Site: New Bedford
Break: 4.6
Other: 48865

SDMS DocID 48865

FINAL REPORT

for

MODELING OF THE TRANSPORT, DISTRIBUTION, AND FATE OF PCBS AND HEAVY METALS IN THE ACUSHNET RIVER/ NEW BEDFORD HARBOR/BUZZARDS BAY SYSTEM

APPENDIX VOLUME 1
Appendices A - D

Under Contract No. 4236-MOD-0019

to

EBASCO SERVICES, INC.
211 Congress Street
Boston, MA 02110

September 21, 1990

from

BATTELLE MEMORIAL INSTITUTE
Duxbury Operations
397 Washington Street
Duxbury, MA 02332

APPENDIX A

BOX-AVERAGED MODEL RESULTS FOR BED SEDIMENT AND WATER COLUMN REMEDIAL-ACTION CASES

APPENDIX A

BOX-AVERAGED MODEL RESULTS FOR BED SEDIMENT AND WATER COLUMN REMEDIAL-ACTION CASES

These tables present the box-averaged model. The polychlorinated biphenyl (PCB) concentrations are given for the no-action case and all of the remedial-action cases to show their extent of change or reduction in the bed sediments and the water column. The tables show the concentrations in each category for the different box definitions for each year. The location and extent of the boxes represented by the tables are shown in Figure A-1.

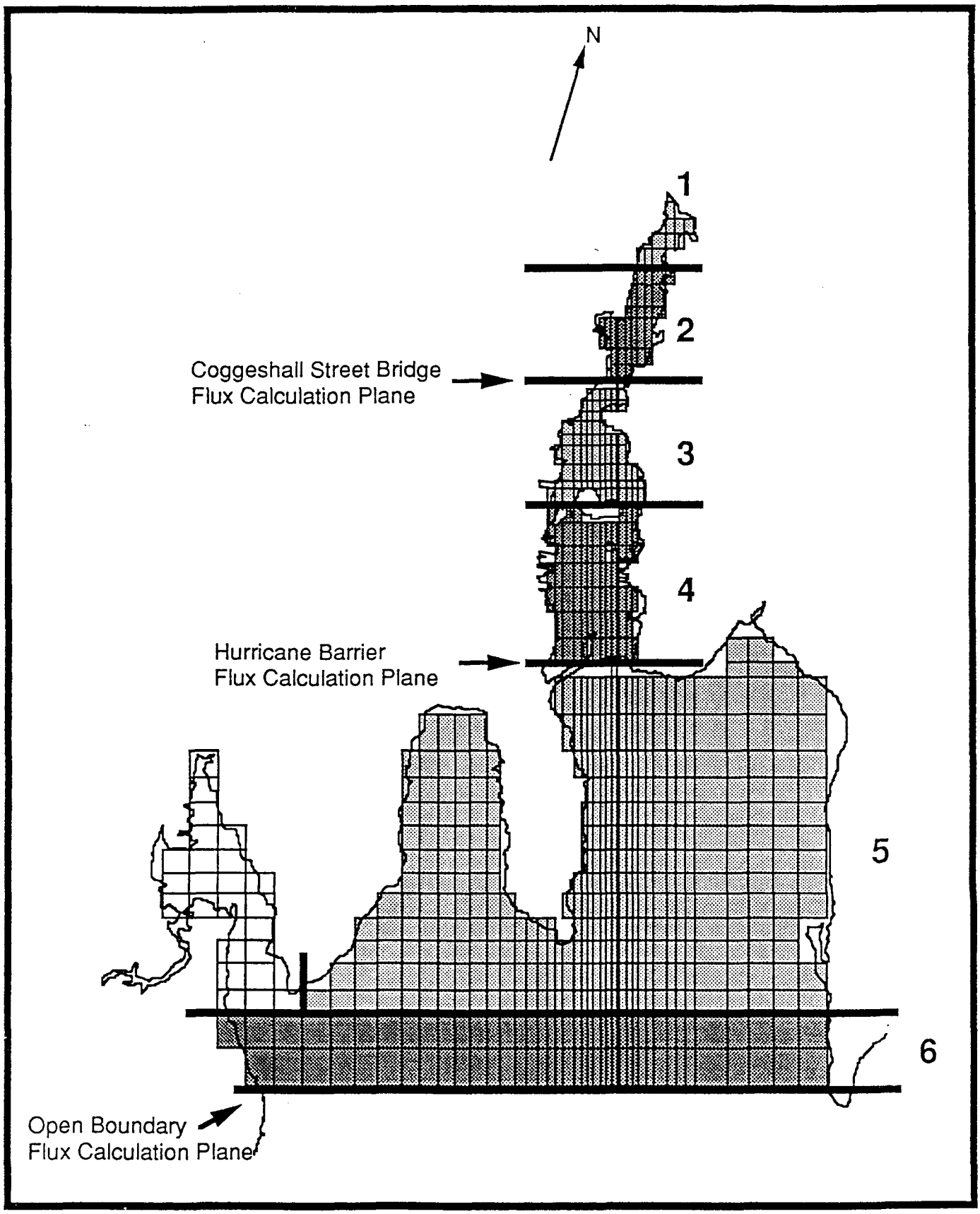
N
1
2
Coggeshall Street Bridge
Flux Calculation Plane
3
4
Hurricane Barrier
Flux Calculation Plane
5
6
Open Boundary
Flux Calculation Plane

TABLE A.1a. NO-ACTION CASE - BED SEDIMENT AVERAGES

Box	Contaminant Concentration (mg/kg)	Contaminant Mass (kg)	Sediment Mass (kg)
		Initial Conditions	
1	963.15	0.1187E+05	0.1233E+08
2	209.77	0.7844E+04	0.3739E+08
3	21.01	0.1203E+04	0.5727E+08
4	5.30	0.5749E+03	0.1084E+09
5	3.92	0.4150E+04	0.1059E+10
6	1.00	0.3423E+03	0.3433E+09
		Year 0.0	
1	955.33	0.1180E+05	0.1235E+08
2	203.75	0.7631E+04	0.3745E+08
3	20.38	0.1167E+04	0.5726E+08
4	5.21	0.5656E+03	0.1086E+09
5	3.68	0.3878E+04	0.1053E+10
6	0.95	0.3279E+03	0.3447E+09
		Year 2.0	
1	876.10	0.1098E+05	0.1253E+08
2	195.39	0.7420E+04	0.3797E+08
3	17.47	0.1016E+04	0.5816E+08
4	5.22	0.5776E+03	0.1105E+09
5	3.00	0.3118E+04	0.1038E+10
6	0.87	0.3109E+03	0.3567E+09
		Year 4.0	
1	805.26	0.1020E+05	0.1267E+08
2	186.33	0.7135E+04	0.3830E+08
3	15.77	0.9287E+03	0.5887E+08
4	5.64	0.6343E+03	0.1124E+09
5	2.26	0.2361E+04	0.1047E+10
6	0.83	0.3068E+03	0.3686E+09
		Year 6.0	
1	733.58	0.9397E+04	0.1281E+08
2	175.87	0.6793E+04	0.3863E+08
3	14.60	0.8697E+03	0.5955E+08
4	5.73	0.6555E+03	0.1144E+09
5	1.83	0.1941E+04	0.1059E+10
6	0.78	0.2959E+03	0.3804E+09

TABLE A.1a. (CONTINUED)

Box	Contaminant Concentration (mg/kg)	Contaminant Mass (kg)	Sediment Mass (kg)
		Year 8.0	
1	662.38	0.8566E+04	0.1293E+08
2	170.01	0.6623E+04	0.3895E+08
3	14.00	0.8428E+03	0.6020E+08
4	5.75	0.6690E+03	0.1164E+09
5	1.62	0.1743E+04	0.1074E+10
6	0.74	0.2898E+03	0.3924E+09
		Year 10.0	
1	594.15	0.7759E+04	0.1306E+08
2	165.71	0.6508E+04	0.3927E+08
3	11.69	0.7137E+03	0.6108E+08
4	5.58	0.6597E+03	0.1183E+09
5	1.28	0.1394E+04	0.1089E+10
6	0.67	0.2723E+03	0.4043E+09

TABLE A.1b. NO-ACTION CASE - WATER COLUMN AVERAGES

Box	Sediment Concen-tration (mg/L)	Sorbed Concen-tration (ng/L)	Dissolved Concen-tration (ng/L)	Sediment Mass (kg)	Sorbed Mass (kg)	Dissolved Mass (kg)
			Year 0.0			
1	2.23	682.50	2577.00	0.7205E+03	0.2204E+00	0.8323E+00
2	3.35	409.10	1238.00	0.3721E+04	0.4543E+00	0.1376E+01
3	4.87	114.50	174.30	0.1686E+05	0.3961E+00	0.6030E+00
4	5.27	60.90	73.39	0.6360E+05	0.7354E+00	0.8861E+00
5	5.91	17.22	21.92	0.6313E+06	0.1839E+01	0.2340E+01
6	6.22	9.25	10.41	0.3058E+06	0.4548E+00	0.5119E+00
			Year 2.0			
1	1.69	450.40	2322.00	0.5445E+03	0.1455E+00	0.7499E+00
2	2.47	260.70	1029.00	0.2744E+04	0.2895E+00	0.1143E+01
3	3.58	68.74	154.40	0.1240E+05	0.2379E+00	0.5342E+00
4	4.11	37.60	62.29	0.4963E+05	0.4540E+00	0.7521E+00
5	5.28	11.08	17.40	0.5635E+06	0.1183E+01	0.1858E+01
6	5.78	5.57	8.30	0.2844E+06	0.2738E+00	0.4082E+00
			Year 4.0			
1	1.66	395.40	2102.00	0.5376E+03	0.1277E+00	0.6789E+00
2	2.44	233.60	911.50	0.2708E+04	0.2594E+00	0.1012E+01
3	3.53	63.21	146.70	0.1221E+05	0.2187E+00	0.5078E+00
4	4.05	33.03	56.37	0.4886E+05	0.3988E+00	0.6807E+00
5	5.21	8.12	13.39	0.5561E+06	0.8670E+00	0.1430E+01
6	5.73	4.47	6.71	0.2817E+06	0.2200E+00	0.3299E+00
			Year 6.0			
1	1.62	340.10	1887.00	0.5232E+03	0.1099E+00	0.6095E+00
2	2.35	199.70	803.60	0.2615E+04	0.2218E+00	0.8925E+00
3	3.48	56.47	139.20	0.1203E+05	0.1954E+00	0.4815E+00
4	4.01	29.81	51.90	0.4843E+05	0.3599E+00	0.6266E+00
5	5.19	6.68	10.90	0.5538E+06	0.7130E+00	0.1164E+01
6	5.72	3.92	5.73	0.2812E+06	0.1929E+00	0.2817E+00
			Year 8.0			
1	1.61	305.40	1694.00	0.5191E+03	0.9864E-01	0.5472E+00
2	2.33	186.10	756.50	0.2589E+04	0.2067E+00	0.8402E+00
3	3.43	53.73	135.60	0.1187E+05	0.1859E+00	0.4693E+00
4	3.95	27.90	49.91	0.4770E+05	0.3368E+00	0.6027E+00
5	5.18	6.10	9.82	0.5532E+06	0.6509E+00	0.1048E+01
6	5.72	3.65	5.09	0.2811E+06	0.1795E+00	0.2504E+00

TABLE A.1b. (CONTINUED)

Box	Sediment Concen-tration (mg/L)	Sorbed Concen-tration (ng/L)	Dissolved Concen-tration (ng/L)	Sediment Mass (kg)	Sorbed Mass (kg)	Dissolved Mass (kg)
			Year 10.0			
1	1.60	276.10	1511.00	0.5178E+03	0.8917E-01	0.4879E+00
2	2.33	179.10	730.60	0.2583E+04	0.1989E+00	0.8114E+00
3	3.42	53.61	135.70	0.1185E+05	0.1855E+00	0.4696E+00
4	3.94	28.73	50.75	0.4760E+05	0.3469E+00	0.6128E+00
5	5.17	5.81	9.21	0.5522E+06	0.6200E+00	0.9835E+00
6	5.71	3.50	4.76	0.2809E+06	0.1720E+00	0.2342E+00

TABLE A.2a. 10-ppm ESTUARY CASE - BED SEDIMENT AVERAGES

Box	Contaminant Concentration (mg/kg)	Contaminant Mass (kg)	Sediment Mass (kg)
		Initial Conditions	
1	9.96	0.1228E+03	0.1233E+08
2	9.89	0.3698E+03	0.3739E+08
3	21.01	0.1203E+04	0.5727E+08
4	5.30	0.5749E+03	0.1084E+09
5	3.92	0.4150E+04	0.1059E+10
6	1.00	0.3423E+03	0.3433E+09
		Year 0.0	
1	9.98	0.1232E+03	0.1235E+08
2	9.90	0.3708E+03	0.3745E+08
3	20.04	0.1148E+04	0.5726E+08
4	5.16	0.5600E+03	0.1086E+09
5	3.68	0.3876E+04	0.1053E+10
6	0.95	0.3278E+03	0.3447E+09
		Year 2.0	
1	9.91	0.1242E+03	0.1253E+08
2	10.67	0.4052E+03	0.3797E+08
3	15.40	0.8957E+03	0.5816E+08
4	4.70	0.5191E+03	0.1105E+09
5	2.99	0.3101E+04	0.1038E+10
6	0.87	0.3094E+03	0.3567E+09
		Year 4.0	
1	9.65	0.1223E+03	0.1267E+08
2	10.70	0.4096E+03	0.3830E+08
3	11.94	0.7032E+03	0.5887E+08
4	4.48	0.5032E+03	0.1124E+09
5	2.22	0.2325E+04	0.1047E+10
6	0.82	0.3040E+03	0.3686E+09
		Year 6.0	
1	9.33	0.1195E+03	0.1281E+08
2	10.38	0.4011E+03	0.3863E+08
3	9.61	0.5724E+03	0.5955E+08
4	4.02	0.4595E+03	0.1144E+09
5	1.79	0.1892E+04	0.1059E+10
6	0.77	0.2915E+03	0.3804E+09

TABLE A.2a. (CONTINUED)

Box	Contaminant Concentration (mg/kg)	Contaminant Mass (kg)	Sediment Mass (kg)
		Year 8.0	
1	8.94	0.1156E+03	0.1293E+08
2	9.98	0.3886E+03	0.3894E+08
3	8.25	0.4964E+03	0.6017E+08
4	3.61	0.4194E+03	0.1163E+09
5	1.58	0.1697E+04	0.1073E+10
6	0.73	0.2870E+03	0.3919E+09
		Year 10.0	
1	8.69	0.1135E+03	0.1306E+08
2	9.85	0.3868E+03	0.3927E+08
3	6.42	0.3922E+03	0.6108E+08
4	3.35	0.3959E+03	0.1183E+09
5	1.30	0.1420E+04	0.1089E+10
6	0.68	0.2753E+03	0.4043E+09

TABLE A.2b. 10-ppm ESTUARY CASE - WATER COLUMN AVERAGES

Box	Sediment Concen-tration (mg/L)	Sorbed Concen-tration (ng/L)	Dissolved Concen-tration (ng/L)	Sediment Mass (kg)	Sorbed Mass (kg)	Dissolved Mass (kg)
			Year 0.0			
1	2.23	16.99	32.25	0.7205E+03	0.5487E-02	0.1042E-01
2	3.35	38.78	59.22	0.3721E+04	0.4307E-01	0.6577E-01
3	4.87	67.41	115.00	0.1686E+05	0.2333E+00	0.3980E+00
4	5.27	55.69	73.00	0.6360E+05	0.6724E+00	0.8814E+00
5	5.91	18.22	23.97	0.6313E+06	0.1945E+01	0.2559E+01
6	6.22	9.70	11.24	0.3058E+06	0.4770E+00	0.5526E+00
			Year 2.0			
1	1.69	10.45	29.81	0.5445E+03	0.3374E-02	0.9628E-02
2	2.47	20.49	49.65	0.2744E+04	0.2276E-01	0.5515E-01
3	3.58	29.52	73.35	0.1240E+05	0.1022E+00	0.2538E+00
4	4.11	27.31	48.95	0.4963E+05	0.3298E+00	0.5911E+00
5	5.28	10.60	16.87	0.5635E+06	0.1132E+01	0.1801E+01
6	5.78	5.45	8.18	0.2844E+06	0.2679E+00	0.4023E+00
			Year 4.0			
1	1.66	9.31	28.04	0.5376E+03	0.3007E-02	0.9057E-02
2	2.44	17.34	45.59	0.2708E+04	0.1926E-01	0.5064E-01
3	3.53	22.32	55.59	0.1221E+05	0.7724E-01	0.1923E+00
4	4.05	20.34	38.00	0.4886E+05	0.2456E+00	0.4589E+00
5	5.21	7.48	12.62	0.5561E+06	0.7984E+00	0.1347E+01
6	5.73	4.31	6.53	0.2817E+06	0.2119E+00	0.3212E+00
			Year 6.0			
1	1.62	8.14	26.30	0.5232E+03	0.2629E-02	0.8494E-02
2	2.35	14.05	41.94	0.2615E+04	0.1560E-01	0.4659E-01
3	3.48	17.46	44.33	0.1203E+05	0.6041E-01	0.1534E+00
4	4.01	15.94	30.39	0.4843E+05	0.1925E+00	0.3669E+00
5	5.19	5.94	9.97	0.5538E+06	0.6340E+00	0.1064E+01
6	5.72	3.73	5.51	0.2812E+06	0.1835E+00	0.2712E+00
			Year 8.0			
1	1.61	7.45	24.64	0.5191E+03	0.2405E-02	0.7958E-02
2	2.33	12.55	38.95	0.2589E+04	0.1394E-01	0.4326E-01
3	3.43	14.79	38.17	0.1187E+05	0.5118E-01	0.1321E+00
4	3.95	13.26	25.93	0.4770E+05	0.1601E+00	0.3131E+00
5	5.18	5.28	8.74	0.5532E+06	0.5632E+00	0.9334E+00
6	5.72	3.43	4.84	0.2811E+06	0.1688E+00	0.2383E+00

TABLE A.2b. (CONTINUED)

Box	Sediment Concen-tration (mg/L)	Sorbed Concen-tration (ng/L)	Dissolved Concen-tration (ng/L)	Sediment Mass (kg)	Sorbed Mass (kg)	Dissolved Mass (kg)
			Year 10.0			
1	1.60	6.94	22.93	0.5178E+03	0.2241E-02	0.7406E-02
2	2.33	11.65	36.90	0.2583E+04	0.1294E-01	0.4099E-01
3	3.42	13.46	34.18	0.1185E+05	0.4657E-01	0.1183E+00
4	3.94	12.35	23.65	0.4760E+05	0.1492E+00	0.2855E+00
5	5.17	4.87	7.97	0.5522E+06	0.5201E+00	0.8511E+00
6	5.71	3.25	4.48	0.2809E+06	0.1599E+00	0.2203E+00

TABLE A.3a. HOT-SPOT CASE - BED SEDIMENT AVERAGES

Box	Contaminant Concentration (mg/kg)	Contaminant Mass (kg)	Sediment Mass (kg)
		Initial Conditions	
1	480.78	0.5927E+04	0.1233E+08
2	209.77	0.7844E+04	0.3739E+08
3	21.01	0.1203E+04	0.5727E+08
4	5.30	0.5749E+03	0.1084E+09
5	3.92	0.4150E+04	0.1059E+10
6	1.00	0.3423E+03	0.3433E+09
		Year 0.0	
1	479.50	0.5920E+04	0.1235E+08
2	203.10	0.7607E+04	0.3745E+08
3	20.38	0.1167E+04	0.5726E+08
4	5.21	0.5655E+03	0.1086E+09
5	3.68	0.3878E+04	0.1053E+10
6	0.95	0.3279E+03	0.3447E+09
		Year 2.0	
1	460.20	0.5768E+04	0.1253E+08
2	192.27	0.7301E+04	0.3797E+08
3	17.42	0.1013E+04	0.5816E+08
4	5.20	0.5747E+03	0.1105E+09
5	3.00	0.3117E+04	0.1038E+10
6	0.87	0.3108E+03	0.3567E+09
		Year 4.0	
1	435.55	0.5517E+04	0.1267E+08
2	180.21	0.6901E+04	0.3830E+08
3	15.65	0.9216E+03	0.5887E+08
4	5.59	0.6282E+03	0.1124E+09
5	2.26	0.2365E+04	0.1047E+10
6	0.83	0.3068E+03	0.3686E+09
		Year 6.0	
1	404.46	0.5181E+04	0.1281E+08
2	168.48	0.6508E+04	0.3863E+08
3	14.40	0.8577E+03	0.5955E+08
4	5.64	0.6457E+03	0.1144E+09
5	1.84	0.1943E+04	0.1059E+10
6	0.78	0.2958E+03	0.3804E+09

TABLE A.3a. (CONTINUED)

Box	Contaminant Concentration (mg/kg)	Contaminant Mass (kg)	Sediment Mass (kg)
		Year 8.0	
1	371.04	0.4799E+04	0.1293E+08
2	160.93	0.6269E+04	0.3895E+08
3	13.72	0.8262E+03	0.6020E+08
4	5.63	0.6550E+03	0.1164E+09
5	1.62	0.1743E+04	0.1073E+10
6	0.74	0.2895E+03	0.3924E+09
		Year 10.0	
1	336.59	0.4396E+04	0.1306E+08
2	154.20	0.6056E+04	0.3927E+08
3	13.45	0.8218E+03	0.6108E+08
4	5.71	0.6758E+03	0.1183E+09
5	1.48	0.1615E+04	0.1089E+10
6	0.69	0.2793E+03	0.4043E+09

TABLE A.3b. HOT-SPOT CASE - WATER COLUMN AVERAGES

Box	Sediment Concen-tration (mg/L)	Sorbed Concen-tration (ng/L)	Dissolved Concen-tration (ng/L)	Sediment Mass (kg)	Sorbed Mass (kg)	Dissolved Mass (kg)
			Year 0.0			
1	2.23	468.10	1456.00	0.7205E+03	0.1512E+00	0.4702E+00
2	3.35	373.40	1176.00	0.3721E+04	0.4147E+00	0.1306E+01
3	4.87	112.30	173.20	0.1686E+05	0.3887E+00	0.5995E+00
4	5.27	60.55	73.12	0.6360E+05	0.7311E+00	0.8829E+00
5	5.91	17.21	21.91	0.6313E+06	0.1837E+01	0.2339E+01
6	6.22	9.25	10.41	0.3058E+06	0.4546E+00	0.5118E+00
			Year 2.0			
1	1.69	302.30	1321.00	0.5445E+03	0.9764E-01	0.4266E+00
2	2.47	233.20	957.20	0.2744E+04	0.2590E+00	0.1063E+01
3	3.58	66.76	152.40	0.1240E+05	0.2310E+00	0.5274E+00
4	4.11	37.19	61.80	0.4963E+05	0.4490E+00	0.7462E+00
5	5.28	11.07	17.38	0.5635E+06	0.1181E+01	0.1856E+01
6	5.78	5.56	8.30	0.2844E+06	0.2736E+00	0.4080E+00
			Year 4.0			
1	1.66	260.90	1198.00	0.5376E+03	0.8426E-01	0.3871E+00
2	2.44	204.80	827.10	0.2708E+04	0.2275E+00	0.9186E+00
3	3.53	60.65	143.30	0.1221E+05	0.2099E+00	0.4957E+00
4	4.05	32.42	55.57	0.4886E+05	0.3915E+00	0.6710E+00
5	5.21	8.11	13.40	0.5561E+06	0.8663E+00	0.1431E+01
6	5.73	4.47	6.71	0.2817E+06	0.2198E+00	0.3297E+00
			Year 6.0			
1	1.62	221.90	1076.00	0.5232E+03	0.7168E-01	0.3474E+00
2	2.35	173.10	721.00	0.2615E+04	0.1922E+00	0.8008E+00
3	3.48	53.70	134.50	0.1203E+05	0.1858E+00	0.4654E+00
4	4.01	29.04	50.80	0.4843E+05	0.3506E+00	0.6134E+00
5	5.19	6.66	10.90	0.5538E+06	0.7115E+00	0.1164E+01
6	5.72	3.92	5.72	0.2812E+06	0.1927E+00	0.2814E+00
			Year 8.0			
1	1.61	199.60	971.10	0.5191E+03	0.6445E-01	0.3136E+00
2	2.33	159.90	670.80	0.2589E+04	0.1776E+00	0.7451E+00
3	3.43	50.61	129.80	0.1187E+05	0.1751E+00	0.4492E+00
4	3.95	26.93	48.46	0.4770E+05	0.3252E+00	0.5851E+00
5	5.18	6.07	9.79	0.5532E+06	0.6475E+00	0.1045E+01
6	5.72	3.64	5.08	0.2811E+06	0.1790E+00	0.2499E+00

TABLE A.3b. (CONTINUED)

Box	Sediment Concen-tration (mg/L)	Sorbed Concen-tration (ng/L)	Dissolved Concen-tration (ng/L)	Sediment Mass (kg)	Sorbed Mass (kg)	Dissolved Mass (kg)
			Year 10.0			
1	1.60	180.50	865.00	0.5178E+03	0.5830E-01	0.2794E+00
2	2.33	152.90	640.70	0.2583E+04	0.1698E+00	0.7116E+00
3	3.42	50.05	128.50	0.1185E+05	0.1732E+00	0.4445E+00
4	3.94	27.58	48.97	0.4760E+05	0.3330E+00	0.5913E+00
5	5.17	5.76	9.16	0.5522E+06	0.6152E+00	0.9782E+00
6	5.71	3.48	4.75	0.2809E+06	0.1714E+00	0.2335E+00

TABLE A.4a. UPPER-ESTUARY CASE - BED SEDIMENT AVERAGES

Box	Contaminant Concentration (mg/kg)	Contaminant Mass (kg)	Sediment Mass (kg)
		Initial Conditions	
1	2.01	0.2475E+02	0.1233E+08
2	3.04	0.8797E+02	0.2898E+08
3	21.01	0.1203E+04	0.5727E+08
4	5.30	0.5749E+03	0.1084E+09
5	3.92	0.4150E+04	0.1059E+10
6	1.00	0.3423E+03	0.3433E+09
		Year 0.0	
1	2.03	0.2508E+02	0.1234E+08
2	3.29	0.9556E+02	0.2902E+08
3	20.06	0.1151E+04	0.5735E+08
4	5.16	0.5601E+03	0.1086E+09
5	3.68	0.3877E+04	0.1053E+10
6	0.95	0.3277E+03	0.3447E+09
		Year 2.0	
1	2.14	0.2675E+02	0.1249E+08
2	4.52	0.1331E+03	0.2944E+08
3	15.41	0.8980E+03	0.5827E+08
4	4.69	0.5184E+03	0.1105E+09
5	2.99	0.3105E+04	0.1039E+10
6	0.87	0.3092E+03	0.3565E+09
		Year 4.0	
1	2.19	0.2762E+02	0.1262E+08
2	5.06	0.1506E+03	0.2975E+08
3	12.02	0.7100E+03	0.5905E+08
4	4.47	0.5020E+03	0.1124E+09
5	2.22	0.2325E+04	0.1047E+10
6	0.82	0.3038E+03	0.3683E+09
		Year 6.0	
1	2.21	0.2818E+02	0.1273E+08
2	5.31	0.1596E+03	0.3006E+08
3	9.68	0.5794E+03	0.5984E+08
4	4.03	0.4606E+03	0.1143E+09
5	1.78	0.1891E+04	0.1059E+10
6	0.77	0.2914E+03	0.3802E+09

TABLE A.4a. (CONTINUED)

Box	Contaminant Concentration (mg/kg)	Contaminant Mass (kg)	Sediment Mass (kg)
		Year 8.0	
1	2.23	0.2857E+02	0.1283E+08
2	5.46	0.1657E+03	0.3036E+08
3	8.15	0.4942E+03	0.6063E+08
4	3.59	0.4173E+03	0.1164E+09
5	1.56	0.1675E+04	0.1074E+10
6	0.72	0.2839E+03	0.3921E+09
		Year 10.0	
1	2.22	0.2876E+02	0.1294E+08
2	5.65	0.1730E+03	0.3064E+08
3	7.03	0.4317E+03	0.6140E+08
4	3.25	0.3841E+03	0.1183E+09
5	1.40	0.1531E+04	0.1090E+10
6	0.68	0.2726E+03	0.4040E+09

TABLE A.4b. UPPER-ESTUARY CASE - WATER COLUMN AVERAGES

Box	Sediment Concen-tration (mg/L)	Sorbed Concen-tration (ng/L)	Dissolved Concen-tration (ng/L)	Sediment Mass (kg)	Sorbed Mass (kg)	Dissolved Mass (kg)
			Year 0.0			
1	1.92	5.64	8.08	0.6200E+03	0.1822E-02	0.2610E-02
2	2.78	19.77	22.19	0.2598E+04	0.1845E-01	0.2070E-01
3	4.39	50.30	101.80	0.1517E+05	0.1740E+00	0.3523E+00
4	4.94	44.57	62.43	0.5962E+05	0.5381E+00	0.7538E+00
5	5.87	16.32	21.44	0.6265E+06	0.1743E+01	0.2289E+01
6	6.20	8.98	10.29	0.3048E+06	0.4418E+00	0.5060E+00
			Year 2.0			
1	1.64	4.04	7.86	0.5286E+03	0.1306E-02	0.2538E-02
2	2.33	12.51	21.25	0.2172E+04	0.1168E-01	0.1982E-01
3	3.61	29.17	72.22	0.1248E+05	0.1009E+00	0.2499E+00
4	4.10	27.47	49.11	0.4948E+05	0.3317E+00	0.5930E+00
5	5.27	10.55	16.85	0.5628E+06	0.1126E+01	0.1798E+01
6	5.78	5.43	8.17	0.2842E+06	0.2671E+00	0.4018E+00
			Year 4.0			
1	1.59	3.58	7.72	0.5123E+03	0.1158E-02	0.2494E-02
2	2.26	10.11	21.24	0.2105E+04	0.9437E-02	0.1982E-01
3	3.50	21.26	54.34	0.1211E+05	0.7355E-01	0.1880E+00
4	3.99	20.08	38.18	0.4818E+05	0.2424E+00	0.4610E+00
5	5.20	7.43	12.59	0.5555E+06	0.7933E+00	0.1344E+01
6	5.73	4.30	6.52	0.2816E+06	0.2113E+00	0.3207E+00
			Year 6.0			
1	1.57	3.36	7.58	0.5064E+03	0.1084E-02	0.2448E-02
2	2.23	8.86	21.23	0.2081E+04	0.8270E-02	0.1981E-01
3	3.46	16.80	43.06	0.1198E+05	0.5812E-01	0.1490E+00
4	3.96	15.80	30.59	0.4777E+05	0.1908E+00	0.3693E+00
5	5.18	5.91	9.94	0.5533E+06	0.6309E+00	0.1062E+01
6	5.72	3.72	5.51	0.2811E+06	0.1831E+00	0.2707E+00
			Year 8.0			
1	1.57	3.28	7.45	0.5057E+03	0.1059E-02	0.2405E-02
2	2.23	8.33	21.56	0.2080E+04	0.7769E-02	0.2012E-01
3	3.46	14.45	36.87	0.1197E+05	0.4999E-01	0.1276E+00
4	3.95	13.46	26.10	0.4776E+05	0.1625E+00	0.3152E+00
5	5.18	5.26	8.73	0.5531E+06	0.5621E+00	0.9321E+00
6	5.72	3.43	4.84	0.2810E+06	0.1687E+00	0.2380E+00

TABLE A.4b. (CONTINUED)

Box	Sediment Concen-tration (mg/L)	Sorbed Concen-tration (ng/L)	Dissolved Concen-tration (ng/L)	Sediment Mass (kg)	Sorbed Mass (kg)	Dissolved Mass (kg)
			Year 10.0			
1	1.56	3.29	7.36	0.5048E+03	0.1061E-02	0.2378E-02
2	2.23	8.07	22.46	0.2077E+04	0.7529E-02	0.2096E-01
3	3.46	12.72	32.45	0.1196E+05	0.4402E-01	0.1123E+00
4	3.95	11.66	22.59	0.4773E+05	0.1408E+00	0.2728E+00
5	5.18	4.83	7.92	0.5527E+06	0.5161E+00	0.8452E+00
6	5.71	3.24	4.47	0.2809E+06	0.1594E+00	0.2196E+00

TABLE A.5a. LOWER-HARBOR AND BAY CASE - BED SEDIMENT AVERAGES

Box	Contaminant Concentration (mg/kg)	Contaminant Mass (kg)	Sediment Mass (kg)
		Initial Conditions	
1	2.01	0.2475E+02	0.1233E+08
2	3.04	0.8797E+02	0.2898E+08
3	7.99	0.3899E+03	0.4879E+08
4	4.75	0.5153E+03	0.1084E+09
5	3.92	0.4150E+04	0.1059E+10
6	1.00	0.3423E+03	0.3433E+09
		Year 0.0	
1	2.02	0.2495E+02	0.1234E+08
2	3.11	0.9024E+02	0.2902E+08
3	7.64	0.3732E+03	0.4885E+08
4	4.57	0.4963E+03	0.1086E+09
5	3.68	0.3876E+04	0.1053E+10
6	0.95	0.3275E+03	0.3447E+09
		Year 2.0	
1	2.04	0.2543E+02	0.1248E+08
2	3.47	0.1021E+03	0.2941E+08
3	6.31	0.3134E+03	0.4964E+08
4	3.92	0.4342E+03	0.1108E+09
5	2.98	0.3094E+04	0.1039E+10
6	0.86	0.3073E+03	0.3565E+09
		Year 4.0	
1	2.03	0.2551E+02	0.1258E+08
2	3.50	0.1039E+03	0.2971E+08
3	5.35	0.2693E+03	0.5033E+08
4	3.37	0.3794E+03	0.1127E+09
5	2.19	0.2291E+04	0.1048E+10
6	0.81	0.3004E+03	0.3684E+09
		Year 6.0	
1	1.99	0.2524E+02	0.1269E+08
2	3.43	0.1028E+03	0.2998E+08
3	4.53	0.2312E+03	0.5106E+08
4	2.89	0.3313E+03	0.1147E+09
5	1.75	0.1856E+04	0.1060E+10
6	0.76	0.2874E+03	0.3803E+09

TABLE A.5a. (CONTINUED)

Box	Contaminant Concentration (mg/kg)	Contaminant Mass (kg)	Sediment Mass (kg)
		Year 8.0	
1	1.92	0.2462E+02	0.1278E+08
2	3.37	0.1018E+03	0.3023E+08
3	3.95	0.2046E+03	0.5182E+08
4	2.48	0.2895E+03	0.1167E+09
5	1.51	0.1627E+04	0.1075E+10
6	0.71	0.2786E+03	0.3923E+09
		Year 10.0	
1	1.85	0.2380E+02	0.1288E+08
2	3.35	0.1023E+03	0.3050E+08
3	3.51	0.1844E+03	0.5259E+08
4	2.15	0.2559E+03	0.1188E+09
5	1.35	0.1476E+04	0.1091E+10
6	0.66	0.2670E+03	0.4042E+09

TABLE A.5b. LOWER-HARBOR AND BAY CASE - WATER COLUMN AVERAGES

Box	Sediment Concen-tration (mg/L)	Sorbed Concen-tration (ng/L)	Dissolved Concen-tration (ng/L)	Sediment Mass (kg)	Sorbed Mass (kg)	Dissolved Mass (kg)
			Year 0.0			
1	1.85	3.90	7.67	0.5976E+03	0.1258E-02	0.2479E-02
2	2.66	11.49	16.25	0.2484E+04	0.1072E-01	0.1516E-01
3	4.21	29.00	49.40	0.1350E+05	0.9301E-01	0.1584E+00
4	4.81	28.75	42.03	0.5811E+05	0.3471E+00	0.5074E+00
5	5.84	15.38	20.79	0.6229E+06	0.1642E+01	0.2219E+01
6	6.18	8.70	10.15	0.3039E+06	0.4279E+00	0.4989E+00
			Year 2.0			
1	1.57	2.72	7.21	0.5066E+03	0.8800E-03	0.2330E-02
2	2.21	6.98	14.33	0.2063E+04	0.6516E-02	0.1337E-01
3	3.47	16.35	34.88	0.1114E+05	0.5243E-01	0.1119E+00
4	4.05	17.59	32.24	0.4896E+05	0.2123E+00	0.3893E+00
5	5.27	9.85	16.12	0.5627E+06	0.1052E+01	0.1721E+01
6	5.78	5.26	8.00	0.2842E+06	0.2585E+00	0.3935E+00
			Year 4.0			
1	1.52	2.40	6.88	0.4910E+03	0.7741E-03	0.2223E-02
2	2.15	5.69	13.53	0.2003E+04	0.5311E-02	0.1263E-01
3	3.39	12.07	27.47	0.1087E+05	0.3871E-01	0.8811E-01
4	3.98	12.72	24.25	0.4806E+05	0.1536E+00	0.2929E+00
5	5.20	6.96	11.98	0.5551E+06	0.7434E+00	0.1279E+01
6	5.72	4.17	6.38	0.2815E+06	0.2051E+00	0.3137E+00
			Year 6.0			
1	1.51	2.20	6.51	0.4893E+03	0.7119E-03	0.2102E-02
2	2.14	4.95	12.83	0.1996E+04	0.4619E-02	0.1197E-01
3	3.38	9.74	22.54	0.1083E+05	0.3123E-01	0.7229E-01
4	3.96	10.01	19.22	0.4787E+05	0.1209E+00	0.2321E+00
5	5.18	5.55	9.43	0.5536E+06	0.5926E+00	0.1006E+01
6	5.72	3.63	5.39	0.2811E+06	0.1783E+00	0.2648E+00
			Year 8.0			
1	1.51	2.10	6.16	0.4884E+03	0.6784E-03	0.1989E-02
2	2.14	4.59	12.68	0.1993E+04	0.4286E-02	0.1183E-01
3	3.37	8.40	19.62	0.1082E+05	0.2695E-01	0.6292E-01
4	3.96	8.52	16.19	0.4783E+05	0.1028E+00	0.1954E+00
5	5.18	4.89	8.17	0.5531E+06	0.5221E+00	0.8725E+00
6	5.72	3.32	4.71	0.2810E+06	0.1634E+00	0.2317E+00

TABLE A.5b. (CONTINUED)

Box	Sediment Concen-tration (mg/L)	Sorbed Concen-tration (ng/L)	Dissolved Concen-tration (ng/L)	Sediment Mass (kg)	Sorbed Mass (kg)	Dissolved Mass (kg)
			Year 10.0			
1	1.50	2.03	5.81	0.4856E+03	0.6553E-03	0.1876E-02
2	2.13	4.36	12.87	0.1983E+04	0.4064E-02	0.1201E-01
3	3.36	7.32	17.40	0.1078E+05	0.2348E-01	0.5579E-01
4	3.95	7.16	13.78	0.4766E+05	0.8649E-01	0.1664E+00
5	5.18	4.48	7.38	0.5528E+06	0.4781E+00	0.7876E+00
6	5.71	3.14	4.34	0.2809E+06	0.1545E+00	0.2134E+00

TABLE A.6a. 1-ppm CASE - BED SEDIMENT AVERAGES

Box	Contaminant Concentration (mg/kg)	Contaminant Mass (kg)	Sediment Mass (kg)
		Initial Conditions	
1	1.00	0.1233E+02	0.1233E+08
2	1.00	0.3739E+02	0.3739E+08
3	1.00	0.5727E+02	0.5727E+08
4	1.00	0.1084E+03	0.1084E+09
5	1.00	0.1059E+04	0.1059E+10
6	1.00	0.3433E+03	0.3433E+09
		Year 0.0	
1	1.00	0.1236E+02	0.1234E+08
2	1.00	0.2904E+02	0.2902E+08
3	1.01	0.4912E+02	0.4885E+08
4	0.97	0.1051E+03	0.1086E+09
5	0.91	0.9554E+03	0.1053E+10
6	0.93	0.3212E+03	0.3447E+09
		Year 2.0	
1	1.00	0.1253E+02	0.1248E+08
2	1.07	0.3159E+02	0.2941E+08
3	0.90	0.4446E+02	0.4964E+08
4	0.78	0.8610E+02	0.1108E+09
5	0.67	0.6911E+03	0.1039E+10
6	0.74	0.2635E+03	0.3565E+09
		Year 4.0	
1	0.98	0.1230E+02	0.1258E+08
2	1.03	0.3056E+02	0.2971E+08
3	0.79	0.3950E+02	0.5033E+08
4	0.69	0.7782E+02	0.1127E+09
5	0.48	0.5043E+03	0.1048E+10
6	0.55	0.2019E+03	0.3684E+09
		Year 6.0	
1	0.94	0.1195E+02	0.1269E+08
2	0.97	0.2901E+02	0.2998E+08
3	0.68	0.3455E+02	0.5106E+08
4	0.60	0.6861E+02	0.1147E+09
5	0.38	0.4032E+03	0.1060E+10
6	0.46	0.1728E+03	0.3803E+09

TABLE A.6a. (CONTINUED)

Box	Contaminant Concentration (mg/kg)	Contaminant Mass (kg)	Sediment Mass (kg)
		Year 8.0	
1	0.90	0.1149E+02	0.1278E+08
2	0.91	0.2739E+02	0.3023E+08
3	0.58	0.3022E+02	0.5182E+08
4	0.52	0.6026E+02	0.1167E+09
5	0.31	0.3381E+03	0.1075E+10
6	0.39	0.1541E+03	0.3923E+09
		Year 10.0	
1	0.85	0.1095E+02	0.1288E+08
2	0.85	0.2589E+02	0.3050E+08
3	0.51	0.2676E+02	0.5259E+08
4	0.44	0.5267E+02	0.1188E+09
5	0.27	0.2899E+03	0.1091E+10
6	0.33	0.1332E+03	0.4042E+09

TABLE A.6b. 1 ppm CASE - WATER COLUMN AVERAGES

Box	Sediment Concen-tration (mg/L)	Sorbed Concen-tration (ng/L)	Dissolved Concen-tration (ng/L)	Sediment Mass (kg)	Sorbed Mass (kg)	Dissolved Mass (kg)
			Year 0.0			
1	1.85	1.46	3.24	0.5976E+03	0.4698E-03	0.1047E-02
2	2.66	3.22	6.59	0.2484E+04	0.3005E-02	0.6152E-02
3	4.21	6.12	9.56	0.1350E+05	0.1964E-01	0.3067E-01
4	4.81	6.94	9.64	0.5811E+05	0.8377E-01	0.1164E+00
5	5.84	5.47	7.71	0.6229E+06	0.5840E+00	0.8231E+00
6	6.18	3.15	3.96	0.3039E+06	0.1548E+00	0.1948E+00
			Year 2.0			
1	1.57	0.96	3.01	0.5066E+03	0.3115E-03	0.9706E-03
2	2.21	1.80	5.21	0.2063E+04	0.1676E-02	0.4860E-02
3	3.47	3.12	5.87	0.1114E+05	0.9993E-02	0.1882E-01
4	4.05	3.72	6.33	0.4896E+05	0.4493E-01	0.7642E-01
5	5.27	3.00	4.98	0.5627E+06	0.3200E+00	0.5318E+00
6	5.78	1.83	2.83	0.2842E+06	0.8976E-01	0.1392E+00
			Year 4.0			
1	1.52	0.84	2.82	0.4910E+03	0.2700E-03	0.9120E-03
2	2.15	1.49	4.66	0.2003E+04	0.1387E-02	0.4345E-02
3	3.39	2.34	4.72	0.1087E+05	0.7488E-02	0.1512E-01
4	3.98	2.70	4.75	0.4806E+05	0.3264E-01	0.5740E-01
5	5.20	2.09	3.44	0.5551E+06	0.2226E+00	0.3674E+00
6	5.72	1.38	2.07	0.2815E+06	0.6770E-01	0.1017E+00
			Year 6.0			
1	1.51	0.75	2.63	0.4893E+03	0.2421E-03	0.8506E-03
2	2.14	1.29	4.21	0.1996E+04	0.1200E-02	0.3931E-02
3	3.38	1.84	3.84	0.1083E+05	0.5885E-02	0.1231E-01
4	3.96	2.04	3.63	0.4787E+05	0.2466E-01	0.4388E-01
5	5.18	1.60	2.53	0.5536E+06	0.1704E+00	0.2696E+00
6	5.72	1.18	1.69	0.2811E+06	0.5802E-01	0.8297E-01
			Year 8.0			
1	1.51	0.68	2.46	0.4884E+03	0.2202E-03	0.7937E-03
2	2.14	1.14	3.87	0.1993E+04	0.1066E-02	0.3612E-02
3	3.37	1.54	3.24	0.1082E+05	0.4933E-02	0.1039E-01
4	3.96	1.69	3.01	0.4783E+05	0.2042E-01	0.3638E-01
5	5.18	1.33	2.02	0.5531E+06	0.1417E+00	0.2161E+00
6	5.72	1.07	1.44	0.2810E+06	0.5255E-01	0.7081E-01

TABLE A.6b. (CONTINUED)

Box	Sediment Concen-tration (mg/L)	Sorbed Concen-tration (ng/L)	Dissolved Concen-tration (ng/L)	Sediment Mass (kg)	Sorbed Mass (kg)	Dissolved Mass (kg)
			Year 10.0			
1	1.50	0.62	2.28	0.4856E+03	0.2013E-03	0.7360E-03
2	2.13	1.03	3.62	0.1983E+04	0.9644E-03	0.3381E-02
3	3.36	1.31	2.79	0.1078E+05	0.4196E-02	0.8959E-02
4	3.95	1.41	2.53	0.4766E+05	0.1698E-01	0.3052E-01
5	5.18	1.16	1.71	0.5528E+06	0.1243E+00	0.1829E+00
6	5.71	1.00	1.31	0.2809E+06	0.4932E-01	0.6440E-01

TABLE A.7a. 50-ppm CASE - BED SEDIMENT AVERAGES

Box	Contaminant Concentration (mg/kg)	Contaminant Mass (kg)	Sediment Mass (kg)
		Initial Conditions	
1	4.22	0.5198E+02	0.1233E+08
2	8.12	0.2352E+03	0.2898E+08
3	13.04	0.6363E+03	0.4879E+08
4	5.30	0.5749E+03	0.1084E+09
5	3.92	0.4150E+04	0.1059E+10
6	1.00	0.3423E+03	0.3433E+09
		Year 0.0	
1	4.21	0.5199E+02	0.1234E+08
2	8.16	0.2368E+03	0.2902E+08
3	12.46	0.6086E+03	0.4885E+08
4	5.11	0.5556E+03	0.1086E+09
5	3.68	0.3878E+04	0.1053E+10
6	0.95	0.3275E+03	0.3447E+09
		Year 2.0	
1	4.03	0.5028E+02	0.1248E+08
2	8.02	0.2359E+03	0.2941E+08
3	9.81	0.4869E+03	0.4964E+08
4	4.51	0.4996E+03	0.1108E+09
5	2.98	0.3101E+04	0.1039E+10
6	0.86	0.3080E+03	0.3565E+09
		Year 4.0	
1	3.87	0.4866E+02	0.1258E+08
2	7.63	0.2266E+03	0.2971E+08
3	8.08	0.4065E+03	0.5033E+08
4	3.95	0.4450E+03	0.1127E+09
5	2.20	0.2306E+04	0.1048E+10
6	0.82	0.3013E+03	0.3684E+09
		Year 6.0	
1	3.73	0.4735E+02	0.1269E+08
2	7.20	0.2157E+03	0.2998E+08
3	6.71	0.3426E+03	0.5106E+08
4	3.44	0.3950E+03	0.1147E+09
5	1.77	0.1872E+04	0.1060E+10
6	0.76	0.2887E+03	0.3803E+09

TABLE A.7a. (CONTINUED)

Box	Contaminant Concentration (mg/kg)	Contaminant Mass (kg)	Sediment Mass (kg)
		Year 8.0	
1	3.62	0.4625E+02	0.1278E+08
2	6.84	0.2069E+03	0.3023E+08
3	5.78	0.2997E+03	0.5182E+08
4	3.01	0.3509E+03	0.1167E+09
5	1.53	0.1646E+04	0.1075E+10
6	0.71	0.2800E+03	0.3923E+09
		Year 10.0	
1	3.51	0.4523E+02	0.1288E+08
2	6.60	0.2013E+03	0.3050E+08
3	5.08	0.2669E+03	0.5259E+08
4	2.64	0.3133E+03	0.1188E+09
5	1.37	0.1497E+04	0.1091E+10
6	0.67	0.2690E+03	0.4042E+09

TABLE A.7b. 50-ppm CASE - WATER COLUMN AVERAGES

Box	Sediment Concen-tration (mg/L)	Sorbed Concen-tration (ng/L)	Dissolved Concen-tration (ng/L)	Sediment Mass (kg)	Sorbed Mass (kg)	Dissolved Mass (kg)
			Year 0.0			
1	1.85	6.14	11.16	0.5976E+03	0.1983E-02	0.3605E-02
2	2.66	19.12	29.38	0.2484E+04	0.1784E-01	0.2742E-01
3	4.21	39.99	76.63	0.1350E+05	0.1283E+00	0.2457E+00
4	4.81	34.45	50.35	0.5811E+05	0.4159E+00	0.6080E+00
5	5.84	15.64	21.03	0.6229E+06	0.1670E+01	0.2245E+01
6	6.18	8.76	10.19	0.3039E+06	0.4310E+00	0.5012E+00
			Year 2.0			
1	1.57	4.43	10.72	0.5066E+03	0.1432E-02	0.3462E-02
2	2.21	12.08	27.13	0.2063E+04	0.1127E-01	0.2531E-01
3	3.47	22.61	53.64	0.1114E+05	0.7251E-01	0.1720E+00
4	4.05	21.19	38.82	0.4896E+05	0.2559E+00	0.4688E+00
5	5.27	10.04	16.36	0.5627E+06	0.1072E+01	0.1746E+01
6	5.78	5.31	8.05	0.2842E+06	0.2609E+00	0.3960E+00
			Year 4.0			
1	1.52	4.02	10.51	0.4910E+03	0.1297E-02	0.3394E-02
2	2.15	10.06	26.43	0.2003E+04	0.9384E-02	0.2466E-01
3	3.39	16.79	41.80	0.1087E+05	0.5384E-01	0.1340E+00
4	3.98	15.53	29.57	0.4806E+05	0.1875E+00	0.3570E+00
5	5.20	7.13	12.20	0.5551E+06	0.7607E+00	0.1303E+01
6	5.72	4.21	6.43	0.2815E+06	0.2072E+00	0.3161E+00
			Year 6.0			
1	1.51	3.81	10.29	0.4893E+03	0.1231E-02	0.3324E-02
2	2.14	8.94	25.68	0.1996E+04	0.8341E-02	0.2396E-01
3	3.38	13.55	33.95	0.1083E+05	0.4346E-01	0.1089E+00
4	3.96	12.29	23.56	0.4787E+05	0.1485E+00	0.2845E+00
5	5.18	5.70	9.64	0.5536E+06	0.6083E+00	0.1029E+01
6	5.72	3.67	5.43	0.2811E+06	0.1803E+00	0.2671E+00
			Year 8.0			
1	1.51	3.69	10.14	0.4884E+03	0.1193E-02	0.3273E-02
2	2.14	8.27	25.16	0.1993E+04	0.7719E-02	0.2348E-01
3	3.37	11.66	29.19	0.1082E+05	0.3740E-01	0.9362E-01
4	3.96	10.50	19.97	0.4783E+05	0.1268E+00	0.2412E+00
5	5.18	5.03	8.37	0.5531E+06	0.5366E+00	0.8940E+00
6	5.72	3.36	4.76	0.2810E+06	0.1653E+00	0.2339E+00

TABLE A.7b. (CONTINUED)

Box	Sediment Concen-tration (mg/L)	Sorbed Concen-tration (ng/L)	Dissolved Concen-tration (ng/L)	Sediment Mass (kg)	Sorbed Mass (kg)	Dissolved Mass (kg)
			Year 10.0			
1	1.50	3.64	10.01	0.4856E+03	0.1174E-02	0.3232E-02
2	2.13	7.83	25.31	0.1983E+04	0.7303E-02	0.2362E-01
3	3.36	10.14	25.61	0.1078E+05	0.3252E-01	0.8212E-01
4	3.95	8.86	17.05	0.4766E+05	0.1070E+00	0.2058E+00
5	5.18	4.61	7.57	0.5528E+06	0.4917E+00	0.8085E+00
6	5.71	3.18	4.39	0.2809E+06	0.1563E+00	0.2156E+00

TABLE A.8a. 500-ppm CASE - BED SEDIMENT AVERAGES

Box	Contaminant Concentration (mg/kg)	Contaminant Mass (kg)	Sediment Mass (kg)
		Initial Conditions	
1	100.05	0.1233E+04	0.1233E+08
2	172.87	0.5010E+04	0.2898E+08
3	18.00	0.8785E+03	0.4879E+08
4	5.30	0.5749E+03	0.1084E+09
5	3.92	0.4150E+04	0.1059E+10
6	1.00	0.3423E+03	0.3433E+09
		Year 0.0	
1	102.73	0.1268E+04	0.1234E+08
2	165.98	0.4817E+04	0.2902E+08
3	17.48	0.8539E+03	0.4885E+08
4	5.17	0.5611E+03	0.1086E+09
5	3.68	0.3879E+04	0.1053E+10
6	0.95	0.3277E+03	0.3447E+09
		Year 2.0	
1	115.24	0.1438E+04	0.1248E+08
2	154.70	0.4549E+04	0.2941E+08
3	15.00	0.7445E+03	0.4964E+08
4	4.86	0.5387E+03	0.1108E+09
5	2.99	0.3113E+04	0.1039E+10
6	0.87	0.3089E+03	0.3565E+09
		Year 4.0	
1	117.95	0.1484E+04	0.1258E+08
2	141.94	0.4217E+04	0.2971E+08
3	13.82	0.6954E+03	0.5033E+08
4	4.79	0.5401E+03	0.1127E+09
5	2.23	0.2332E+04	0.1048E+10
6	0.82	0.3035E+03	0.3684E+09
		Year 6.0	
1	115.63	0.1467E+04	0.1269E+08
2	133.15	0.3992E+04	0.2998E+08
3	12.72	0.6492E+03	0.5106E+08
4	4.56	0.5236E+03	0.1147E+09
5	1.80	0.1906E+04	0.1060E+10
6	0.77	0.2917E+03	0.3803E+09

TABLE A.8a. (CONTINUED)

Box	Contaminant Concentration (mg/kg)	Contaminant Mass (kg)	Sediment Mass (kg)
		Year 8.0	
1	110.51	0.1413E+04	0.1278E+08
2	129.08	0.3902E+04	0.3023E+08
3	12.00	0.6218E+03	0.5182E+08
4	4.29	0.5012E+03	0.1167E+09
5	1.57	0.1690E+04	0.1075E+10
6	0.72	0.2836E+03	0.3923E+09
		Year 10.0	
1	104.93	0.1352E+04	0.1288E+08
2	126.93	0.3871E+04	0.3050E+08
3	11.60	0.6102E+03	0.5259E+08
4	4.09	0.4855E+03	0.1188E+09
5	1.42	0.1551E+04	0.1091E+10
6	0.68	0.2731E+03	0.4042E+09

TABLE A.8b. 500-ppm CASE - WATER COLUMN AVERAGES

Box	Sediment Concen-tration (mg/L)	Sorbed Concen-tration (ng/L)	Dissolved Concen-tration (ng/L)	Sediment Mass (kg)	Sorbed Mass (kg)	Dissolved Mass (kg)
			Year 0.0			
1	1.85	209.90	442.40	0.5976E+03	0.6778E-01	0.1429E+00
2	2.66	281.30	1110.00	0.2484E+04	0.2625E+00	0.1036E+01
3	4.21	81.44	153.90	0.1350E+05	0.2612E+00	0.4937E+00
4	4.81	43.93	61.51	0.5811E+05	0.5305E+00	0.7428E+00
5	5.84	16.03	21.36	0.6229E+06	0.1712E+01	0.2280E+01
6	6.18	8.85	10.26	0.3039E+06	0.4354E+00	0.5044E+00
			Year 2.0			
1	1.57	141.90	403.00	0.5066E+03	0.4584E-01	0.1301E+00
2	2.21	187.60	860.50	0.2063E+04	0.1751E+00	0.8029E+00
3	3.47	54.71	132.10	0.1114E+05	0.1755E+00	0.4237E+00
4	4.05	29.29	50.70	0.4896E+05	0.3536E+00	0.6122E+00
5	5.27	10.42	16.77	0.5627E+06	0.1112E+01	0.1791E+01
6	5.78	5.40	8.15	0.2842E+06	0.2655E+00	0.4007E+00
			Year 4.0			
1	1.52	115.20	364.90	0.4910E+03	0.3719E-01	0.1178E+00
2	2.15	156.70	720.20	0.2003E+04	0.1462E+00	0.6720E+00
3	3.39	47.86	123.30	0.1087E+05	0.1535E+00	0.3954E+00
4	3.98	24.44	43.67	0.4806E+05	0.2951E+00	0.5273E+00
5	5.20	7.57	12.75	0.5551E+06	0.8080E+00	0.1361E+01
6	5.72	4.33	6.55	0.2815E+06	0.2127E+00	0.3222E+00
			Year 6.0			
1	1.51	99.89	332.10	0.4893E+03	0.3226E-01	0.1073E+00
2	2.14	138.90	628.60	0.1996E+04	0.1296E+00	0.5865E+00
3	3.38	43.90	115.50	0.1083E+05	0.1408E+00	0.3706E+00
4	3.96	21.57	38.65	0.4787E+05	0.2604E+00	0.4667E+00
5	5.18	6.18	10.26	0.5536E+06	0.6599E+00	0.1095E+01
6	5.72	3.79	5.58	0.2811E+06	0.1865E+00	0.2742E+00
			Year 8.0			
1	1.51	93.53	309.50	0.4884E+03	0.3021E-01	0.9996E-01
2	2.14	132.80	601.70	0.1993E+04	0.1239E+00	0.5614E+00
3	3.37	42.13	111.70	0.1082E+05	0.1351E+00	0.3583E+00
4	3.96	20.08	35.72	0.4783E+05	0.2425E+00	0.4314E+00
5	5.18	5.54	9.05	0.5531E+06	0.5914E+00	0.9662E+00
6	5.72	3.50	4.91	0.2810E+06	0.1720E+00	0.2416E+00

TABLE A.8b. (CONTINUED)

Box	Sediment Concen-tration (mg/L)	Sorbed Concen-tration (ng/L)	Dissolved Concen-tration (ng/L)	Sediment Mass (kg)	Sorbed Mass (kg)	Dissolved Mass (kg)
			Year 10.0			
1	1.50	88.94	288.80	0.4856E+03	0.2872E-01	0.9328E-01
2	2.13	130.80	594.60	0.1983E+04	0.1220E+00	0.5548E+00
3	3.36	41.26	110.50	0.1078E+05	0.1323E+00	0.3543E+00
4	3.95	18.77	33.56	0.4766E+05	0.2267E+00	0.4052E+00
5	5.18	5.15	8.30	0.5528E+06	0.5497E+00	0.8863E+00
6	5.71	3.32	4.55	0.2809E+06	0.1634E+00	0.2239E+00

TABLE A.9a. SENSITIVITY TEST CASE - BED SEDIMENT AVERAGES

Box	Contaminant Concentration (mg/kg)	Contaminant Mass (kg)	Sediment Mass (kg)
		Year 0.0	
1	955.33	0.1180E+05	0.1235E+08
2	203.75	0.7631E+04	0.3745E+08
3	20.38	0.1167E+04	0.5726E+08
4	5.21	0.5654E+03	0.1086E+09
5	3.68	0.3872E+04	0.1053E+10
		Year 2.0	
1	876.10	0.1098E+05	0.1253E+08
2	195.38	0.7419E+04	0.3797E+08
3	17.46	0.1015E+04	0.5816E+08
4	5.20	0.5751E+03	0.1105E+09
5	2.93	0.3044E+04	0.1038E+10
		Year 4.0	
1	805.27	0.1020E+05	0.1267E+08
2	186.34	0.7136E+04	0.3830E+08
3	15.76	0.9275E+03	0.5887E+08
4	5.59	0.6286E+03	0.1124E+09
5	2.12	0.2219E+04	0.1047E+10
		Year 6.0	
1	737.74	0.9450E+04	0.1281E+08
2	177.62	0.6859E+04	0.3862E+08
3	14.88	0.8859E+03	0.5952E+08
4	5.78	0.6601E+03	0.1143E+09
5	1.74	0.1846E+04	0.1059E+10
		Year 8.0	
1	668.39	0.8644E+04	0.1293E+08
2	172.43	0.6715E+04	0.3894E+08
3	14.33	0.8623E+03	0.6017E+08
4	5.82	0.6762E+03	0.1163E+09
5	1.49	0.1603E+04	0.1073E+10

TABLE A.9a. (CONTINUED)

Box	Contaminant Concentration (mg/kg)	Contaminant Mass (kg)	Sediment Mass (kg)
		Year 10.0	
1	594.12	0.7759E+04	0.1306E+08
2	164.91	0.6477E+04	0.3928E+08
3	13.73	0.8389E+03	0.6107E+08
4	5.77	0.6822E+03	0.1183E+09
5	1.28	0.1397E+04	0.1089E+10

TABLE A.9b. SENSITIVITY TEST CASE - WATER COLUMN AVERAGES

Box	Sediment Concen-tration (mg/L)	Sorbed Concen-tration (ng/L)	Dissolved Concen-tration (ng/L)	Sediment Mass (kg)	Sorbed Mass (kg)	Dissolved Mass (kg)
			Year 0.0			
1	2.23	682.50	2577.00	0.7205E+03	0.2204E+00	0.8323E+00
2	3.35	409.00	1238.00	0.3721E+04	0.4543E+00	0.1376E+01
3	4.87	114.40	174.20	0.1686E+05	0.3957E+00	0.6027E+00
4	5.27	60.69	73.22	0.6360E+05	0.7328E+00	0.8841E+00
5	5.91	16.44	21.26	0.6313E+06	0.1755E+01	0.2270E+01
6	6.22	8.12	9.34	0.3058E+06	0.3991E+00	0.4591E+00
			Year 2.0			
1	1.69	450.40	2322.00	0.5445E+03	0.1454E+00	0.7499E+00
2	2.47	260.60	1029.00	0.2744E+04	0.2894E+00	0.1143E+01
3	3.58	68.57	154.20	0.1240E+05	0.2373E+00	0.5336E+00
4	4.11	37.31	61.96	0.4963E+05	0.4505E+00	0.7482E+00
5	5.28	10.18	16.46	0.5635E+06	0.1087E+01	0.1757E+01
6	5.78	4.37	7.01	0.2844E+06	0.2150E+00	0.3449E+00
			Year 4.0			
1	1.66	395.50	2102.00	0.5376E+03	0.1277E+00	0.6790E+00
2	2.44	233.50	911.70	0.2708E+04	0.2594E+00	0.1013E+01
3	3.53	62.97	146.40	0.1221E+05	0.2179E+00	0.5067E+00
4	4.05	32.67	55.91	0.4886E+05	0.3945E+00	0.6751E+00
5	5.21	7.09	12.20	0.5561E+06	0.7573E+00	0.1302E+01
6	5.73	3.22	5.28	0.2817E+06	0.1585E+00	0.2594E+00
			Year 6.0			
1	1.62	340.20	1887.00	0.5232E+03	0.1099E+00	0.6095E+00
2	2.35	199.60	803.60	0.2615E+04	0.2217E+00	0.8925E+00
3	3.48	56.18	138.80	0.1203E+05	0.1944E+00	0.4802E+00
4	4.01	29.39	51.32	0.4843E+05	0.3549E+00	0.6197E+00
5	5.19	5.62	9.65	0.5538E+06	0.6003E+00	0.1030E+01
6	5.72	2.65	4.24	0.2812E+06	0.1304E+00	0.2084E+00
			Year 8.0			
1	1.61	305.40	1694.00	0.5191E+03	0.9863E-01	0.5472E+00
2	2.33	185.90	755.90	0.2589E+04	0.2065E+00	0.8396E+00
3	3.43	53.35	135.00	0.1187E+05	0.1846E+00	0.4673E+00
4	3.95	27.41	49.21	0.4770E+05	0.3309E+00	0.5942E+00
5	5.18	4.98	8.45	0.5532E+06	0.5317E+00	0.9019E+00
6	5.72	2.34	3.53	0.2811E+06	0.1152E+00	0.1733E+00

TABLE A.9b. (CONTINUED)

Box	Sediment Concen-tration (mg/L)	Sorbed Concen-tration (ng/L)	Dissolved Concen-tration (ng/L)	Sediment Mass (kg)	Sorbed Mass (kg)	Dissolved Mass (kg)
			Year 10.0			
1	1.60	276.00	1510.00	0.5178E+03	0.8913E-01	0.4878E+00
2	2.33	178.80	729.70	0.2583E+04	0.1986E+00	0.8105E+00
3	3.42	53.18	135.00	0.1185E+05	0.1840E+00	0.4670E+00
4	3.94	28.22	49.98	0.4760E+05	0.3408E+00	0.6035E+00
5	5.17	4.64	7.73	0.5522E+06	0.4951E+00	0.8254E+00
6	5.71	2.16	3.12	0.2809E+06	0.1062E+00	0.1532E+00

APPENDIX B

CONTOUR PLOTS OF DEPTH-AVERAGED TOTAL POLYCHLORINATED BIPHENYL CONCENTRATION IN THE WATER COLUMN

APPENDIX B

CONTOUR PLOTS OF DEPTH-AVERAGED TOTAL POLYCHLORINATED BIPHENYL CONCENTRATION IN THE WATER COLUMN

The contour plots of depth-averaged PCB concentration in the water column divide the study area into three subareas. The northern area extends from Wood Street Bridge to Coggeshall Street Bridge. The central area extends from the Coggeshall Street Bridge to the hurricane barrier. The southern area extends from just north of the hurricane barrier to the open boundary at the extreme southern end of the study area. Contour lines were interpolated between data points generated by model results. Units on the axes are in thousands of meters from the model grid origin (see Figure A.1 in Appendix A).

