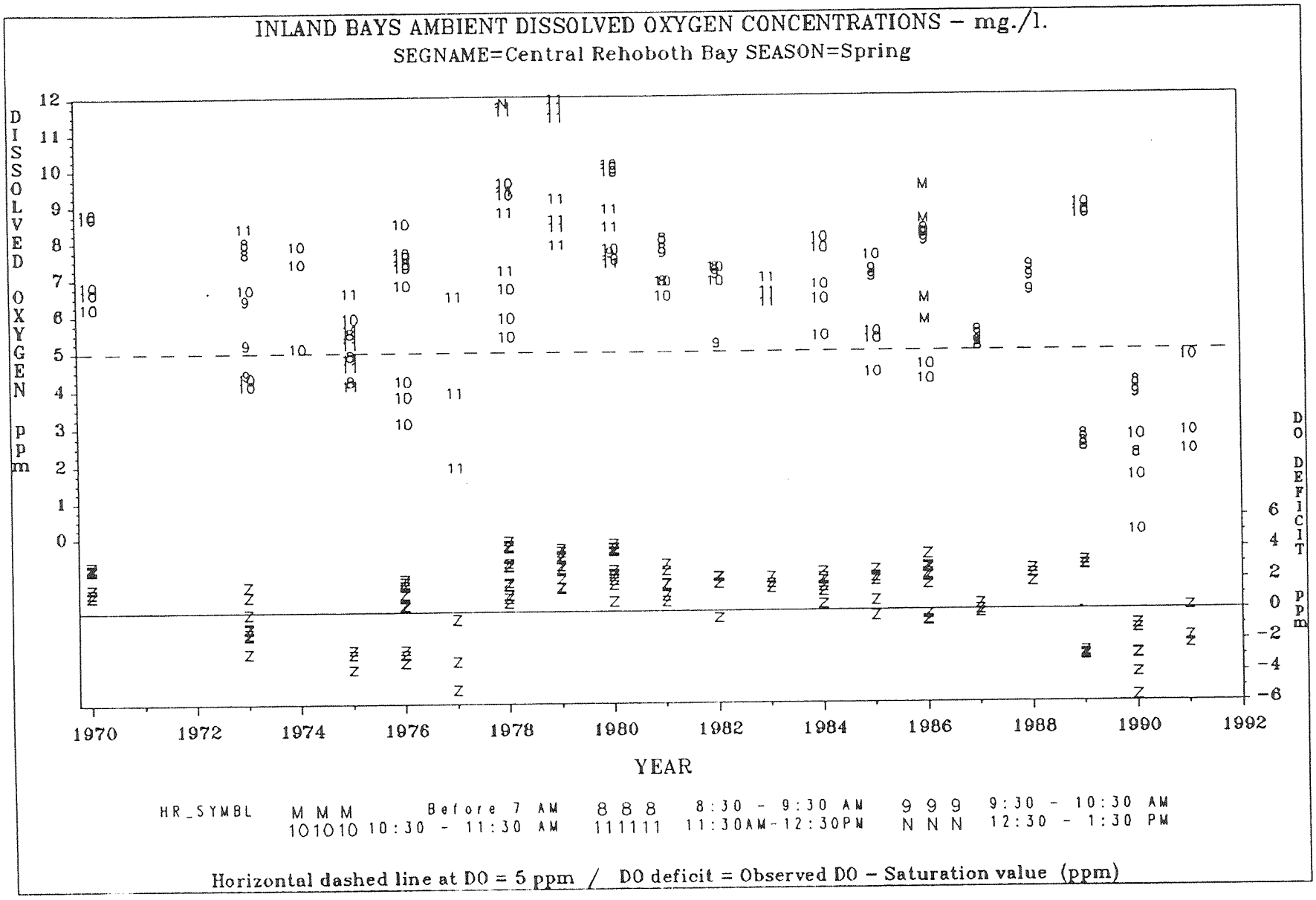
- Dual sets of seasonal dissolved oxygen plots for the tidal waters of the Inland Bays

