

APPENDIX A

MONTHLY DISTRIBUTION OF RAINFALL EROSIVITY FACTOR R

Figure A-1 - Key Map for Selection of Distribution Curves
for Eastern United States

Figure A-2a through A-2i - Distribution Curves for Eastern
United States

Distribution Curves for Hawaii (Figures A-3a through A-3c)

Methods for Developing R Distribution Curves for the
Western United States

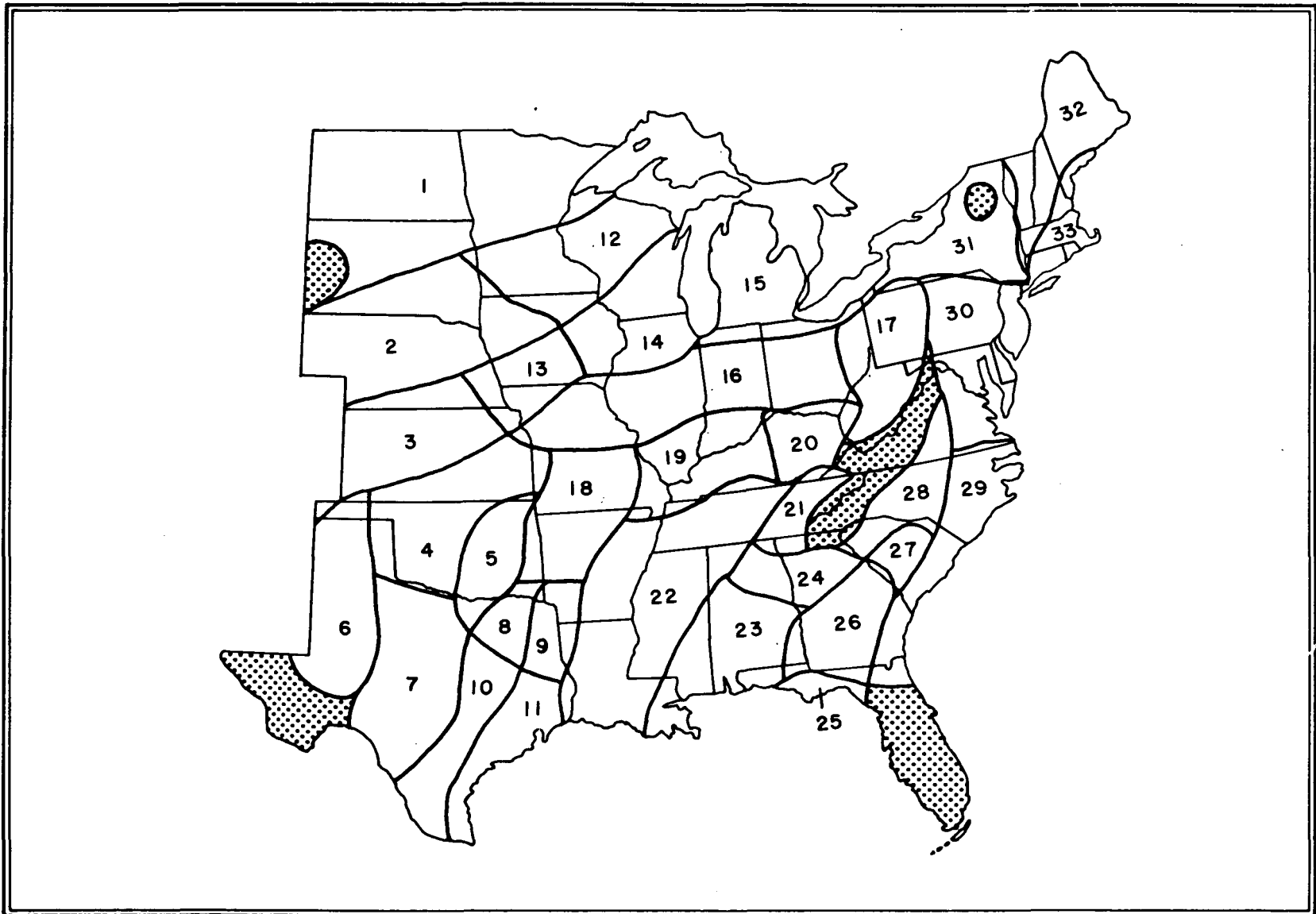


FIGURE A-1 KEY MAP FOR SELECTION OF APPLICABLE EROSION-INDEX DISTRIBUTION CURVE
(WISCHMEIR AND SMITH, 1965)

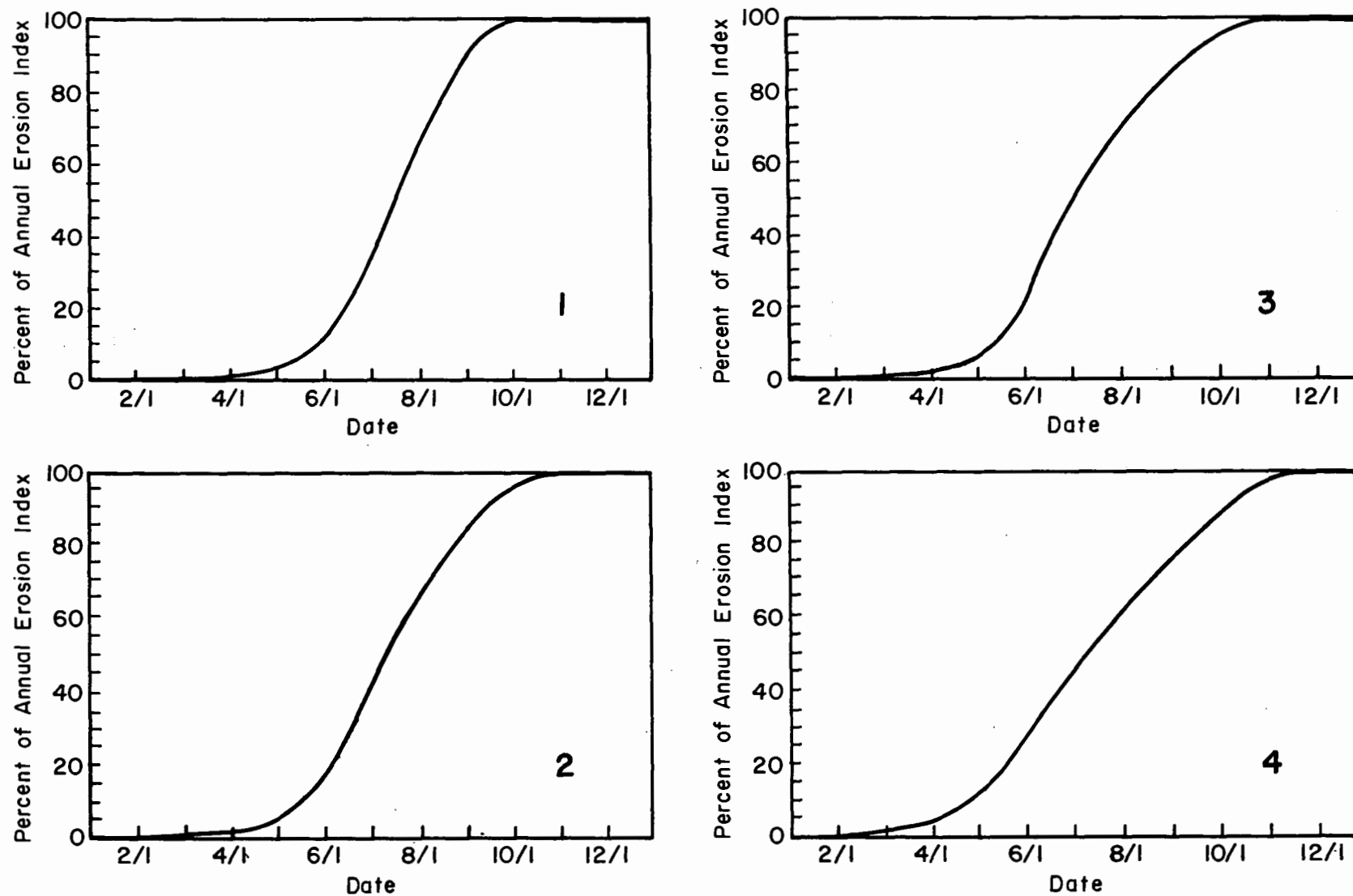


FIGURE A-2A EROSION-INDEX DISTRIBUTION CURVES FOR THE EASTERN UNITED STATES
(WISCHMEIER AND SMITH, 1965)

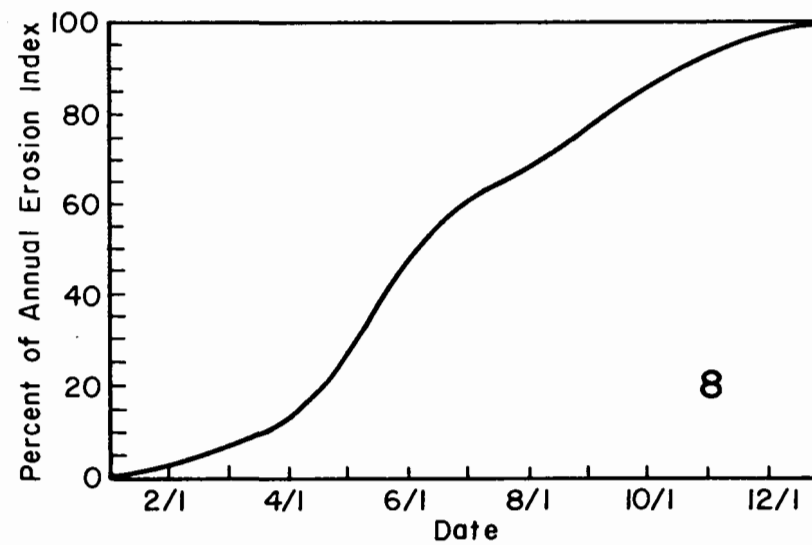
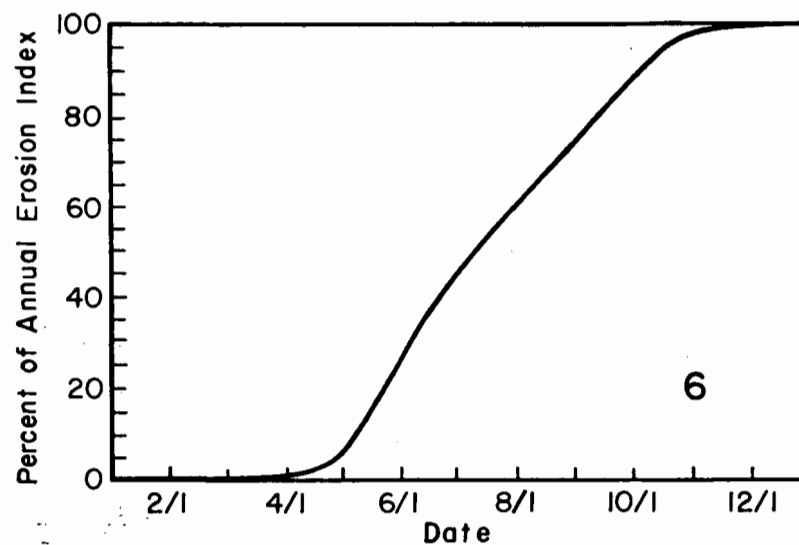
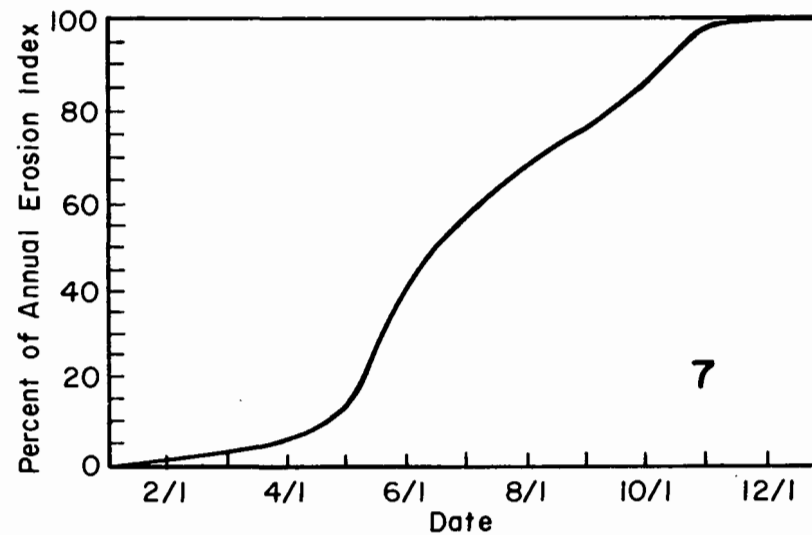
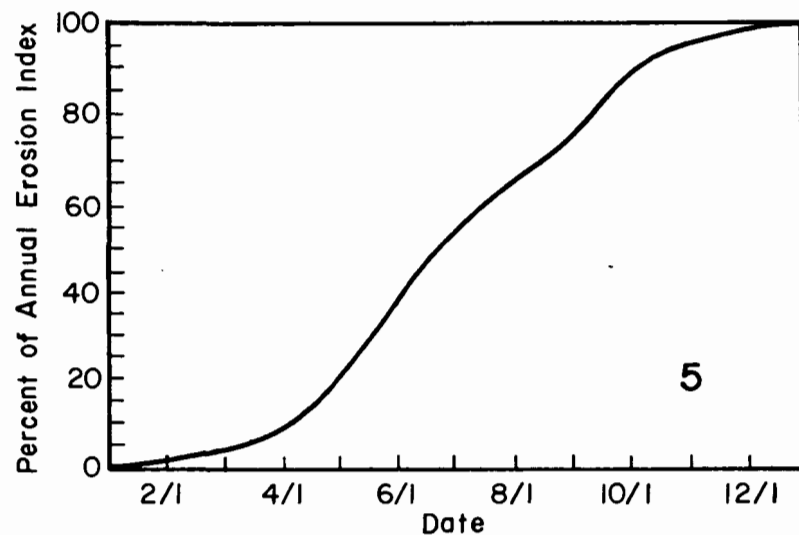
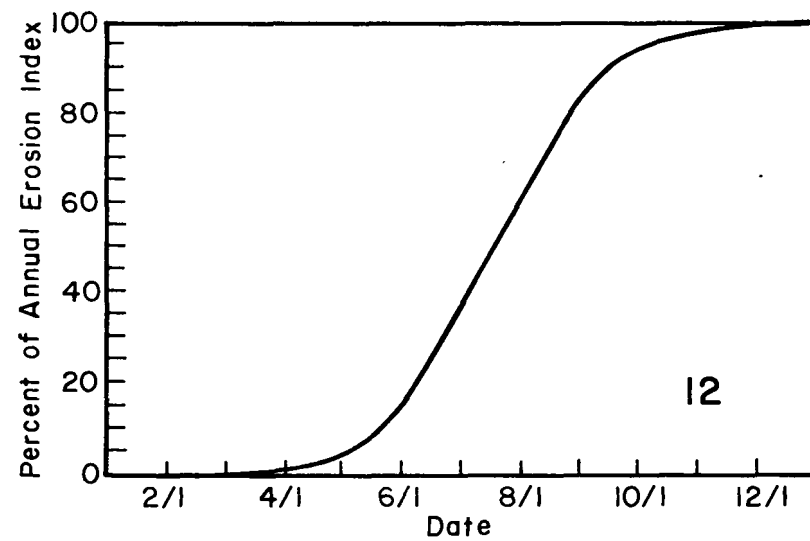
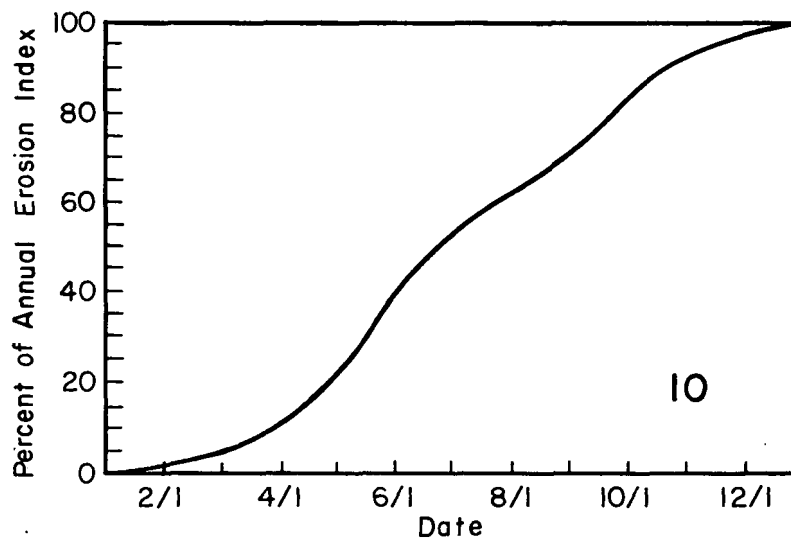
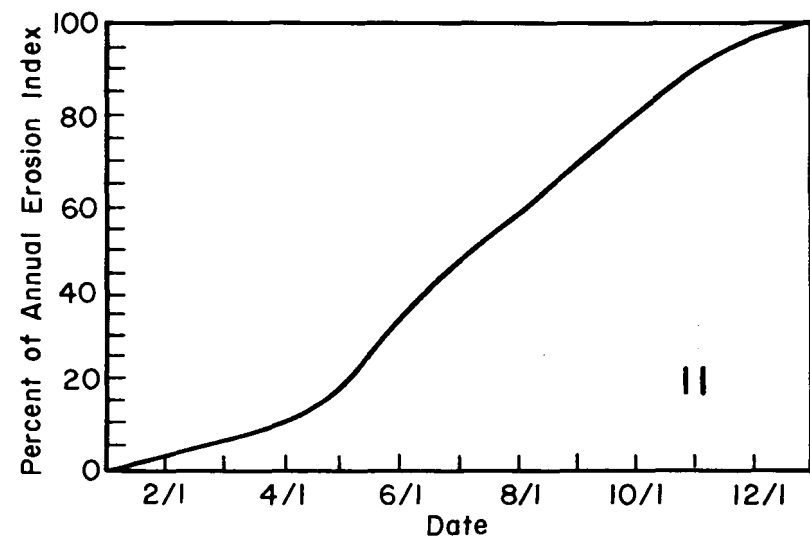
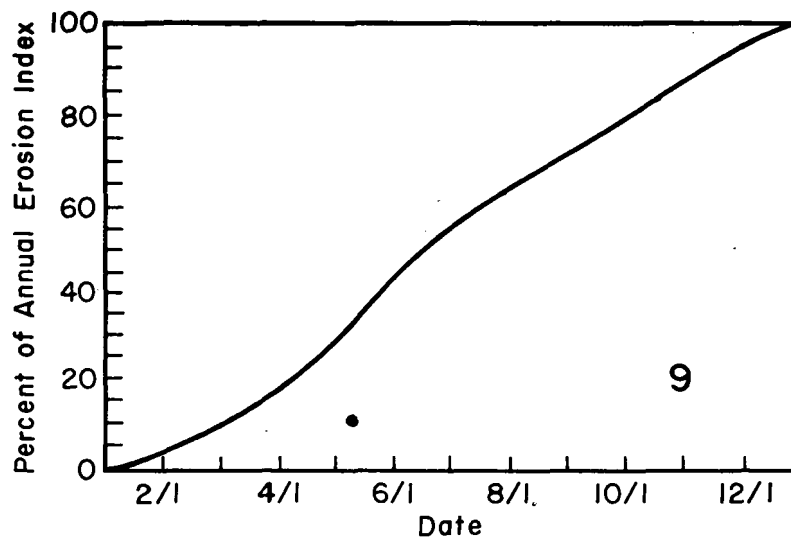


FIGURE A-2B EROSION-INDEX DISTRIBUTION CURVES FOR THE EASTERN UNITED STATES
(WISCHMEIER AND SMITH, 1965)



A-5

FIGURE A-2c EROSION-INDEX DISTRIBUTION CURVES FOR THE EASTERN UNITED STATES
(WISCHMEIER AND SMITH, 1965)

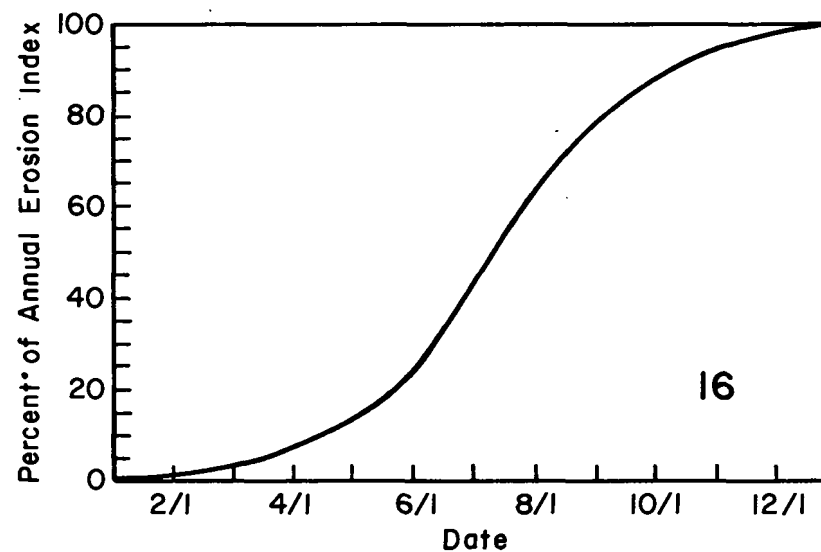
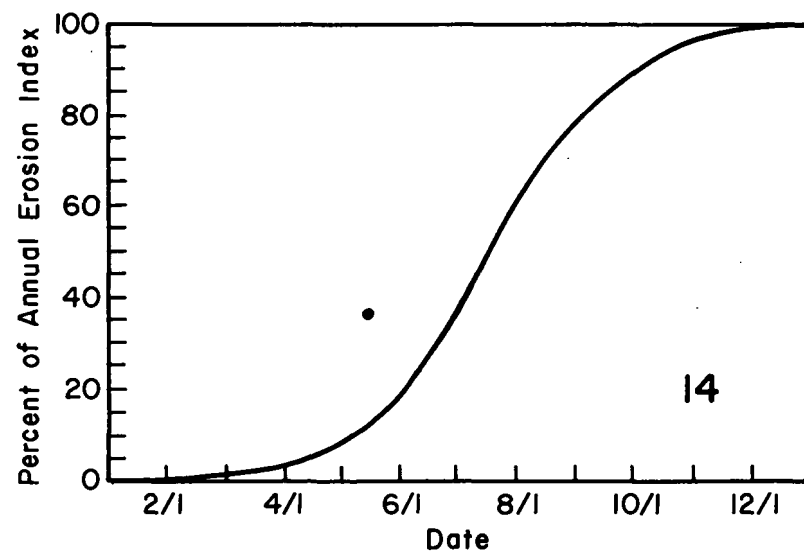
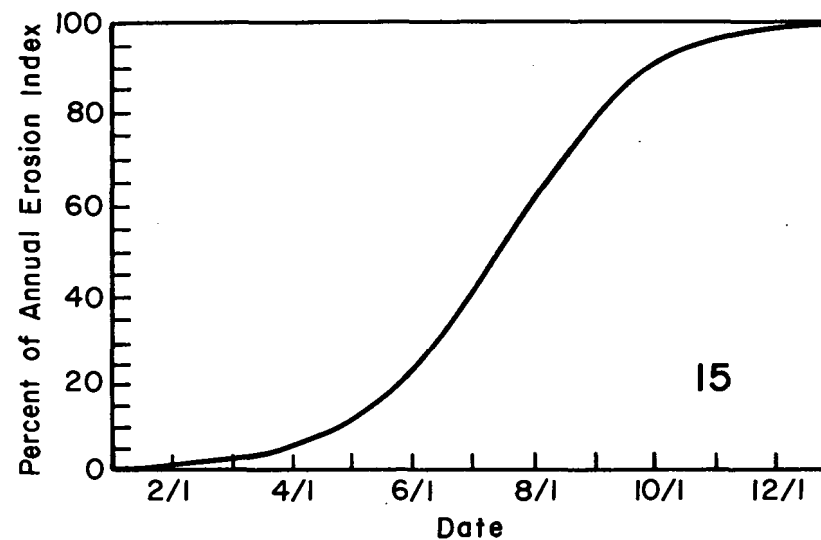
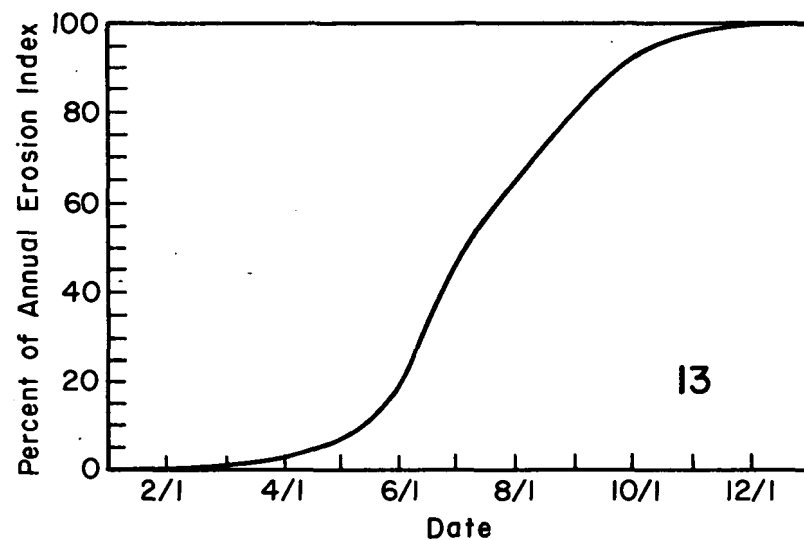


FIGURE A-2D EROSION-INDEX DISTRIBUTION CURVES FOR THE EASTERN UNITED STATES
(WISCHMEIER AND SMITH, 1965)

A-7

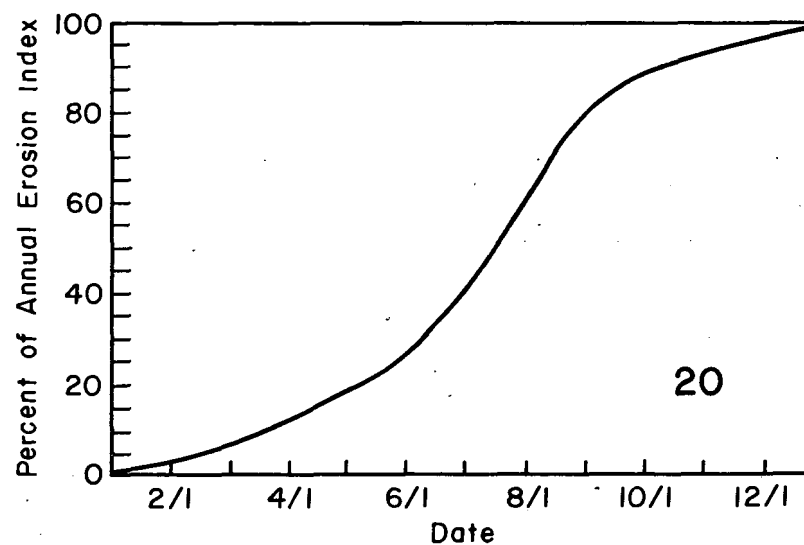
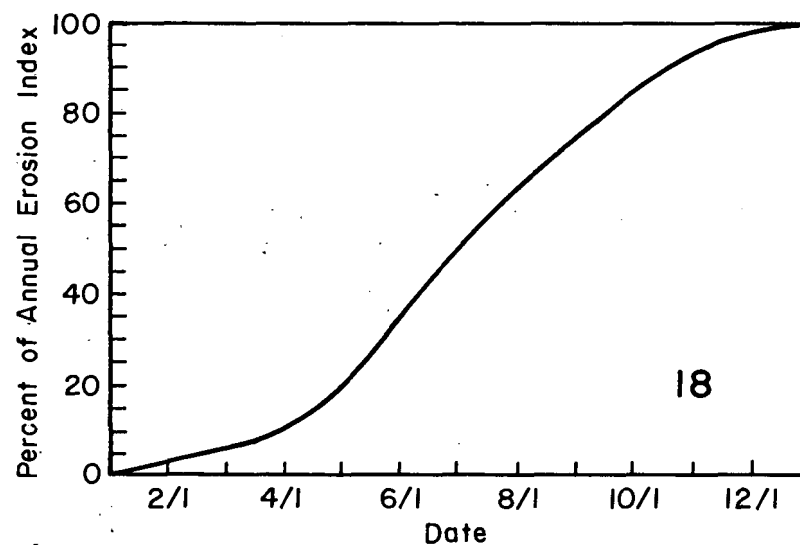
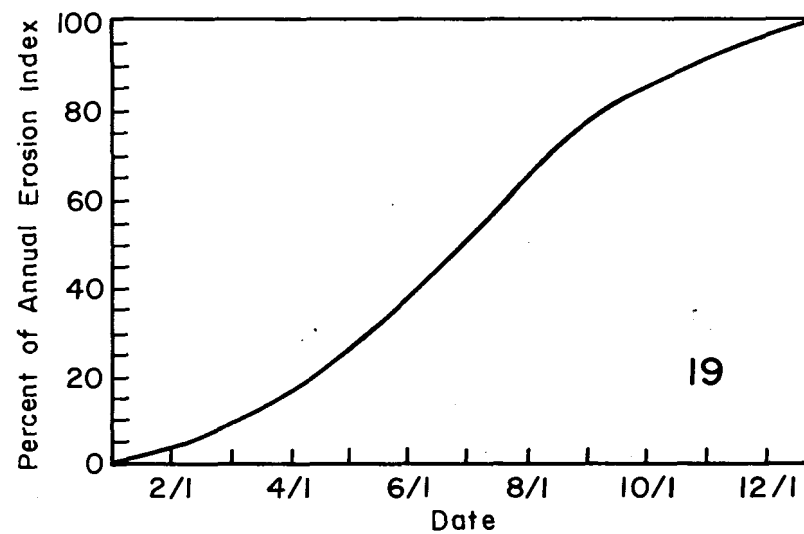
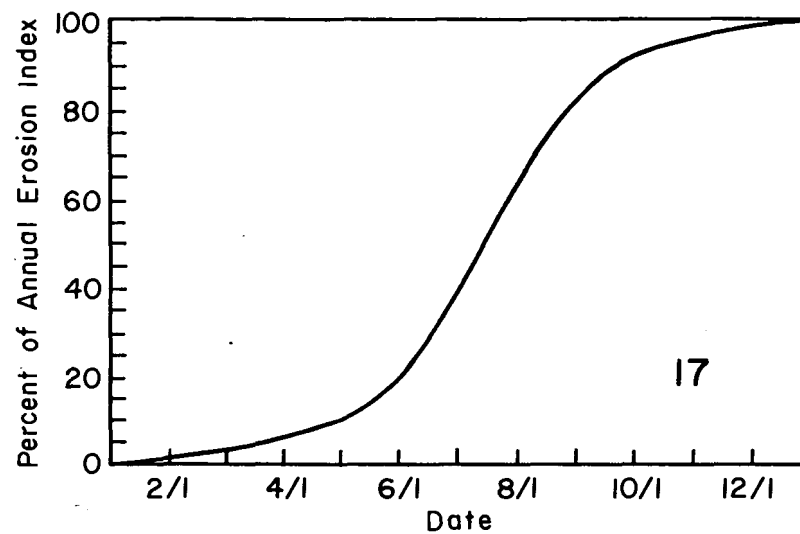


FIGURE A-2E EROSION-INDEX DISTRIBUTION CURVES FOR THE EASTERN UNITED STATES
(WISCHMEIER AND SMITH, 1965)

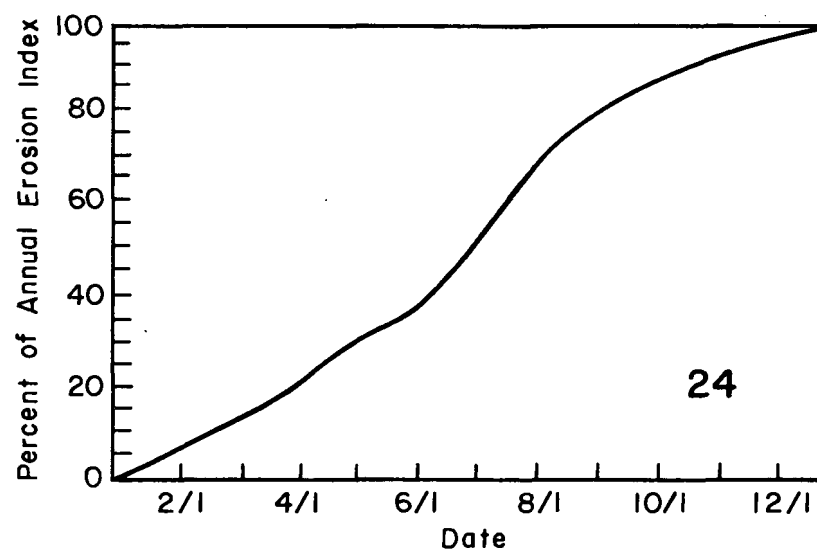
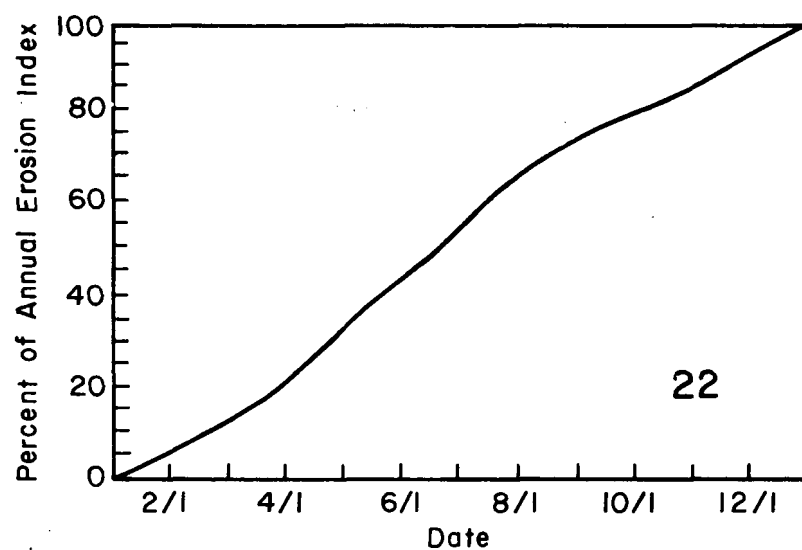
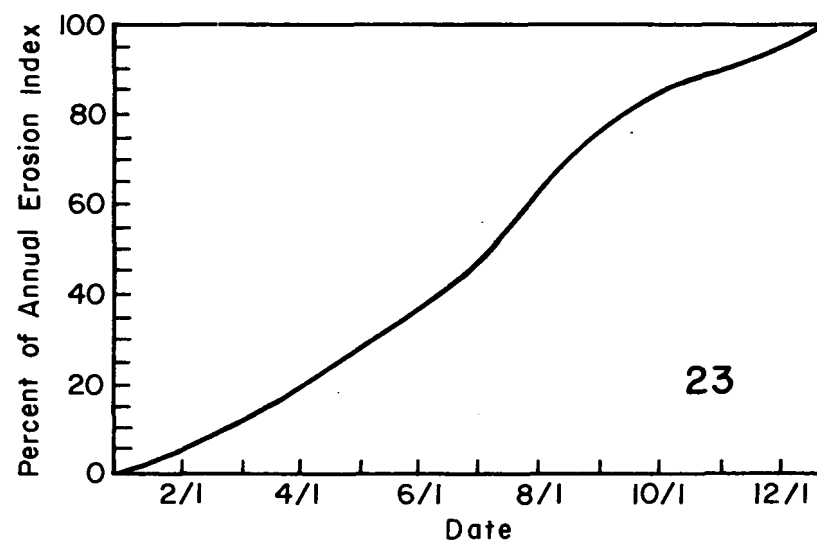
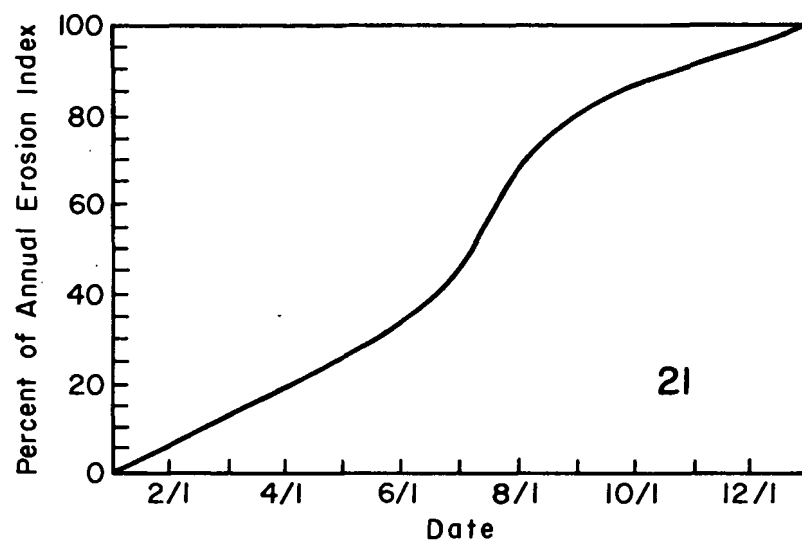


FIGURE A-2F EROSION-INDEX DISTRIBUTION CURVES FOR THE EASTERN UNITED STATES
(WISCHMEIER AND SMITH, 1965)

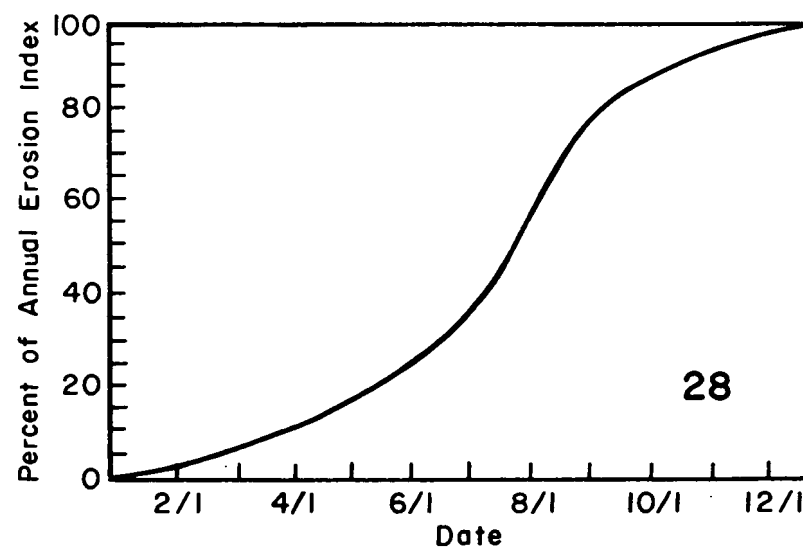
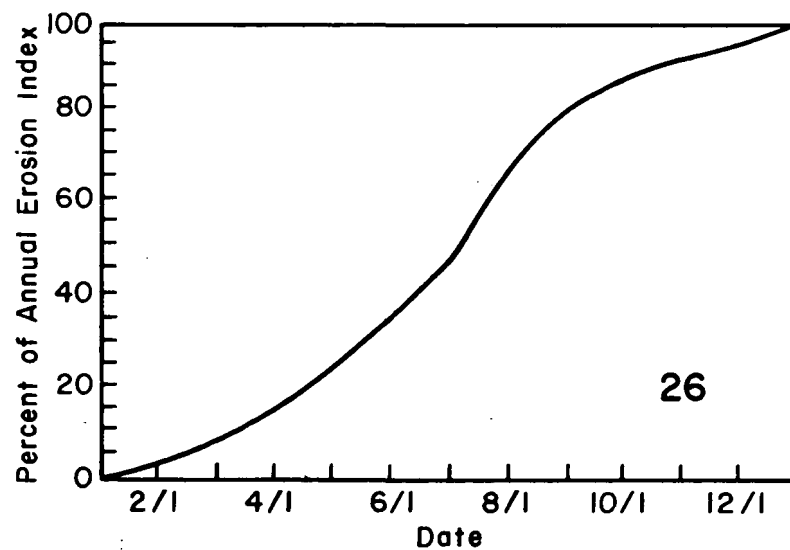
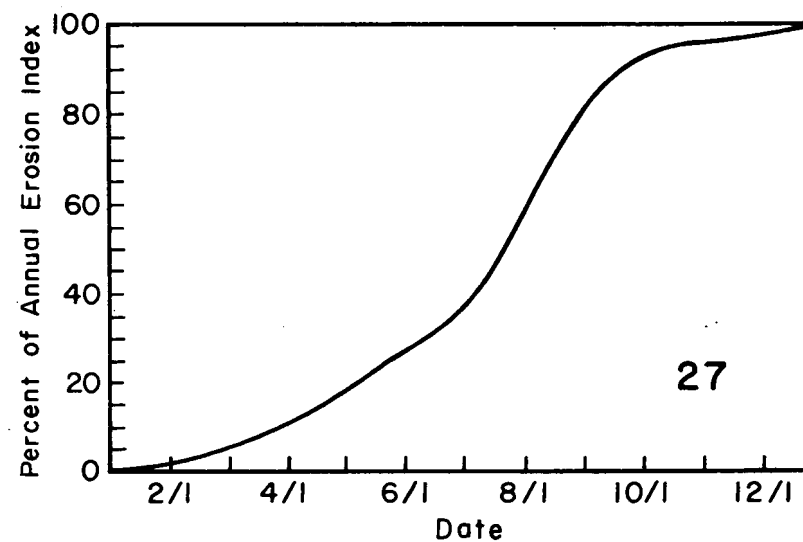
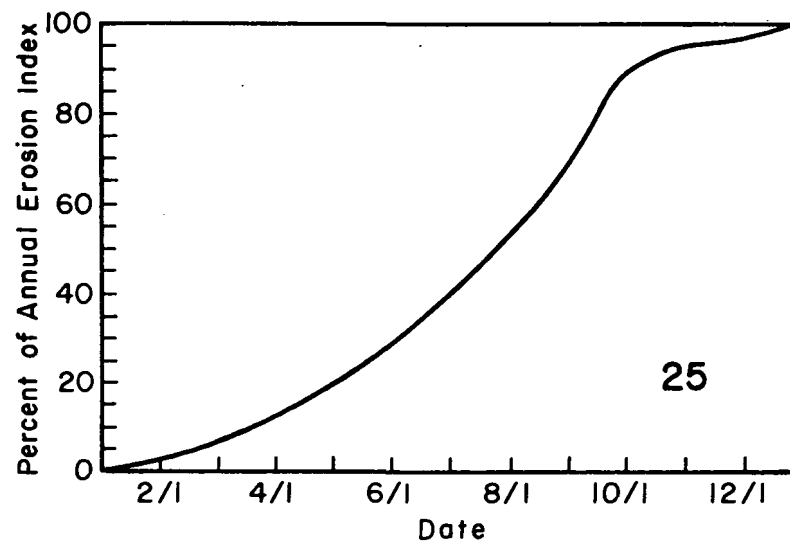


FIGURE A-26 EROSION-INDEX DISTRIBUTION CURVES FOR THE EASTERN UNITED STATES
(WISCHMEIER AND SMITH, 1965)

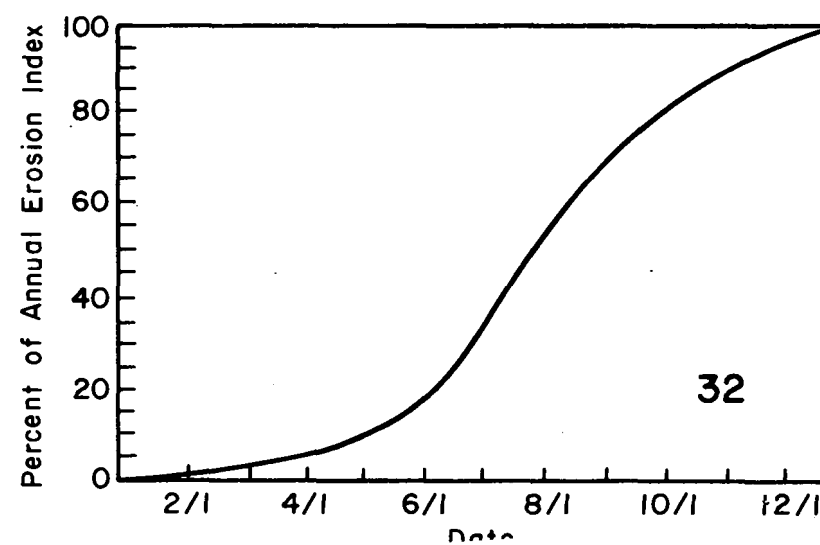
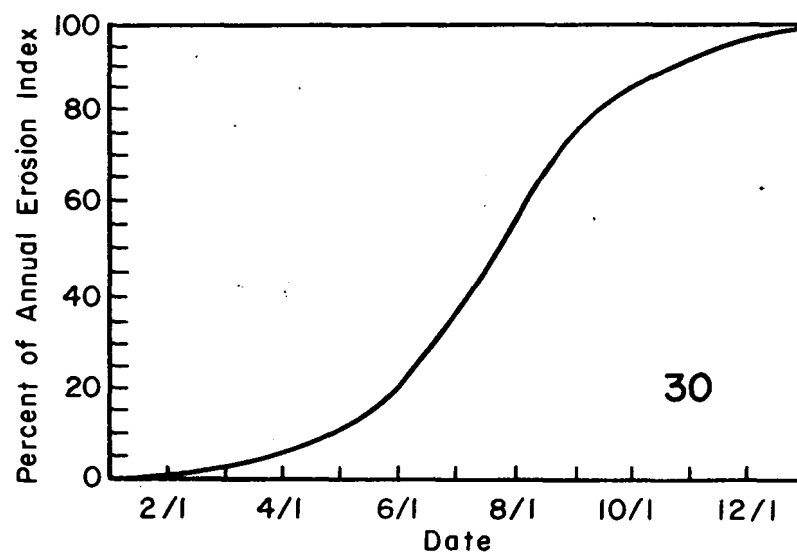
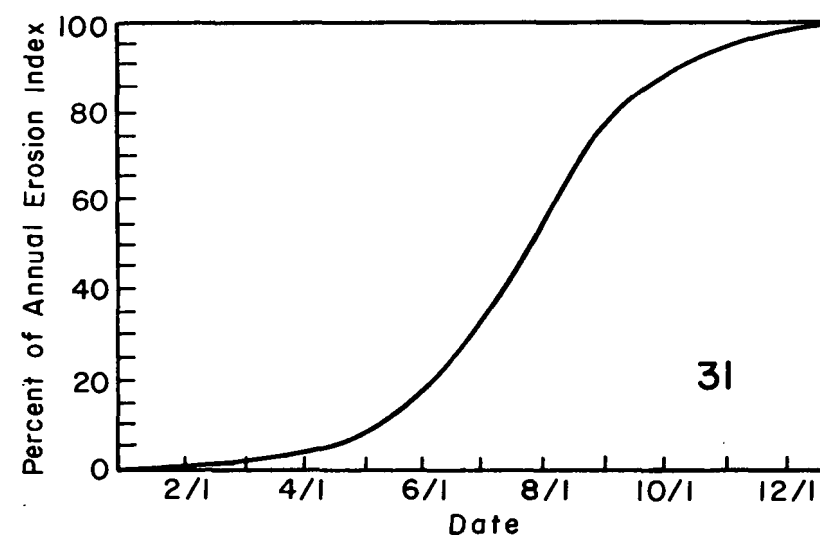
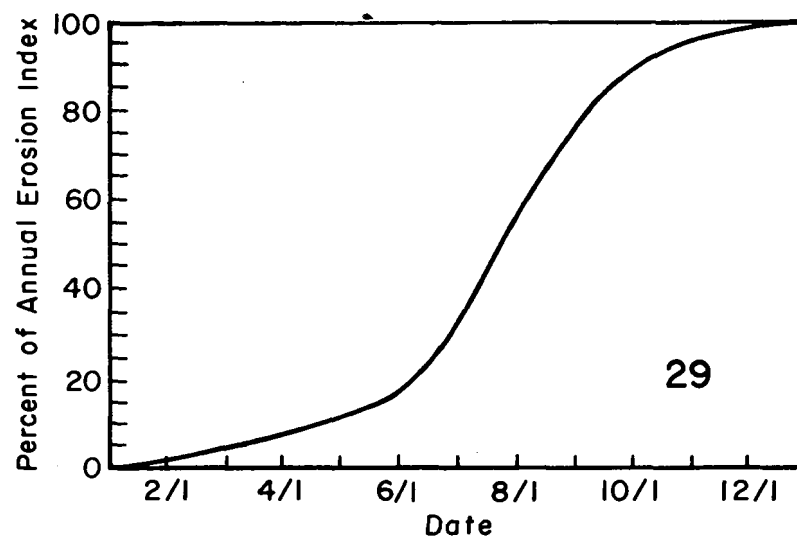


FIGURE A-2H EROSION-INDEX DISTRIBUTION CURVES FOR THE EASTERN UNITED STATES
(WISCHMEIER AND SMITH, 1965)

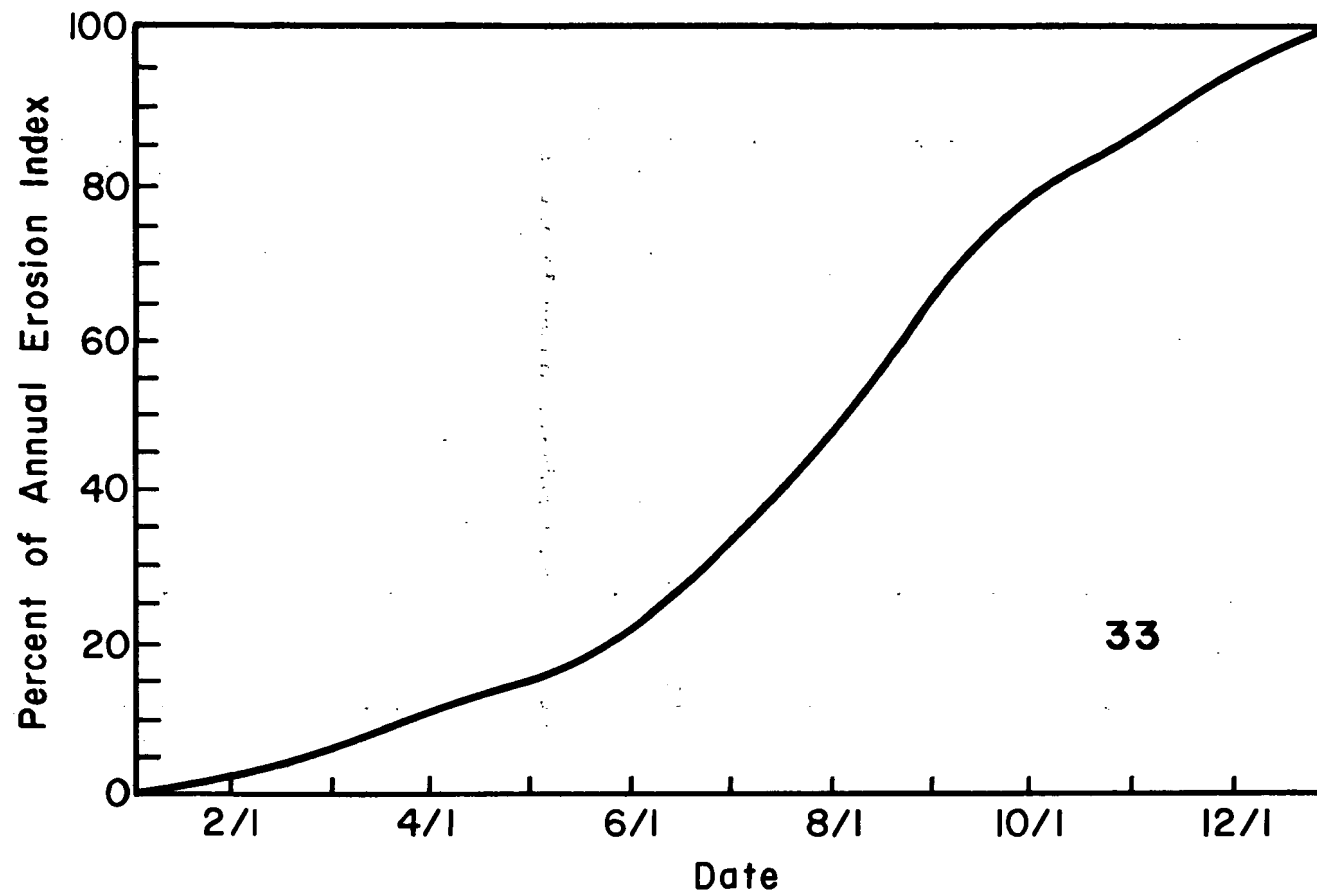


FIGURE A-21 EROSION-INDEX DISTRIBUTION CURVES FOR THE EASTERN UNITED STATES (WISCHMEIER AND SMITH, 1965)

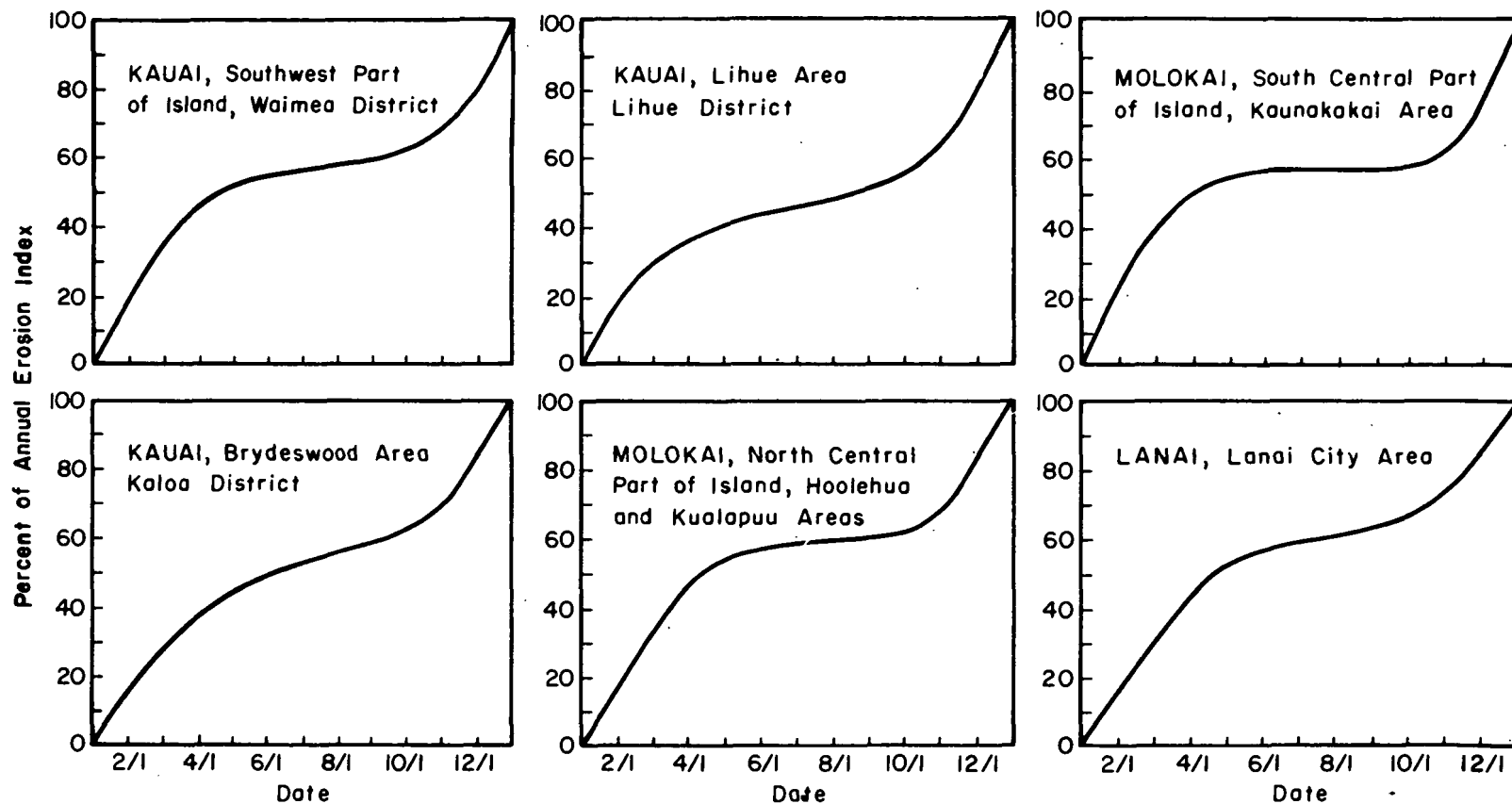


FIGURE A-3A EROSION-INDEX DISTRIBUTION CURVES FOR HAWAII
(SOILS TECHNICAL NOTE No. 3, 1974)

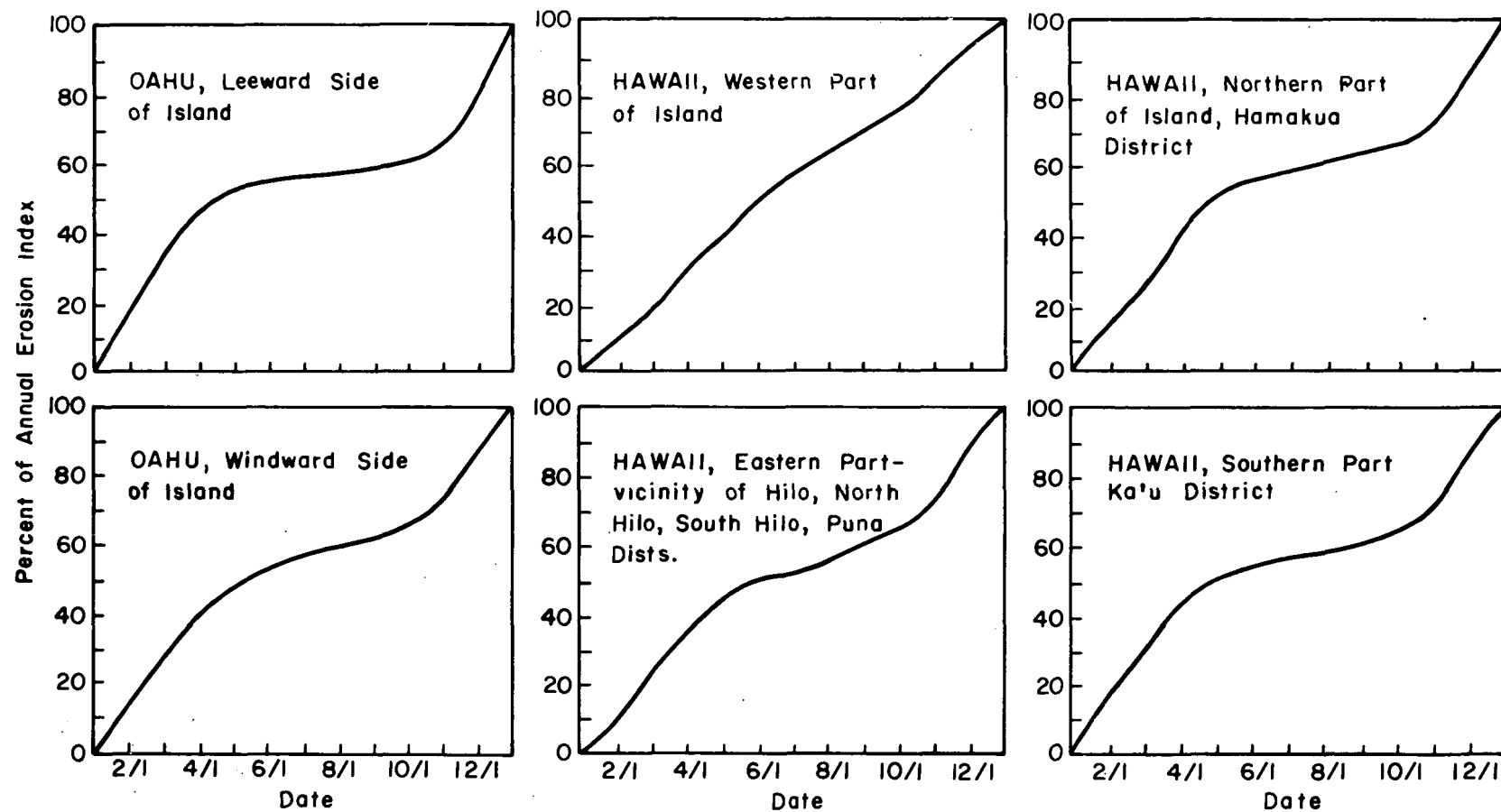


FIGURE A-3B EROSION-INDEX DISTRIBUTION CURVES FOR HAWAII
(SOILS TECHNICAL NOTE No. 3, 1974)

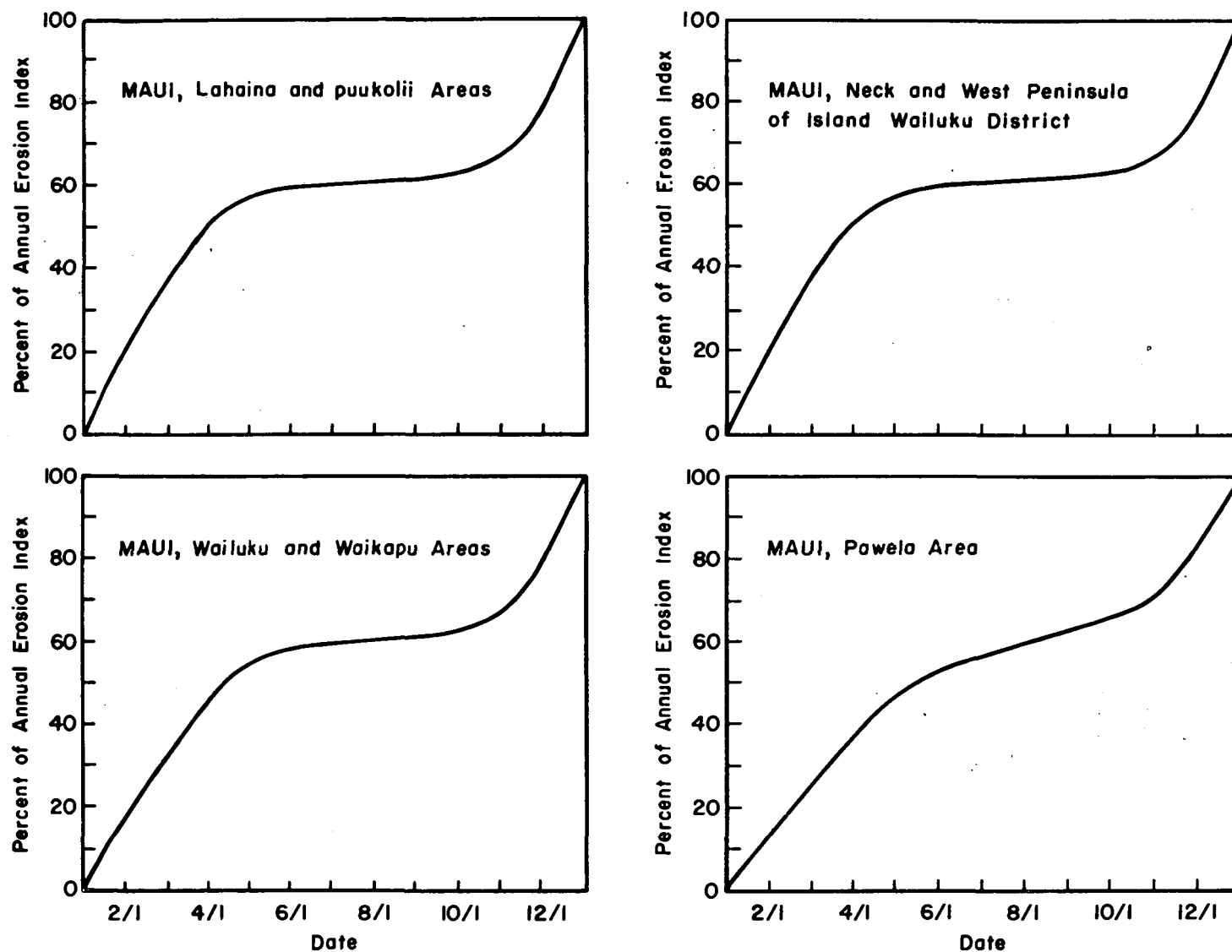


FIGURE A-3C EROSION-INDEX DISTRIBUTION CURVES FOR HAWAII
(SOILS TECHNICAL NOTE No. 3, 1974)

METHODS FOR DEVELOPING R DISTRIBUTION CURVES FOR THE WESTERN UNITED STATES (Conservation Agronomy Technical Note No. 32, 1974)

R_s is significant in portions of this area. Divide the annual R_r for the location by the average annual precipitation to obtain a factor. Multiply each month's precipitation by this factor to obtain monthly R_r values. Add the prorated monthly R_s values to R_r for the months when snowmelt occurs, to obtain the monthly R values. Compute the monthly accumulative percent. The following example is for Hylton, in Elko County, Nevada. The 2-6 rainfall for this area is 0.9 in. The annual R_r determined from the Type II curve on Figure III-4, is 18. Annual precipitation average is 12.72 in. Factor is $18 \div 12.72 = 1.42$.

Monthly precipitation (water depth) for December through March is 4.92 in. $R_s = 4.92 \times 1.5 = 7.38$. This is prorated, based on local judgment to

January 10% or 0.7
February 20% or 1.5
March 50% or 3.7
April 20% or 1.5

Month (1)	Precipitation (Inches Water Depth) (2)	R_r (3)	R_s (4)	R^* (5)	Cumulative	
					R (6)	% (7)
January	1.18	1.68	0.7	2.38	2.38	0.093
February	1.14	1.62	1.5	3.12	5.50	21.6
March	1.29	1.83	3.7	5.53	11.03	43.3
April	1.49	2.12	1.5	3.62	14.65	57.5
May	1.48	2.10	-	2.10	16.75	65.8

*Columns (3) + (4).

Month (1)	Precipitation (Inches Water Depth) (2)	R_r (3)	R_s (4)	R^* (5)	Cumulative	
					R (6)	% (7)
June	0.91	1.29	-	1.29	18.04	70.9
July	0.63	0.89	-	0.89	18.93	74.4
August	0.52	0.74	-	0.74	19.67	77.3
September	0.63	0.89	-	0.89	20.56	80.8
October	1.17	1.66	-	1.66	22.22	87.3
November	0.97	1.38	-	1.38	23.60	92.7
December	1.31	1.86	-	1.86	25.46	100.

*Columns (3) + (4).

Values in cumulative percent column (7) are the points used in plotting the monthly R distribution curve.

For A-2, A-3, and A-4 Areas Shown in Figure III-4

R_s is not significant in most parts of these areas. Use the monthly rainfall distribution as the R distribution. Simply accumulate monthly precipitation amounts and divide each by the annual precipitation. The results obtained for each month will be the points for plotting the monthly R distribution curve.

For B-1 and C Areas Shown in Figure III-4

R_s in most parts of these areas is significant.

1. "Multipliers" are used to time average monthly precipitation amounts. Sum the results of multiplications to obtain the "factored annual precipitation". Divide the annual R_r for

the location by the "factored annual precipitation" to obtain a factor which will be used to convert monthly precipitation amounts to the monthly R values (see the previous section for A-1 area). Values of multipliers are:

<u>Month(s)</u>	<u>Multipliers</u>
January, February, March	0.1
April	1.0
May	4.0
June, July, August	7.0
September, October	2.0
November, December	0.1

2. Add the prorated R_s values to the months when the snowmelt occurs to obtain the monthly R values. Compute the monthly cumulative percents which are points used in plotting the monthly R distribution curve. The following example is for a hypothetical area which has an annual rainfall factor R_r of 25, and a R_s factor of 7.5 (4.94 x 1.5 rounded to 7.5). The 4.94 in. is total precipitation for December, January, February, and March. R_s factor is prorated to:

January	0%	or	0 in.
February	33.3%	or	2.5 in.
March	33.3%	or	2.5 in.
April	33.3%	or	2.5 in.

Month	Precipitation (in.)	Multiplier	Factored Monthly pptn. (Col. 2 x Col. 3)	Monthly R_r^*
(1)	(2)	(3)	(4)	(5)
January	1.33	0.1	0.13	0.11
February	1.14	0.1	0.11	0.09
March	1.35	0.1	0.13	0.11
April	1.48	1.0	1.48	1.24
May	1.43	4.0	5.72	4.80
June	1.00	7.0	7.00	5.78
July	0.80	7.0	5.60	4.69
August	0.78	7.0	5.46	4.58
September	0.85	2.0	1.70	1.43
October	1.14	2.0	2.28	1.91
November	0.92	0.1	0.09	0.08
December	1.12	0.1	0.11	0.09
Total	13.34		29.81	25.0

Month	Monthly R_s	Monthly R $=R_r + R_s$	Cumulative	
(1)	(6)	(7)	R (8)	% (9)
January	-	0.11	0.1	-
February	2.5	2.59	2.7	8
March	2.5	2.66	5.4	17
April	2.5	3.74	9.1	28
May	-	4.80	13.9	43
June	-	5.87	19.8	61
July	-	4.69	24.5	75
August	-	4.58	29.0	89
September	-	1.43	30.5	94
October	-	1.91	32.4	99
November	-	0.08	32.4	100
December	-	0.09	32.5	100
Total	7.5	32.5		

*In this example, the calculated factor value is 0.84 (25 + 29.81).
Monthly R_r is obtained by multiplying each "factored monthly pptn." with 0.84.

For B-2 Area Shown in Figure III-3

In this area, no R_s values are needed. Follow the same procedure and use the same set of multipliers as the preceding section for areas B-1 and C, except that steps for obtaining monthly R_s values are not used. The cumulative R and cumulative percent are computed from monthly R_r (column 5 in the preceding example).

REFERENCES FOR APPENDIX A

- Conservation Agronomy Technical Note No. 32, U.S. Department of Agriculture, Soil Conservation Service, West Technical Service Center, Portland, Oregon, September, 1974.
- Soils Technical Note No. 3, U.S. Department of Agriculture, Soil Conservation Service, Honolulu, Hawaii, May, 1974.
- Wischmeier, W.H., and Smith, D.D., "Predicting Rainfall--Erosion Losses from Cropland East of the Rocky Mountains," Agricultural Handbook 282, U.S. Department of Agriculture, Agriculture Research Service, May, 1965.

APPENDIX B

METHODS FOR PREDICTING SOIL ERODIBILITY INDEX K

Nomograph for Predicting K Values of Surface Soils Using
Chemical and Physical Parameters.

Nomograph for Predicting K Values of High Clay Subsoils
Using Chemical Mineralogical and Physical Parameters.

NOMOGRAPH FOR PREDICTING K VALUES OF SURFACE SOIL

In 1971 Wischmeier, et al. (1971) presented a soil erodibility nomograph derived from statistical analysis of 55 soil types. Five soil parameters are included in the nomograph to predict erodibility: percent silt plus very fine sand; percent sand greater than 0.10 millimeter; organic matter content; soil structure; and permeability. Values of the parameters may be obtained from routine laboratory determinations and standard soil profile descriptions.

The nomograph is reproduced here as Figure B-1.

Description of Factors (Water Resources Administration, 1973)

Grain Size Distribution

Grain size distribution has a major influence on a soil's erodibility: the greater the silt content, the greater the soil's erodibility; the smaller the sand content, the greater the soil's erodibility.

Particles in the very fine sand classification behave more like silt than sand. Therefore, the percentage of very fine sand should be subtracted from the total percentage of sand and added to the percentage of silt.

Organic Matter

The percentage of organic matter was determined, in work by Wischmeier, et al., by the Walkley-Black method (Walkley and Black, 1934). The organic matter content is approximately 1.72 times the percent carbon. Soil erodibility decreases as organic matter content increases.

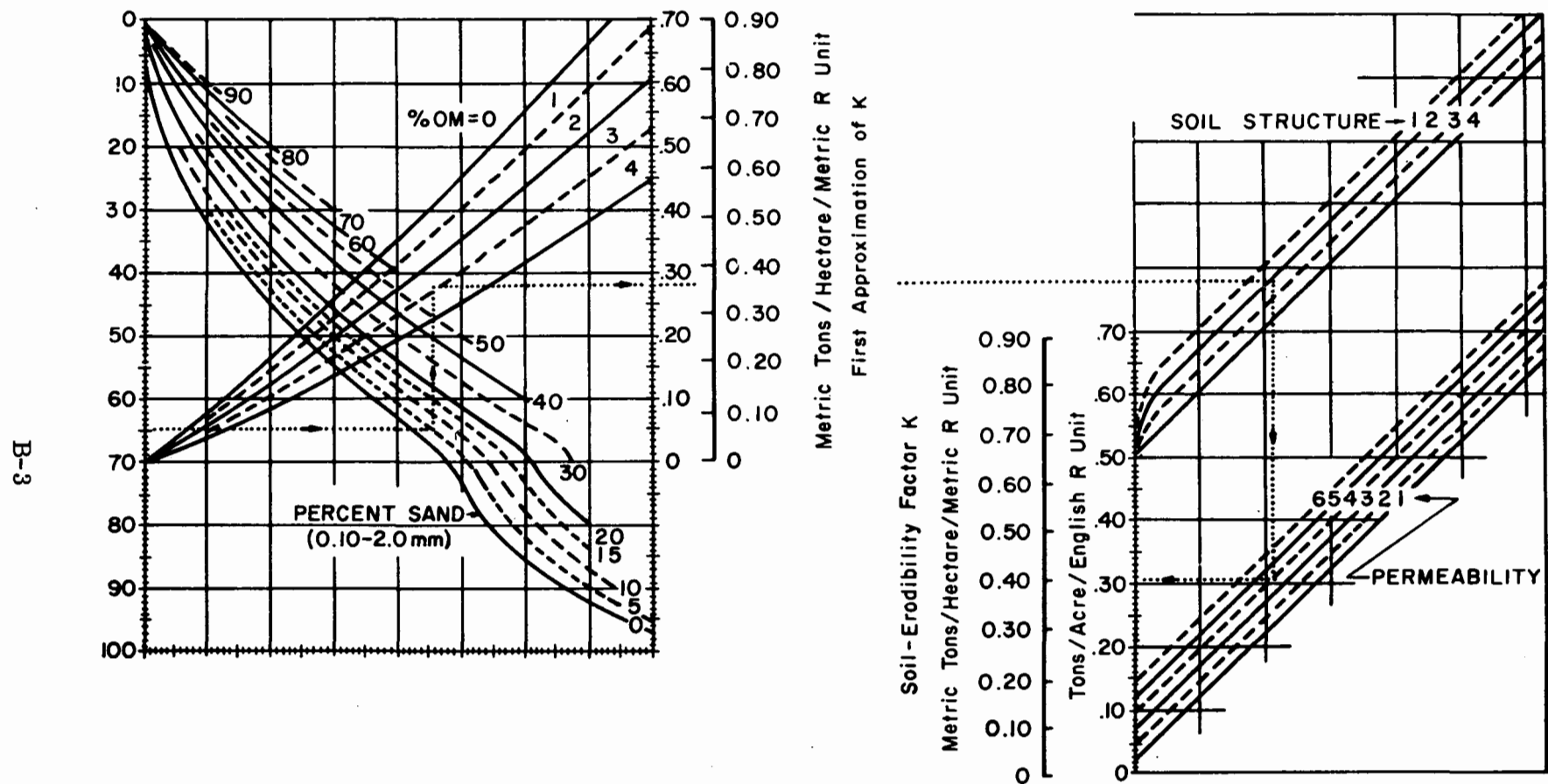


FIGURE B-1 SOIL ERODIBILITY NOMOGRAPH (WISCHMEIER ET AL., 1971)

Soil Structure

The soil structure is descriptive of the overall arrangement of the soil solids. The four parameter values and their descriptions are as follows:

<u>Parameter Value</u>	<u>Descriptions</u>
	<u>Granular</u> - All rounded aggregates may be placed in this category. These rounded complexes usually lie loosely and are readily shaken apart. When wetted, the voids are not closed readily by swelling.
1	Very fine granular - less than 1 mm.
2	Fine granular - 1 to 2 mm.
3	Medium granular - 2 to 5 mm.
3	Coarse granular - 5 to 10 mm.
4	<u>Blocky</u> - Aggregates have been reduced to blocks, irregularly six-faced, and with their three dimensions more or less equal. In size, the fragments range from a fraction of an inch to 3 or 4 in. in thickness.
4	<u>Platy</u> - Aggregates are arranged in relatively thin plates or lenses.
4	<u>Prismatic</u> - Aggregates or pillars are vertically oriented, with tops plane, level, and clean cut. They commonly occur in subsoils of arid and semi-arid regions.

Parameter Value	Descriptions
4	<u>Columnar</u> - Aggregates or pillars are vertically oriented, with rounded tops. They commonly occur when the soil profile is changing and the horizons are degrading.
4	<u>Massive</u> - Soil units are very large, irregular, featureless as far as characteristic aggregates are concerned.

Soil Permeability

Soil permeability is the ability of the soil to transmit water. Since different soil horizons vary in permeability, the relative permeability classes refer to the soil profile as a whole. The relative permeability classes are as follows:

<u>Class</u>	<u>Permeability Rates in In/Hour</u>	
1	Rapid	over 6.0
2	Moderately rapid	2.0 to 6.0
3	Moderate	0.6 to 2.0
4	Moderately slow	0.2 to 0.6
5	Slow	0.06 to 0.2
6	Very slow	less than 0.06

Reading the Nomograph

Entry values for all of the nomograph curves, except permeability class, are for the upper 6 or 7 in. of soil. For soils in cuts, the entry values are for the upper 6 or 7 in. of the newly exposed layer. In reading the nomograph, interpolate linearly between adjacent curves when the entry data do not coincide with the plotted curves of percent

sand or percent organic matter. The percent of coarse fragments may be significant and is not included in the nomograph. Therefore, reduce the value of K read from the nomograph by 10% for soils with stratified subsoils that include layers of small stones or gravel without a seriously impeding layer above them.

Enter the left scale of the nomograph with the appropriate percent silt plus very fine sand, move horizontally to intersect the correct percent-sand curve (interpolating to the nearest percent), vertically to the correct organic matter curve, and then horizontally to the right scale for first approximation of soil erodibility.

For soils having a fine granular structure and moderate permeability, the value of K can be obtained directly from this scale. However, if the soil is other than of fine granular structure, or permeability is other than moderate, it is necessary to proceed to the second part of the nomograph, horizontally to intersect the correct structure curve, vertically downward to the permeability curve, and horizontally to the soil erodibility index scale.

NOMOGRAPH FOR PREDICTING K VALUES OF HIGH CLAY SUBSOILS

Subsoils are commonly heavier in texture than the surface soils. In addition, subsoils likely have aggregating agents that are very much different from those found in surface soils and the degree of aggregation is known to have a profound influence on erodibility.

From an EPA study (Roth, et al., 1974) conducted at Purdue University, a multiple linear regression equation and nomograph were developed which can be used to estimate the erodibility factor, K, of many high clay soils. Multiple regression analysis revealed that

amorphous iron, aluminum and silicon hydrous oxides serve as soil stabilizers in subsoils (whereas, organic matter is the major stabilizer in surface soils). The nomograph was developed from the multiple linear regression equation relating the erodibility factor to the soil texture factor, M, the amount of CDB (citrate-dithionite-bicarbonate) extractable iron and aluminum oxides, and the amount of CDB extractable silica.

The equation used to derive the nomograph was:

$$K_{\text{pred}} = 0.32114 + 2.0167 \times 10^{-4} M - 0.14440 (\% \text{Fe}_2\text{O}_3 + \% \text{Al}_2\text{O}_3) - 0.83686 (\% \text{SiO}_2)$$

where

K_{pred} = predicted K value of subsoil

M = soil texture factor, defined by percent new silt (percent new silt + percent new sand). "New" silt has 2 to 100 μm mean diameter. "New" sand has 100 to 2,000 μm mean diameter.

$\% \text{Fe}_2\text{O}_3$ = percent CBD extractable iron oxide of soil.

$\% \text{Al}_2\text{O}_3$ = percent CBD extractable aluminum oxide of soil.

$\% \text{SiO}_2$ = percent CBD extractable silica in soil.

The nomograph for estimating the erodibility factor, K, of high clay subsoils is reproduced in Figure B-2.

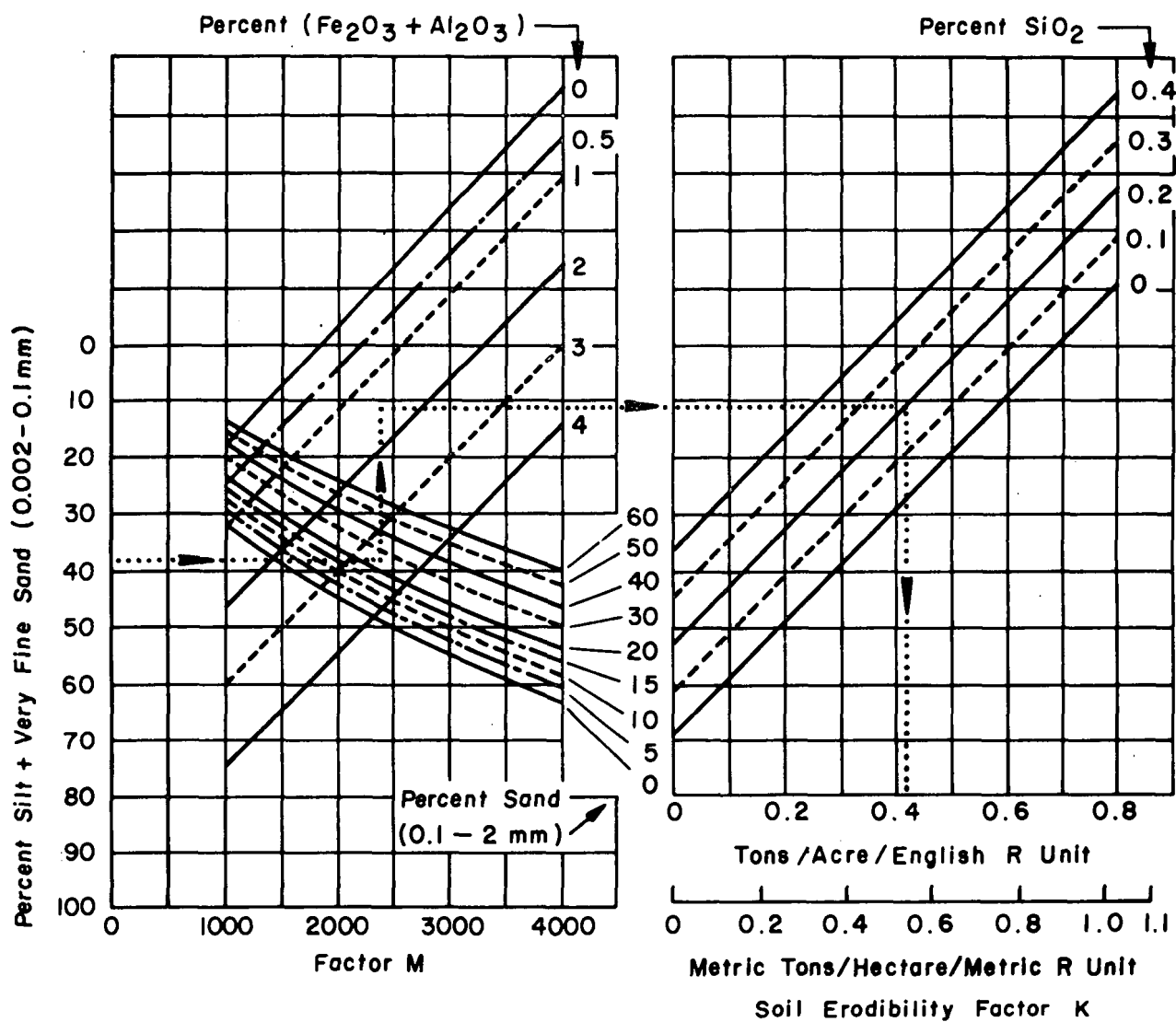


FIGURE B-2 NOMOGRAPH FOR ESTIMATING THE ERODIBILITY FACTOR K OF HIGH CLAY SUBSOILS (ROTH ET AL., 1974)

REFERENCES FOR APPENDIX B

- Roth, C.B., Nelson, D.W., and Romkens, M.J.M., 1974. "Prediction of Subsoil Erodibility Using Chemical, Mineralogical, and Physical Parameters," for the U. S. Environmental Protection Agency (EPA-660/2-74-043), Washington, D.C.
- Walkley, A., and Black, I.A., 1934. "An Examination of the Degtjareff Method for determining Soil Organic Matter," Soil Sci., 37, pp. 29-38.
- Wischmeier, W.H., Johnson, C.B., and Cross, B.U., 1971. "A Soil Erodibility Nomograph for Farmland and Construction Sites," J. Soil and Water Conservation, 26:189-193. "Technical Guide to Erosion and Sediment Control Design (Draft)," 1973. Water Resources Administration, Maryland Department of Natural Resources, Annapolis, Maryland.

APPENDIX C
STREAM AND RIVER DATA

Table C-1	Stream and River Reaeration and Deoxygenation Rates (From Hydrosience, 1971)
Figure C-1	Deoxygenation Parameter ($k_L H^2/\nu$) versus the Reynolds Number and Froude Number $(\rho UH/\mu)/(U\sqrt{gH})$ (From Bansal, 1975)
Table C-2	Deoxygenation Rate Constants (From Bansal, 1975)
Table C-3	Alluvial Channel and Sediment Data (From Schumm, 1960)

TABLE C-1

STREAM AND RIVER REAERATION AND DEOXYGENATION RATES (FROM HYDROSCIENCE, 1971)

<u>River Name</u>	<u>Category</u>	<u>Depth (ft.)</u>	<u>Area (ft²)</u>	<u>Flow (cfs)</u>	<u>Velocity (fps)</u>	<u>k_a @20°C (1/day)</u>	<u>k_L @20°C (1/day)</u>
Grand River (Michigan)	Shallow	1.9	320.0	295.	0.92	4.5	0.59
Clinton River (Michigan)	Shallow	1.58	44.6	33.	0.72	5.9	3.37
Truckee River (Nevada)	Shallow	1.67	150.	180.	1.20	5.6	0.36
		1.67	150.	195.	1.30	5.7	0.36
		1.67	150.	271.	1.81	6.6	0.96
Flint River (Michigan)	Shallow	2.1	210.	134.	0.64	3.5	0.56
		2.6	200.	174.	0.83	3.9	0.63
		2.6	400.	174.	0.44	3.1	0.69
		1.7	290.	204.	0.73	5.0	0.69
		1.9	400.	204.	0.51	2.2	0.69
Jackson River (Virginia)	Shallow	3	365.	100.	0.27	4.1	1.25
N. Branch Potomac River (Md., W.Va.)	Shallow	2	100.	100.	1.0	9.0	0.40

TABLE C-1 (continued)

<u>River Name</u>	<u>Category</u>	<u>Depth (ft.)</u>	<u>Area (ft²)</u>	<u>Flow (cfs)</u>	<u>Velocity (fps)</u>	<u>k_a @20°C (1/day)</u>	<u>k_L @20°C (1/day)</u>
Clarion River (Penna.)	Shallow	1 1.9		1 - 10.	0.55	2.26	3
South River		1-2		35.			2
Ivel River (England)	Shallow	1.21 1.51 1.09 1.50 1.08 0.38 1.12 1.46 1.31 2.44 2.03		4.86 4.15 3.87 15.40 4.86 4.15 3.87 15.40 15.40 10.07 10.07	0.14 0.14 0.13 0.37 0.16 0.15 0.13 0.38 0.47 0.23 0.22	2.35 2.06 3.20 2.37 4.57 2.09 1.18 3.18 6.18 0.90 1.66	
Lark River (England)	Shallow	1.74 1.47 1.82 2.41		10.94 10.94 36.20 36.20	0.28 0.37 0.50 0.43	0.78 2.12 1.41 0.31	

TABLE C-1 (continued)

	<u>River Name</u>	<u>Category</u>	<u>Depth</u>	<u>Area</u>	<u>Flow</u>	<u>Velocity</u>	k_a	k_L
			(ft.)	(ft ²)	(cfs)	(fps)	@20°C (1/day)	@20°C (1/day)
C-4	Derwent River (England)		0.72		21.60	1.37	31.80	
			0.89		21.60	1.19	24.53	
			0.85		21.60	1.07	34.57	
	Black Beck River (England)	Shallow	0.40		2.70	0.44	25.59	
			0.40		2.70	0.56	28.34	
			0.39		2.70	0.63	22.80	
			0.60		17.70	1.83	49.17	
			0.69		17.70	1.81	30.77	
			1.00		17.70	1.54	18.46	
	St. Sunday's Beck (Eng.)	Shallow	0.82		19.10	1.07	21.05	
			0.78		19.10	1.27	16.06	
	Yewdale Beck (England)	Shallow	0.64		5.10	0.46	12.04	
			0.48		5.10	0.60	30.32	
			0.72		17.30	1.16	18.90	
			0.66		17.30	1.31	20.25	
			0.67		17.30	1.30	17.09	
			0.69		17.30	1.25	19.16	
	Elk River (Penna.)	Shallow	0.9			0.97	5.84	

TABLE C-1 (continued)

<u>River Name</u>	<u>Category</u>	<u>Depth (ft.)</u>	<u>Area (ft²)</u>	<u>Flow (cfs)</u>	<u>Velocity (fps)</u>	<u>k_a @20°C (1/day)</u>	<u>k_L @20°C (1/day)</u>
Mohawk River	Shallow	3	143.			.07-4.0	.23
Mohawk River (New York)	Medium	15	3,800.	800.	.21		.40
North Branch Susquehanna	Medium	4	1,700.	1,000.	0.60	1.5	0.35
New River (Virginia)	Medium	5	1,720.	1,200.	0.70	1.04	2.5 0.5
Wabash (Indiana)	Medium	5-7		1,000- 5,000			.40
Clinch River (T.V.)	Medium	3.27 5.09 4.42 6.14 5.65 7.17		3,300. 4,500 3,190 5,890 5,910 5,930	3.07 3.69 3.10 2.68 2.78 2.64	2.27 1.44 .98 .50 .74 1.13	
Holston (T.V.)	Medium	11.41 2.12 2.93 4.54 9.50 6.29		10,385 3,230 6,400 14,085 10,440 6,540	2.92 2.47 3.44 4.65 3.94 2.51	.28 3.36 2.79 1.57 .46 .39	

TABLE C-1 (continued)

<u>River Name</u>	<u>Category</u>	<u>Depth (ft.)</u>	<u>Area (ft²)</u>	<u>Flow (cfs)</u>	<u>Velocity (fps)</u>	<u>k_a @20°C (1/day)</u>	<u>k_L @20°C (1/day)</u>
Holston River (T.V.)	Medium	7.52		10,500	3.15	.27	
		7.07		10,500	3.30	.55	
		5.44		5,590	3.11	.54	
		8.06		11,930	4.28	.60	
		3.98		952	2.73	1.25	
Fr. Broad (T.V.)	Medium	9.38		12,010	2.41	.27	
		10.19		17,120	3.06	.23	
		3.29		44,105	2.40	1.88	
		4.74		8,775	3.46	.84	
		5.72		12,455	4.02	.88	
		6.98		17,270	52	.91	
		4.29		4,150	85	1.00	
		6.01		8,775	.75	.55	
		7.16		12,455	.23	.98	
		9.49		17,270	3.71	.25	
Wautaga River (T.V.)	Medium	3.42		3,112	5.0	43.	5.6
Hiwassee River (T.V.)	Medium	3.02		1,145	3.05	11.	1.7
		2.83		1,145	3.91	21.	3.2
Ohio River	Deep	32	43,000	6,000	.14		.06

TABLE C-1 (continued)

<u>River Name</u>	<u>Category</u>	<u>Depth (ft.)</u>	<u>Area (ft²)</u>	<u>Flow (cfs)</u>	<u>Velocity (fps)</u>	<u>k_a @20°C (1/day)</u>	<u>k_L @20°C (1/day)</u>
C-7	Deep	17.5	6,000	3,000	0.5	.34	.125
		21.0	6,750	4,500	1.5	.34	.165
	Deep	15-20	8,000	10,000	1.5	.28	.40
						.15	
						.24	
	Deep	15.5	11,500	1,800	0.16	.15	.48
			14,500	2,600	0.18	.14	.30
			14,500	9,000	0.63	.12	.31
			14,000	7,500	0.53	.13	.41
			14,500	4,500	0.31	.22	.39
			13,500	3,800	0.28	.24	.38
			15,000	1,350	0.13	.22	.43
	Deep	10-12		8,000			.07
	Deep	9.2			1.37	.225	
		9.0			1.57	.269	
		8.9			1.63	.224	

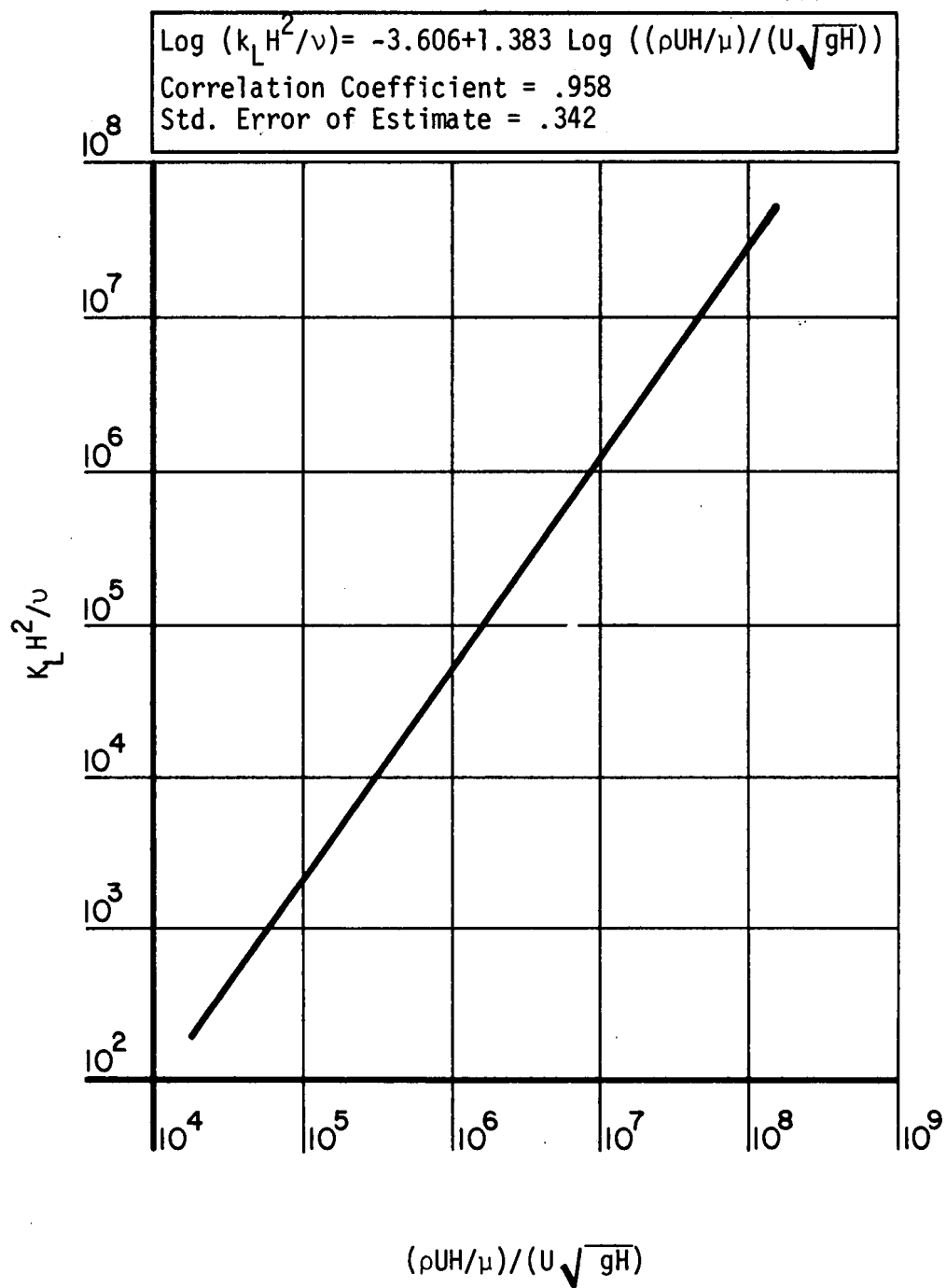


FIGURE C-1 DEOXYGENATION PARAMETER ($k_L H^2 / \nu$)
VERSUS THE REYNOLDS NUMBER AND FROUDE
NUMBER $(\rho U H / \mu) / U \sqrt{g H}$ (FROM BANSAL,
1975)

TABLE C-2
DEOXYGENATION RATE CONSTANTS (FROM BANSAL, 1975)

Discharge <u>cfs</u>	X-section area <u>sq ft.</u>	Top Width <u>ft.</u>	Temp <u>°C</u>	<u>k_L rates base e/day</u>	
				<u>Observed</u>	<u>Estimated (From Fig. C-1)</u>
Kansas River at Bonner Springs, Kansas					
15,200	4,300	770	25	.02	.258
2,160	1,200	505	28	.12	.249
2,090	1,170	500	25	.12	.242
2,440	1,300	525	24	.24	.241
1,300	850	450	9	.02	.204
828	550	415	5	.16	.190
632	425	405	9	.26	.195
1,080	710	432	14	.17	.213
Kansas River at Lecompton, Kansas					
1,750	750	725	27	.19	.232
1,360	590	660	32	.15	.239
2,060	880	774	28	.35	.236
2,300	1,000	757	10	.30	.201
1,040	450	592	6	.47	.184
793	350	538	0	.23	.169
1,170	500	620	16	.05	.206
Kansas River at Topeka, Kansas					
3,040	1,450	468	22	.08	.241
1,460	700	437	31	.07	.248
1,800	865	447	27	.1	.243
2,690	1,285	466	18	.37	.230
1,900	910	450	7	.14	.200
764	365	405	7	.06	.189
631	310	368	11	.23	.196
608	290	364	15	.10	.204

TABLE C-2 (continued)

Discharge cfs	X-section: area sq ft.	Top Width ft.	Temp °C	k_L rates base e/day	
				Observed	Estimated (From Fig. C-1)
Republic River below Milford, Kansas					
258	184	196	24	.18	.224
657	412	251	28	.19	.242
609	392	249	24	.07	.283
201	140	166	14	.25	.203
15	10	68	1	.14	.153
36	26	77	0	.23	.161
249	177	192	16	.29	.208
Smoky Hill River at Enterprise, Kansas					
215	122	119	27	.09	.232
100	57	69	32	.26	.238
373	211	131	24	.16	.234
146	83	91	6	.32	.193
113	65	75	0	.14	.173
210	120	118	15	.17	.207
157	88	97	14	.24	.204
Smoky Hill River at New Cambridge, Kansas					
185	87	86	27	.09	.232
67	35	79	31	.19	.225
734	252	88	29	.27	.255
Solomon River at Niles, Kansas					
61	65	53	28	.21	.237
35	40	49	30	.19	.234
117	125	61	21	.06	.231

TABLE C-2 (continued)

Discharge cfs	X-section. area sq ft.	Top Width ft.	Temp. °C	k_L rates base e/day	
				Observed	Estimated (From Fig. C-1)
Kansas River at Wamego, Kansas					
890	390	413	27	.23	.231
1,540	670	468	26	.13	.236
2,530	1,080	540	27	.30	.244
1,470	730	462	15	.26	.214
680	300	395	0	.28	.171
535	225	381	2	.11	.172
483	190	375	7	.06	.181
Big Blue River at Tuttle Creek, Kansas					
1,060	1,050	194	22	.21	.251
162	70	76	24	.14	.224
90	42	62	27	.23	.225
810	490	191	23	.28	.240
961	1,000	194	8	.6	.217
232	108	92	1	.37	.179
50	30	52	6	.15	.181
50	30	52	13	.2	.195
Kansas River at Manhattan (Fort Riley), Kansas					
1,250	4,250	533	26	.26	.268
559	1,750	493	32	.15	.265
1,200	4,050	530	26	.10	.267
511	367	247	25	.09	.234

TABLE C-2 (continued)

Discharge cfs	X-section area sq ft.	Top Width ft.	Temp. °C	<u>k_L rates base e/day</u>	
				<u>Observed</u>	<u>Estimated (From Fig. C-1)</u>
Solomon River at Glen Elder, Kansas					
44	38	49	28	.20	.229
47	40	49	28	.23	.23
79	58	53	24	.10	.227
30	30	33	7	.35	.21
48	41	49	0	.34	.172
33	31	36	0	.37	.173
30	30	33	5	.35	.185
Saline River at Tescott, Kansas					
8.3	14	19.4	2.7	.37	.226
5.8	10	17.8	28	.25	.224
132	75	30	21	.26	.235
Smoky Hill River at Mentor, Kansas					
138	88	83	24	.10	.226
35	20	81.5	26	.15	.207
675	288	92.5	26	.42	.25
Smoky Hill River at Langley, Kansas					
77	60	57	23	.42	.224
147	85	67	27	.51	.236
493	210	90	24	.14	.240
249	122	75	23	.14	.232
14	15	20	7	.20	.186
21	21	23	1	.28	.176
18	19	22	6	.29	.186
81	60	58	11	.33	.199

TABLE C-2 (continued)

Discharge cfs	X-section area sq ft.	Top Width ft.	Temp. °C	k _L rates base e/day	
				Observed	Estimated (From Fig. C-1)
Grand River, Michigan					
295	320	168.4	20	.59	.228
Clinton River, Michigan					
33	44.6	28.22	20	3.37	.225
Truckee River, Nevada					
180	150	89.8	20	.36	.226
195	150	89.8	20	.36	.226
271	150	89.8	20	.96	.226
Flint River, Michigan					
134	210	100		.56	.230
174	200	76.9	20	.63	.233
174	400	153.8	20	.69	.233
204	296	170.6	20	.69	.226
204	400	210.5	20	.69	.228
Jackson River, Virginia					
100	365	122	20	1.25	.236
North Branch Potomac River (Maryland, West Virginia)					
100	100	50	20	.4	.229
North Branch Susquehanna					
1,000	1,700	425	20	.35	.241

TABLE C-2 (continued)

Discharge cfs	X-section area sq ft.	Top Width ft.	Temp. °C	<u>k_L rates base e/day</u>	
				Observed	Estimated (From Fig. C-1)
New River, Virginia					
1,200	1,720	344	20	.5	.245
Upper Hudson, Troy, New York					
3,000	6,000	343	20	.125	.269
4,500	6,750	321	20	.165	.273
Lower Sacramento River					
10,000	8,000	457	20	.4	.269
Upper James River, Virginia					
1,800	8,000	742	20	.48	.267
2,600	11,500	935.5	20	.30	.267
9,000	14,500	935.5	20	.31	.267
7,500	14,000	903.2	20	.41	.267
4,500	14,500	935.2	20	.39	.267
3,800	13,500	871	20	.38	.267
1,350	15,000	967.7	20	.43	.267
Cooper River, South Carolina					
10,000	40,000	1,000	20	.3	.286
Savannah River, Georgia and South Carolina					
7,000	10,000	1,000	20	.3	.258
6,800	40,000	1,428.6	20	.3	.279

TABLE C-2 (continued)

Discharge cfs	X-section area sq. ft.	Top Width ft.	Temp. °C	k_L rates base e/day	
				Observed	Estimated (From Fig. C-1)
South New Jersey					
23	2,500	208.3	20	.2	.262
Compton Creek, New Jersey					
10	1,000	69	20	.23	.265
10	790	75	20	.23	.259

TABLE C-3

ALLUVIAL CHANNEL AND SEDIMENT DATA (FROM SCHUMM, 1960)

Smoky Hill-Kansas Rivers system											
Location	Median grain size, D ₅₀ (mm)	Silt-clay in bank (percent)	Silt-clay in channel (percent)	Weighted mean silt-clay M (percent)	Width (feet)	Depth (feet)	Width depth ratio (F)	Gradient (S)	Mean annual flood (cfs)	Mean annual discharge (cfs)	Drainage area (sq mi)
Willow Creek near Cheyenne Wells, Colo----	1.10	72	3	16	15	1.7	8.8	-----	-----	-----	-----
Smoky Hill River near Arapahoe, Colo----	.85	49	3	6.1	65	2.3	28	0.003	-----	30(est)	-----
Smoky Hill River near Sharon Springs, Kans-----	.41	25	4	4.5	200	2.5	80	-----	-----	-----	-----
Smoky Hill River at Russell Springs, Kans-----	1.30	21	2	2.4	263	3.0	88	-----	-----	-----	-----
Smoky Hill River at Gove, Kans-----	.80	63	3	4.3	226	2.5	90	-----	-----	-----	-----
Smoky Hill River near Arnold, Kans-----	.93	30	2	2.4	345	2.5	138	-----	5,800	65.2	5,220
Smoky Hill River near Russell, Kans-----	.81	76	1	5.3	115	3.5	33	.00066	8,000	215	6,965
Smoky Hill River at Dorrence, Kans-----	1.30	69	.5	4.4	130	4.0	33	.0007	-----	-----	-----
Smoky Hill River near Kanopolis (Longley), Kans-----	.63	96	4	14	92	5.5	17	.0005	9,200	314	7,857
Smoky Hill River near Bridgeport (Lindsborg), Kans-----	.40	85	3	13	69	5.0	14	-----	6,750	340	8,110
Smoky Hill River at Abilene, Kans-----	.023	97	87	89	125	18	7	-----	11,500	1,254	18,830
Smoky Hill River near Junction City, Kans-----	1.20	90	.5	6	153	5.0	31	.0004	13,000	1,454	19,900
Kansas River at Wamego, Kans-----	.70	93	1	3.8	636	10	64	.0008	39,000	4,398	55,240
Kansas River near Topeka, Kans-----	.75	57	.5	3	800	18	44	.0005	48,000	5,155	56,710
Republican River System											
Arikaree River near Arikaree, Colo----	1.10	82	3	4.7	206	2.2	94	-----	-----	-----	-----
Arikaree River at Haigler, Nebr-----	.25	65	3	8	68	3.0	23	0.002	3,500	19.6	1,460
Republican River near Stratton, Nebr--	.38	31	3	3.4	400	3.0	133	-----	-----	-----	-----
South Fork Republican River near Benkleman, Nebr-----	.48	44	1.5	3.4	100	2.3	43	.002	4,500	56.8	2,580
Republican River near Benkleman, Nebr--	.25	23	6	6.7	123	2.5	49	.003	2,175	105	4,770
Republican River near McCook, Nebr-----	.52	88	.5	4.4	115	2.7	43	.009	-----	-----	5,760
Republican River near Bostwick(Hardy), Nebr-----	.63	29	1	2.8	154	5.0	31	.0008	12,000	843	22,400
Republican River at Concordia, Kans----	.70	34	.2	1.4	250	5.0	50	.0007	13,000	-----	23,540
Republican River at Junction City, Kans	.60	59	1	3.4	300	6.5	46	.0007	15,000	1,000	24,900
Powder River System											
South Fork Powder River near Kaycee, Wyo-----	0.63	71	9	11.3	119	2.3	52	0.004	3,900	35	1,150
Middle Fork Powder River above Kaycee, Wyo-----	22.0	60	14	20	35	2.5	14	.005	574	58	450
Middle Fork Powder River near Kaycee, Wyo-----	.40	69	15	23	47	4.4	11	.0015	1,630	133	980
Powder River below Arvada, Wyo-----	.21	70	4	6.5	175	3.5	50	.0011	-----	-----	-----
Powder River near Locate, Mont-----	.42	58	13	15	234	4.5	52	-----	9,400	639	-----
Crazy Woman Creek near Arvada, Wyo---	.50	75	2	17	33	4.4	7.5	-----	1,150	40	956
Little Powder River at Broadus, Mont--	4.10	82	5.5	22	40	5.5	7.3	-----	1,280	39	-----
Bighorn River near Kane, Wyo-----	.16	35	20	21	220	8.5	26	-----	16,100	2,888	15,900
Badwater Creek near Lysite, Wyo-----	.43	47	3	6.7	50	2.3	22	.0037	-----	-----	-----
Badwater Creek at Lysite, Wyo-----	.24	58	5	7.3	109	2.5	44	.0037	-----	-----	-----
Owl Creek near Thermopolis, Wyo-----	.21	69	2	14	35	3.9	9.0	.0015	585	34	484
Cottonwood Creek at Winchester, Wyo---	1.0	15	8	8.4	133	3.5	38	-----	-----	-----	-----
Gooseberry Creek at Pulliam, Wyo-----	8.0	45	2.5	5.7	59	2.4	25	.006	311	10	371
Graybull River near Basin, Wyo-----	.50	72	7	9.9	134	3.1	43	.0015	3,140	178	1,130
Bates Creek near Alcova, Wyo-----	.90	63	14	18	69	2.8	25	.0035	500	16	377

TABLE C-3 (continued)

Location	Median grain size, D ₅₀ (mm)	Silt-clay in bank (percent)	Silt-clay in channel (percent)	Weighted mean silt-clay M (percent)	Width (feet)	Depth (feet)	Width depth ratio (F)	Gradient (S)	Mean annual flood (cfs)	Mean annual discharge (cfs)	Drainage area (sq mi)
Sage Creek, S.Dak.:											
(2)-----	0.06	93	55	73	16	7	2.3	0.0055	-----	-----	1.7
(3)-----	.06	93	68	79	20	7	2.9	.0045	-----	-----	3.4
(4)-----	.12	96	40	54	31	5	6.2	.0045	-----	-----	9.5
Sand Creek, Nebr:											
(4)-----	.72	70	14	23	75	7	10.7	.0015	-----	-----	17.9
(5)-----	.73	60	15	22	65	7	9.3	.003	-----	-----	22.2
(6)-----	.35	65	10	20	36	4	9.0	.001	-----	-----	22.5
Arroyo Calabasas, N. Mex.:											
(A)-----	.84	18	3	4.1	79	3	26.3	.013	-----	-----	3.8
(6)-----	.50	26	3	4.8	92	4	23.0	.009	-----	-----	24.2
(7)-----	.75	16	5	5.8	100	4	25.0	.011	-----	-----	25.8
Bayou Gulch, Colo.:											
(3)-----	.58	13	4	4.4	130	3	43	.010	-----	-----	19.7
(6)-----	.55	6	4	4.1	128	1.5	85	.016	-----	-----	22.9
Medano Creek, Colo.:											
(1)-----	.24	.5	1	1	340	2	170	.017	-----	-----	25.8
(2)-----	.24	.5	1	1	800	3	267	.019	-----	-----	26.1
(3)-----	.24	.5	.5	.5	820	2.5	328	.016	-----	-----	28.8
Saline River at Russell, Kans.-----	3.57	93	5.7	11	93	3	31	-----	4,300	88.3	1,502
Paradise Creek near Paradise, Kans.----	.50	74	8	30	32	7.8	4.1	.001	1,300	11.1	212
North Fork Solomon River near Downs Kans.	.80	89	1.2	16	82	8.6	9.6	.0006	8,000	151	2,390
Solomon River at Bennington(Niles),Kans-	.41	90	4	11	112	5	22	-----	7,000	558	6,770
Prairie Dog Creek at Norton, Kans.-----	.90	82	1.5	19	45	6.2	7.2	.0005	2,600	33.2	721
Sappa Creek at Stamford, Nebr.-----	.60	97	2	23	43	6.0	7.2	.0013	1,800	111	3,840
Sappa Creek at Beaver City, Nebr.-----	.70	96	17	43	26	6.3	4.1	.003	1,350	39.1	1,500
Beaver Creek at Beaver City,Nebr.-----	.70	95	2	19	40	4.5	8.9	.001	1,000	28.8	2,060
Beaver Creek at Ludell, Kans.-----	1.10	95	2.5	35	28	8.0	3.5	.001	450	12.5	1,460
Frenchman Creek at Hamlet, Nebr.-----	.27	93	8.7	31	36	6.5	5.5	.0013	850	101	1,480
Blackwood Creek at Culbertson, Nebr.----	.02	91	75	81	27	8.4	3.2	.0021	690	5.8	290
Red Willow Creek near Red Willow,Nebr.--	.11	91	30	45	45	7.1	6.3	.001	2,220	43.1	400
South Loup River near Cumro, Nebr.-----	.25	80	9.4	16	143	7.3	19.6	.003	2,080	165	1,340
Niobrara River near Colclessner,Nebr.----	.33	47	2	3.3	224	3.4	65.9	.003	-----	-----	2,000
White River at Chadron,Nebr.-----	.15	86	32.5	56	25	10.0	2.5	-----	880	20.4	676
White River at Interior,S.Dak.-----	.50	89	2	5.3	293	5.8	50.6	.002	10,900	302	-----
Cheyenne River at Edgemont,S.Dak.-----	.75	56	.6	3	221	5.0	44.2	.0025	3,660	113	7,143

APPENDIX D

IMPOUNDMENT THERMAL PROFILES

This appendix contains thermal profile plots for a variety of impoundment sizes and geographic locations throughout the U.S. The locations are arranged in alphabetical order. Within each location set, the plots are ordered by depth and hydraulic residence time. An index to the plots is provided on pages D-2 and D-3, and the modeling approach is described in Appendix F.

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SAN ANTONIO, TEXAS

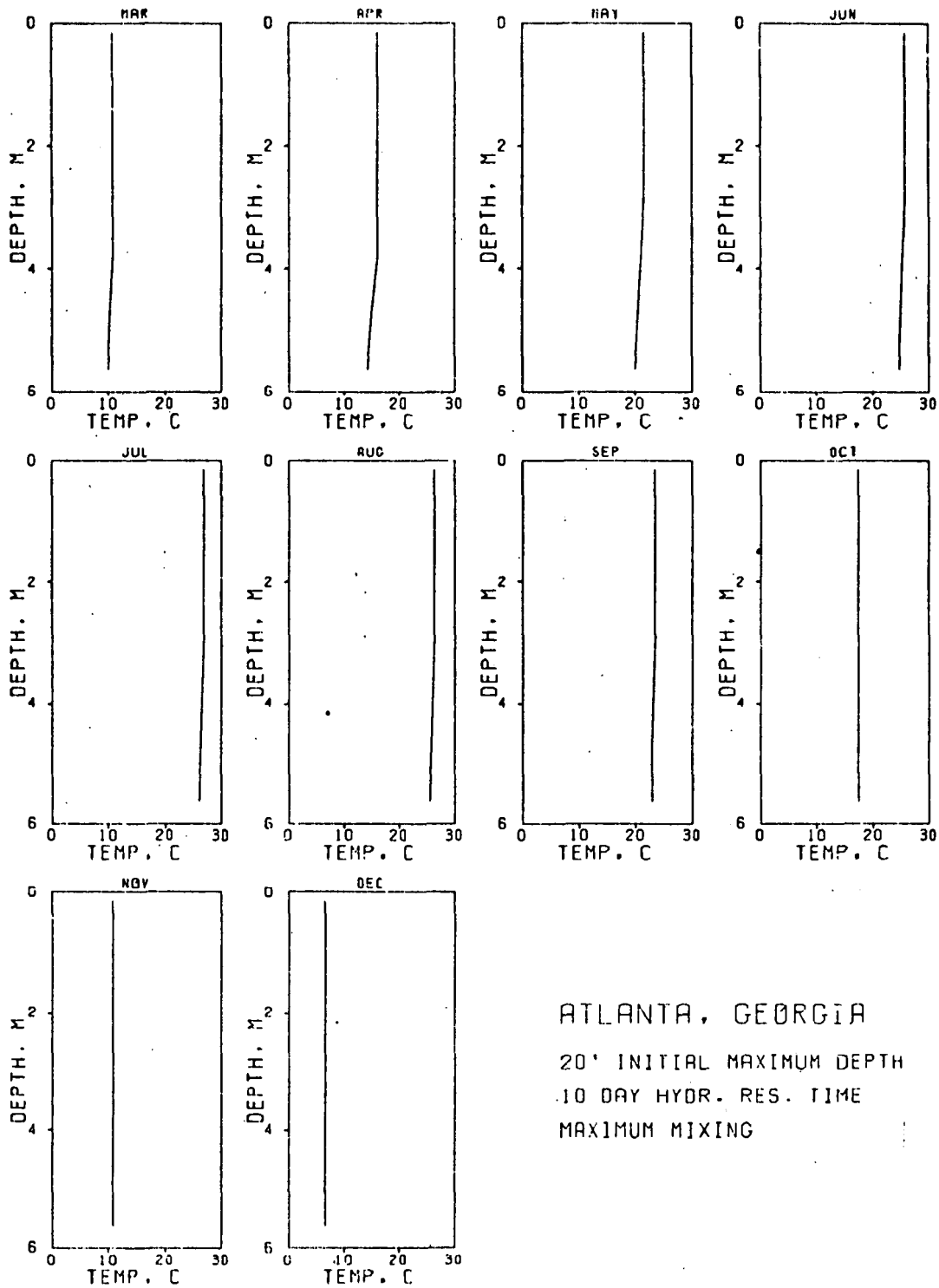
20' Initial Maximum Depth	D-354
40' Initial Maximum Depth	D-364
75' Initial Maximum Depth	D-374
100' Initial Maximum Depth	D-384
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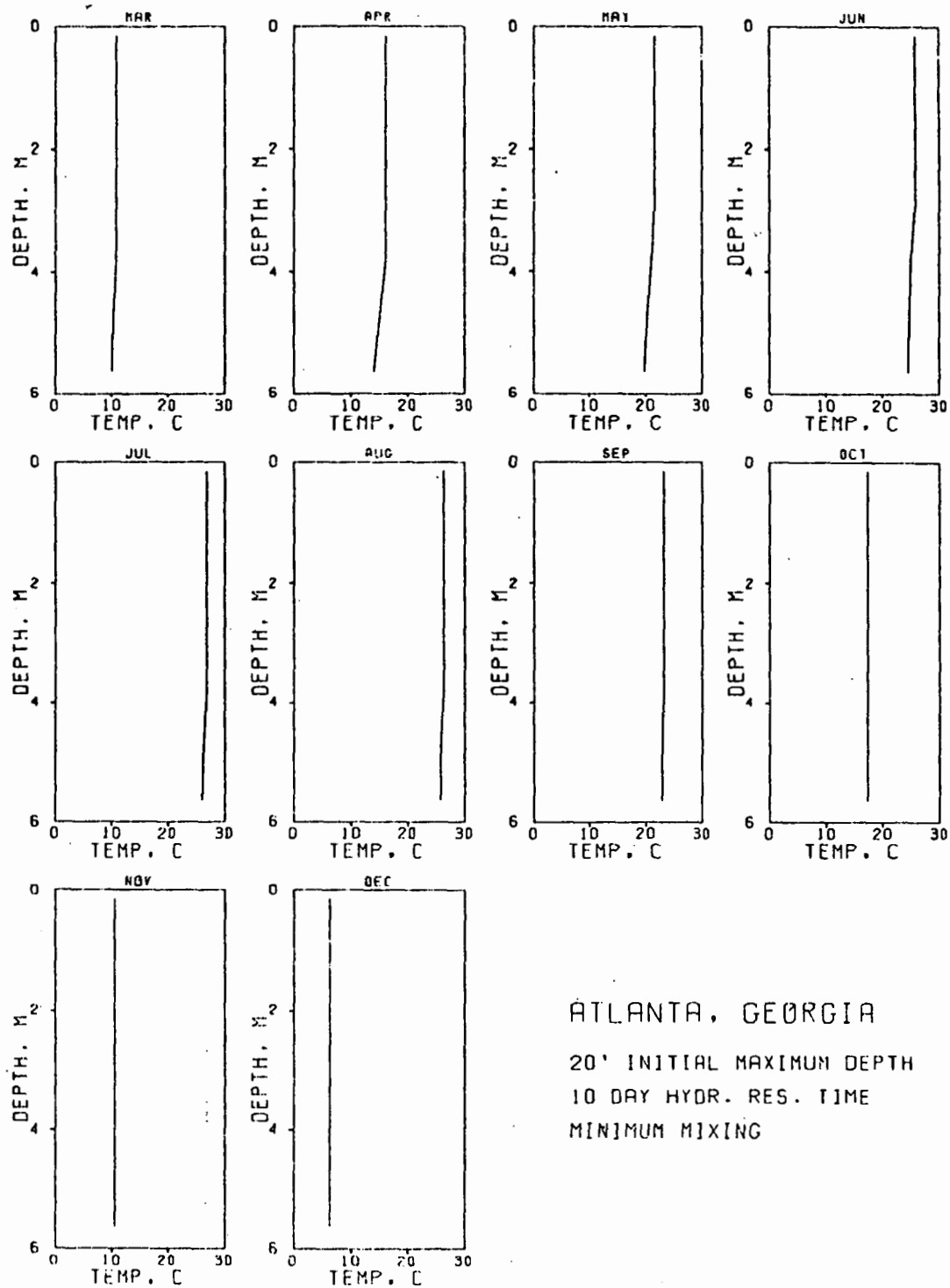
WASHINGTON, D.C.