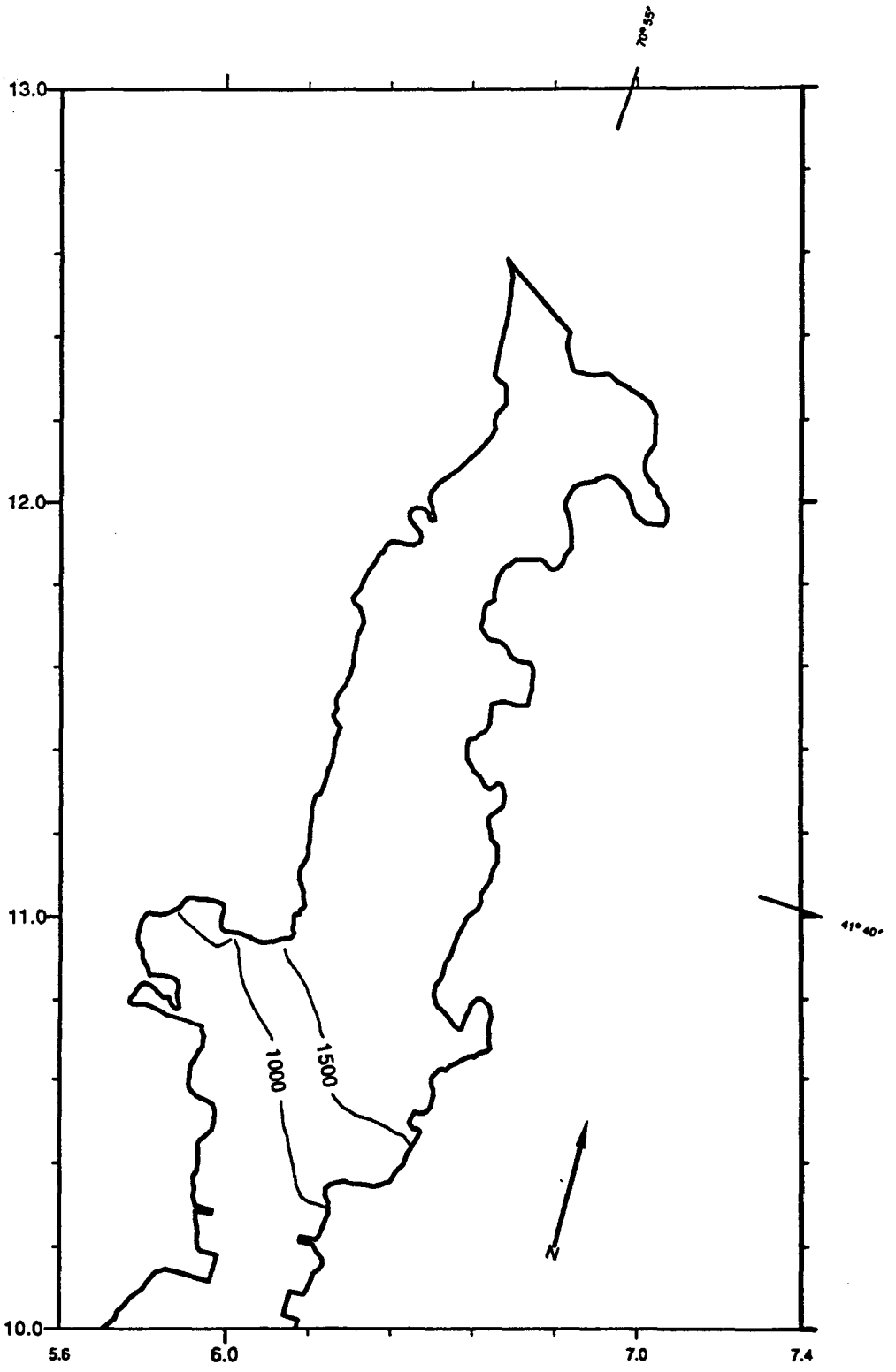

FIGURE B.1a. TOTAL-PCB (ng/L) CONTOUR PLOT OF NO-ACTION CASE, NORTHERN AREA, YEAR 0

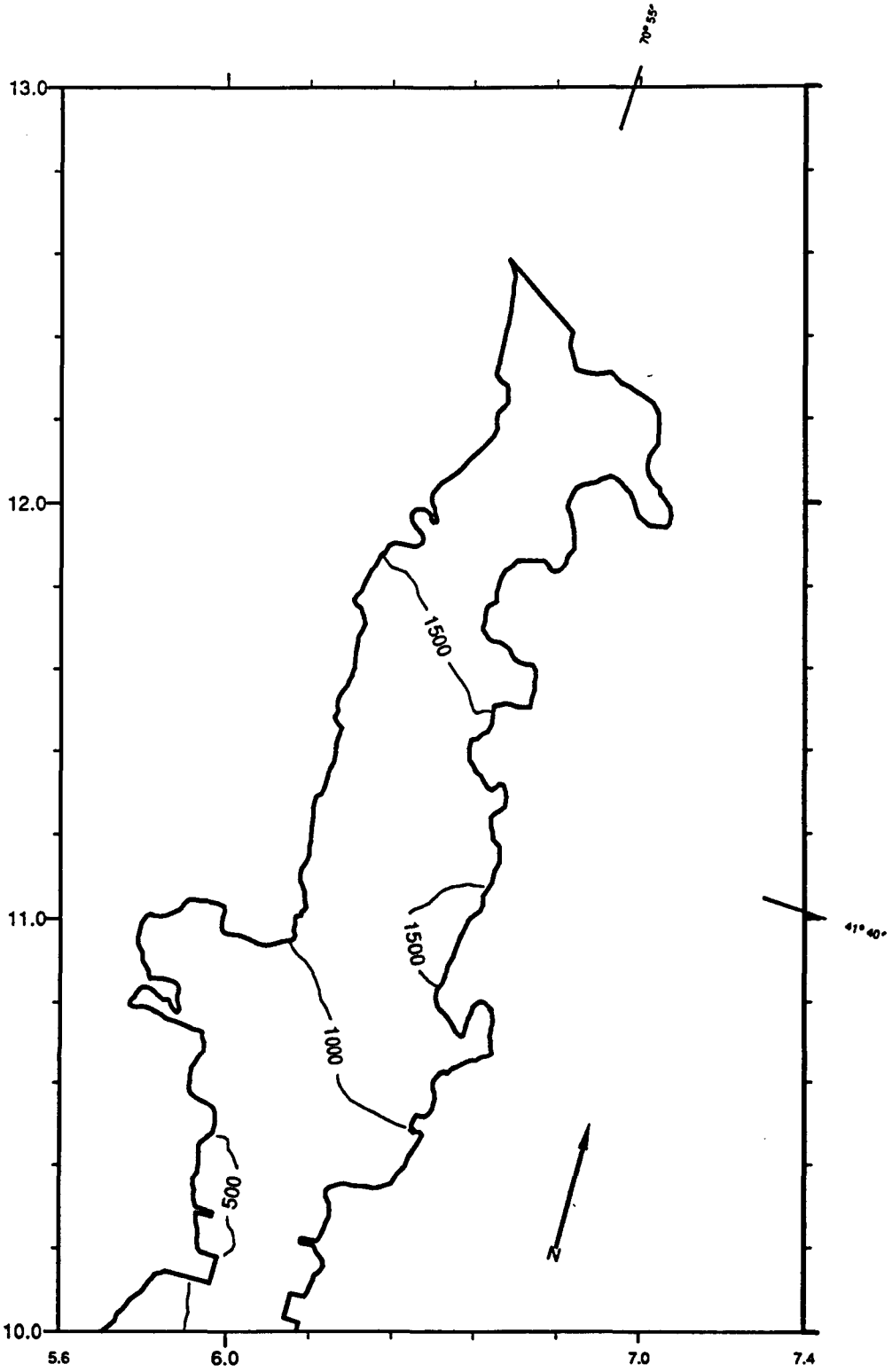

FIGURE B.1b. TOTAL-PCB (ng/L) CONTOUR PLOT OF NO-ACTION CASE, NORTHERN AREA, YEAR 10

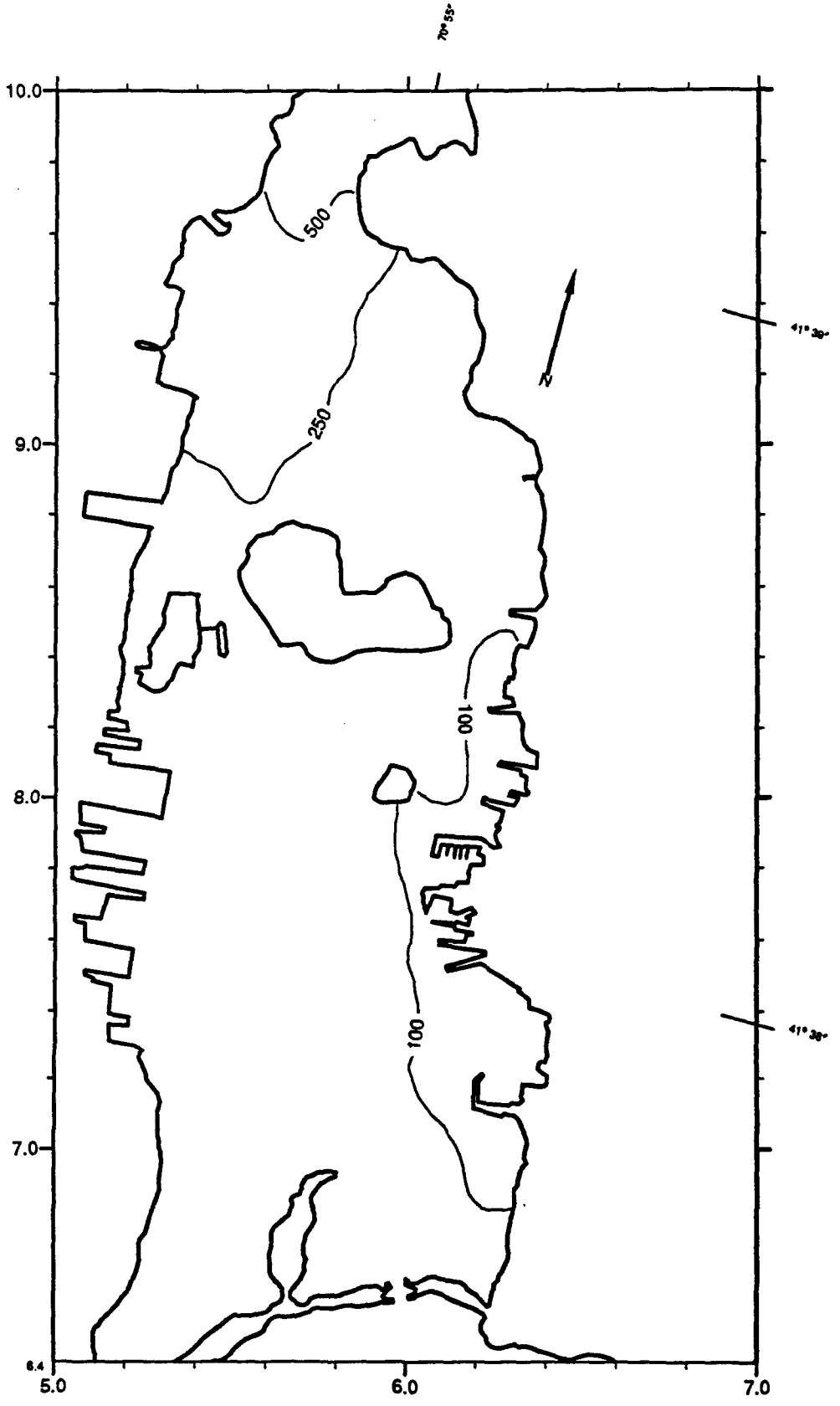

FIGURE B.1c. TOTAL-PCB (ng/L) CONTOUR PLOT OF NO-ACTION CASE, CENTRAL AREA, YEAR 0

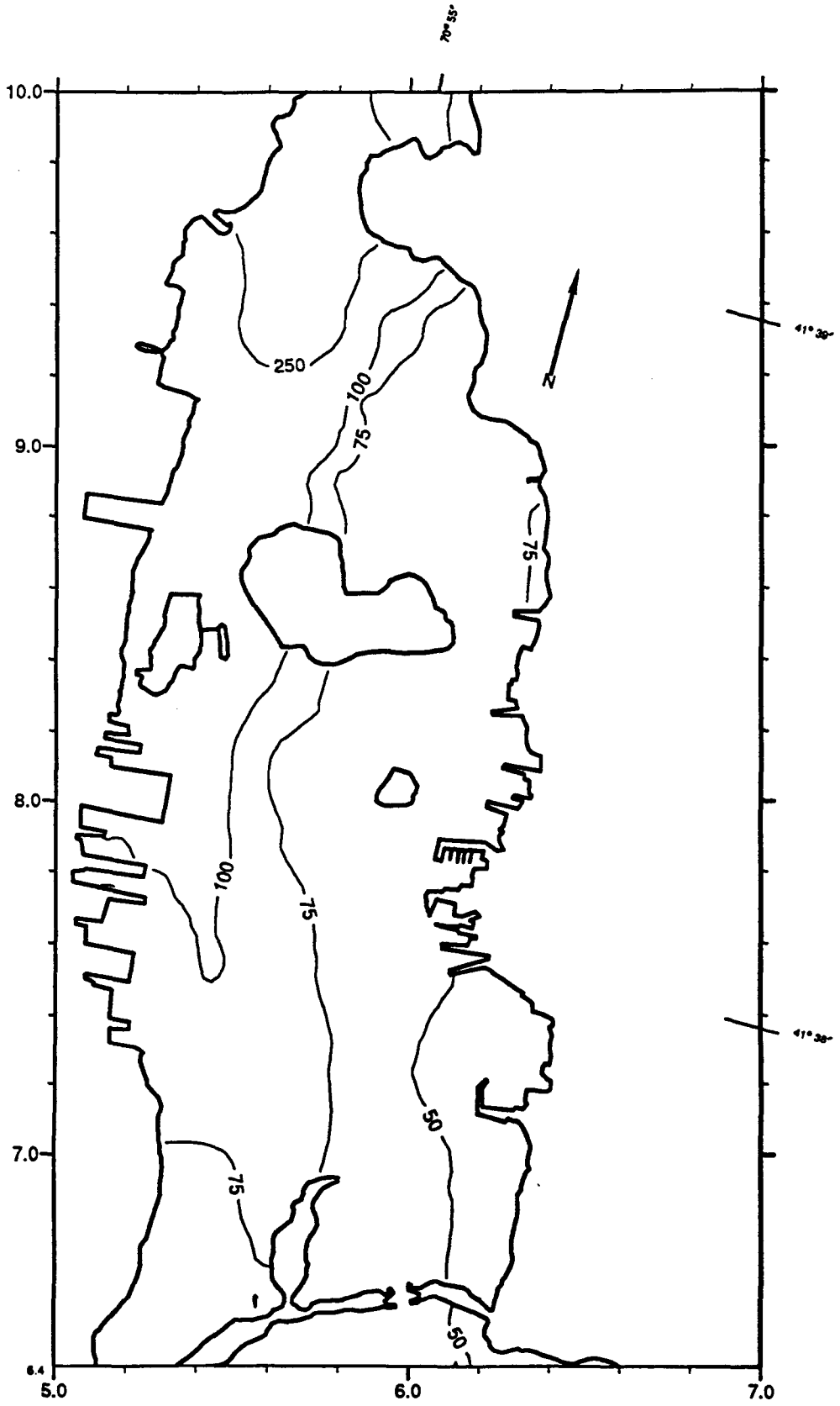

FIGURE B.1d. TOTAL-PCB (ng/L) CONTOUR PLOT OF NO-ACTION CASE, CENTRAL AREA, YEAR 10

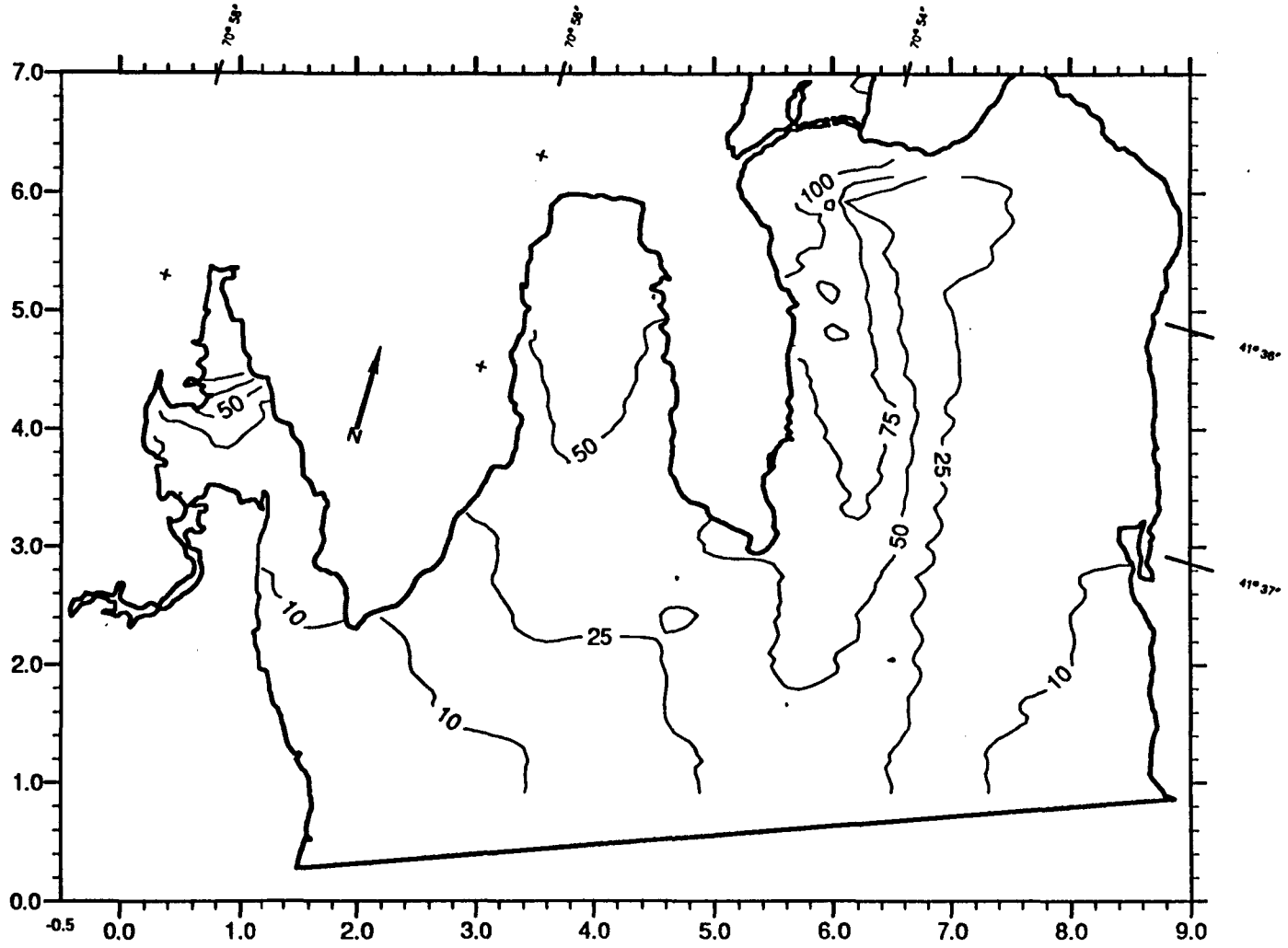

FIGURE B.1e. TOTAL-PCB (ng/L) CONTOUR PLOT OF NO-ACTION CASE, SOUTHERN AREA, YEAR 0

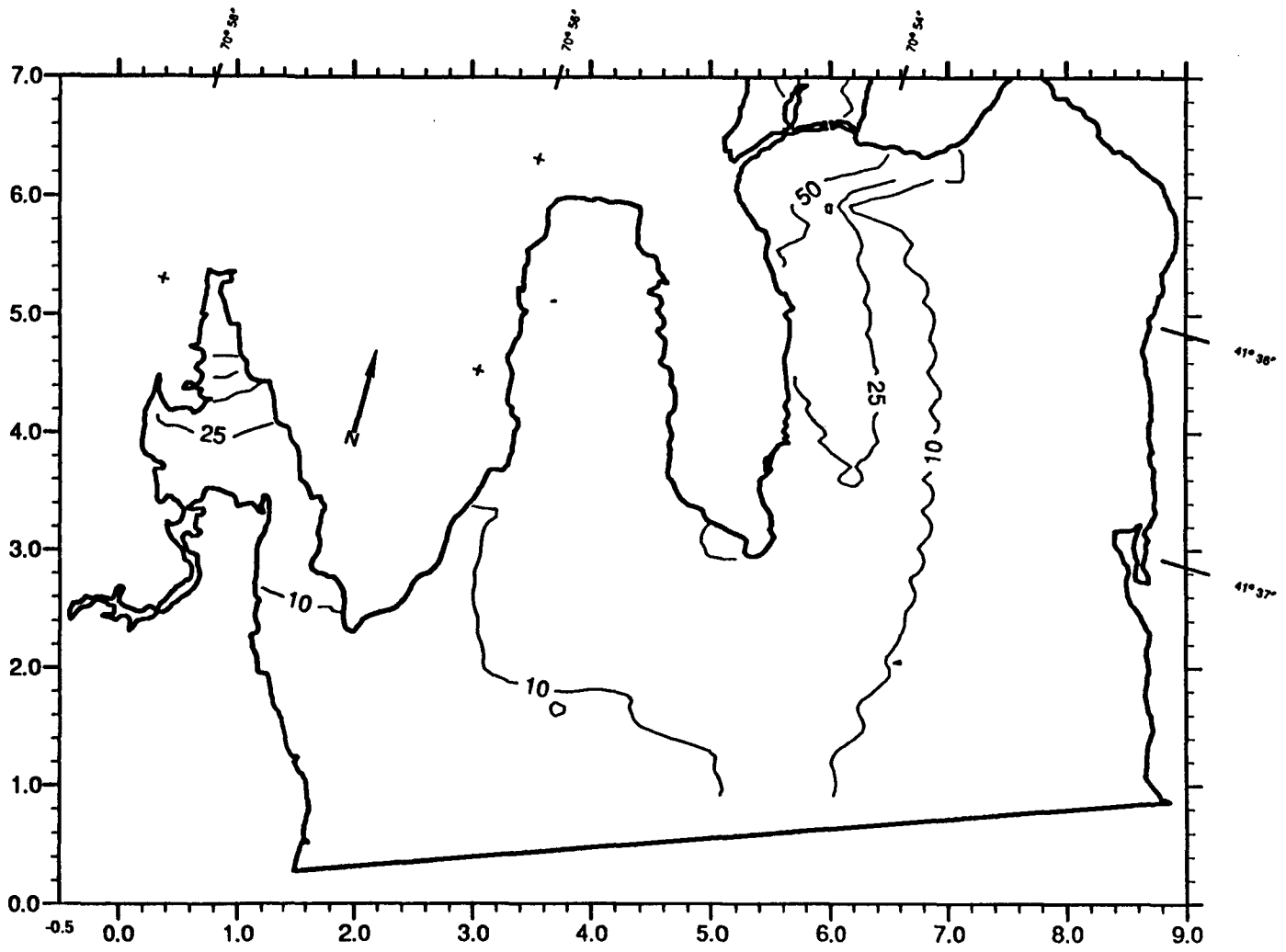

FIGURE B.1f. TOTAL-PCB (ng/L) CONTOUR PLOT OF NO-ACTION CASE, SOUTHERN AREA, YEAR 10

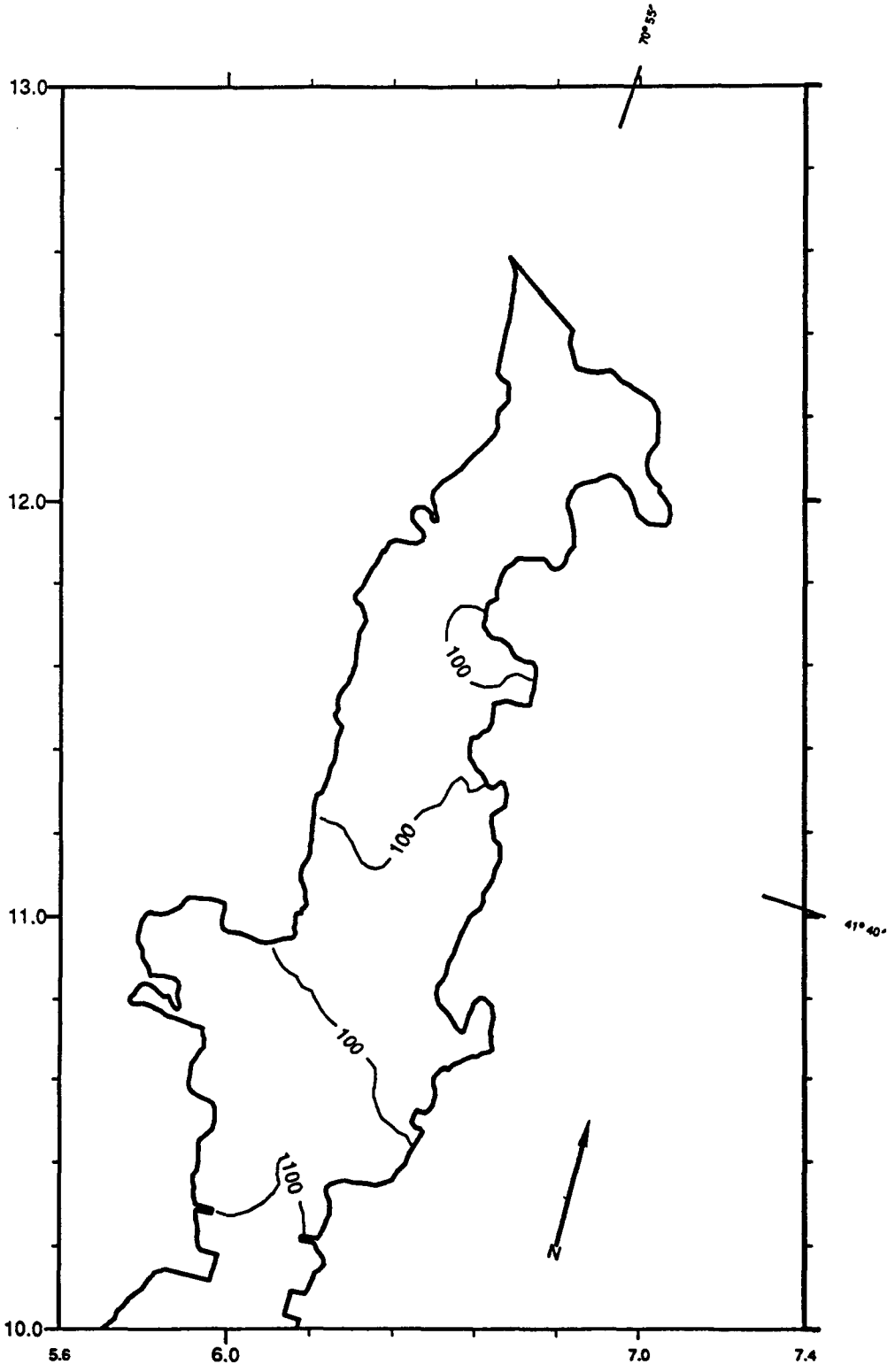

FIGURE B.2a. TOTAL-PCB (ng/L) CONTOUR PLOT OF 10-ppm ESTUARY CASE, NORTHERN AREA, YEAR 0

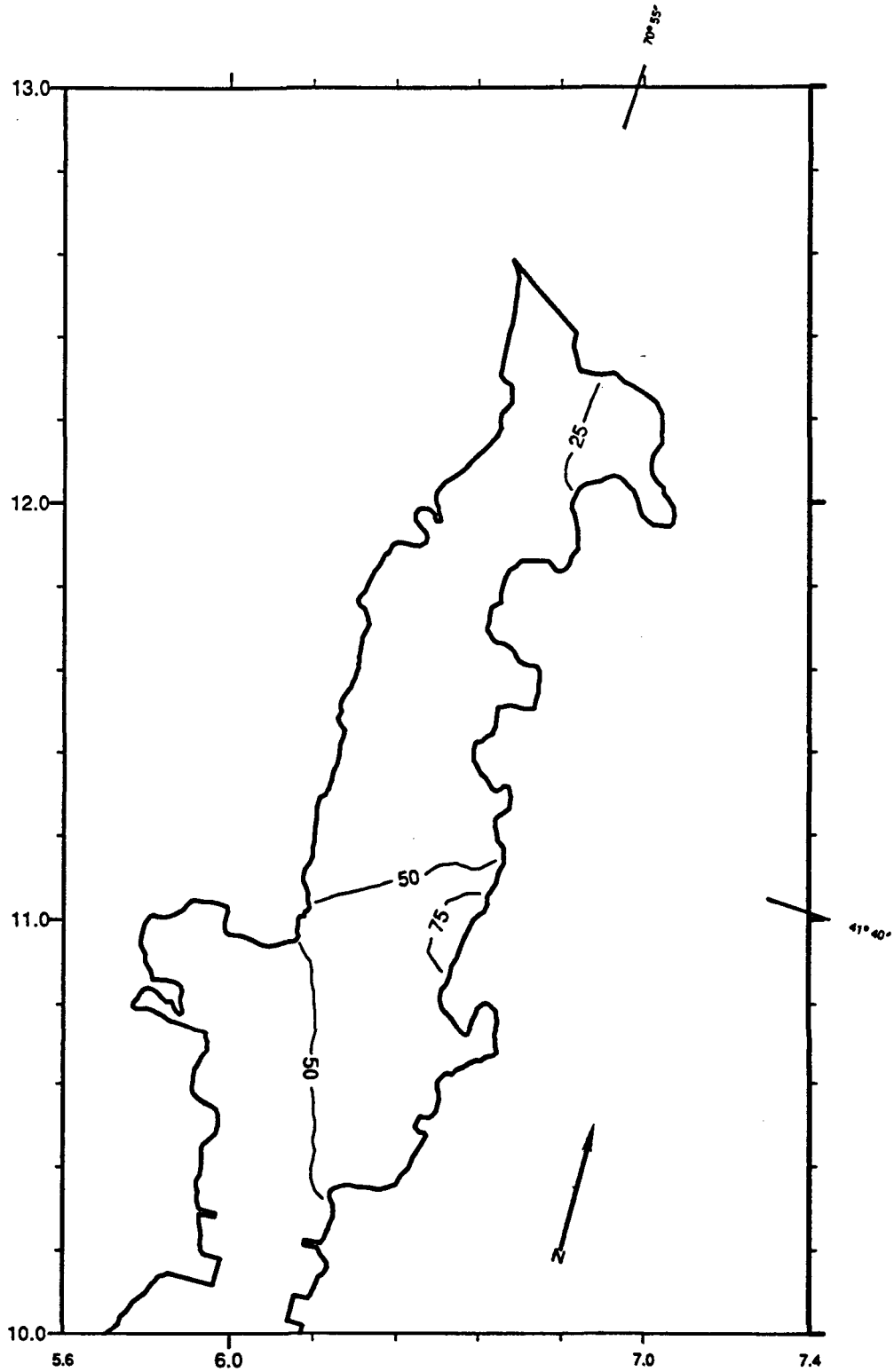

FIGURE B.2b. TOTAL-PCB (ng/L) CONTOUR PLOT OF 10-ppm ESTUARY CASE, NORTHERN AREA, YEAR 10

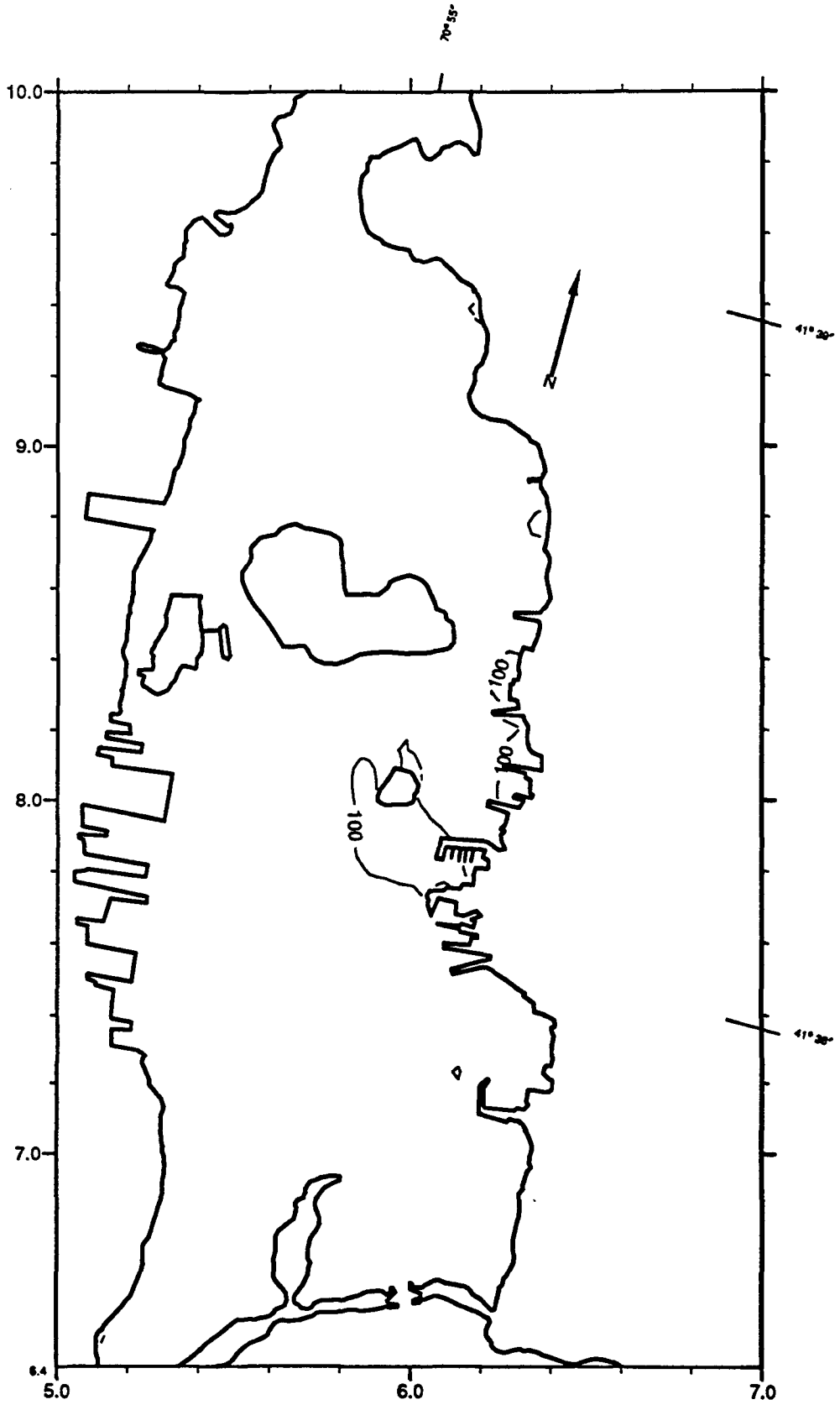

FIGURE B.2c. TOTAL-PCB (ng/L) CONTOUR PLOT OF 10-ppm ESTUARY CASE, CENTRAL AREA, YEAR 0

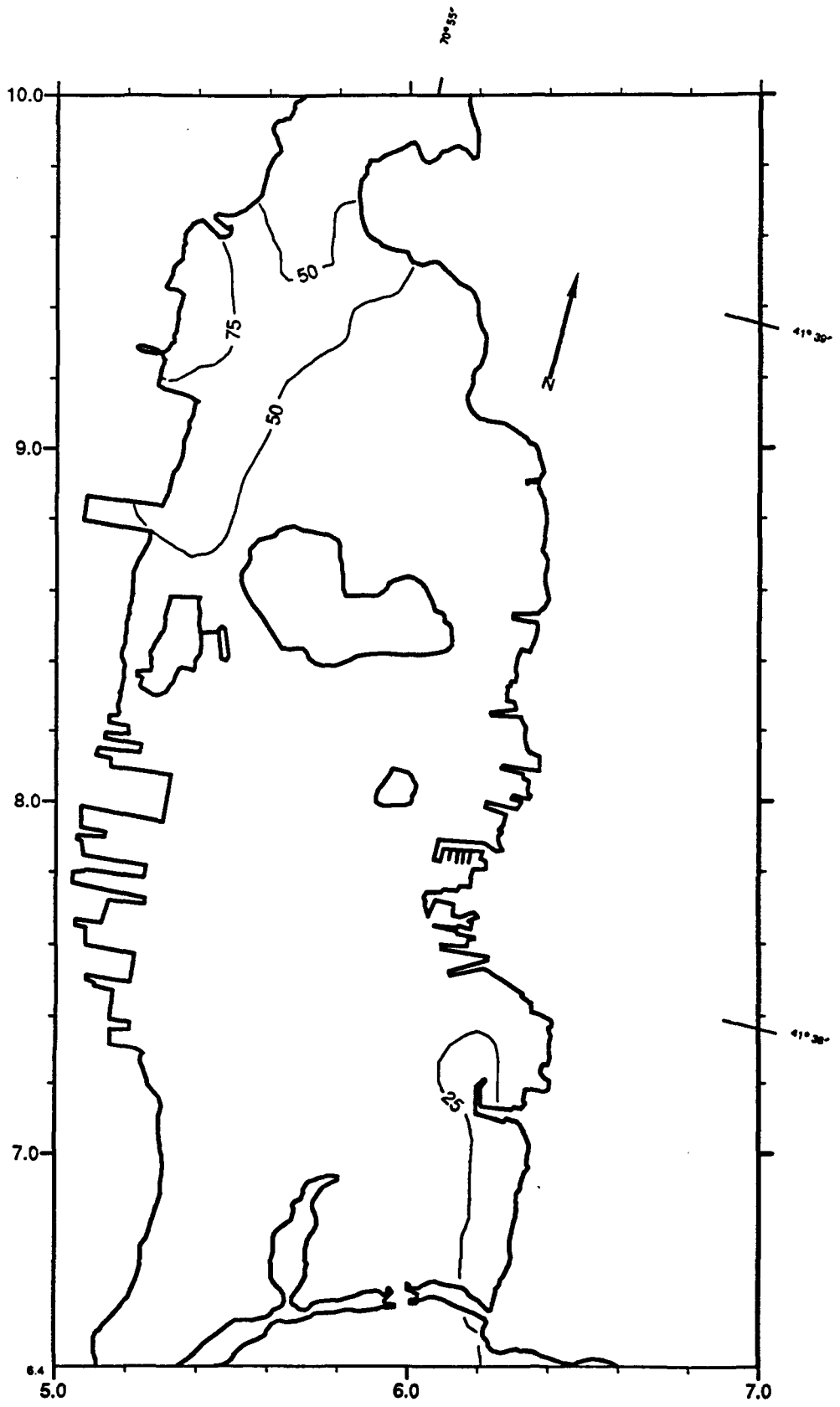

FIGURE B.2d. TOTAL-PCB (ng/L) CONTOUR PLOT OF 10-ppm ESTUARY CASE, CENTRAL AREA, YEAR 10

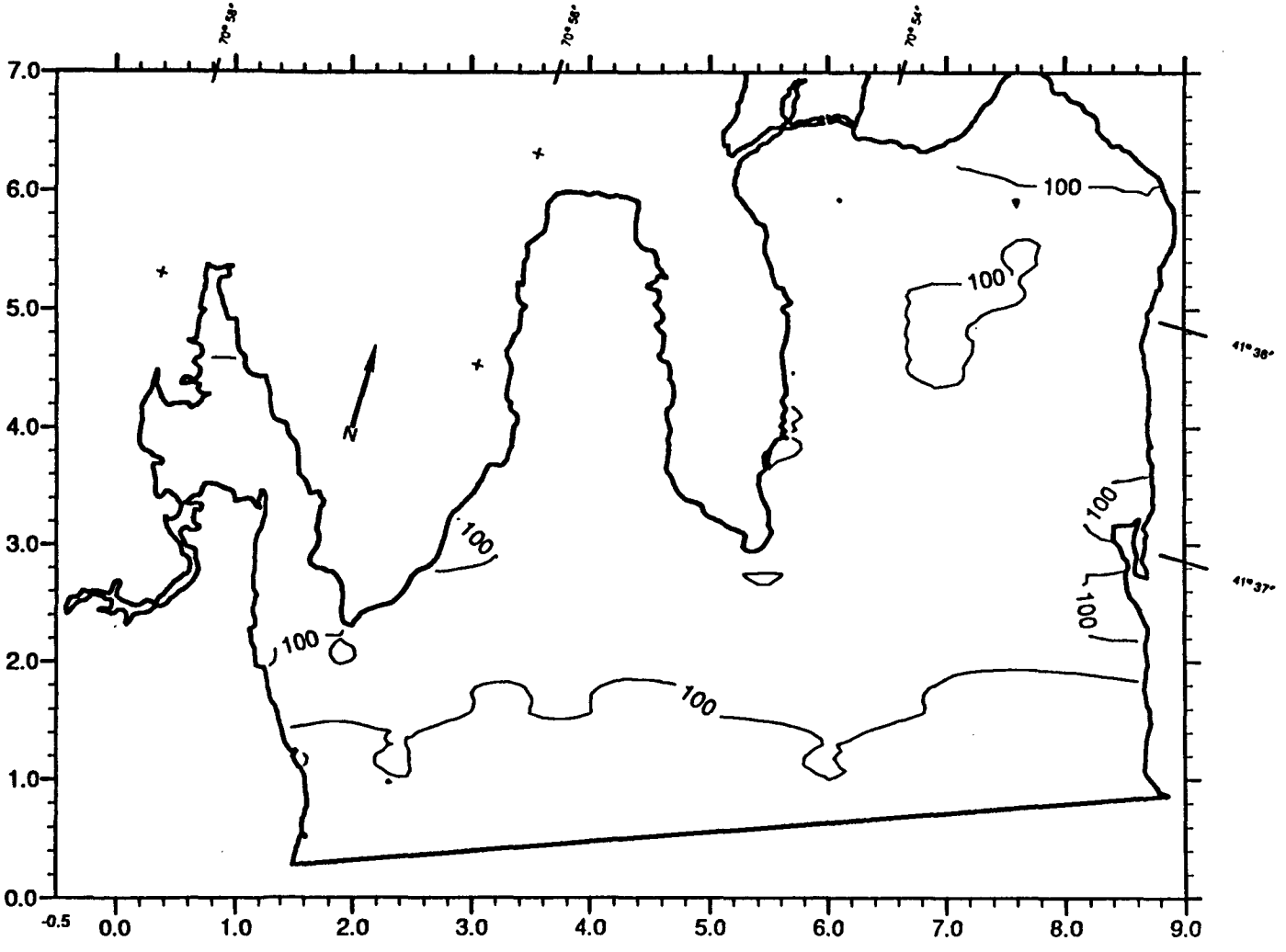

FIGURE B.2e. TOTAL-PCB (ng/L) CONTOUR PLOT OF 10-ppm ESTUARY CASE, SOUTHERN AREA, YEAR 0

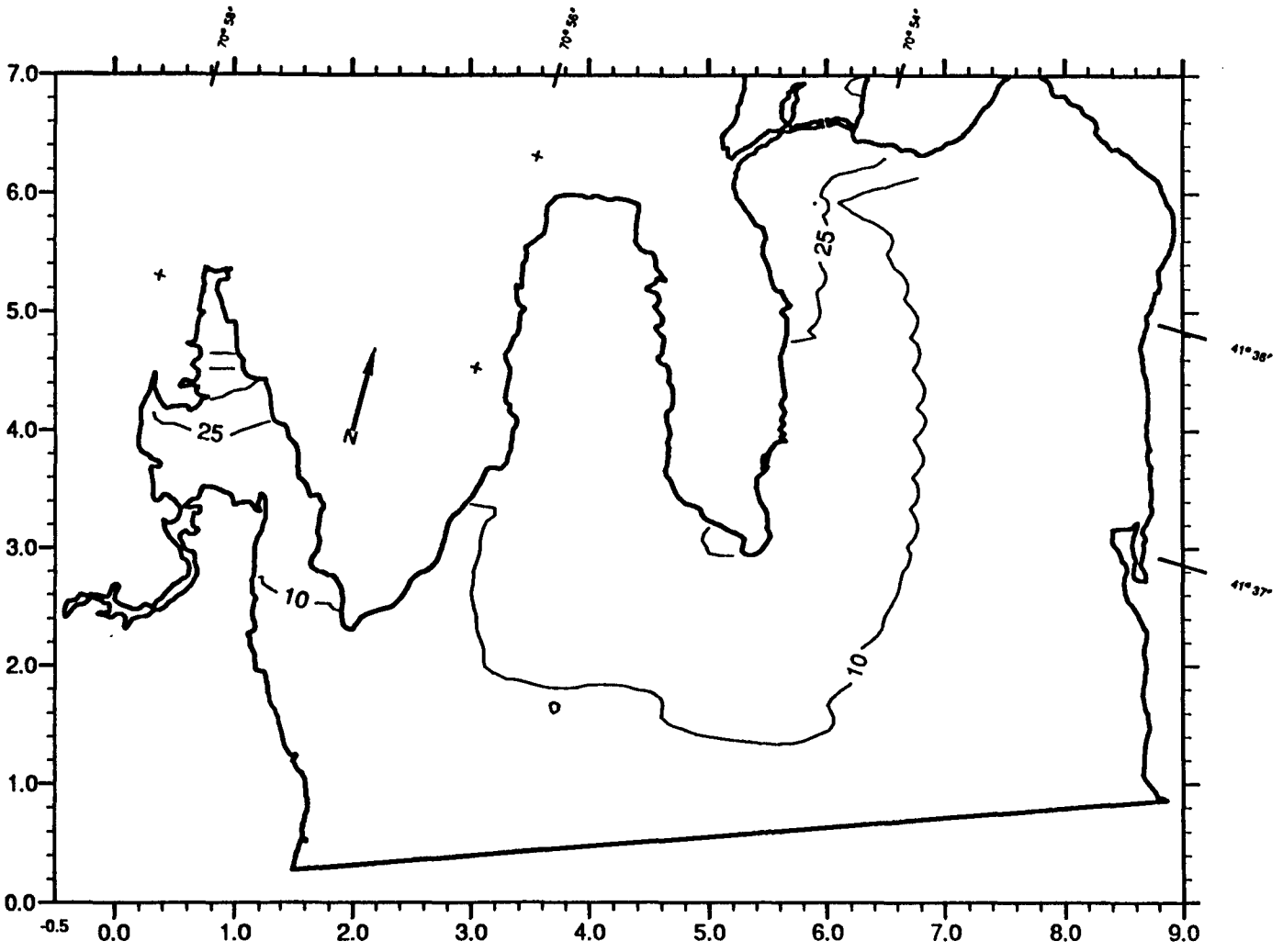

FIGURE B.2f. TOTAL-PCB (ng/L) CONTOUR PLOT OF 10-ppm ESTUARY CASE, SOUTHERN AREA, YEAR 10

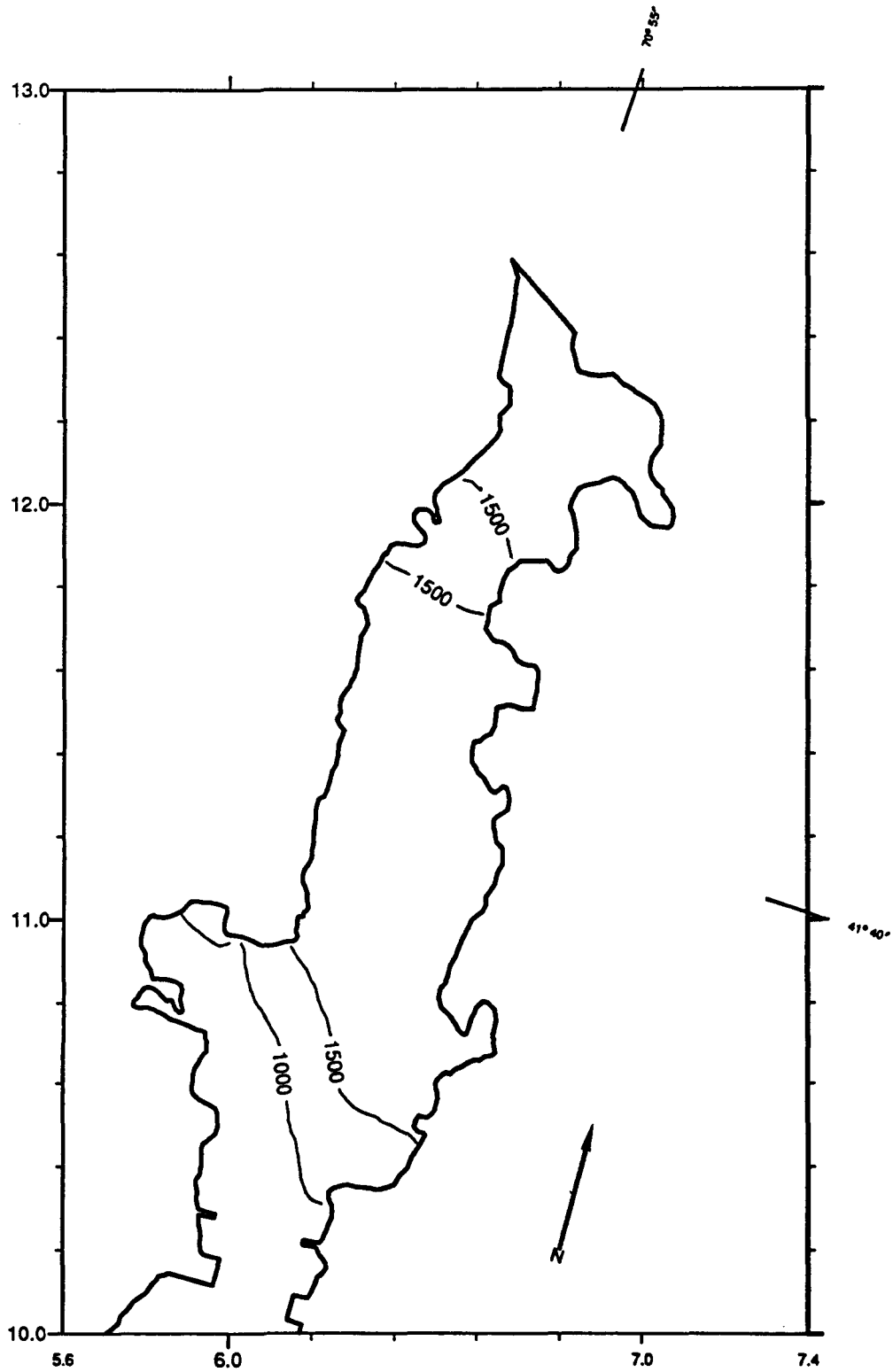

FIGURE B.3a. TOTAL-PCB (ng/L) CONTOUR PLOT OF HOT-SPOT CASE, NORTHERN AREA, YEAR 0

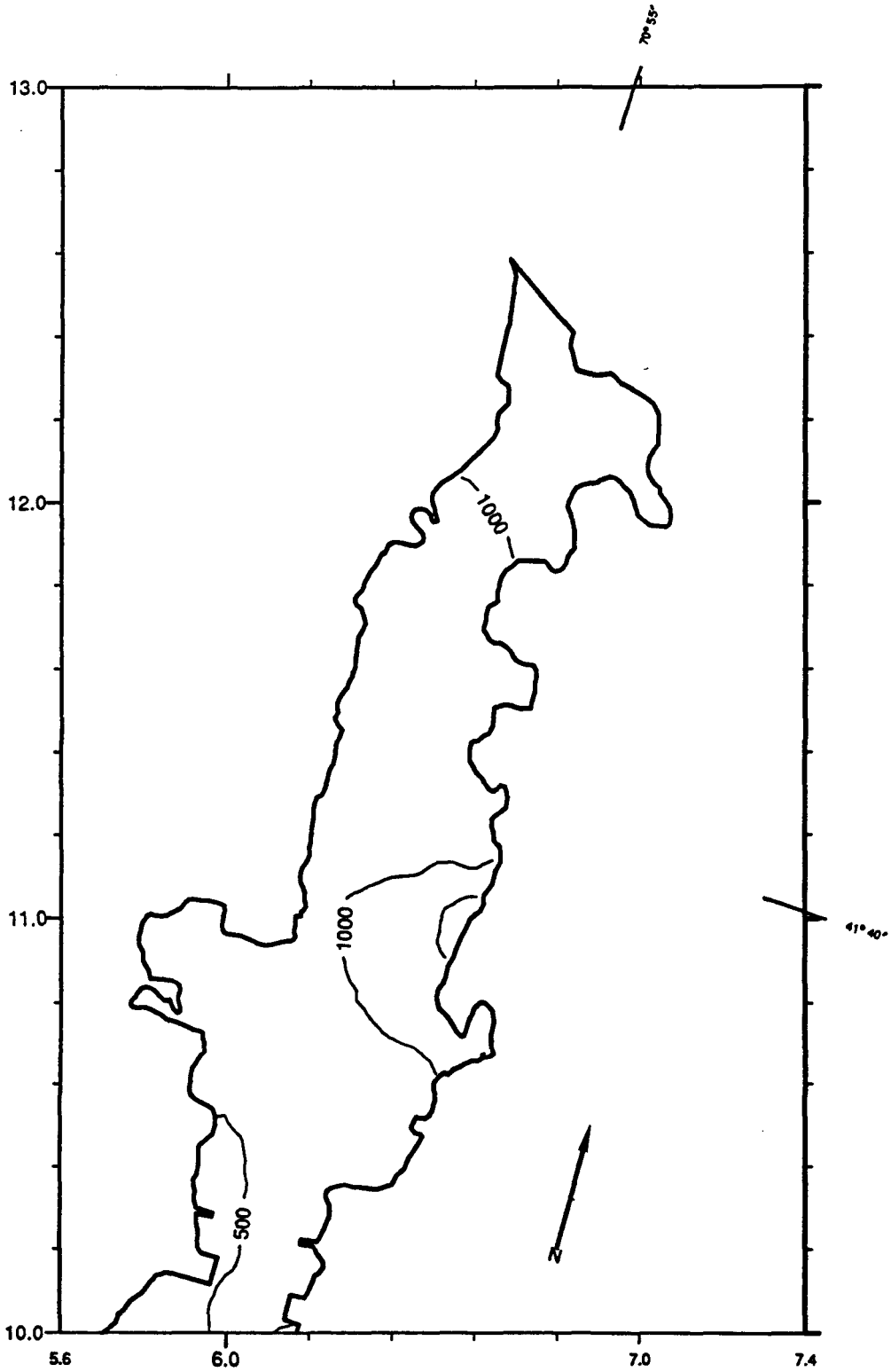

FIGURE B.3b. TOTAL-PCB (ng/L) CONTOUR PLOT OF HOT-SPOT CASE, NORTHERN AREA, YEAR 10

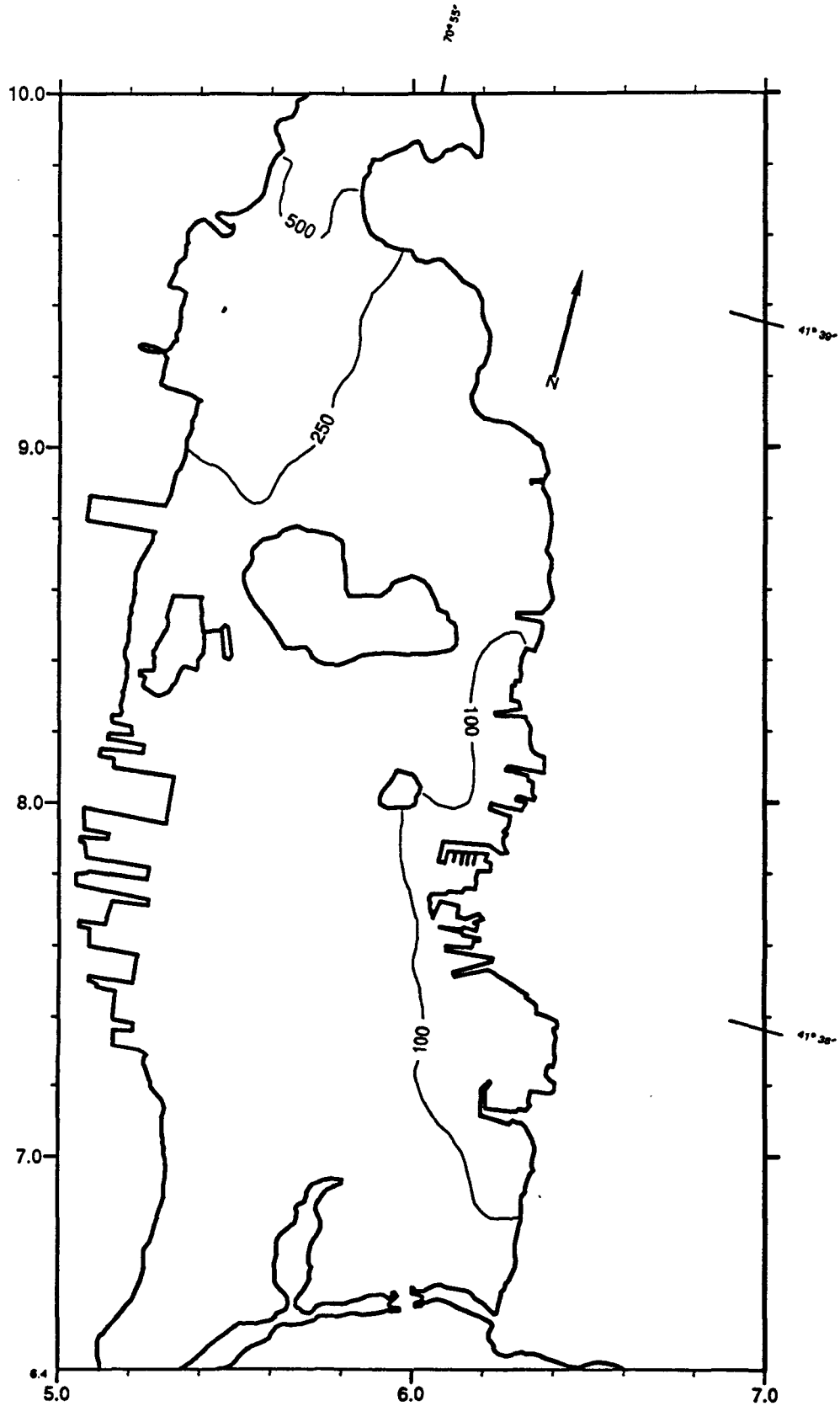

FIGURE B.3c. TOTAL-PCB (ng/L) CONTOUR PLOT OF HOT-SPOT CASE, CENTRAL AREA, YEAR 0

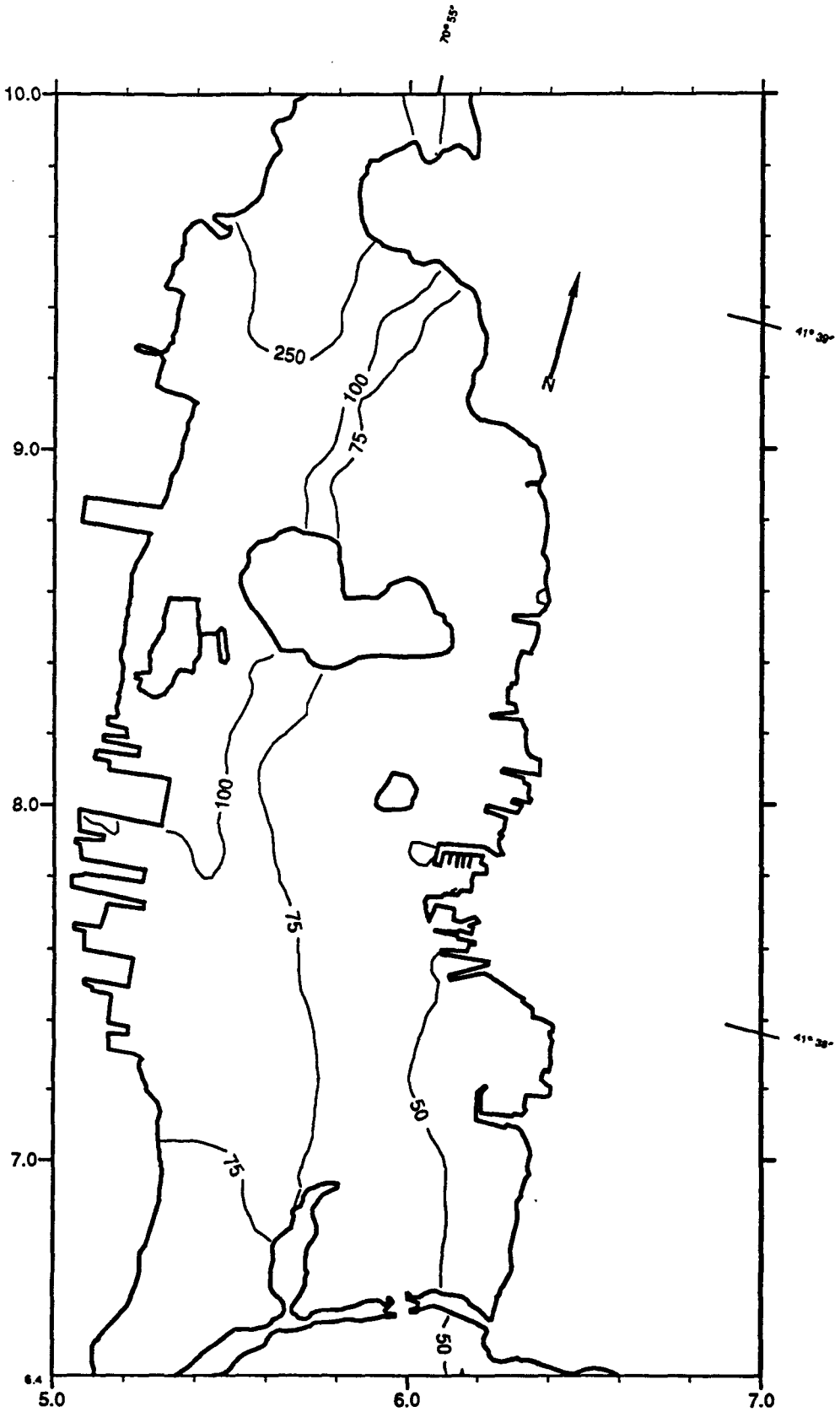

FIGURE B.3d. TOTAL-PCB (ng/L) CONTOUR PLOT OF HOT-SPOT CASE, CENTRAL AREA, YEAR 10

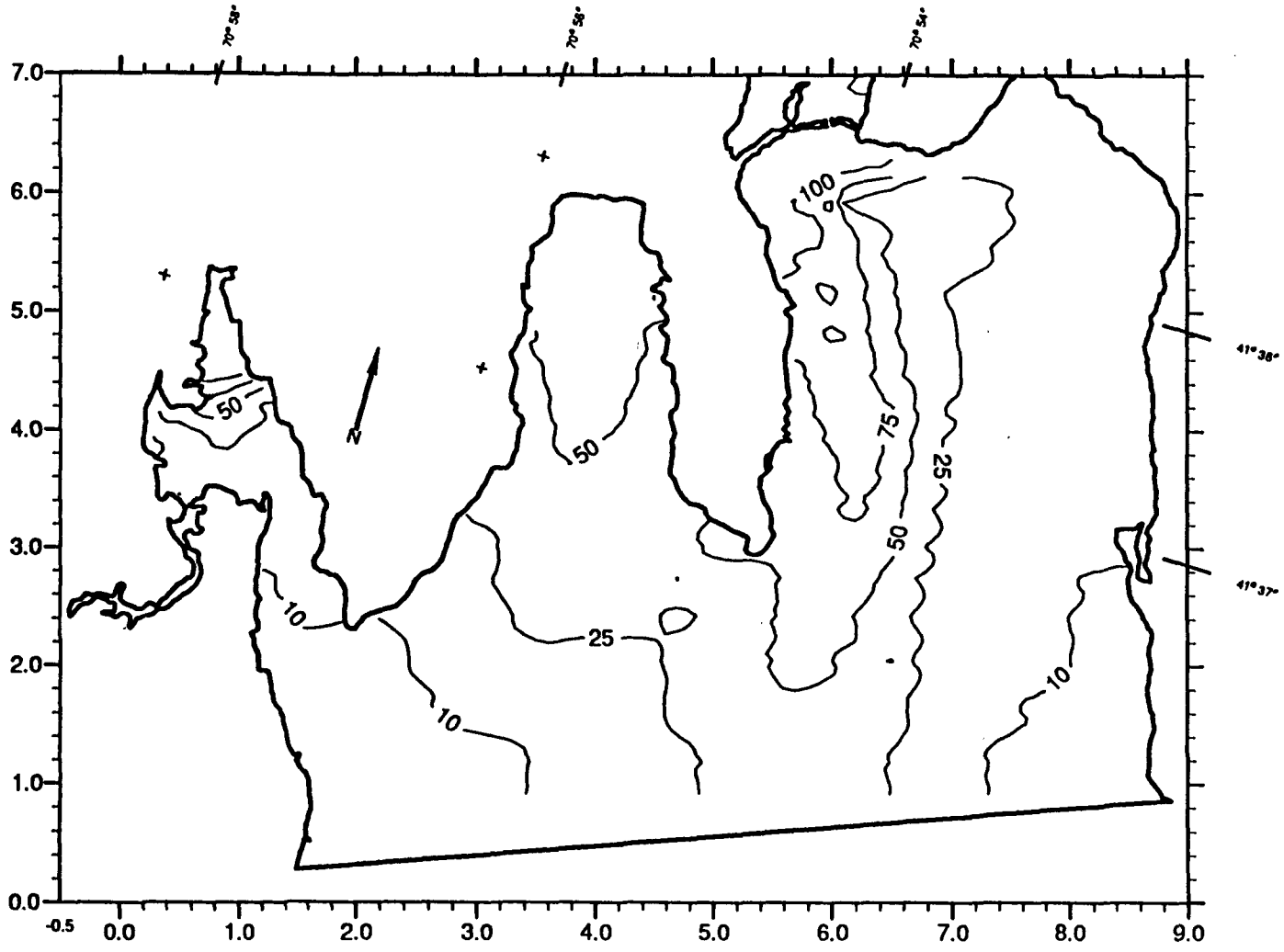

FIGURE B.3e. TOTAL-PCB (ng/L) CONTOUR PLOT OF HOT-SPOT CASE, SOUTHERN AREA, YEAR 0

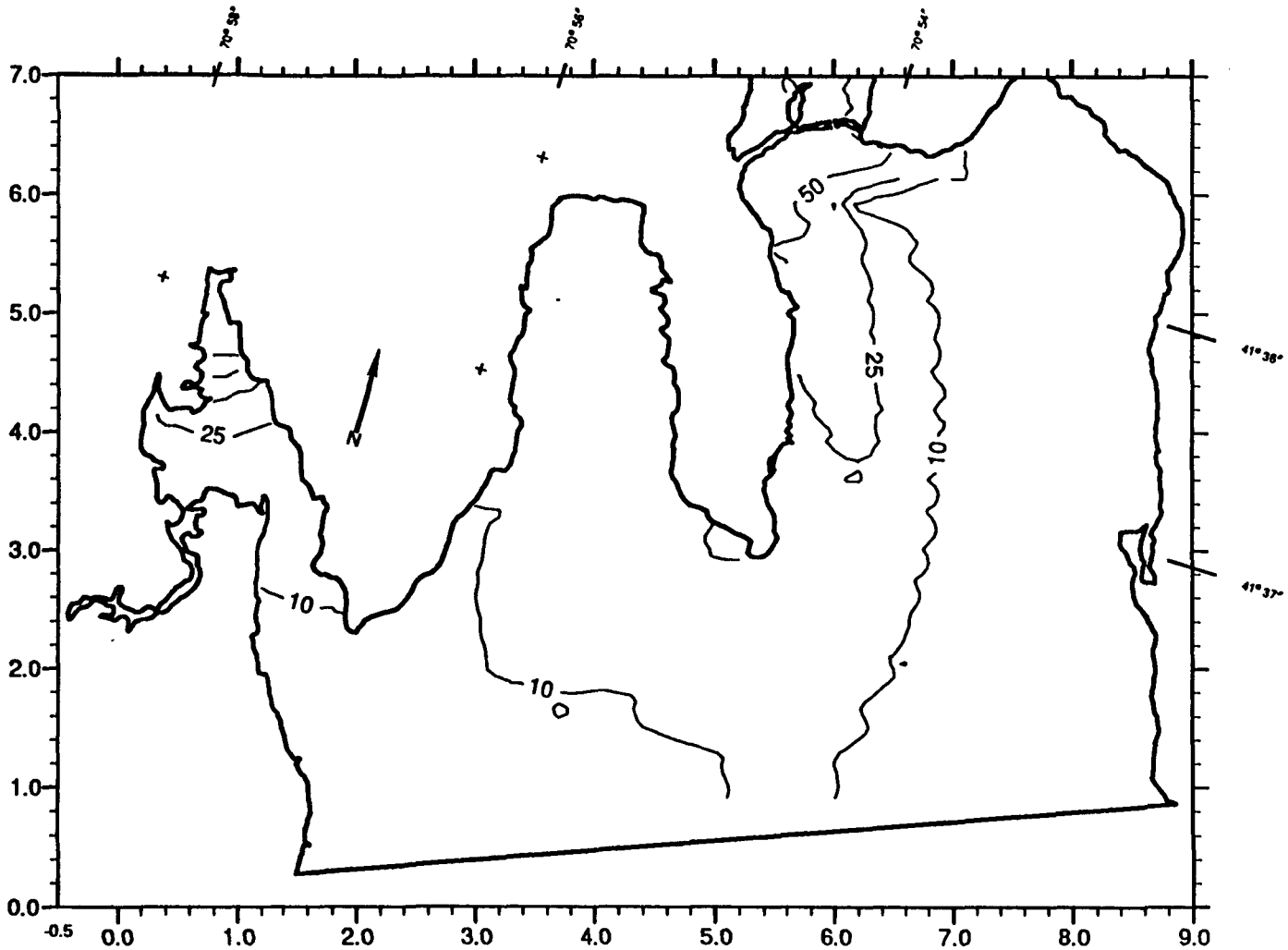

FIGURE B.3f. TOTAL-PCB (ng/L) CONTOUR PLOT OF HOT-SPOT CASE, SOUTHERN AREA, YEAR 10

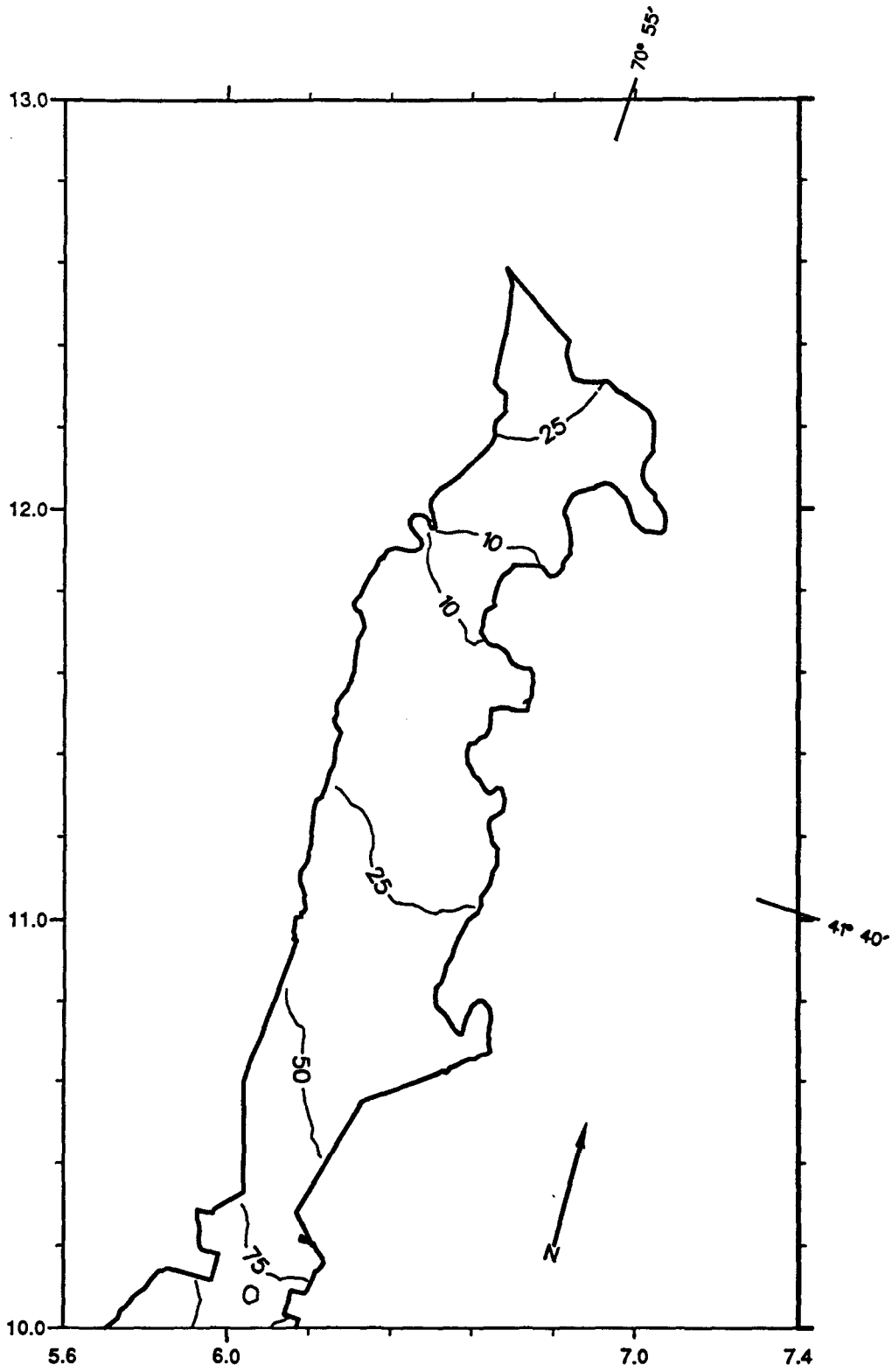

FIGURE B.4a. TOTAL-PCB (ng/L) CONTOUR PLOT OF UPPER-ESTUARY CASE, NORTHERN AREA, YEAR 0

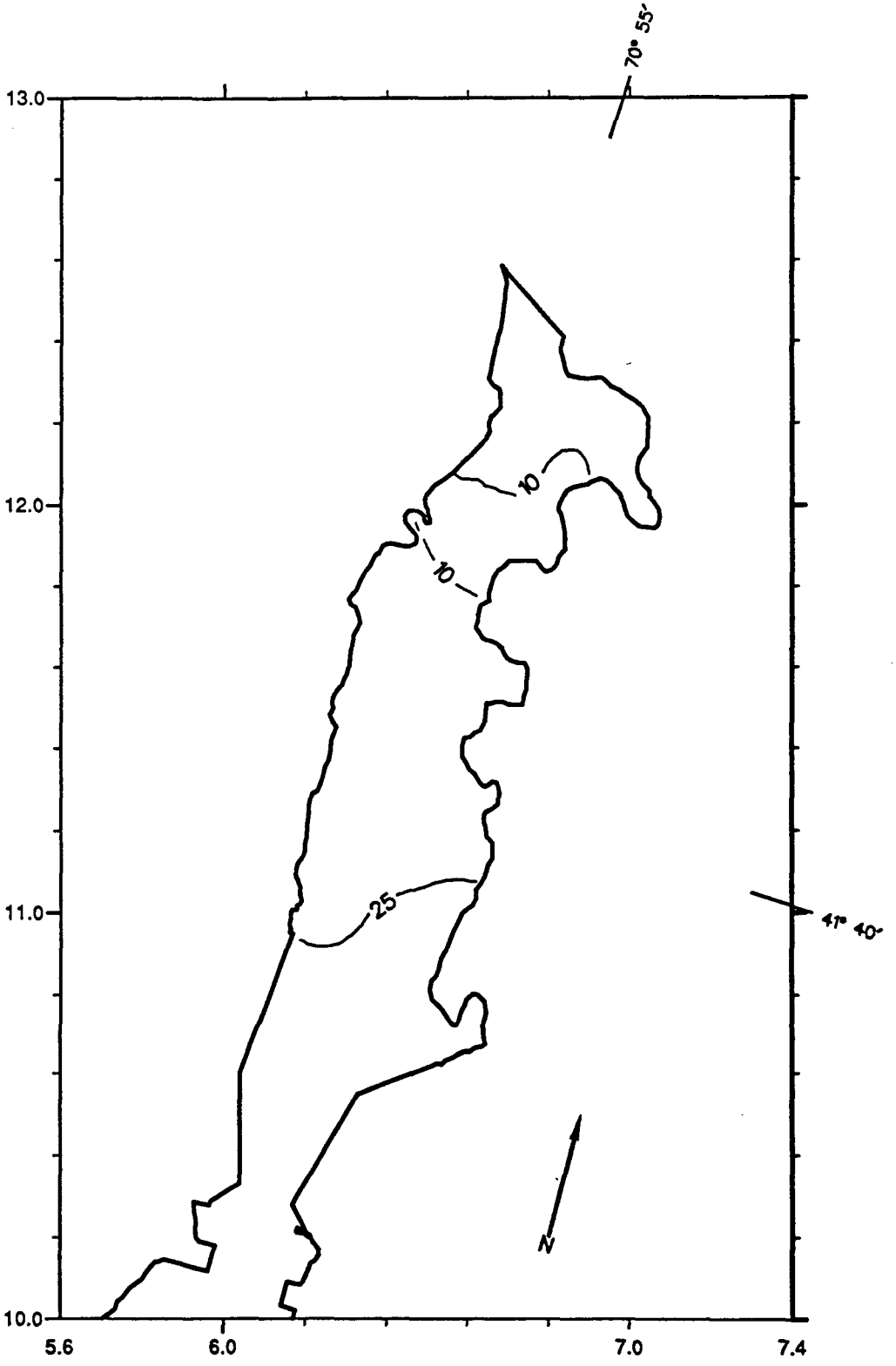

FIGURE B.4b. TOTAL-PCB (ng/L) CONTOUR PLOT OF UPPER-ESTUARY CASE, NORTHERN AREA, YEAR 10

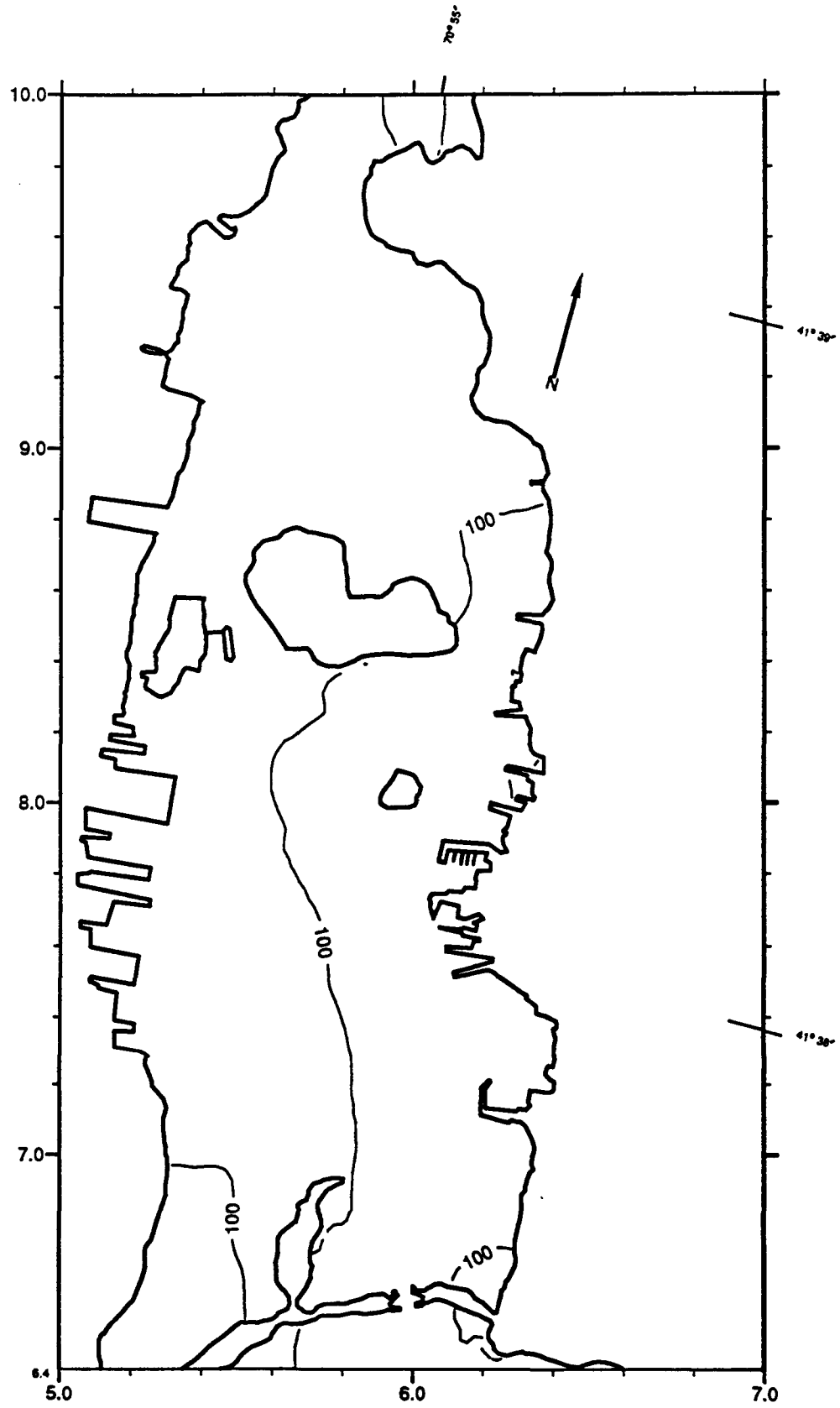

FIGURE B.4c. TOTAL-PCB (ng/L) CONTOUR PLOT OF UPPER-ESTUARY CASE, CENTRAL AREA, YEAR 0

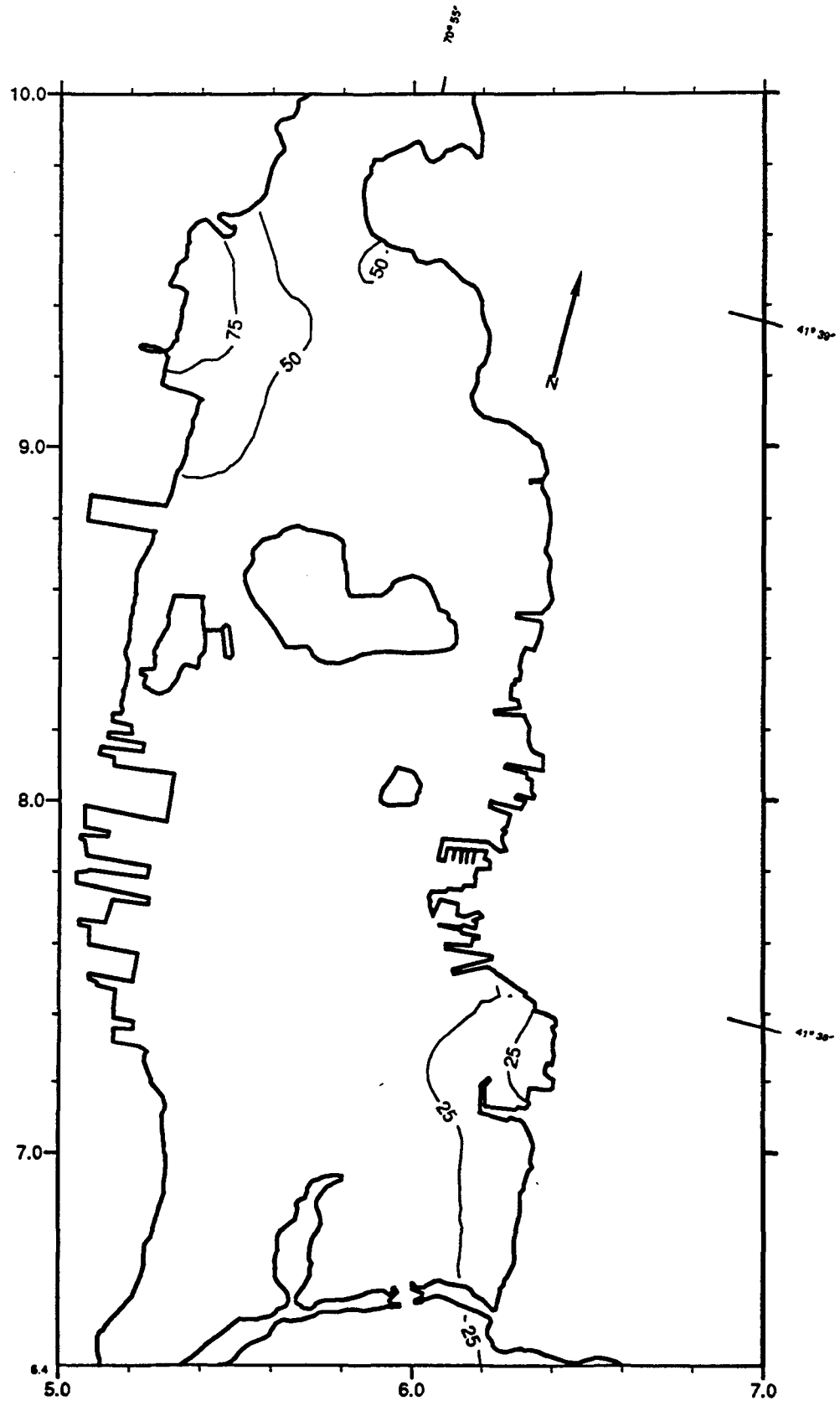

FIGURE B.4d. TOTAL-PCB (ng/L) CONTOUR PLOT OF UPPER-ESTUARY CASE, CENTRAL AREA, YEAR 10

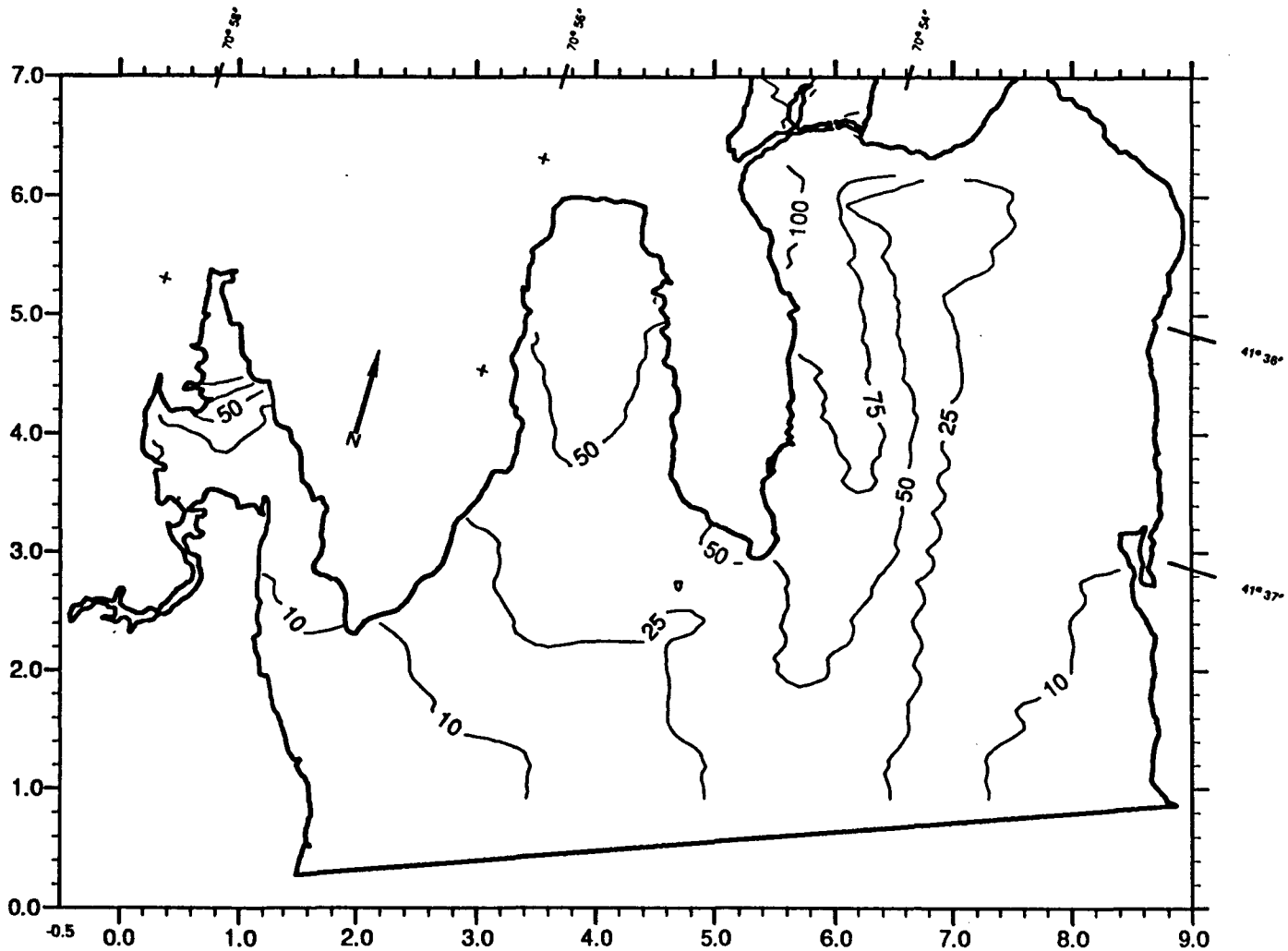

FIGURE B.4e. TOTAL-PCB (ng/L) CONTOUR PLOT OF UPPER-ESTUARY CASE, SOUTHERN AREA, YEAR 0

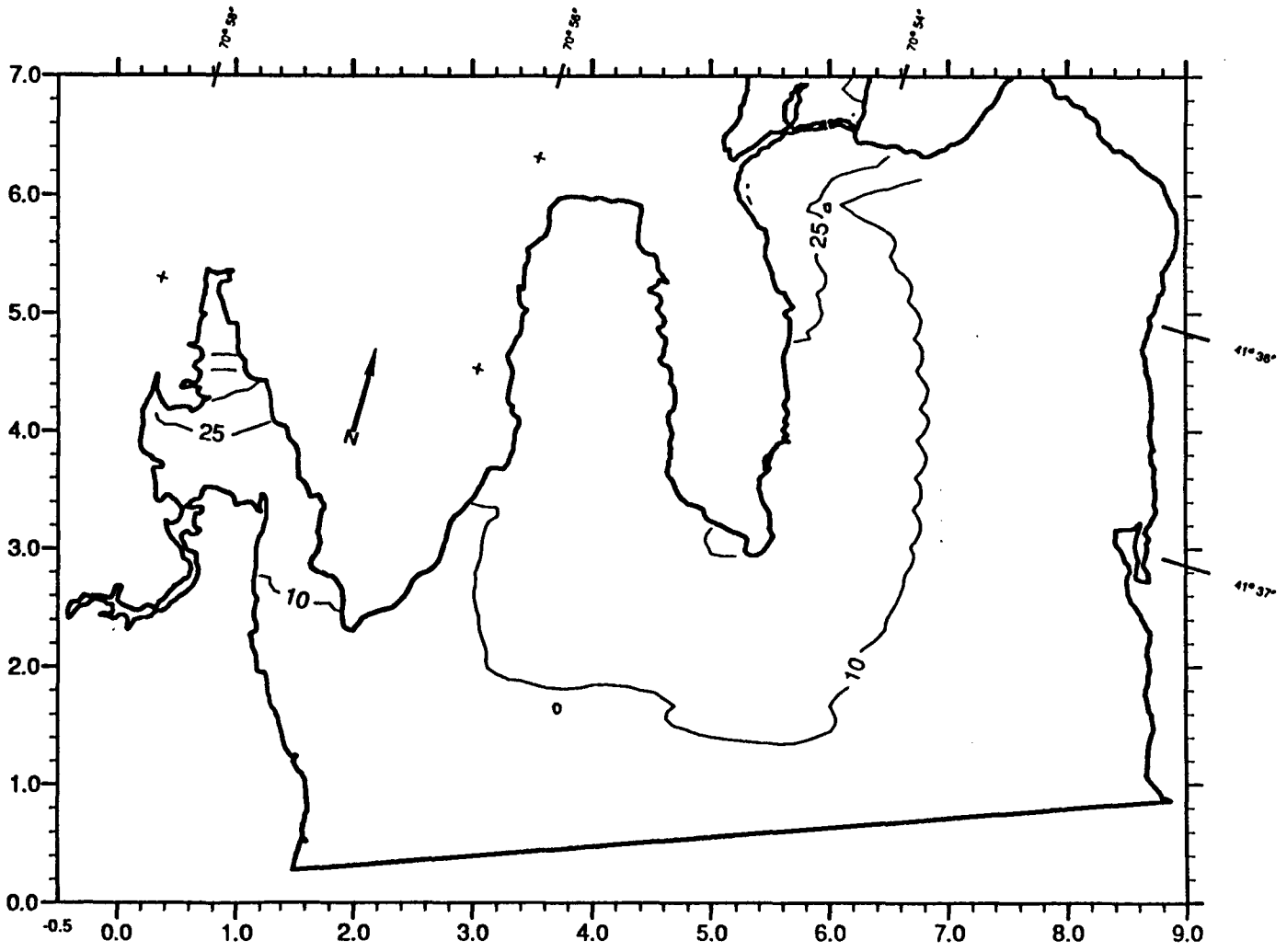

FIGURE B.4f. TOTAL-PCB (ng/L) CONTOUR PLOT OF UPPER-ESTUARY CASE, SOUTHERN AREA, YEAR 10

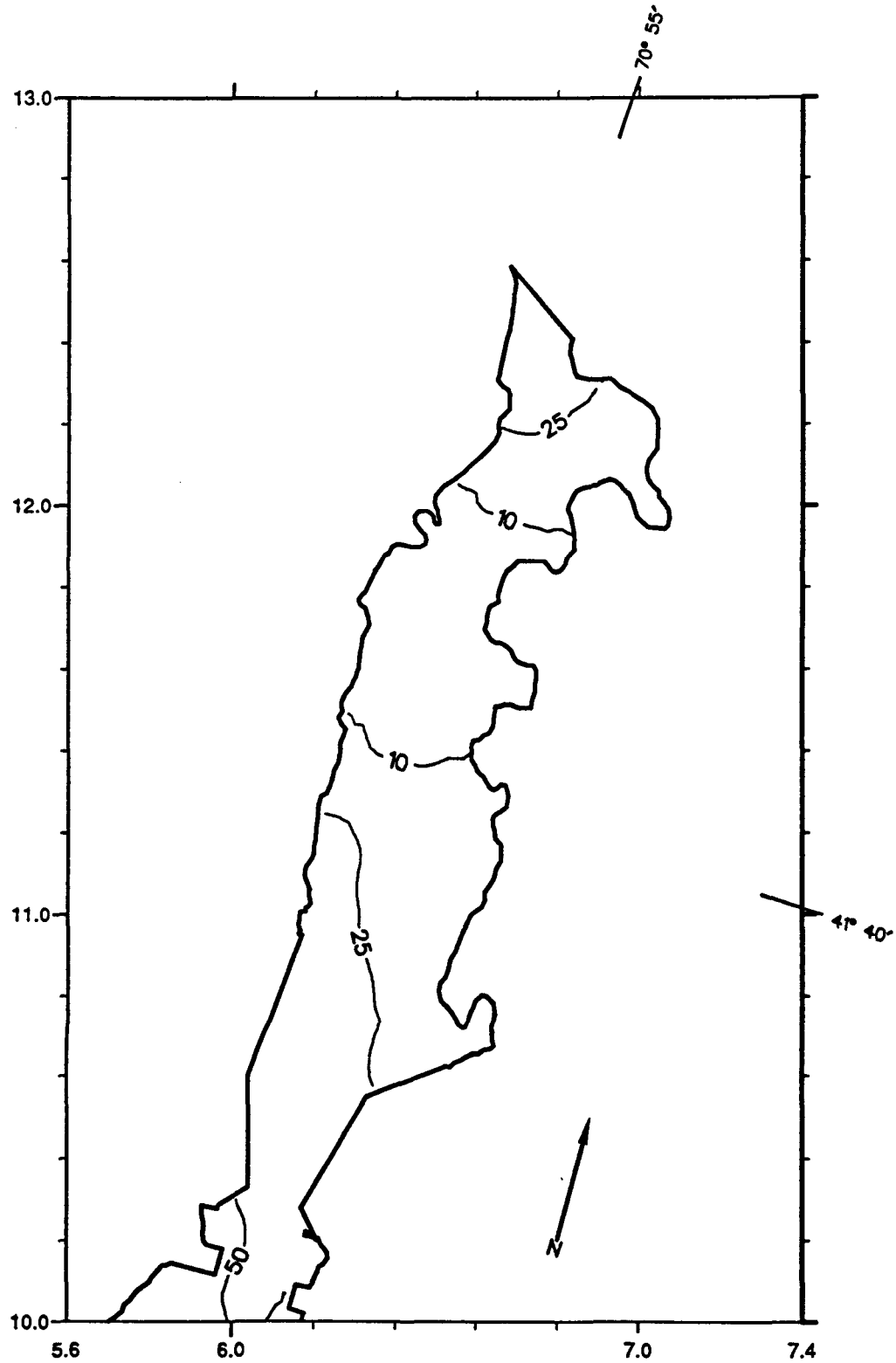

FIGURE B.5a. TOTAL-PCB (ng/L) CONTOUR PLOT OF LOWER-HARBOR AND BAY CASE, NORTHERN AREA, YEAR 0

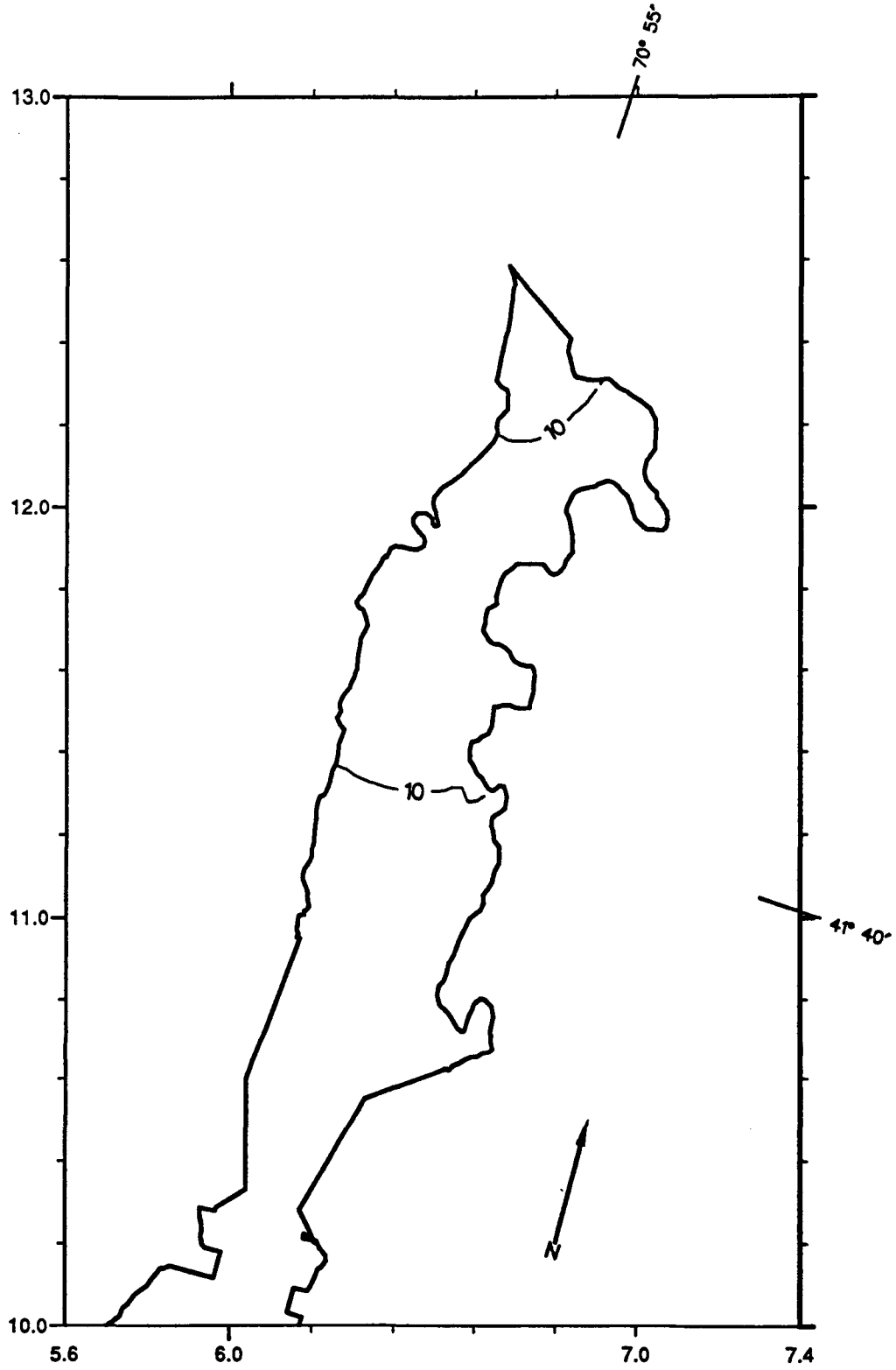

FIGURE B.5b. TOTAL-PCB (ng/L) CONTOUR PLOT OF LOWER-HARBOR AND BAY CASE, NORTHERN AREA, YEAR 10

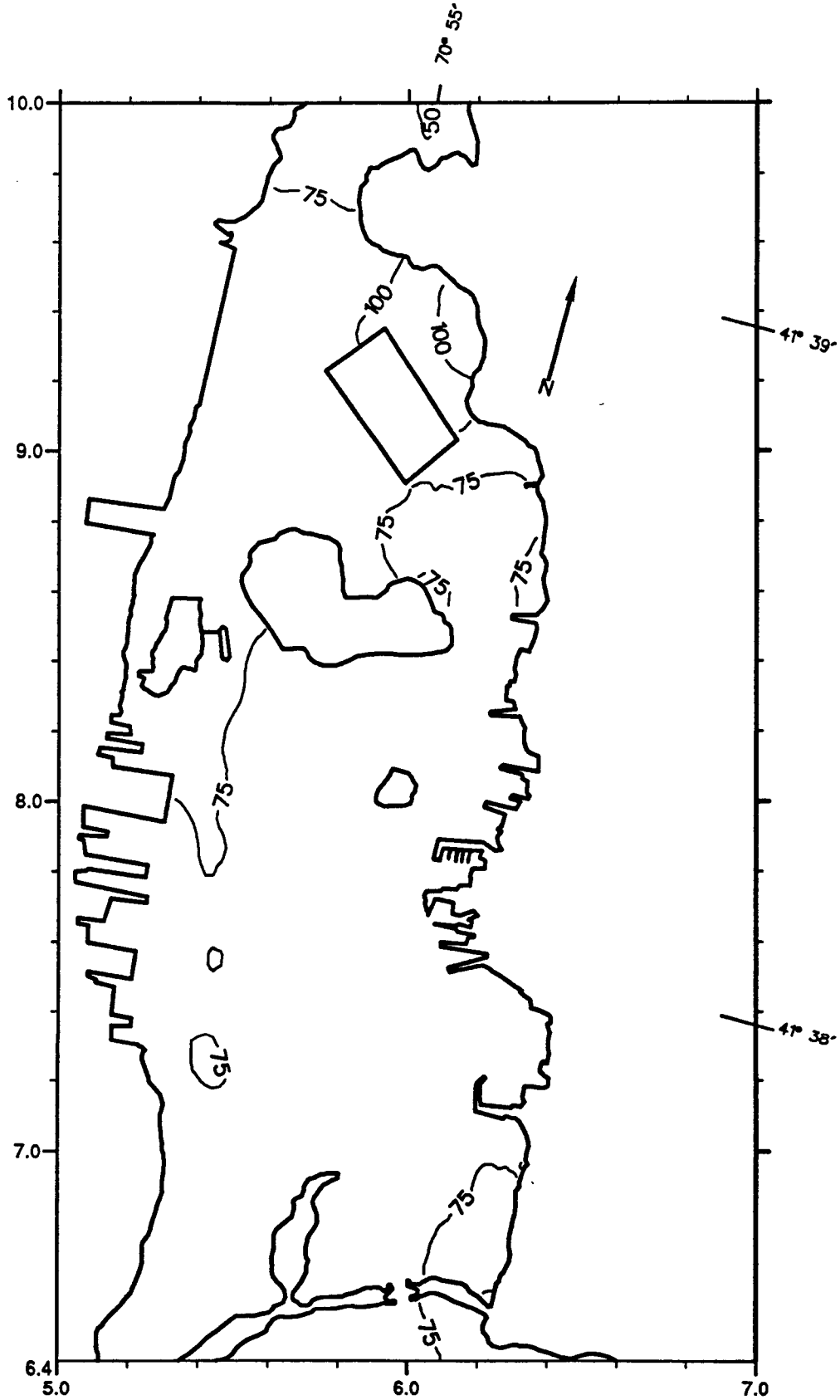

FIGURE B.5c. TOTAL-PCB (ng/L) CONTOUR PLOT OF LOWER-HARBOR AND BAY CASE, CENTRAL AREA, YEAR 0

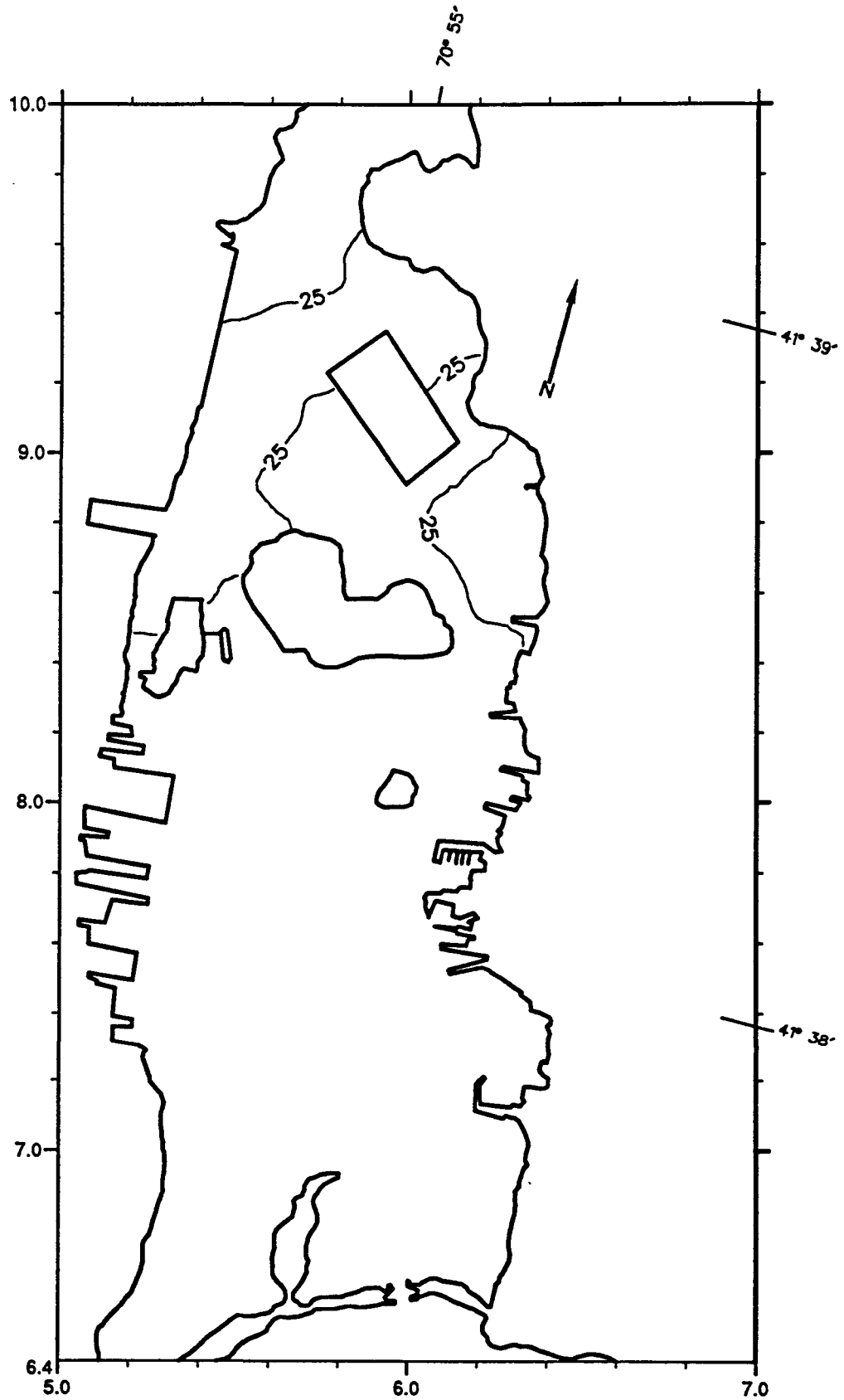

FIGURE B.5d. TOTAL-PCB (ng/L) CONTOUR PLOT OF LOWER-HARBOR AND BAY CASE, CENTRAL AREA, YEAR 10

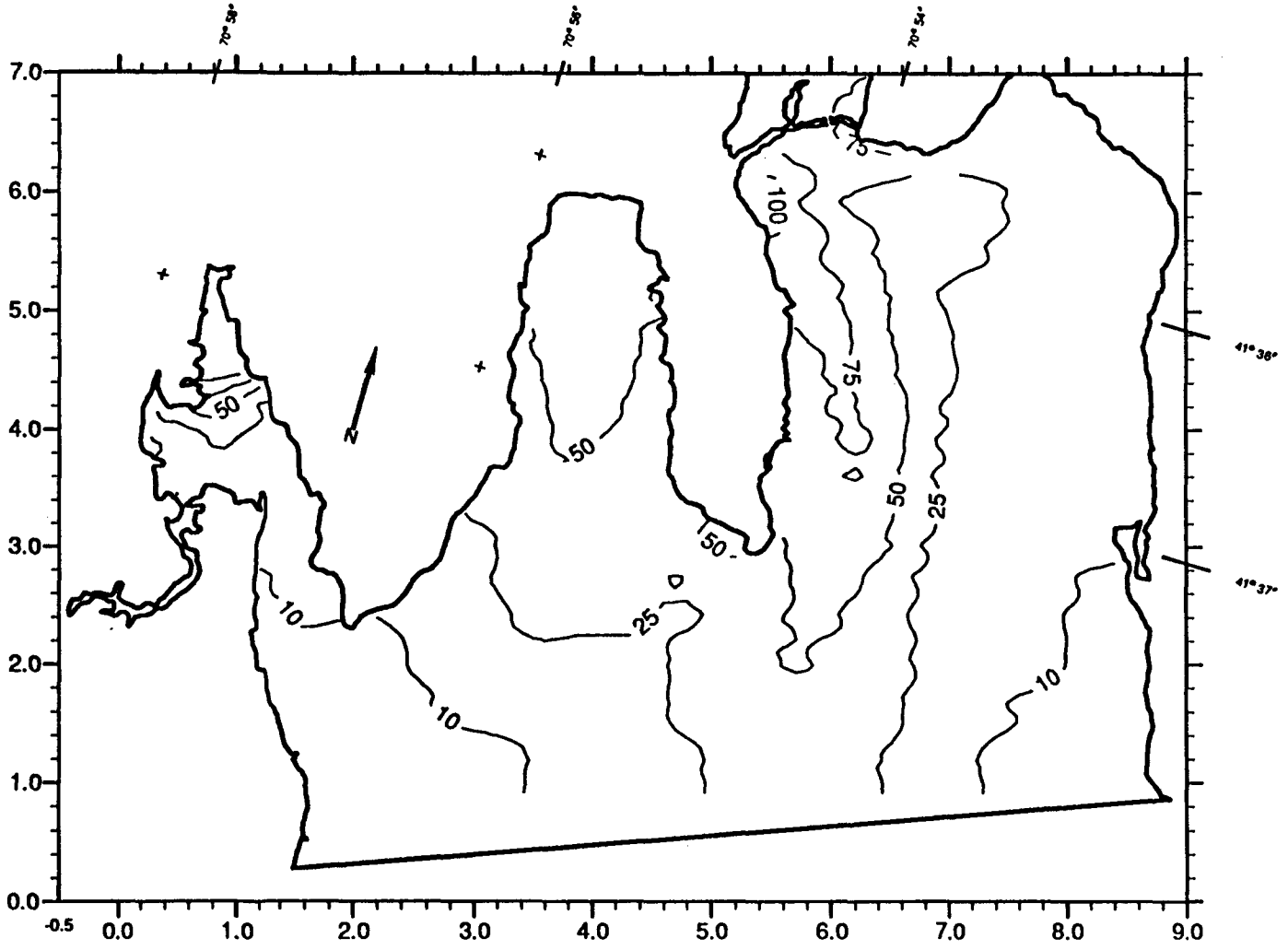

FIGURE B.5e. TOTAL-PCB (ng/L) CONTOUR PLOT OF LOWER-HARBOR AND BAY CASE, SOUTHERN AREA, YEAR 0

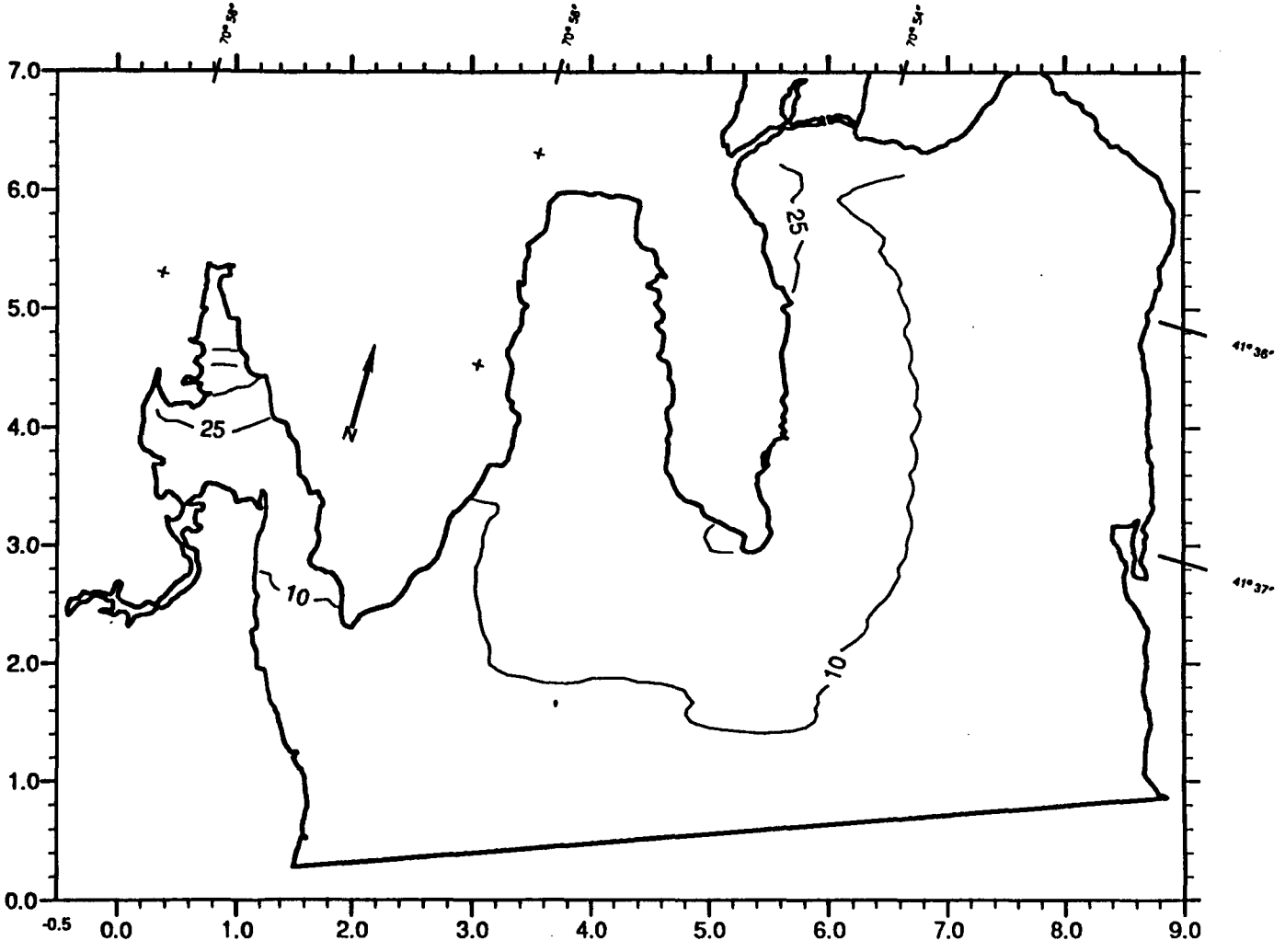