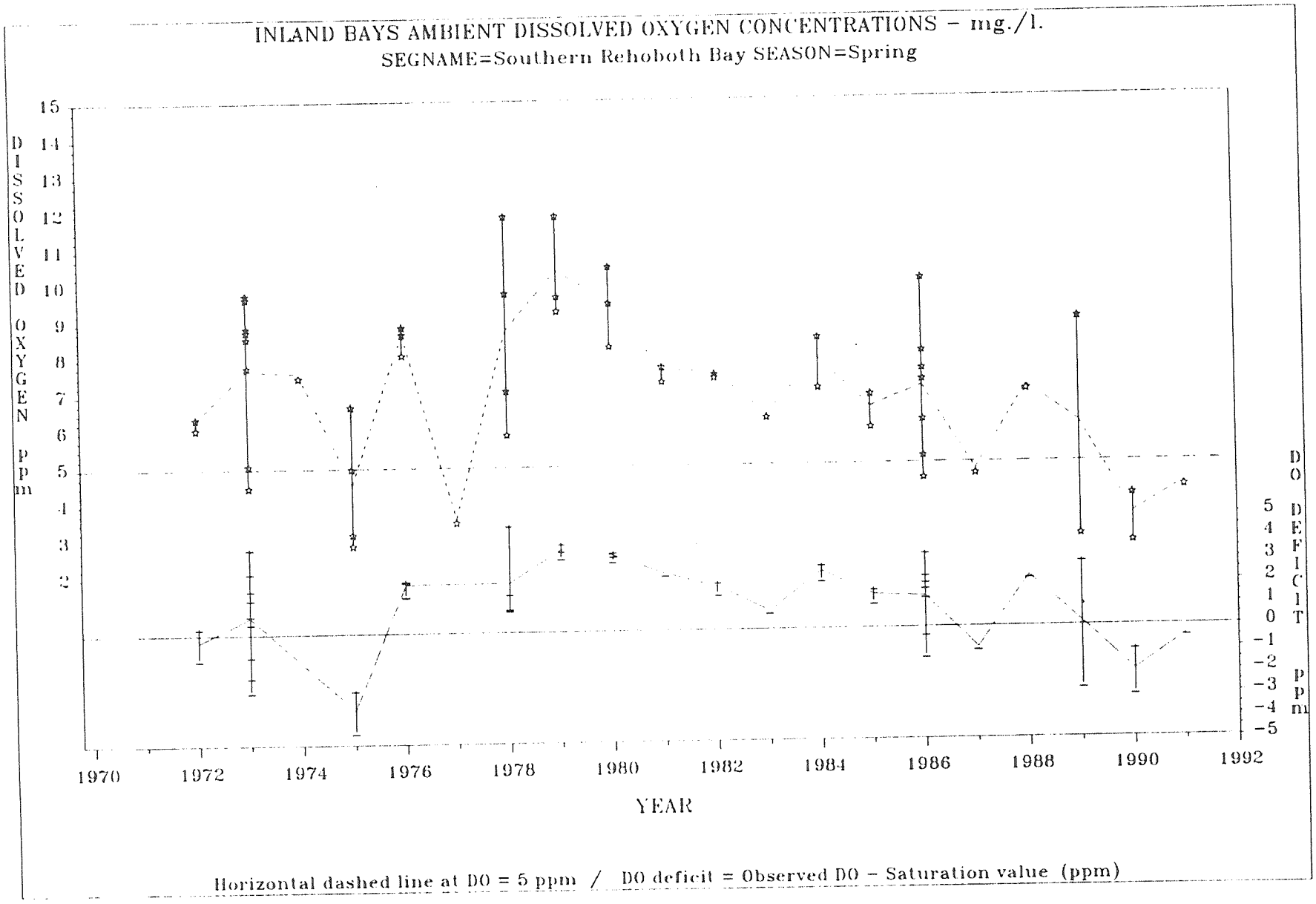


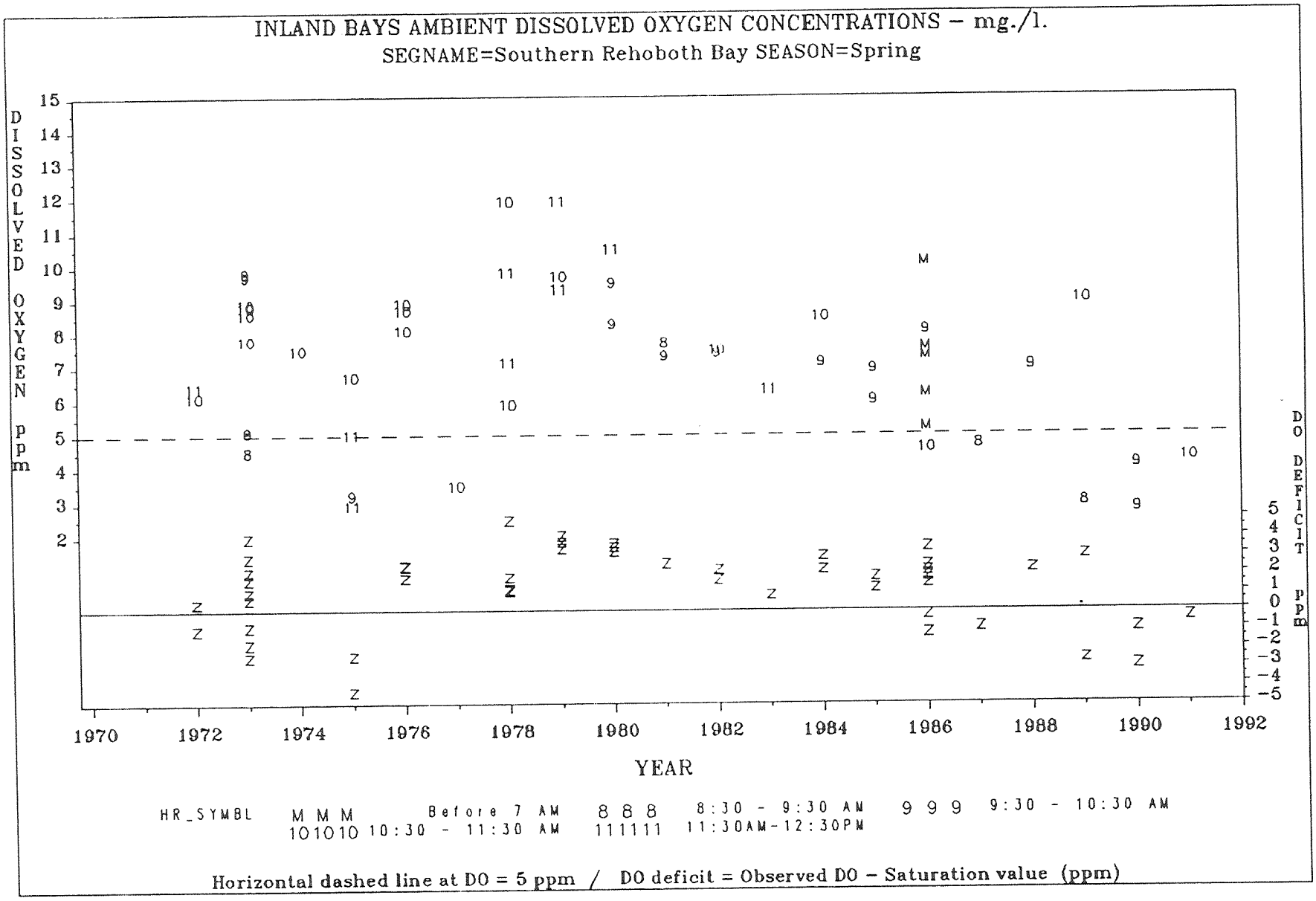

INLAND BAYS AMBIENT DISSOLVED OXYGEN CONCENTRATIONS - mg./l.
SEGNAME=Northern Rehoboth Bay SEASON=Spring
DISSOLVED OXYGEN Ppm
11
10
9
8
7
6
5
4
3
2
1
DO DEFICIT Ppm
5
4
3
2
1
0
-1
-2
-3
-4
-5
-6
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Horizontal dashed line at DO = 5 ppm / DO deficit = Observed DO - Saturation value (ppm)