20' Initial Maximum Depth	D-404
40' Initial Maximum Depth	D-414
75' Initial Maximum Depth	D-424
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20' Initial Maximum Depth	D-454
40' Initial Maximum Depth	D-464
75' Initial Maximum Depth	D-474
100' Initial Maximum Depth	D-484
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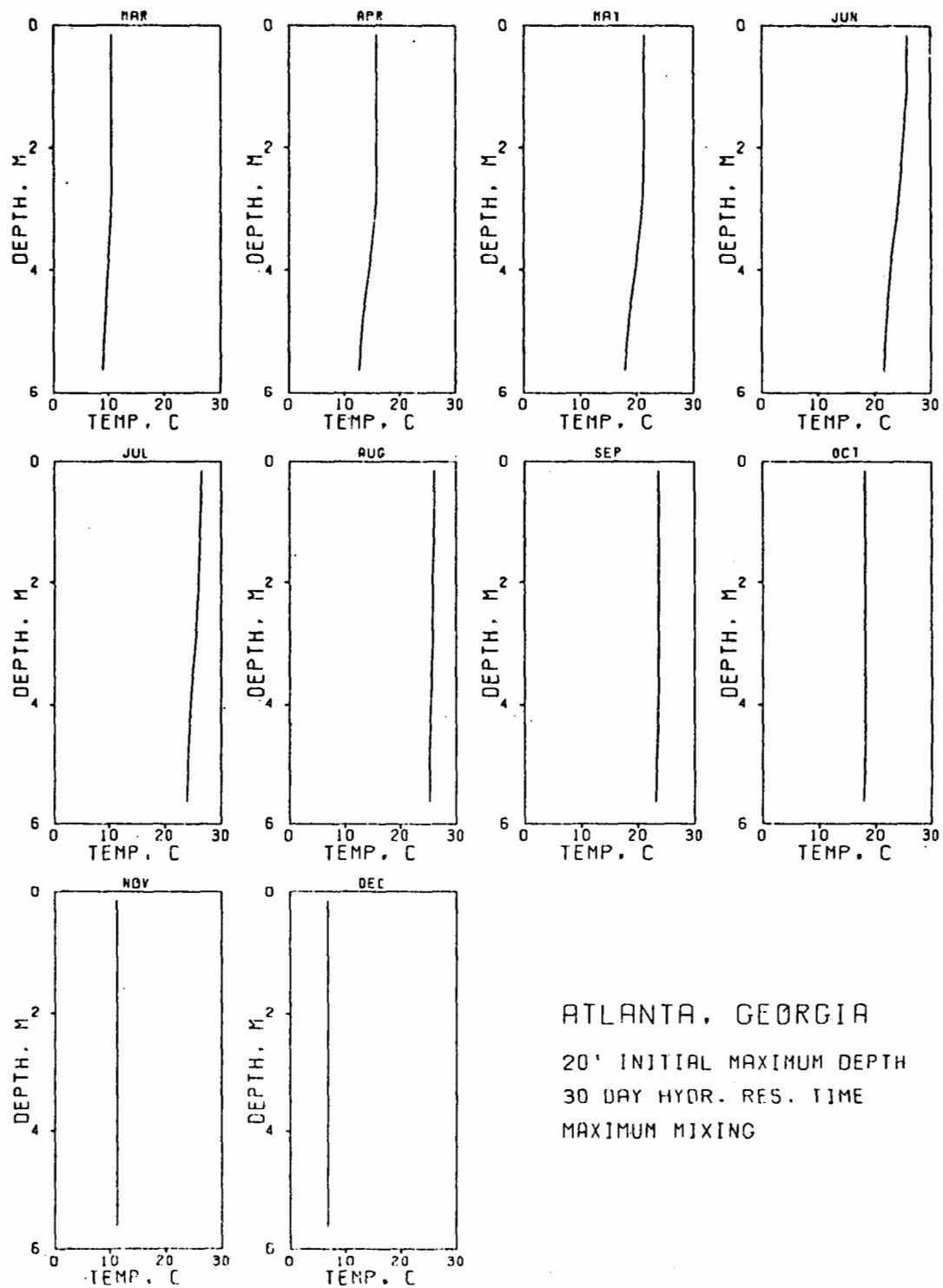


ATLANTA, GEORGIA

20' INITIAL MAXIMUM DEPTH

10 DAY HYDR. RES. TIME

MINIMUM MIXING

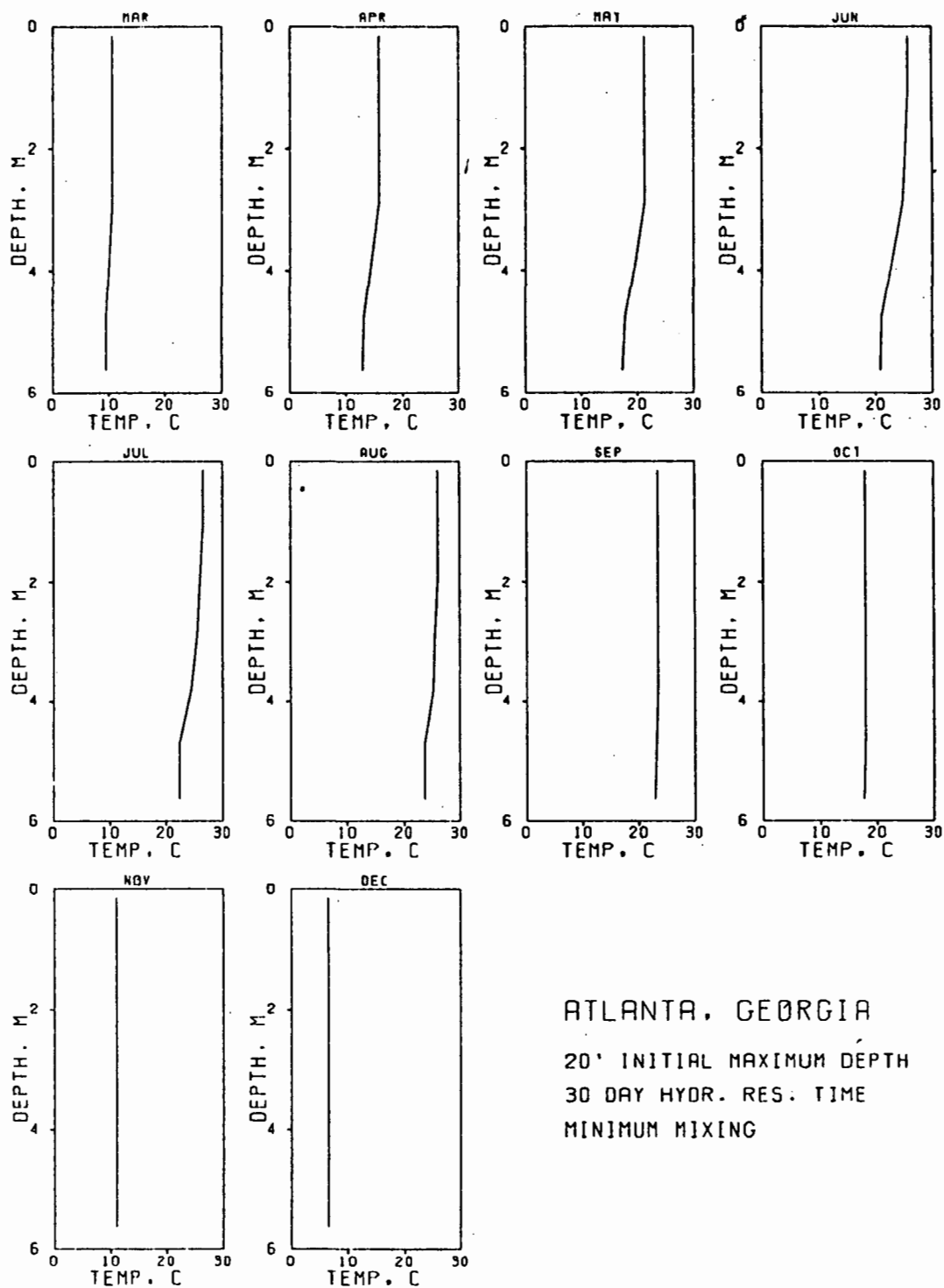


ATLANTA, GEORGIA

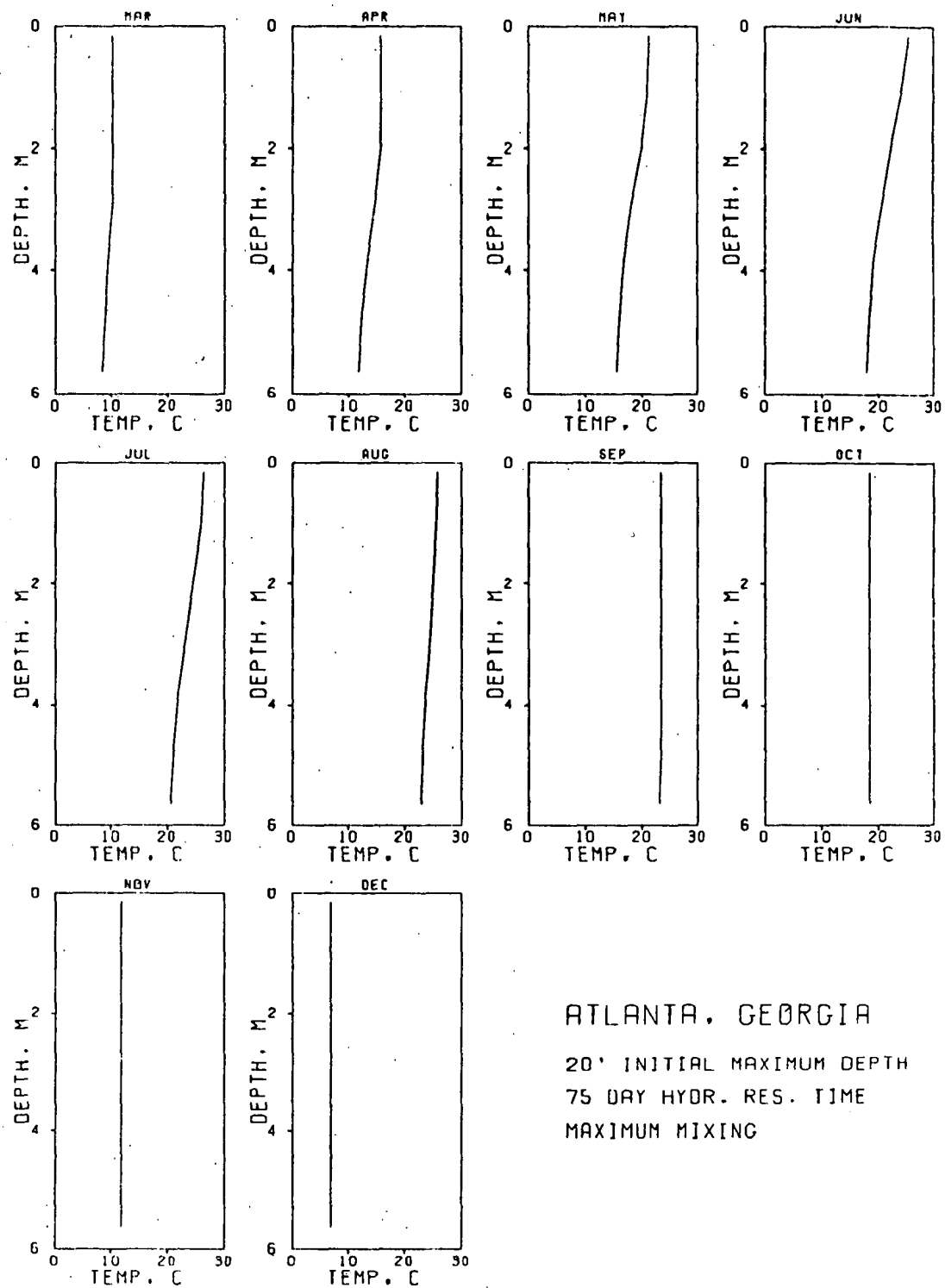
20' INITIAL MAXIMUM DEPTH

30 DAY HYDR. RES. TIME

MAXIMUM MIXING



ATLANTA, GEORGIA
 20' INITIAL MAXIMUM DEPTH
 30 DAY HYDR. RES. TIME
 MINIMUM MIXING

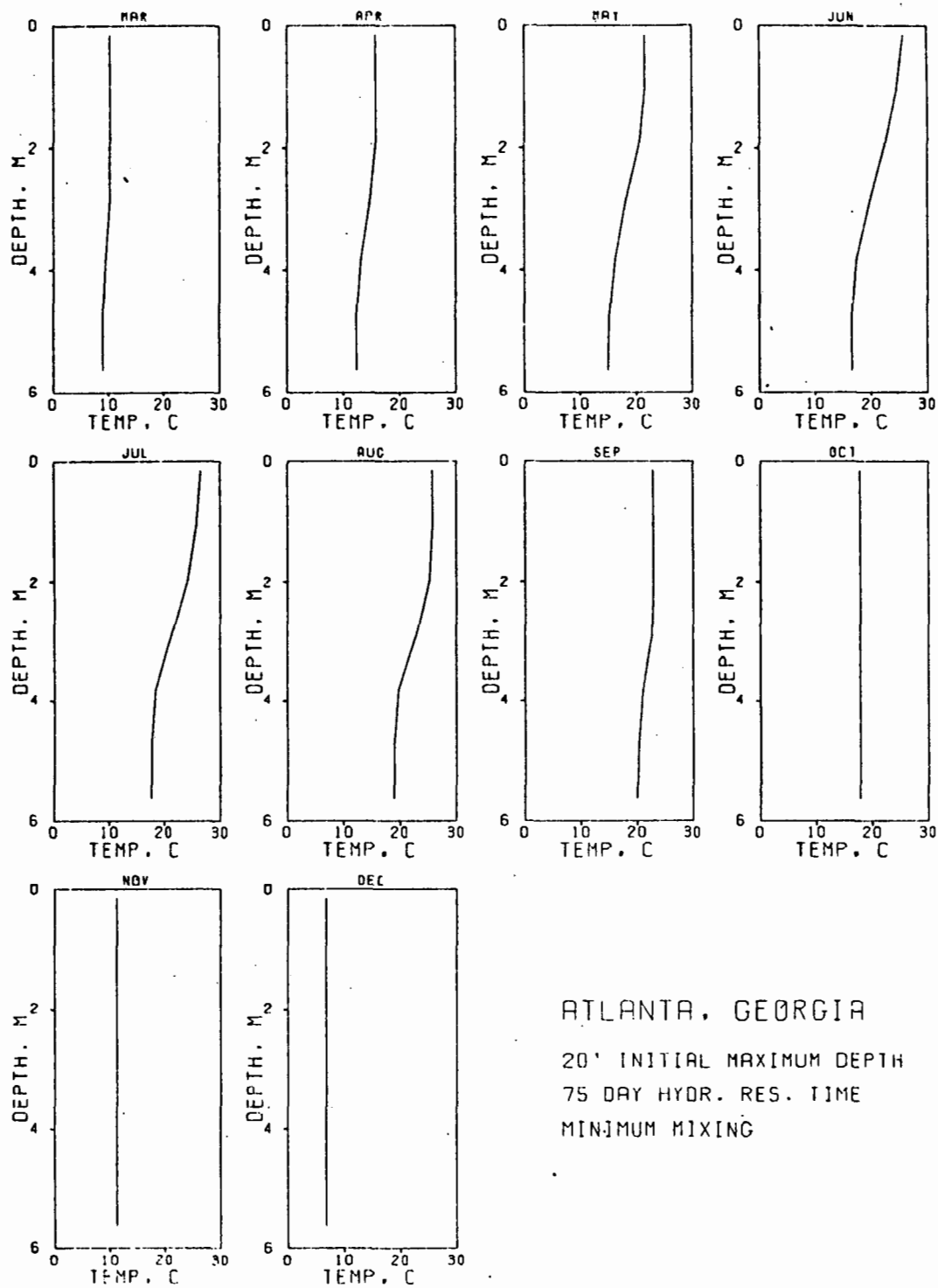


ATLANTA, GEORGIA

20' INITIAL MAXIMUM DEPTH

75 DAY HYDR. RES. TIME

MAXIMUM MIXING

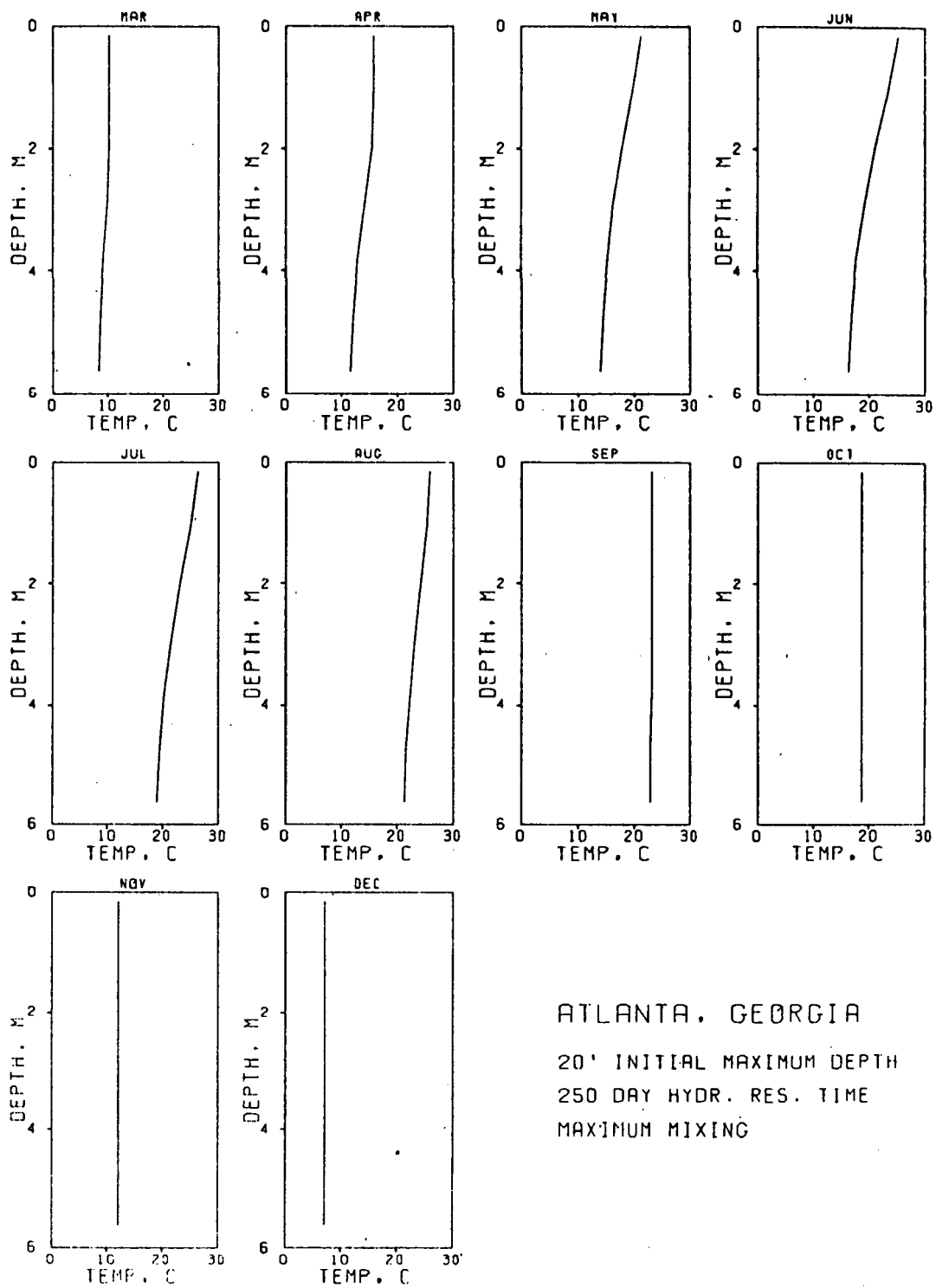


ATLANTA, GEORGIA

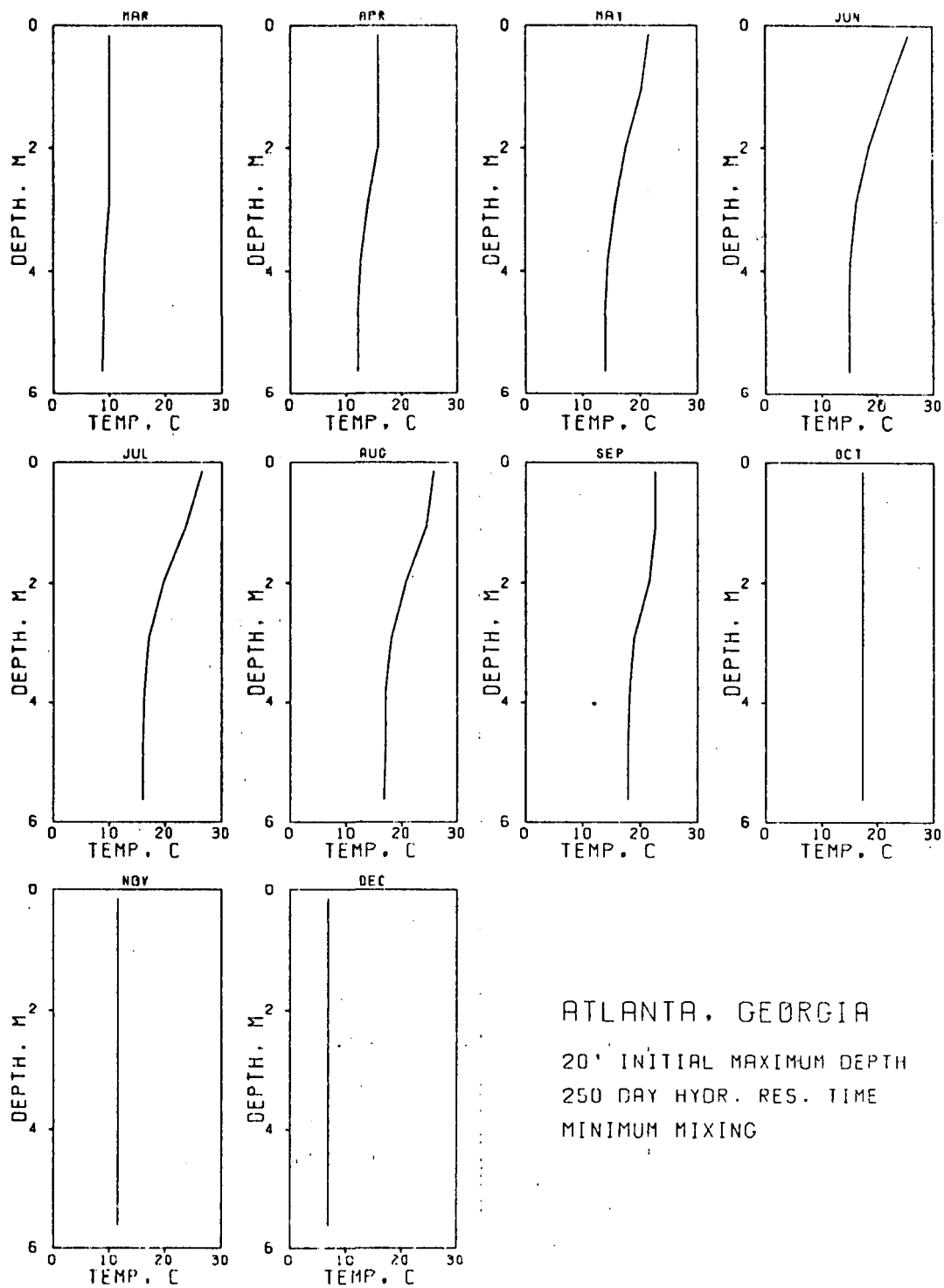
20' INITIAL MAXIMUM DEPTH

75 DAY HYDR. RES. TIME

MINIMUM MIXING



ATLANTA, GEORGIA
 20' INITIAL MAXIMUM DEPTH
 250 DAY HYDR. RES. TIME
 MAXIMUM MIXING

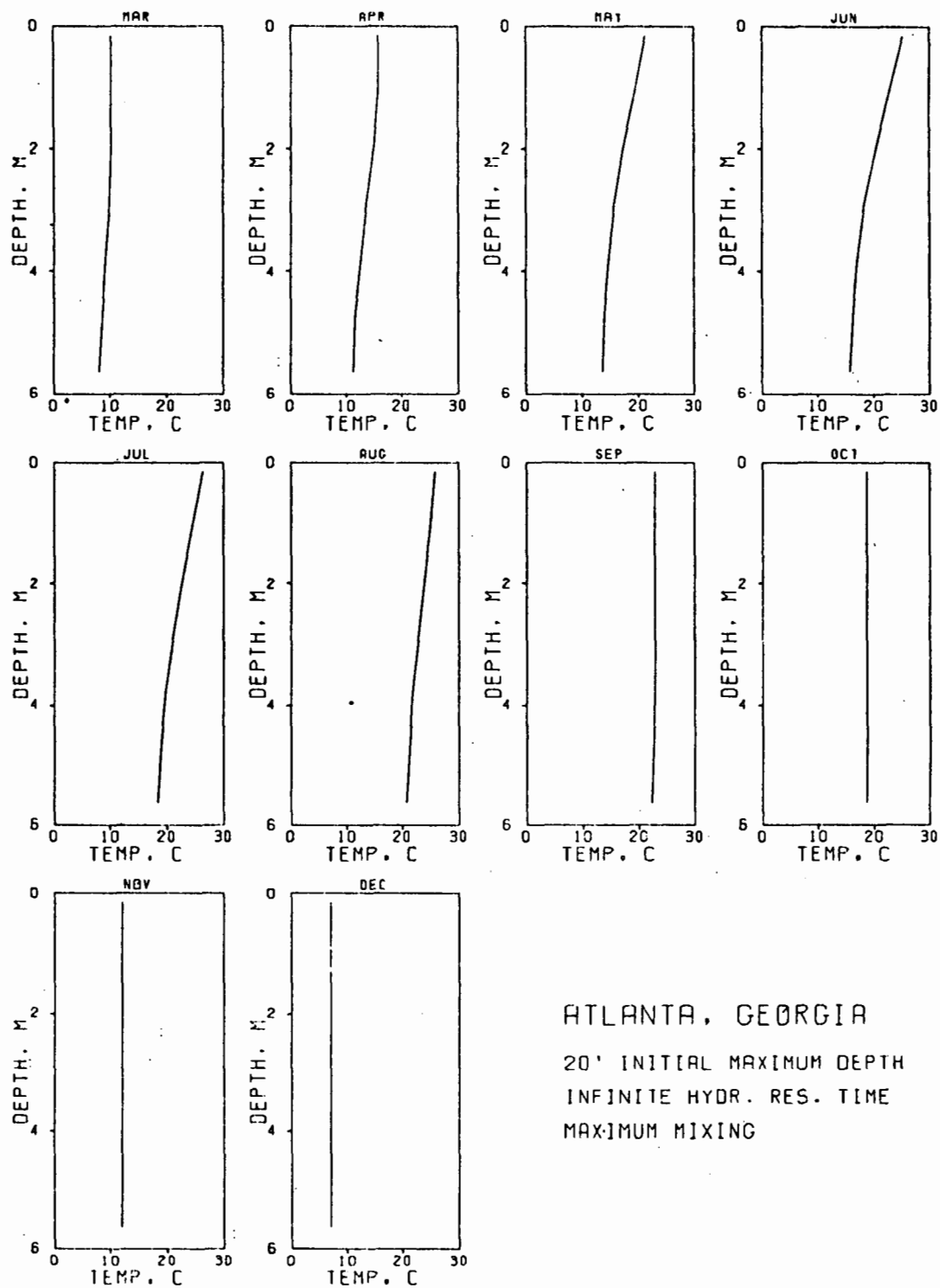


ATLANTA, GEORGIA

20' INITIAL MAXIMUM DEPTH

250 DAY HYDR. RES. TIME

MINIMUM MIXING

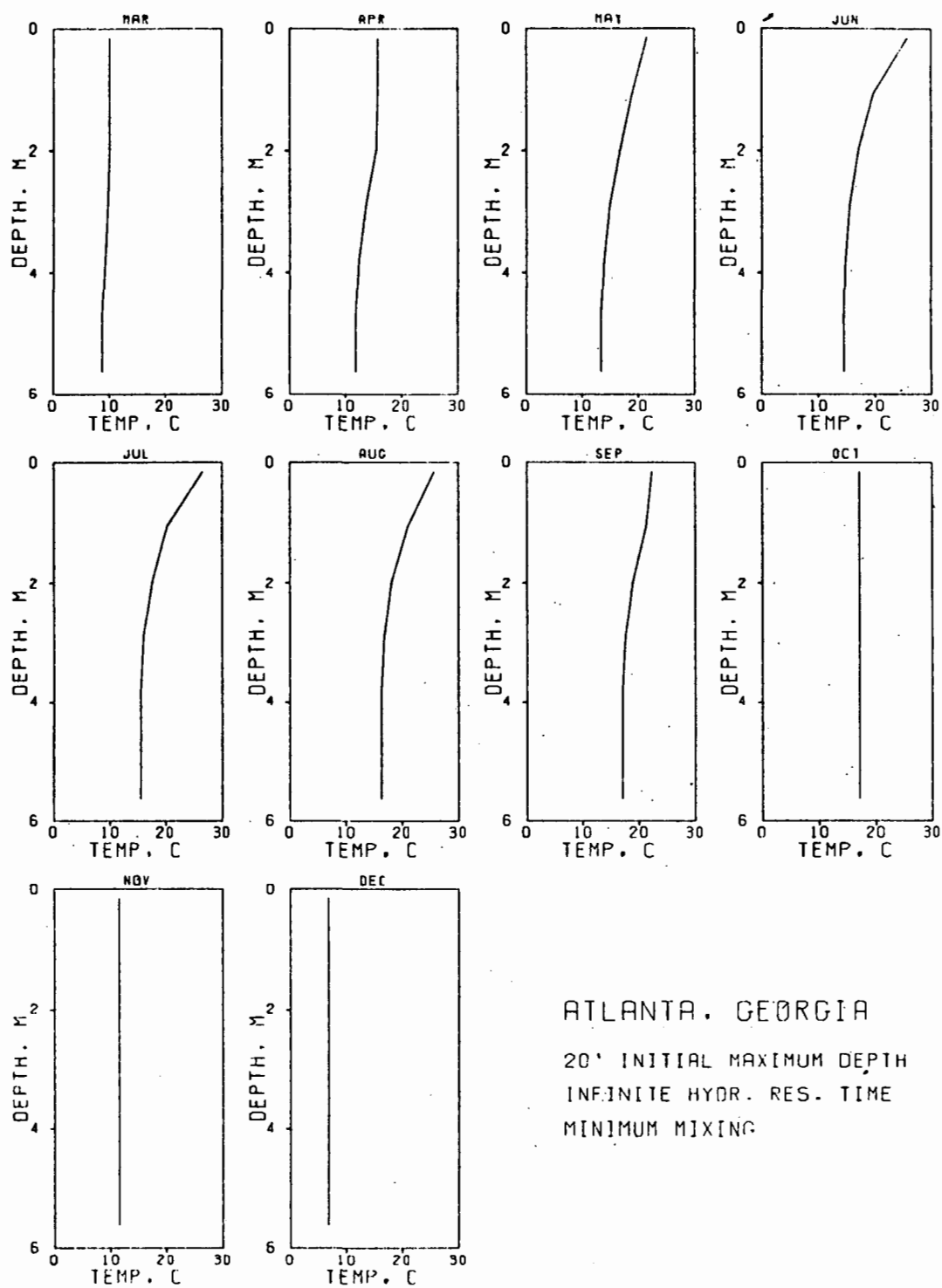


ATLANTA, GEORGIA

20' INITIAL MAXIMUM DEPTH

INFINITE HYDR. RES. TIME

MAXIMUM MIXING

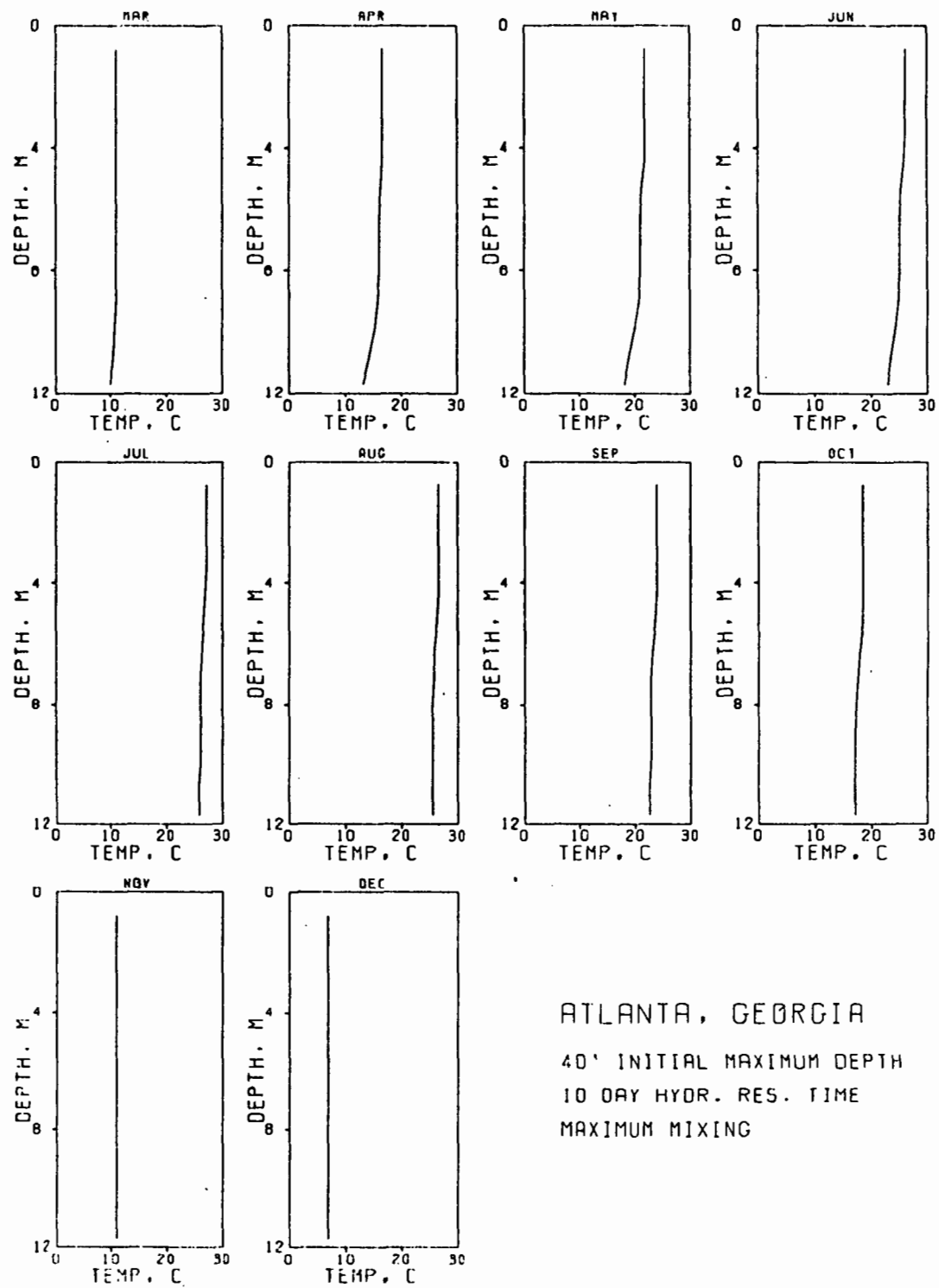


ATLANTA, GEORGIA

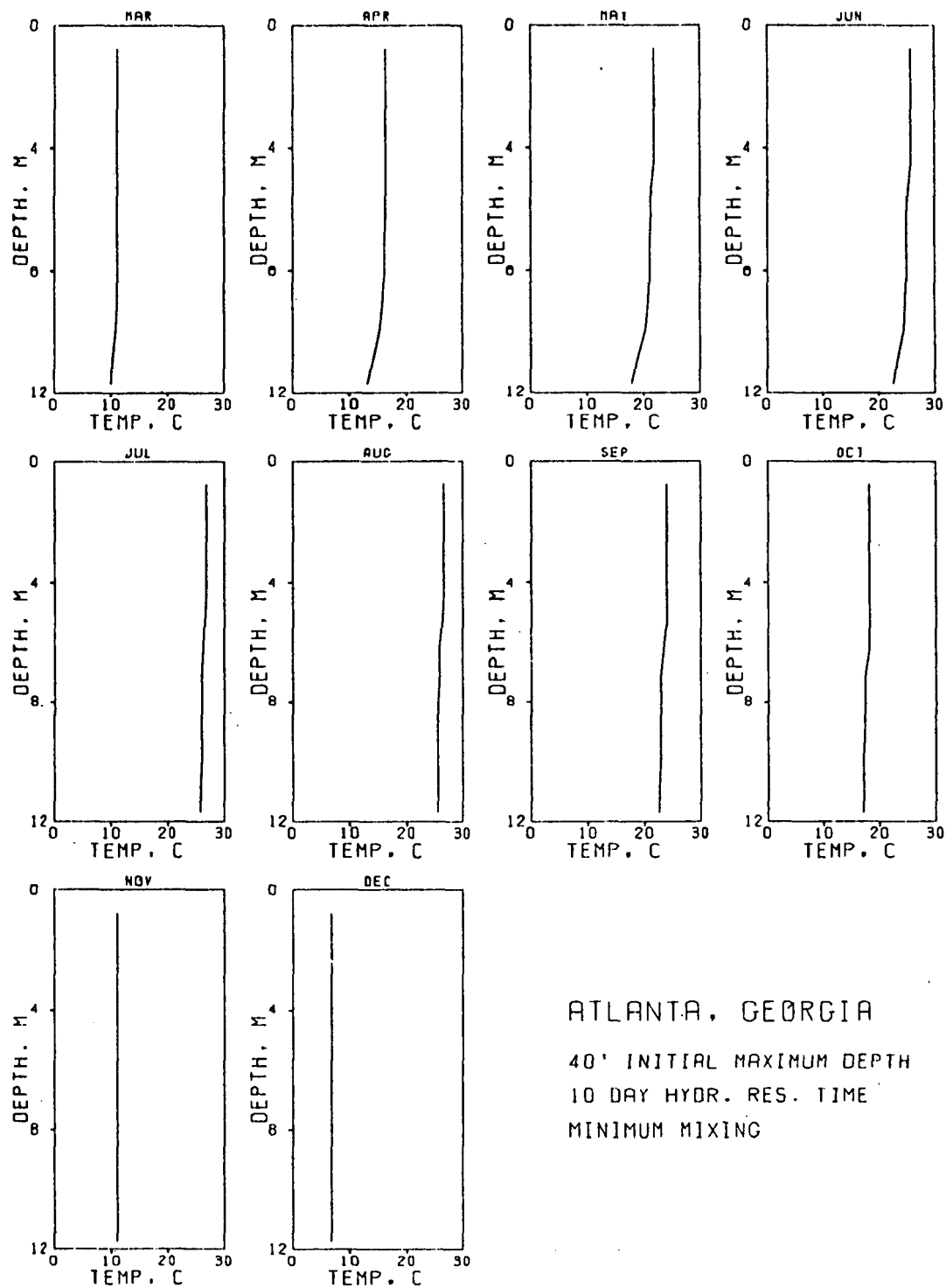
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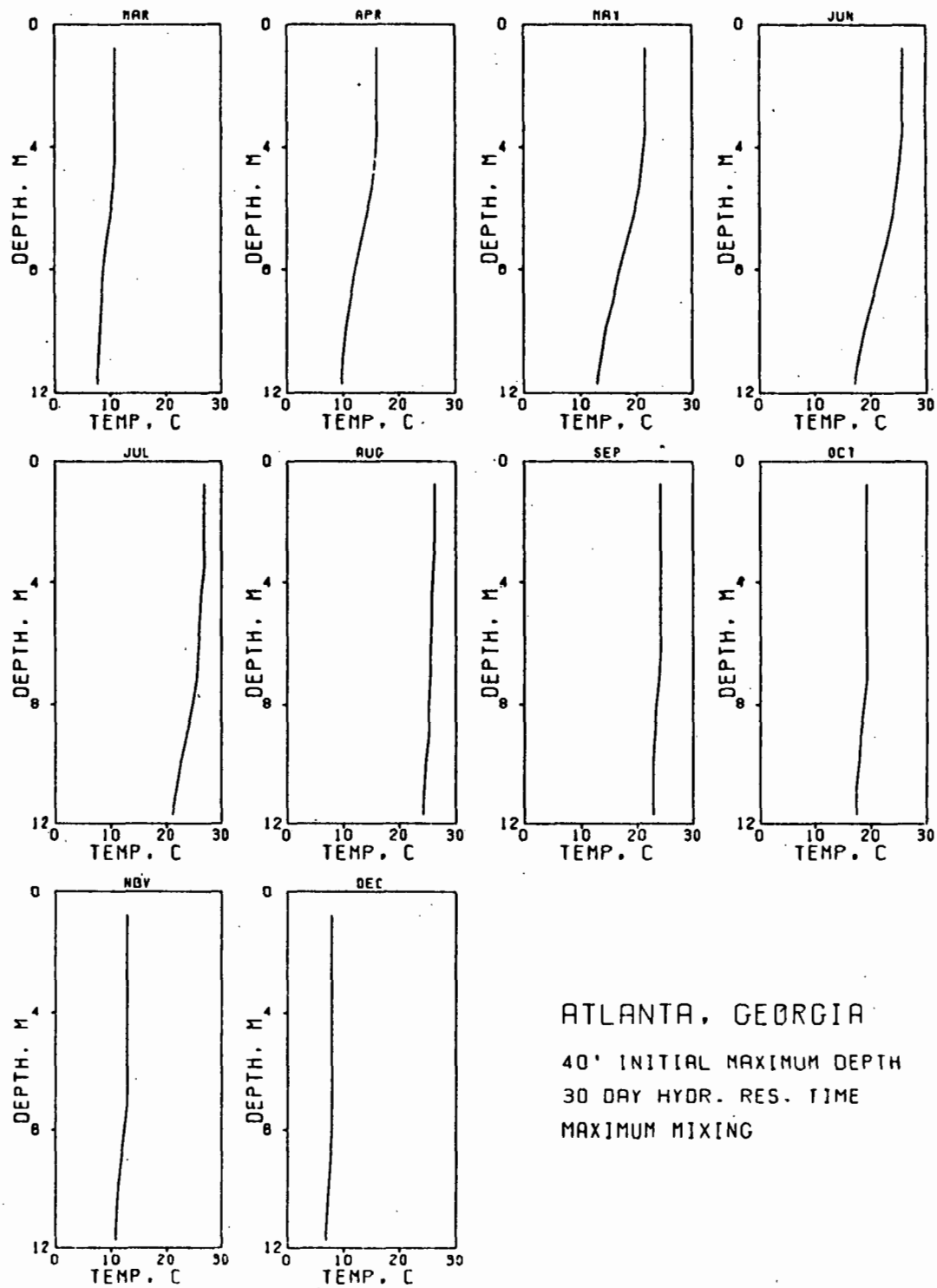
INFINITE HYDR. RES. TIME

MINIMUM MIXING

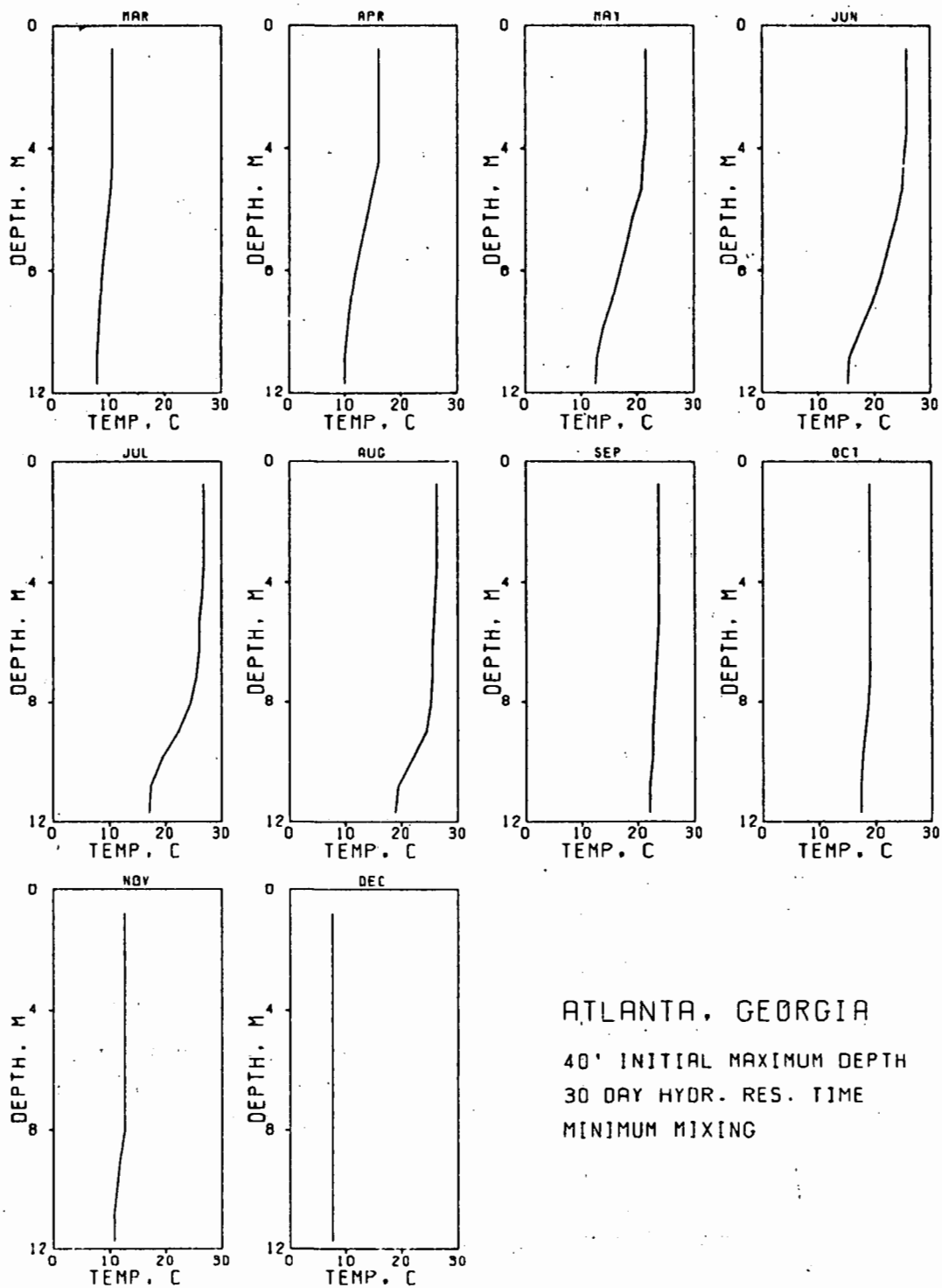


ATLANTA, GEORGIA
 40' INITIAL MAXIMUM DEPTH
 10 DAY HYDR. RES. TIME
 MAXIMUM MIXING





ATLANTA, GEORGIA
 40' INITIAL MAXIMUM DEPTH
 30 DAY HYDR. RES. TIME
 MAXIMUM MIXING

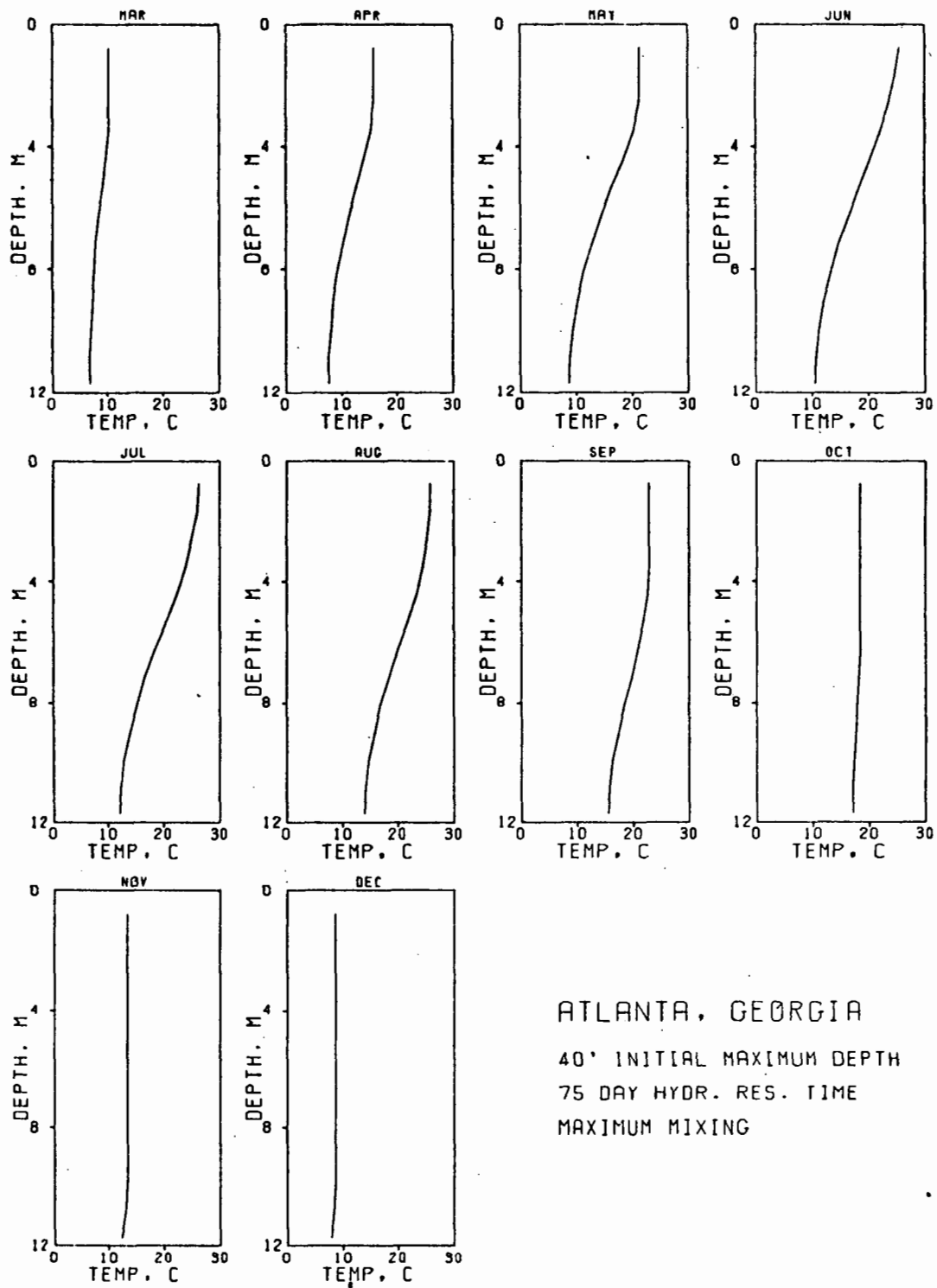


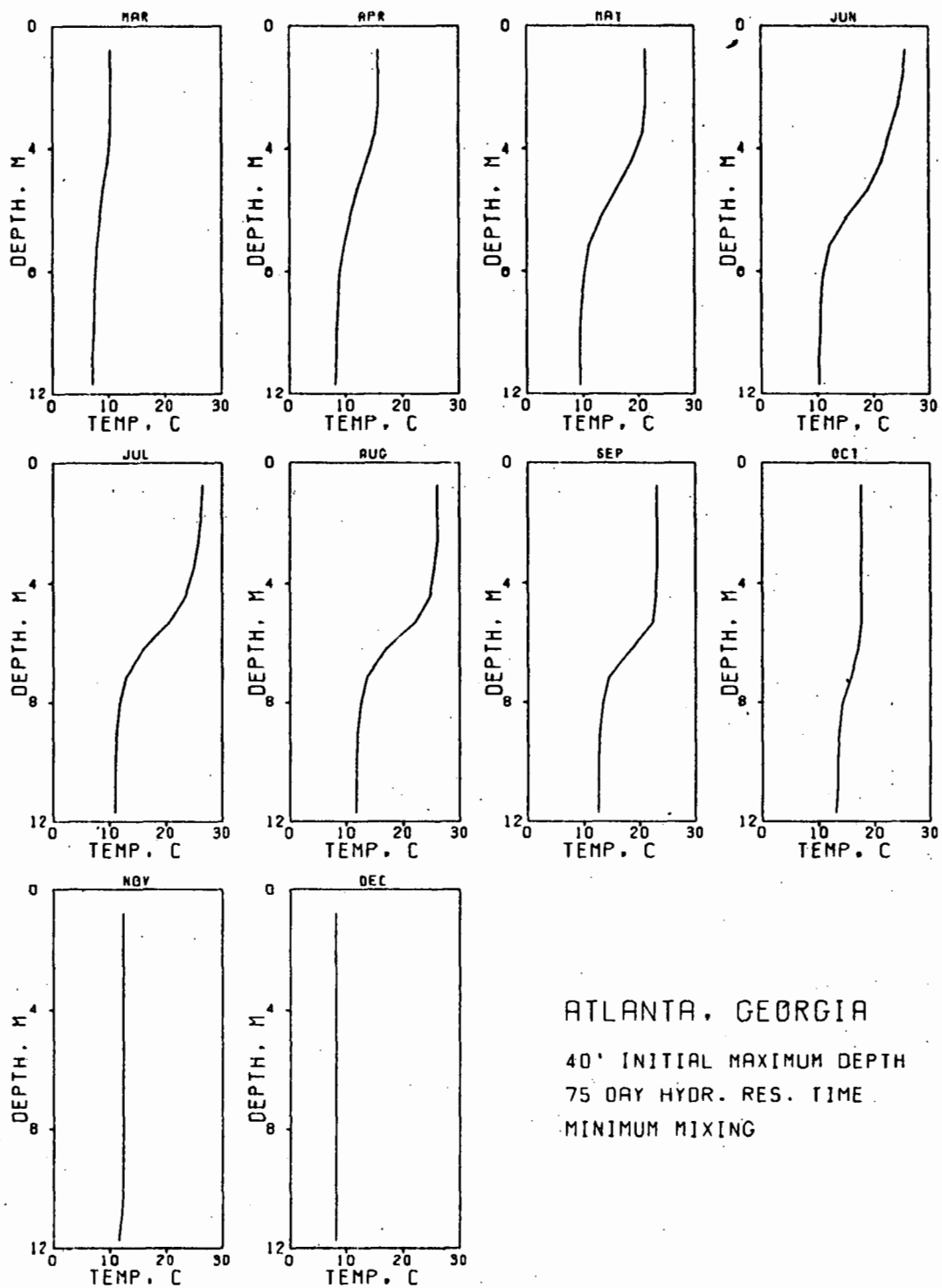
ATLANTA, GEORGIA

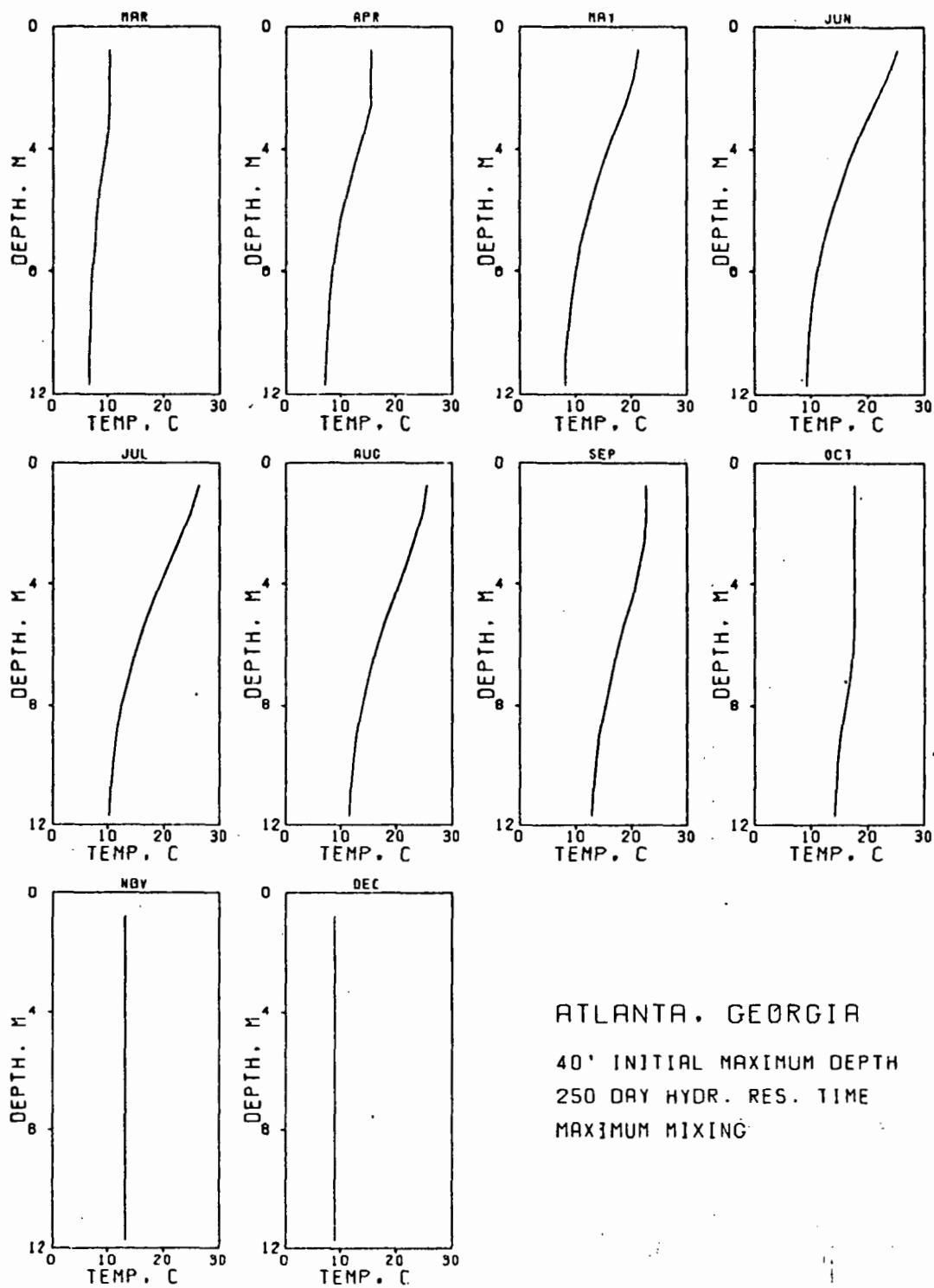
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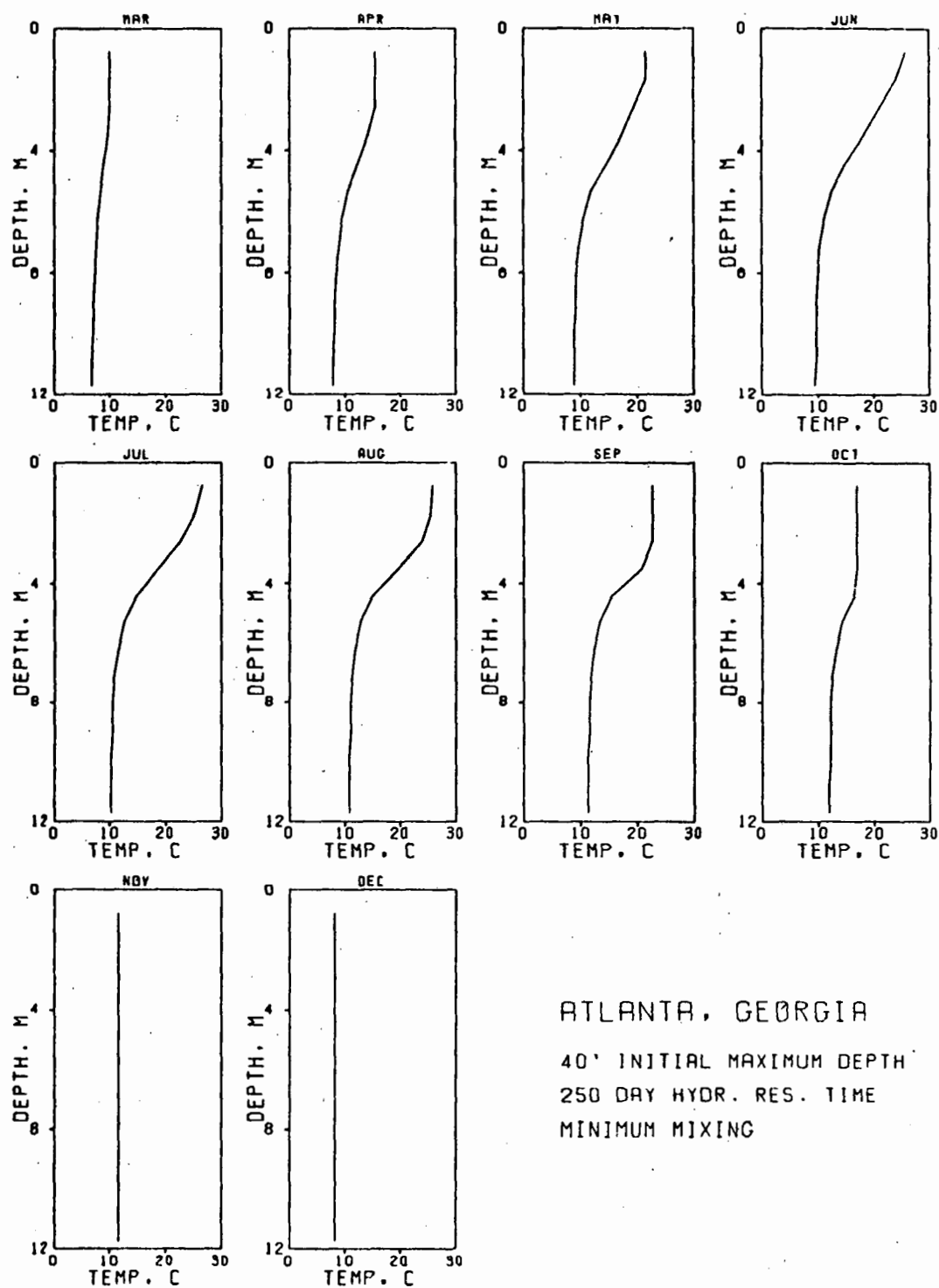
30 DAY HYDR. RES. TIME

MINIMUM MIXING







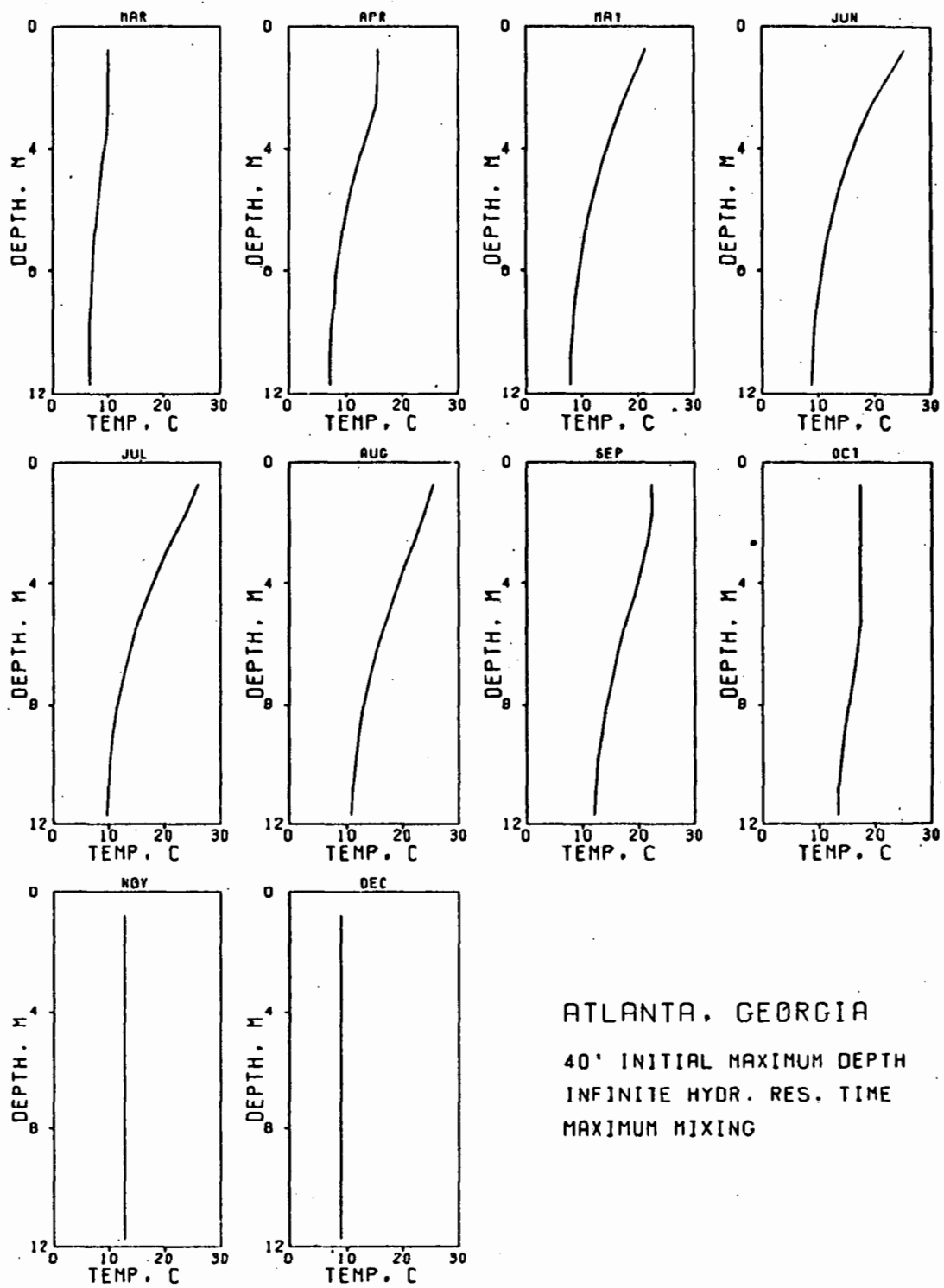


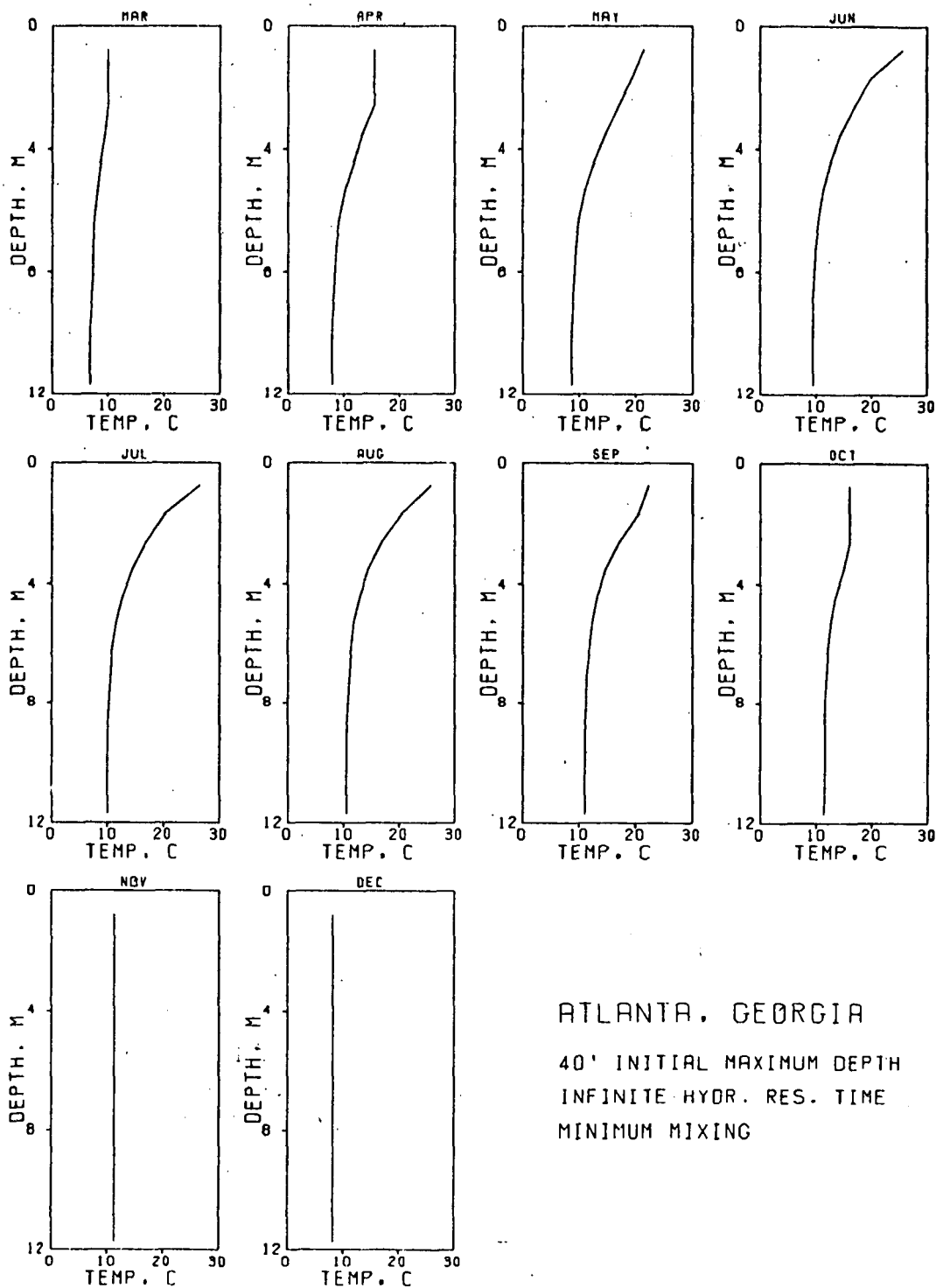
ATLANTA, GEORGIA

40' INITIAL MAXIMUM DEPTH

250 DAY HYDR. RES. TIME

MINIMUM MIXING



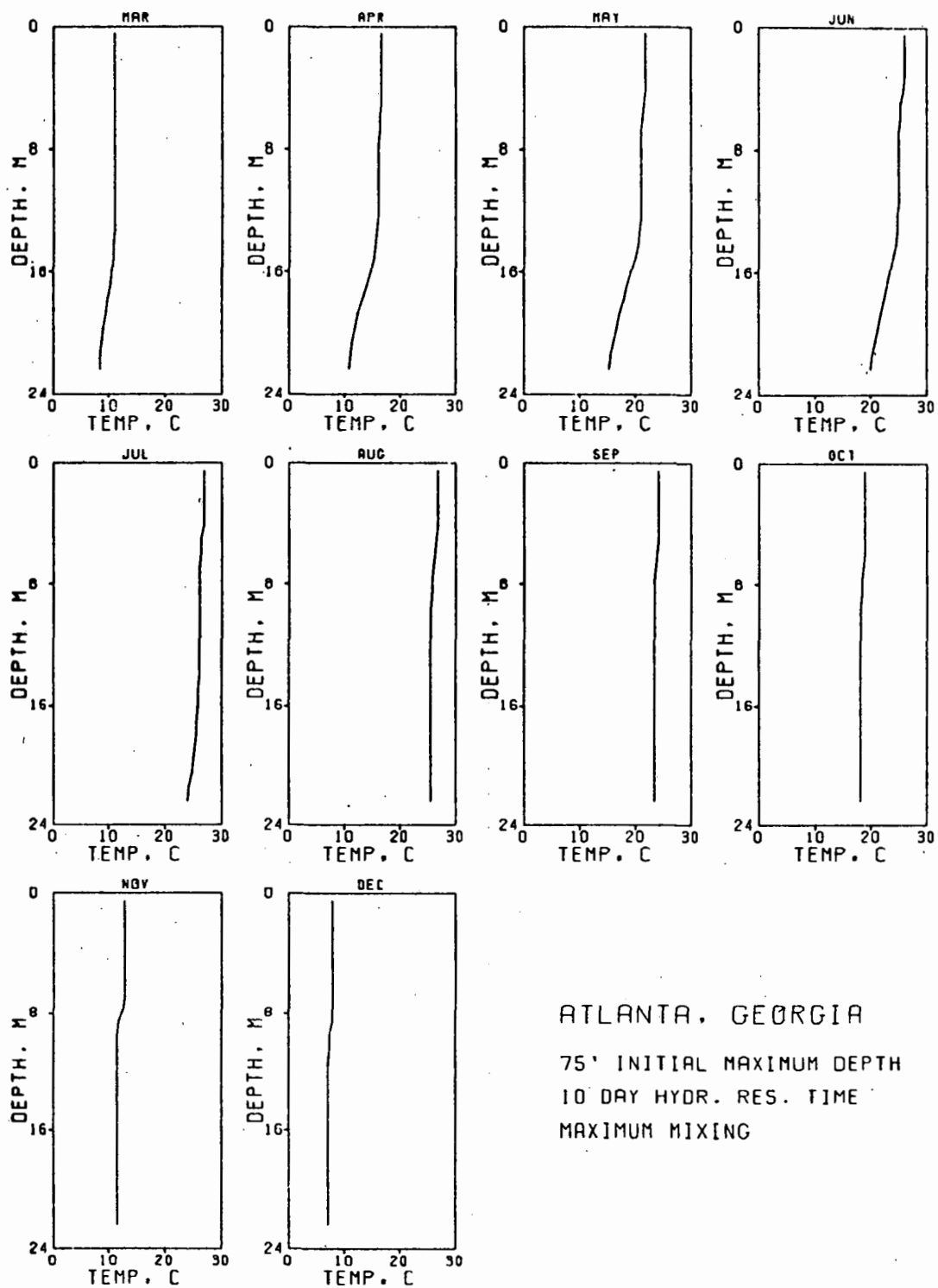


ATLANTA, GEORGIA

40' INITIAL MAXIMUM DEPTH

INFINITE HYDR. RES. TIME

MINIMUM MIXING

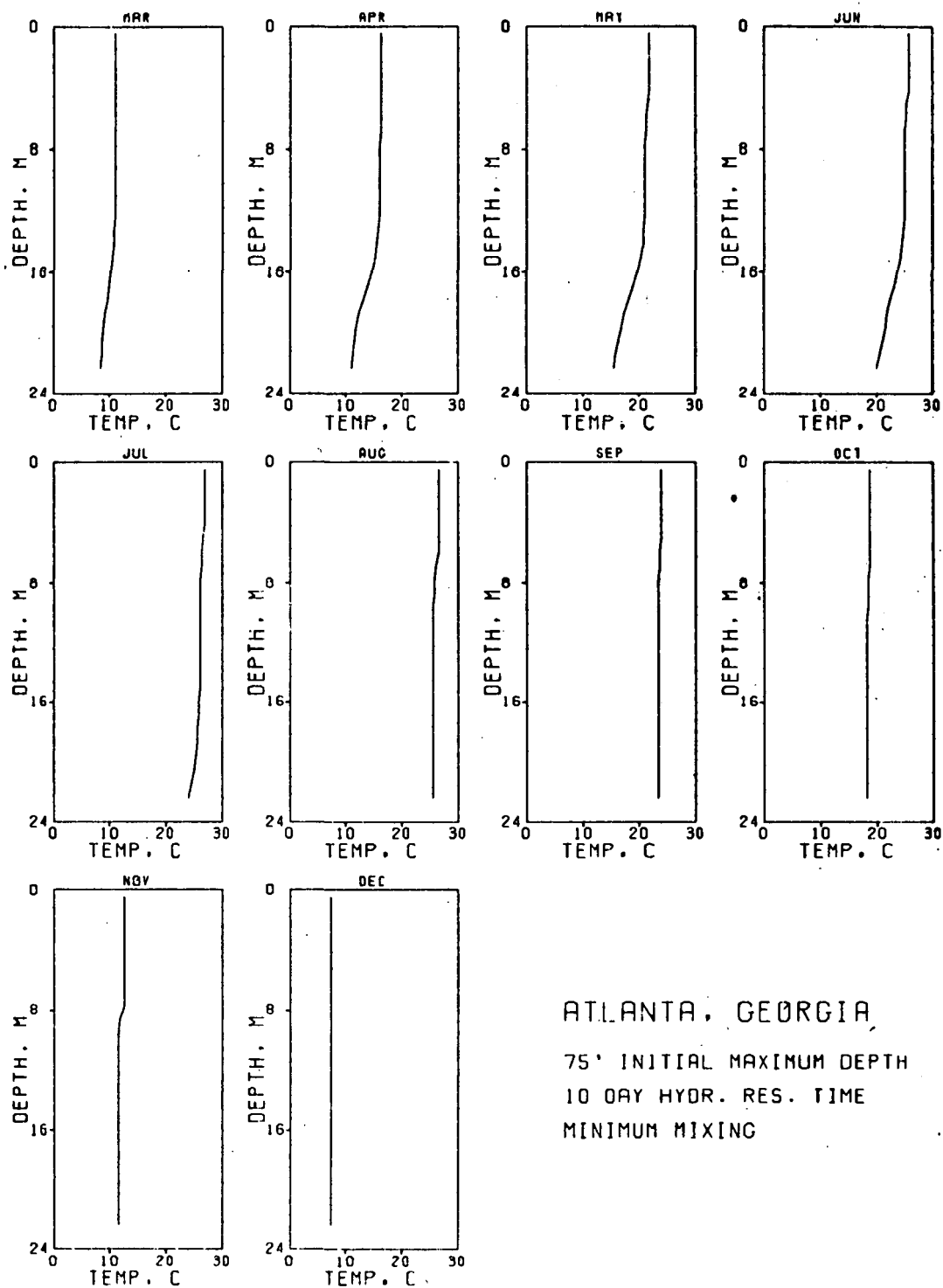


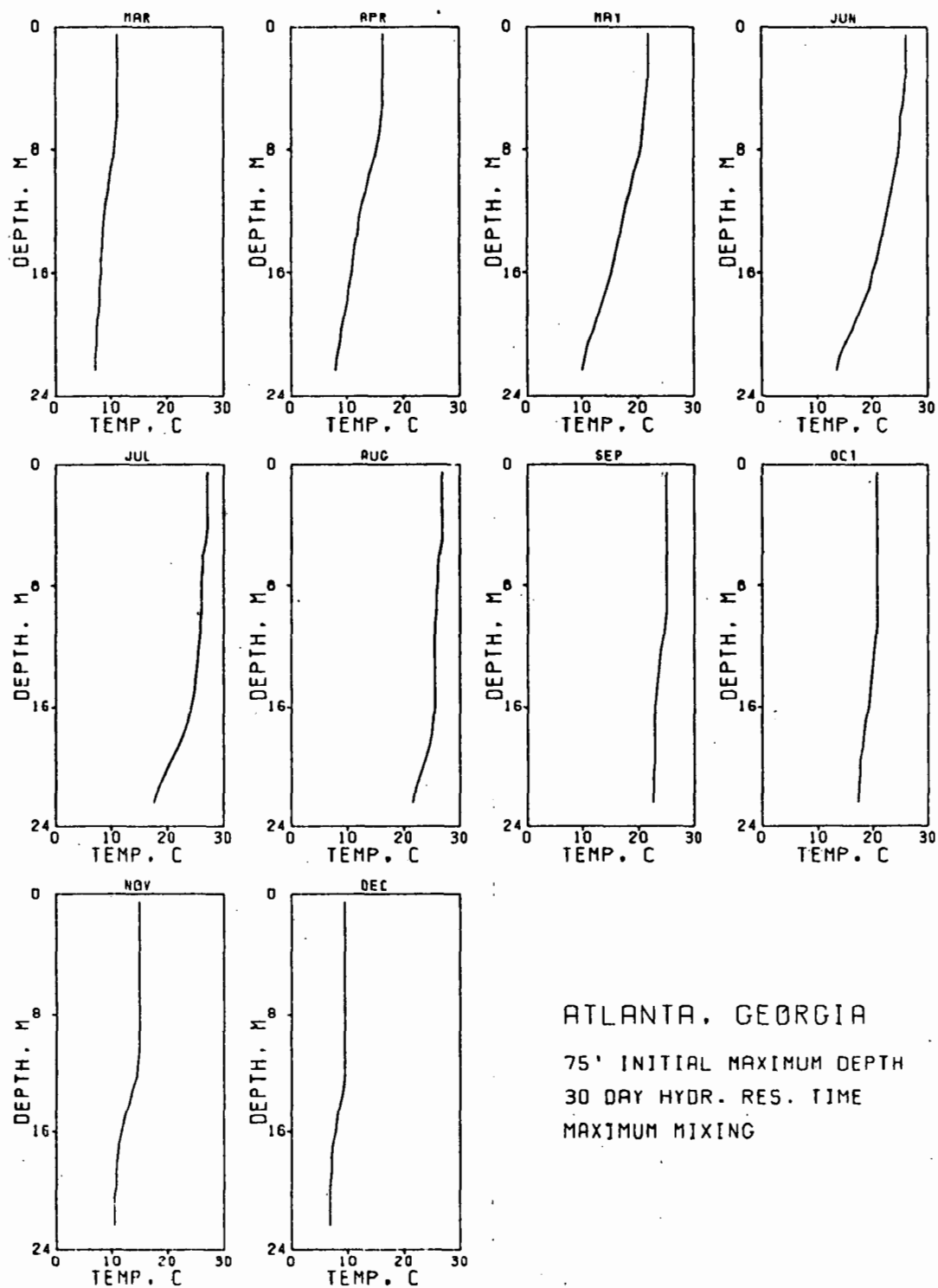
ATLANTA, GEORGIA

75' INITIAL MAXIMUM DEPTH

10 DAY HYDR. RES. TIME

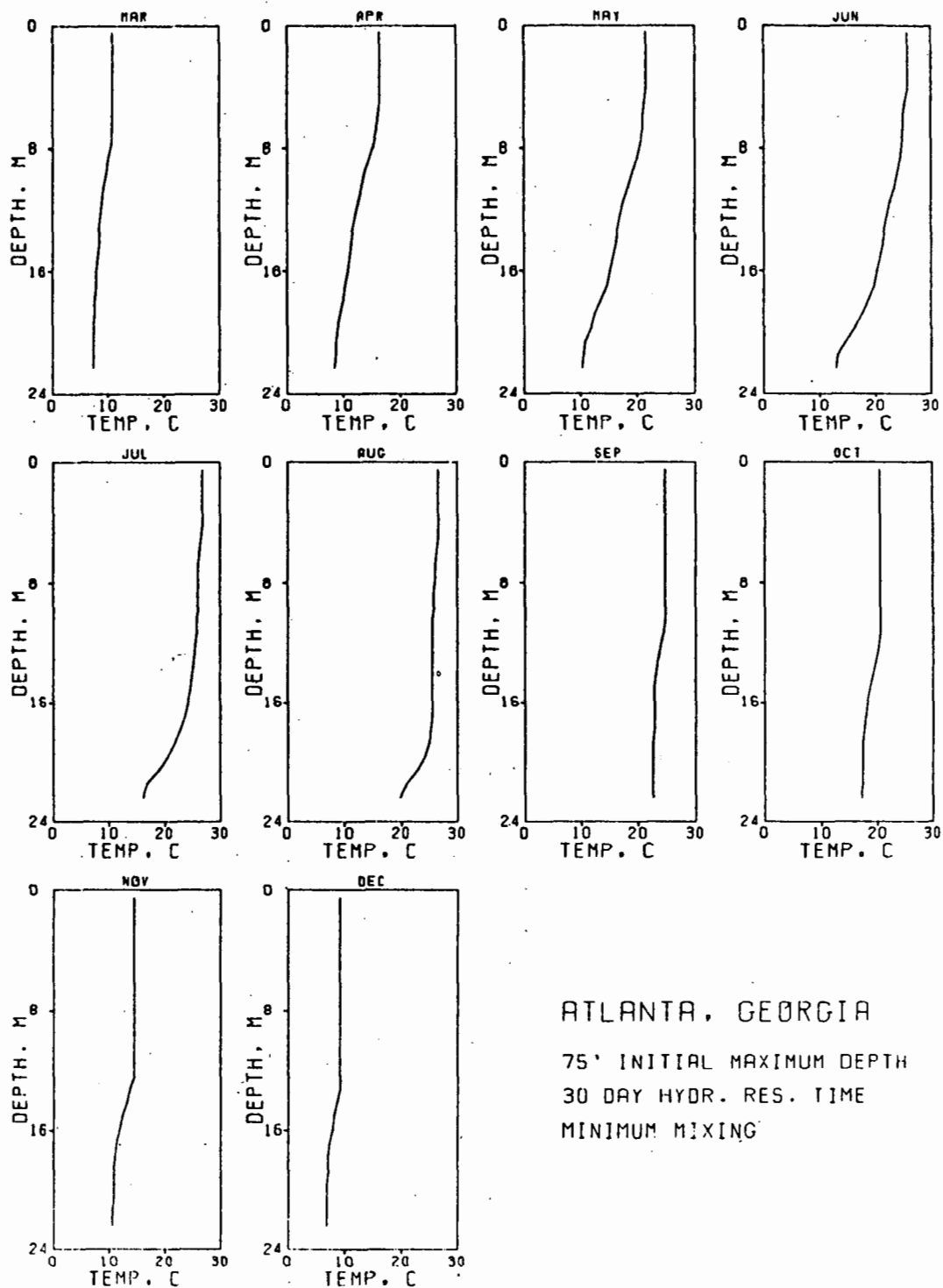
MAXIMUM MIXING





ATLANTA, GEORGIA

75' INITIAL MAXIMUM DEPTH
30 DAY HYDR. RES. TIME
MAXIMUM MIXING

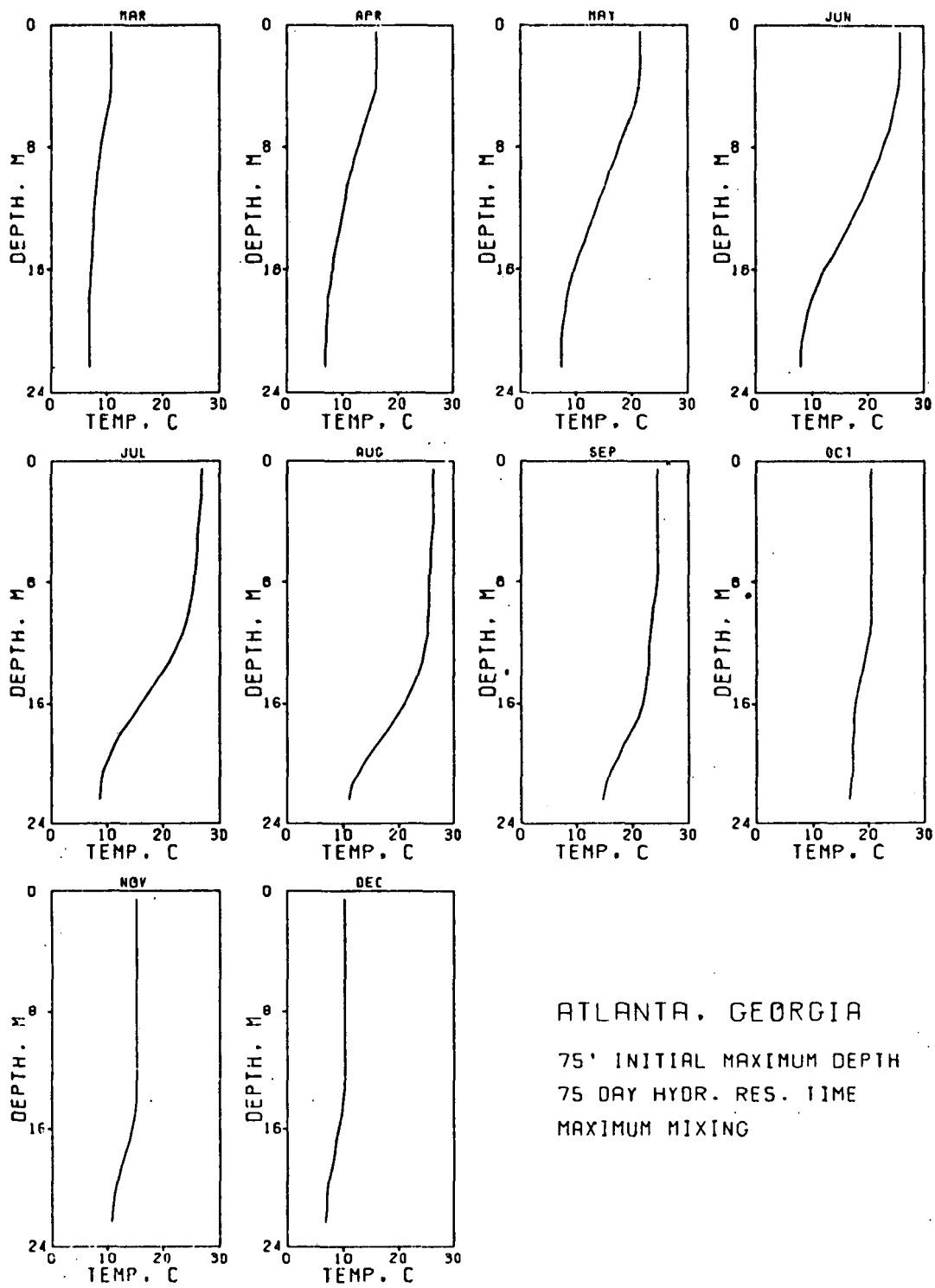


ATLANTA, GEORGIA

75' INITIAL MAXIMUM DEPTH

30 DAY HYDR. RES. TIME

MINIMUM MIXING

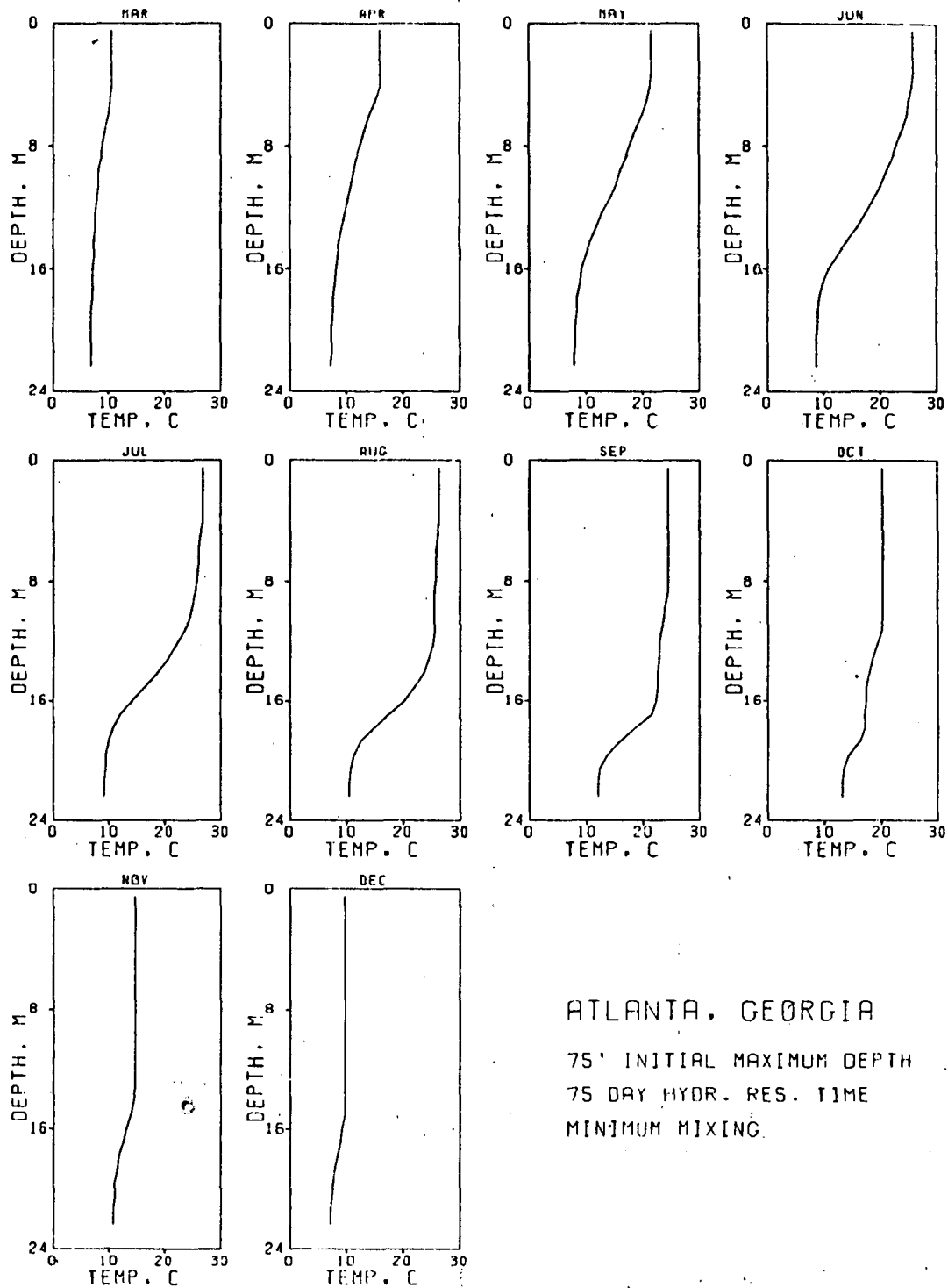


ATLANTA, GEORGIA

75' INITIAL MAXIMUM DEPTH

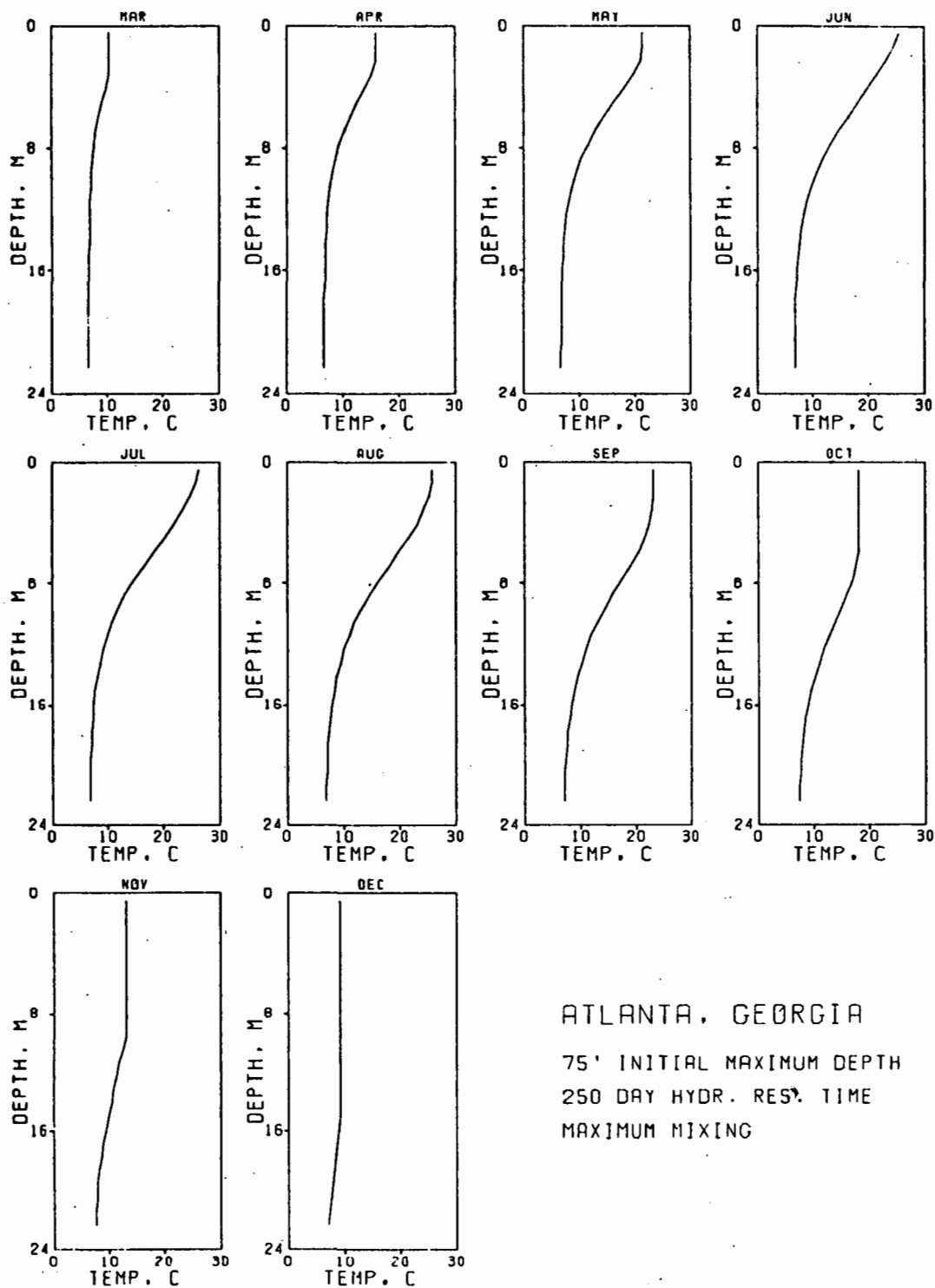
75 DAY HYDR. RES. TIME

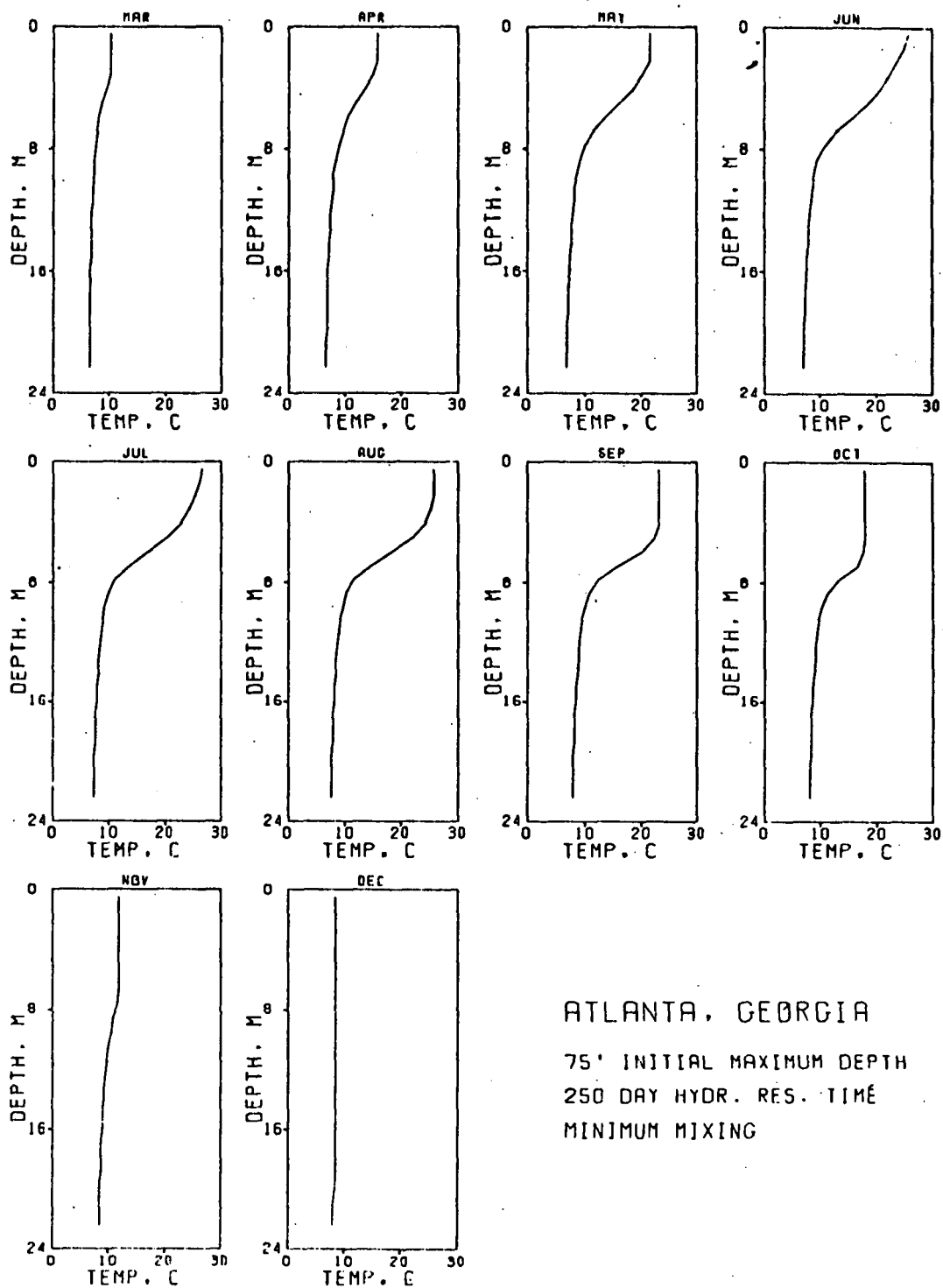
MAXIMUM MIXING



ATLANTA, GEORGIA

75' INITIAL MAXIMUM DEPTH
 75 DAY HYDR. RES. TIME
 MINIMUM MIXING



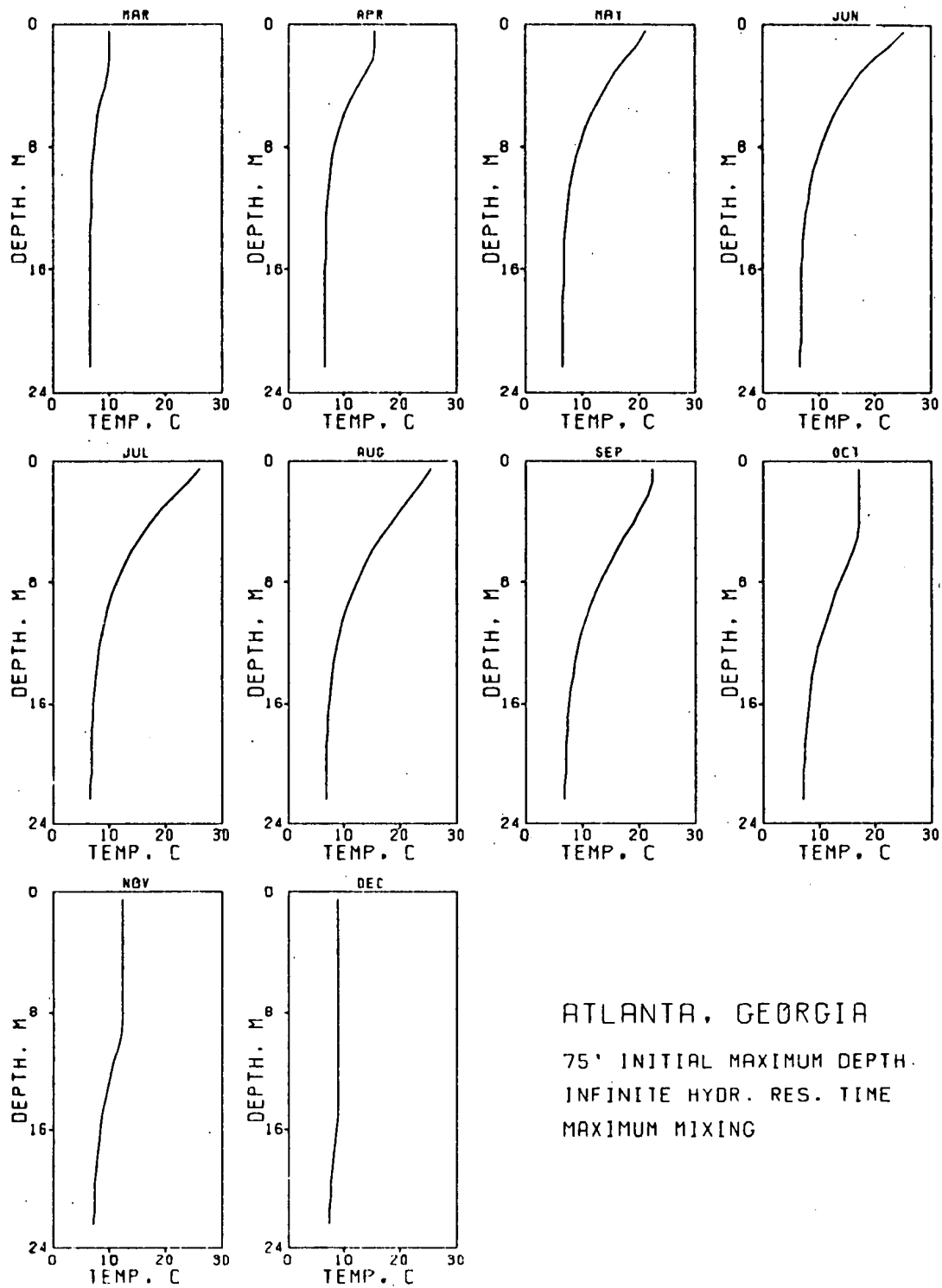


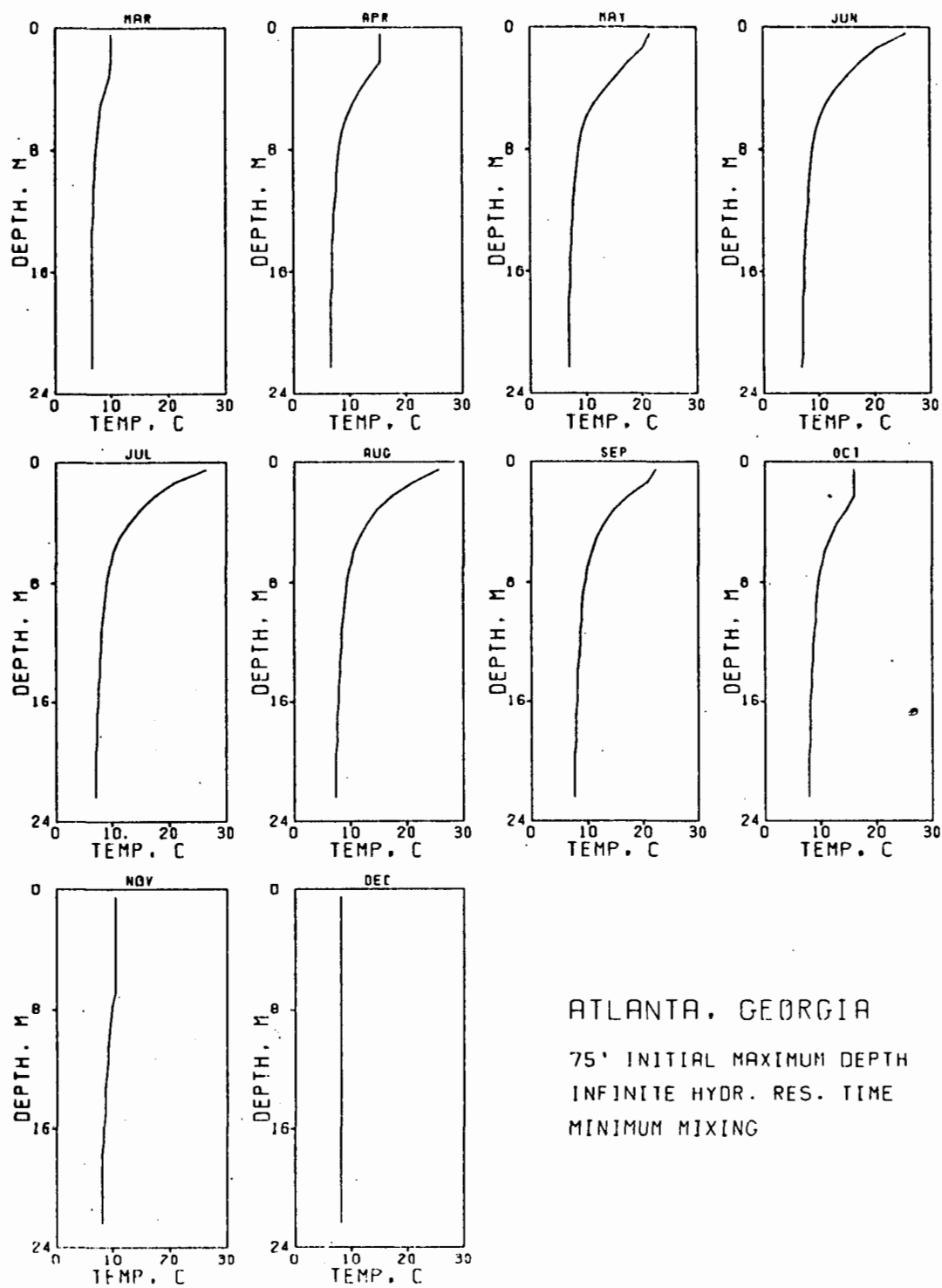
ATLANTA, GEORGIA

75' INITIAL MAXIMUM DEPTH

250 DAY HYDR. RES. TIME

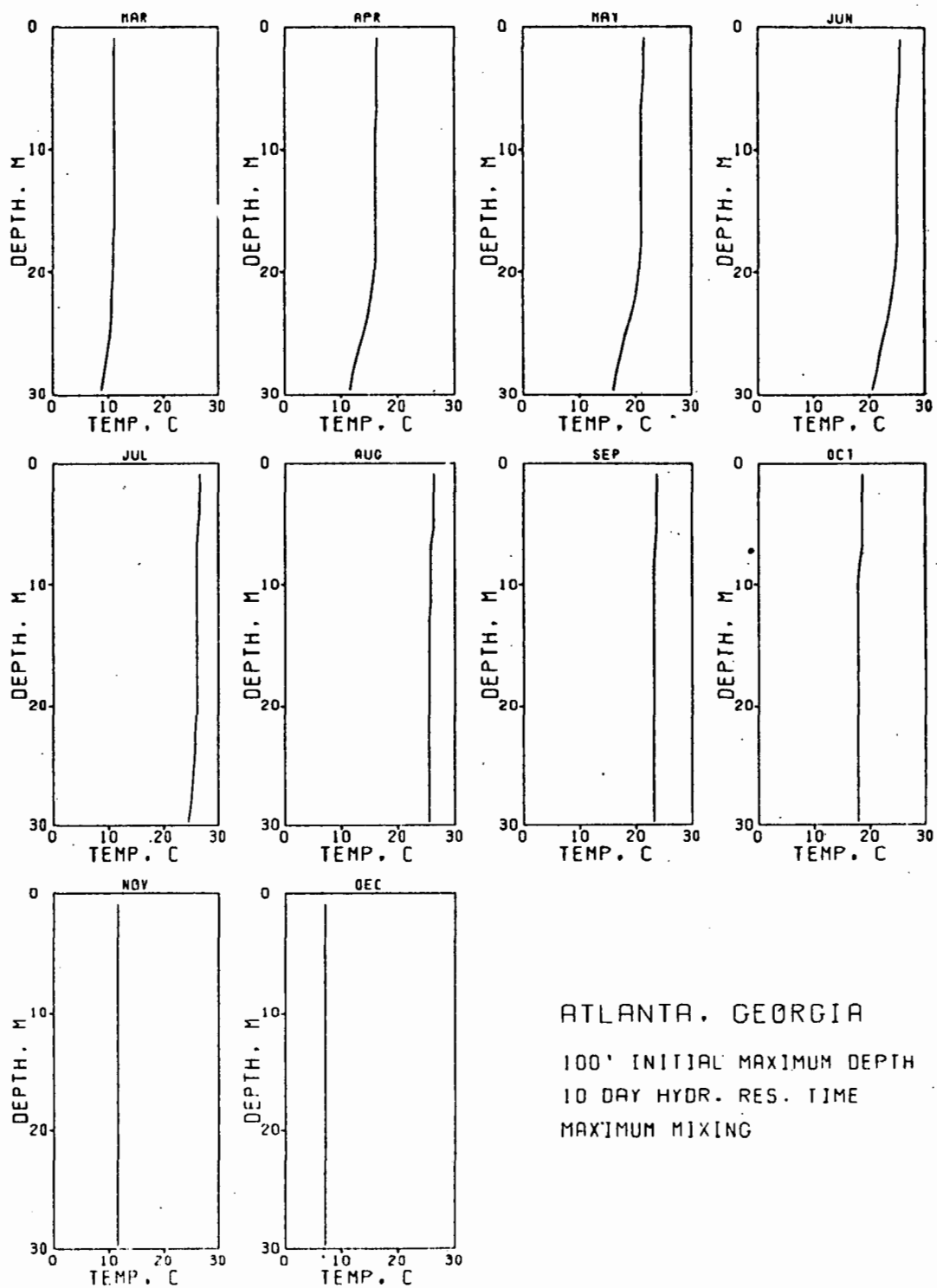
MINIMUM MIXING





ATLANTA, GEORGIA

75' INITIAL MAXIMUM DEPTH
INFINITE HYDR. RES. TIME
MINIMUM MIXING

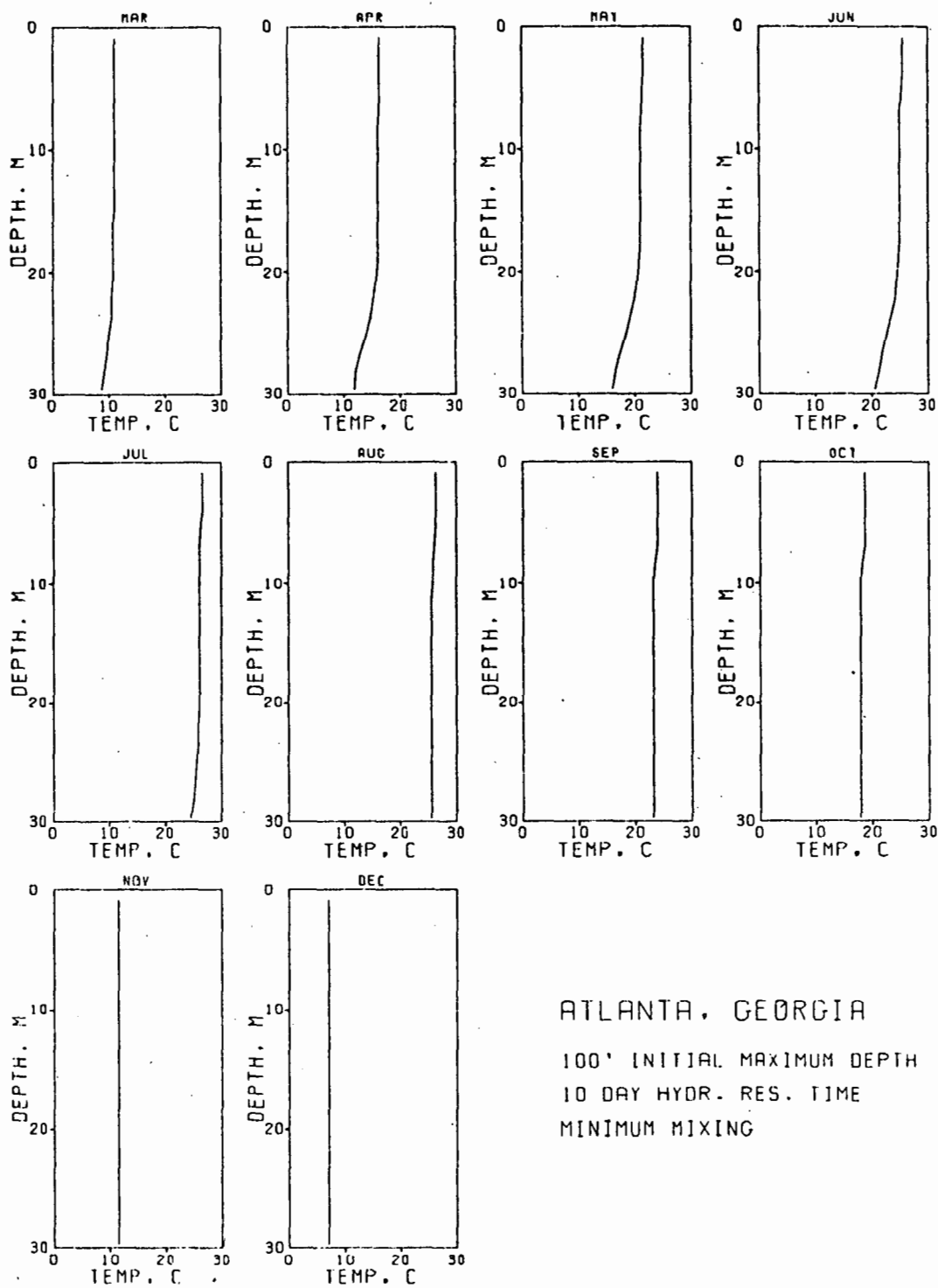


ATLANTA, GEORGIA

100' INITIAL MAXIMUM DEPTH

10 DAY HYDR. RES. TIME

MAXIMUM MIXING

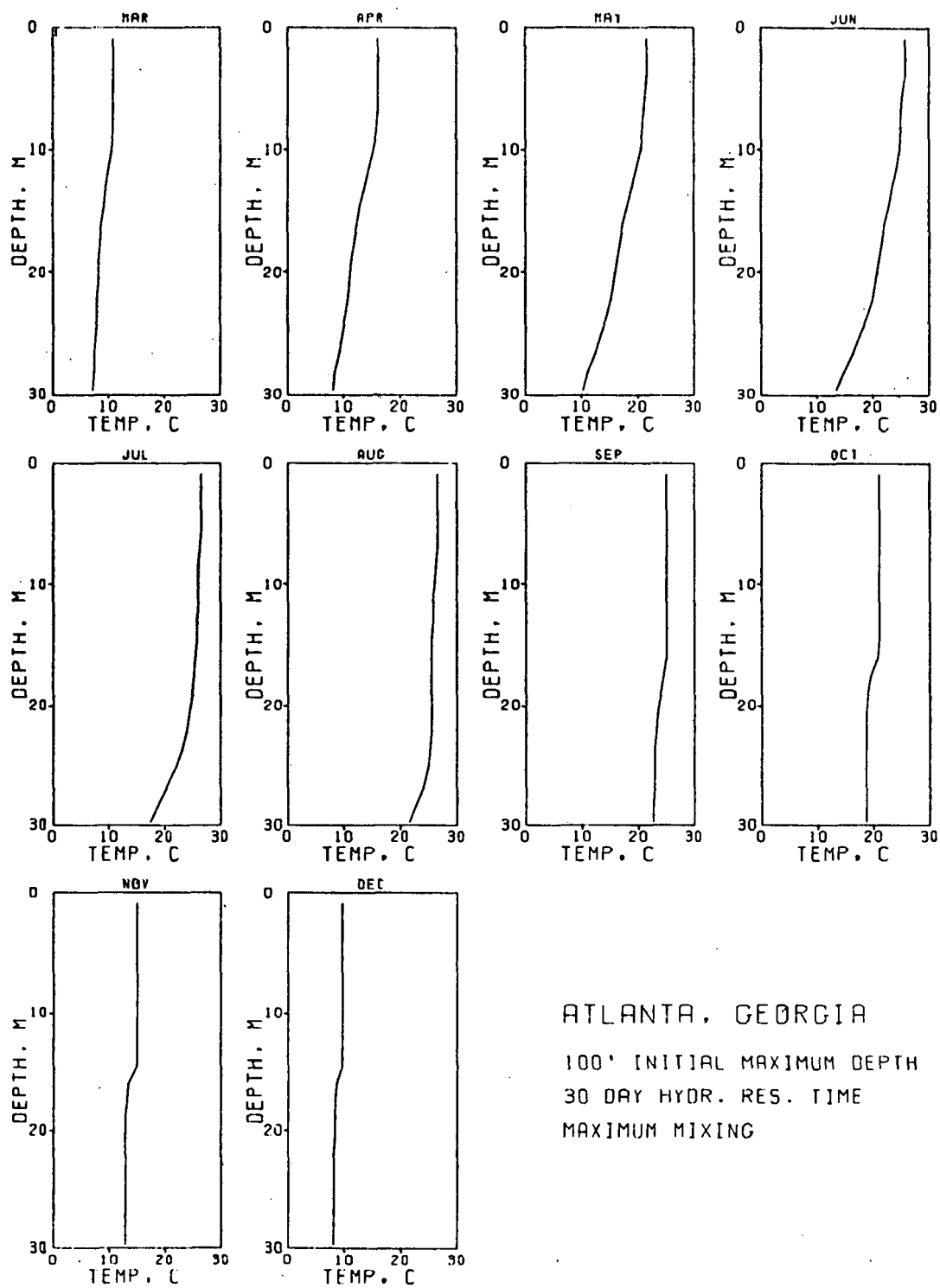


ATLANTA, GEORGIA

100' INITIAL MAXIMUM DEPTH

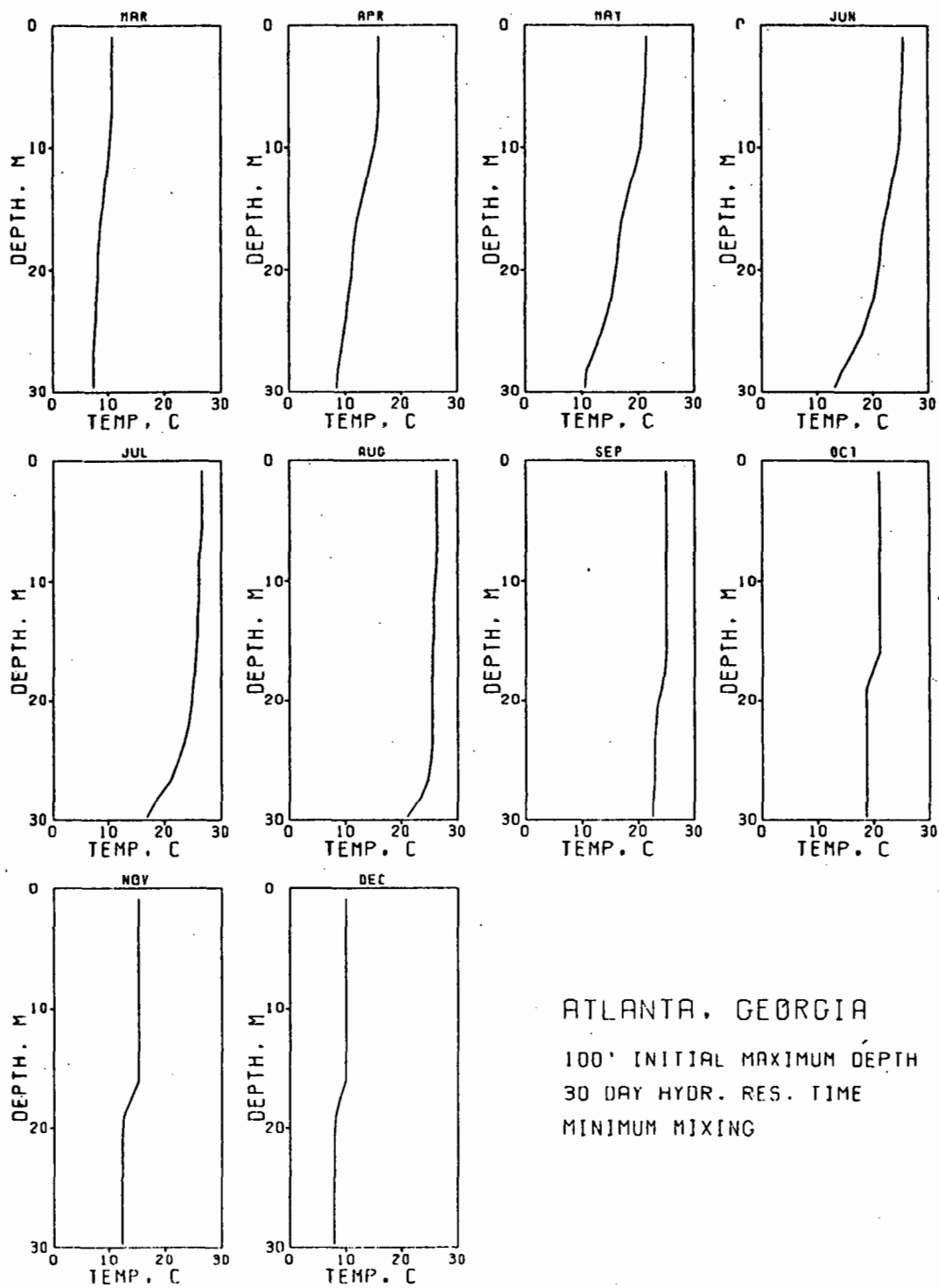
10 DAY HYDR. RES. TIME

MINIMUM MIXING



ATLANTA, GEORGIA

100' INITIAL MAXIMUM DEPTH
30 DAY HYDR. RES. TIME
MAXIMUM MIXING

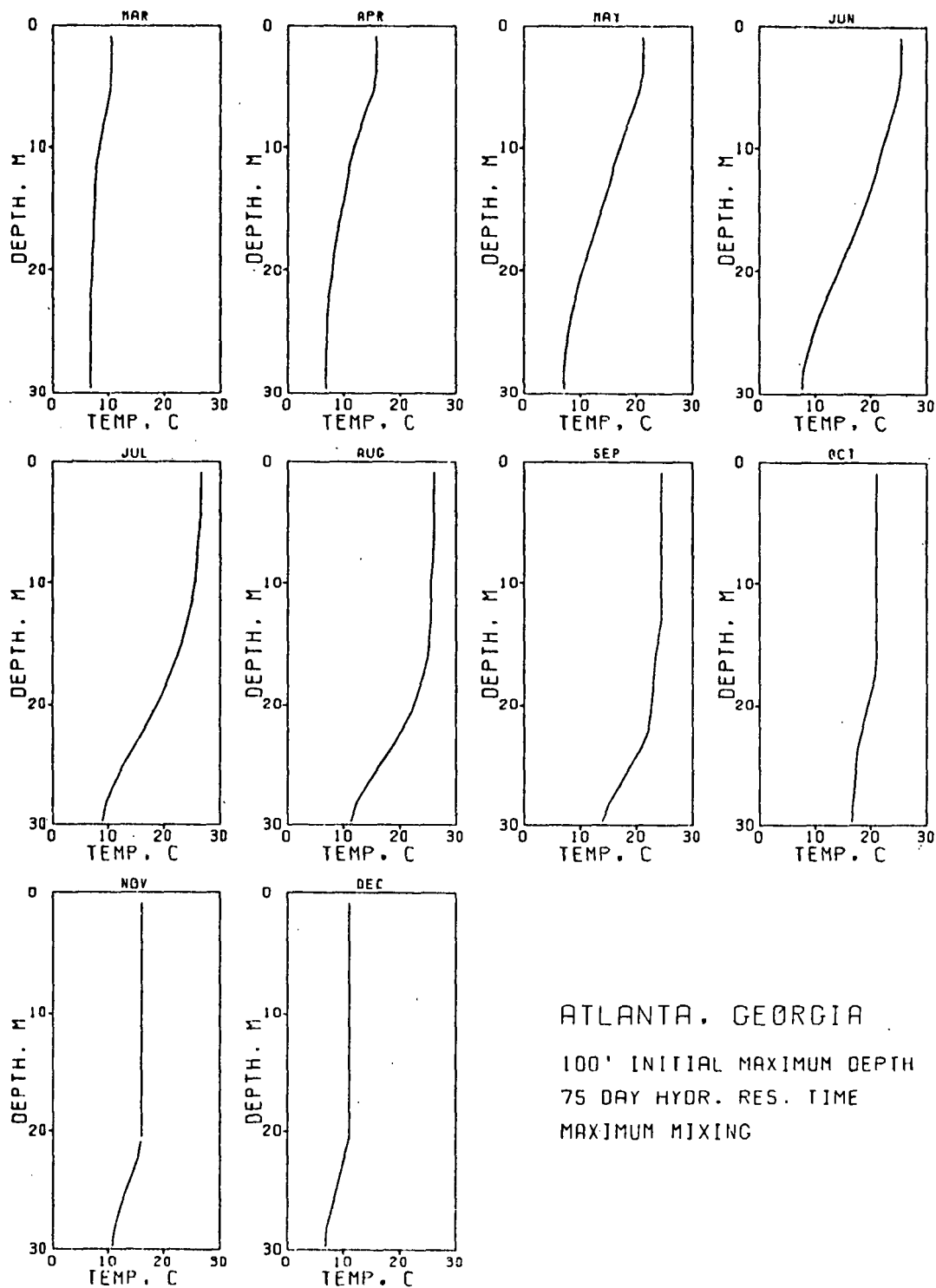


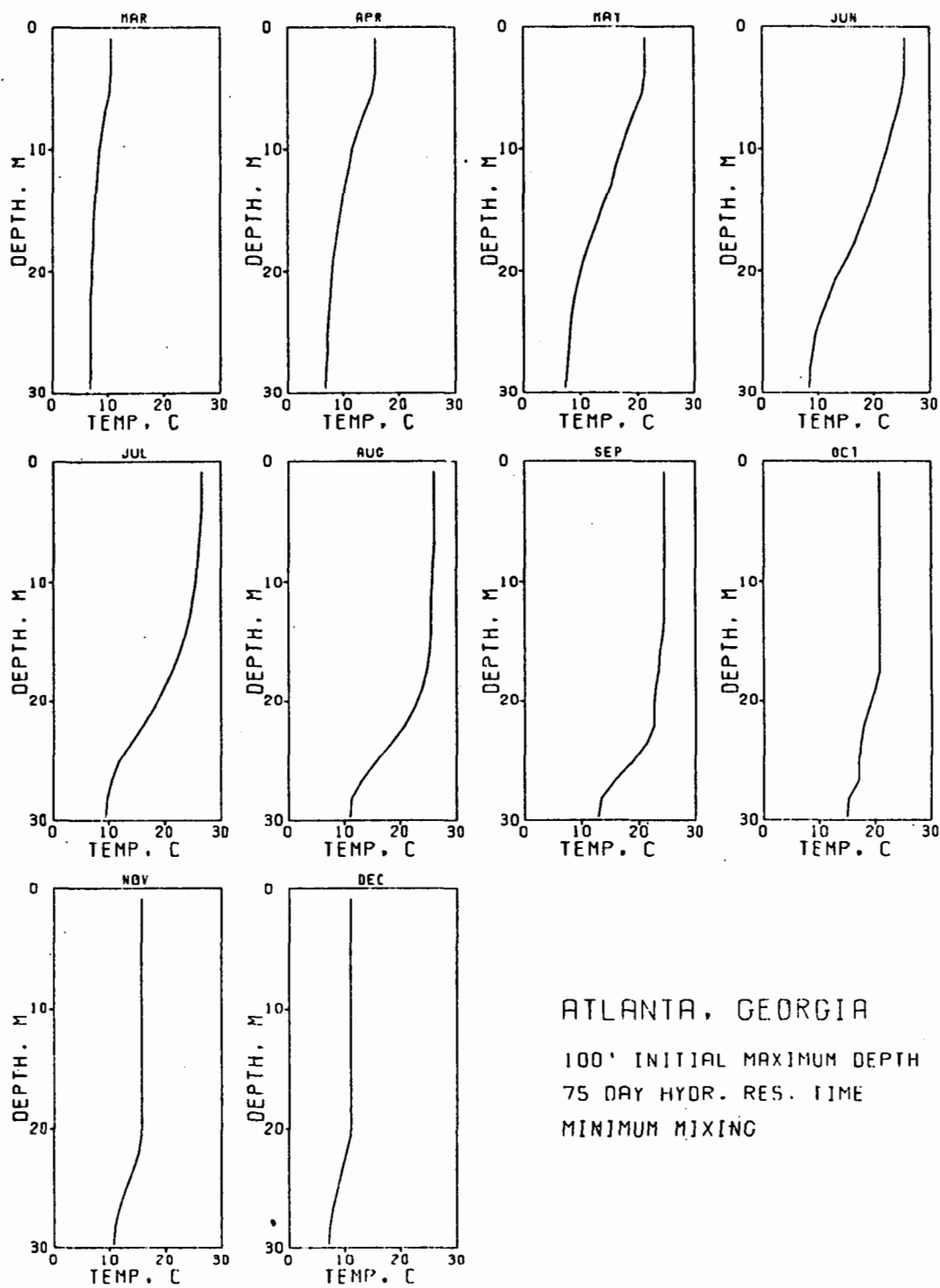
ATLANTA, GEORGIA

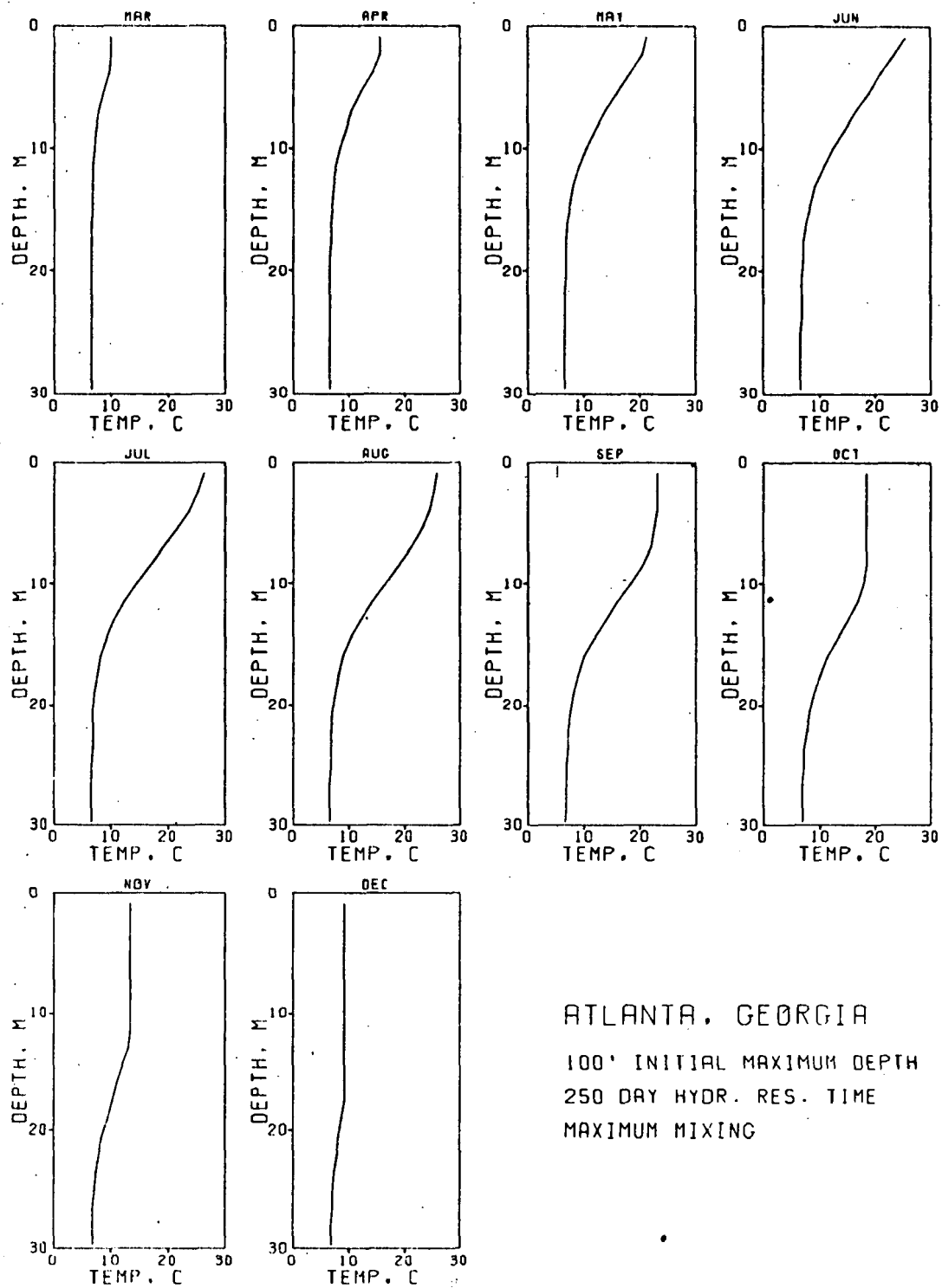
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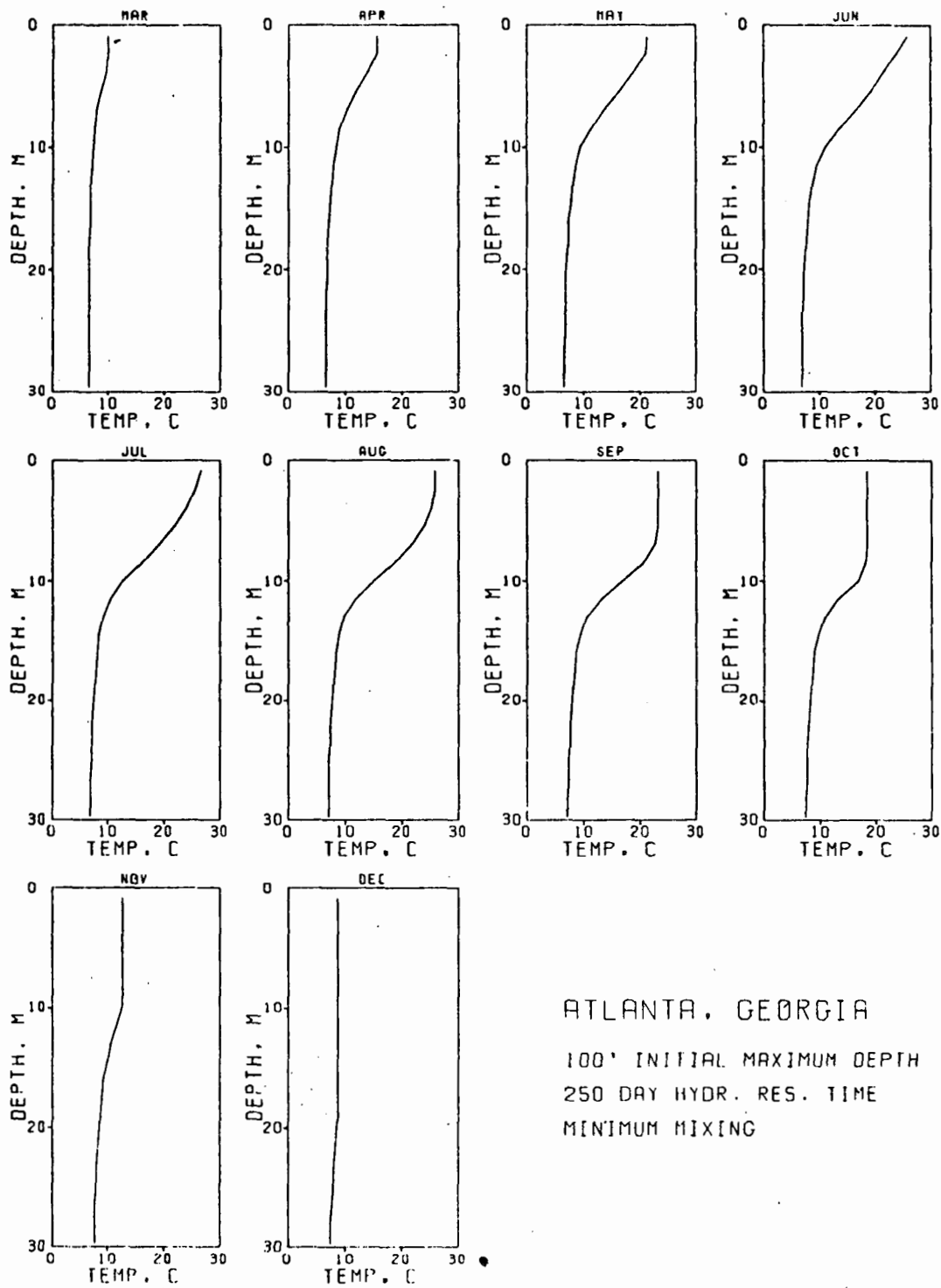
30 DAY HYDR. RES. TIME