FIGURE B.5f. TOTAL-PCB (ng/L) CONTOUR PLOT OF LOWER-HARBOR AND BAY CASE, SOUTHERN AREA, YEAR 10

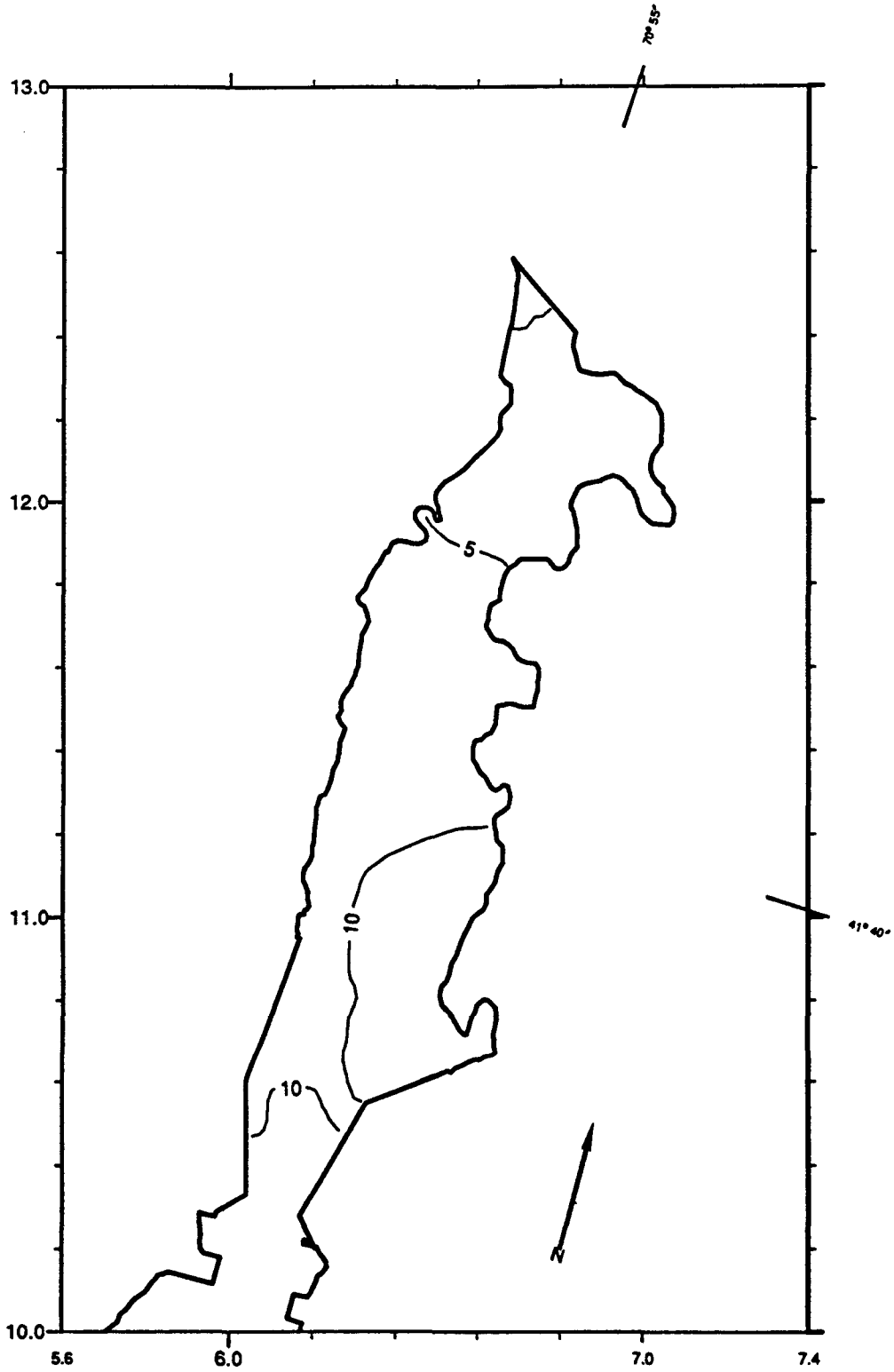

FIGURE B.6a. TOTAL-PCB (ng/L) CONTOUR PLOT OF 1-ppm CASE, NORTHERN AREA, YEAR 0

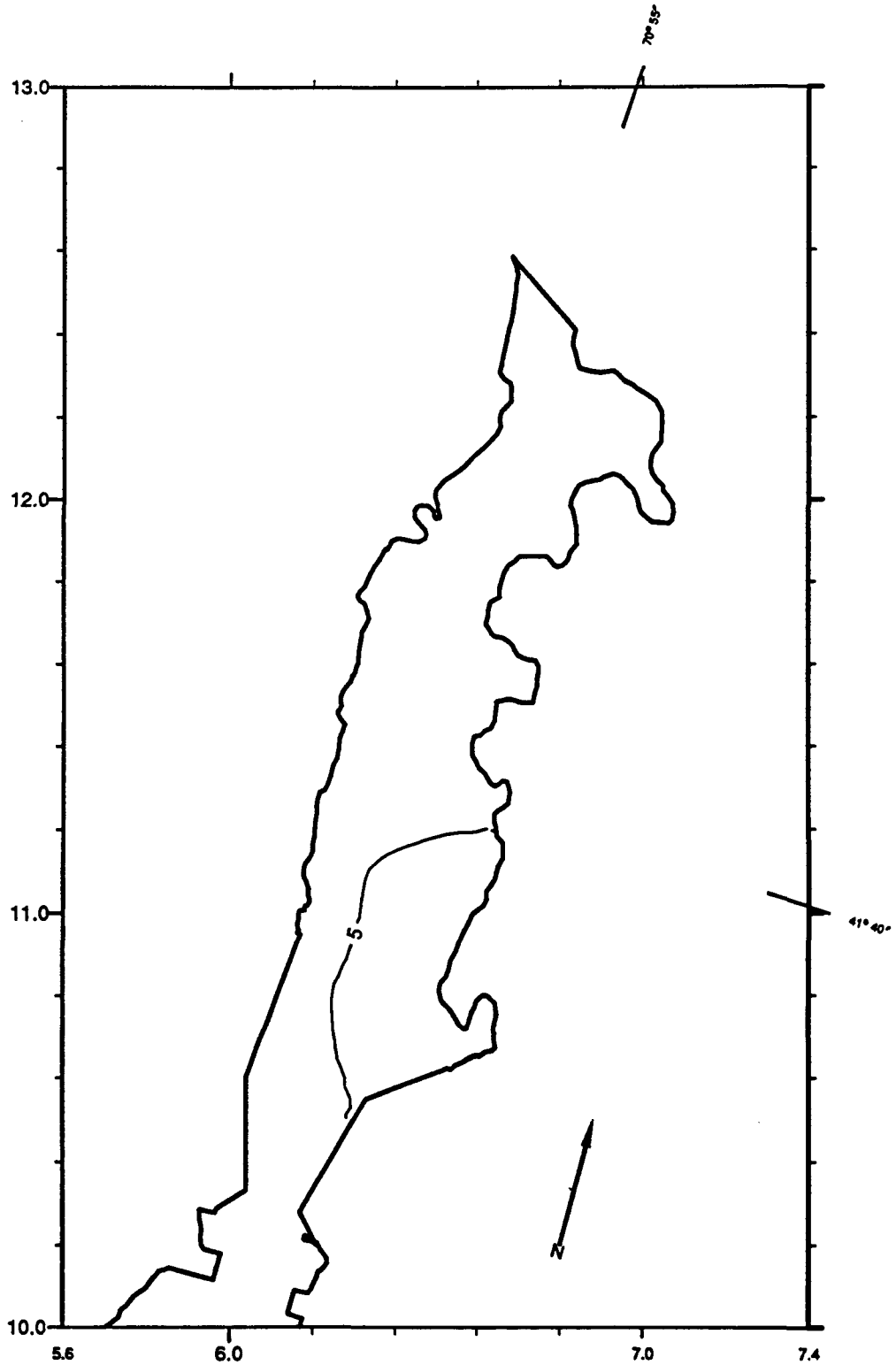

FIGURE B.6b. TOTAL-PCB (ng/L) CONTOUR PLOT OF 1-ppm CASE, NORTHERN AREA, YEAR 10

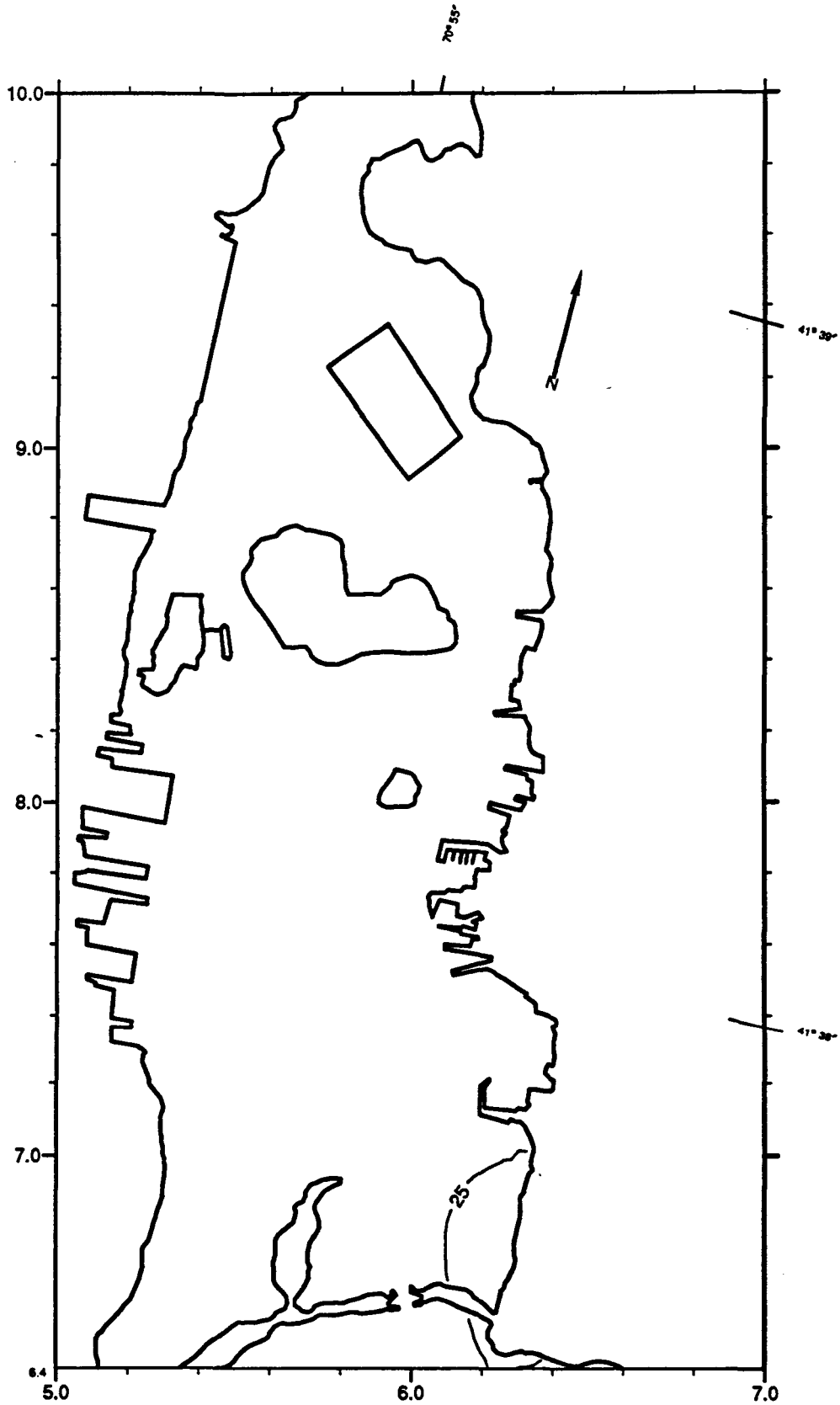

FIGURE B.6c. TOTAL-PCB (ng/L) CONTOUR PLOT OF 1-ppm CASE, CENTRAL AREA, YEAR 0

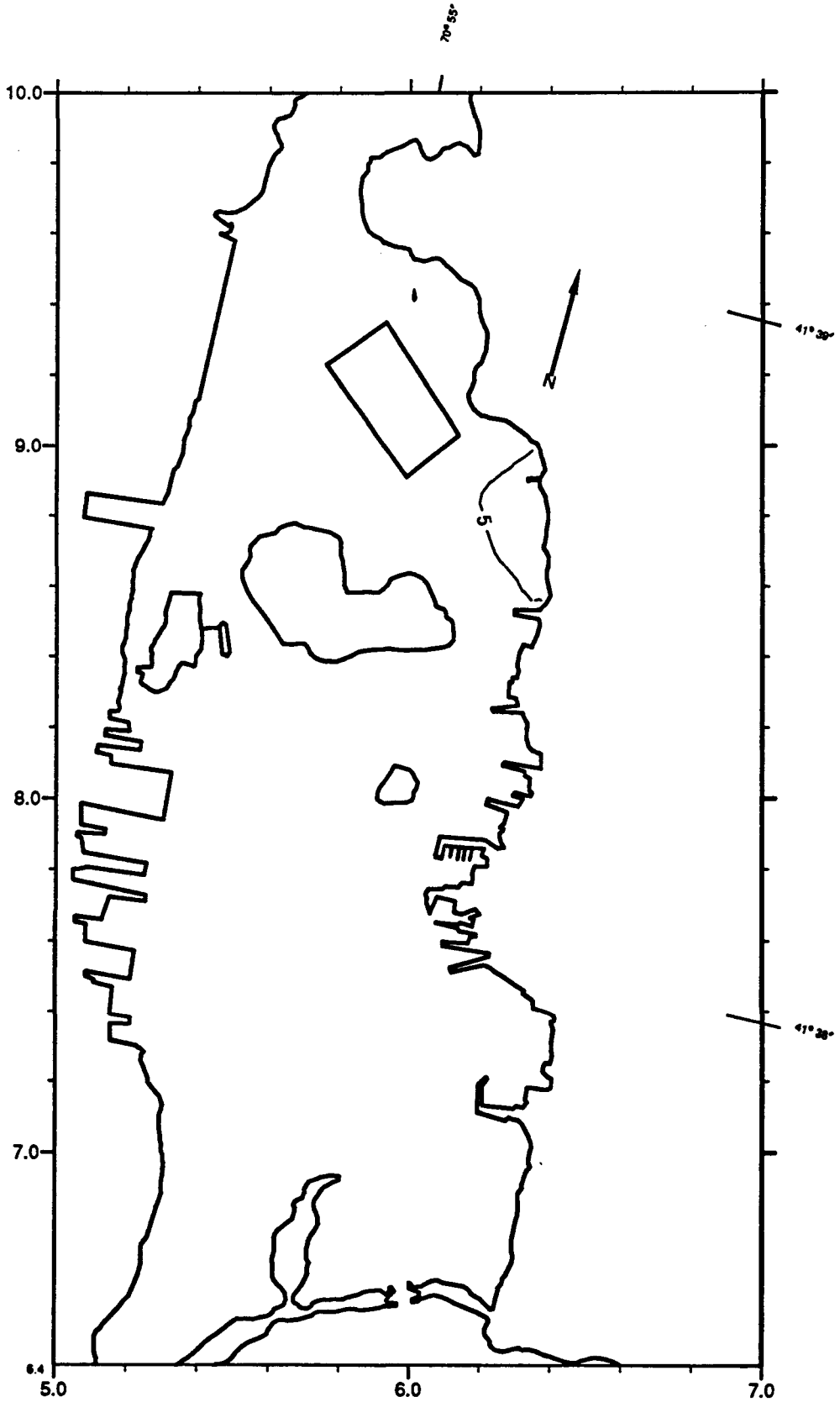

FIGURE B.6d. TOTAL-PCB (ng/L) CONTOUR PLOT OF 1-ppm CASE, CENTRAL AREA, YEAR 10

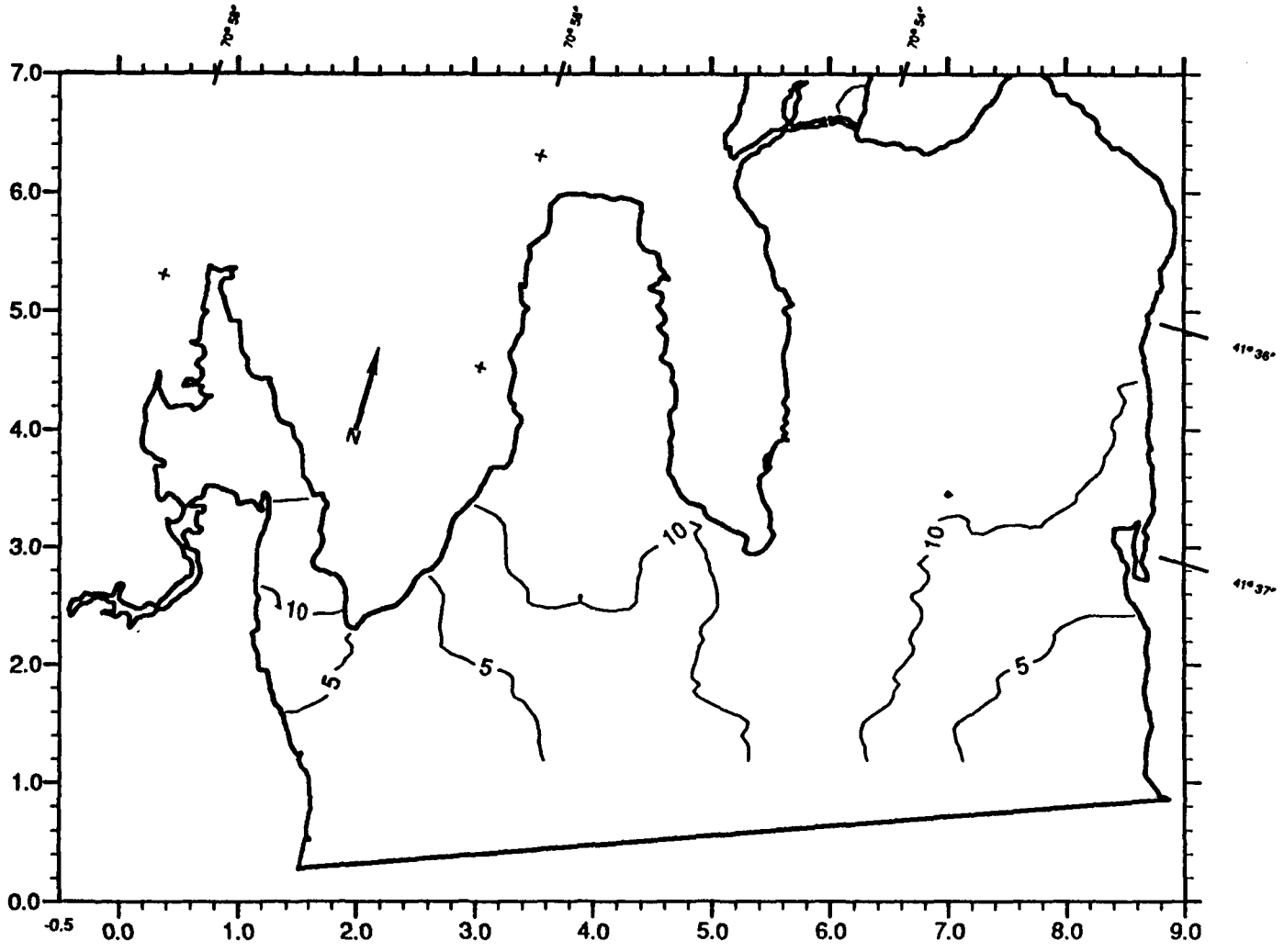

FIGURE B.6e. TOTAL-PCB (ng/L) CONTOUR PLOT OF 1-ppm CASE, SOUTHERN AREA, YEAR 0

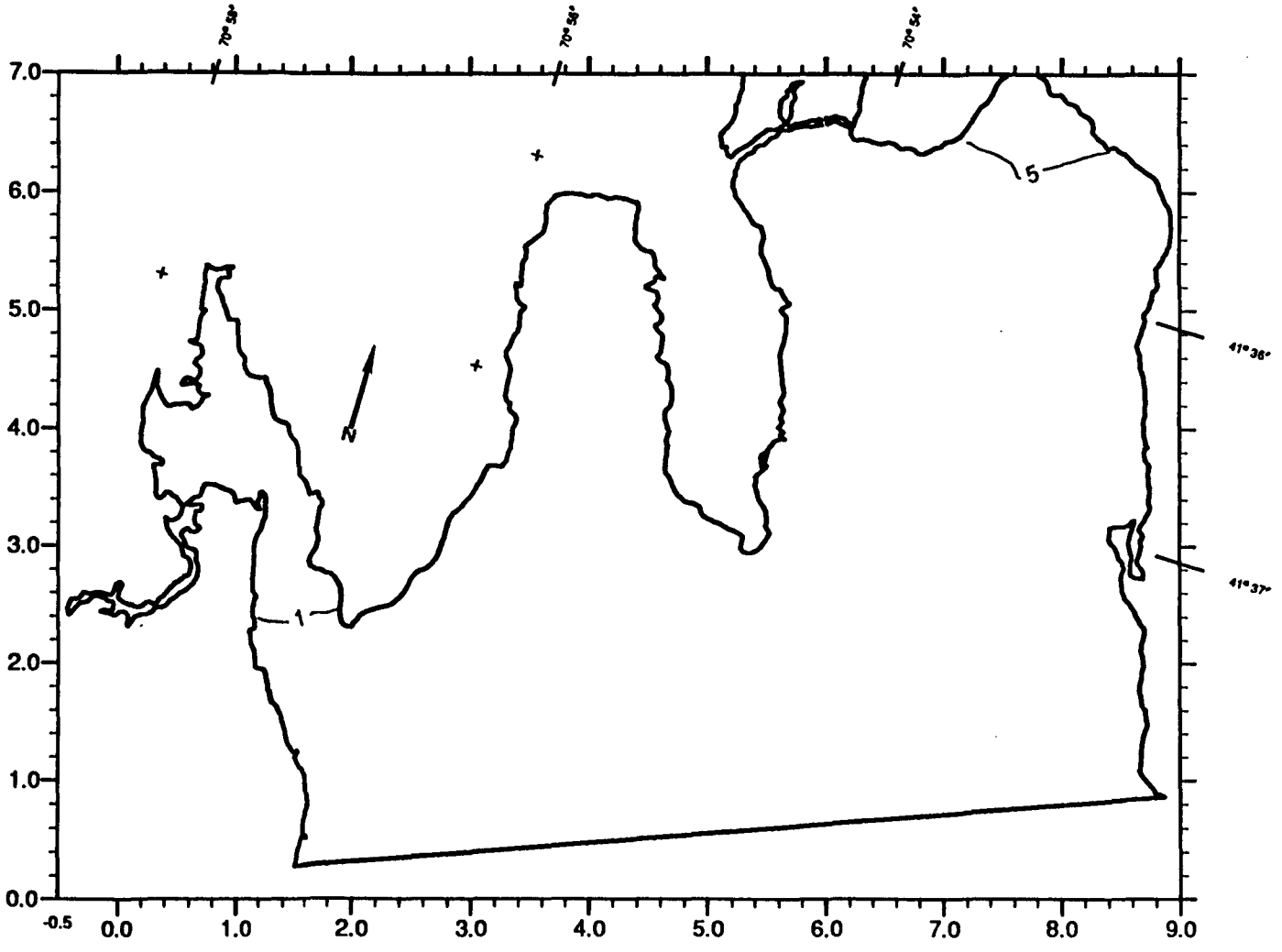

FIGURE B.6f. TOTAL-PCB (ng/L) CONTOUR PLOT OF 1-ppm CASE, SOUTHERN AREA, YEAR 10

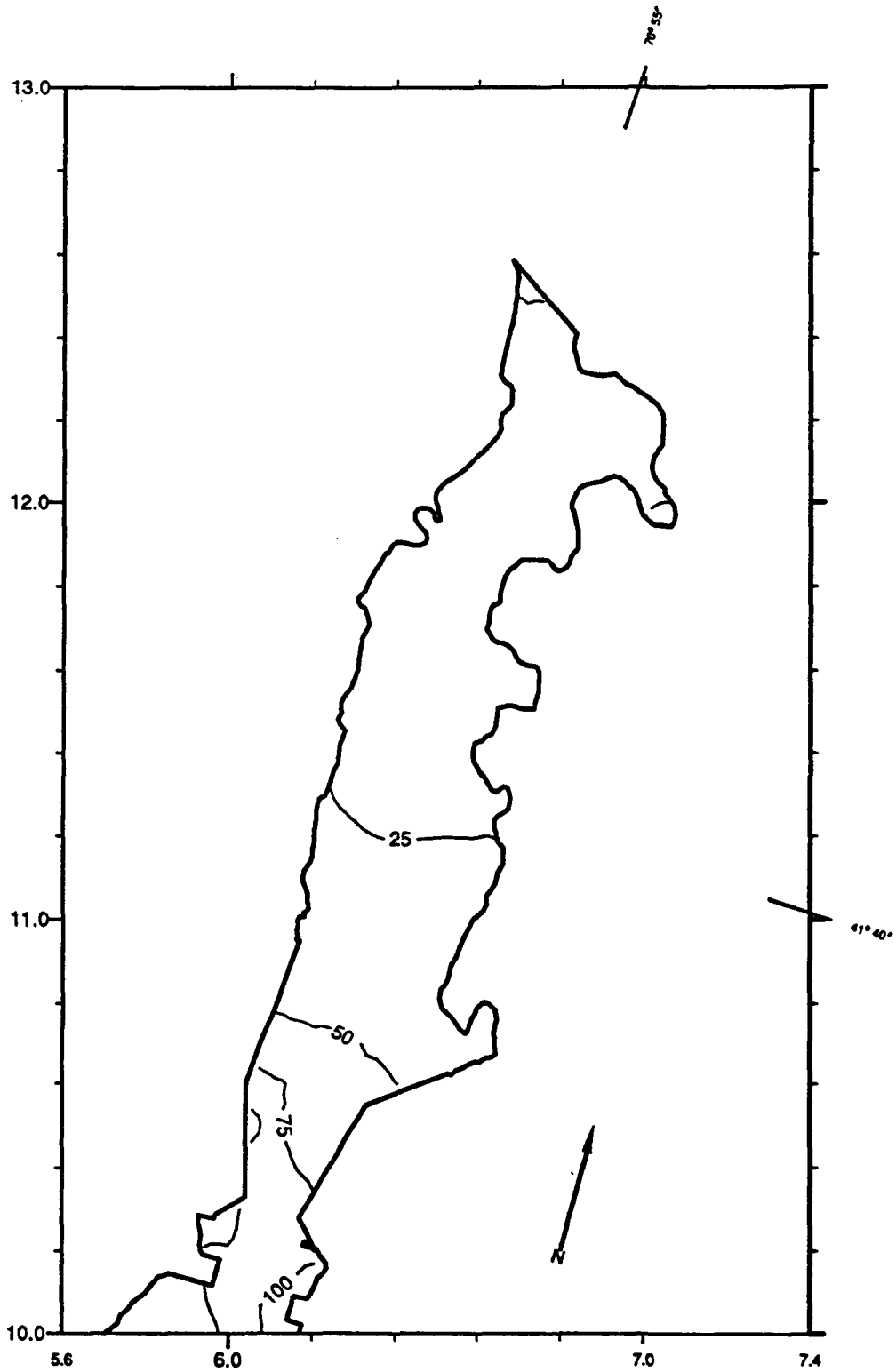

FIGURE B.7a. TOTAL-PCB (ng/L) CONTOUR PLOT OF 50-ppm CASE, NORTHERN AREA, YEAR 0

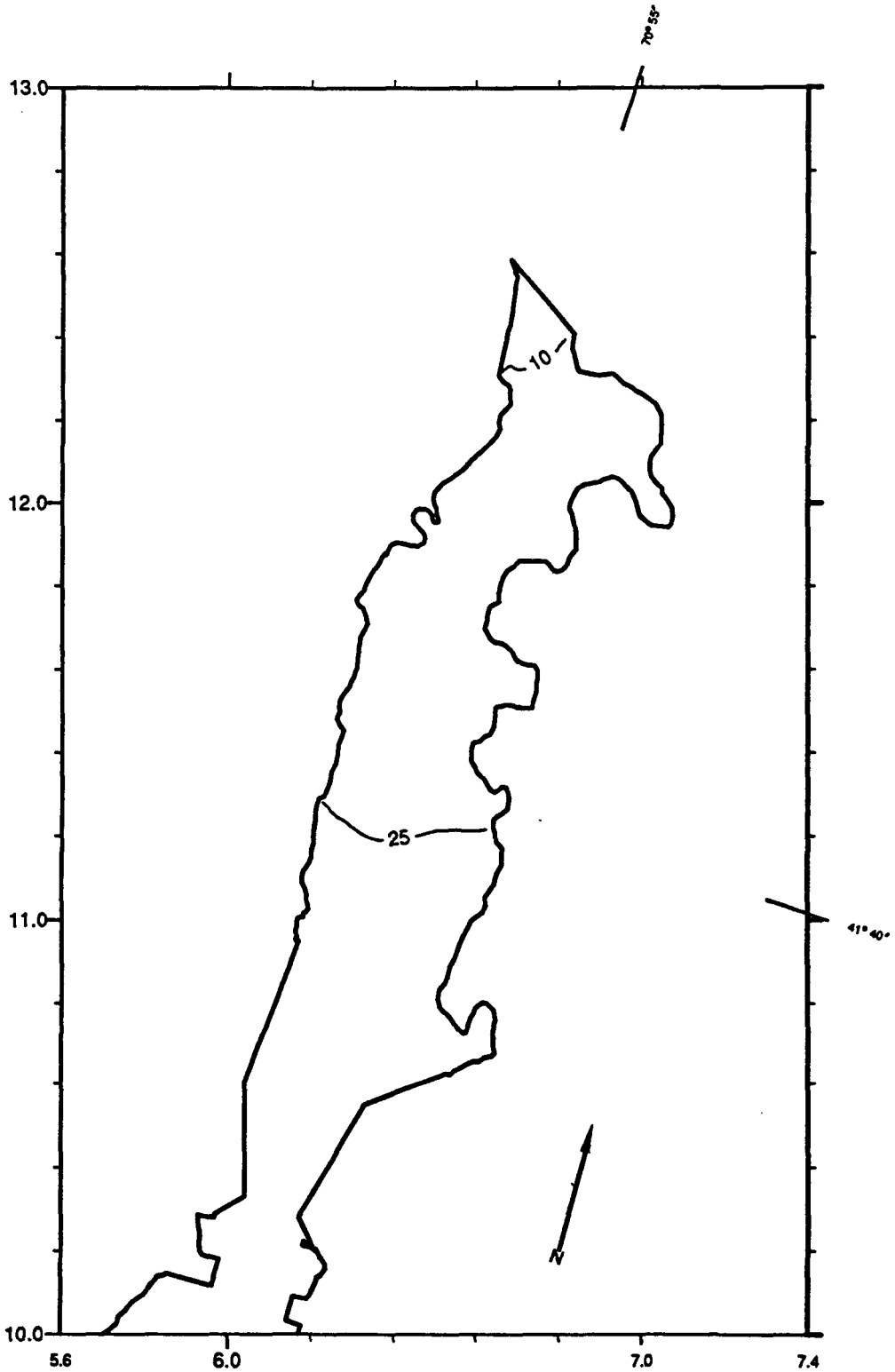

FIGURE B.7b. TOTAL-PCB (ng/L) CONTOUR PLOT OF 50-ppm CASE, NORTHERN AREA, YEAR 10

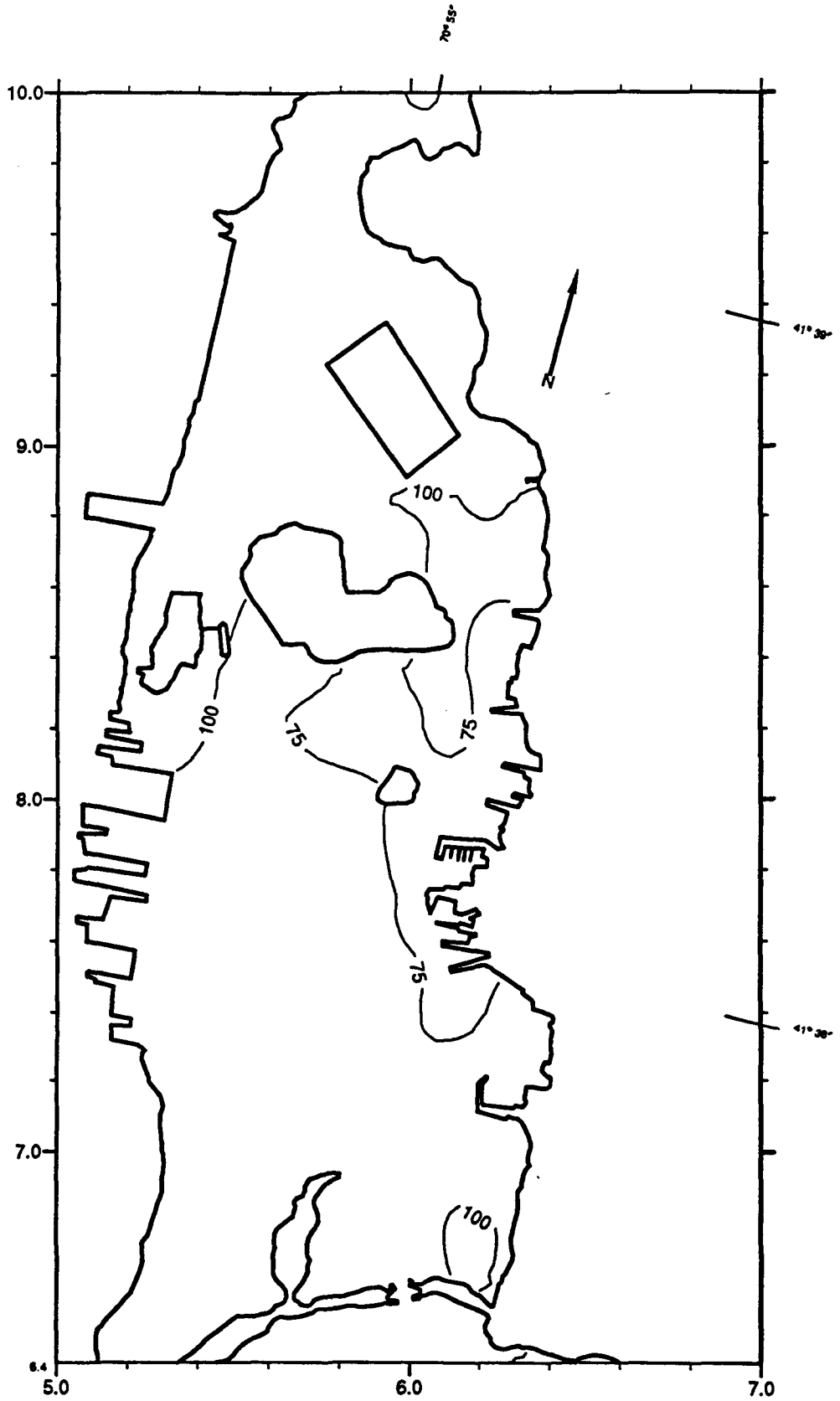

FIGURE B.7c. TOTAL-PCB (ng/L) CONTOUR PLOT OF 50-ppm CASE, CENTRAL AREA, YEAR 0

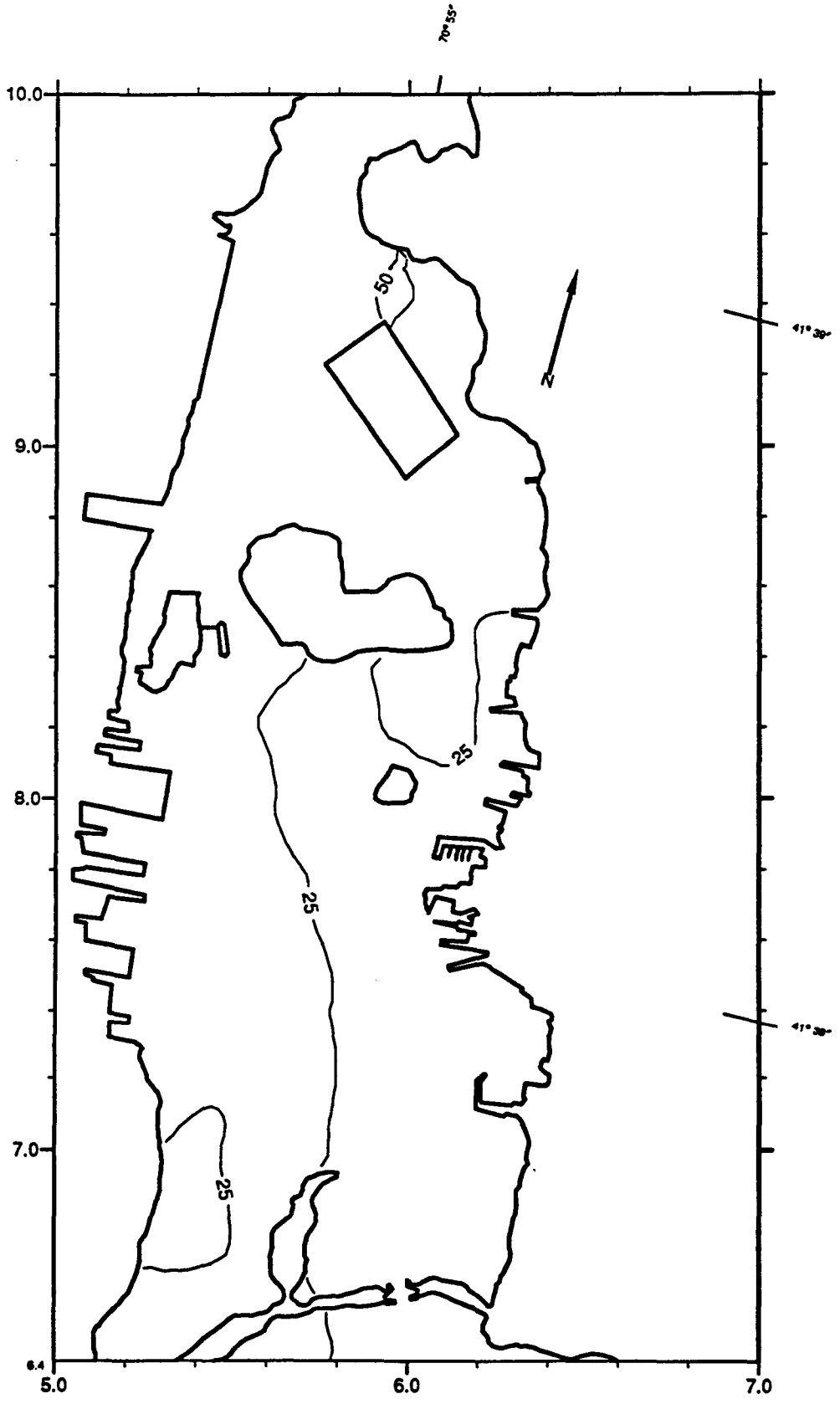

FIGURE B.7d. TOTAL-PCB (ng/L) CONTOUR PLOT OF 50-ppm CASE, CENTRAL AREA, YEAR 10

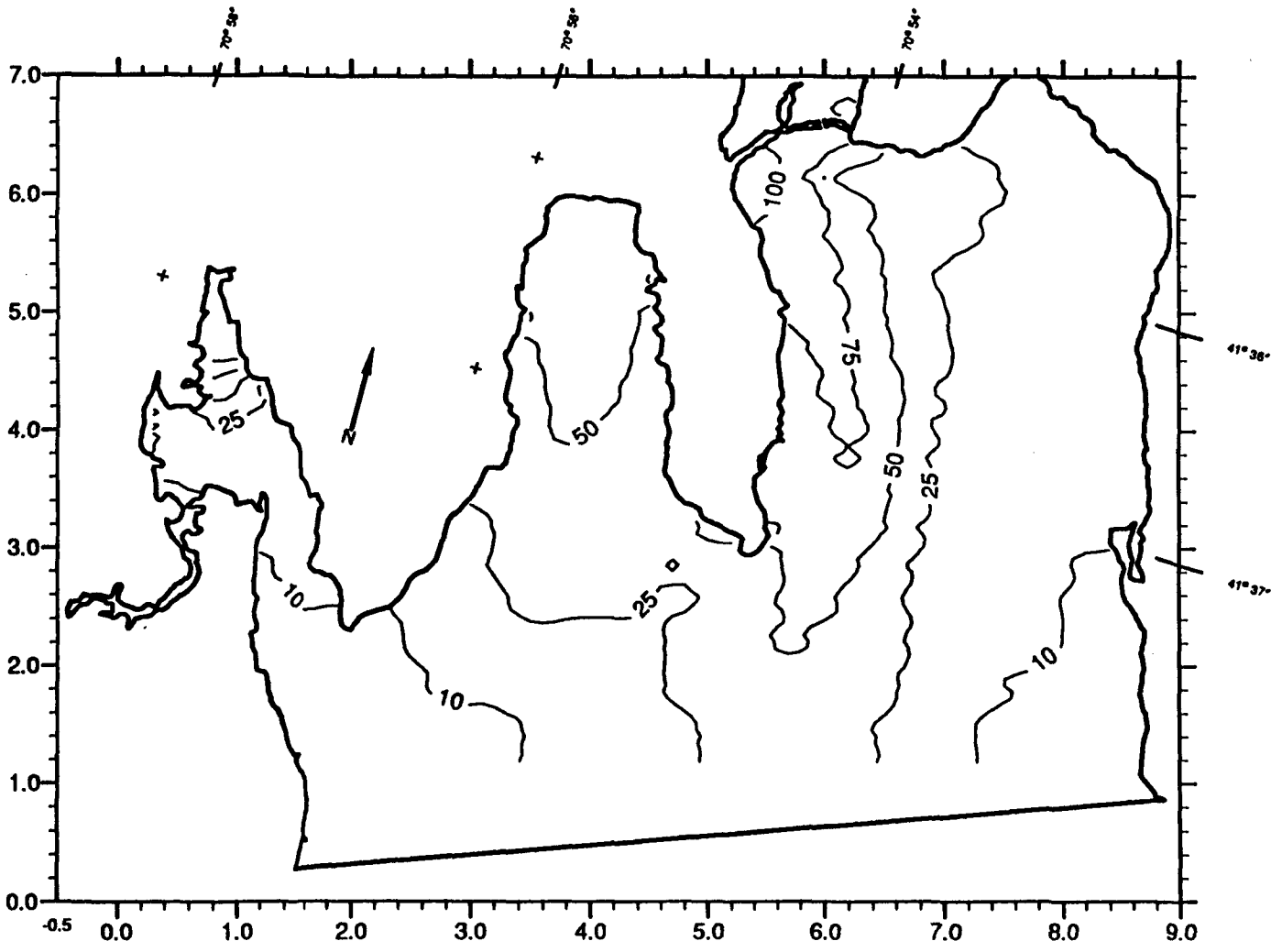

FIGURE B.7e. TOTAL-PCB (ng/L) CONTOUR PLOT OF 50-ppm CASE, SOUTHERN AREA, YEAR 0

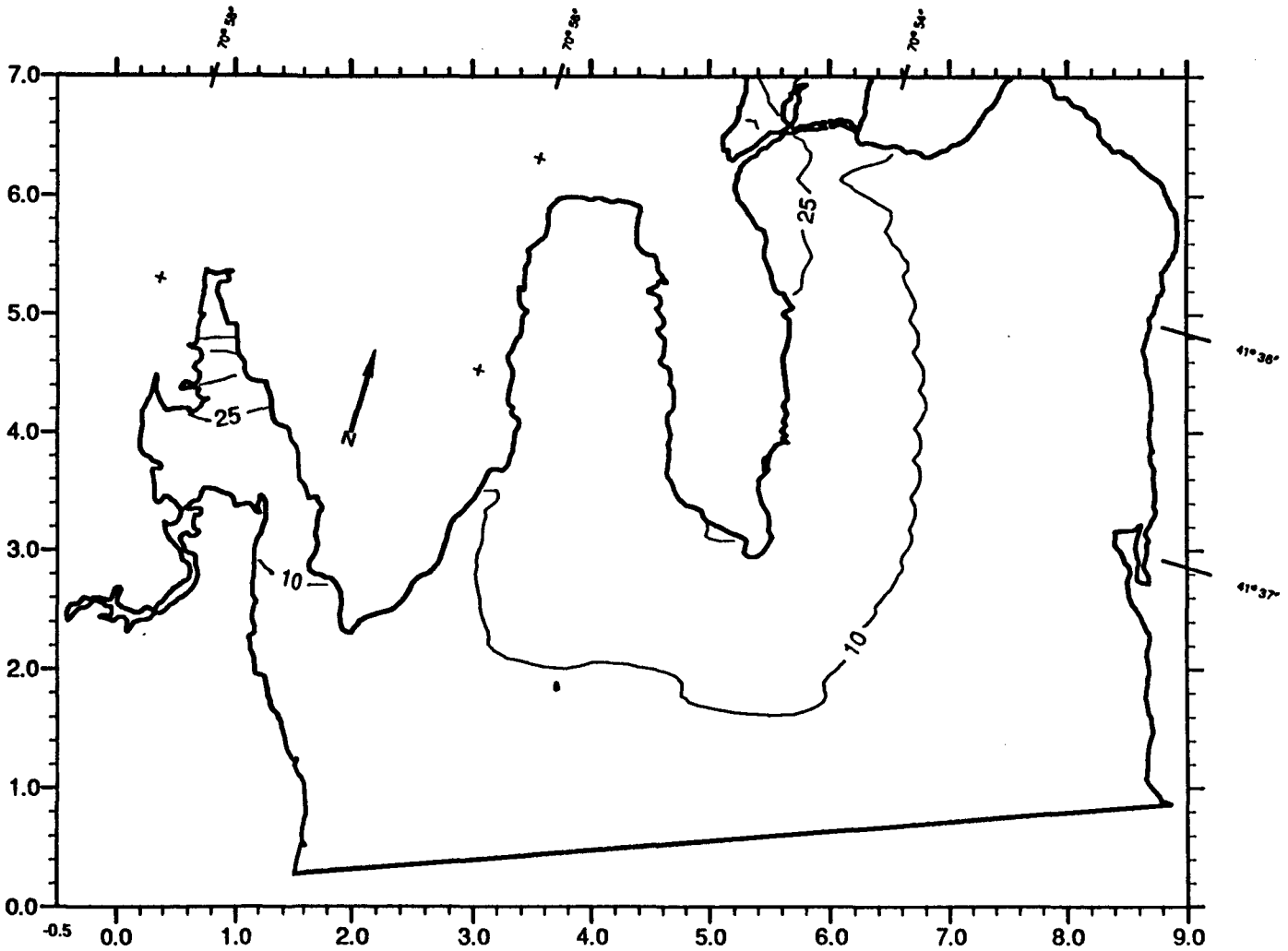

FIGURE B.7f. TOTAL-PCB (ng/L) CONTOUR PLOT OF 50-ppm CASE, SOUTHERN AREA, YEAR 10

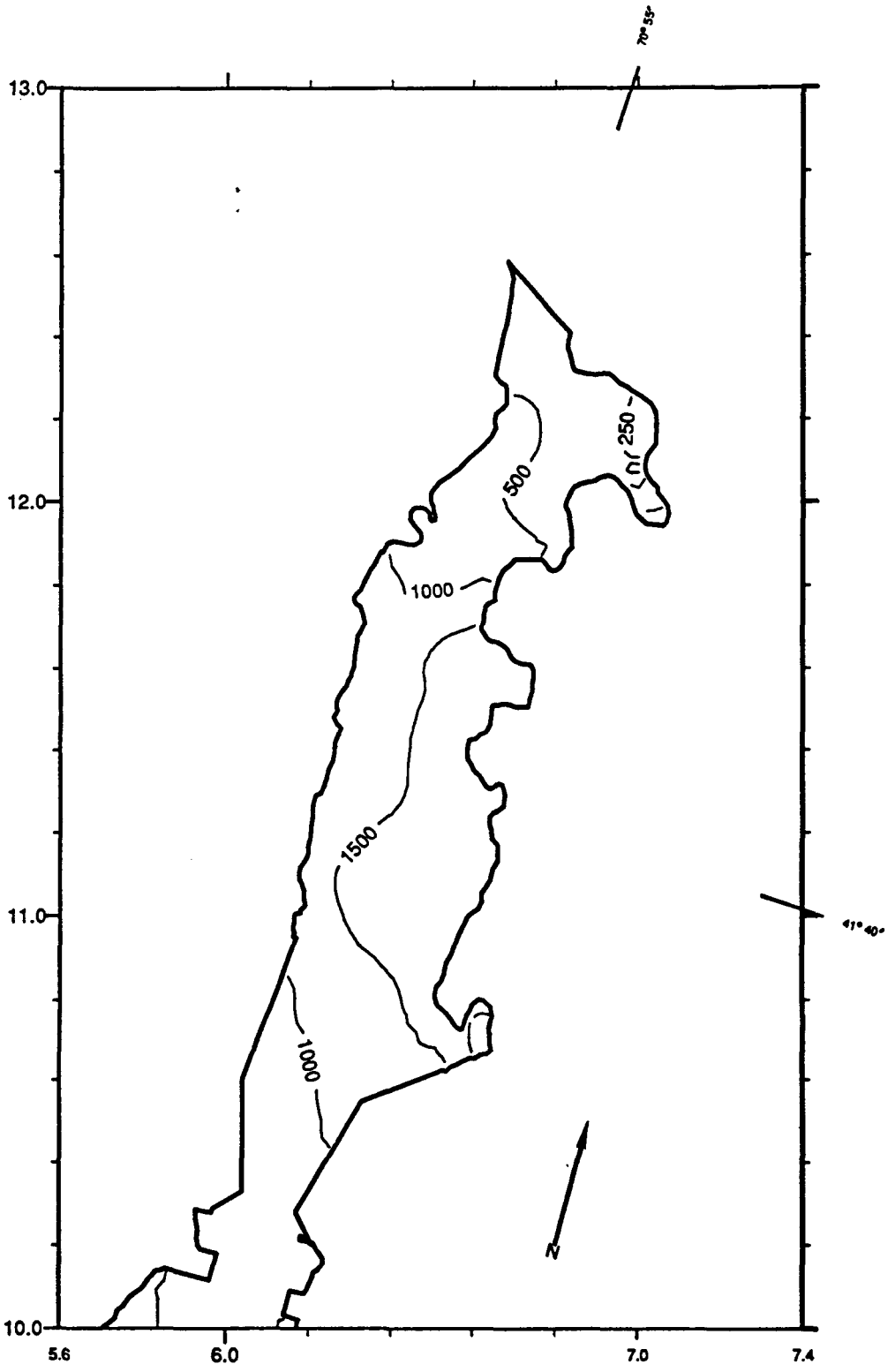

FIGURE B.8a. TOTAL-PCB (ng/L) CONTOUR PLOT OF 500-ppm CASE, NORTHERN AREA, YEAR 0

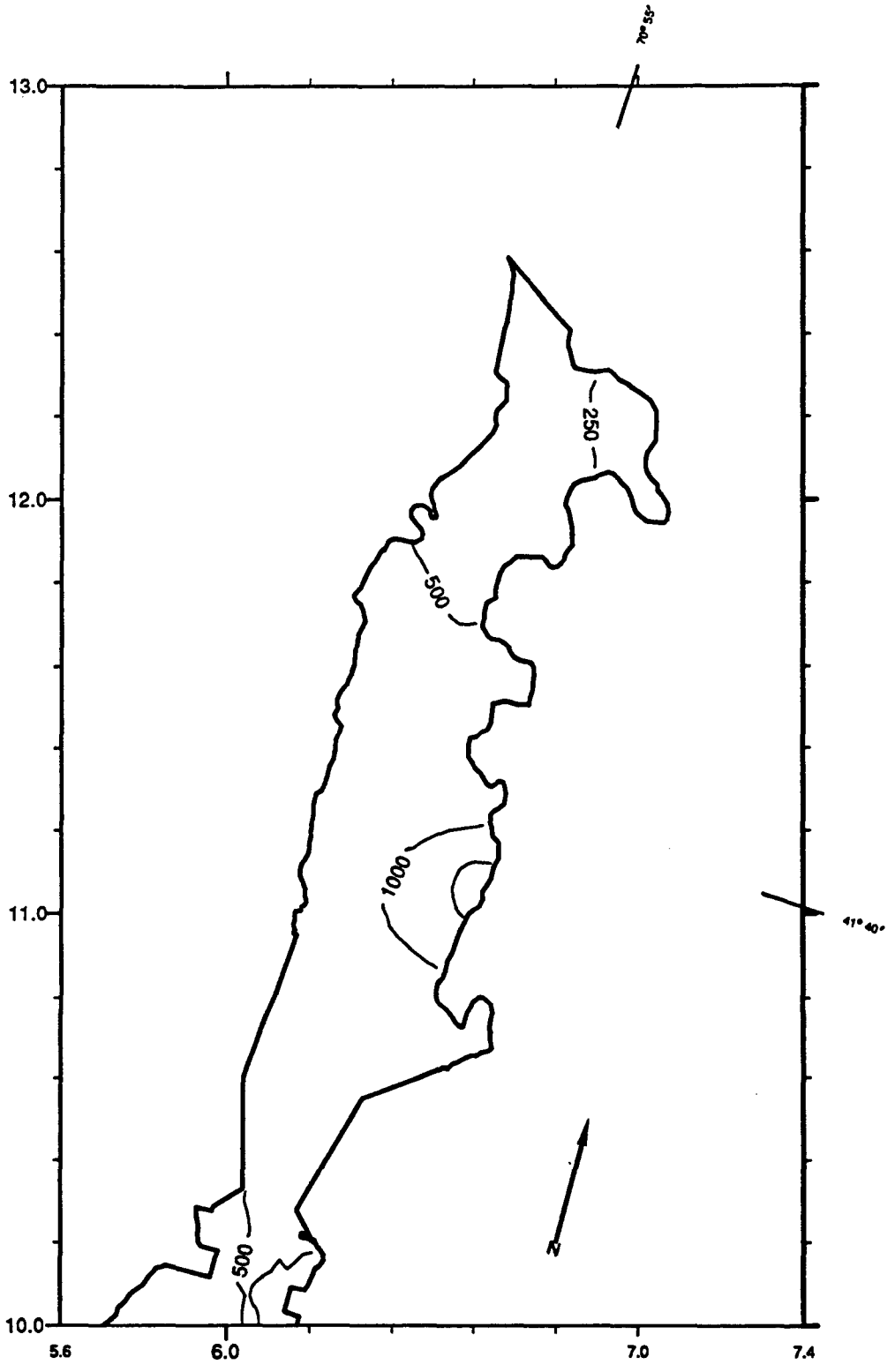

FIGURE B.8b. TOTAL-PCB (ng/L) CONTOUR PLOT OF 500-ppm CASE, NORTHERN AREA, YEAR 10

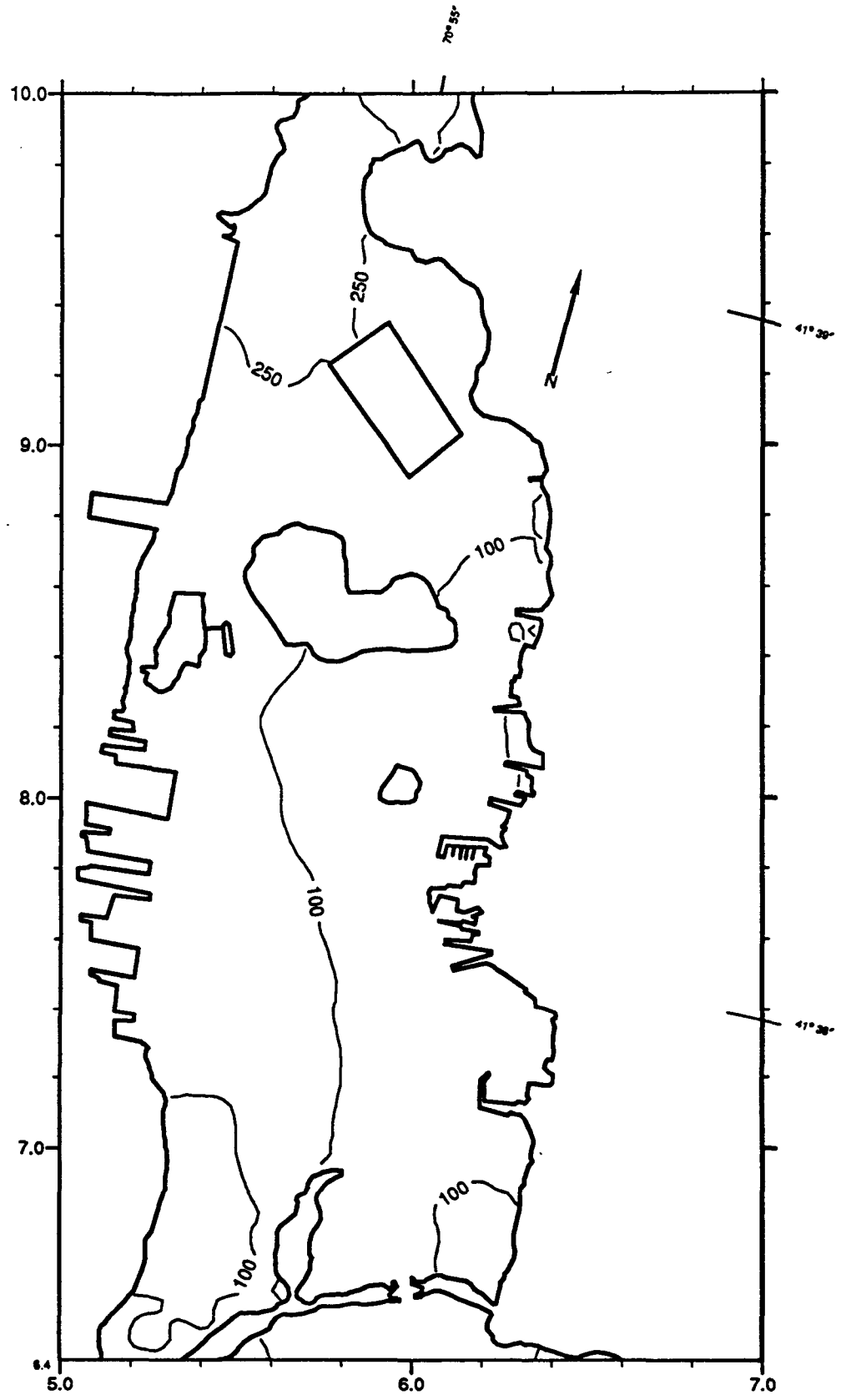

FIGURE B.8c. TOTAL-PCB (ng/L) CONTOUR PLOT OF 500-ppm CASE, CENTRAL AREA, YEAR 0

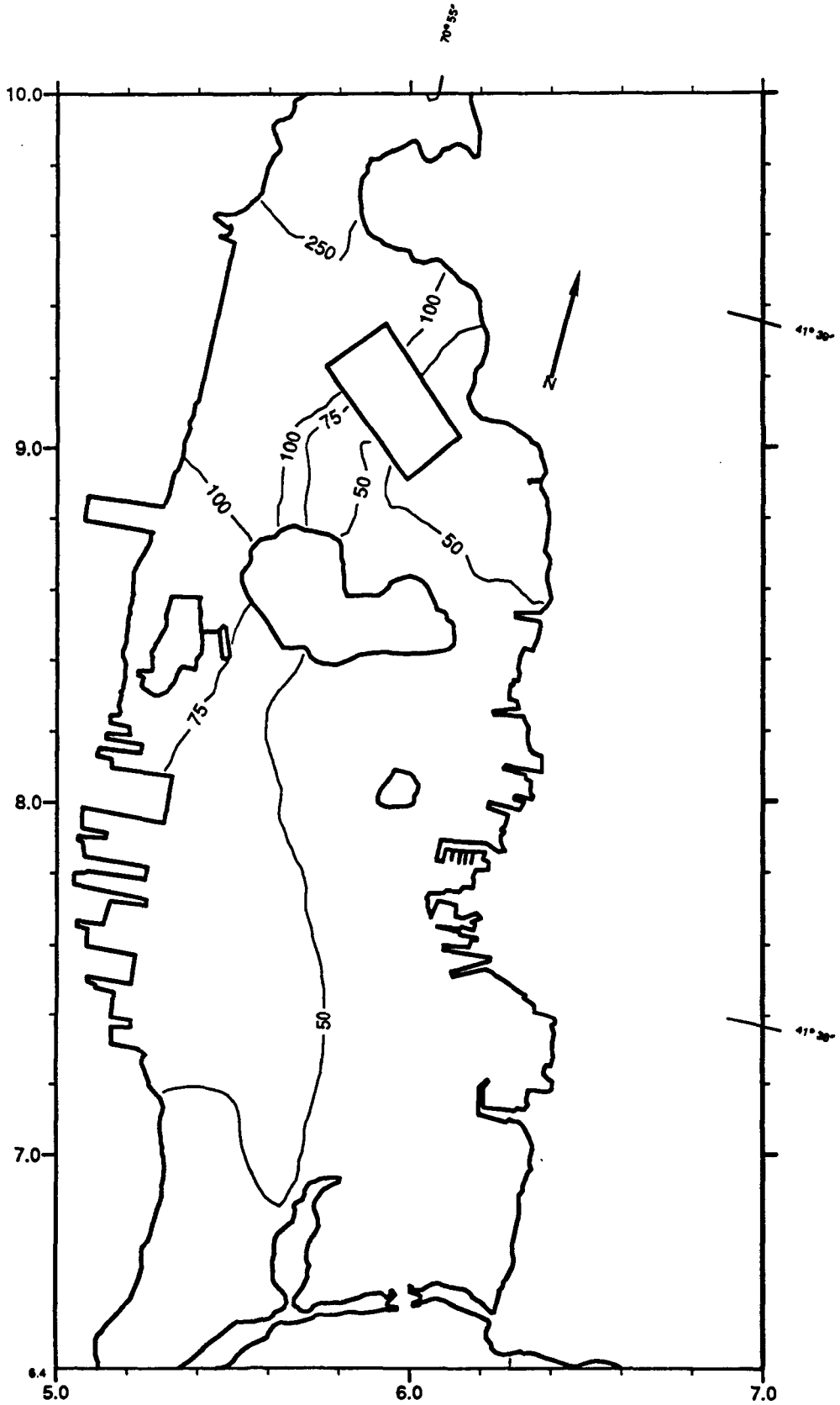

FIGURE B.8d. TOTAL-PCB (ng/L) CONTOUR PLOT OF 500-ppm CASE, CENTRAL AREA, YEAR 10

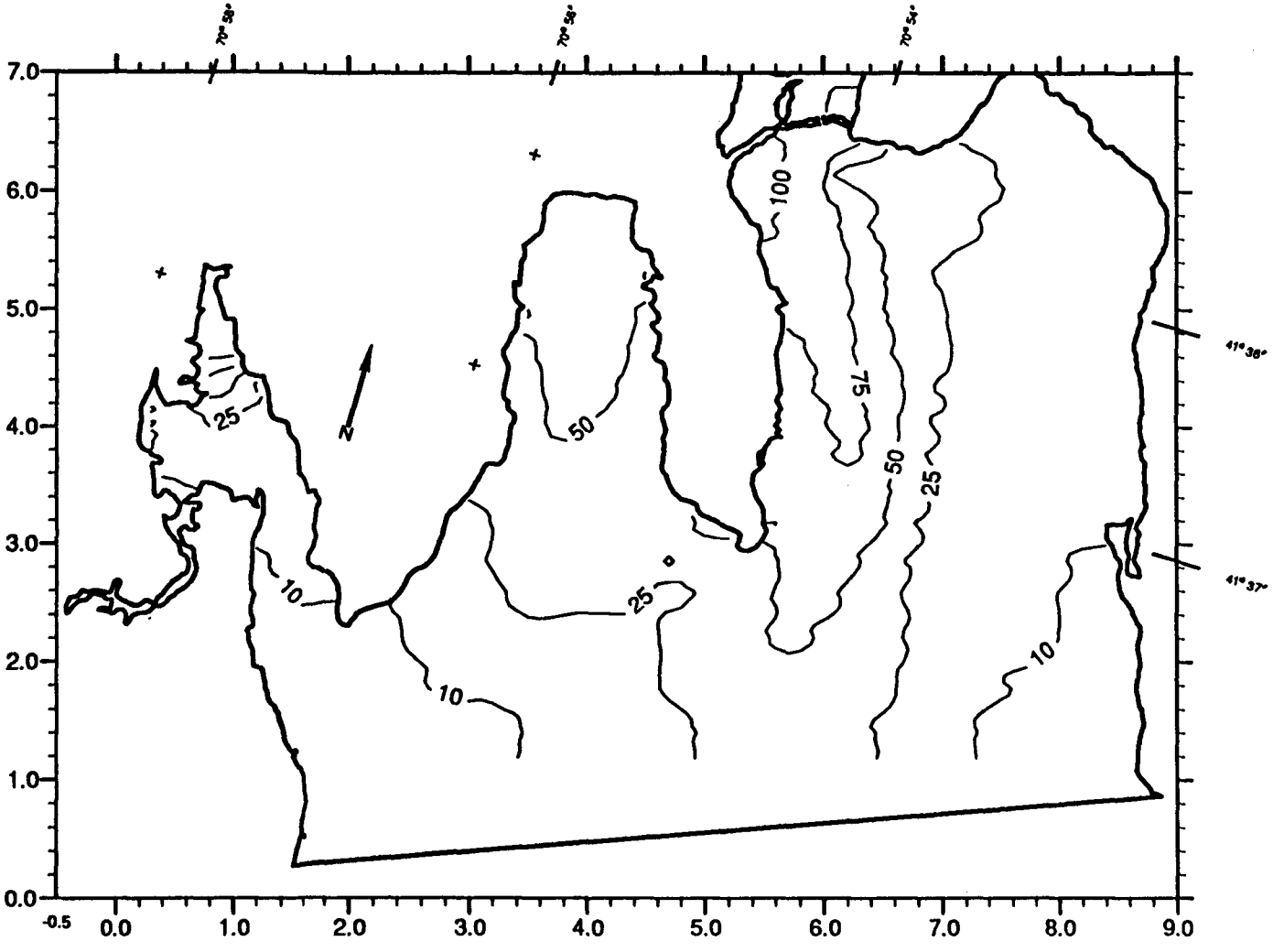

FIGURE B.8e. TOTAL-PCB (ng/L) CONTOUR PLOT OF 500-ppm CASE, SOUTHERN AREA, YEAR 0

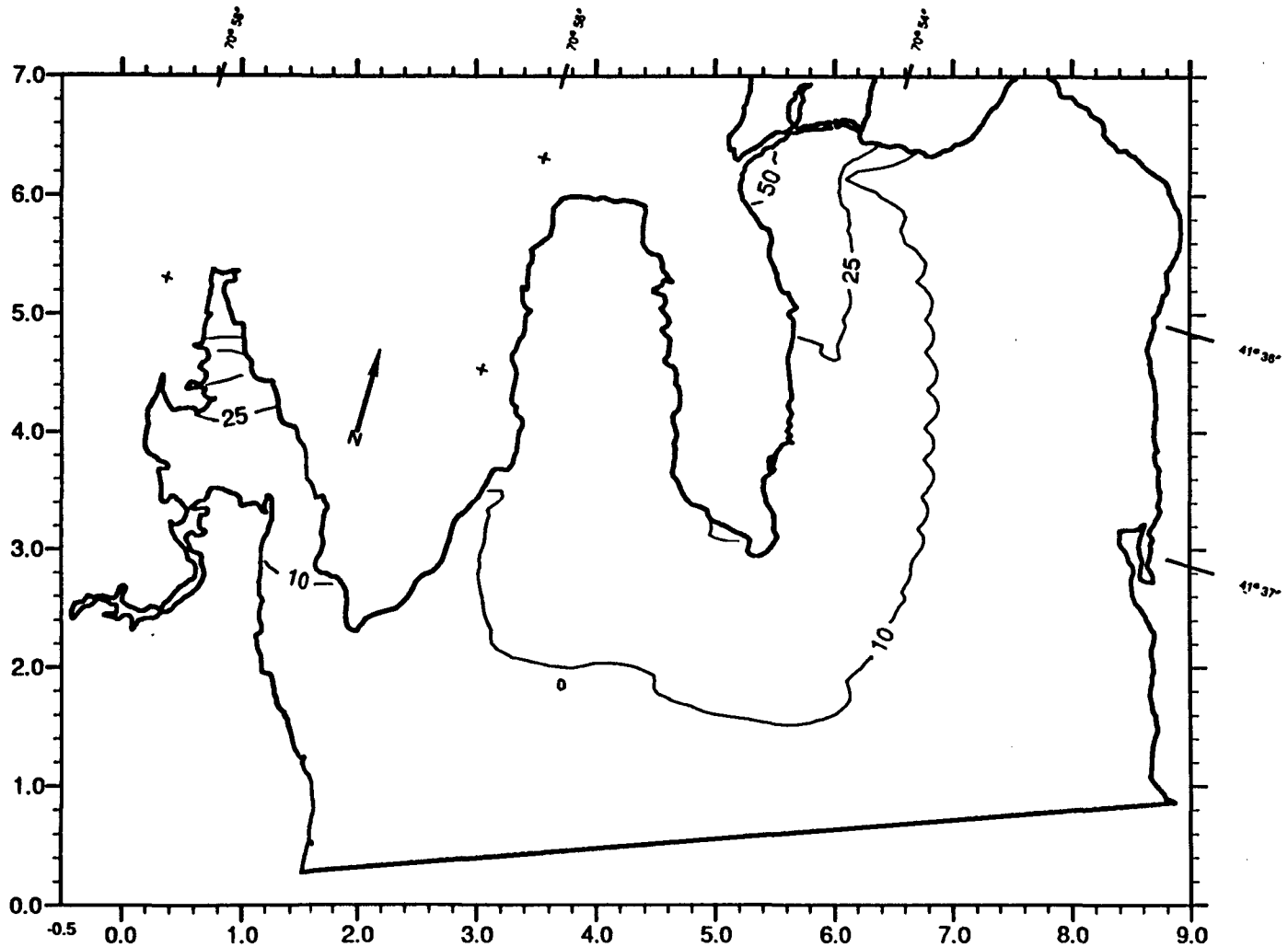

FIGURE B.8f. TOTAL-PCB (ng/L) CONTOUR PLOT OF 500-ppm CASE, SOUTHERN AREA, YEAR 10

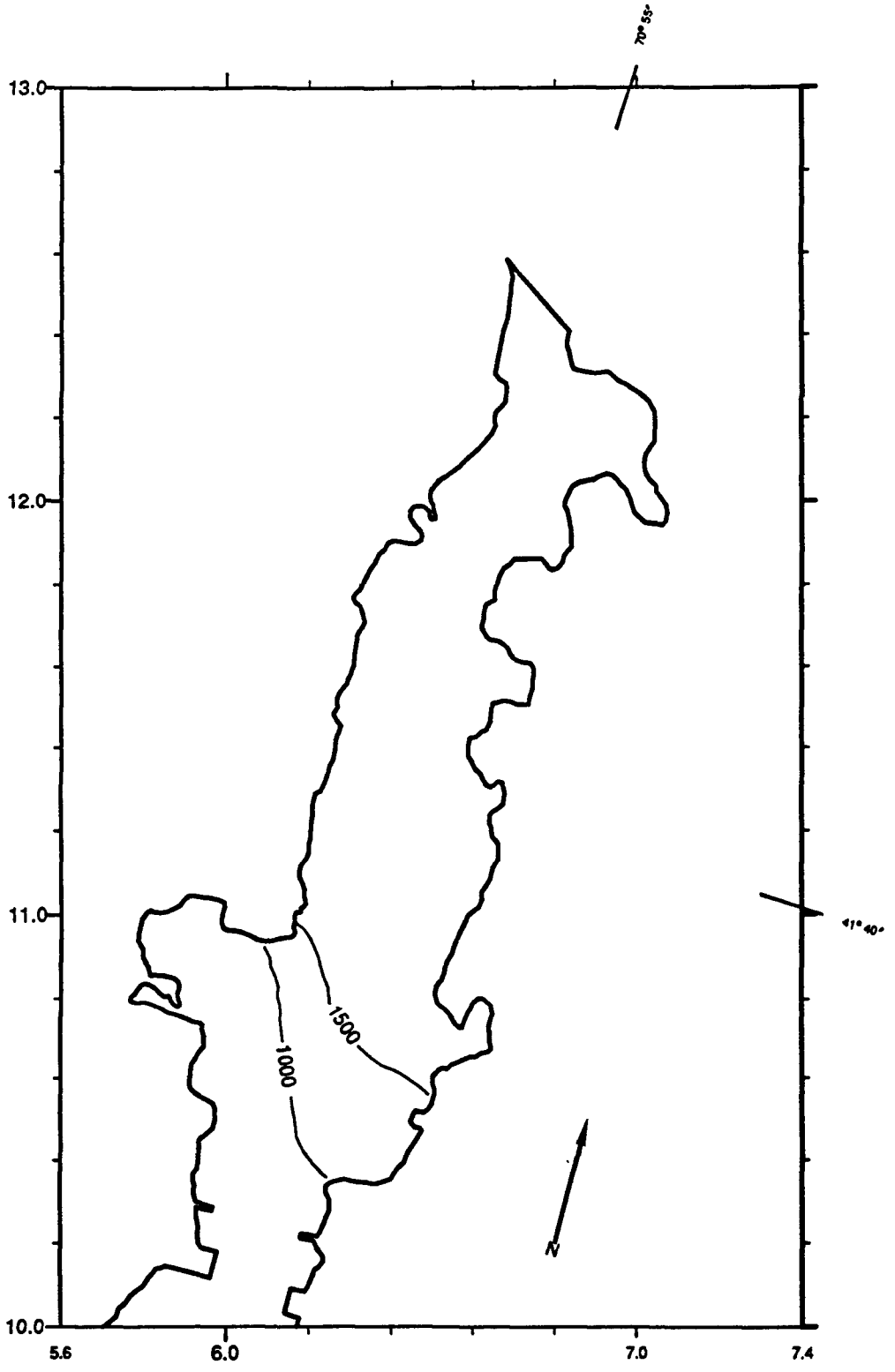

FIGURE B.9a. TOTAL-PCB (ng/L) CONTOUR PLOT OF SENSITIVITY TEST CASE, NORTHERN AREA, YEAR 0

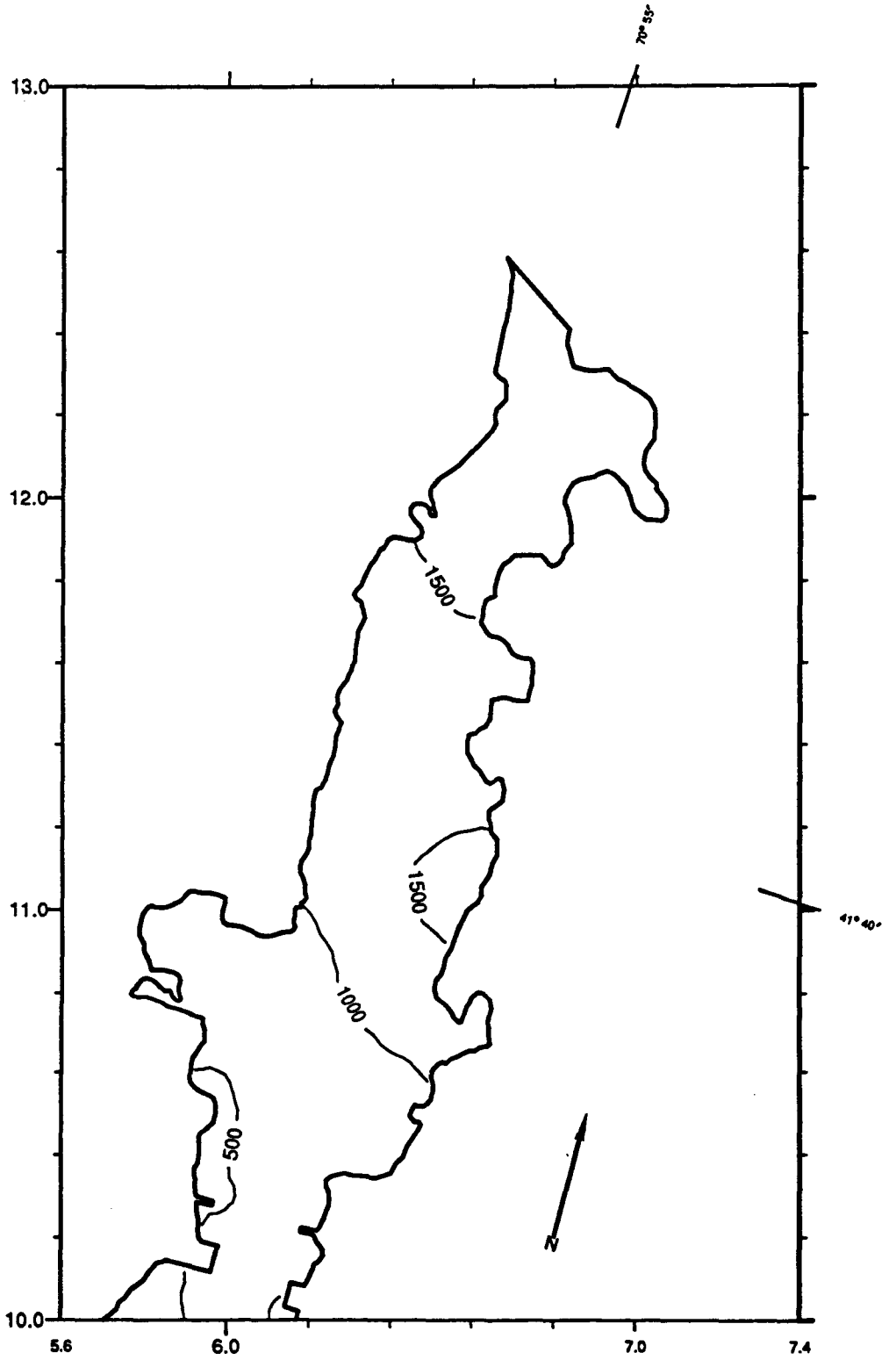

FIGURE B.9b. TOTAL-PCB (ng/L) CONTOUR PLOT OF SENSITIVITY TEST CASE, NORTHERN AREA, YEAR 10

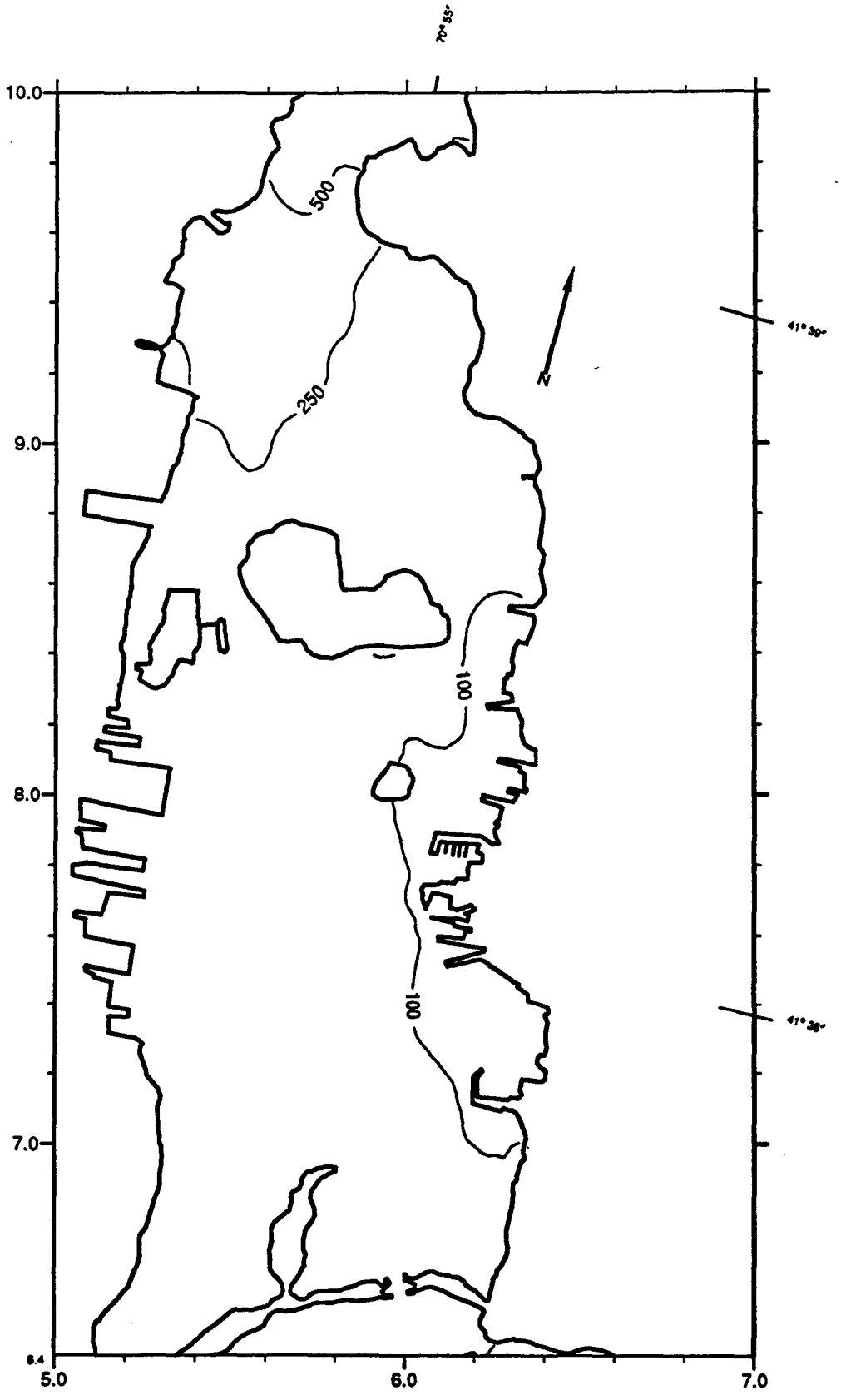

FIGURE B.9c. TOTAL-PCB (ng/L) CONTOUR PLOT OF SENSITIVITY TEST CASE, CENTRAL AREA, YEAR 0

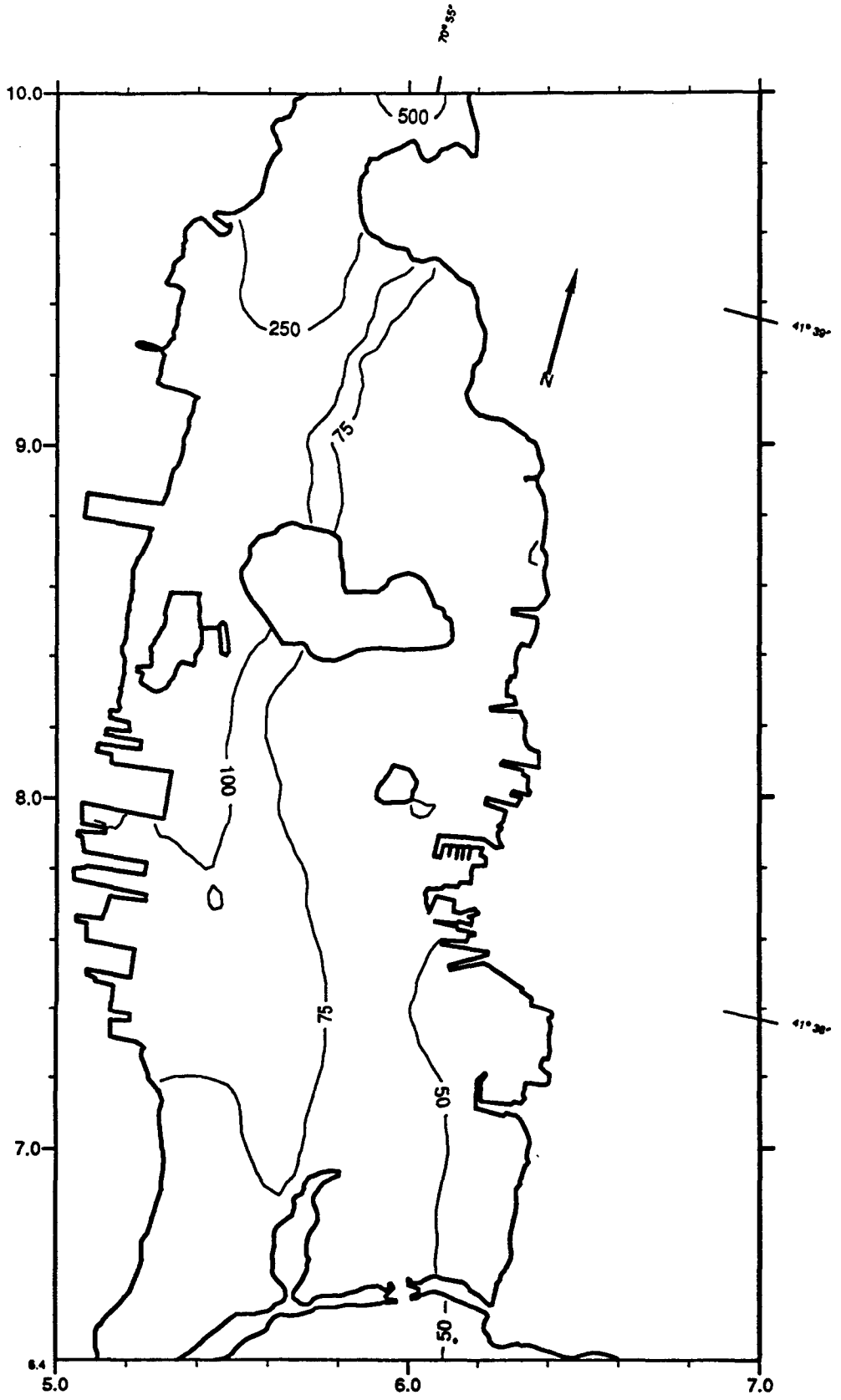

FIGURE B.9d. TOTAL-PCB (ng/L) CONTOUR PLOT OF SENSITIVITY TEST CASE, CENTRAL AREA, YEAR 10

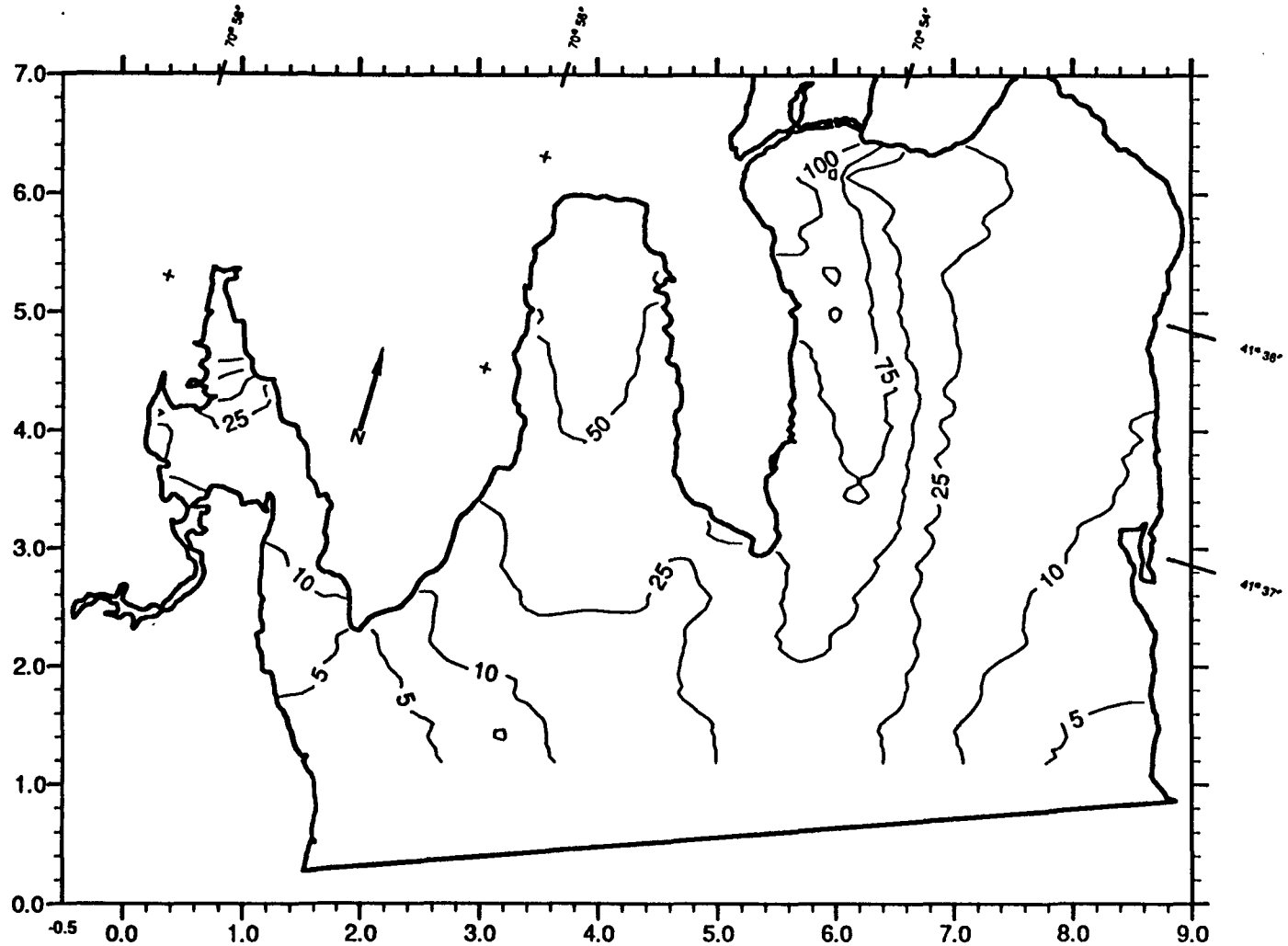

FIGURE B.9e. TOTAL-PCB (ng/L) CONTOUR PLOT OF SENSITIVITY TEST CASE, SOUTHERN AREA, YEAR 0

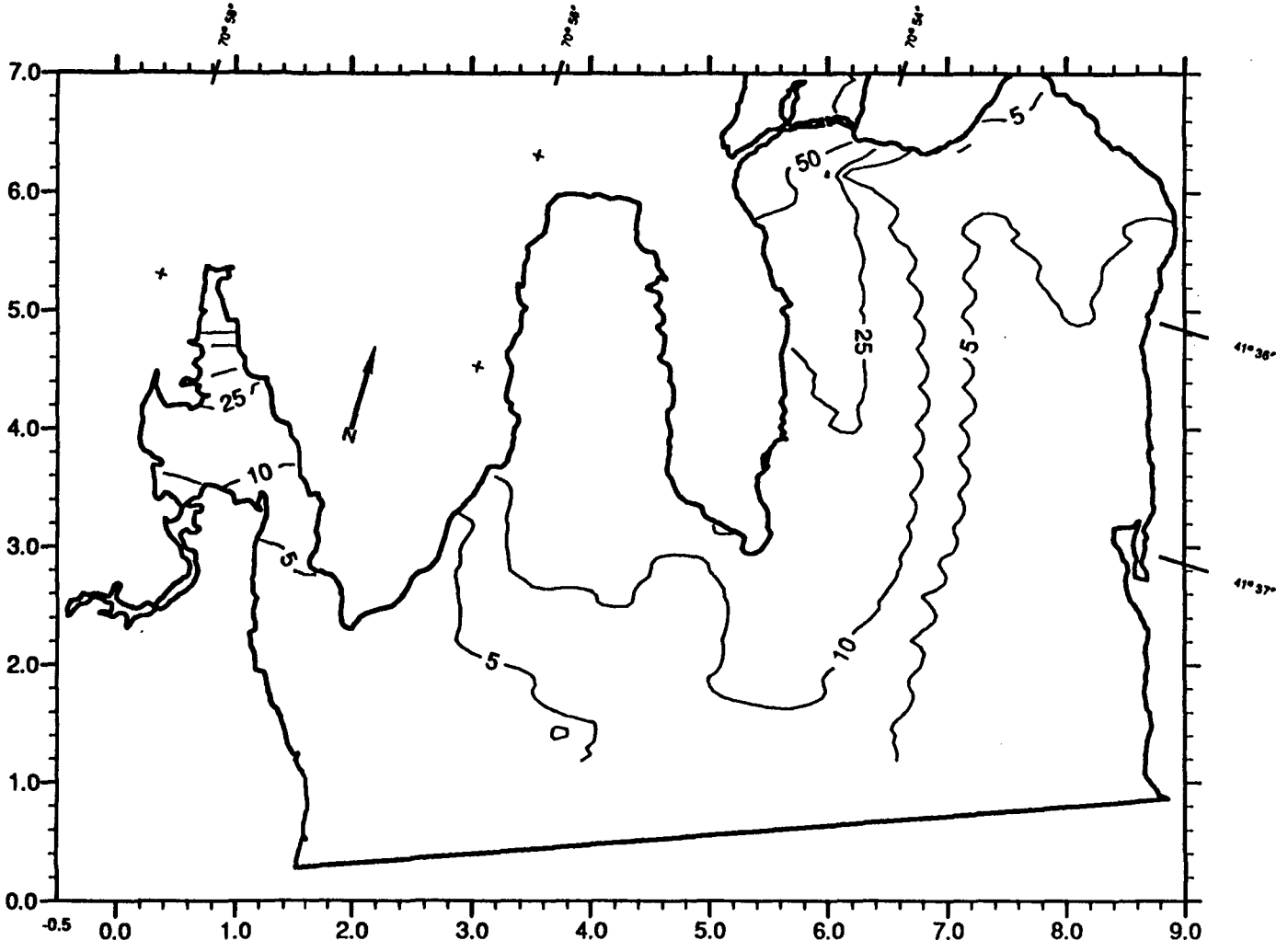

FIGURE B.9f. TOTAL-PCB (ng/L) CONTOUR PLOT OF SENSITIVITY TEST CASE, SOUTHERN AREA, YEAR 10

APPENDIX C

CONTOUR PLOTS OF TOTAL POLYCHLORINATED BIPHENYL CONCENTRATION IN THE BED SEDIMENTS

APPENDIX C

CONTOUR PLOTS OF TOTAL POLYCHLORINATED BIPHENYL CONCENTRATION IN THE BED SEDIMENTS

The contour plots of total-PCB concentration in the bed sediments divide the study area up into three subareas. The northern area extends from Wood Street Bridge to Coggeshall Street Bridge. The central area extends from the Coggeshall Street Bridge to the hurricane barrier. The southern area extends from just north of the hurricane barrier to the open boundary at the extreme southern end of the study area. Contour lines were interpolated between data points generated by model results. Units on the axes are in thousands of meters from the model grid origin (see Figure A.1 in Appendix A).