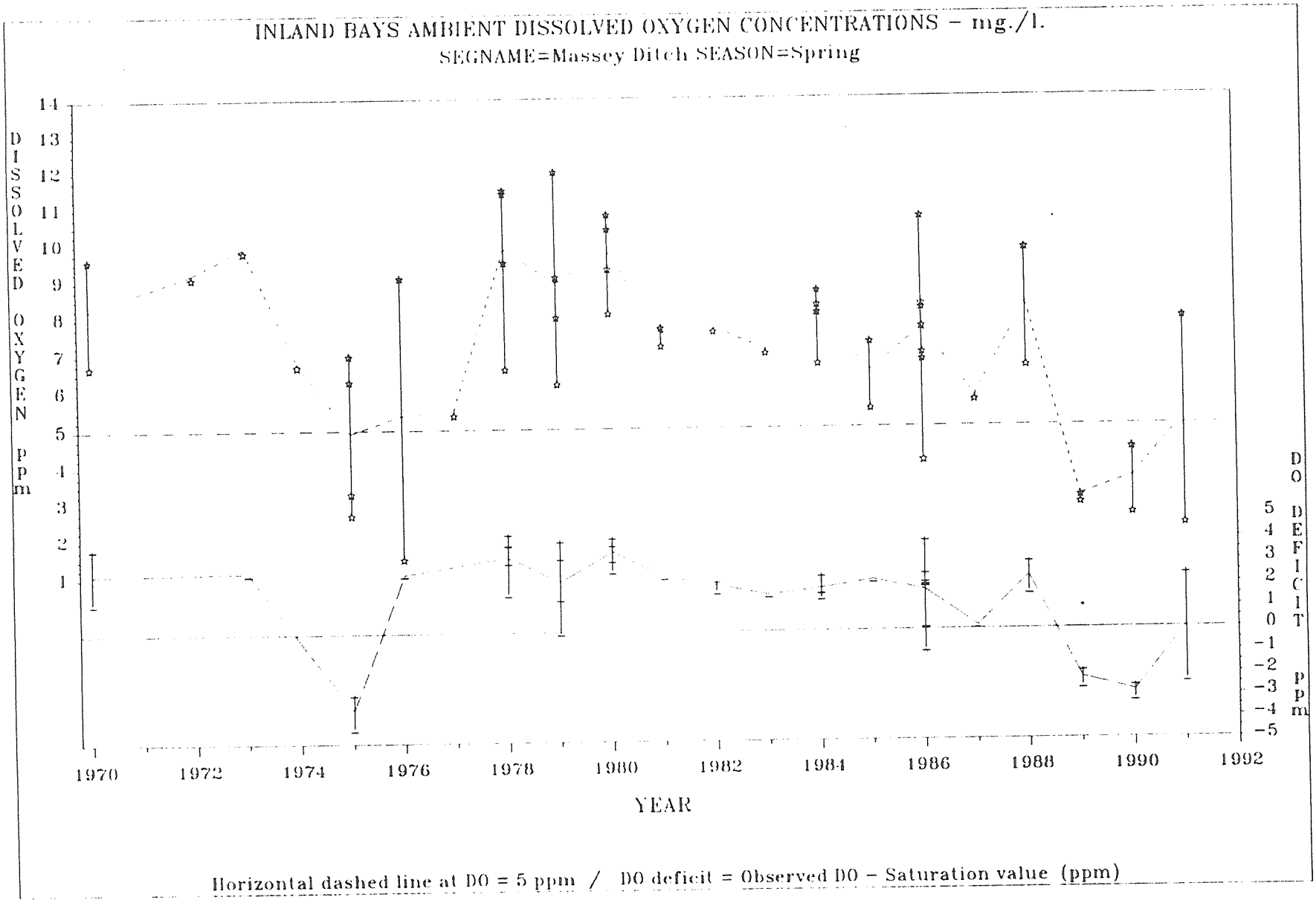

INLAND BAYS AMBIENT DISSOLVED OXYGEN CONCENTRATIONS – mg./l.
SEGNAME=Northern Rehoboth Bay SEASON=Spring
DISSOLVED OXYGEN ppm
DO DEFICIT PPM
YEAR
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
HR_SYMBL M M M Before 7 AM 8 8 8 8:30 - 9:30 AM 9 9 9 9:30 - 10:30 AM
1010 10 10:30 - 11:30 AM 111111 11:30AM-12:30PM N N N 12:30 - 1:30 PM
Horizontal dashed line at DO = 5 ppm / DO deficit = Observed DO – Saturation value (ppm)