MINIMUM MIXING

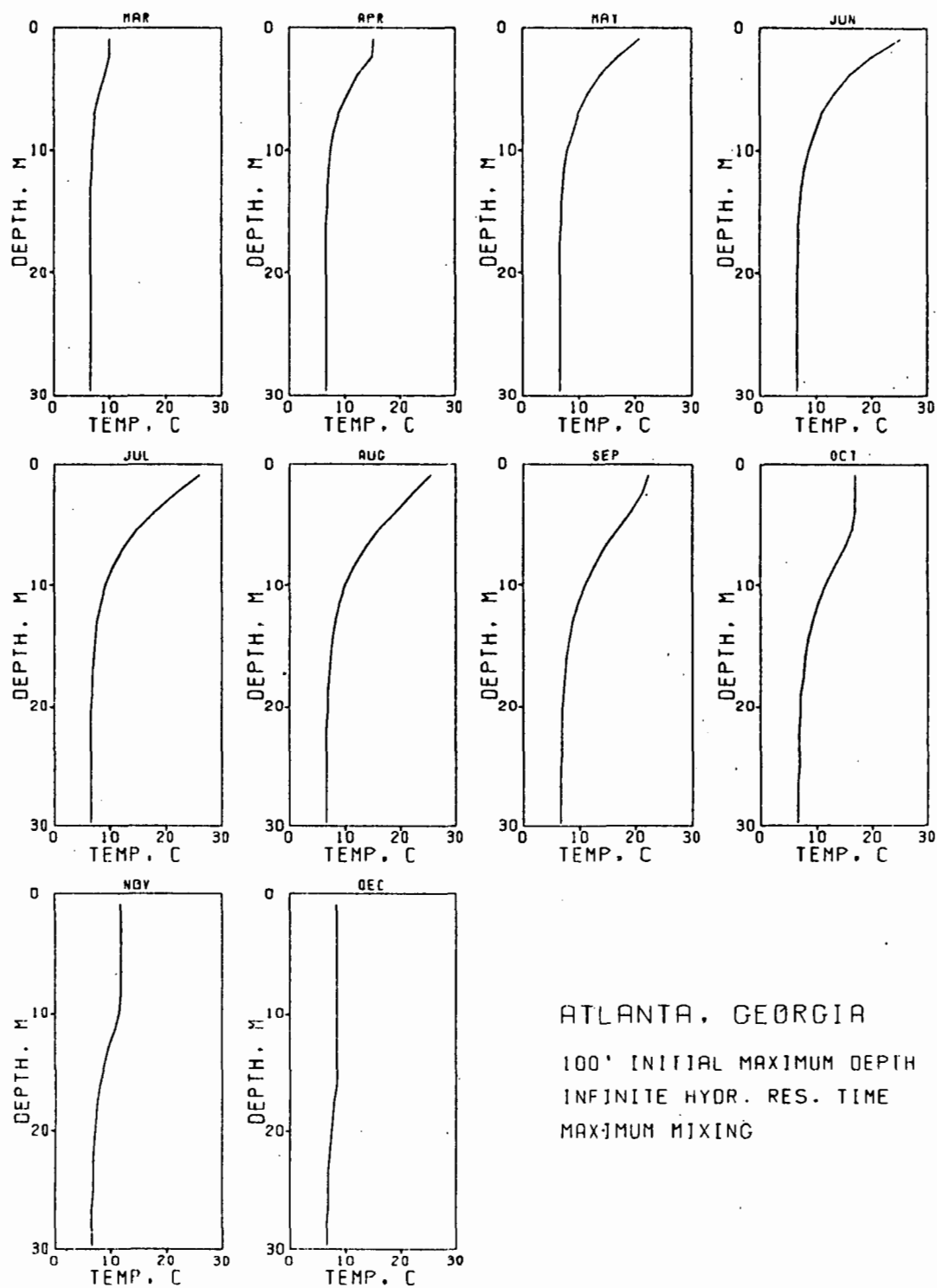


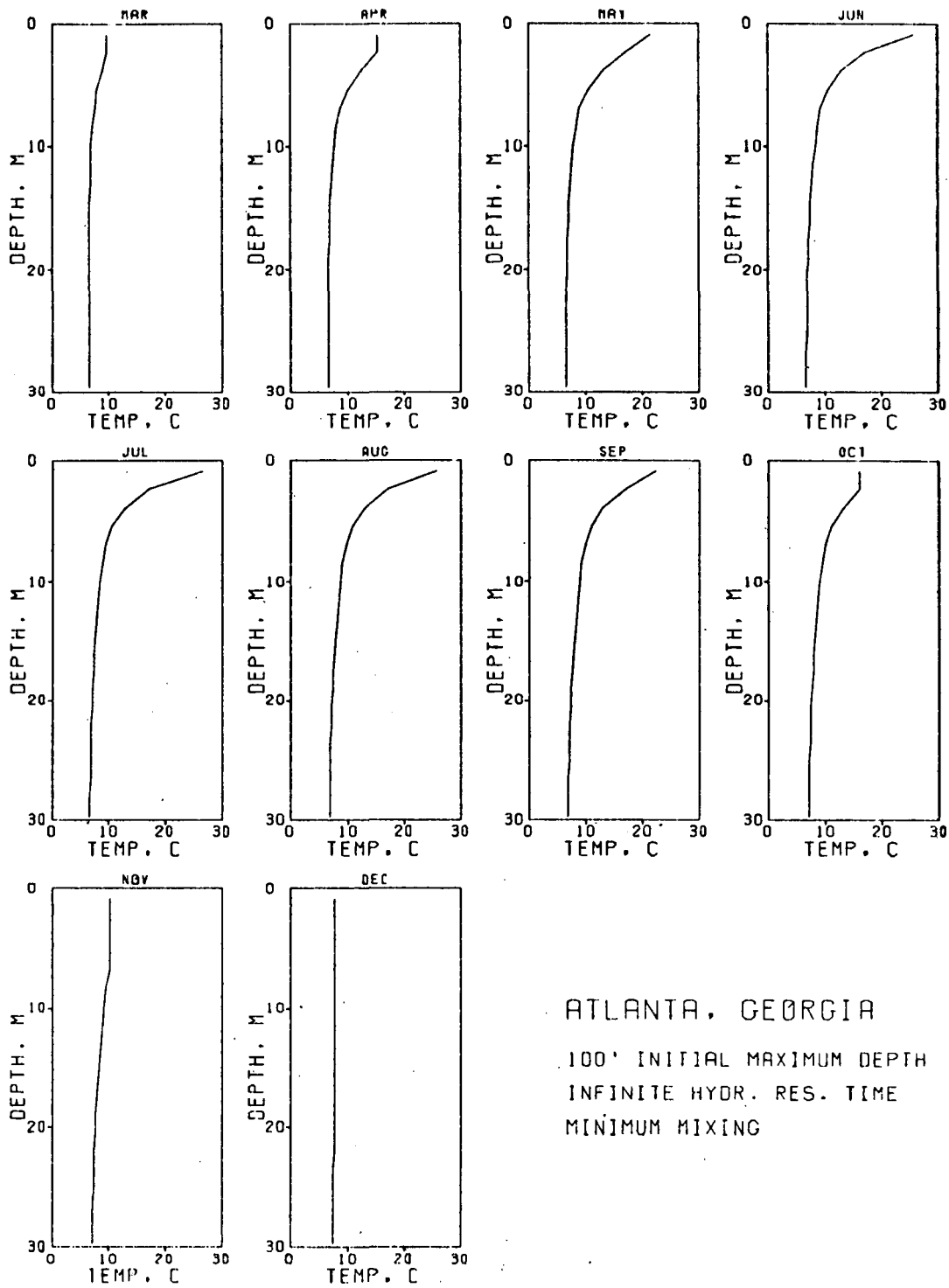


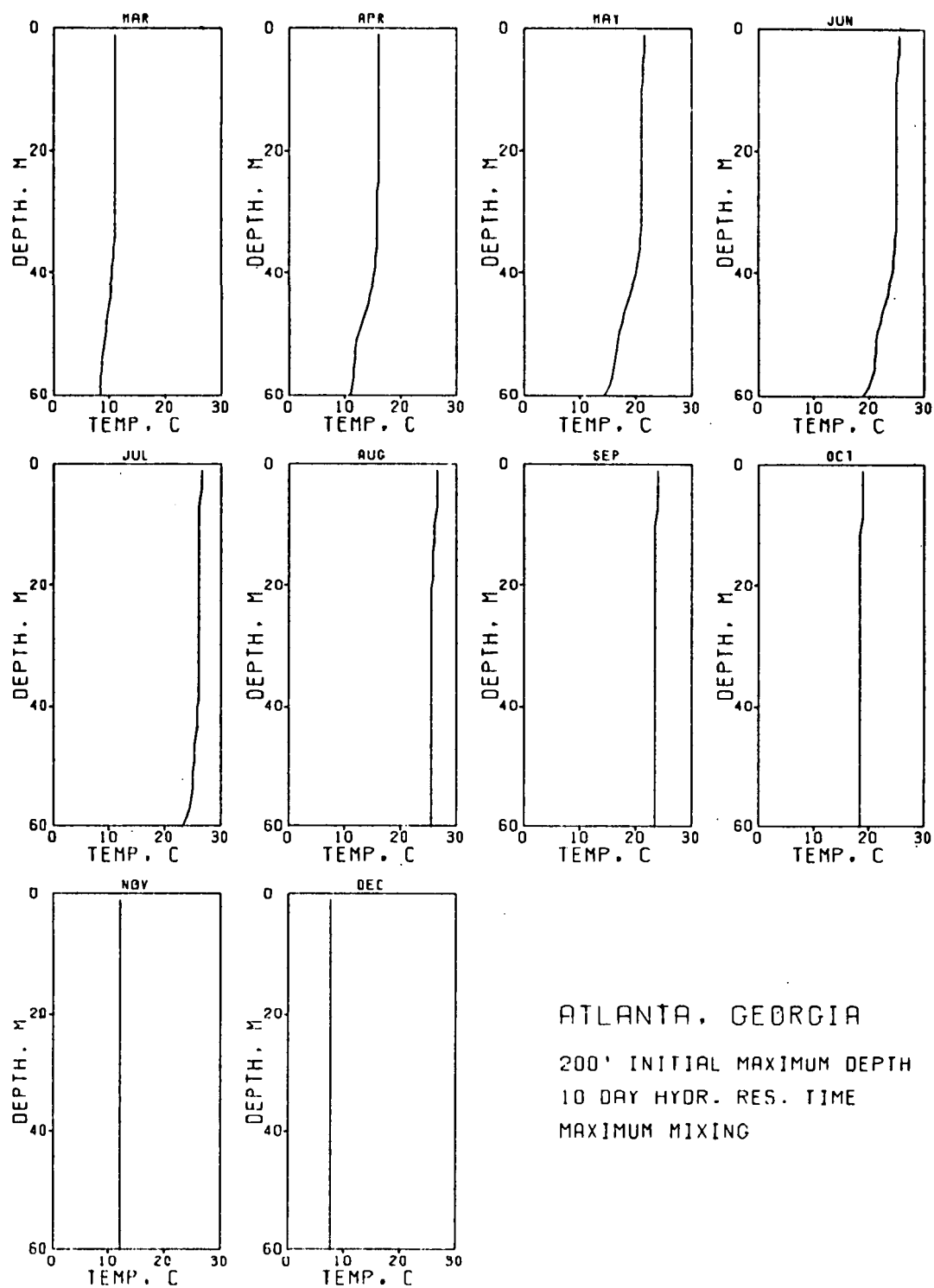




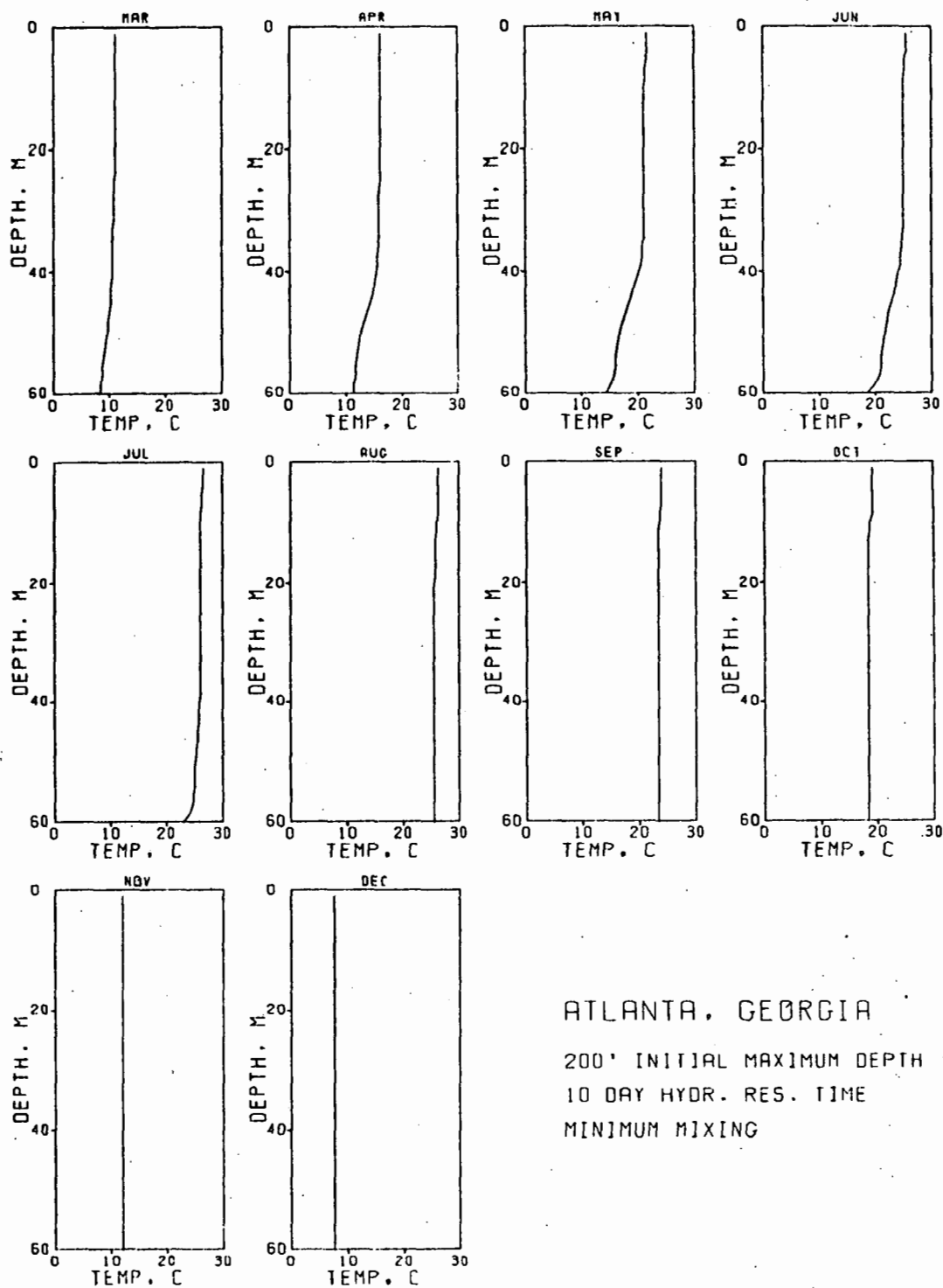
ATLANTA, GEORGIA
 100' INITIAL MAXIMUM DEPTH
 250 DAY HYDR. RES. TIME
 MINIMUM MIXING

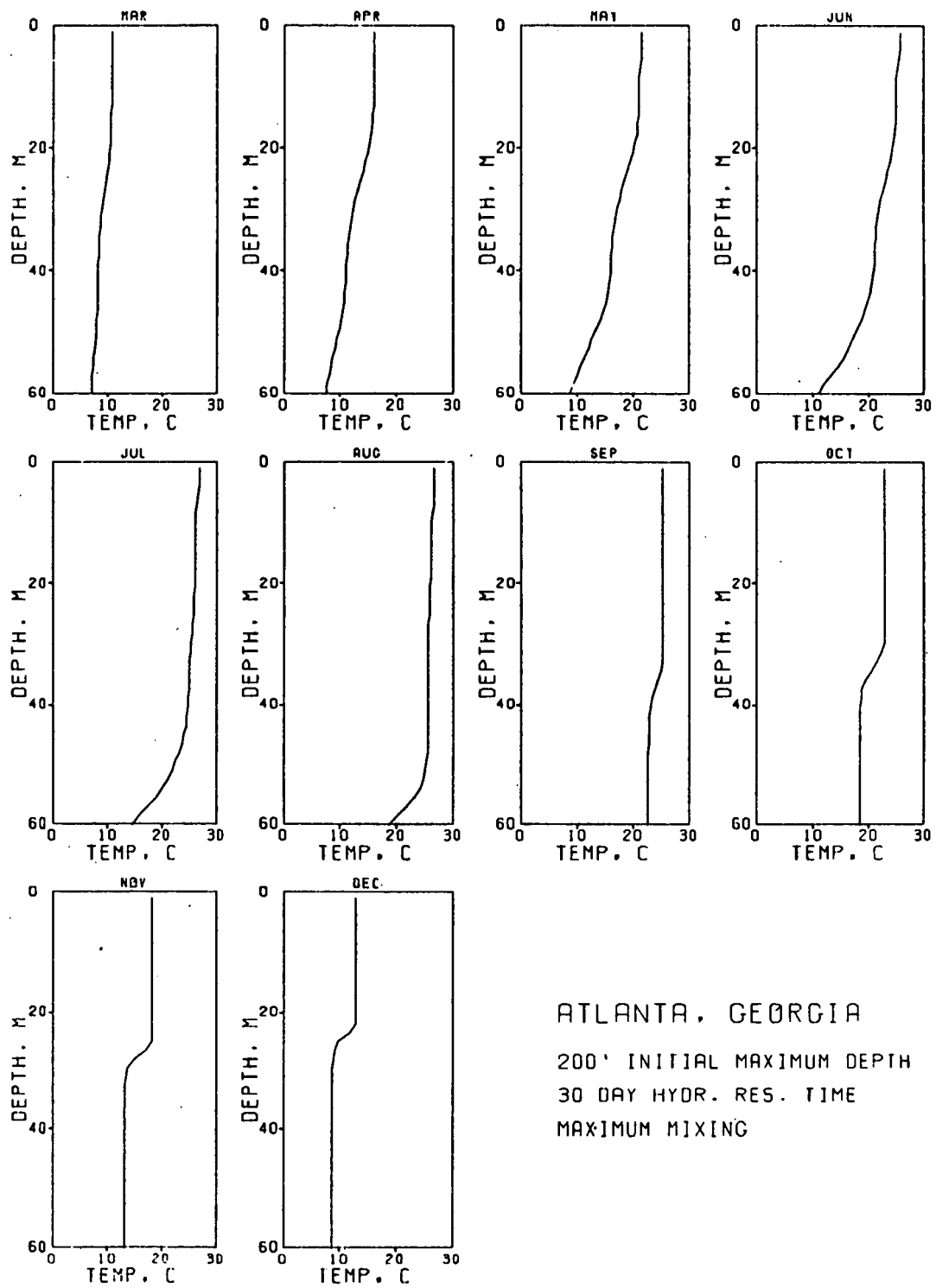


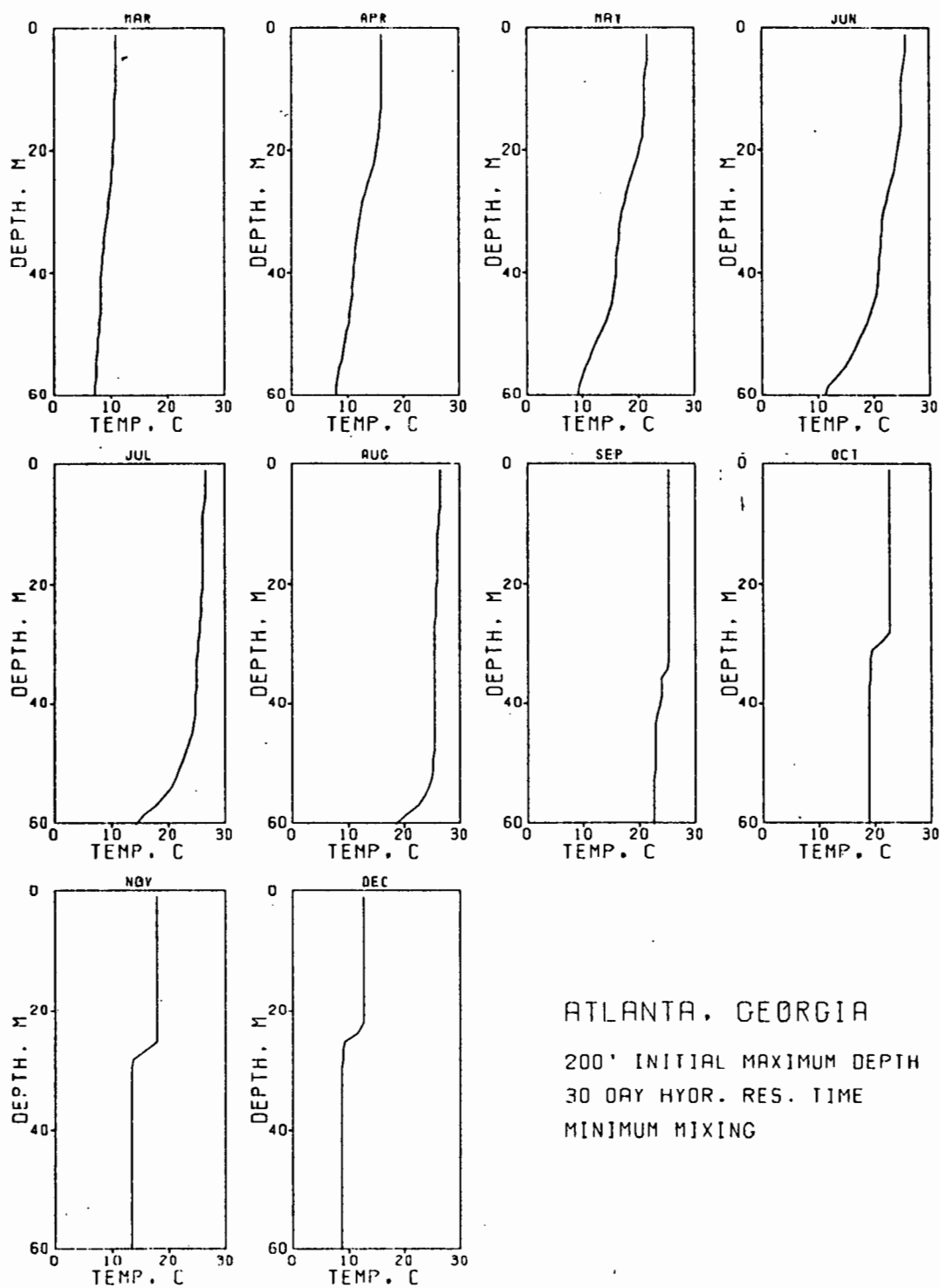




ATLANTA, GEORGIA
 200' INITIAL MAXIMUM DEPTH
 10 DAY HYDR. RES. TIME
 MAXIMUM MIXING





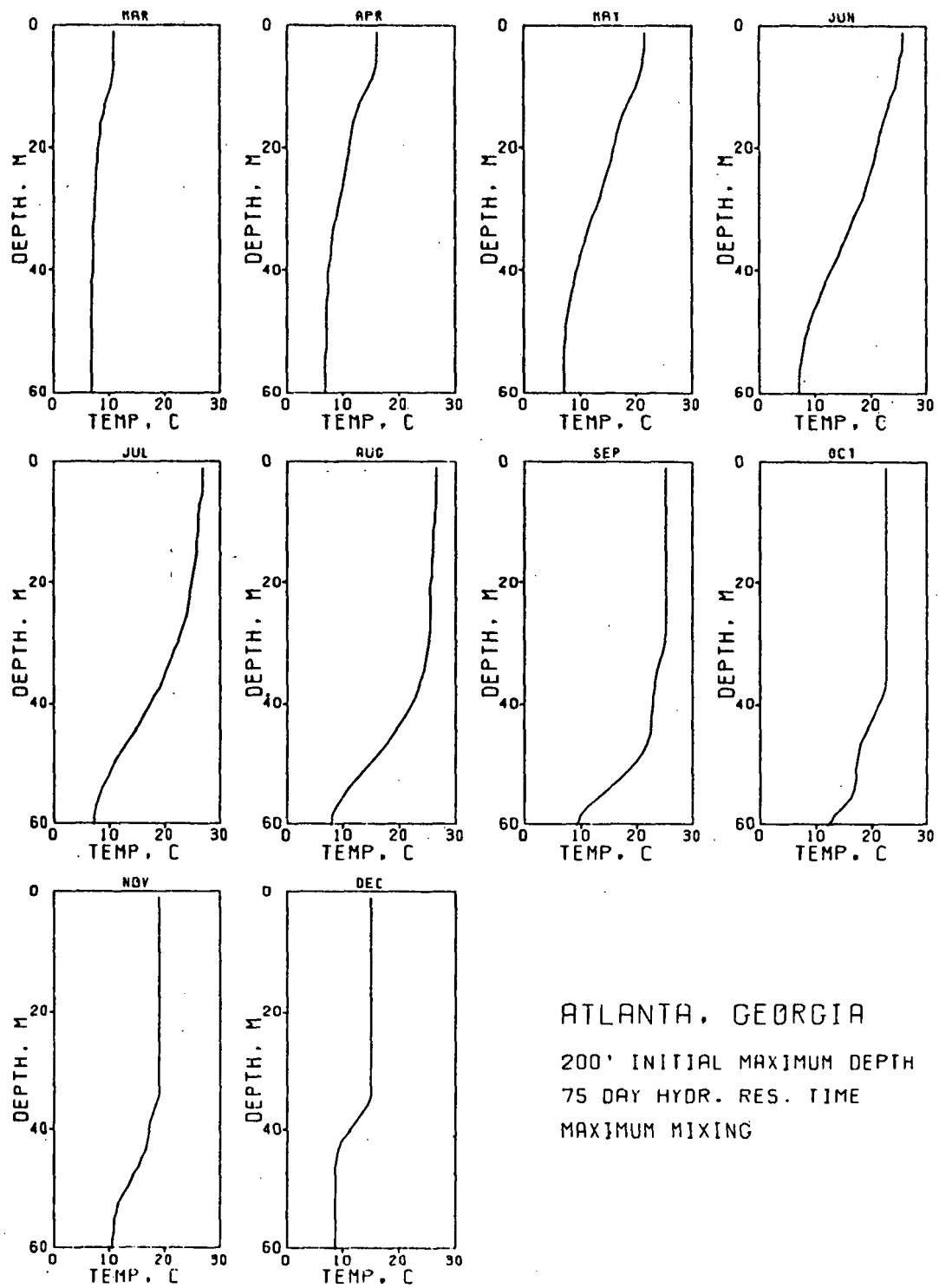


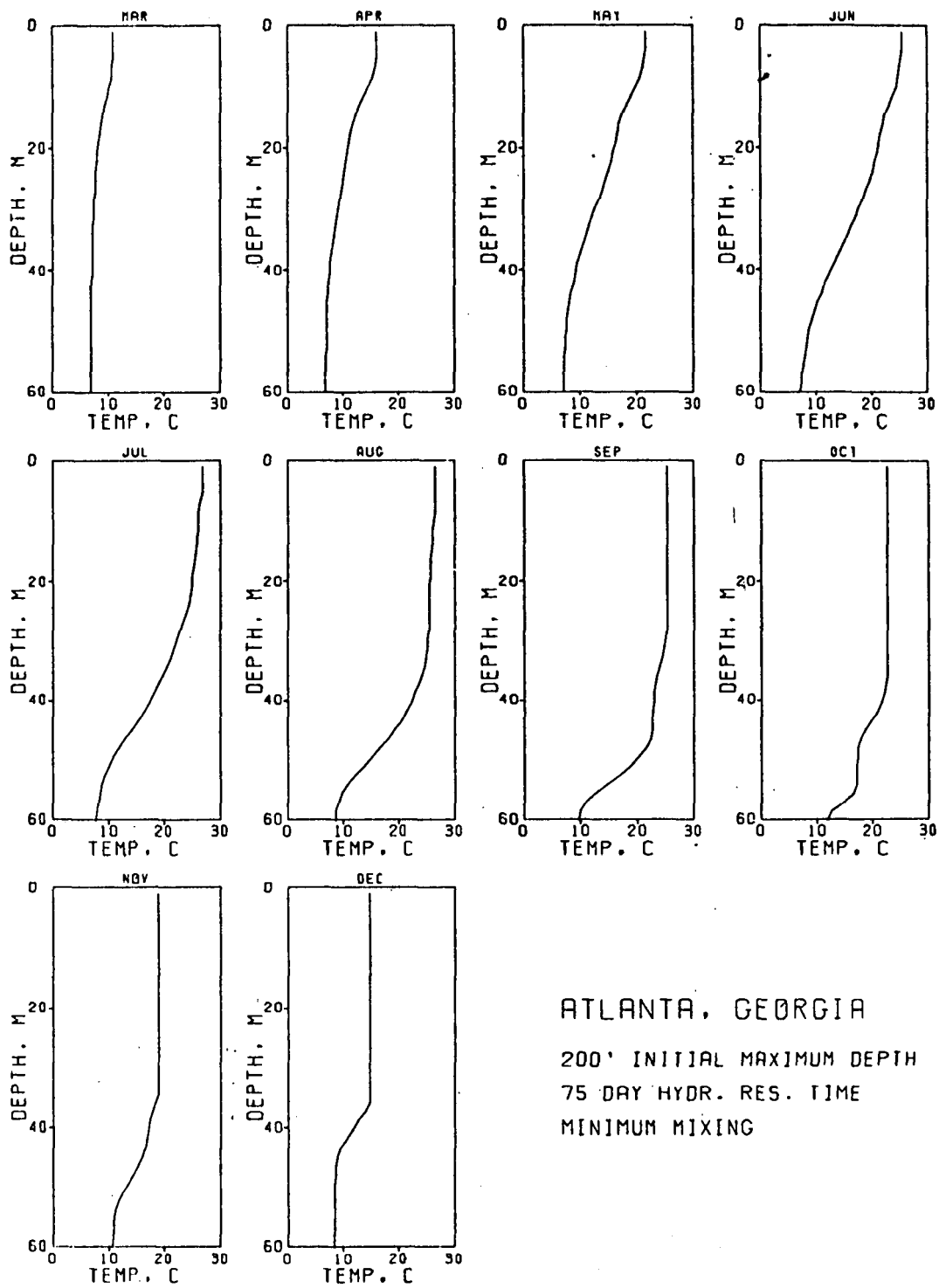
ATLANTA, GEORGIA

200' INITIAL MAXIMUM DEPTH

30 DAY HYOR. RES. TIME

MINIMUM MIXING



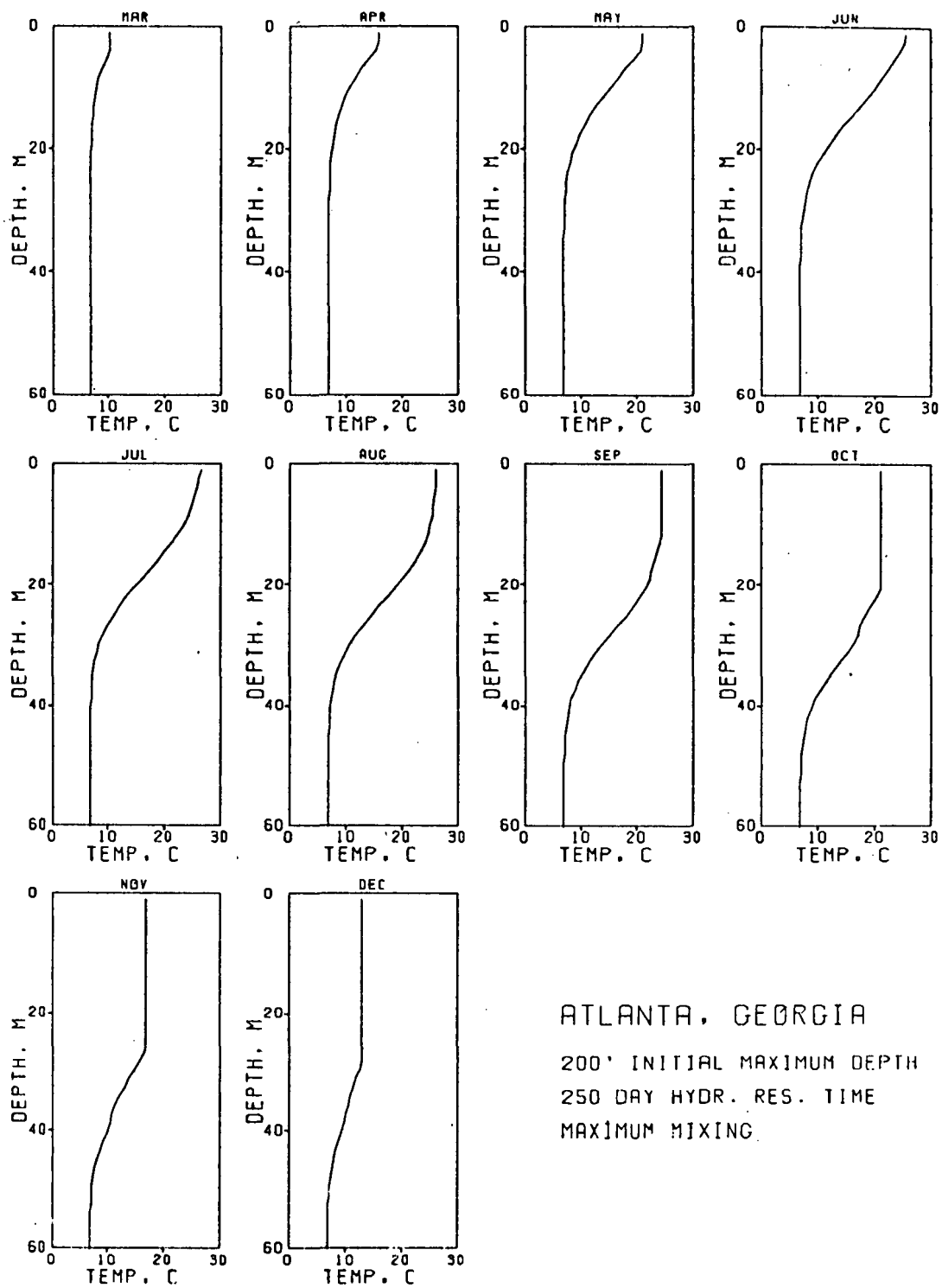


ATLANTA, GEORGIA

200' INITIAL MAXIMUM DEPTH

75 DAY HYDR. RES. TIME

MINIMUM MIXING

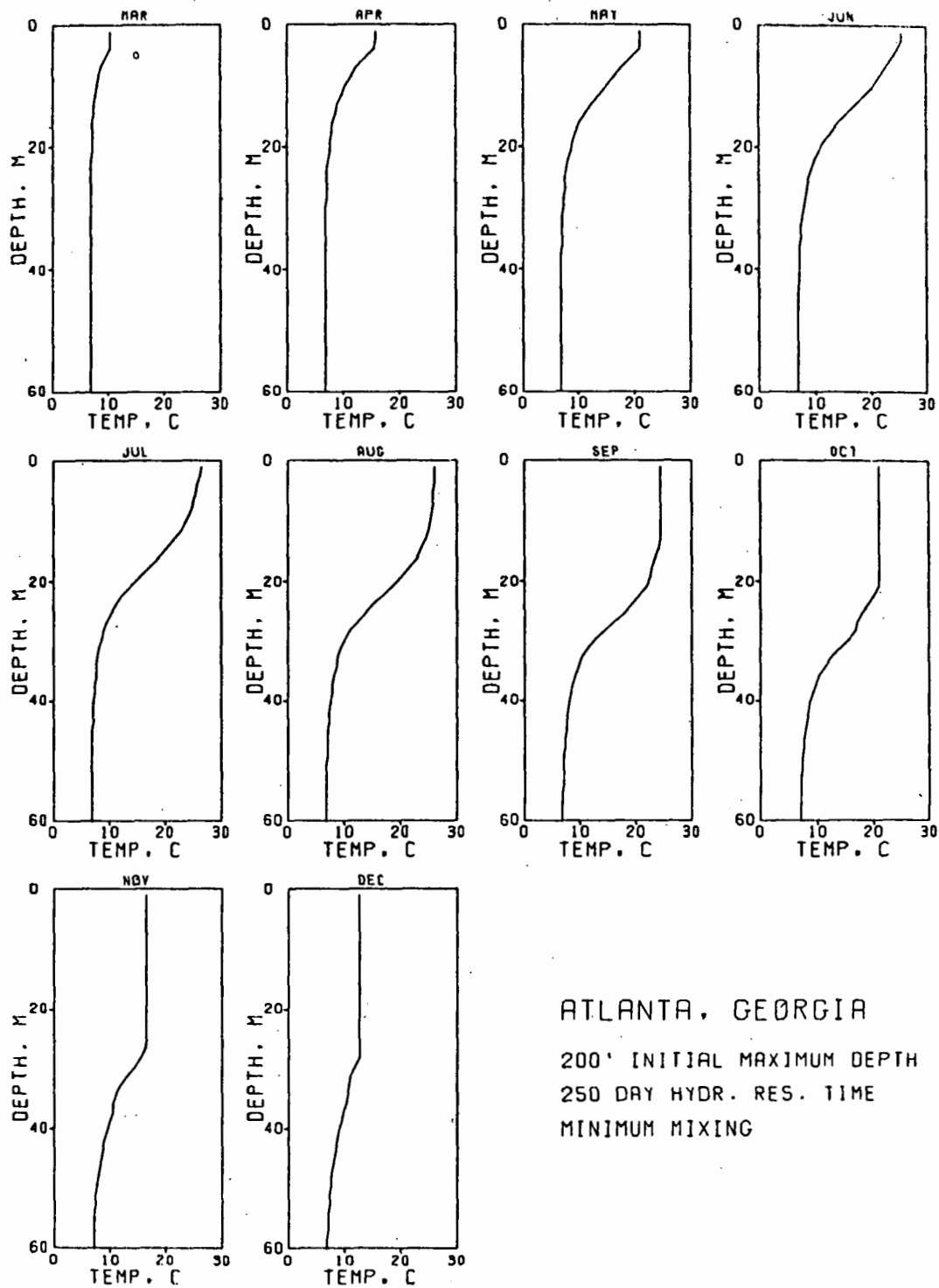


ATLANTA, GEORGIA

200' INITIAL MAXIMUM DEPTH

250 DAY HYDR. RES. TIME

MAXIMUM MIXING

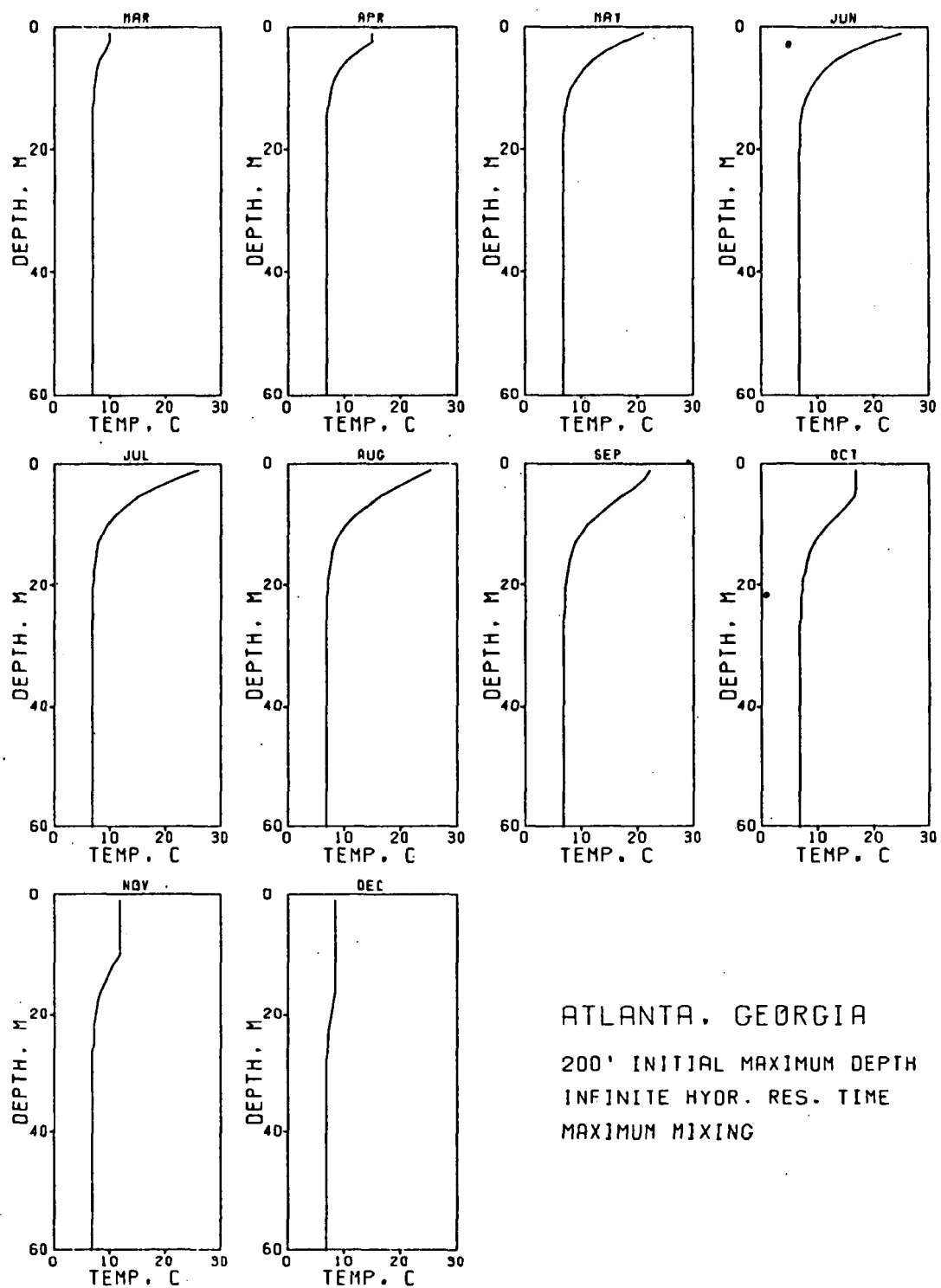


ATLANTA, GEORGIA

200' INITIAL MAXIMUM DEPTH

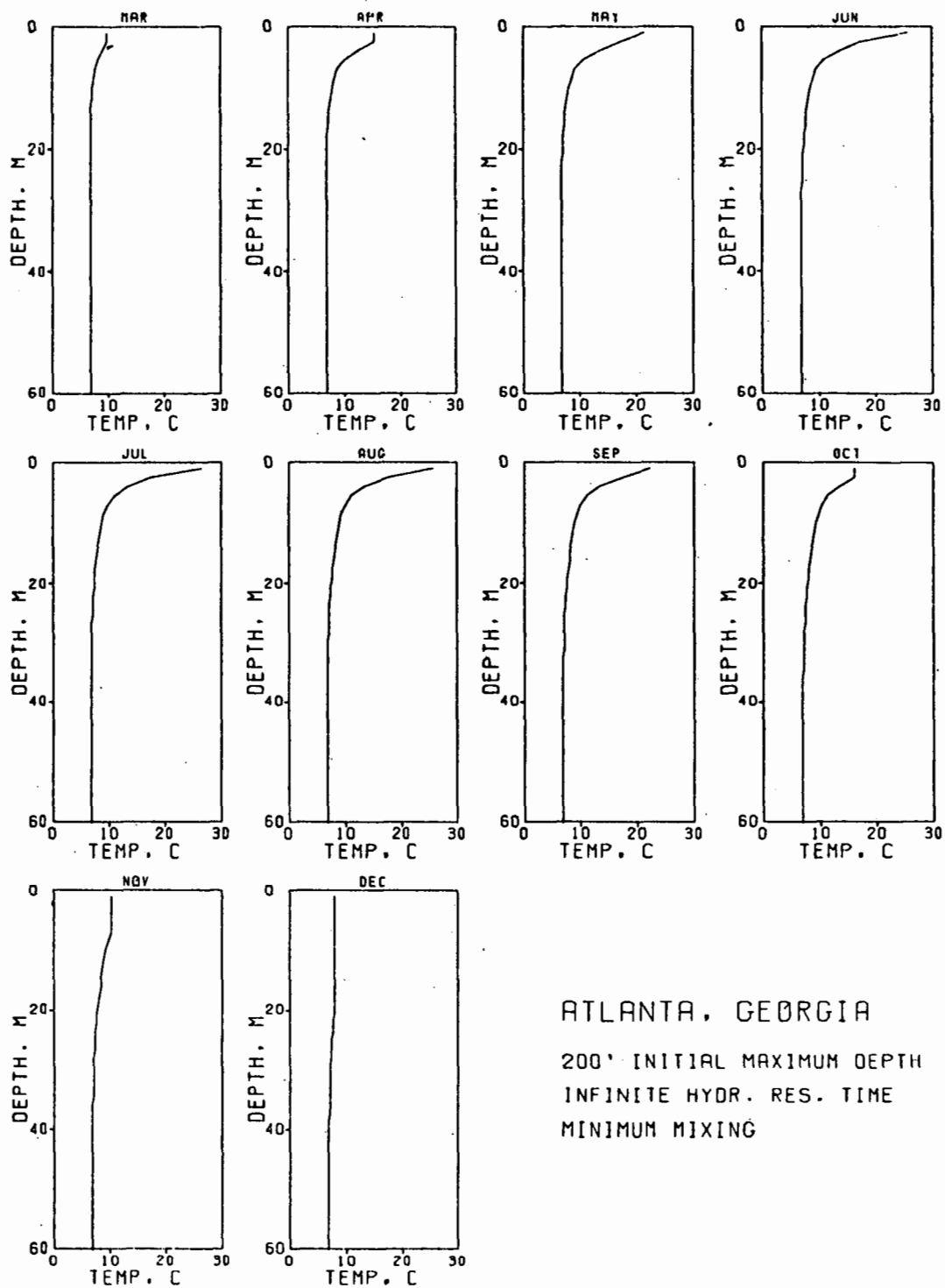
250 DAY HYDR. RES. TIME

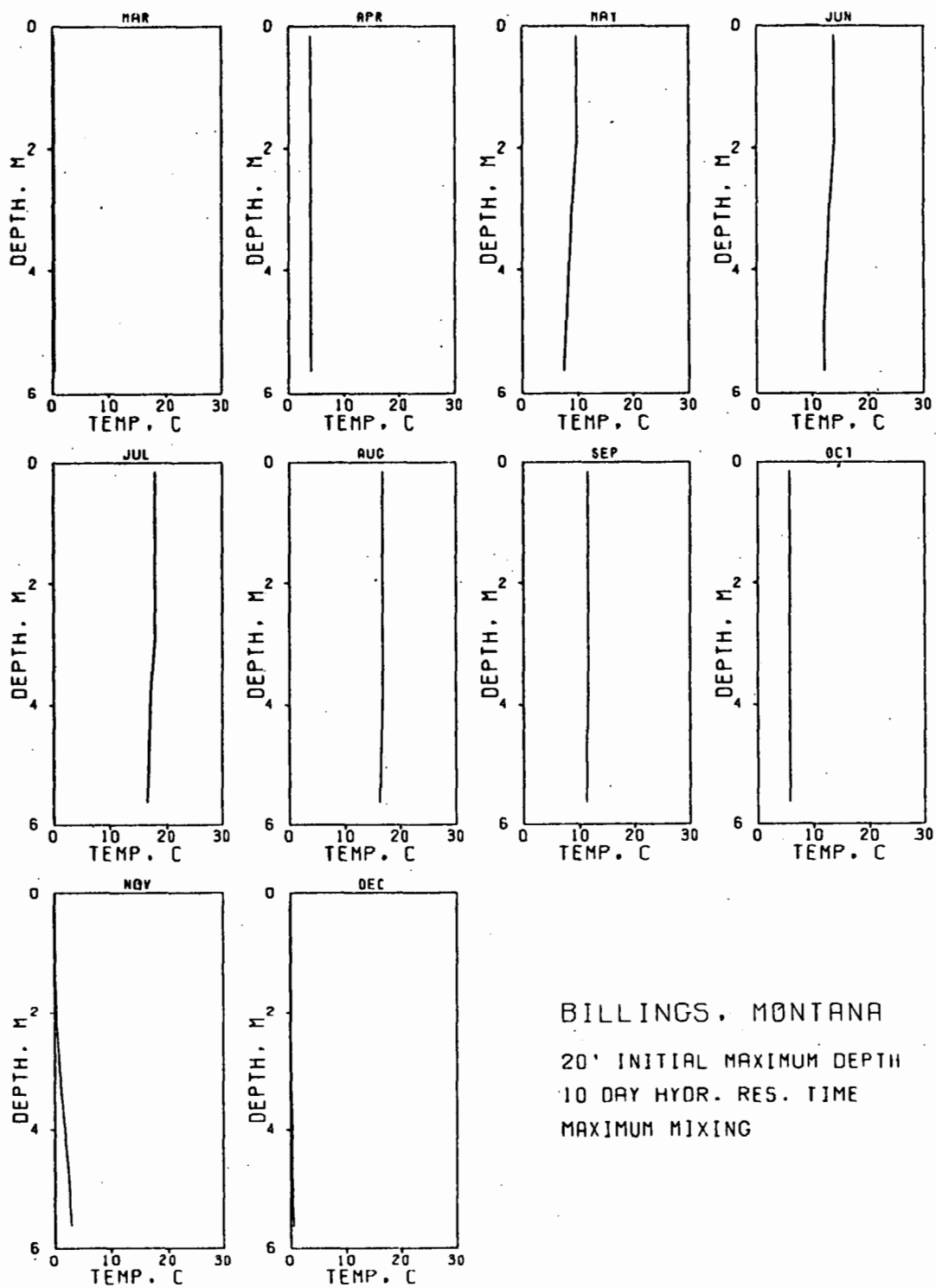
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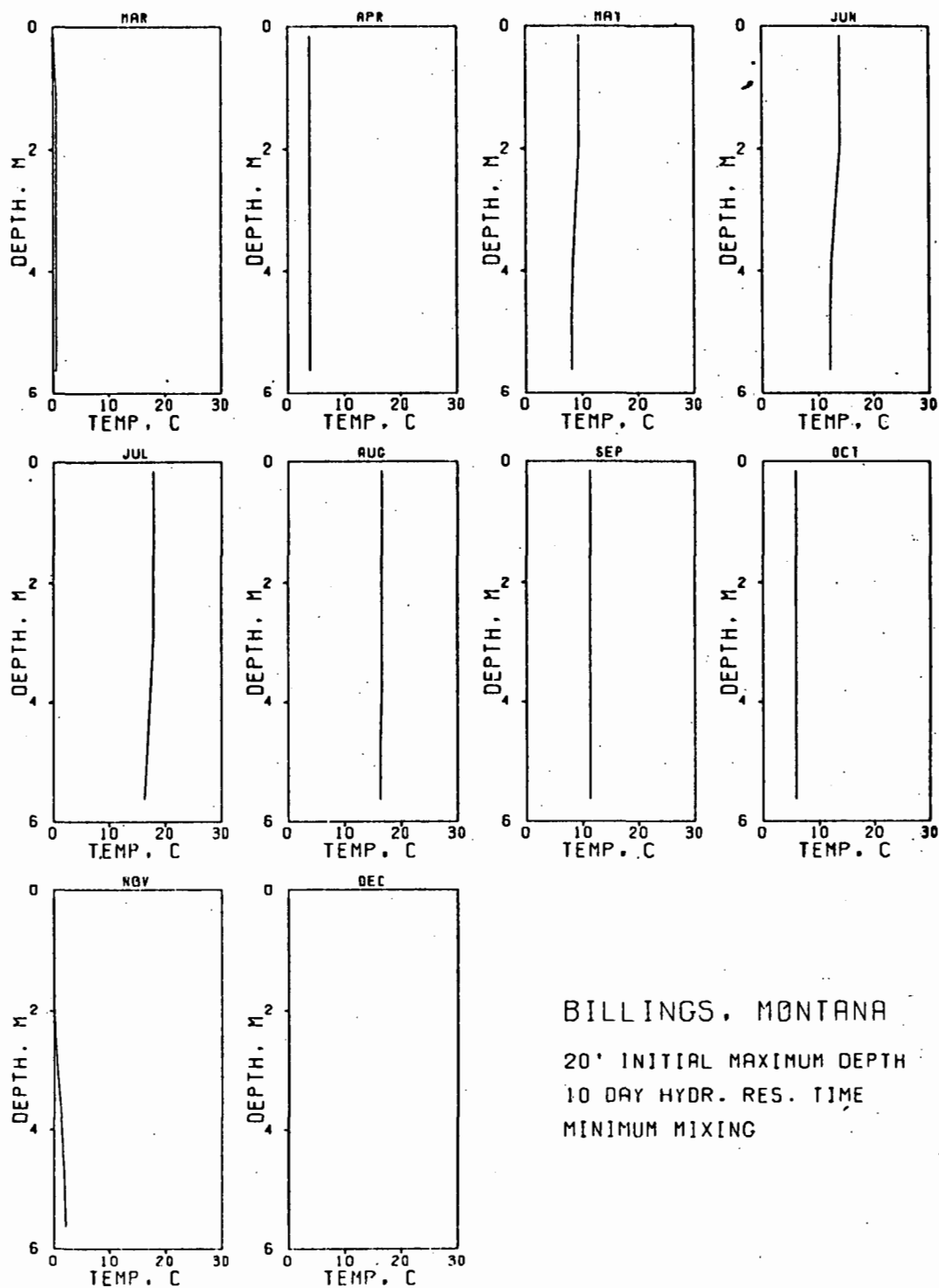


ATLANTA, GEORGIA

200' INITIAL MAXIMUM DEPTH
INFINITE HYDR. RES. TIME
MAXIMUM MIXING





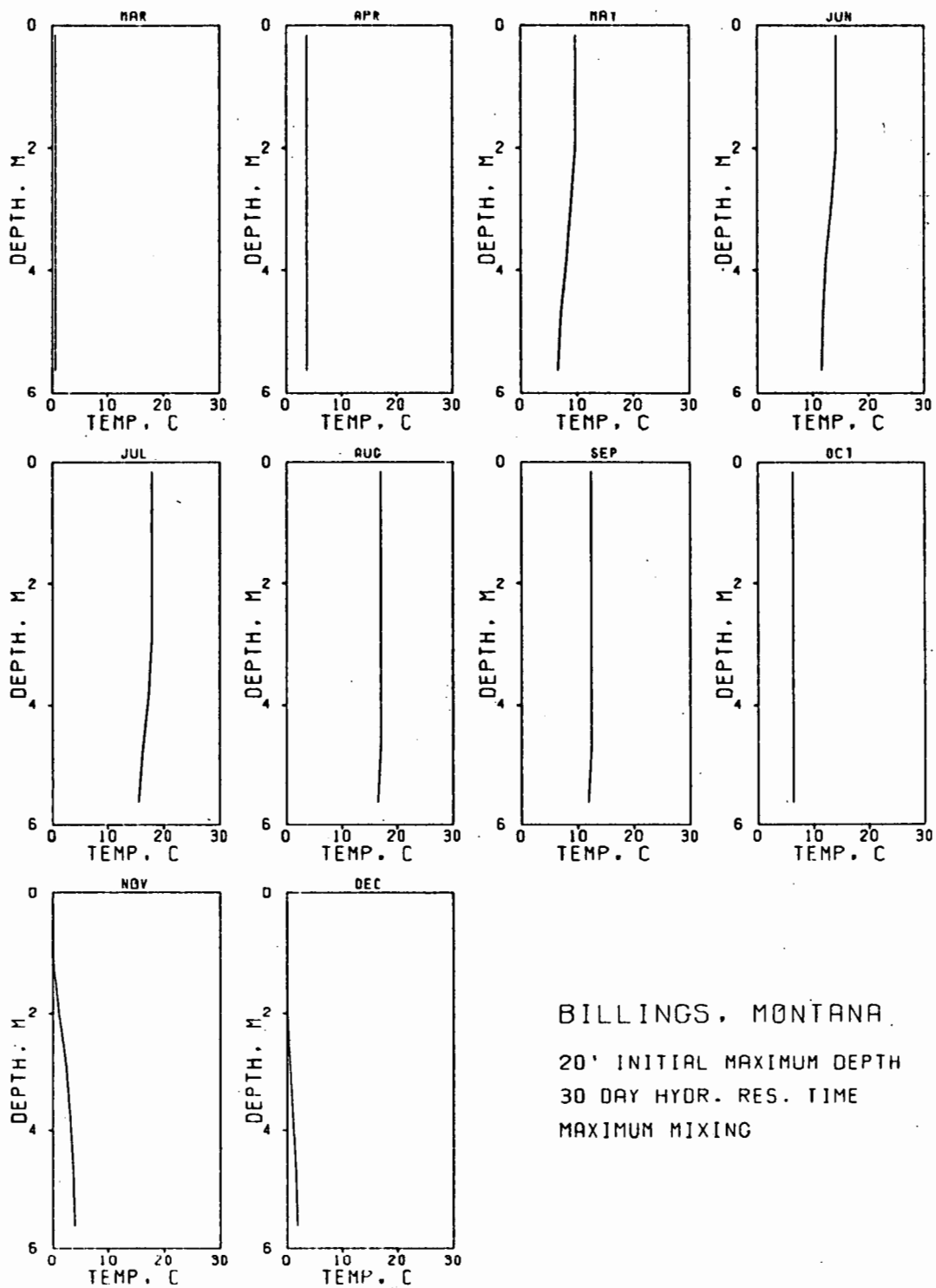


BILLINGS, MONTANA

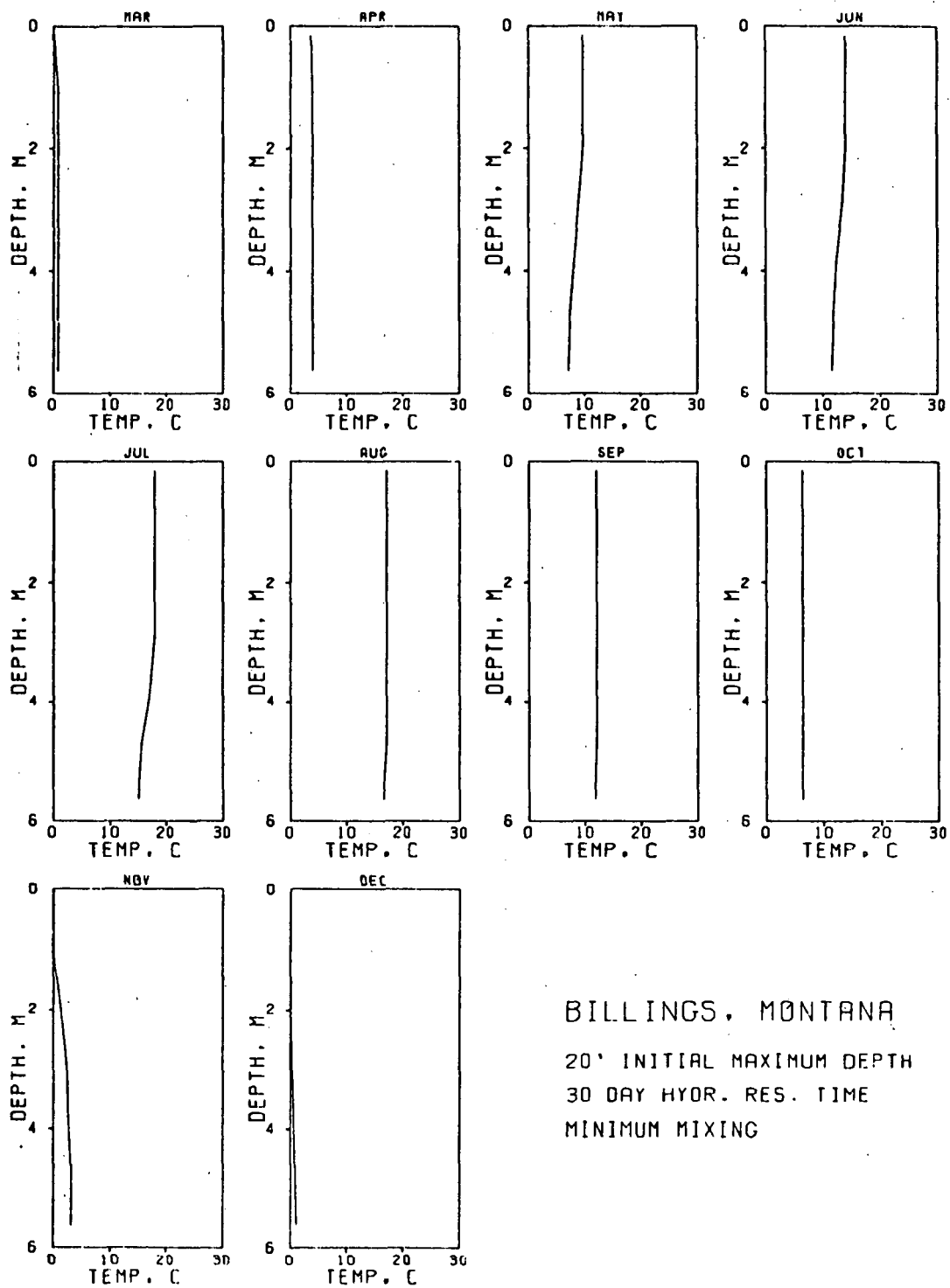
20' INITIAL MAXIMUM DEPTH

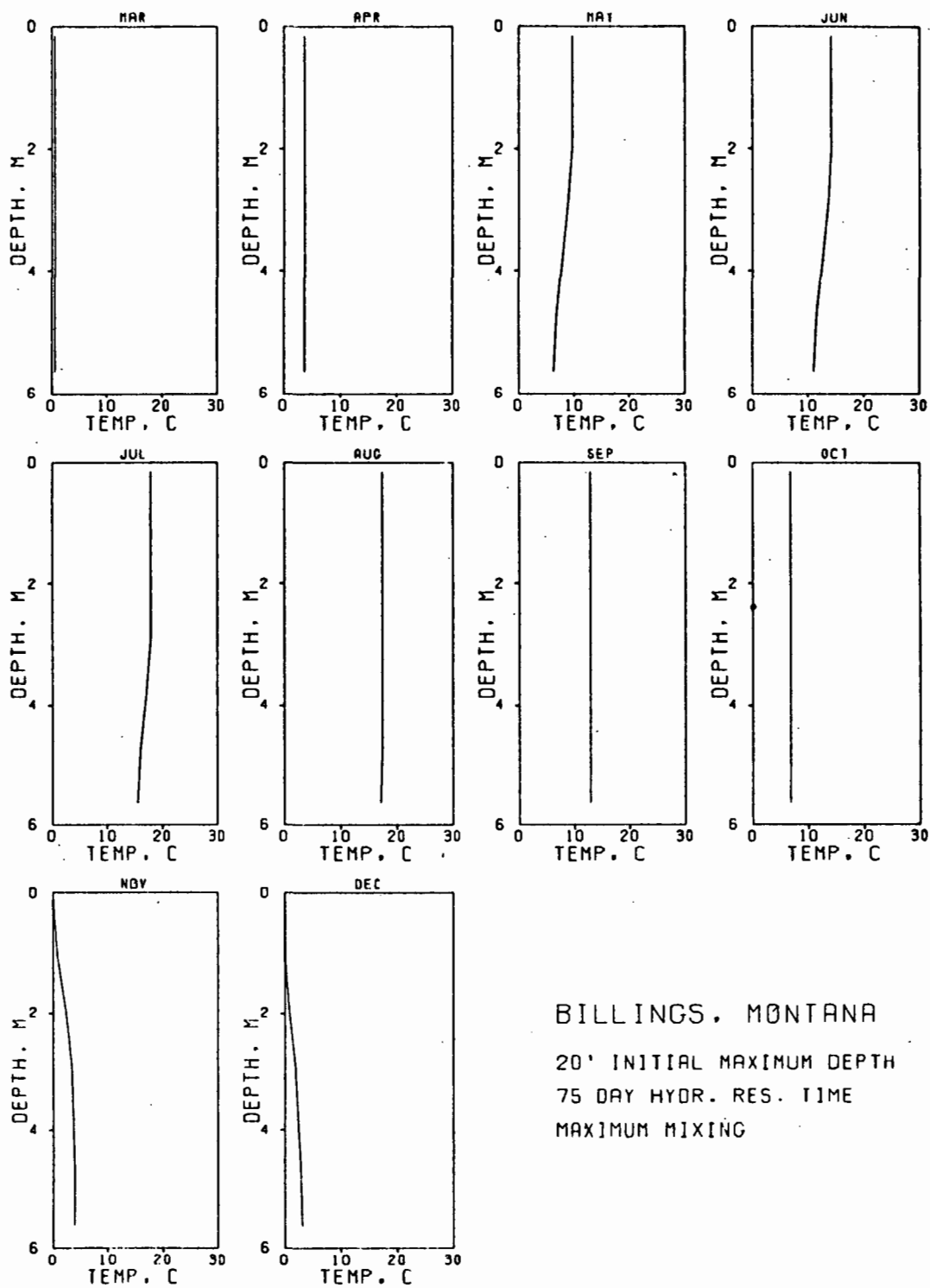
10 DAY HYDR. RES. TIME

MINIMUM MIXING

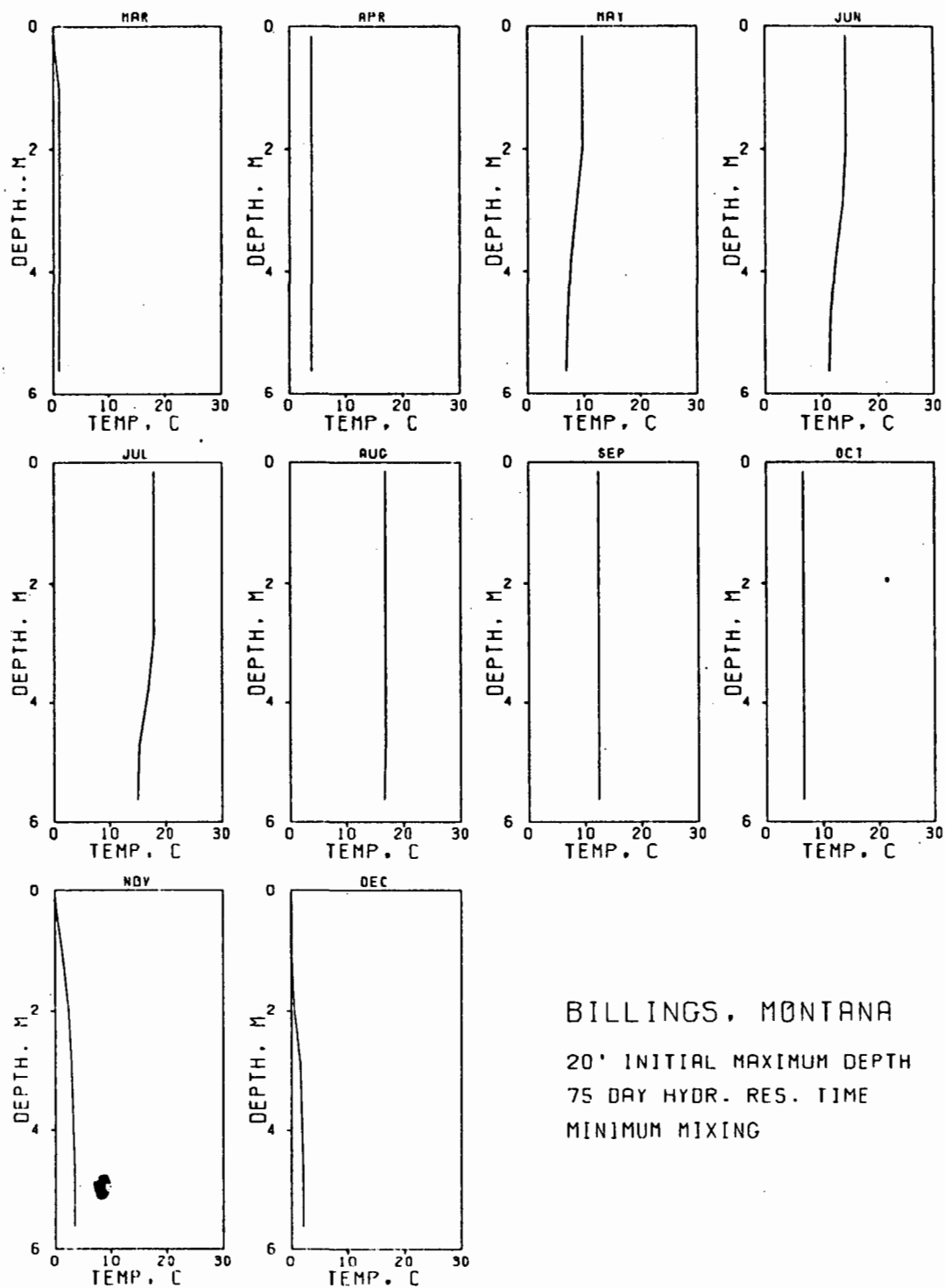


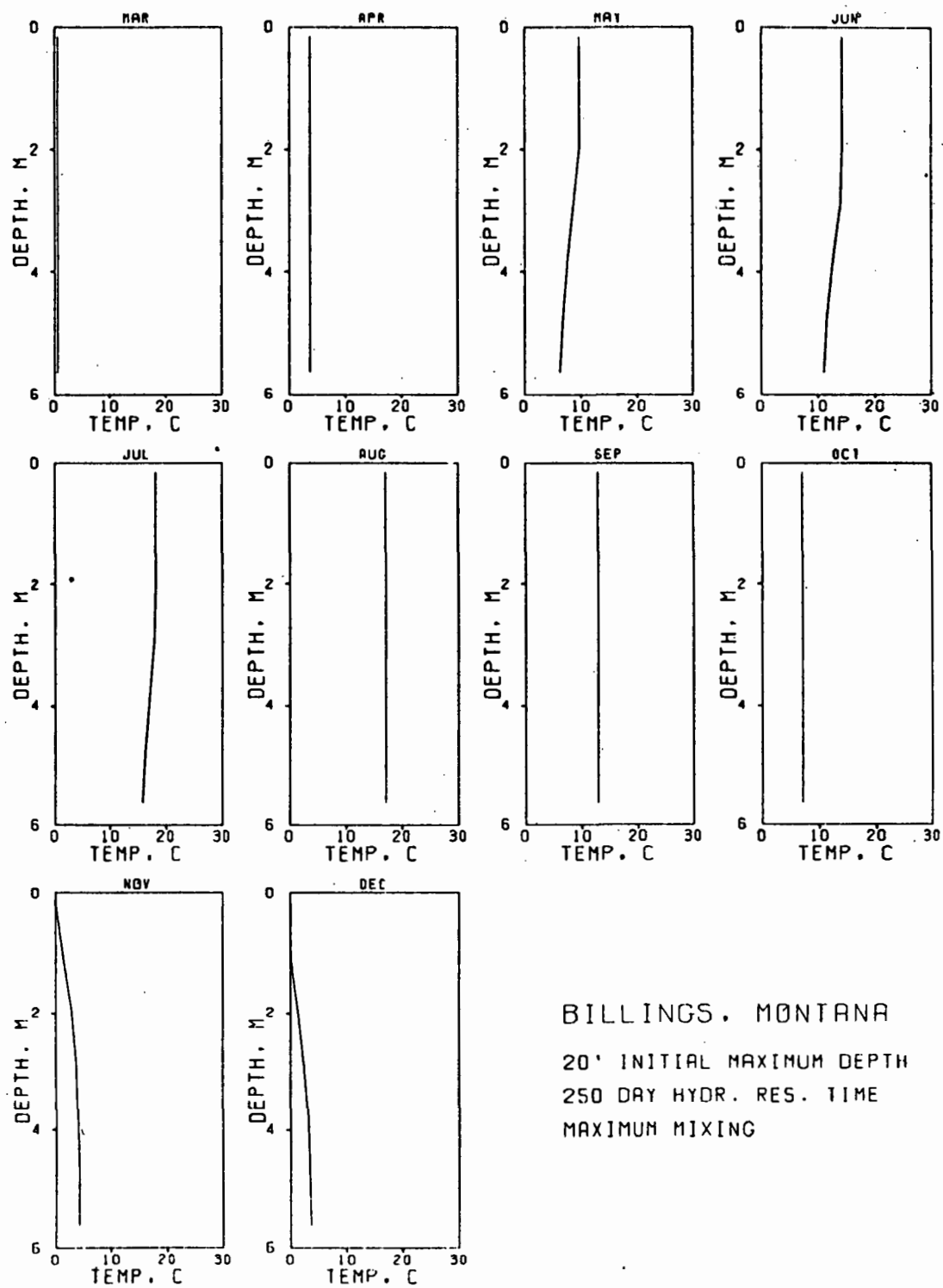
BILLINGS, MONTANA
 20' INITIAL MAXIMUM DEPTH
 30 DAY HYDR. RES. TIME
 MAXIMUM MIXING



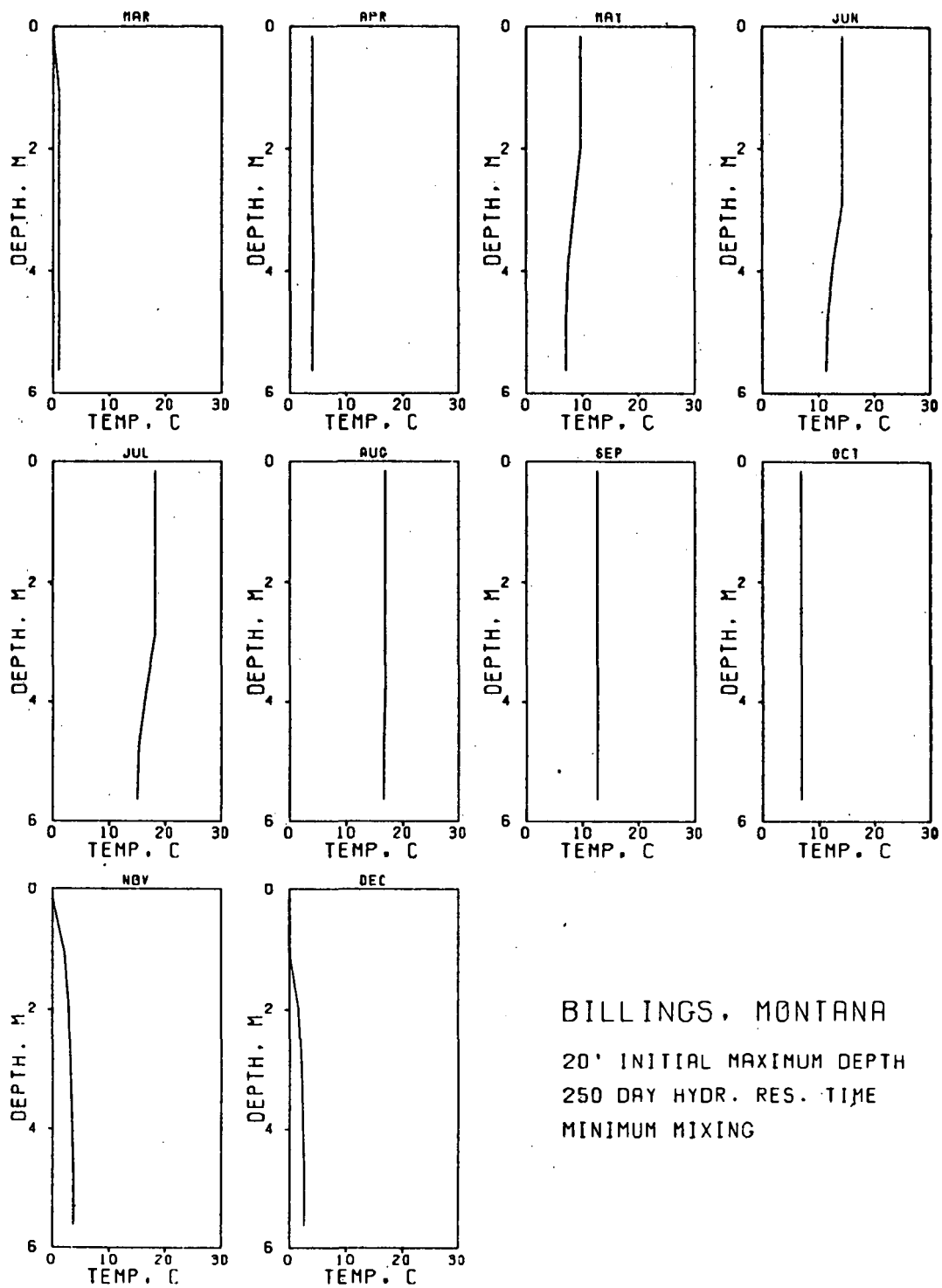


BILLINGS, MONTANA
 20' INITIAL MAXIMUM DEPTH
 75 DAY HYDR. RES. TIME
 MAXIMUM MIXING

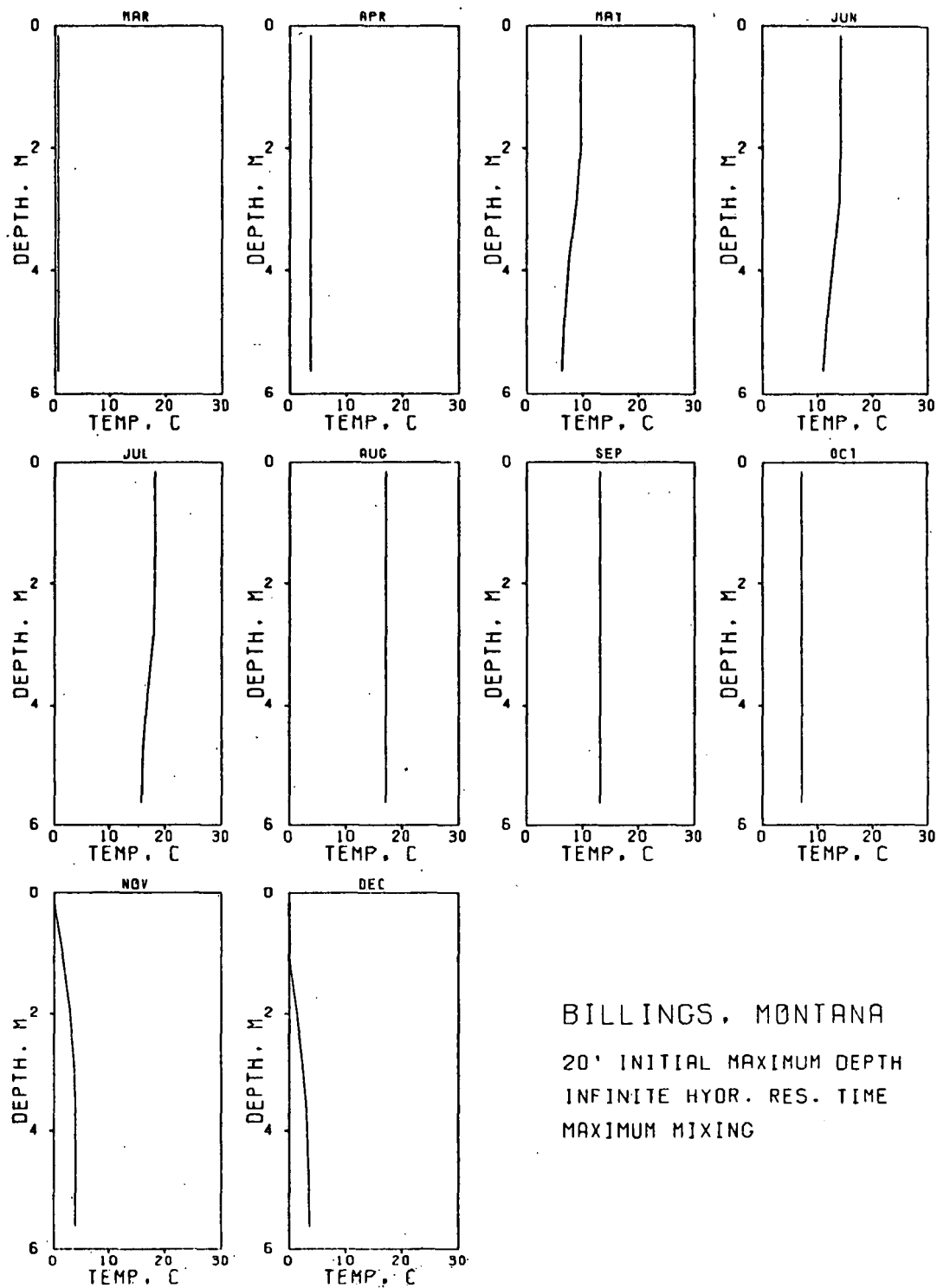




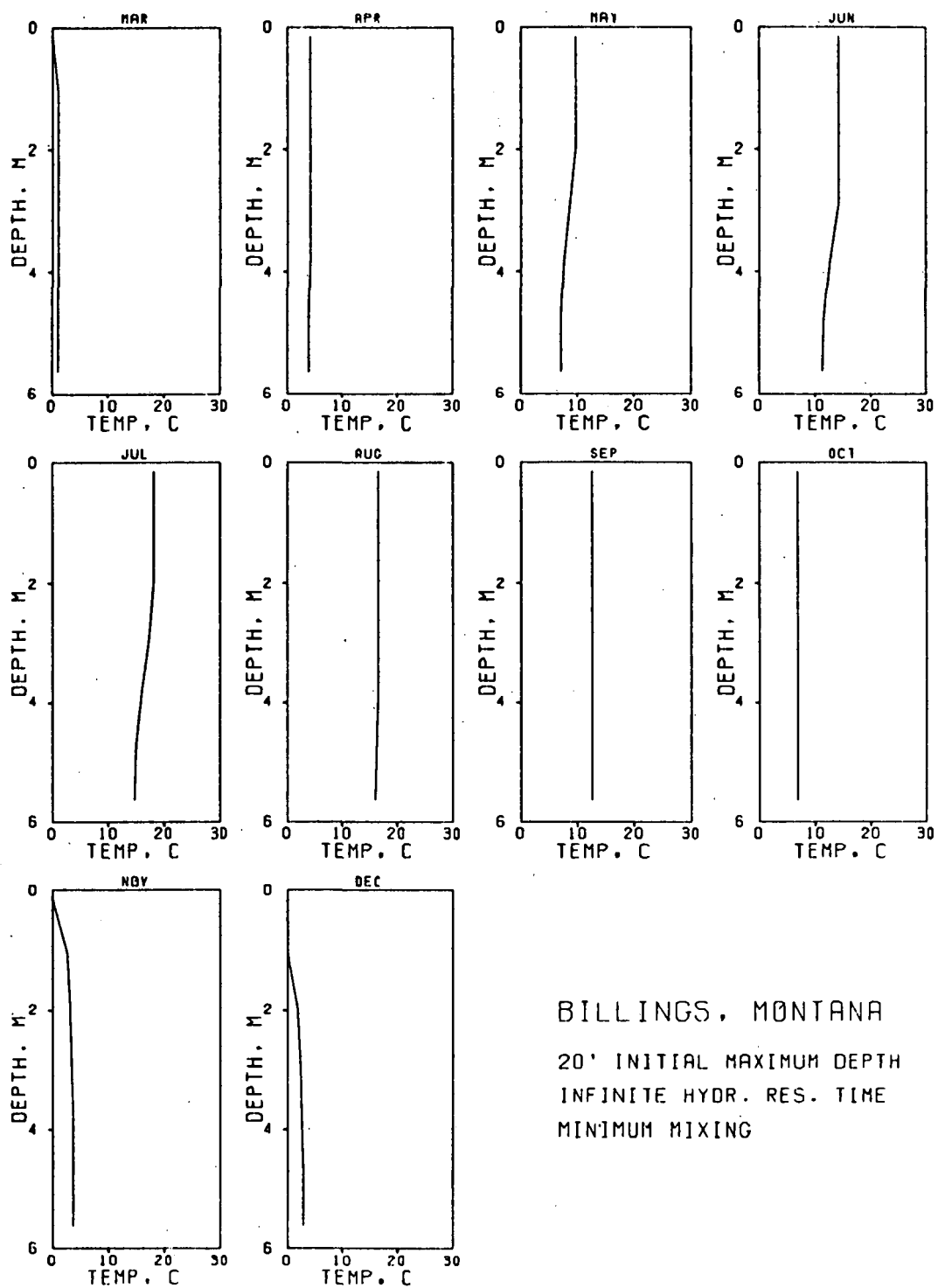
BILLINGS, MONTANA
 20' INITIAL MAXIMUM DEPTH
 250 DAY HYDR. RES. TIME
 MAXIMUM MIXING



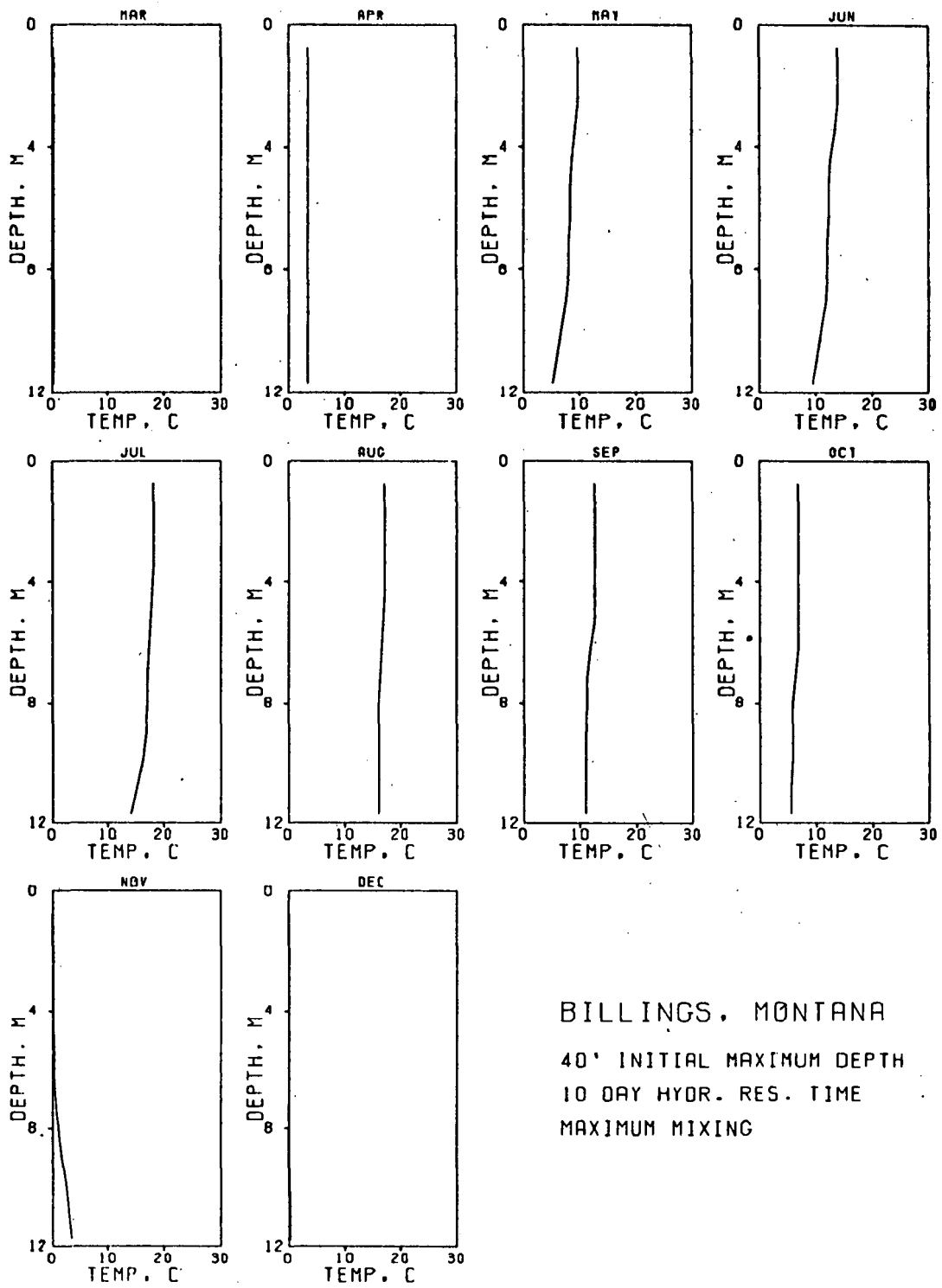
BILLINGS, MONTANA
 20' INITIAL MAXIMUM DEPTH
 250 DAY HYDR. RES. TIME
 MINIMUM MIXING



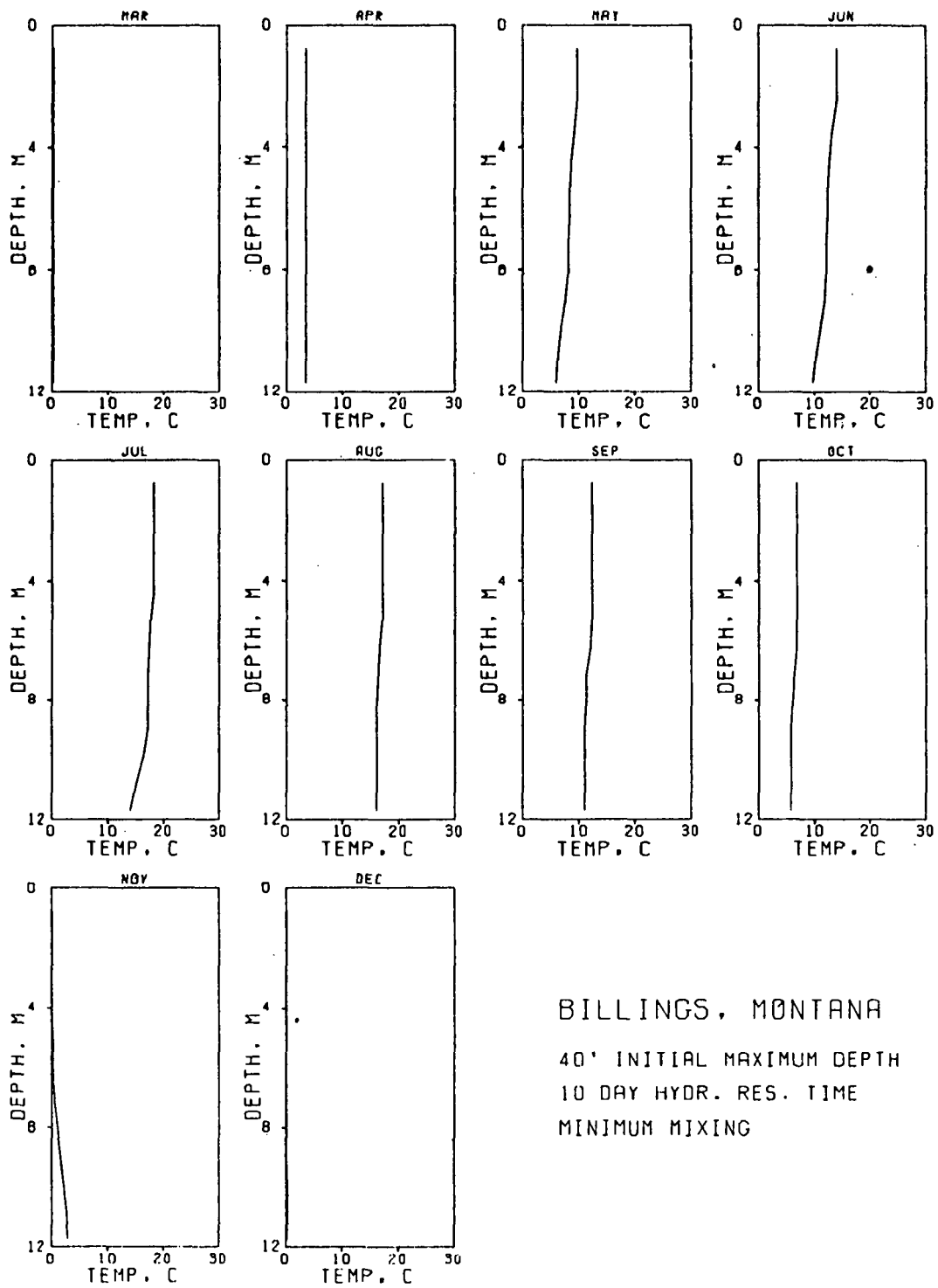
BILLINGS, MONTANA
 20' INITIAL MAXIMUM DEPTH
 INFINITE HYOR. RES. TIME
 MAXIMUM MIXING

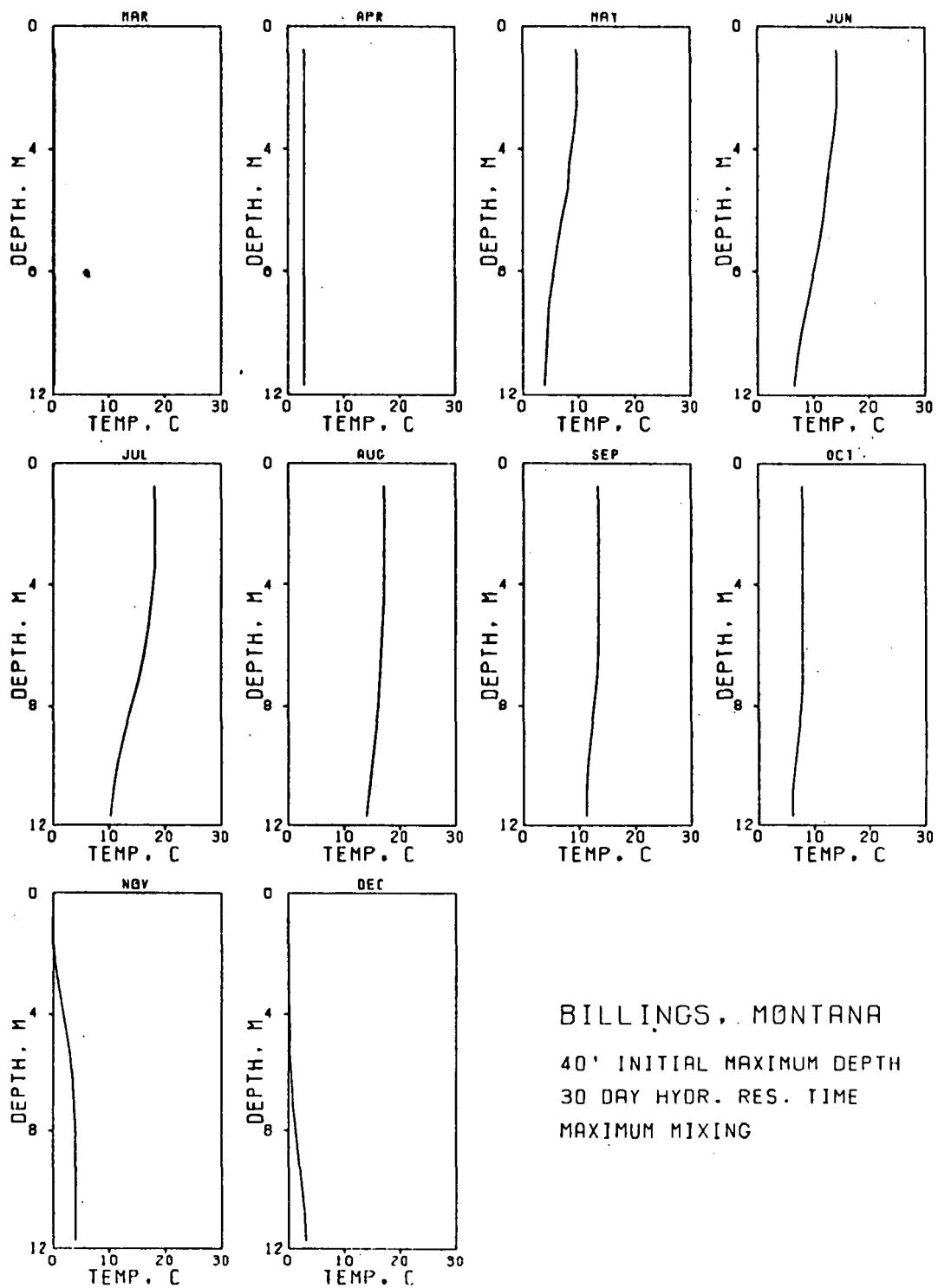


BILLINGS, MONTANA
 20' INITIAL MAXIMUM DEPTH
 INFINITE HYDR. RES. TIME
 MINIMUM MIXING

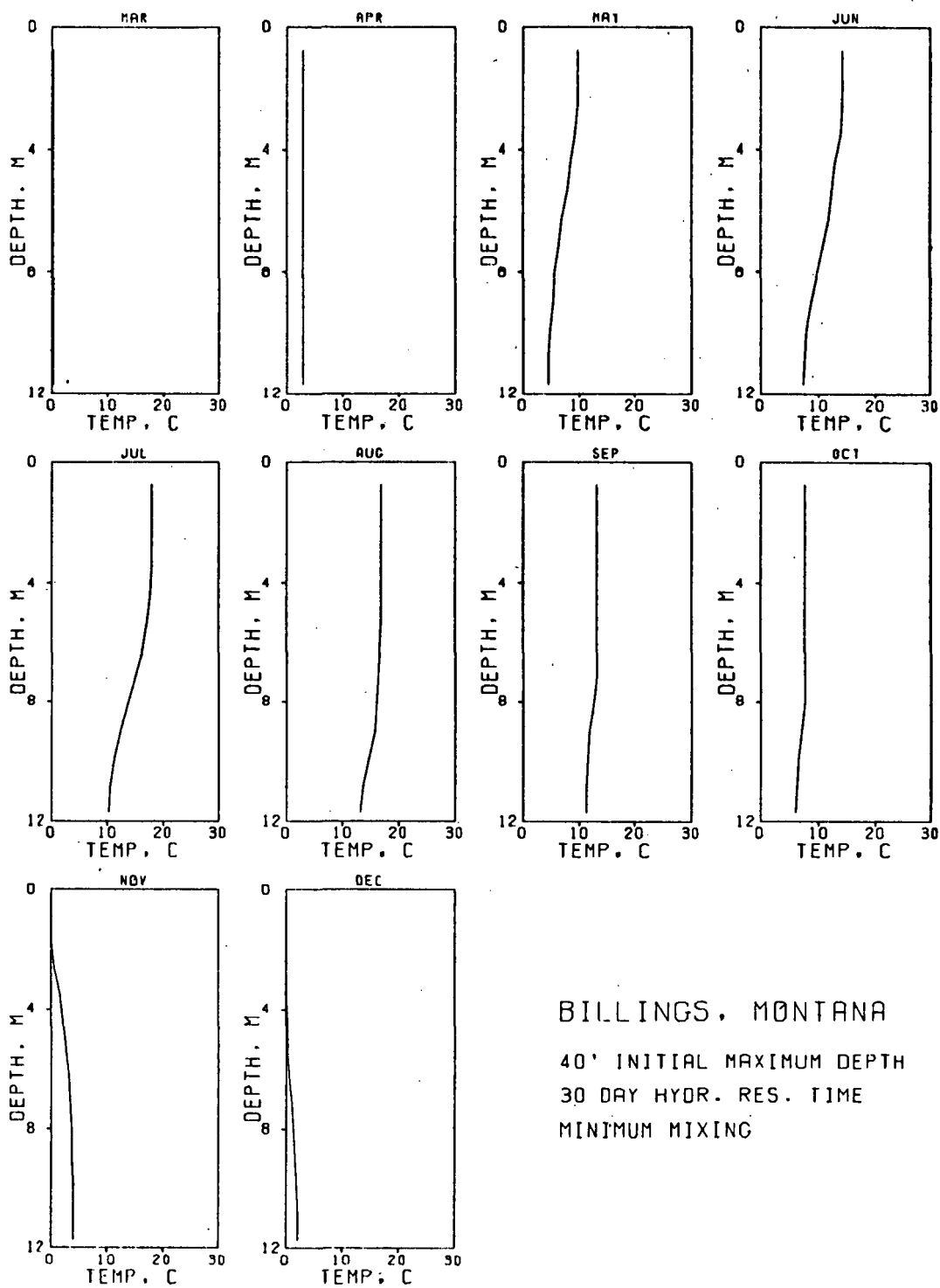


BILLINGS, MONTANA
 40' INITIAL MAXIMUM DEPTH
 10 DAY HYDR. RES. TIME
 MAXIMUM MIXING





BILLINGS, MONTANA
 40' INITIAL MAXIMUM DEPTH
 30 DAY HYDR. RES. TIME
 MAXIMUM MIXING

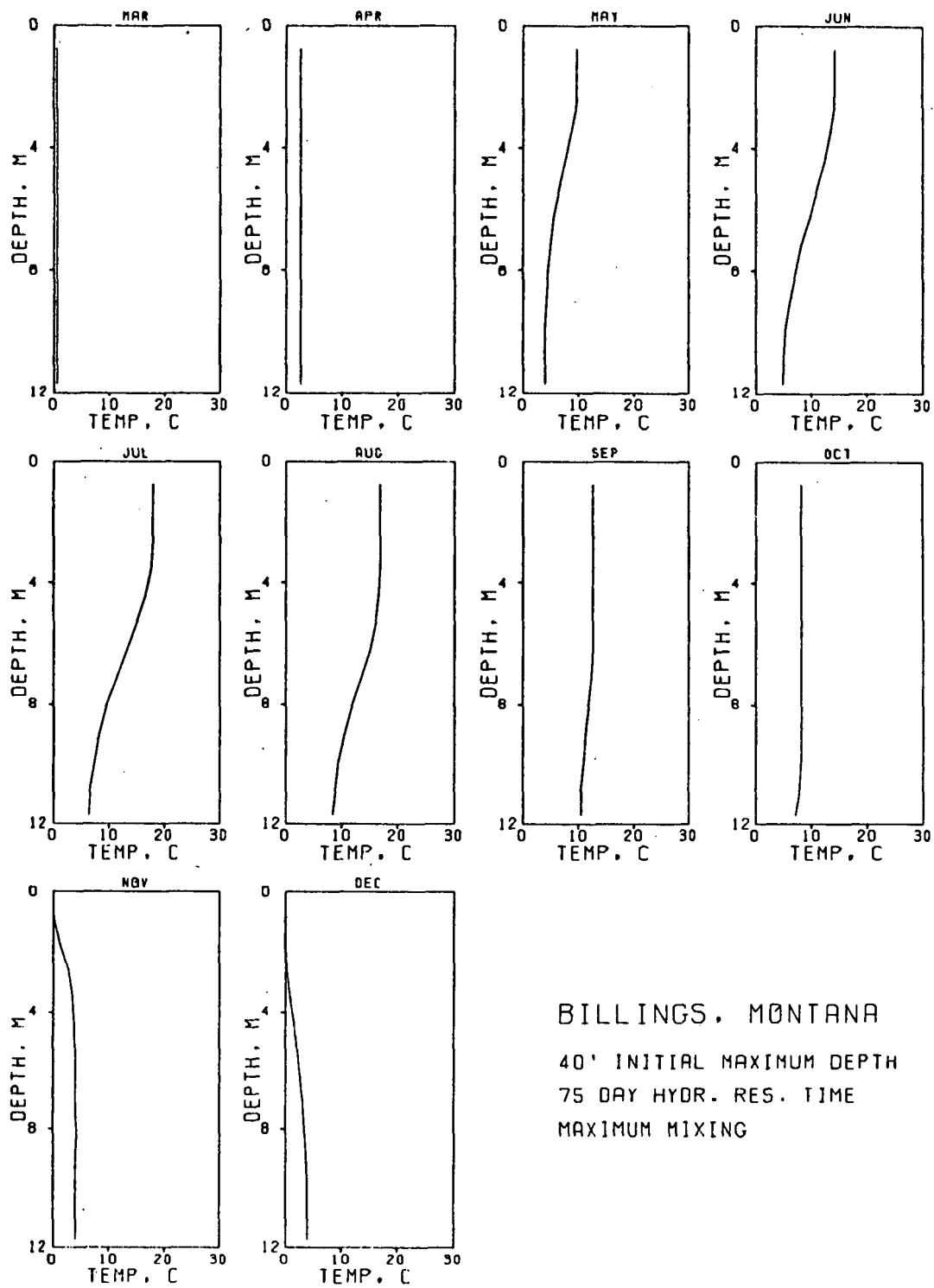


BILLINGS, MONTANA

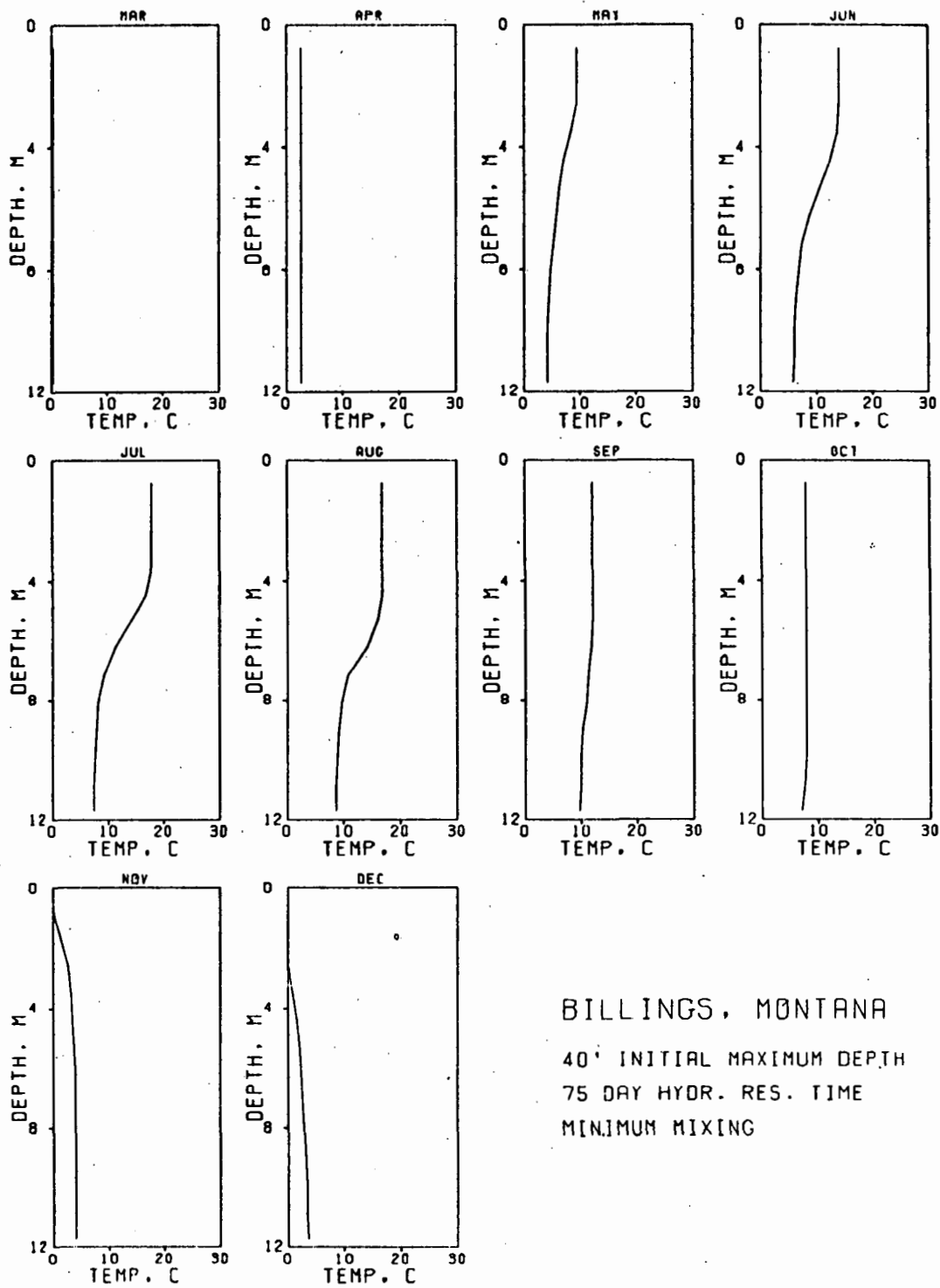
40' INITIAL MAXIMUM DEPTH

30 DAY HYDR. RES. TIME

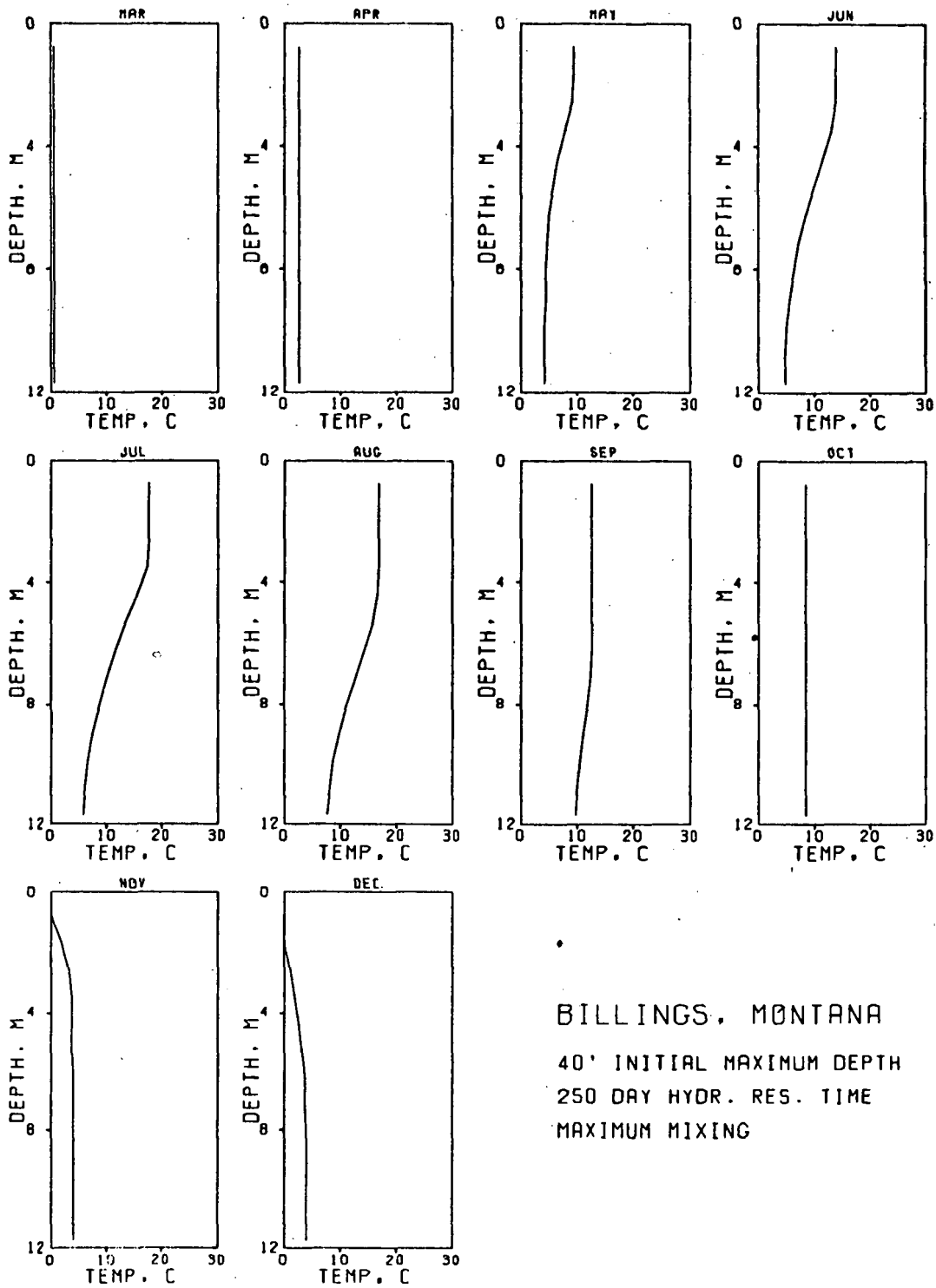
MINIMUM MIXING



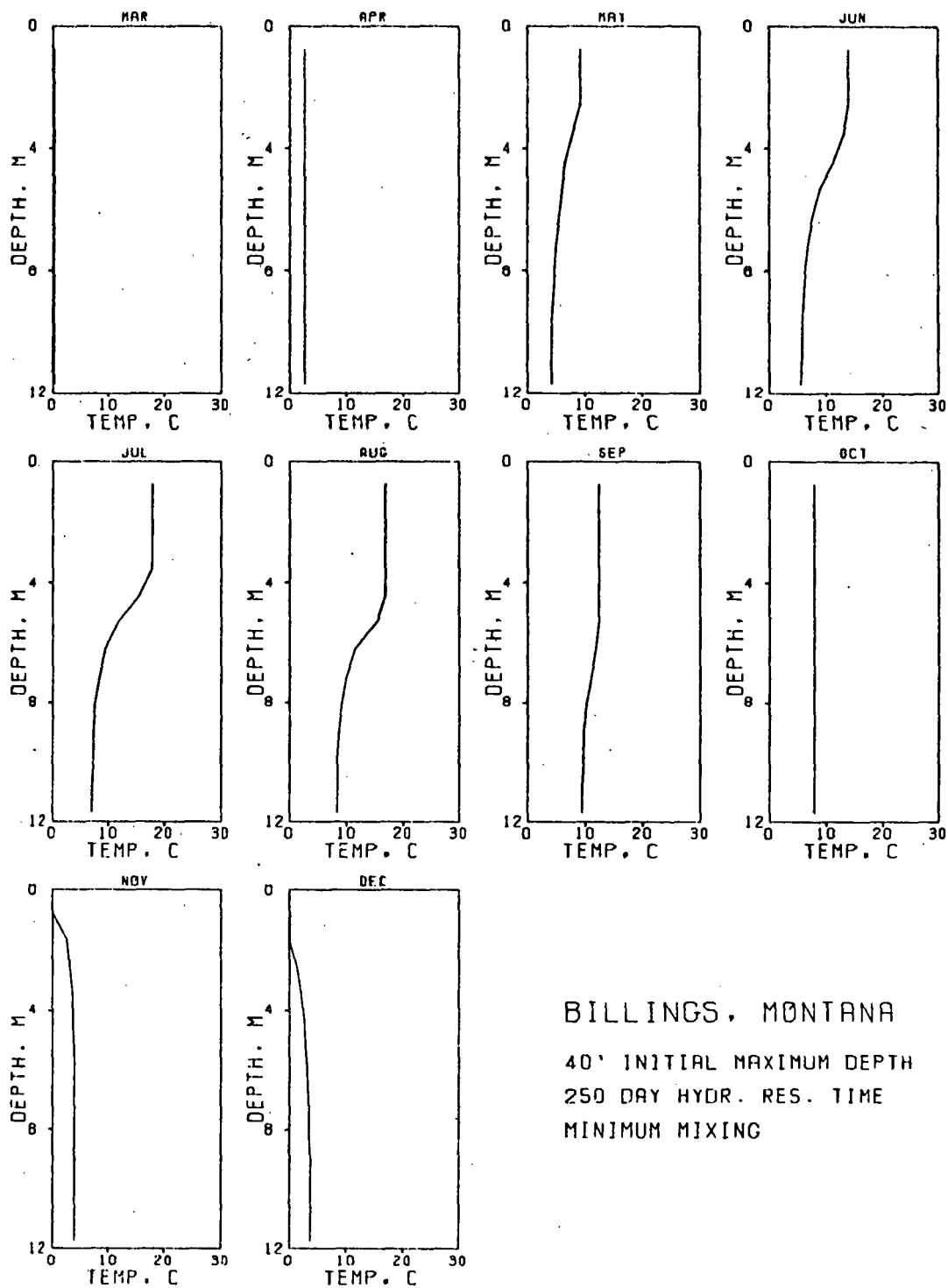
BILLINGS, MONTANA
 40' INITIAL MAXIMUM DEPTH
 75 DAY HYDR. RES. TIME
 MAXIMUM MIXING