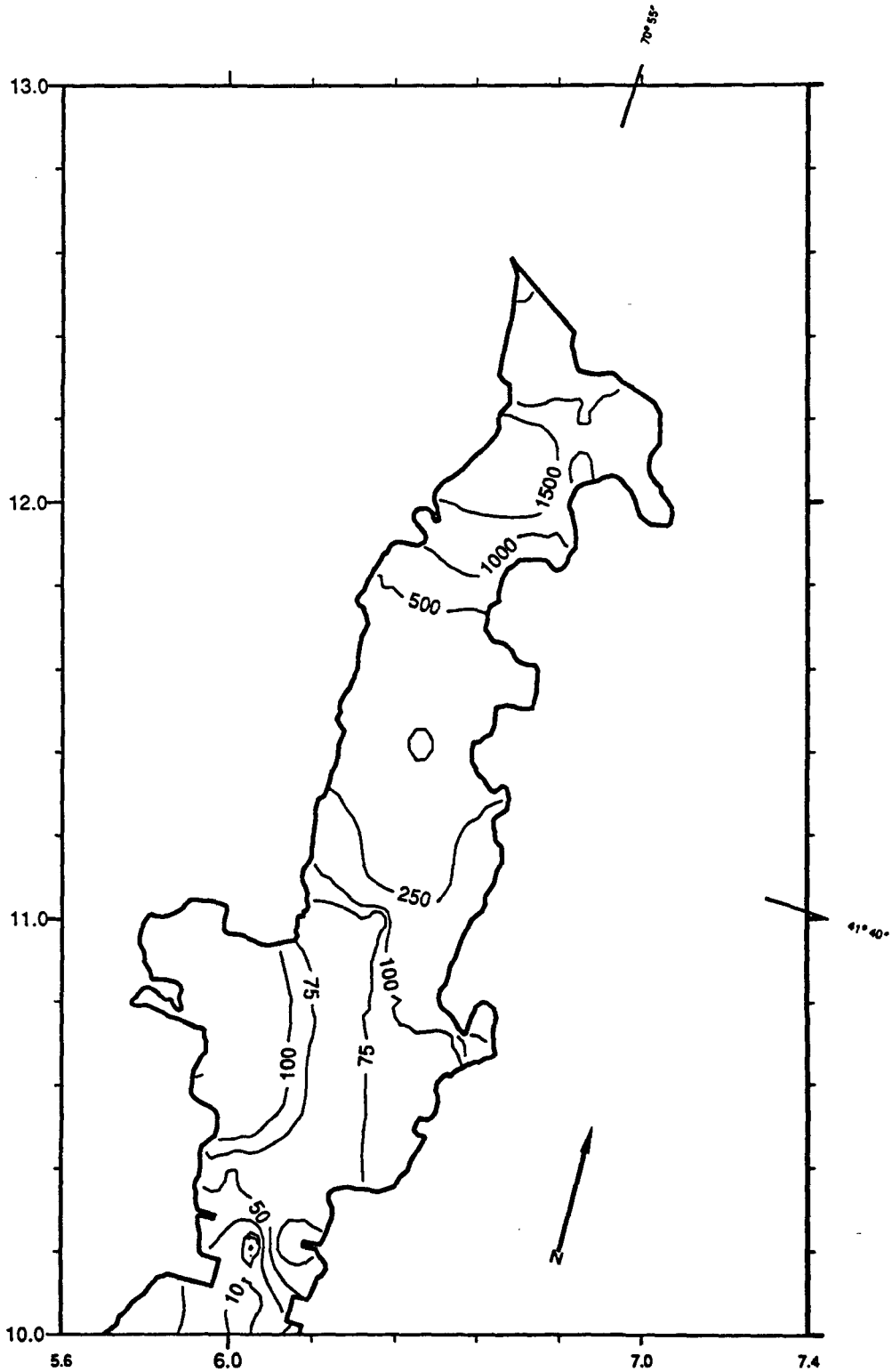

FIGURE C.1a. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF NO-ACTION CASE, NORTHERN AREA, INITIAL CONDITIONS

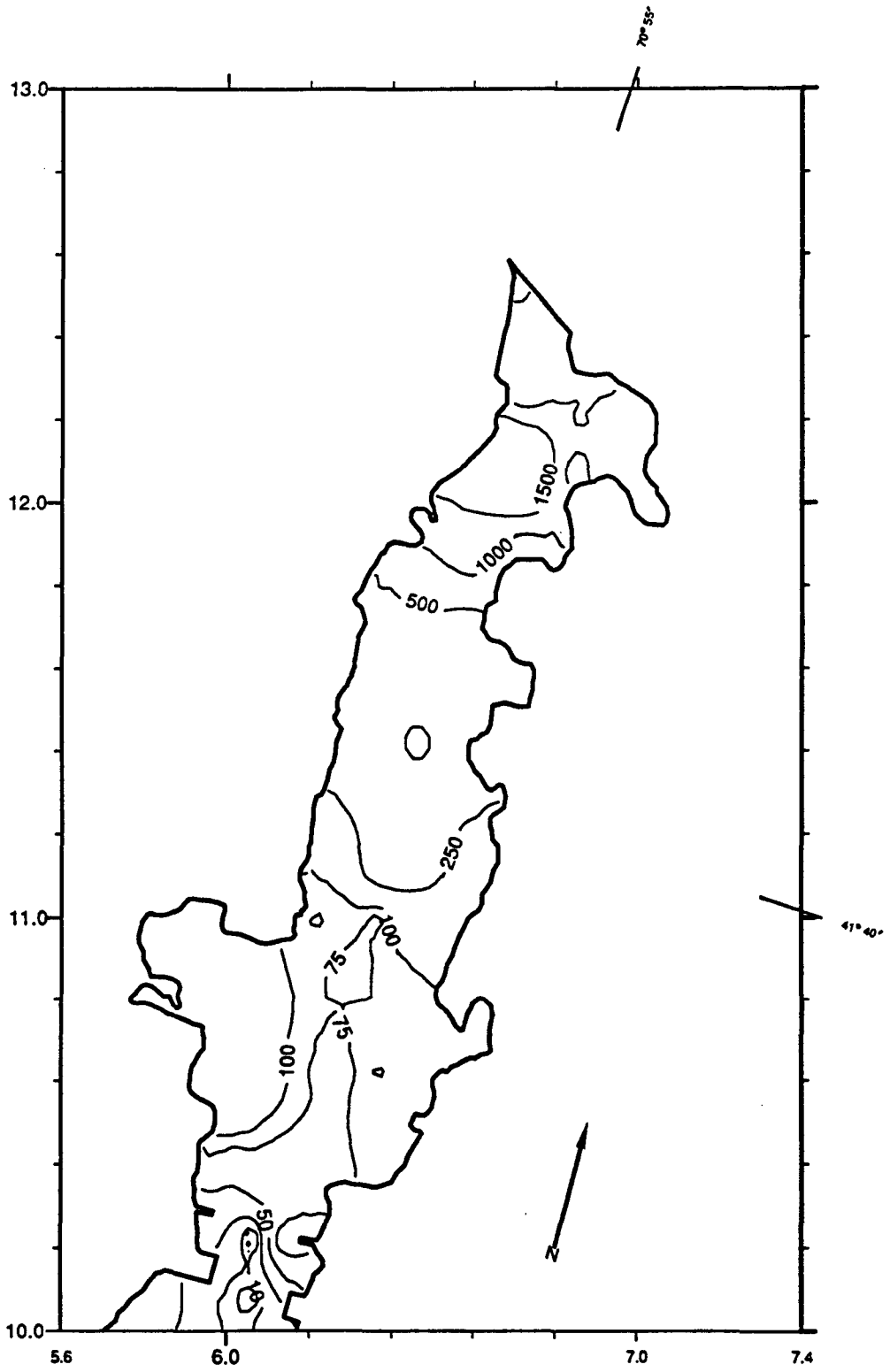

FIGURE C.1b. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF NO-ACTION CASE, NORTHERN AREA, YEAR 0

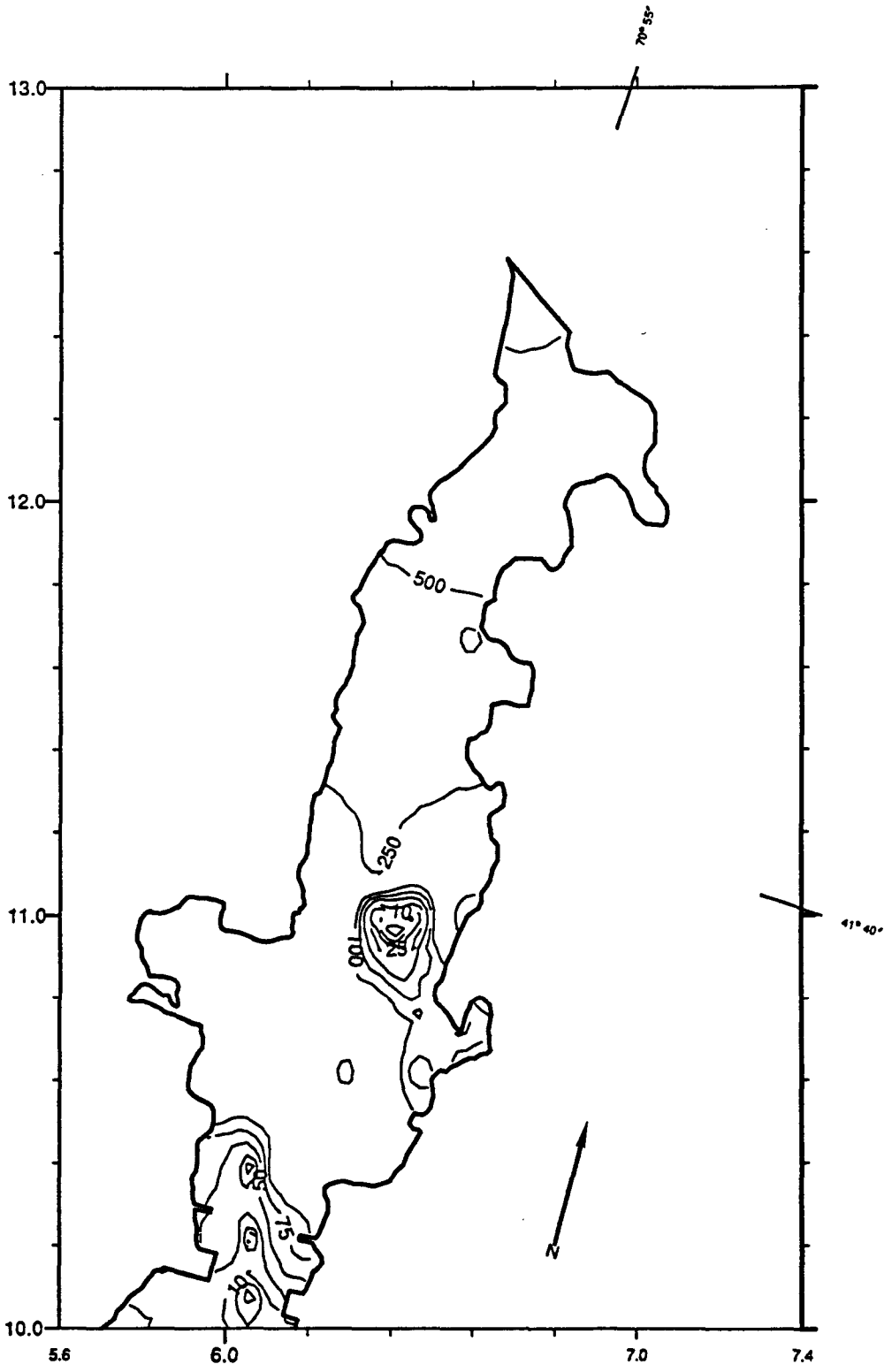

FIGURE C.1c. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF NO-ACTION CASE, NORTHERN AREA, YEAR 10

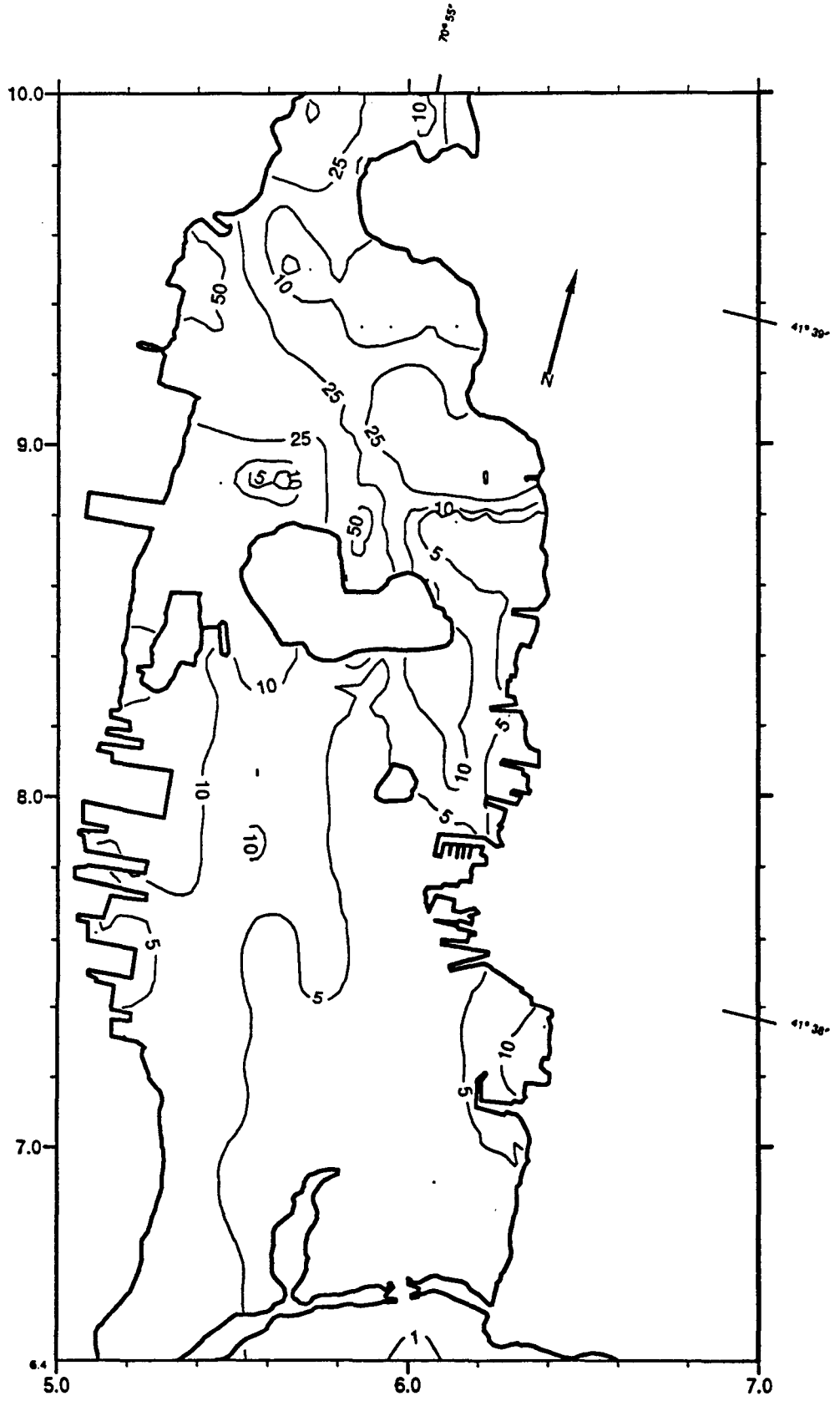

FIGURE C.1d. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF NO-ACTION CASE, CENTRAL AREA, INITIAL CONDITIONS

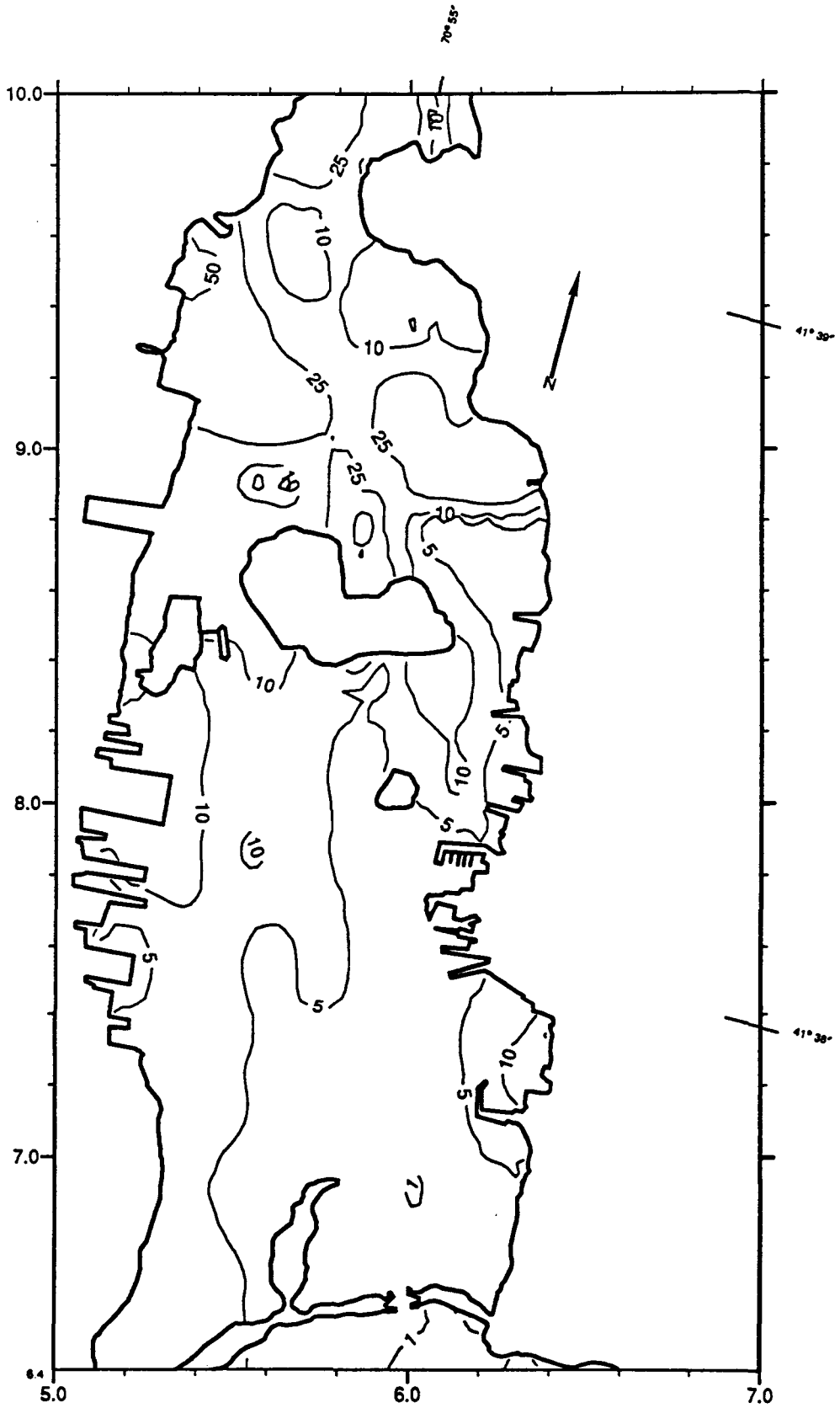

FIGURE C.1e. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF NO-ACTION CASE, CENTRAL AREA, YEAR 0

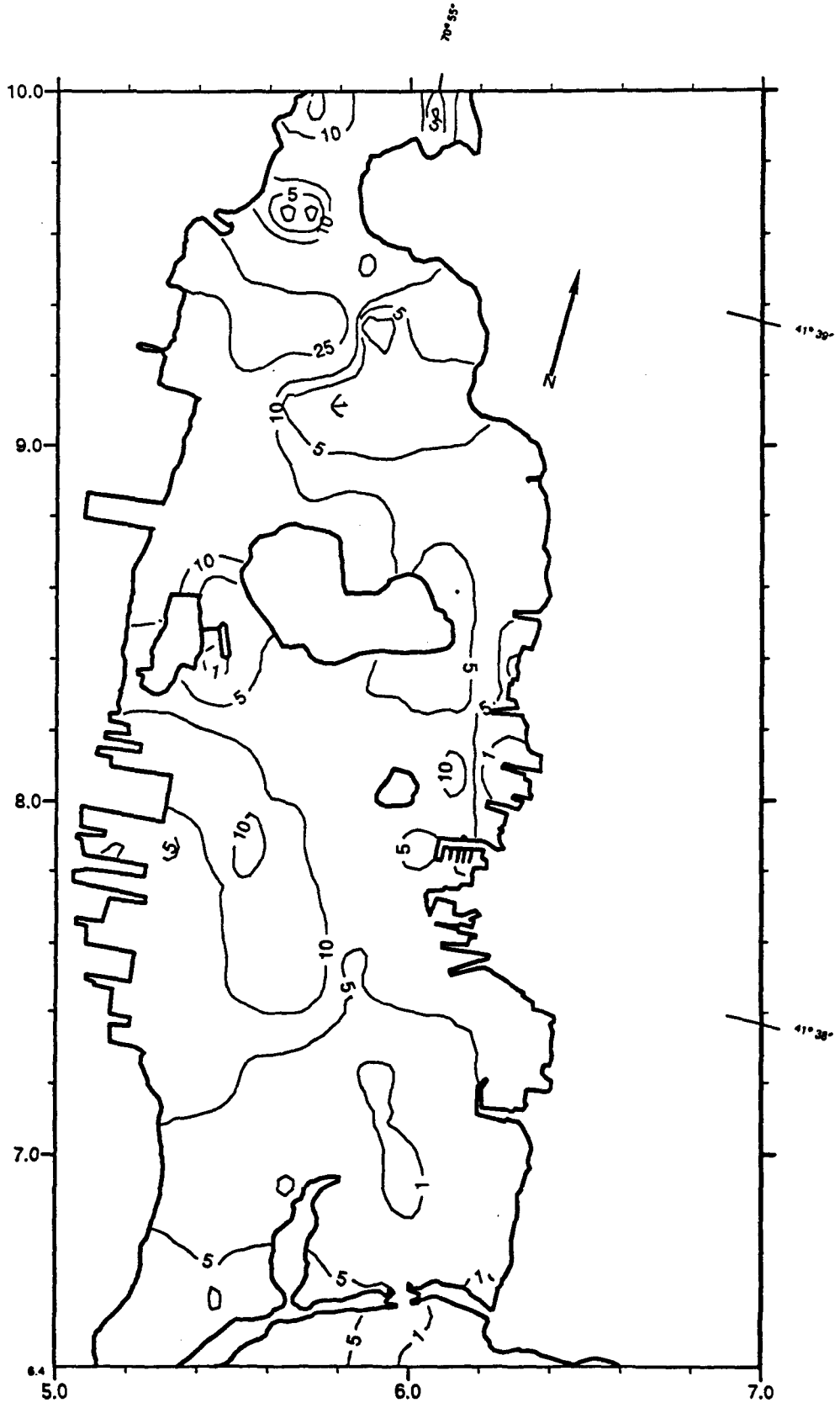

FIGURE C.1f. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF NO-ACTION CASE, CENTRAL AREA, YEAR 10

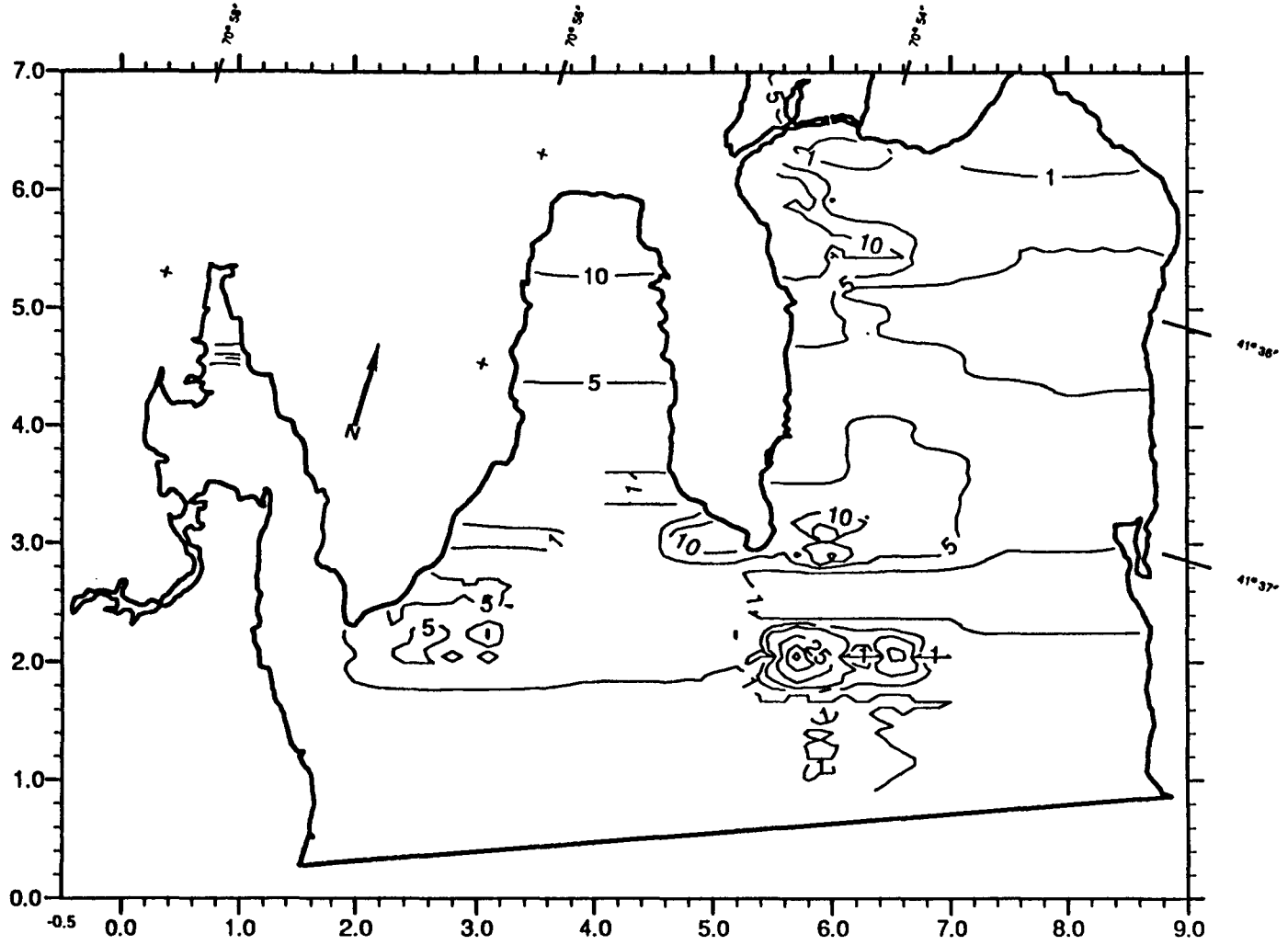

FIGURE C.1g. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF NO-ACTION CASE, SOUTHERN AREA, INITIAL CONDITIONS

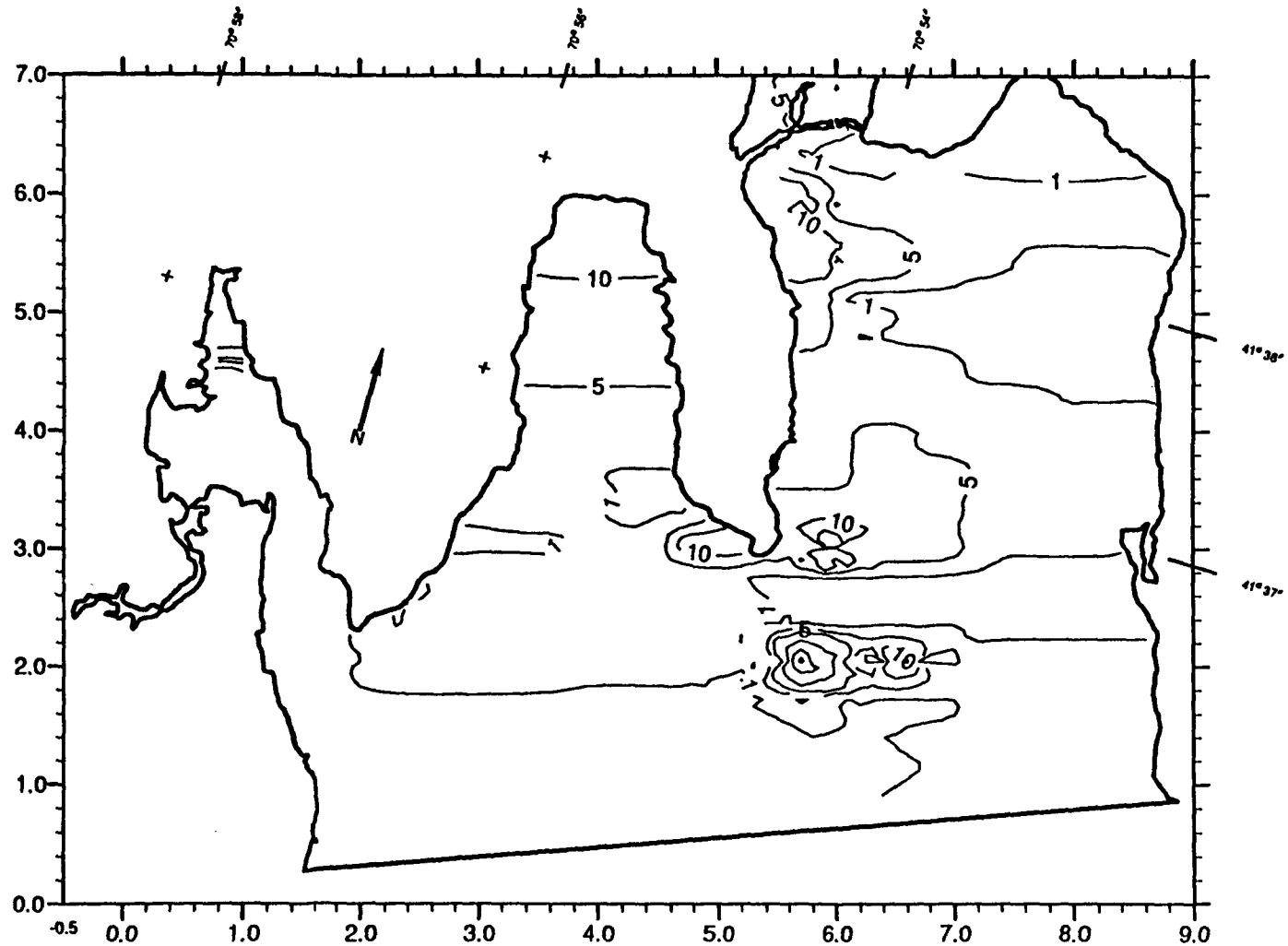

FIGURE C.1h. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF NO-ACTION CASE, SOUTHERN AREA, YEAR 0

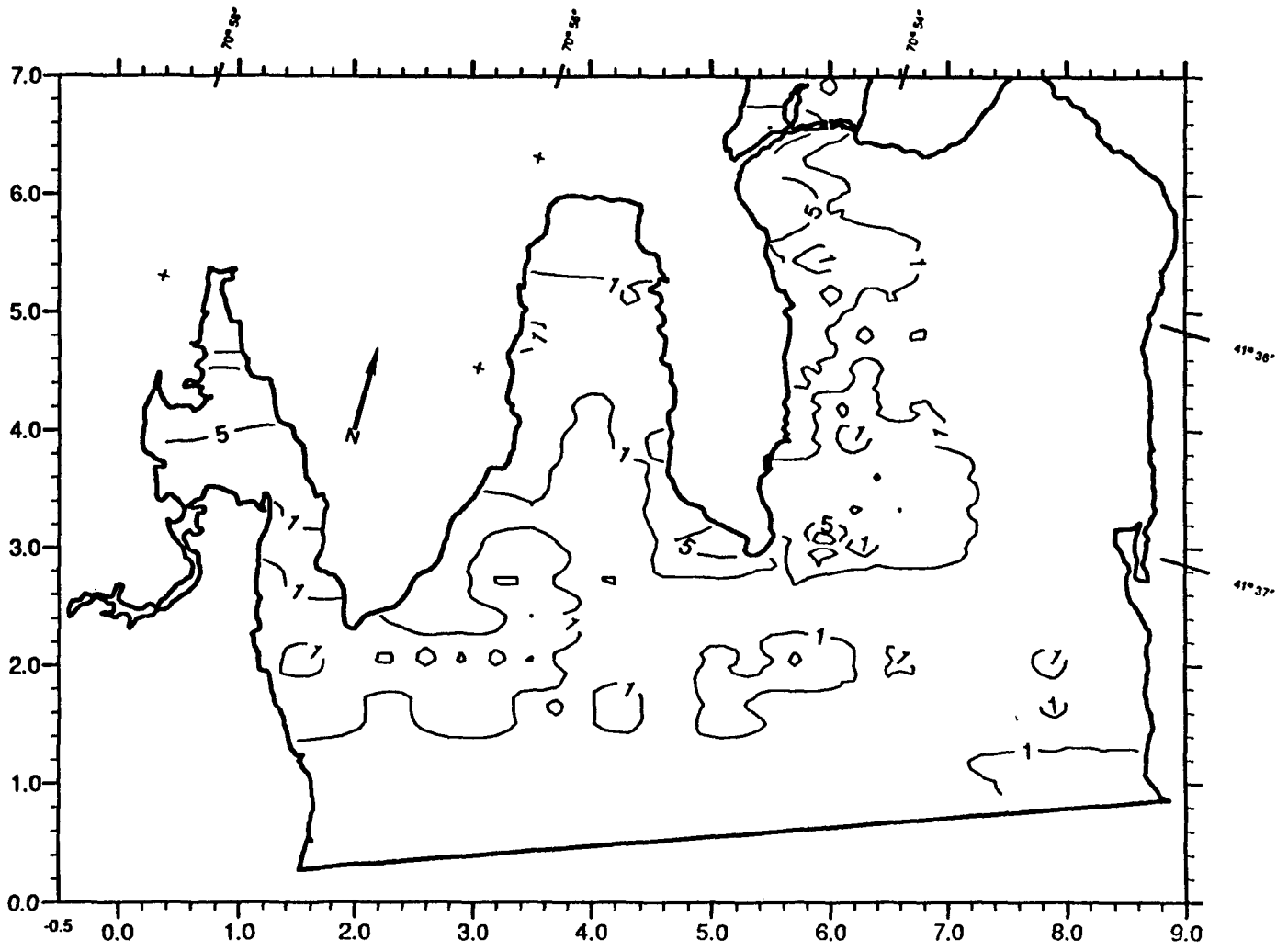

FIGURE C.1i. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF NO-ACTION CASE, SOUTHERN AREA, YEAR 10

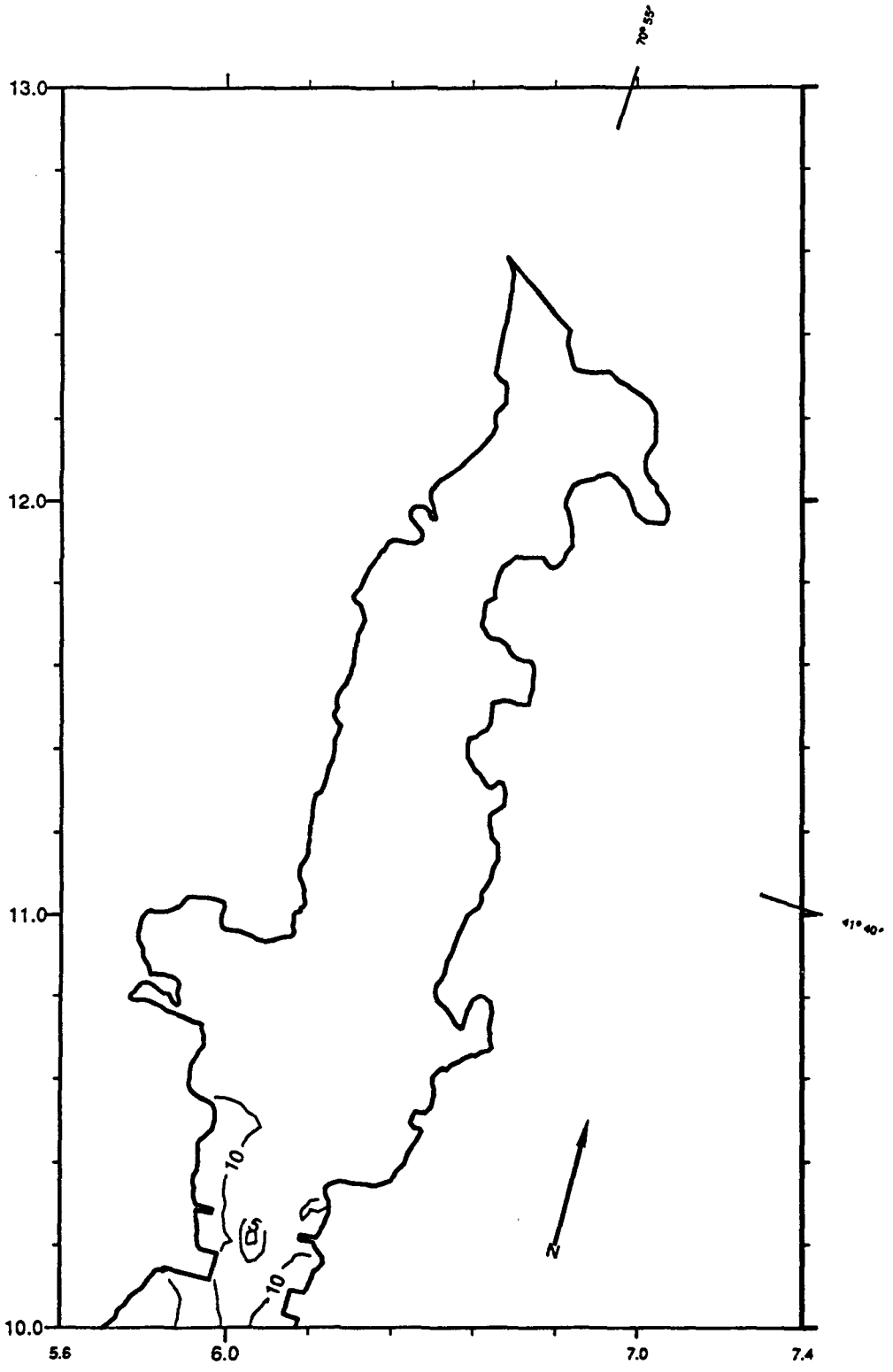

FIGURE C.2a. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF 10-ppm ESTUARY CASE, NORTHERN AREA, INITIAL CONDITIONS

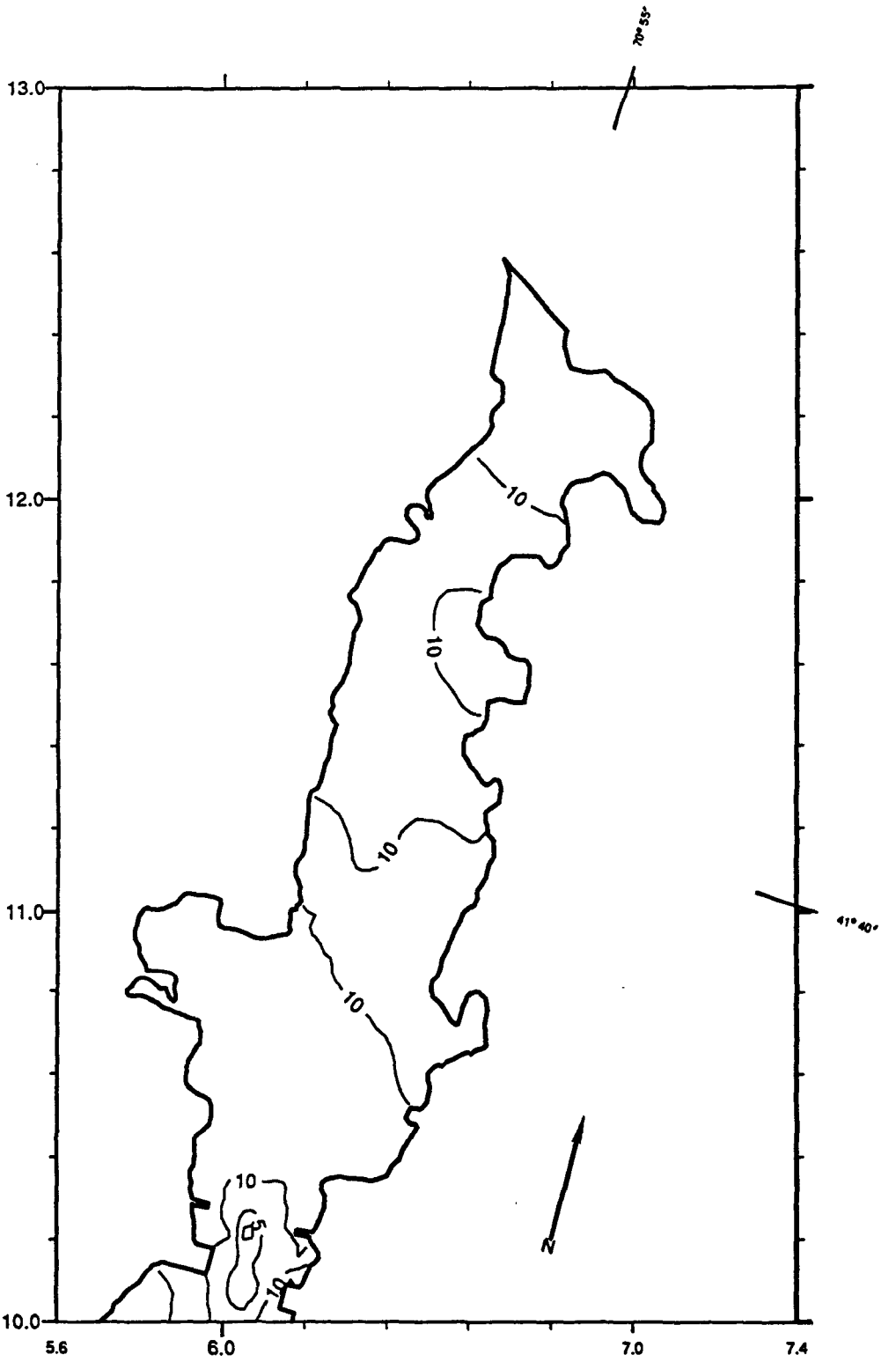

FIGURE C.2b. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF 10-ppm ESTUARY CASE, NORTHERN AREA, YEAR 0

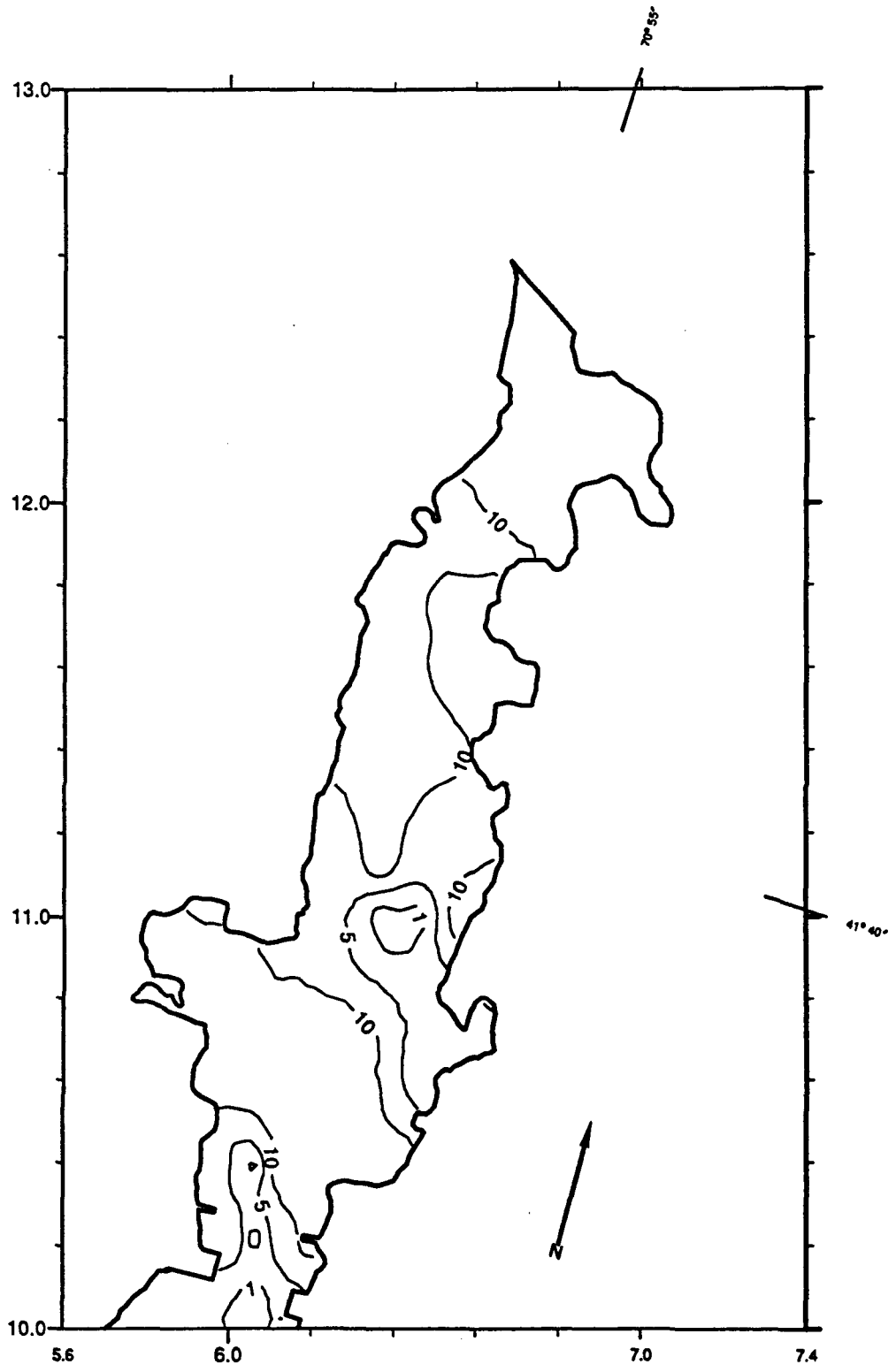

FIGURE C.2c. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF 10-ppm ESTUARY CASE, NORTHERN AREA, YEAR 10

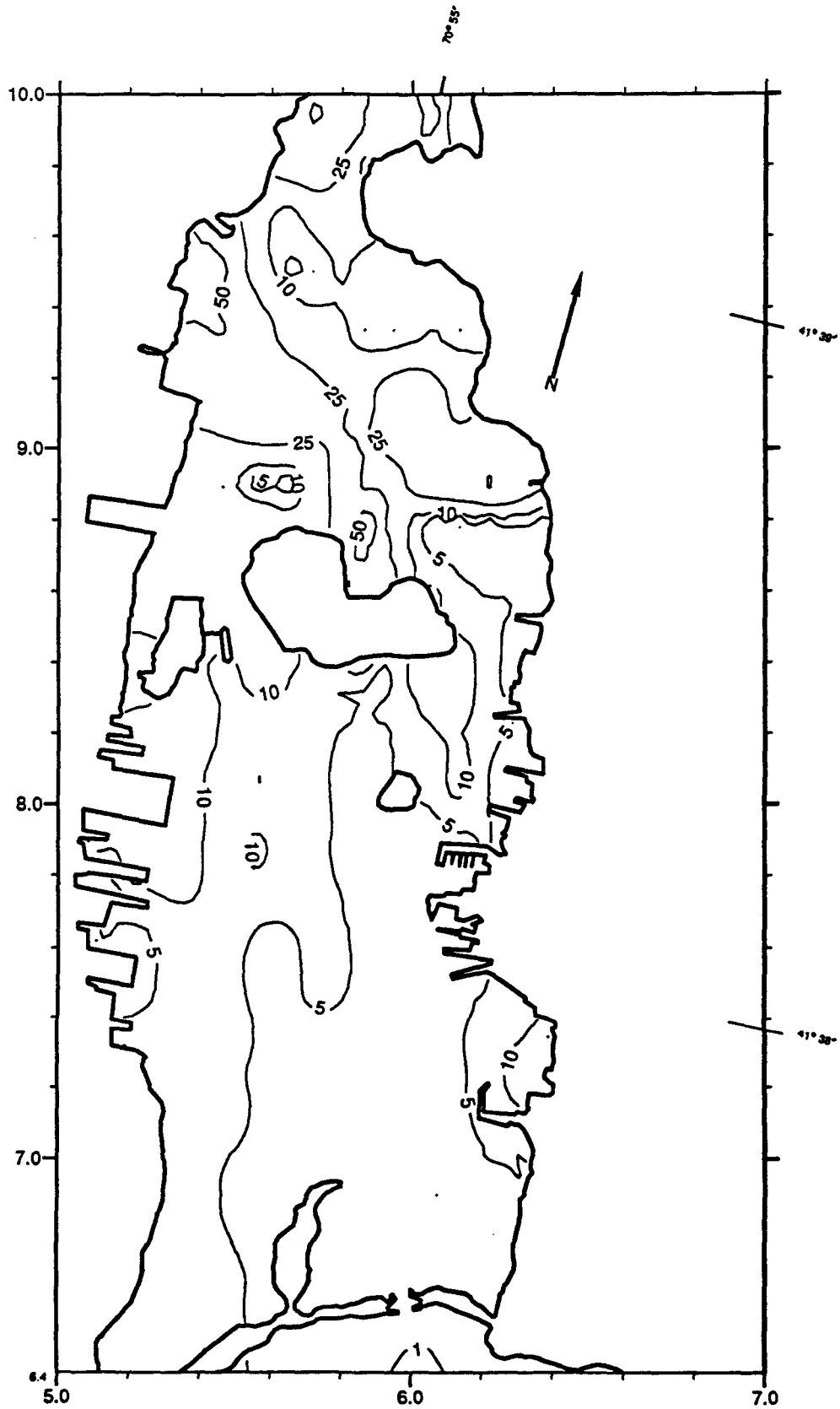

FIGURE C.2d. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF 10-ppm ESTUARY CASE, CENTRAL AREA, INITIAL CONDITIONS

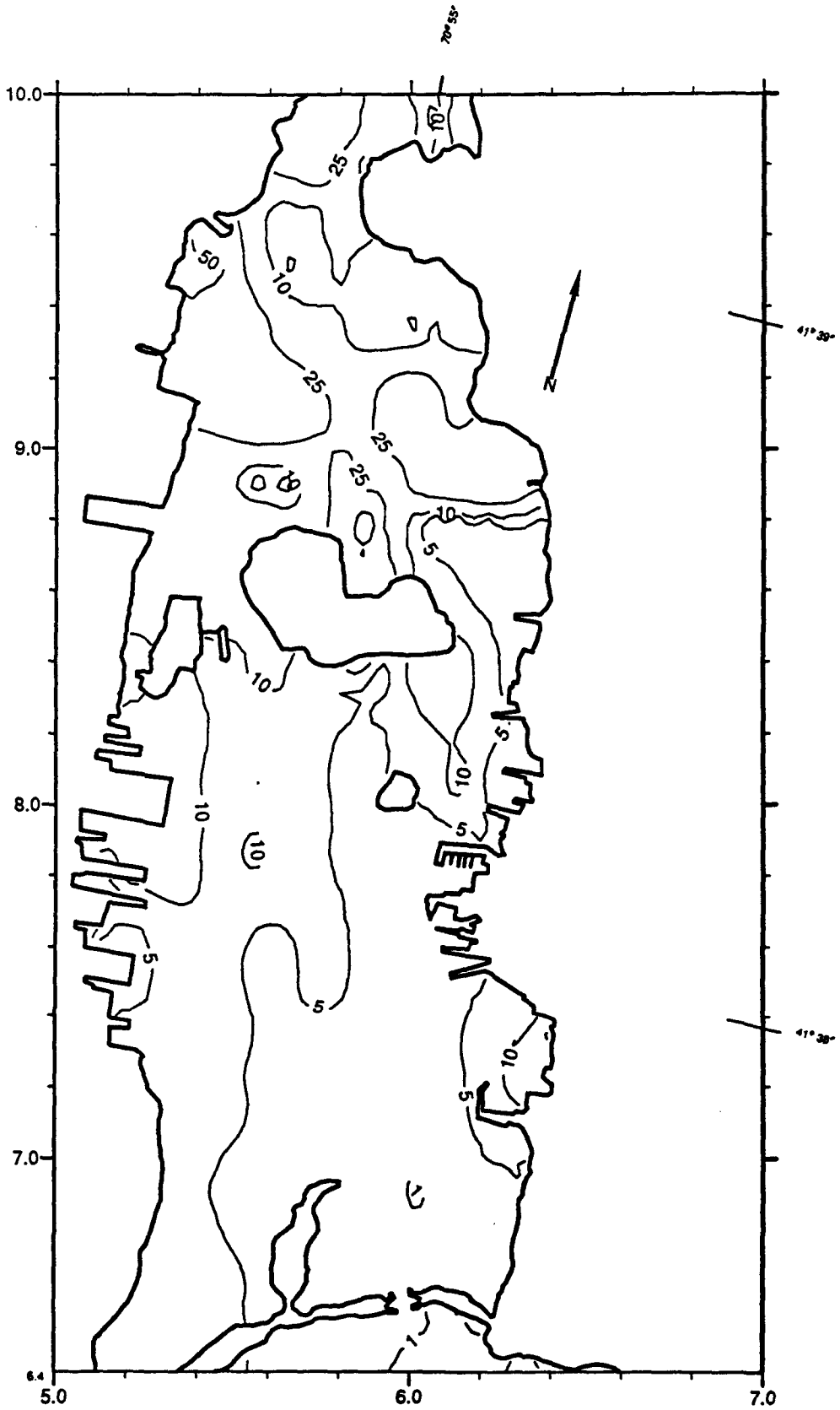

FIGURE C.2e. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF 10-ppm ESTUARY CASE, CENTRAL AREA, YEAR 0

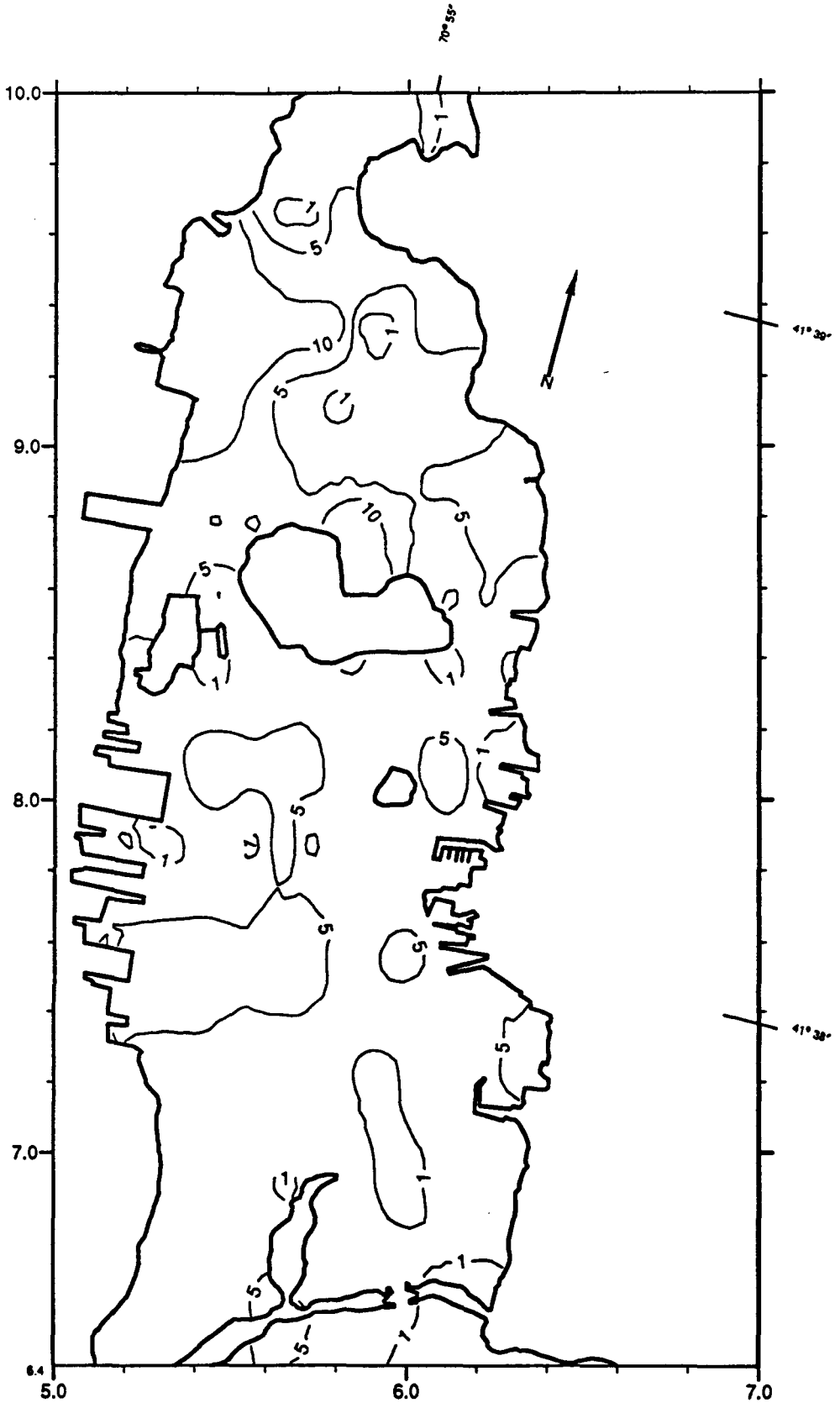

FIGURE C.2f. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF 10-ppm ESTUARY CASE, CENTRAL AREA, YEAR 10

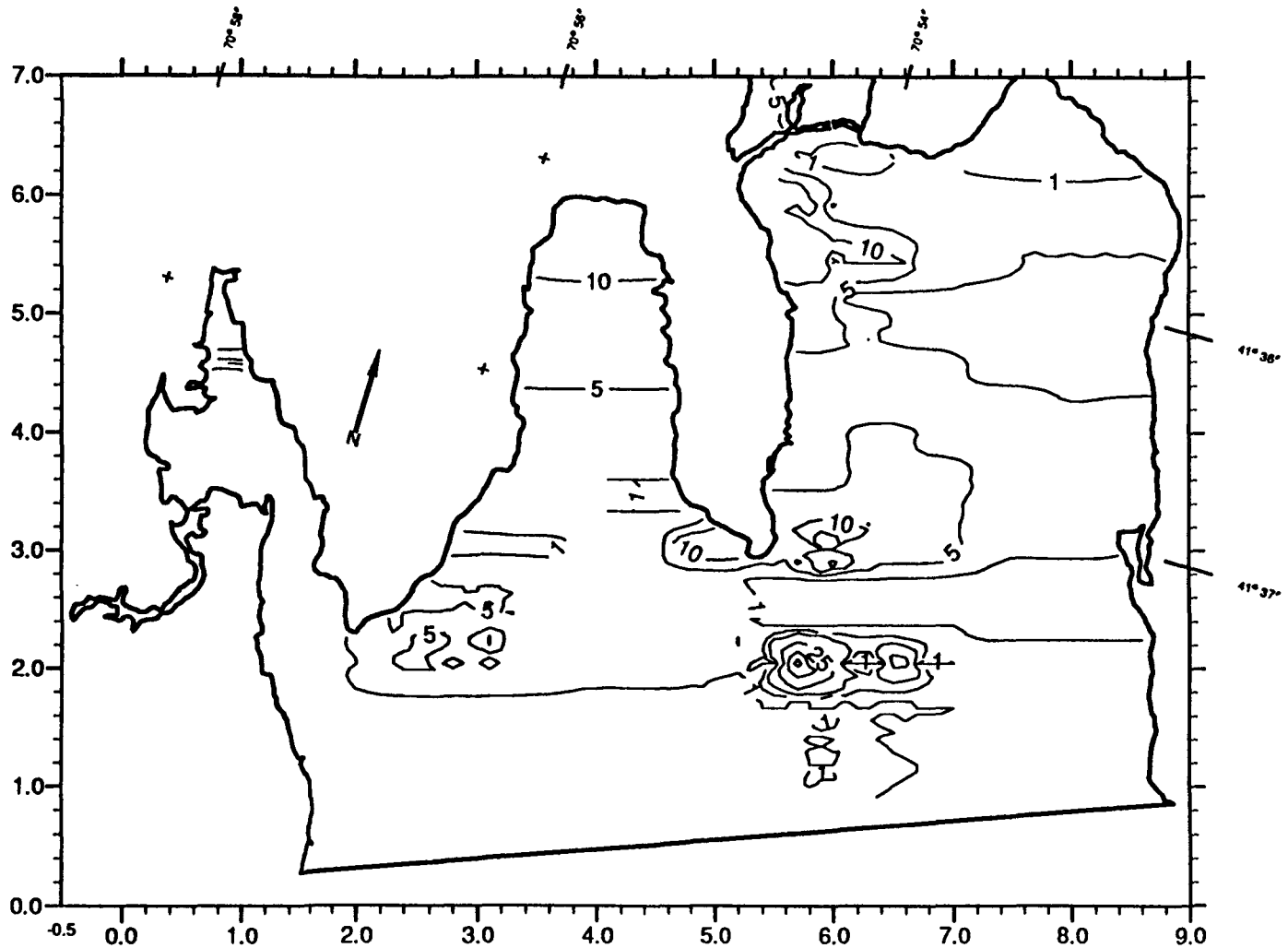

FIGURE C.2g. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF 10-ppm ESTUARY CASE, SOUTHERN AREA, INITIAL CONDITIONS

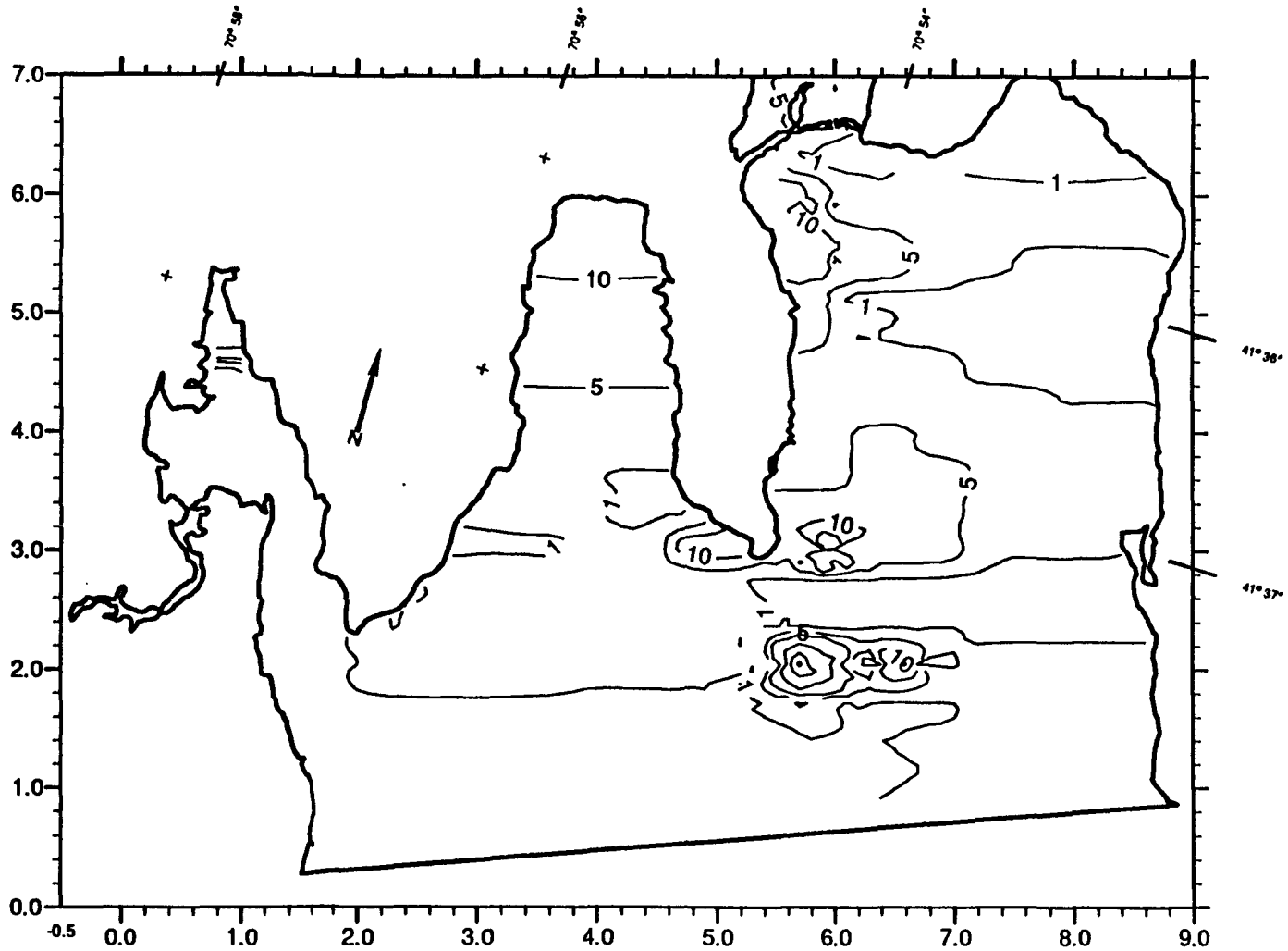

FIGURE C.2h. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF 10-ppm ESTUARY CASE, SOUTHERN AREA, YEAR 0

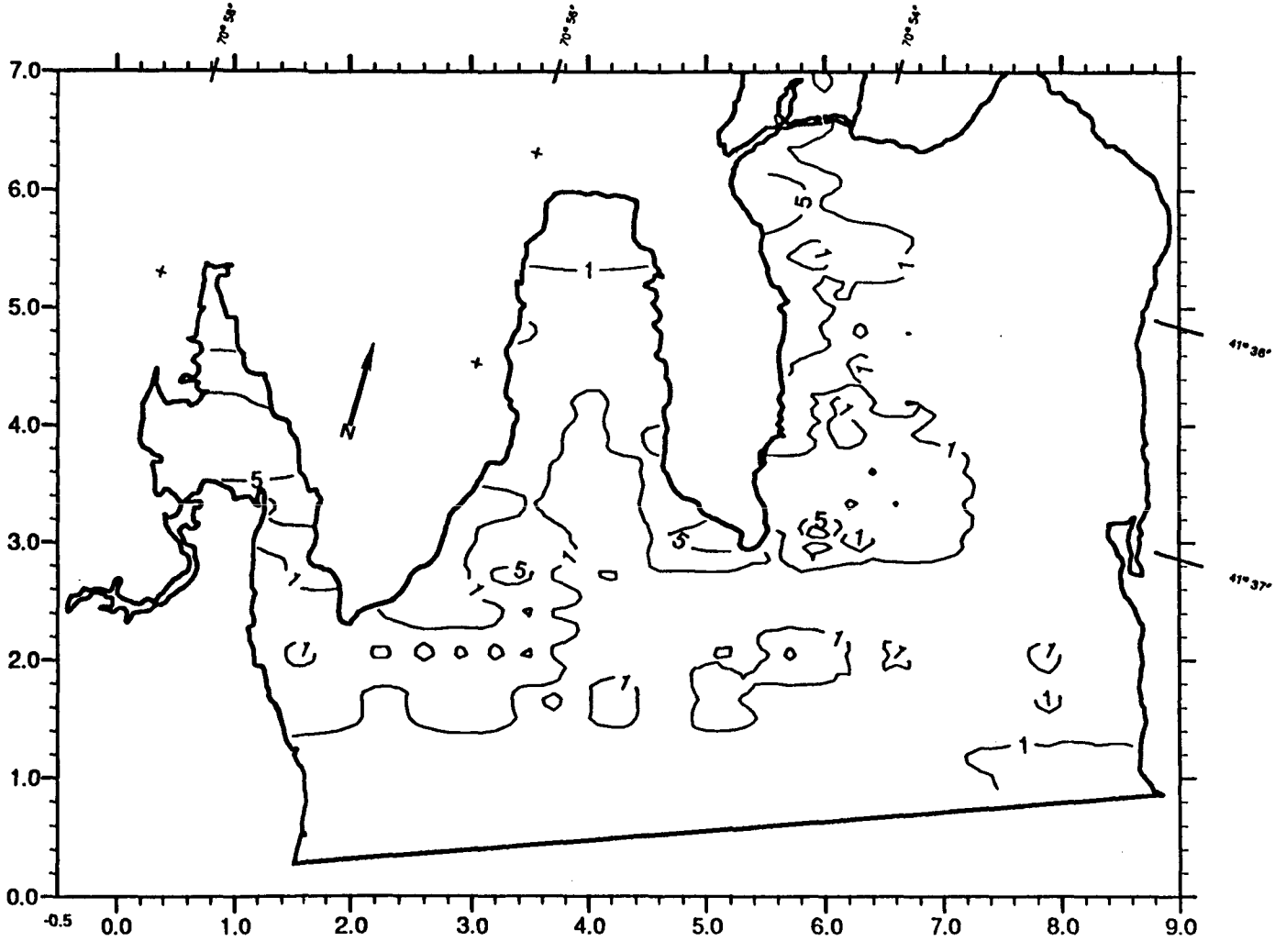

FIGURE C.2i. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF 10-ppm ESTUARY CASE, SOUTHERN AREA, YEAR 10

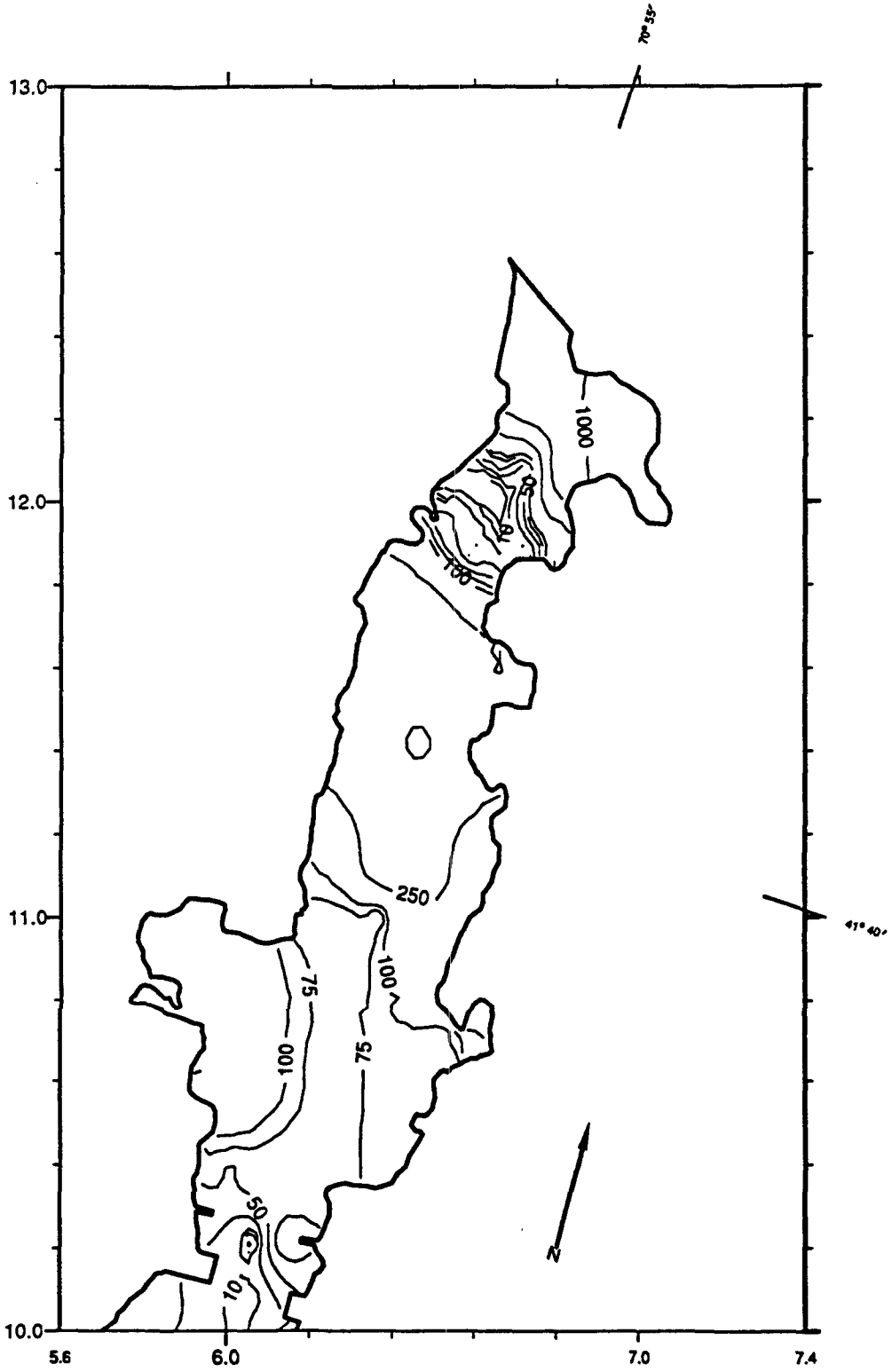

FIGURE C.3a. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF HOT-SPOT CASE, NORTHERN AREA, INITIAL CONDITIONS

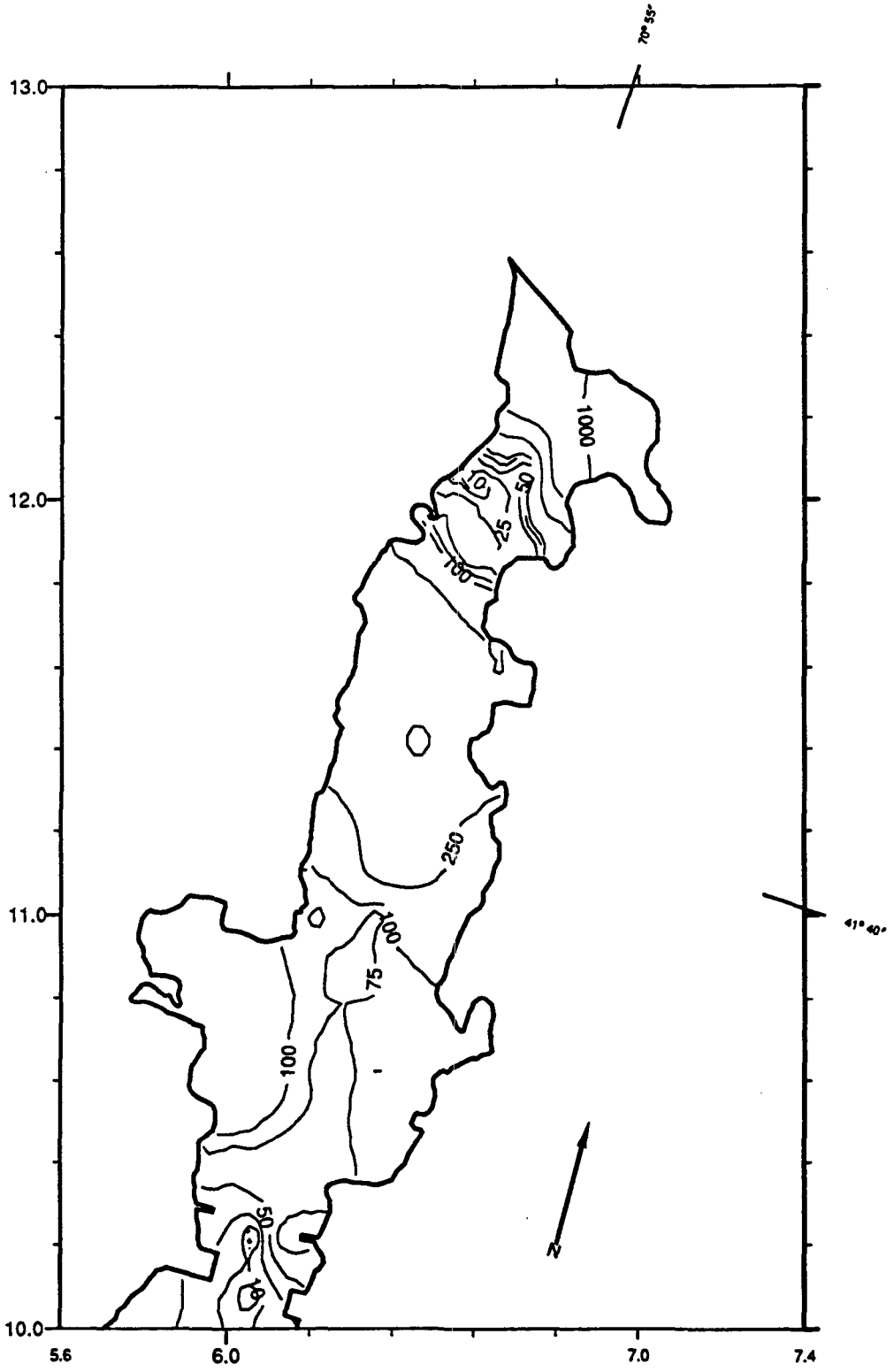

FIGURE C.3b. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF HOT-SPOT CASE, NORTHERN AREA, YEAR 0

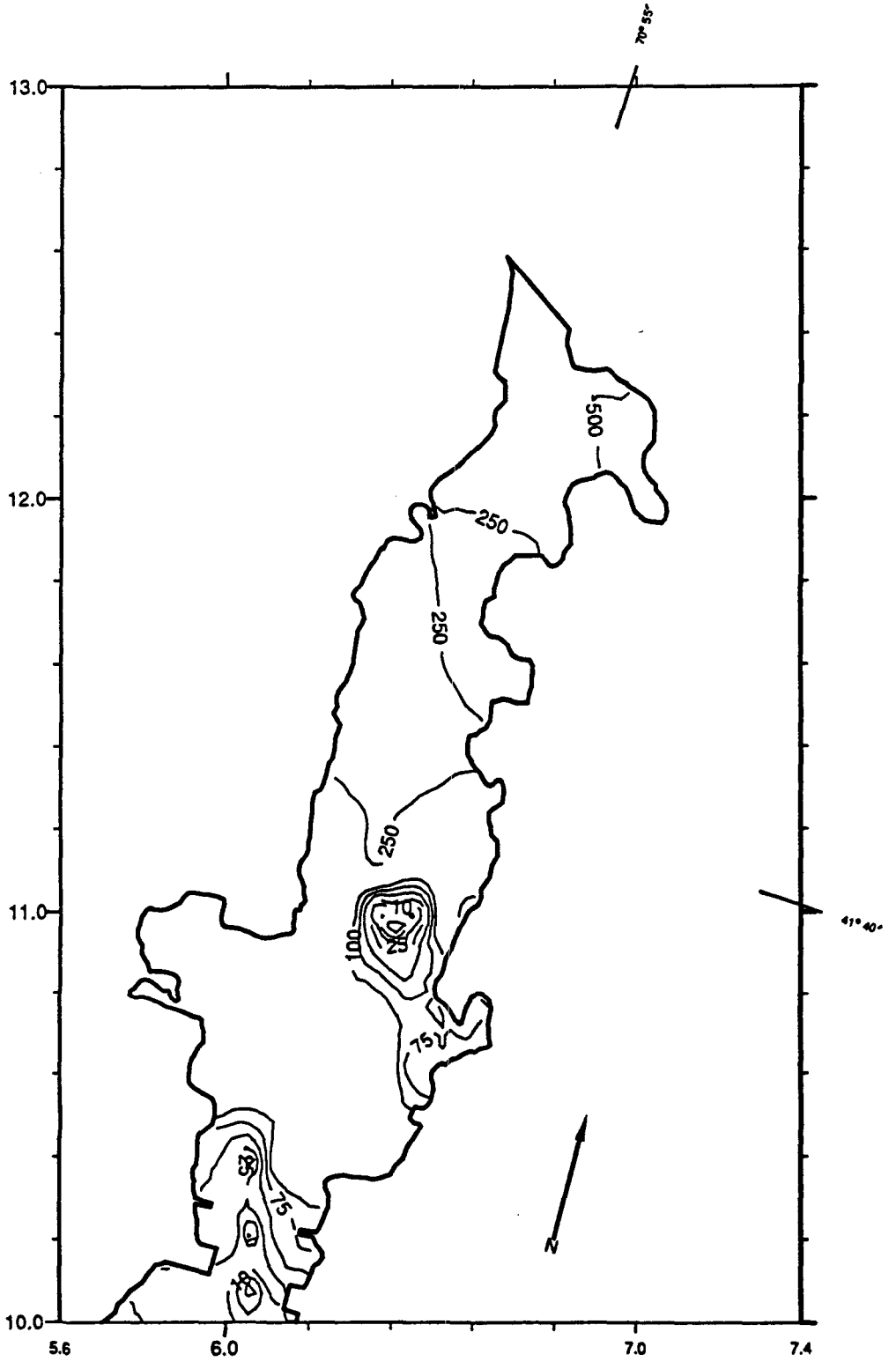

FIGURE C.3c. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF HOT-SPOT CASE, NORTHERN AREA, YEAR 10

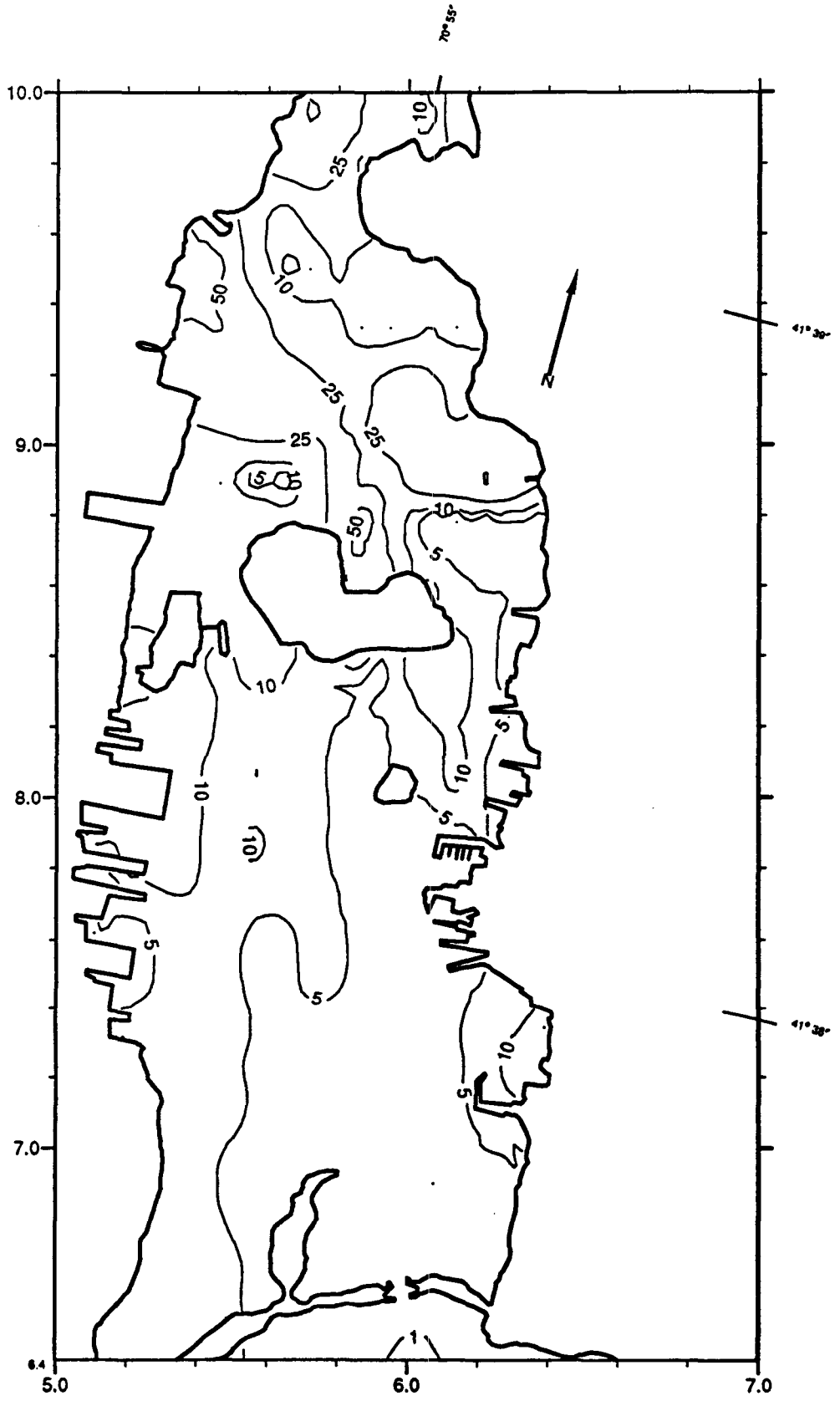

FIGURE C.3d. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF HOT-SPOT CASE, CENTRAL AREA, INITIAL CONDITIONS

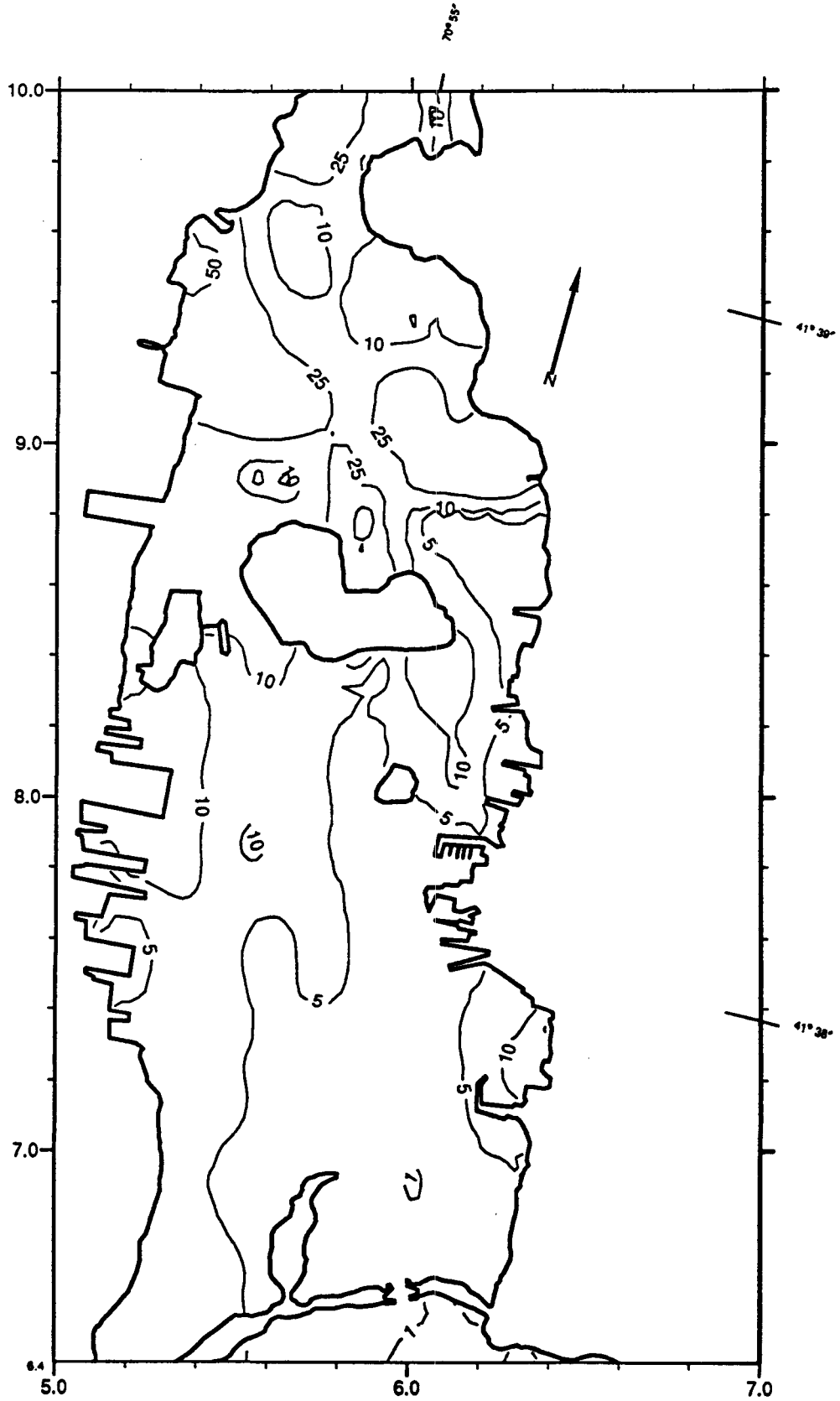

FIGURE C.3e. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF HOT-SPOT CASE, CENTRAL AREA, YEAR 0

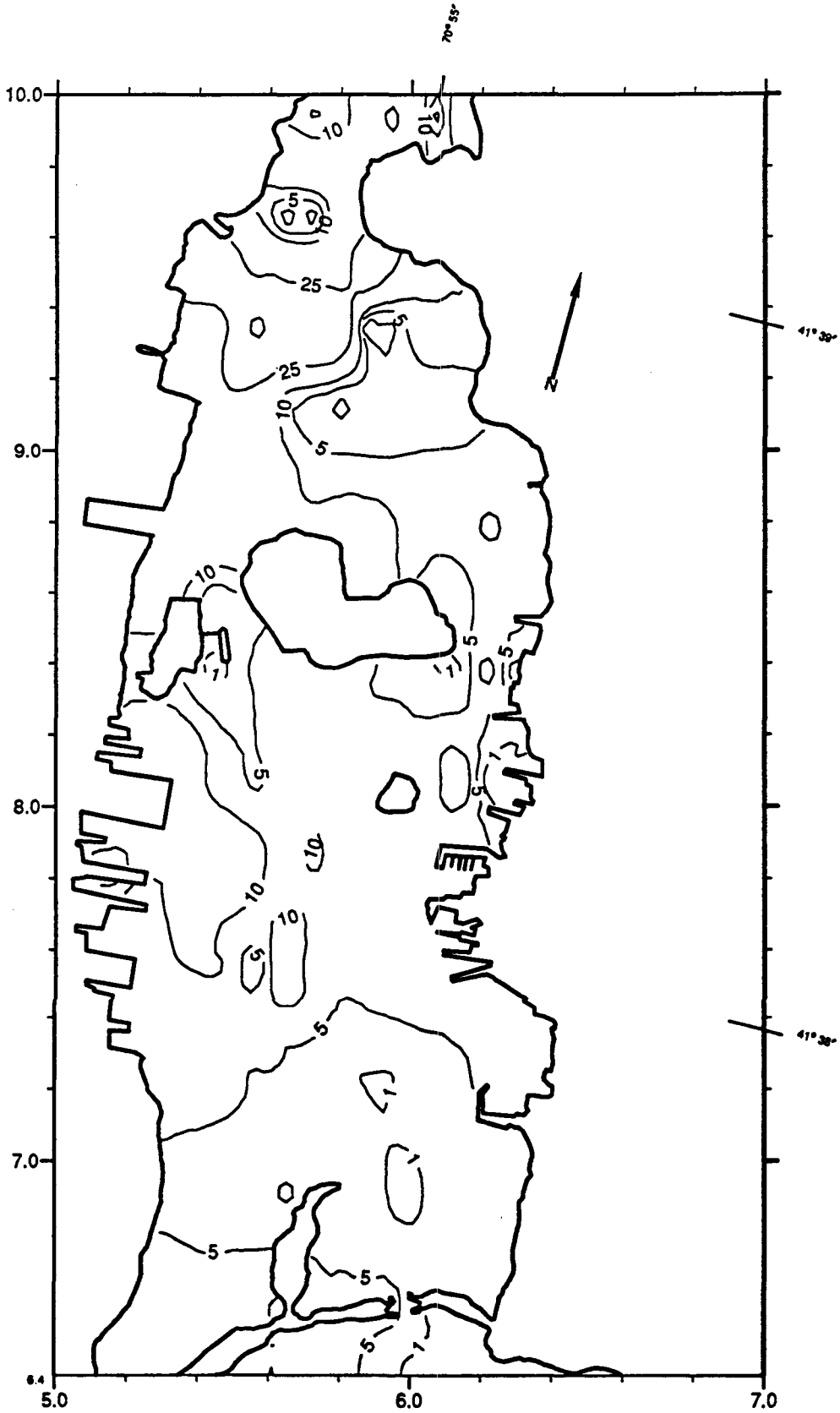

FIGURE C.3f. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF HOT-SPOT CASE, CENTRAL AREA, YEAR 10

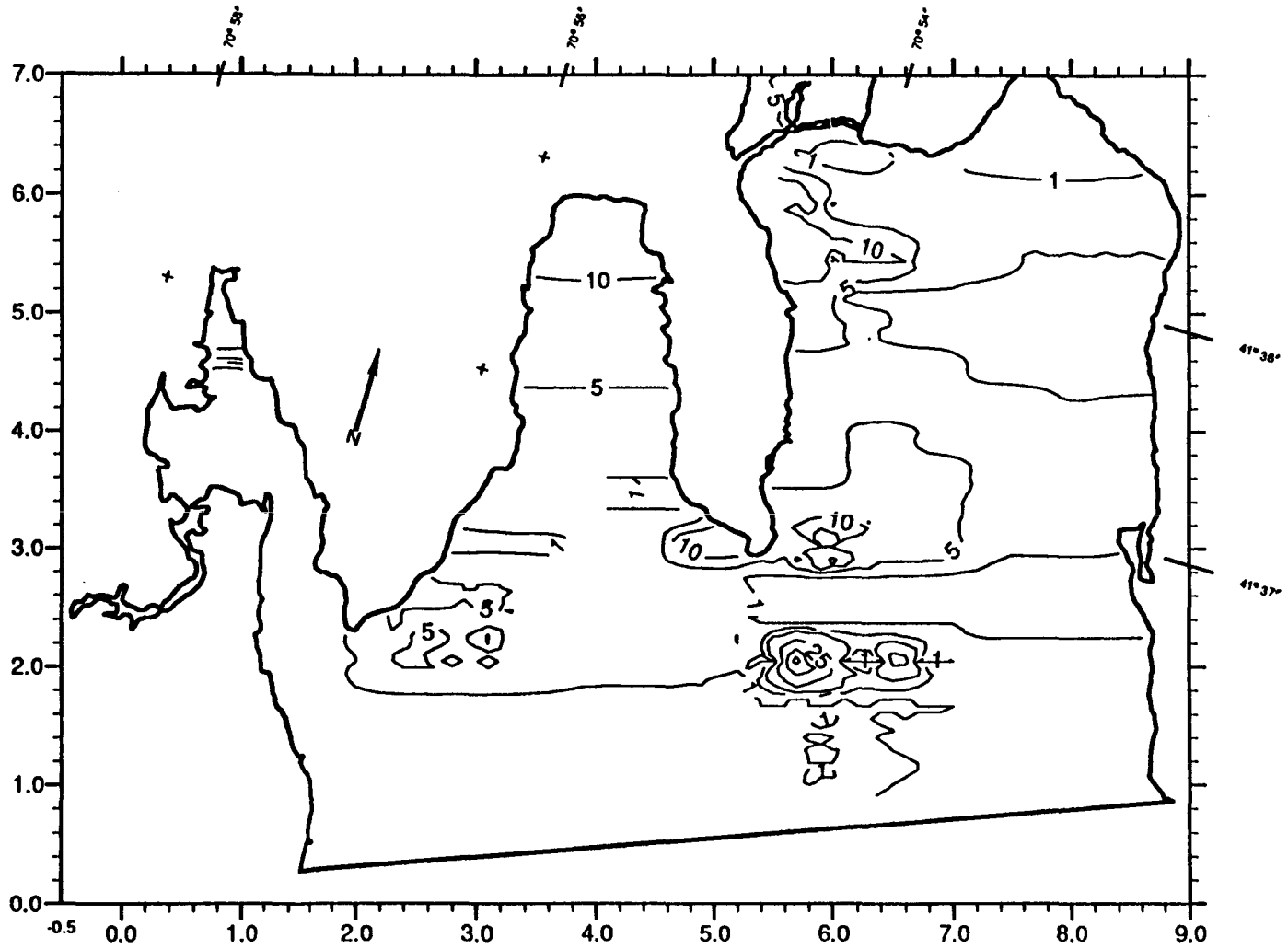

FIGURE C.3g. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF HOT-SPOT CASE, SOUTHERN AREA, INITIAL CONDITIONS

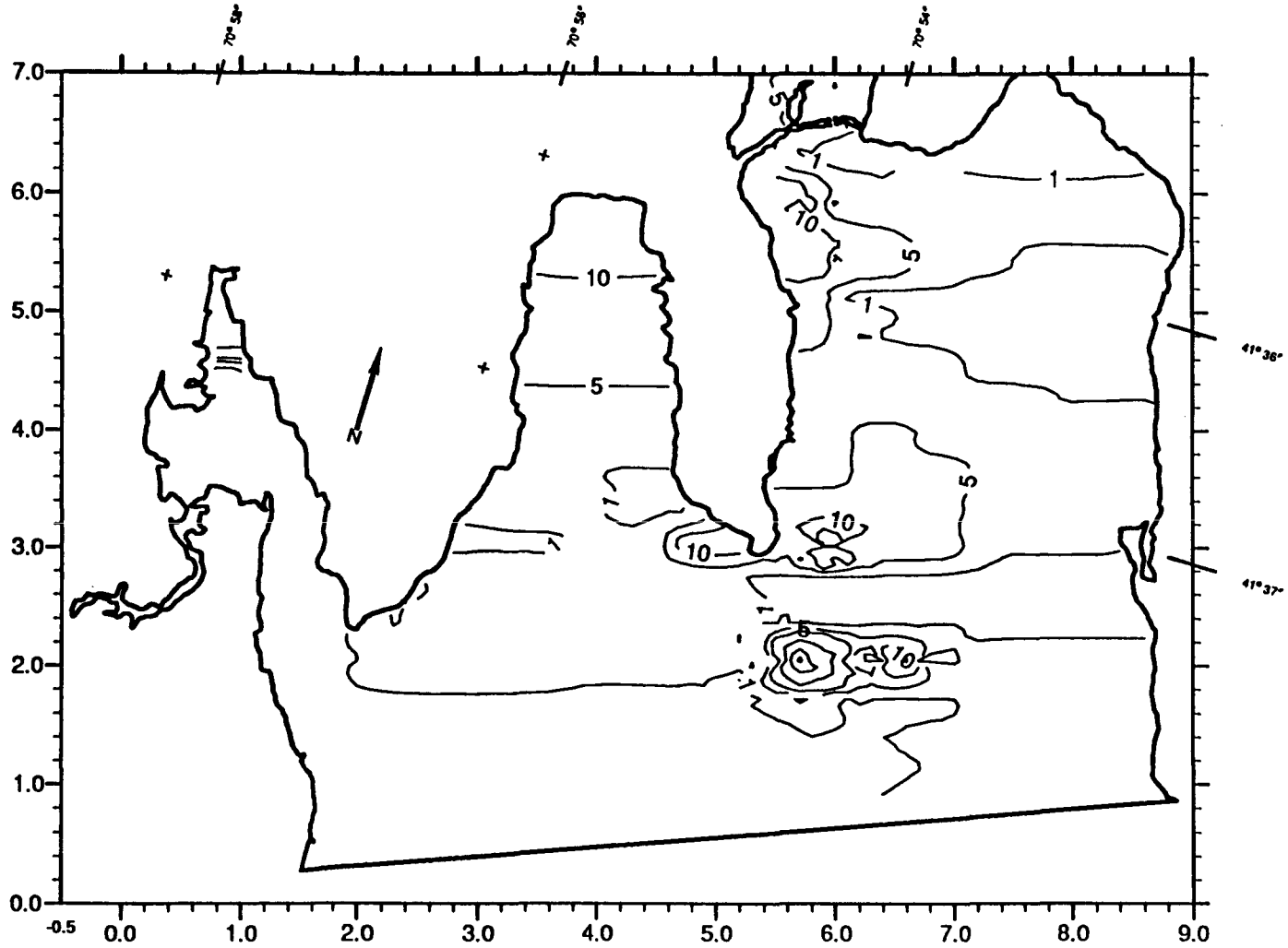

FIGURE C.3h. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF HOT-SPOT CASE, SOUTHERN AREA, YEAR 0

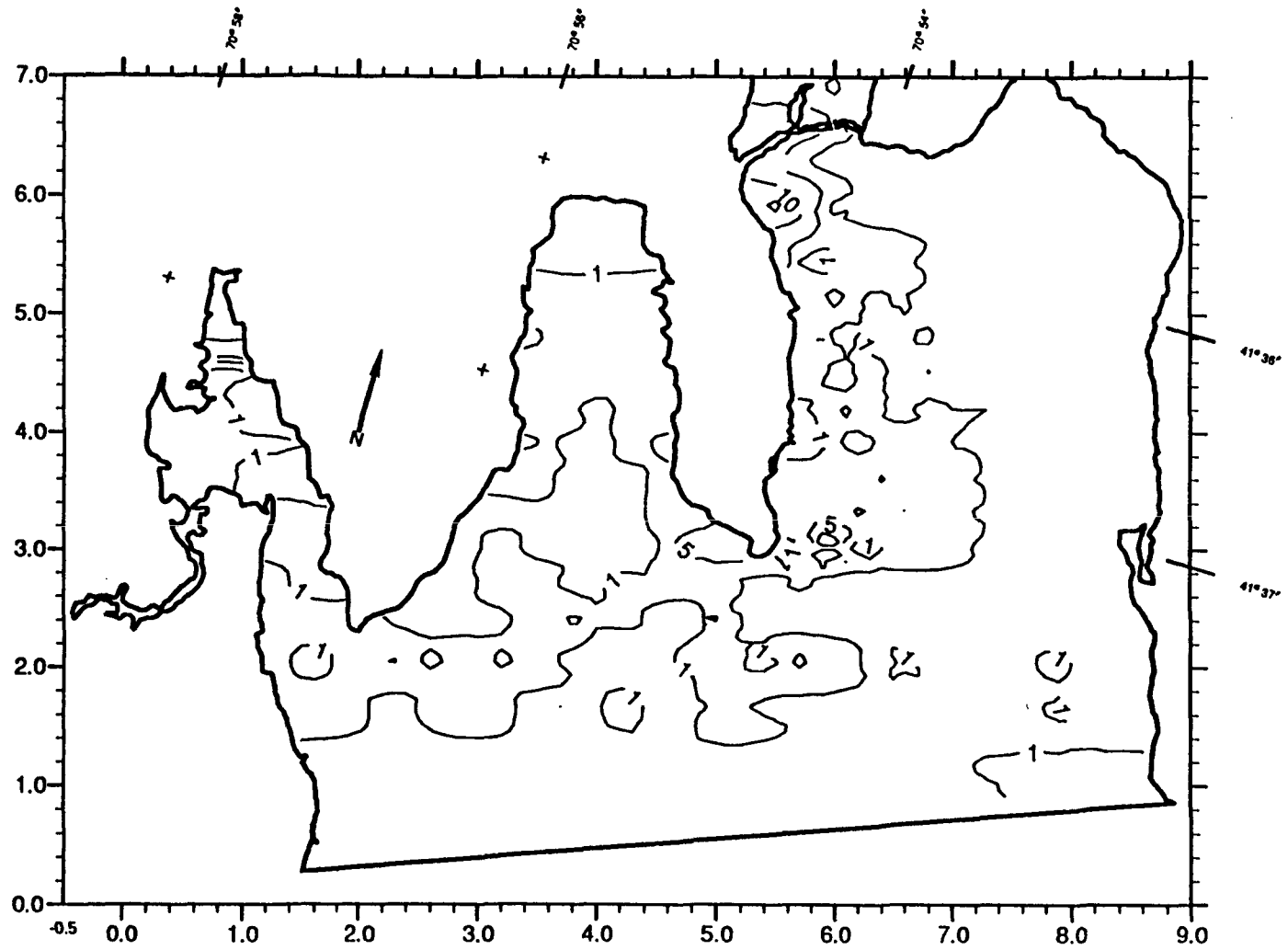

FIGURE C.3i. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF HOT-SPOT CASE, SOUTHERN AREA, YEAR 10