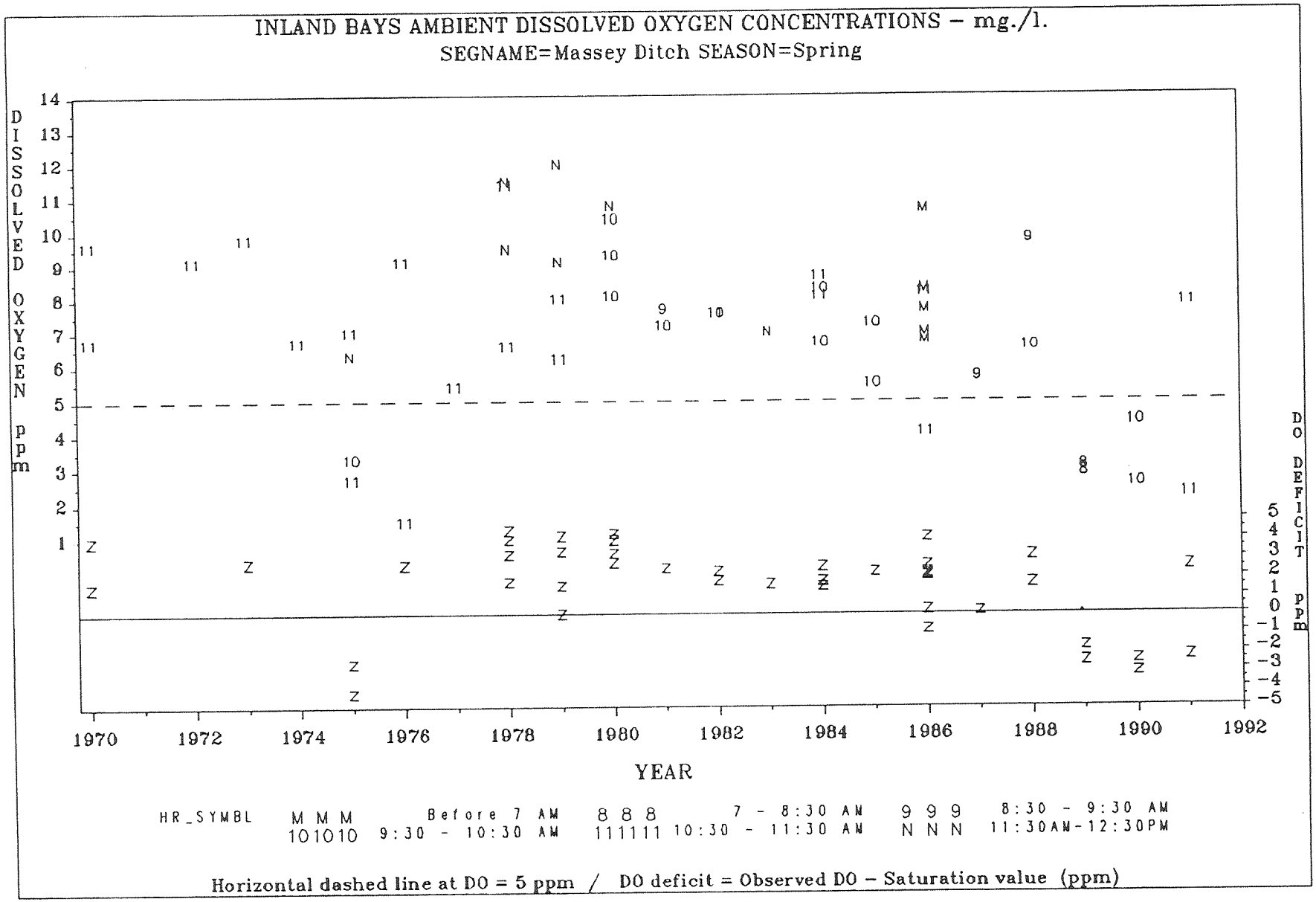

INLAND BAYS AMBIENT DISSOLVED OXYGEN CONCENTRATIONS – mg./l.
SEGNAME=Central Rehoboth Bay SEASON=Spring
DISSOLVED OXYGEN Ppm
DO DEFICIT Ppm
YEAR
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
Horizontal dashed line at DO = 5 ppm / DO deficit = Observed DO – Saturation value (ppm)

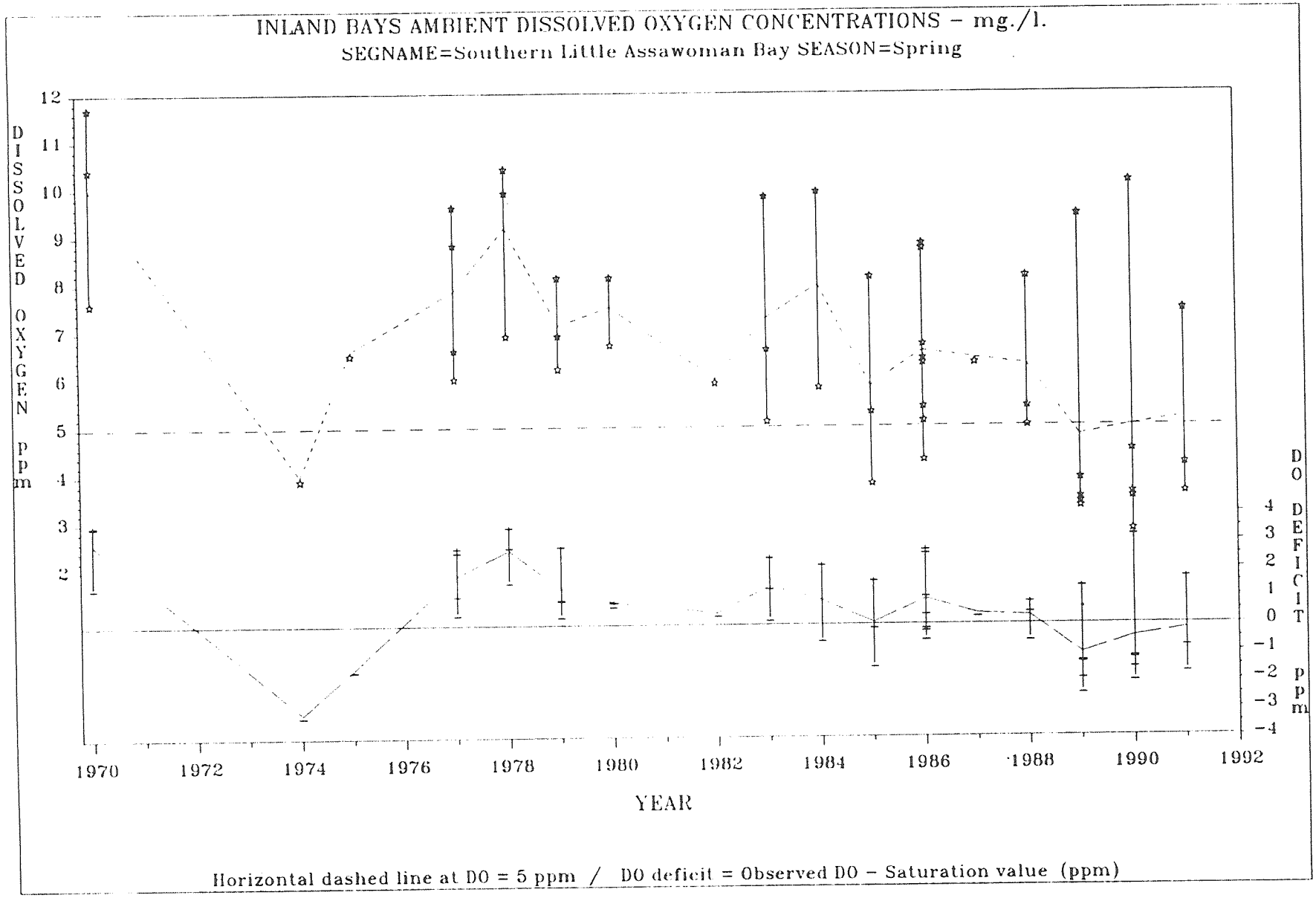

INLAND BAYS AMBIENT DISSOLVED OXYGEN CONCENTRATIONS – mg./l.
SEGNAME=Central Rehoboth Bay SEASON=Spring
DISSOLVED OXYGEN ppm
DO DEFICIT ppm
YEAR
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
HR_SYMBL
M M M Before 7 AM
101010 10:30 - 11:30 AM
8 8 8 8:30 - 9:30 AM
111111 11:30AM-12:30PM
9 9 9 9:30 - 10:30 AM
N N N 12:30 - 1:30 PM
Horizontal dashed line at DO = 5 ppm / DO deficit = Observed DO – Saturation value (ppm)