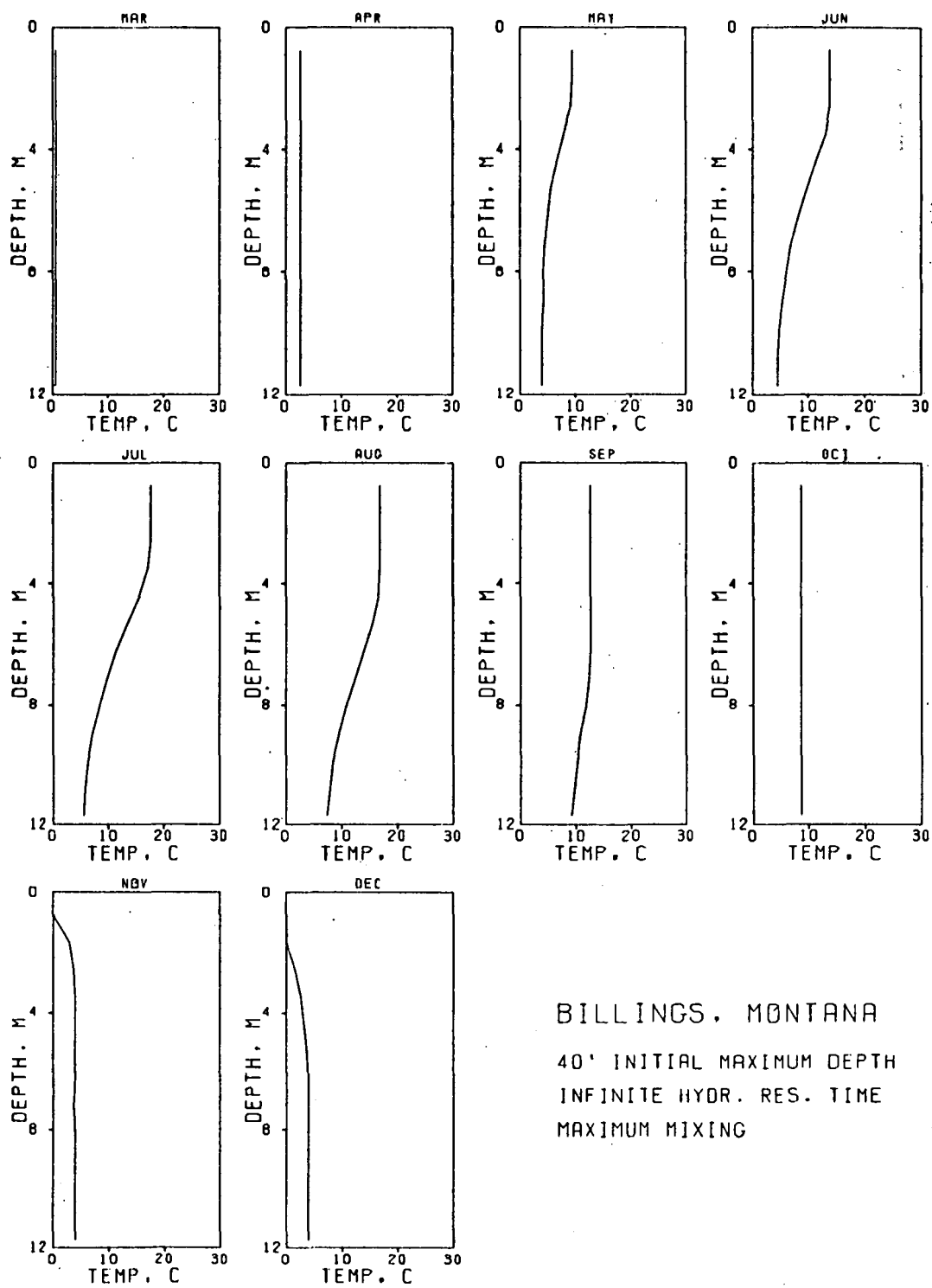
BILLINGS, MONTANA
 40' INITIAL MAXIMUM DEPTH
 75 DAY HYDR. RES. TIME
 MINIMUM MIXING



BILLINGS, MONTANA
 40' INITIAL MAXIMUM DEPTH
 250 DAY HYDR. RES. TIME
 MAXIMUM MIXING



BILLINGS, MONTANA
 40' INITIAL MAXIMUM DEPTH
 250 DAY HYDR. RES. TIME
 MINIMUM MIXING

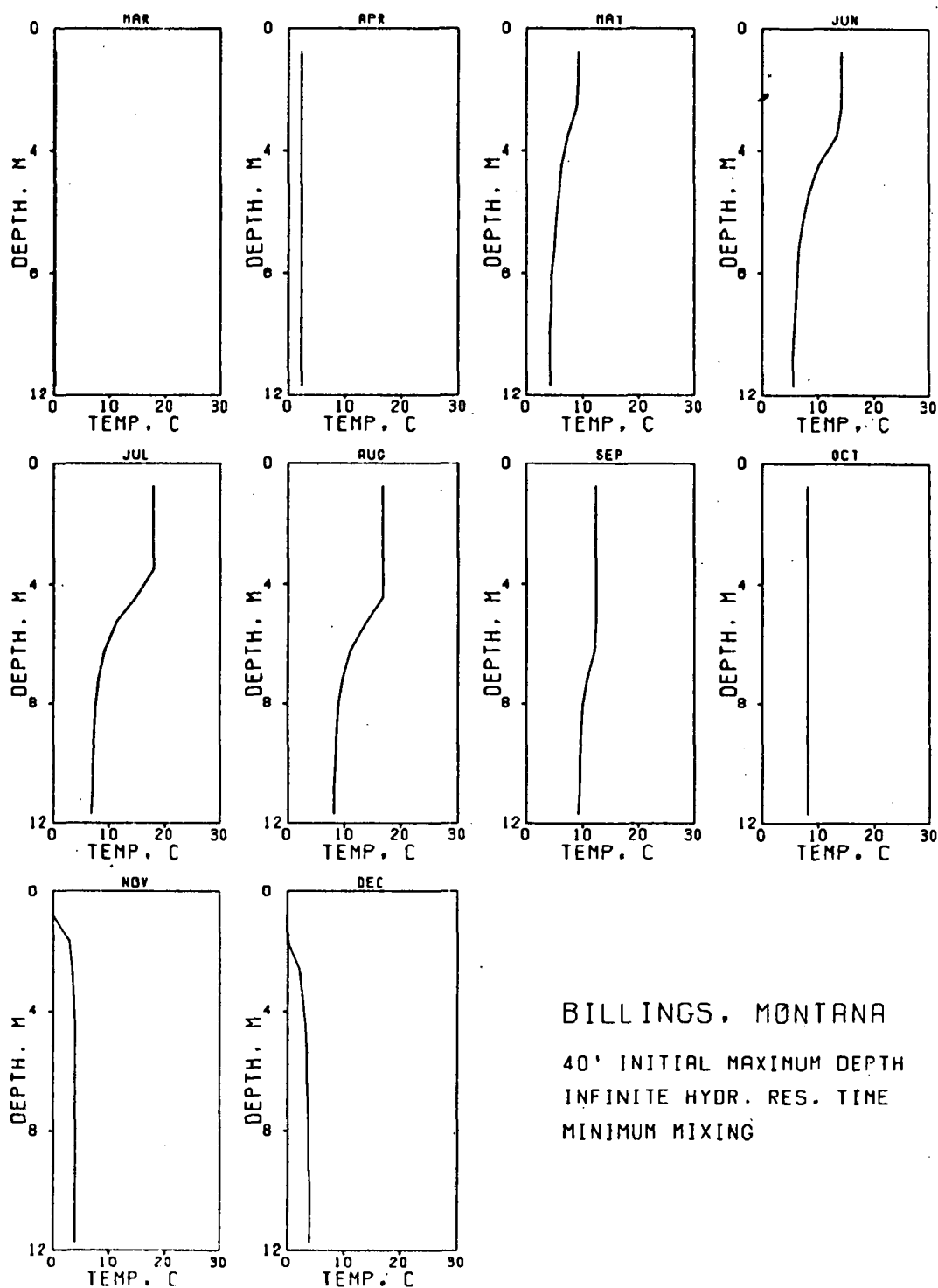


BILLINGS, MONTANA

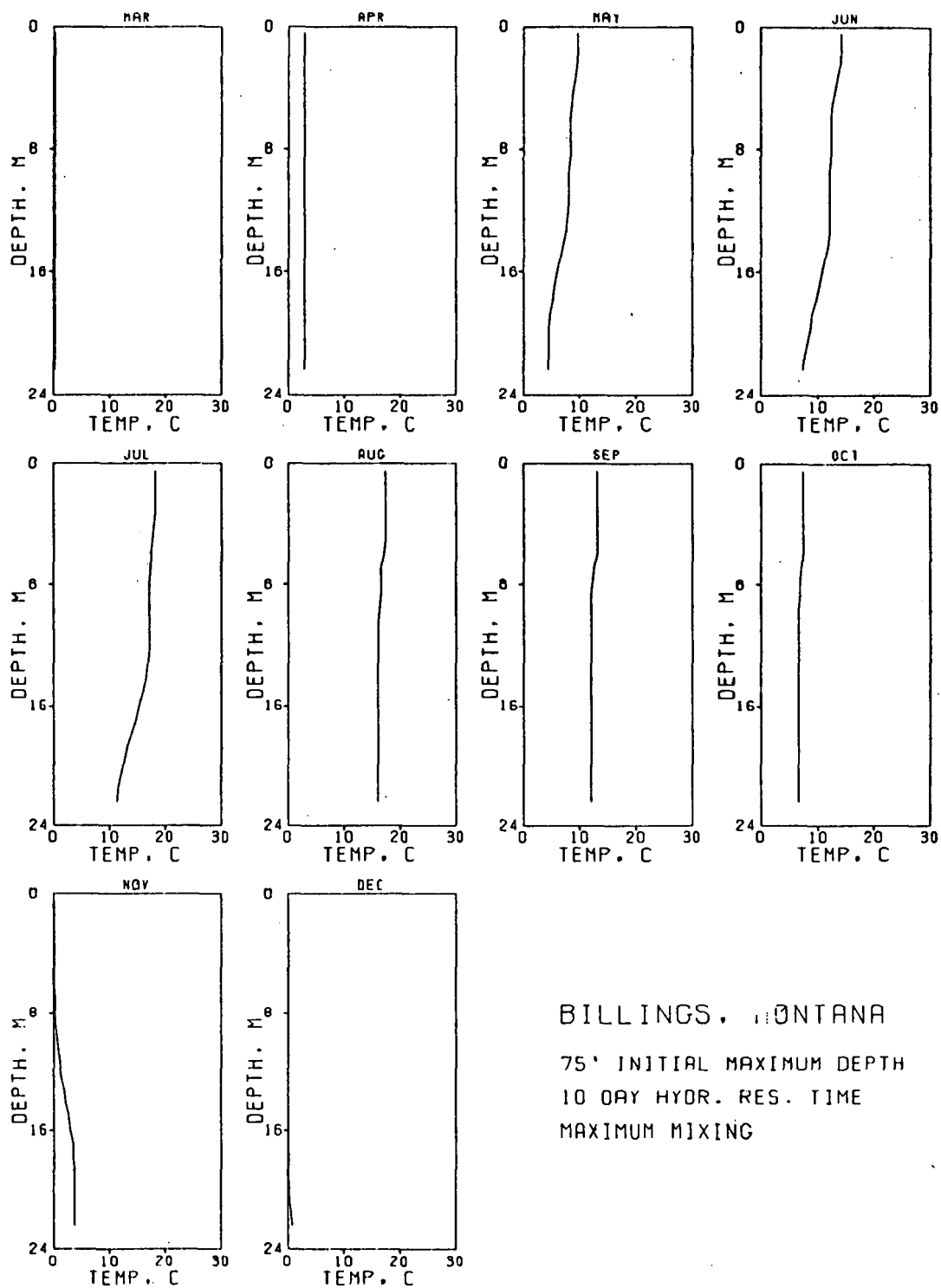
40' INITIAL MAXIMUM DEPTH

INFINITE HYDR. RES. TIME

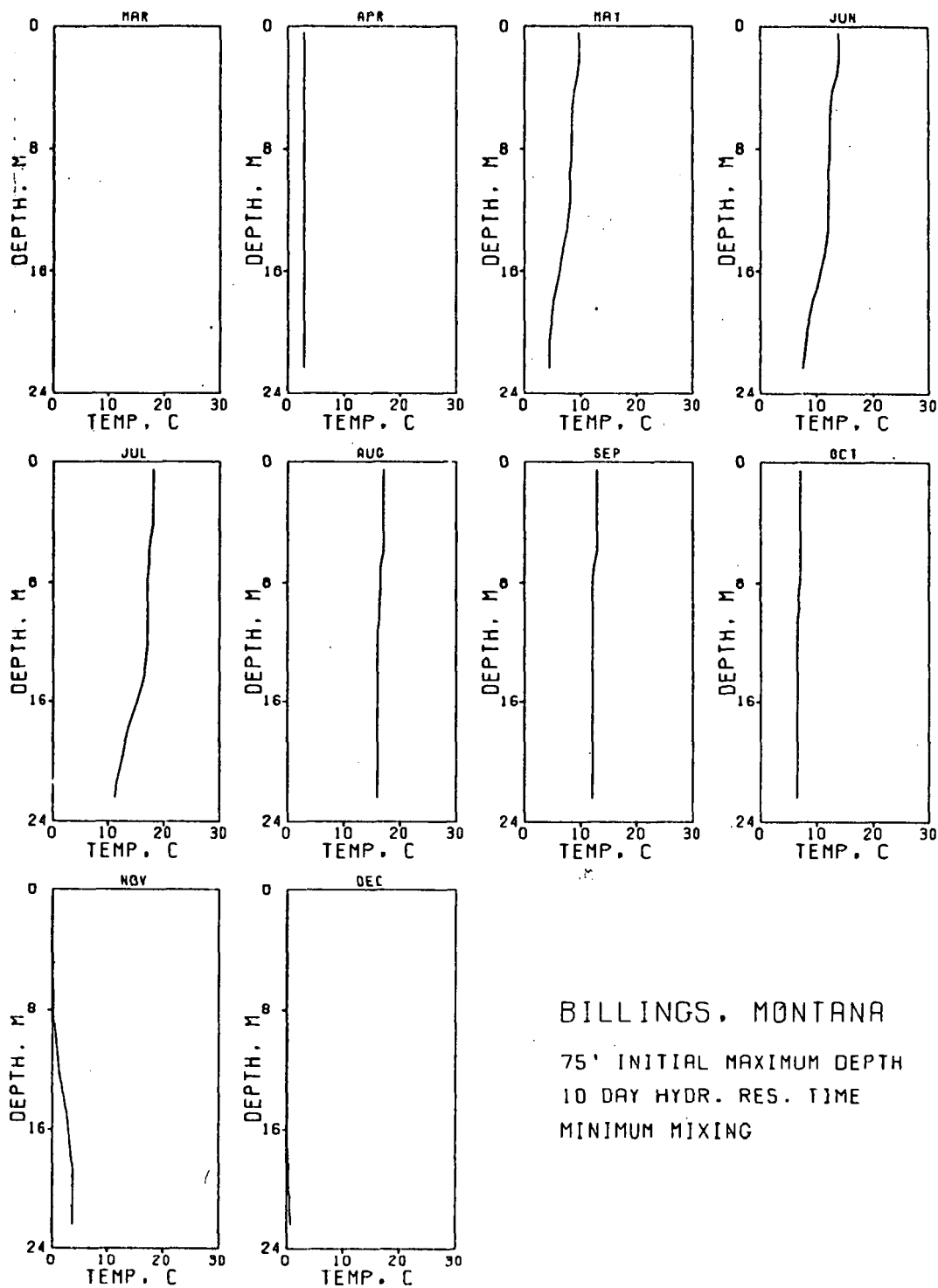
MAXIMUM MIXING

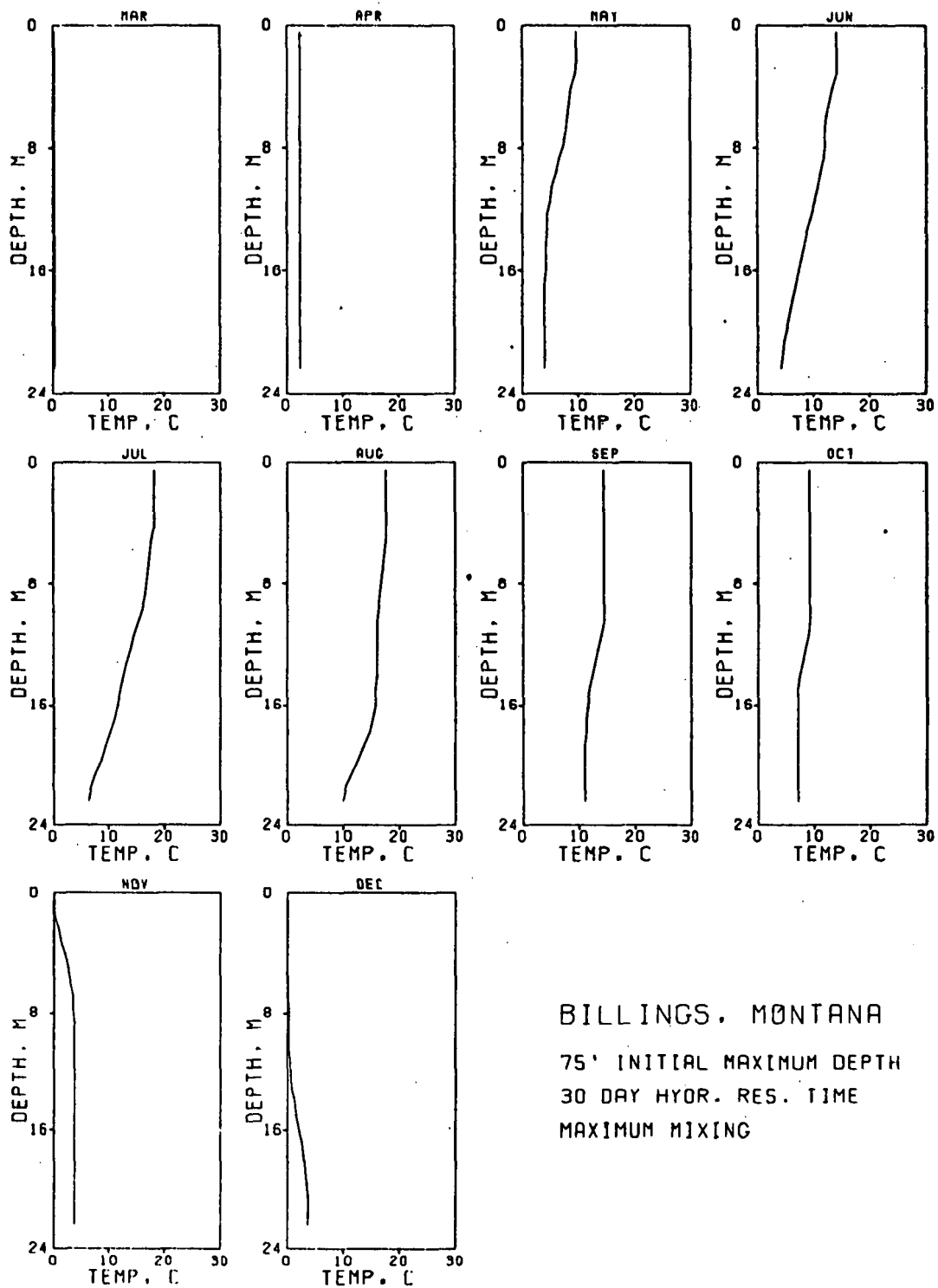


BILLINGS, MONTANA
 40' INITIAL MAXIMUM DEPTH
 INFINITE HYDR. RES. TIME
 MINIMUM MIXING

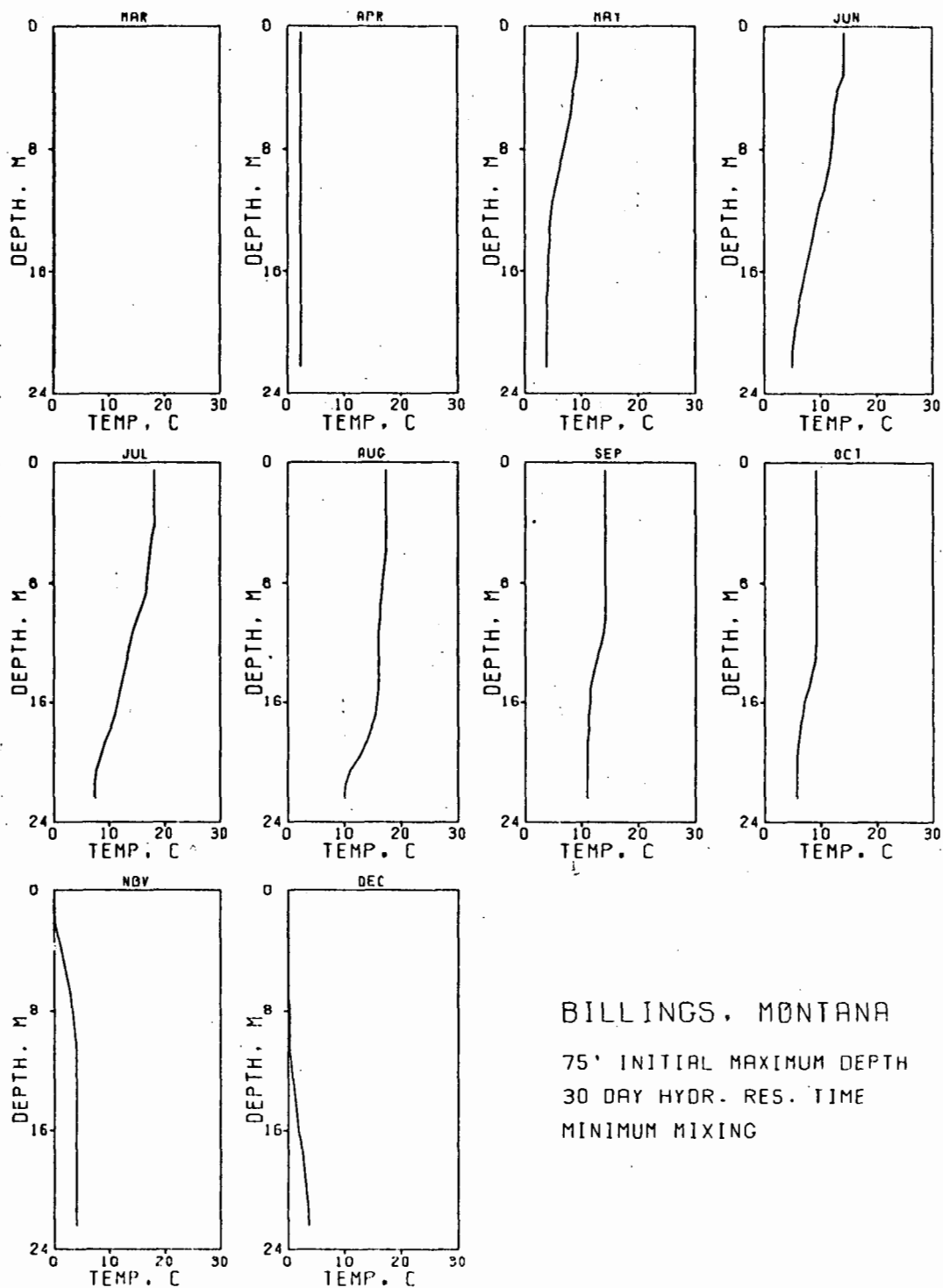


BILLINGS, MONTANA
 75' INITIAL MAXIMUM DEPTH
 10 DAY HYDR. RES. TIME
 MAXIMUM MIXING





BILLINGS, MONTANA
 75' INITIAL MAXIMUM DEPTH
 30 DAY HYOR. RES. TIME
 MAXIMUM MIXING

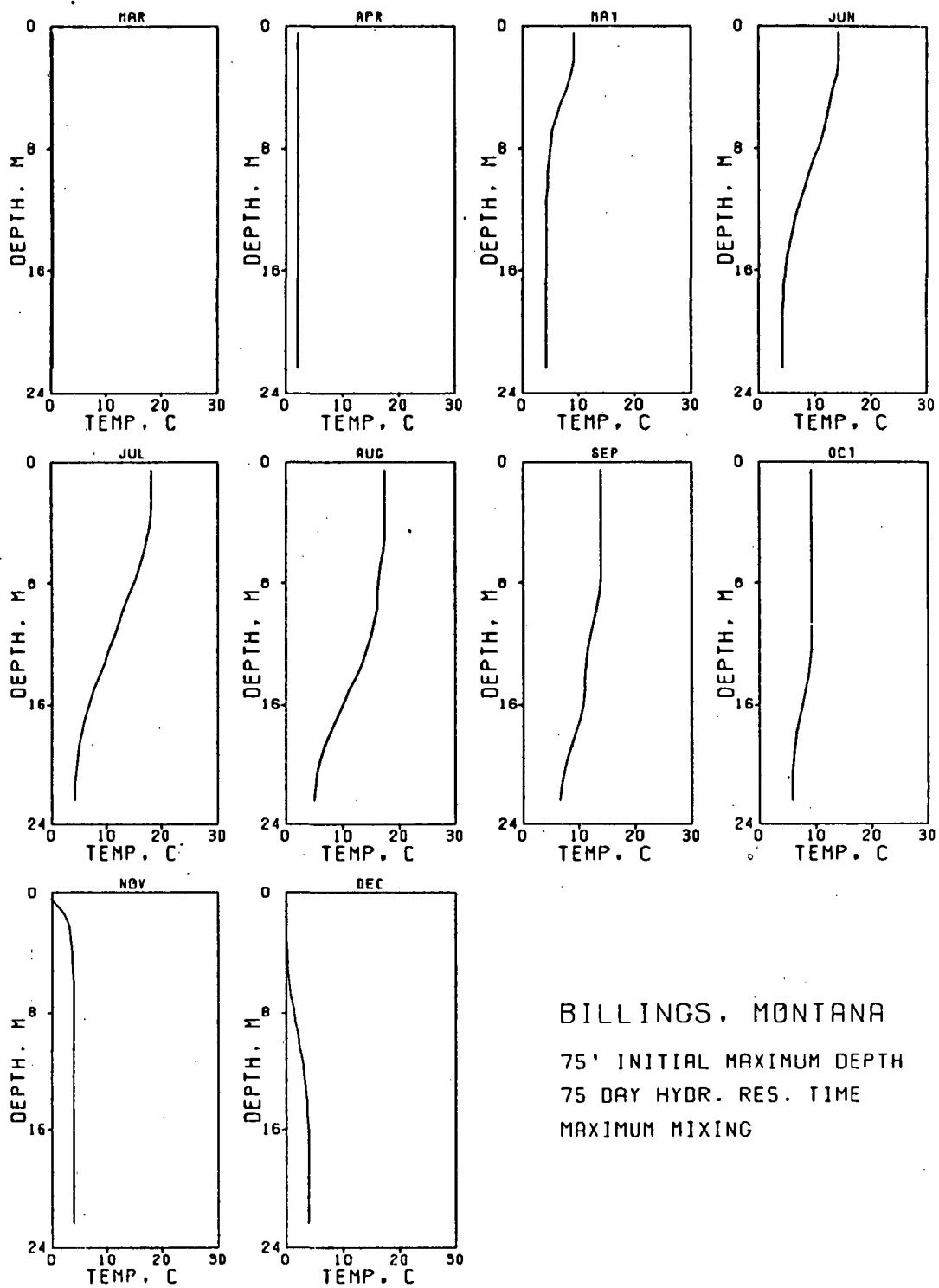


BILLINGS, MONTANA

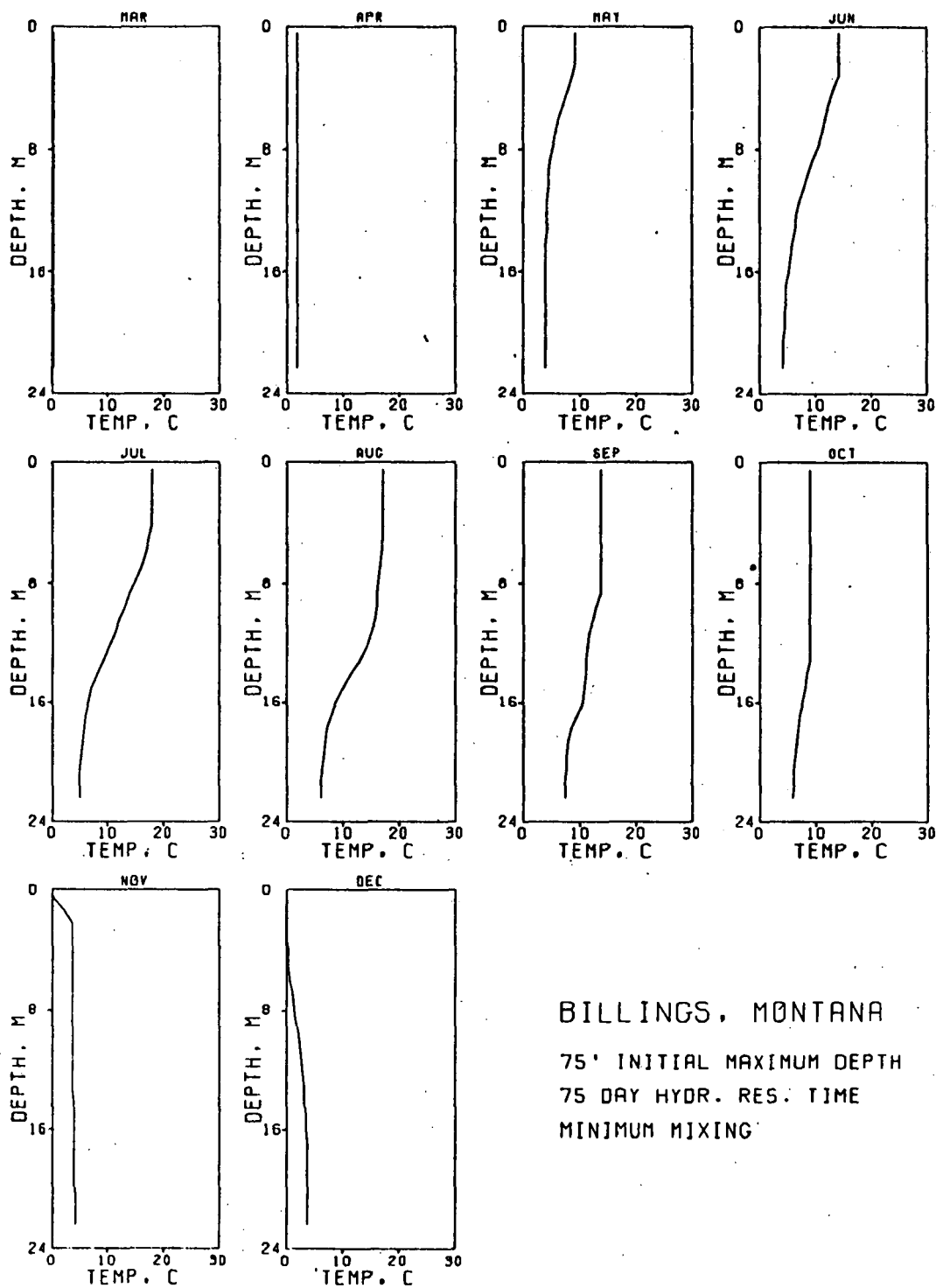
75' INITIAL MAXIMUM DEPTH

30 DAY HYDR. RES. TIME

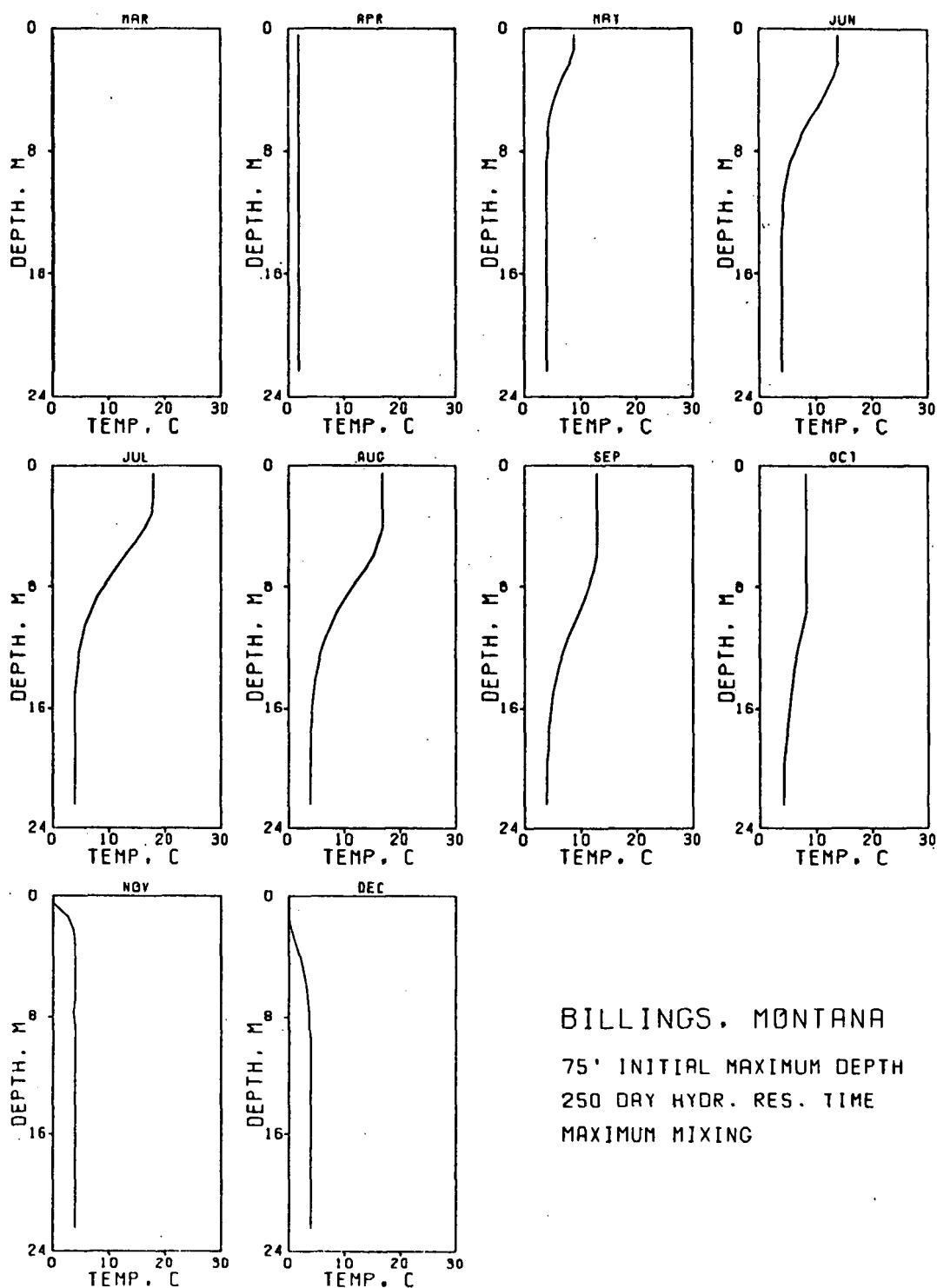
MINIMUM MIXING



BILLINGS. MONTANA
 75' INITIAL MAXIMUM DEPTH
 75 DAY HYDR. RES. TIME
 MAXIMUM MIXING



BILLINGS, MONTANA
 75' INITIAL MAXIMUM DEPTH
 75 DAY HYDR. RES. TIME
 MINIMUM MIXING

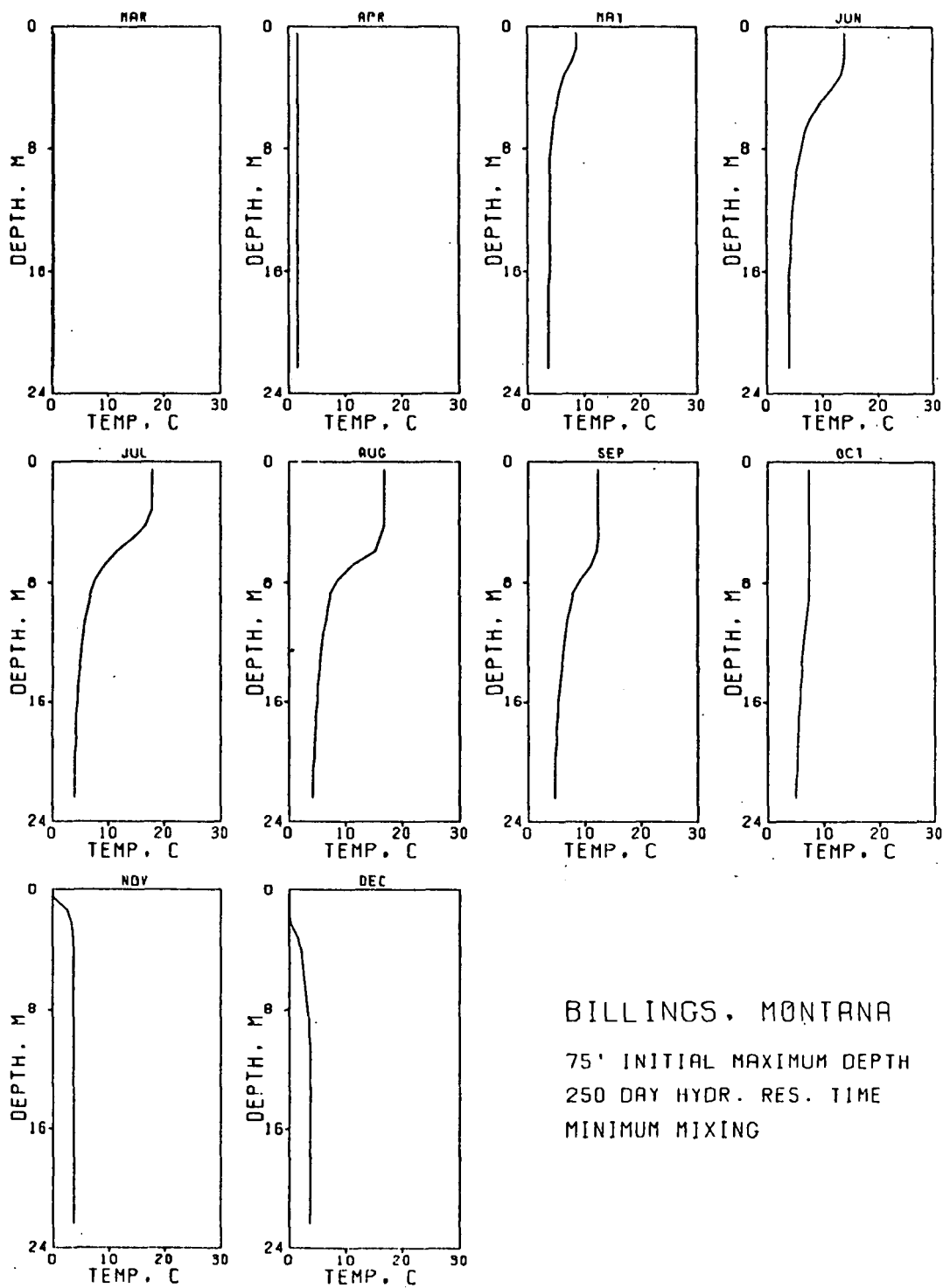


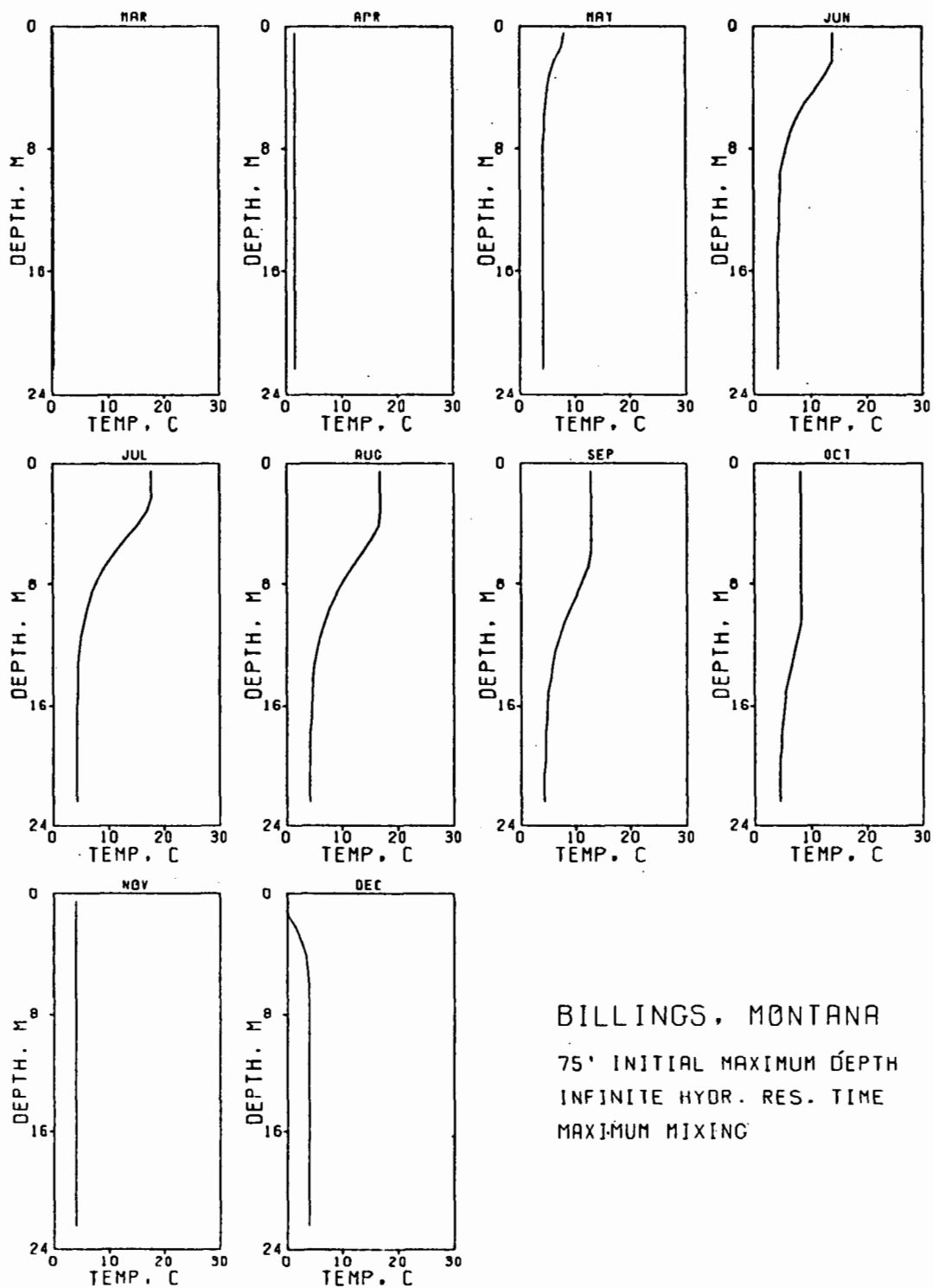
BILLINGS, MONTANA

75' INITIAL MAXIMUM DEPTH

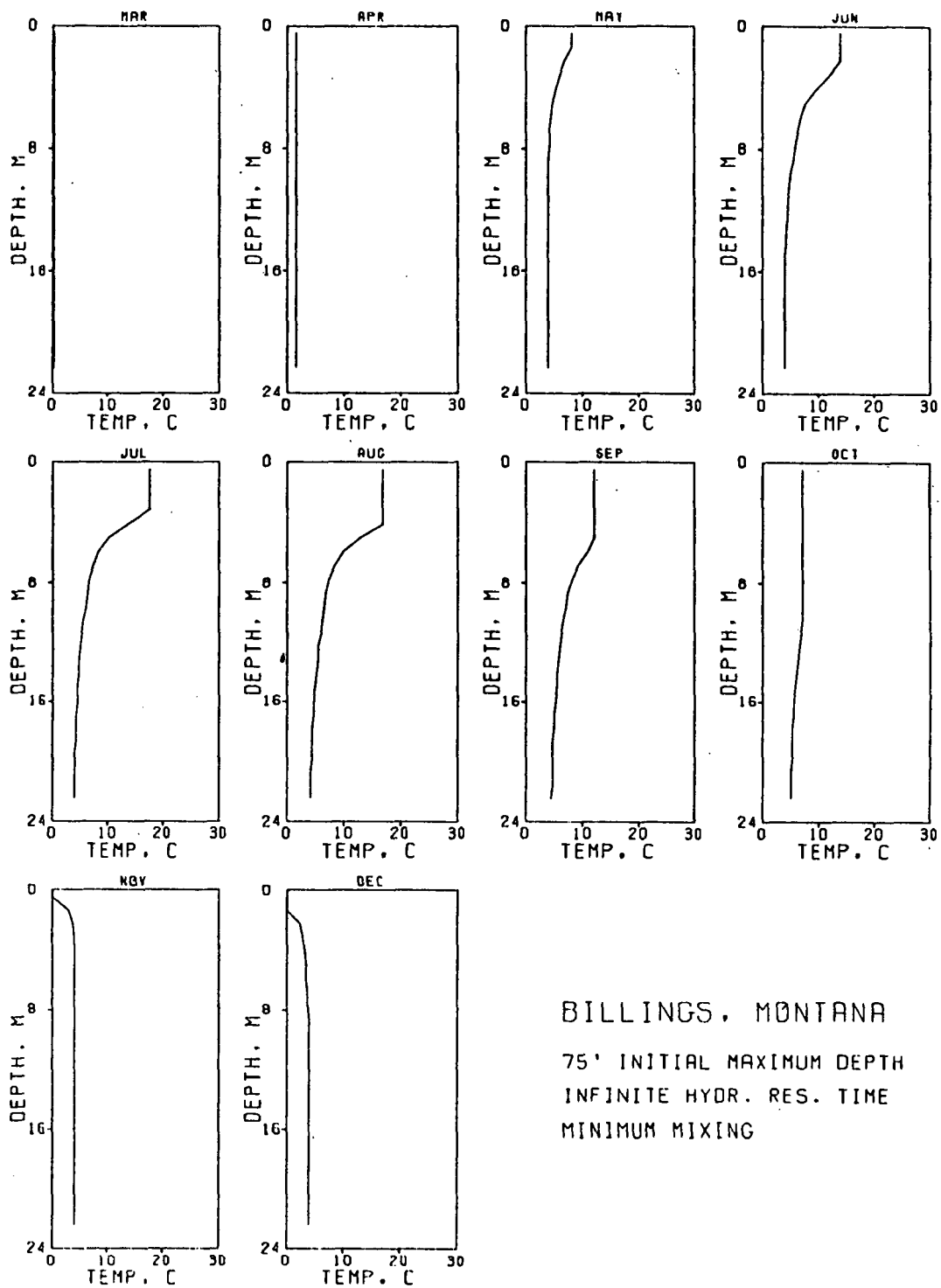
250 DAY HYDR. RES. TIME

MAXIMUM MIXING

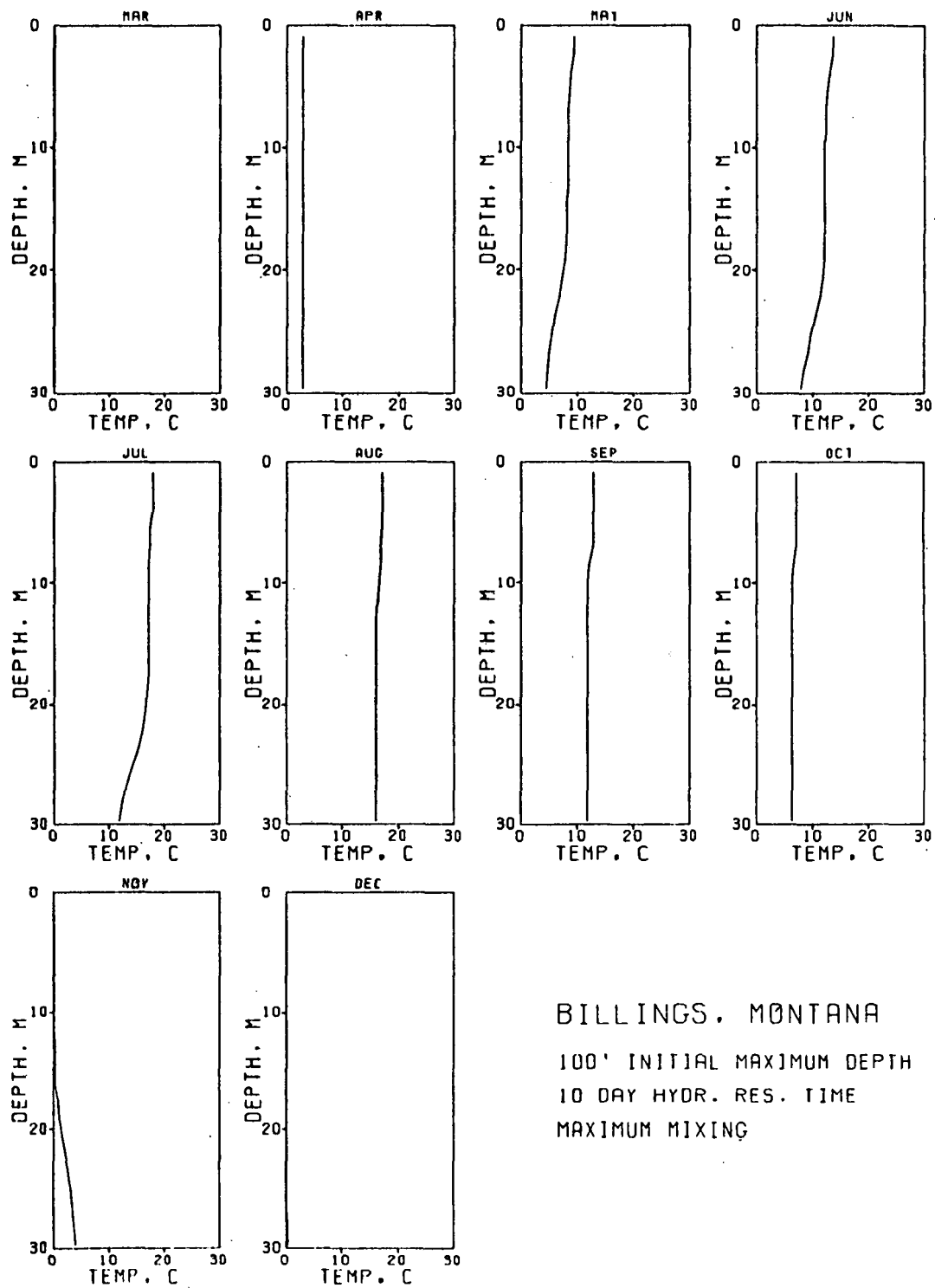


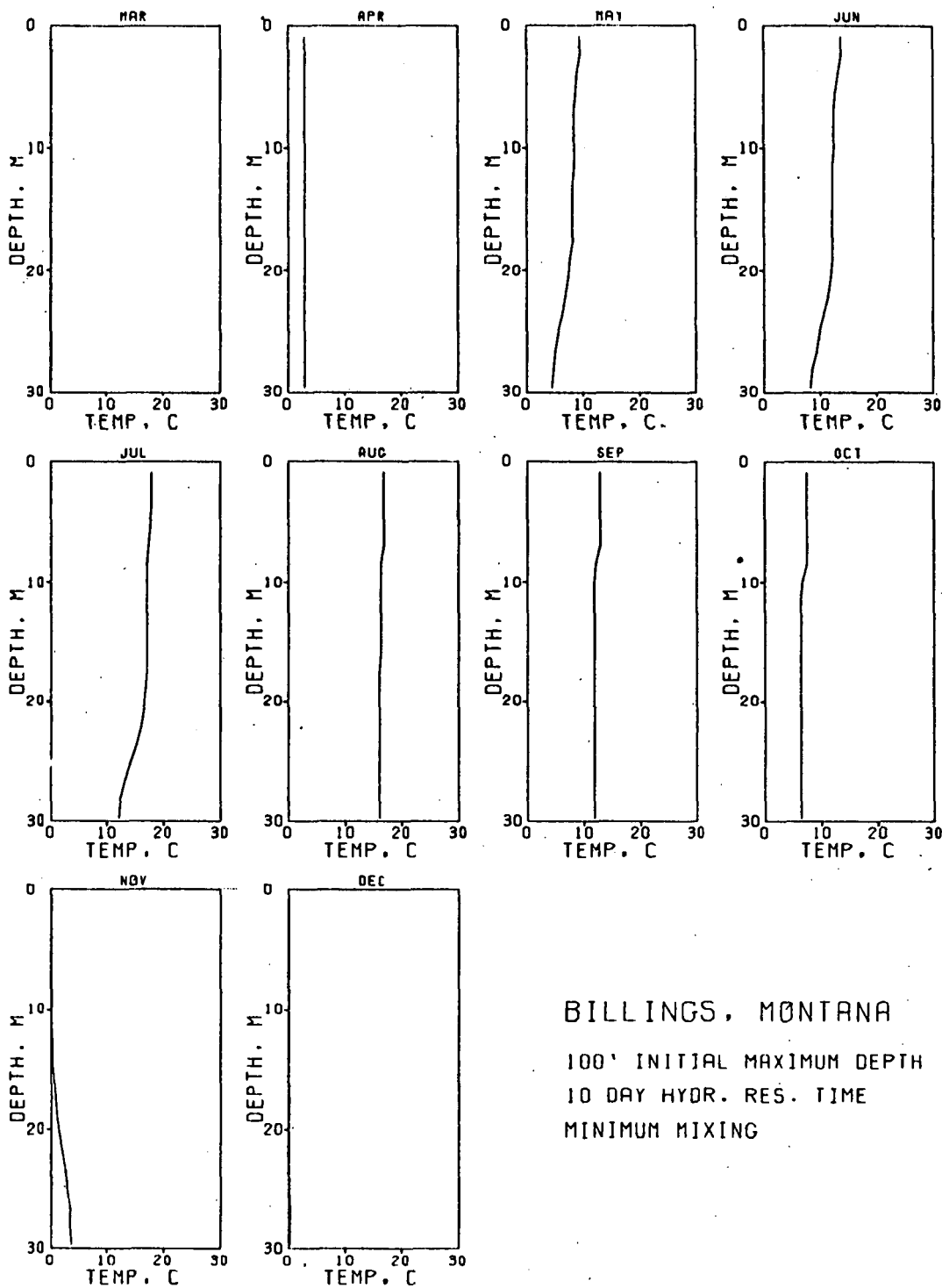


BILLINGS, MONTANA
 75' INITIAL MAXIMUM DEPTH
 INFINITE HYDR. RES. TIME
 MAXIMUM MIXING



BILLINGS, MONTANA
 75' INITIAL MAXIMUM DEPTH
 INFINITE HYDR. RES. TIME
 MINIMUM MIXING



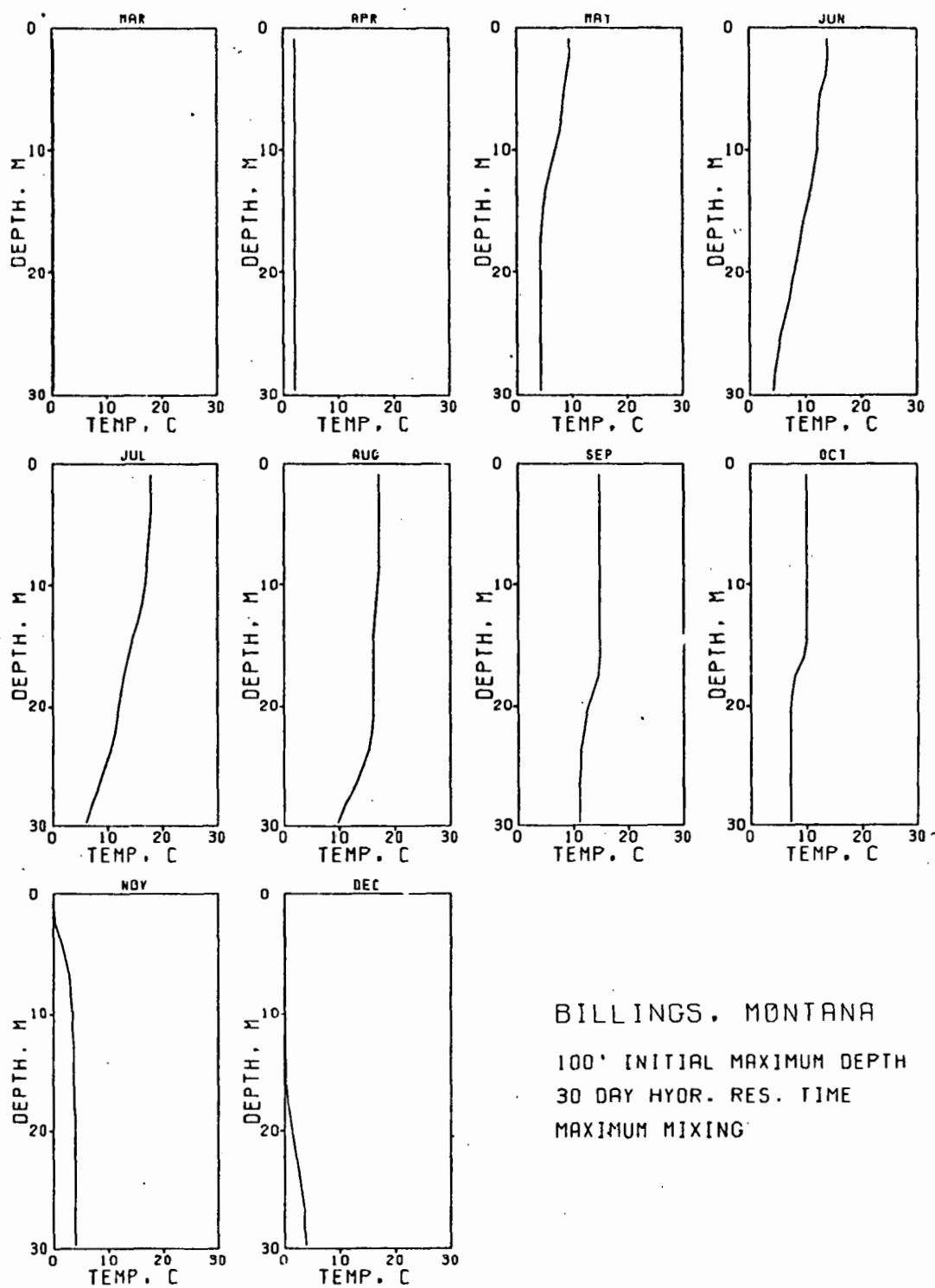


BILLINGS, MONTANA

100' INITIAL MAXIMUM DEPTH

10 DAY HYDR. RES. TIME

MINIMUM MIXING

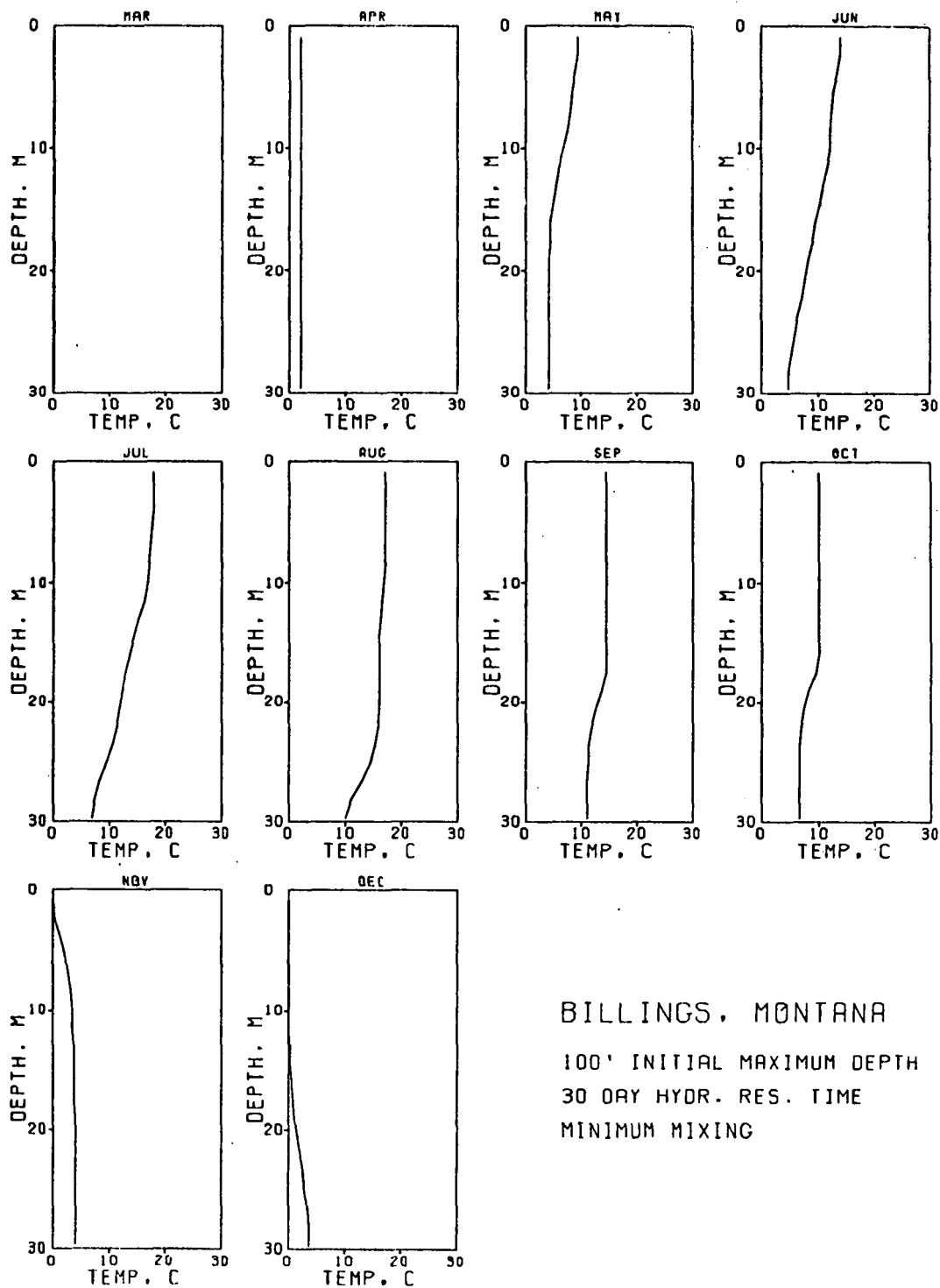


BILLINGS, MONTANA

100' INITIAL MAXIMUM DEPTH

30 DAY HYOR. RES. TIME

MAXIMUM MIXING

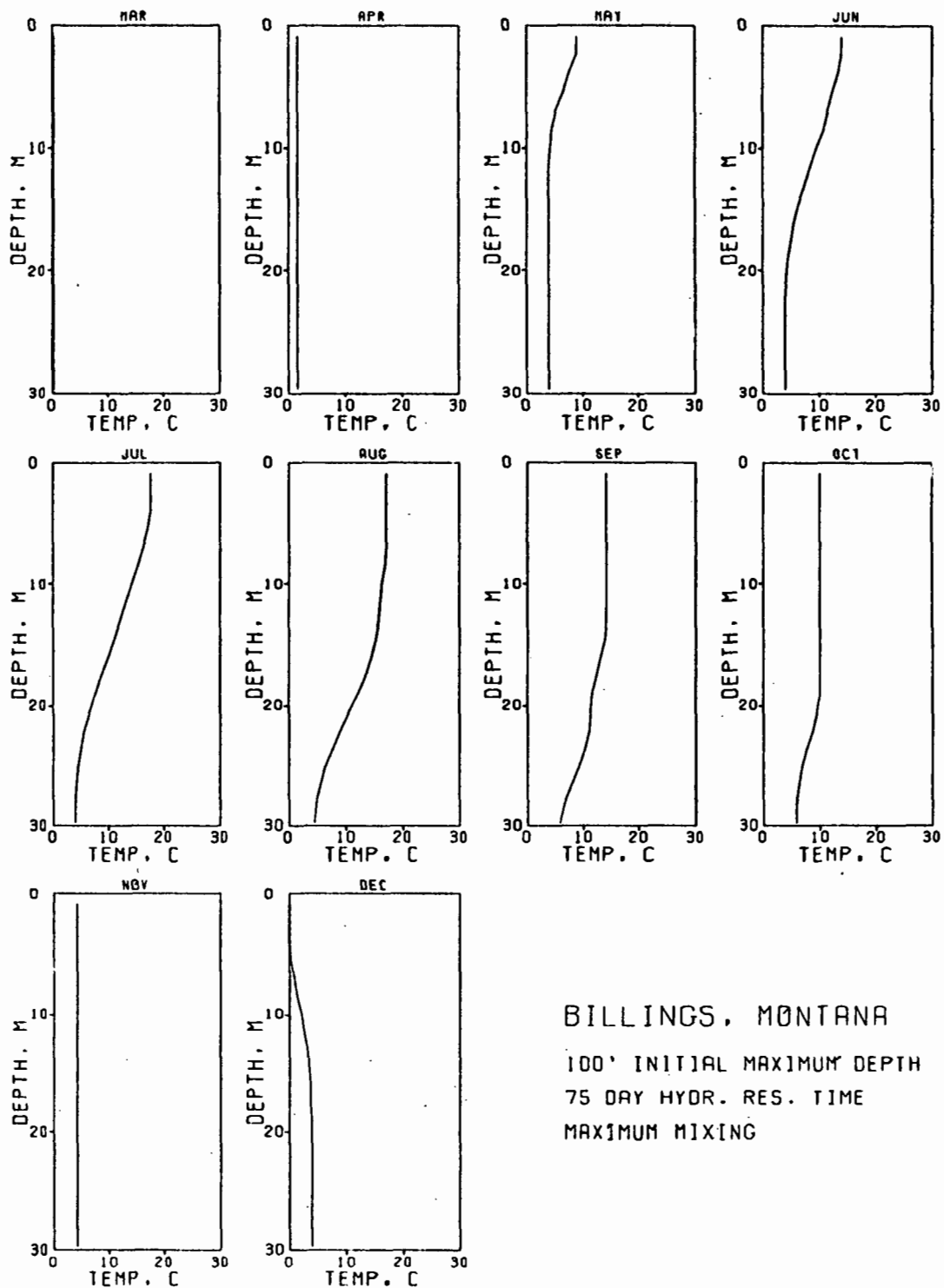


BILLINGS, MONTANA

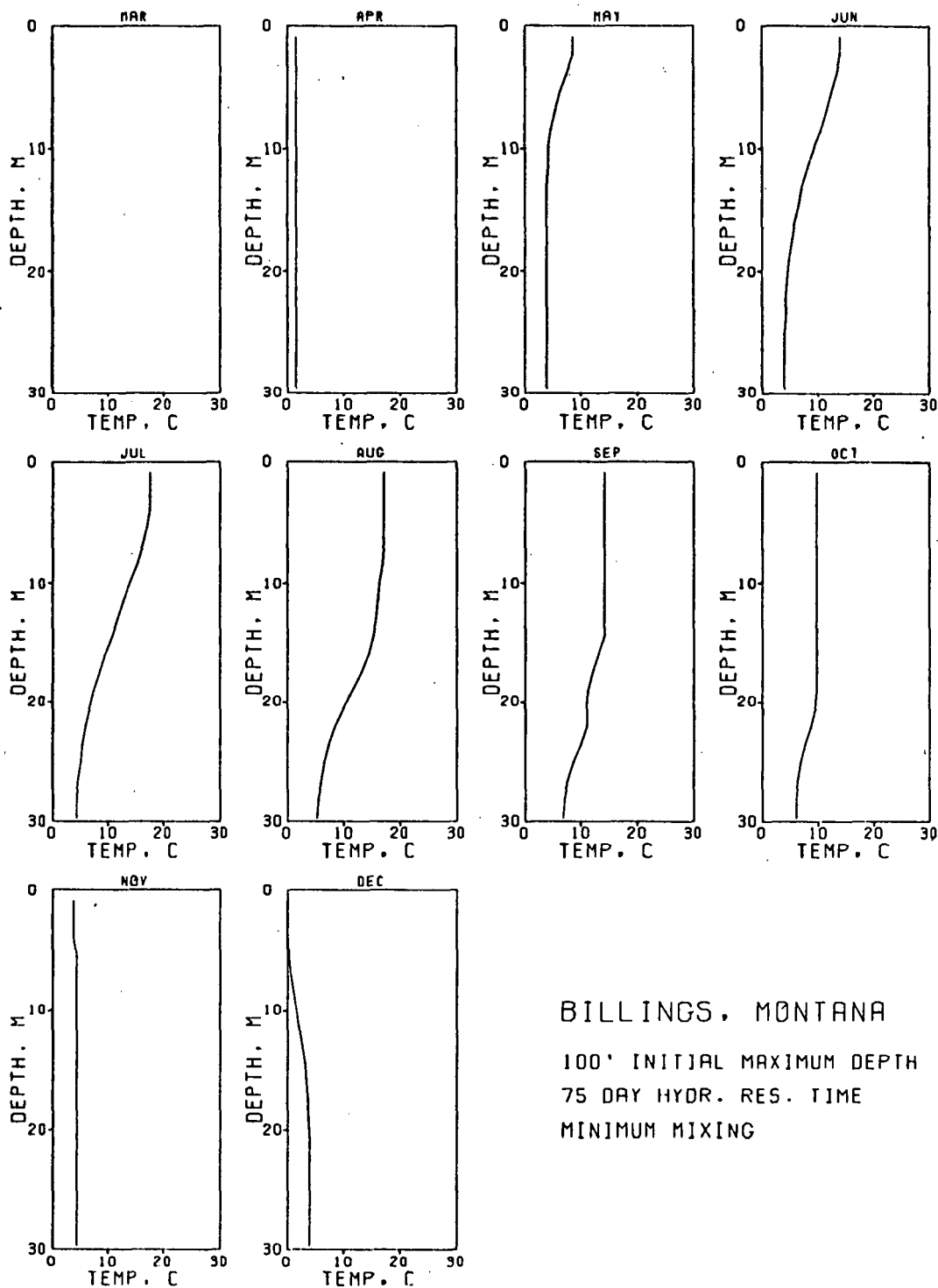
100' INITIAL MAXIMUM DEPTH

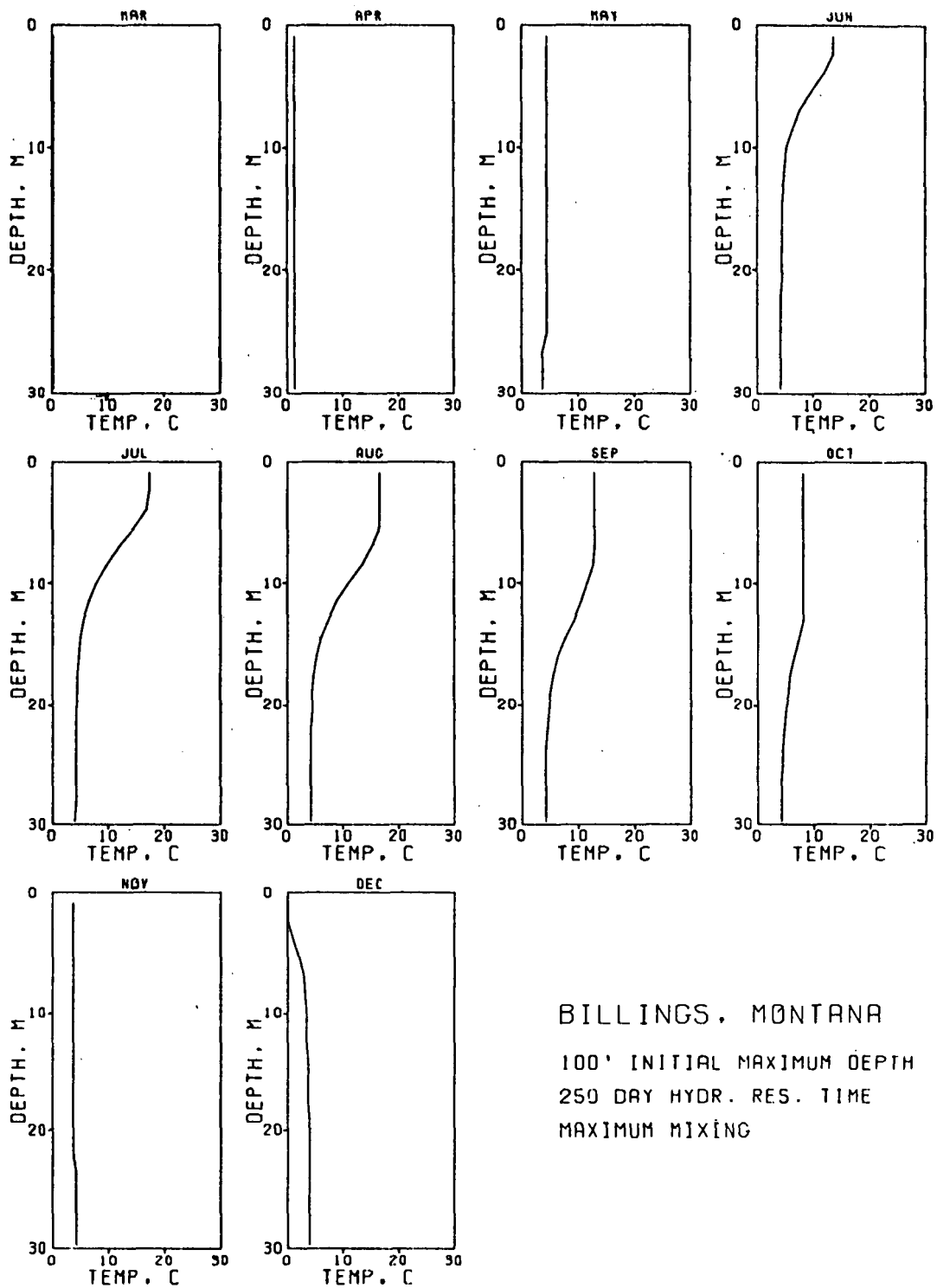
30 DAY HYDR. RES. TIME

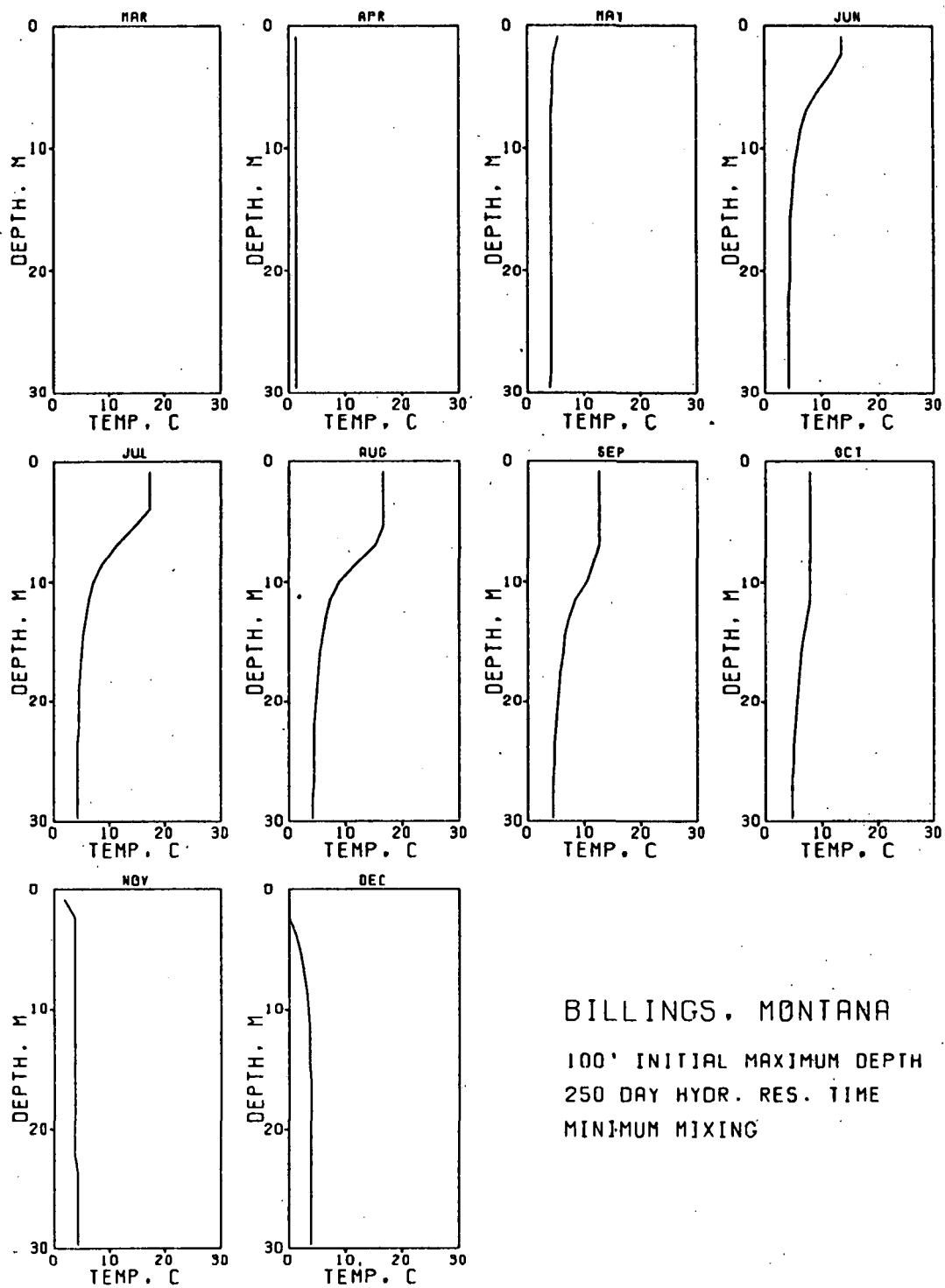
MINIMUM MIXING

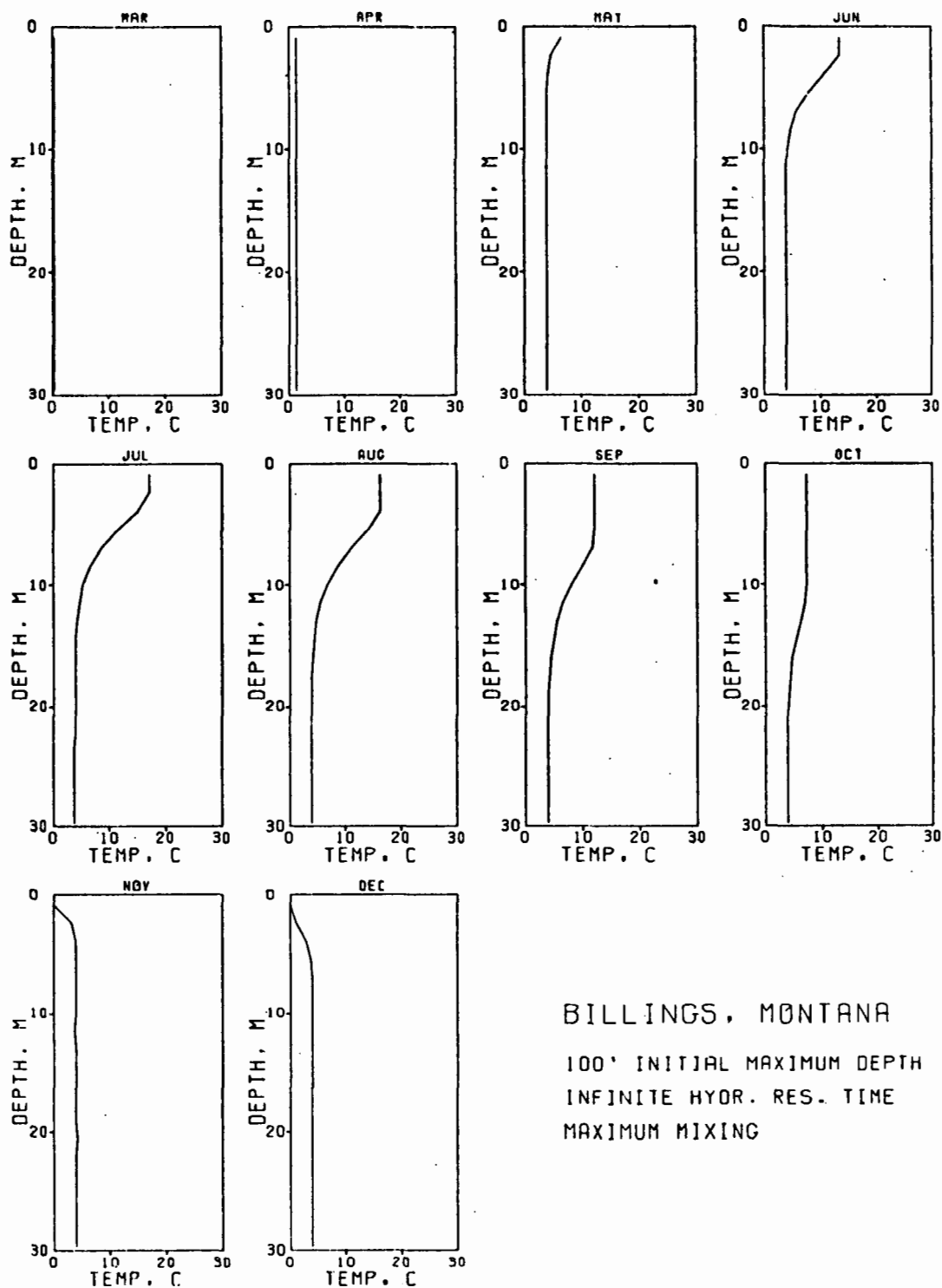


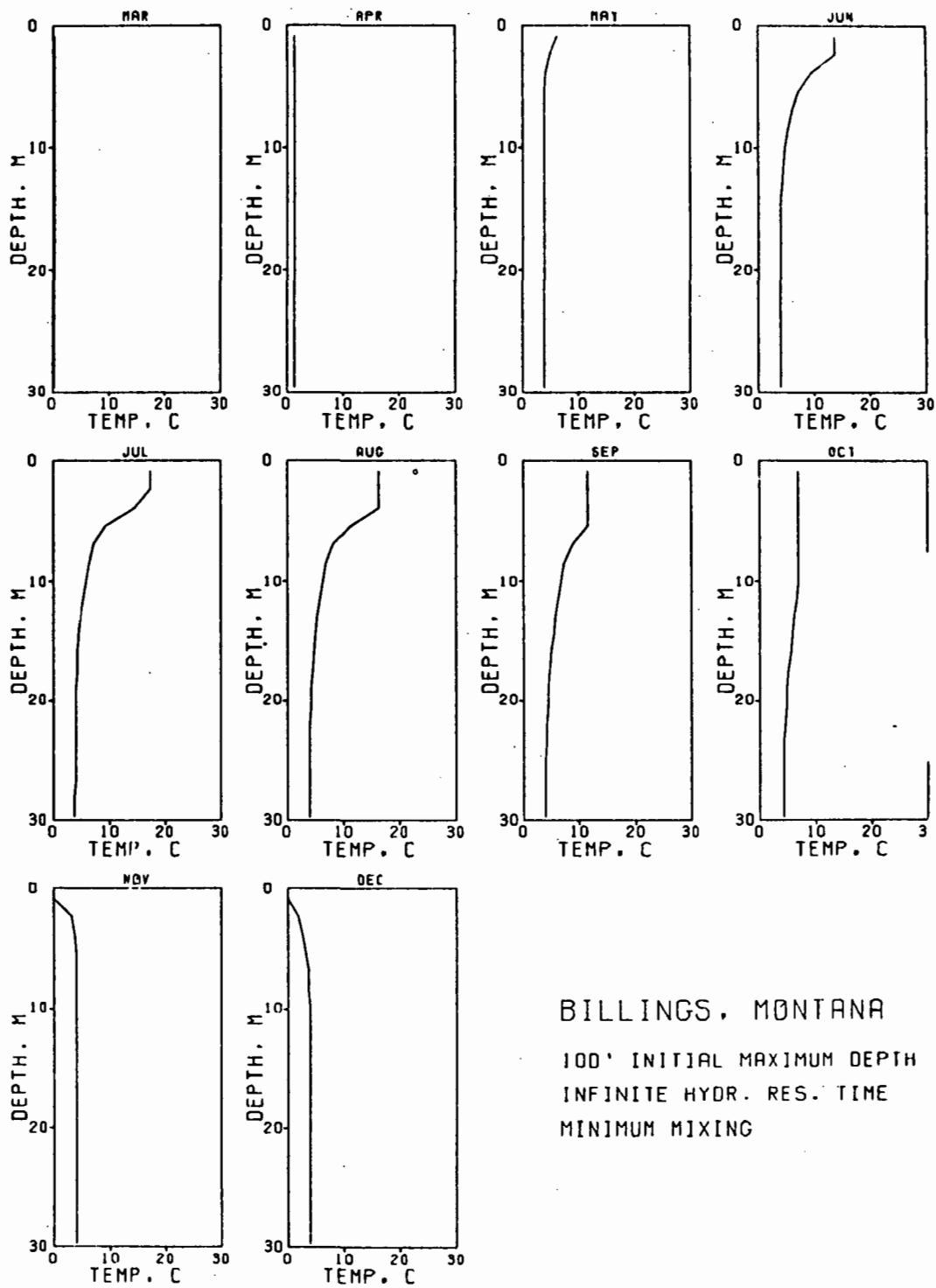
BILLINGS, MONTANA
 100' INITIAL MAXIMUM DEPTH
 75 DAY HYDR. RES. TIME
 MAXIMUM MIXING

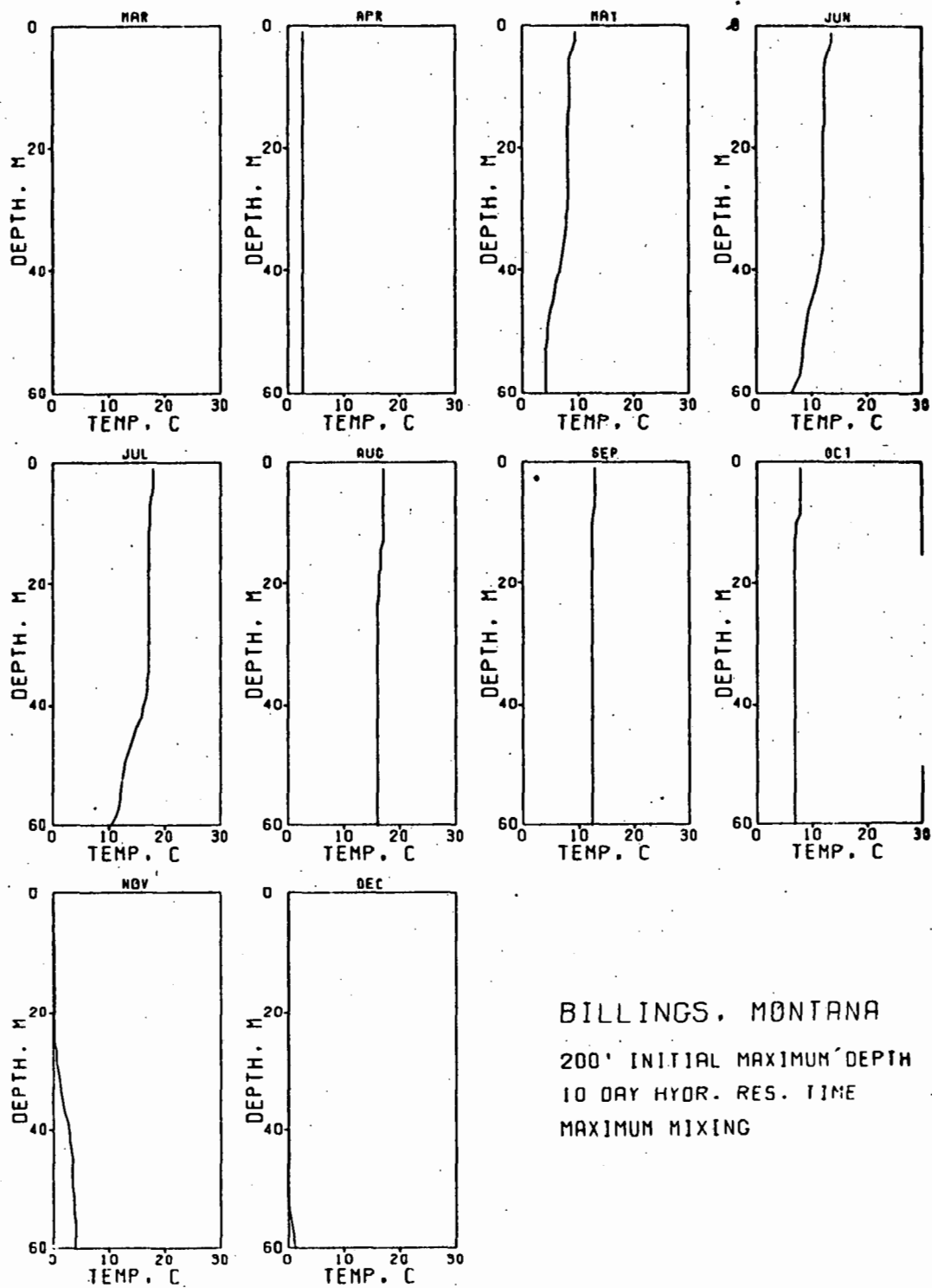




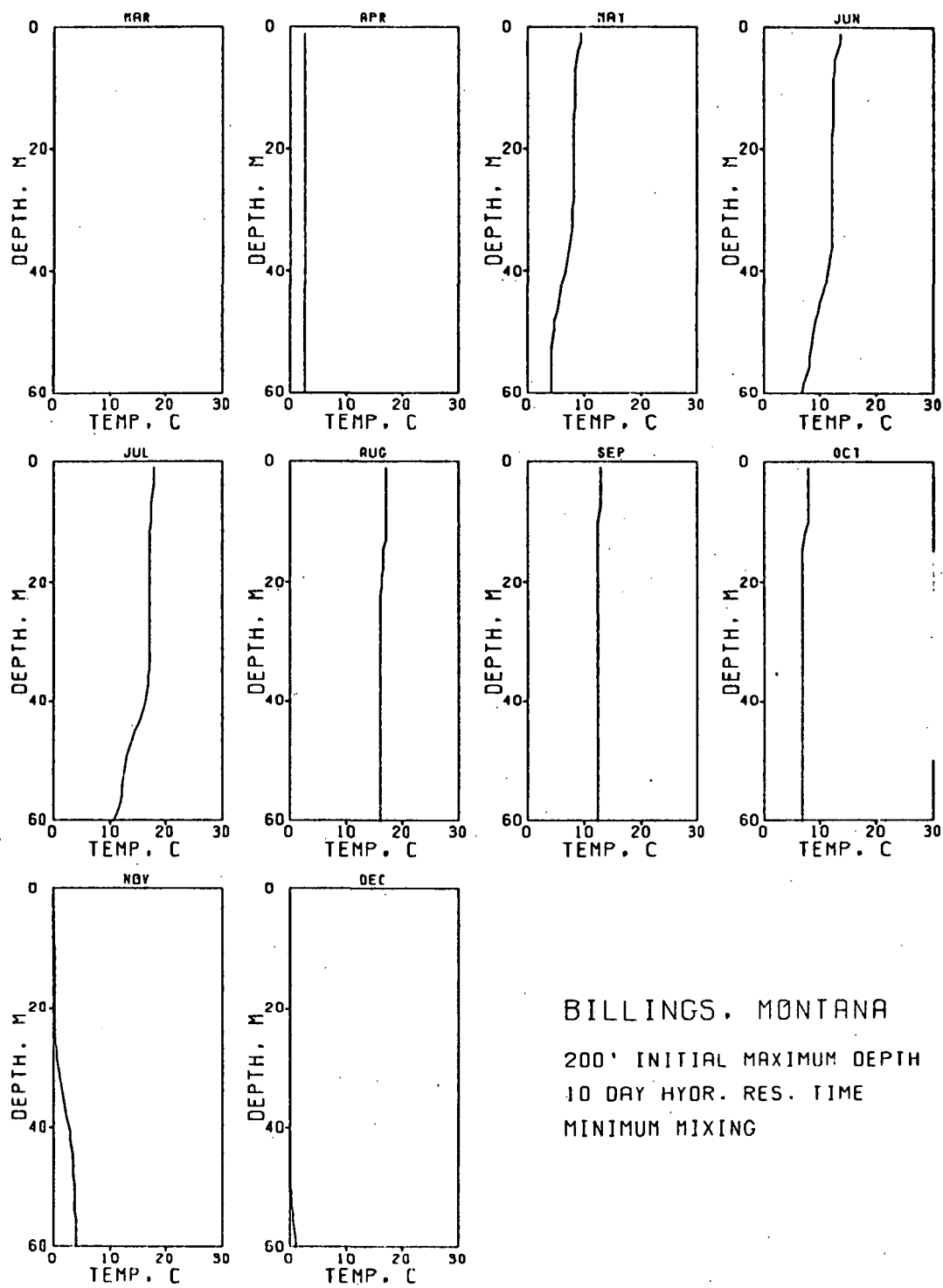




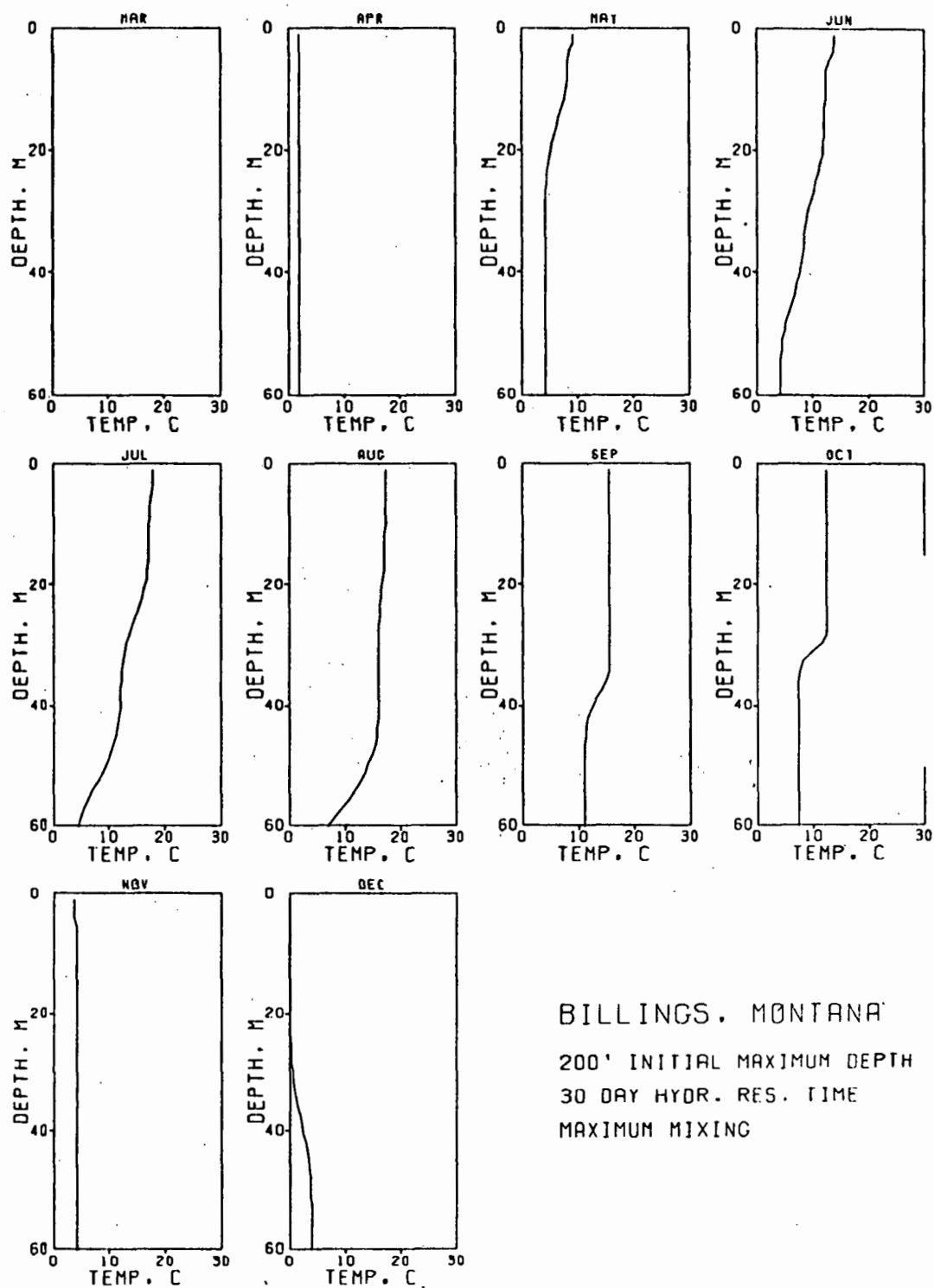




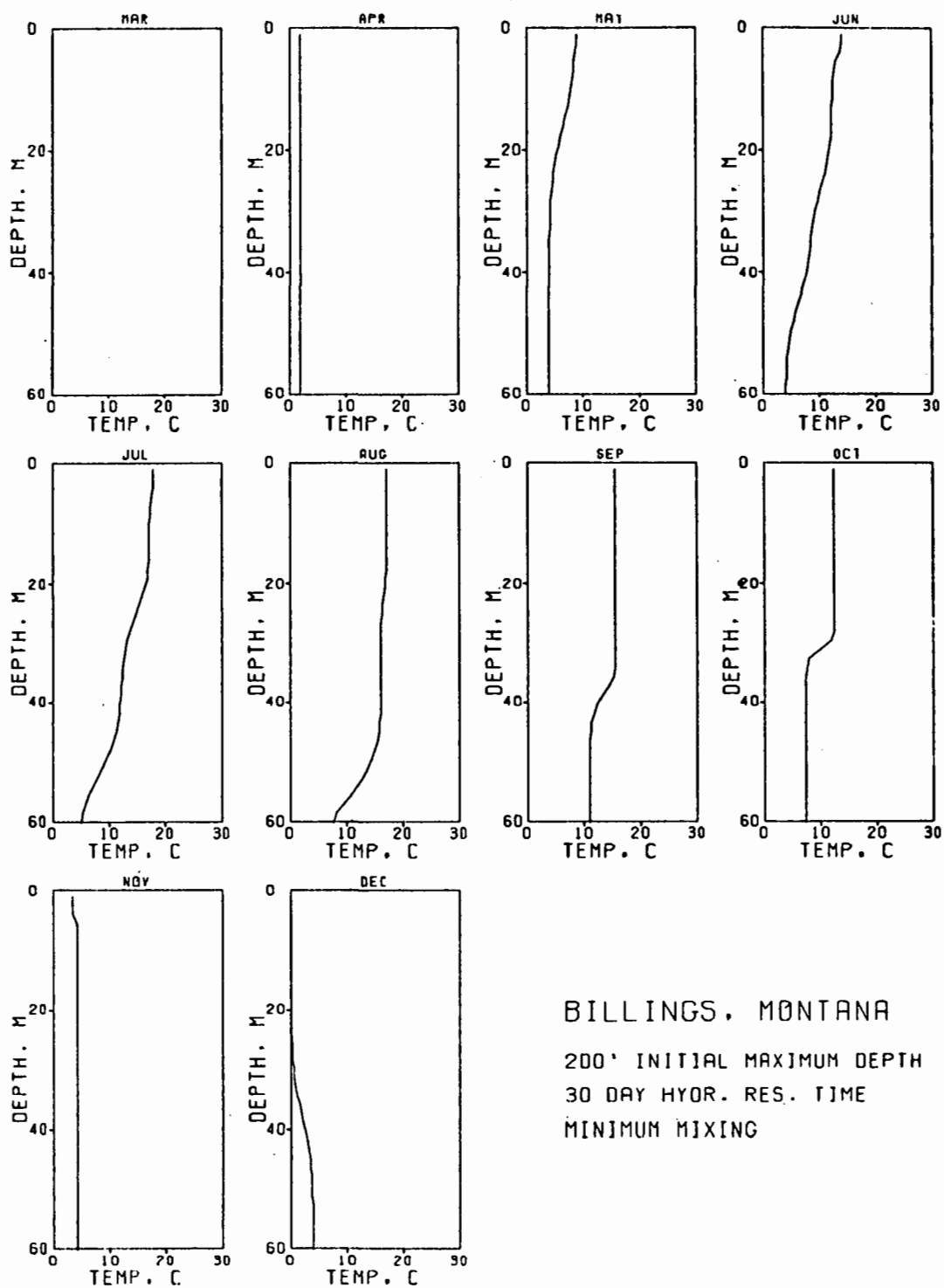
BILLINGS, MONTANA
 200' INITIAL MAXIMUM DEPTH
 10 DAY HYDR. RES. TIME
 MAXIMUM MIXING

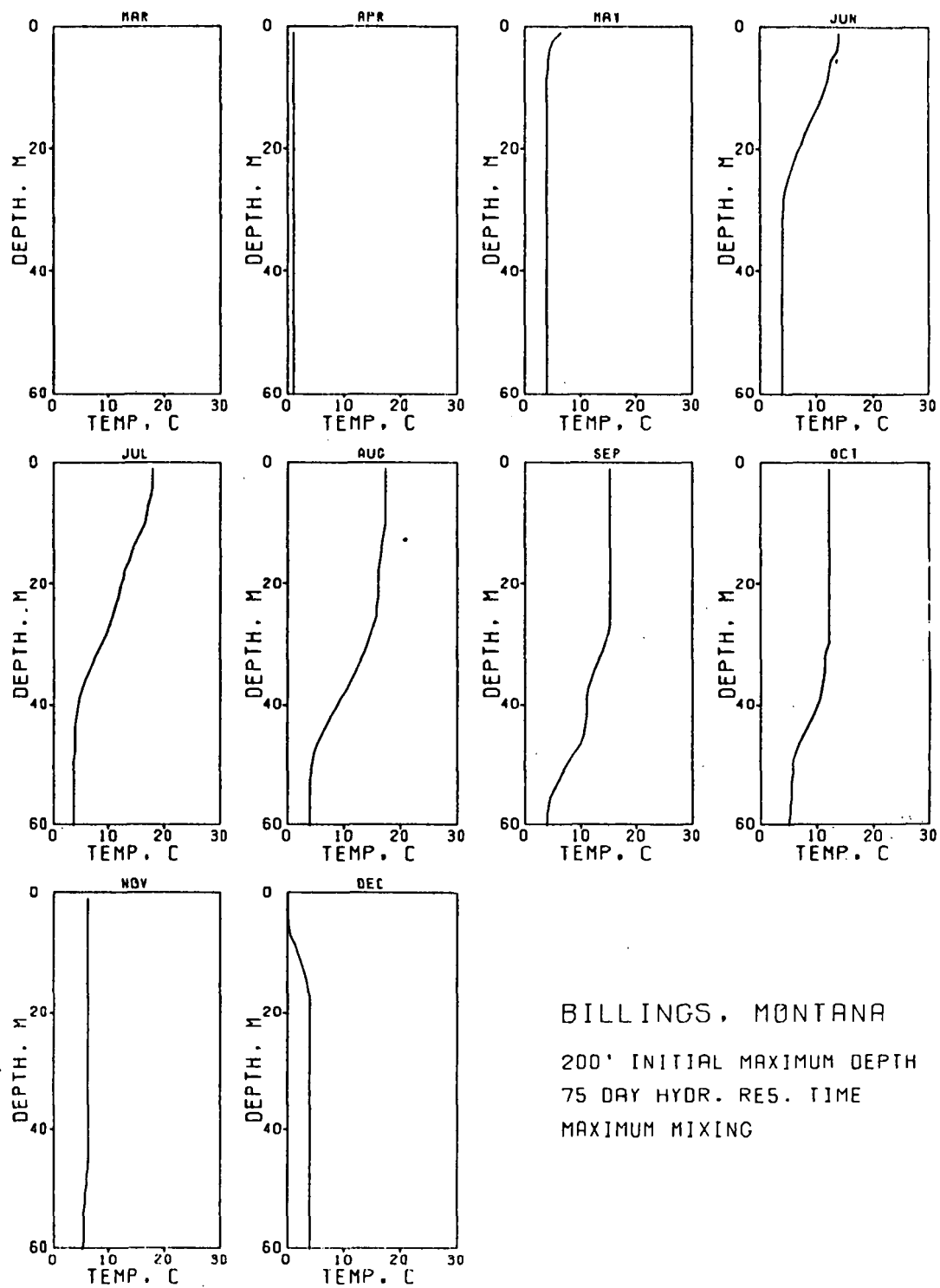


BILLINGS, MONTANA
 200' INITIAL MAXIMUM DEPTH
 10 DAY HYDR. RES. TIME
 MINIMUM MIXING

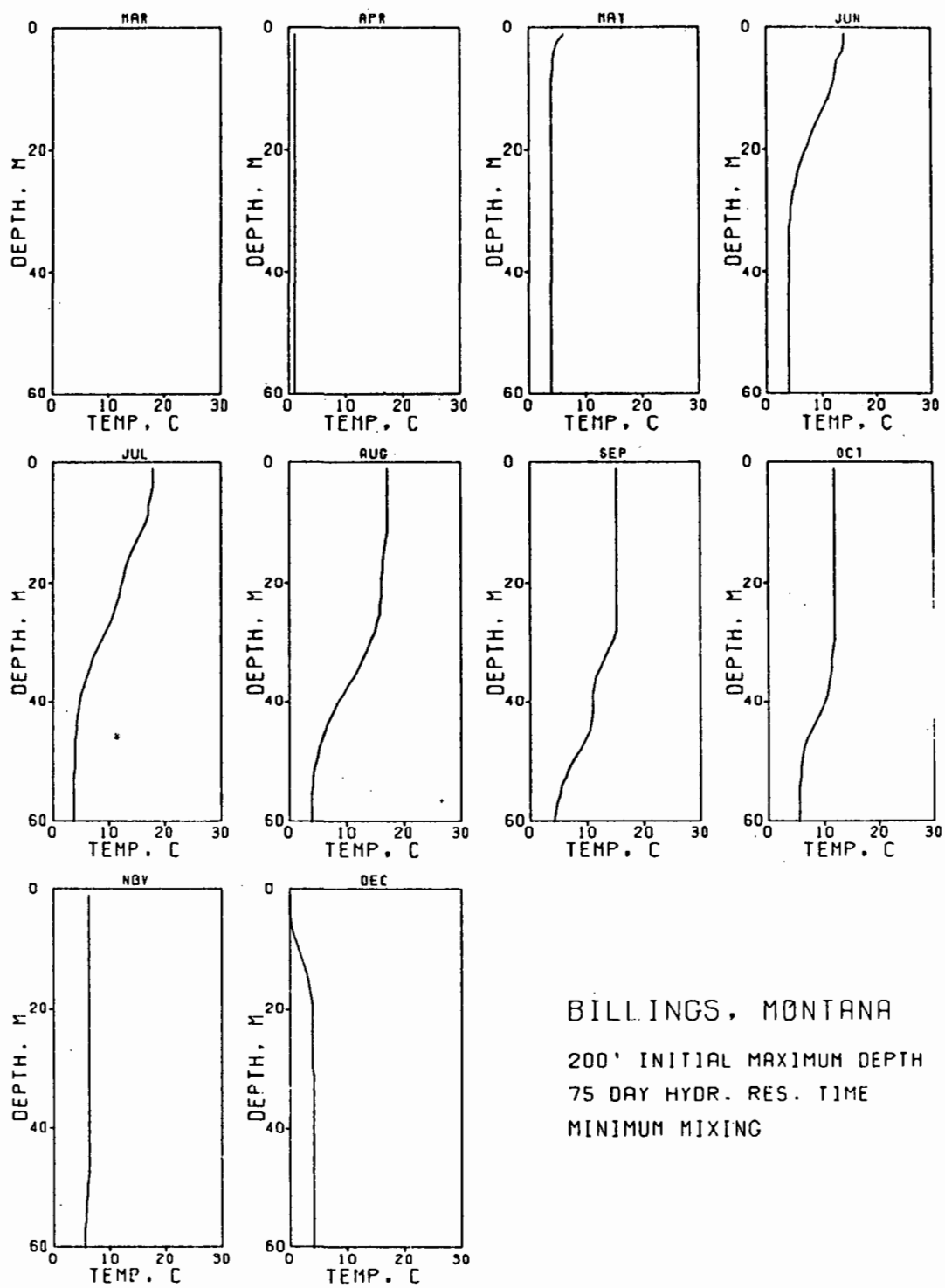


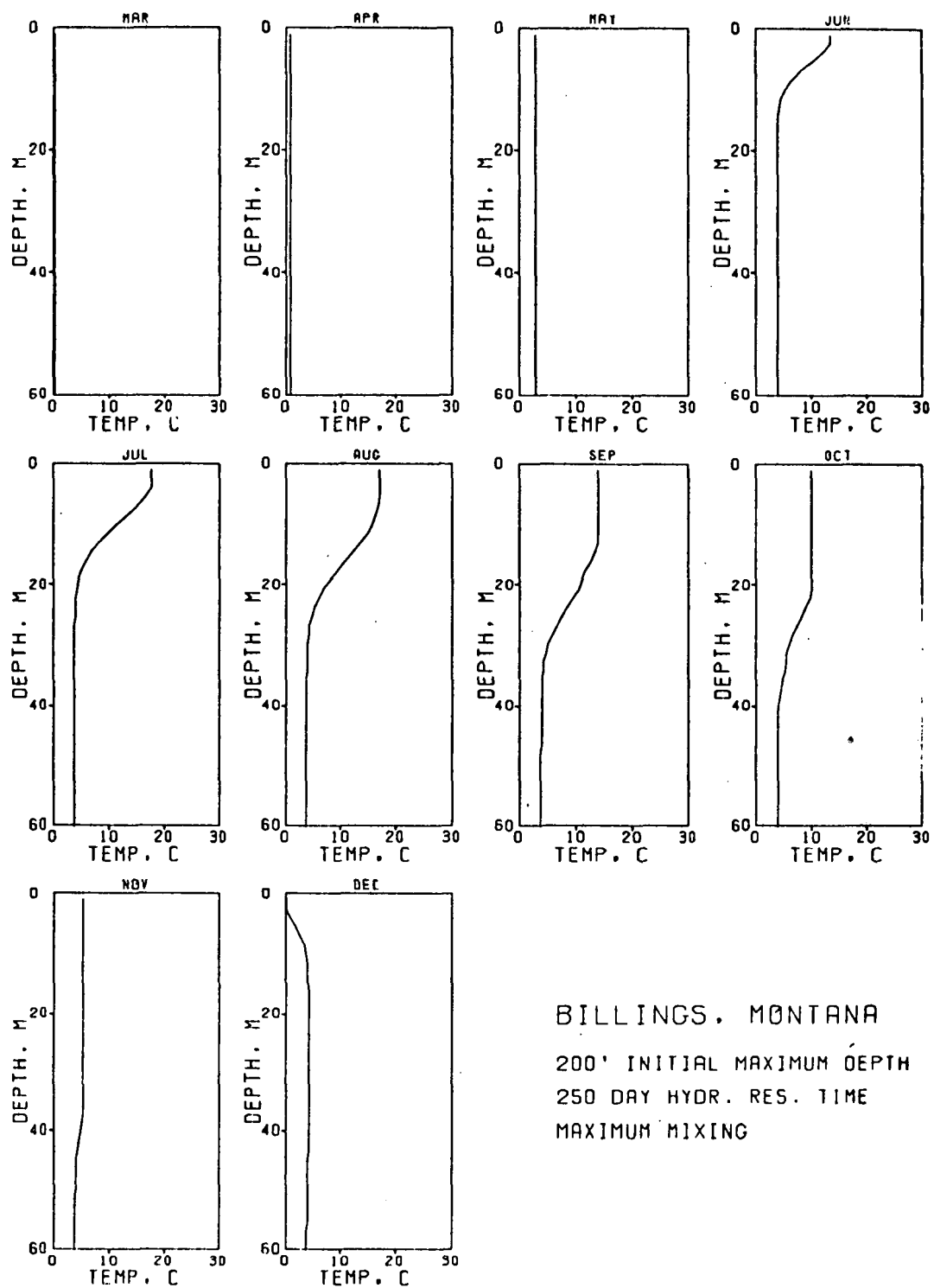
BILLINGS, MONTANA
 200' INITIAL MAXIMUM DEPTH
 30 DAY HYDR. RES. TIME
 MAXIMUM MIXING