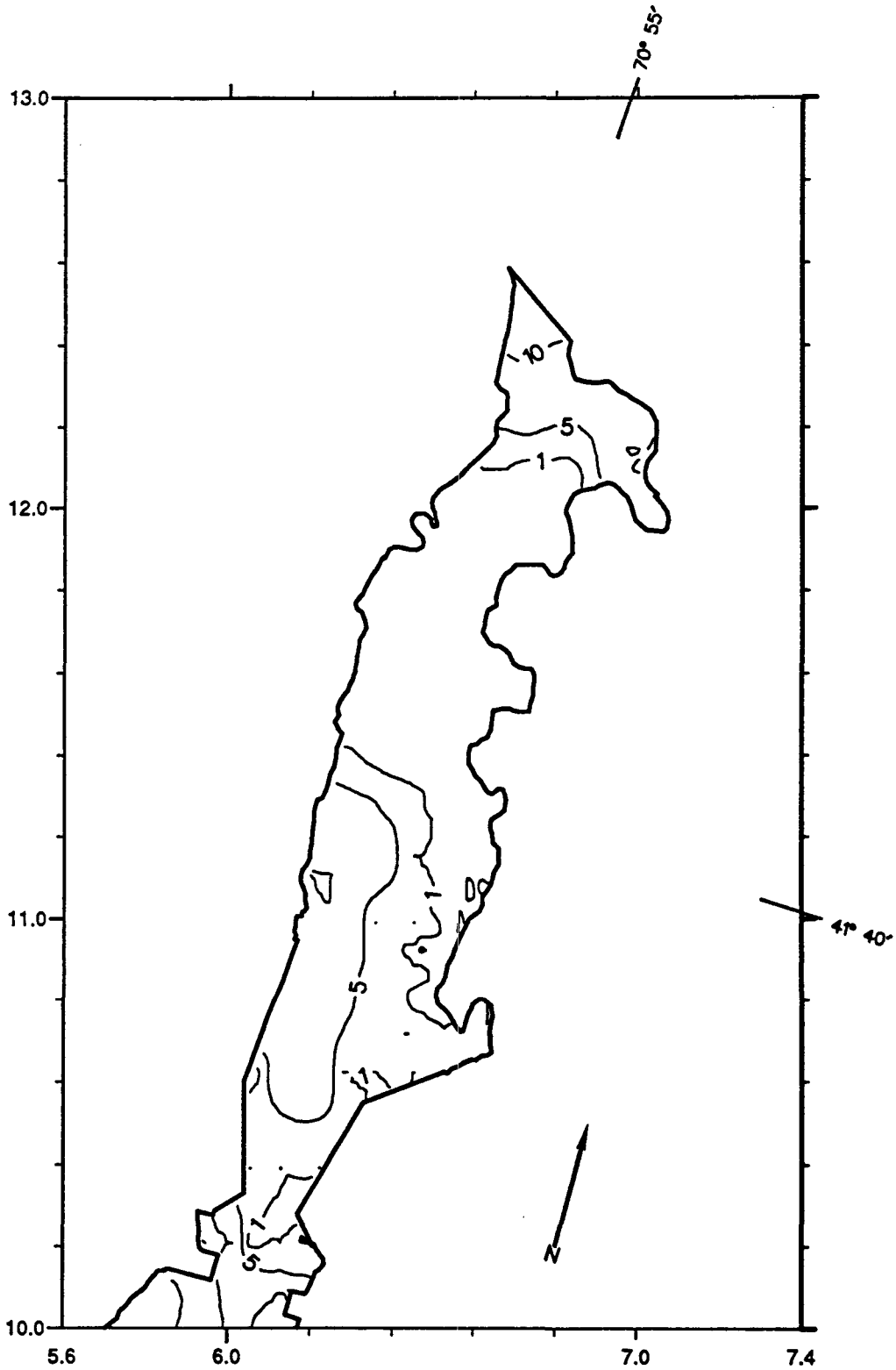

FIGURE C.4a. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF UPPER-ESTUARY CASE, NORTHERN AREA, INITIAL CONDITIONS

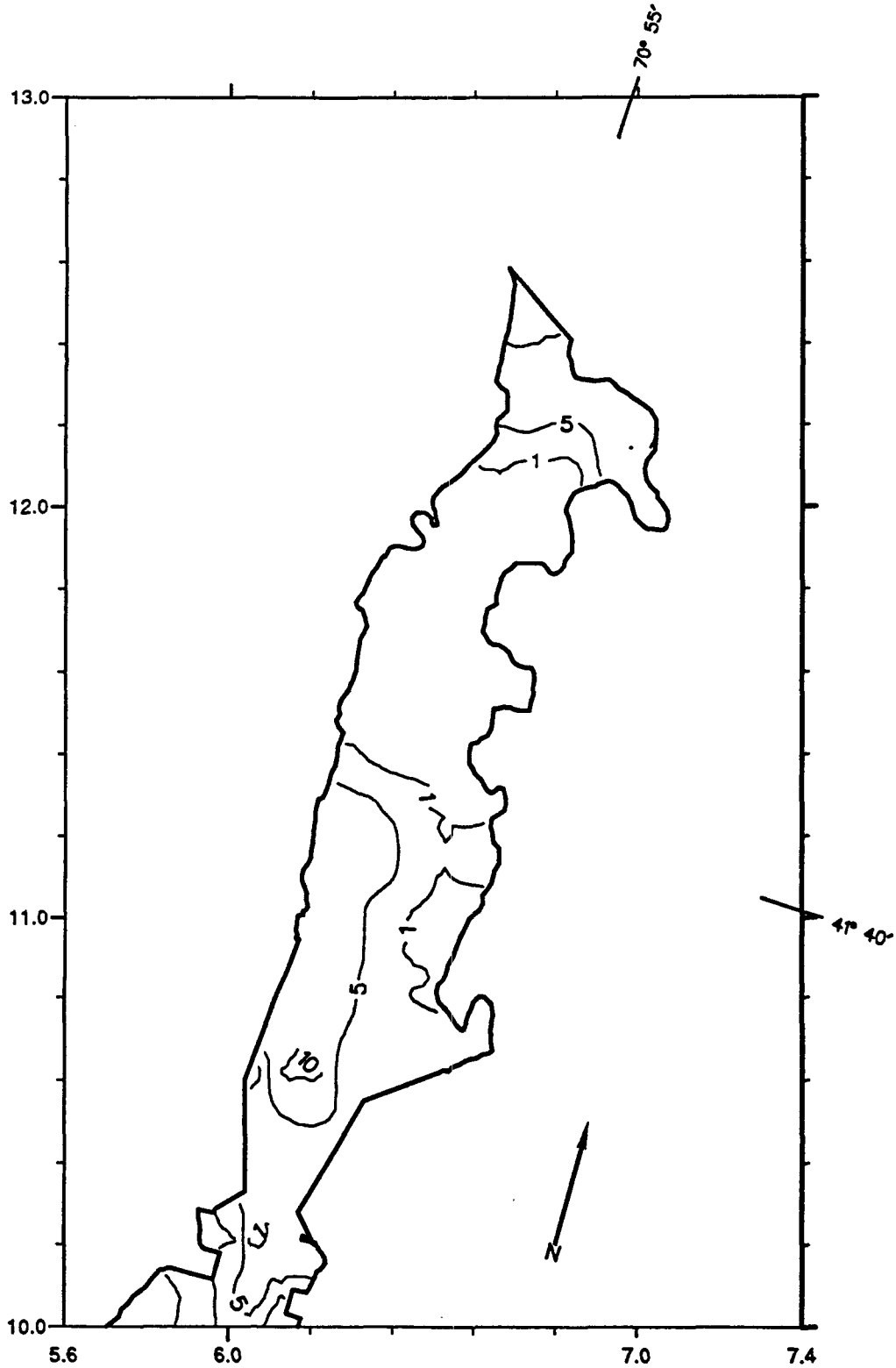

FIGURE C.4b. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF UPPER-ESTUARY CASE, NORTHERN AREA, YEAR 0

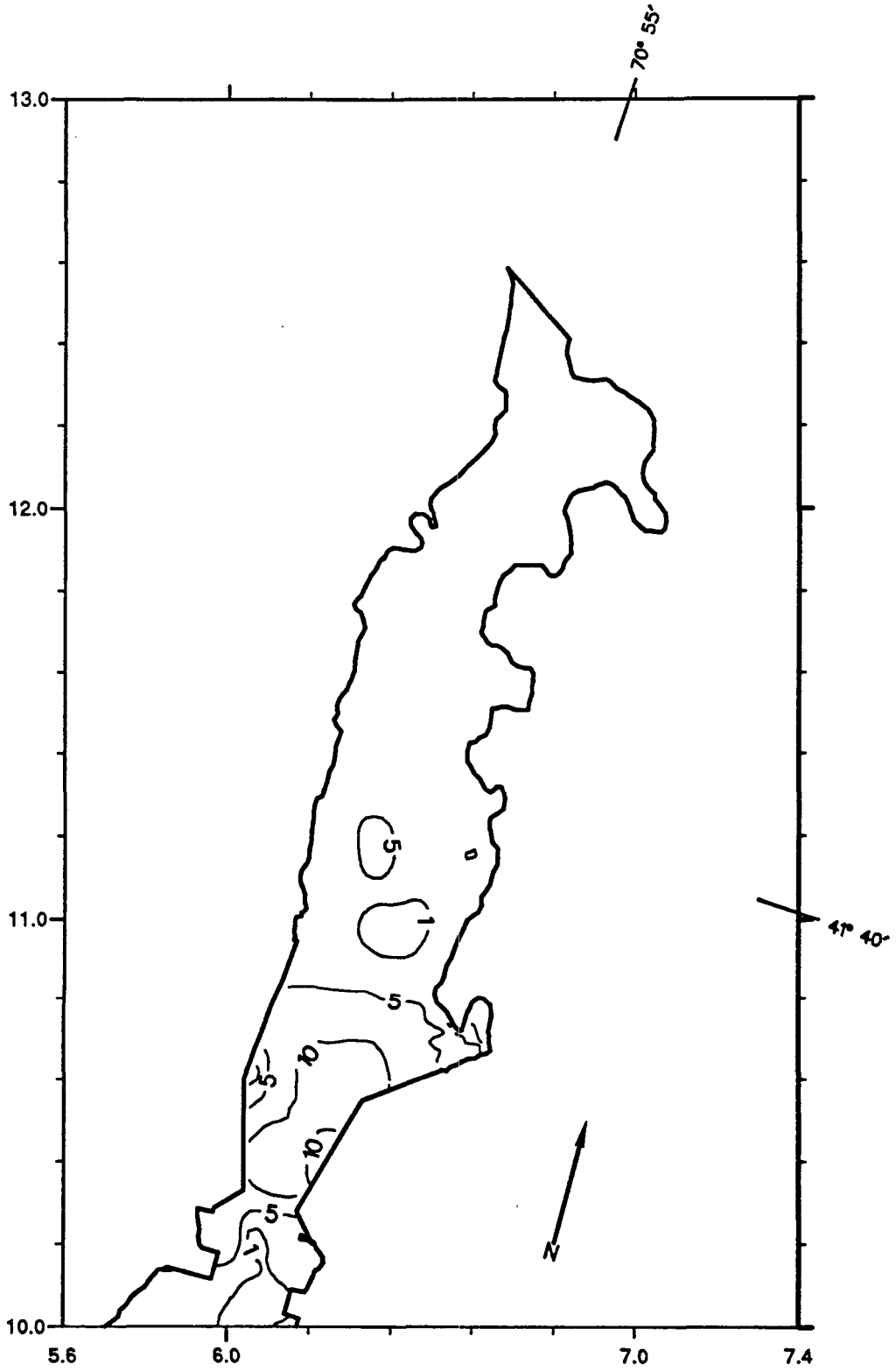

FIGURE C.4c. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF UPPER-ESTUARY CASE, NORTHERN AREA, YEAR 10

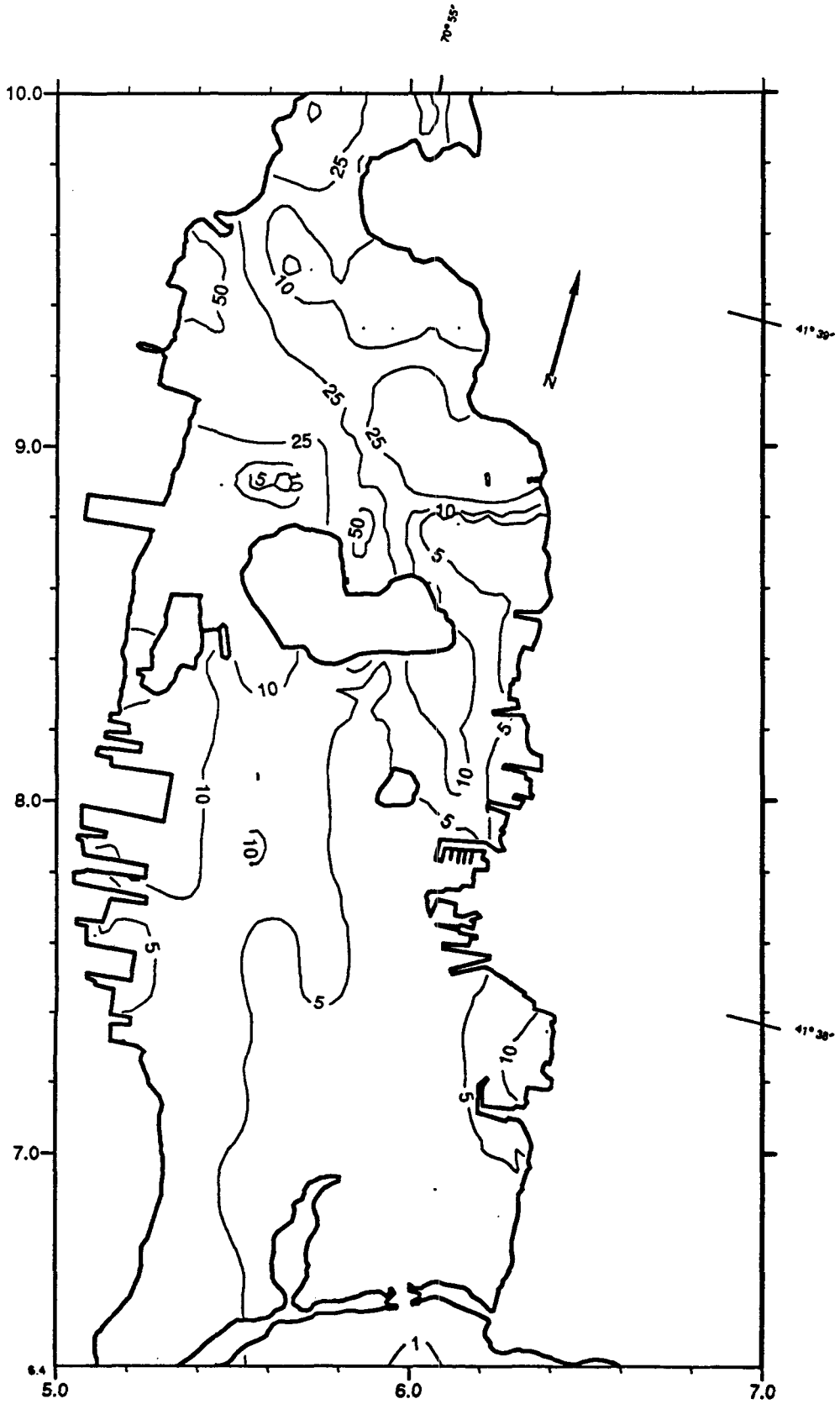

FIGURE C.4d. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF UPPER-ESTUARY CASE, CENTRAL AREA, INITIAL CONDITIONS

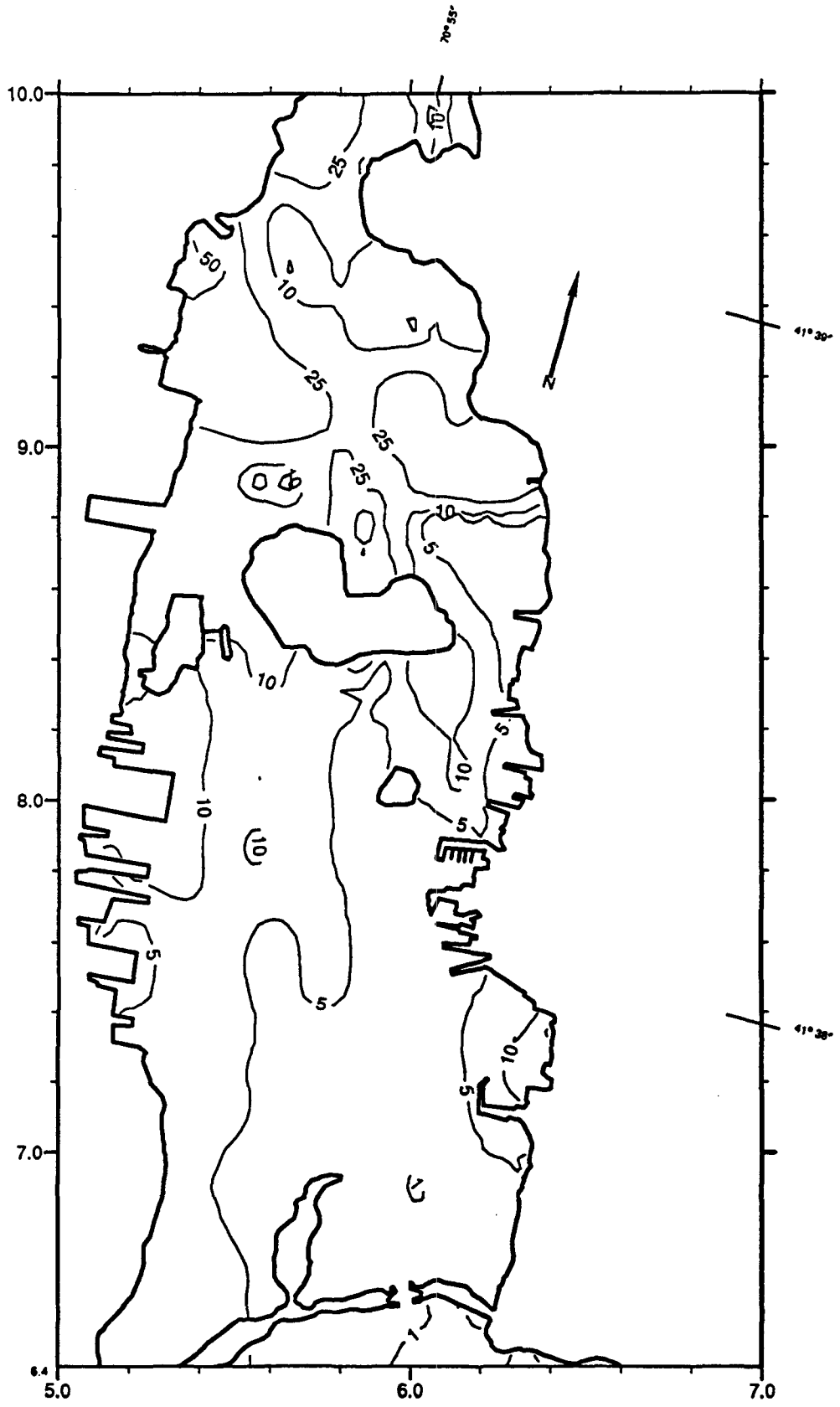

FIGURE C.4e. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF UPPER-ESTUARY CASE, CENTRAL AREA, YEAR 0

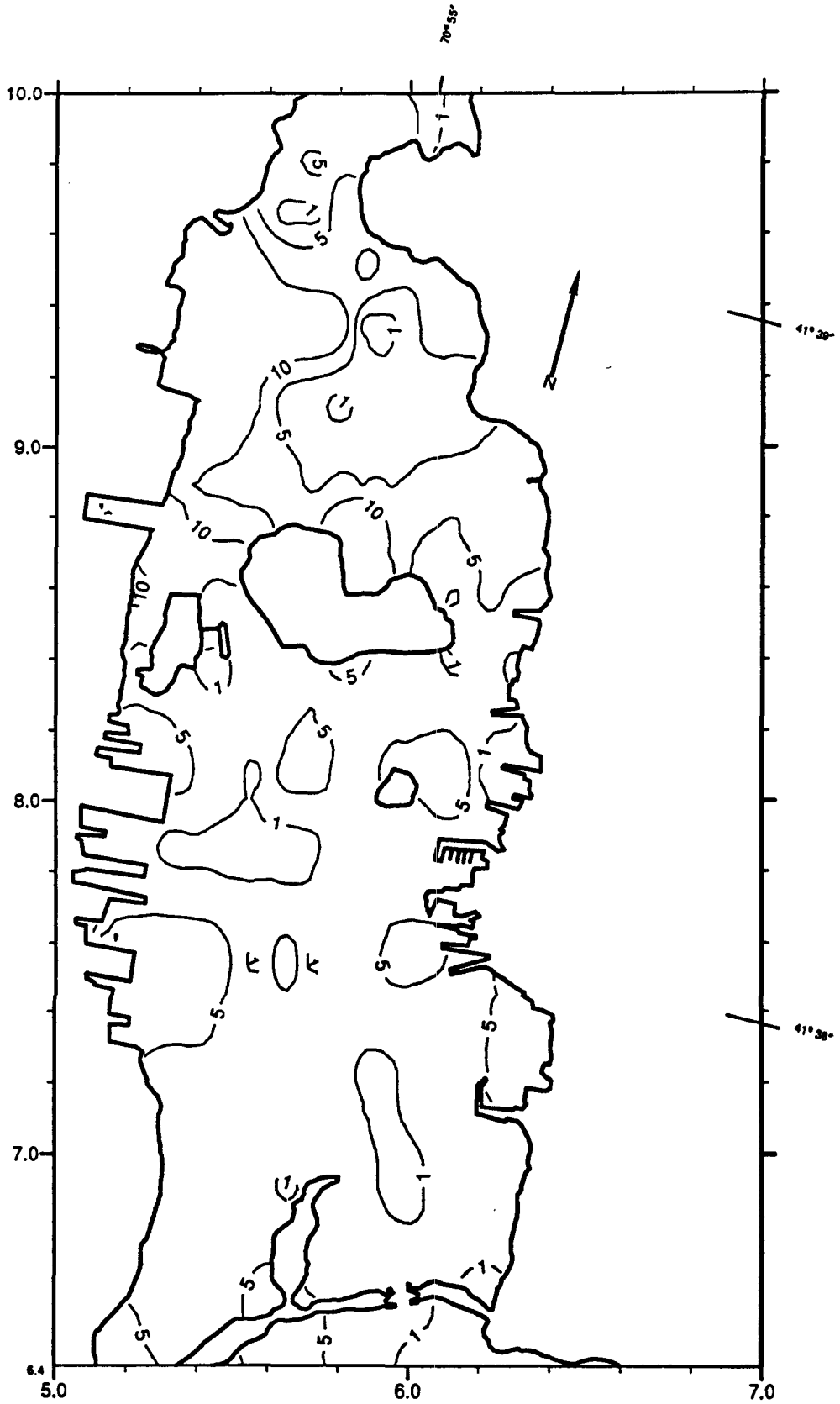

FIGURE C.4f. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF UPPER-ESTUARY CASE, CENTRAL AREA, YEAR 10

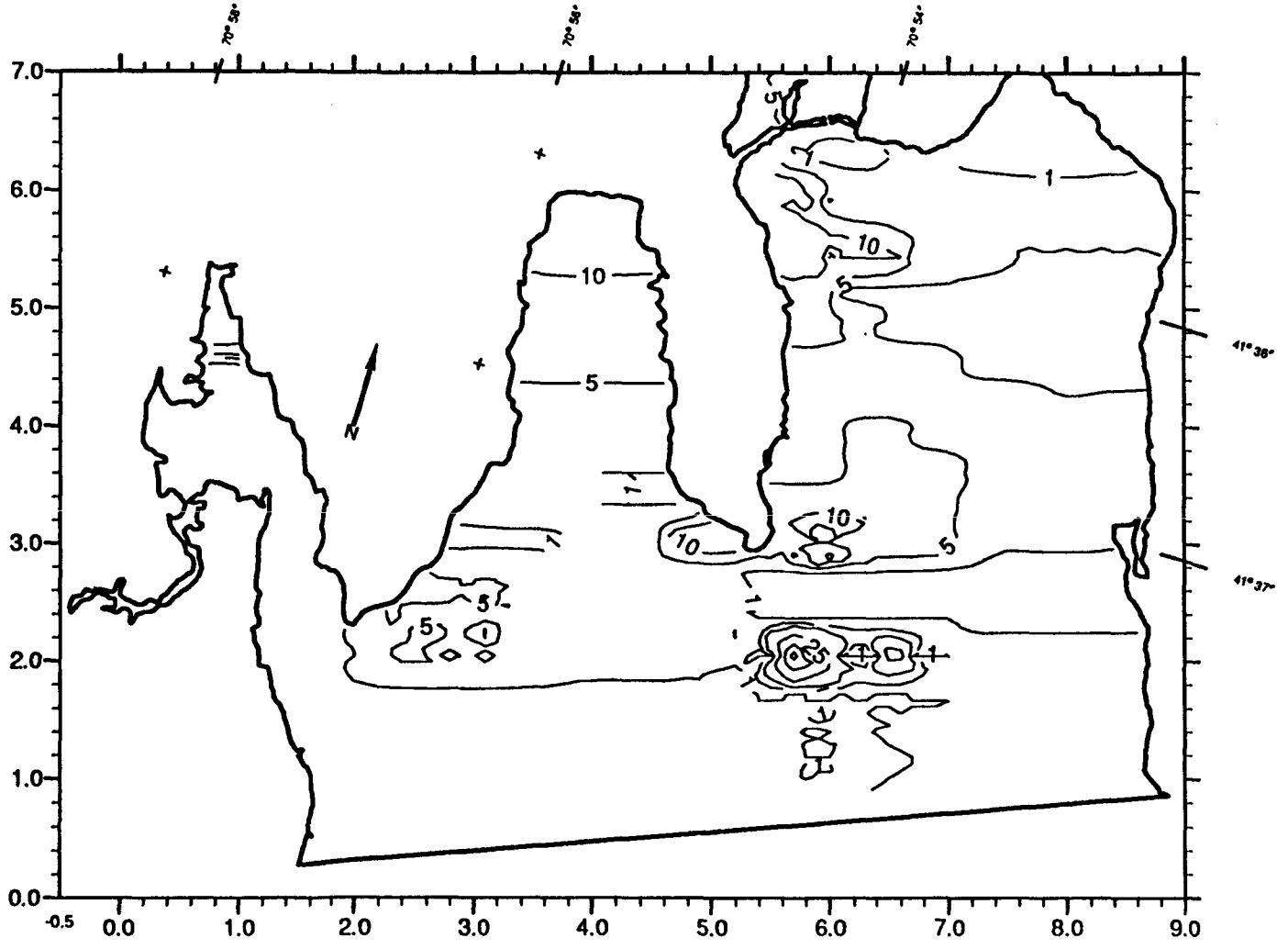

FIGURE C.4g. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF UPPER-ESTUARY CASE, SOUTHERN AREA, INITIAL CONDITIONS

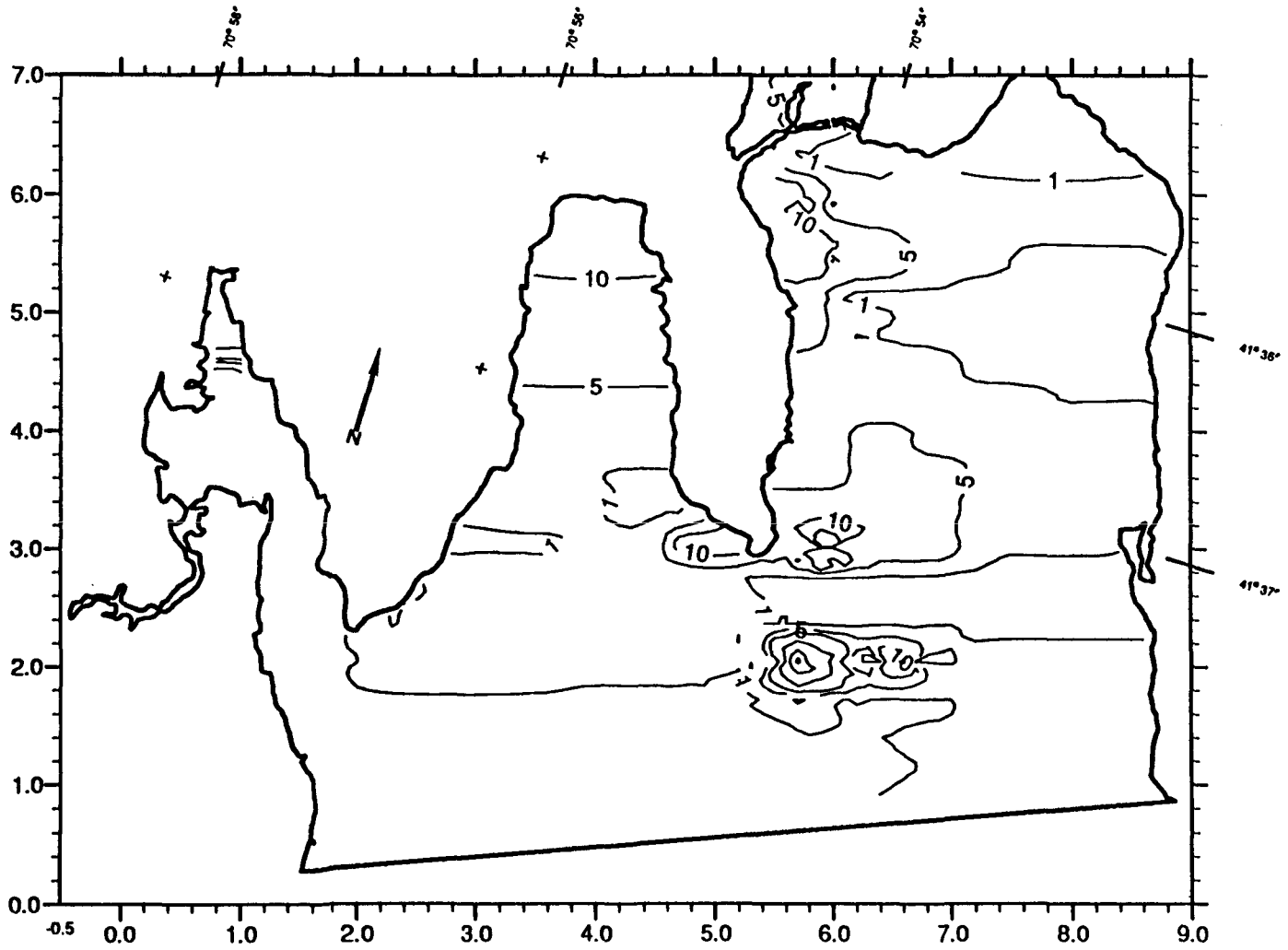

FIGURE C.4h. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF UPPER-ESTUARY CASE, SOUTHERN AREA, YEAR 0

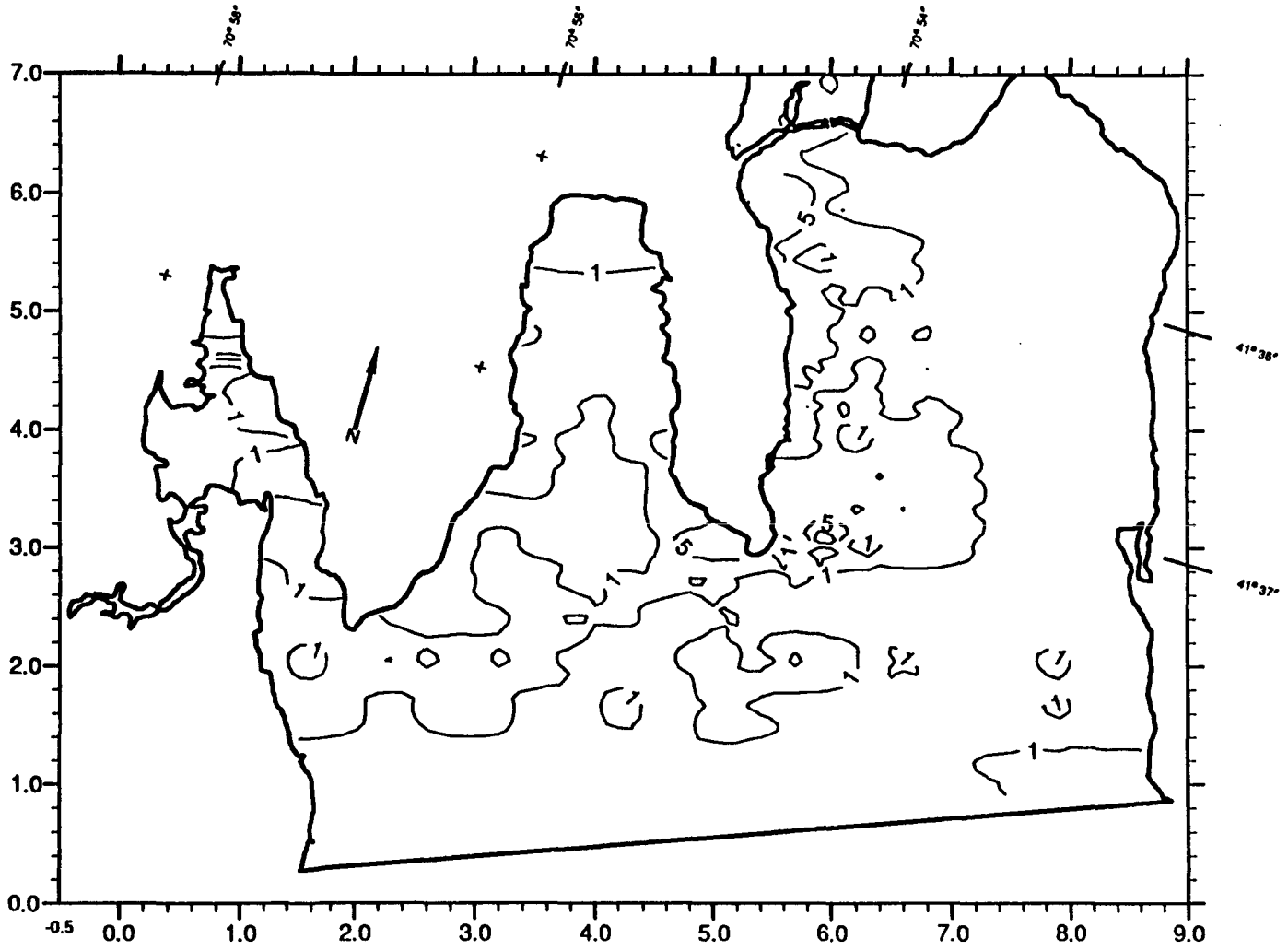

FIGURE C.4i. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF UPPER-ESTUARY CASE, SOUTHERN AREA, YEAR 10

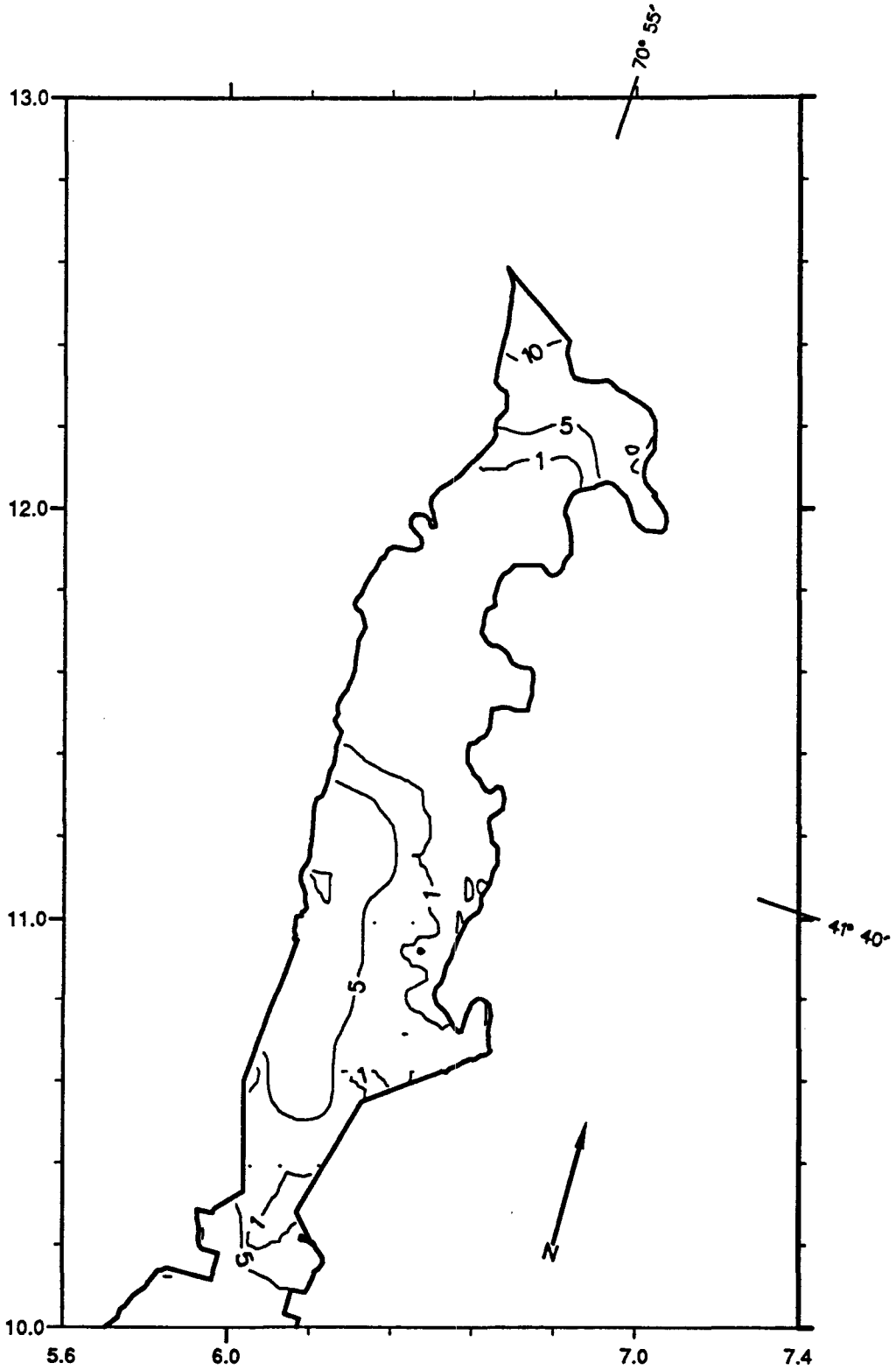

FIGURE C.5a. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF LOWER-HARBOR AND BAY CASE, NORTHERN AREA, INITIAL CONDITIONS

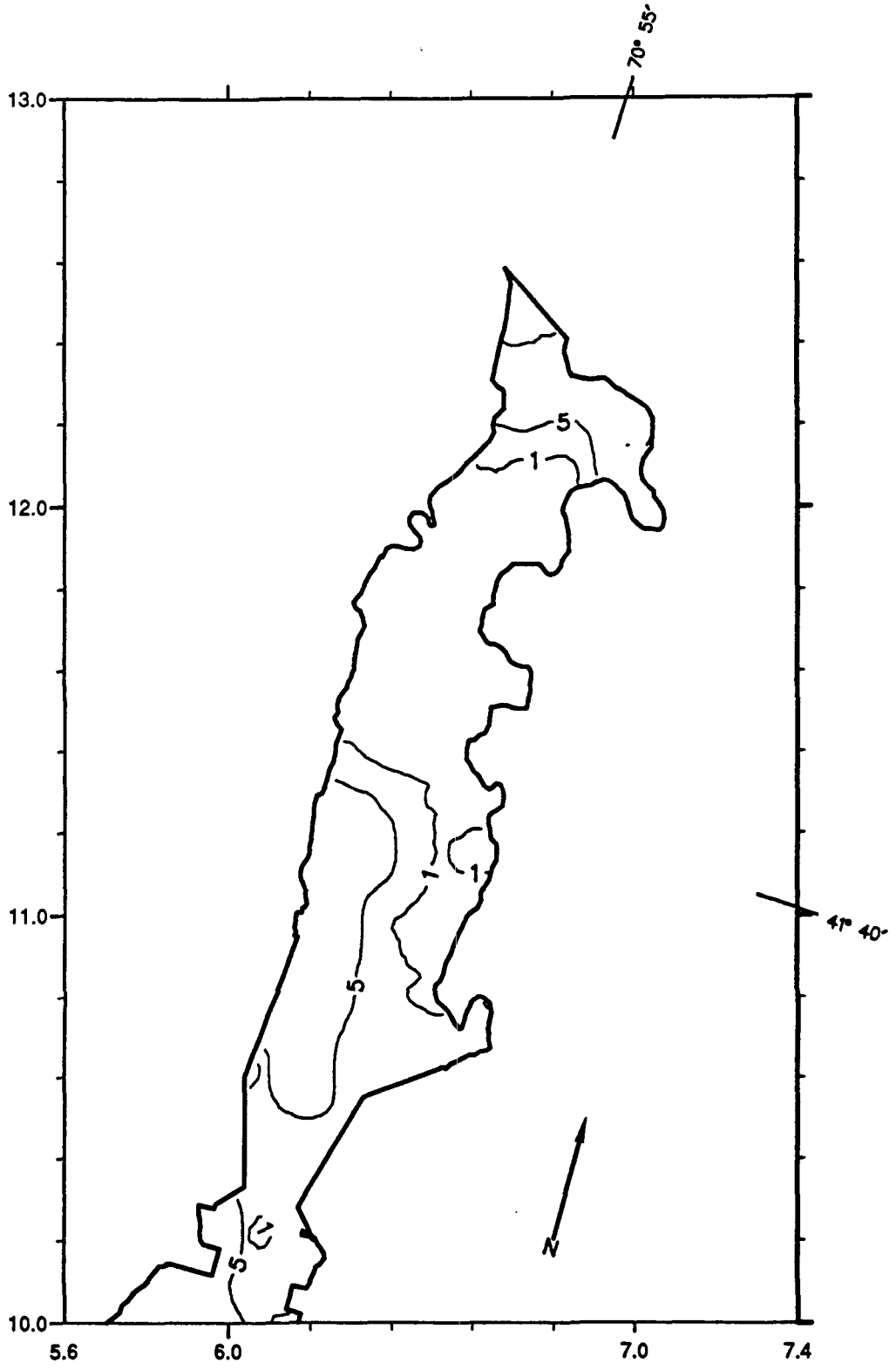

FIGURE C.5b. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF LOWER-HARBOR AND BAY CASE, NORTHERN AREA, YEAR 0

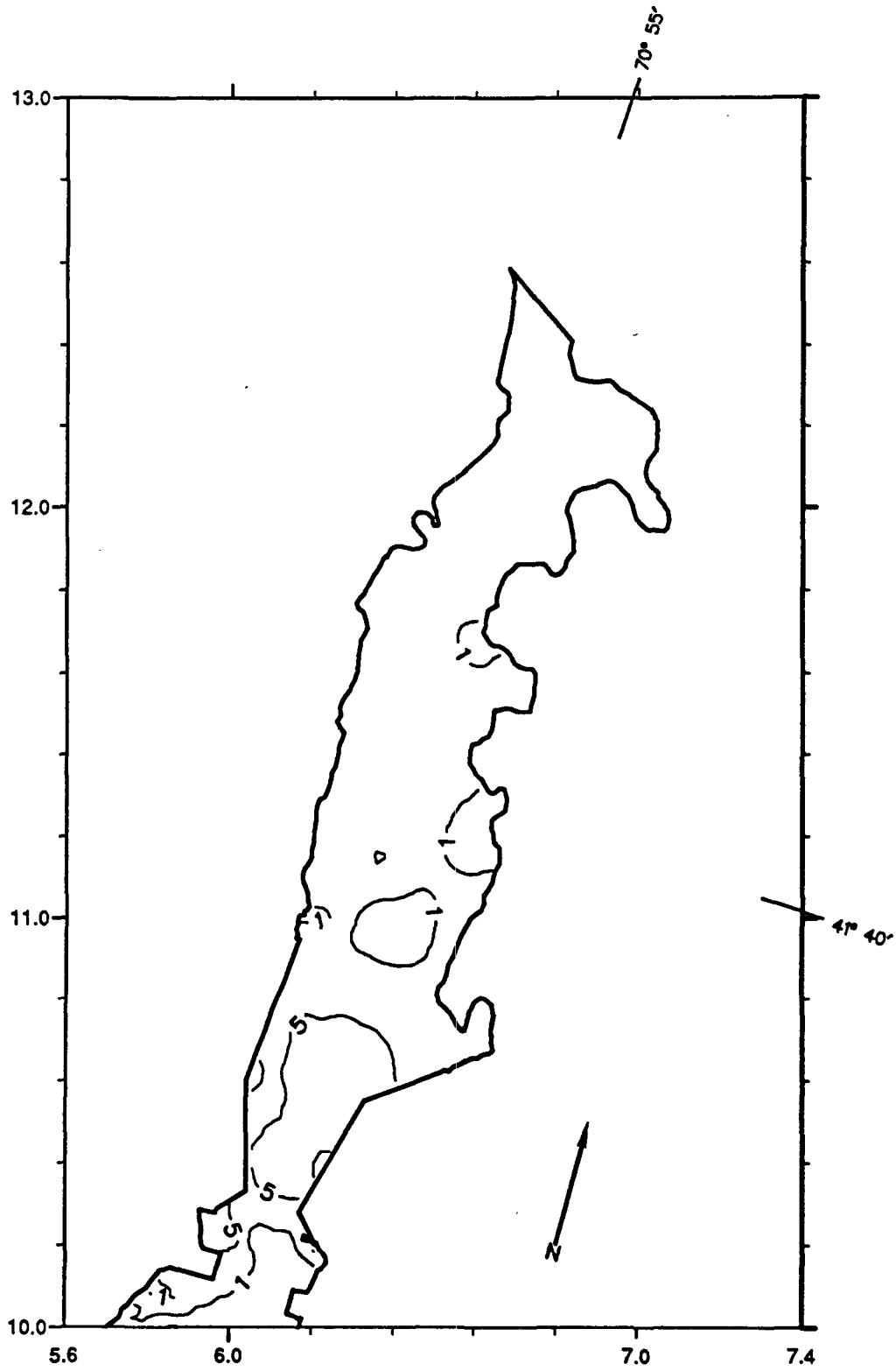

FIGURE C.5c. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF LOWER-HARBOR AND BAY CASE, NORTHERN AREA, YEAR 10

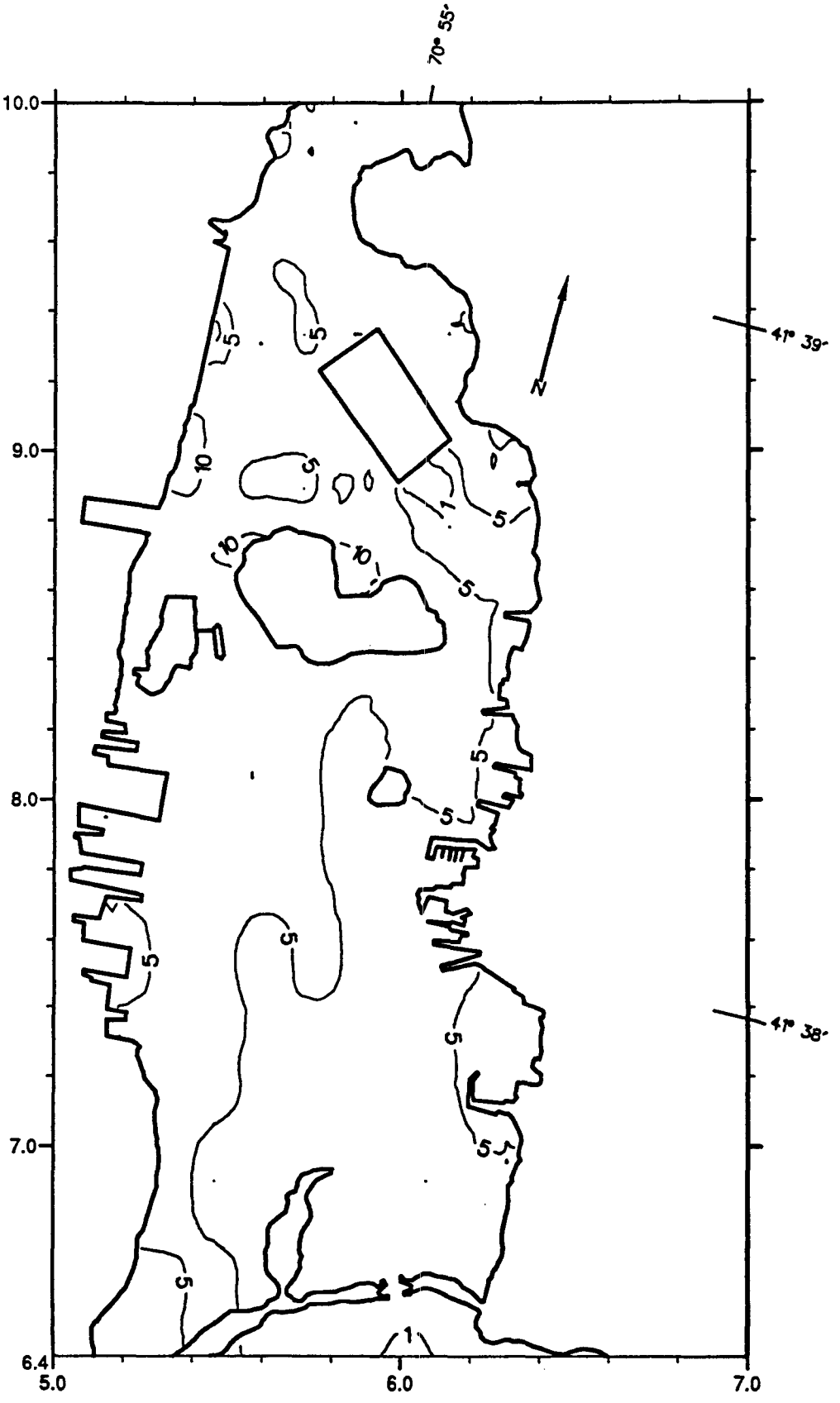

FIGURE C.5d. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF LOWER-HARBOR AND BAY CASE, CENTRAL AREA, INITIAL CONDITIONS

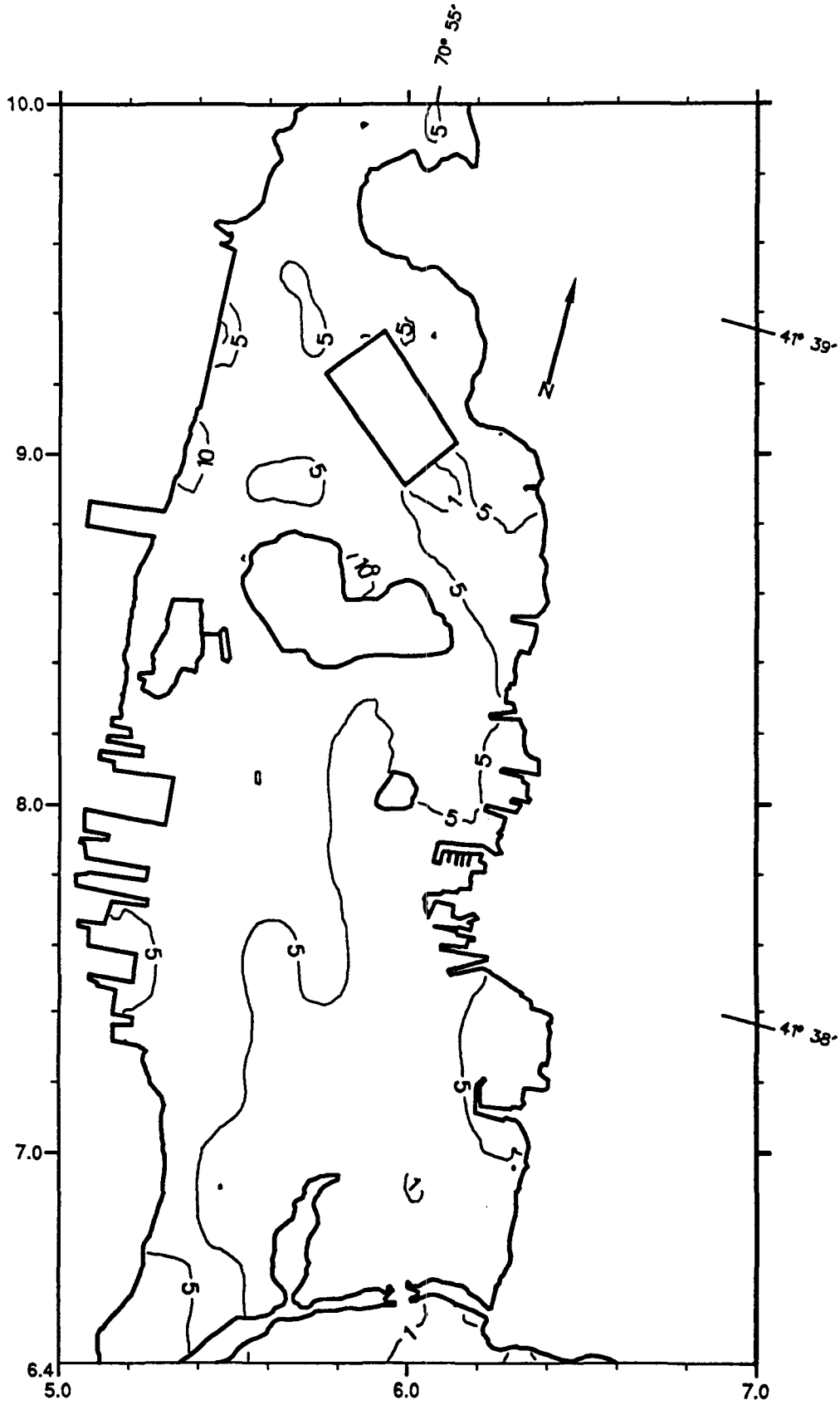

FIGURE C.5e. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF LOWER-HARBOR AND BAY CASE, CENTRAL AREA, YEAR 0

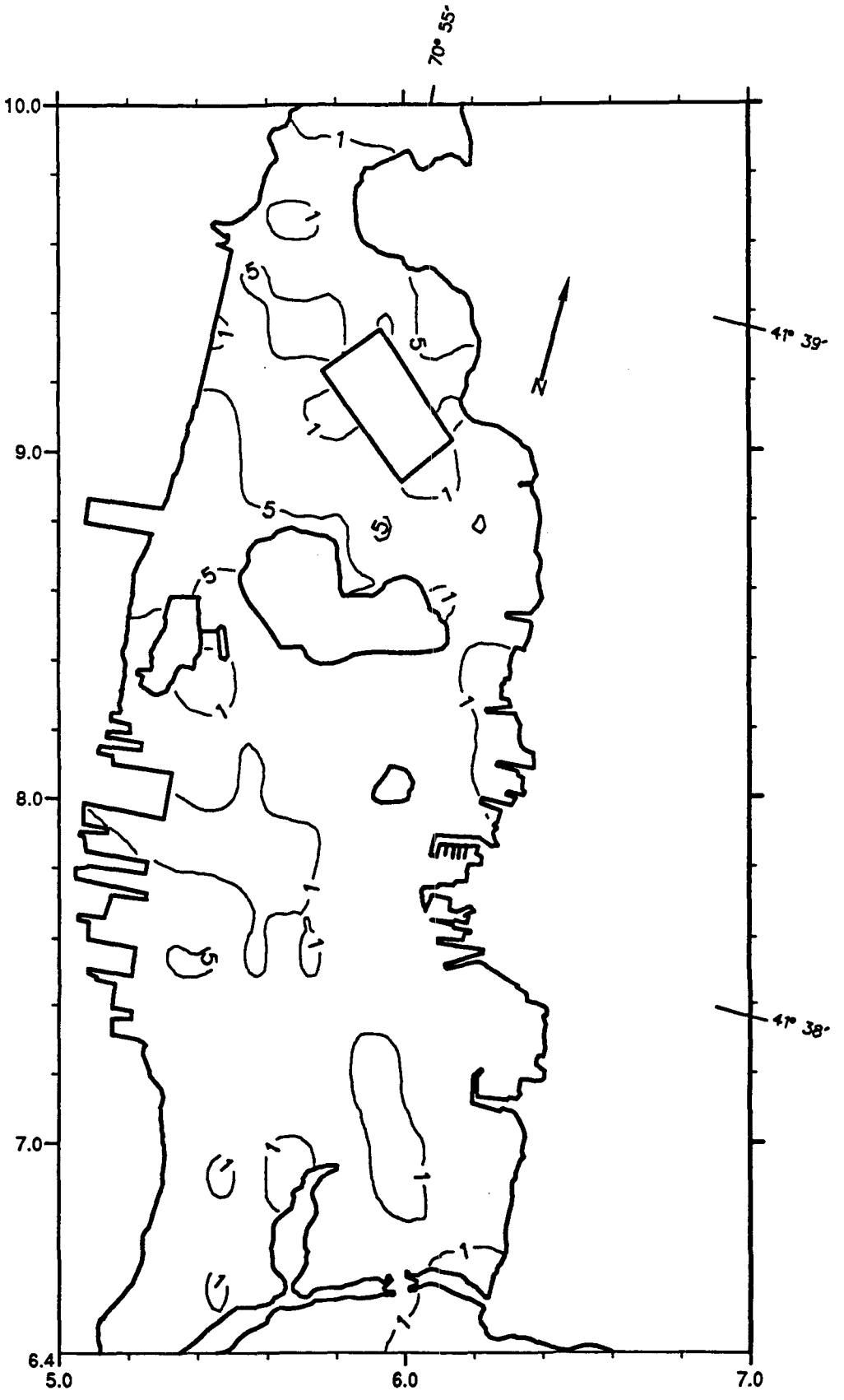

FIGURE C.5f. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF LOWER-HARBOR AND BAY CASE, CENTRAL AREA, YEAR 10

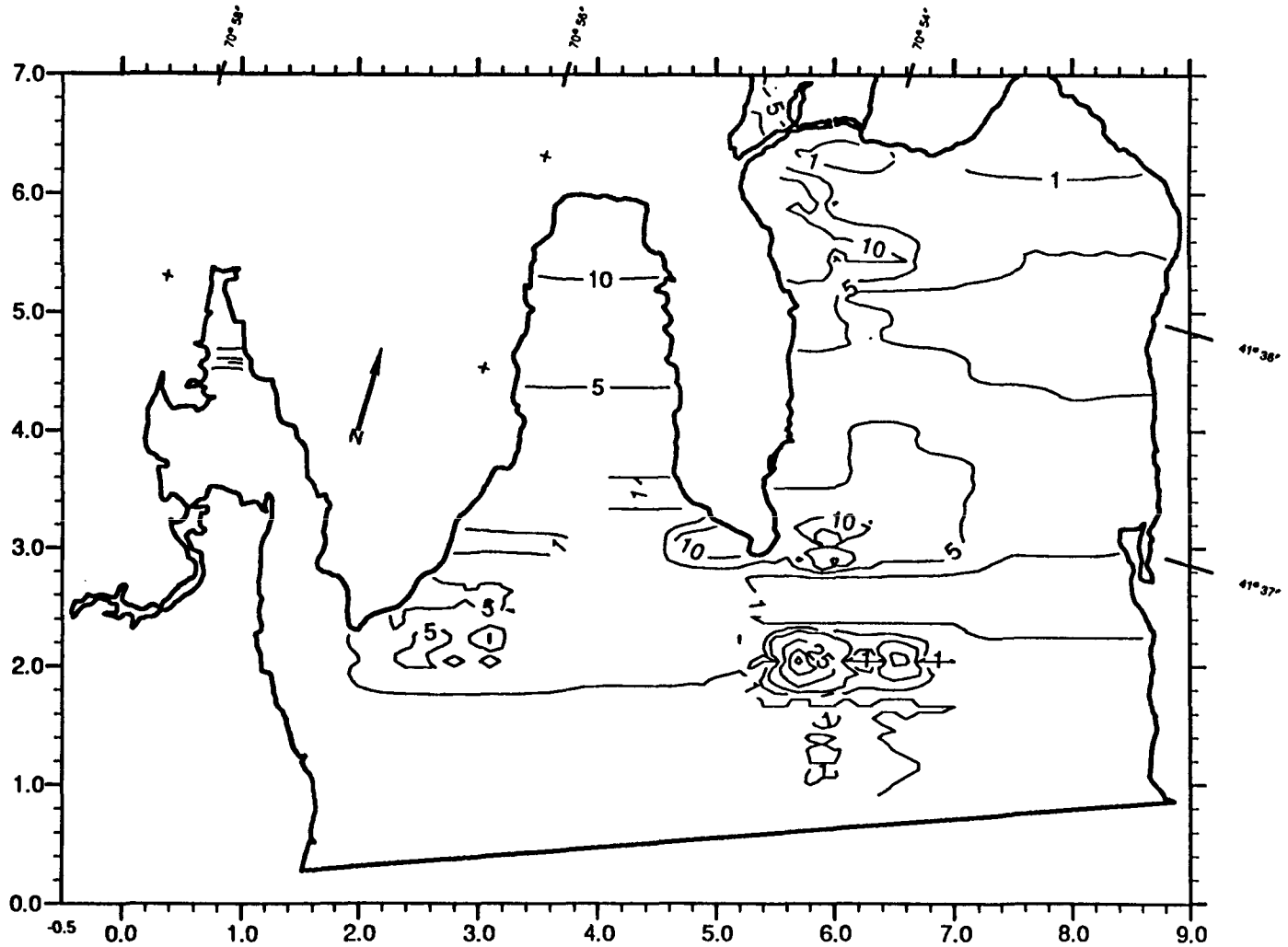

FIGURE C.5g. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF LOWER-HARBOR AND BAY CASE, SOUTHERN AREA, INITIAL CONDITIONS

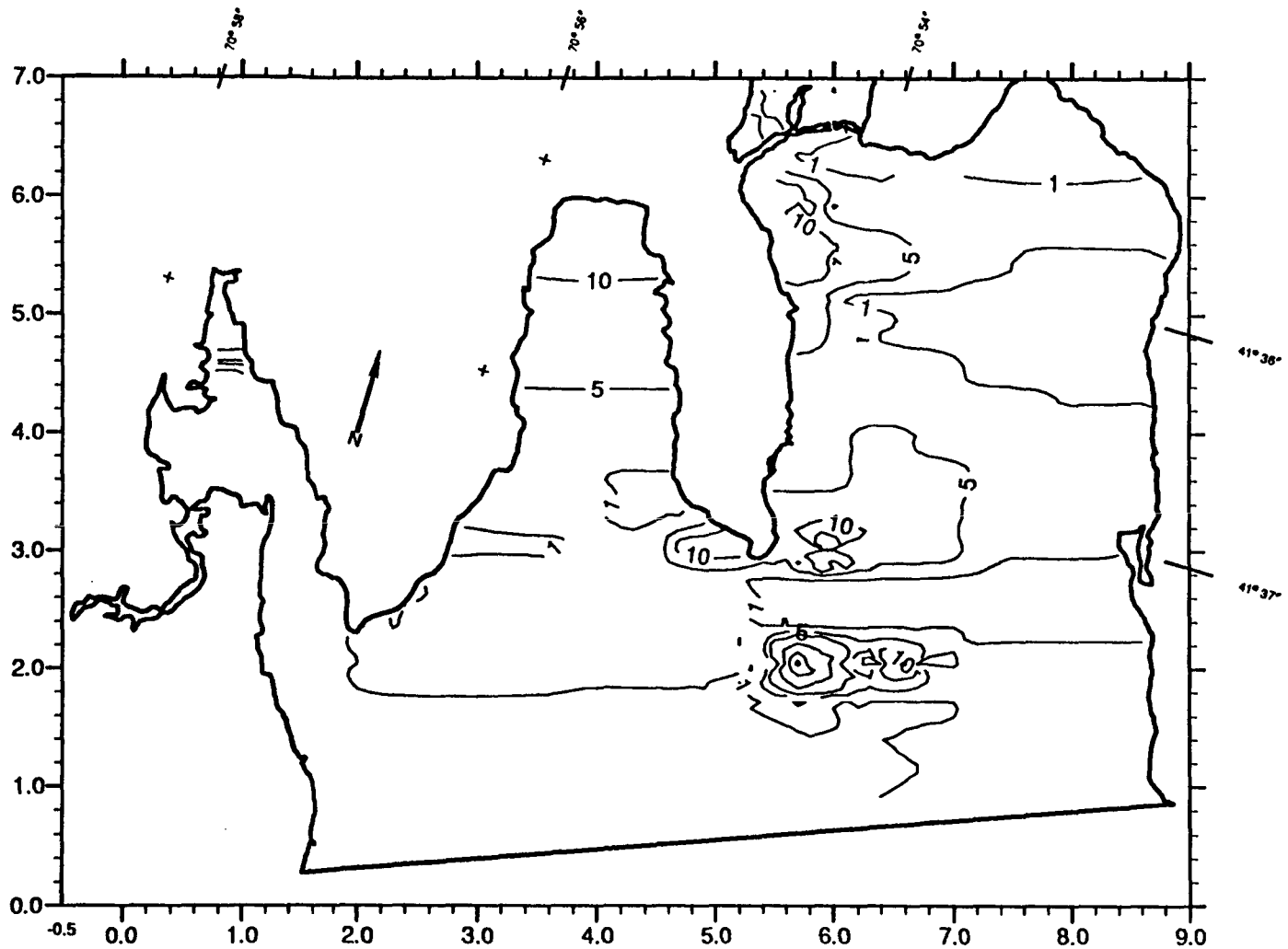

FIGURE C.5h. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF LOWER-HARBOR AND BAY CASE, SOUTHERN AREA, YEAR 0

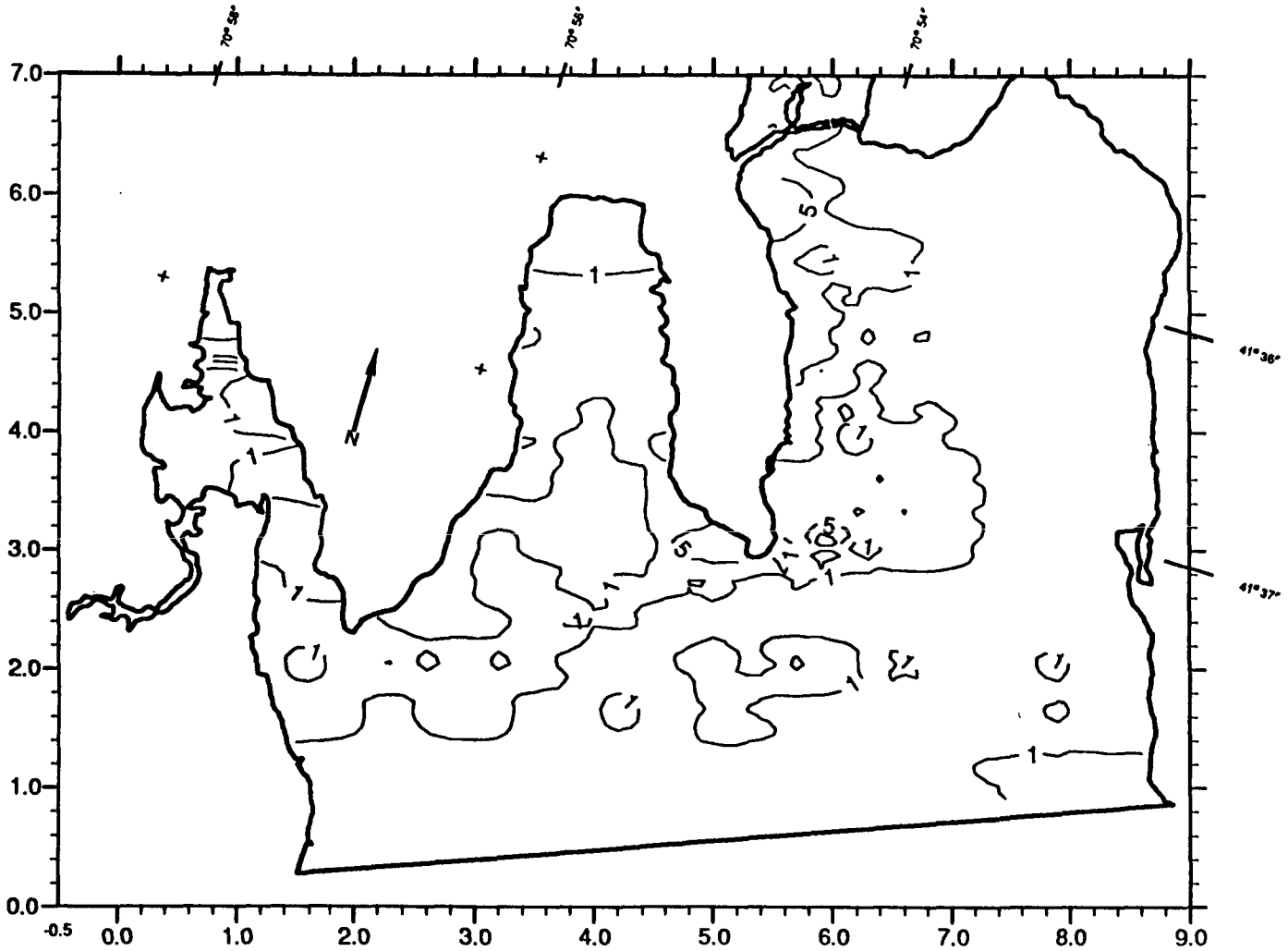

FIGURE C.5i. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF LOWER-HARBOR AND BAY CASE, SOUTHERN AREA, YEAR 10

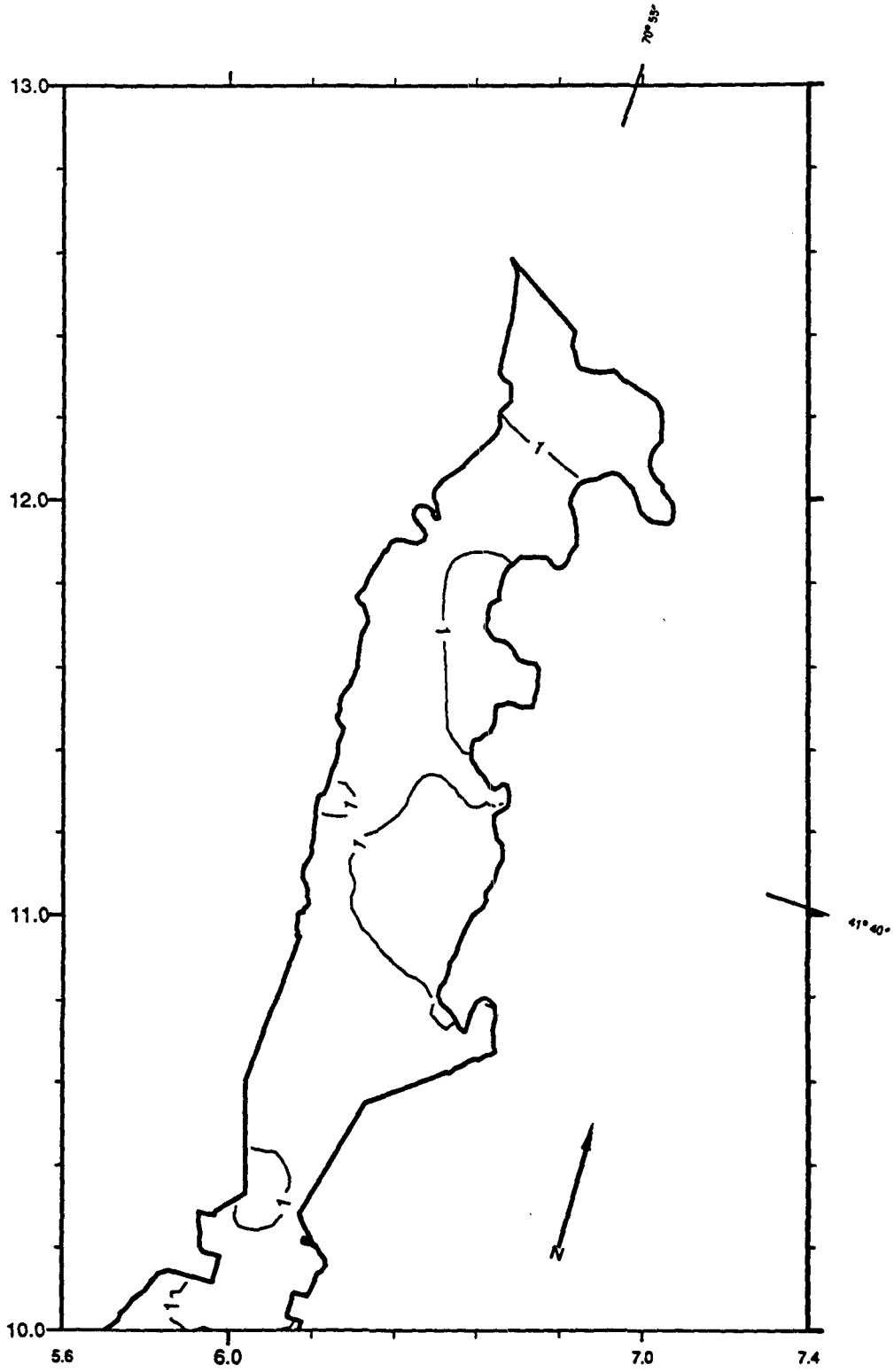

FIGURE C.6a. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF 1-ppm CASE, NORTHERN AREA, YEAR 0

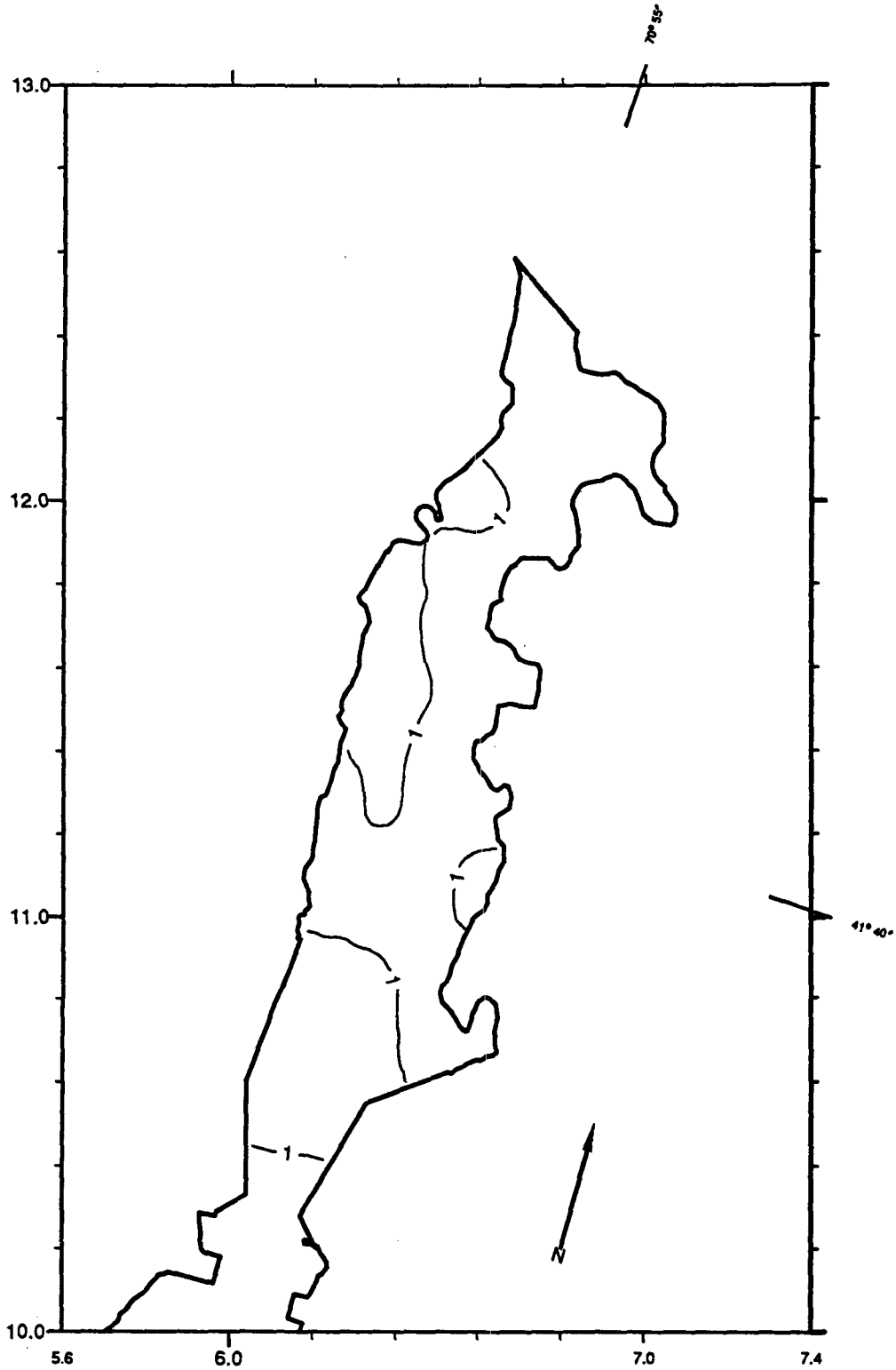

FIGURE C.6b. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF 1-ppm CASE, NORTHERN AREA, YEAR 10

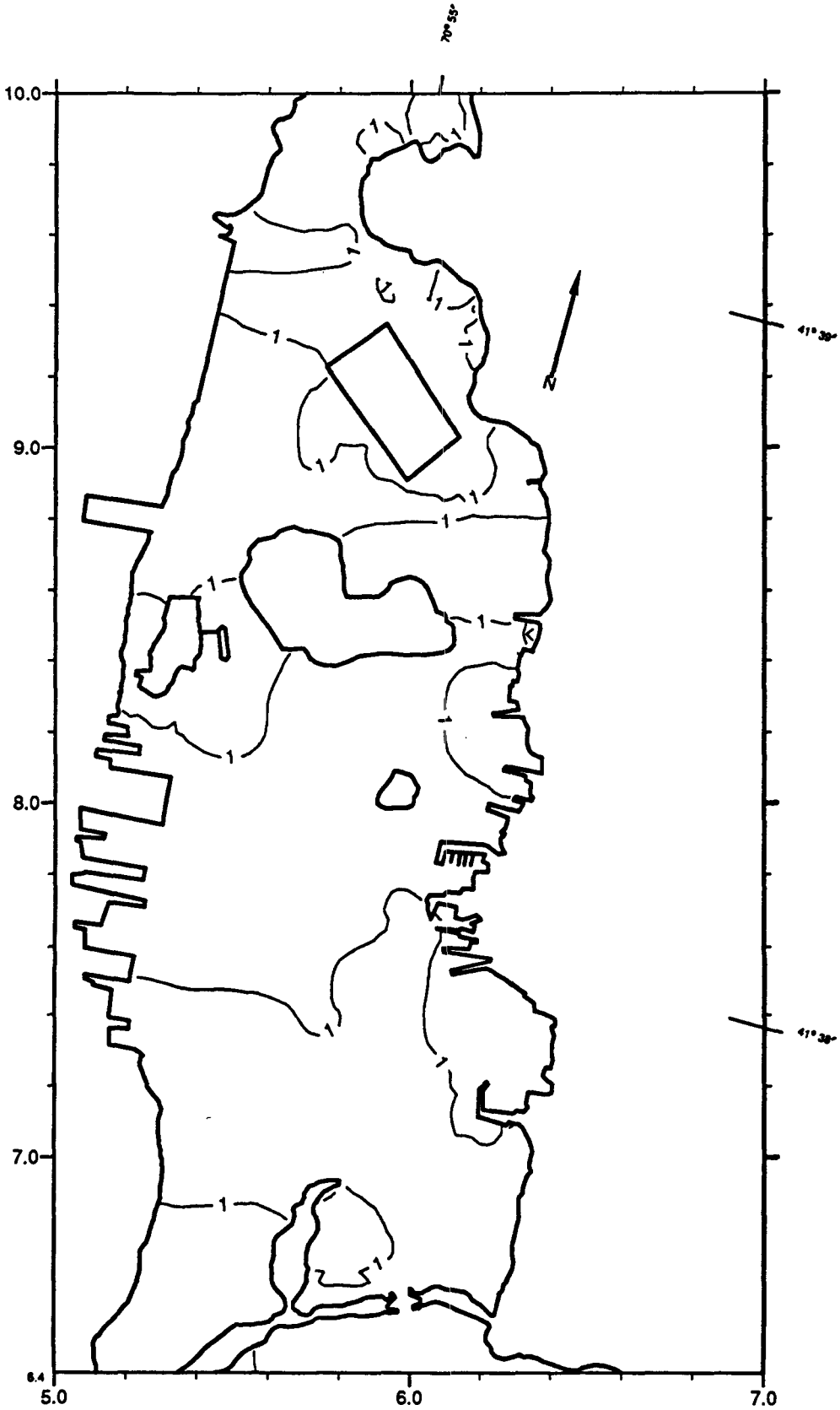

FIGURE C.6c. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF 1-ppm CASE, CENTRAL AREA, YEAR 0

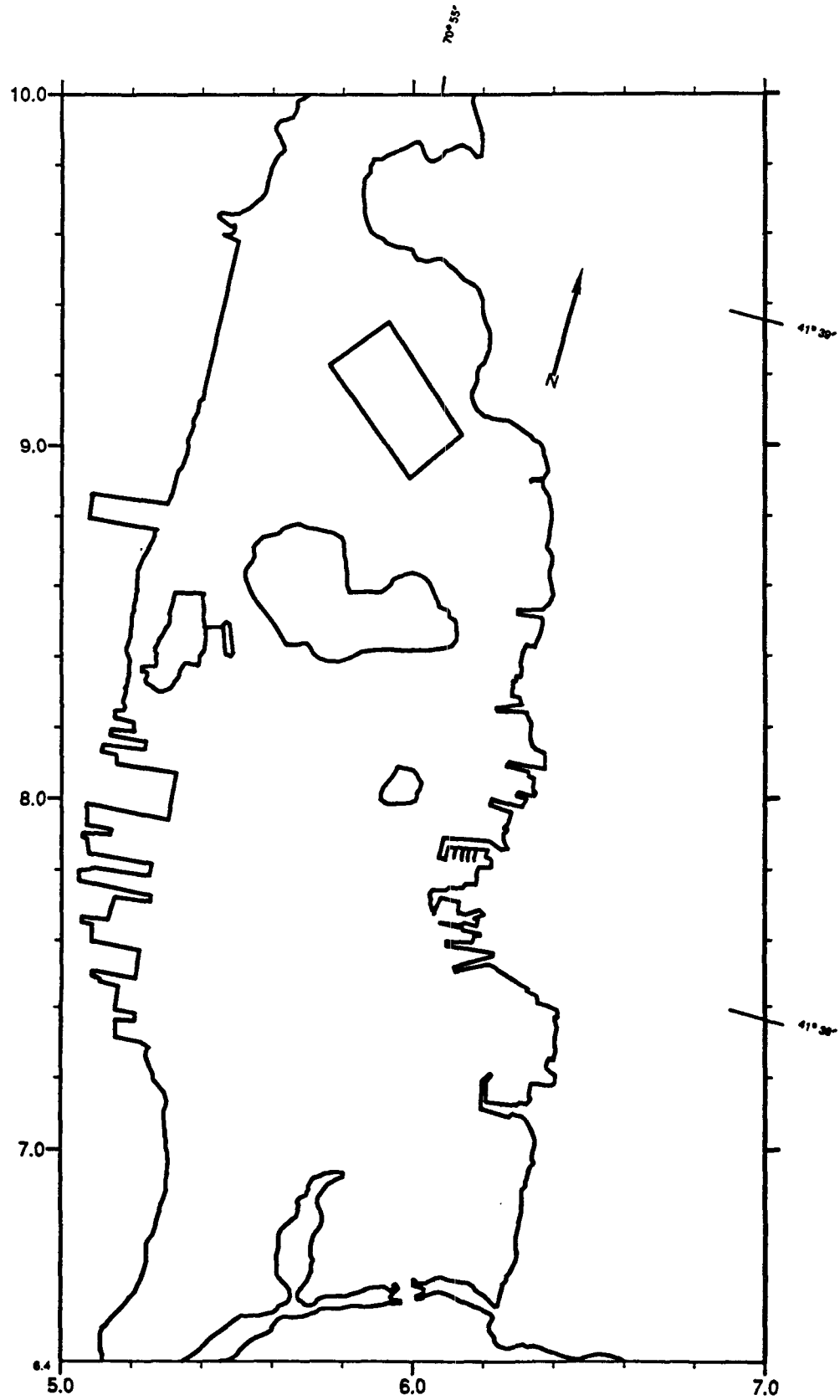

FIGURE C.6d. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF 1-ppm CASE, CENTRAL AREA, YEAR 10

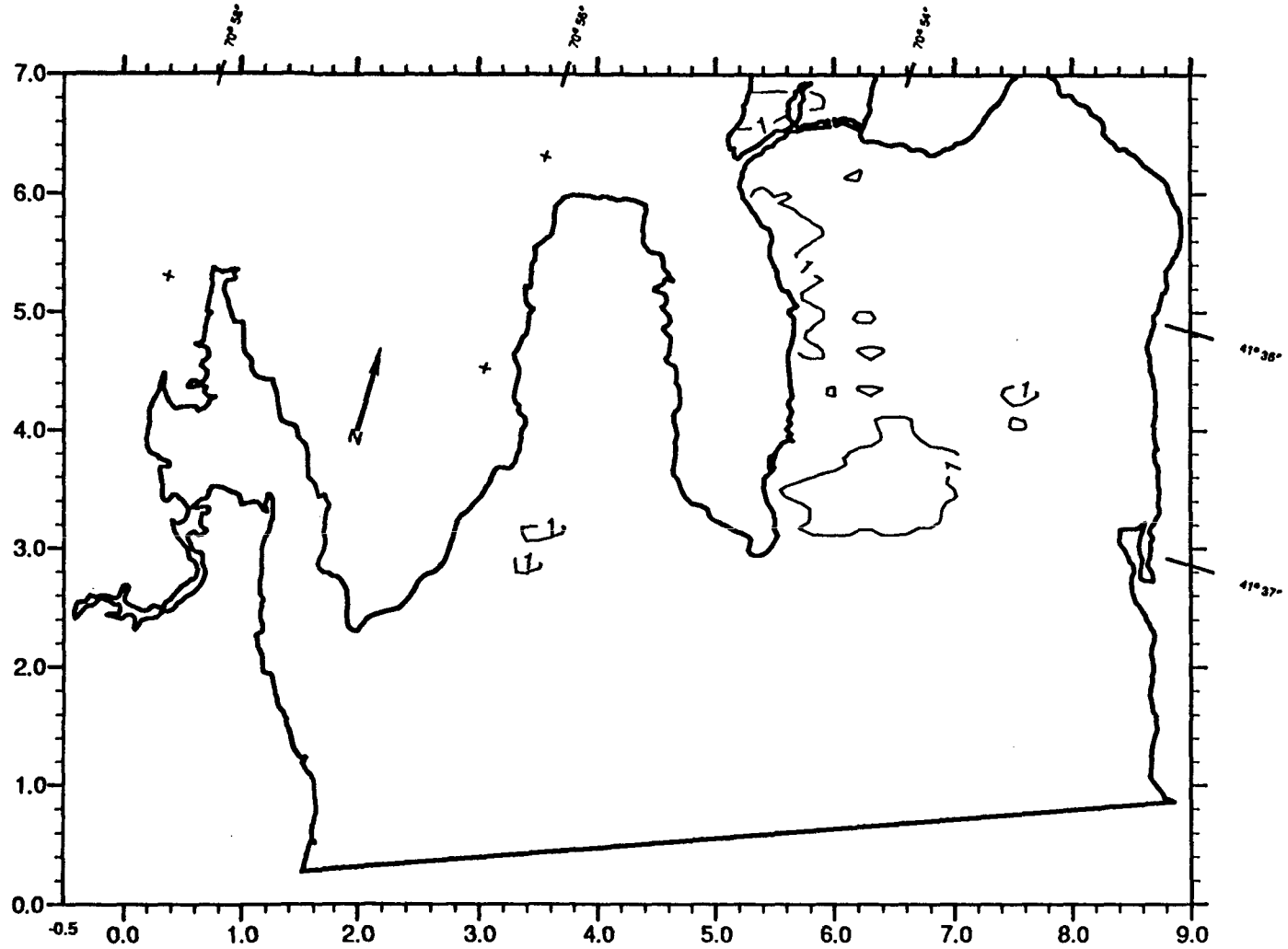

FIGURE C.6e. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF 1-ppm CASE, SOUTHERN AREA, YEAR 0

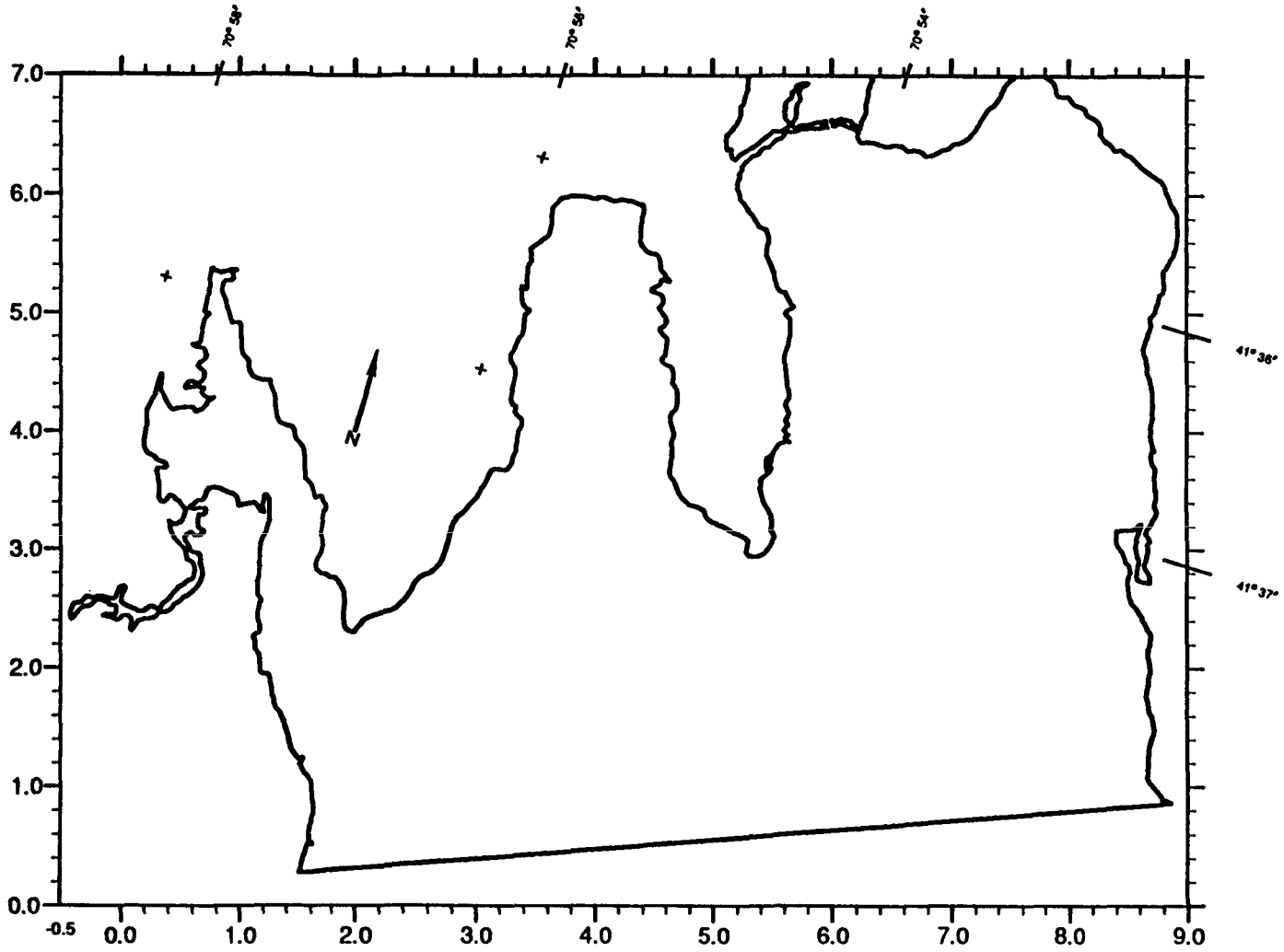

FIGURE C.6f. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF 1-ppm CASE, SOUTHERN AREA, YEAR 10

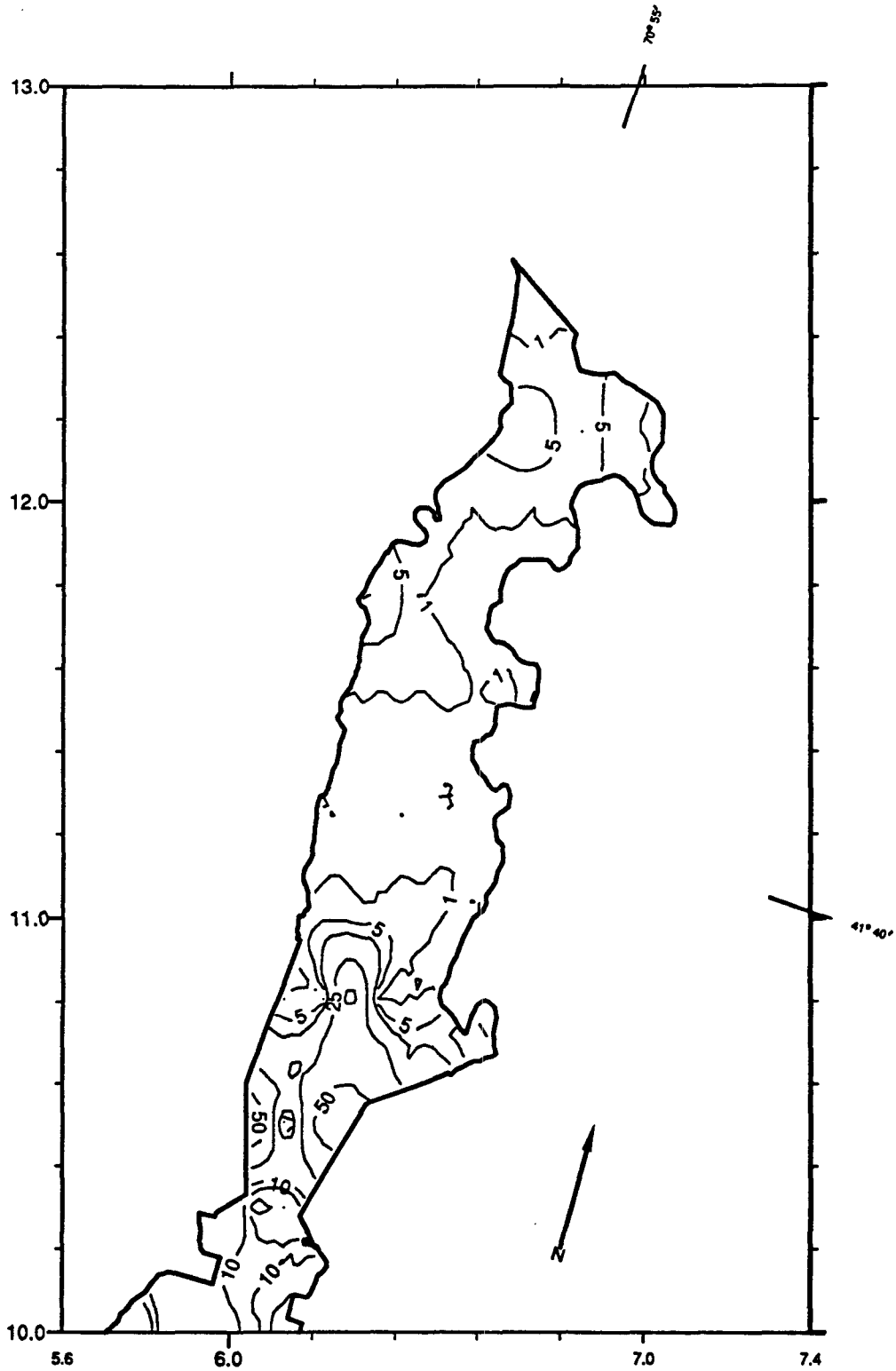

FIGURE C.7a. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF 50-ppm CASE, NORTHERN AREA, INITIAL CONDITIONS