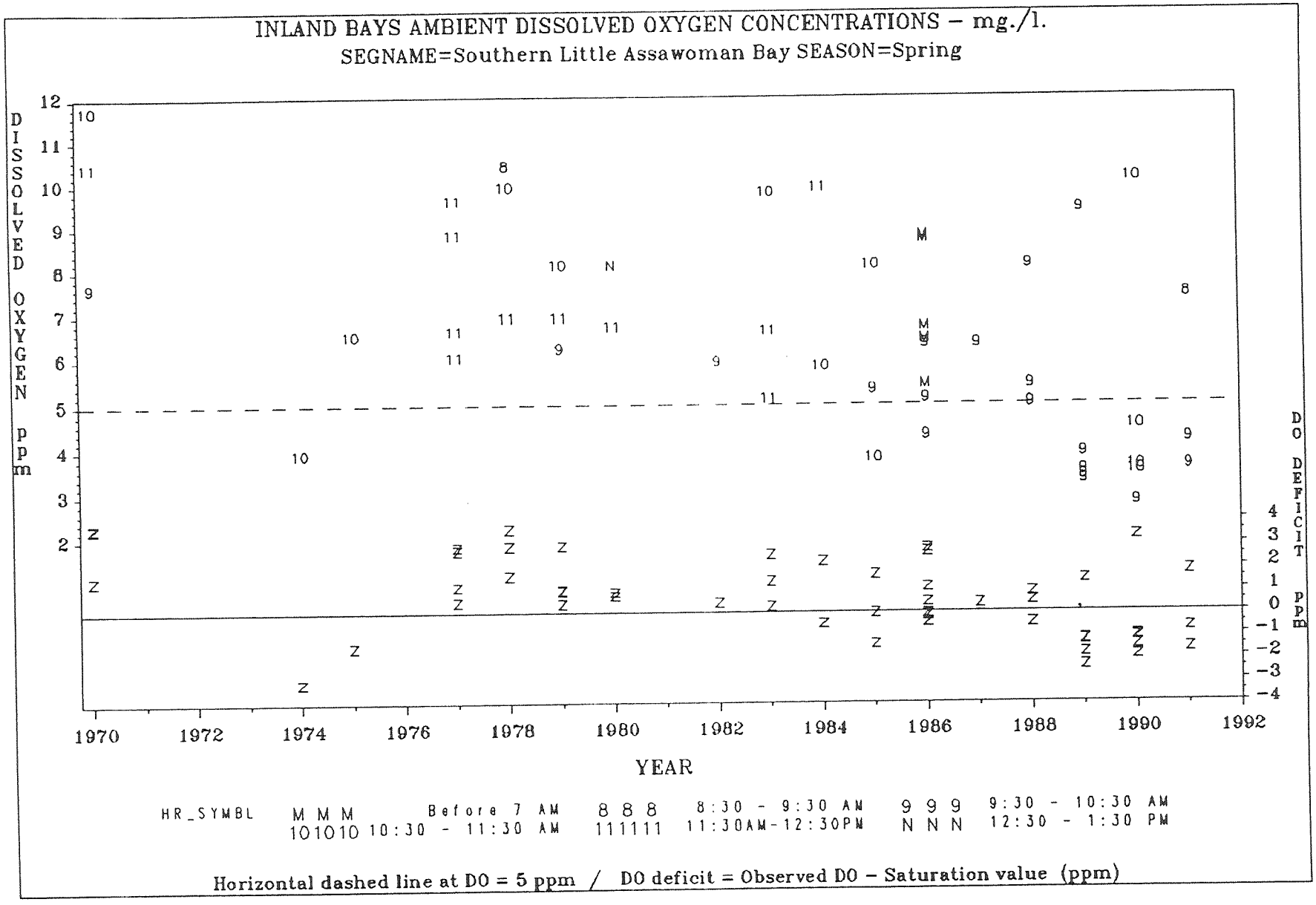

INLAND BAYS AMBIENT DISSOLVED OXYGEN CONCENTRATIONS – mg./l.
SEGNAME=Southern Rehoboth Bay SEASON=Spring
DISSOLVED OXYGEN ppm
DO DEFICIT ppm
15
14
13
12
11
10
9
8
7
6
5
4
3
2
5
4
3
2
1
0
-1
-2
-3
-4
-5
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
YEAR
Horizontal dashed line at DO = 5 ppm / DO deficit = Observed DO – Saturation value (ppm)