BILLINGS, MONTANA
 200' INITIAL MAXIMUM DEPTH
 75 DAY HYDR. RES. TIME
 MAXIMUM MIXING



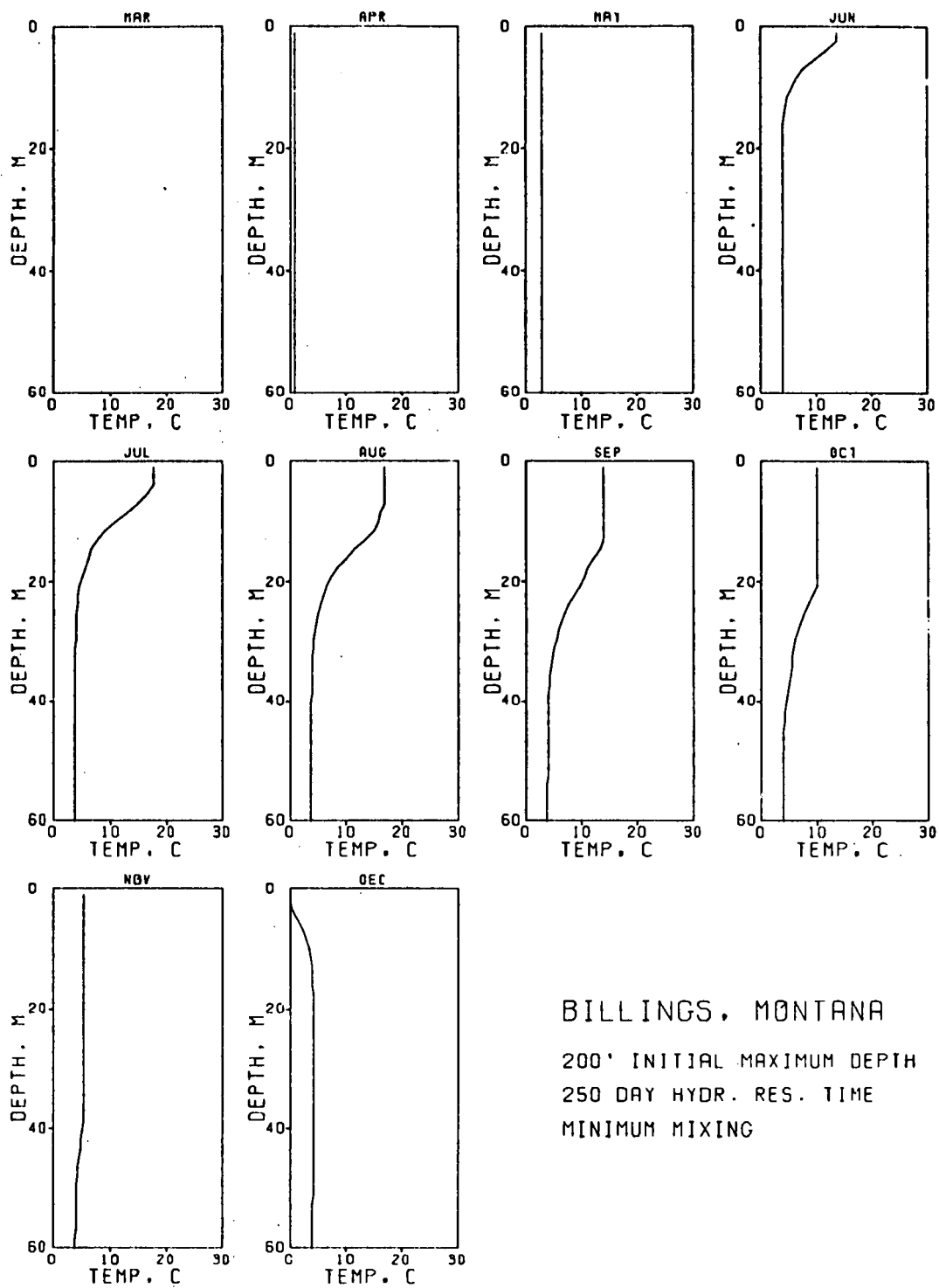


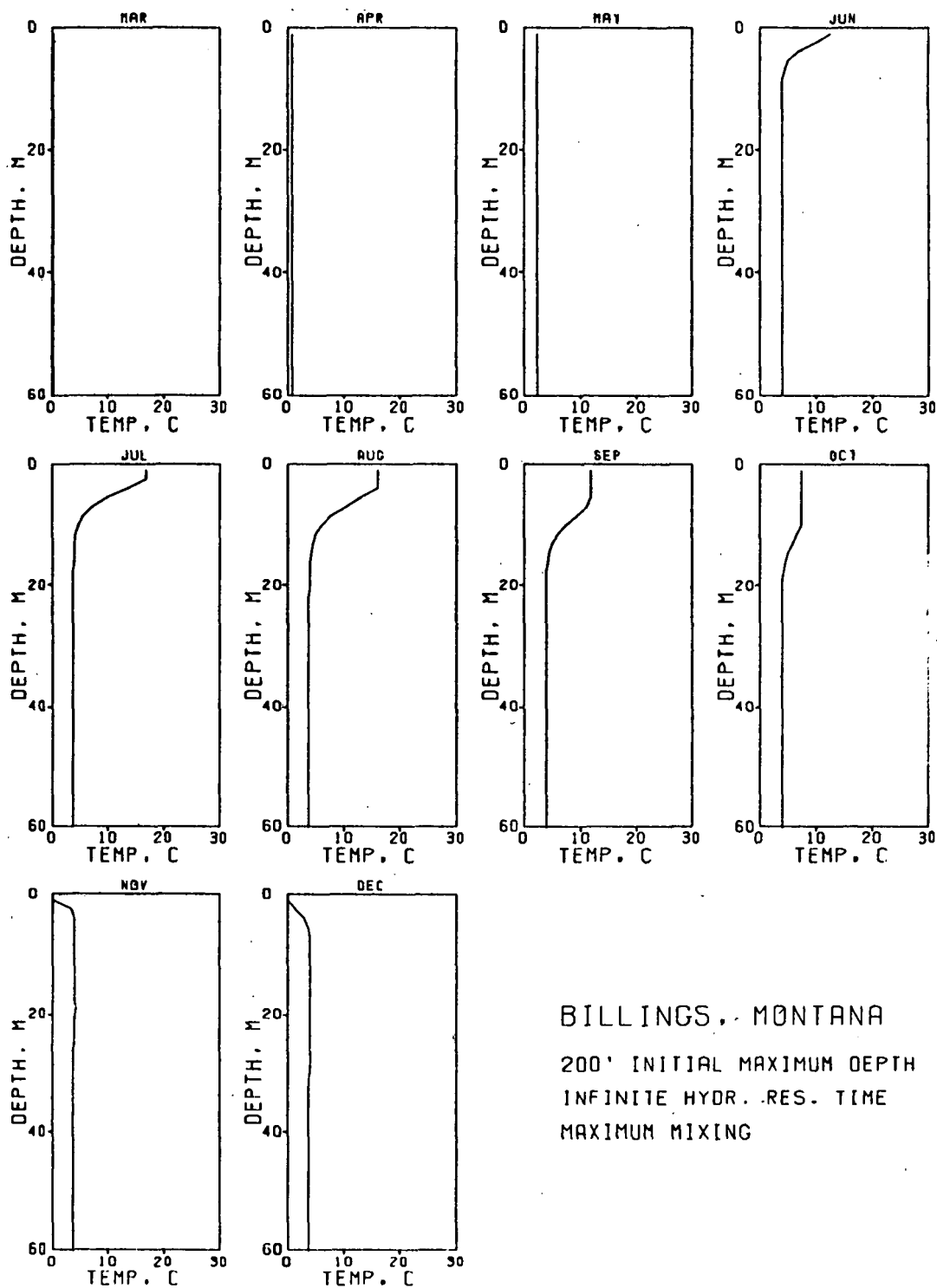
BILLINGS, MONTANA

200' INITIAL MAXIMUM DEPTH

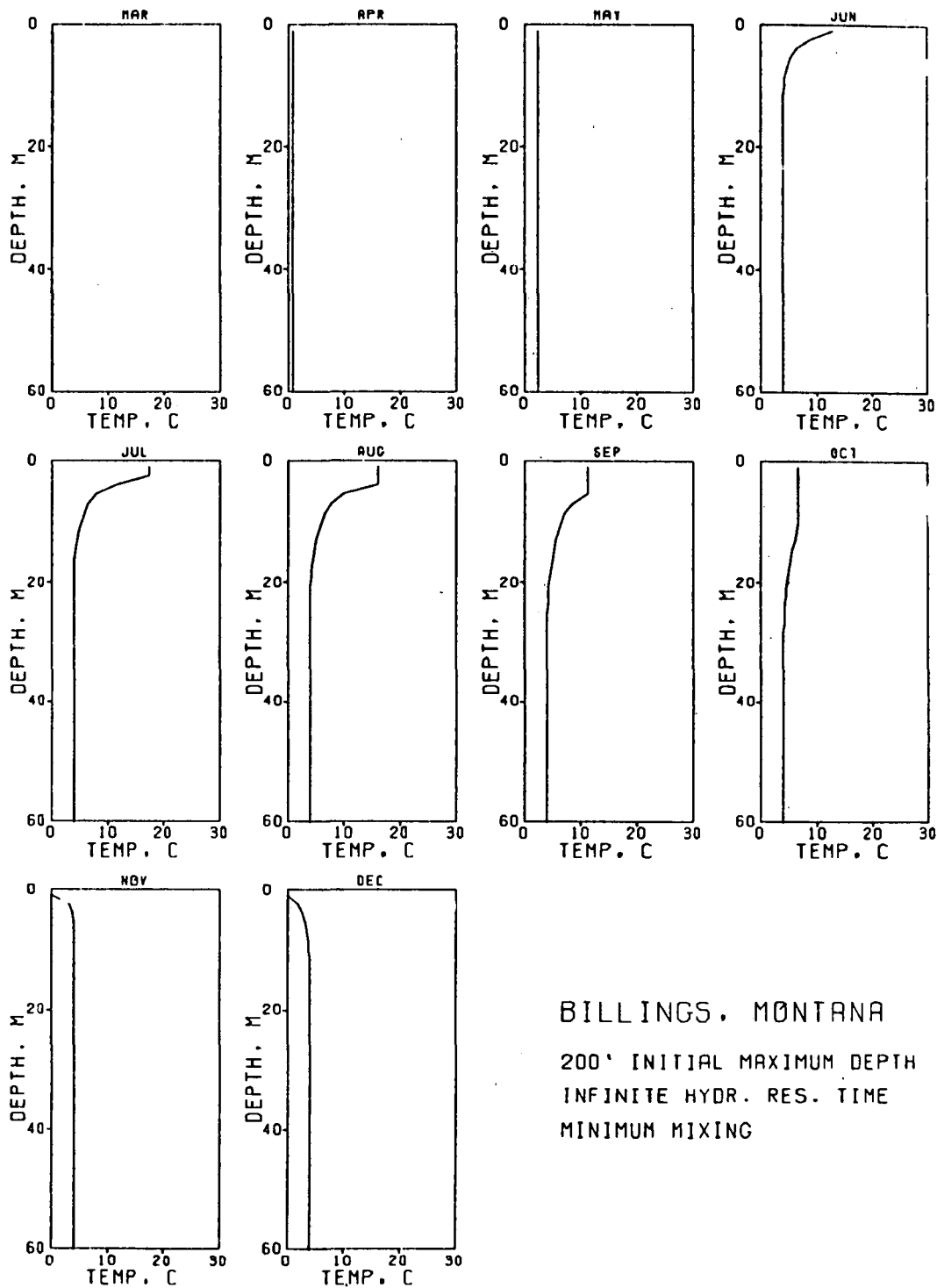
250 DAY HYDR. RES. TIME

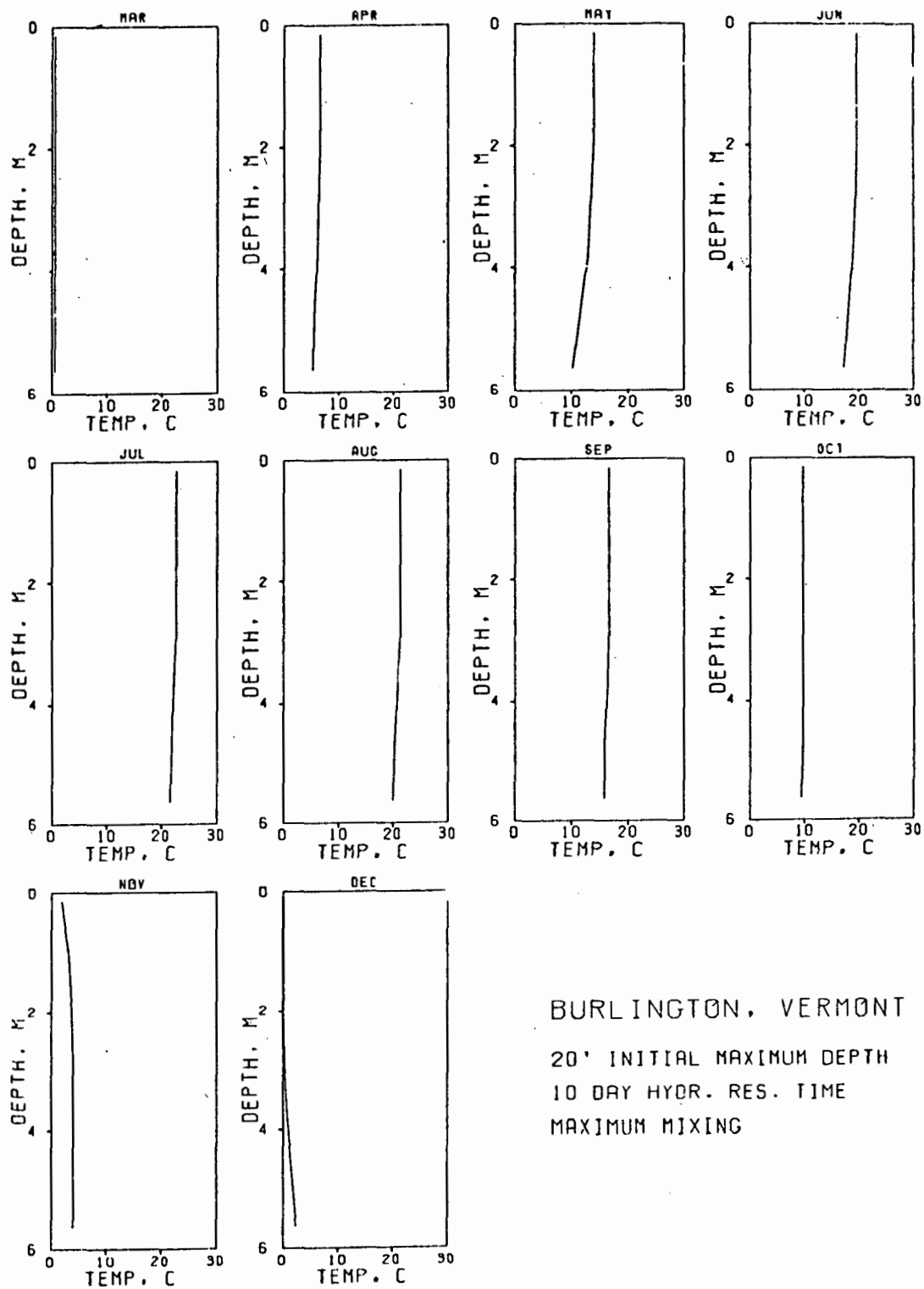
MAXIMUM MIXING





BILLINGS, MONTANA
 200' INITIAL MAXIMUM DEPTH
 INFINITE HYDR. RES. TIME
 MAXIMUM MIXING



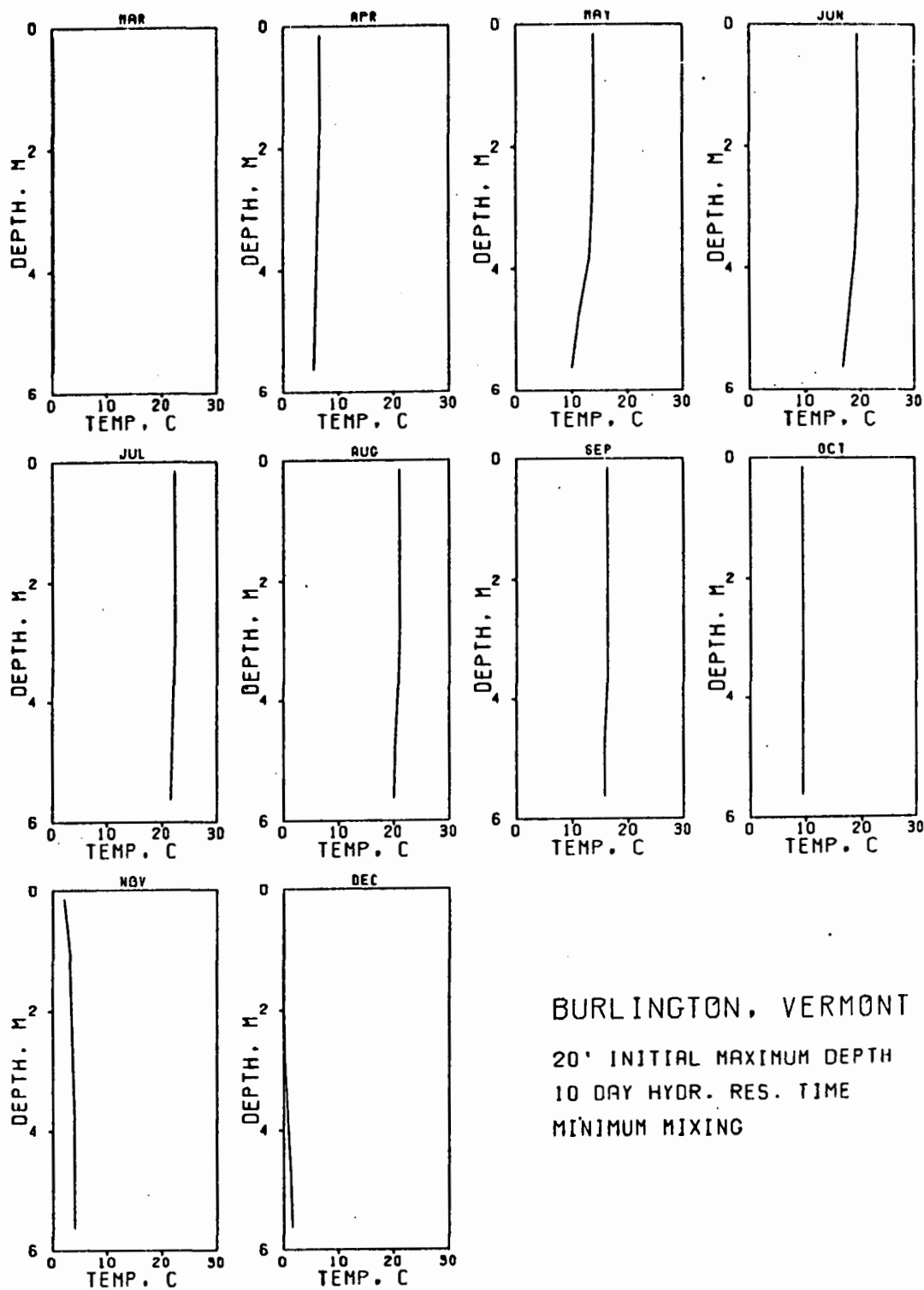


BURLINGTON, VERMONT

20' INITIAL MAXIMUM DEPTH

10 DAY HYDR. RES. TIME

MAXIMUM MIXING

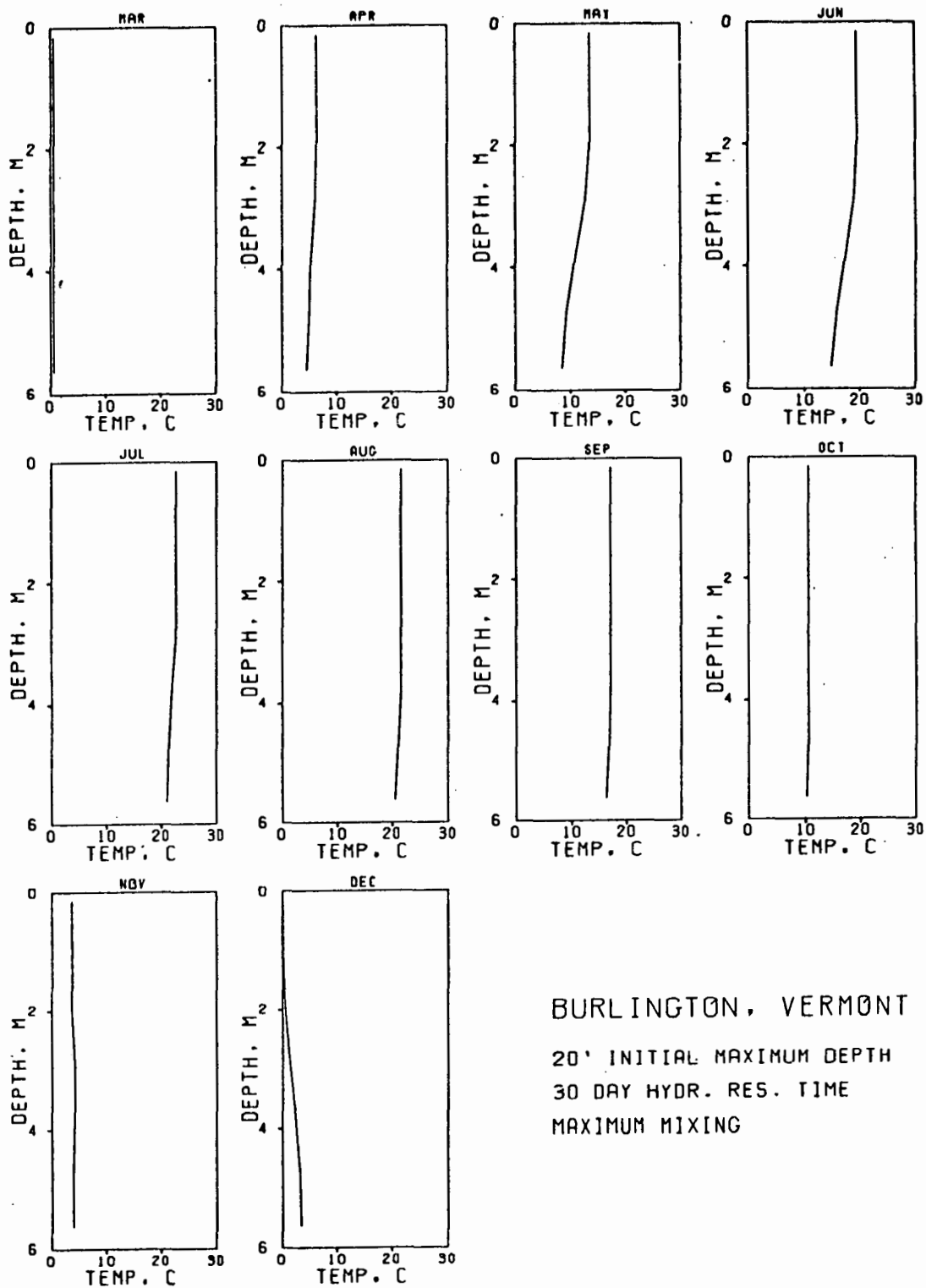


BURLINGTON, VERMONT

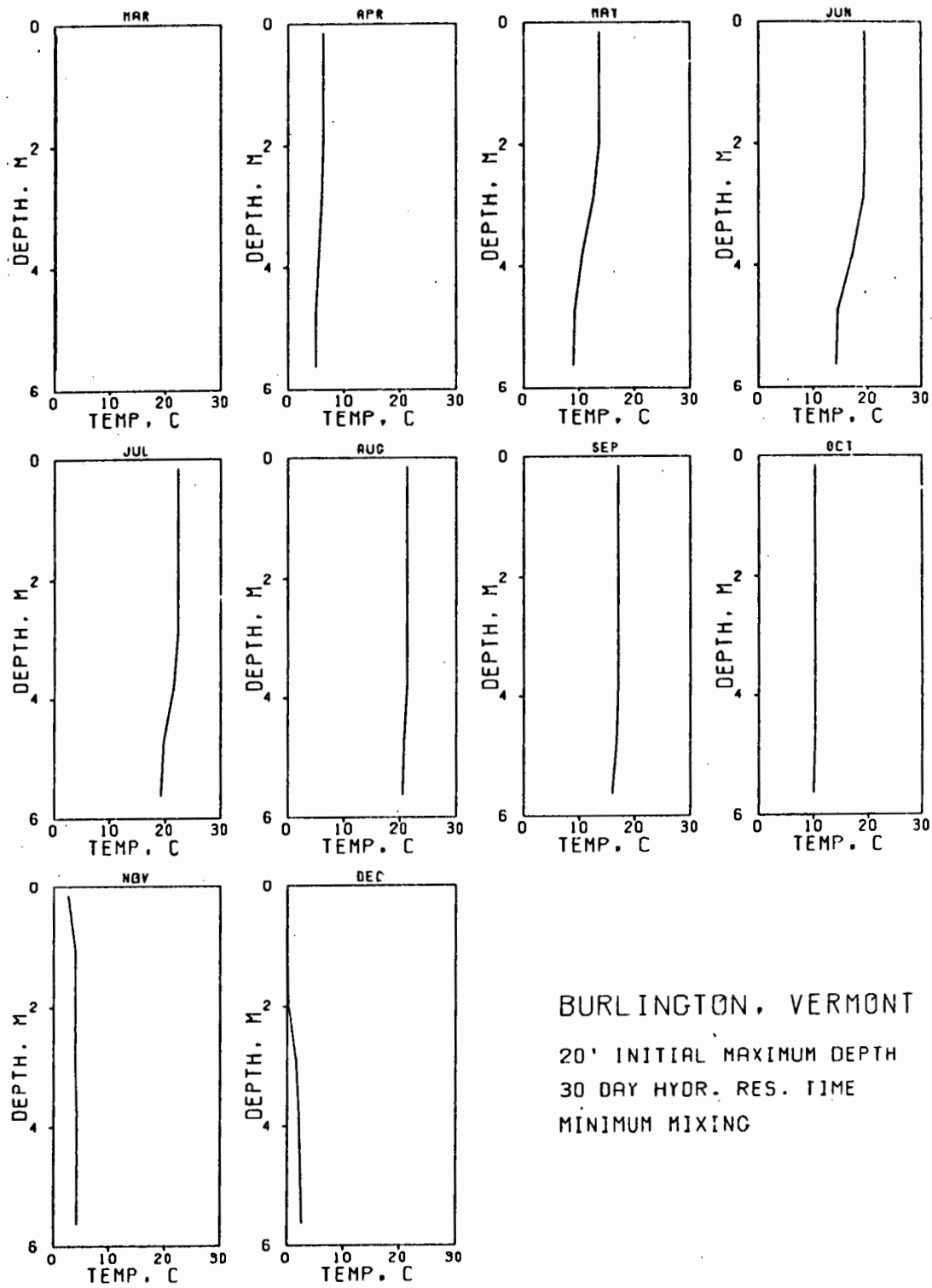
20' INITIAL MAXIMUM DEPTH

10 DAY HYDR. RES. TIME

MINIMUM MIXING



BURLINGTON, VERMONT
 20' INITIAL MAXIMUM DEPTH
 30 DAY HYDR. RES. TIME
 MAXIMUM MIXING

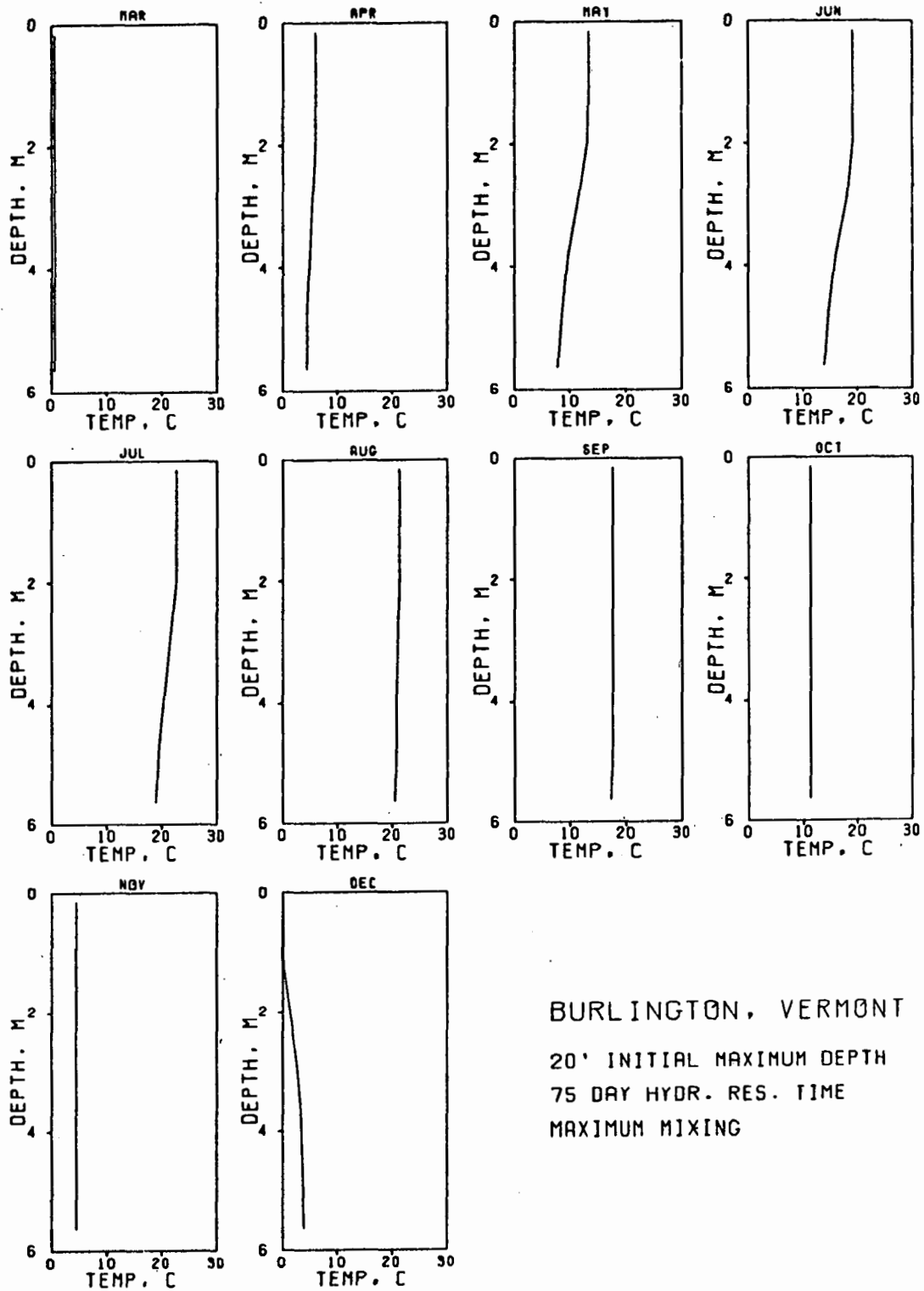


BURLINGTON, VERMONT

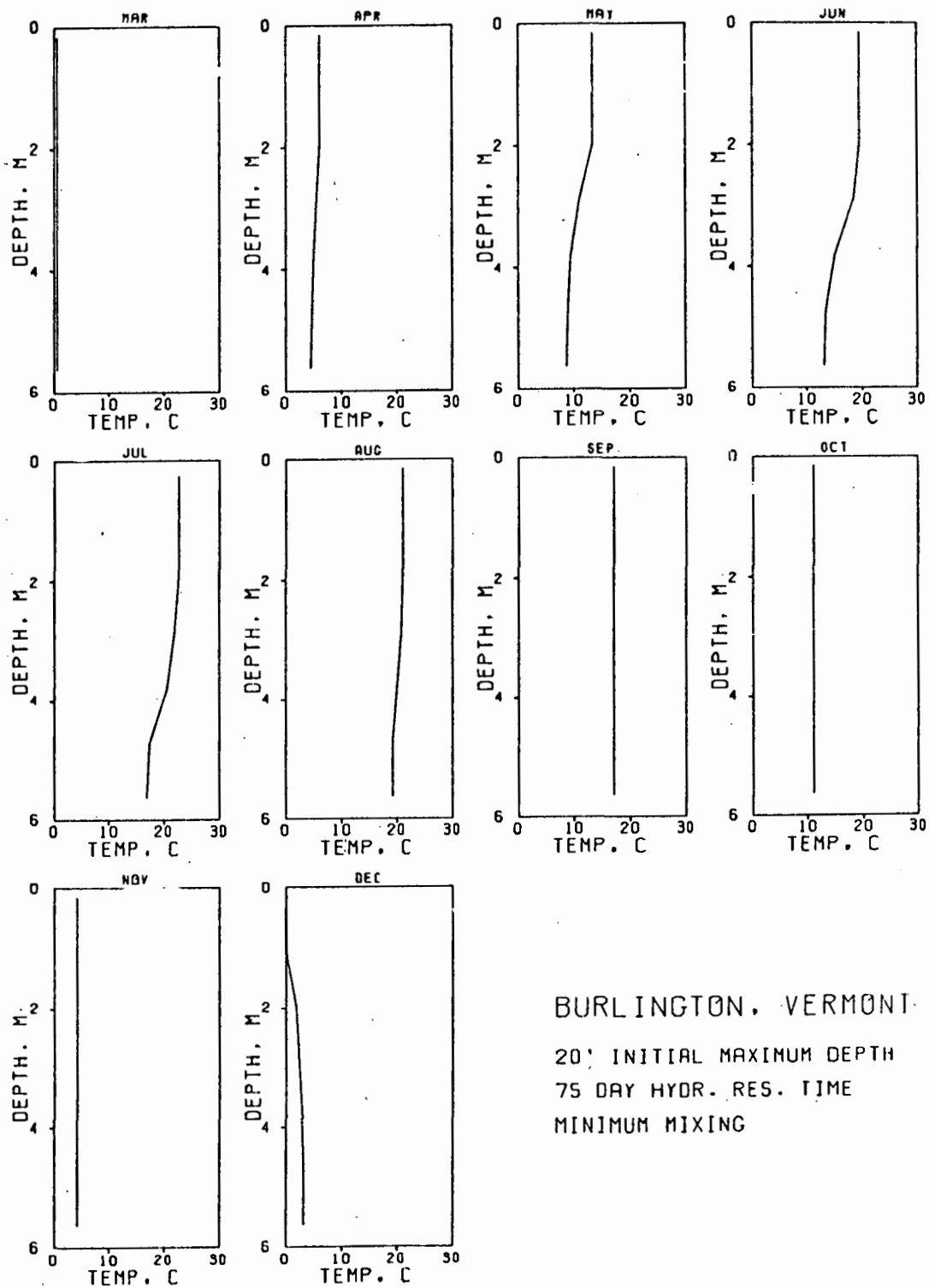
20' INITIAL MAXIMUM DEPTH

30 DAY HYDR. RES. TIME

MINIMUM MIXING



BURLINGTON, VERMONT
 20' INITIAL MAXIMUM DEPTH
 75 DAY HYDR. RES. TIME
 MAXIMUM MIXING

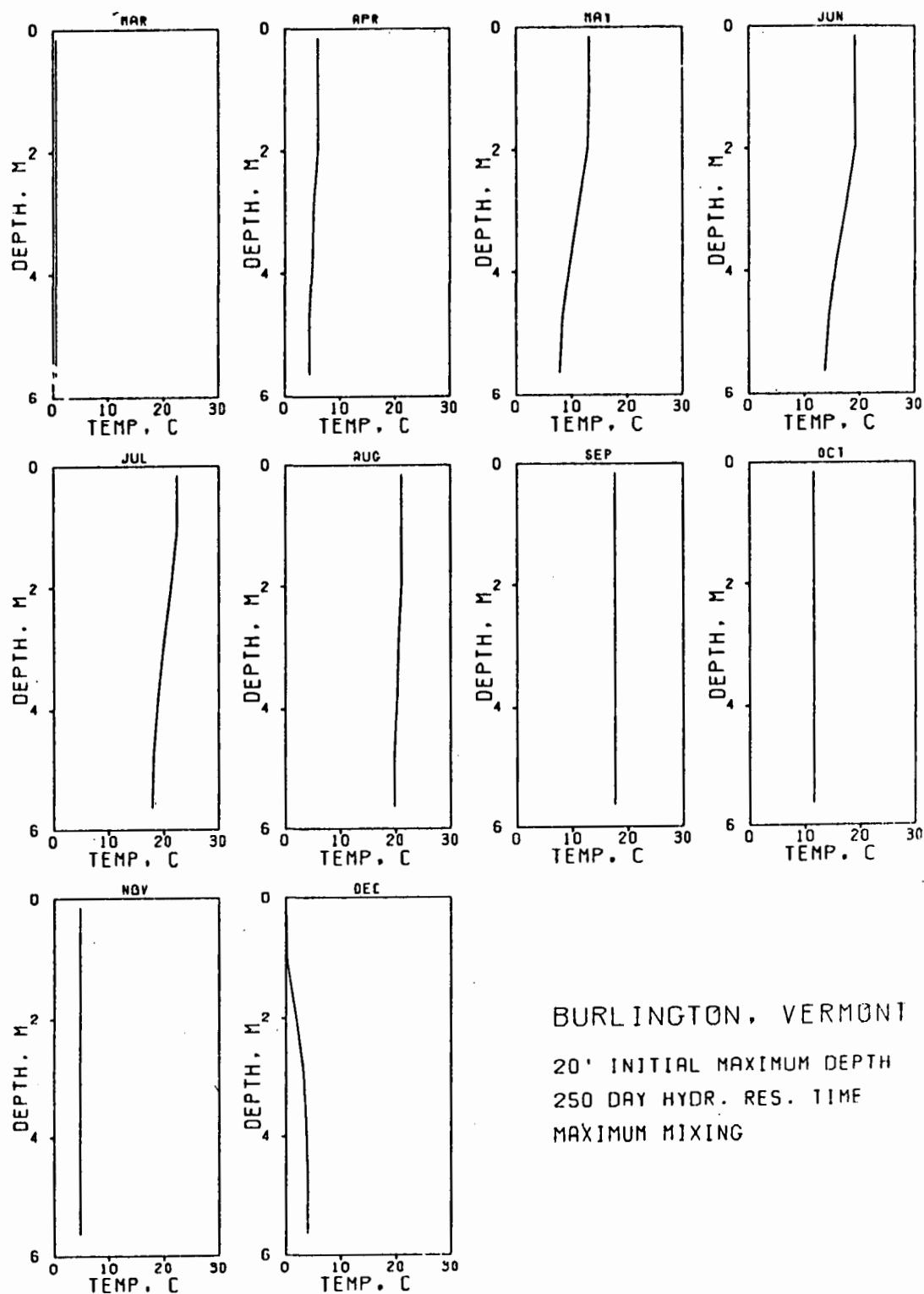


BURLINGTON, VERMONT

20' INITIAL MAXIMUM DEPTH

75 DAY HYDR. RES. TIME

MINIMUM MIXING

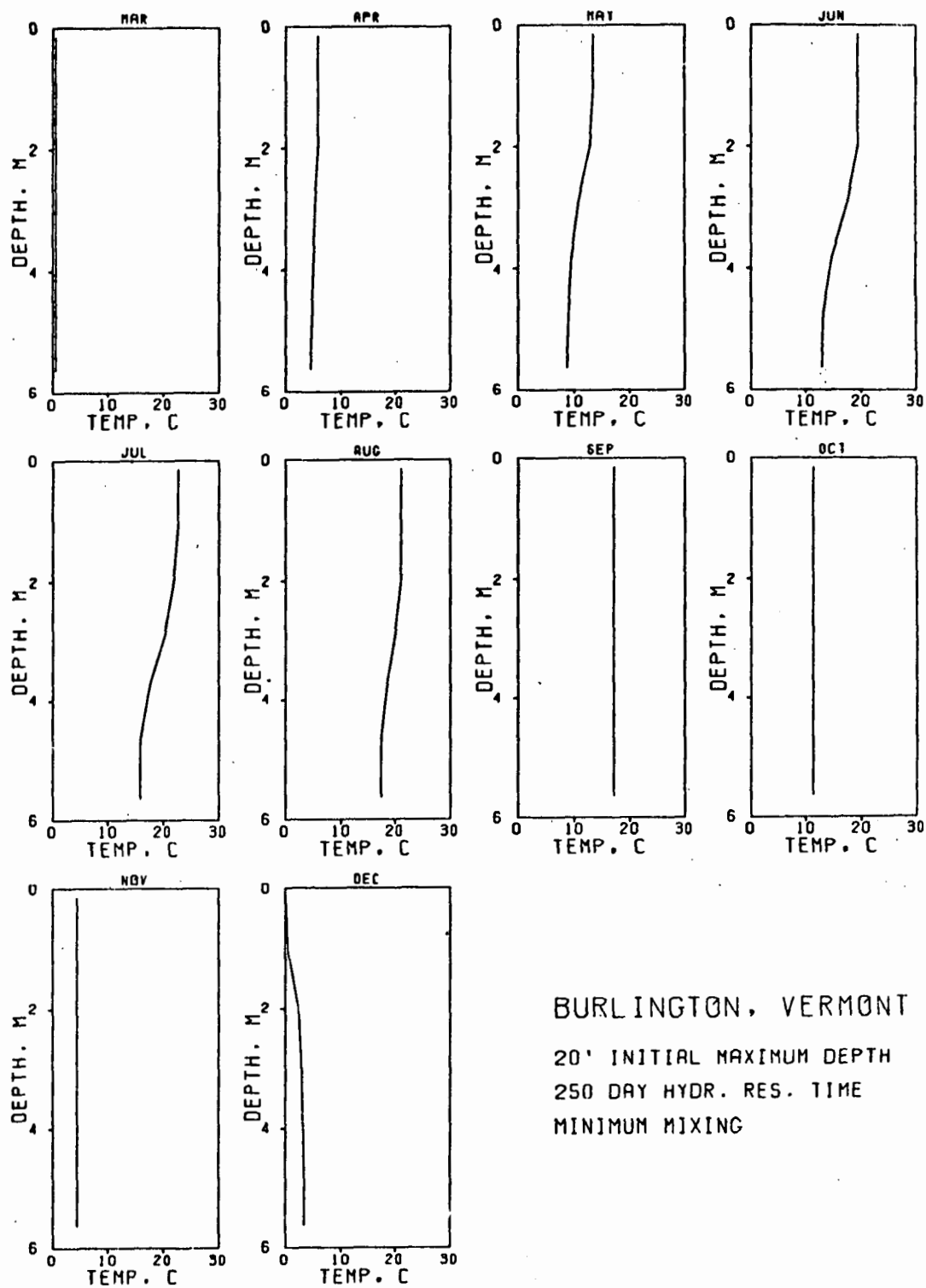


BURLINGTON, VERMONT

20' INITIAL MAXIMUM DEPTH

250 DAY HYDR. RES. TIME

MAXIMUM MIXING

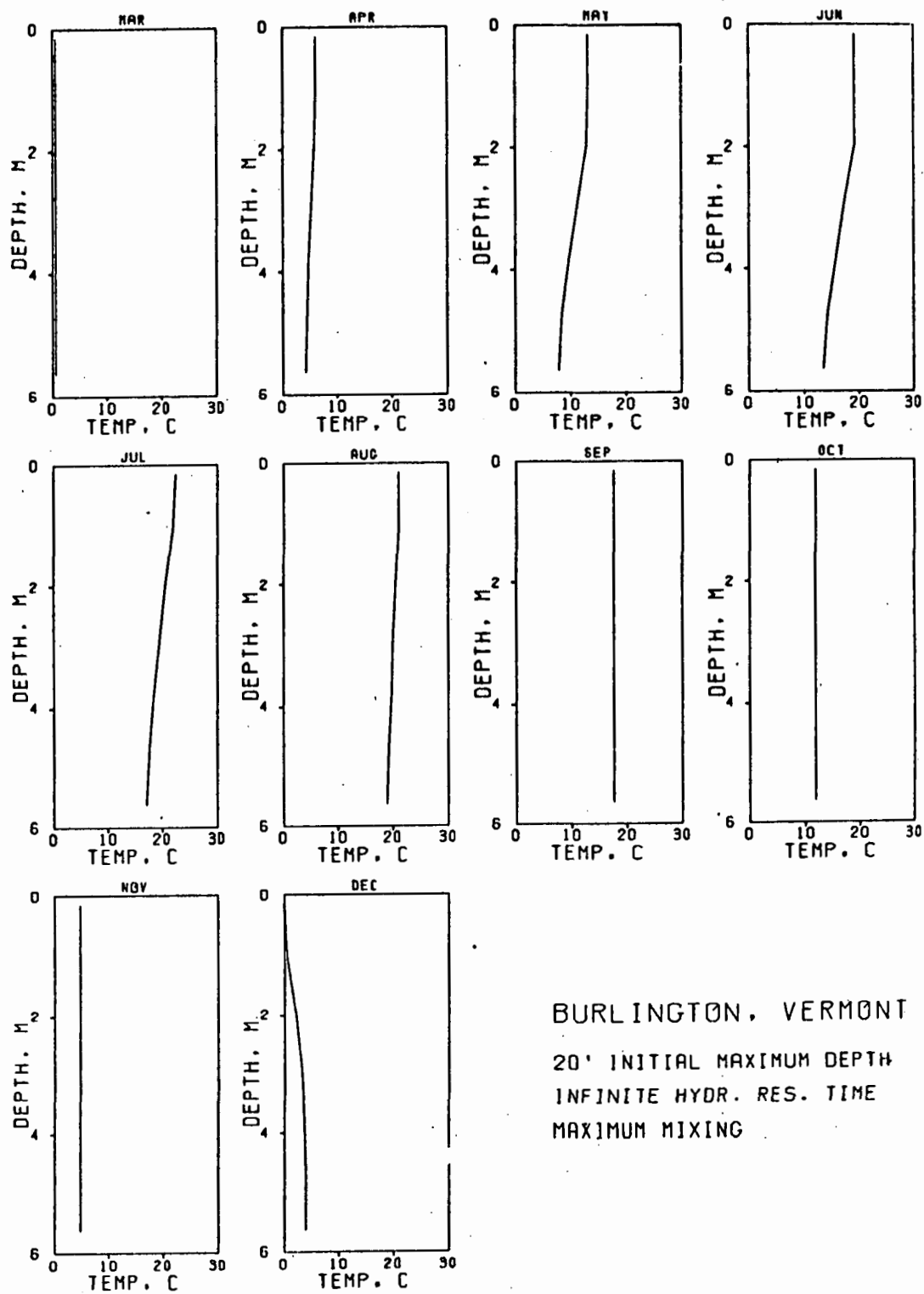


BURLINGTON, VERMONT

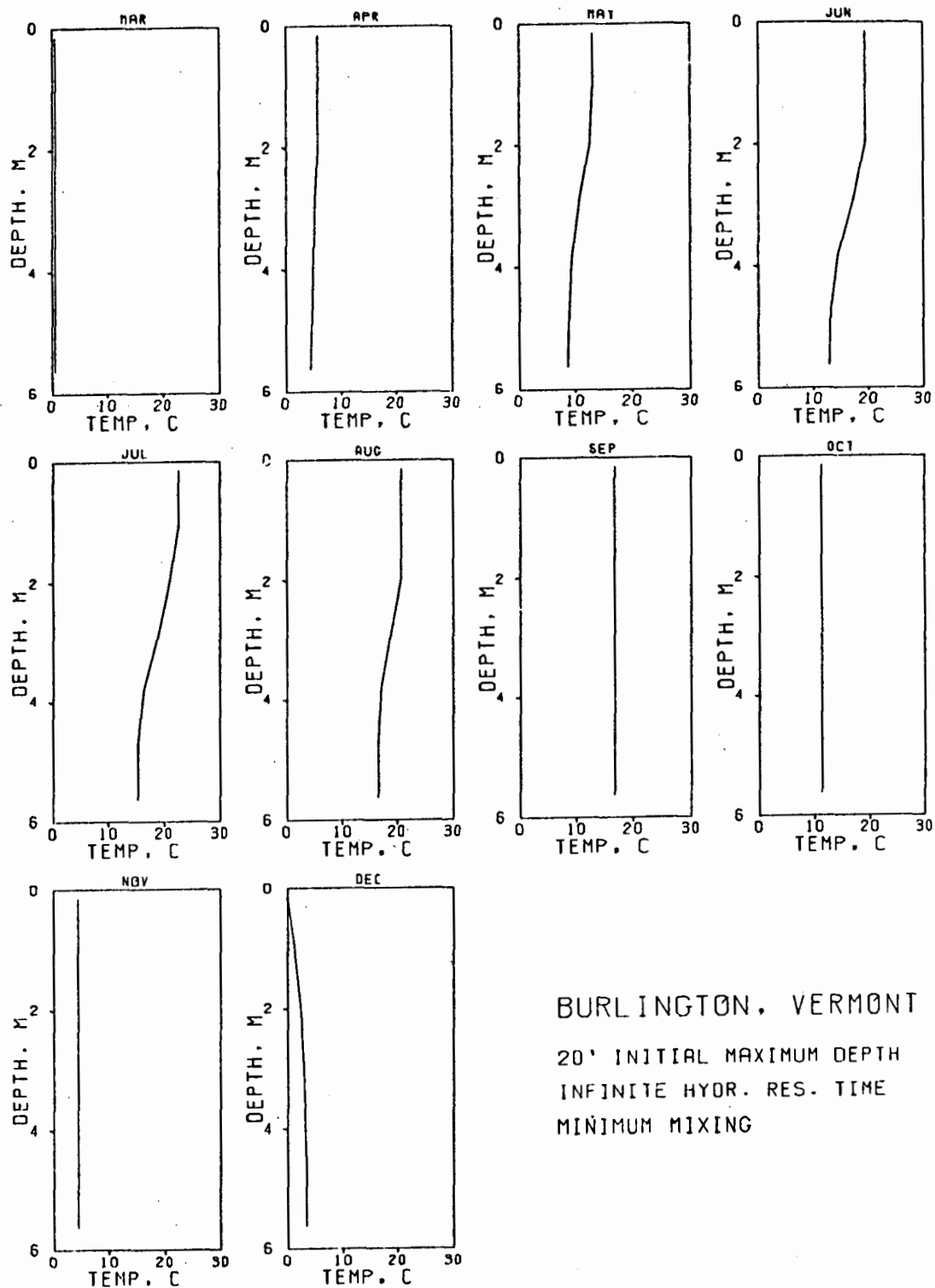
20' INITIAL MAXIMUM DEPTH

250 DAY HYDR. RES. TIME

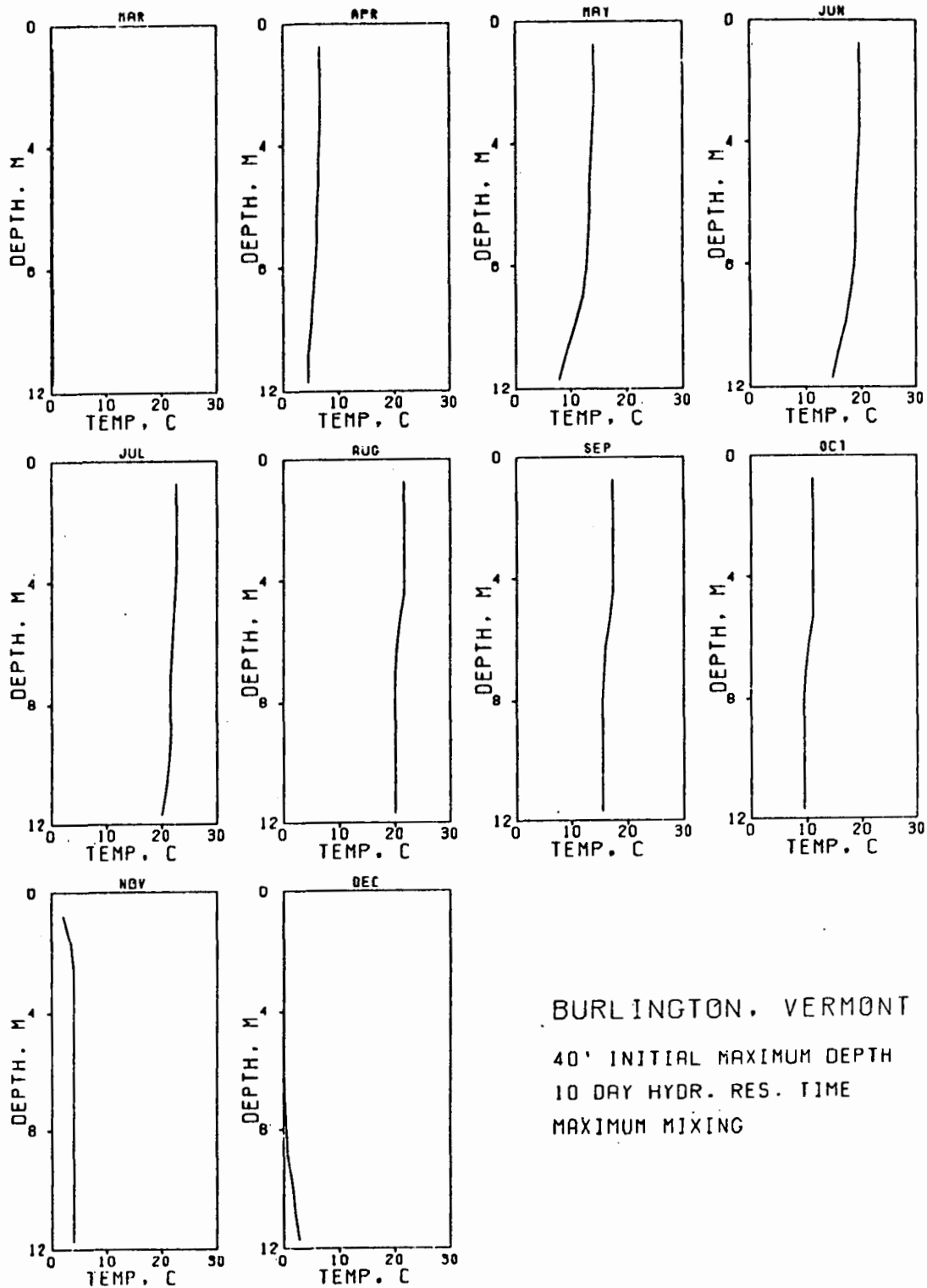
MINIMUM MIXING



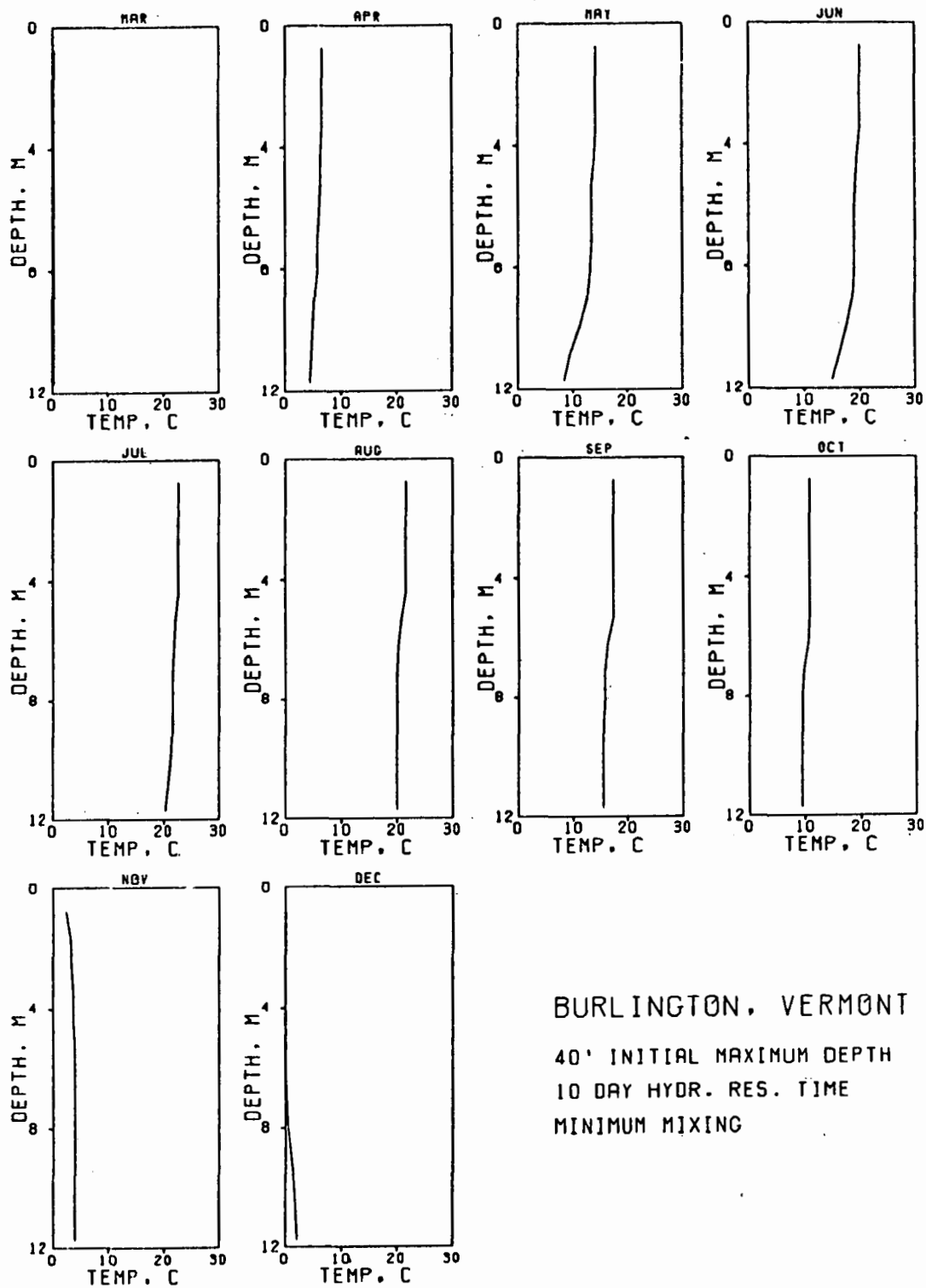
BURLINGTON, VERMONT
 20' INITIAL MAXIMUM DEPTH
 INFINITE HYDR. RES. TIME
 MAXIMUM MIXING



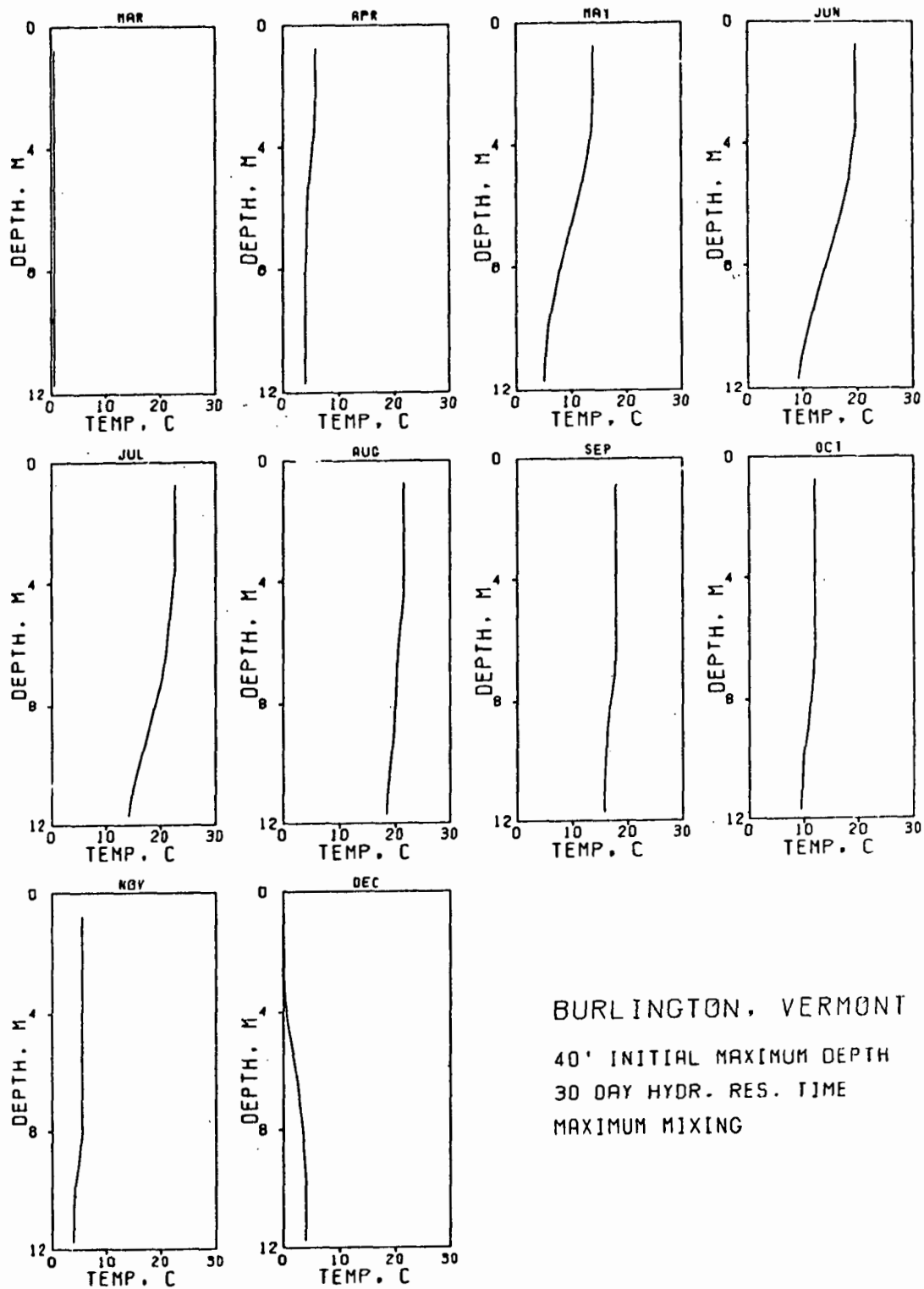
BURLINGTON, VERMONT
 20' INITIAL MAXIMUM DEPTH
 INFINITE HYOR. RES. TIME
 MINIMUM MIXING



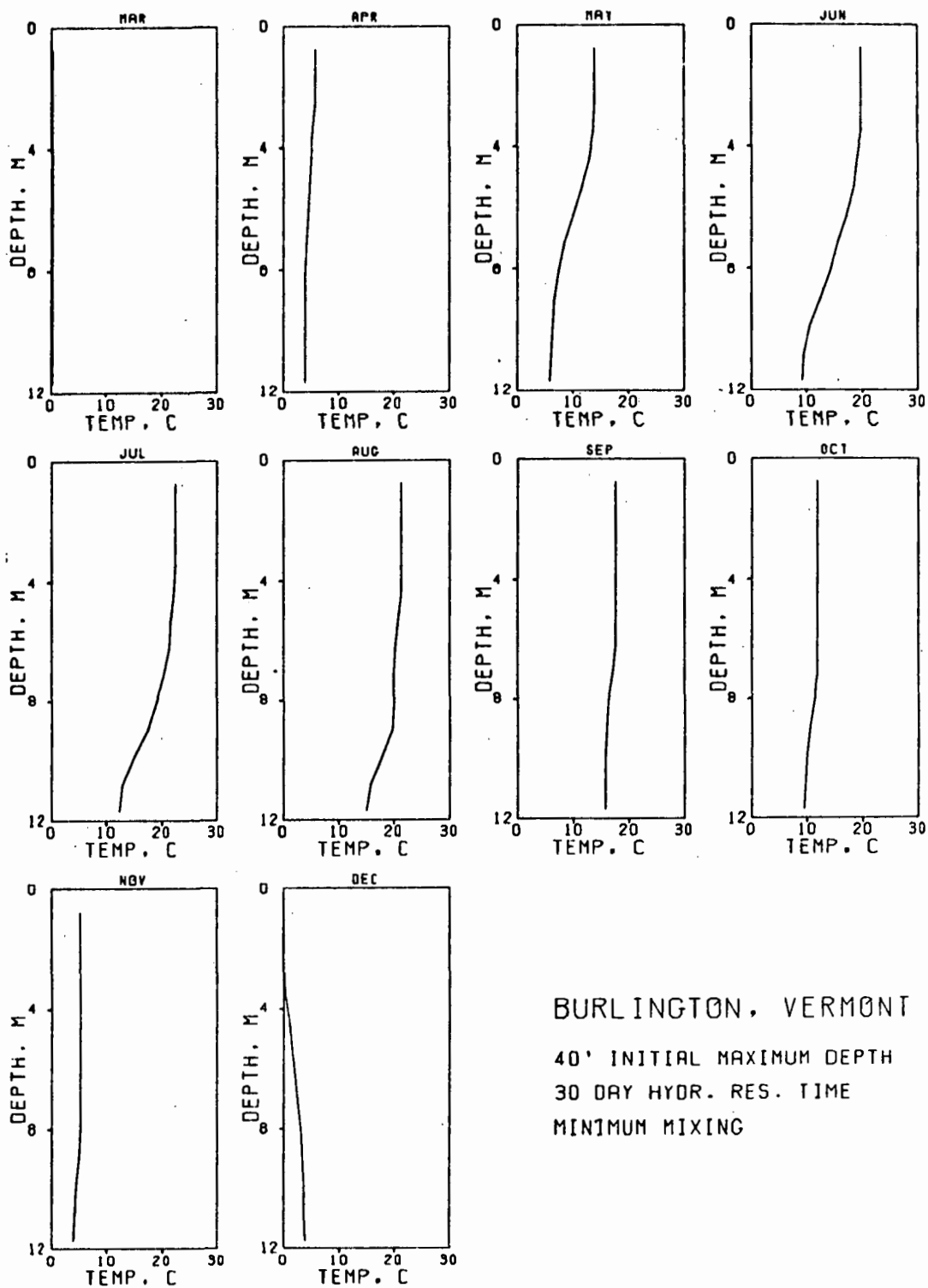
BURLINGTON, VERMONT
 40' INITIAL MAXIMUM DEPTH
 10 DAY HYDR. RES. TIME
 MAXIMUM MIXING



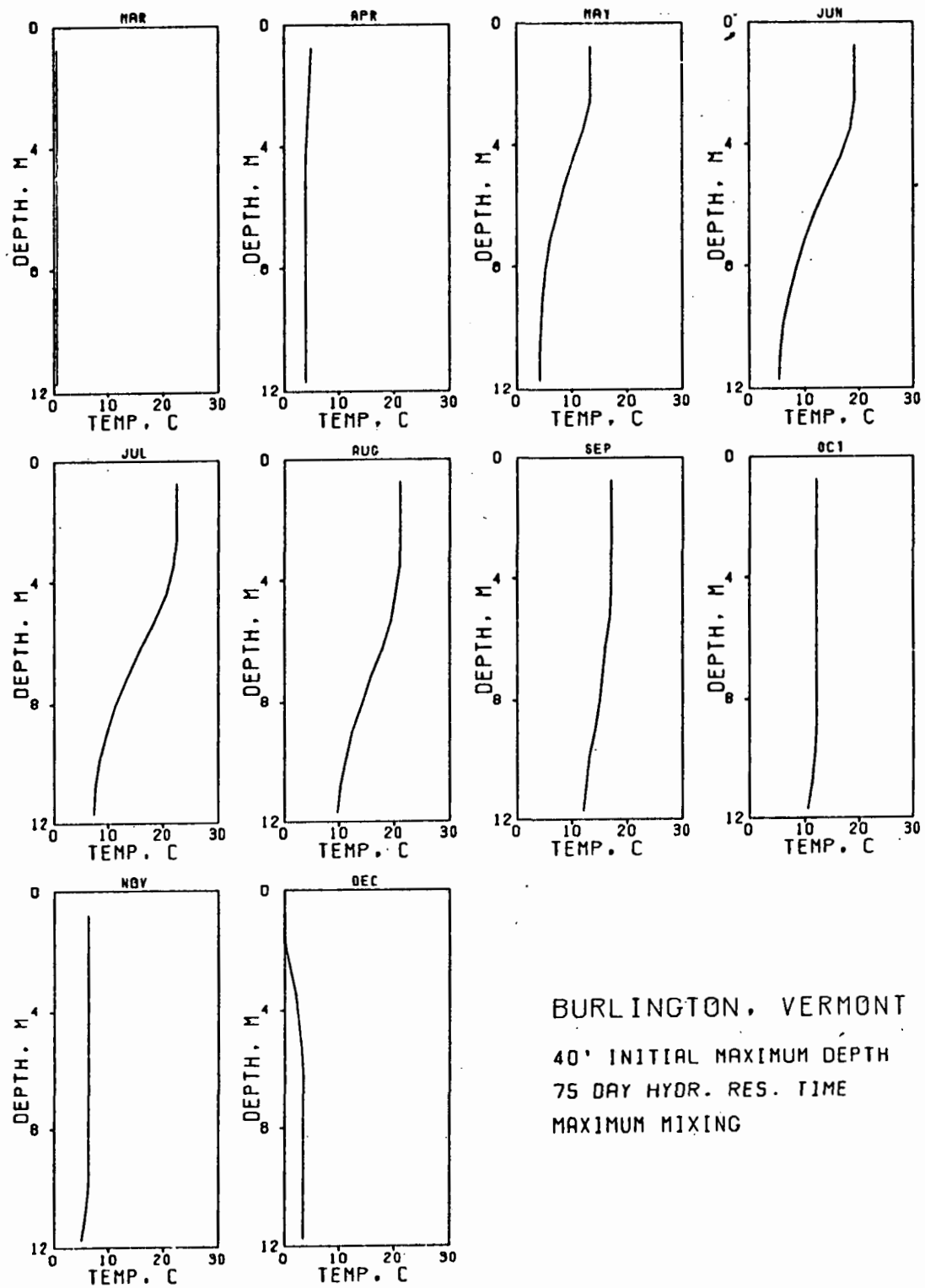
BURLINGTON, VERMONT
 40' INITIAL MAXIMUM DEPTH
 10 DAY HYDR. RES. TIME
 MINIMUM MIXING



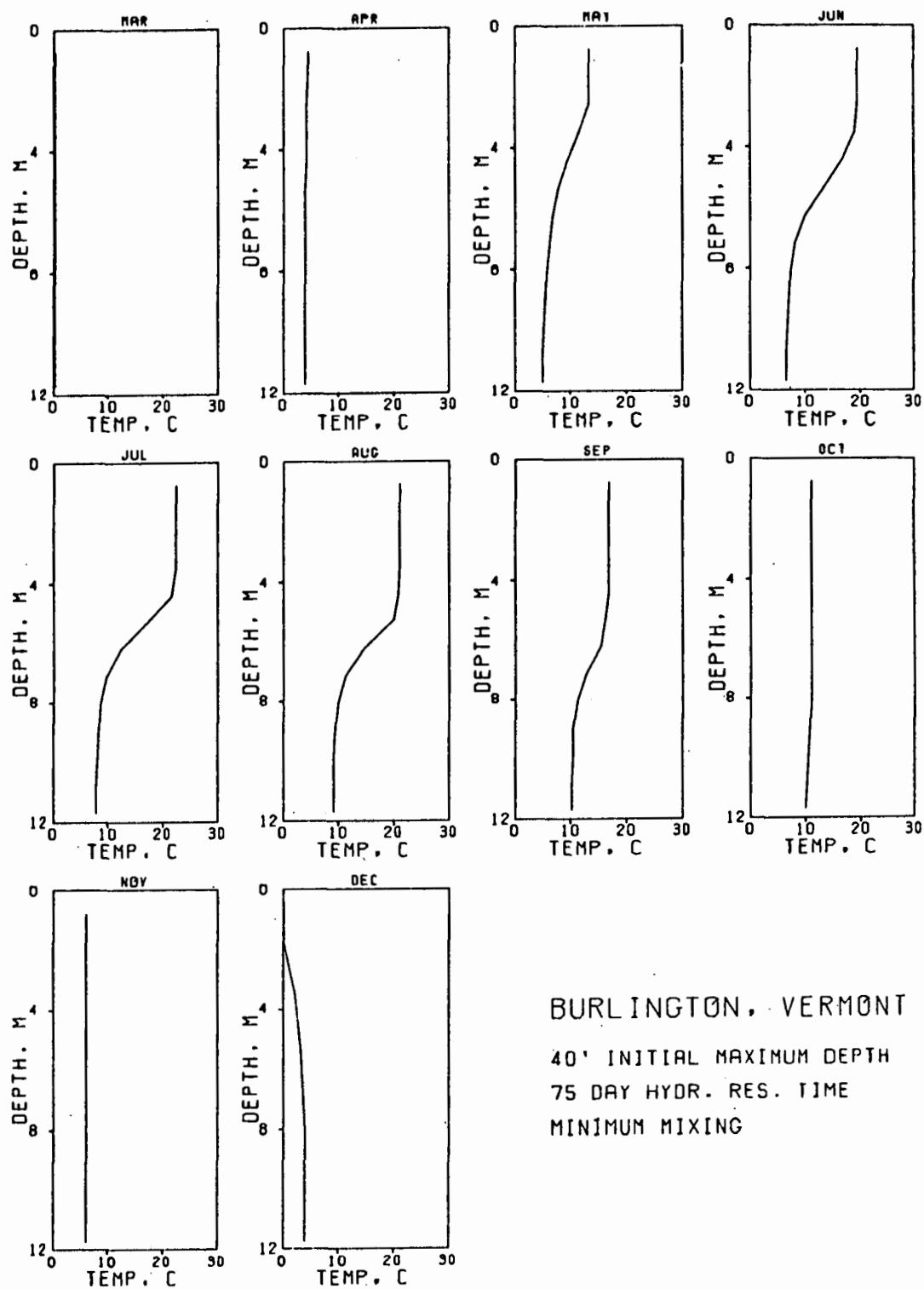
BURLINGTON, VERMONT
 40' INITIAL MAXIMUM DEPTH
 30 DAY HYDR. RES. TIME
 MAXIMUM MIXING



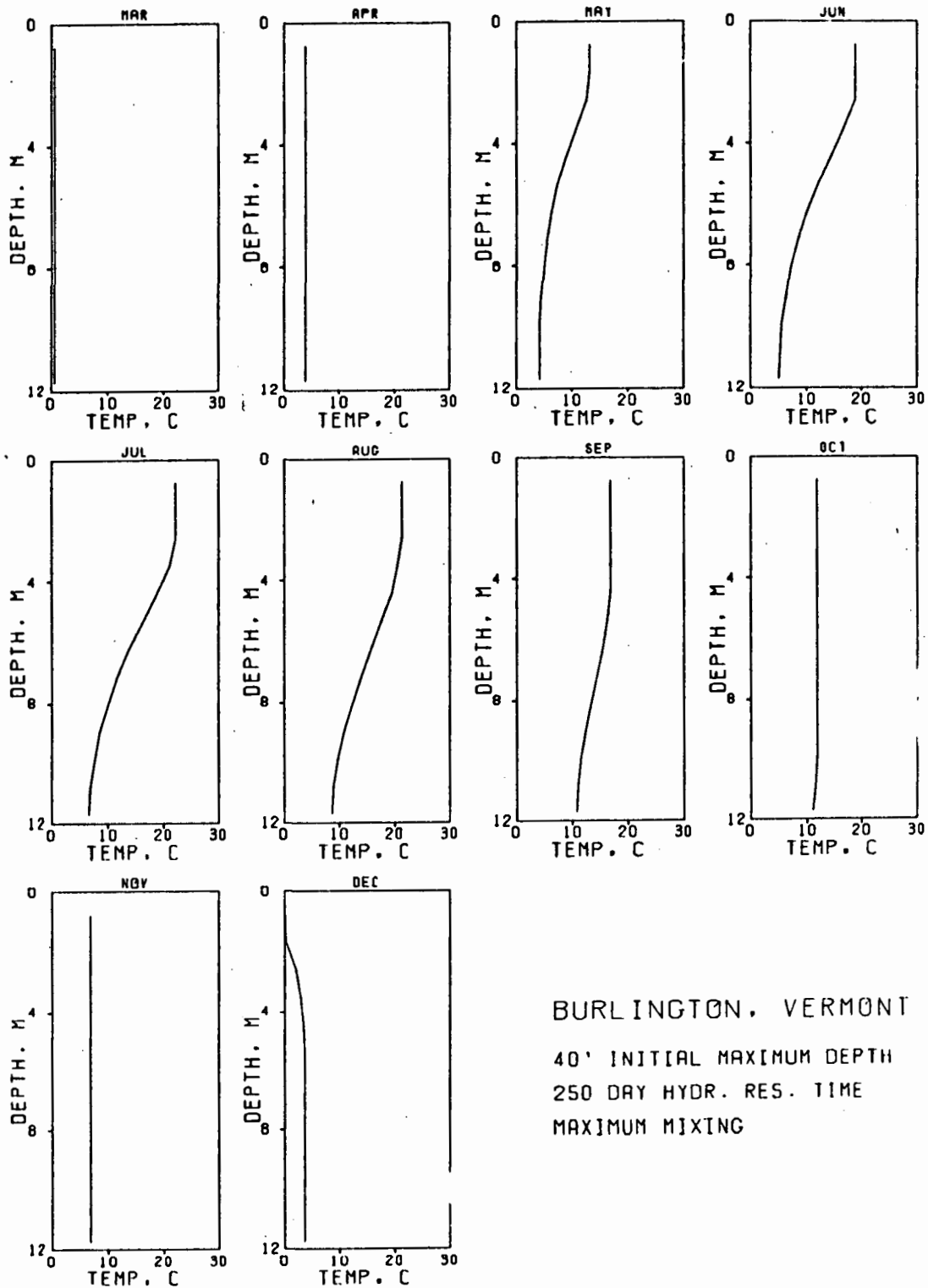
BURLINGTON, VERMONT
 40' INITIAL MAXIMUM DEPTH
 30 DAY HYDR. RES. TIME
 MINIMUM MIXING



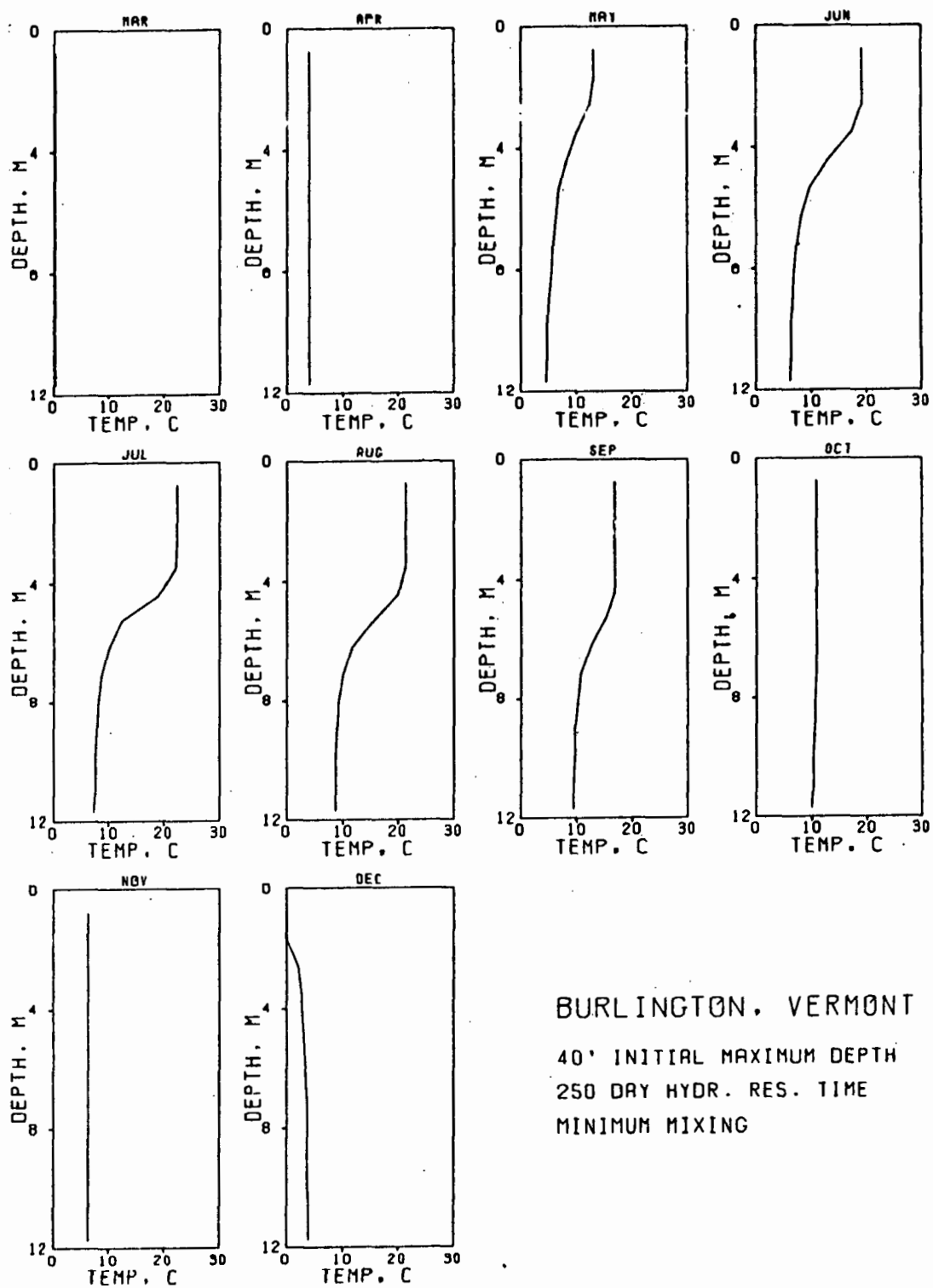
BURLINGTON, VERMONT
 40' INITIAL MAXIMUM DEPTH
 75 DAY HYDR. RES. TIME
 MAXIMUM MIXING



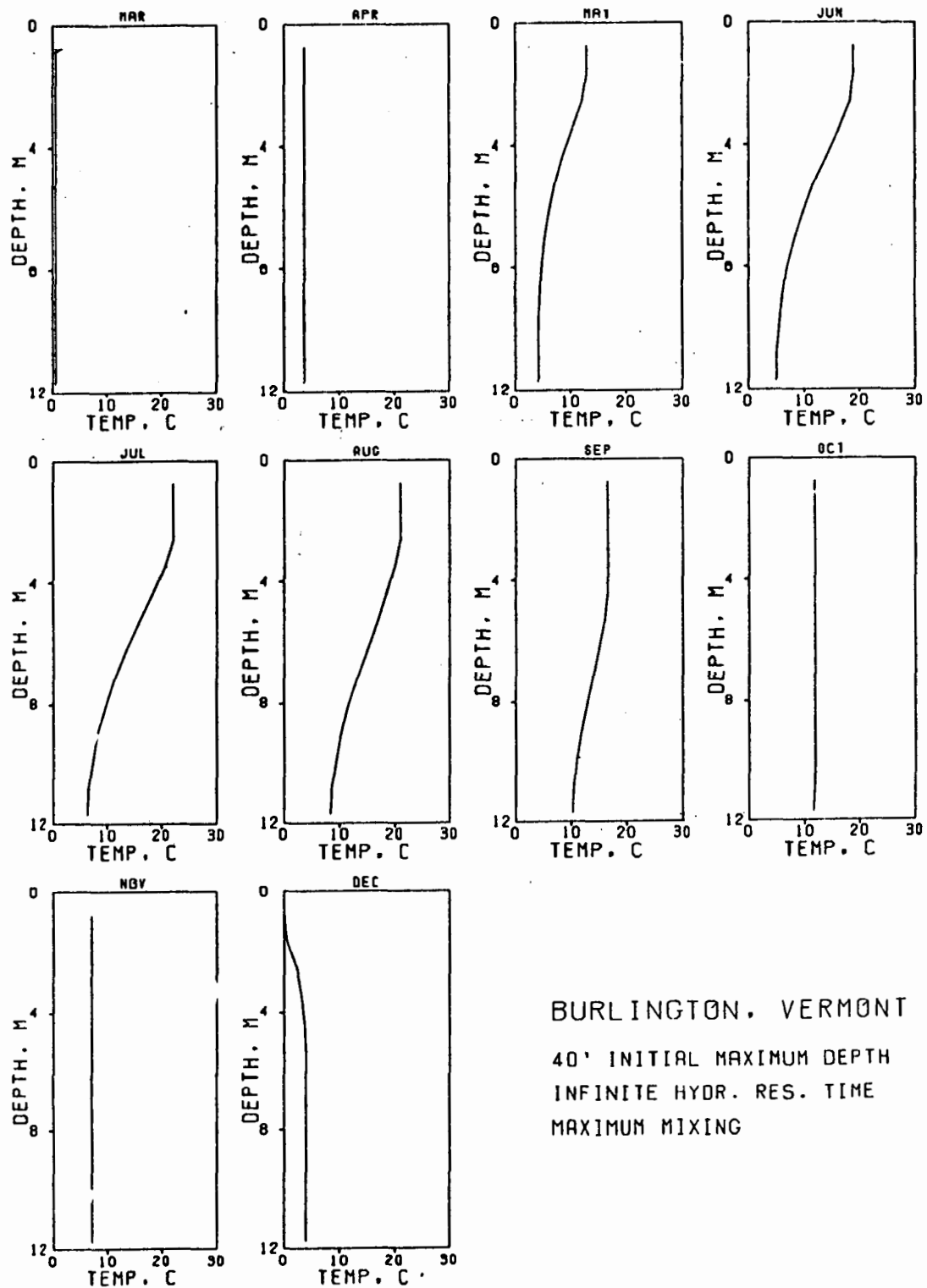
BURLINGTON, VERMONT
 40' INITIAL MAXIMUM DEPTH
 75 DAY HYDR. RES. TIME
 MINIMUM MIXING



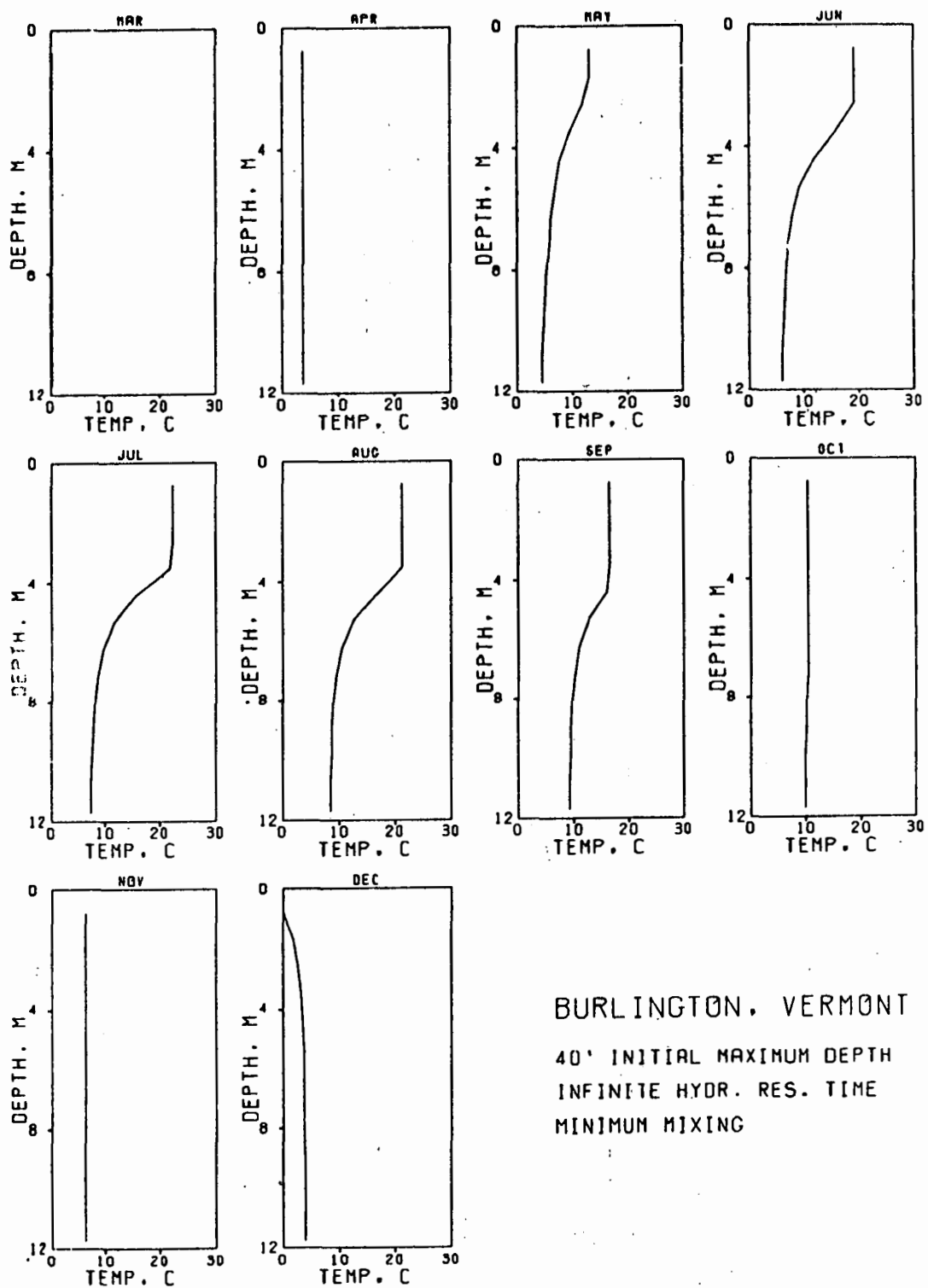
BURLINGTON, VERMONT
 40' INITIAL MAXIMUM DEPTH
 250 DAY HYDR. RES. TIME
 MAXIMUM MIXING