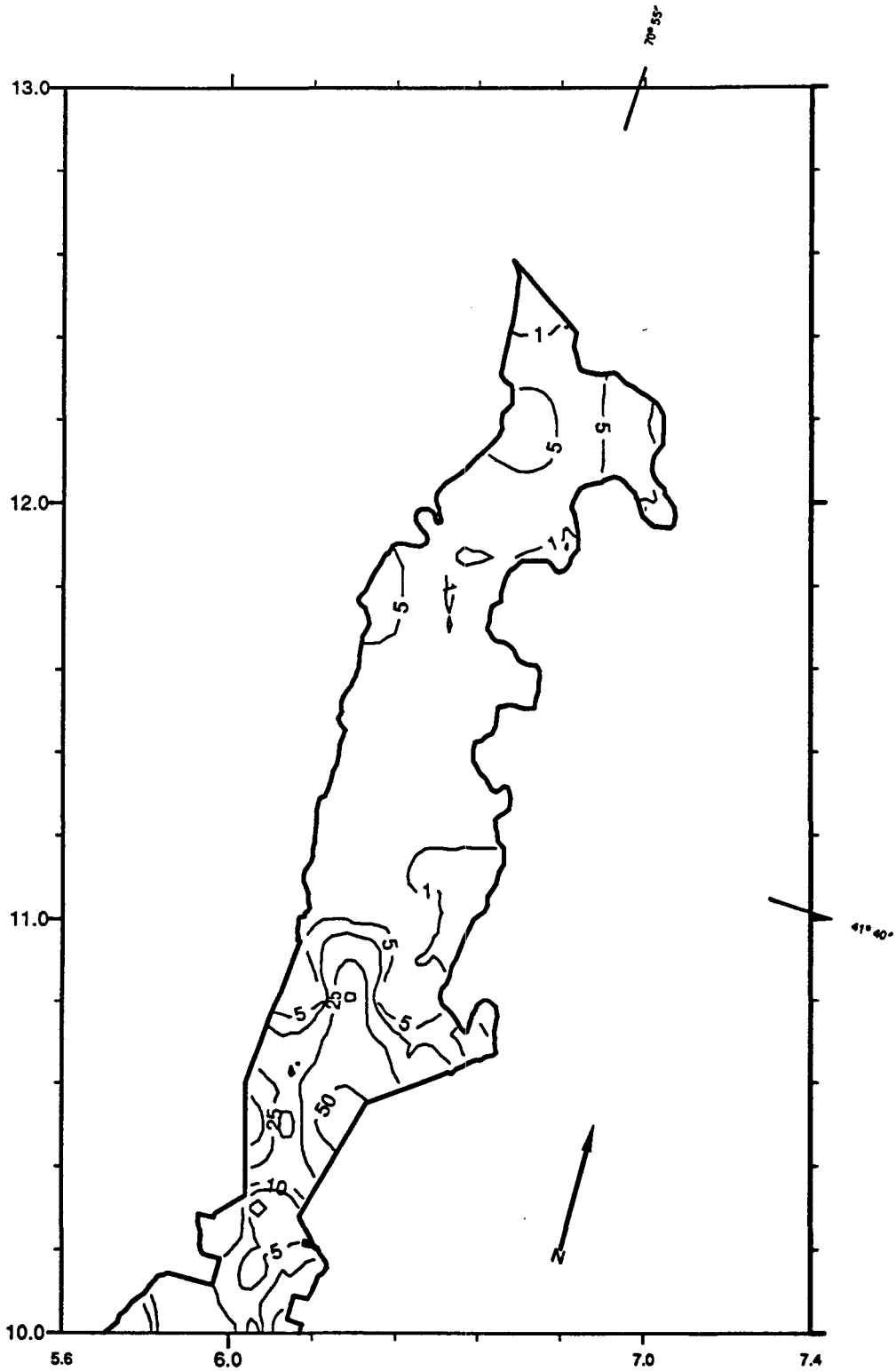

FIGURE C.7b. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF 50-ppm CASE, NORTHERN AREA, YEAR 0

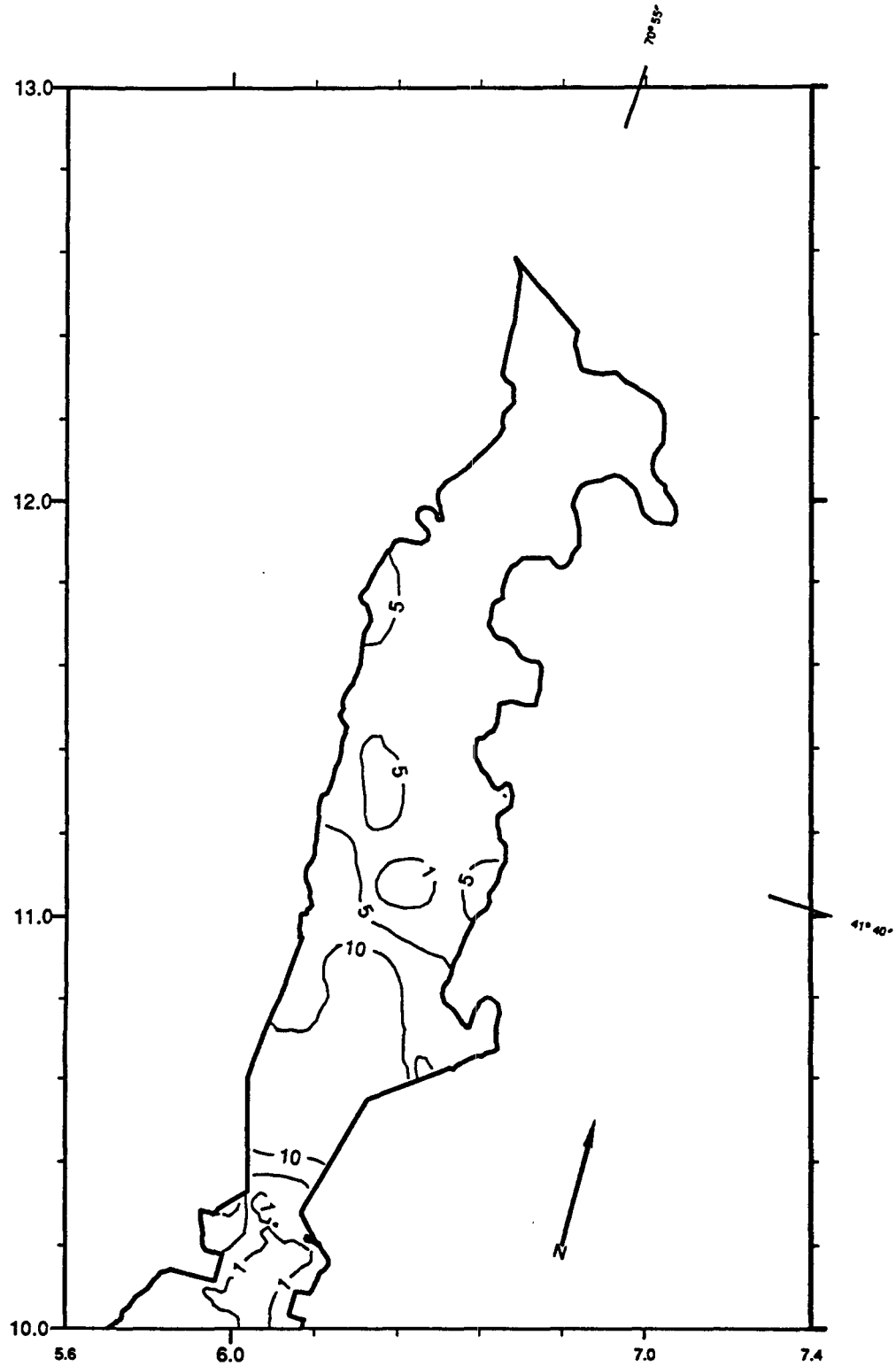

FIGURE C.7c. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF 50-ppm CASE, NORTHERN AREA, YEAR 10

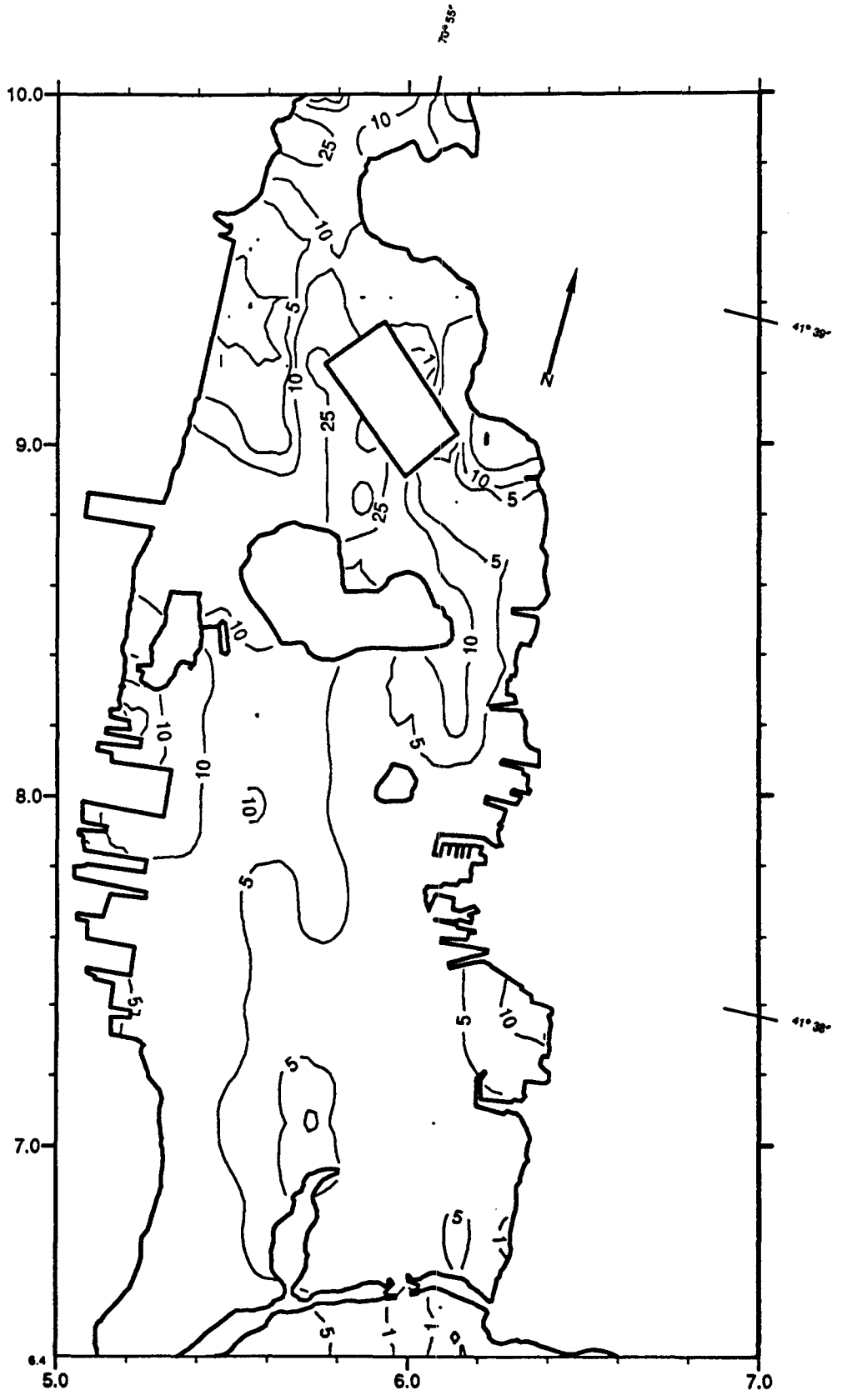

FIGURE C.7d. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF 50-ppm CASE, CENTRAL AREA, INITIAL CONDITIONS

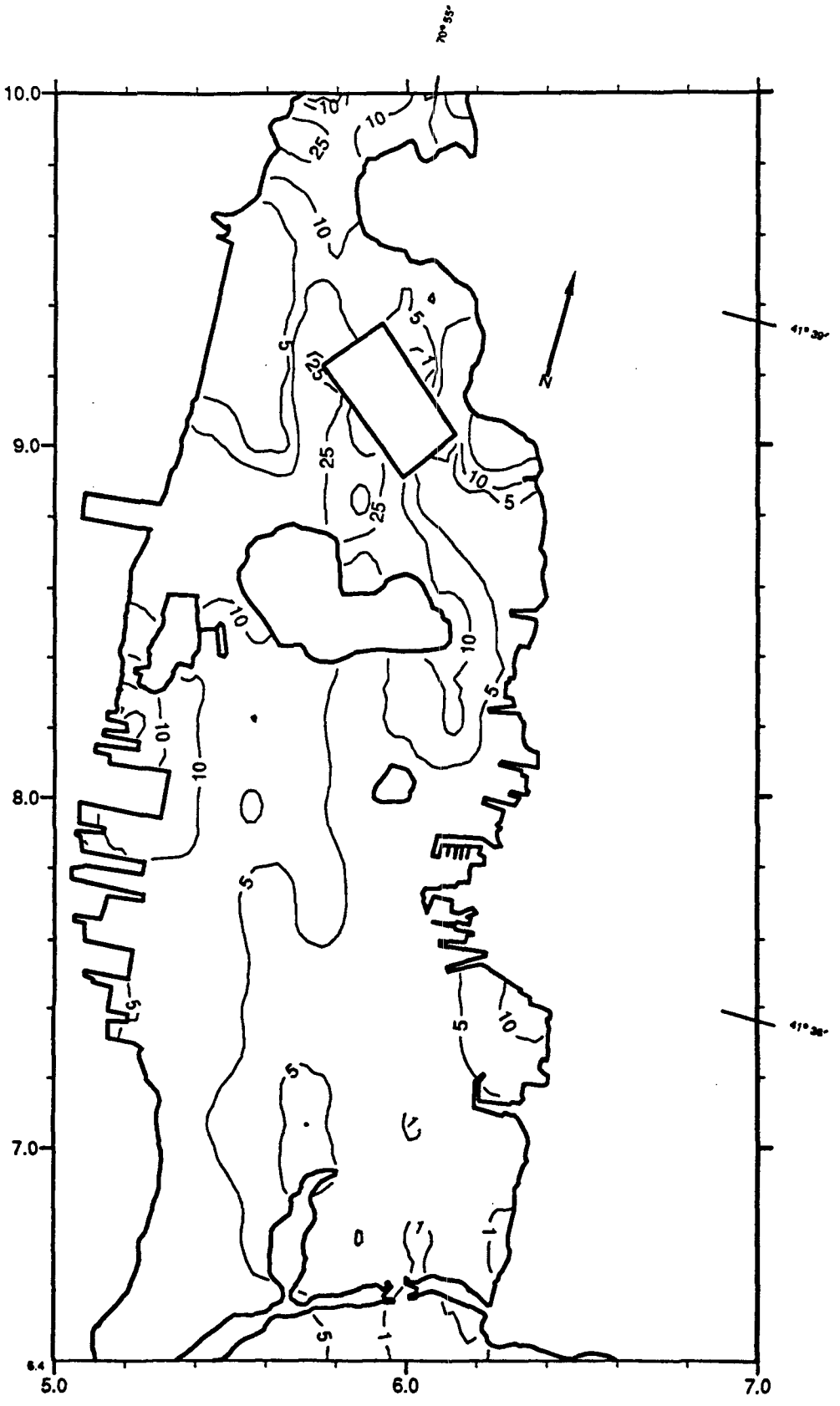

FIGURE C.7e. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF 50-ppm CASE, CENTRAL AREA, YEAR 0

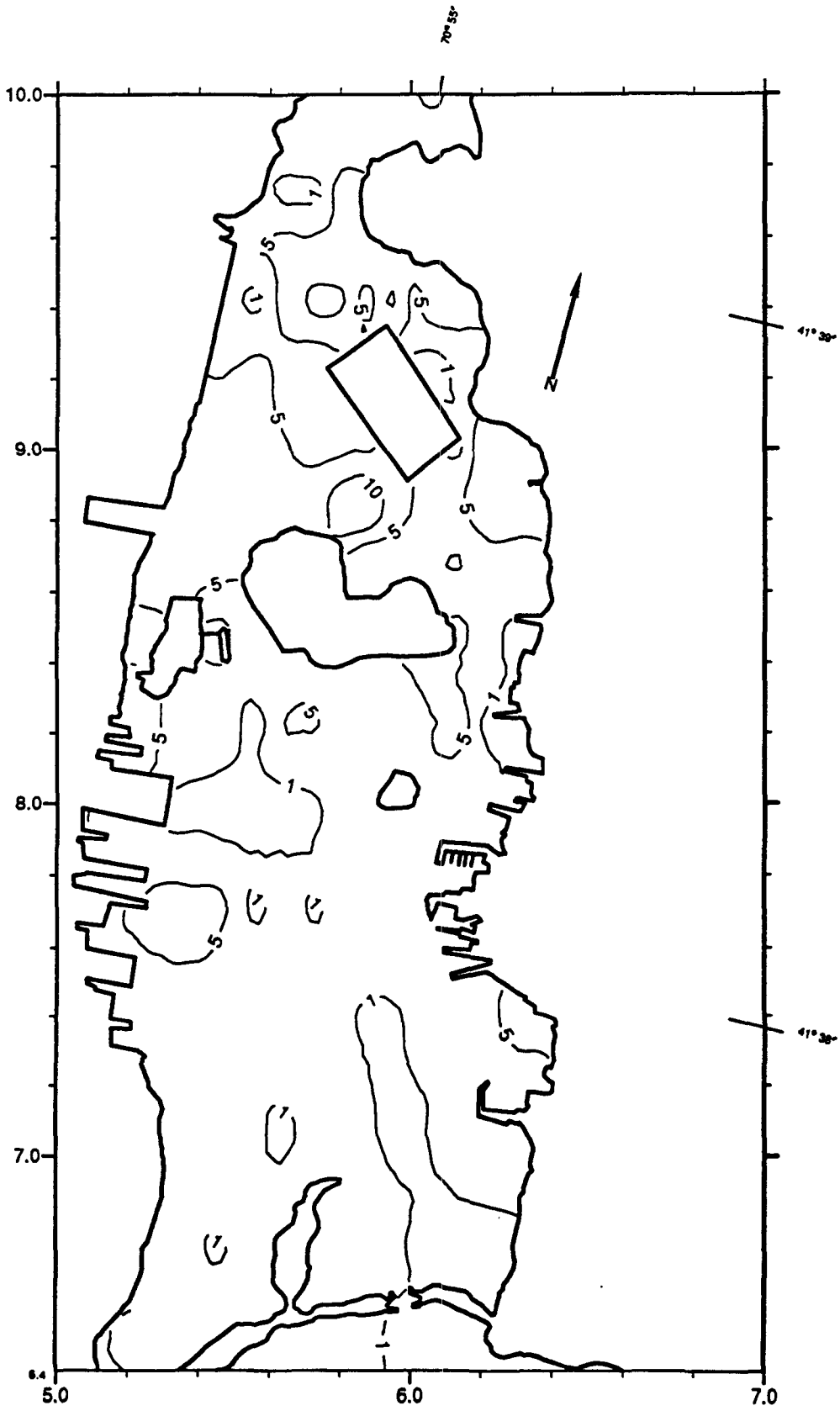

FIGURE C.7f. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF 50-ppm CASE, CENTRAL AREA, YEAR 10

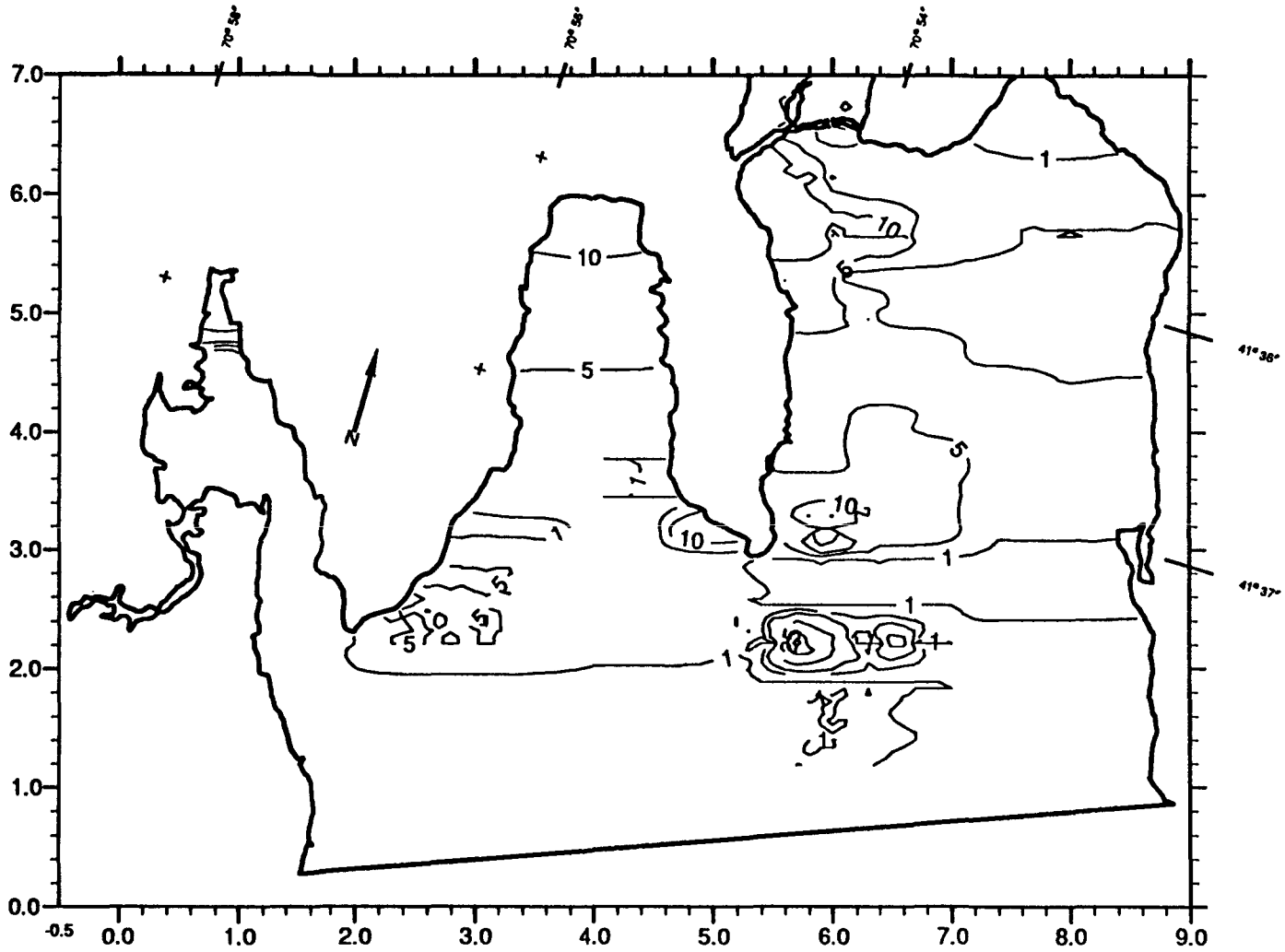

FIGURE C.7g. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF 50-ppm CASE, SOUTHERN AREA, INITIAL CONDITIONS

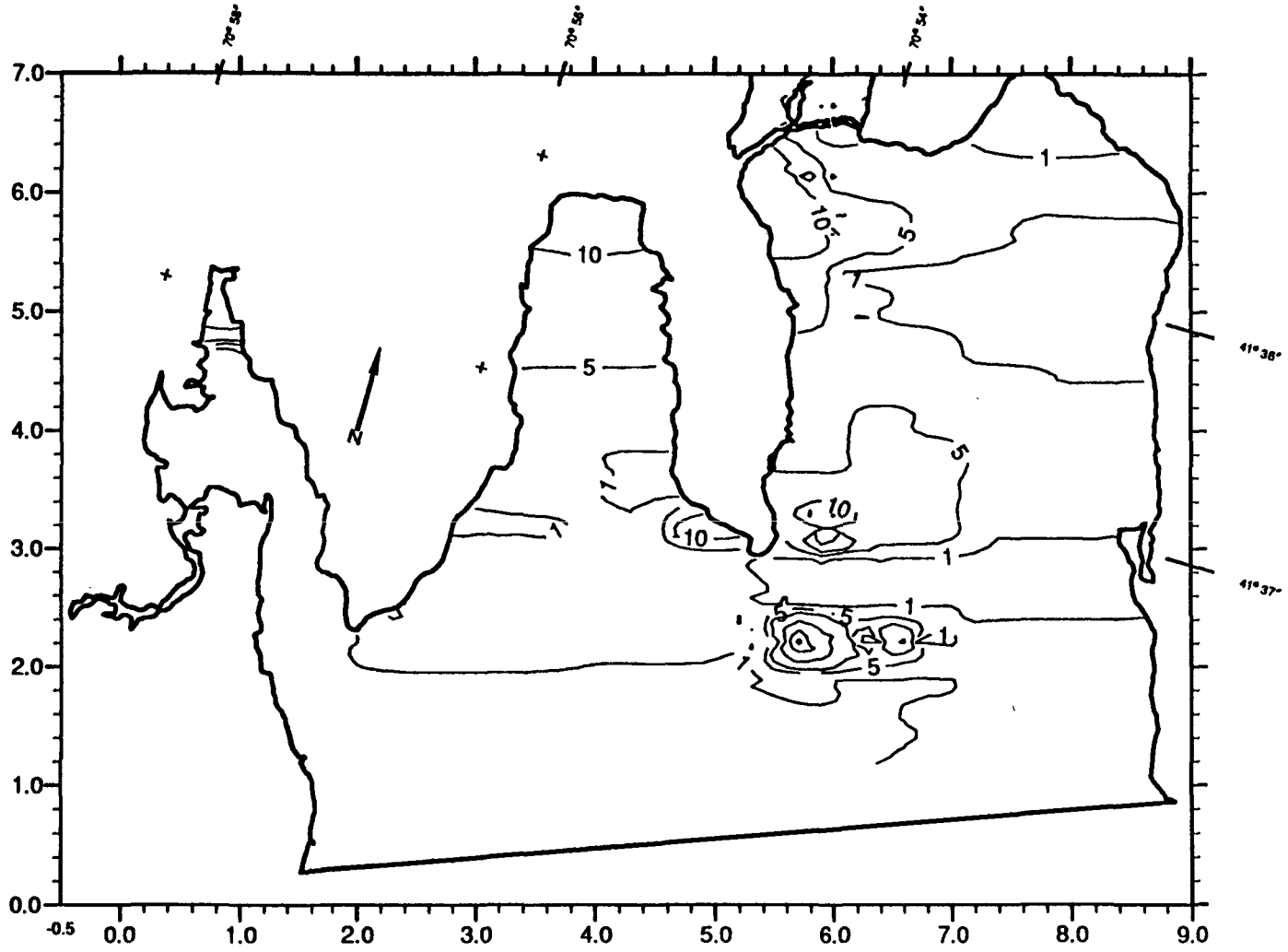

FIGURE C.7h. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF 50-ppm CASE, SOUTHERN AREA, YEAR 0

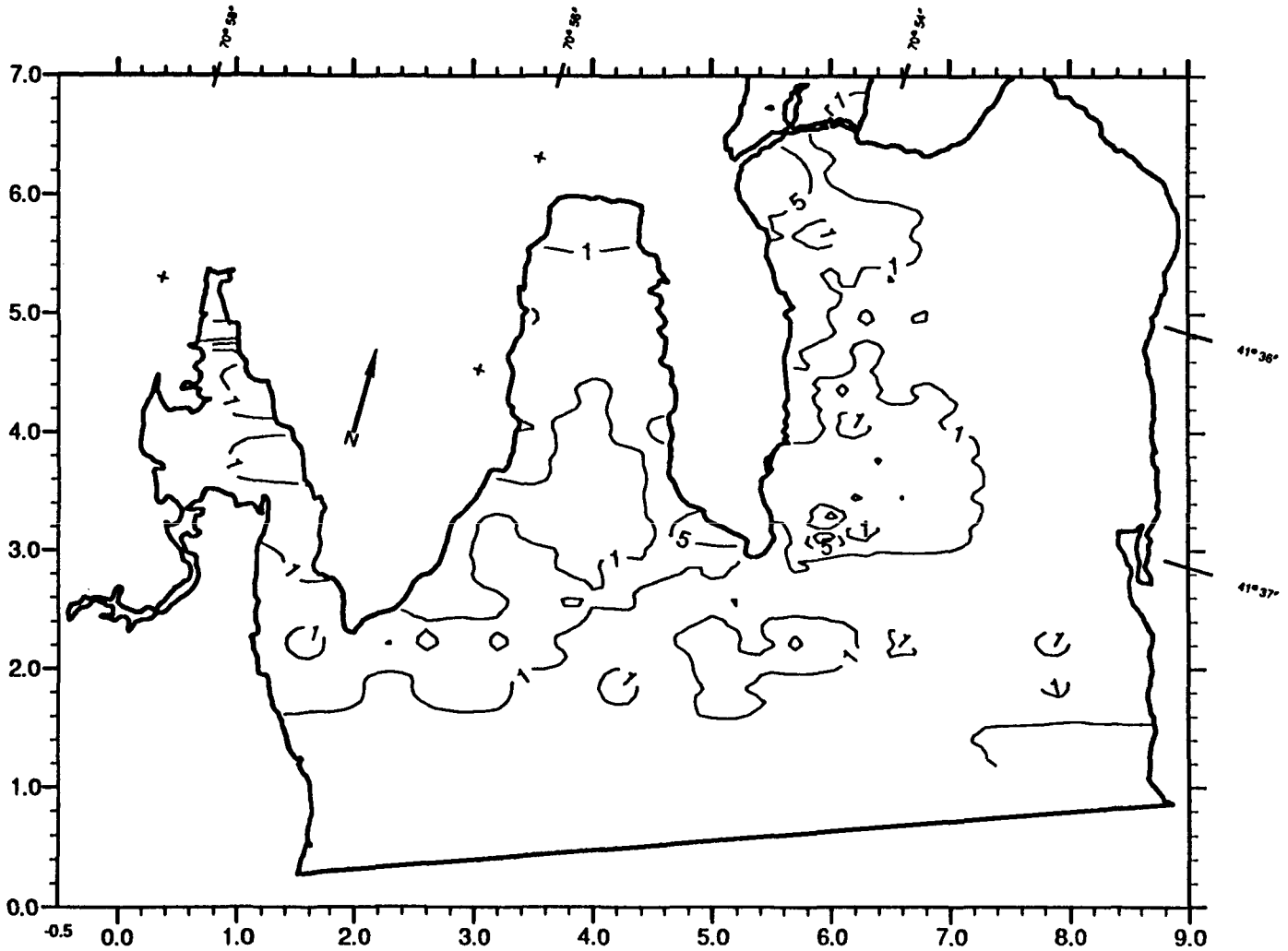

FIGURE C.7i. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF 50-ppm CASE, SOUTHERN AREA, YEAR 10

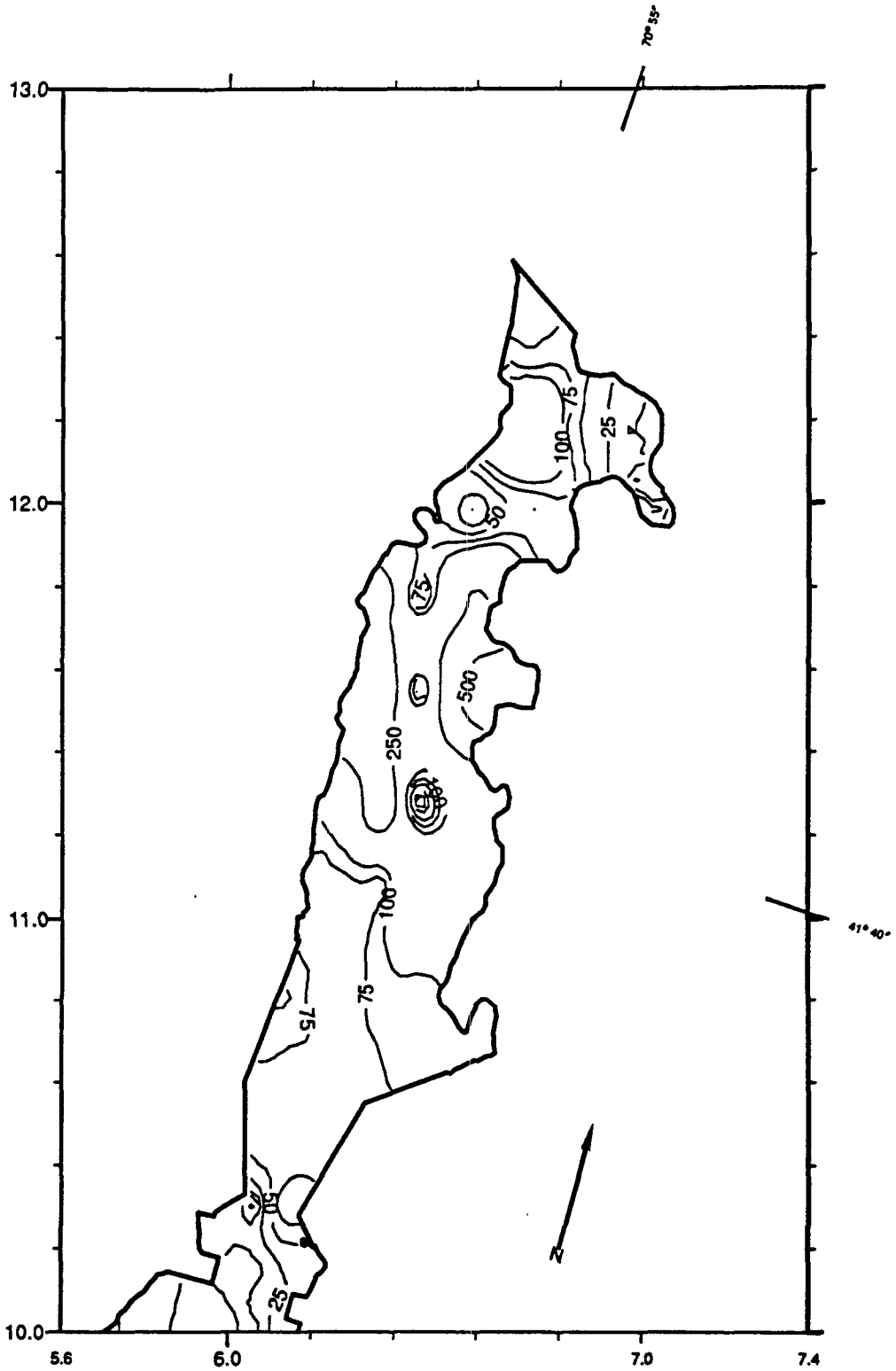

FIGURE C.8a. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF 500-ppm CASE, NORTHERN AREA, INITIAL CONDITIONS

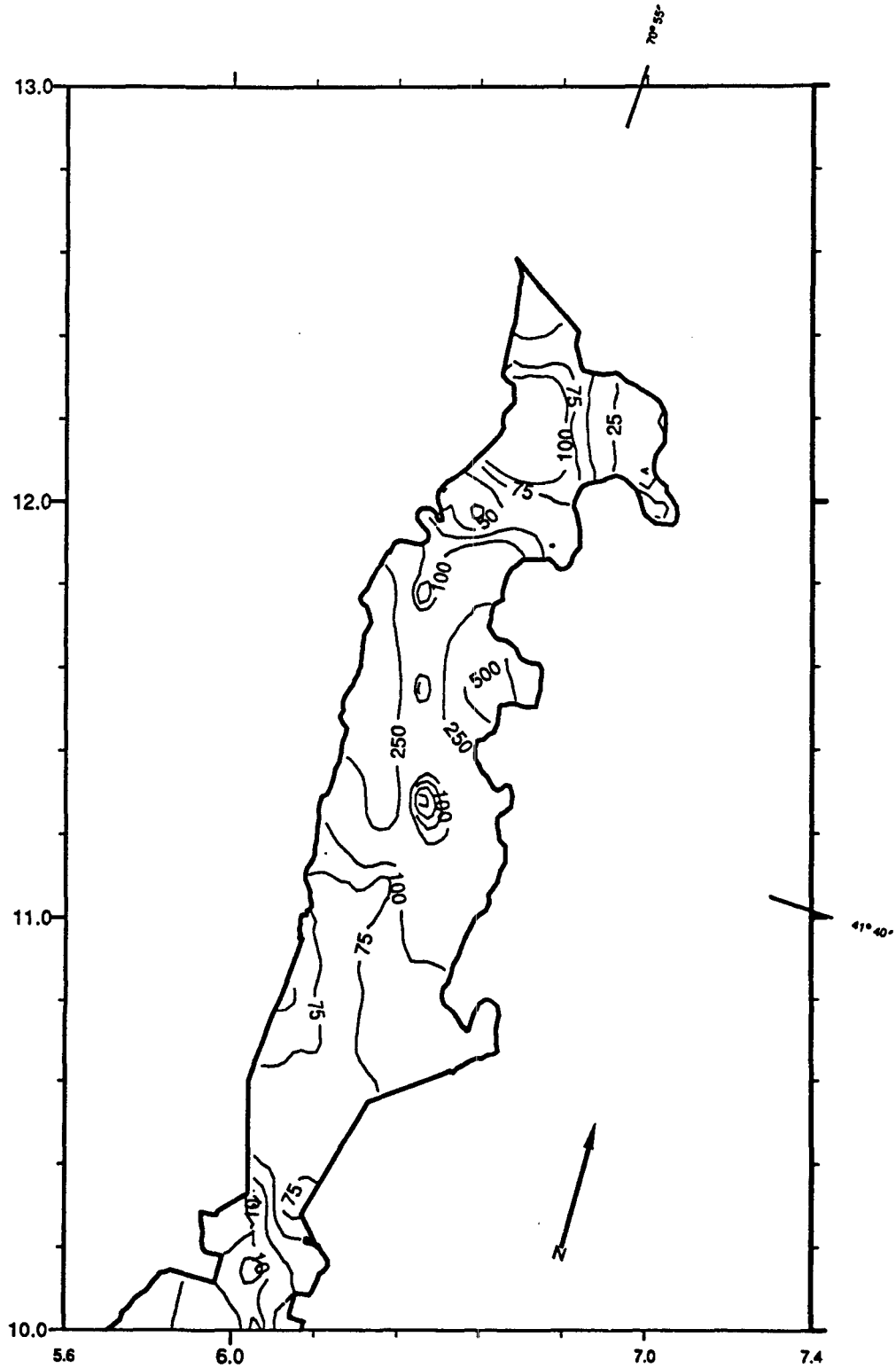

FIGURE C.8b. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF 500-ppm CASE, NORTHERN AREA, YEAR 0

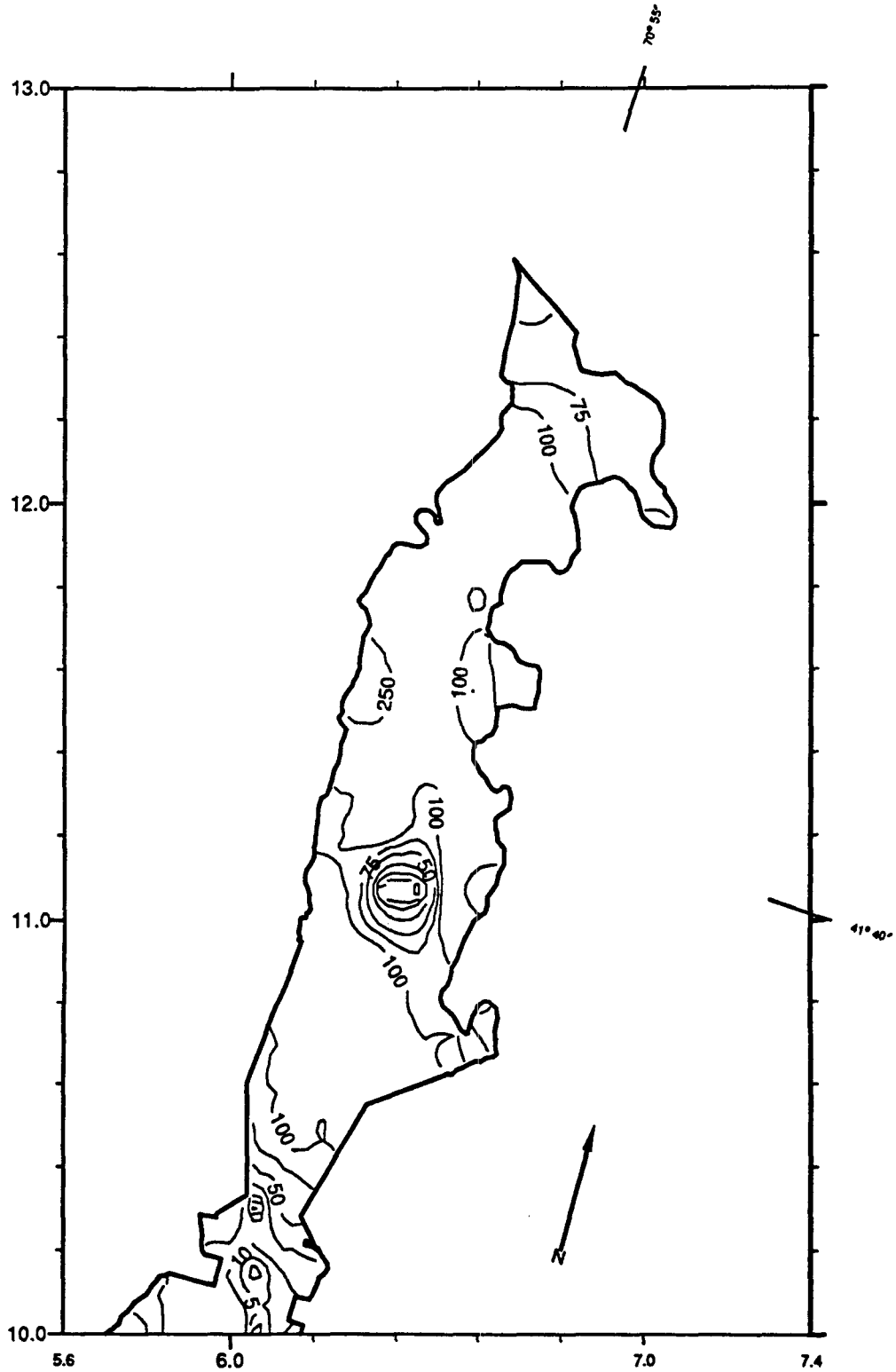

FIGURE C.8c. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF 500-ppm CASE, NORTHERN AREA, YEAR 10

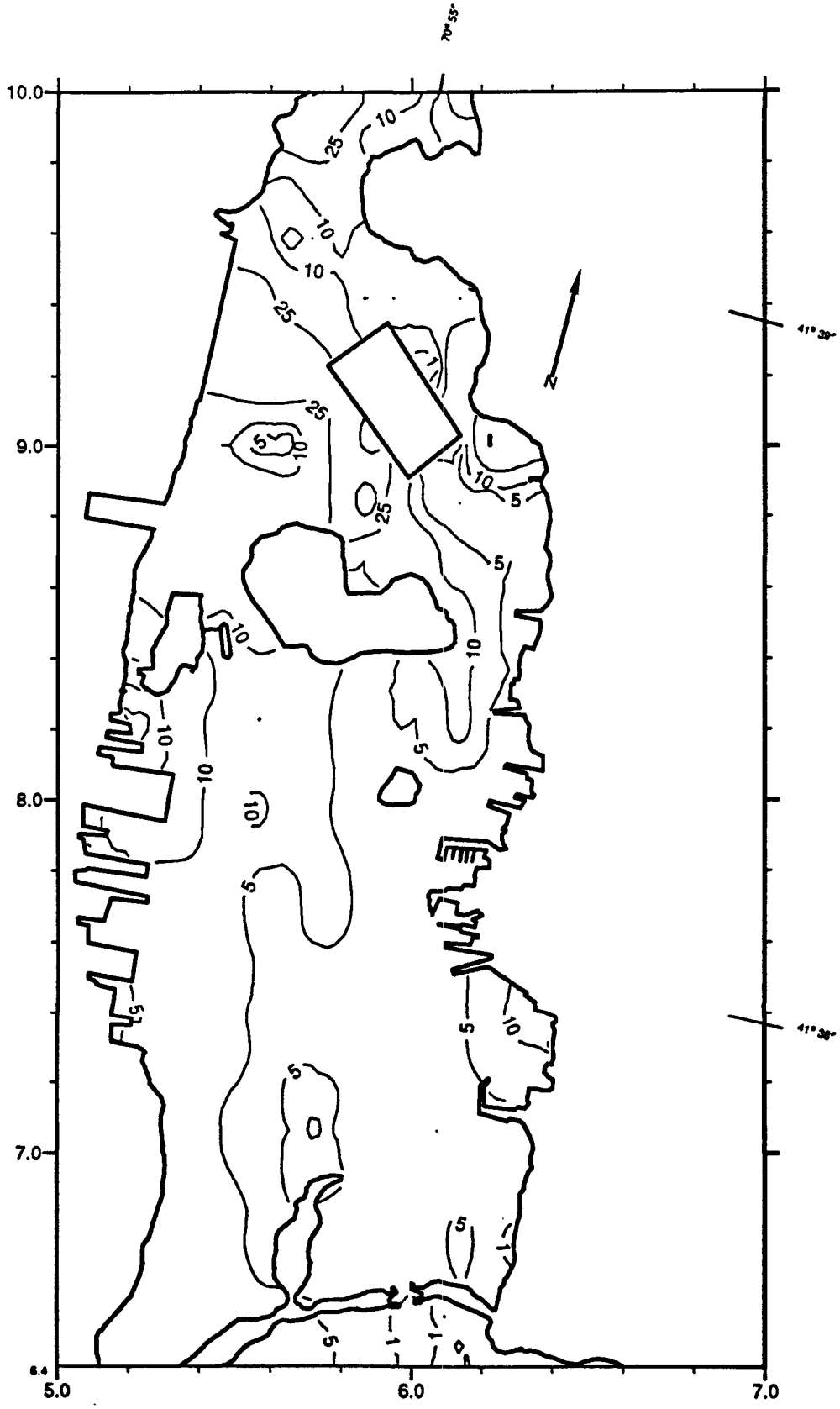

FIGURE C.8d. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF 500-ppm CASE, CENTRAL AREA, INITIAL CONDITIONS

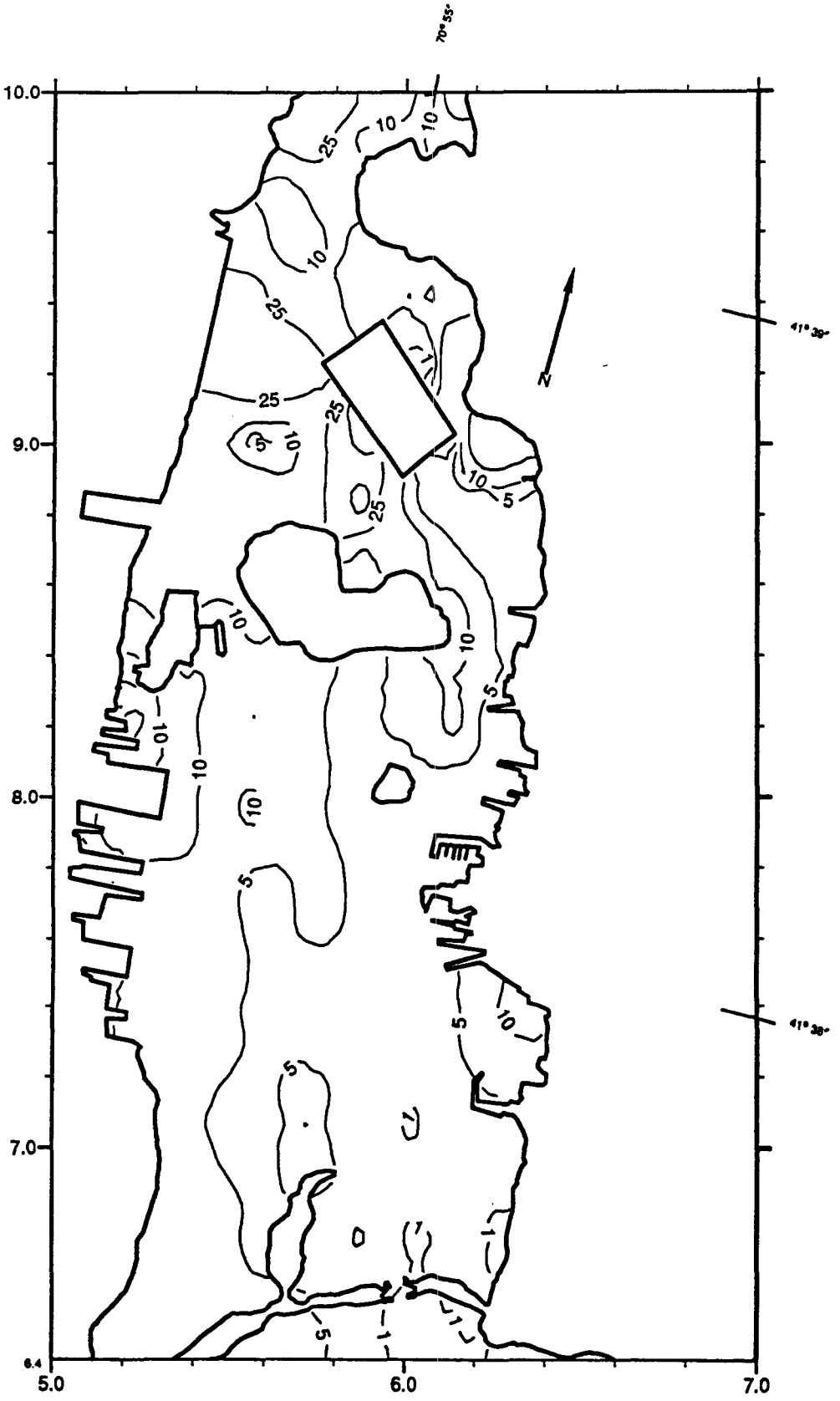

FIGURE C.8e. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF 500-ppm CASE, CENTRAL AREA, YEAR 0

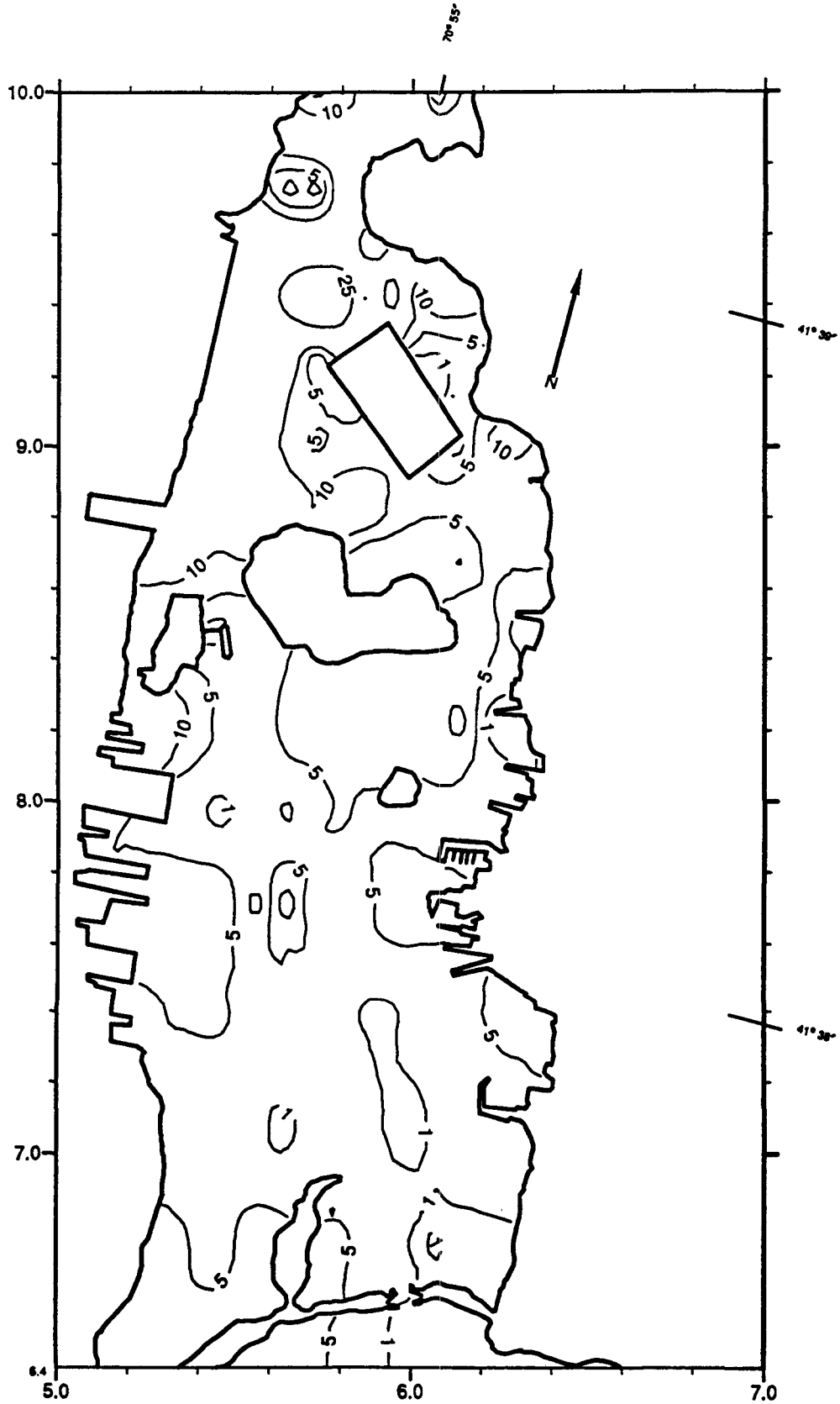

FIGURE C.8f. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF 500-ppm CASE, CENTRAL AREA, YEAR 10

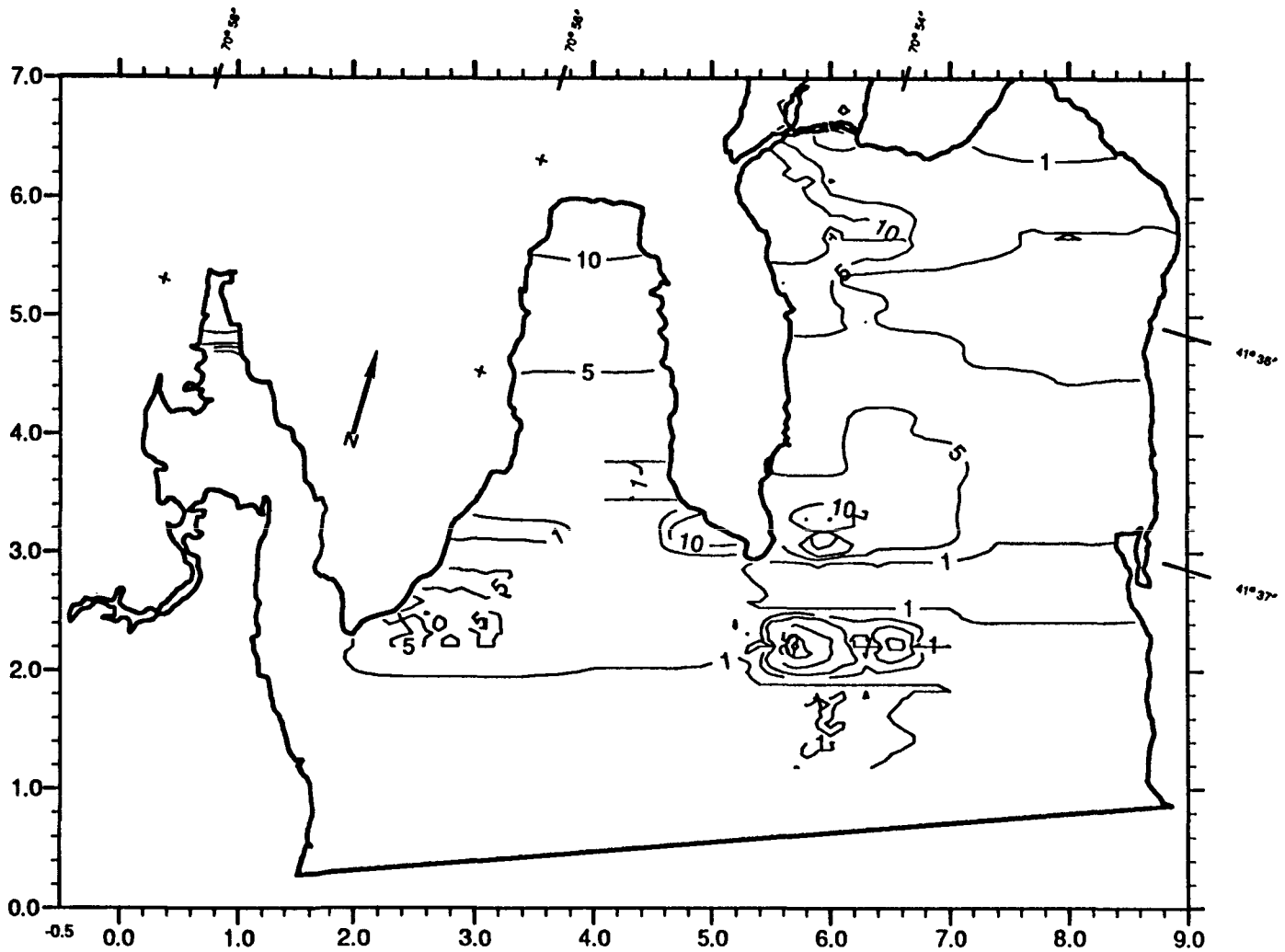

FIGURE C.8g. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF 500-ppm CASE, SOUTHERN AREA, INITIAL CONDITIONS

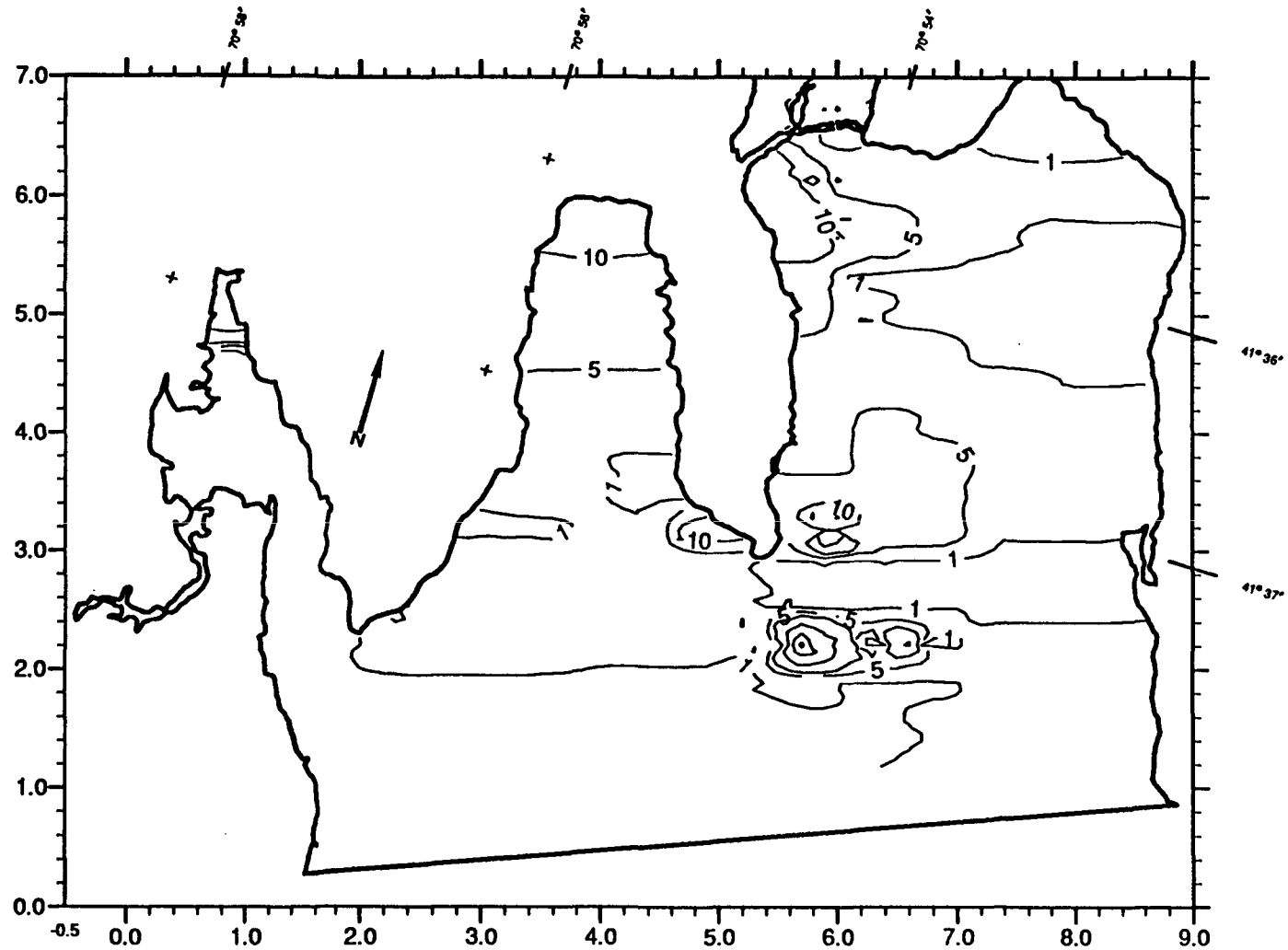

FIGURE C.8h. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF 500-ppm CASE, SOUTHERN AREA, YEAR 0

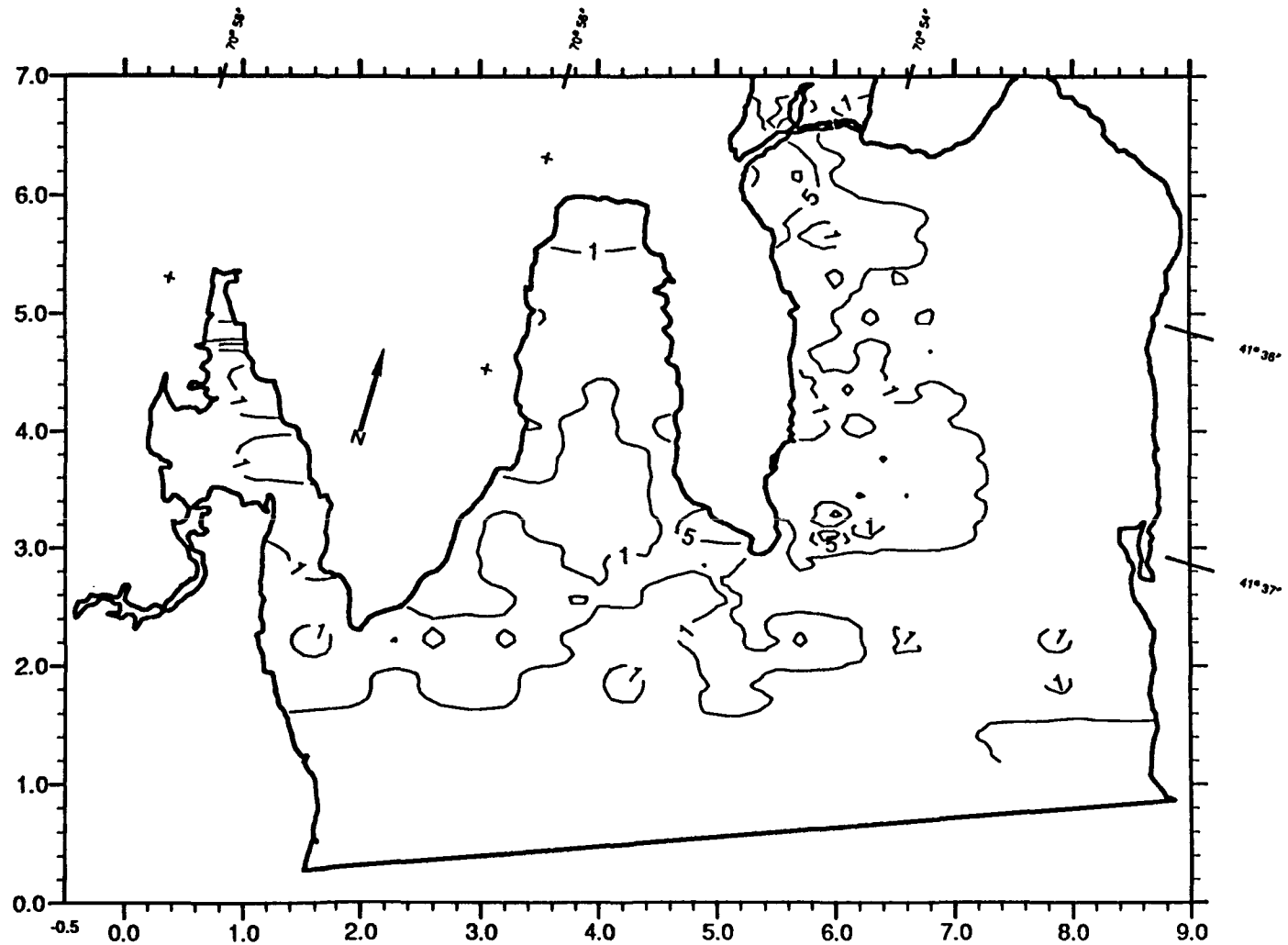

FIGURE C.8i. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF 500-ppm CASE, SOUTHERN AREA, YEAR 10

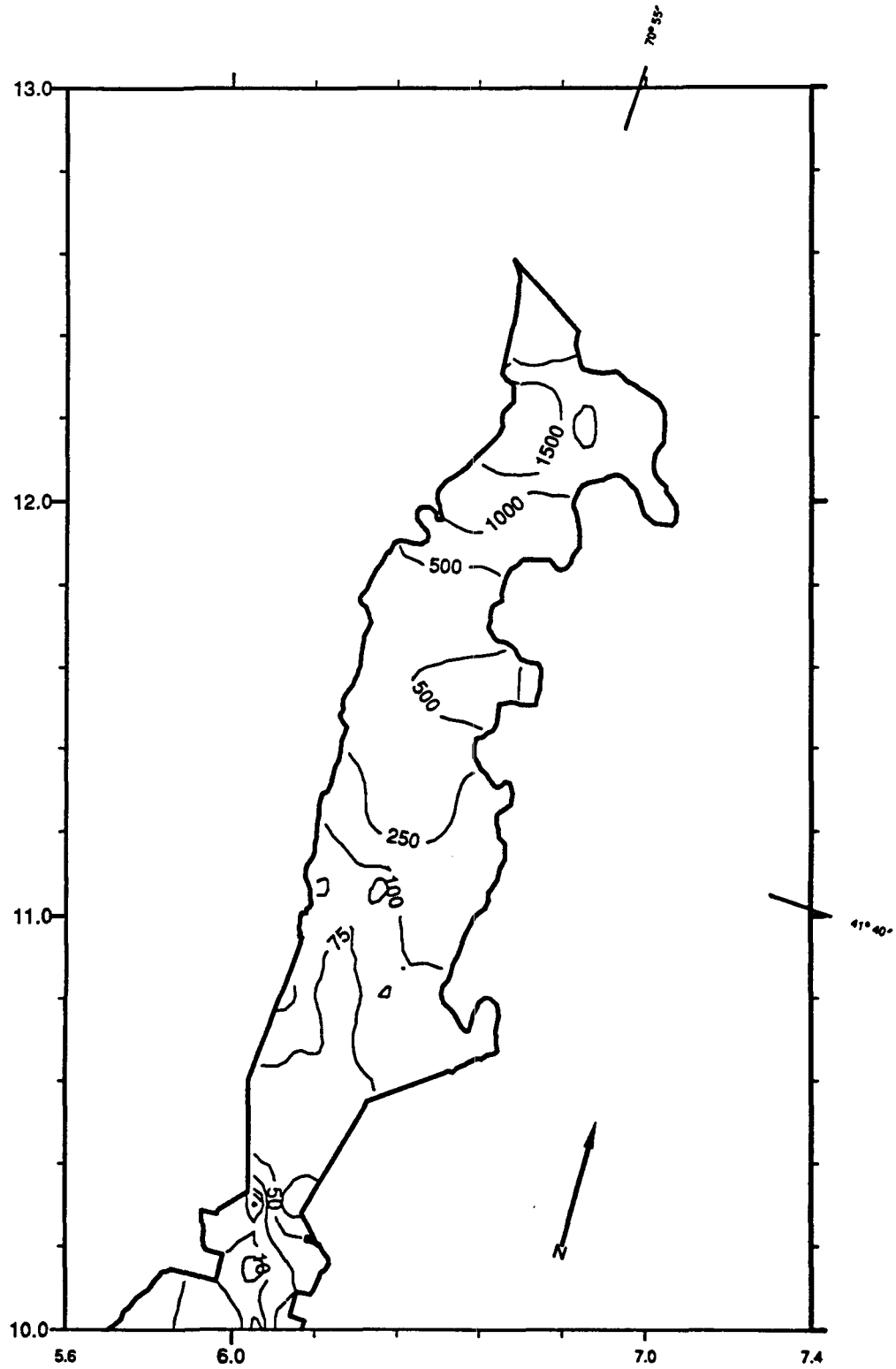

FIGURE C.9a. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF SENSITIVITY TEST CASE, NORTHERN AREA, YEAR 0

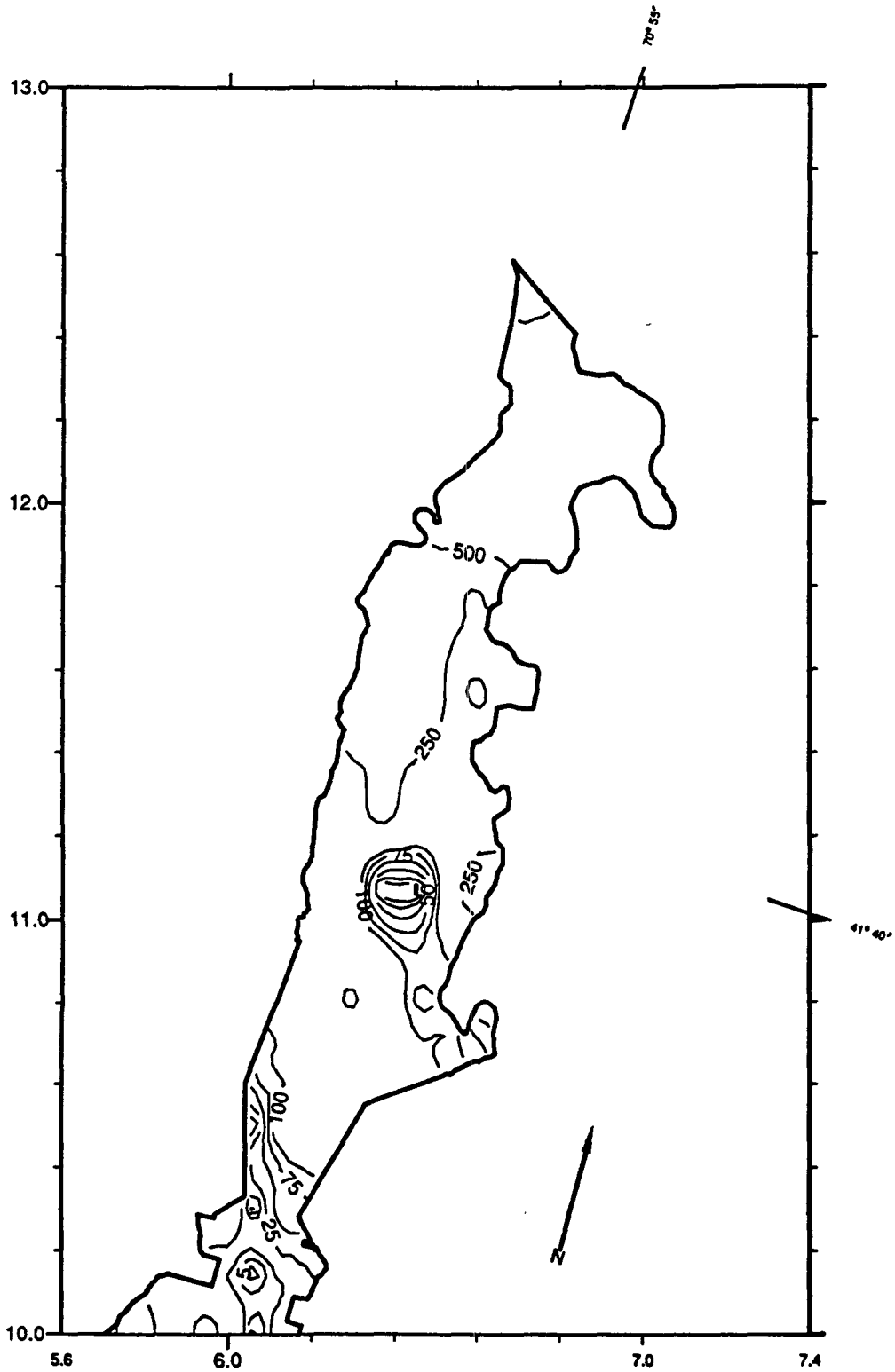

FIGURE C.9b. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF SENSITIVITY TEST CASE, NORTHERN AREA, YEAR 10

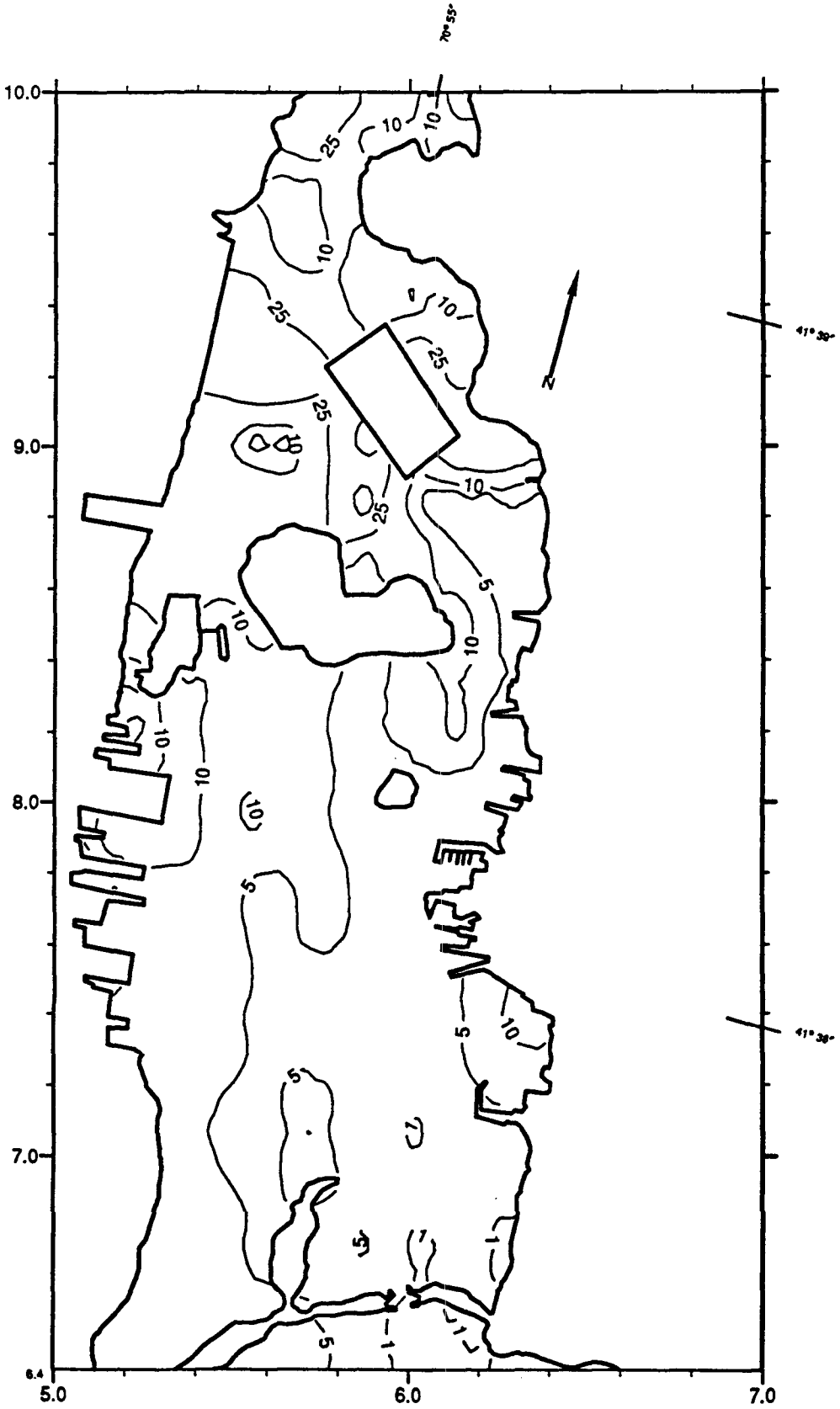

FIGURE C.9c. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF SENSITIVITY TEST CASE, CENTRAL AREA, YEAR 0

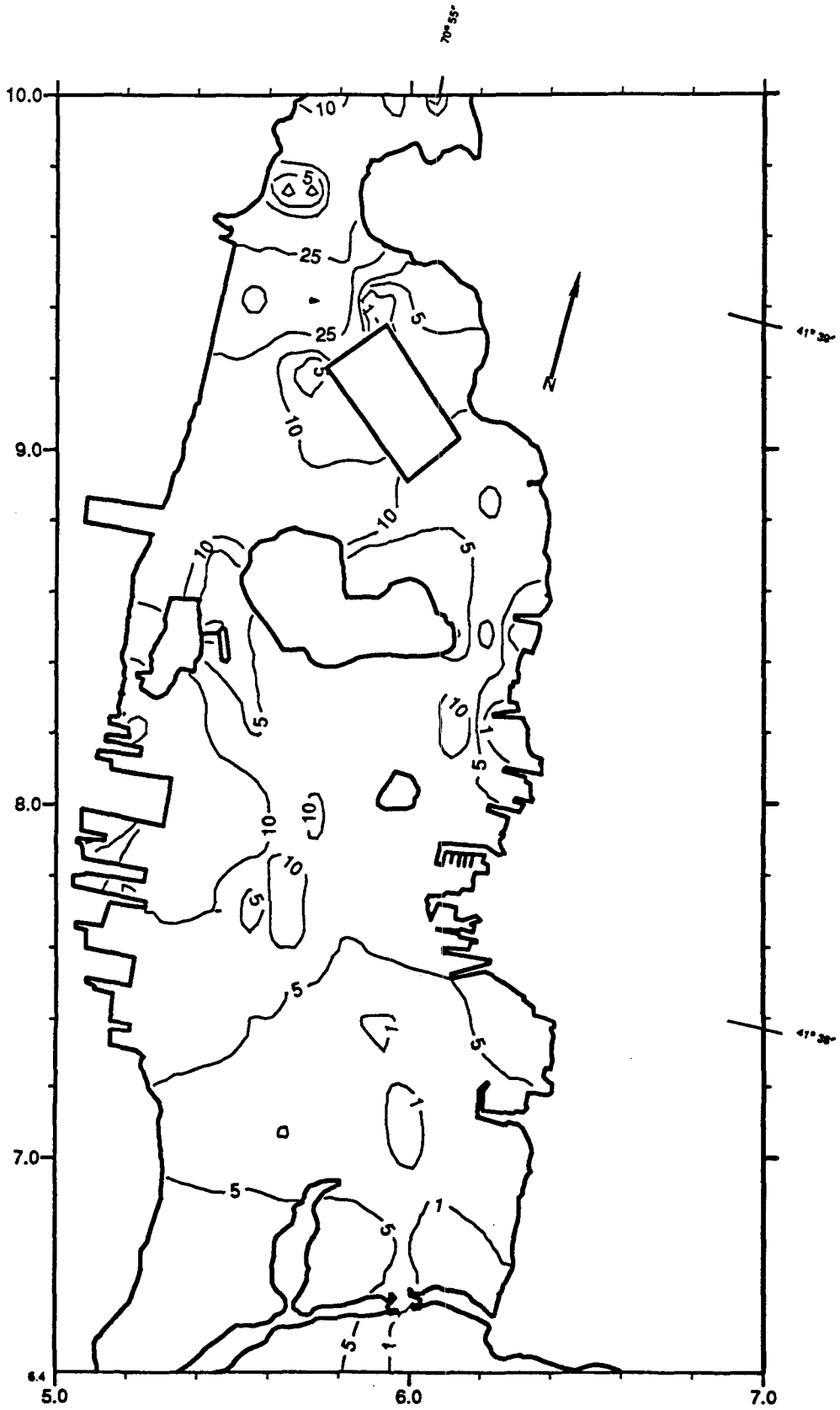

FIGURE C.9d. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF SENSITIVITY TEST CASE, CENTRAL AREA, YEAR 10

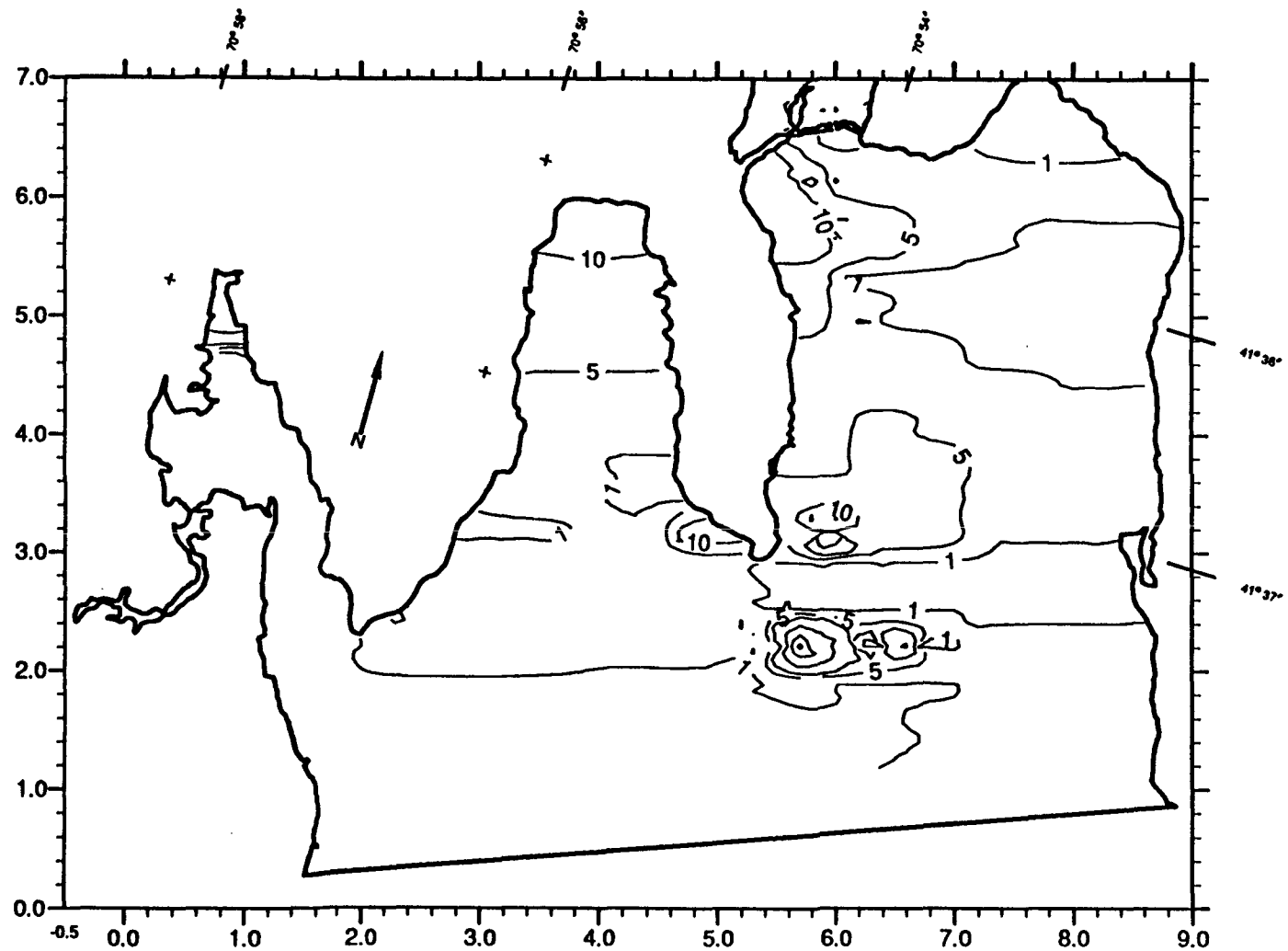

FIGURE C.9e. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF SENSITIVITY TEST CASE, SOUTHERN AREA, YEAR 0

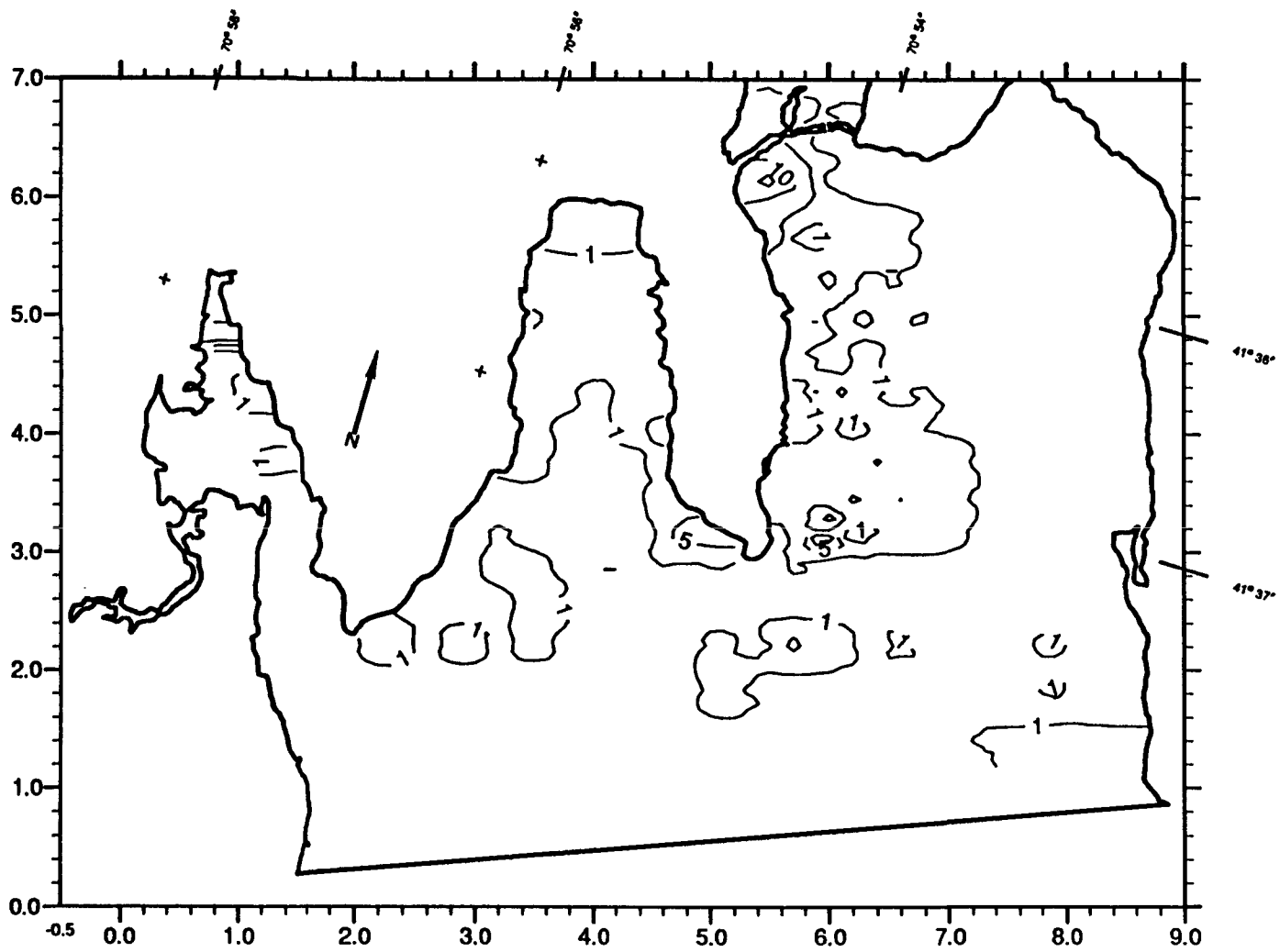

FIGURE C.9f. TOTAL SEDIMENT-SORBED PCB (mg/kg) CONTOUR PLOT OF SENSITIVITY TEST CASE, SOUTHERN AREA, YEAR 10

APPENDIX D

HYDRODYNAMICS FOR DECOUPLED TRANSPORT CALCULATIONS

APPENDIX D

HYDRODYNAMICS FOR DECOUPLED TRANSPORT CALCULATIONS

This Appendix is the repository for graphics showing the boundary conditions, time series results, and vector plots for the simulations that were used to generate hydrodynamics for the decoupled transport simulations. Descriptions of the cases are found in the main text in Chapters 5 and 7. Time series results for the Upper Estuary and Lower Harbor cases are not shown, because they are nearly identical to the no action case time series results.