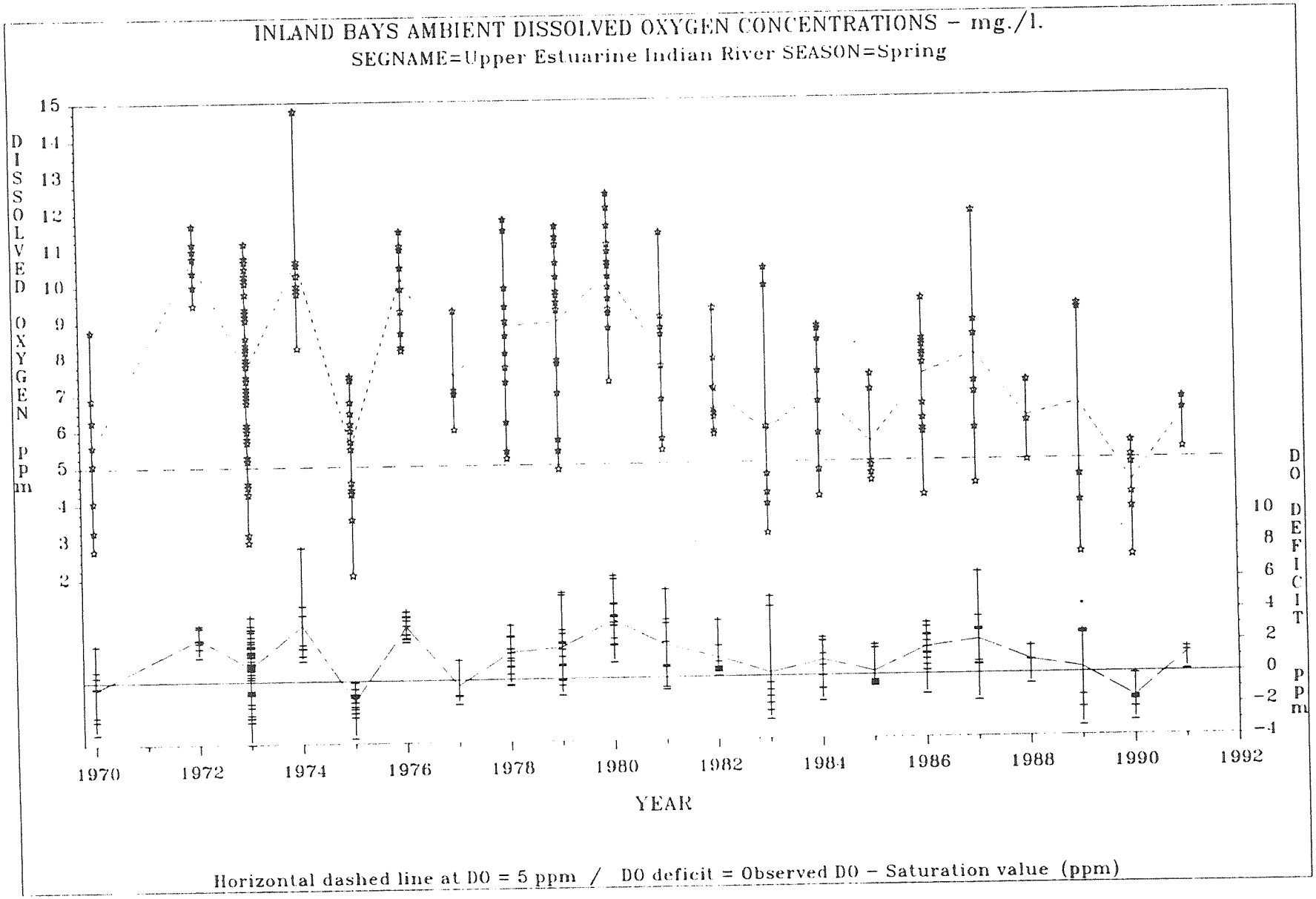

INLAND BAYS AMBIENT DISSOLVED OXYGEN CONCENTRATIONS – mg./l.
SEGNAME=Southern Rehoboth Bay SEASON=Spring
DISSOLVED OXYGEN ppm
DO DEFICIT ppm
YEAR
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
HR_SYMBL M M M Before 7 AM 8 8 8 8:30 - 9:30 AM 9 9 9 9:30 - 10:30 AM
10 10 10 10:30 - 11:30 AM 1 1 1 11:30AM-12:30PM
Horizontal dashed line at DO = 5 ppm / DO deficit = Observed DO – Saturation value (ppm)