BURLINGTON, VERMONT
 40' INITIAL MAXIMUM DEPTH
 250 DAY HYDR. RES. TIME
 MINIMUM MIXING



BURLINGTON, VERMONT
 40' INITIAL MAXIMUM DEPTH
 INFINITE HYDR. RES. TIME
 MAXIMUM MIXING

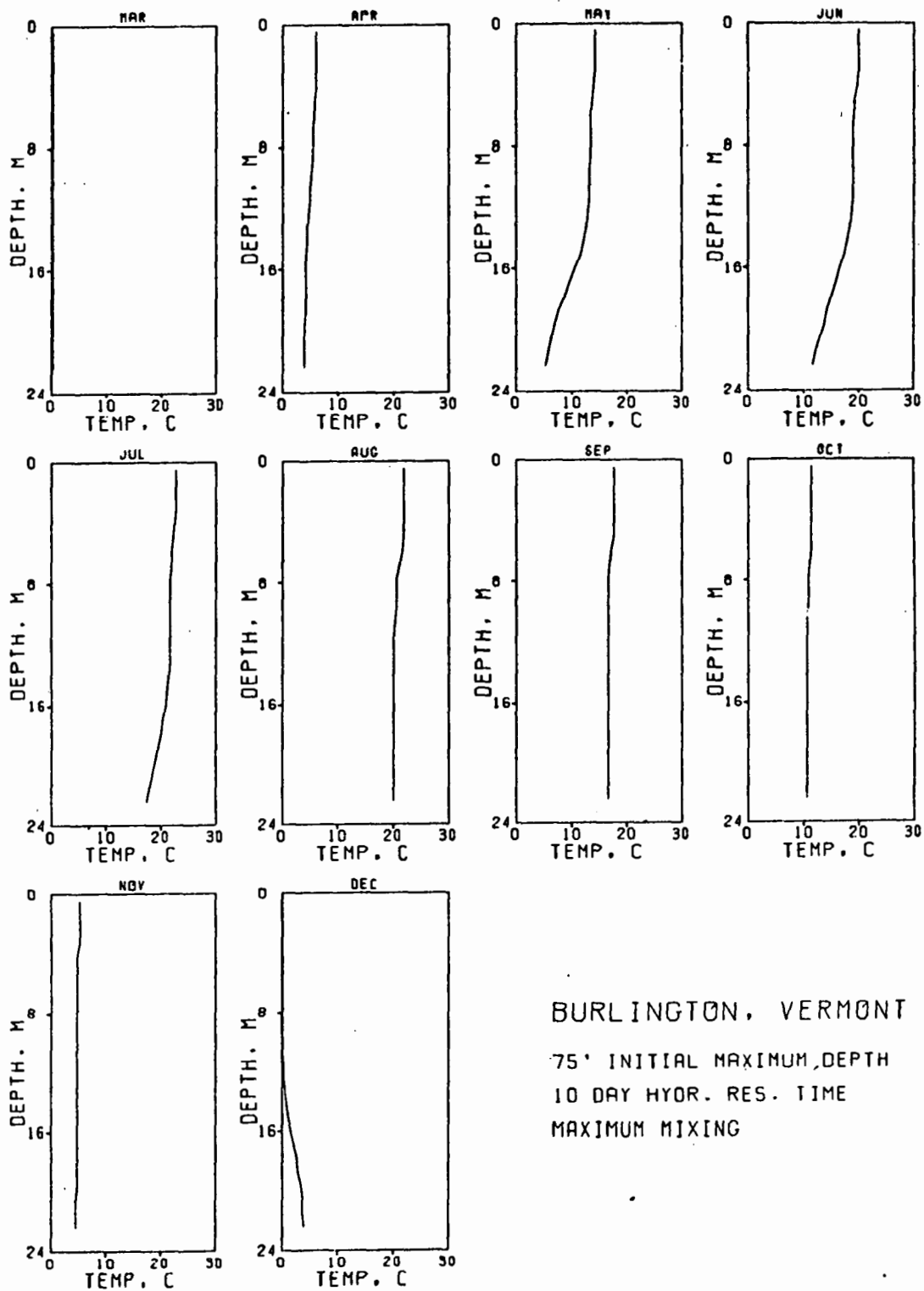


BURLINGTON, VERMONT

40' INITIAL MAXIMUM DEPTH

INFINITE HYDR. RES. TIME

MINIMUM MIXING

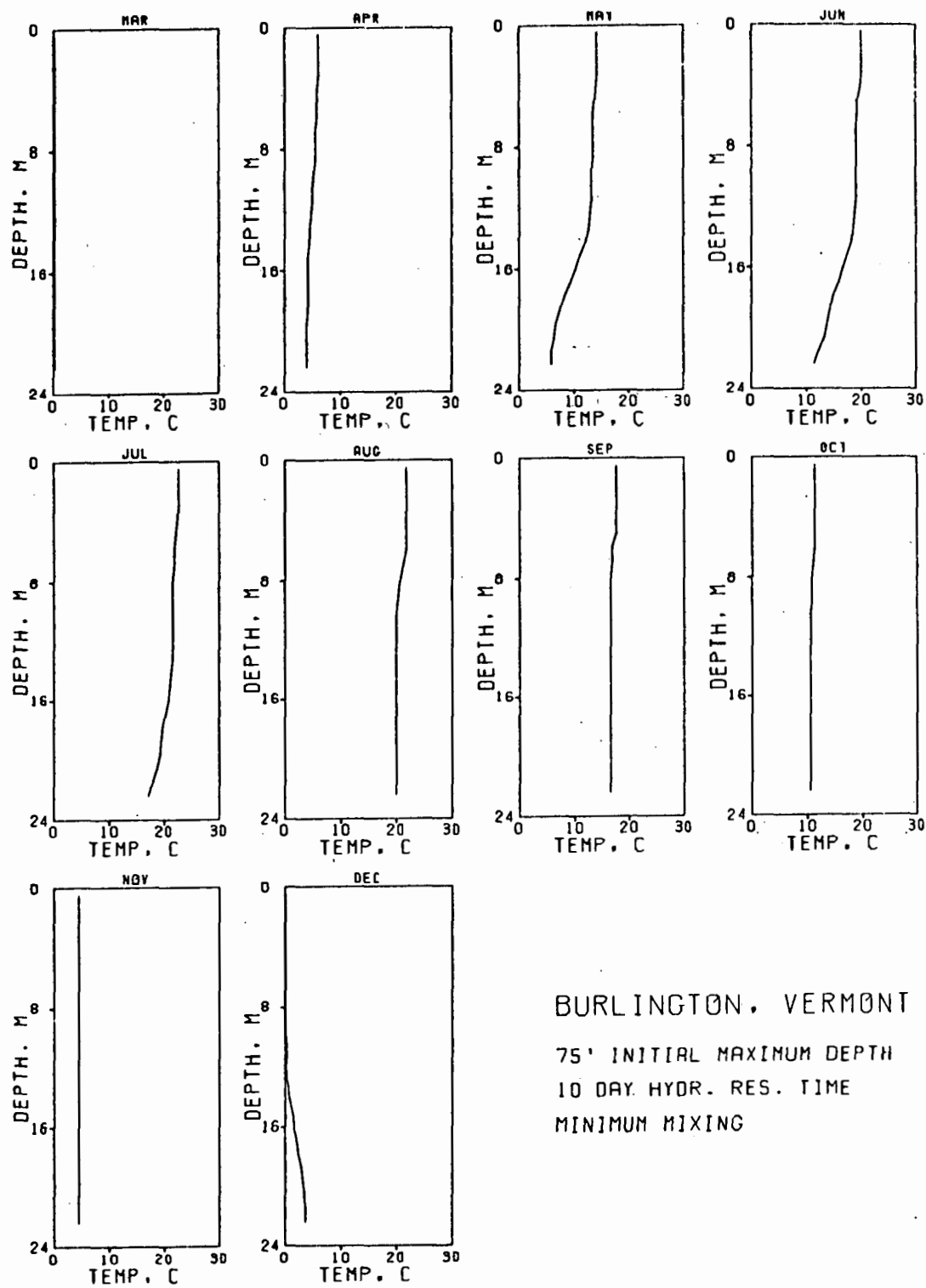


BURLINGTON, VERMONT

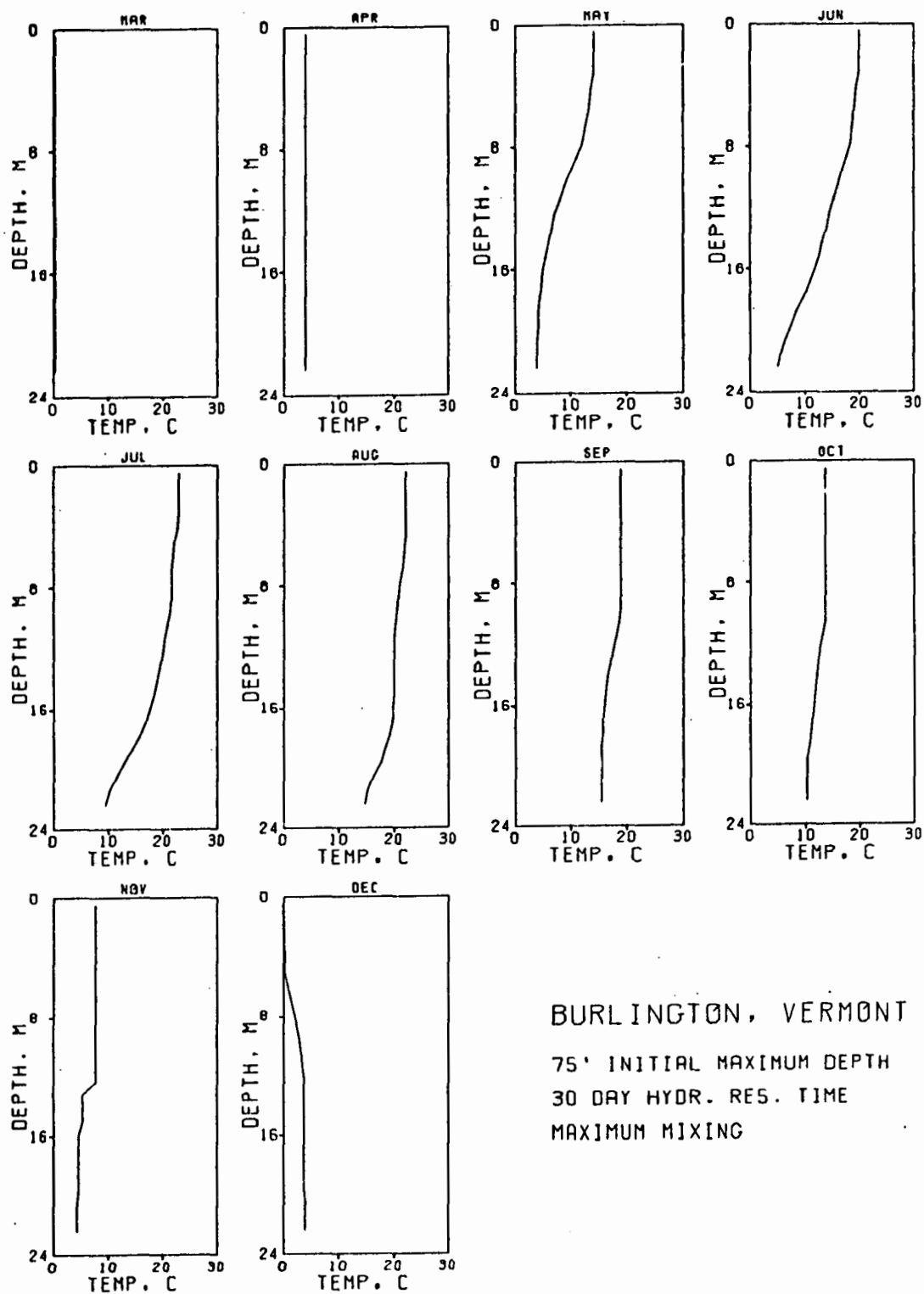
75' INITIAL MAXIMUM DEPTH

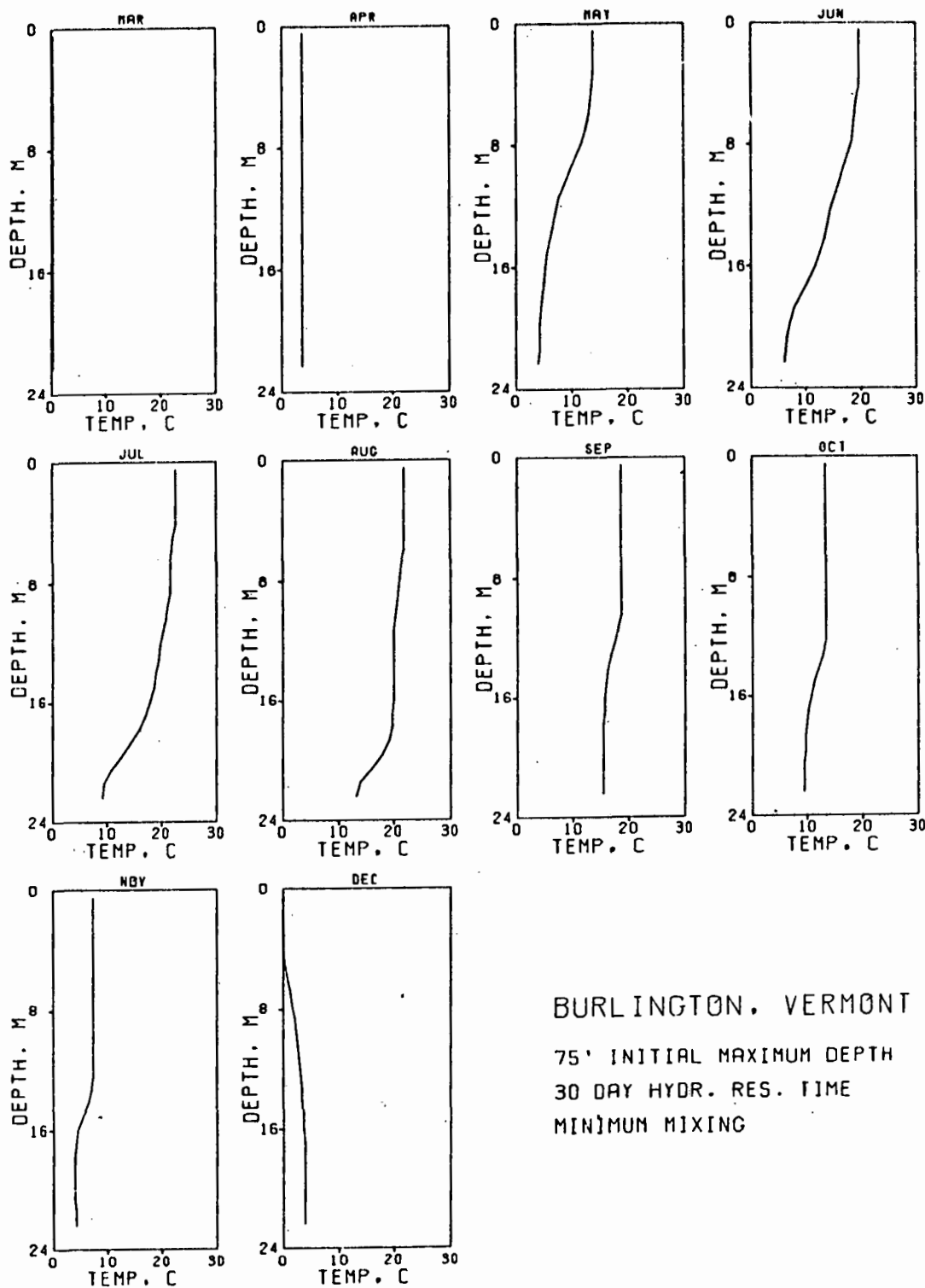
10 DAY HYOR. RES. TIME

MAXIMUM MIXING



BURLINGTON, VERMONT
 75' INITIAL MAXIMUM DEPTH
 10 DAY HYDR. RES. TIME
 MINIMUM MIXING



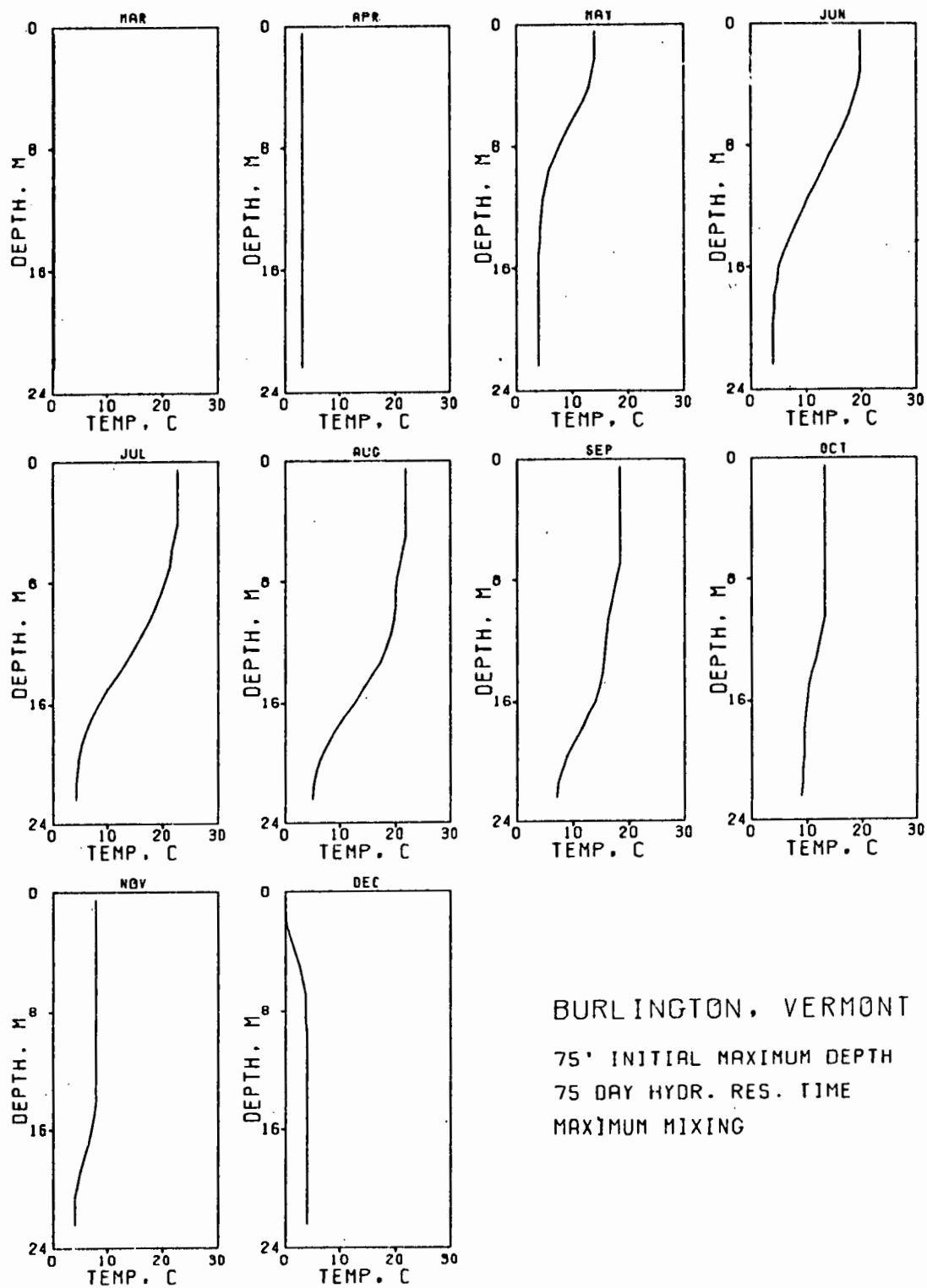


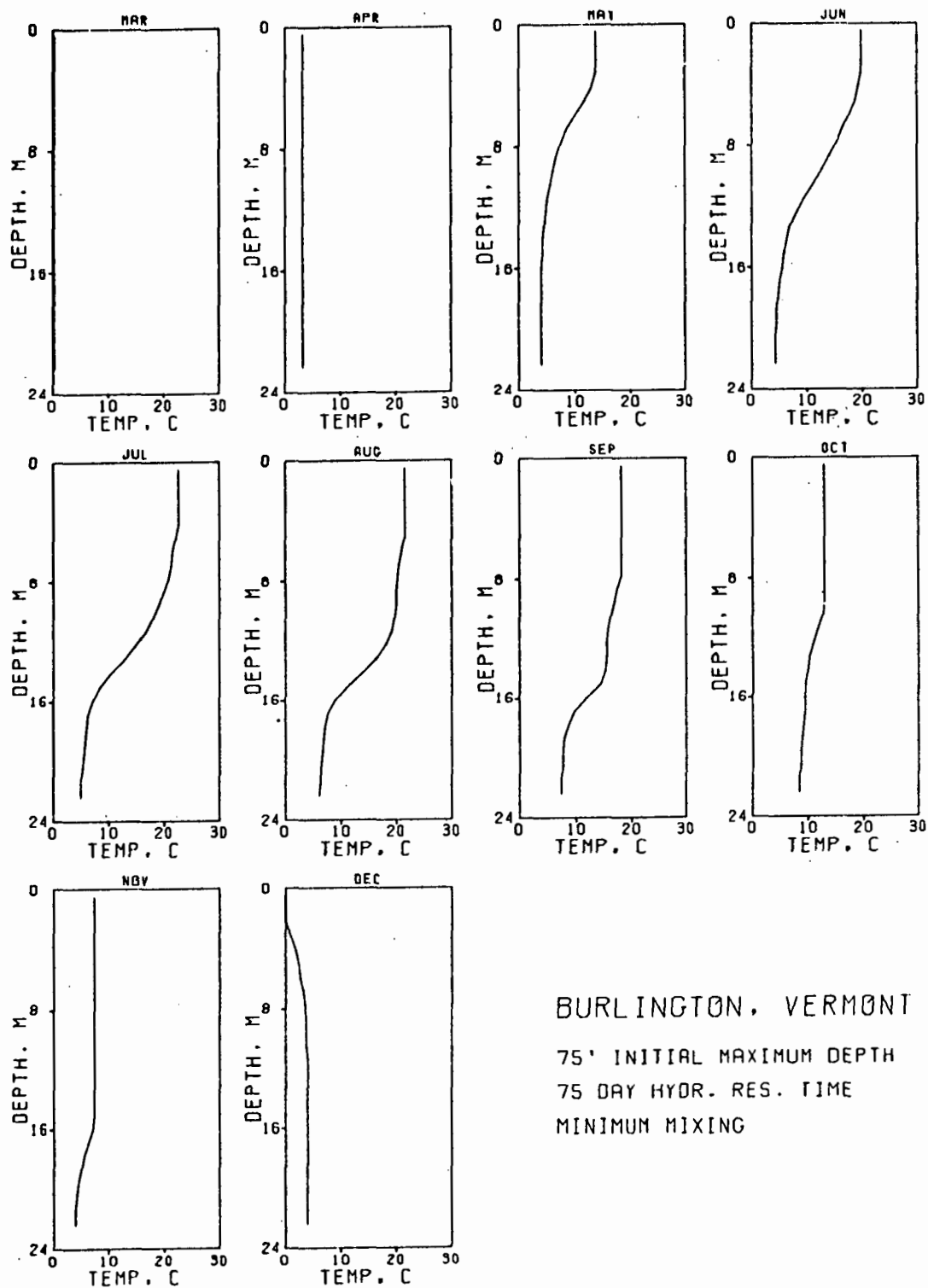
BURLINGTON, VERMONT

75' INITIAL MAXIMUM DEPTH

30 DAY HYDR. RES. TIME

MINIMUM MIXING



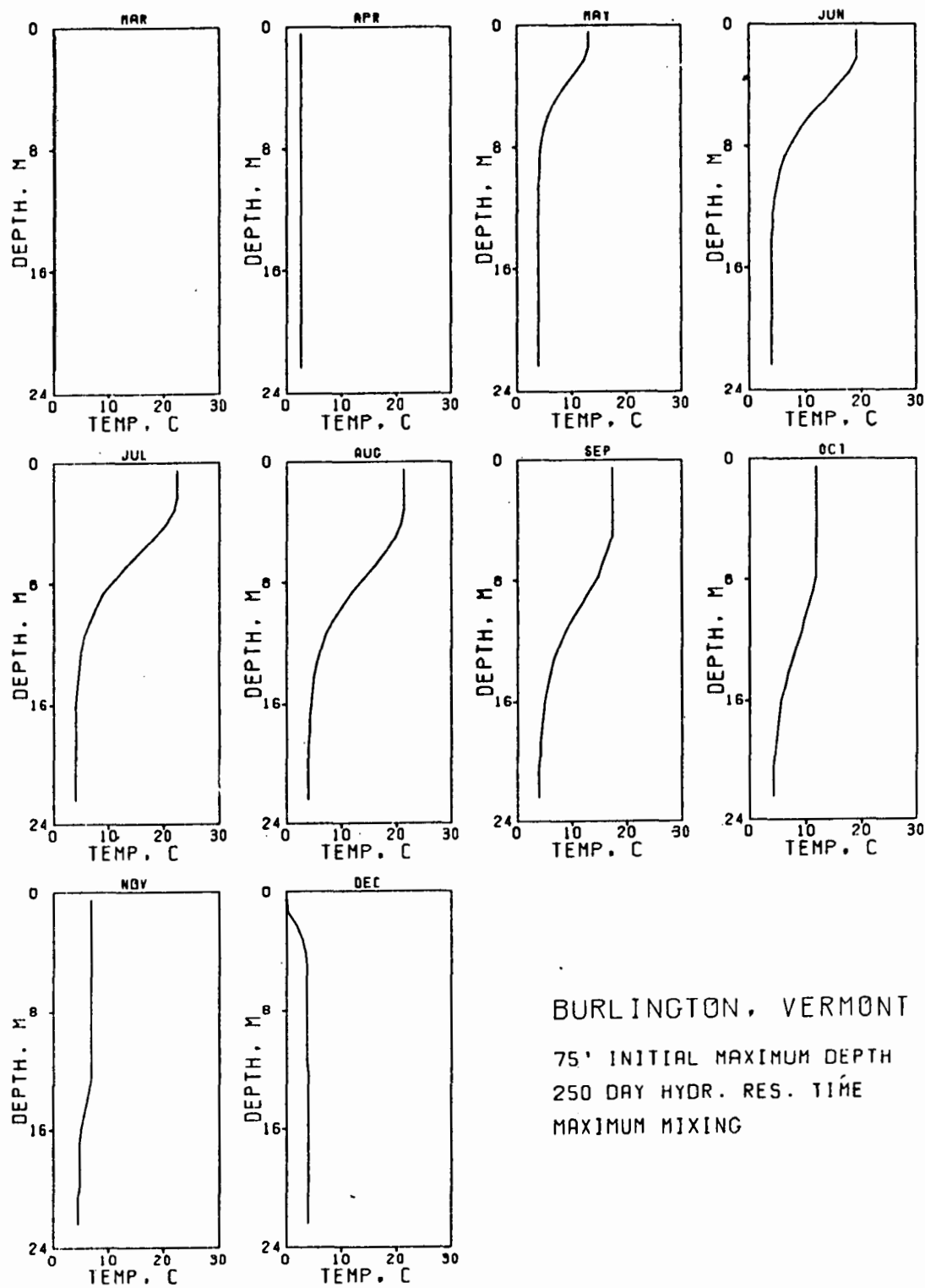


BURLINGTON, VERMONT

75' INITIAL MAXIMUM DEPTH

75 DAY HYDR. RES. TIME

MINIMUM MIXING

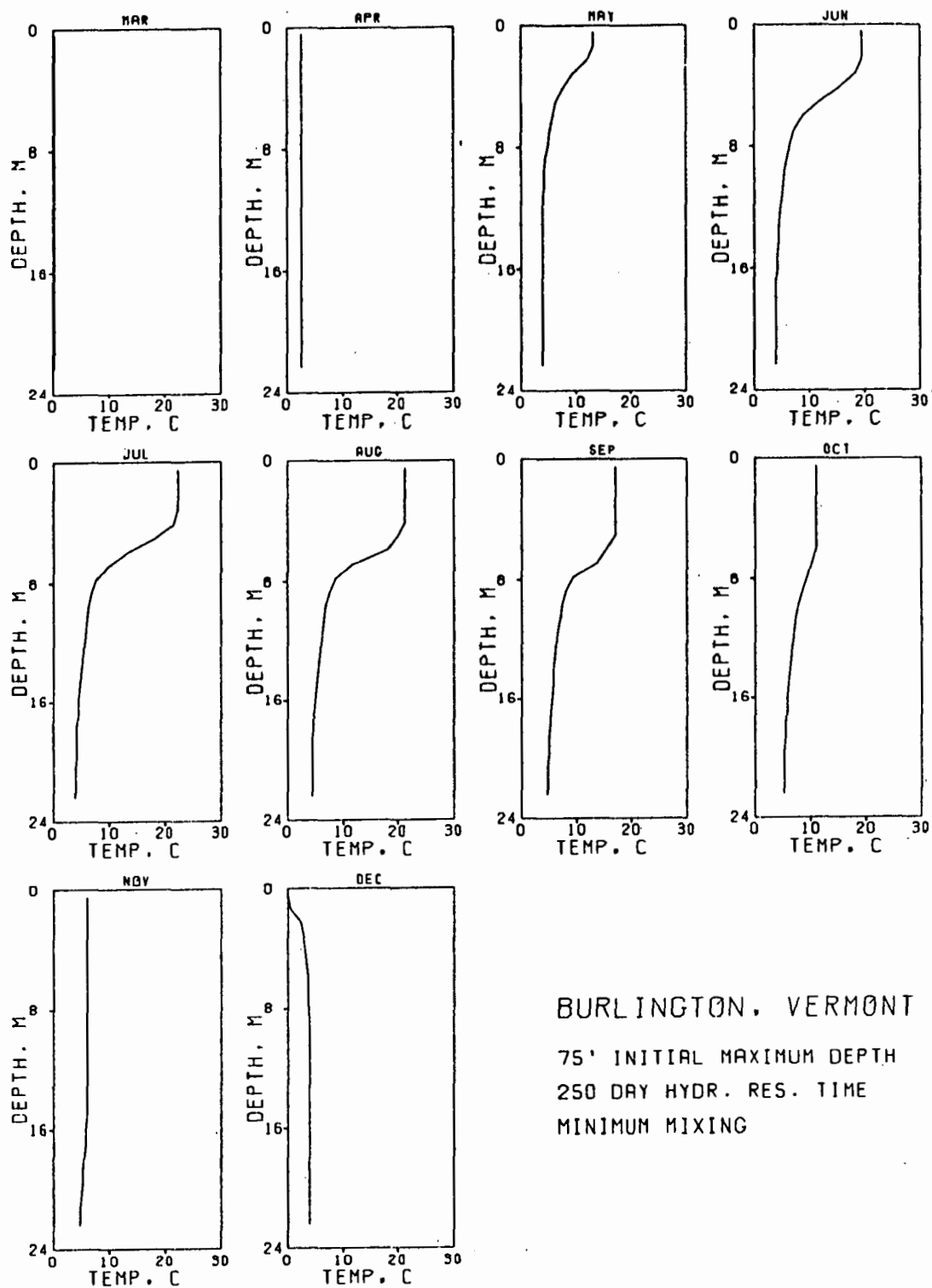


BURLINGTON, VERMONT

75' INITIAL MAXIMUM DEPTH

250 DAY HYDR. RES. TIME

MAXIMUM MIXING

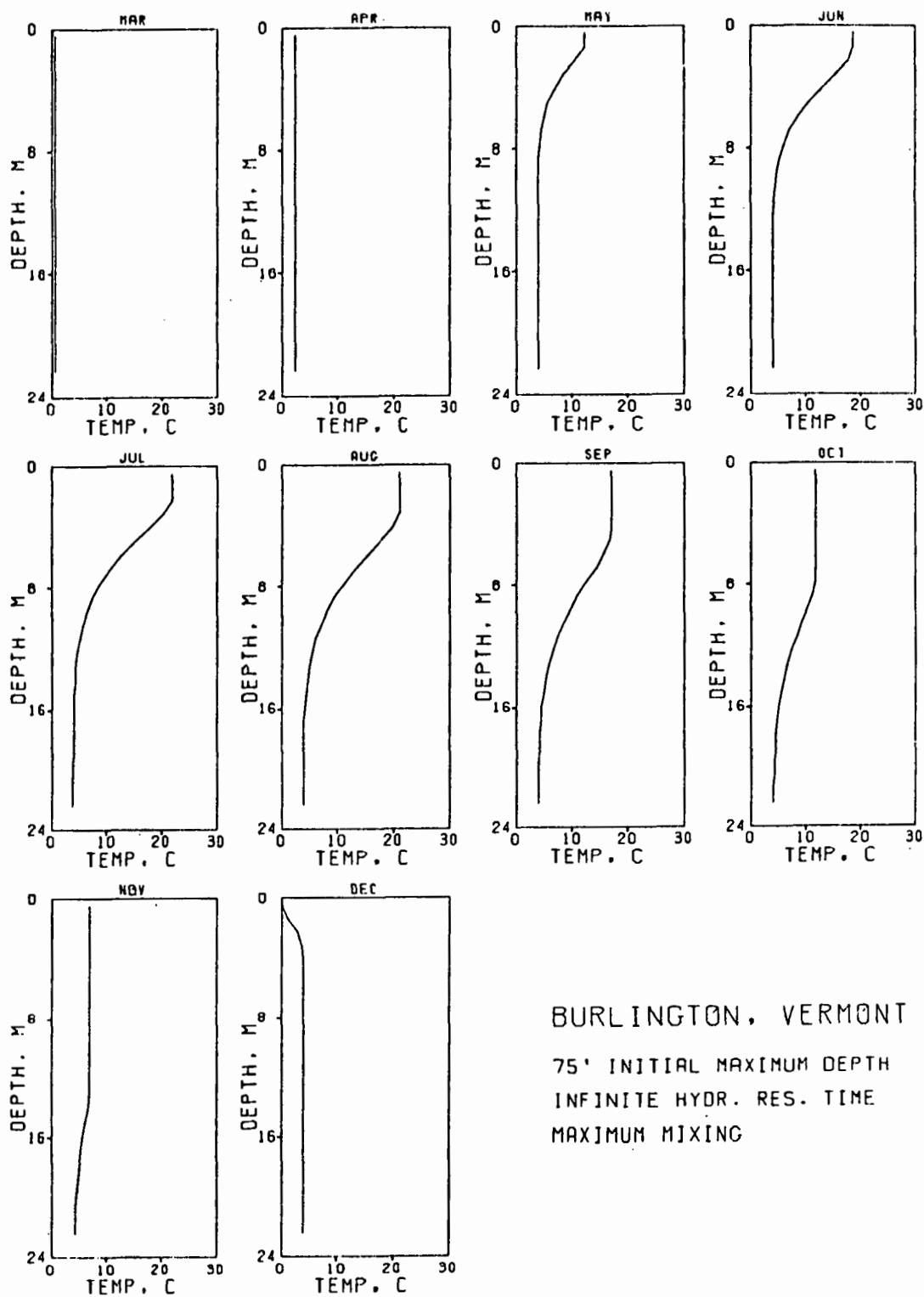


BURLINGTON, VERMONT

75' INITIAL MAXIMUM DEPTH

250 DAY HYDR. RES. TIME

MINIMUM MIXING

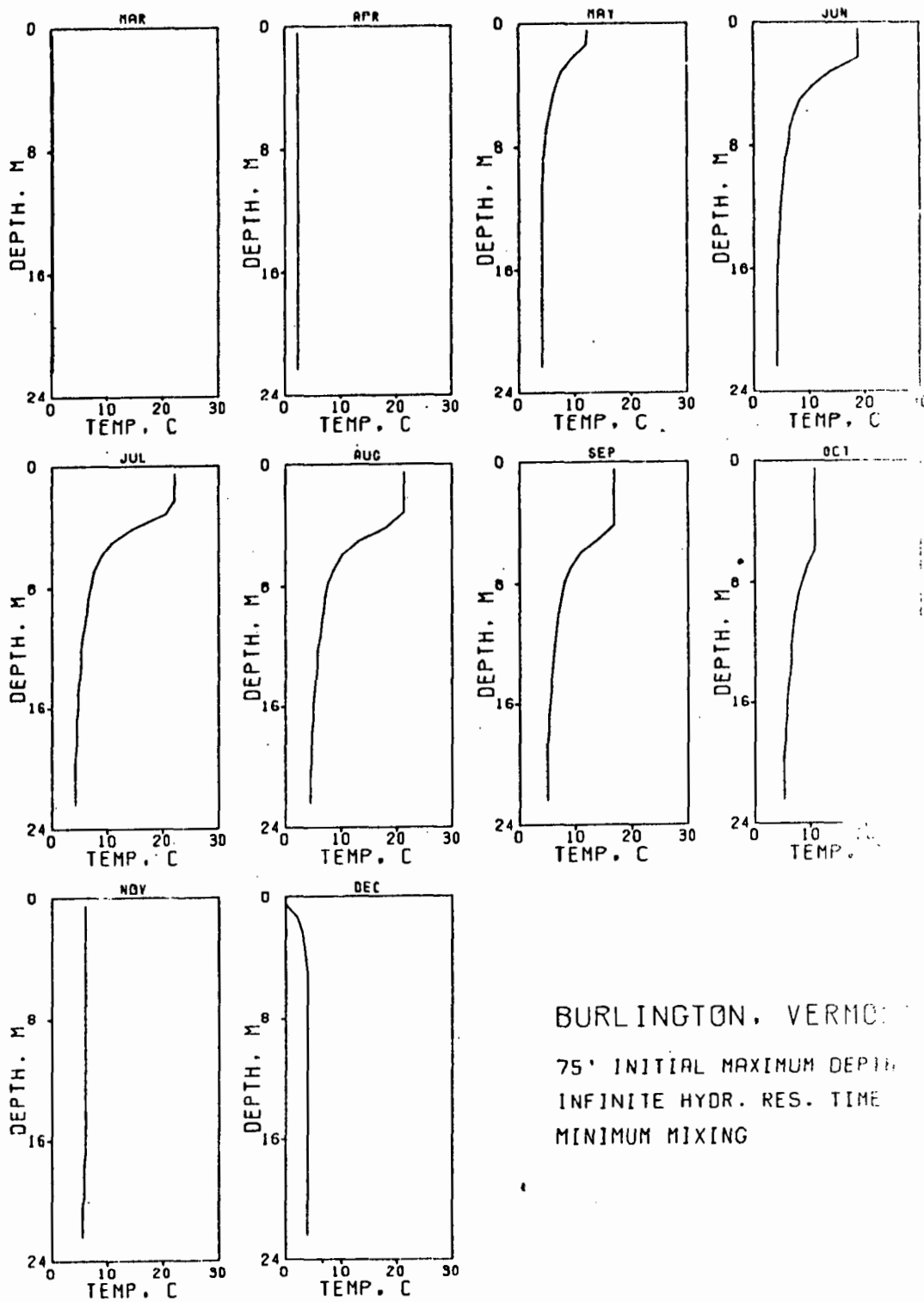


BURLINGTON, VERMONT

75' INITIAL MAXIMUM DEPTH

INFINITE HYDR. RES. TIME

MAXIMUM MIXING

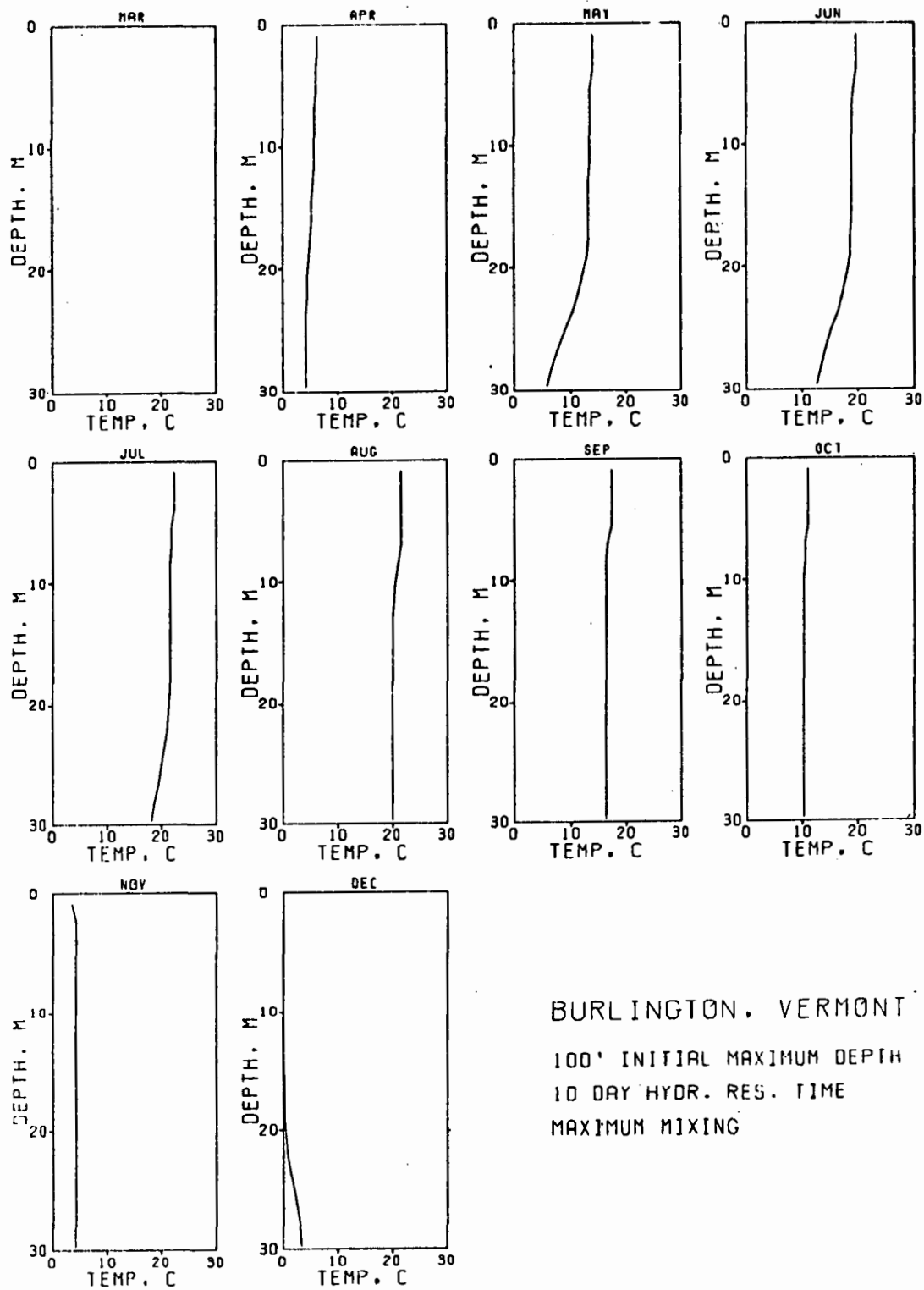


BURLINGTON, VERMONT

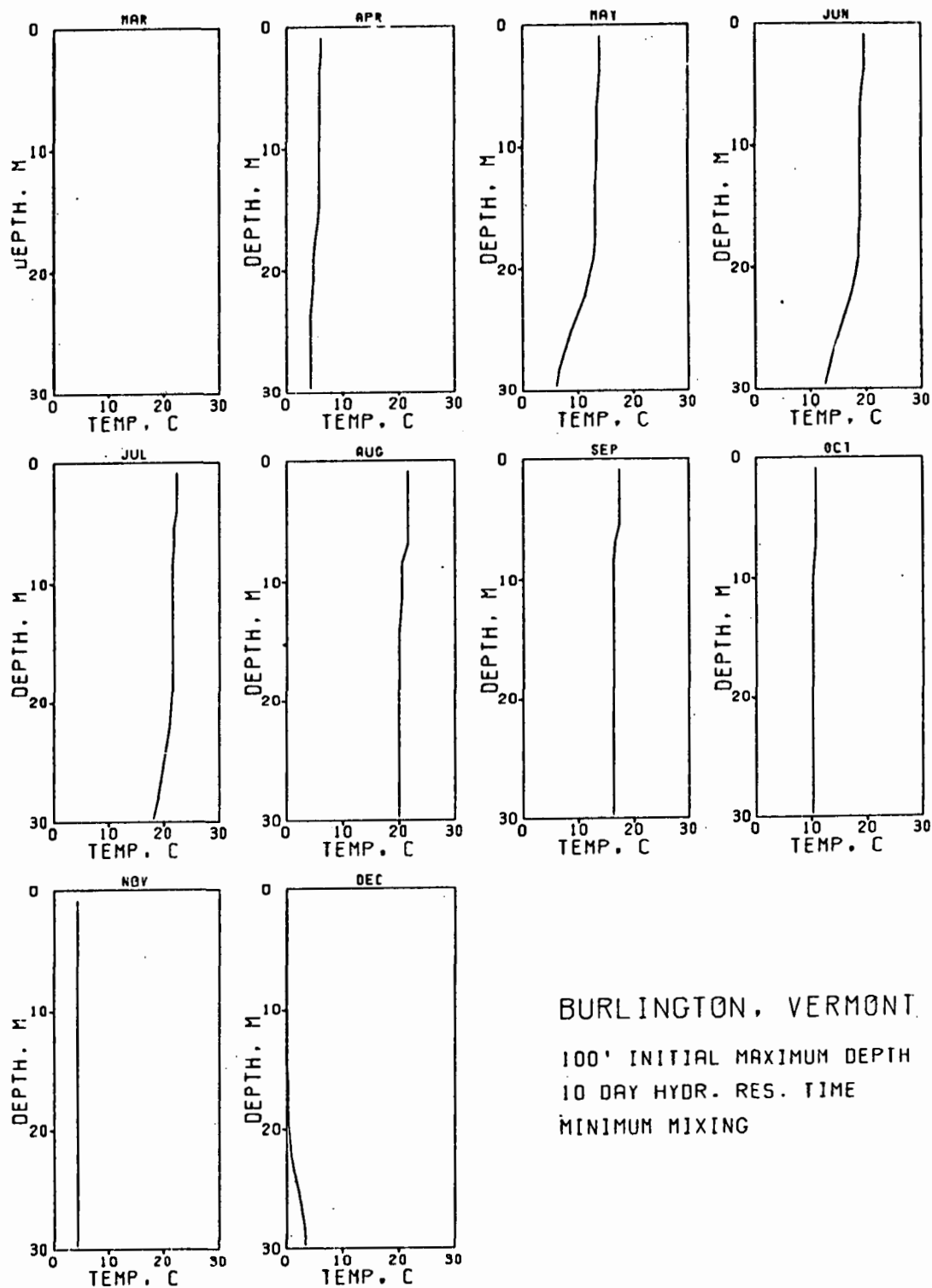
75' INITIAL MAXIMUM DEPTH

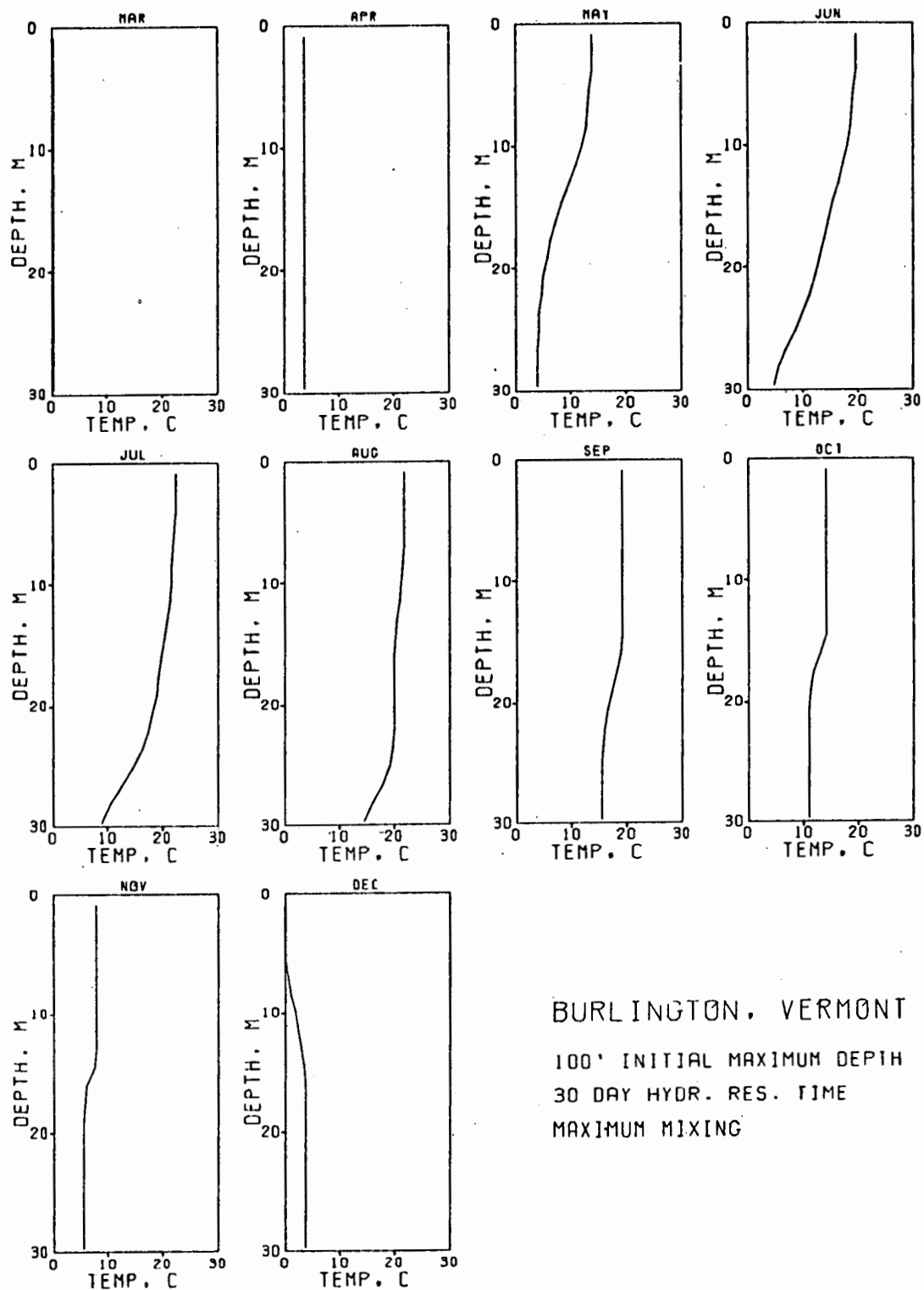
INFINITE HYDR. RES. TIME

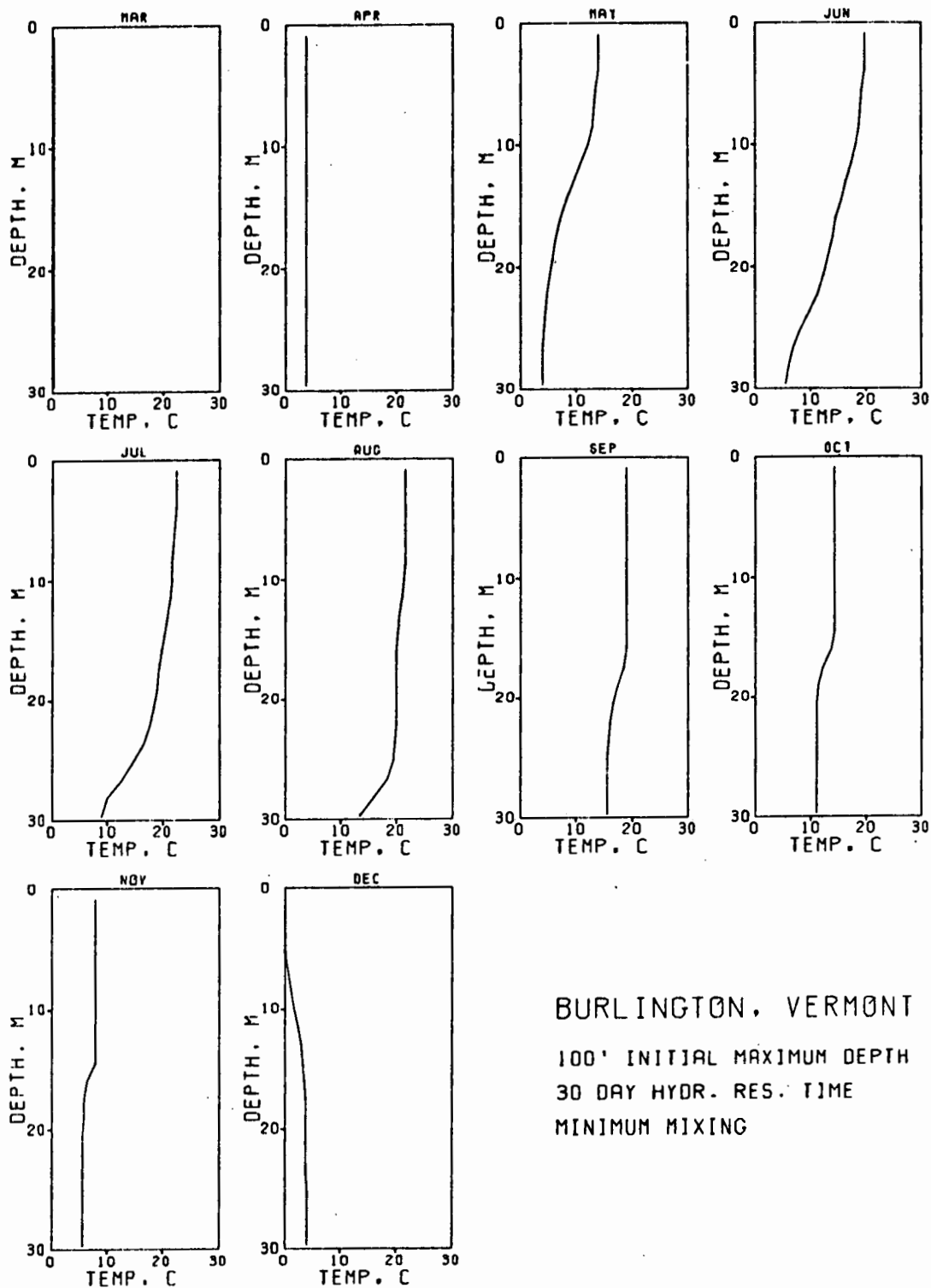
MINIMUM MIXING



BURLINGTON, VERMONT
 100' INITIAL MAXIMUM DEPTH
 10 DAY HYDR. RES. TIME
 MAXIMUM MIXING





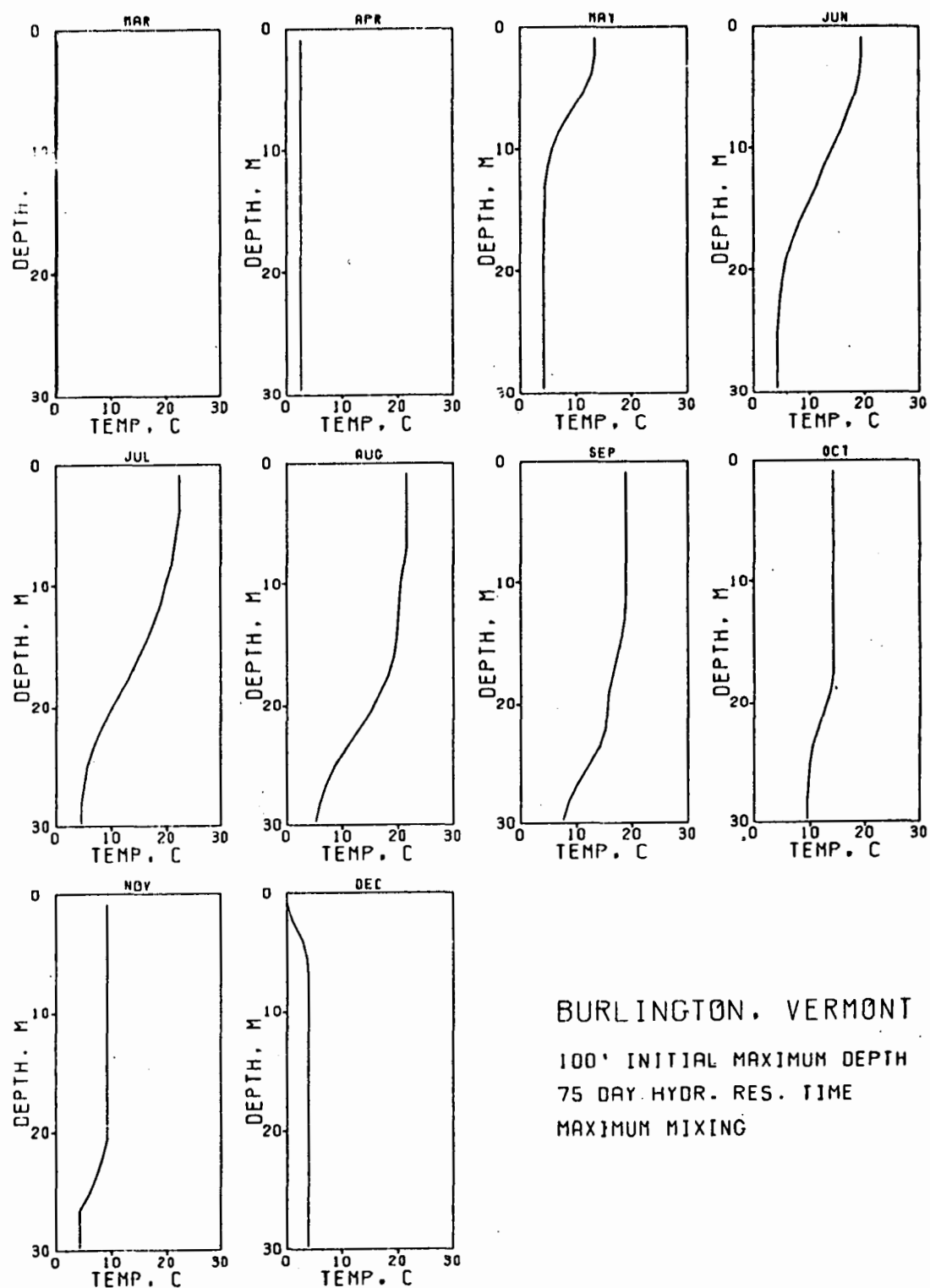


BURLINGTON, VERMONT

100' INITIAL MAXIMUM DEPTH

30 DAY HYDR. RES. TIME

MINIMUM MIXING

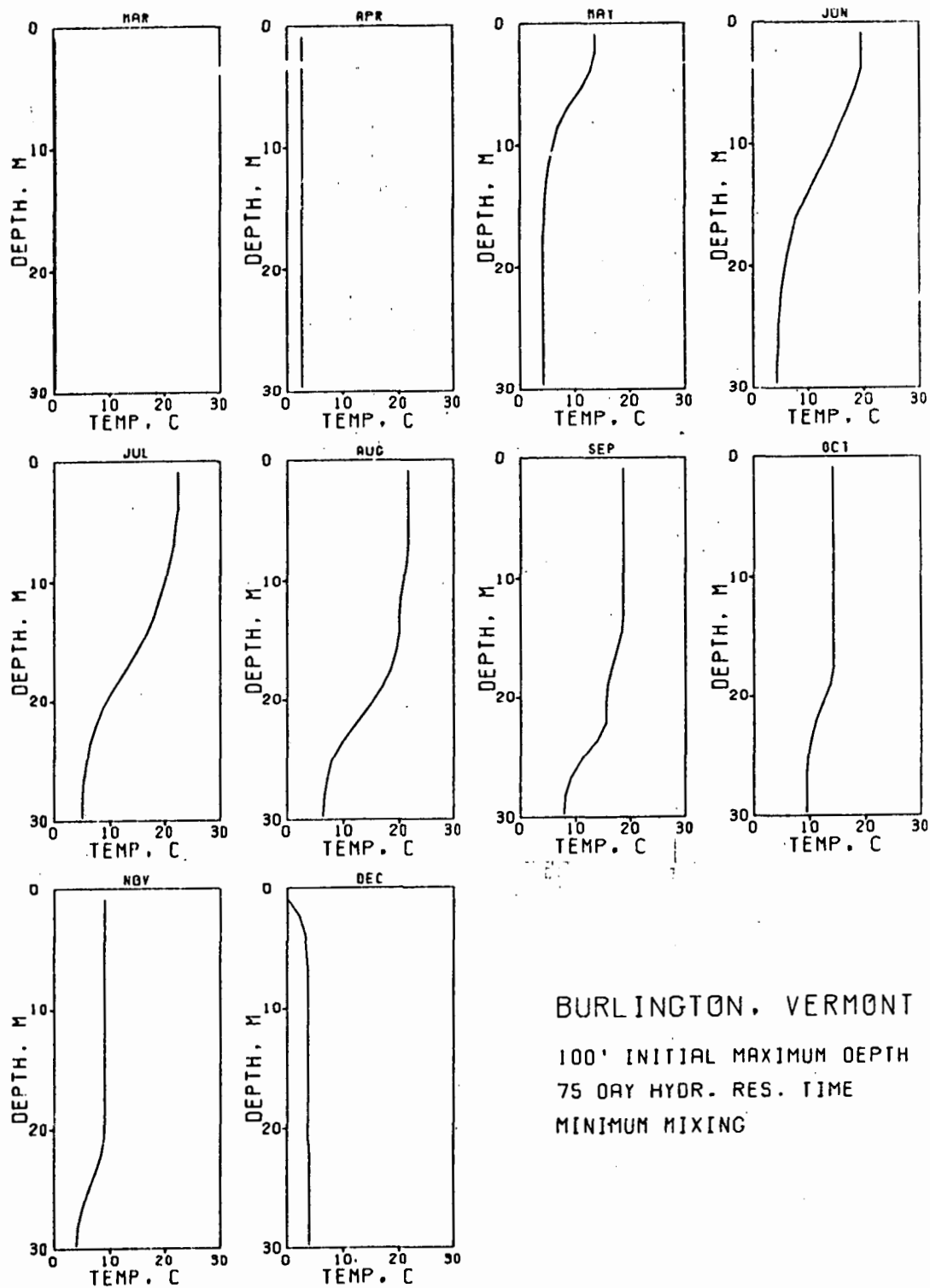


BURLINGTON, VERMONT

100' INITIAL MAXIMUM DEPTH

75 DAY HYDR. RES. TIME

MAXIMUM MIXING

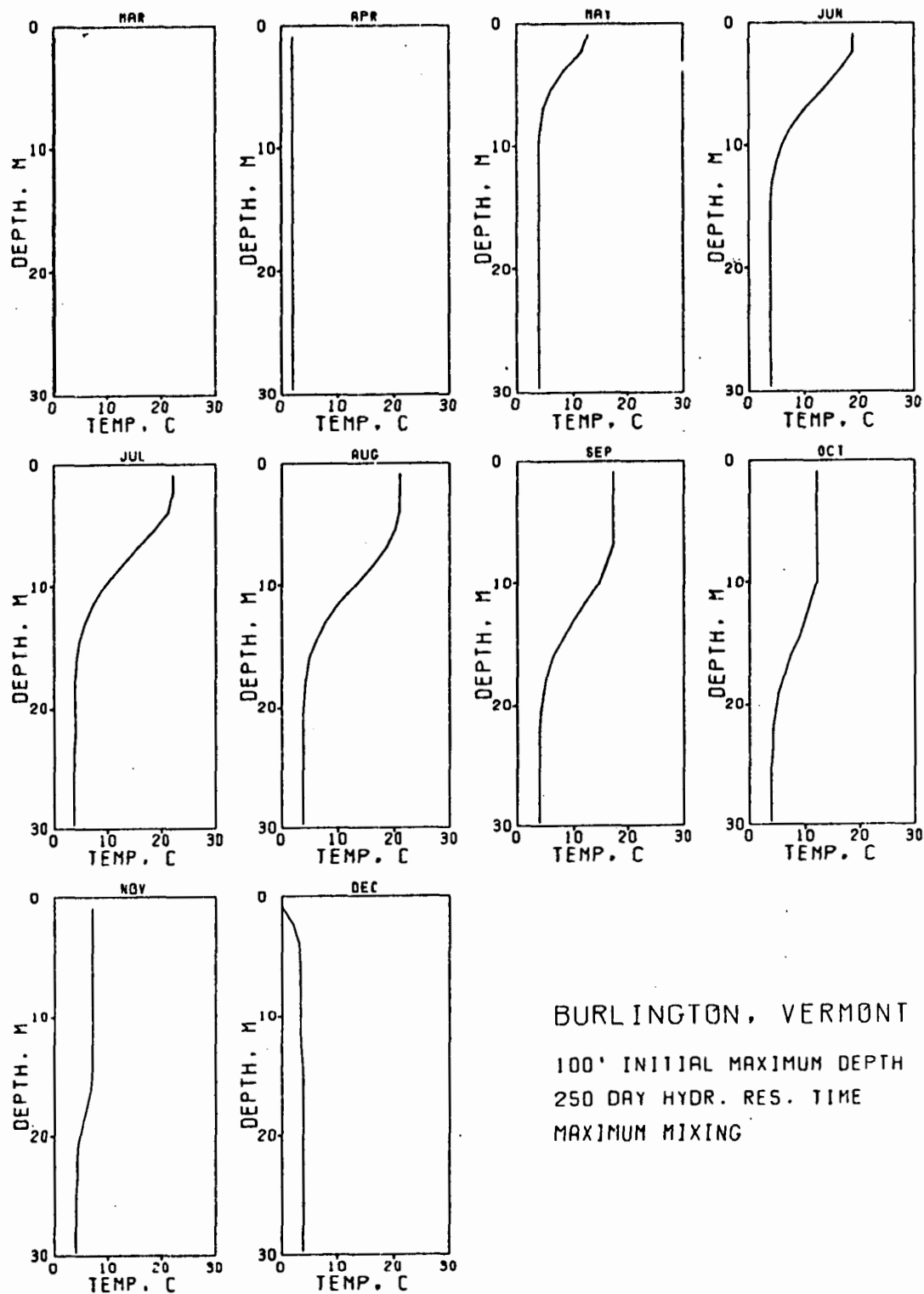


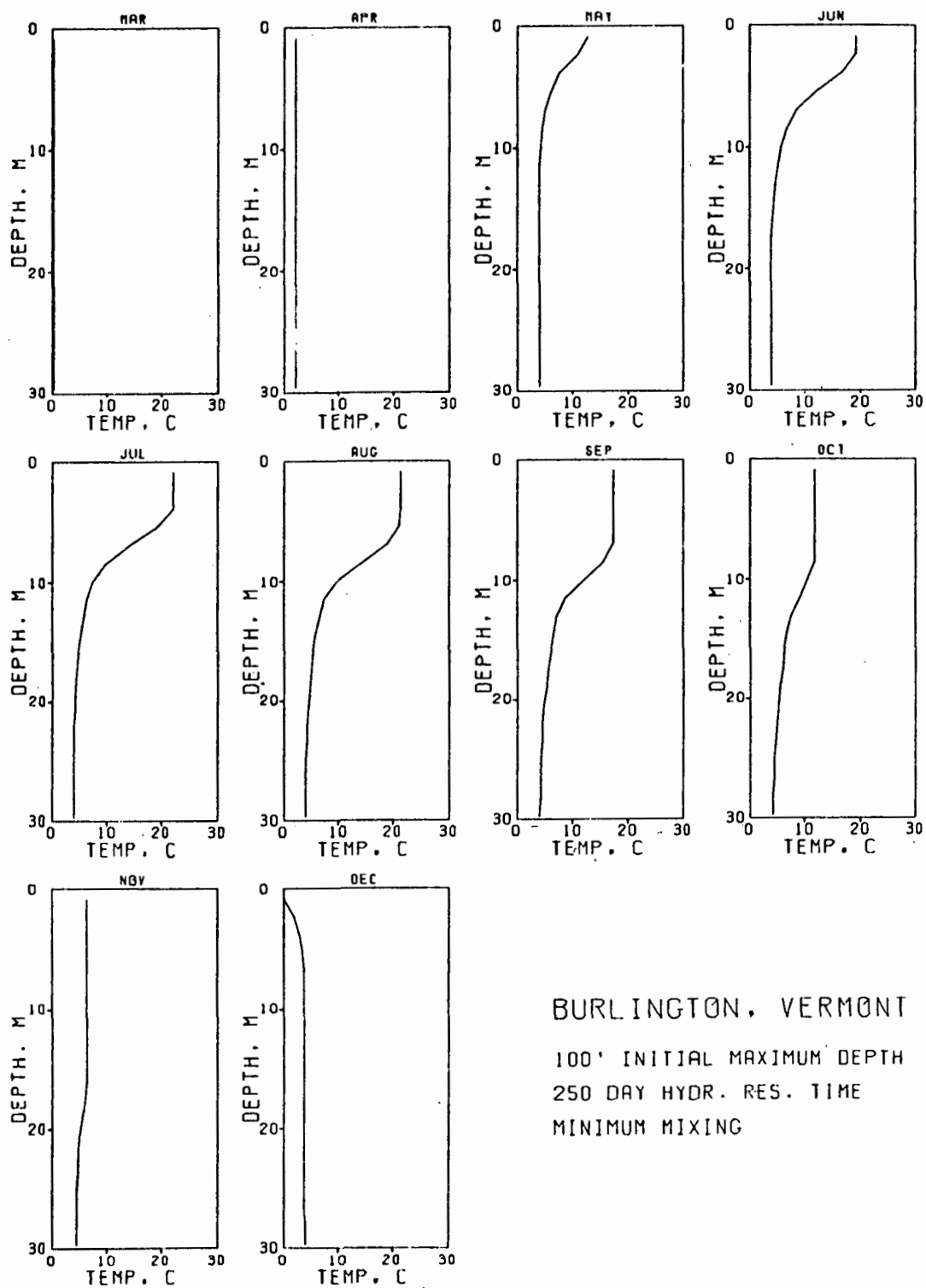
BURLINGTON, VERMONT

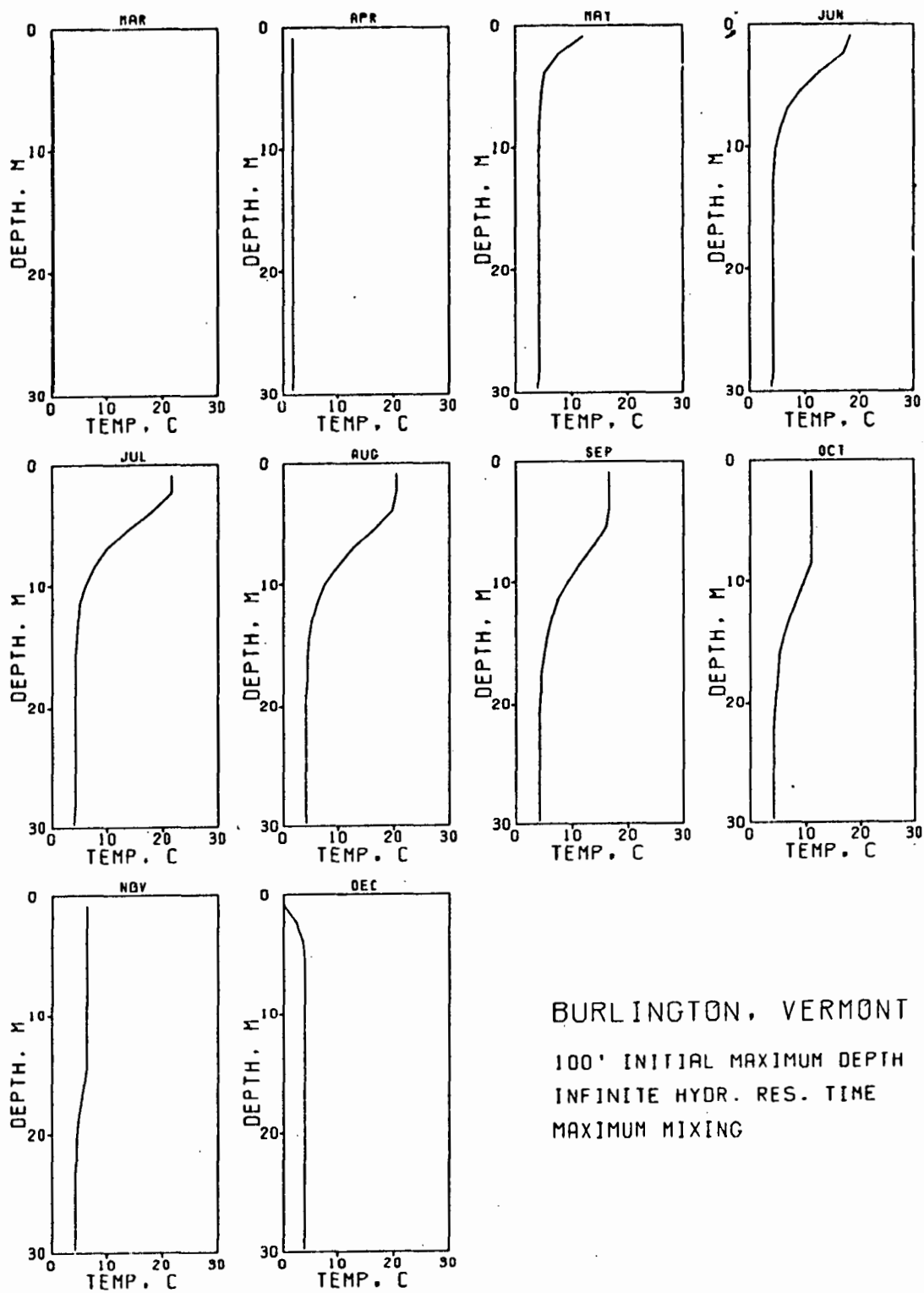
100' INITIAL MAXIMUM DEPTH

75 DAY HYDR. RES. TIME

MINIMUM MIXING





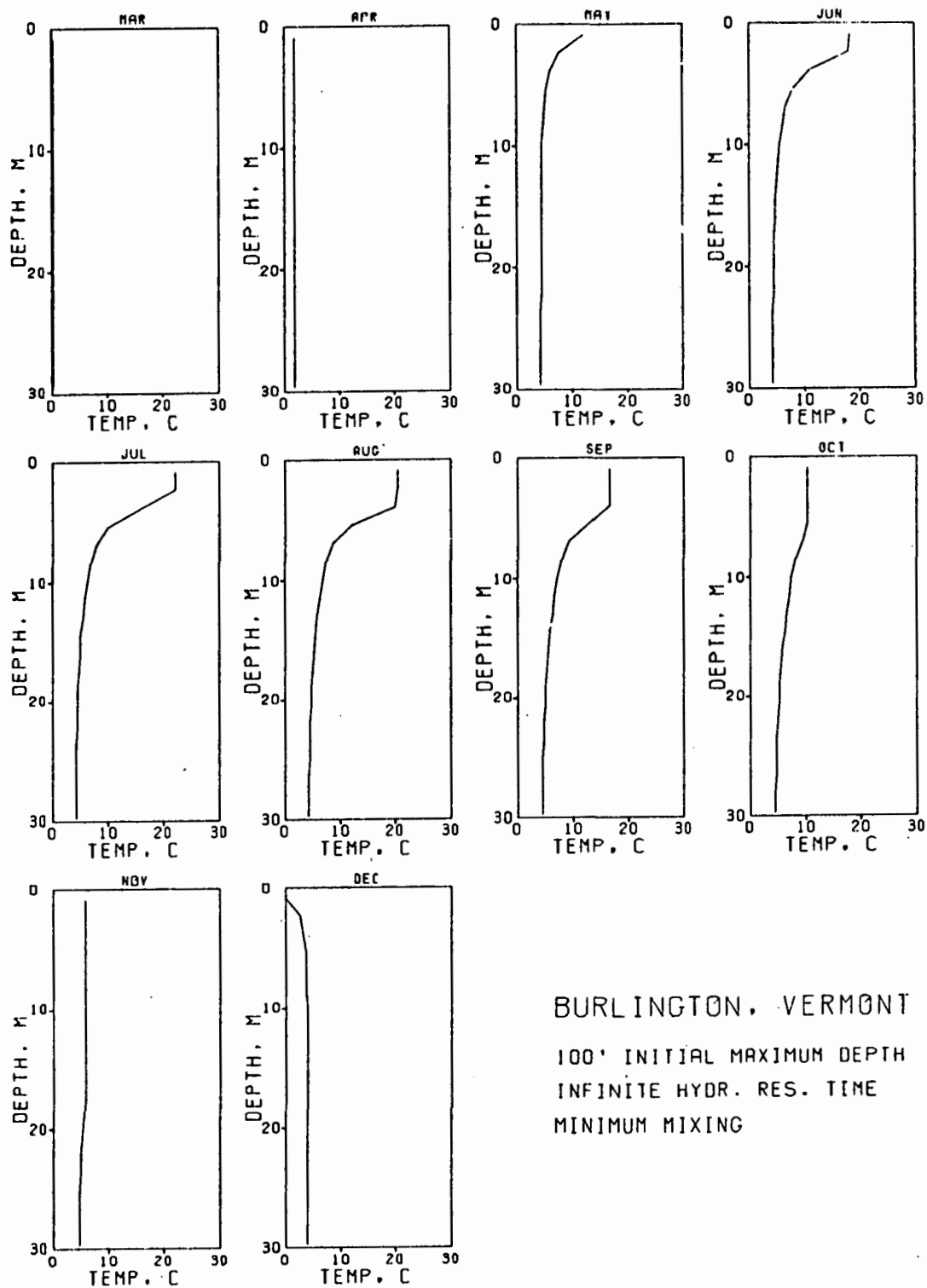


BURLINGTON, VERMONT

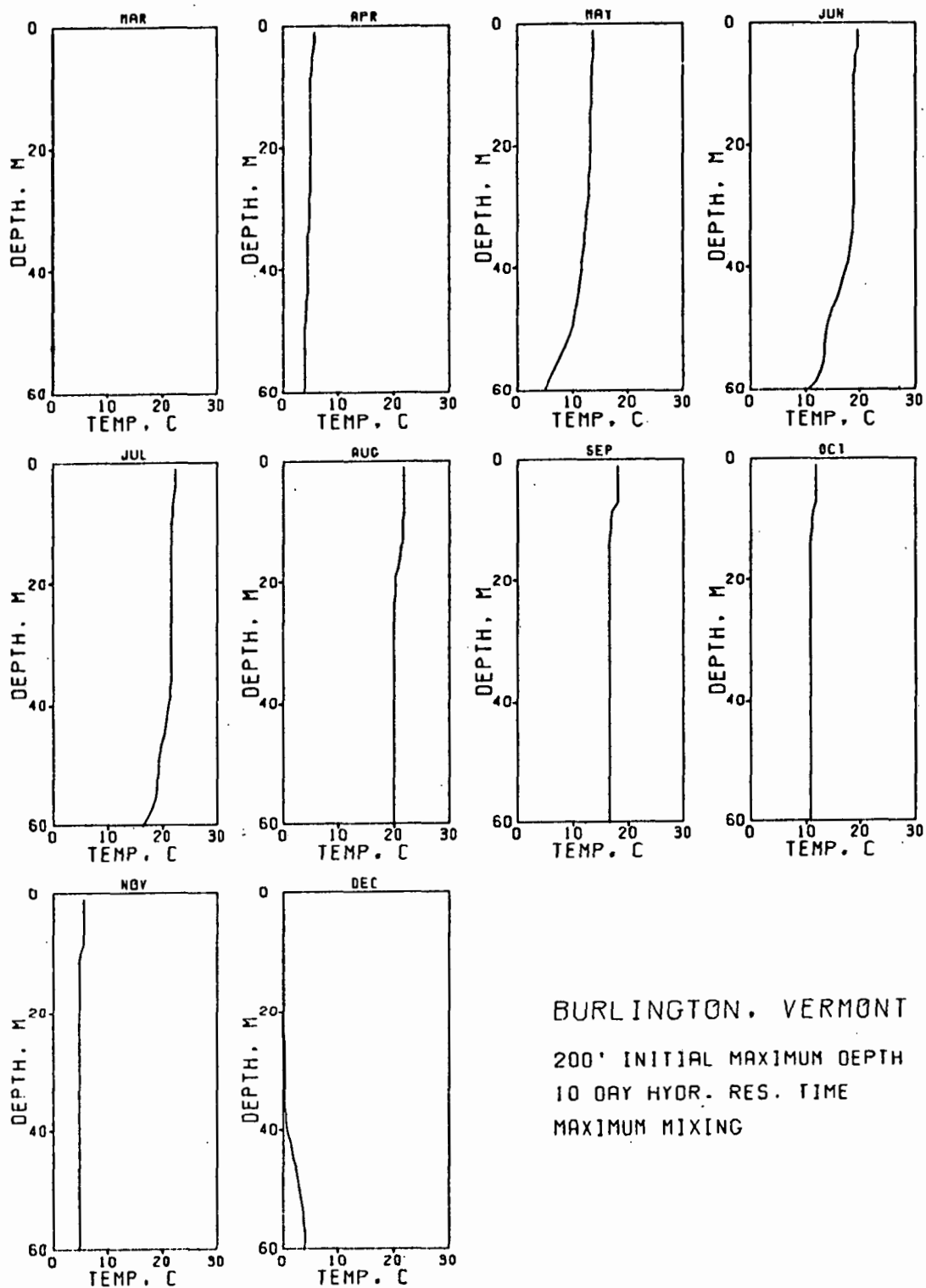
100' INITIAL MAXIMUM DEPTH

INFINITE HYDR. RES. TIME

MAXIMUM MIXING



BURLINGTON, VERMONT
 100' INITIAL MAXIMUM DEPTH
 INFINITE HYDR. RES. TIME
 MINIMUM MIXING

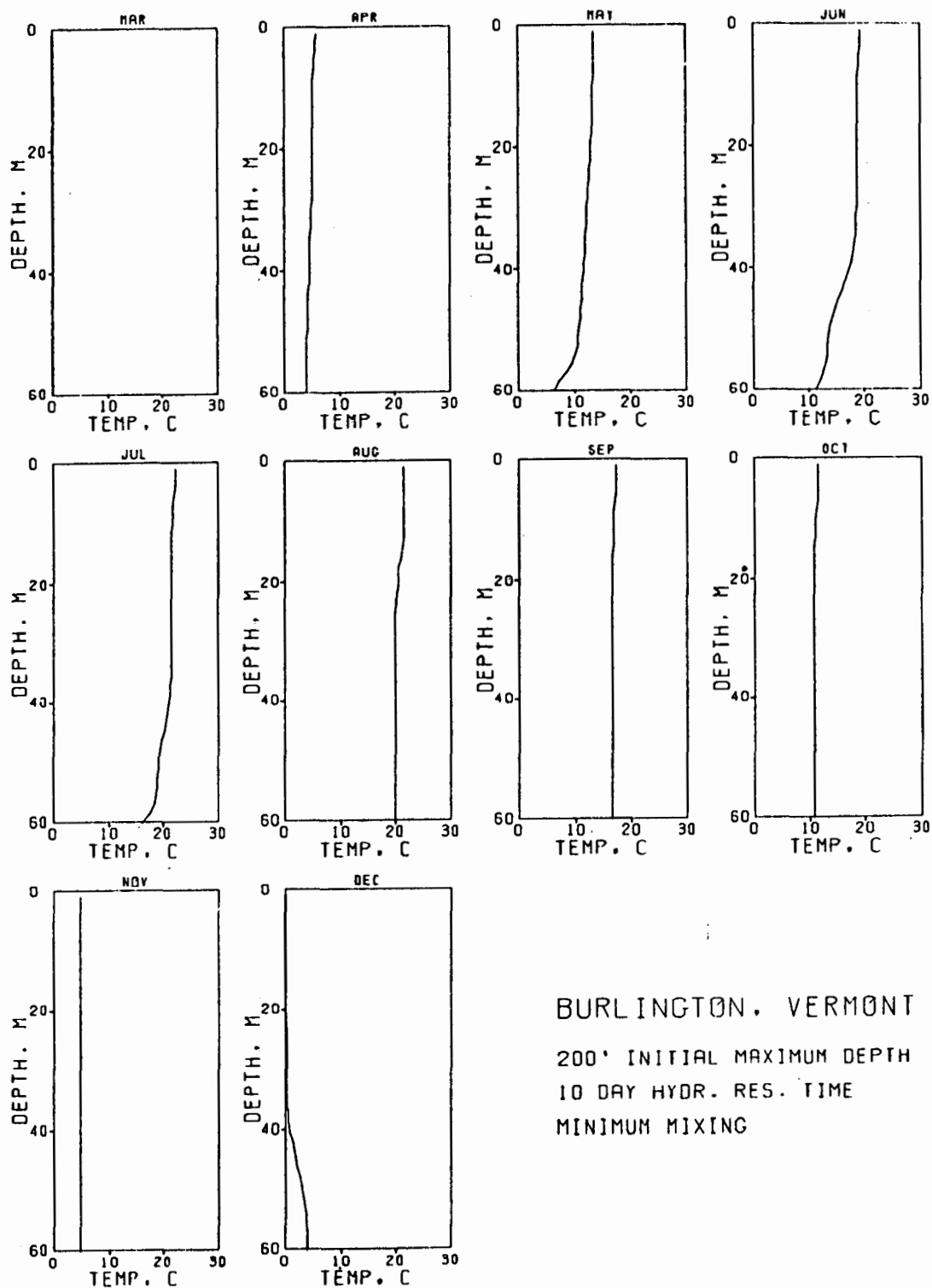


BURLINGTON, VERMONT

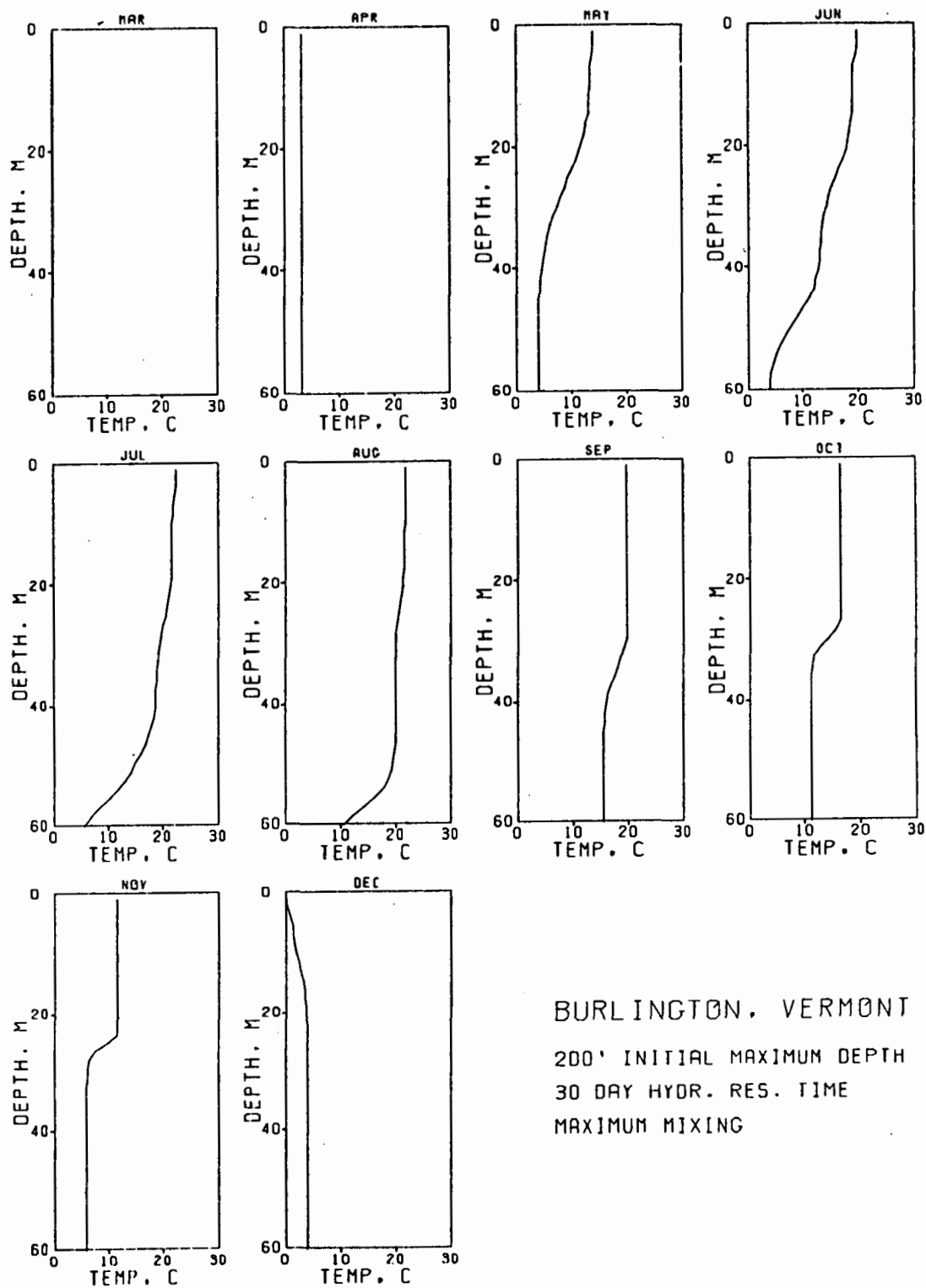
200' INITIAL MAXIMUM DEPTH

10 DAY HYDR. RES. TIME

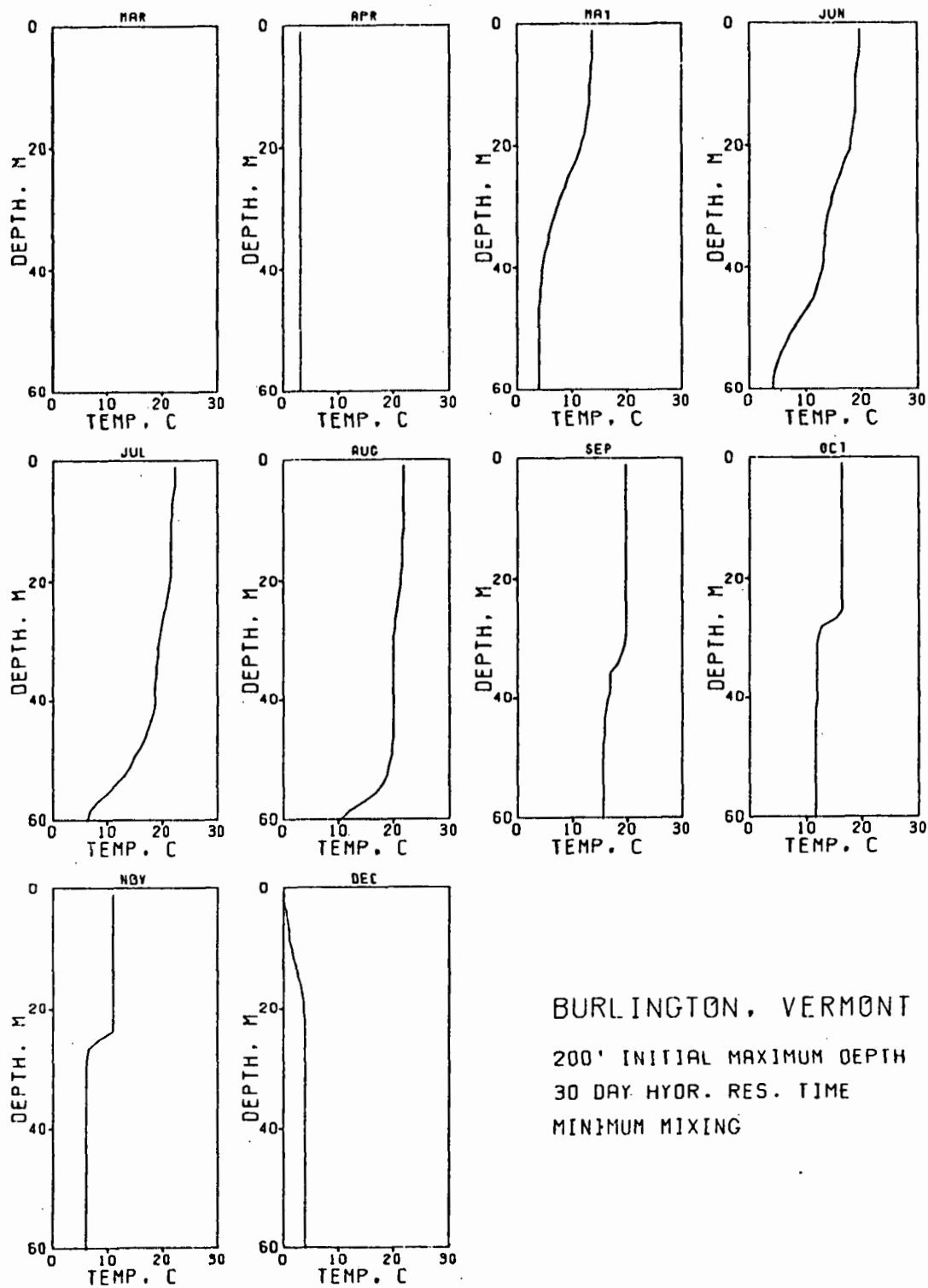
MAXIMUM MIXING



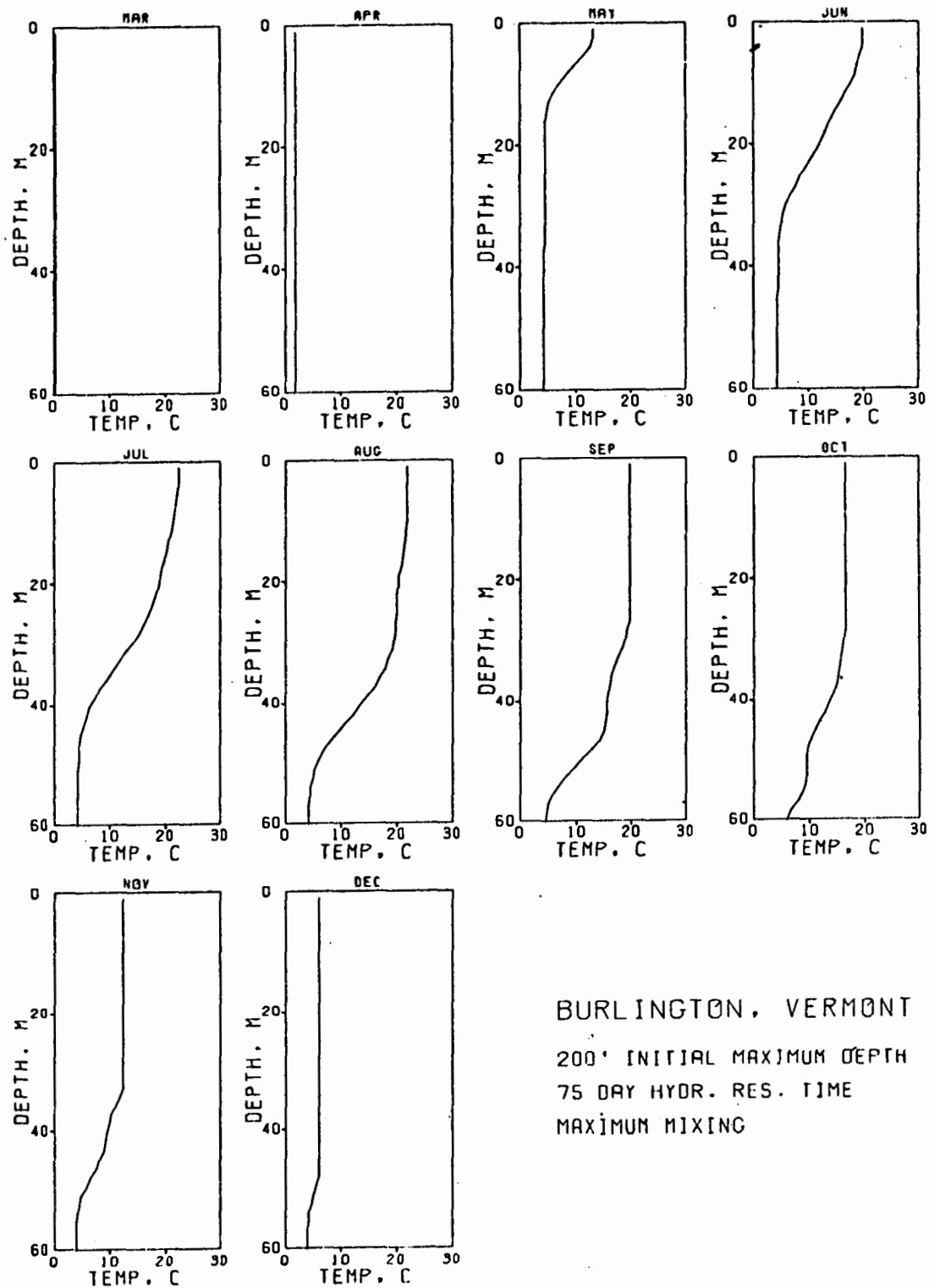
BURLINGTON, VERMONT
 200' INITIAL MAXIMUM DEPTH
 10 DAY HYDR. RES. TIME
 MINIMUM MIXING



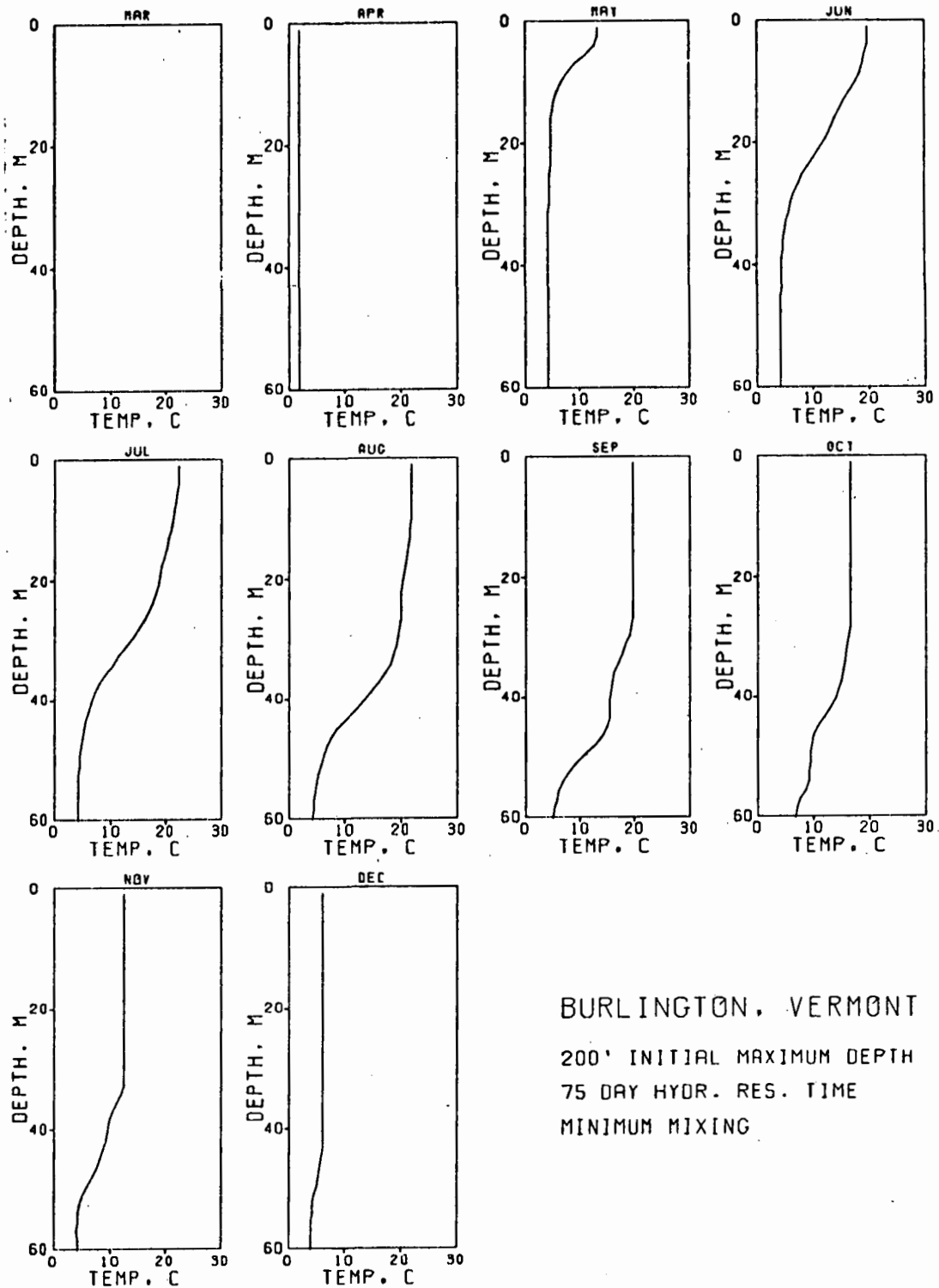
BURLINGTON, VERMONT
 200' INITIAL MAXIMUM DEPTH
 30 DAY HYDR. RES. TIME
 MAXIMUM MIXING



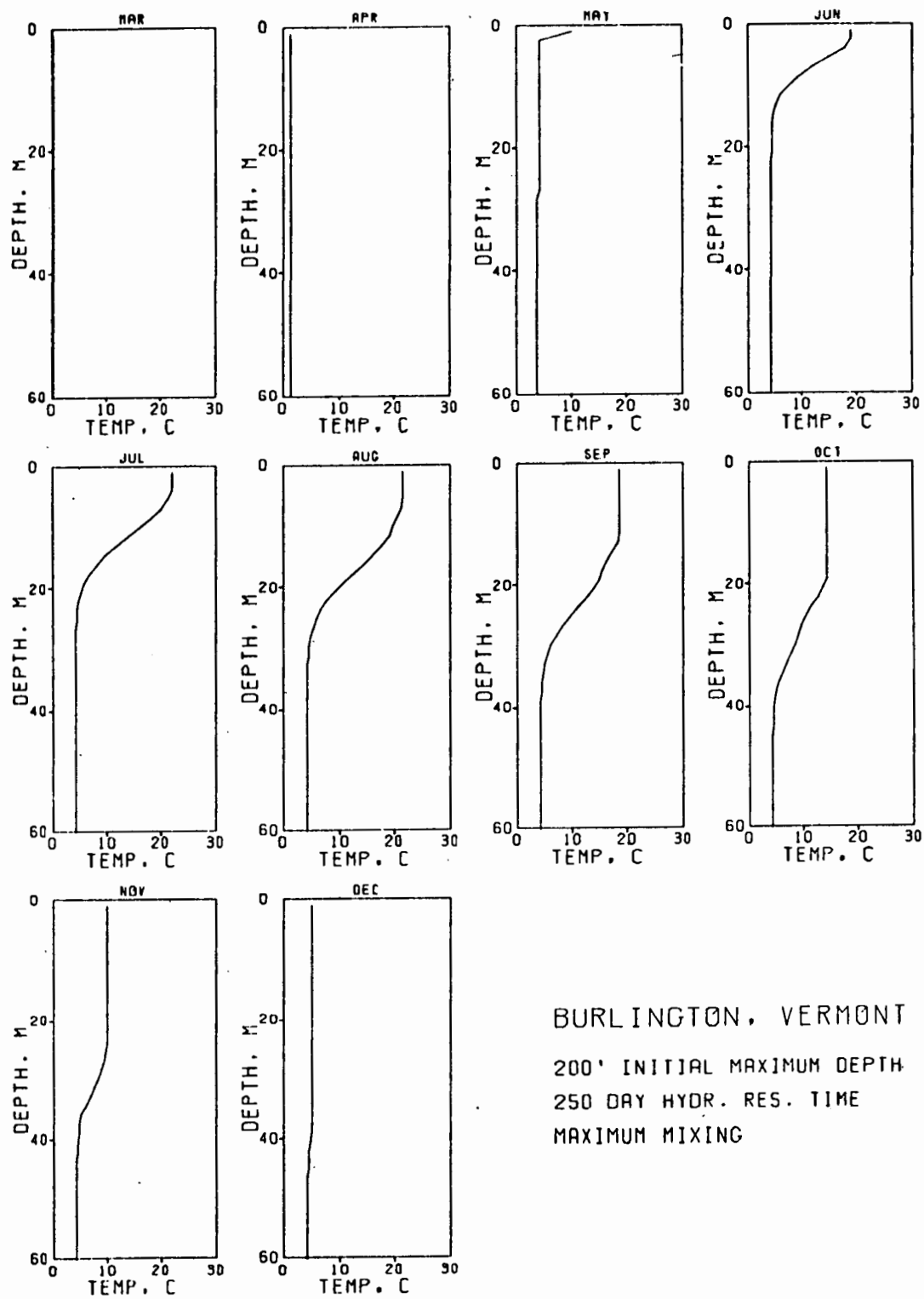
BURLINGTON, VERMONT
 200' INITIAL MAXIMUM DEPTH
 30 DAY HYOR. RES. TIME
 MINIMUM MIXING

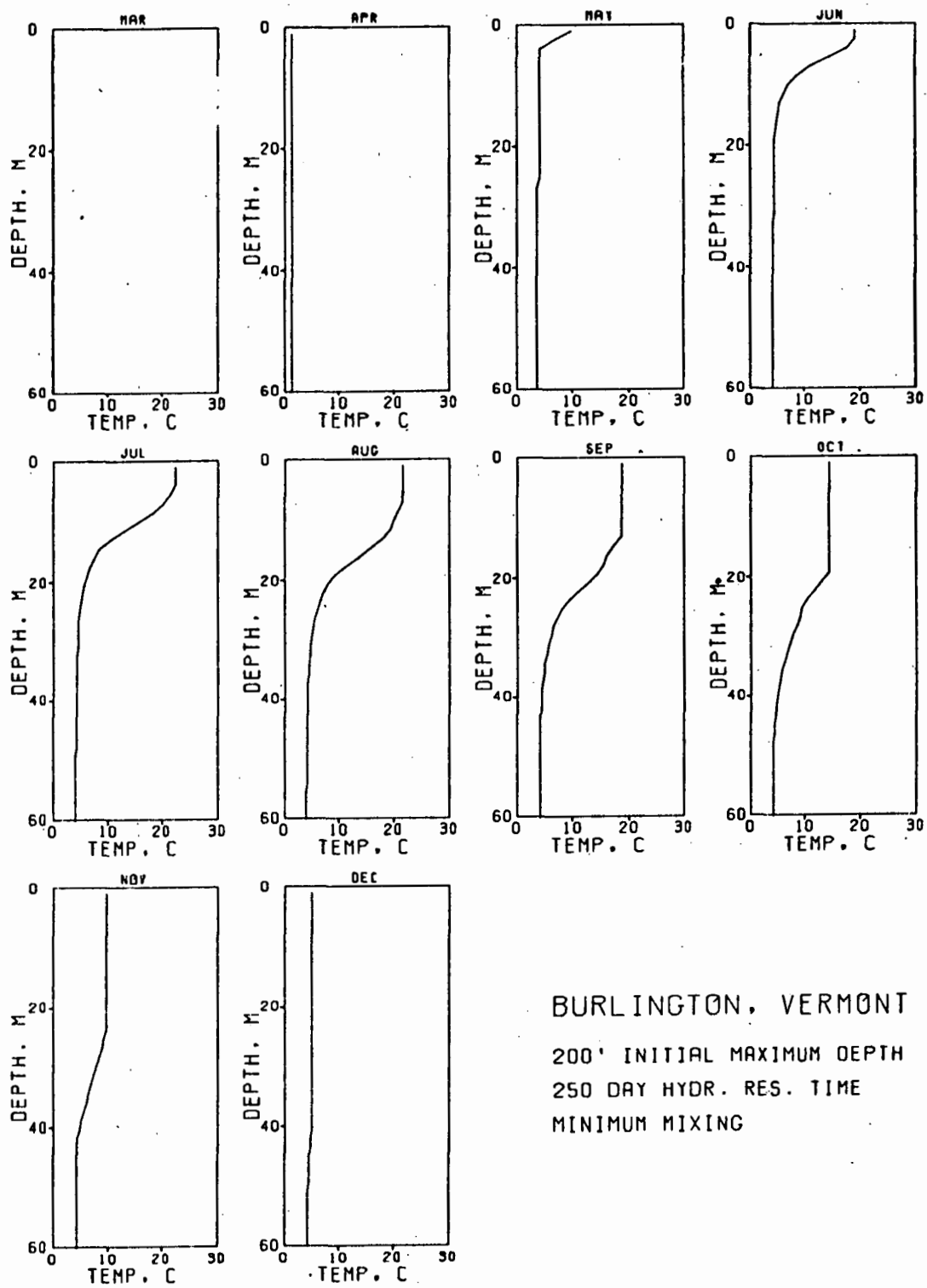


BURLINGTON, VERMONT
 200' INITIAL MAXIMUM DEPTH
 75 DAY HYDR. RES. TIME
 MAXIMUM MIXING

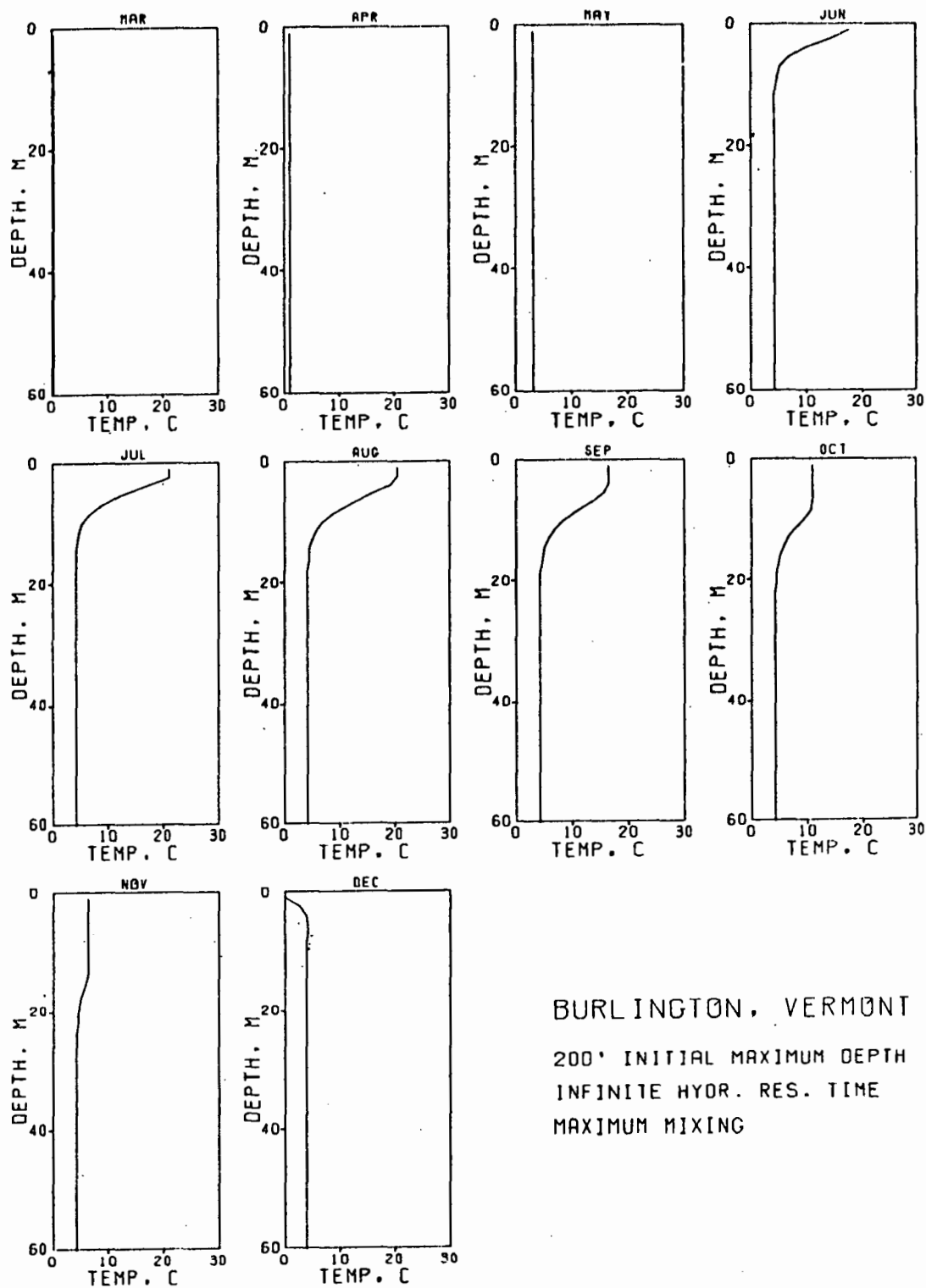


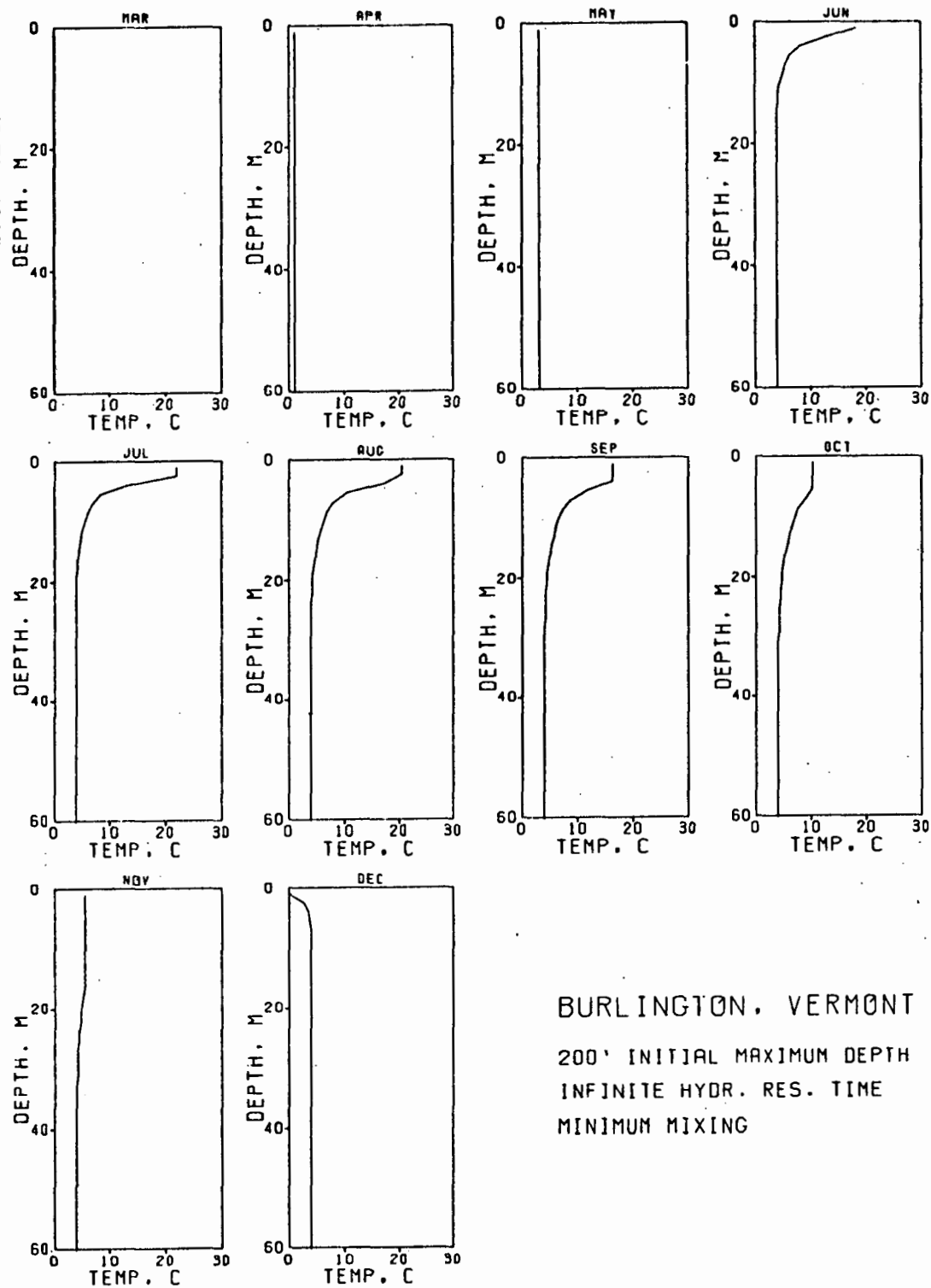
BURLINGTON, VERMONT
 200' INITIAL MAXIMUM DEPTH
 75 DAY HYDR. RES. TIME
 MINIMUM MIXING