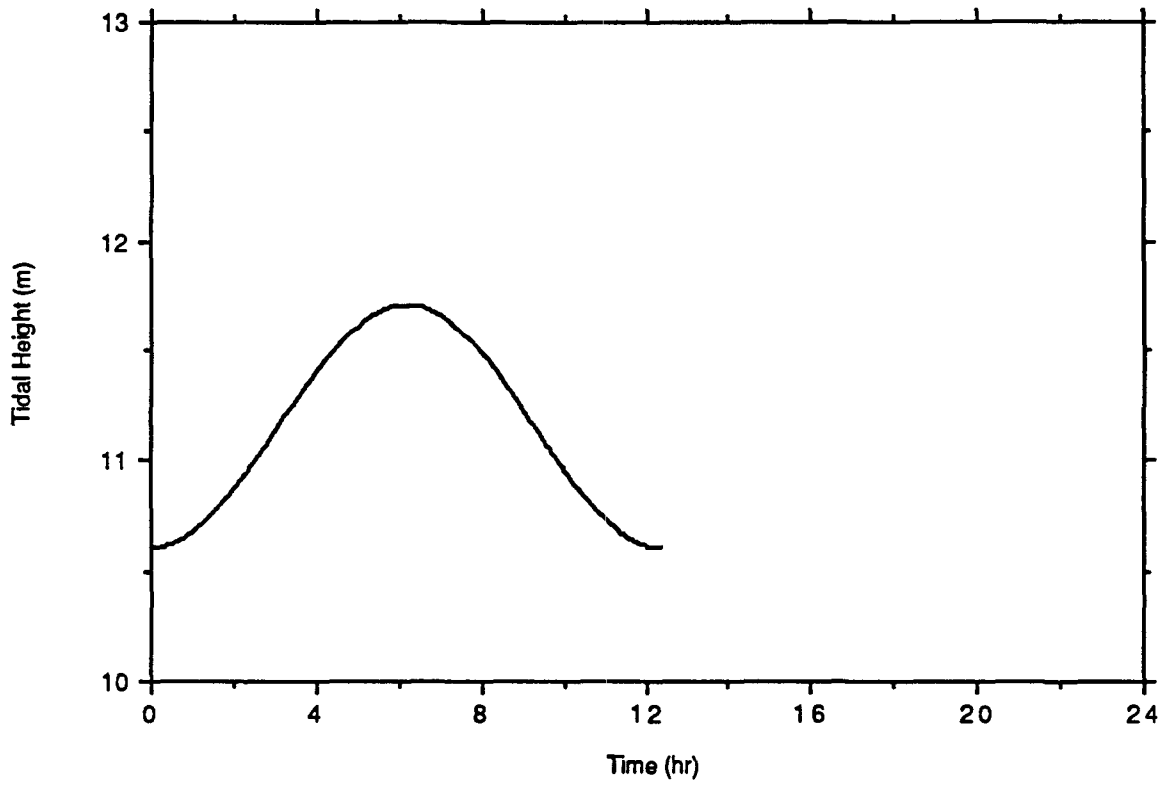

FIGURE D.1. M_2 TIDAL HEIGHT IMPOSED AT THE OPEN BOUNDARY FOR THE NO-ACTION, UPPER-ESTUARY, AND LOWER-HARBOR CASE GENERAL HYDRODYNAMICS

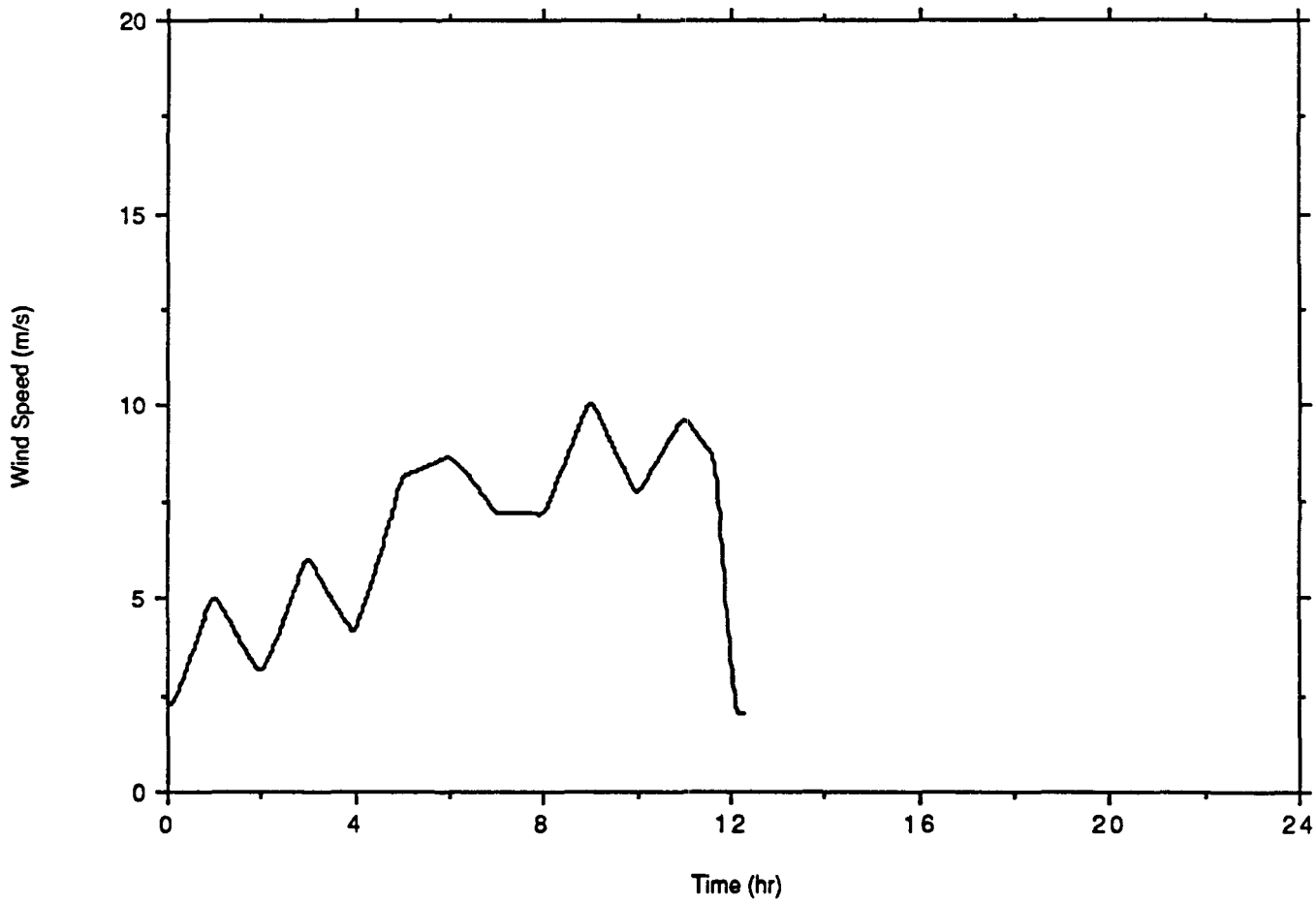

FIGURE D.2. WIND SPEED IMPOSED FOR THE NO-ACTION, UPPER-ESTUARY, AND LOWER-HARBOR CASE GENERAL HYDRODYNAMICS

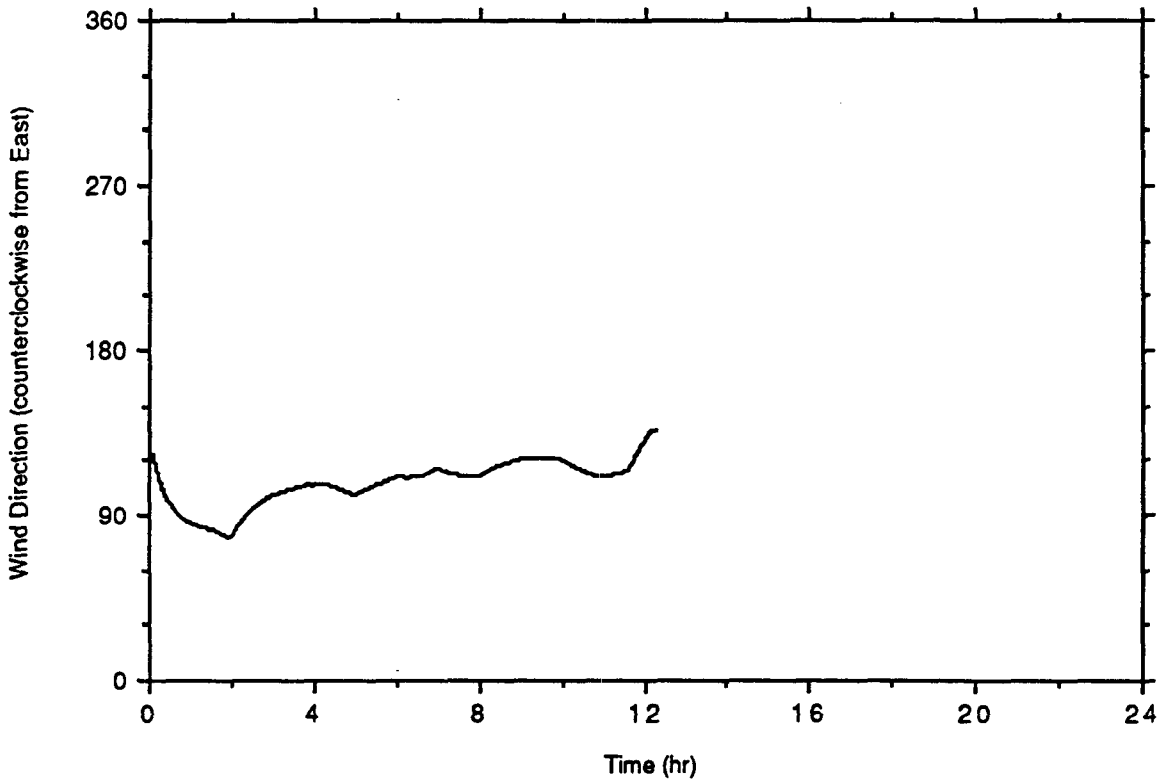

FIGURE D.3. WIND DIRECTION IMPOSED FOR THE NO-ACTION, UPPER-ESTUARY, AND LOWER-HARBOR CASE GENERAL HYDRODYNAMICS

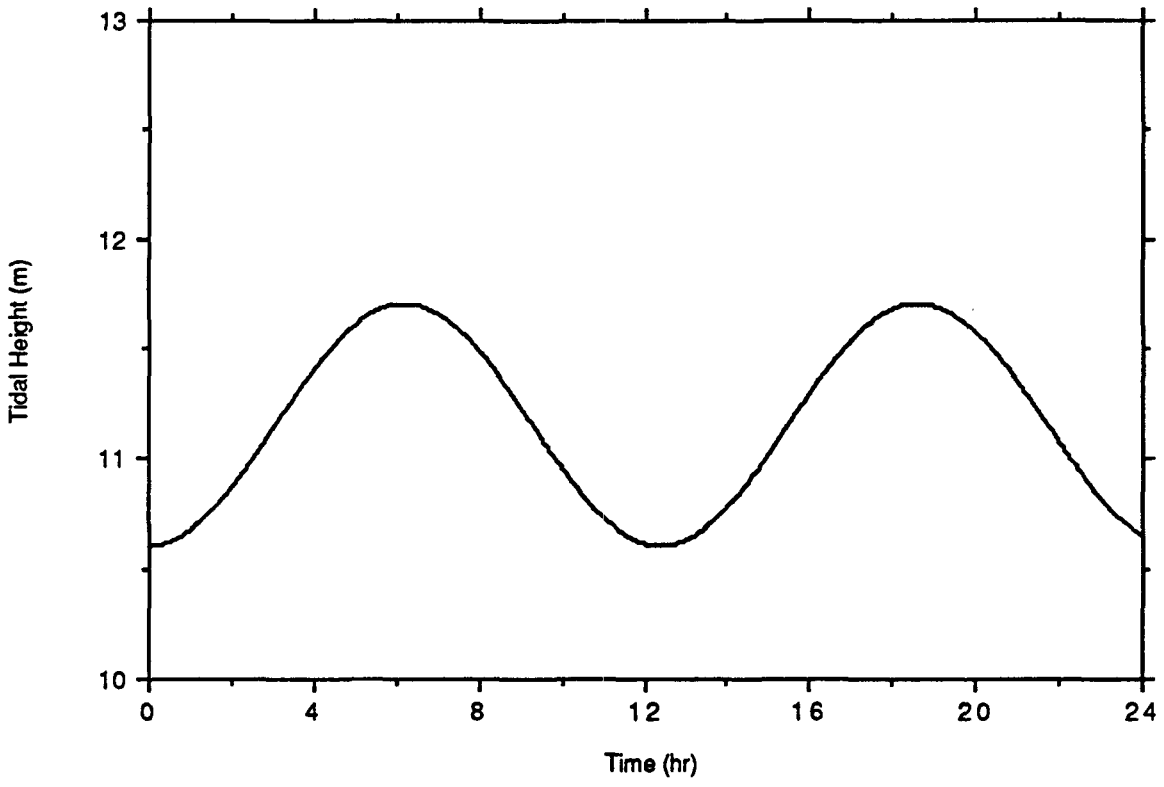

FIGURE D.4. M_2 TIDAL HEIGHT IMPOSED AT THE OPEN BOUNDARY FOR THE NO-ACTION, UPPER-ESTUARY, AND LOWER-HARBOR CASE STORM HYDRODYNAMICS

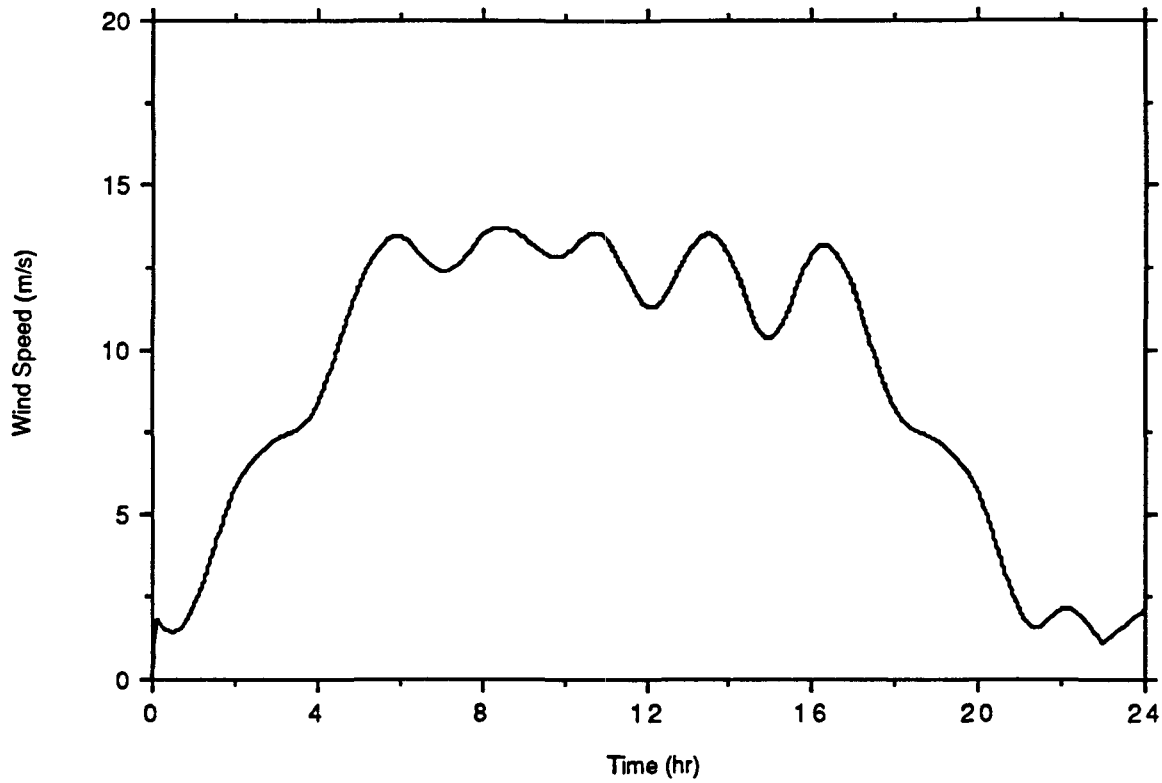

FIGURE D.5. WIND SPEED IMPOSED FOR THE NO-ACTION, UPPER-ESTUARY, AND LOWER-HARBOR CASE STORM HYDRODYNAMICS

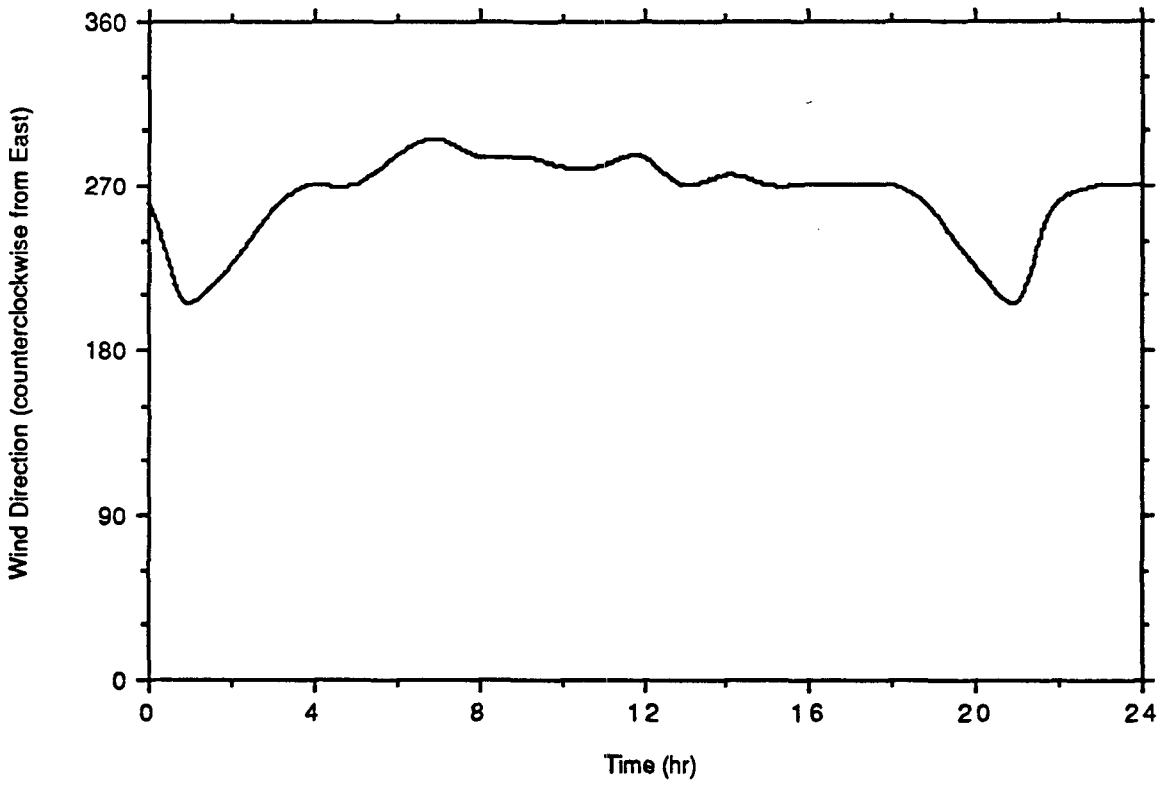

FIGURE D.6. WIND DIRECTION IMPOSED FOR THE NO-ACTION, UPPER-ESTUARY, AND LOWER-HARBOR CASE STORM HYDRODYNAMICS

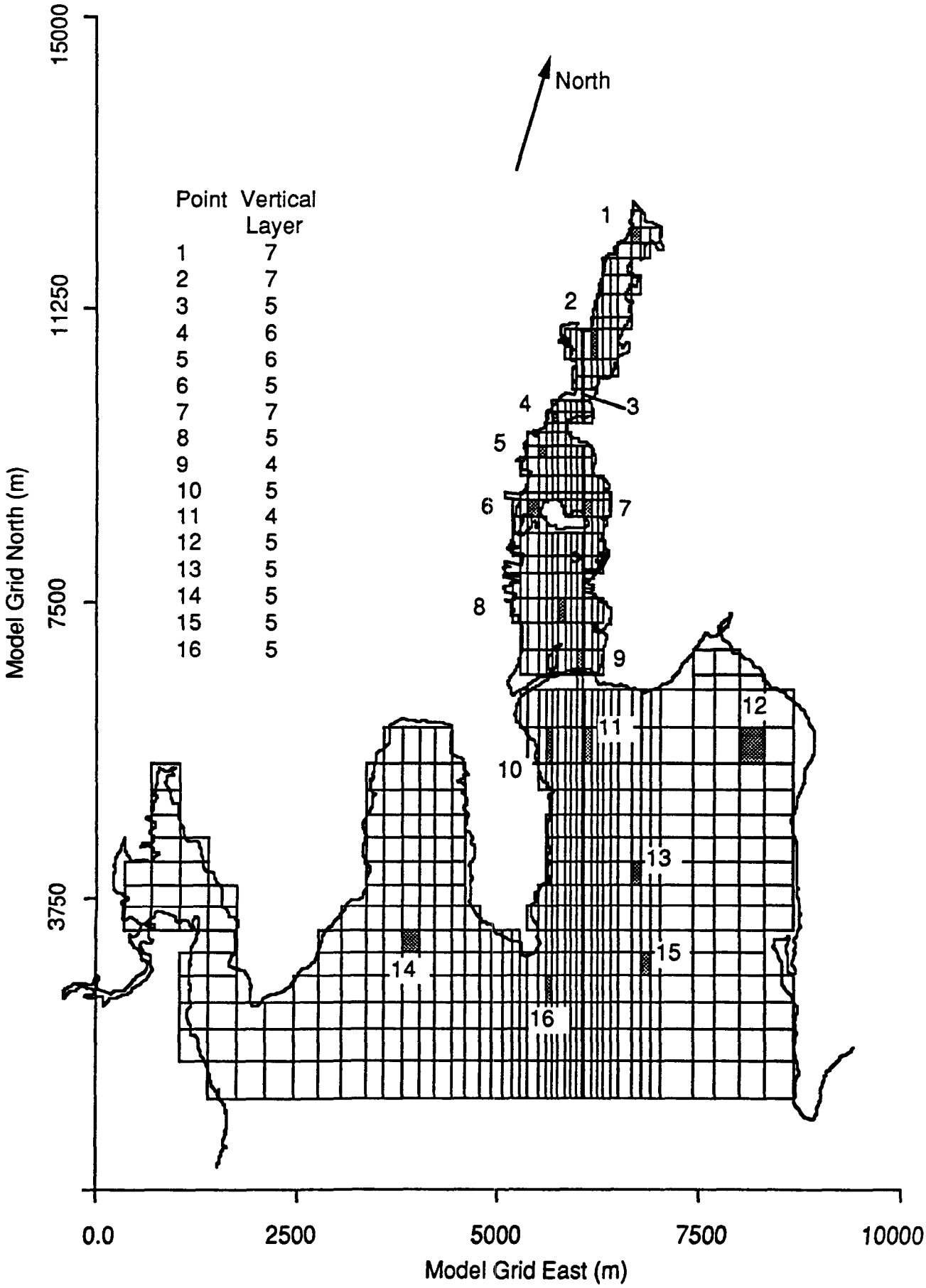

FIGURE D.7. LOCATION OF MODEL TIME SERIES OUTPUT POINTS

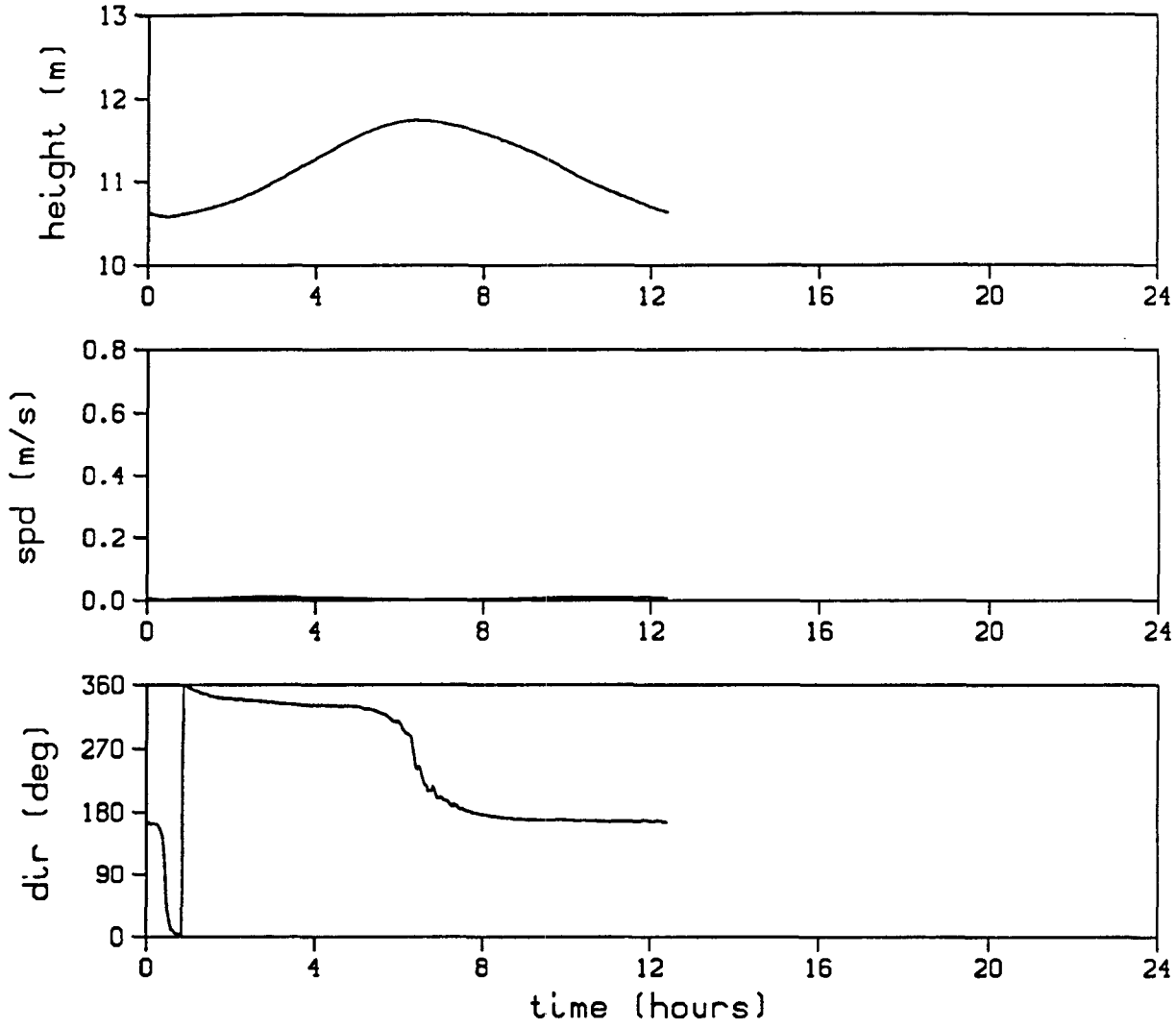

FIGURE D.8. COMPUTED WATER SURFACE HEIGHT, CURRENT SPEED, AND CURRENT DIRECTION AT TIME SERIES LOCATION 1 FOR THE NO-ACTION GENERAL HYDRODYNAMICS CASE

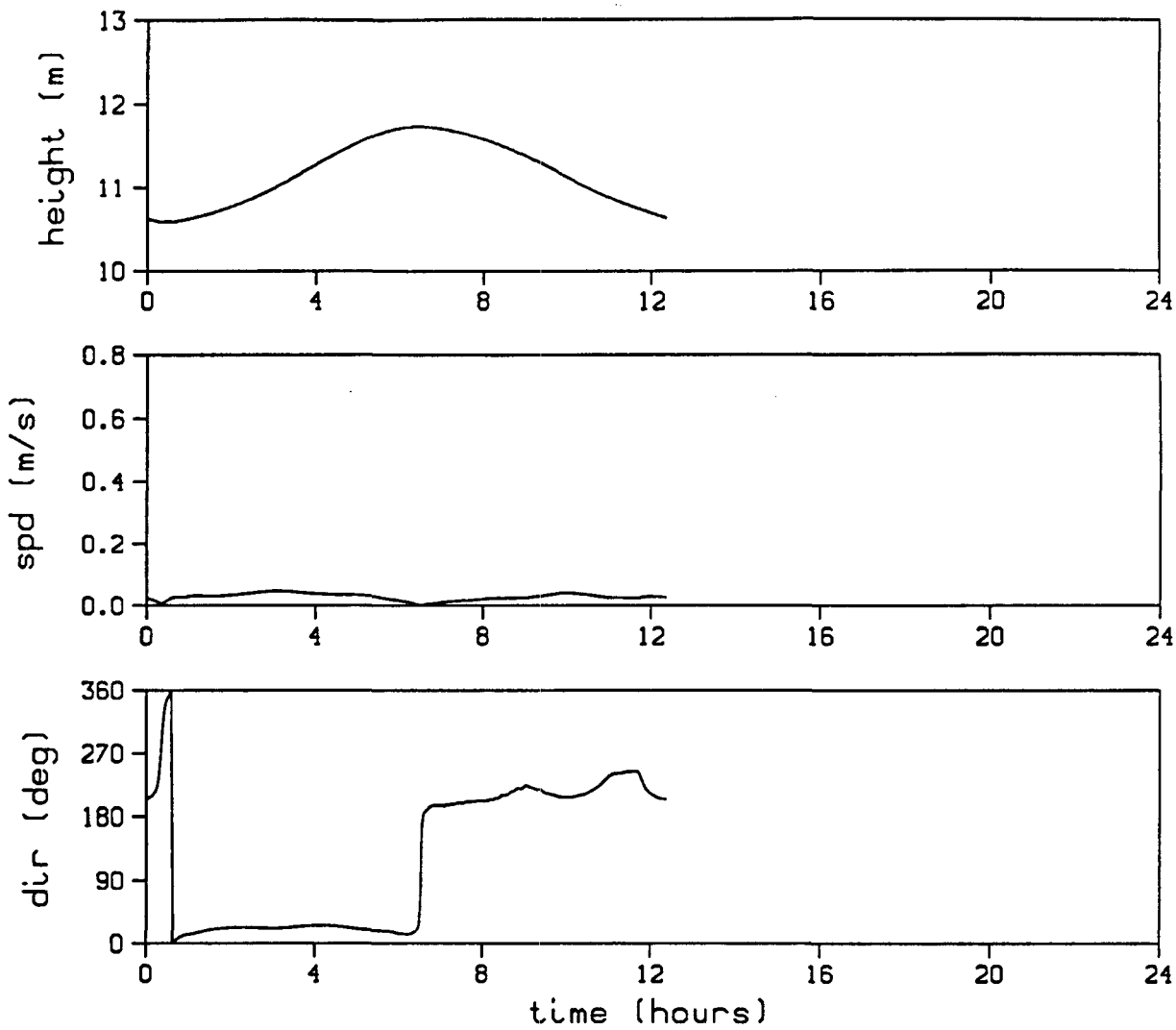

FIGURE D.9. COMPUTED WATER SURFACE HEIGHT, CURRENT SPEED, AND CURRENT DIRECTION AT TIME-SERIES LOCATION 2 FOR THE NO-ACTION CASE GENERAL HYDRODYNAMICS

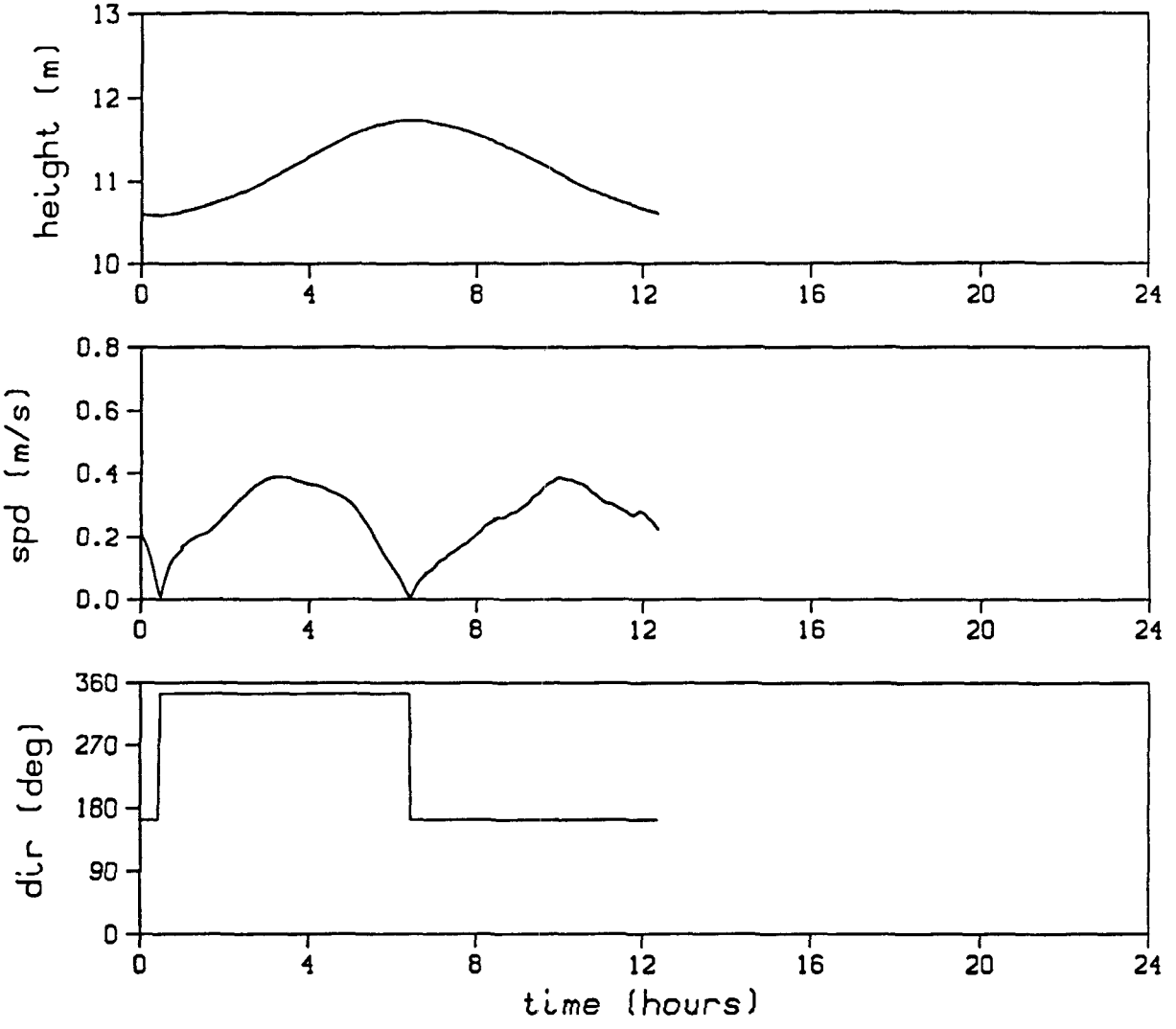

FIGURE D.10. COMPUTED WATER SURFACE HEIGHT, CURRENT SPEED, AND CURRENT DIRECTION AT TIME-SERIES LOCATION 3 FOR THE NO-ACTION CASE GENERAL HYDRODYNAMICS

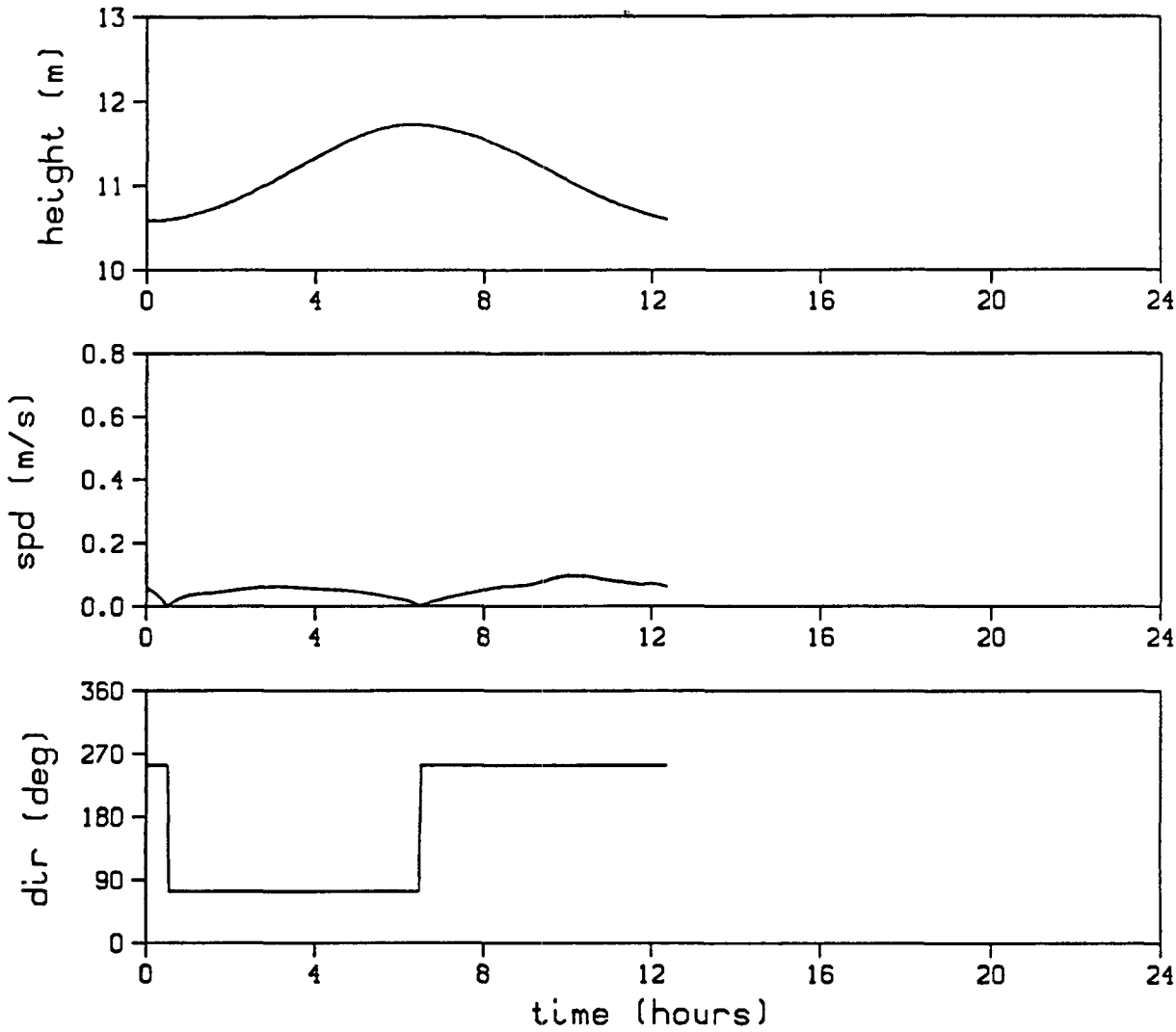

FIGURE D.11. COMPUTED WATER SURFACE HEIGHT, CURRENT SPEED, AND CURRENT DIRECTION AT TIME-SERIES LOCATION 4 FOR THE NO-ACTION CASE GENERAL HYDRODYNAMICS

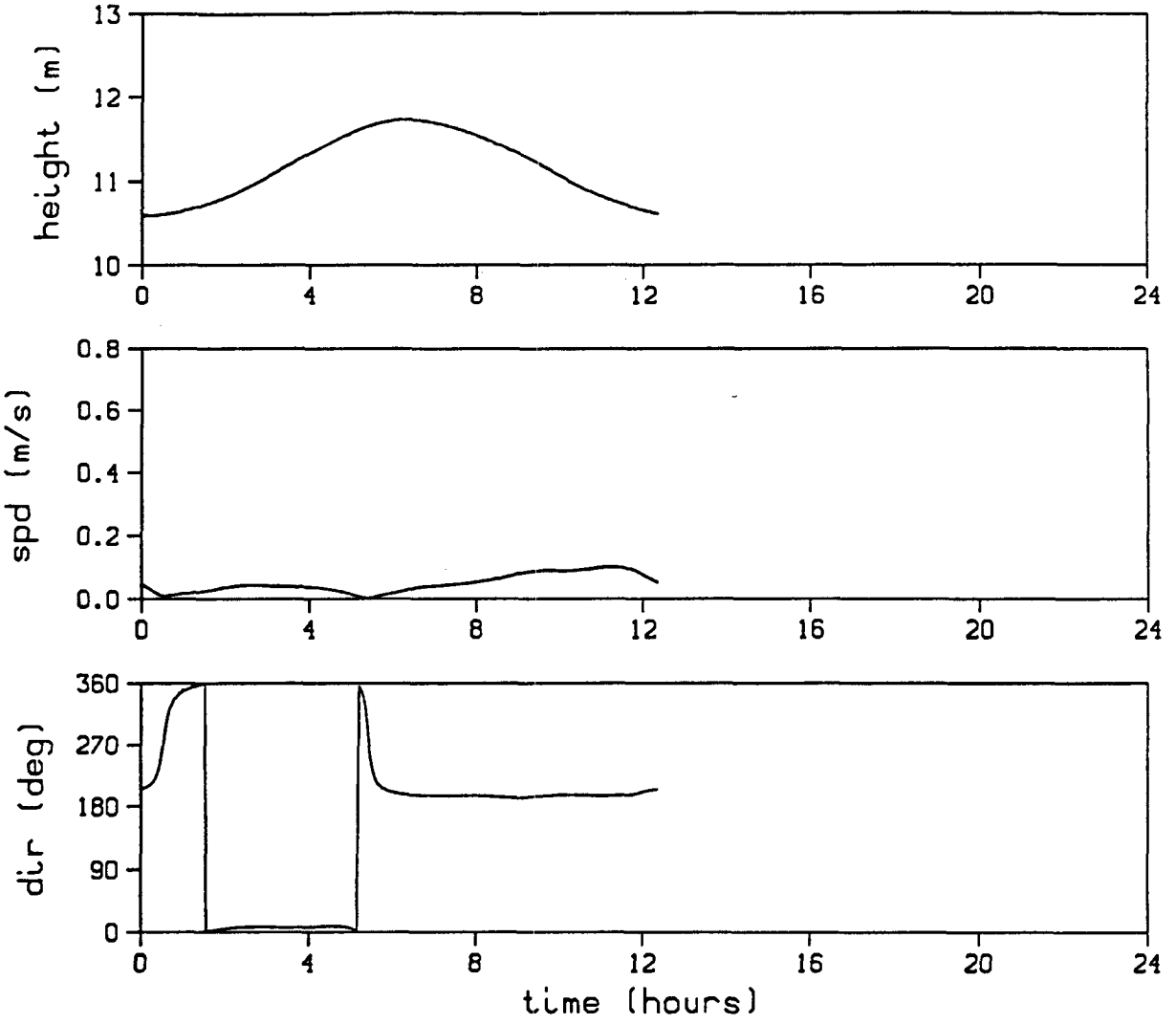

FIGURE D.12. COMPUTED WATER SURFACE HEIGHT, CURRENT SPEED, AND CURRENT DIRECTION AT TIME-SERIES LOCATION 5 FOR THE NO-ACTION CASE GENERAL HYDRODYNAMICS

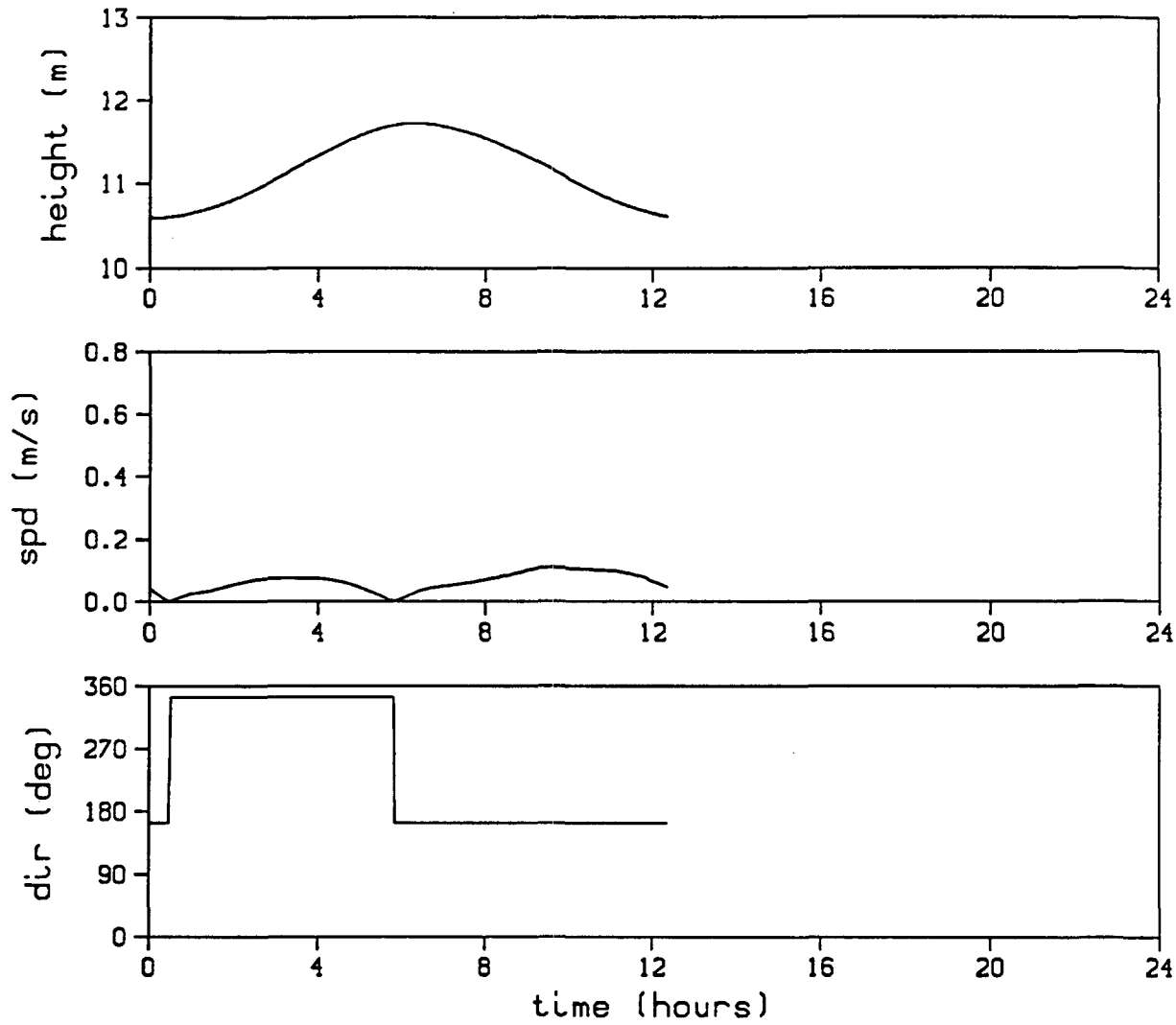

FIGURE D.13. COMPUTED WATER SURFACE HEIGHT, CURRENT SPEED, AND CURRENT DIRECTION AT TIME-SERIES LOCATION 6 FOR THE NO-ACTION CASE GENERAL HYDRODYNAMICS

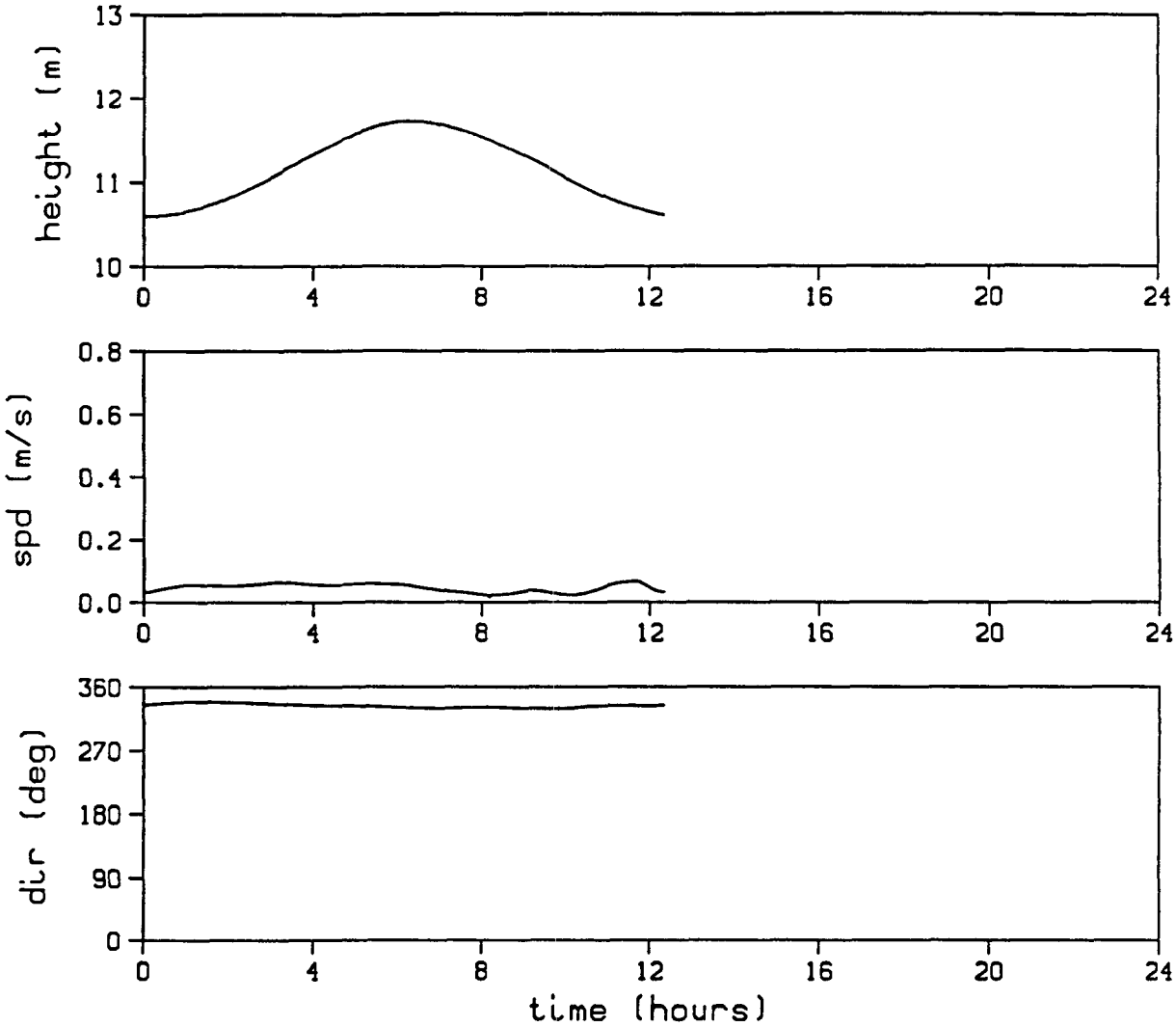

FIGURE D.14. COMPUTED WATER SURFACE HEIGHT, CURRENT SPEED, AND CURRENT DIRECTION AT TIME-SERIES LOCATION 7 FOR THE NO-ACTION CASE GENERAL HYDRODYNAMICS

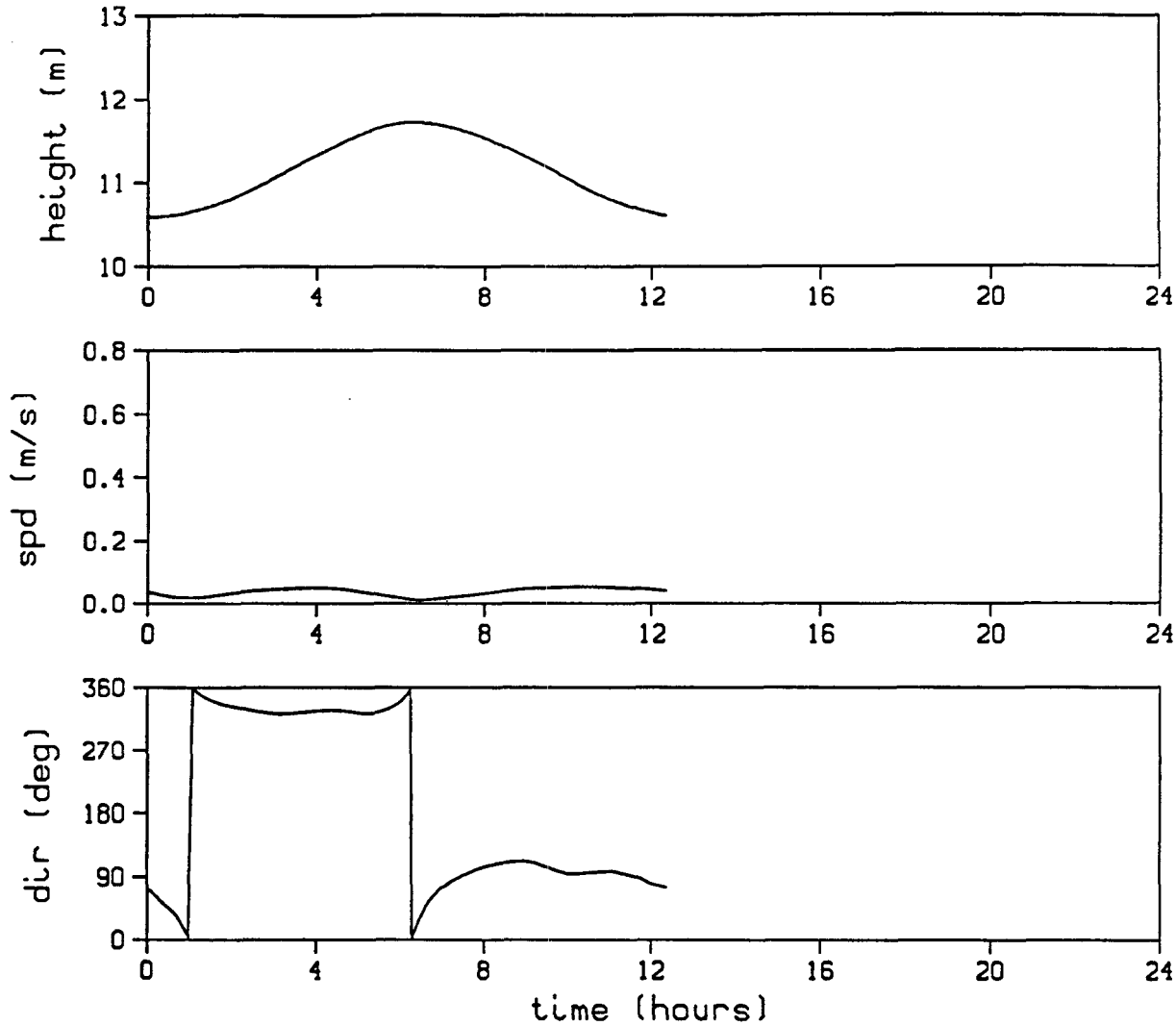

FIGURE D.15. COMPUTED WATER SURFACE HEIGHT, CURRENT SPEED, AND CURRENT DIRECTION AT TIME-SERIES LOCATION 8 FOR THE NO-ACTION CASE GENERAL HYDRODYNAMICS

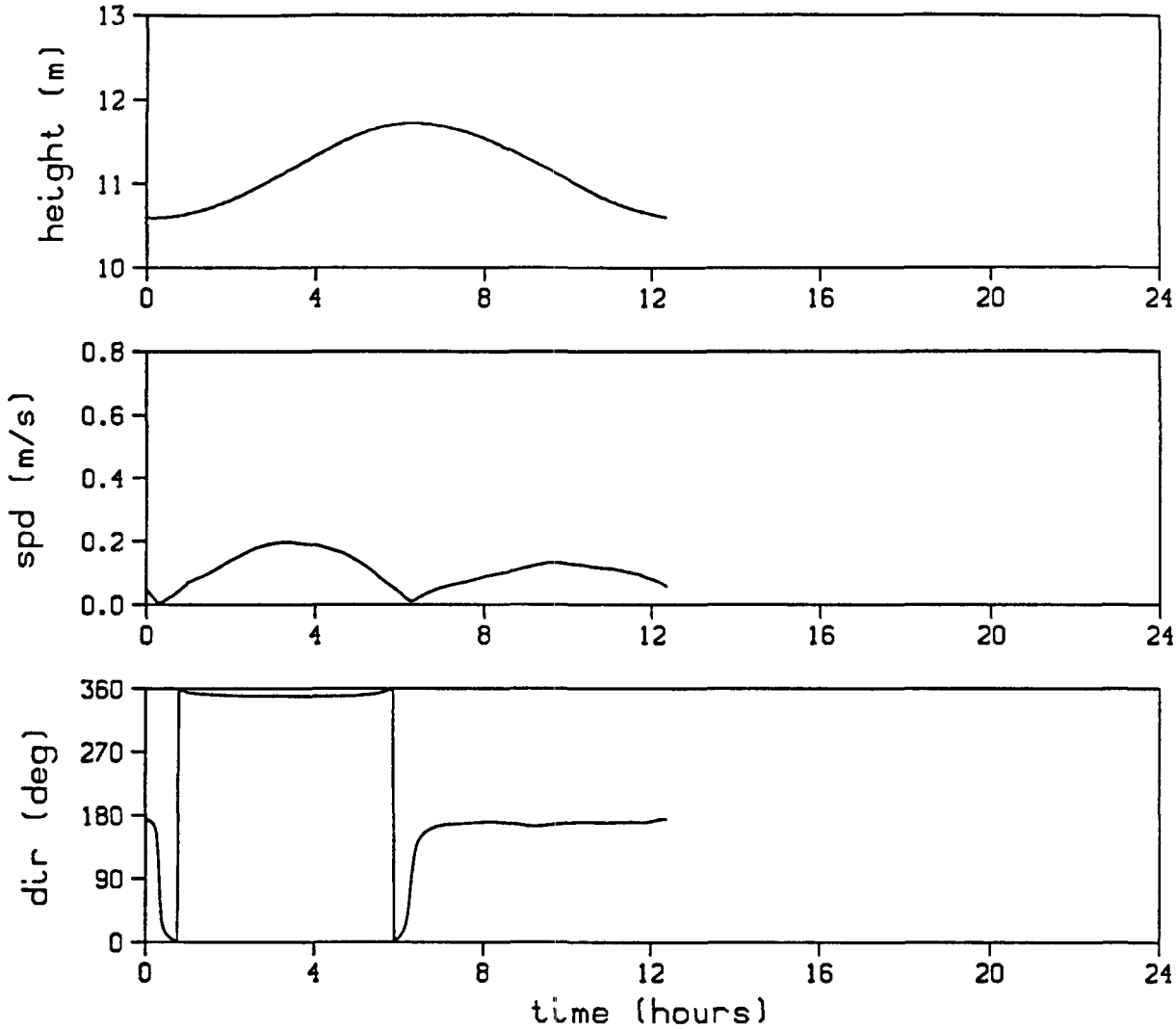

FIGURE D.16. COMPUTED WATER SURFACE HEIGHT, CURRENT SPEED, AND CURRENT DIRECTION AT TIME-SERIES LOCATION 9 FOR THE NO-ACTION CASE GENERAL HYDRODYNAMICS

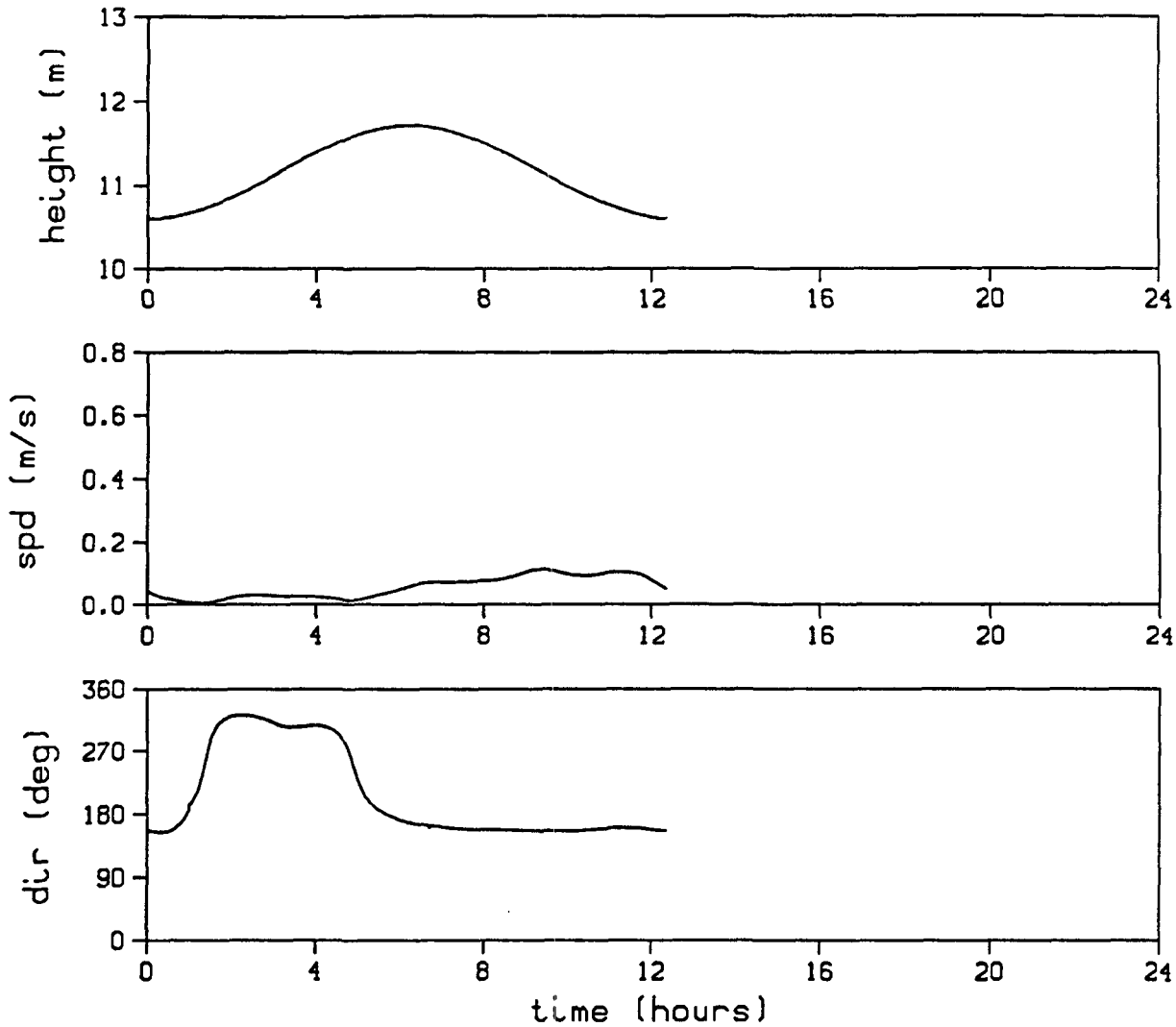

FIGURE D.17. COMPUTED WATER SURFACE HEIGHT, CURRENT SPEED, AND CURRENT DIRECTION AT TIME-SERIES LOCATION 10 FOR THE NO-ACTION CASE GENERAL HYDRODYNAMICS

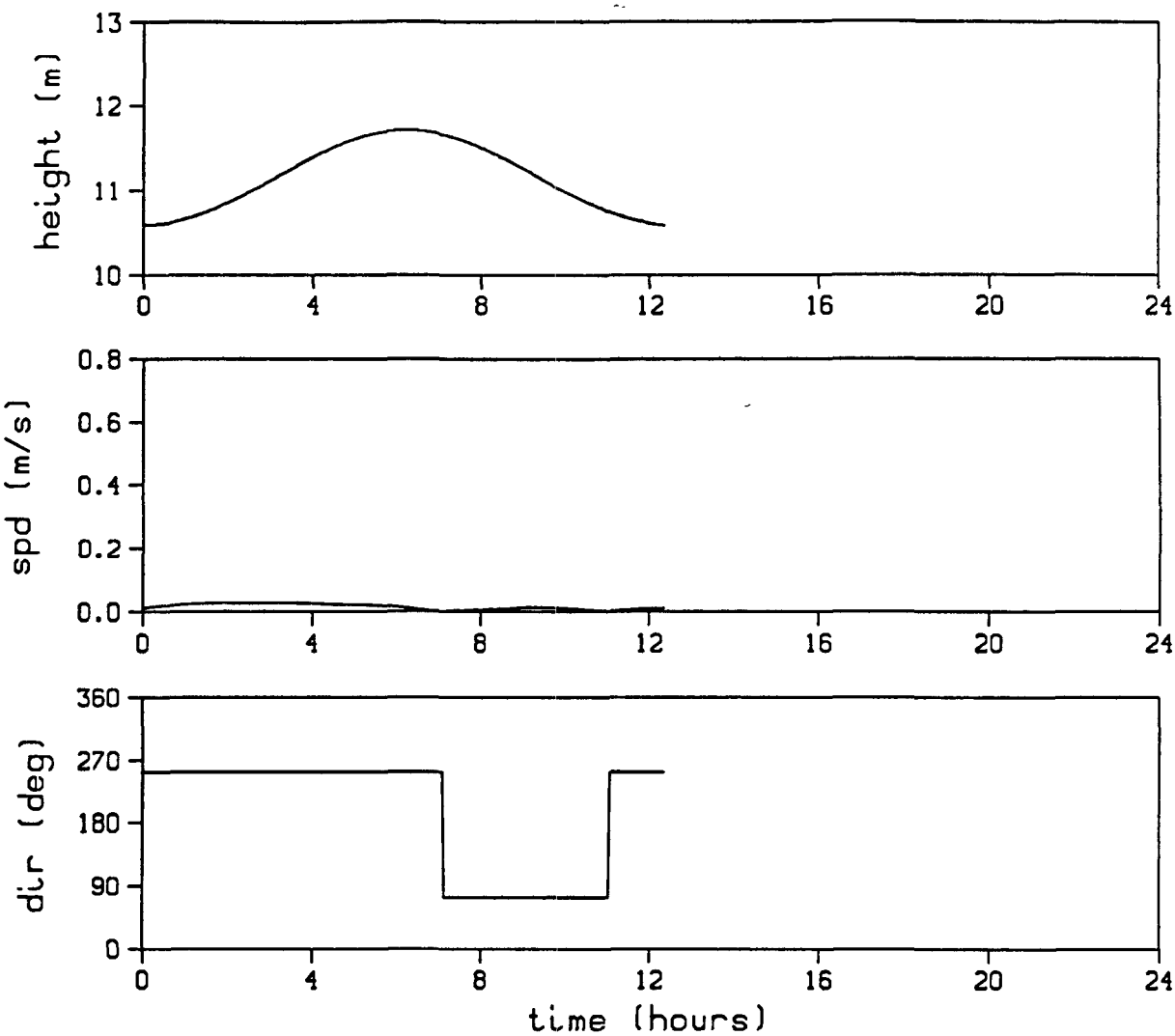

FIGURE D.18. COMPUTED WATER SURFACE HEIGHT, CURRENT SPEED, AND CURRENT DIRECTION AT TIME-SERIES LOCATION 11 FOR THE NO-ACTION CASE GENERAL HYDRODYNAMICS

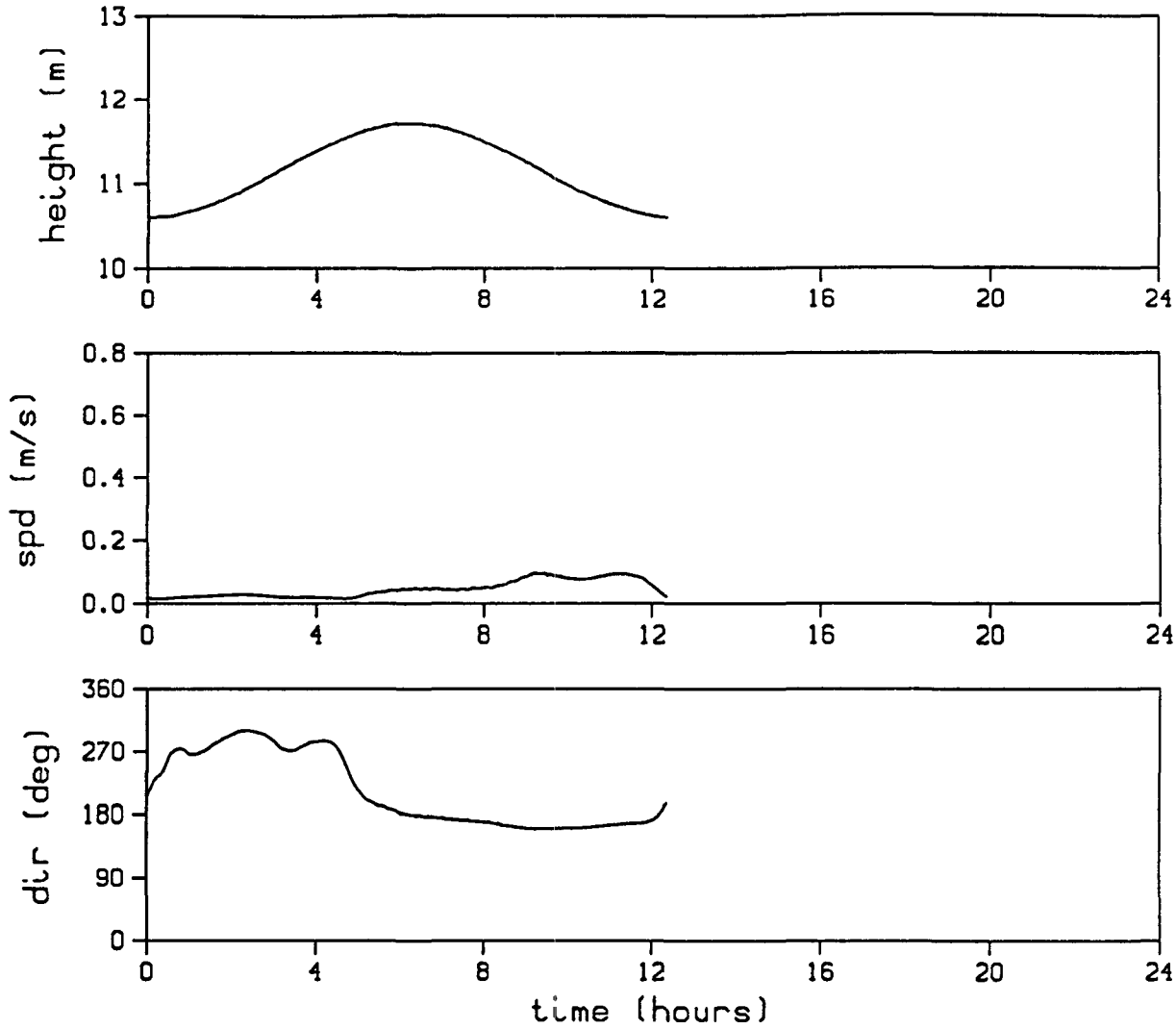

FIGURE D.19. COMPUTED WATER SURFACE HEIGHT, CURRENT SPEED, AND CURRENT DIRECTION AT TIME-SERIES LOCATION 12 FOR THE NO-ACTION CASE GENERAL HYDRODYNAMICS

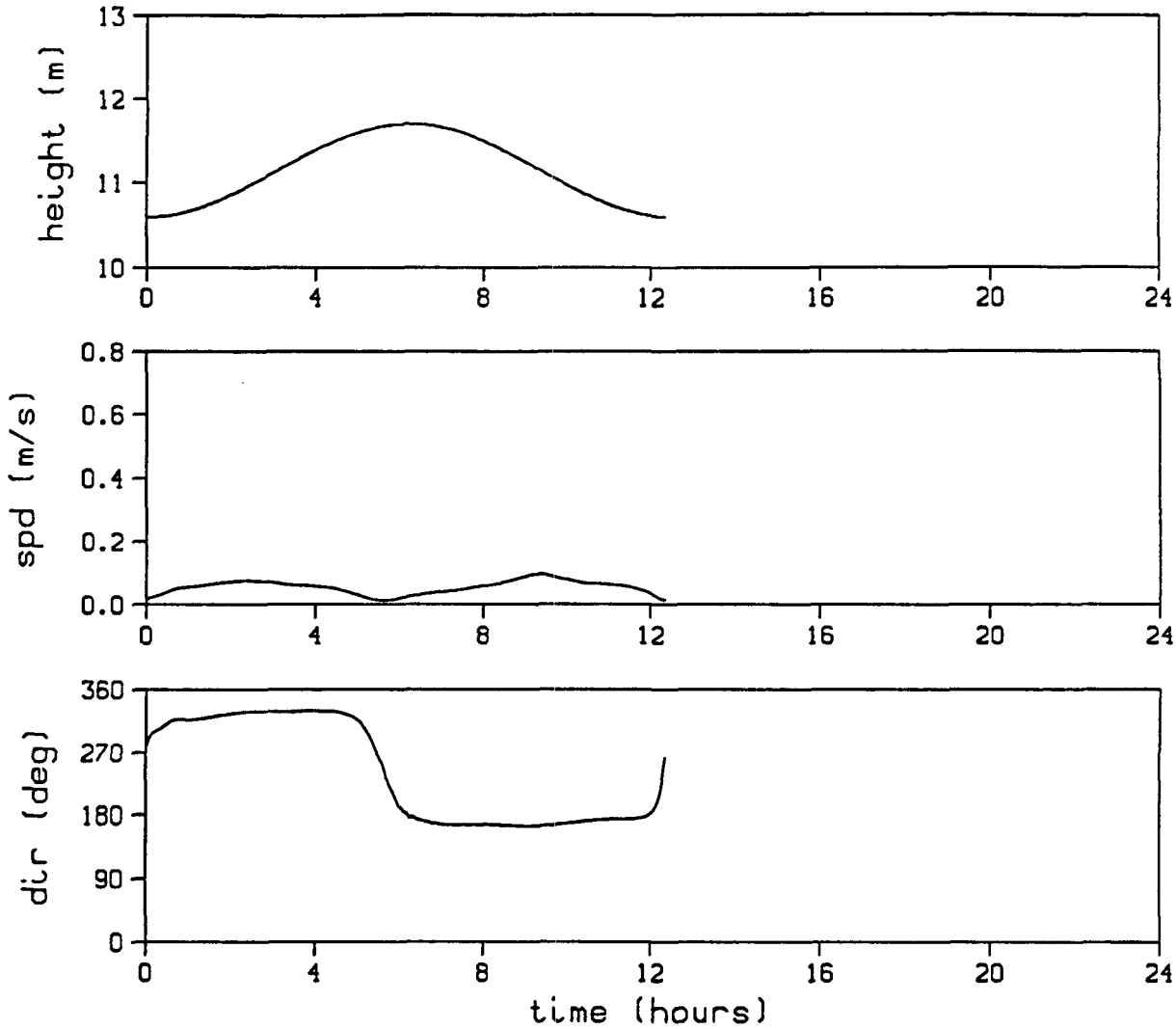

FIGURE D.20. COMPUTED WATER SURFACE HEIGHT, CURRENT SPEED, AND CURRENT DIRECTION AT TIME-SERIES LOCATION 13 FOR THE NO-ACTION CASE GENERAL HYDRODYNAMICS

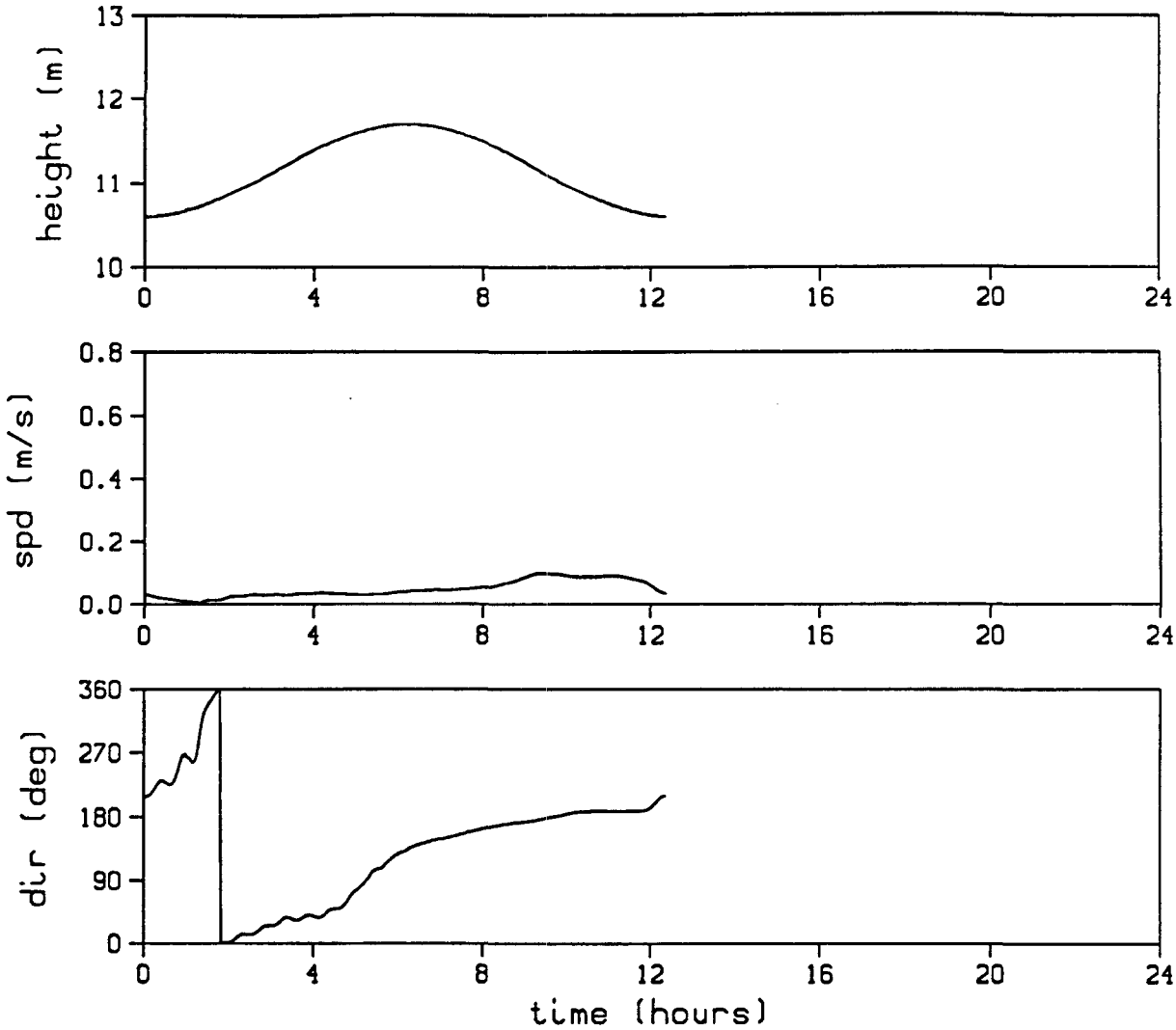

FIGURE D.21. COMPUTED WATER SURFACE HEIGHT, CURRENT SPEED, AND CURRENT DIRECTION AT TIME-SERIES LOCATION 14 FOR THE NO-ACTION CASE GENERAL HYDRODYNAMICS

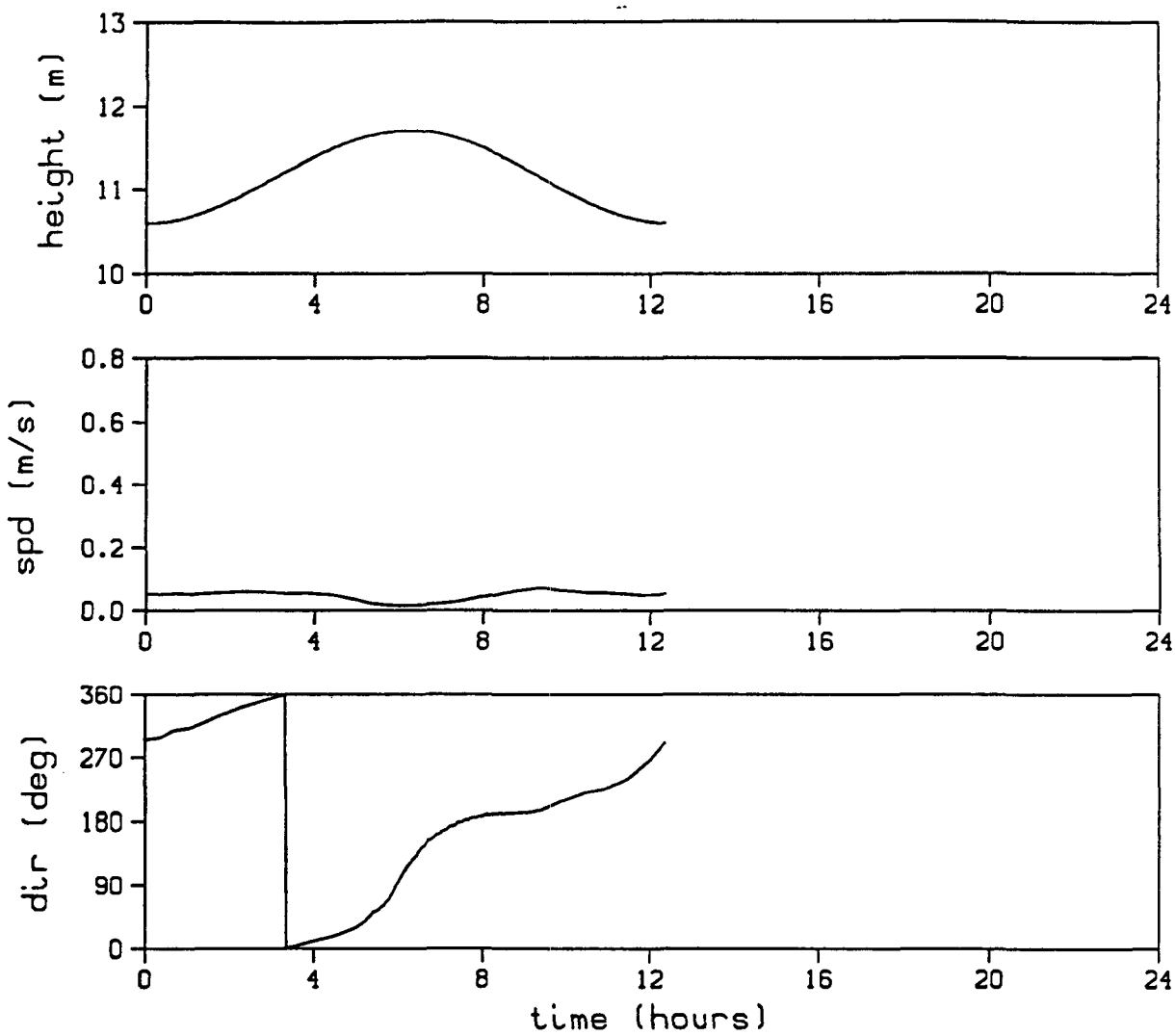

FIGURE D.22. COMPUTED WATER SURFACE HEIGHT, CURRENT SPEED, AND CURRENT DIRECTION AT TIME-SERIES LOCATION 15 FOR THE NO-ACTION CASE GENERAL HYDRODYNAMICS

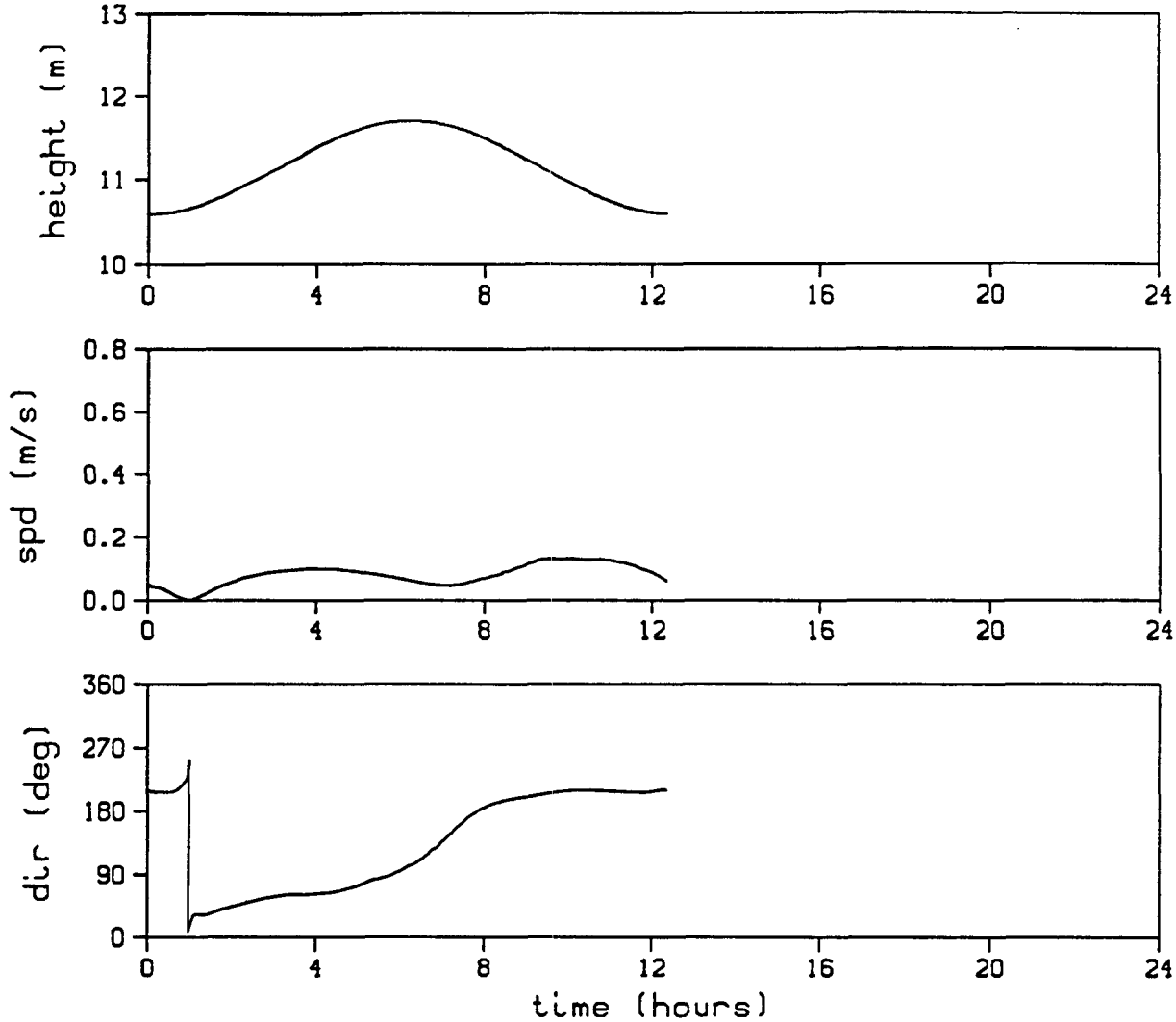

FIGURE D.23. COMPUTED WATER SURFACE HEIGHT, CURRENT SPEED, AND CURRENT DIRECTION AT TIME-SERIES LOCATION 16 FOR THE NO-ACTION CASE GENERAL HYDRODYNAMICS

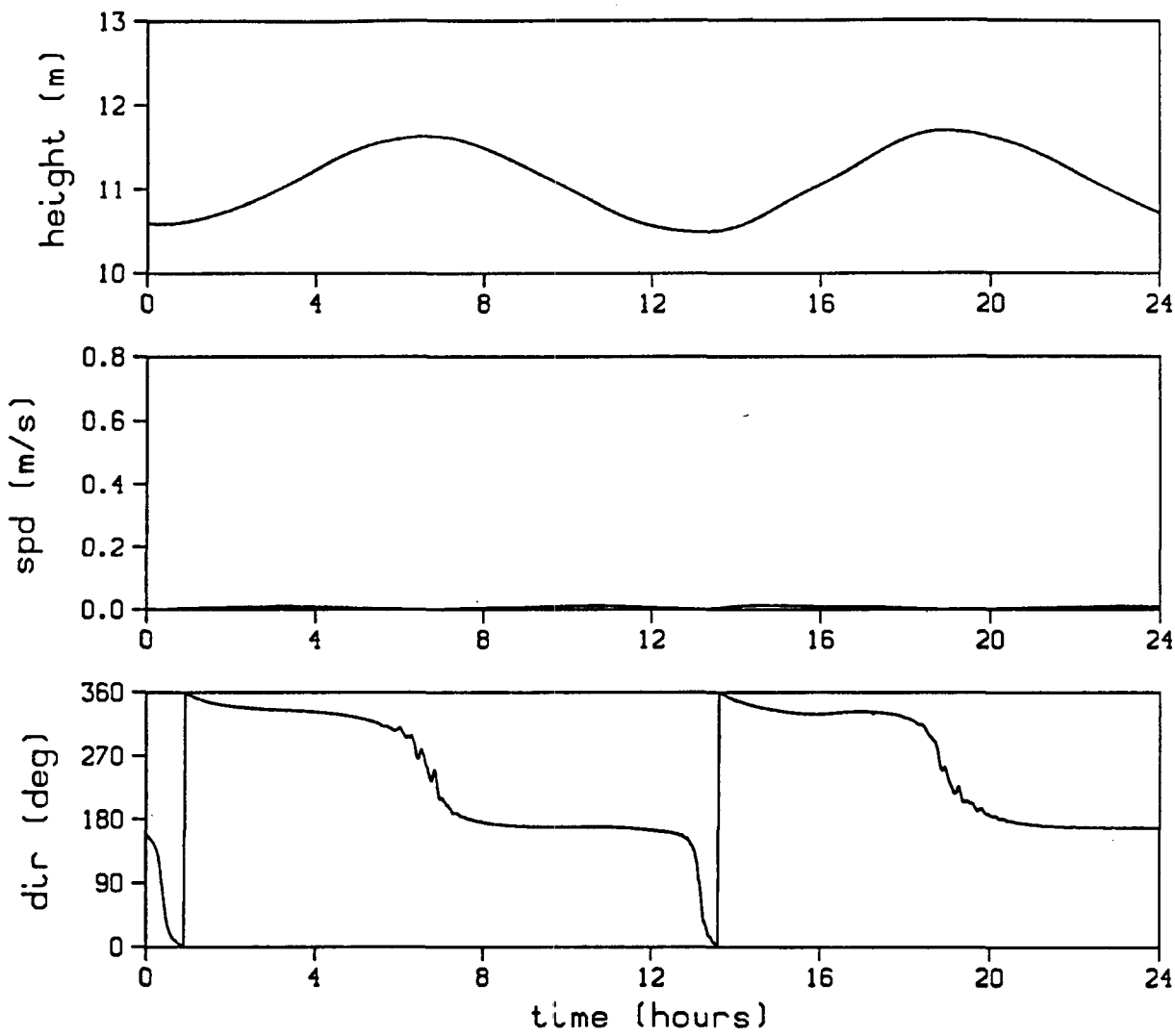

FIGURE D.24. COMPUTED WATER SURFACE HEIGHT, CURRENT SPEED, AND CURRENT DIRECTION AT TIME-SERIES LOCATION 1 FOR THE NO-ACTION CASE STORM HYDRODYNAMICS

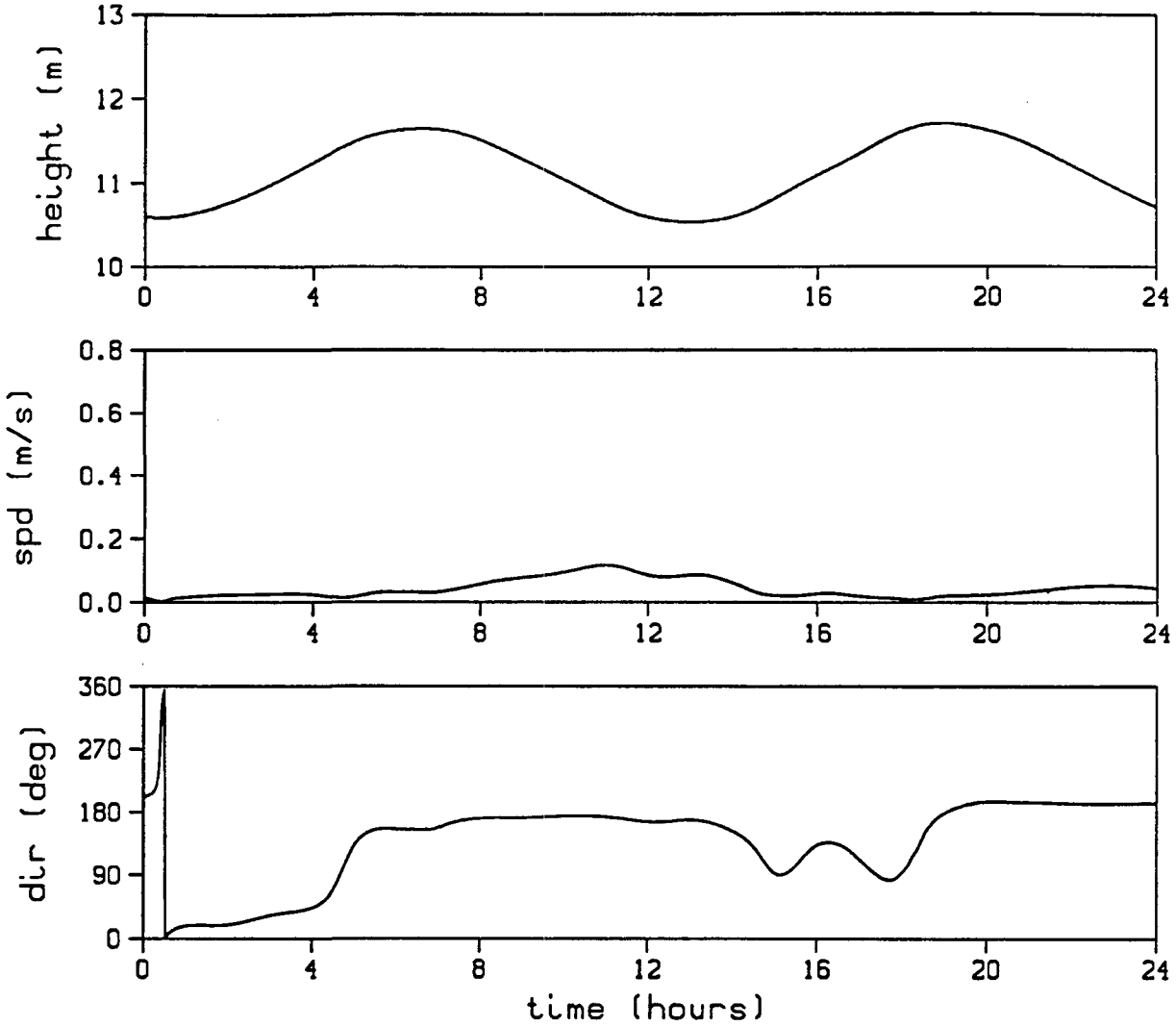

FIGURE D.25. COMPUTED WATER SURFACE HEIGHT, CURRENT SPEED, AND CURRENT DIRECTION AT TIME-SERIES LOCATION 2 FOR THE NO-ACTION CASE STORM HYDRODYNAMICS

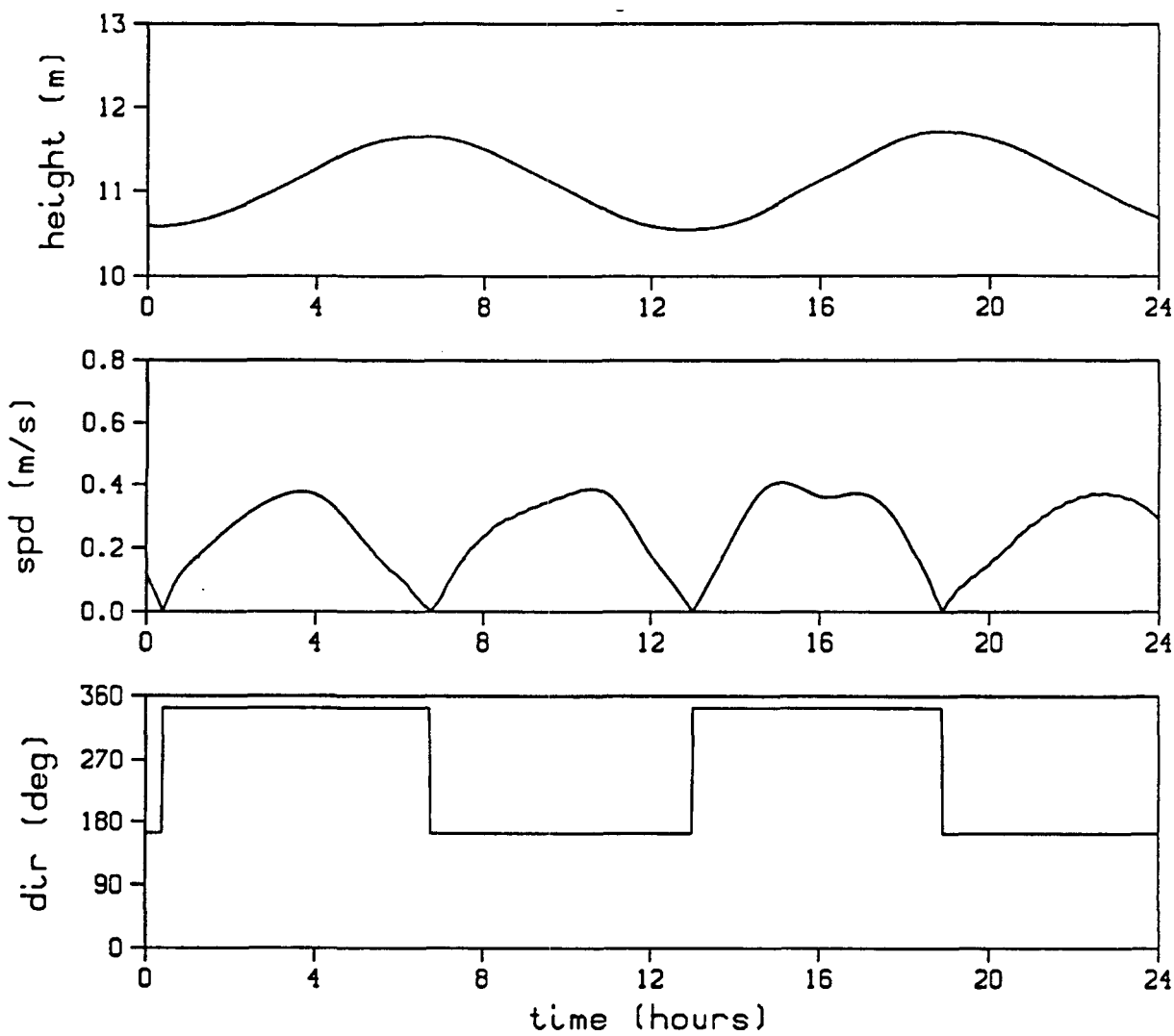

FIGURE D.26. COMPUTED WATER SURFACE HEIGHT, CURRENT SPEED, AND CURRENT DIRECTION AT TIME-SERIES LOCATION 3 FOR THE NO-ACTION CASE STORM HYDRODYNAMICS

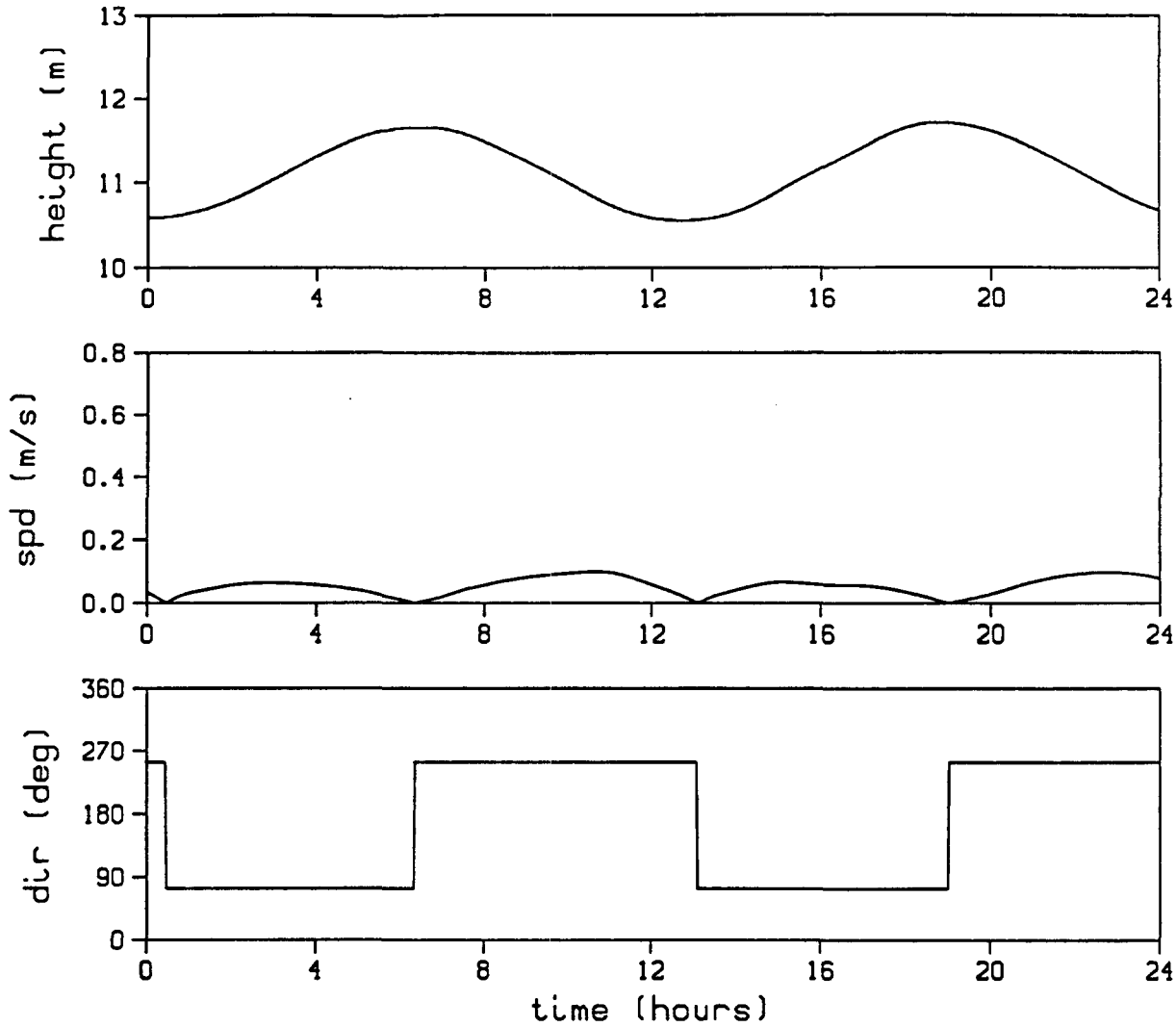

FIGURE D.27. COMPUTED WATER SURFACE HEIGHT, CURRENT SPEED, AND CURRENT DIRECTION AT TIME-SERIES LOCATION 4 FOR THE NO-ACTION CASE STORM HYDRODYNAMICS