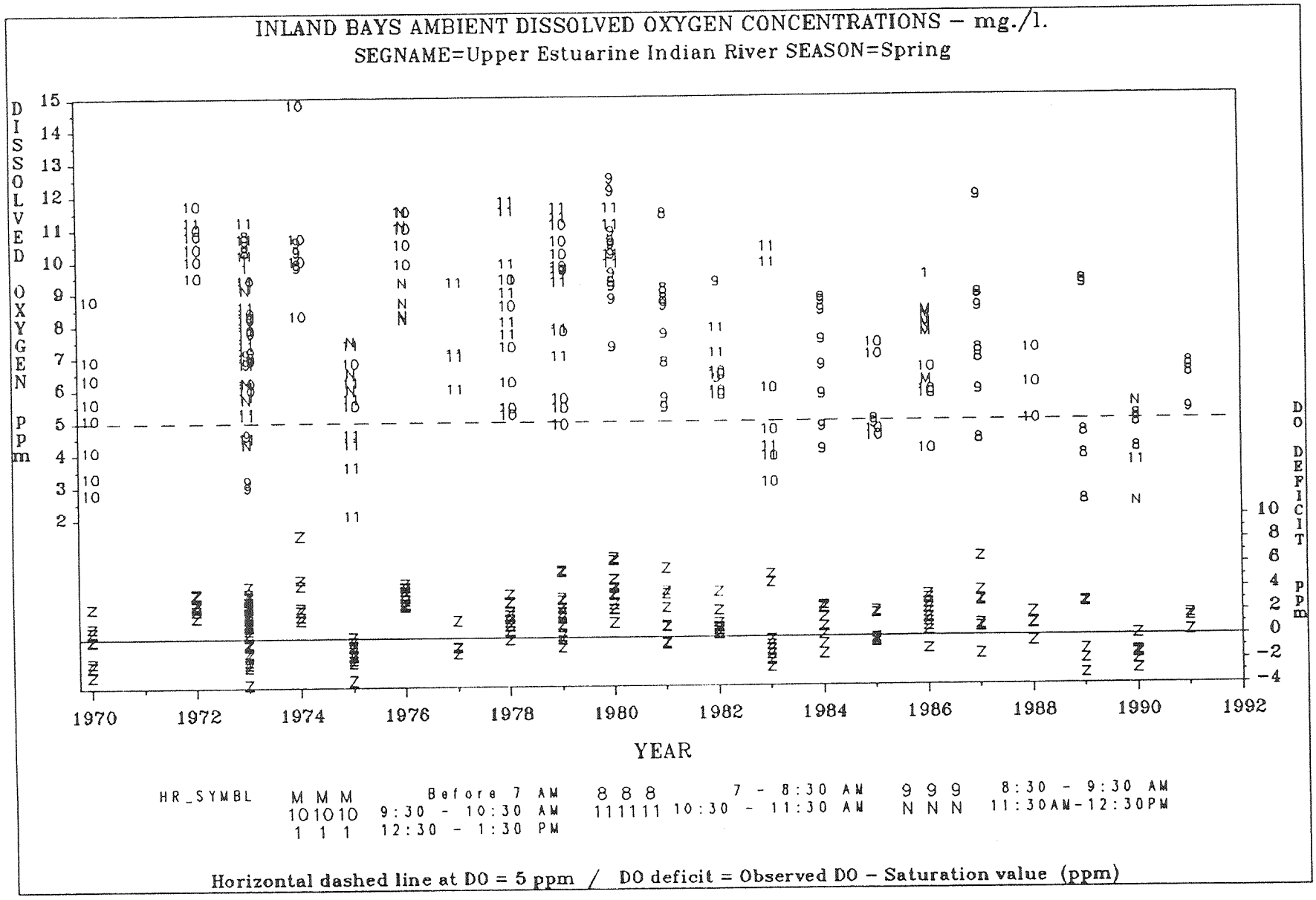

INLAND BAYS AMBIENT DISSOLVED OXYGEN CONCENTRATIONS – mg./l.
SEGNAME=Massey Ditch SEASON=Spring
DISSOLVED OXYGEN Ppm
DO DEFICIT Ppm
YEAR
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
Horizontal dashed line at DO = 5 ppm / DO deficit = Observed DO – Saturation value (ppm)

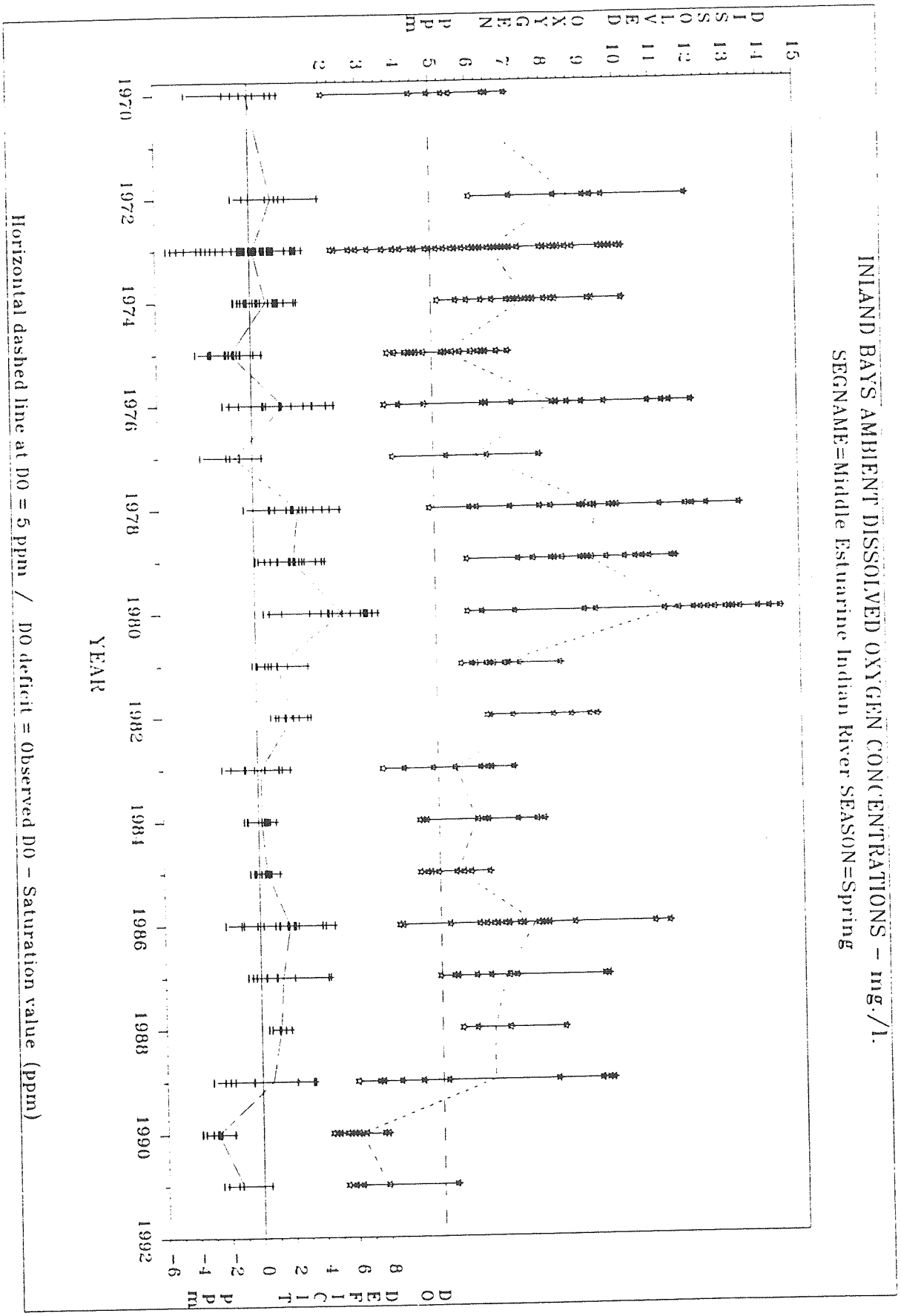

INLAND BAYS AMBIENT DISSOLVED OXYGEN CONCENTRATIONS – mg./l.
SEGNAME=Massey Ditch SEASON=Spring
DISSOLVED OXYGEN ppm
DO DEFICIT ppm
YEAR
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
HR_SYMBL M M M Before 7 AM 8 8 8 7 - 8:30 AM 9 9 9 8:30 - 9:30 AM
101010 9:30 - 10:30 AM 111111 10:30 - 11:30 AM N N N 11:30AM-12:30PM
Horizontal dashed line at DO = 5 ppm / DO deficit = Observed DO – Saturation value (ppm)


INLAND BAYS AMBIENT DISSOLVED OXYGEN CONCENTRATIONS – mg./l.
SEGNAME=Southern Little Assawoman Bay SEASON=Spring
DISSOLVED OXYGEN PPm
DO DEFICIT ppm
YEAR
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
Horizontal dashed line at DO = 5 ppm / DO deficit = Observed DO – Saturation value (ppm)