BURLINGTON, VERMONT
 200' INITIAL MAXIMUM DEPTH
 250 DAY HYDR. RES. TIME
 MINIMUM MIXING



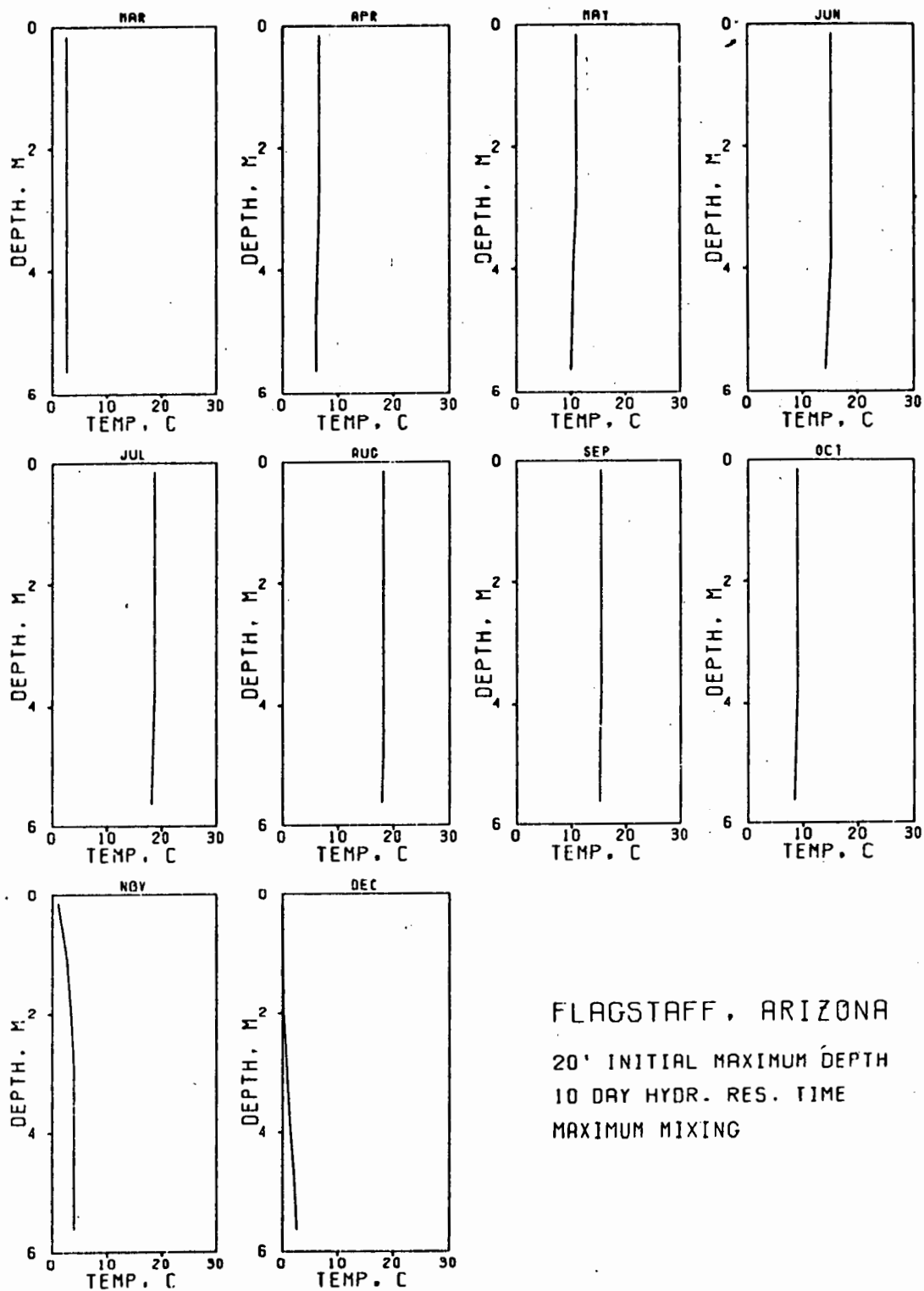


BURLINGTON, VERMONT

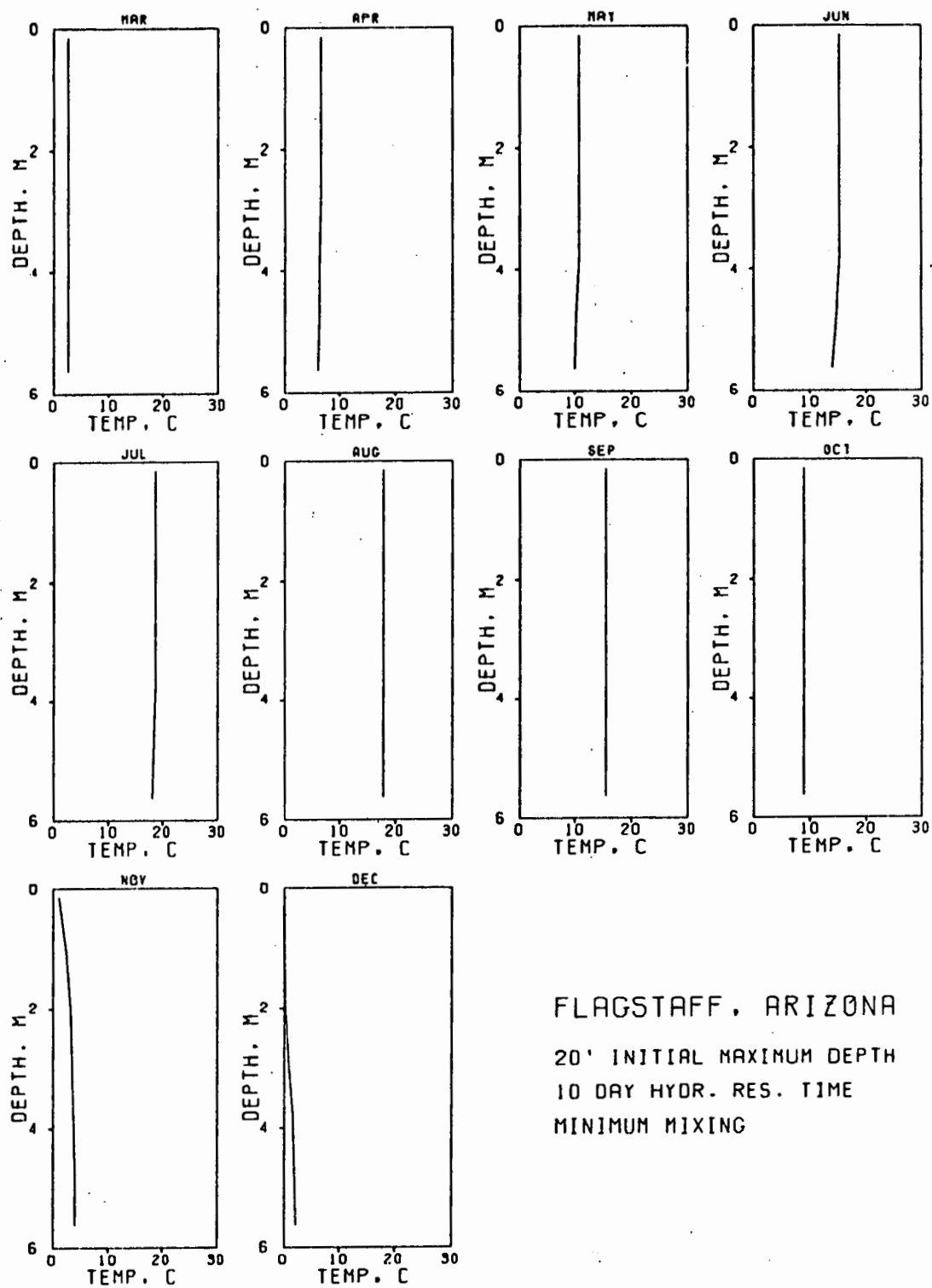
200' INITIAL MAXIMUM DEPTH

INFINITE HYDR. RES. TIME

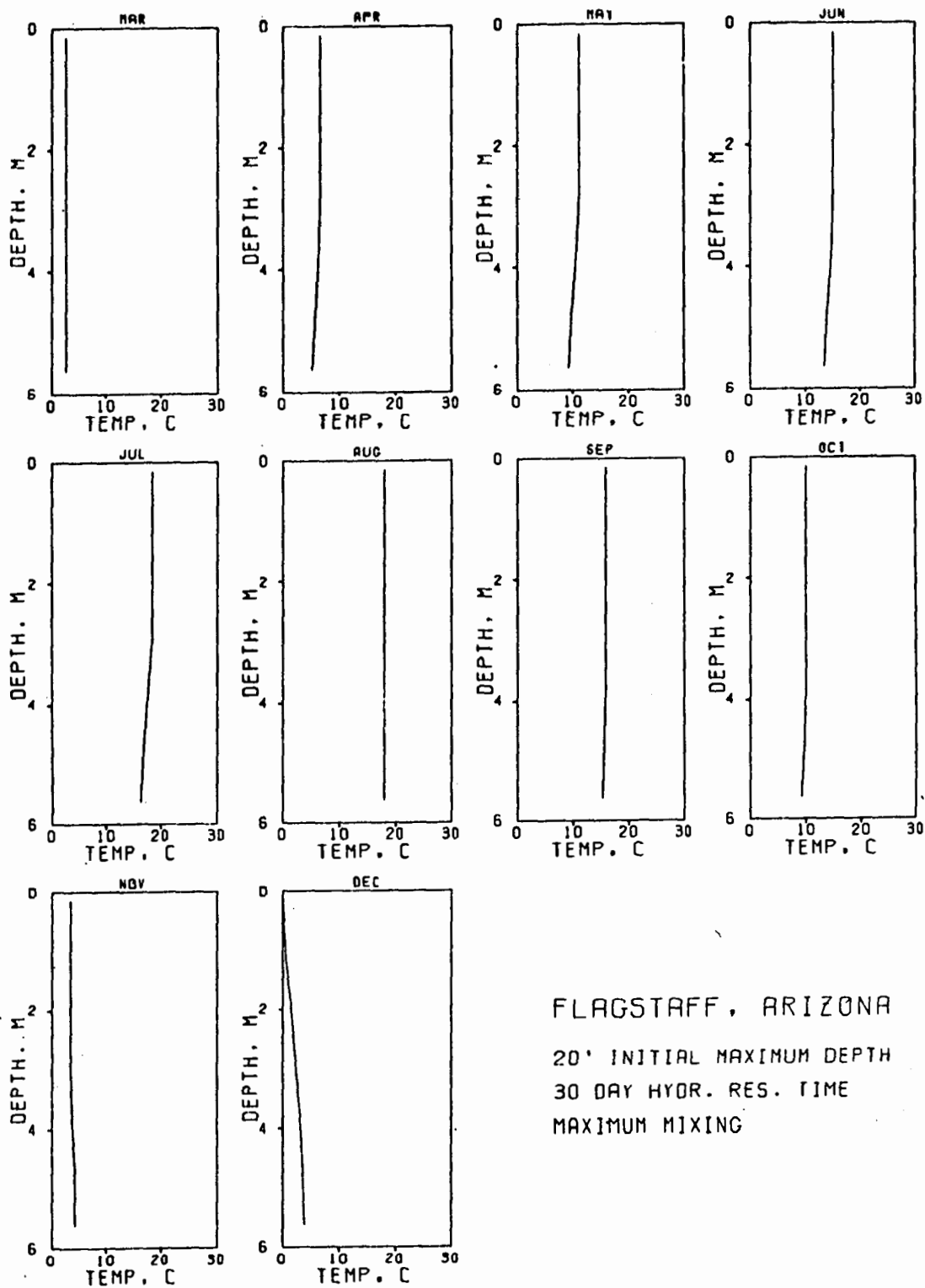
MINIMUM MIXING



FLAGSTAFF, ARIZONA
 20' INITIAL MAXIMUM DEPTH
 10 DAY HYDR. RES. TIME
 MAXIMUM MIXING



FLAGSTAFF, ARIZONA
 20' INITIAL MAXIMUM DEPTH
 10 DAY HYDR. RES. TIME
 MINIMUM MIXING

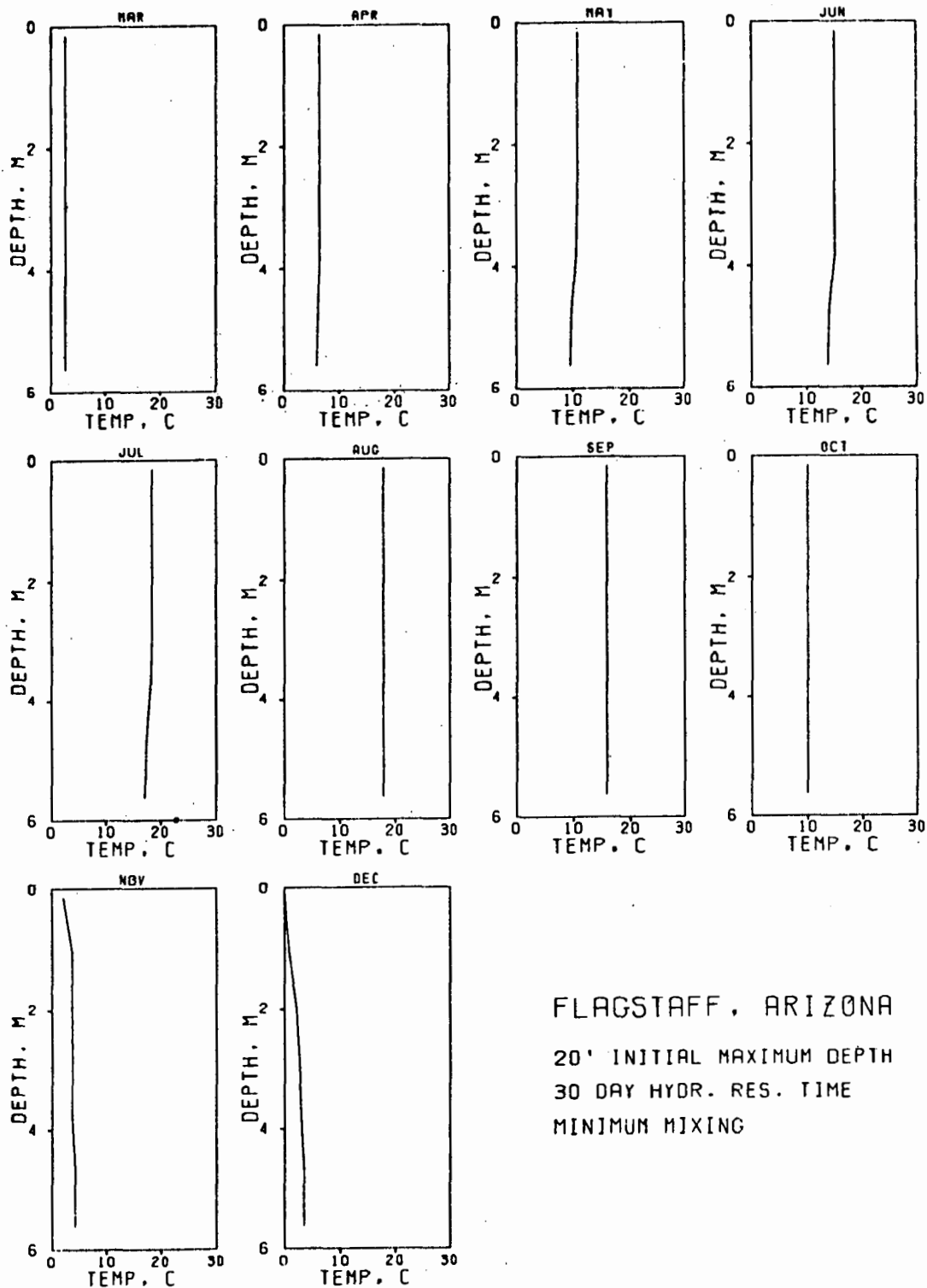


FLAGSTAFF, ARIZONA

20' INITIAL MAXIMUM DEPTH

30 DAY HYDR. RES. TIME

MAXIMUM MIXING

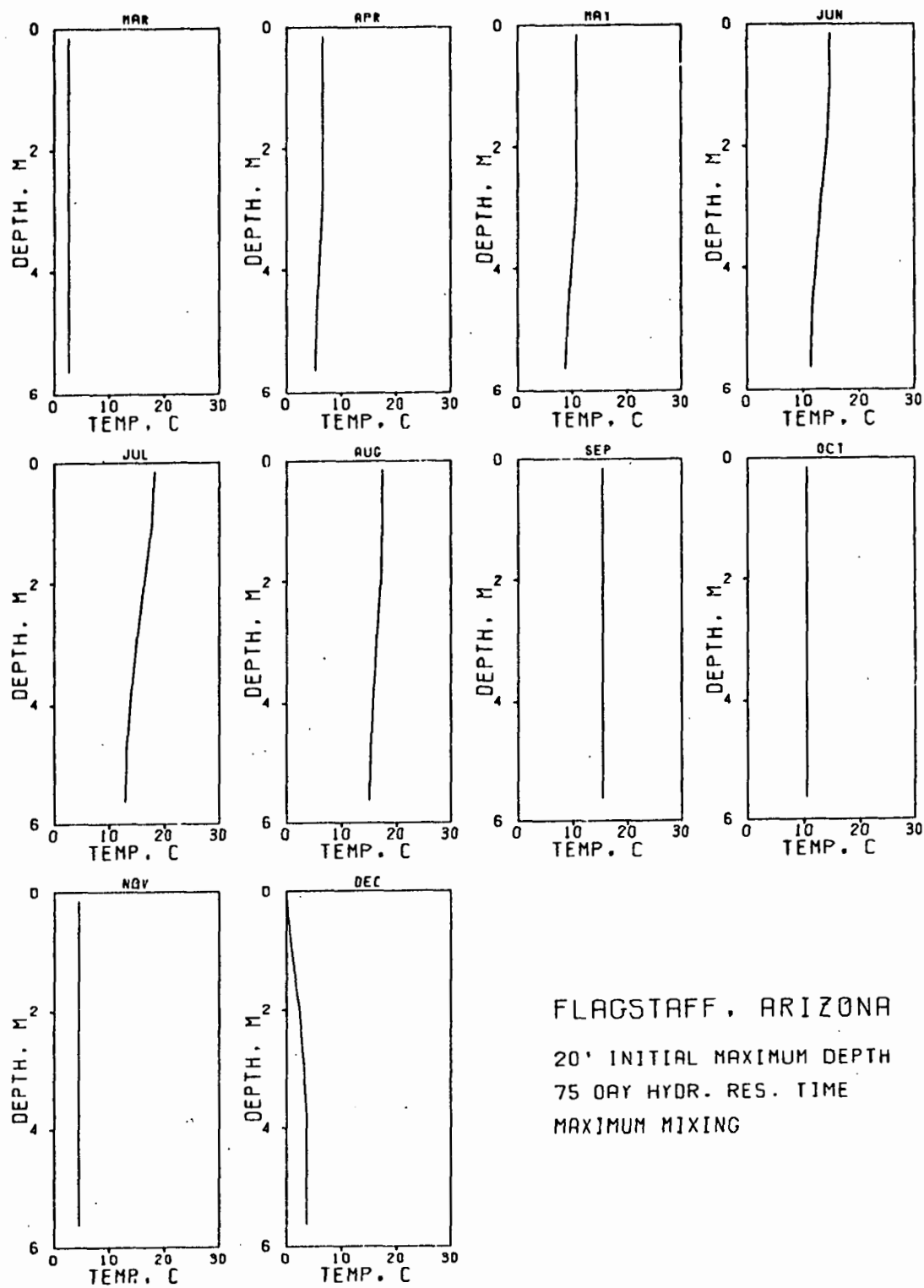


FLAGSTAFF, ARIZONA

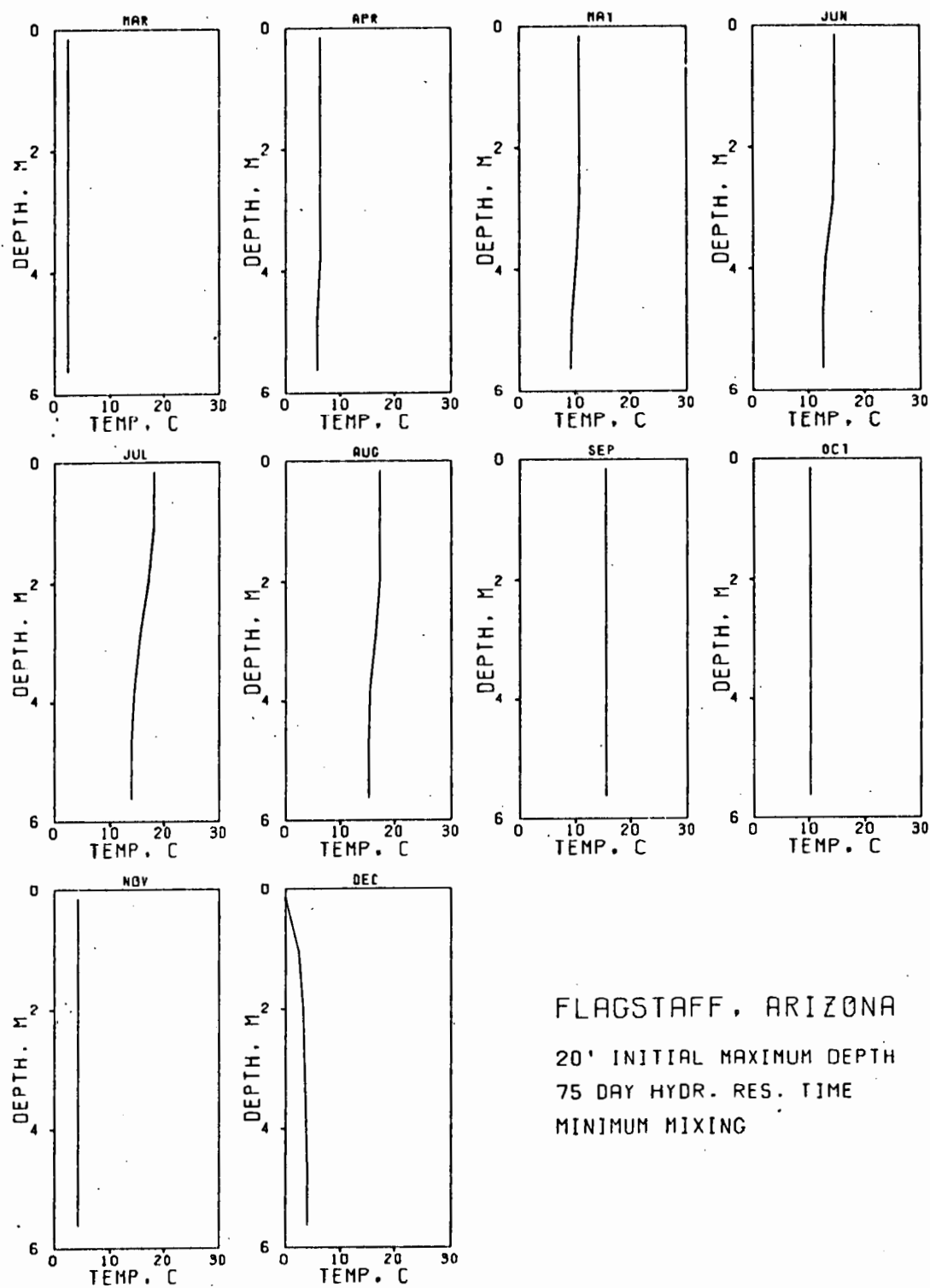
20' INITIAL MAXIMUM DEPTH

30 DAY HYDR. RES. TIME

MINIMUM MIXING



FLAGSTAFF, ARIZONA
 20' INITIAL MAXIMUM DEPTH
 75 DAY HYDR. RES. TIME
 MAXIMUM MIXING

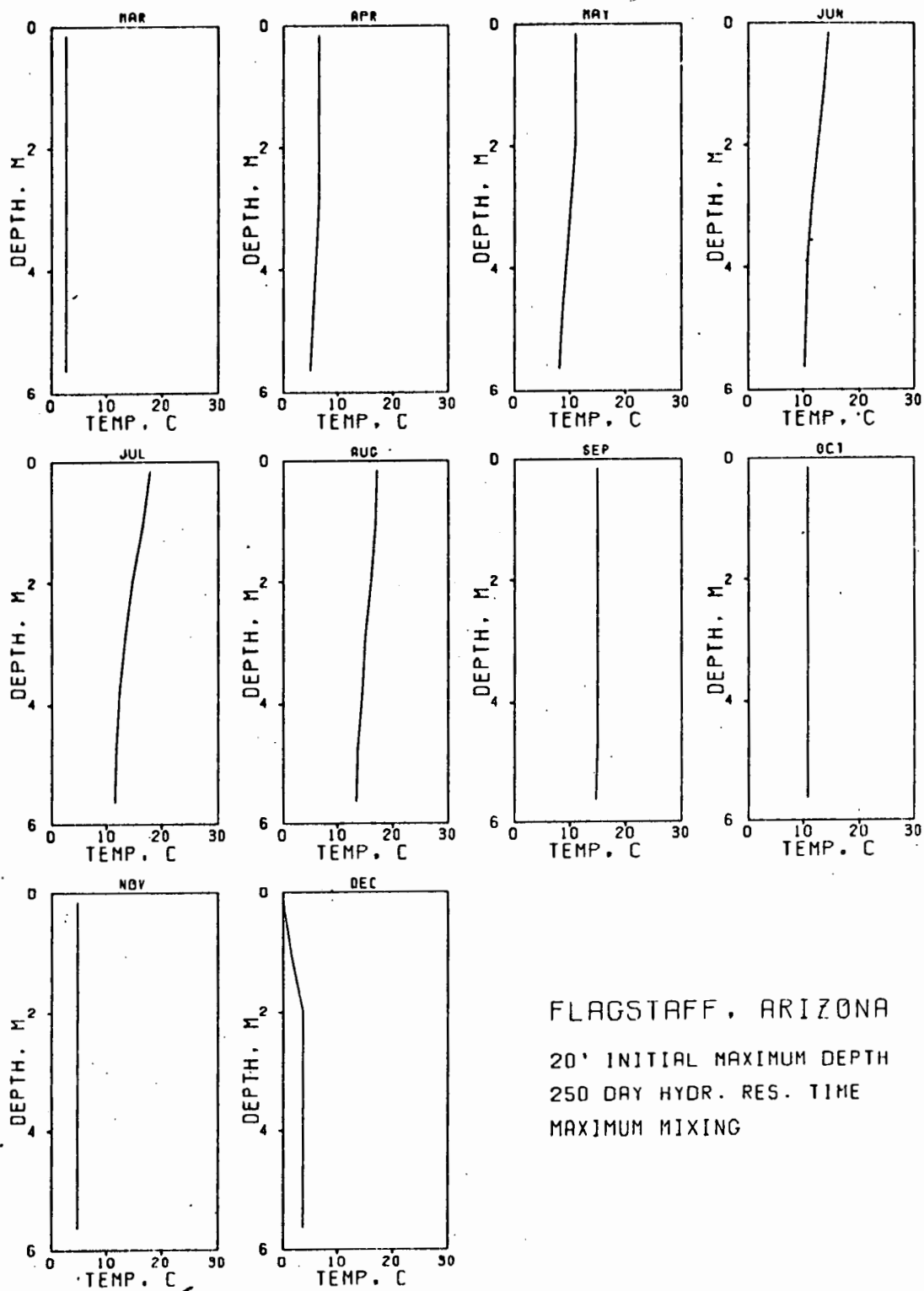


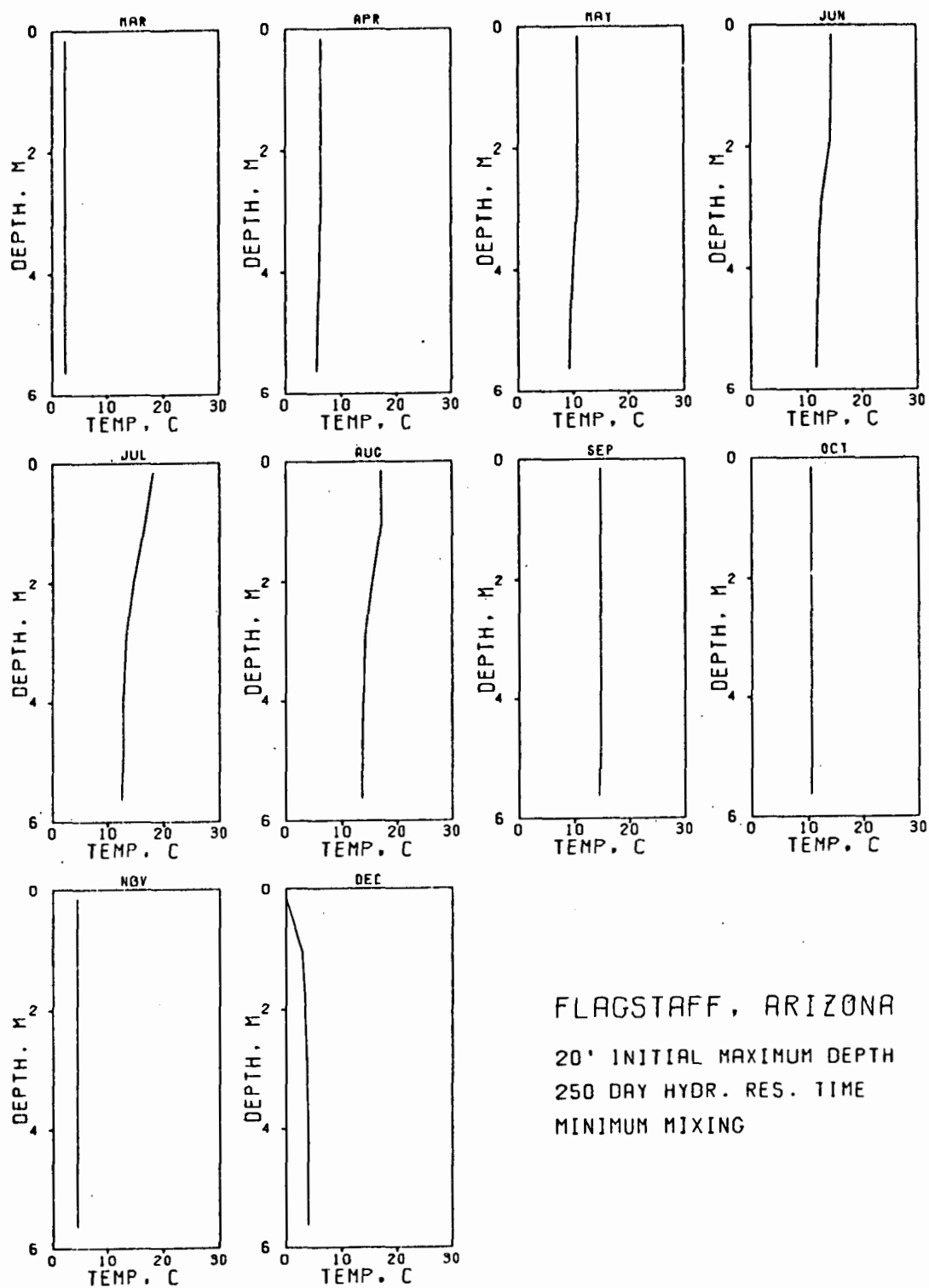
FLAGSTAFF, ARIZONA

20' INITIAL MAXIMUM DEPTH

75 DAY HYDR. RES. TIME

MINIMUM MIXING



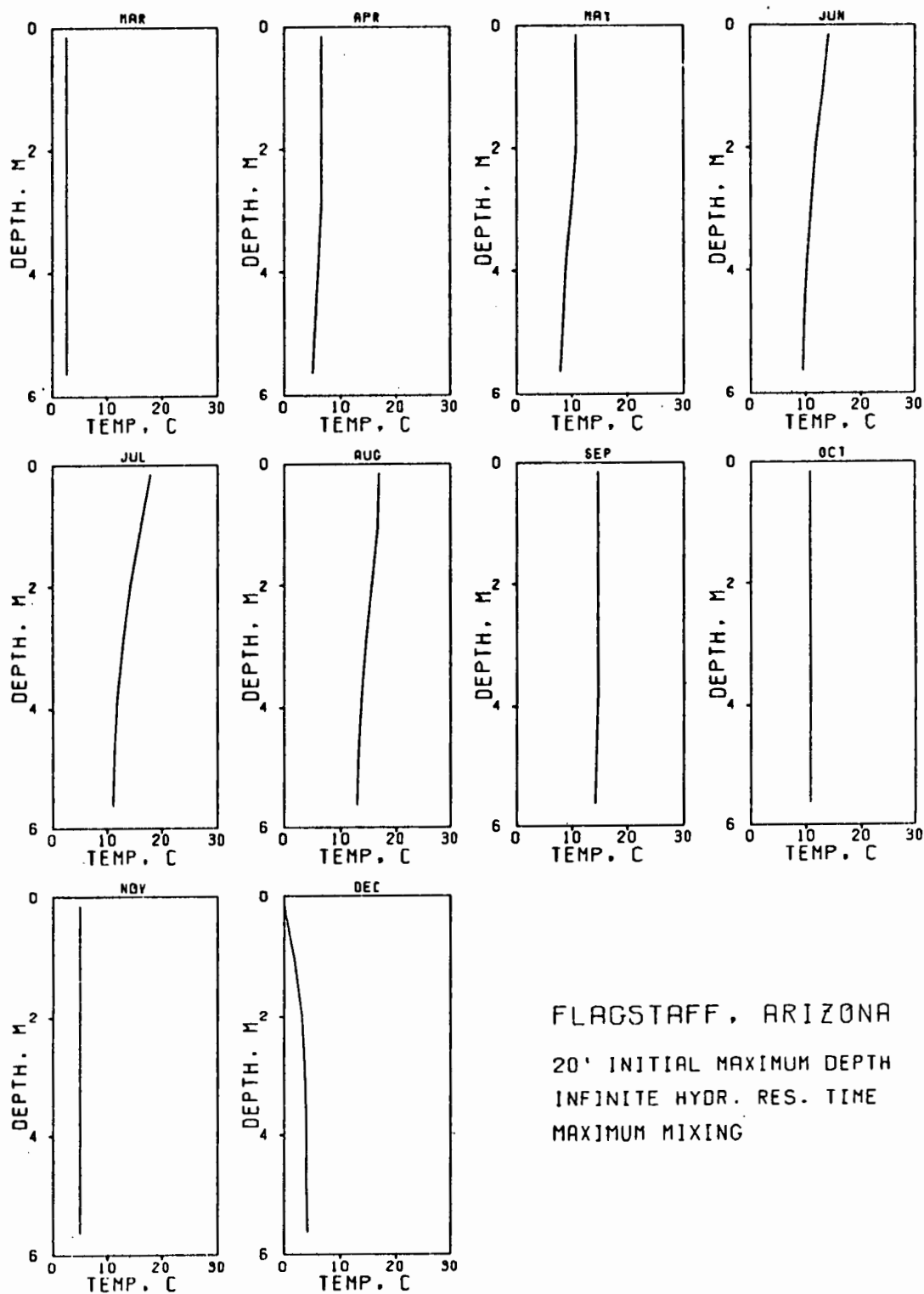


FLAGSTAFF, ARIZONA

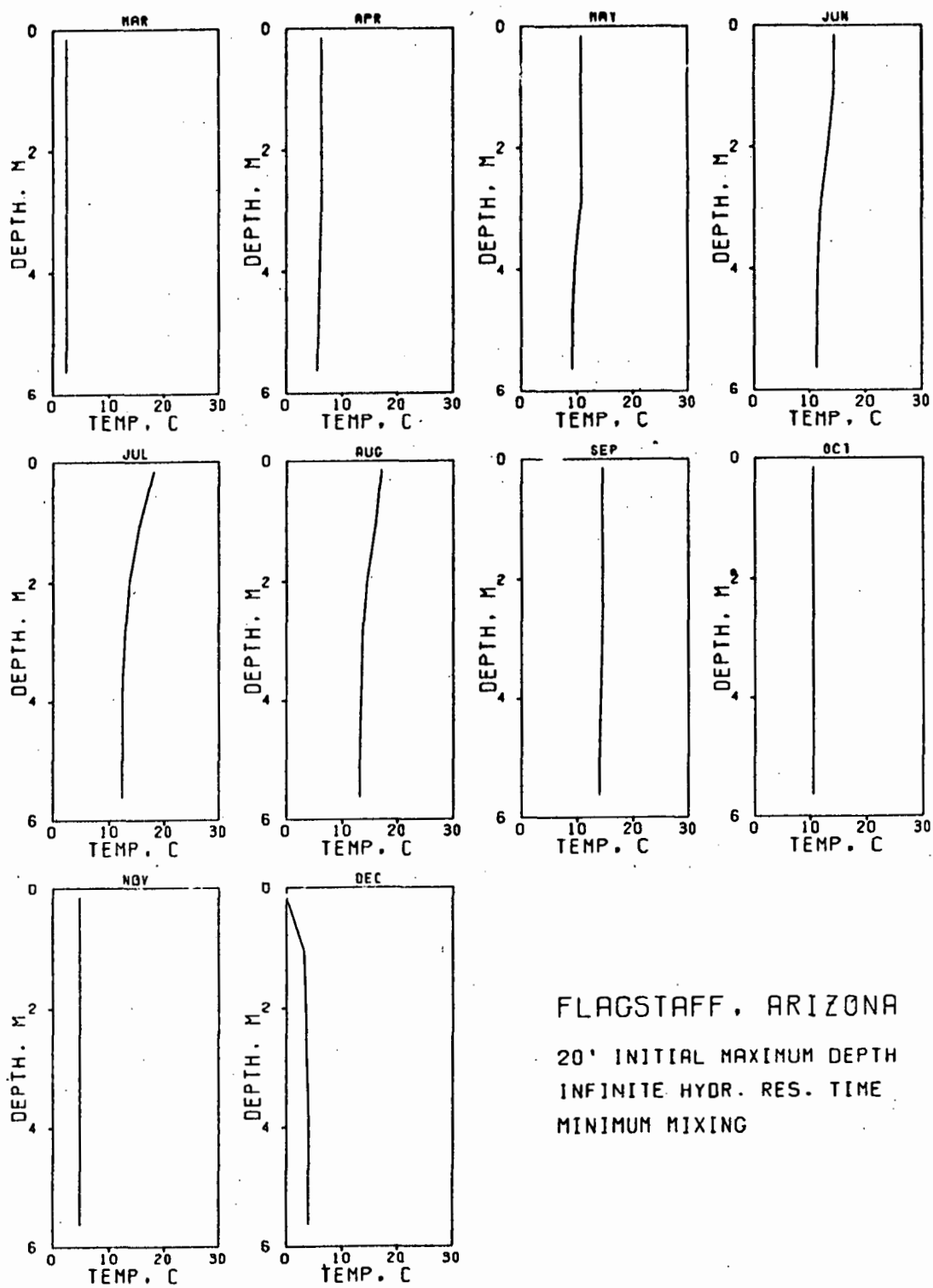
20' INITIAL MAXIMUM DEPTH

250 DAY HYDR. RES. TIME

MINIMUM MIXING



FLAGSTAFF, ARIZONA
 20' INITIAL MAXIMUM DEPTH
 INFINITE HYDR. RES. TIME
 MAXIMUM MIXING

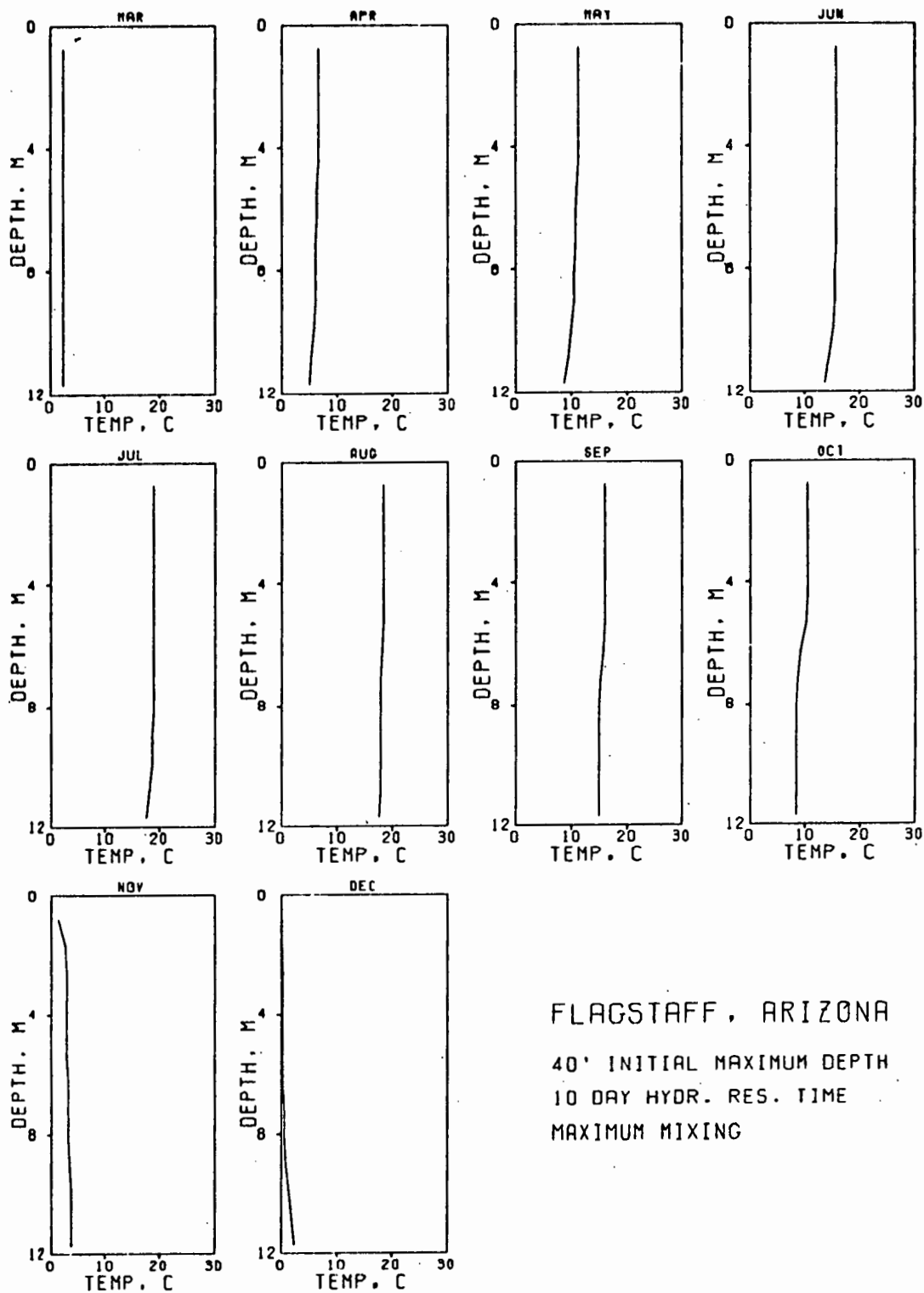


FLAGSTAFF, ARIZONA

20' INITIAL MAXIMUM DEPTH

INFINITE HYDR. RES. TIME

MINIMUM MIXING

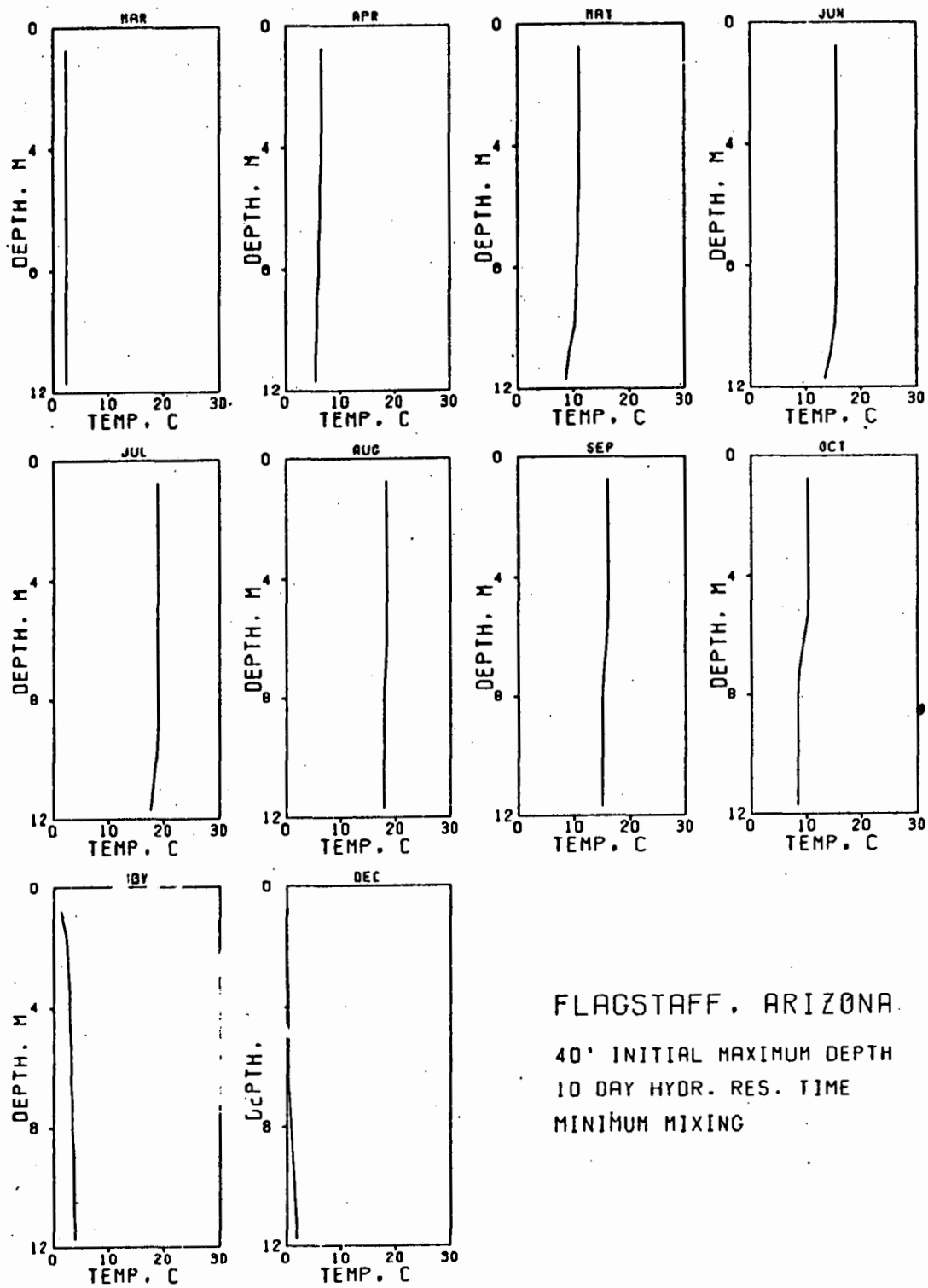


FLAGSTAFF, ARIZONA

40' INITIAL MAXIMUM DEPTH

10 DAY HYDR. RES. TIME

MAXIMUM MIXING

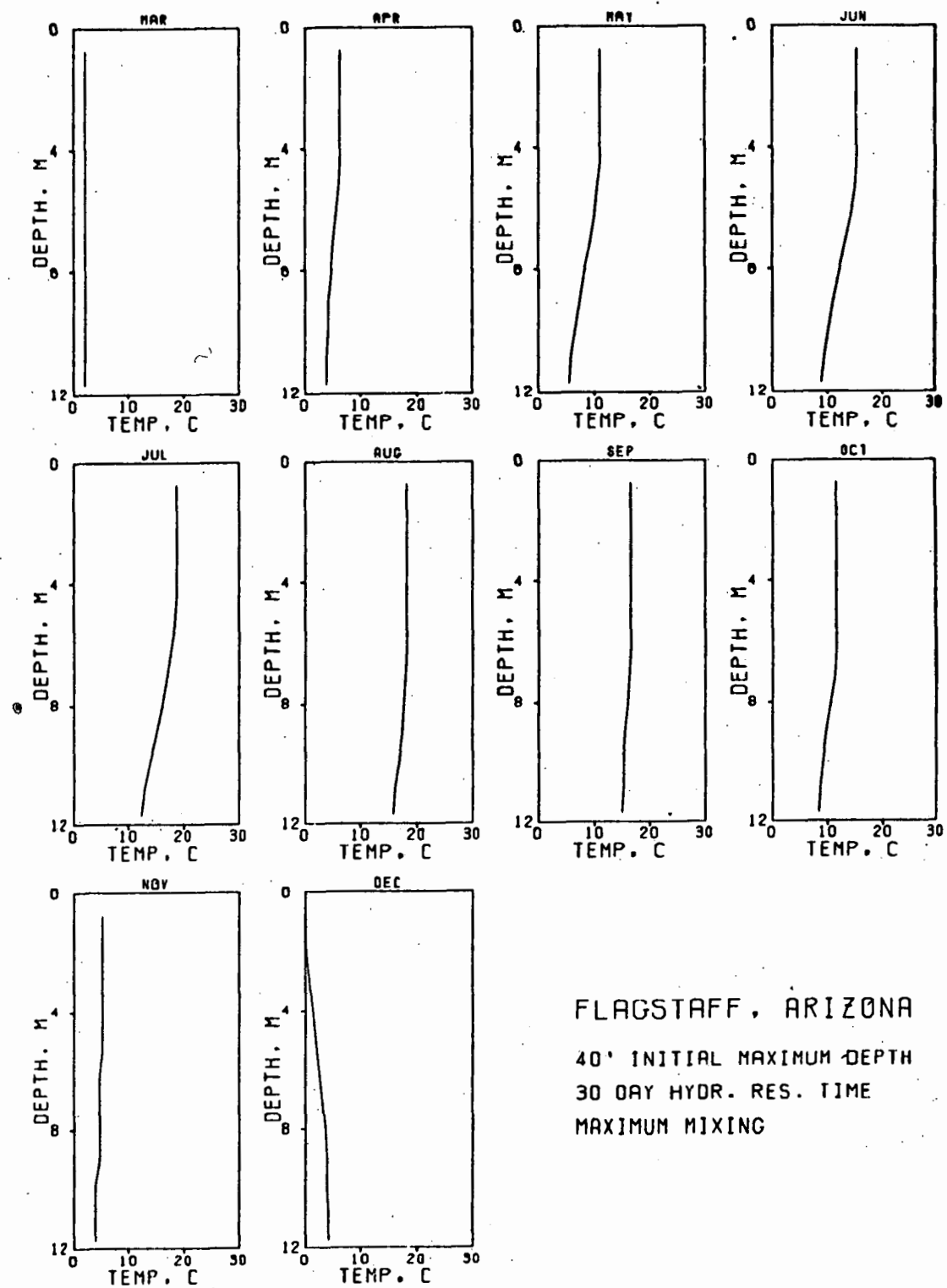


FLAGSTAFF, ARIZONA

40' INITIAL MAXIMUM DEPTH

10 DAY HYDR. RES. TIME

MINIMUM MIXING

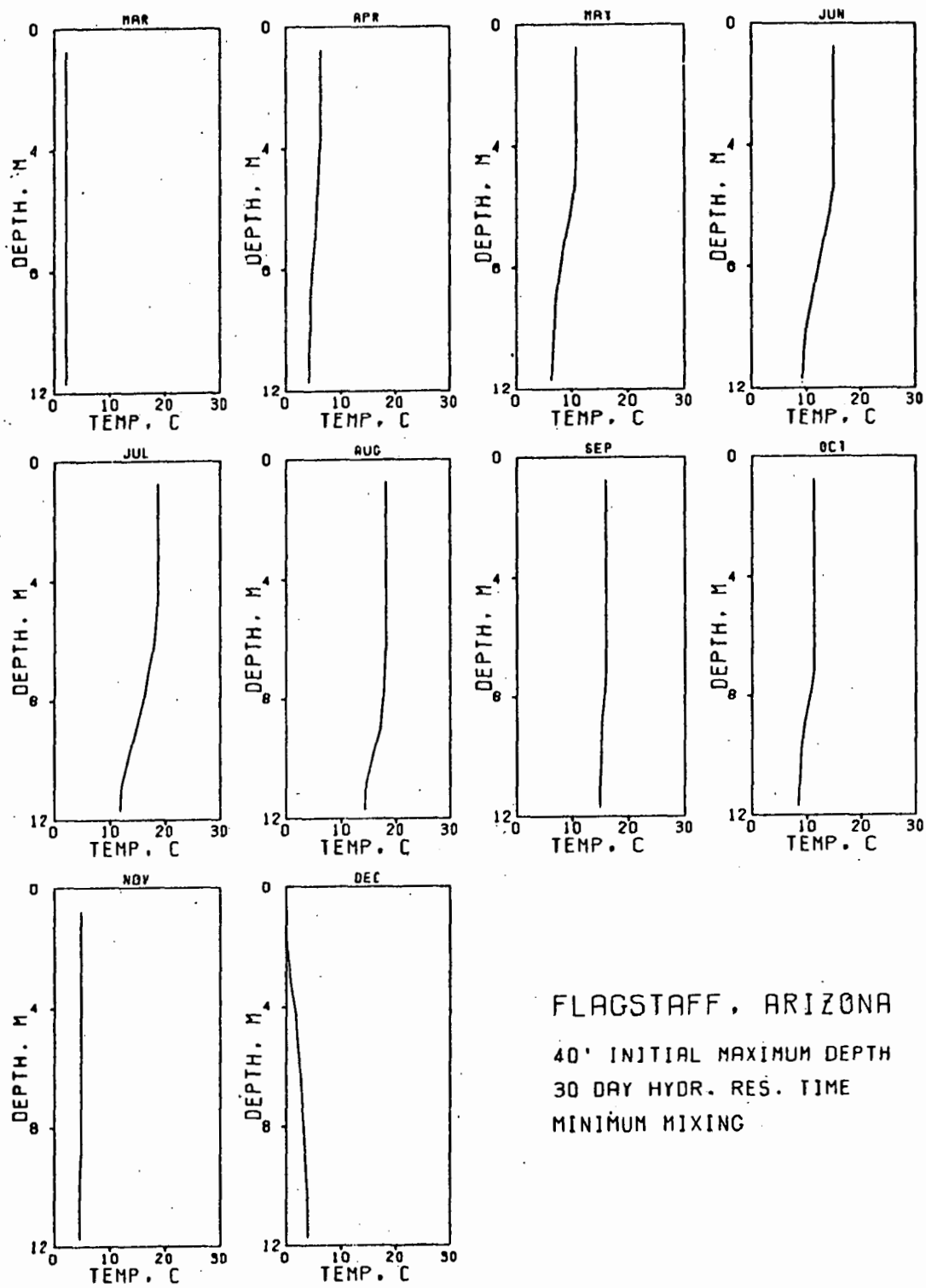


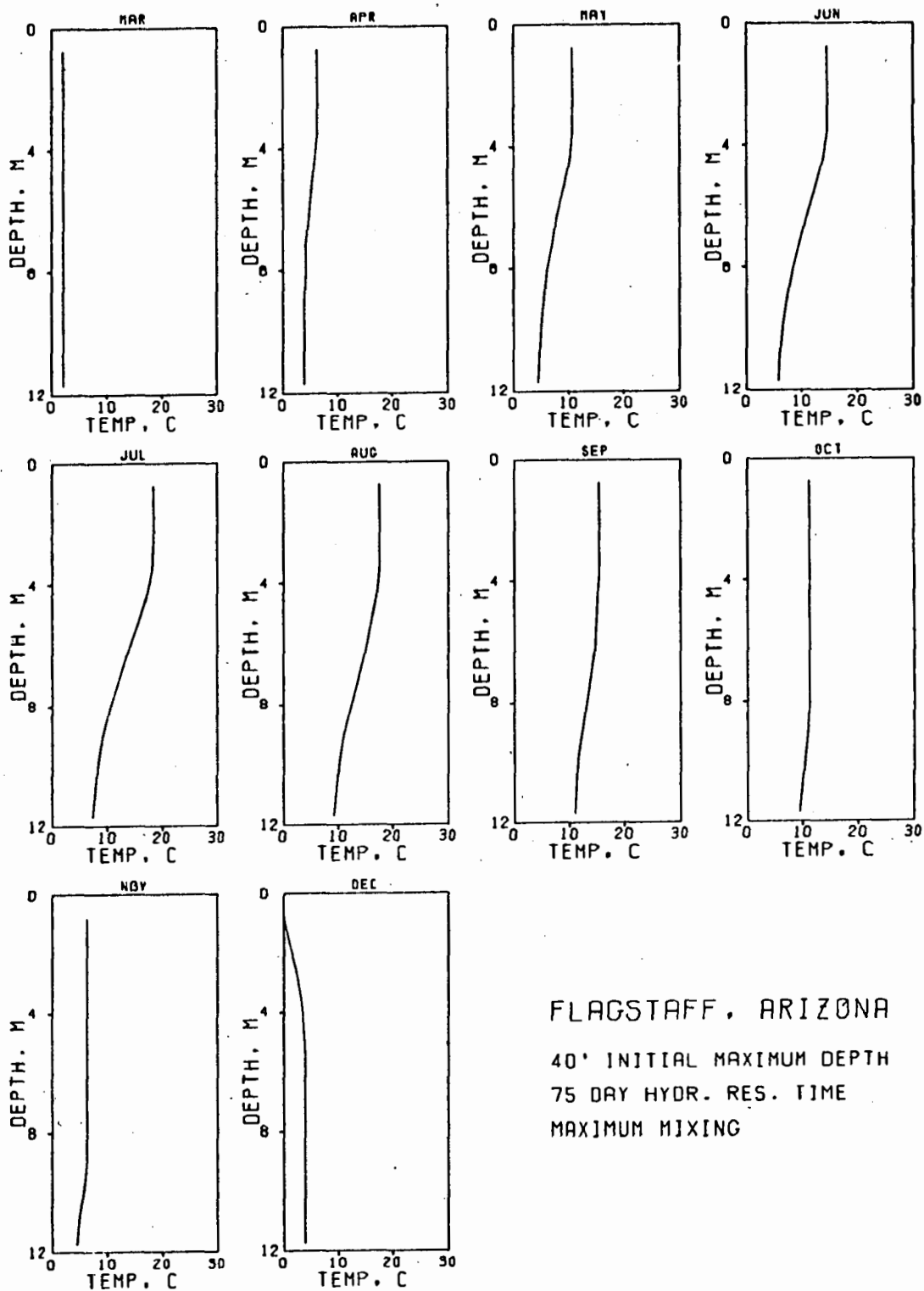
FLAGSTAFF, ARIZONA

40' INITIAL MAXIMUM DEPTH

30 DAY HYDR. RES. TIME

MAXIMUM MIXING



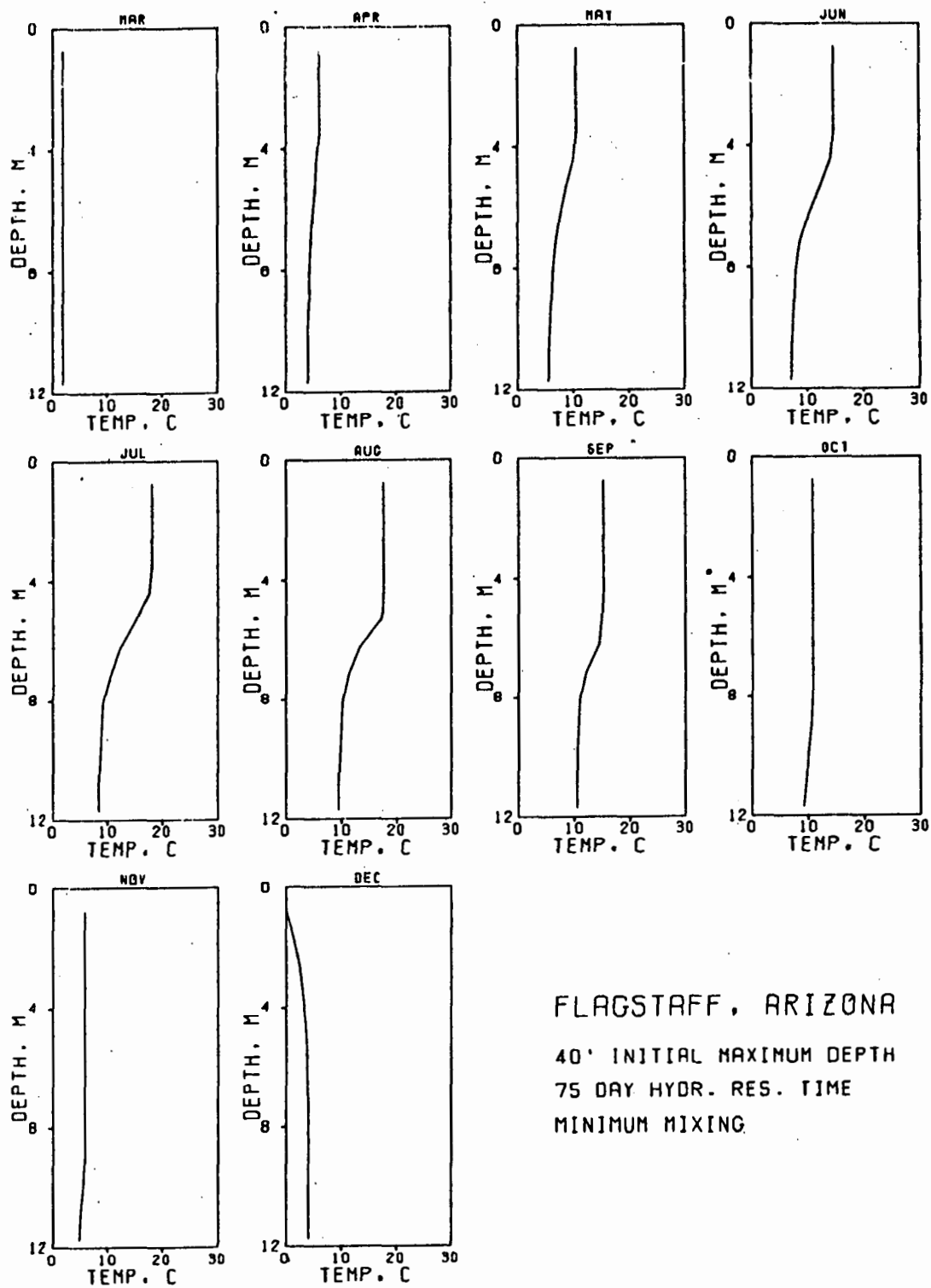


FLAGSTAFF, ARIZONA

40' INITIAL MAXIMUM DEPTH

75 DAY HYDR. RES. TIME

MAXIMUM MIXING

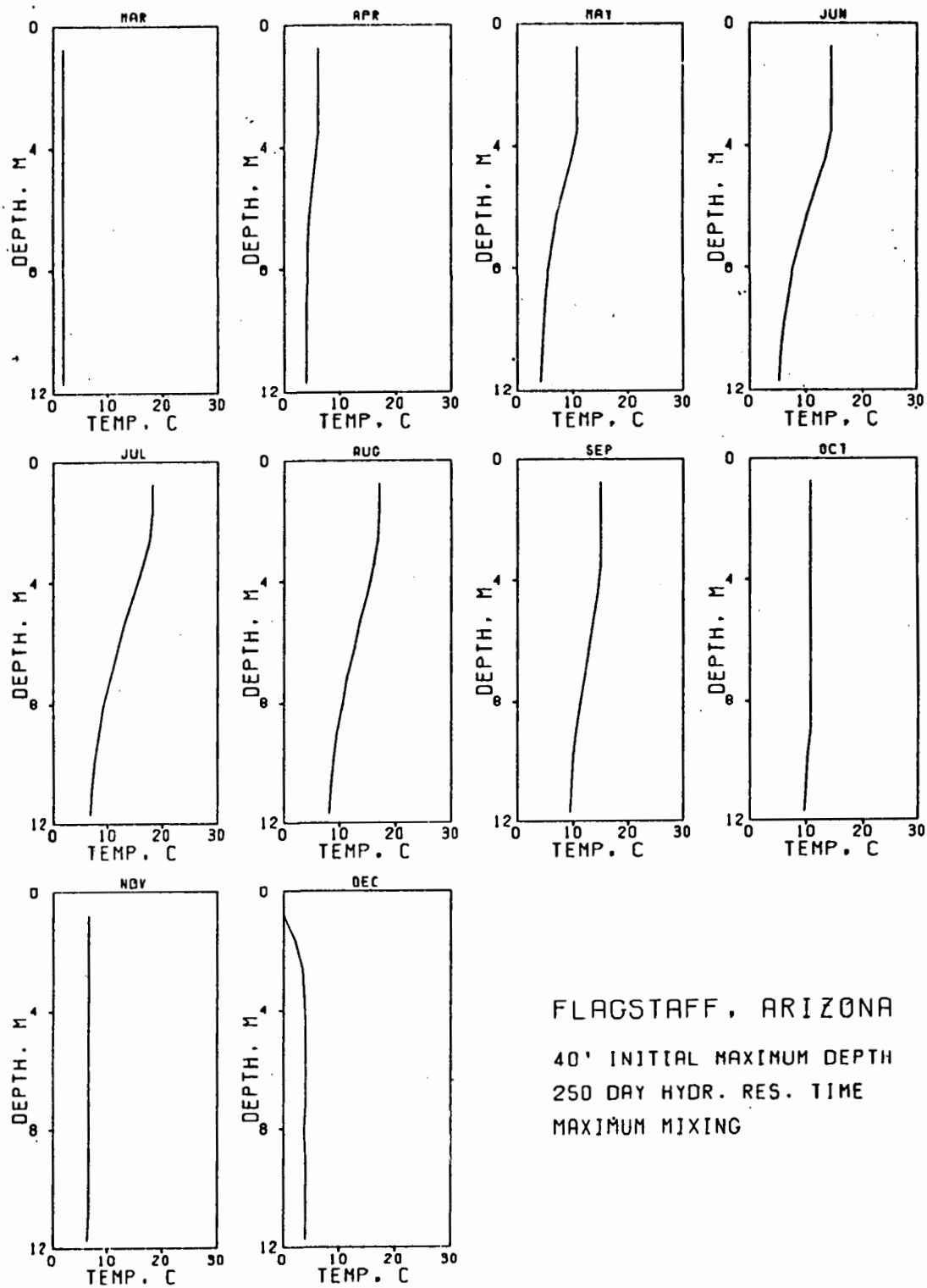


FLAGSTAFF, ARIZONA

40' INITIAL MAXIMUM DEPTH

75 DAY HYDR. RES. TIME

MINIMUM MIXING

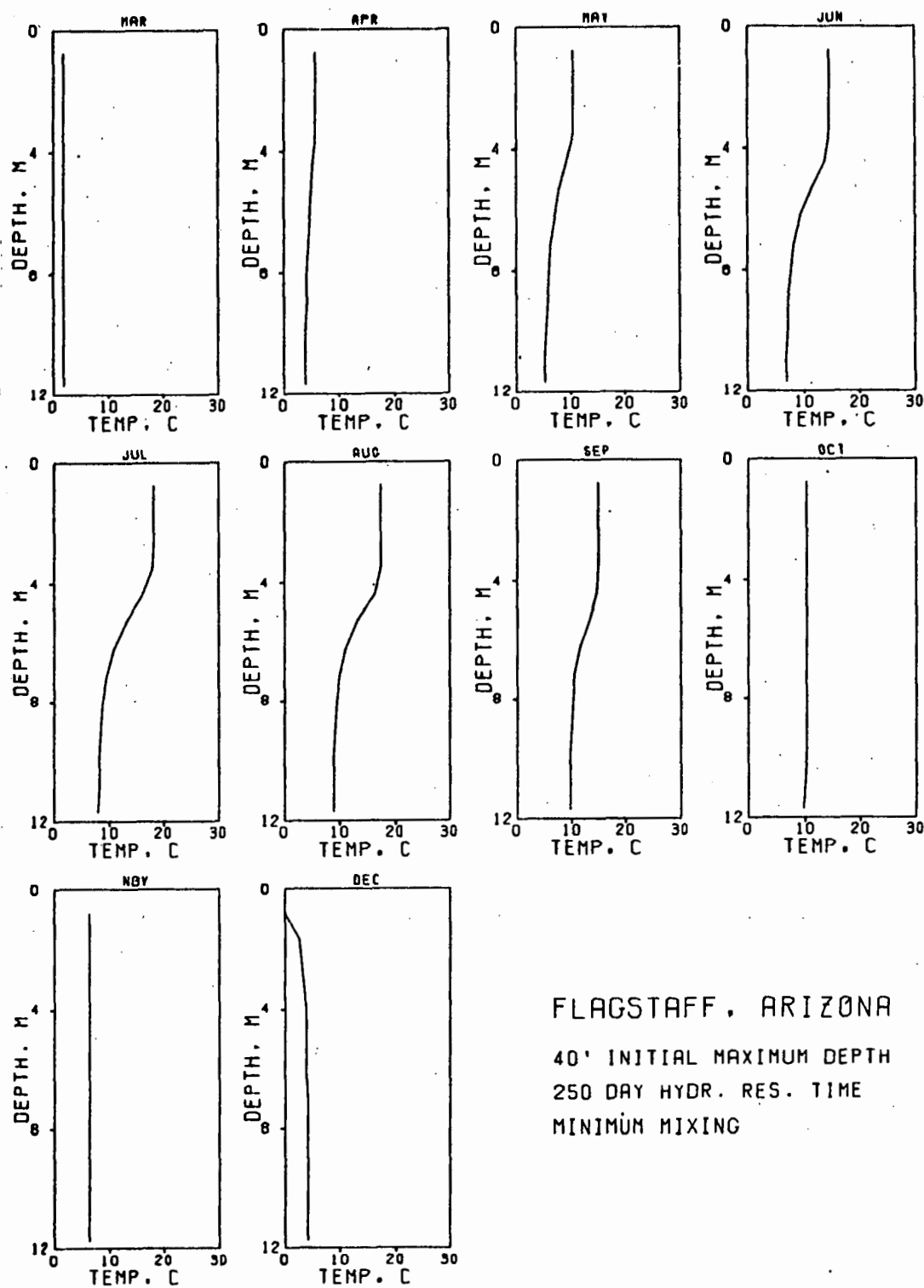


FLAGSTAFF, ARIZONA

40' INITIAL MAXIMUM DEPTH

250 DAY HYDR. RES. TIME

MAXIMUM MIXING

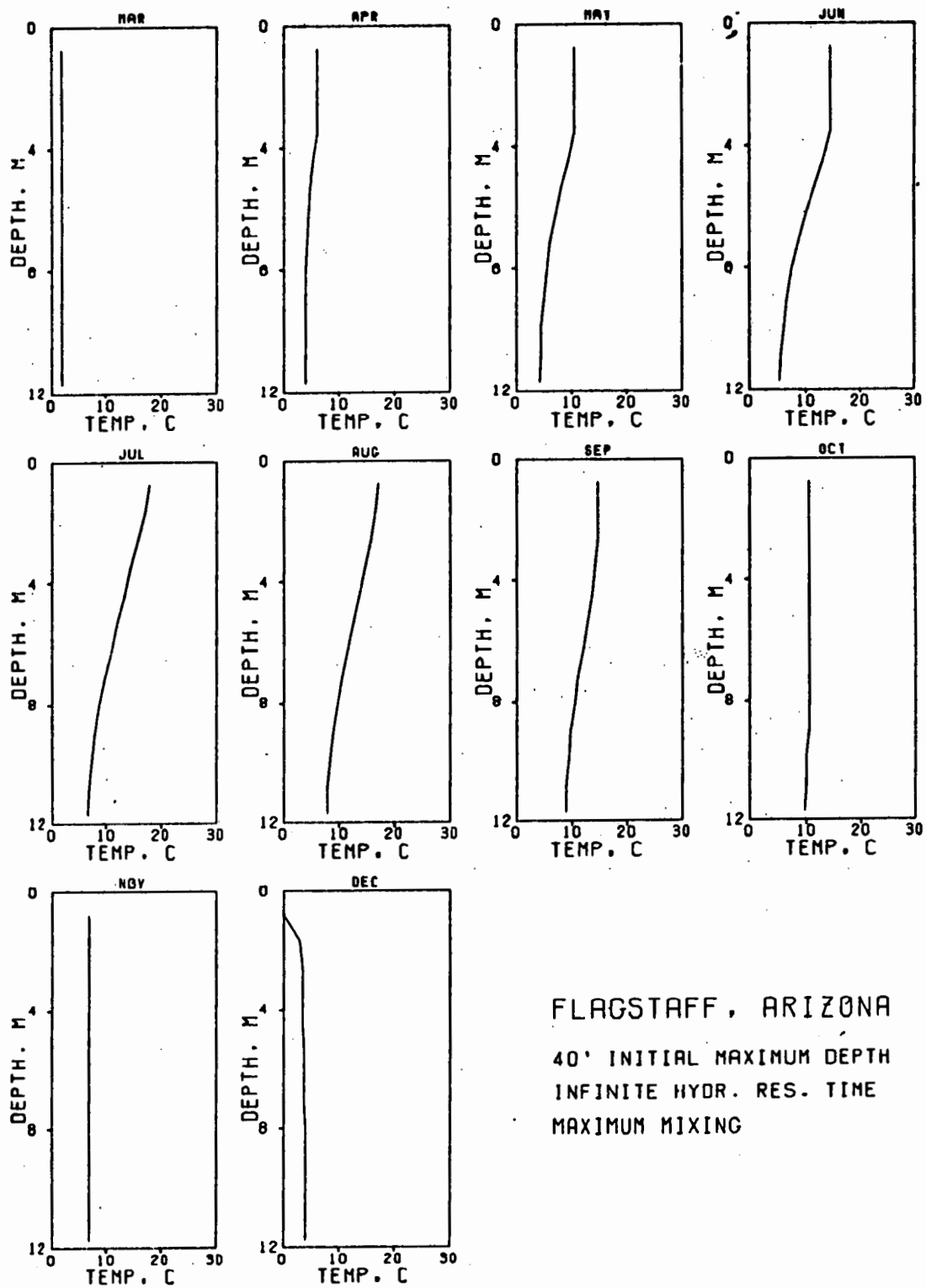


FLAGSTAFF, ARIZONA

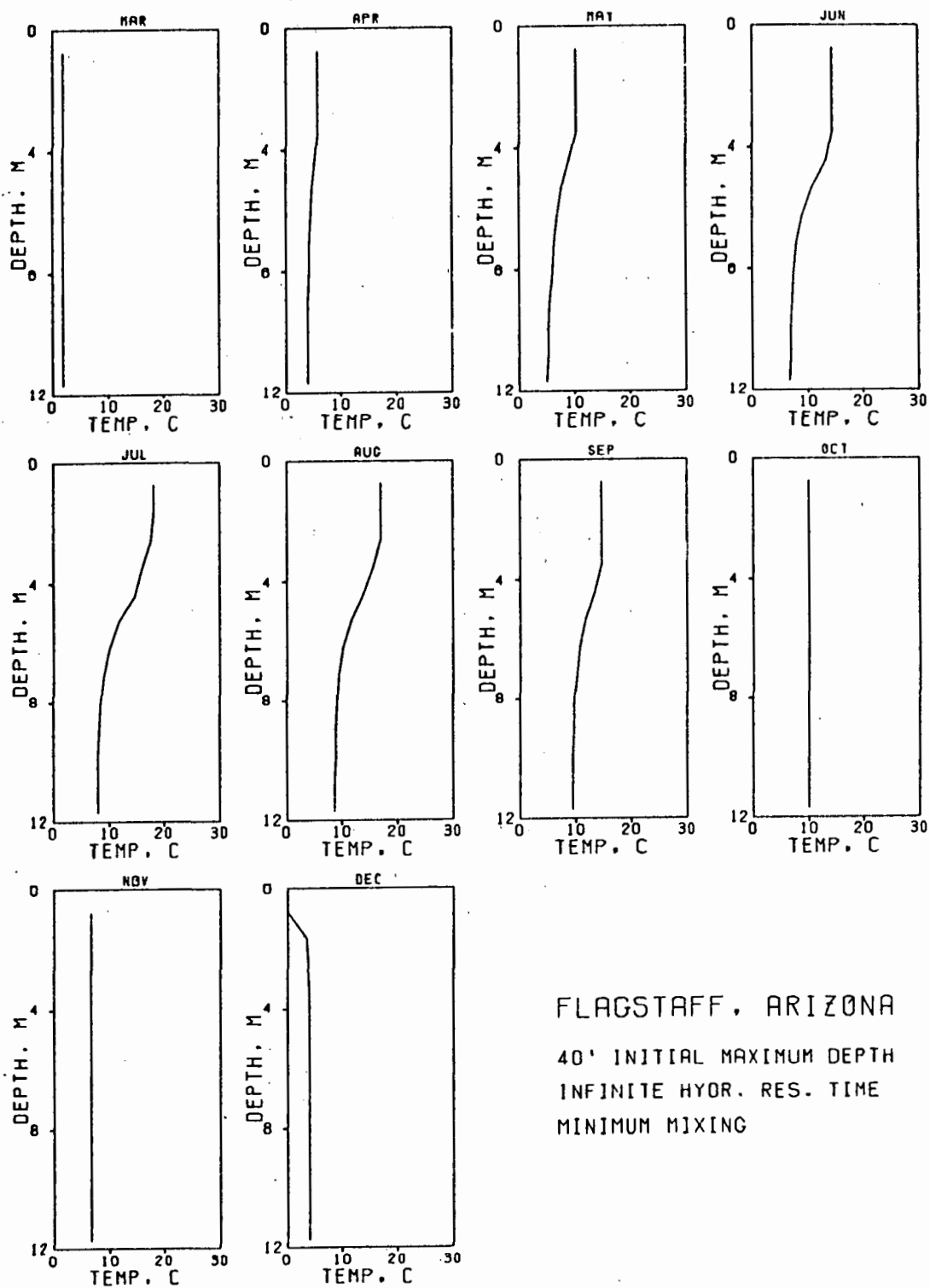
40' INITIAL MAXIMUM DEPTH

250 DAY HYDR. RES. TIME

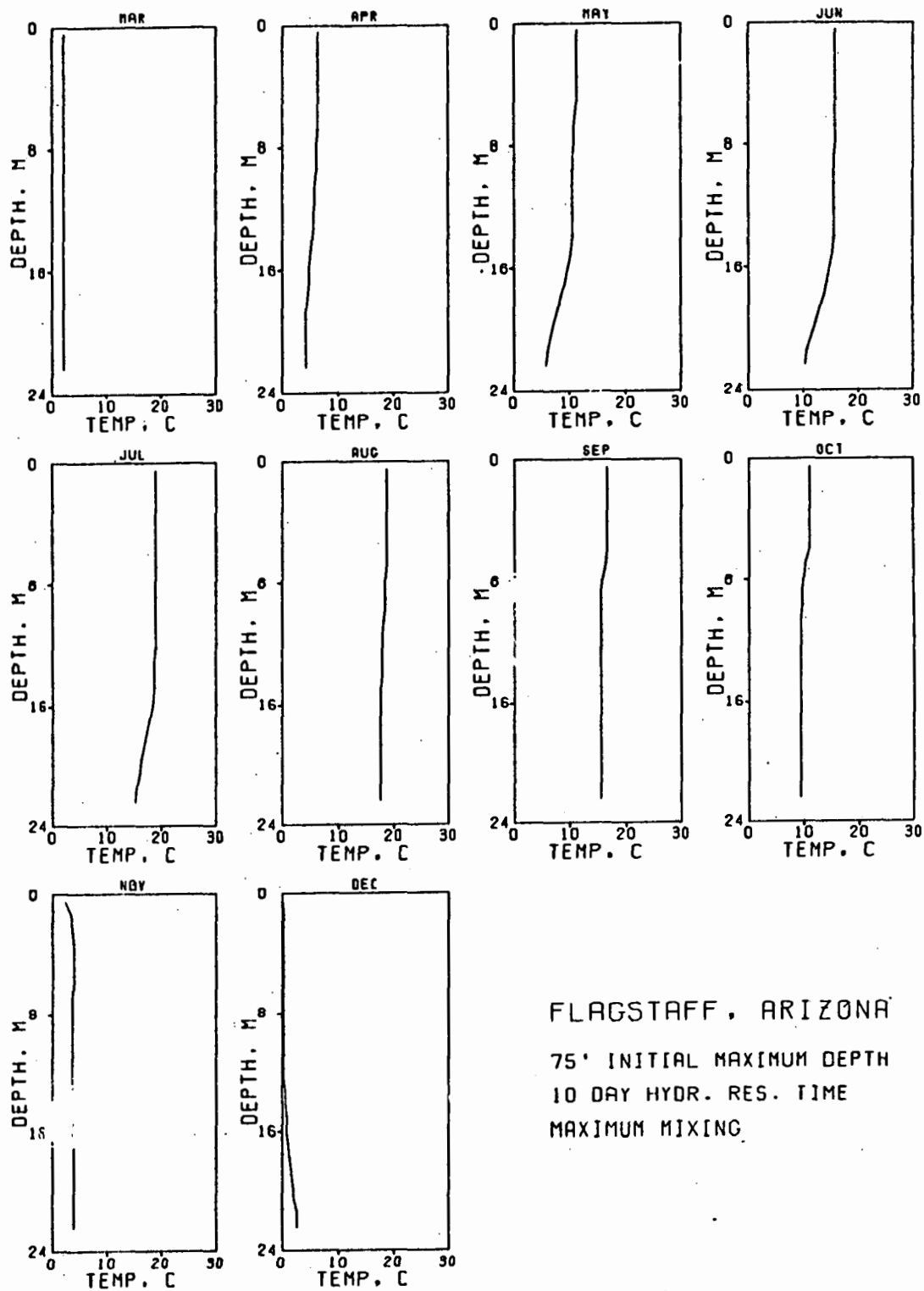
MINIMUM MIXING



FLAGSTAFF, ARIZONA
 40' INITIAL MAXIMUM DEPTH
 INFINITE HYDR. RES. TIME
 MAXIMUM MIXING



FLAGSTAFF, ARIZONA
 40' INITIAL MAXIMUM DEPTH
 INFINITE HYOR. RES. TIME
 MINIMUM MIXING

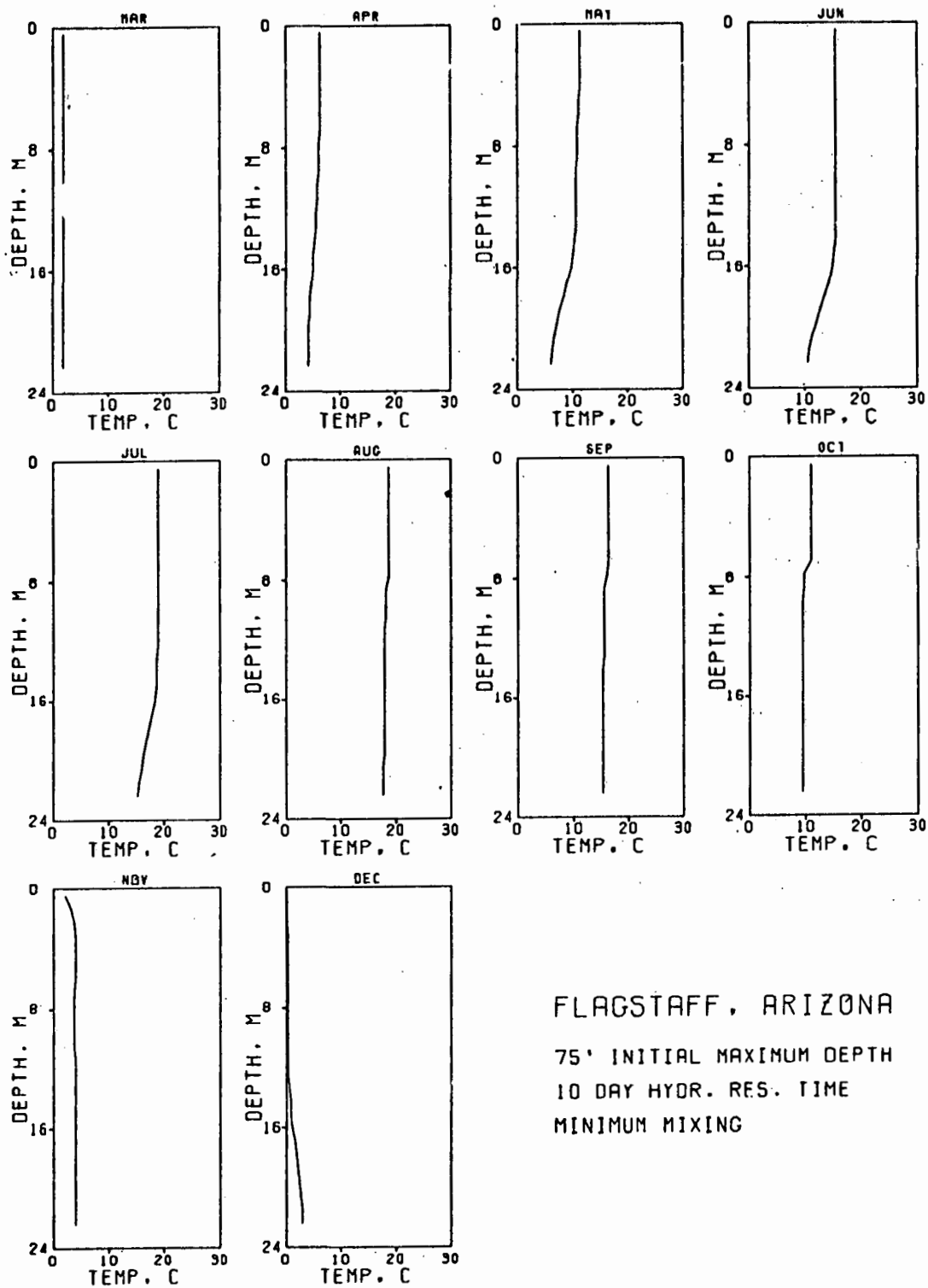


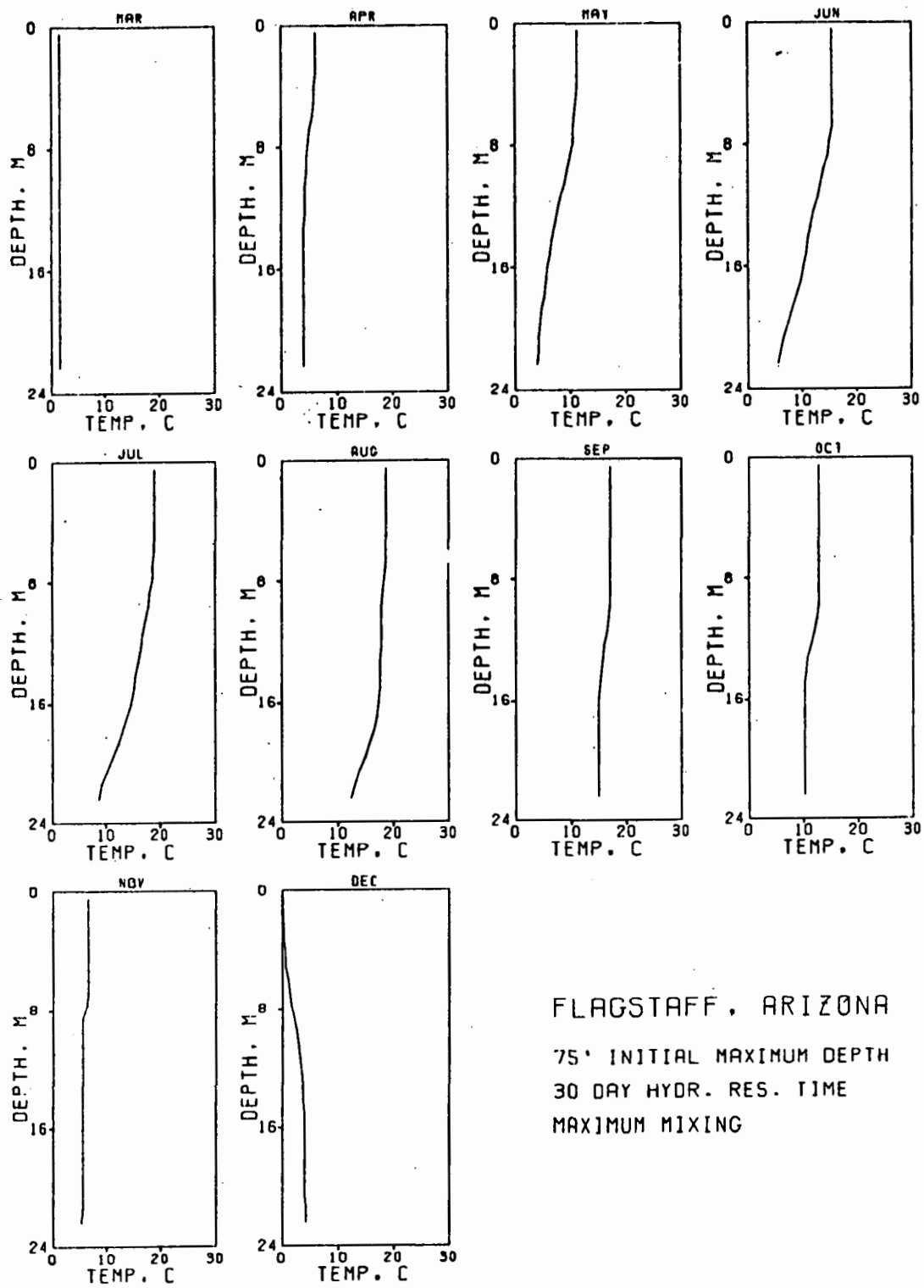
FLAGSTAFF, ARIZONA

75' INITIAL MAXIMUM DEPTH

10 DAY HYDR. RES. TIME

MAXIMUM MIXING



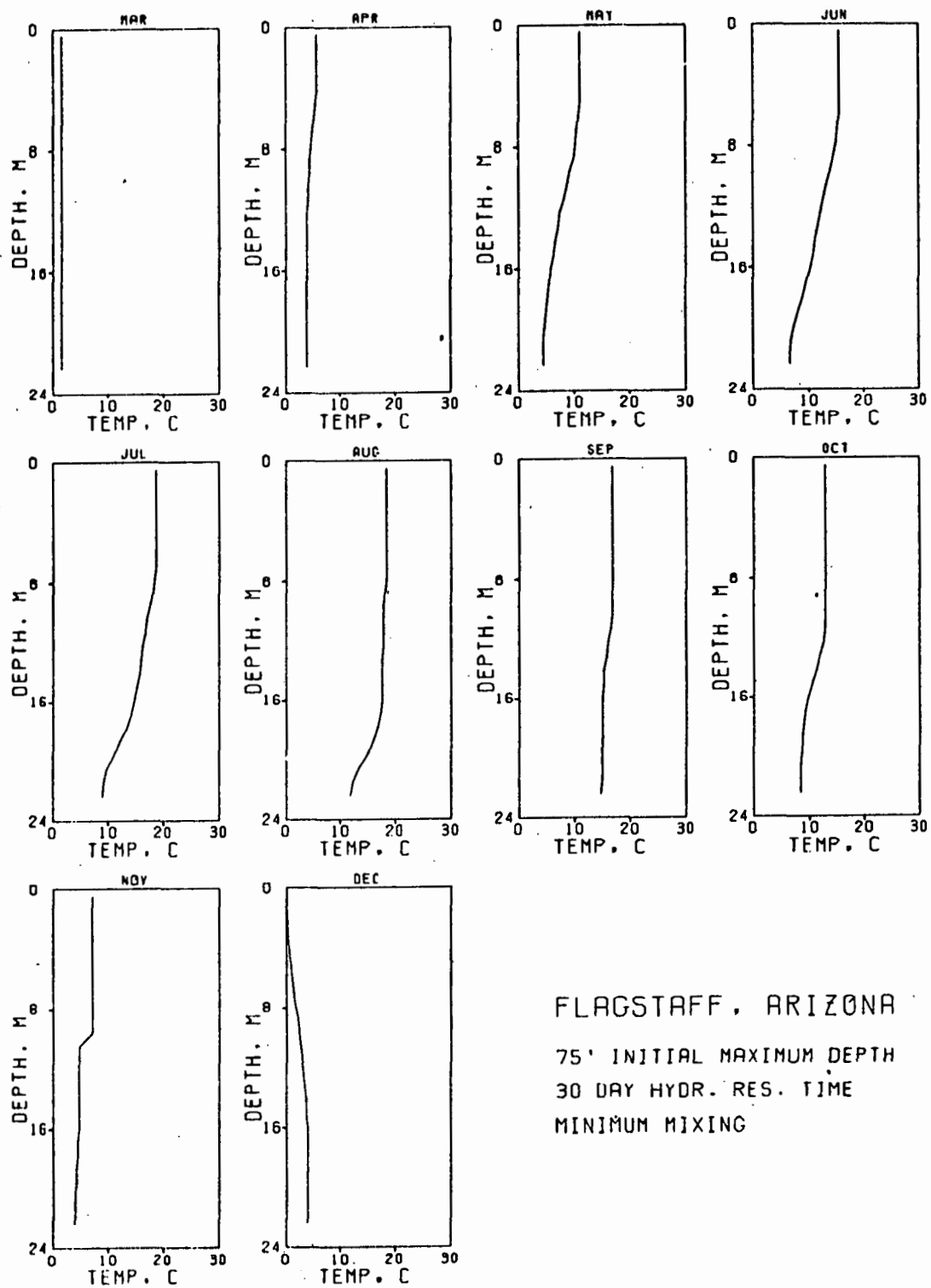


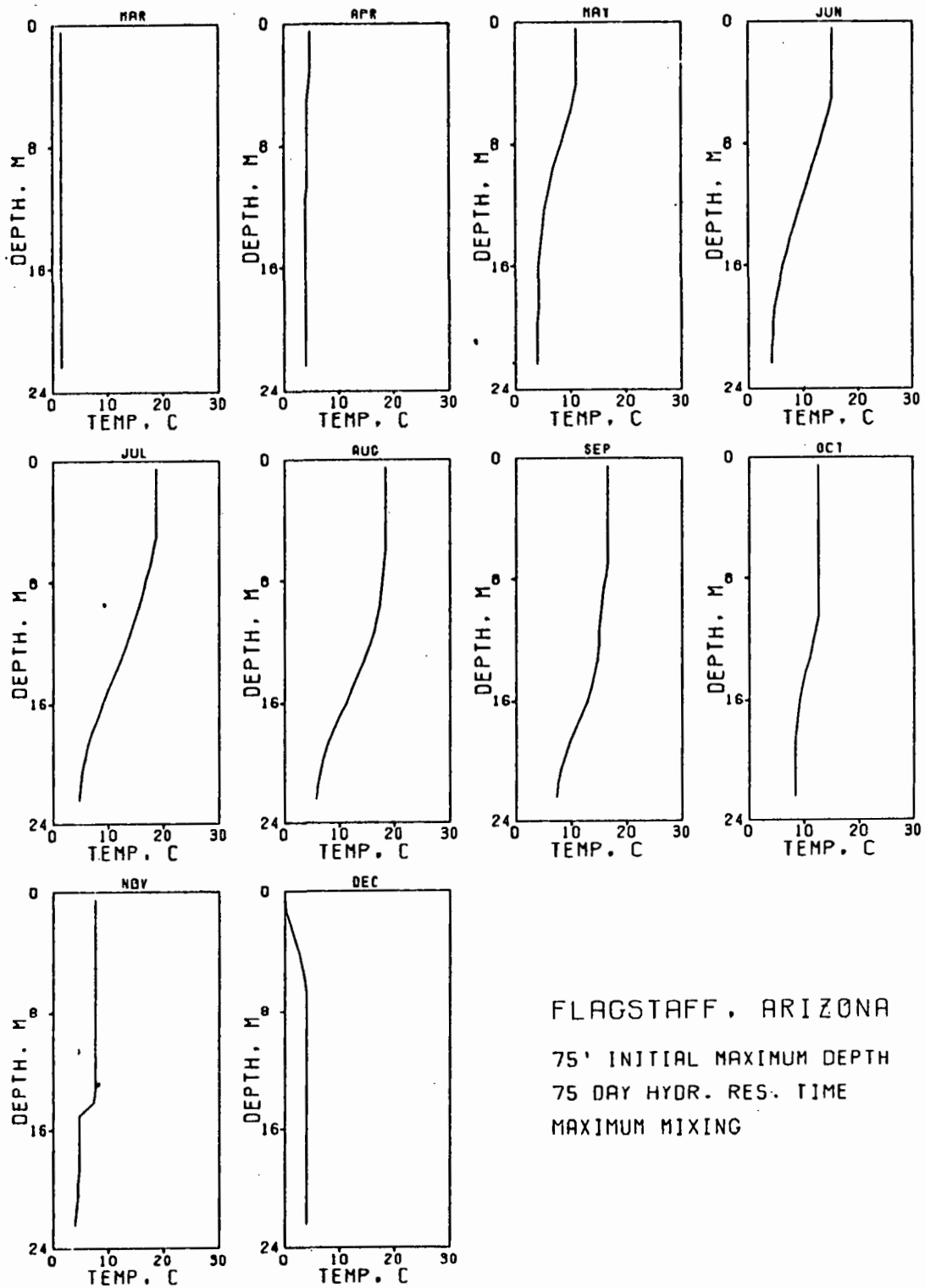
FLAGSTAFF, ARIZONA

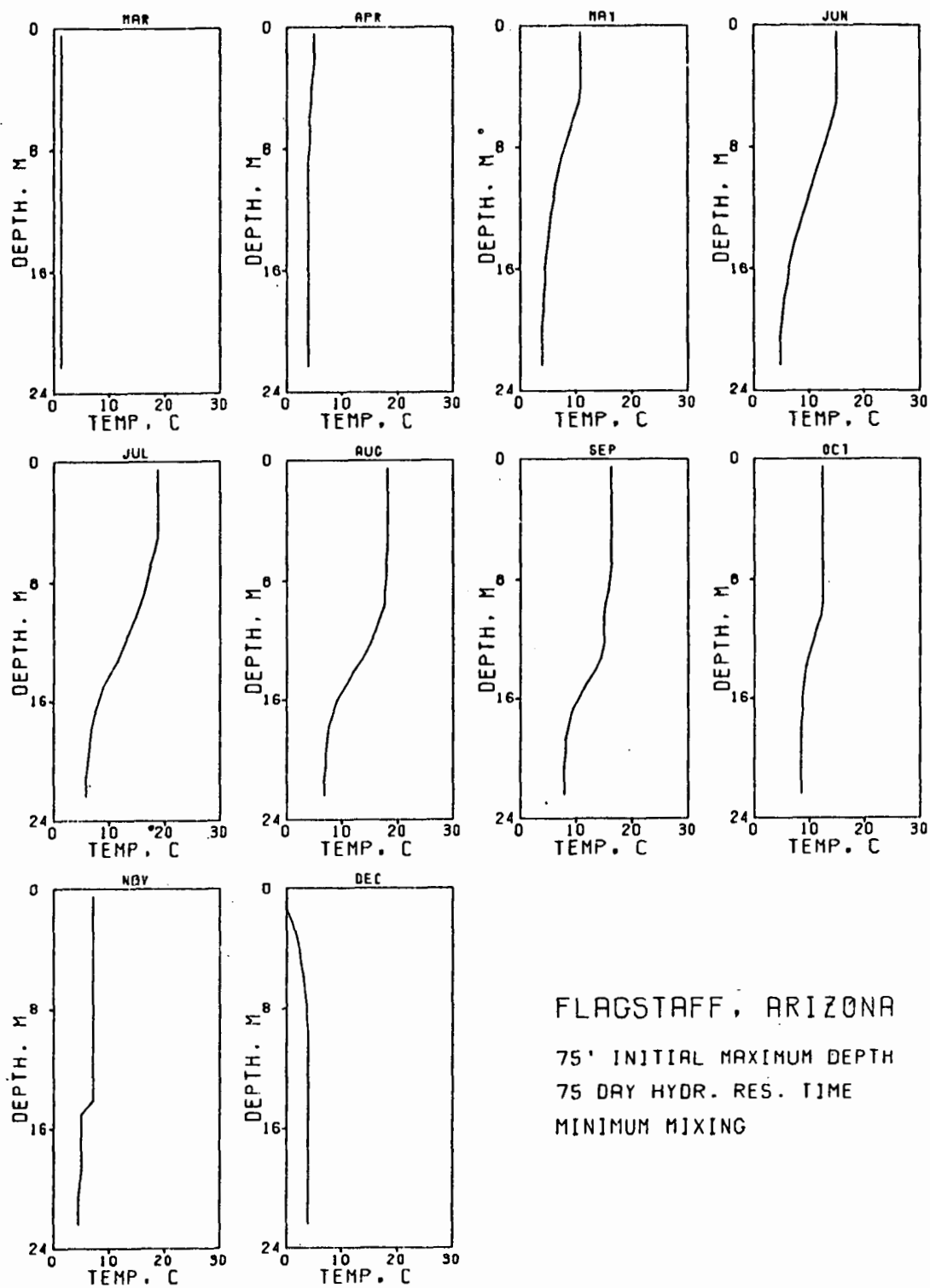
75' INITIAL MAXIMUM DEPTH

30 DAY HYDR. RES. TIME

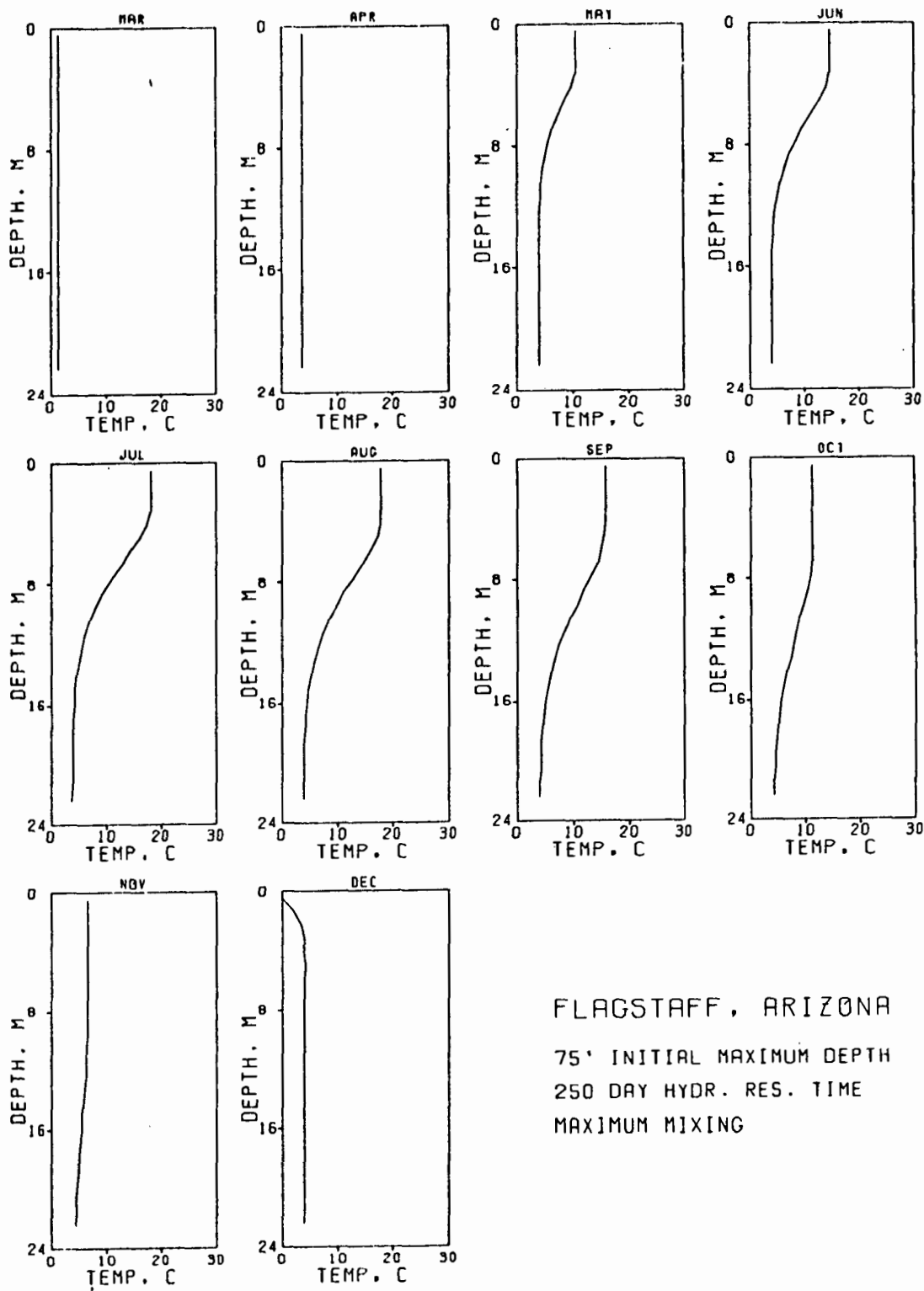
MAXIMUM MIXING

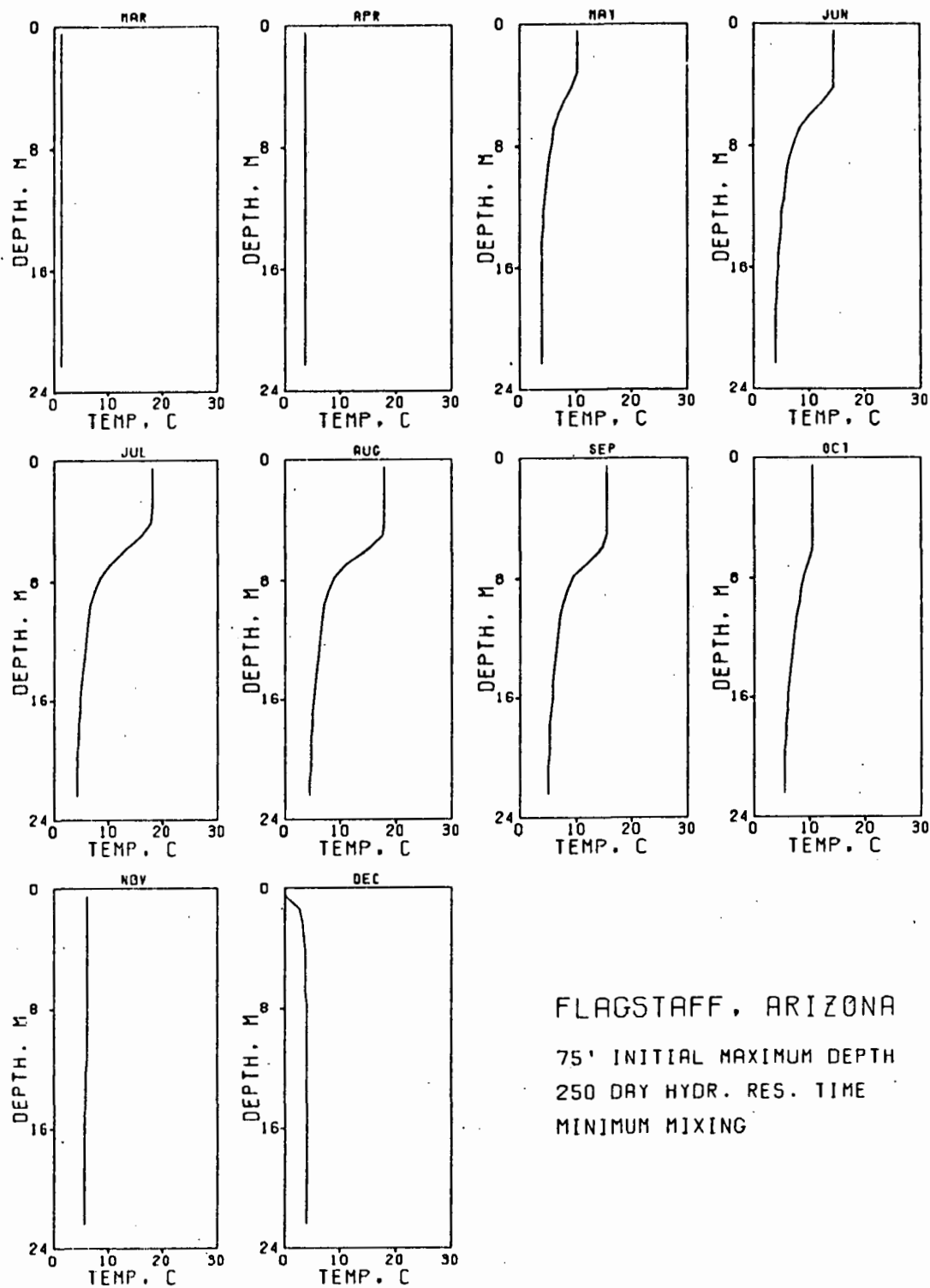






FLAGSTAFF, ARIZONA
 75' INITIAL MAXIMUM DEPTH
 75 DAY HYDR. RES. TIME
 MINIMUM MIXING



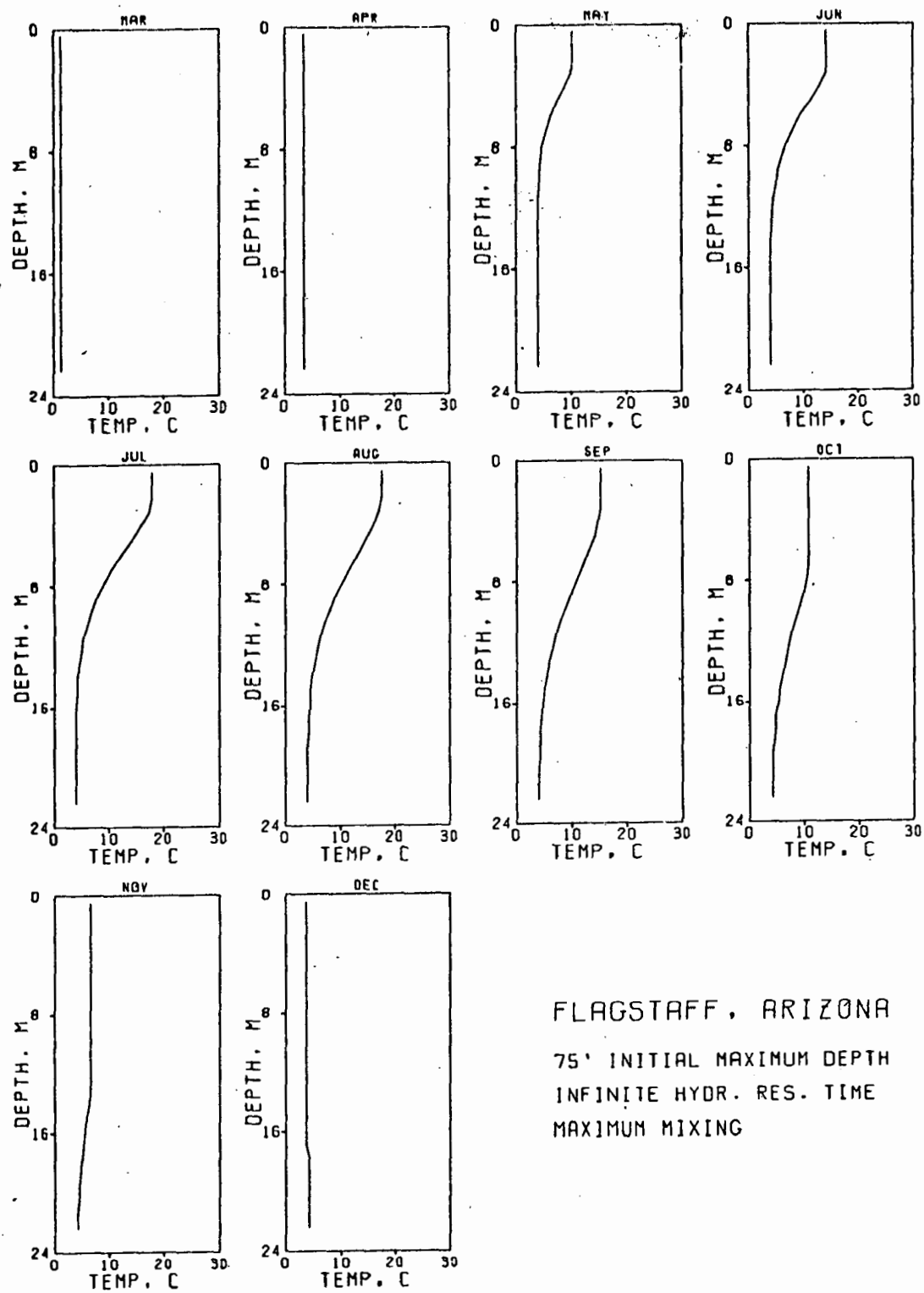


FLAGSTAFF, ARIZONA

75' INITIAL MAXIMUM DEPTH

250 DAY HYDR. RES. TIME

MINIMUM MIXING

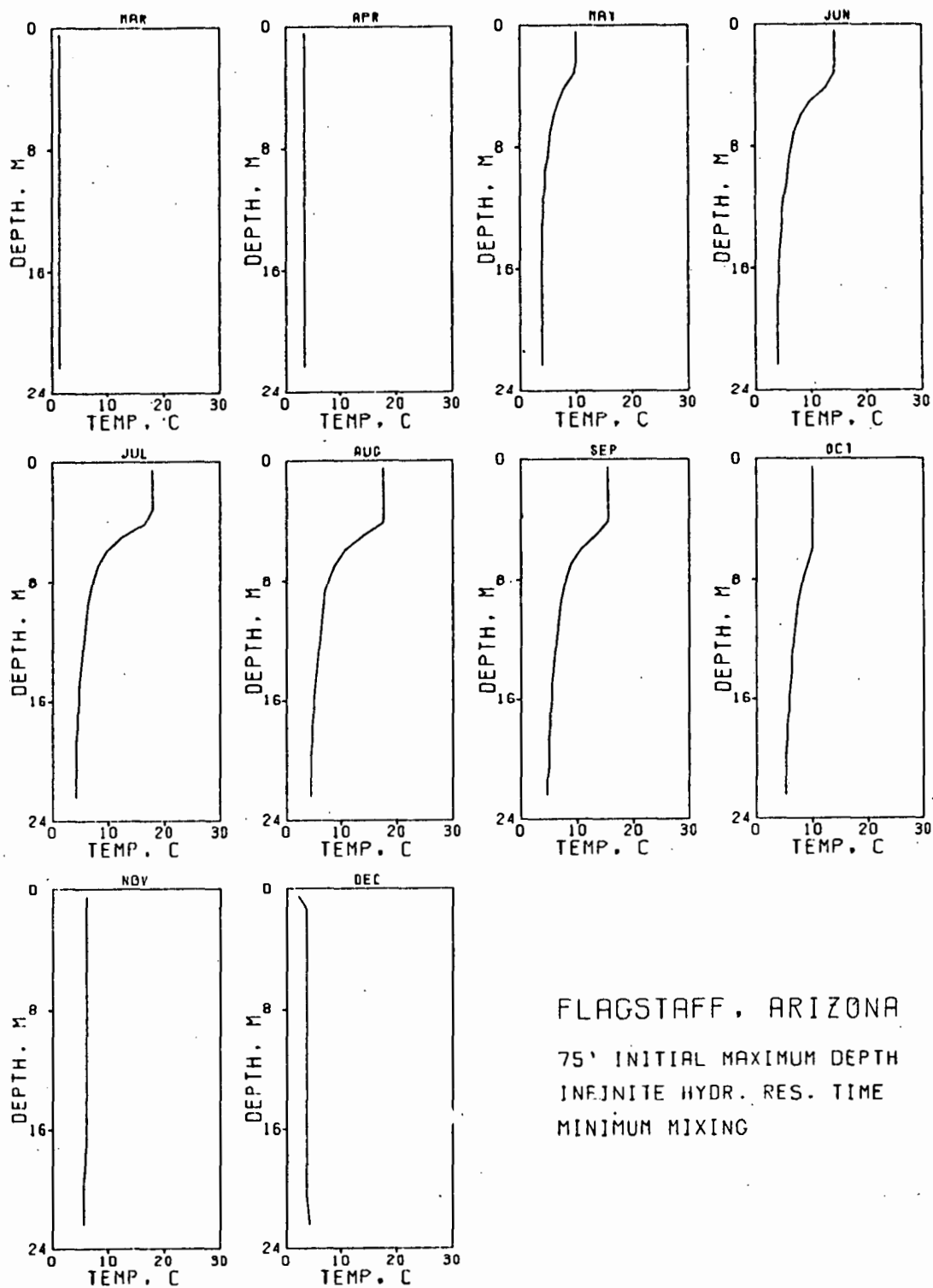


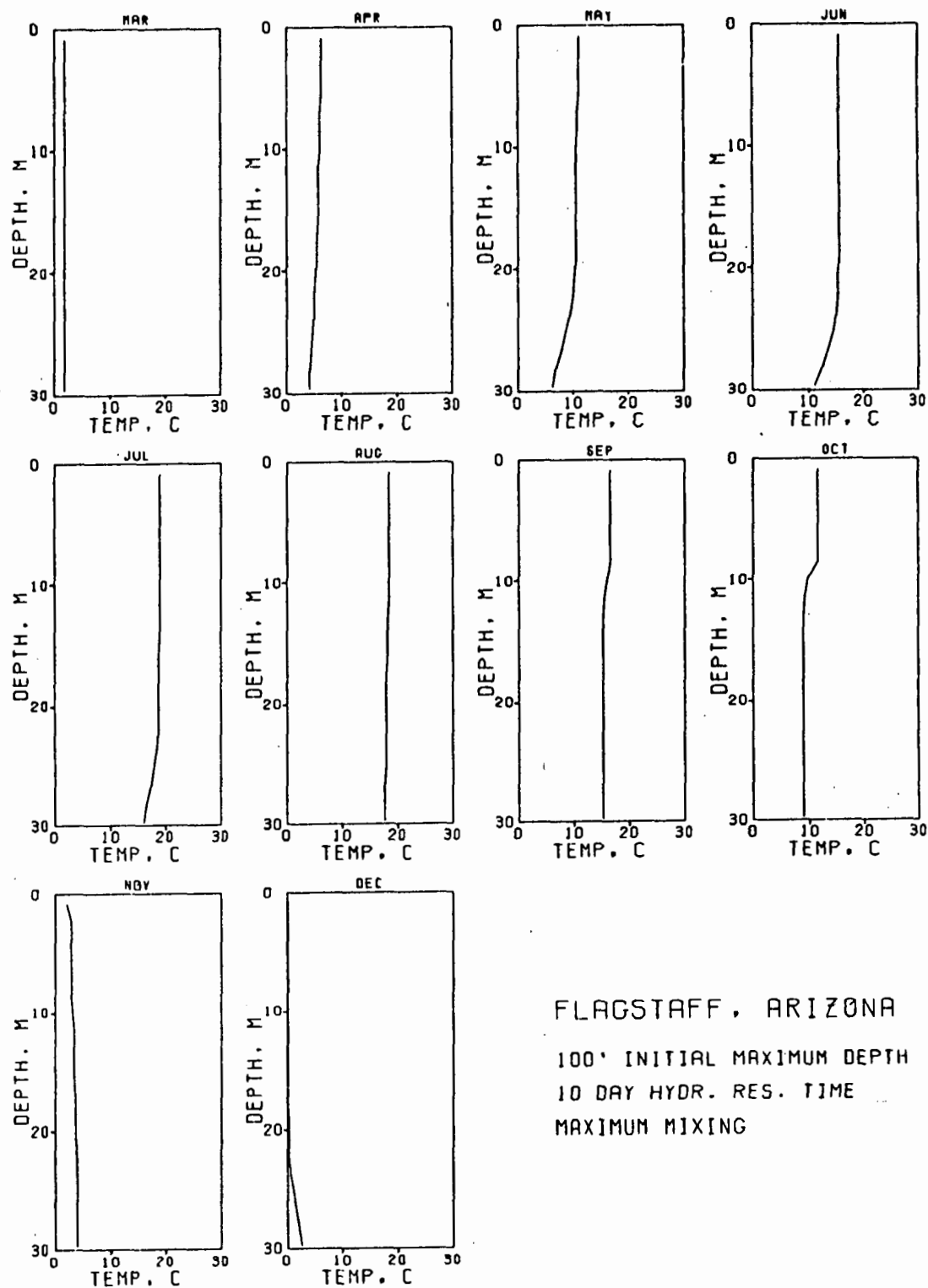
FLAGSTAFF, ARIZONA

75' INITIAL MAXIMUM DEPTH

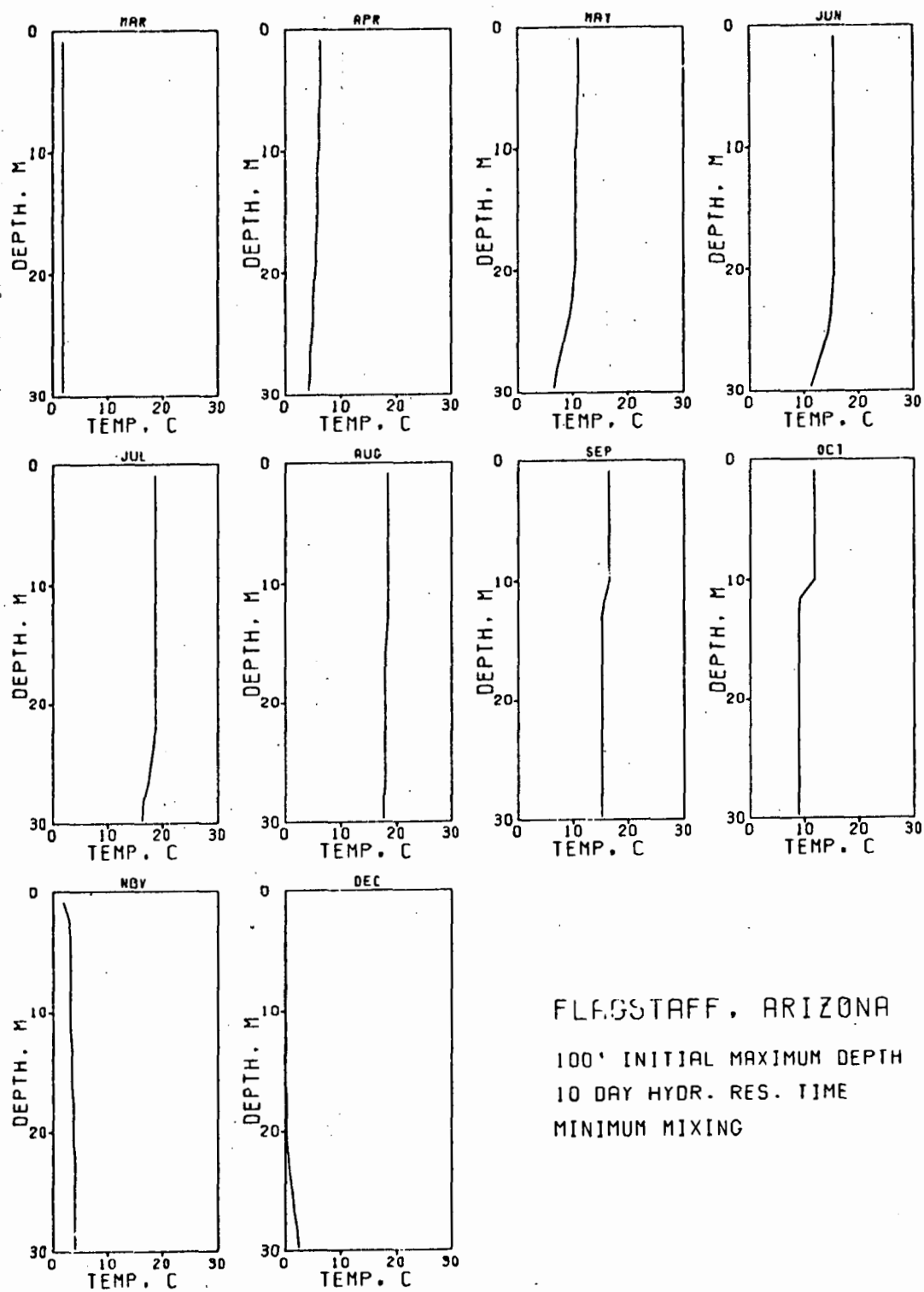
INFINITE HYDR. RES. TIME

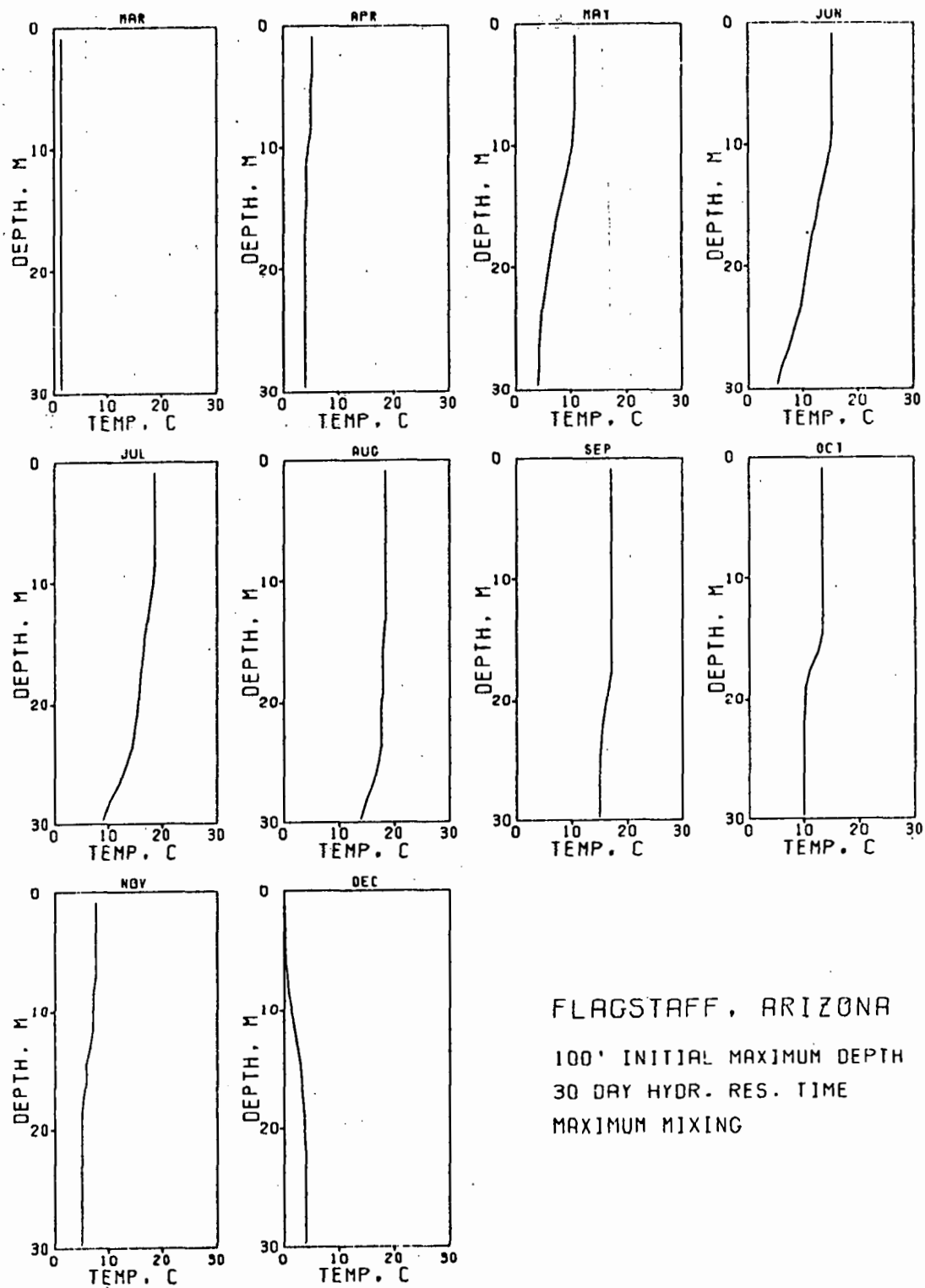
MAXIMUM MIXING



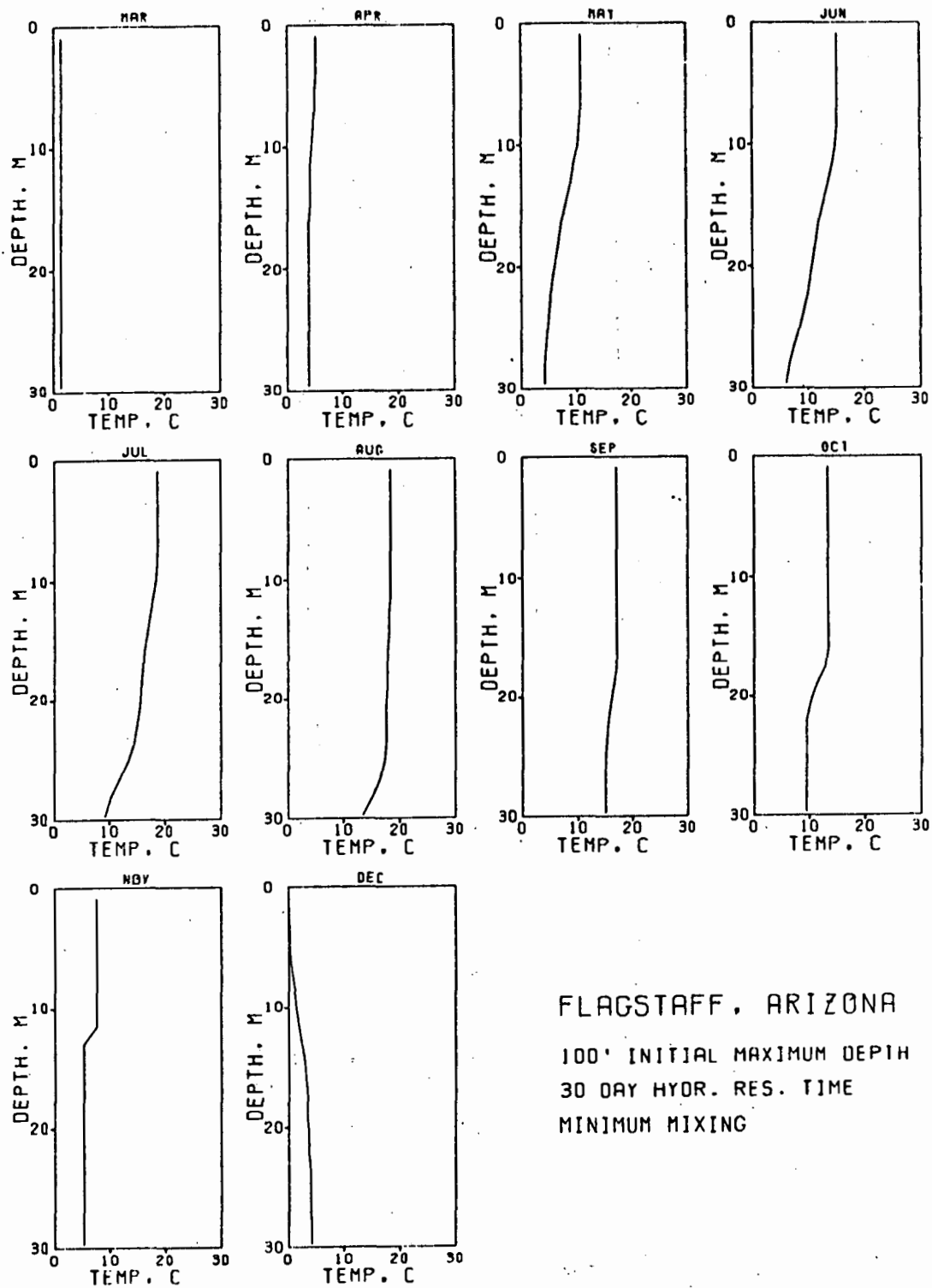


FLAGSTAFF, ARIZONA
 100' INITIAL MAXIMUM DEPTH
 10 DAY HYDR. RES. TIME
 MAXIMUM MIXING

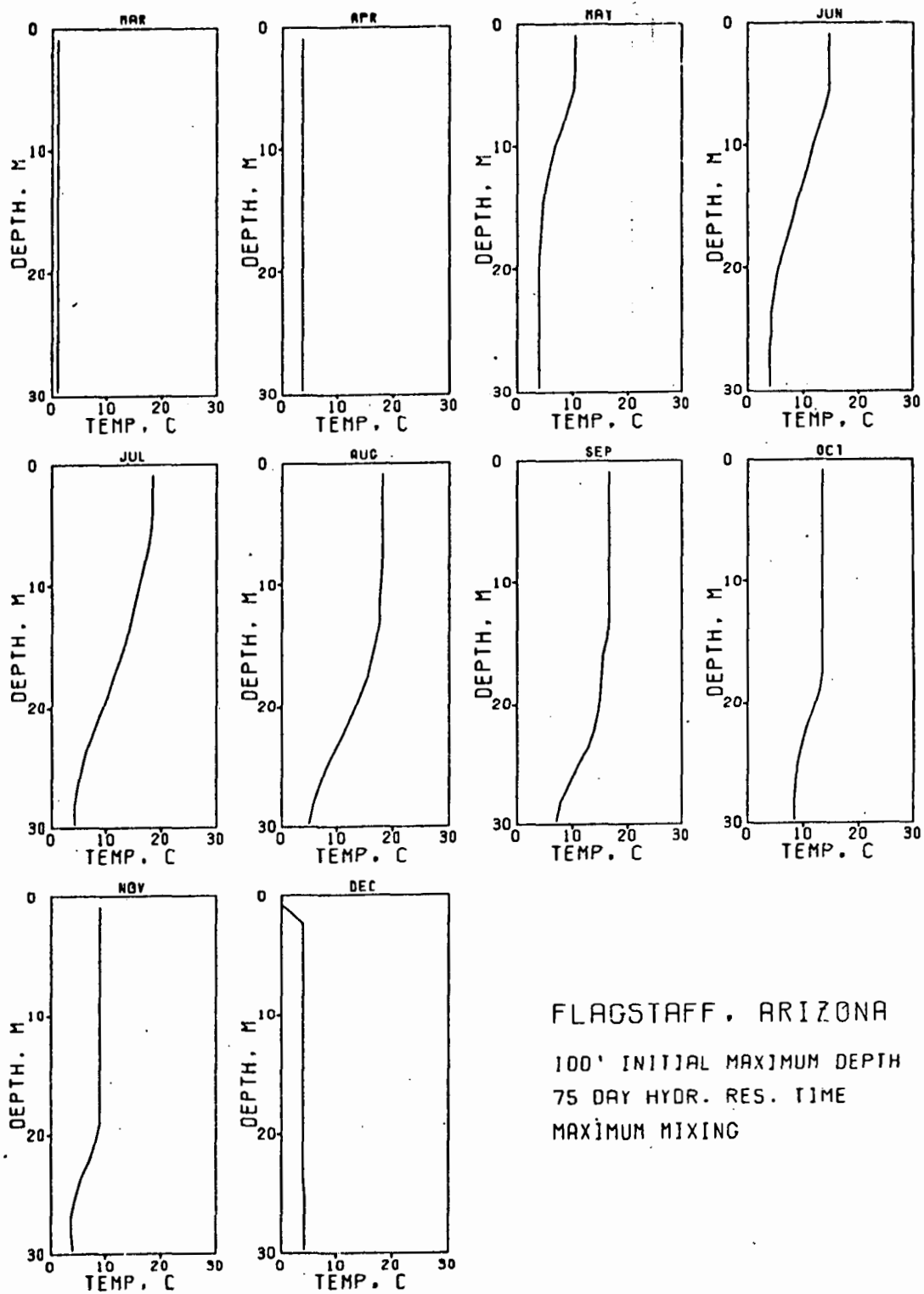




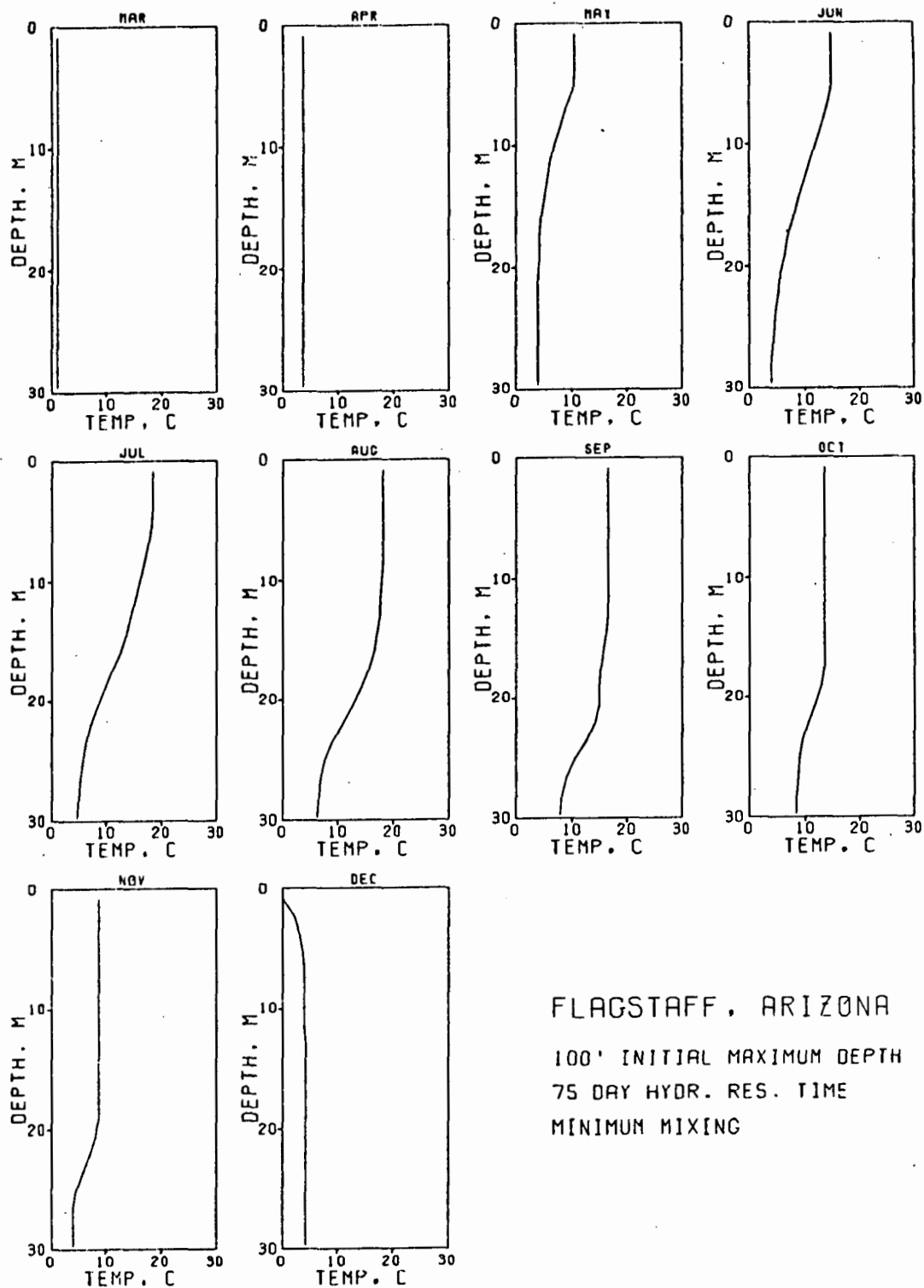
FLAGSTAFF, ARIZONA
 100' INITIAL MAXIMUM DEPTH
 30 DAY HYDR. RES. TIME
 MAXIMUM MIXING



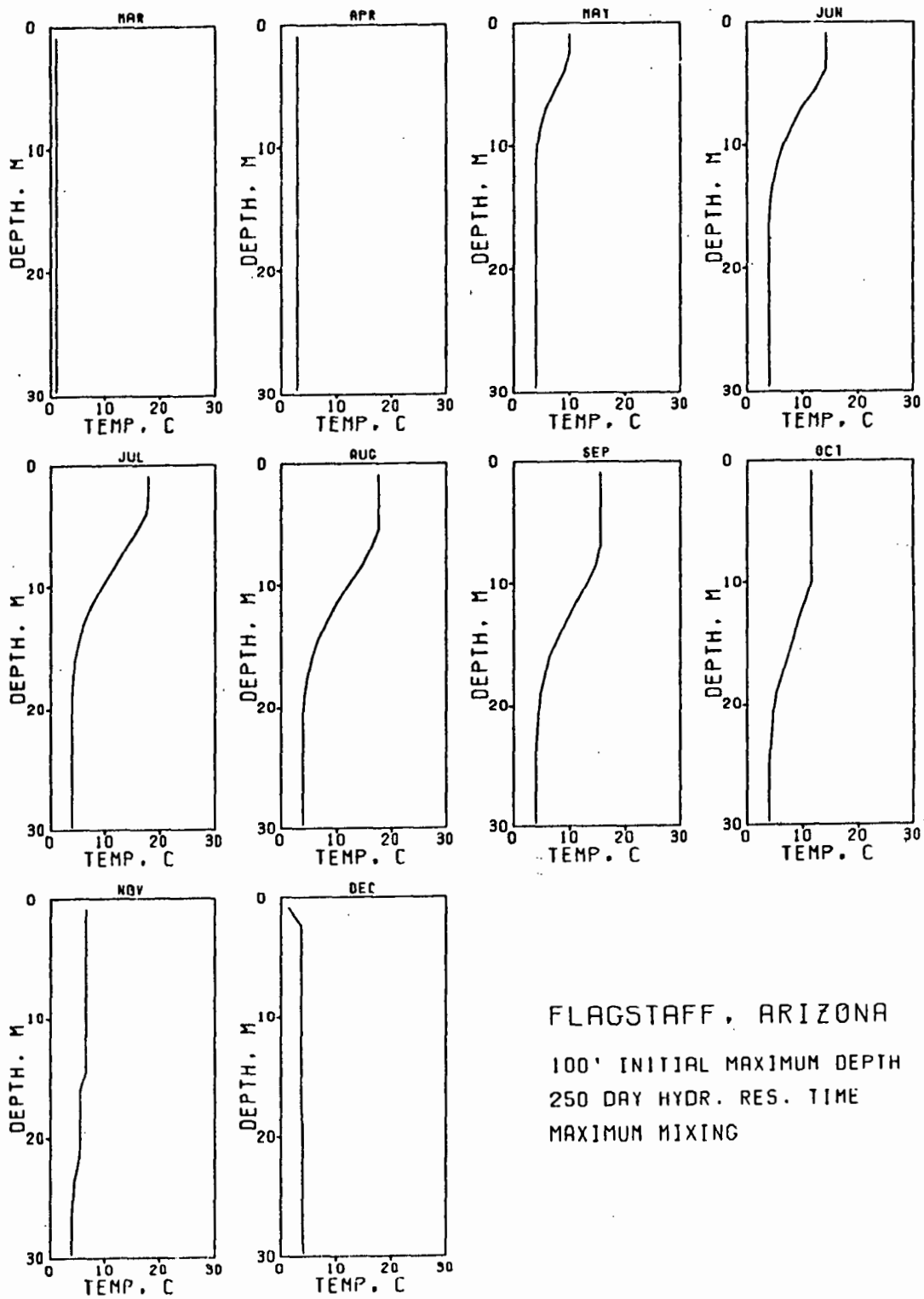
FLAGSTAFF, ARIZONA
 100' INITIAL MAXIMUM DEPTH
 30 DAY HYDR. RES. TIME
 MINIMUM MIXING

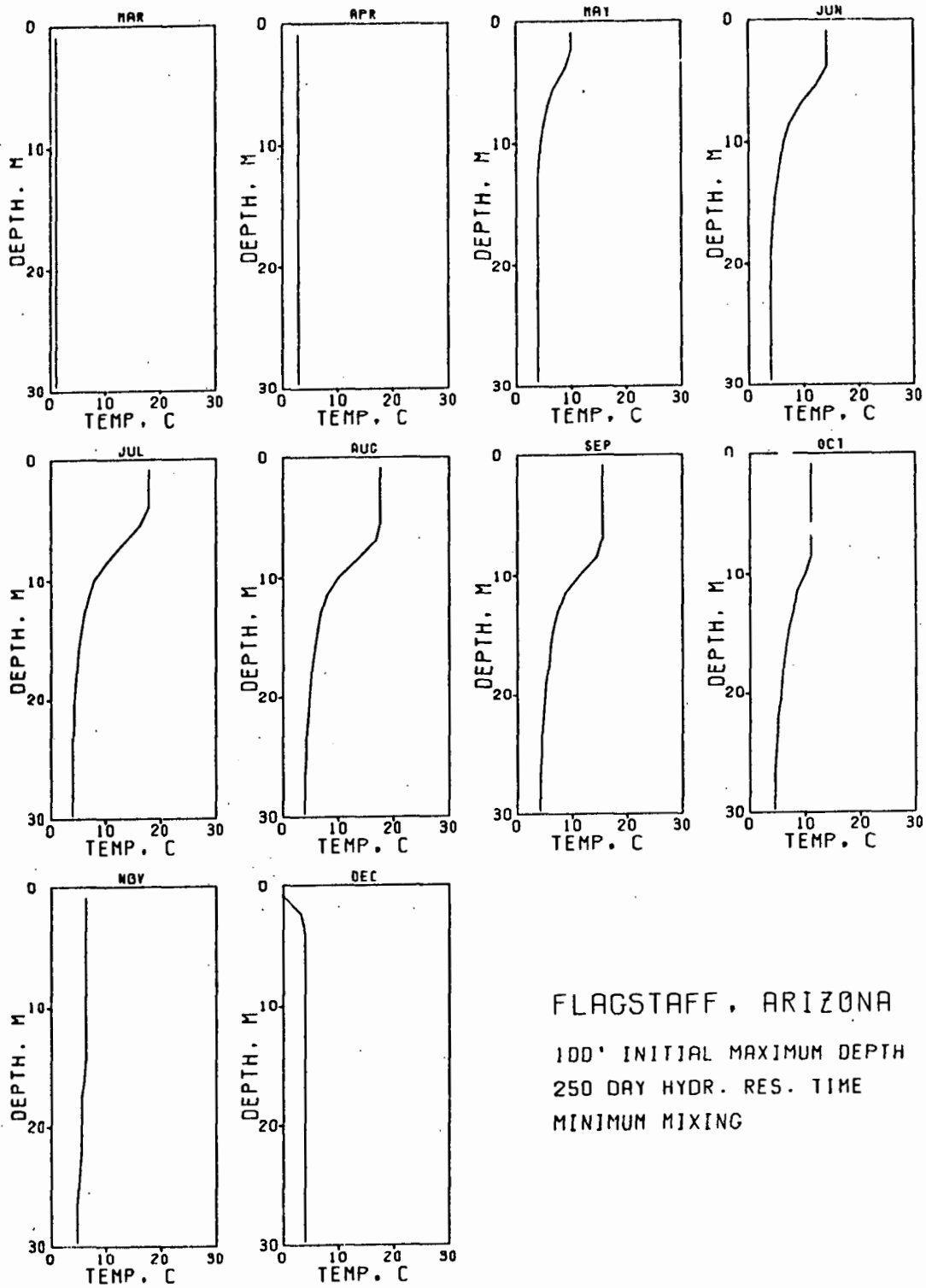


FLAGSTAFF, ARIZONA
 100' INITIAL MAXIMUM DEPTH
 75 DAY HYDR. RES. TIME
 MAXIMUM MIXING

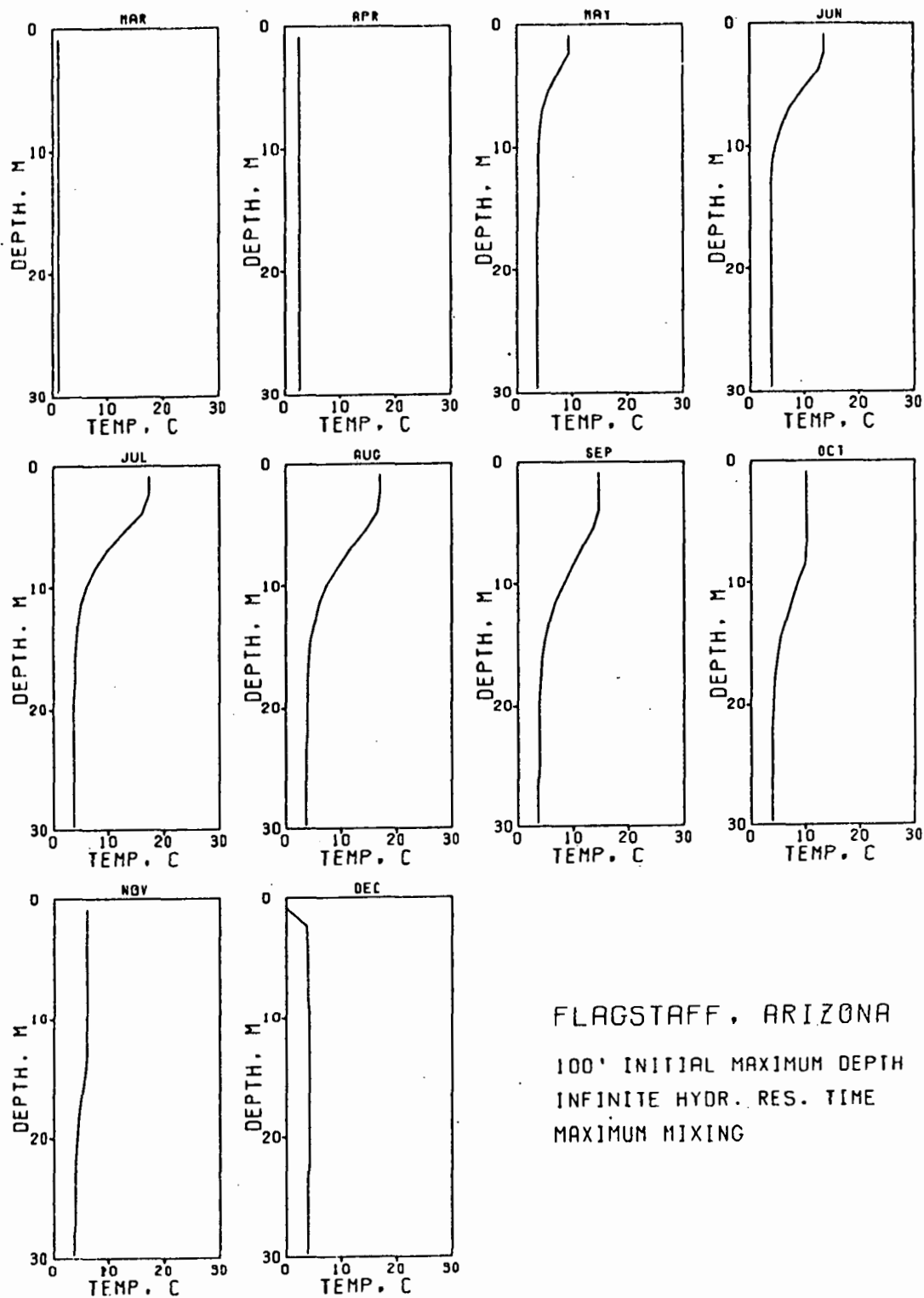


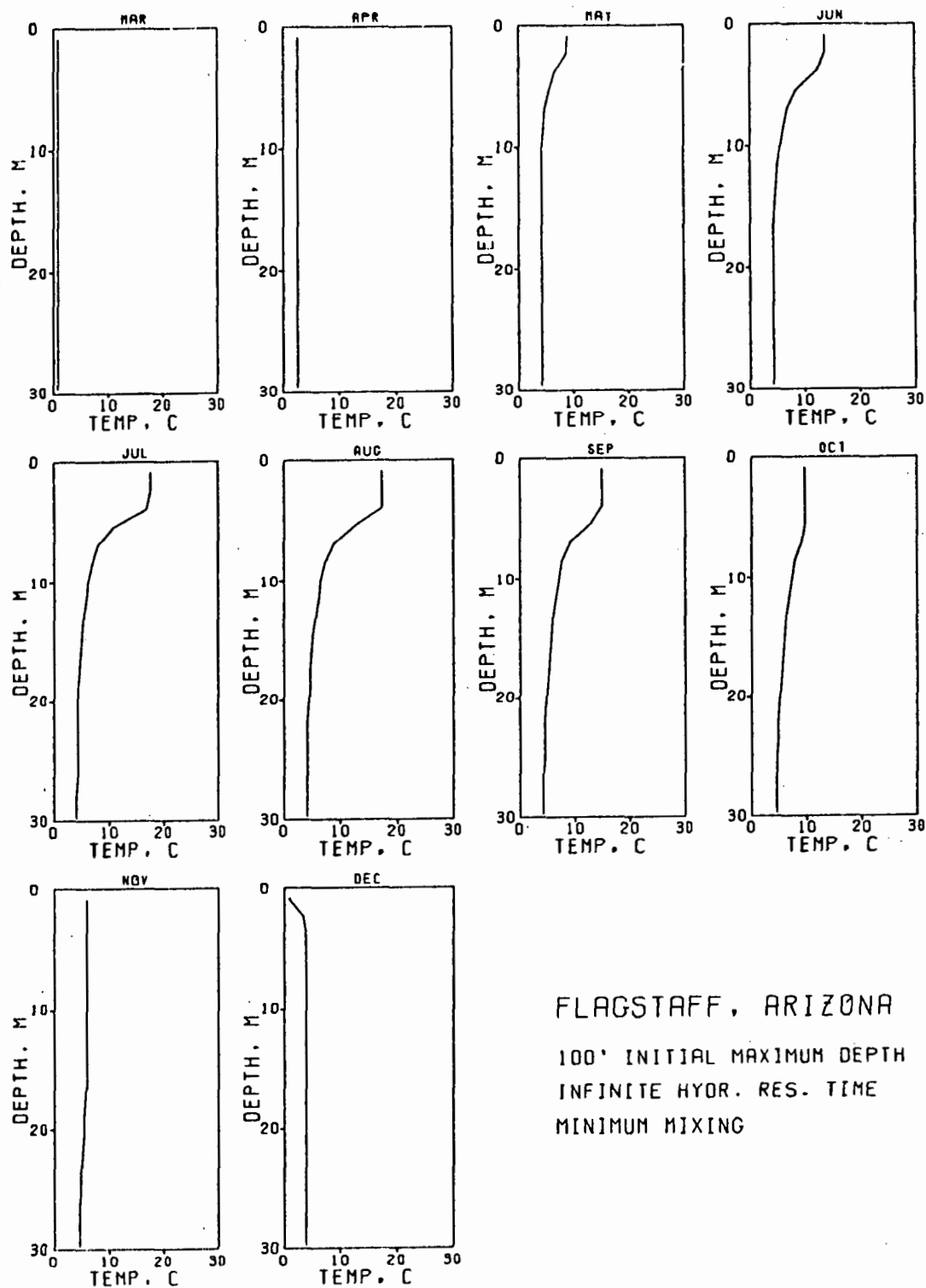
FLAGSTAFF, ARIZONA
 100' INITIAL MAXIMUM DEPTH
 75 DAY HYDR. RES. TIME
 MINIMUM MIXING