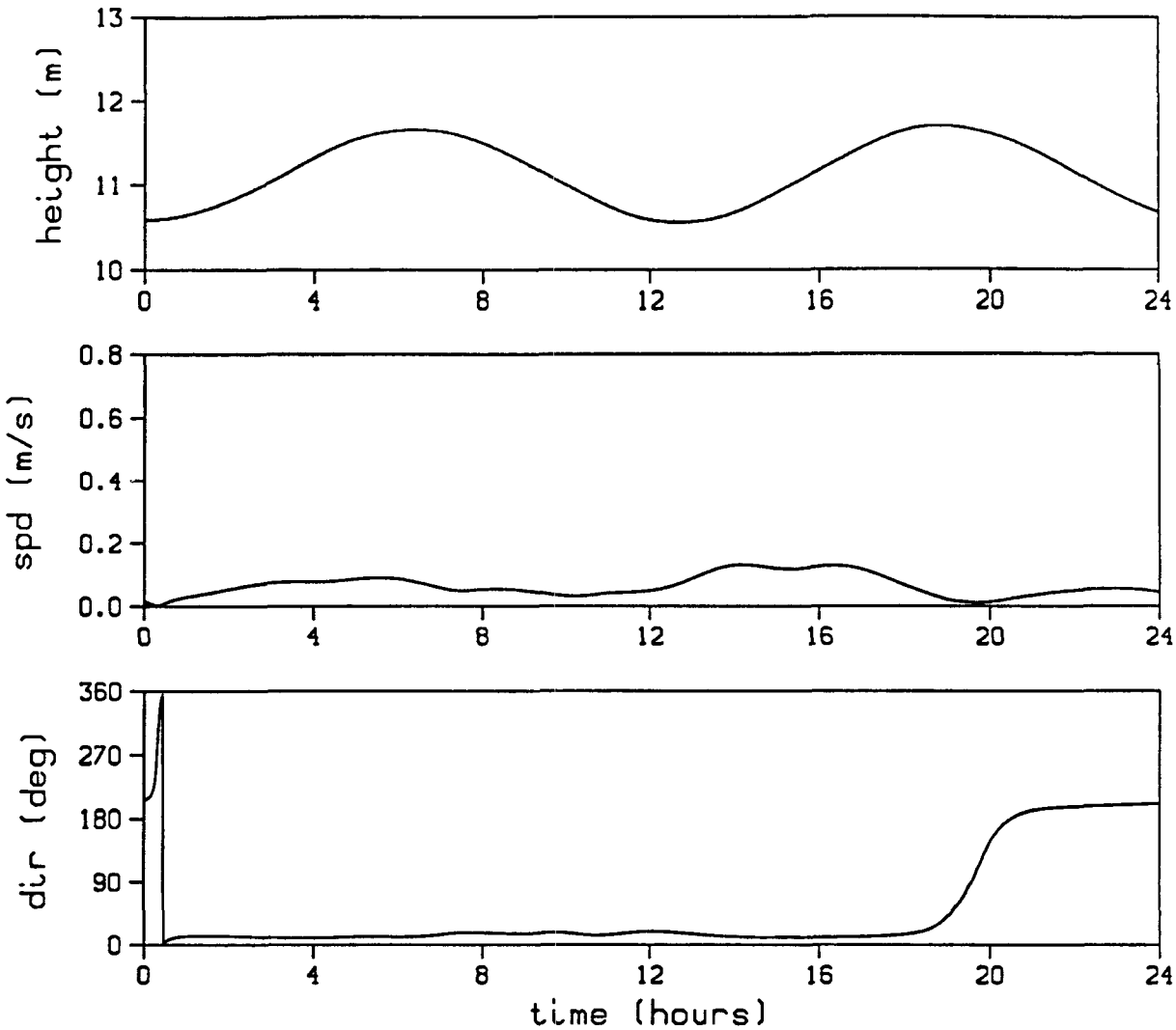

FIGURE D.28. COMPUTED WATER SURFACE HEIGHT, CURRENT SPEED, AND CURRENT DIRECTION AT TIME-SERIES LOCATION 5 FOR THE NO-ACTION CASE STORM HYDRODYNAMICS

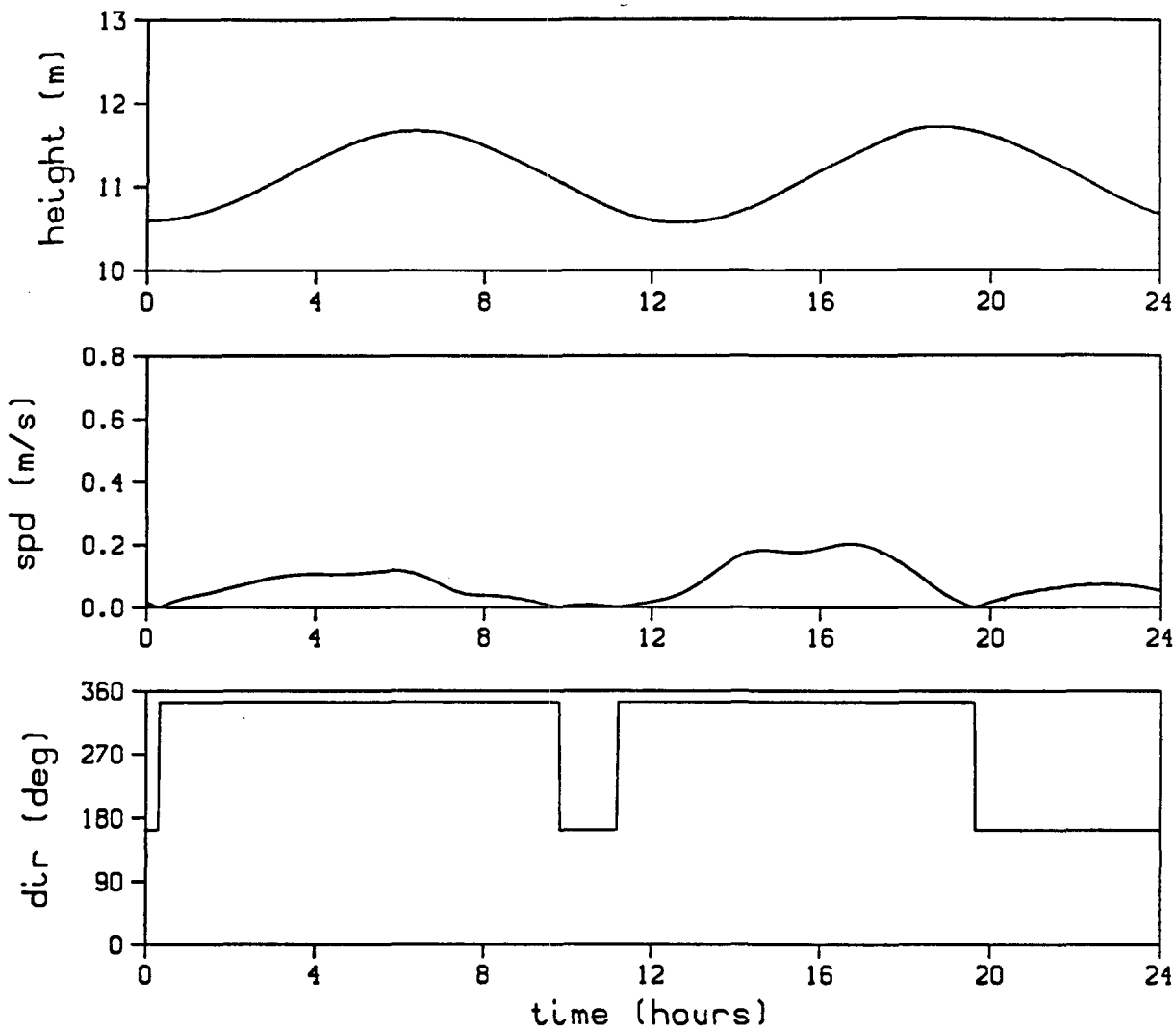

FIGURE D.29. COMPUTED WATER SURFACE HEIGHT, CURRENT SPEED, AND CURRENT DIRECTION AT TIME-SERIES LOCATION 6 FOR THE NO-ACTION CASE STORM HYDRODYNAMICS

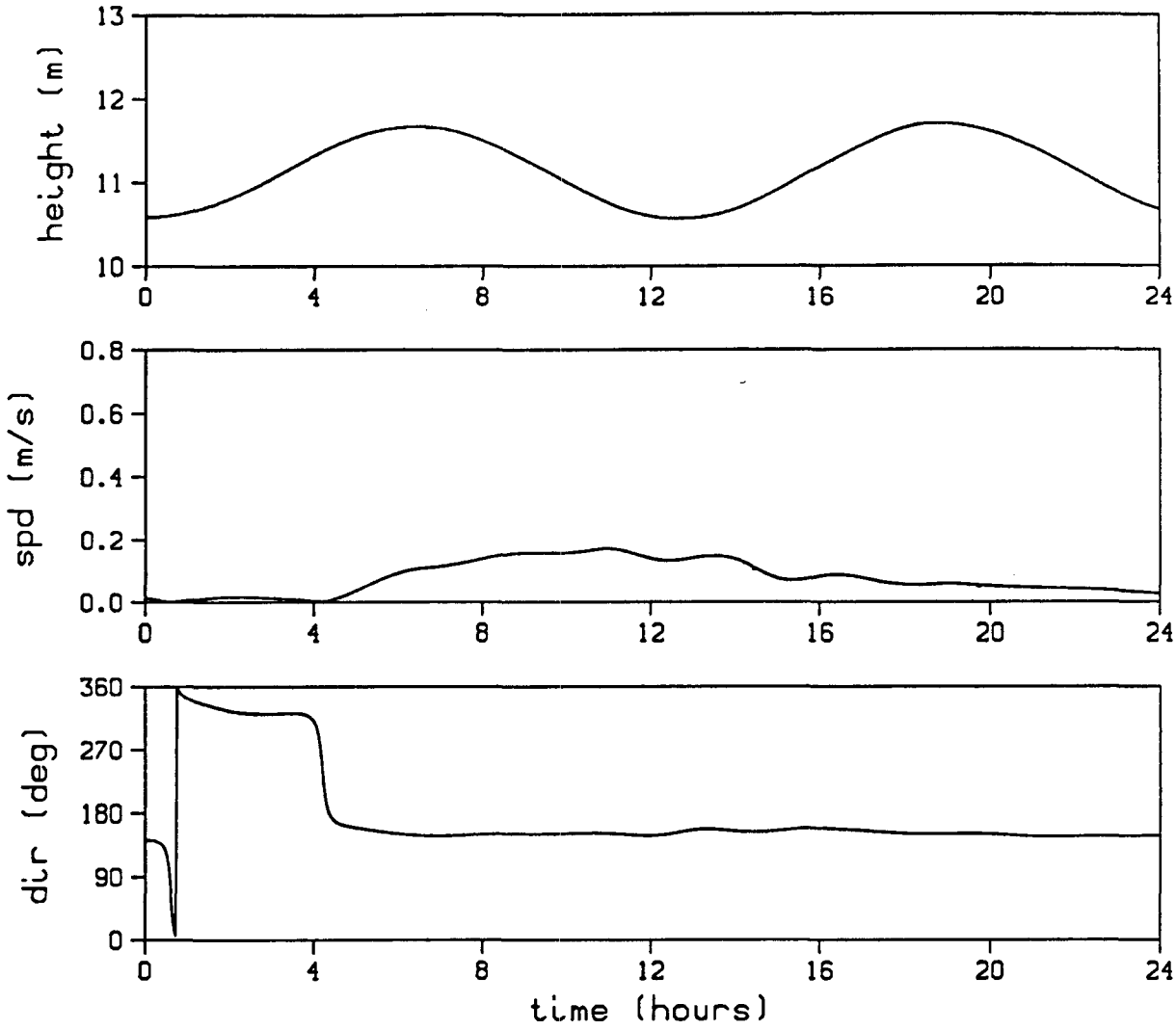

FIGURE D.30. COMPUTED WATER SURFACE HEIGHT, CURRENT SPEED, AND CURRENT DIRECTION AT TIME-SERIES LOCATION 7 FOR THE NO-ACTION CASE STORM HYDRODYNAMICS

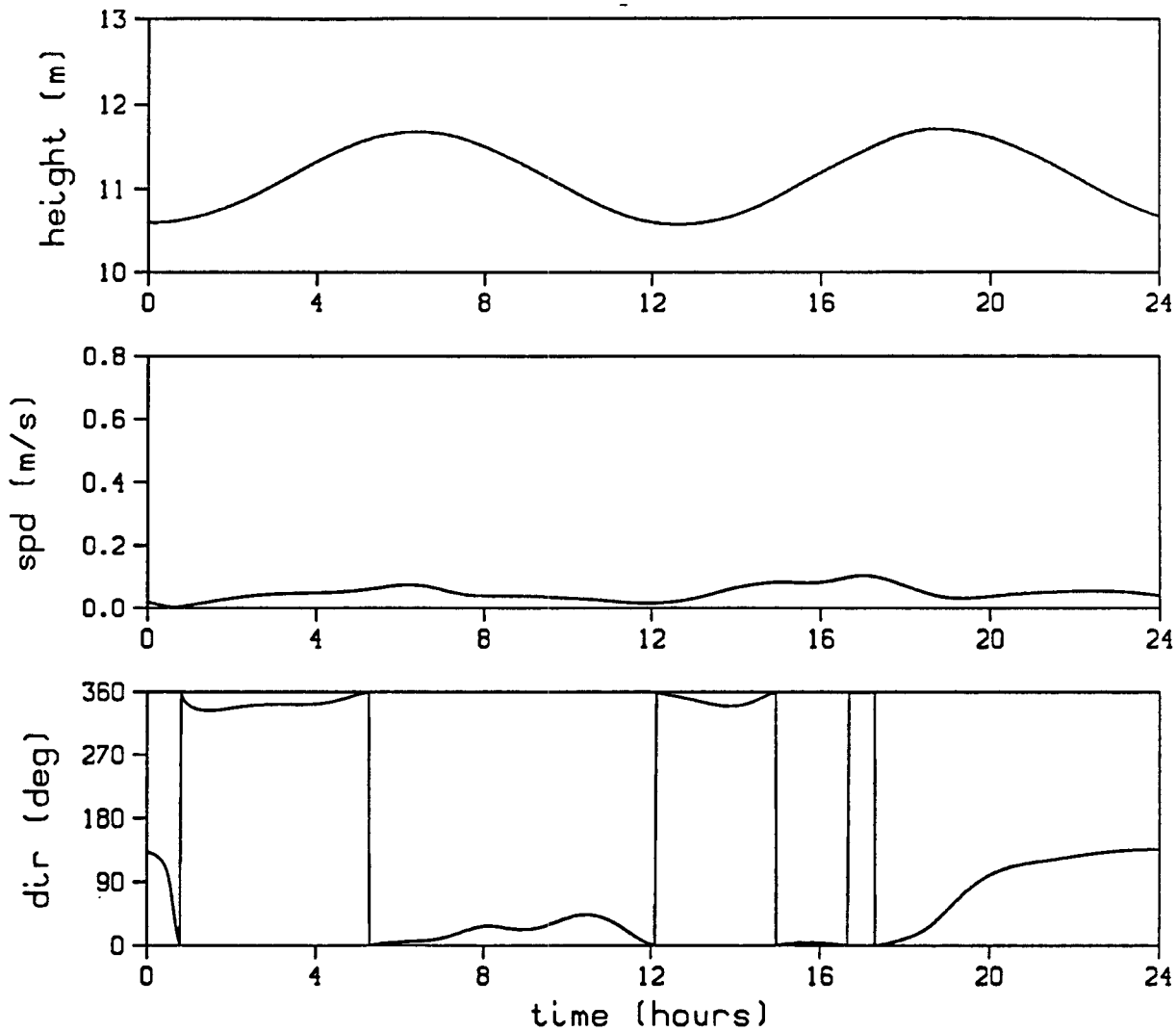

FIGURE D.31. COMPUTED WATER SURFACE HEIGHT, CURRENT SPEED, AND CURRENT DIRECTION AT TIME-SERIES LOCATION 8 FOR THE NO-ACTION CASE STORM HYDRODYNAMICS

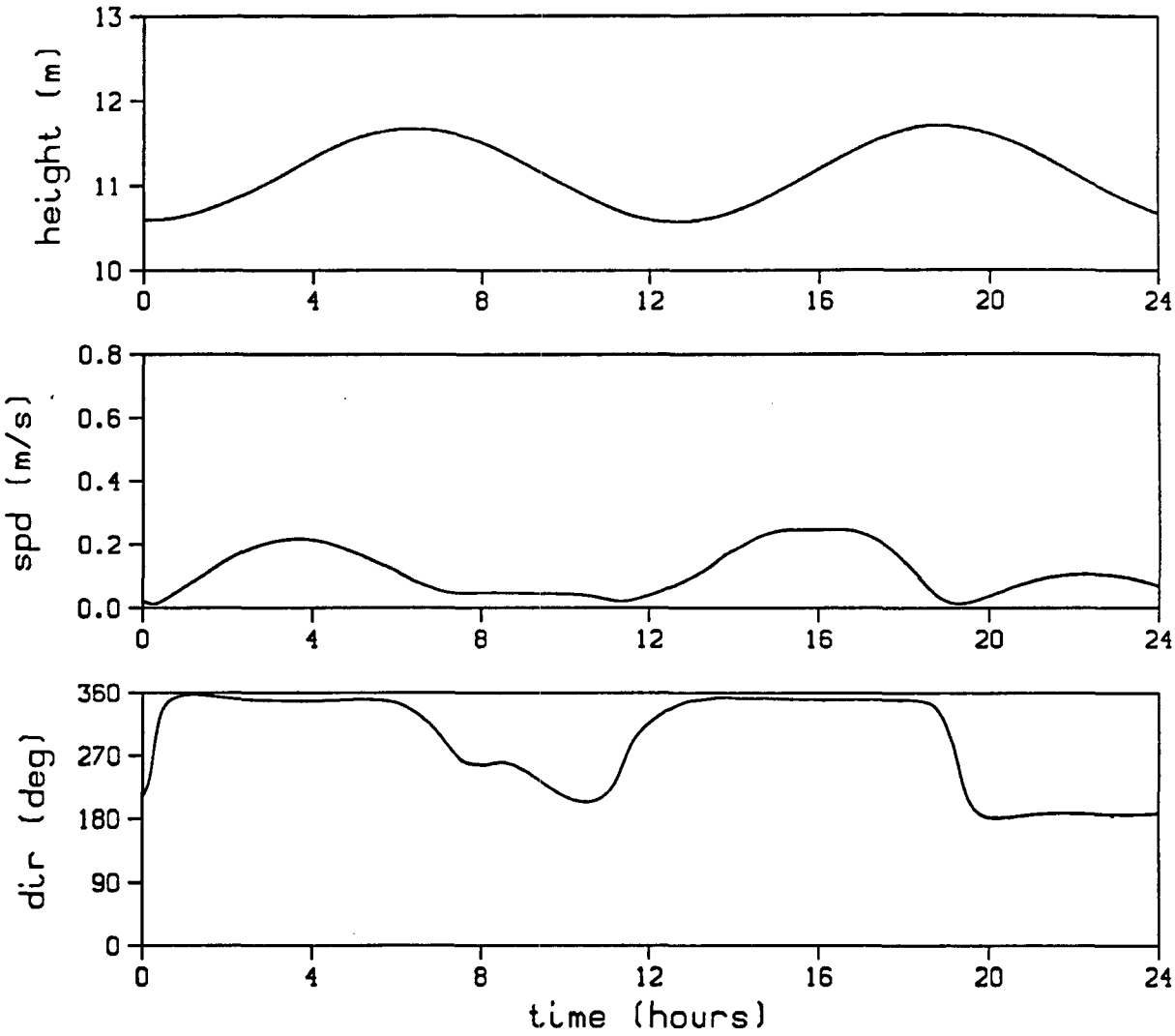

FIGURE D.32. COMPUTED WATER SURFACE HEIGHT, CURRENT SPEED, AND CURRENT DIRECTION AT TIME-SERIES LOCATION 9 FOR THE NO-ACTION CASE STORM HYDRODYNAMICS

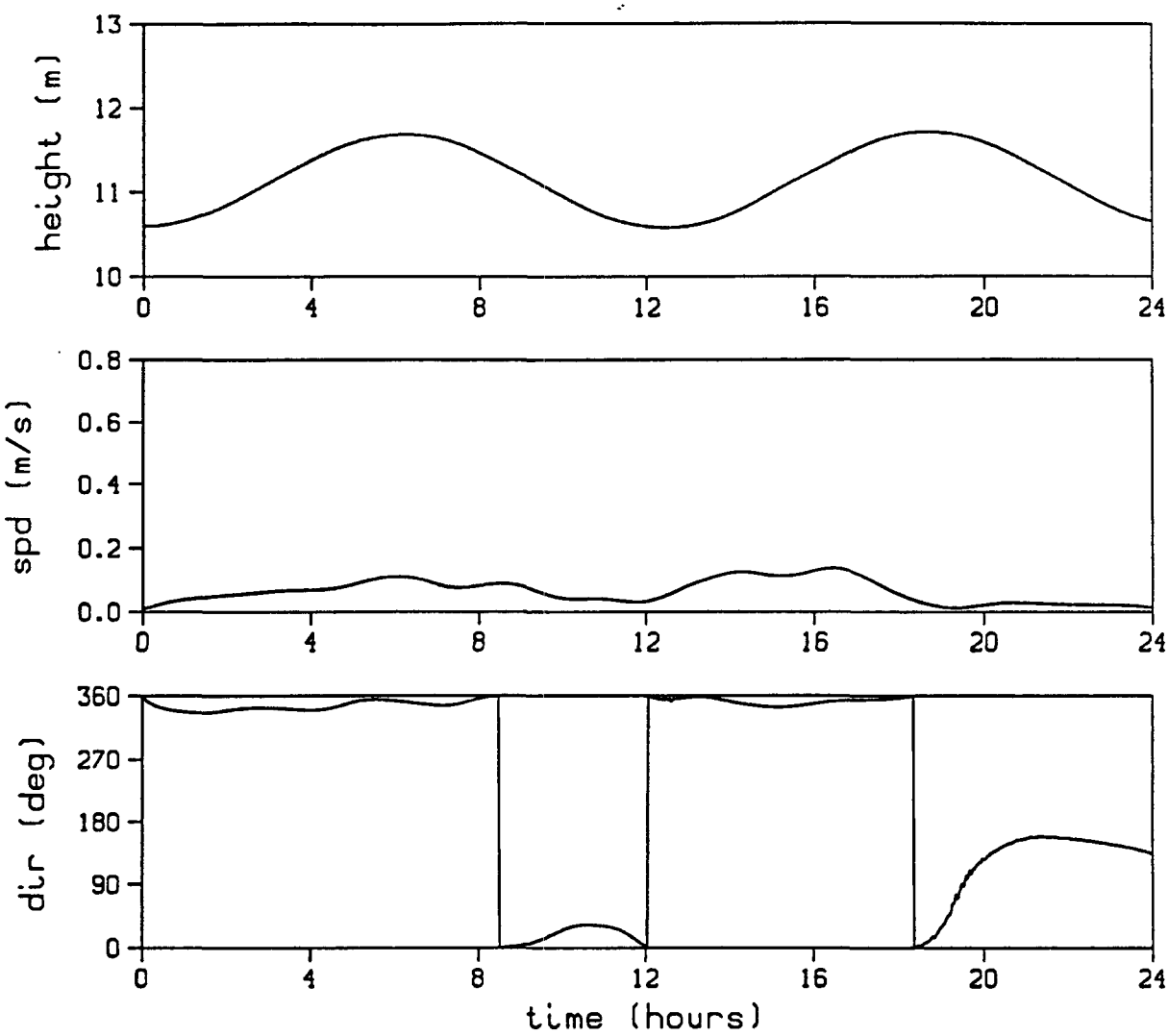

FIGURE D.33. COMPUTED WATER SURFACE HEIGHT, CURRENT SPEED, AND CURRENT DIRECTION AT TIME-SERIES LOCATION 10 FOR THE NO-ACTION CASE STORM HYDRODYNAMICS

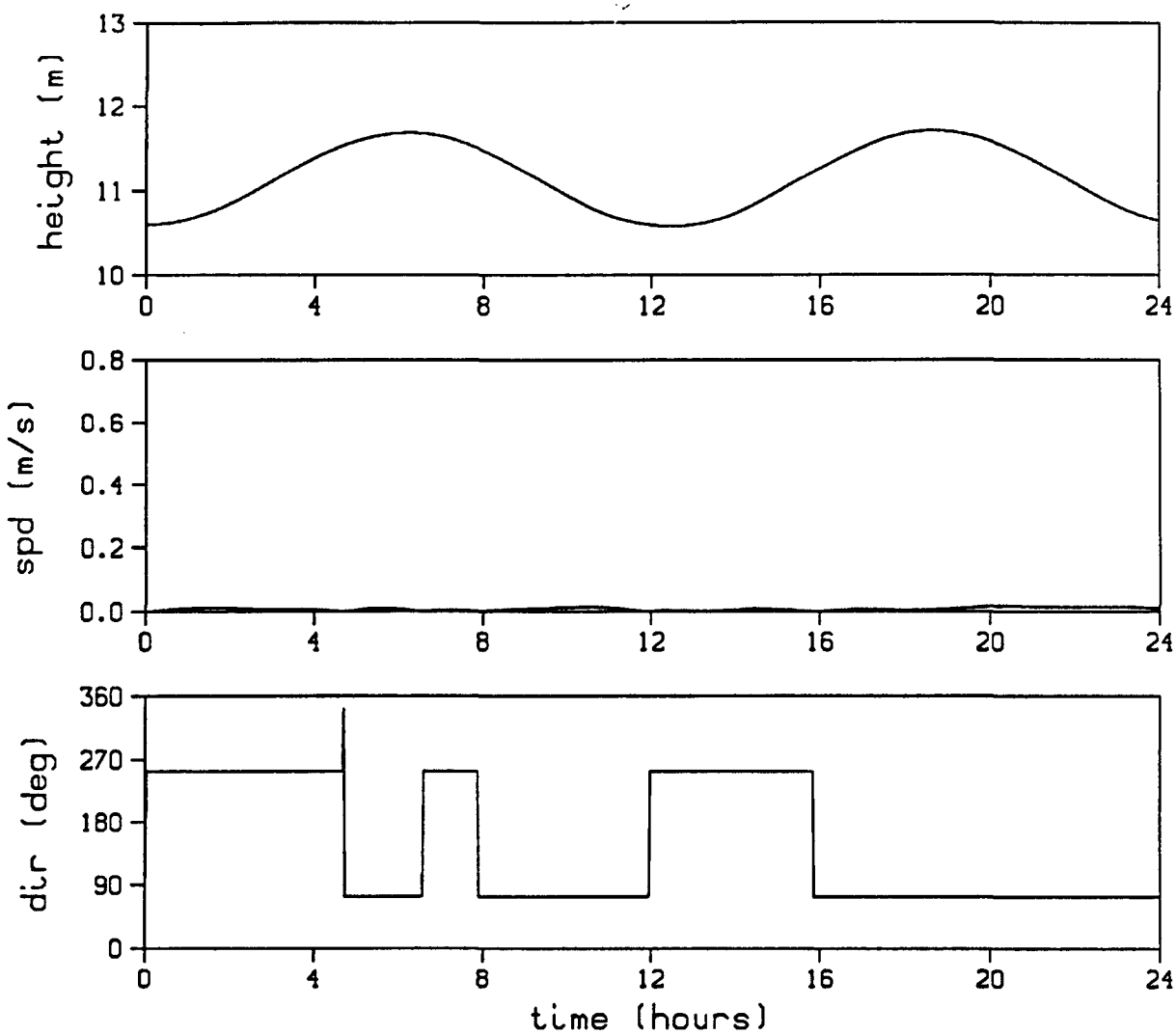

FIGURE D.34. COMPUTED WATER SURFACE HEIGHT, CURRENT SPEED, AND CURRENT DIRECTION AT TIME-SERIES LOCATION 11 FOR THE NO-ACTION CASE STORM HYDRODYNAMICS

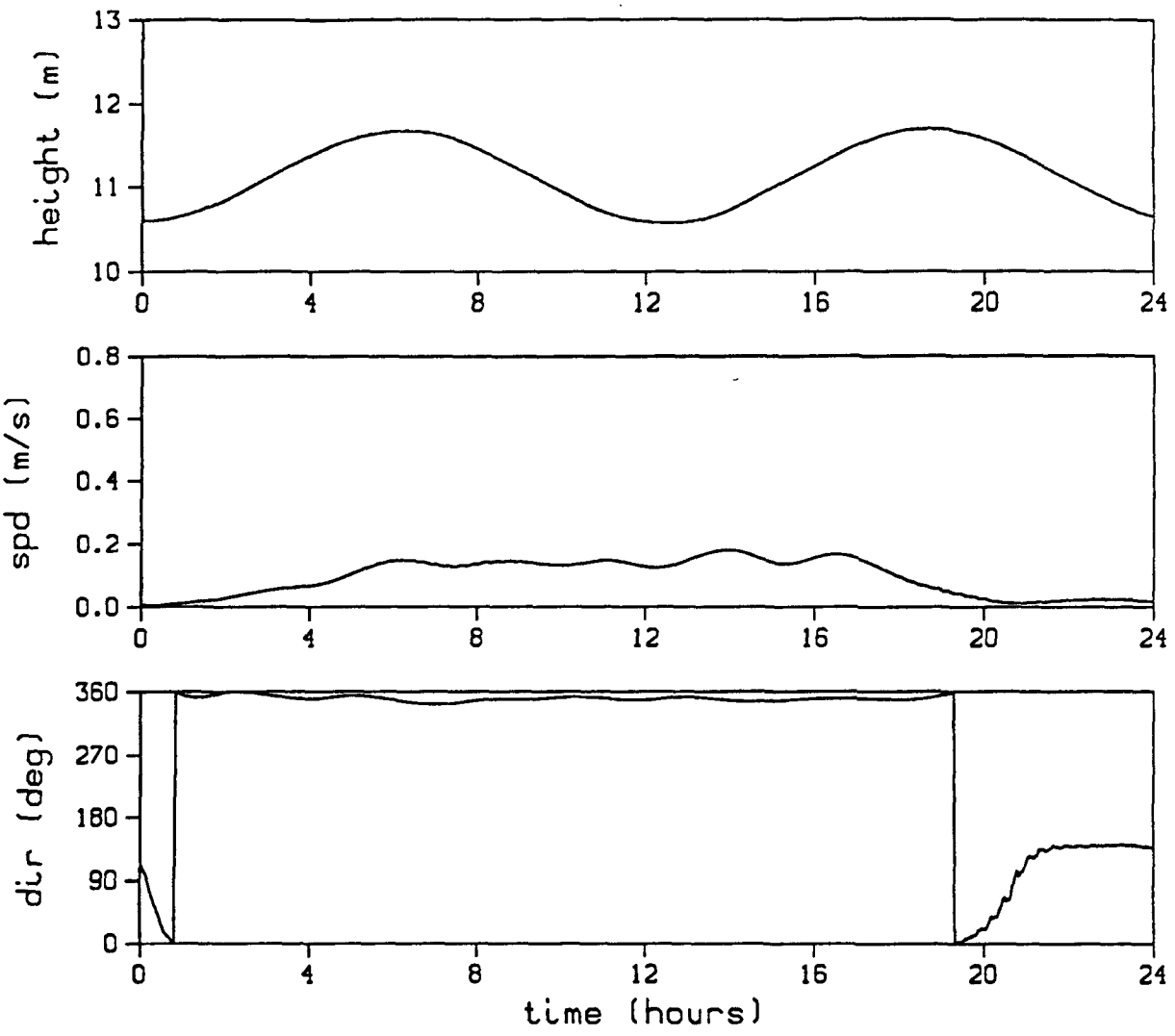

FIGURE D.35. COMPUTED WATER SURFACE HEIGHT, CURRENT SPEED, AND CURRENT DIRECTION AT TIME-SERIES LOCATION 12 FOR THE NO-ACTION CASE STORM HYDRODYNAMICS

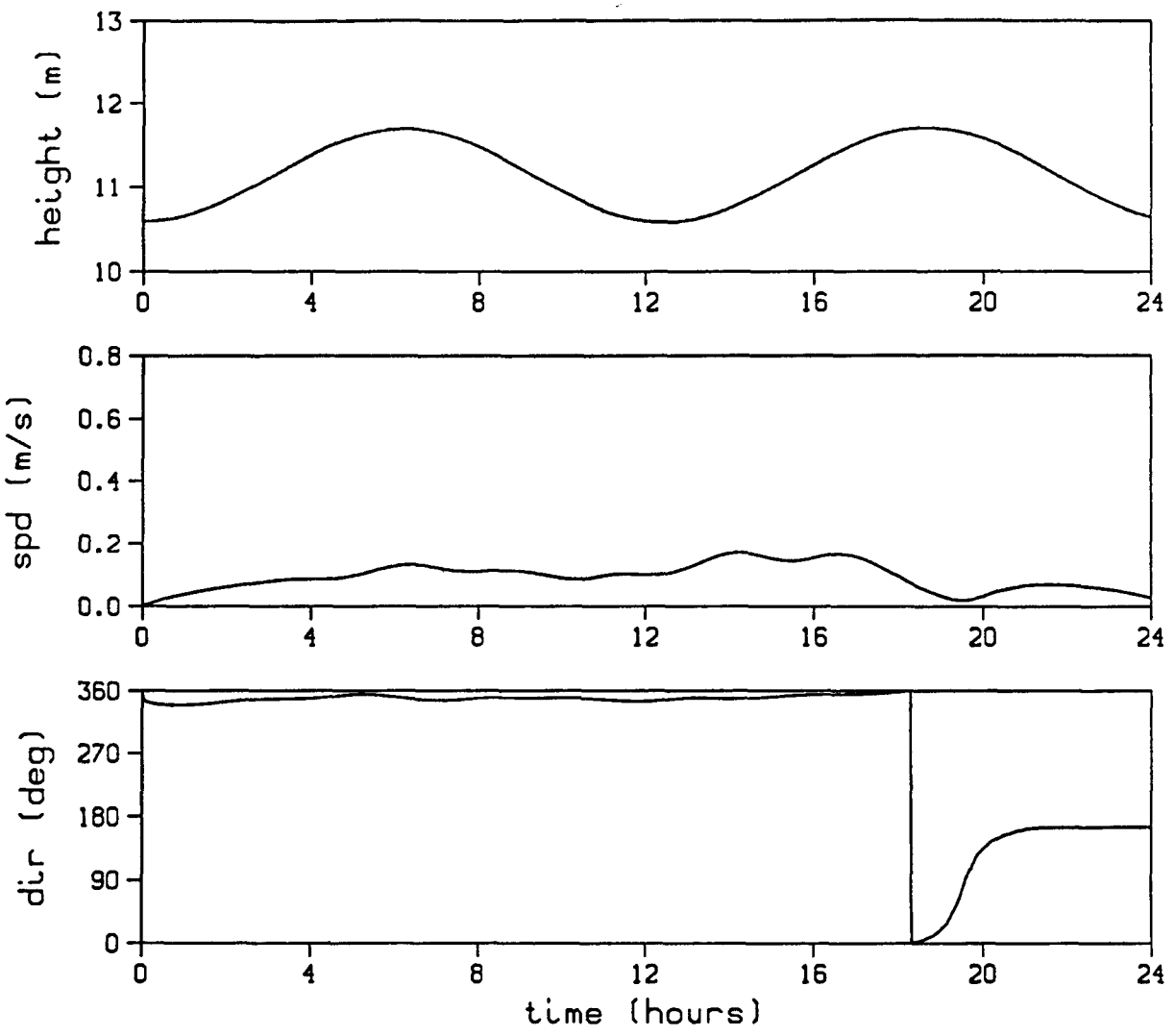

FIGURE D.36. COMPUTED WATER SURFACE HEIGHT, CURRENT SPEED, AND CURRENT DIRECTION AT TIME-SERIES LOCATION 13 FOR THE NO-ACTION CASE STORM HYDRODYNAMICS

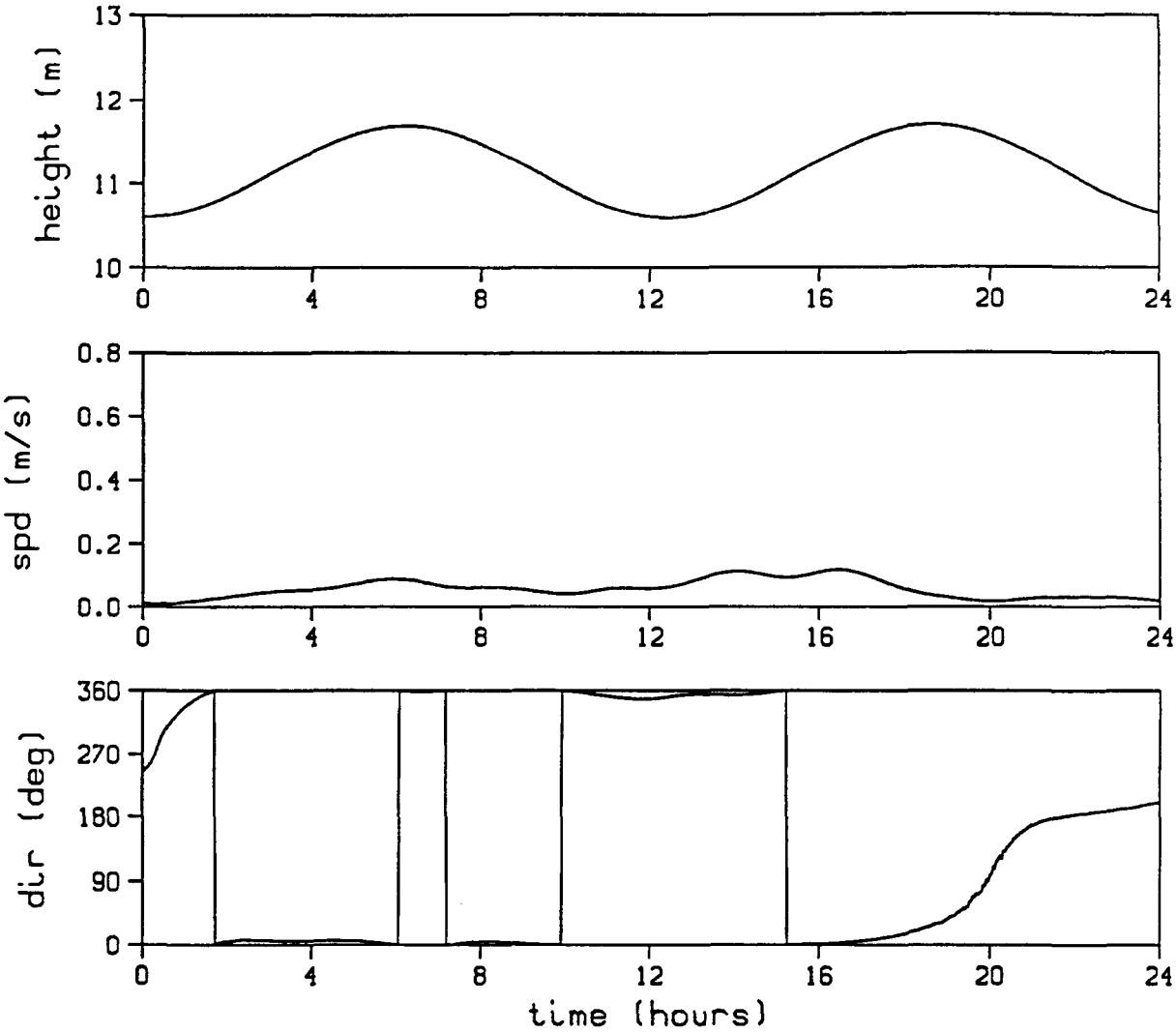

FIGURE D.37. COMPUTED WATER SURFACE HEIGHT, CURRENT SPEED, AND CURRENT DIRECTION AT TIME-SERIES LOCATION 14 FOR THE NO-ACTION CASE STORM HYDRODYNAMICS

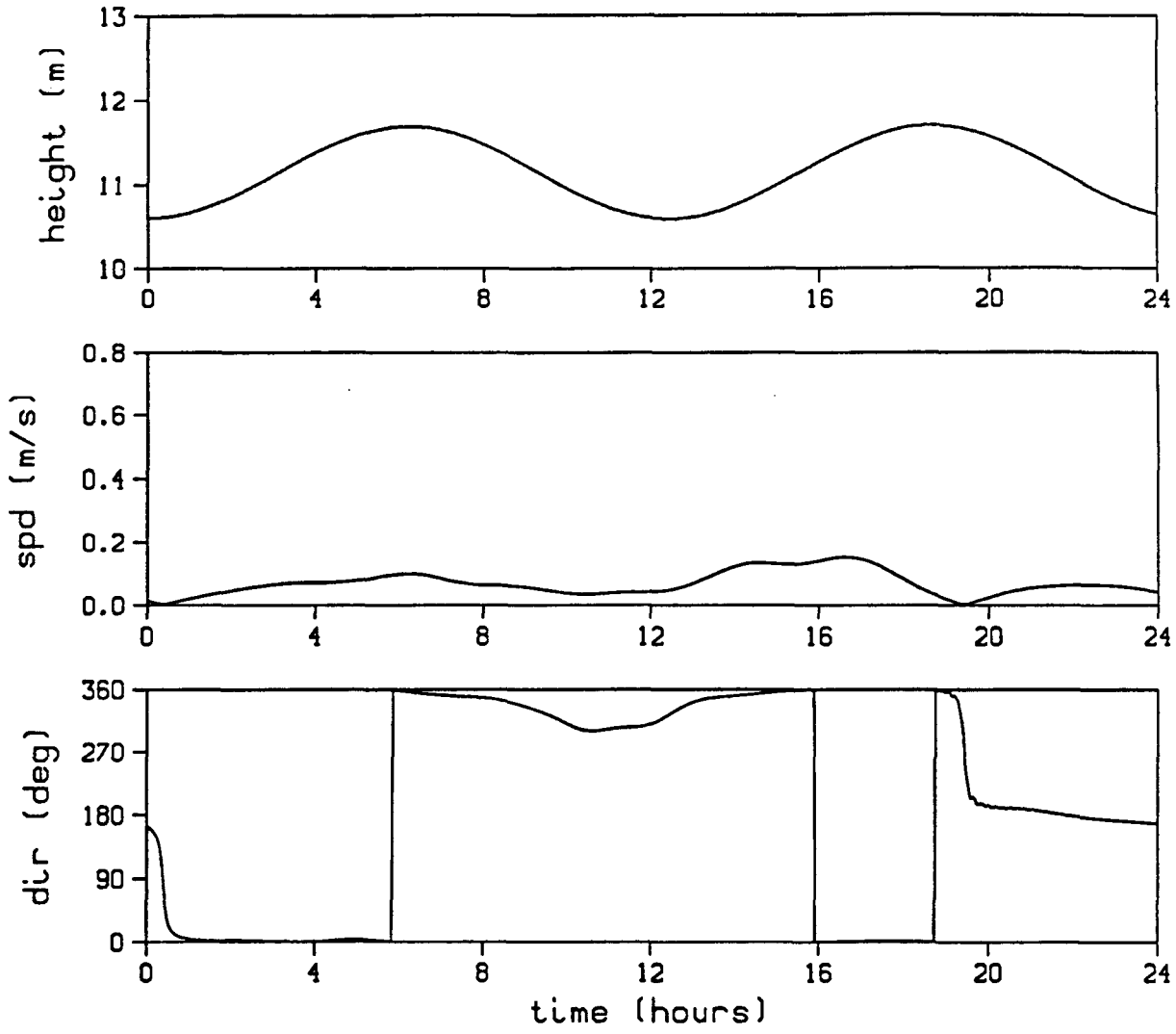

FIGURE D.38. COMPUTED WATER SURFACE HEIGHT, CURRENT SPEED, AND CURRENT DIRECTION AT TIME-SERIES LOCATION 15 FOR THE NO-ACTION CASE STORM HYDRODYNAMICS

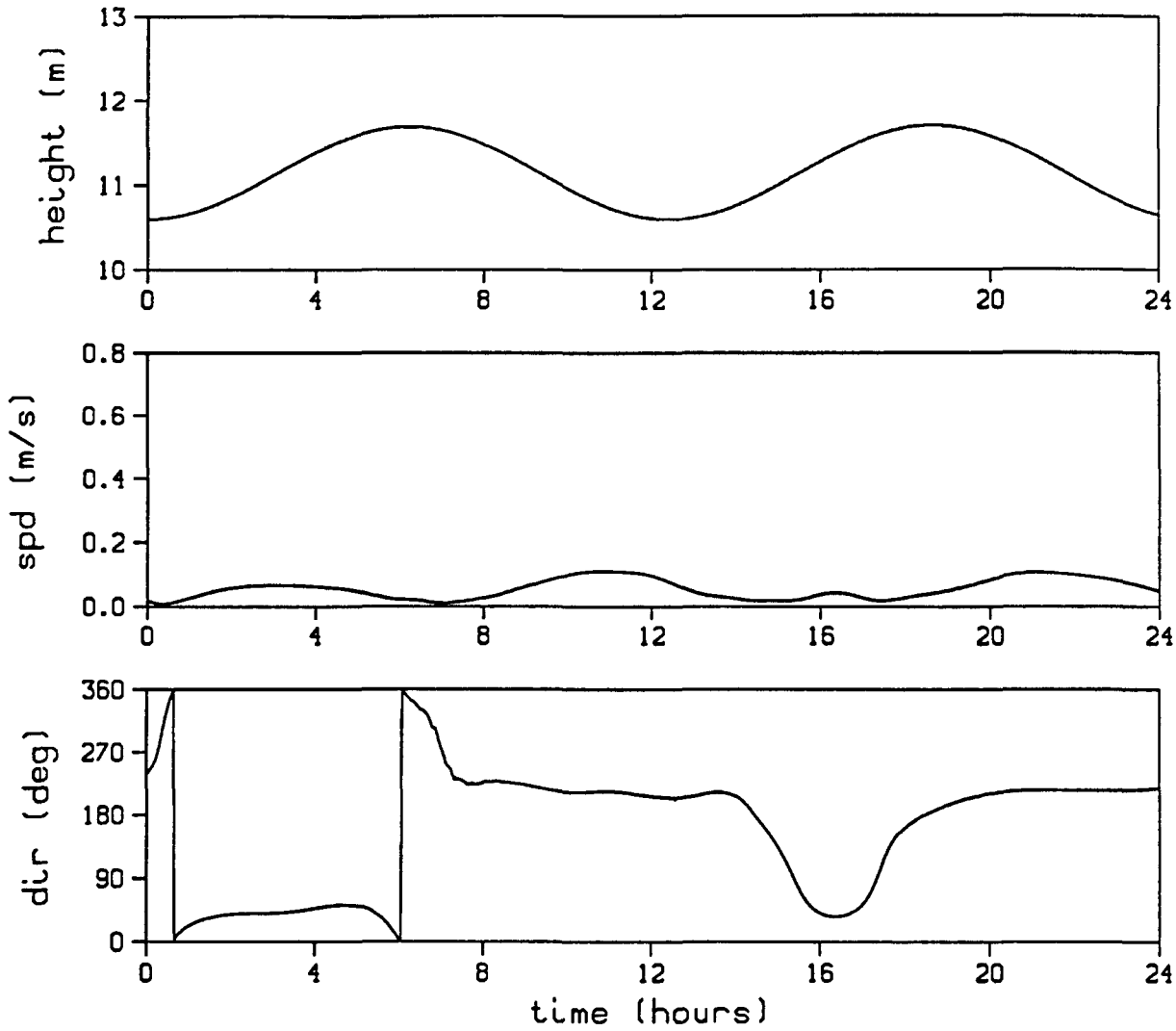

FIGURE D.39. COMPUTED WATER SURFACE HEIGHT, CURRENT SPEED, AND CURRENT DIRECTION AT TIME-SERIES LOCATION 16 FOR THE NO-ACTION CASE STORM HYDRODYNAMICS

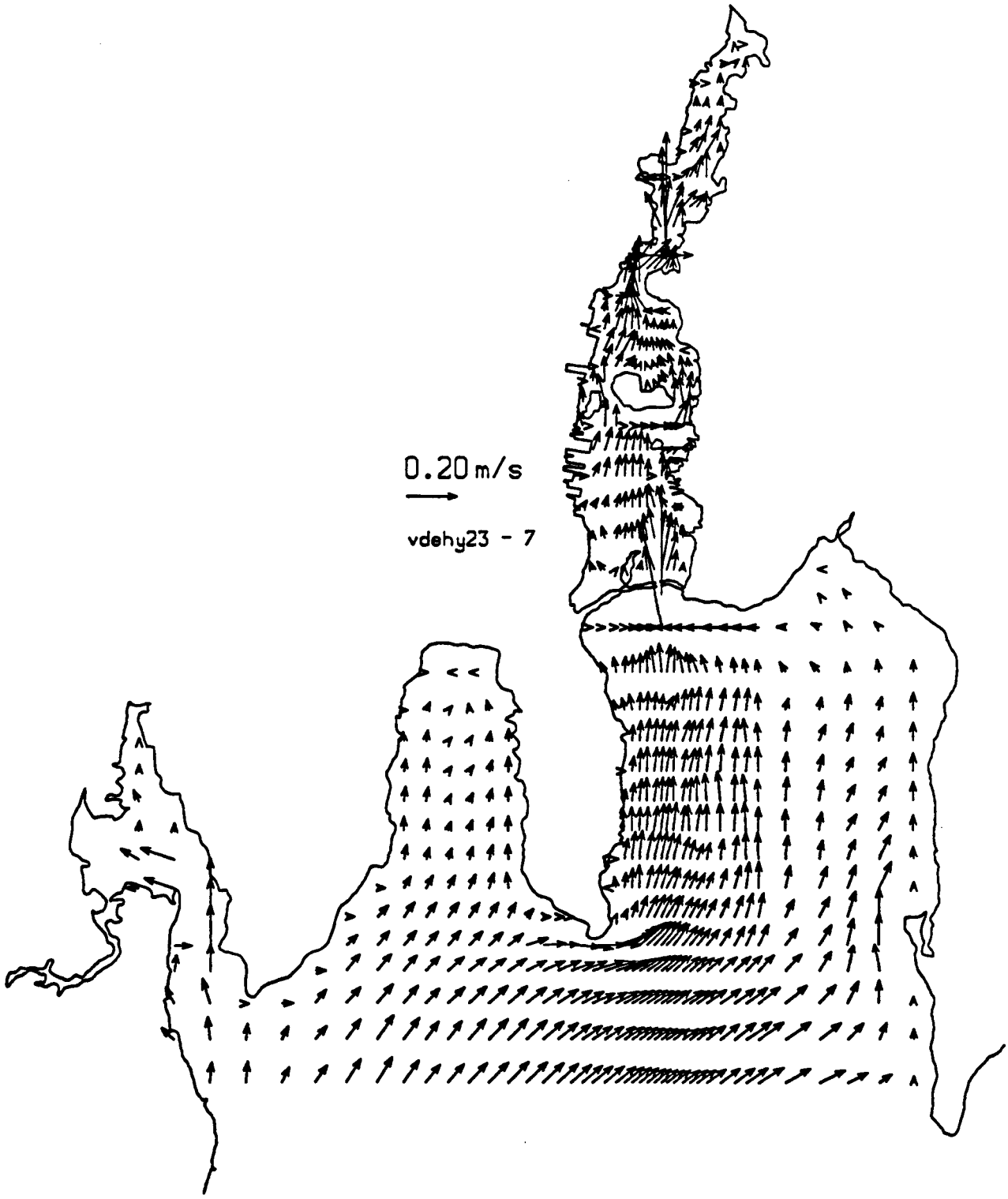

FIGURE D.40. VELOCITY VECTORS COMPUTED FOR THE NO-ACTION CASE GENERAL HYDRODYNAMICS. CONDITIONS 3 HOURS AFTER THE START OF THE SIMULATION IN GRID LAYER 7.

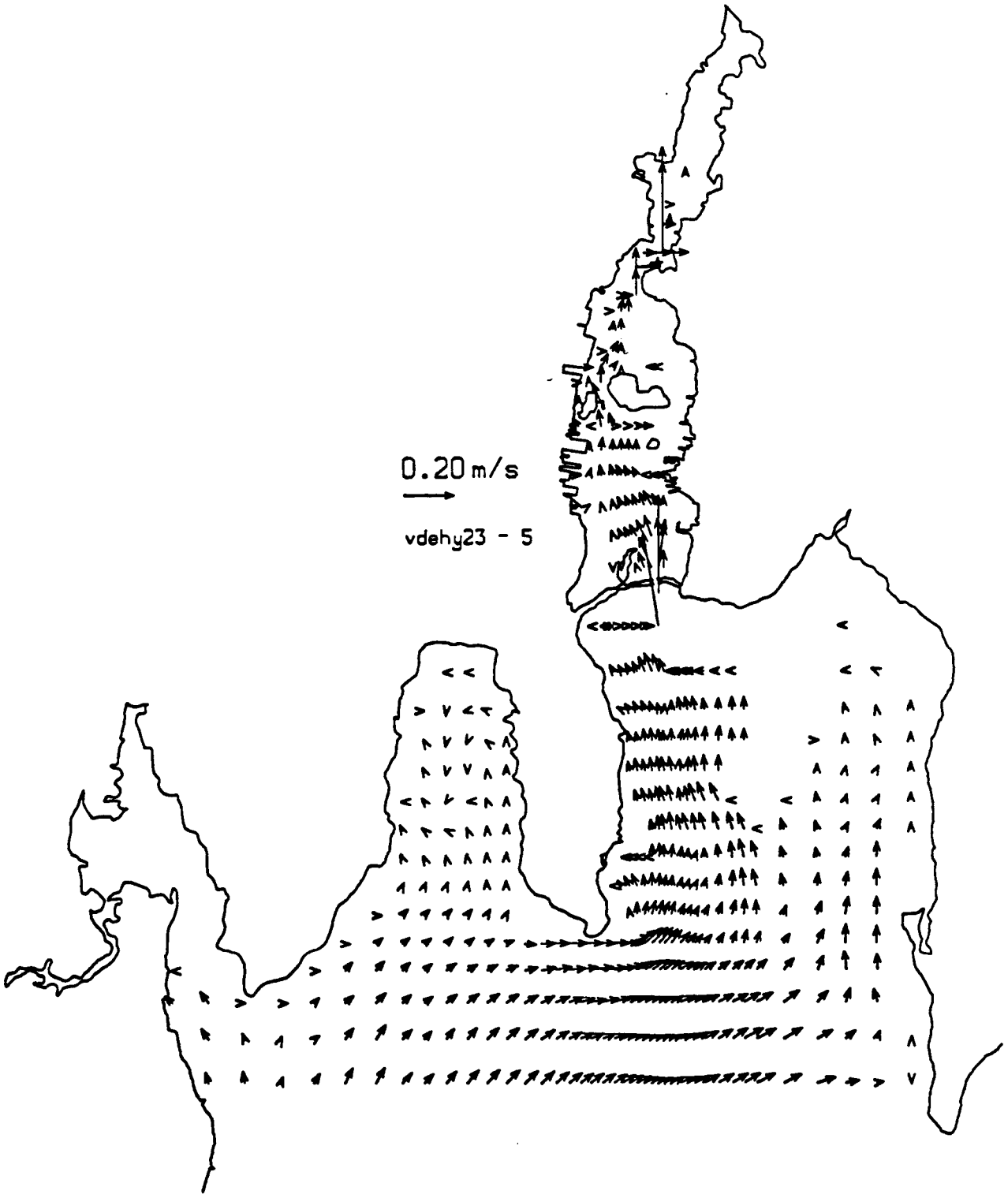

FIGURE D.41. VELOCITY VECTORS COMPUTED FOR THE NO-ACTION CASE GENERAL HYDRODYNAMICS. CONDITIONS 3 HOURS AFTER THE START OF THE SIMULATION IN GRID LAYER 5.

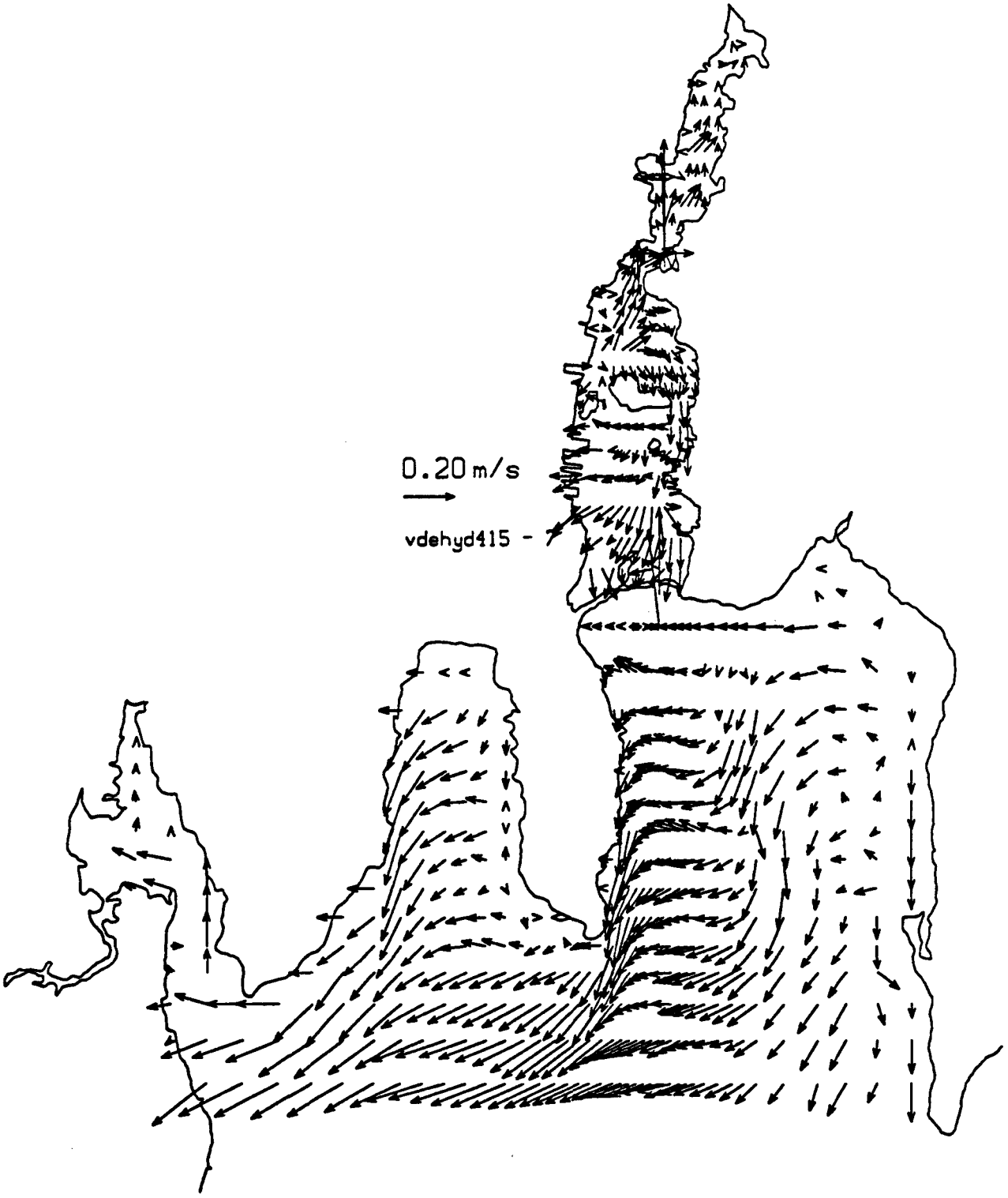

FIGURE D.42. VELOCITY VECTORS COMPUTED FOR THE NO-ACTION CASE STORM HYDRODYNAMICS. CONDITIONS 15 HOURS AFTER THE START OF THE SIMULATION IN GRID LAYER 7.

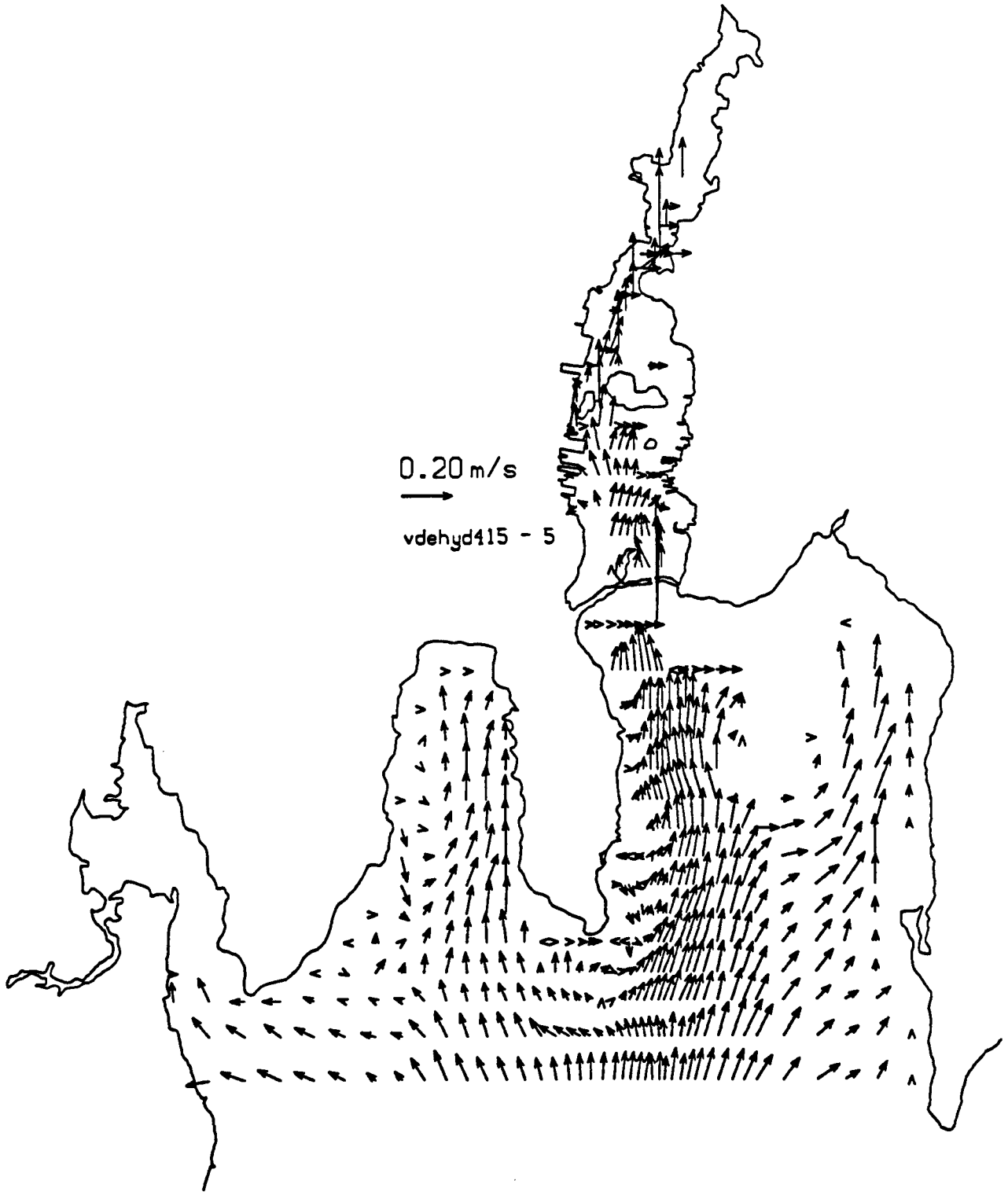

FIGURE D.43. VELOCITY VECTORS COMPUTED FOR THE NO-ACTION CASE STORM HYDRODYNAMICS. CONDITIONS 15 HOURS AFTER THE START OF THE SIMULATION IN GRID LAYER 5.

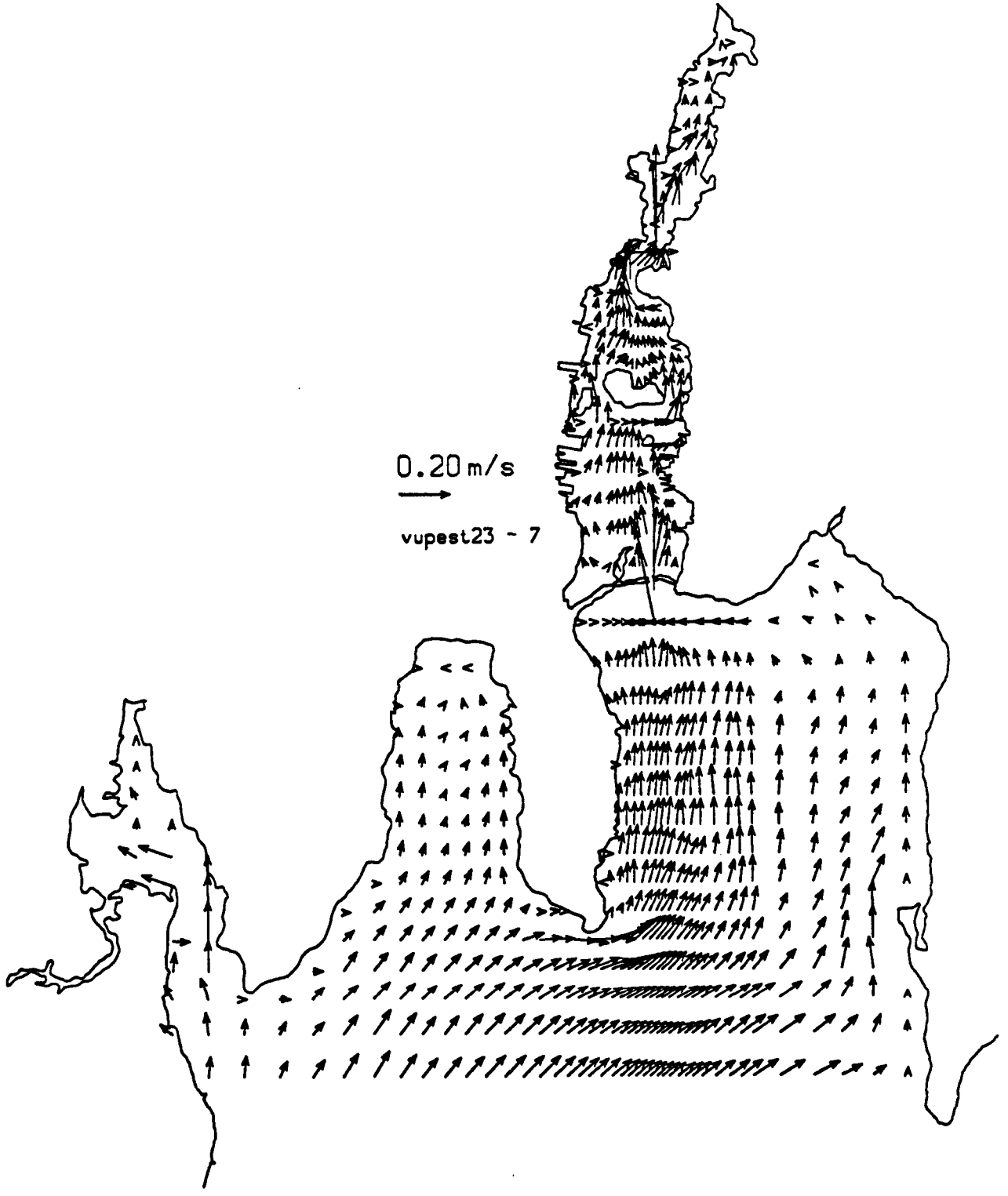

FIGURE D.44. VELOCITY VECTORS COMPUTED FOR THE UPPER-ESTUARY CASE GENERAL HYDRODYNAMICS. CONDITIONS 3 HOURS AFTER THE START OF THE SIMULATION IN GRID LAYER 7.

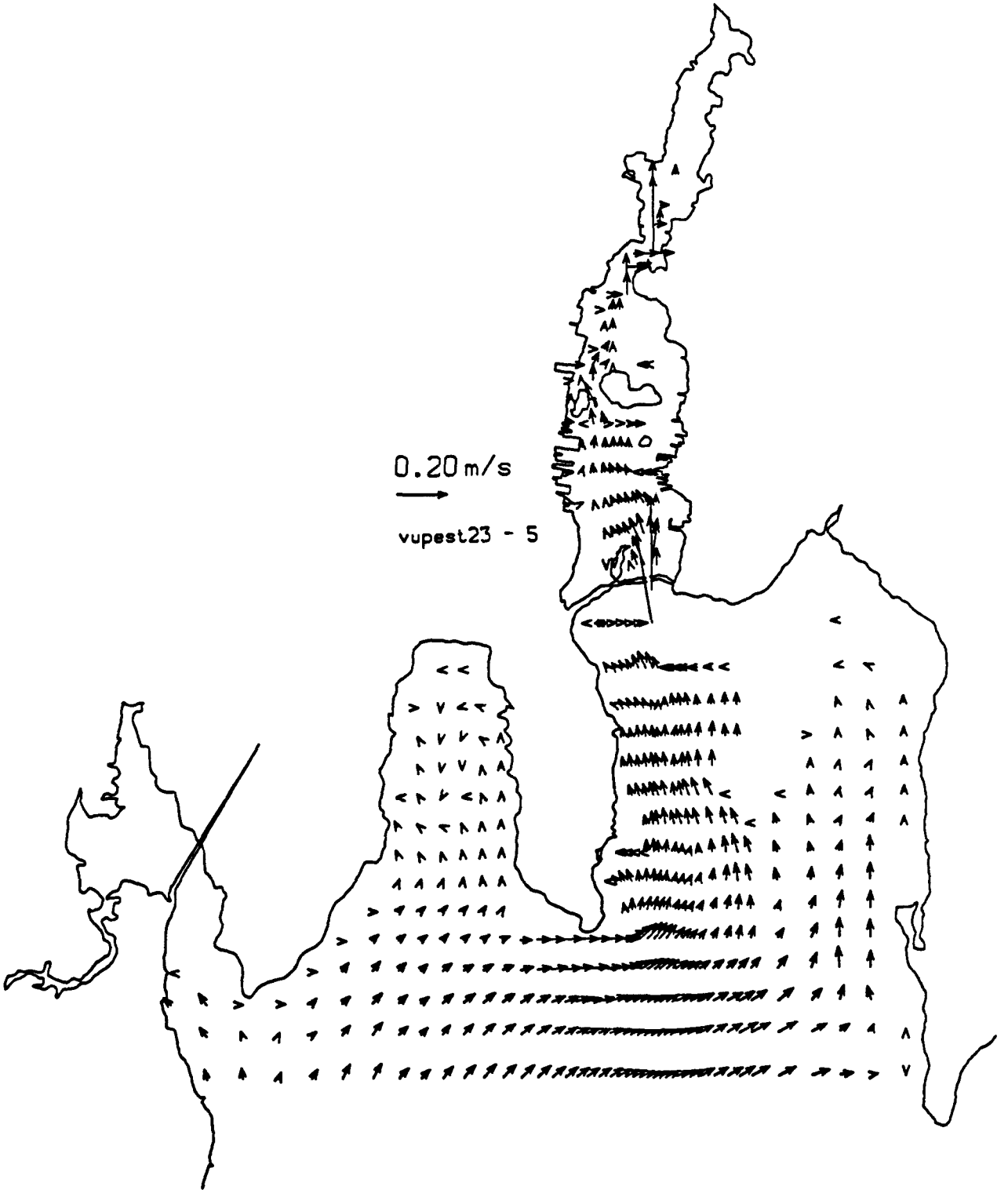

FIGURE D.45. VELOCITY VECTORS COMPUTED FOR THE UPPER-ESTUARY CASE GENERAL HYDRODYNAMICS. CONDITIONS 3 HOURS AFTER THE START OF THE SIMULATION IN GRID LAYER 5.

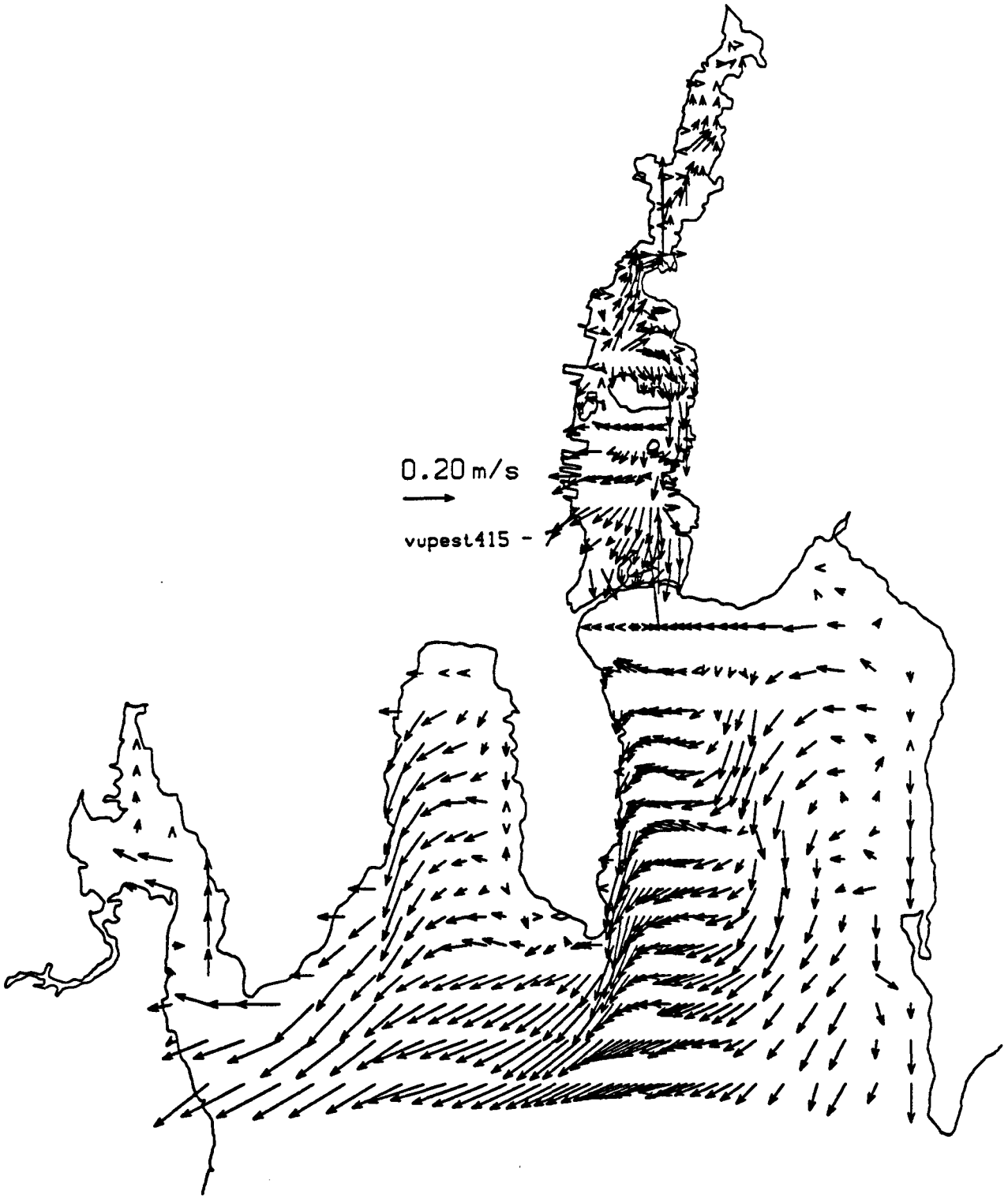

FIGURE D.46. VELOCITY VECTORS COMPUTED FOR THE UPPER-ESTUARY CASE STORM HYDRODYNAMICS. CONDITIONS 15 HOURS AFTER THE START OF THE SIMULATION IN GRID LAYER 7.

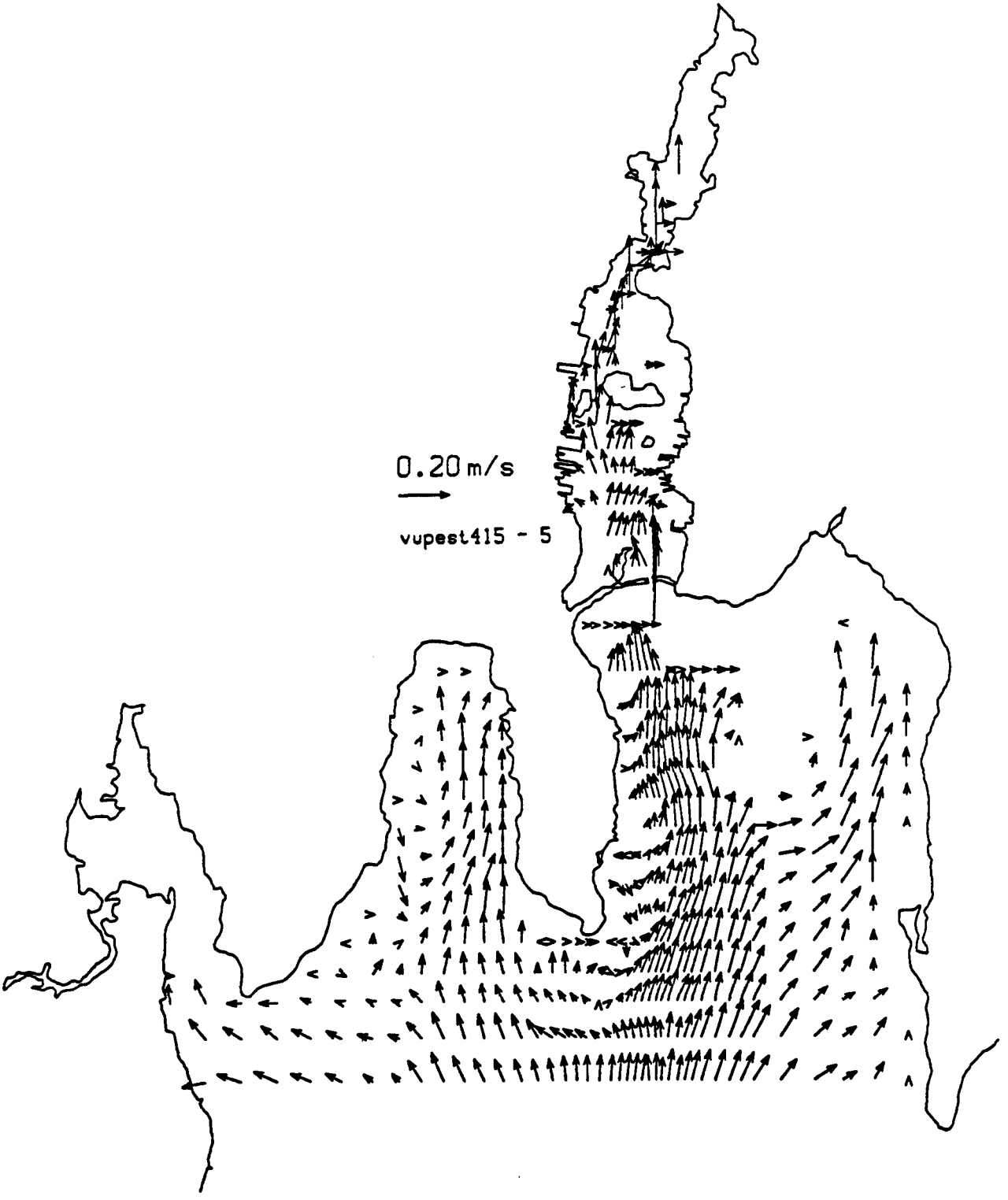

FIGURE D.47. VELOCITY VECTORS COMPUTED FOR THE UPPER-ESTUARY CASE STORM HYDRODYNAMICS. CONDITIONS 15 HOURS AFTER THE START OF THE SIMULATION IN GRID LAYER 5.

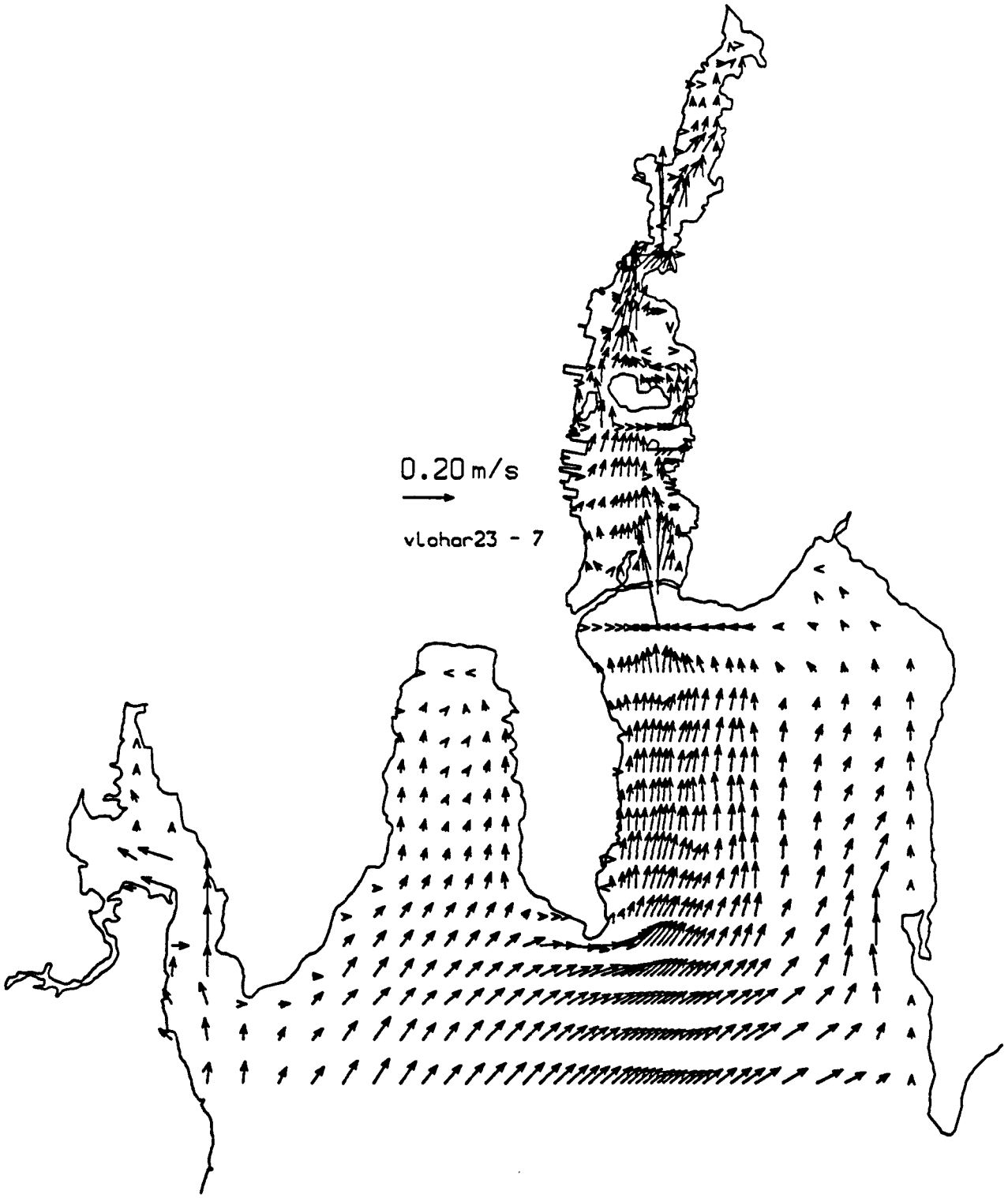

FIGURE D.48. VELOCITY VECTORS COMPUTED FOR THE LOWER-HARBOR CASE GENERAL HYDRODYNAMICS. CONDITIONS 3 HOURS AFTER THE START OF THE SIMULATION IN GRID LAYER 7.

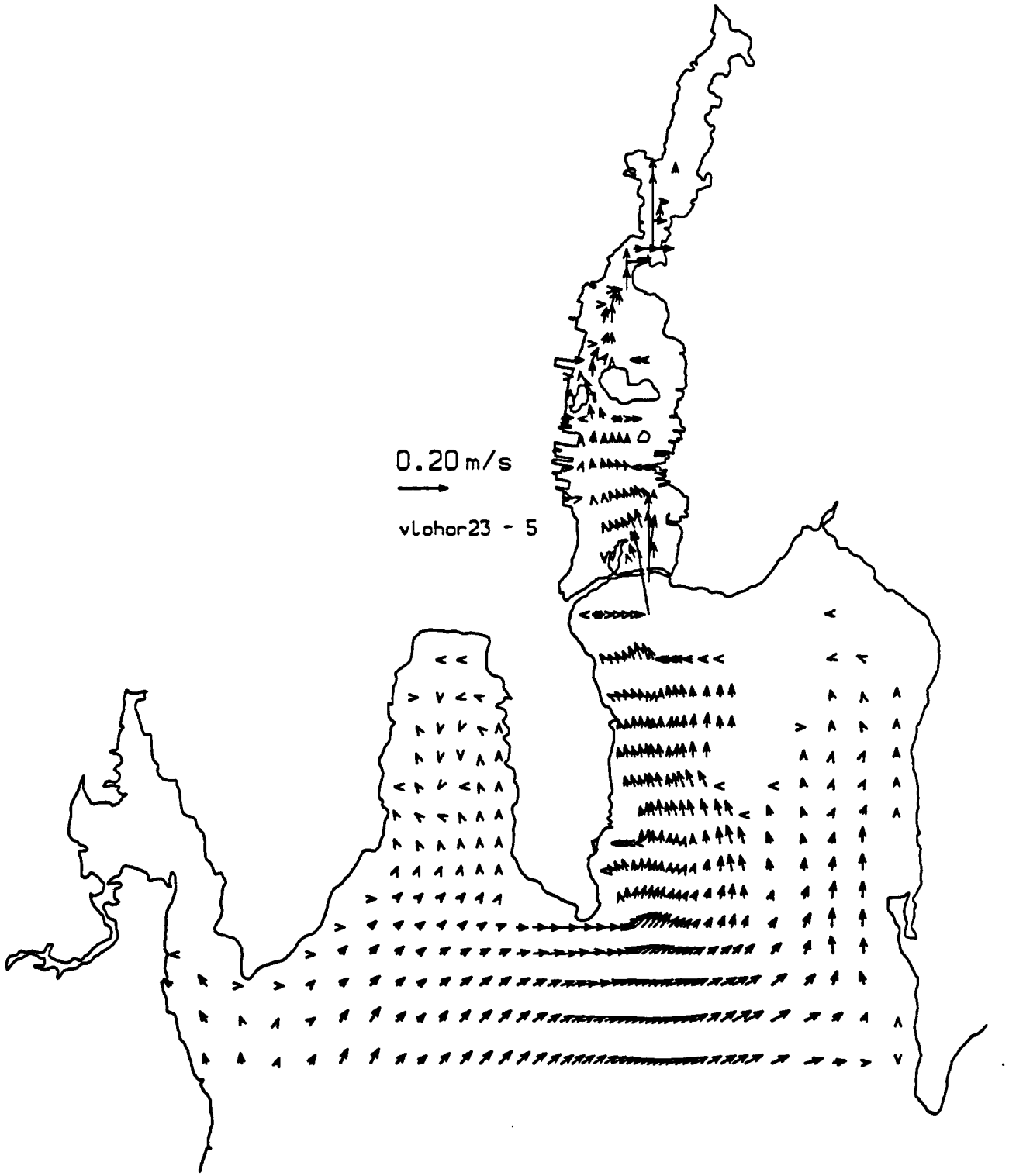

FIGURE D.49. VELOCITY VECTORS COMPUTED FOR THE LOWER-HARBOR CASE GENERAL HYDRODYNAMICS. CONDITIONS 3 HOURS AFTER THE START OF THE SIMULATION IN GRID LAYER 5.

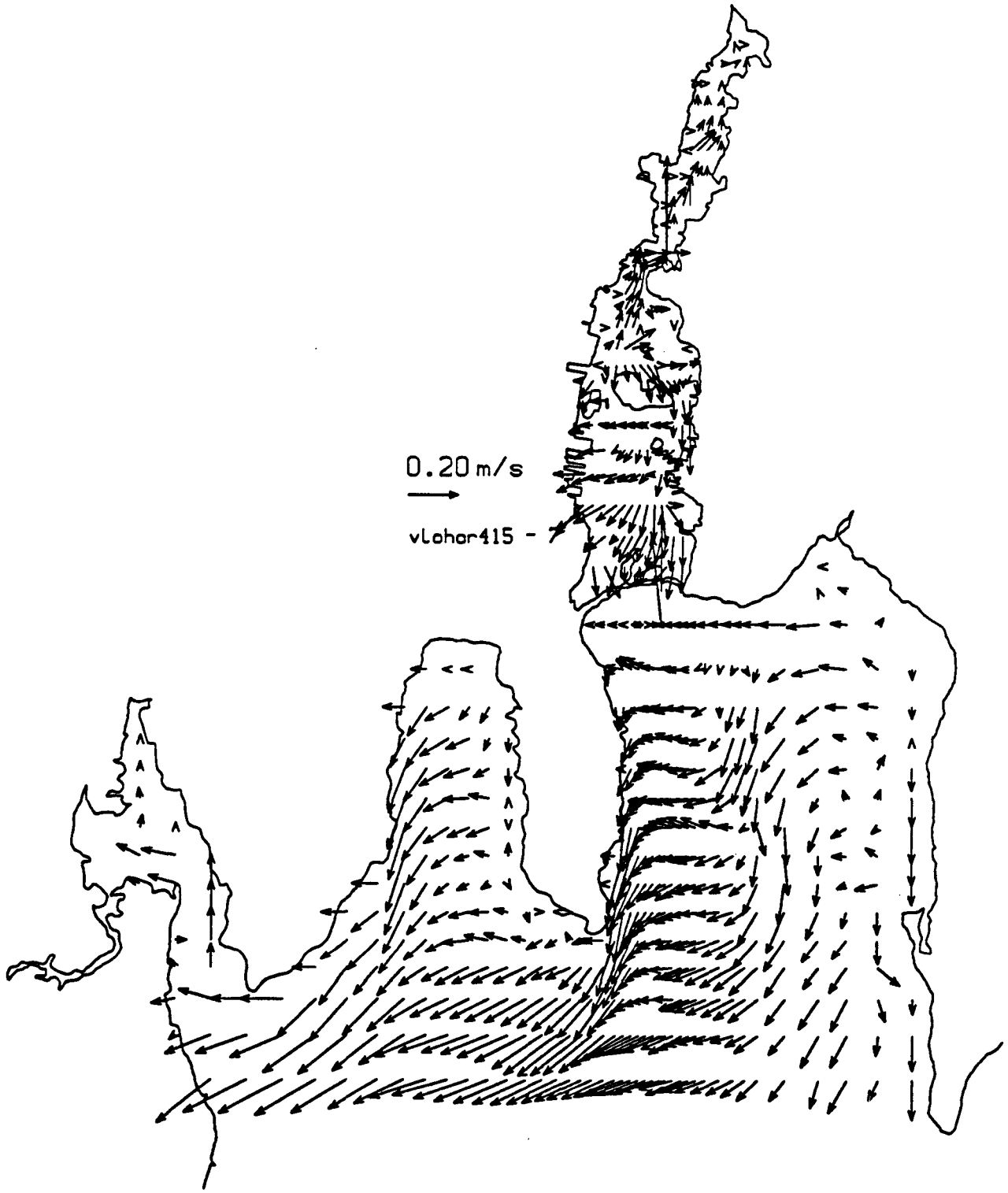

FIGURE D.50. VELOCITY VECTORS COMPUTED FOR THE LOWER-HARBOR CASE STORM HYDRODYNAMICS. CONDITIONS 15 HOURS AFTER THE START OF THE SIMULATION IN GRID LAYER 7.

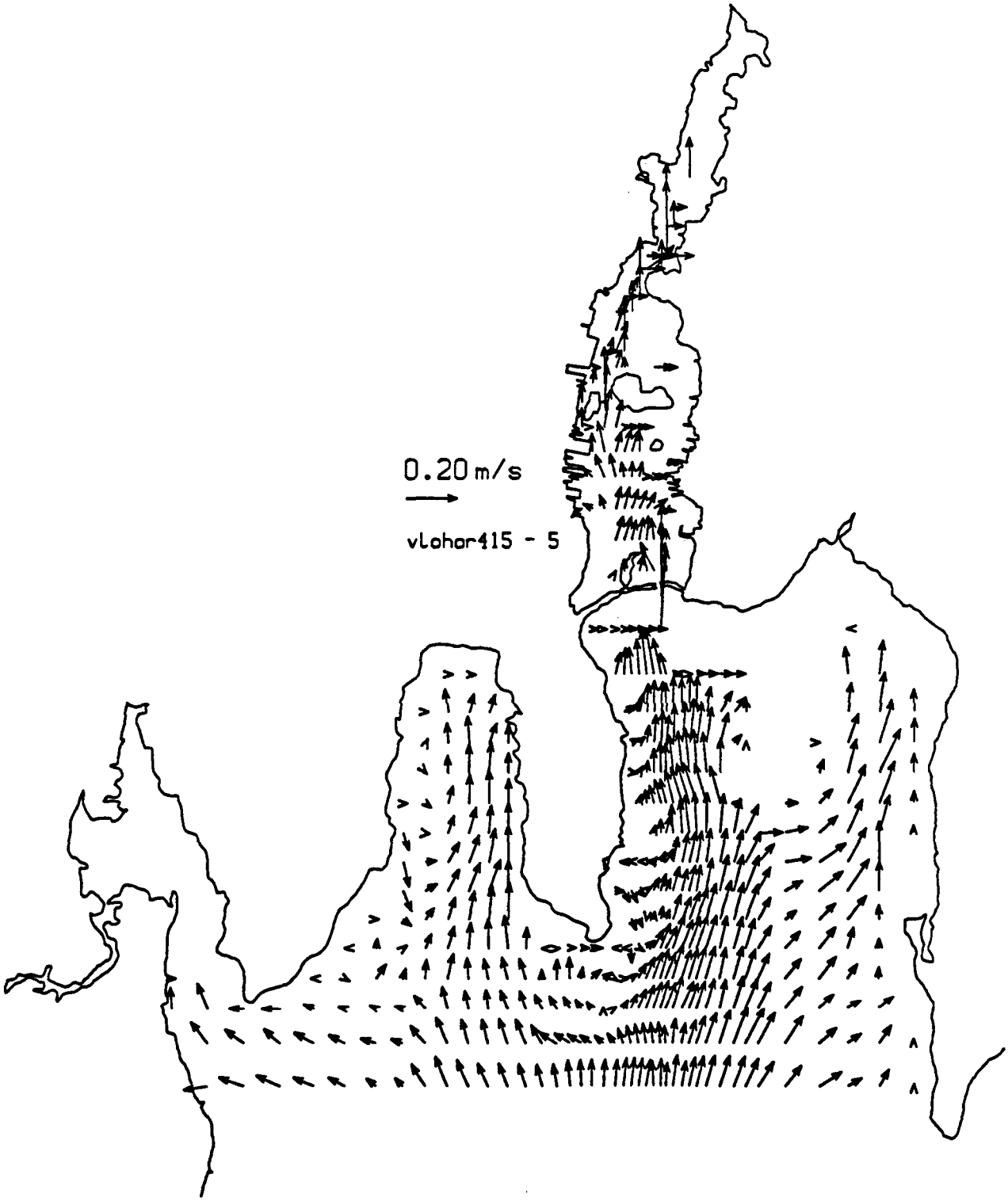

FIGURE D.51. VELOCITY VECTORS COMPUTED FOR THE LOWER-HARBOR CASE STORM HYDRODYNAMICS. CONDITIONS 15 HOURS AFTER THE START OF THE SIMULATION IN GRID LAYER 5.