INLAND BAYS AMBIENT DISSOLVED OXYGEN CONCENTRATIONS – mg./l.
SEGNAME=Southern Little Assawoman Bay SEASON=Spring
DISSOLVED OXYGEN ppm
DO DEFICIT ppm
YEAR
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
HR_SYMBL M M M Before 7 AM 8 8 8 8:30 - 9:30 AM 9 9 9 9:30 - 10:30 AM
101010 10:30 - 11:30 AM 111111 11:30AM-12:30PM N N N 12:30 - 1:30 PM
Horizontal dashed line at DO = 5 ppm / DO deficit = Observed DO – Saturation value (ppm)

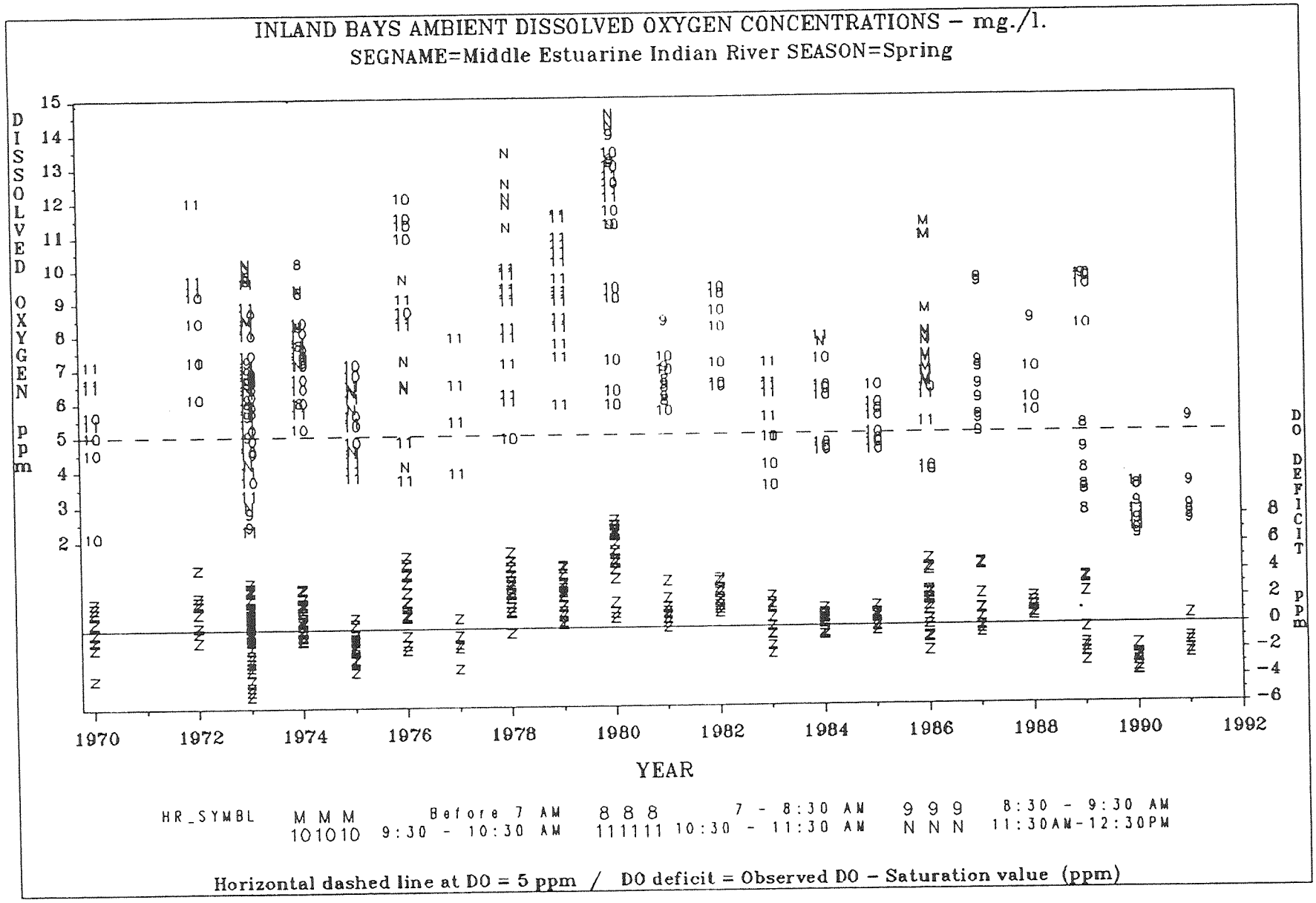

INLAND BAYS AMBIENT DISSOLVED OXYGEN CONCENTRATIONS – mg./l.
SEGNAME=Upper Estuarine Indian River SEASON=Spring
DISSOLVED OXYGEN ppm
DO DEFICIT ppm
YEAR
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
Horizontal dashed line at DO = 5 ppm / DO deficit = Observed DO – Saturation value (ppm)


INLAND BAYS AMBIENT DISSOLVED OXYGEN CONCENTRATIONS – mg./l.
SEGNAME=Upper Estuarine Indian River SEASON=Spring
DISSOLVED OXYGEN PPM
DO DEFICIT PPM
YEAR
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
HR_SYMBL
M M M
1 0 1 0 1 0
1 1 1
Before 7 AM
9:30 - 10:30 AM
12:30 - 1:30 PM
8 8 8
1 1 1 1 1 1
7 - 8:30 AM
10:30 - 11:30 AM
9 9 9
N N N
8:30 - 9:30 AM
11:30AM-12:30PM
Horizontal dashed line at DO = 5 ppm / DO deficit = Observed DO – Saturation value (ppm)



INLAND BAYS AMBIENT DISSOLVED OXYGEN CONCENTRATIONS - mg./l.
SEGNAME=Middle Estuarine Indian River SEASON=Spring

Horizontal dashed line at DO = 5 ppm / DO deficit = Observed DO - Saturation value (ppm)


INLAND BAYS AMBIENT DISSOLVED OXYGEN CONCENTRATIONS – mg./l.
SEGNAME=Middle Estuarine Indian River SEASON=Spring
DISSOLVED OXYGEN ppm
DO DEFICIT ppm
YEAR
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
HR_SYMBL
M M M 101010 9:30 - 10:30 AM
Before 7 AM
8 8 8 111111 10:30 - 11:30 AM
7 - 8:30 AM
9 9 9 N N N 11:30AM-12:30PM
8:30 - 9:30 AM
Horizontal dashed line at DO = 5 ppm / DO deficit = Observed DO – Saturation value (ppm)