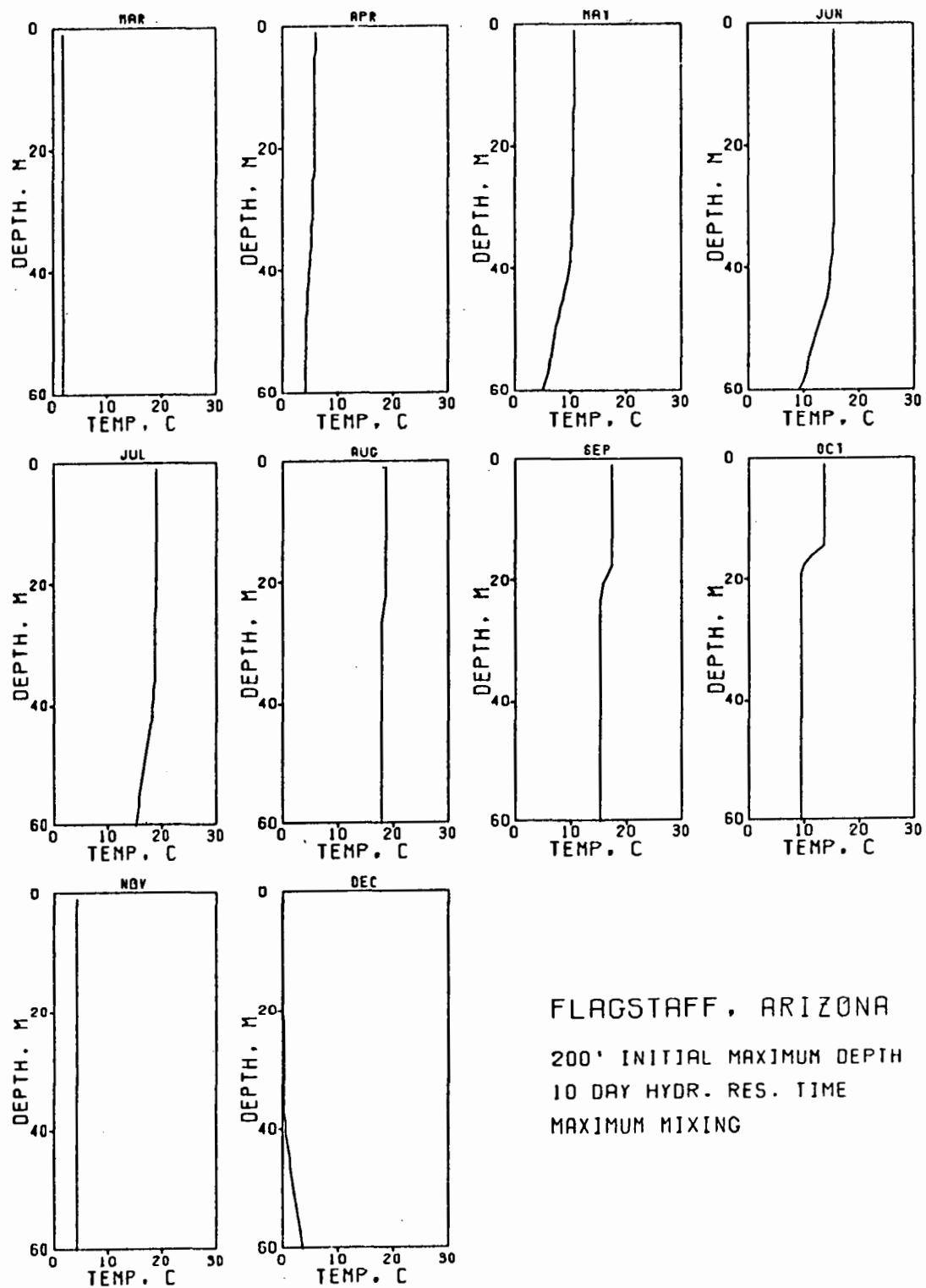


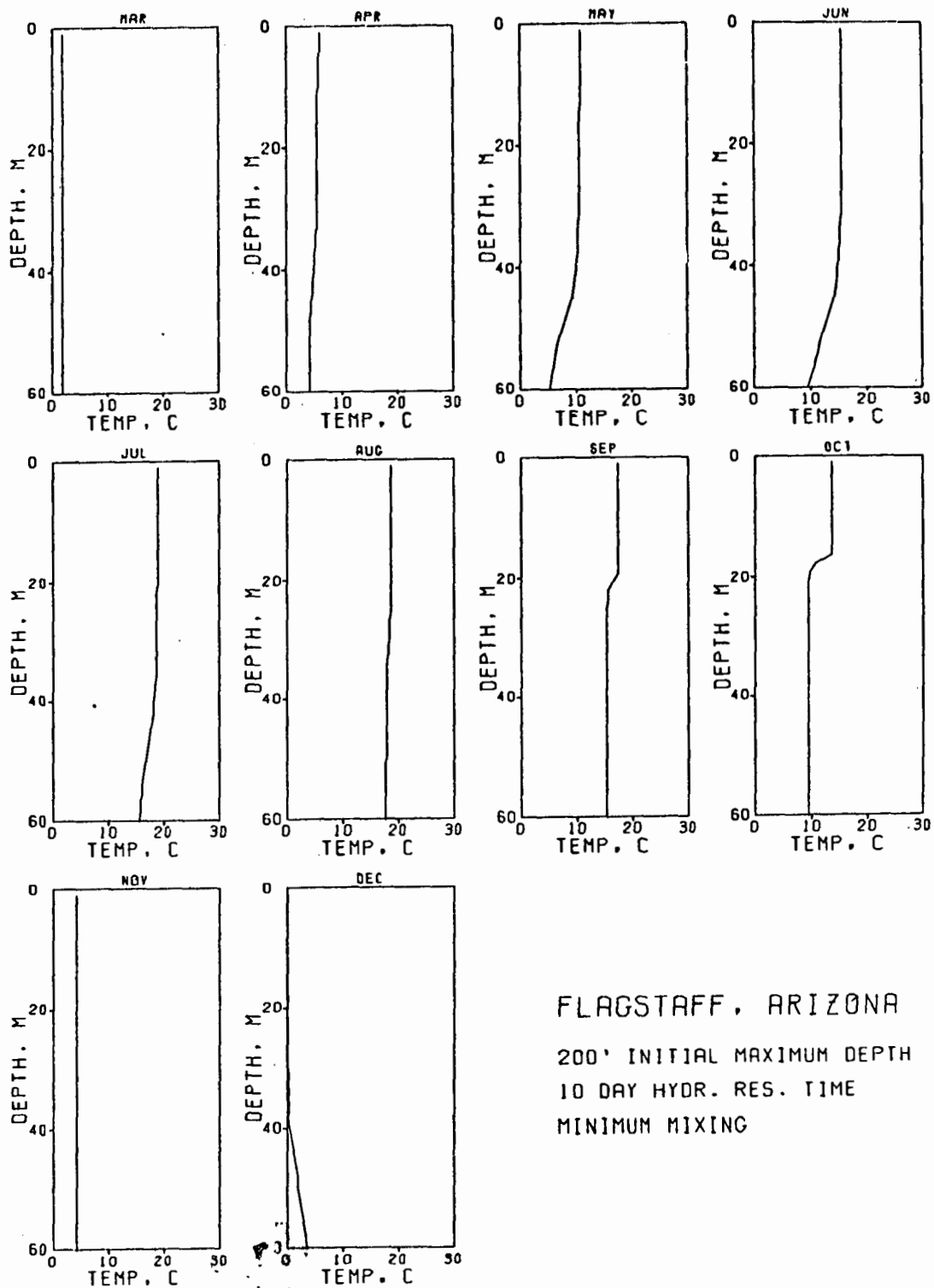


FLAGSTAFF, ARIZONA
 100' INITIAL MAXIMUM DEPTH
 250 DAY HYDR. RES. TIME
 MINIMUM MIXING







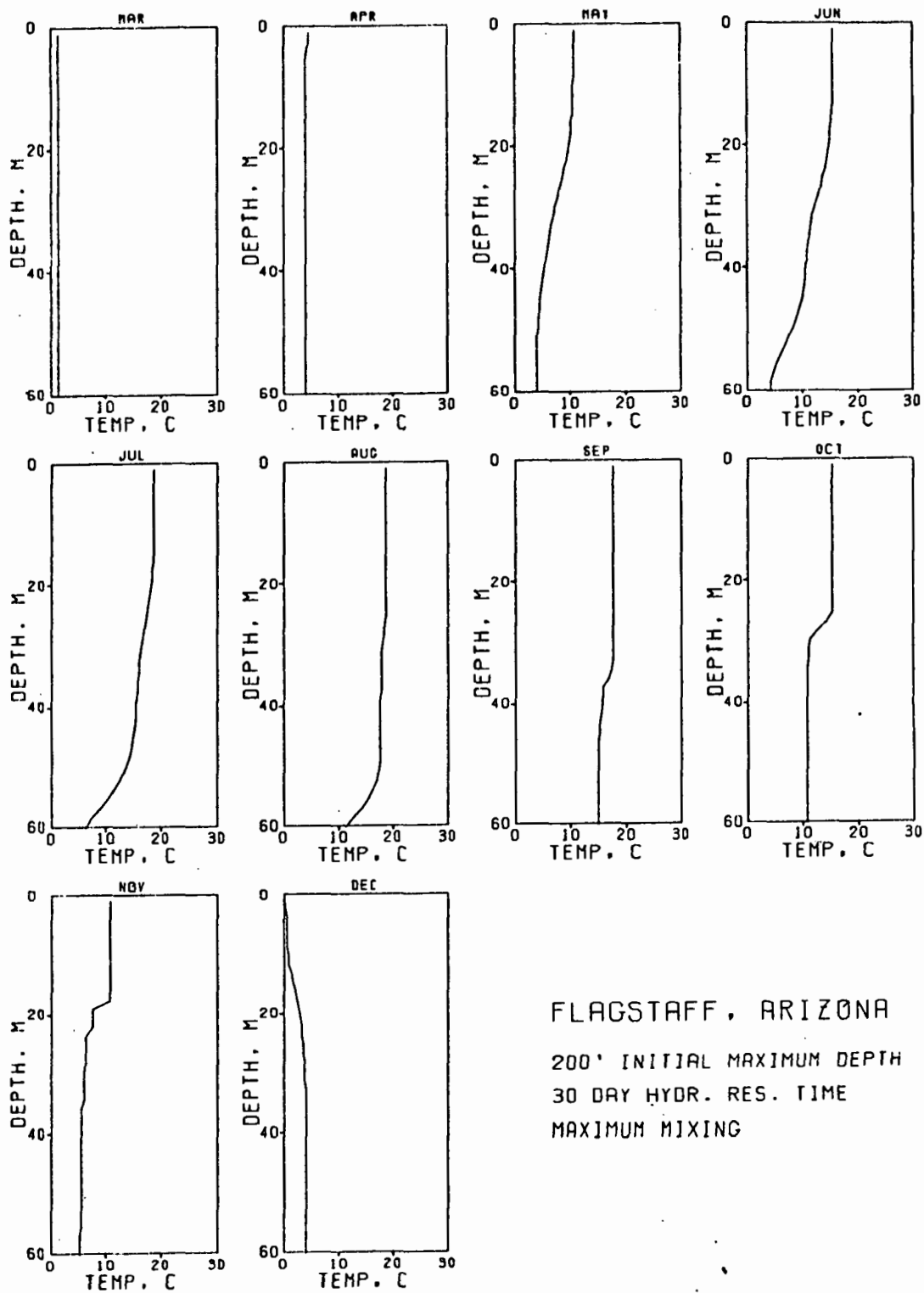


FLAGSTAFF, ARIZONA

200' INITIAL MAXIMUM DEPTH

10 DAY HYDR. RES. TIME

MINIMUM MIXING

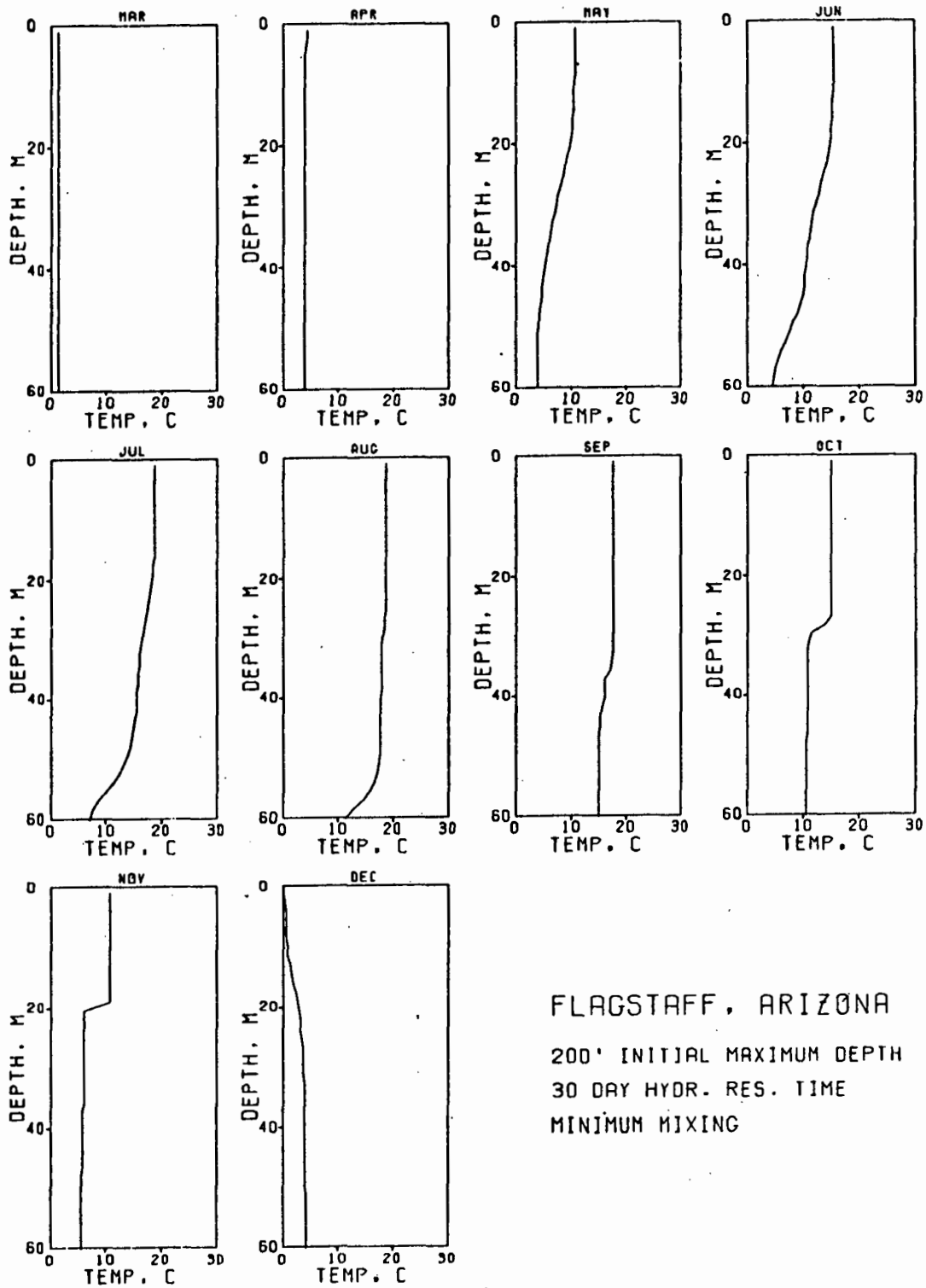


FLAGSTAFF, ARIZONA

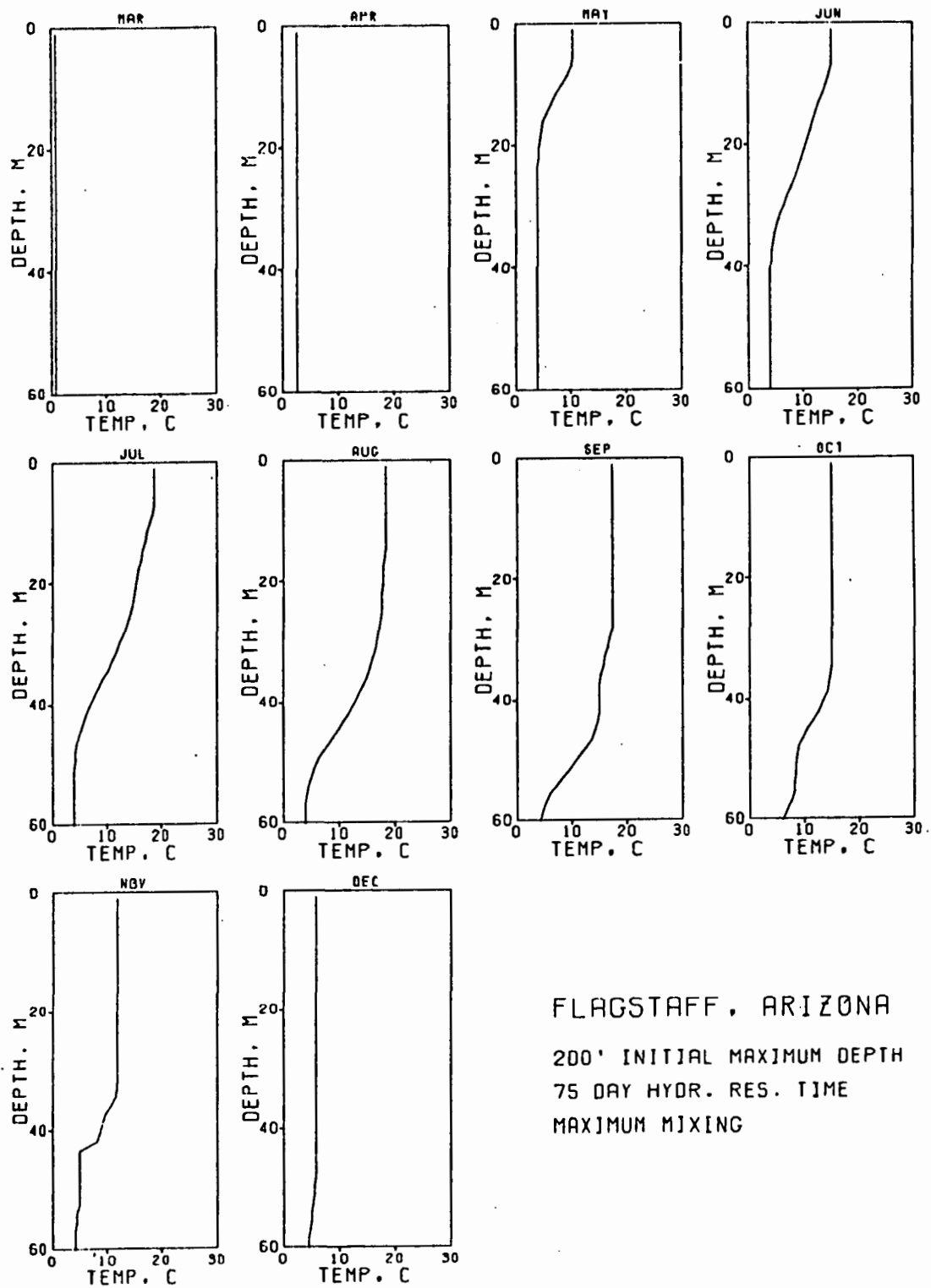
200' INITIAL MAXIMUM DEPTH

30 DAY HYDR. RES. TIME

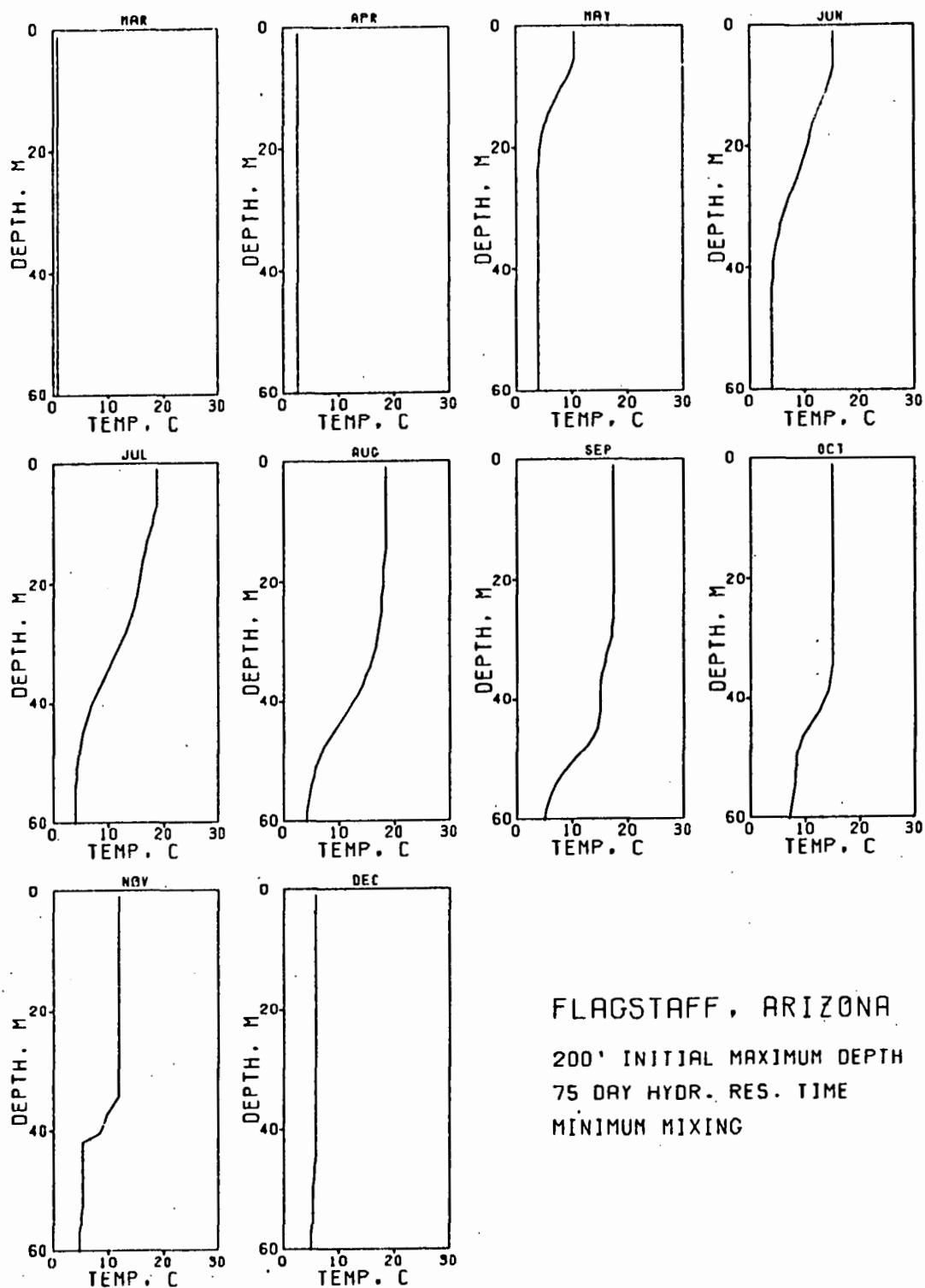
MAXIMUM MIXING



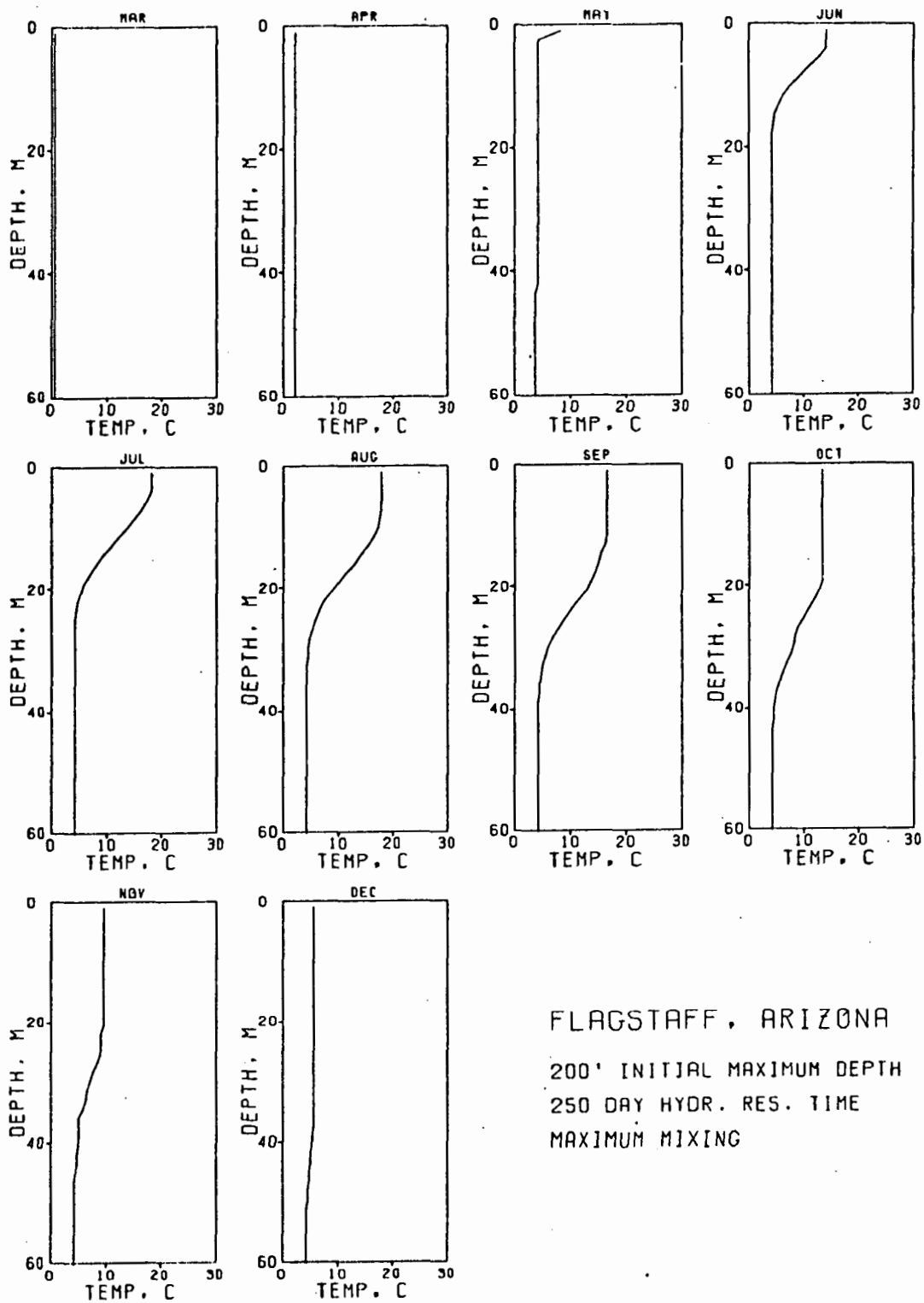
FLAGSTAFF, ARIZONA
 200' INITIAL MAXIMUM DEPTH
 30 DAY HYDR. RES. TIME
 MINIMUM MIXING



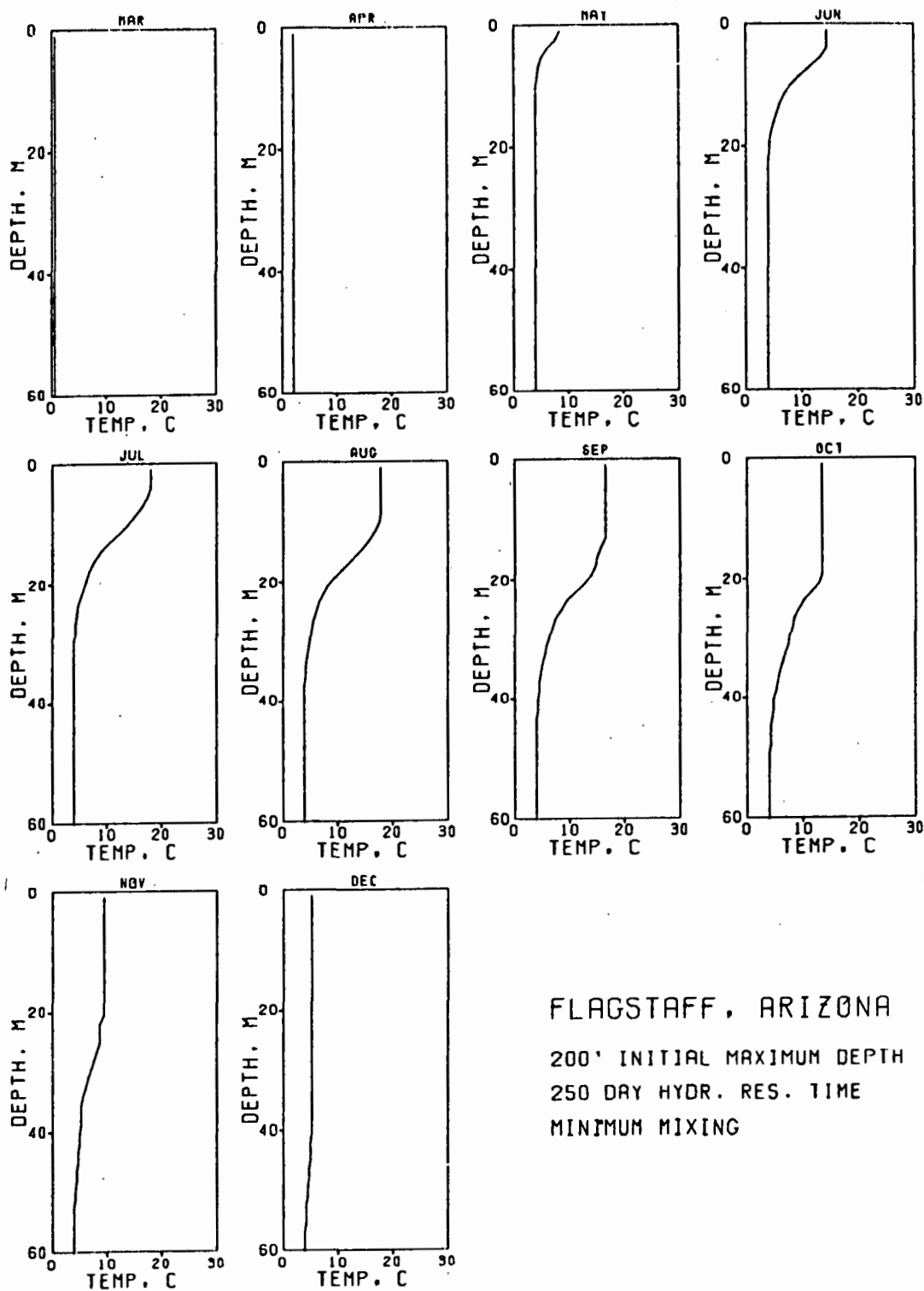
FLAGSTAFF, ARIZONA
 200' INITIAL MAXIMUM DEPTH
 75 DAY HYDR. RES. TIME
 MAXIMUM MIXING



FLAGSTAFF, ARIZONA
 200' INITIAL MAXIMUM DEPTH
 75 DAY HYDR. RES. TIME
 MINIMUM MIXING



FLAGSTAFF, ARIZONA
 200' INITIAL MAXIMUM DEPTH
 250 DAY HYDR. RES. TIME
 MAXIMUM MIXING

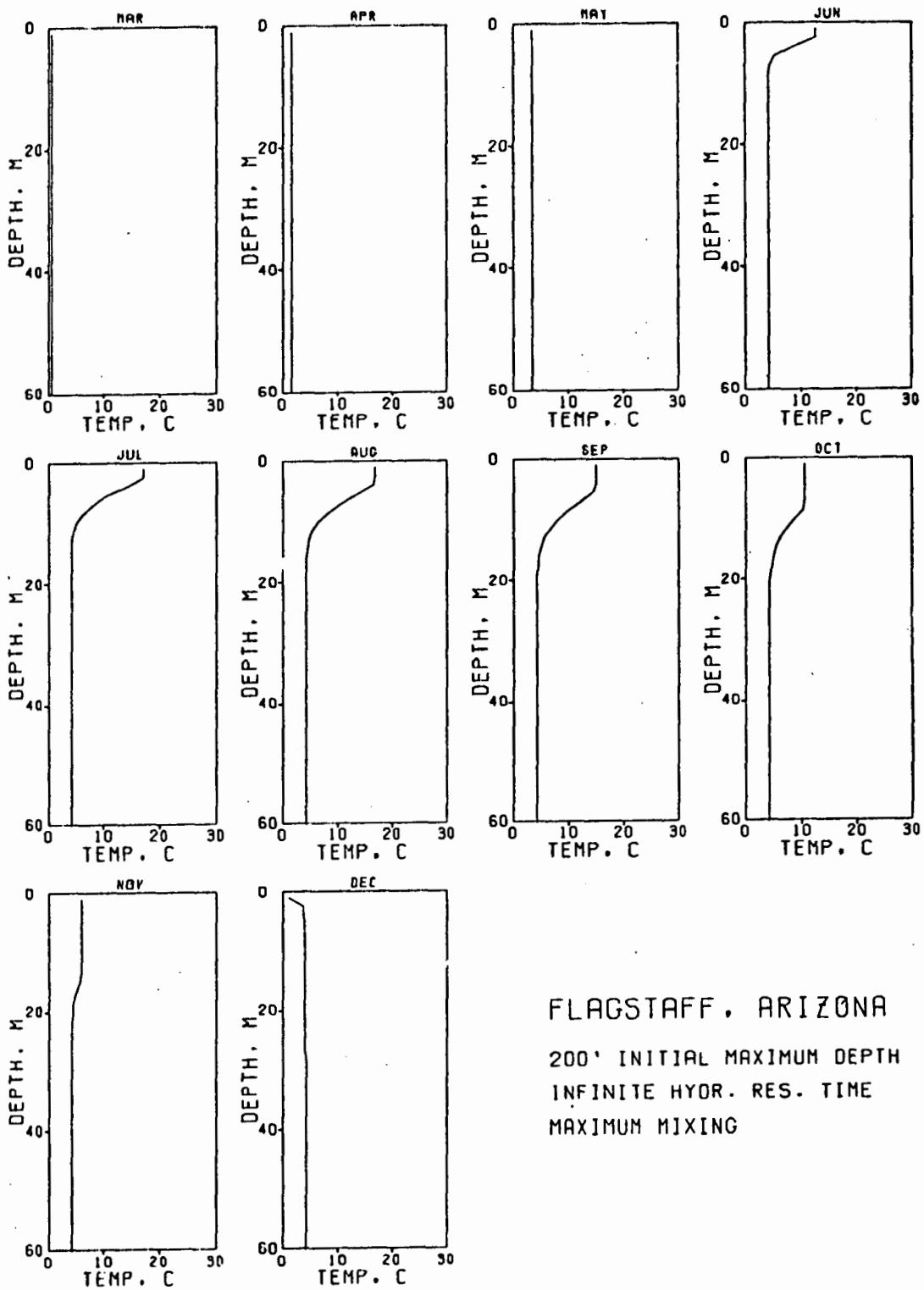


FLAGSTAFF, ARIZONA

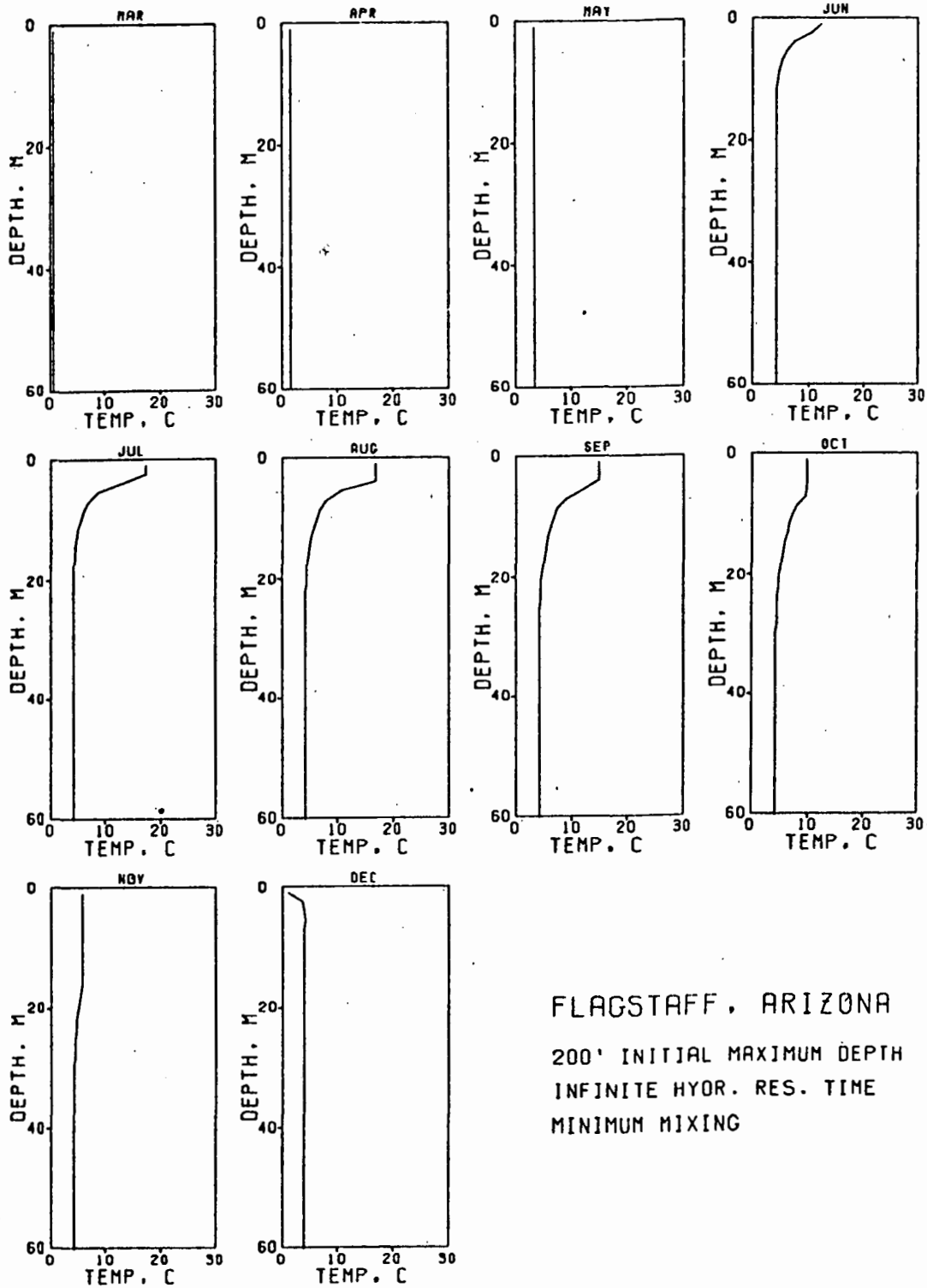
200' INITIAL MAXIMUM DEPTH

250 DAY HYDR. RES. TIME

MINIMUM MIXING



FLAGSTAFF, ARIZONA
 200' INITIAL MAXIMUM DEPTH
 INFINITE HYDR. RES. TIME
 MAXIMUM MIXING

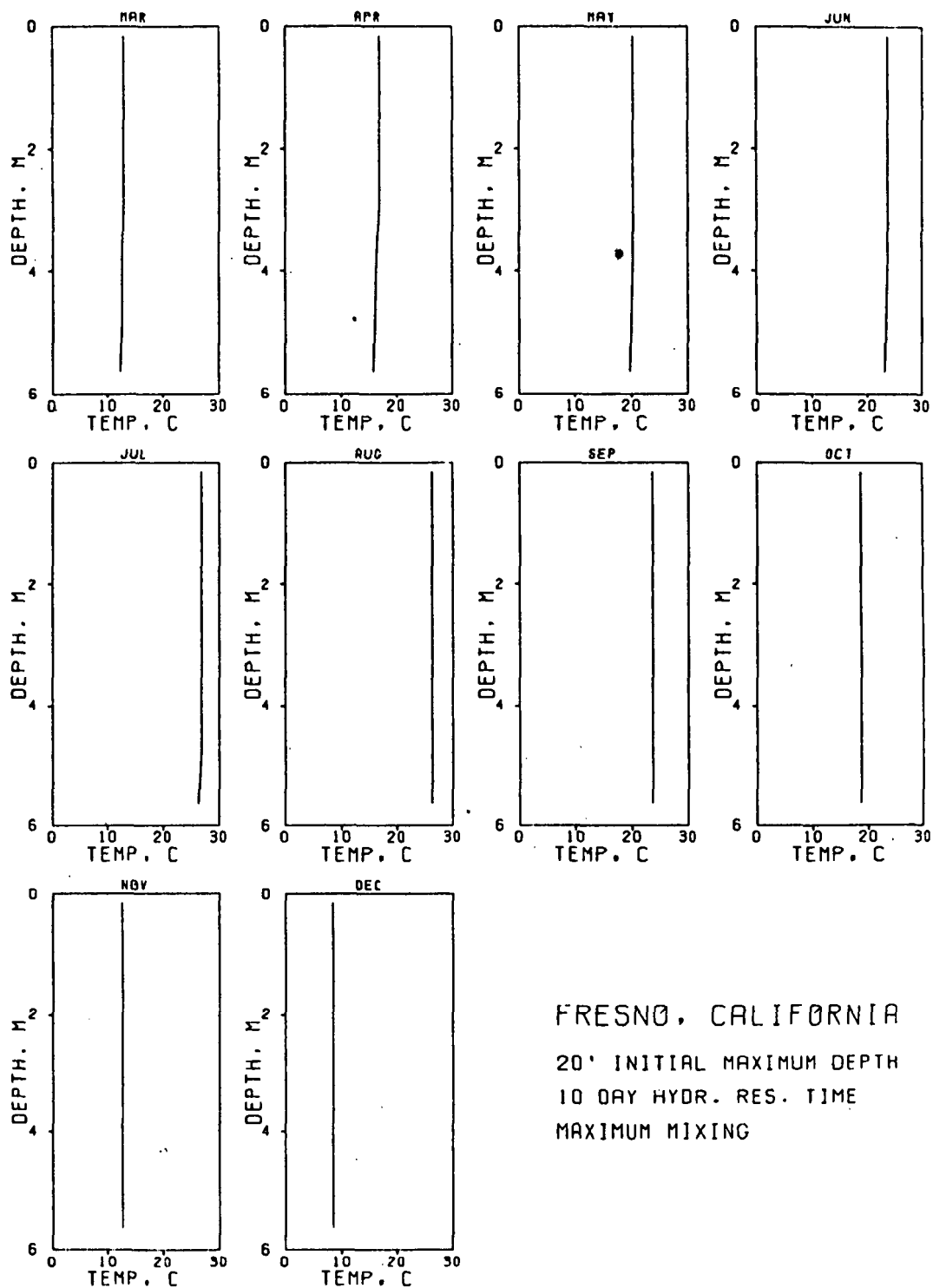


FLAGSTAFF, ARIZONA

200' INITIAL MAXIMUM DEPTH

INFINITE HYOR. RES. TIME

MINIMUM MIXING

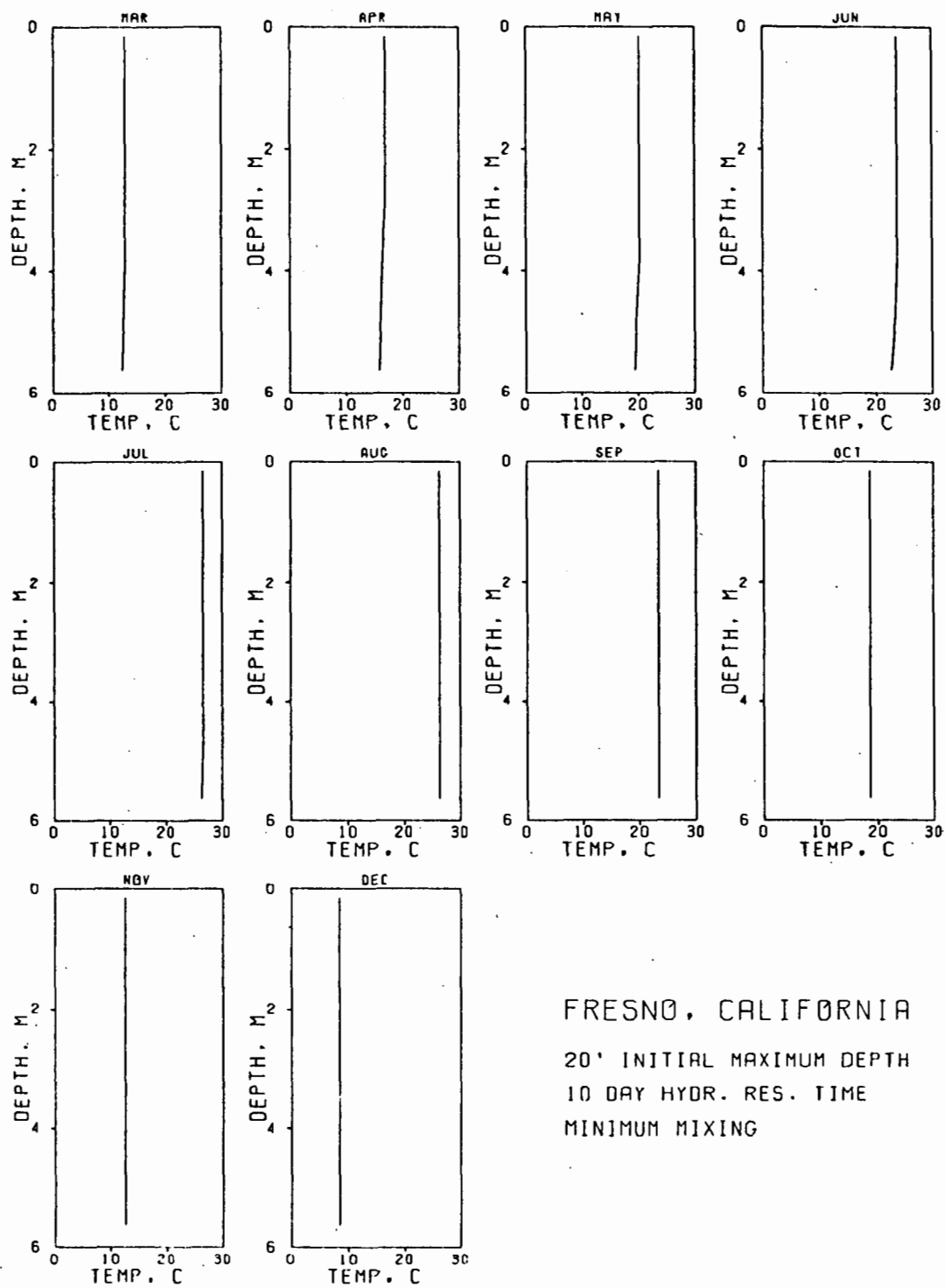


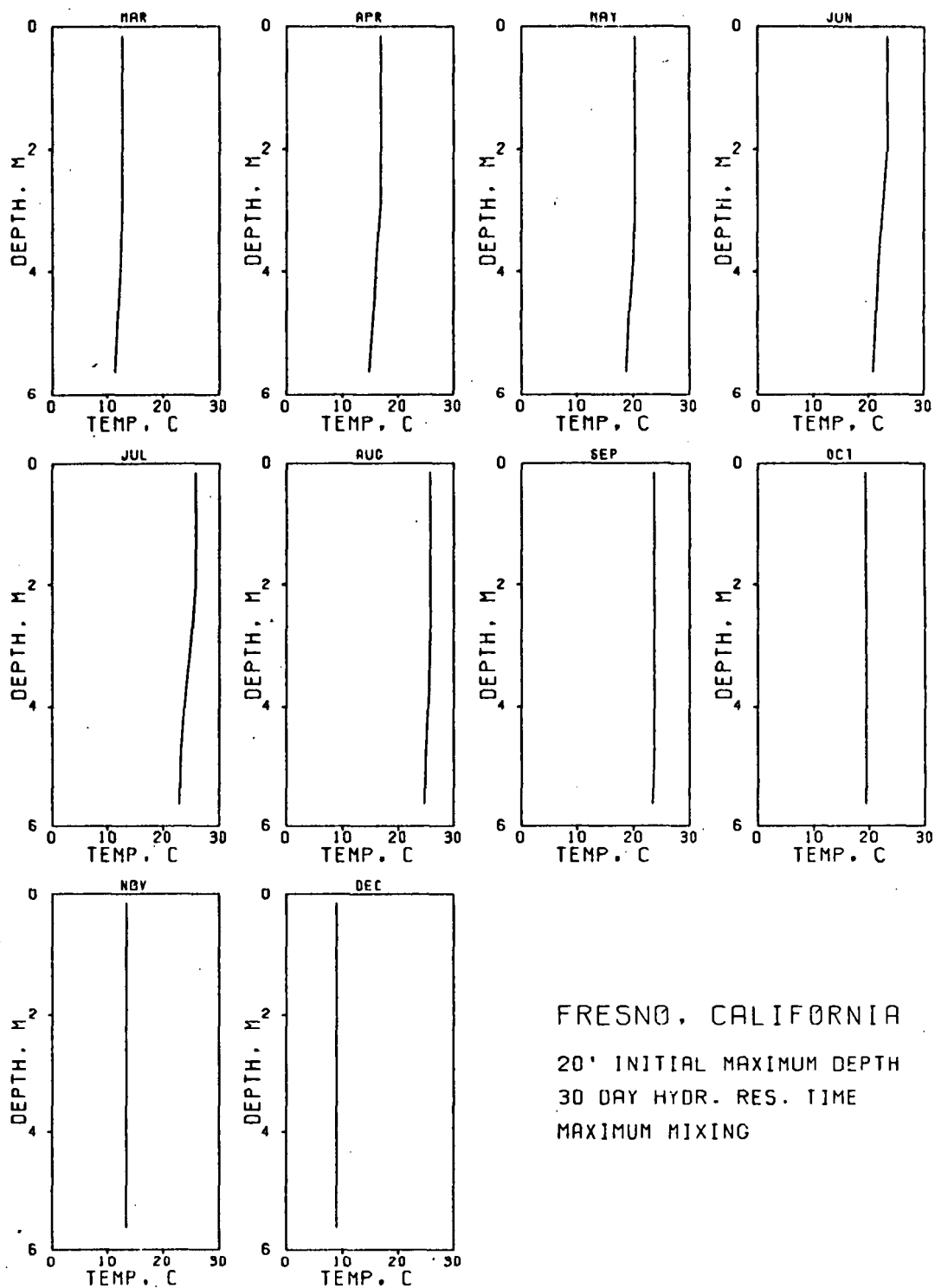
FRESNO, CALIFORNIA

20' INITIAL MAXIMUM DEPTH

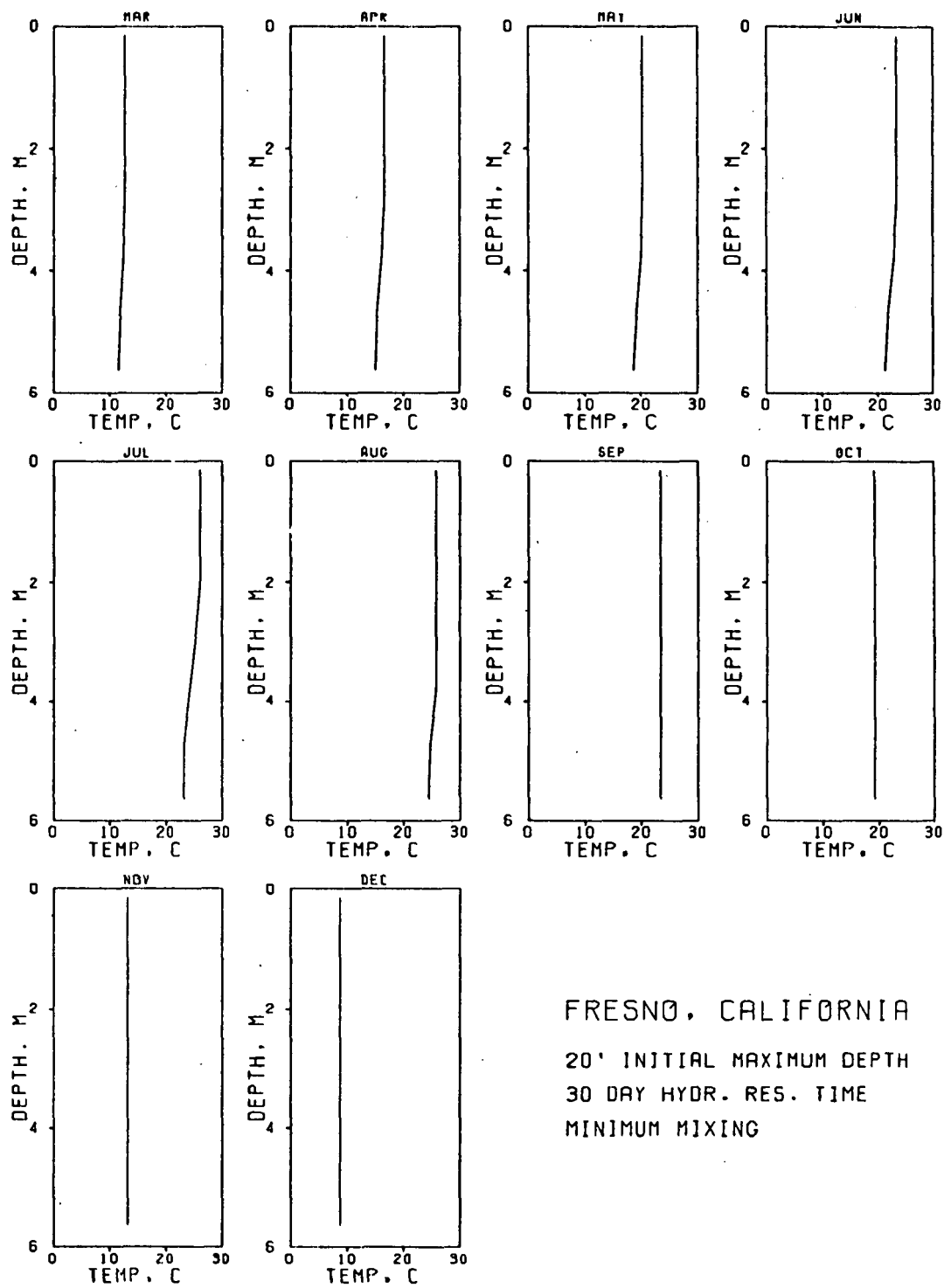
10 DAY HYDR. RES. TIME

MAXIMUM MIXING

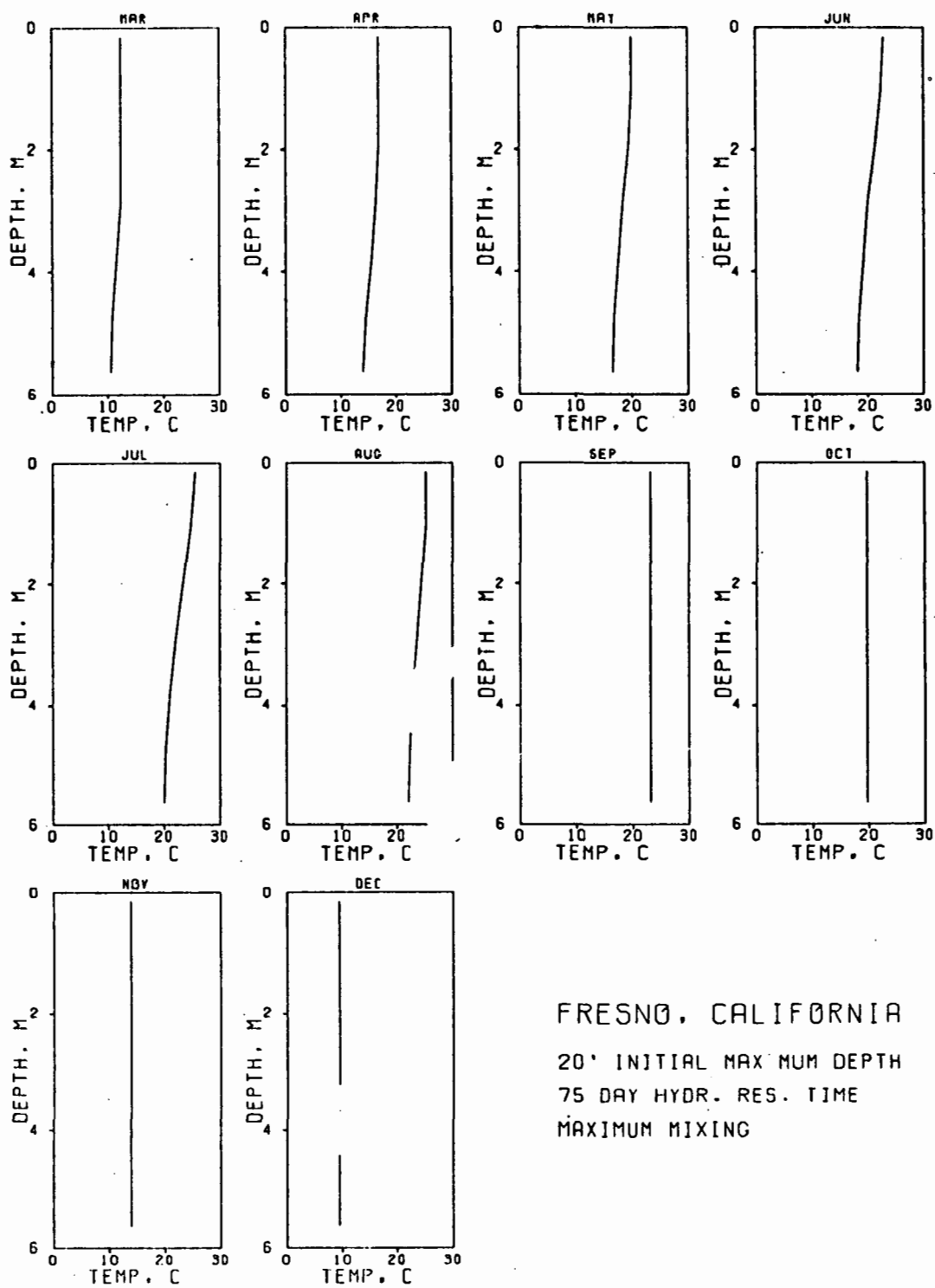


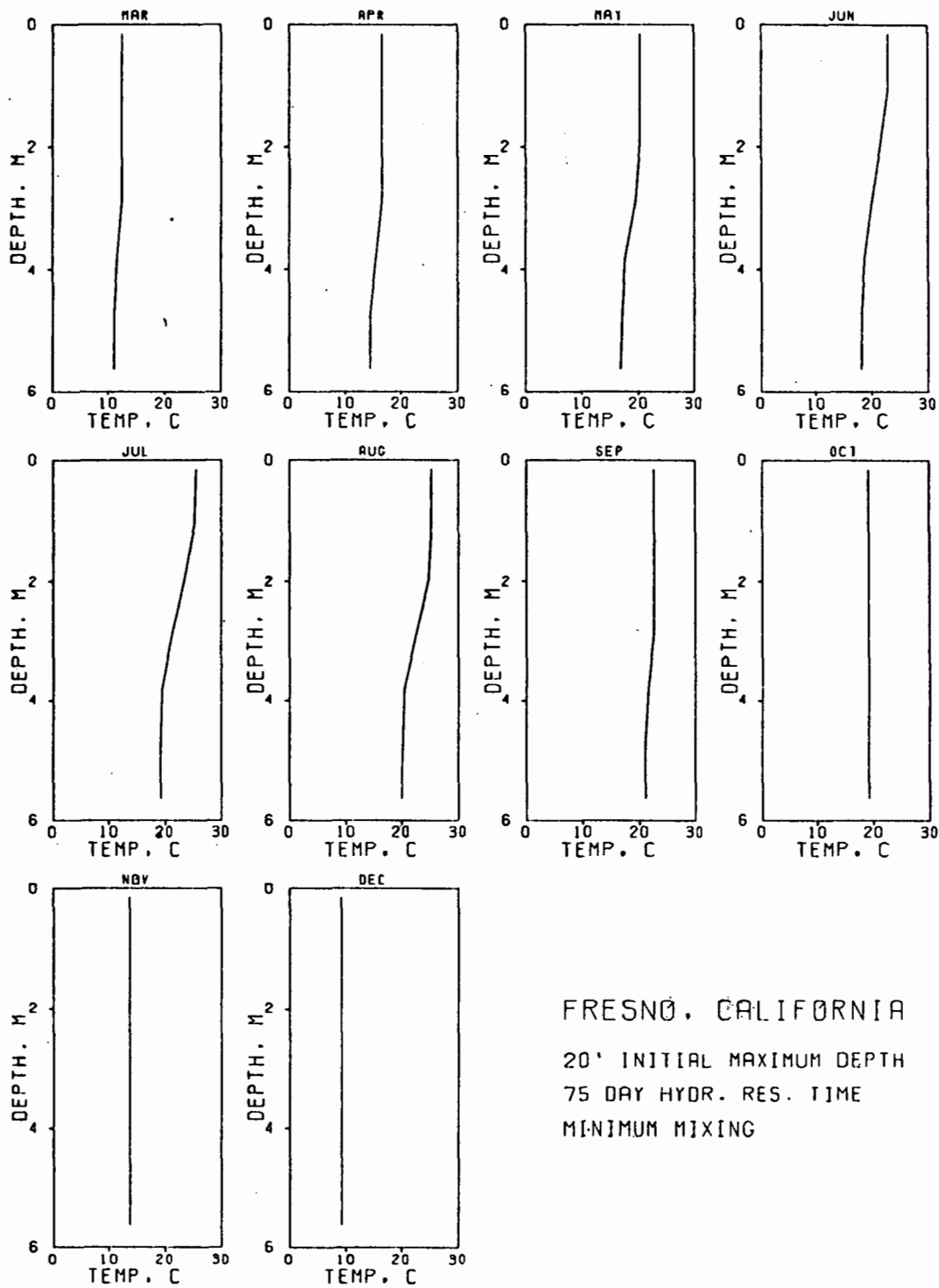


FRESNO, CALIFORNIA
 20' INITIAL MAXIMUM DEPTH
 30 DAY HYDR. RES. TIME
 MAXIMUM MIXING



FRESNO, CALIFORNIA
20' INITIAL MAXIMUM DEPTH
30 DAY HYDR. RES. TIME
MINIMUM MIXING



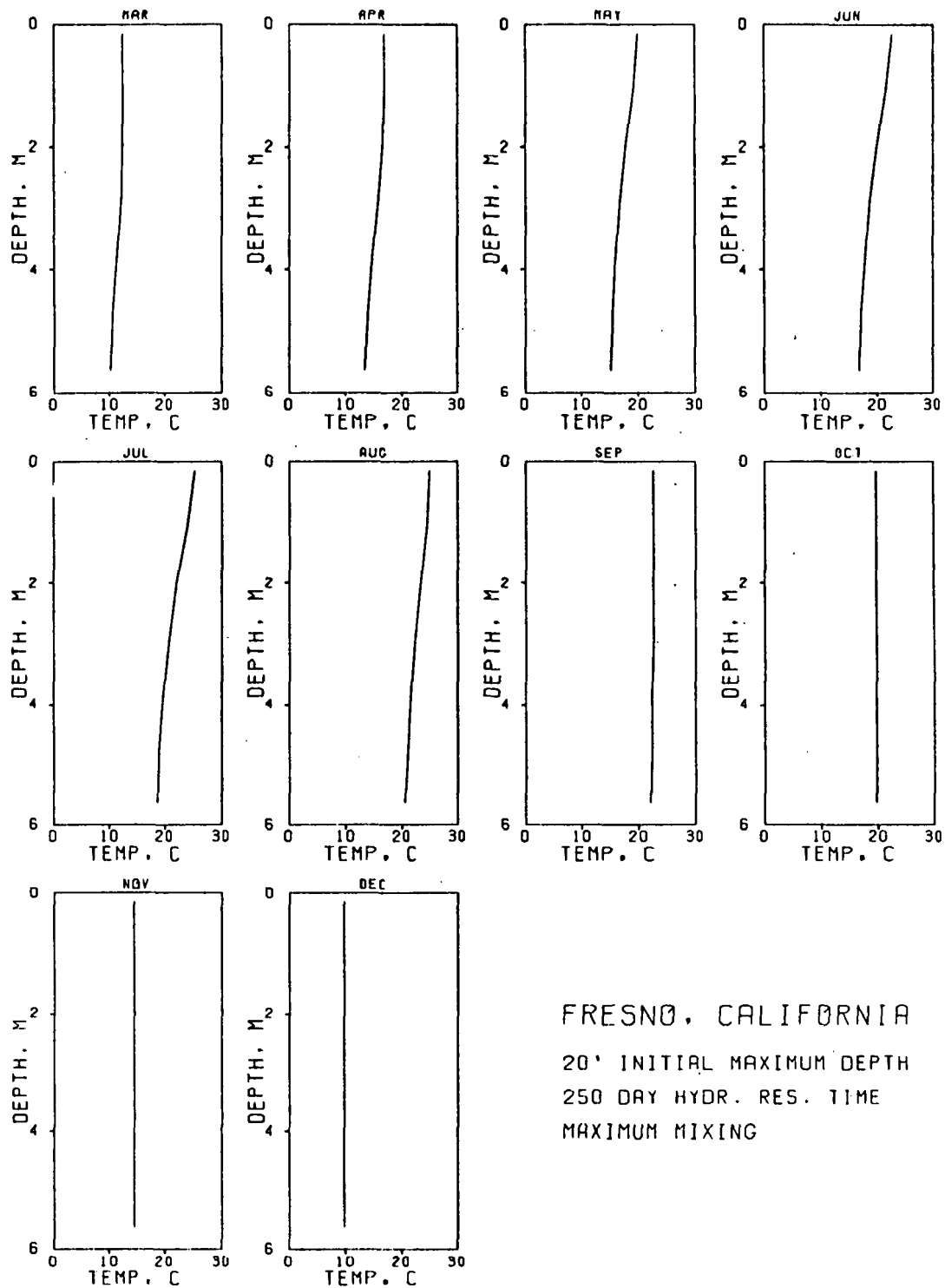


FRESNO, CALIFORNIA

20' INITIAL MAXIMUM DEPTH

75 DAY HYDR. RES. TIME

MINIMUM MIXING

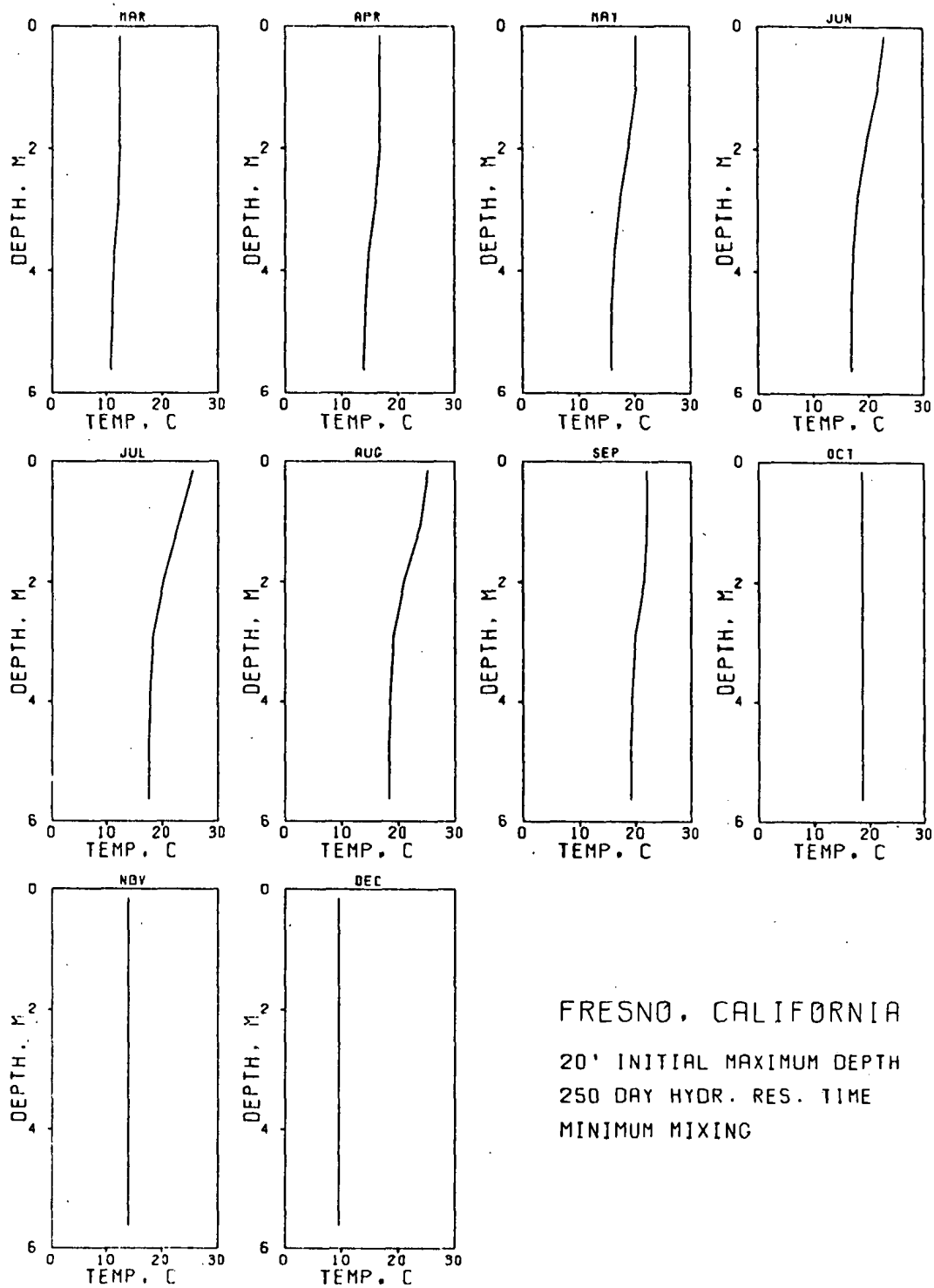


FRESNO, CALIFORNIA

20' INITIAL MAXIMUM DEPTH

250 DAY HYDR. RES. TIME

MAXIMUM MIXING

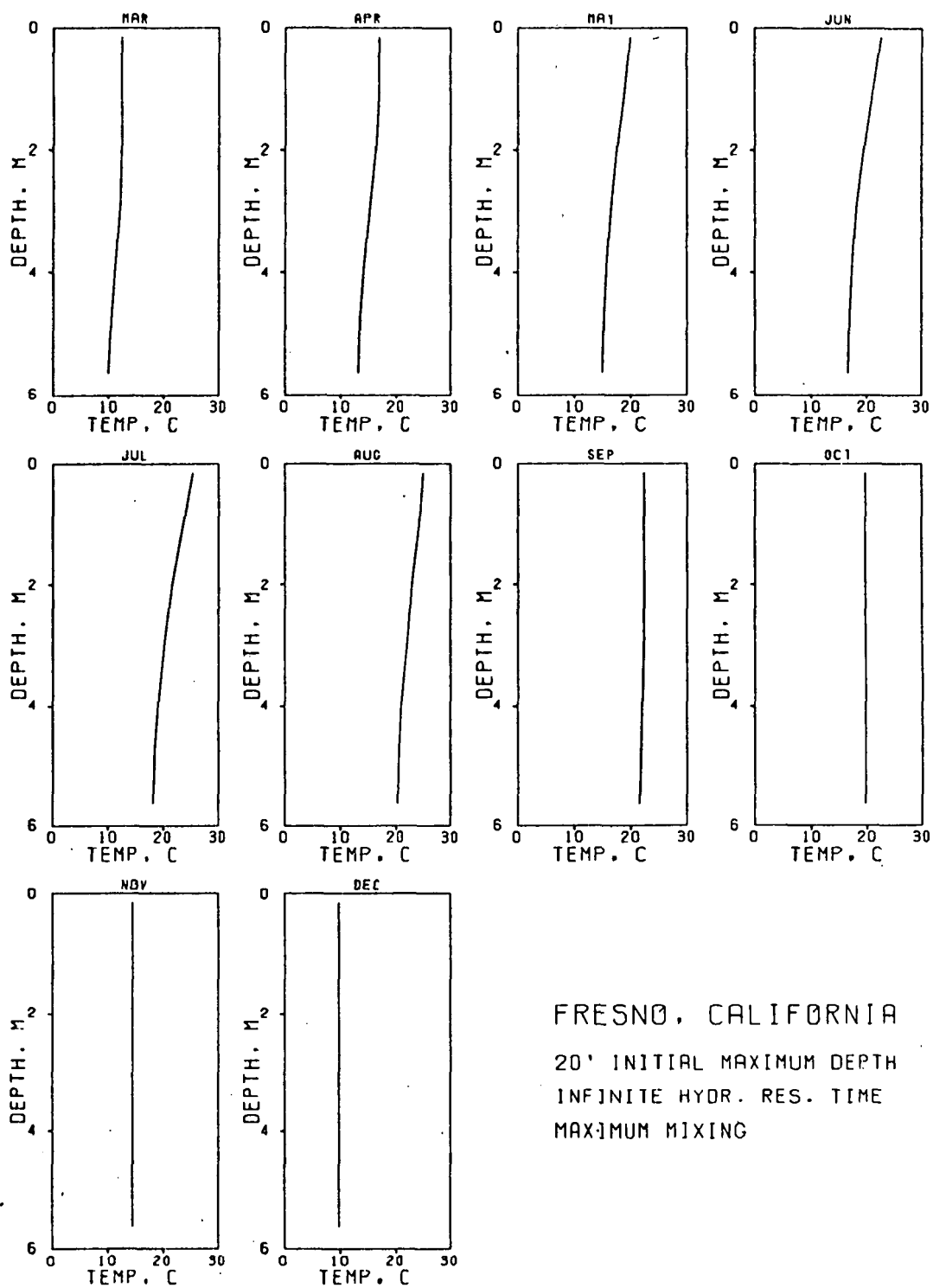


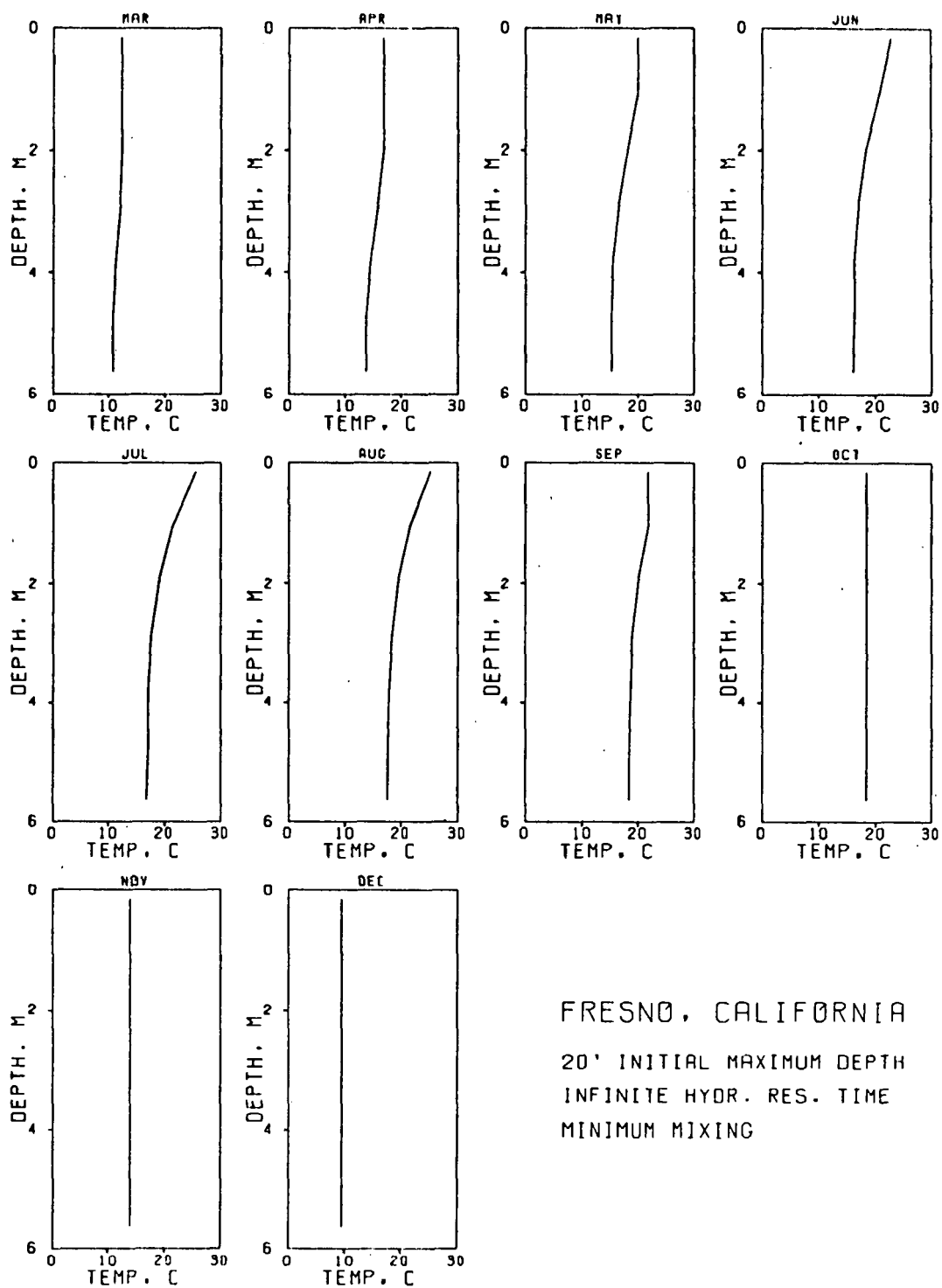
FRESNO, CALIFORNIA

20' INITIAL MAXIMUM DEPTH

250 DAY HYDR. RES. TIME

MINIMUM MIXING



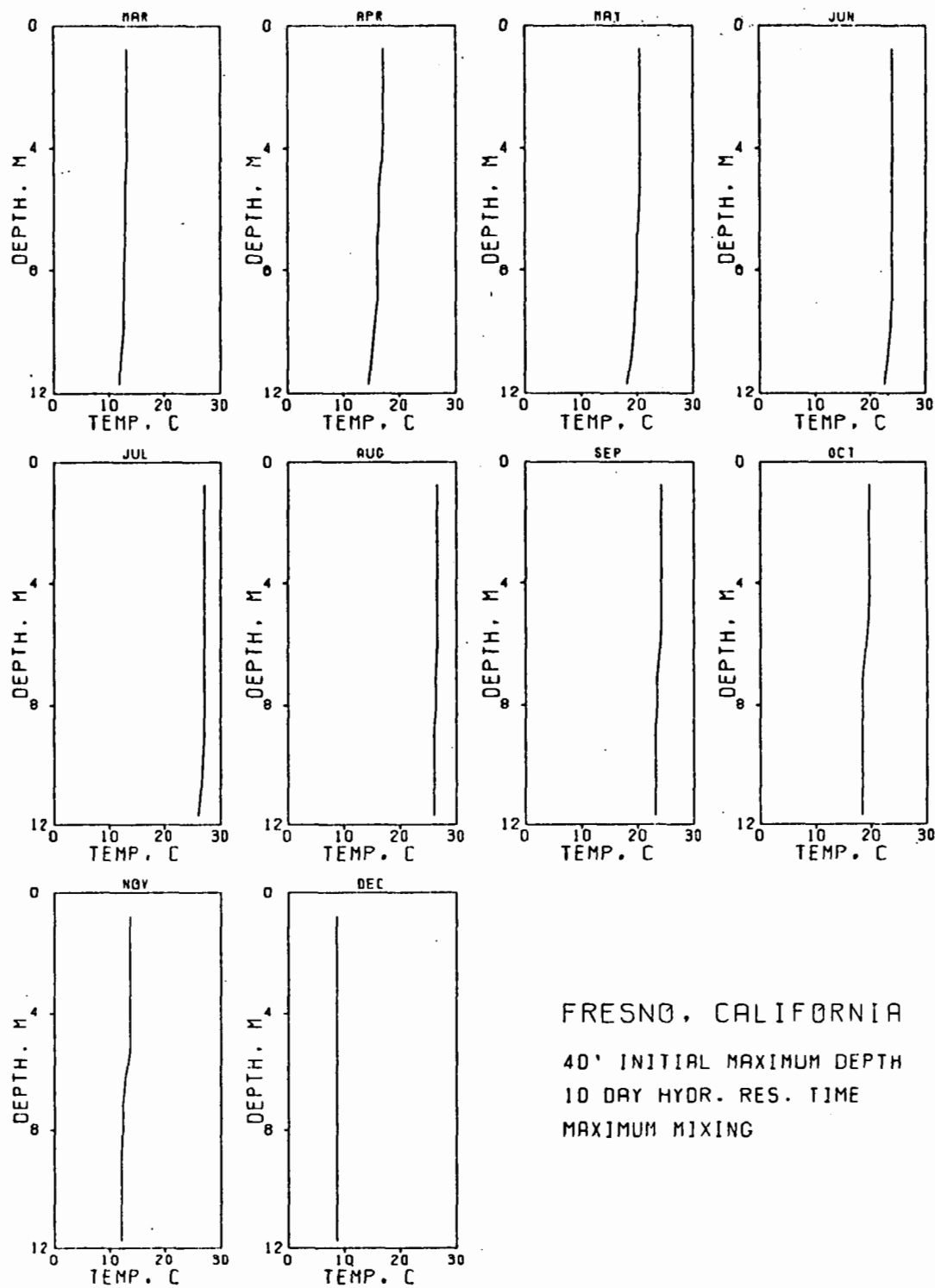


FRESNO, CALIFORNIA

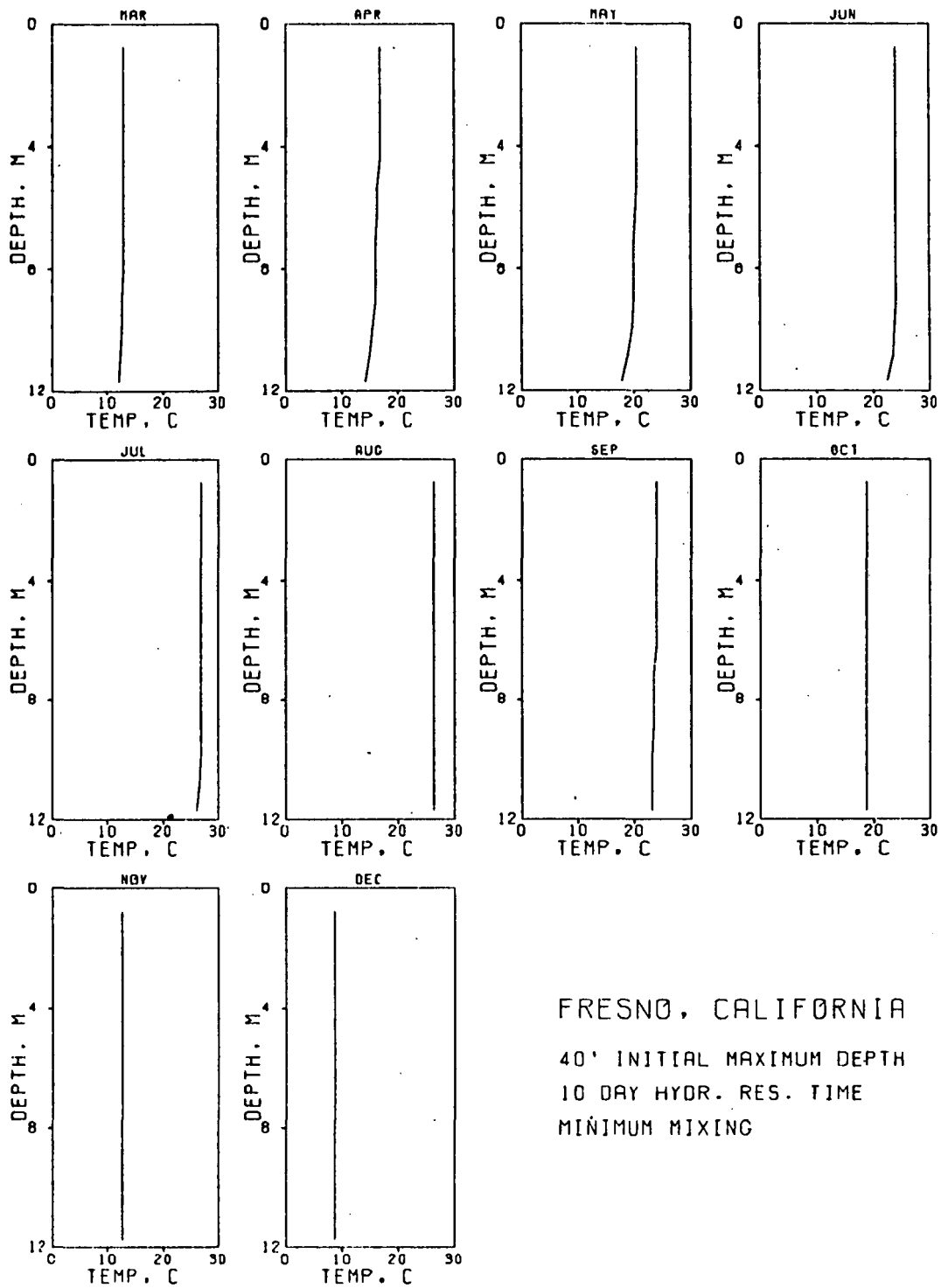
20' INITIAL MAXIMUM DEPTH

INFINITE HYDR. RES. TIME

MINIMUM MIXING



FRESNO, CALIFORNIA
 40' INITIAL MAXIMUM DEPTH
 10 DAY HYDR. RES. TIME
 MAXIMUM MIXING

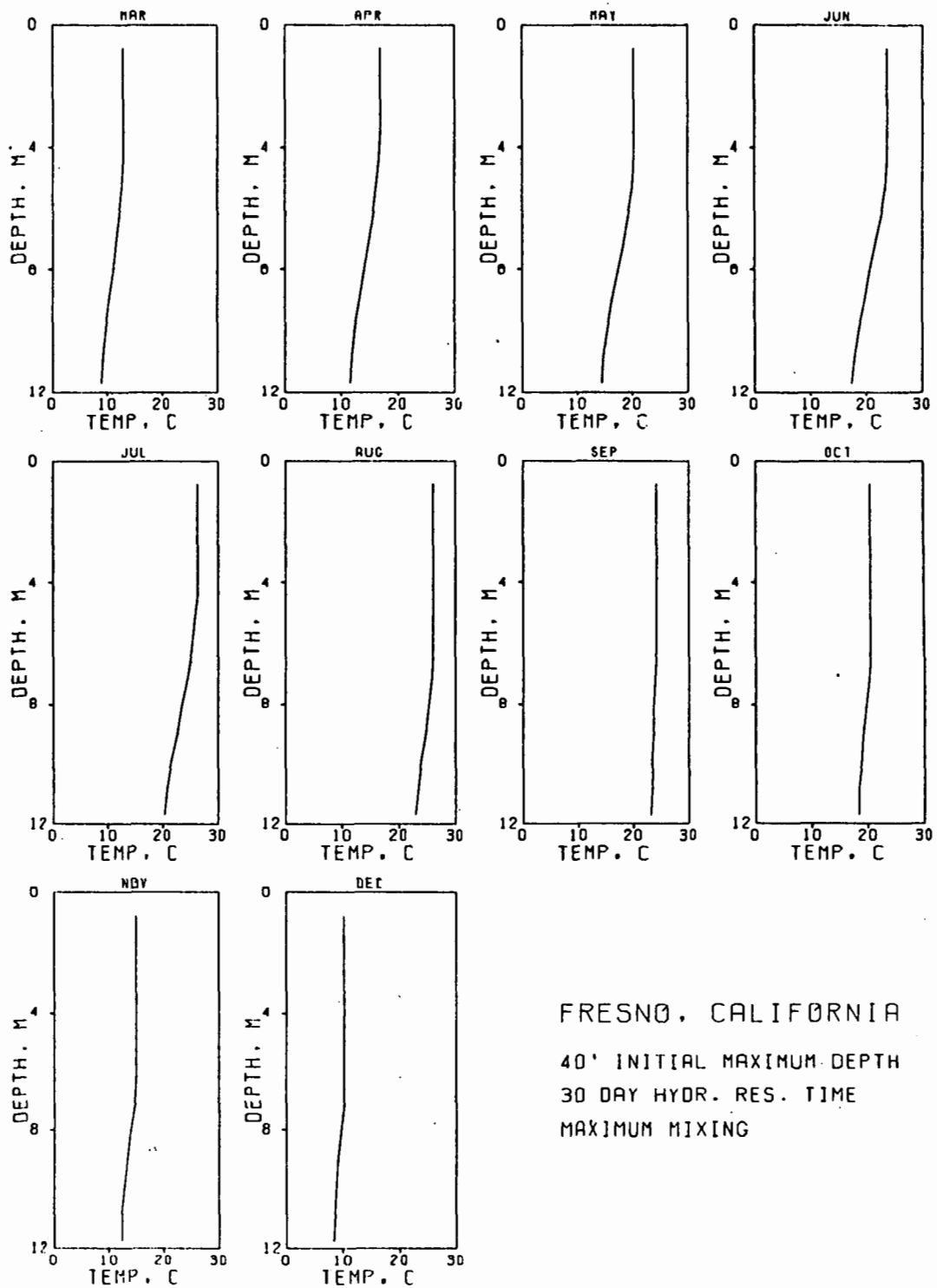


FRESNO, CALIFORNIA

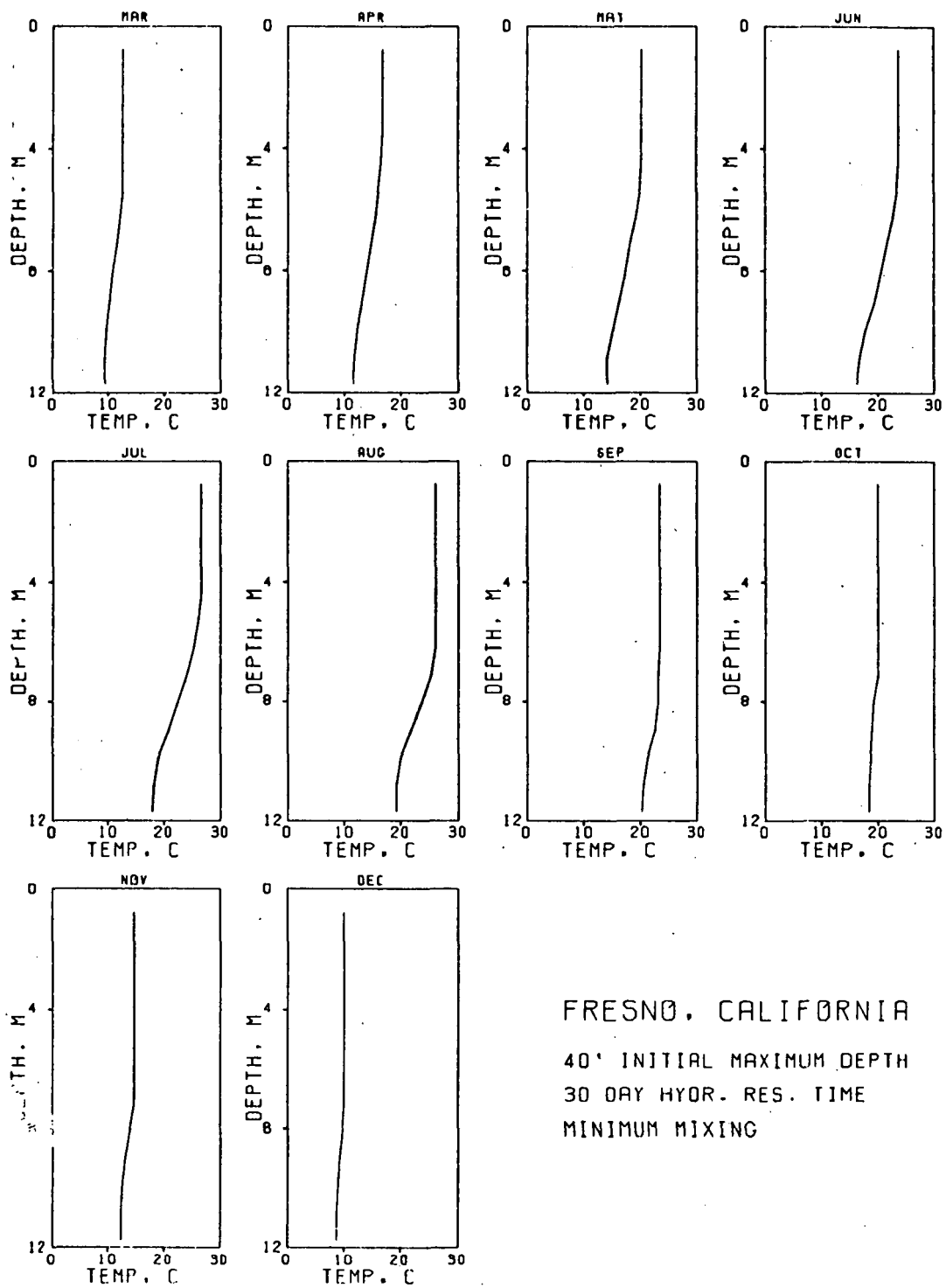
40' INITIAL MAXIMUM DEPTH

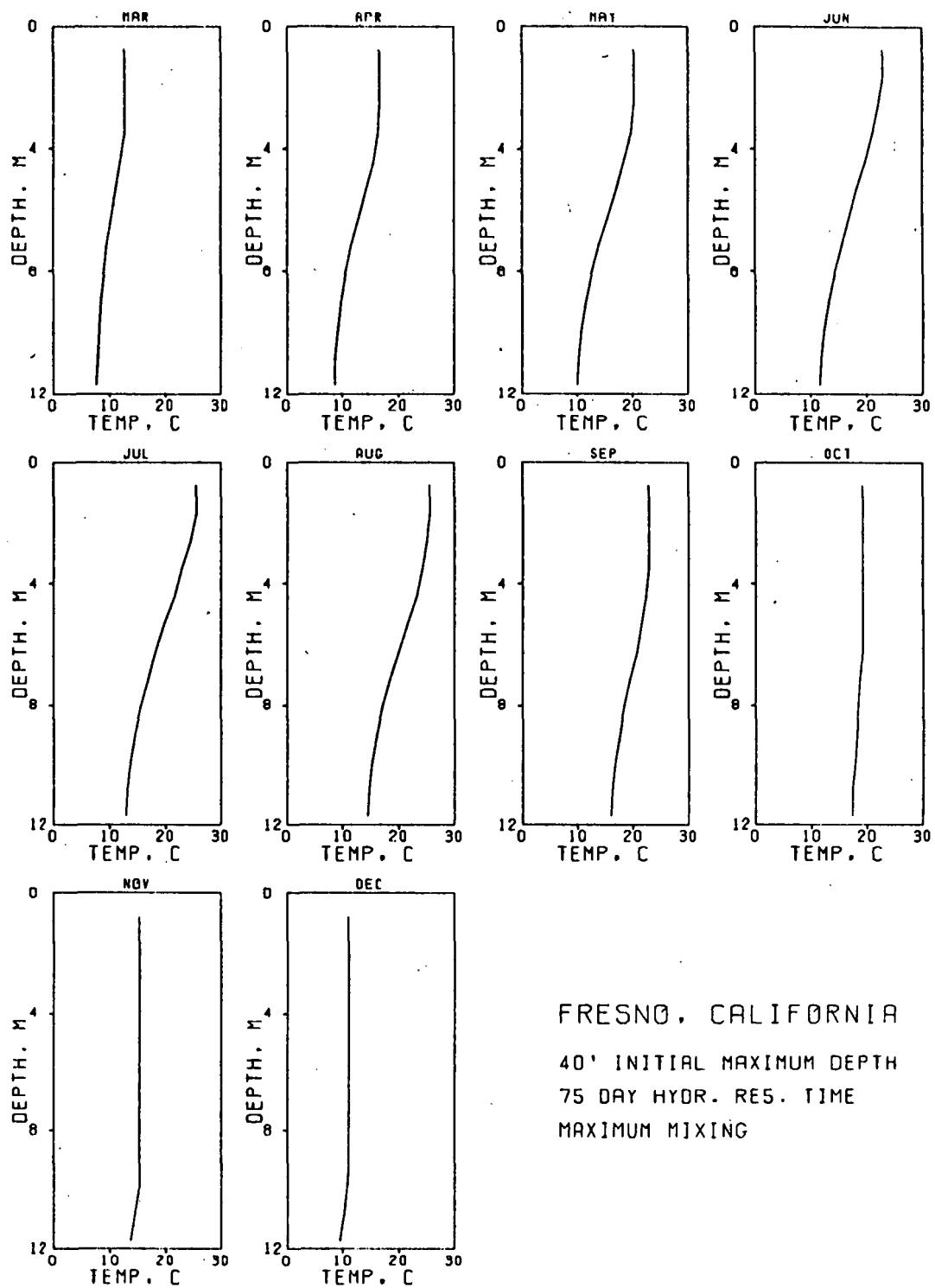
10 DAY HYDR. RES. TIME

MINIMUM MIXING

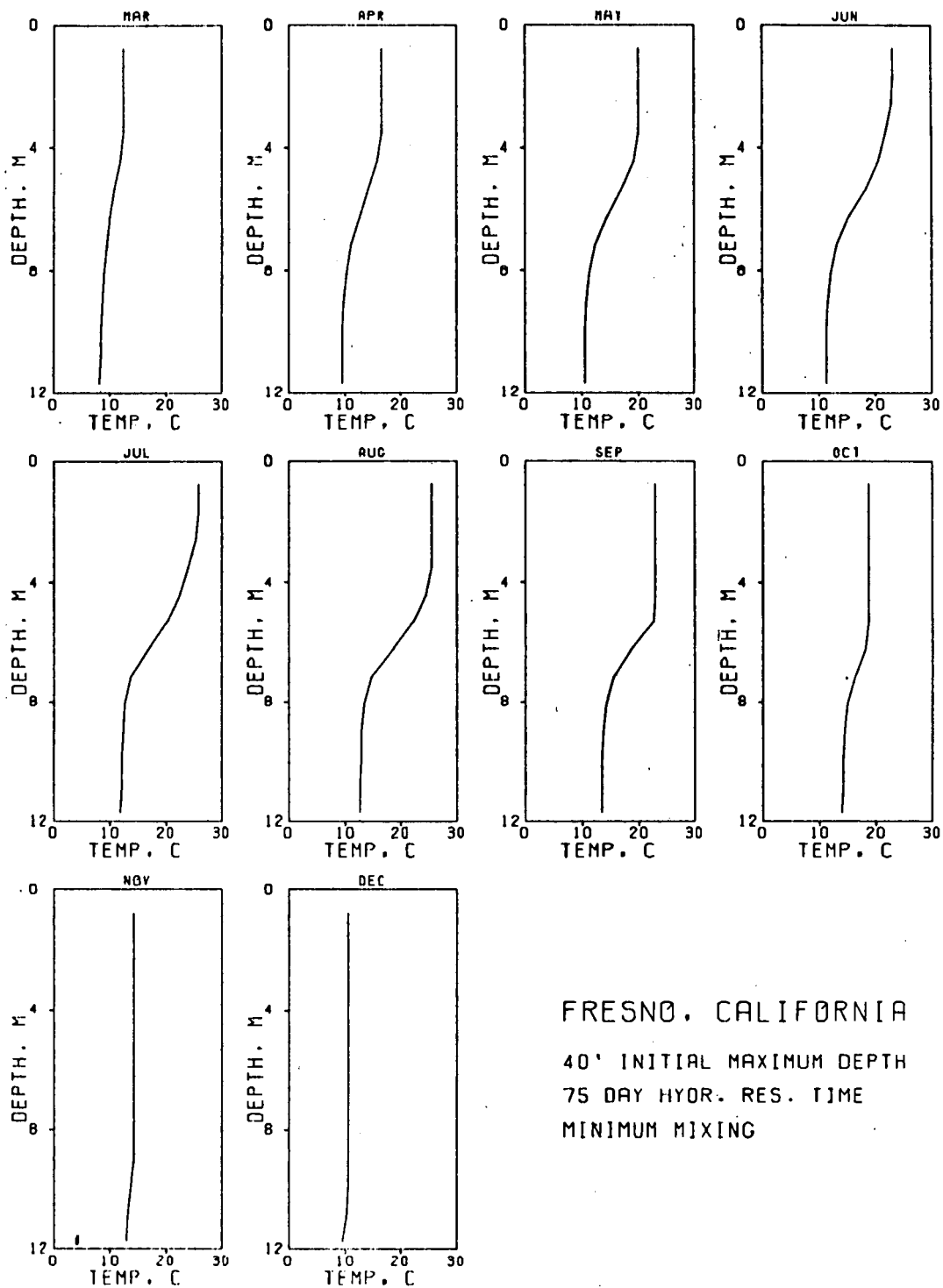


FRESNO, CALIFORNIA
 40' INITIAL MAXIMUM DEPTH
 30 DAY HYDR. RES. TIME
 MAXIMUM MIXING





FRESNO, CALIFORNIA
 40' INITIAL MAXIMUM DEPTH
 75 DAY HYDR. RES. TIME
 MAXIMUM MIXING

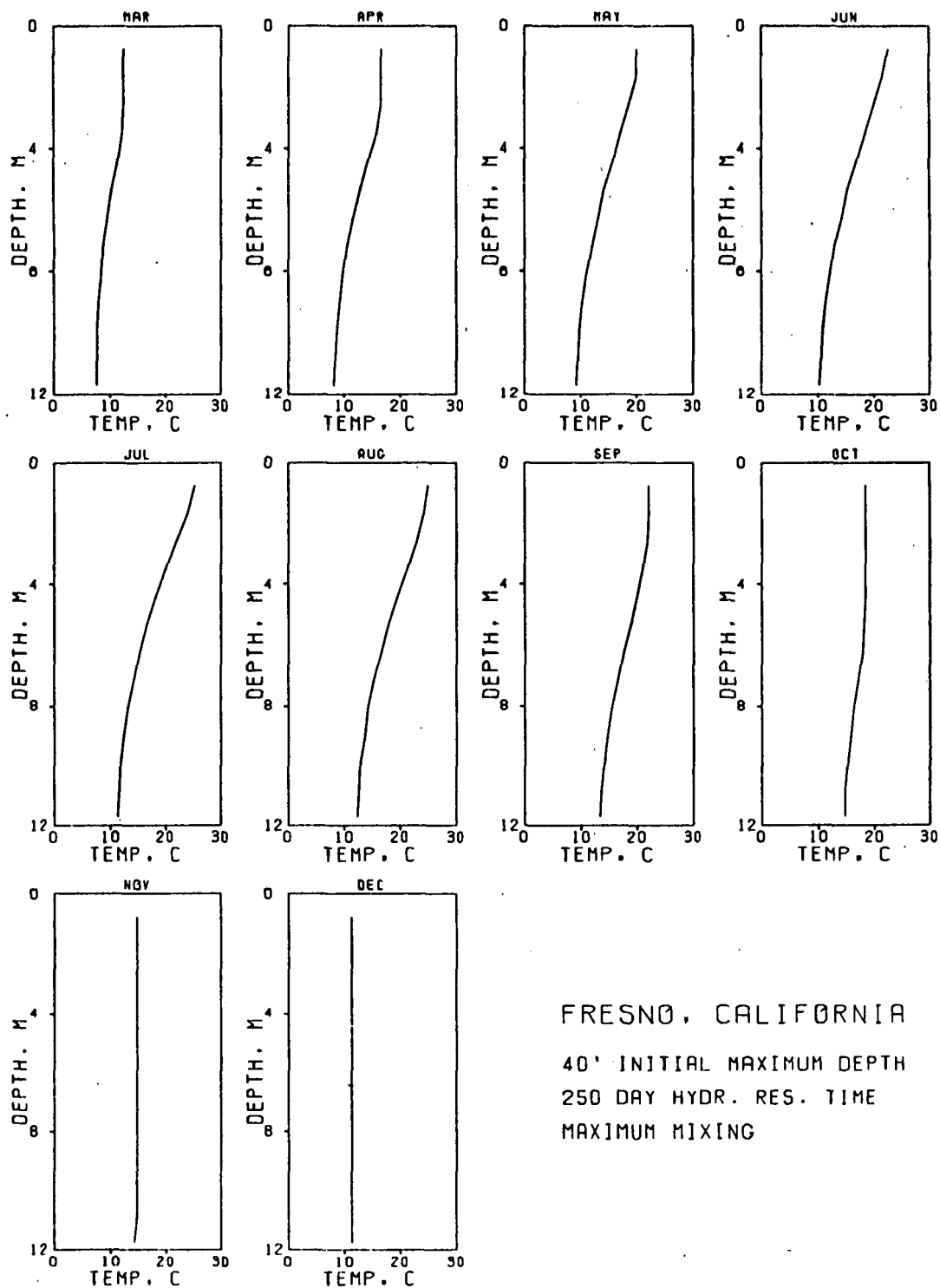


FRESNO, CALIFORNIA

40' INITIAL MAXIMUM DEPTH

75 DAY HYOR. RES. TIME

MINIMUM MIXING

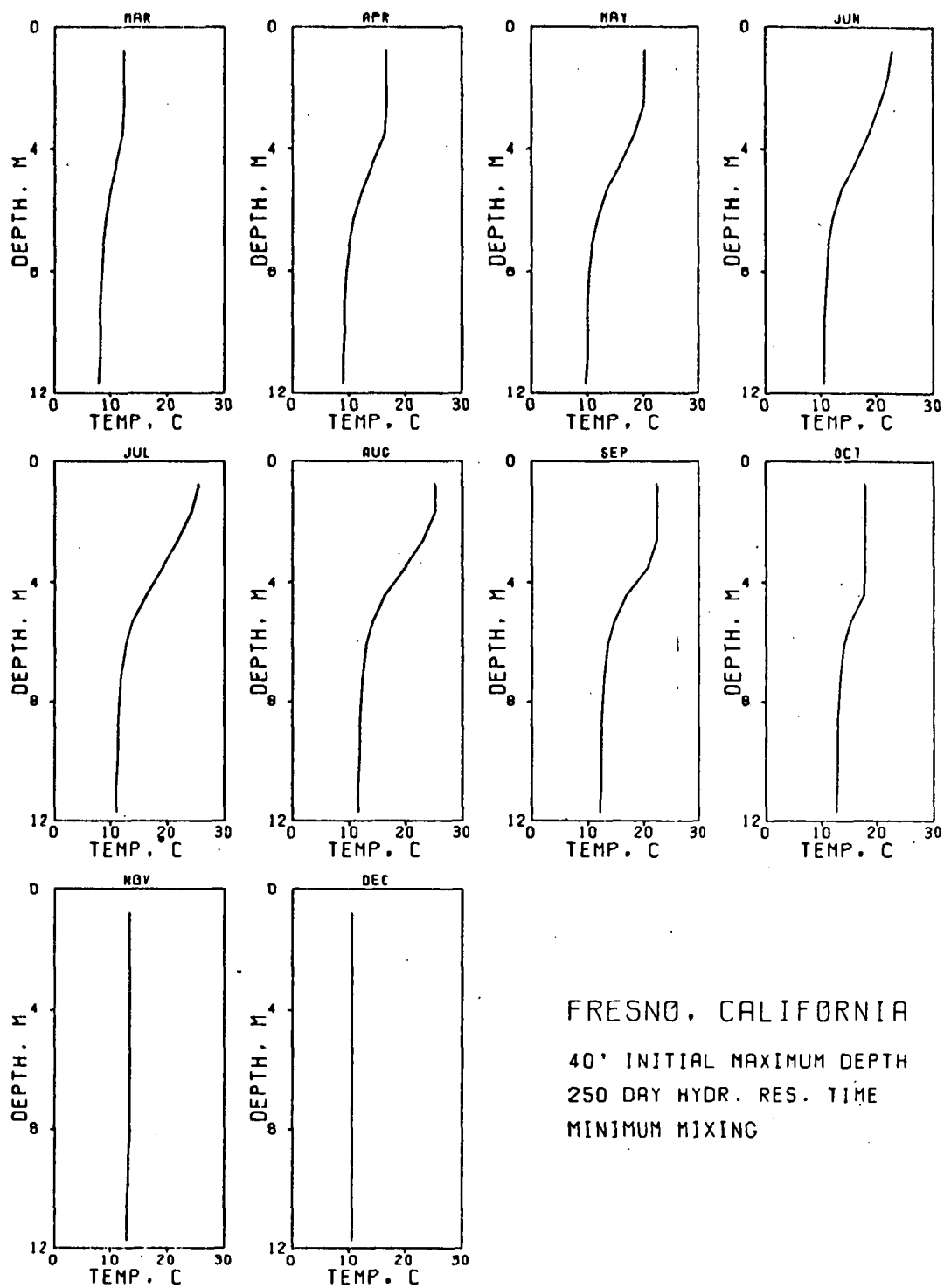


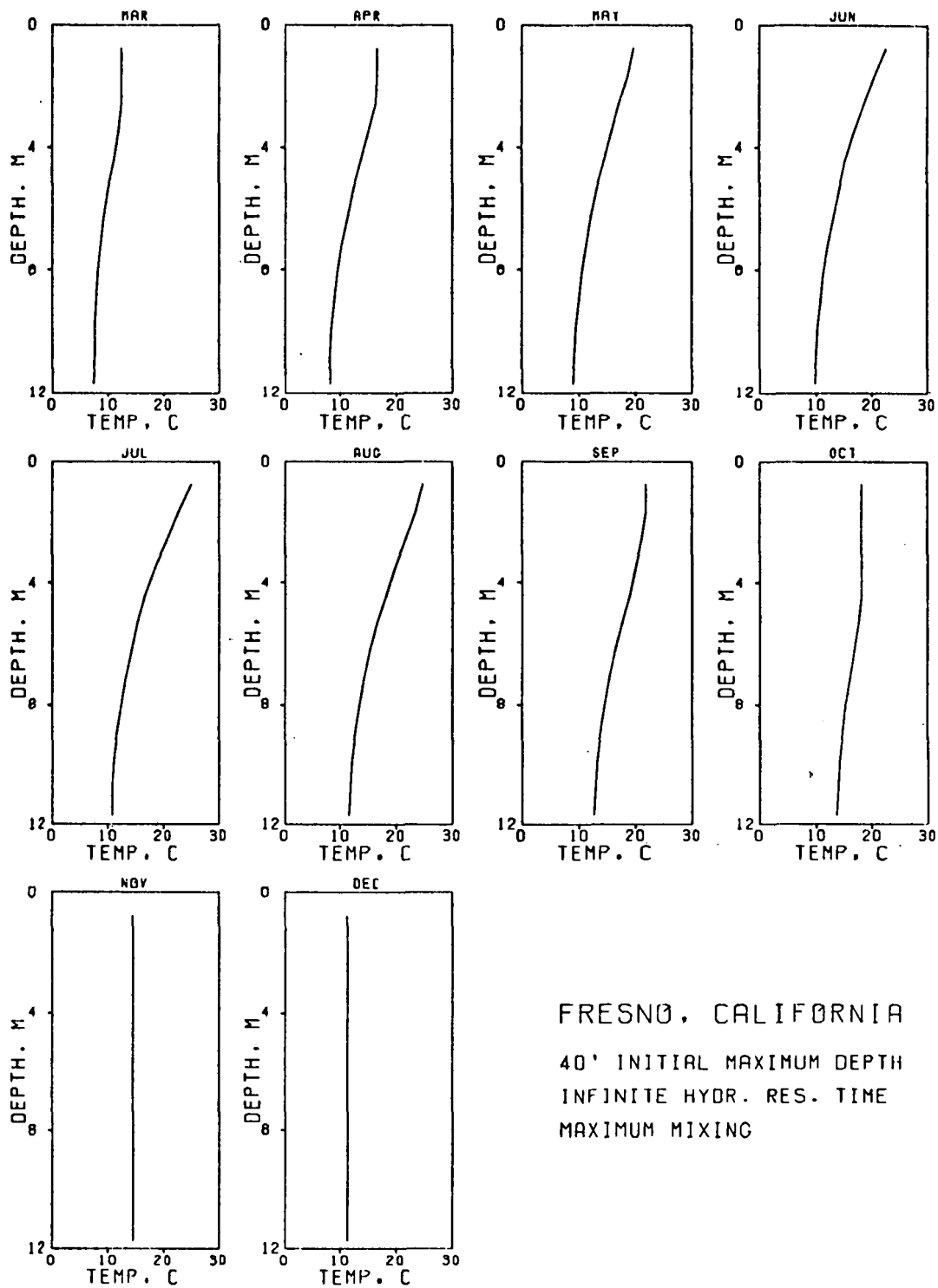
FRESNO, CALIFORNIA

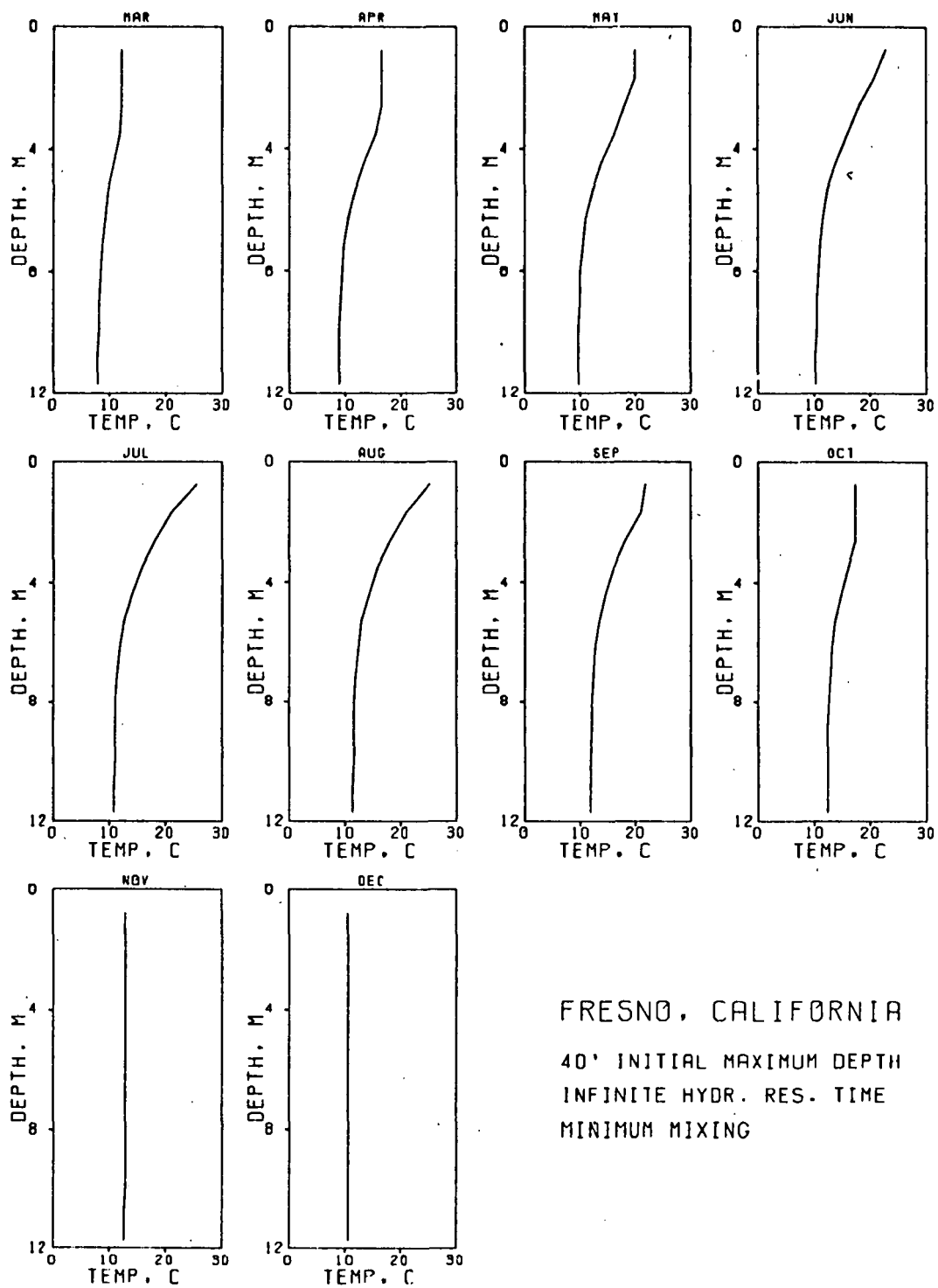
40' INITIAL MAXIMUM DEPTH

250 DAY HYDR. RES. TIME

MAXIMUM MIXING





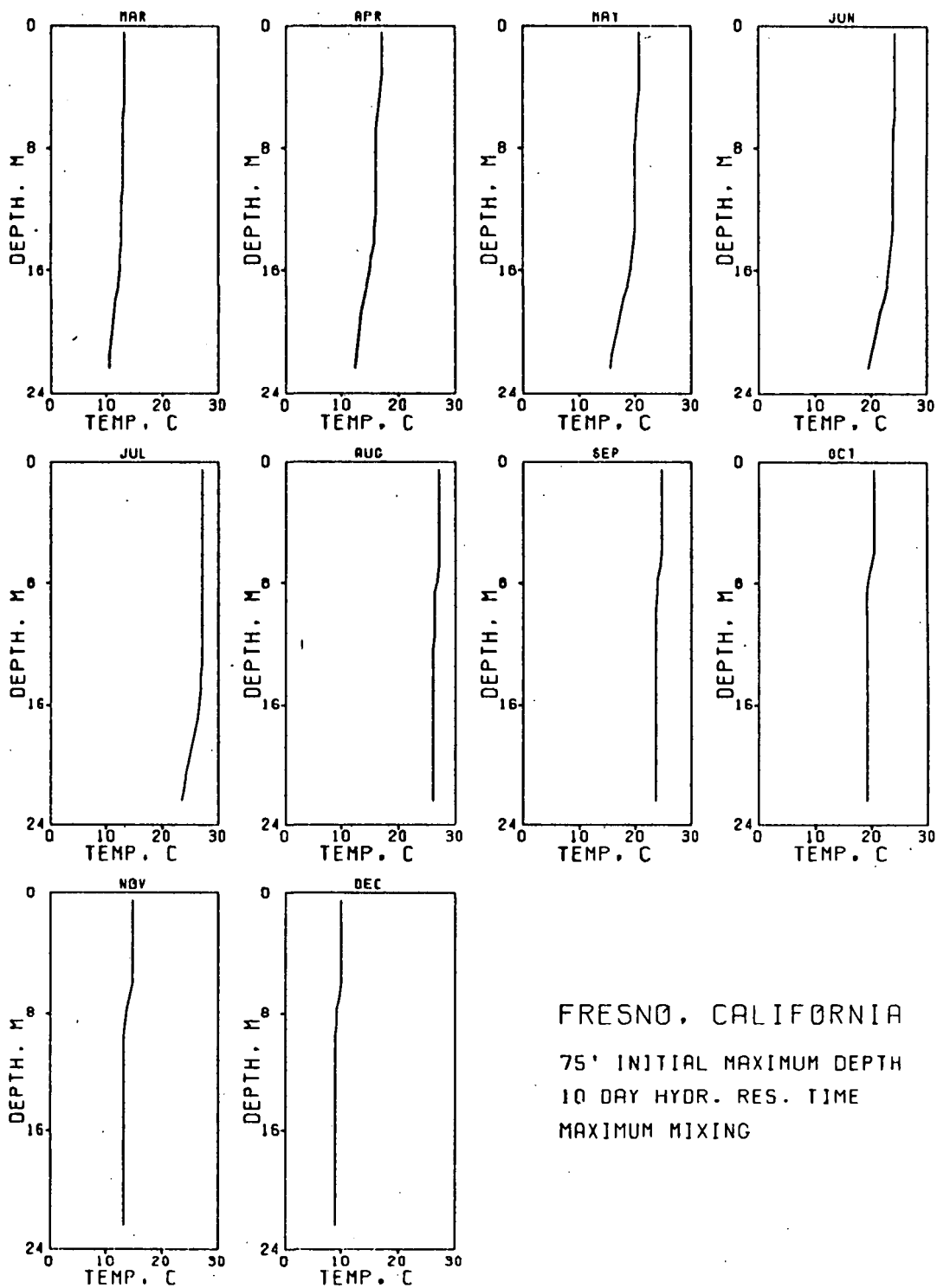


FRESNO, CALIFORNIA

40' INITIAL MAXIMUM DEPTH

INFINITE HYDR. RES. TIME

MINIMUM MIXING

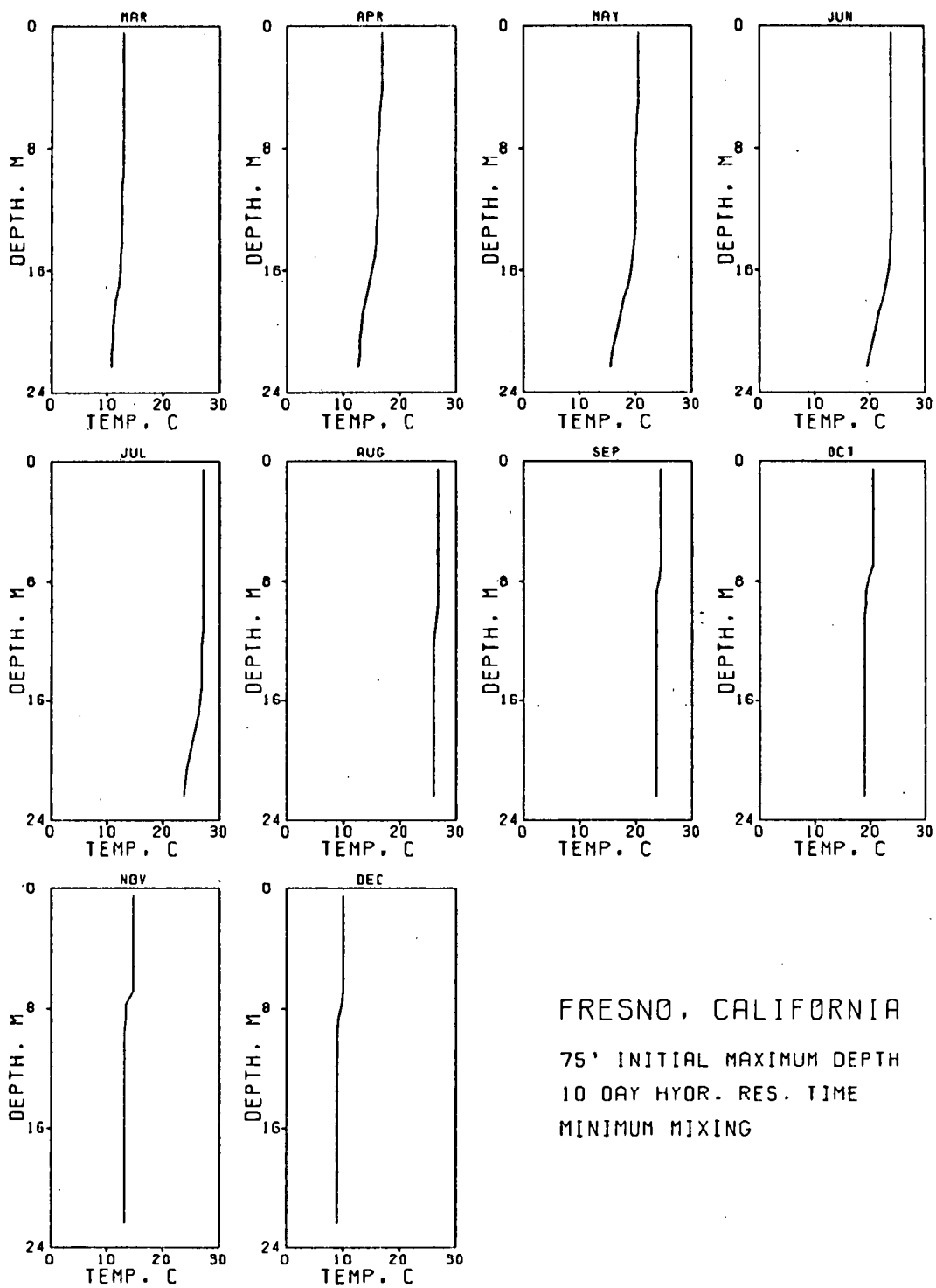


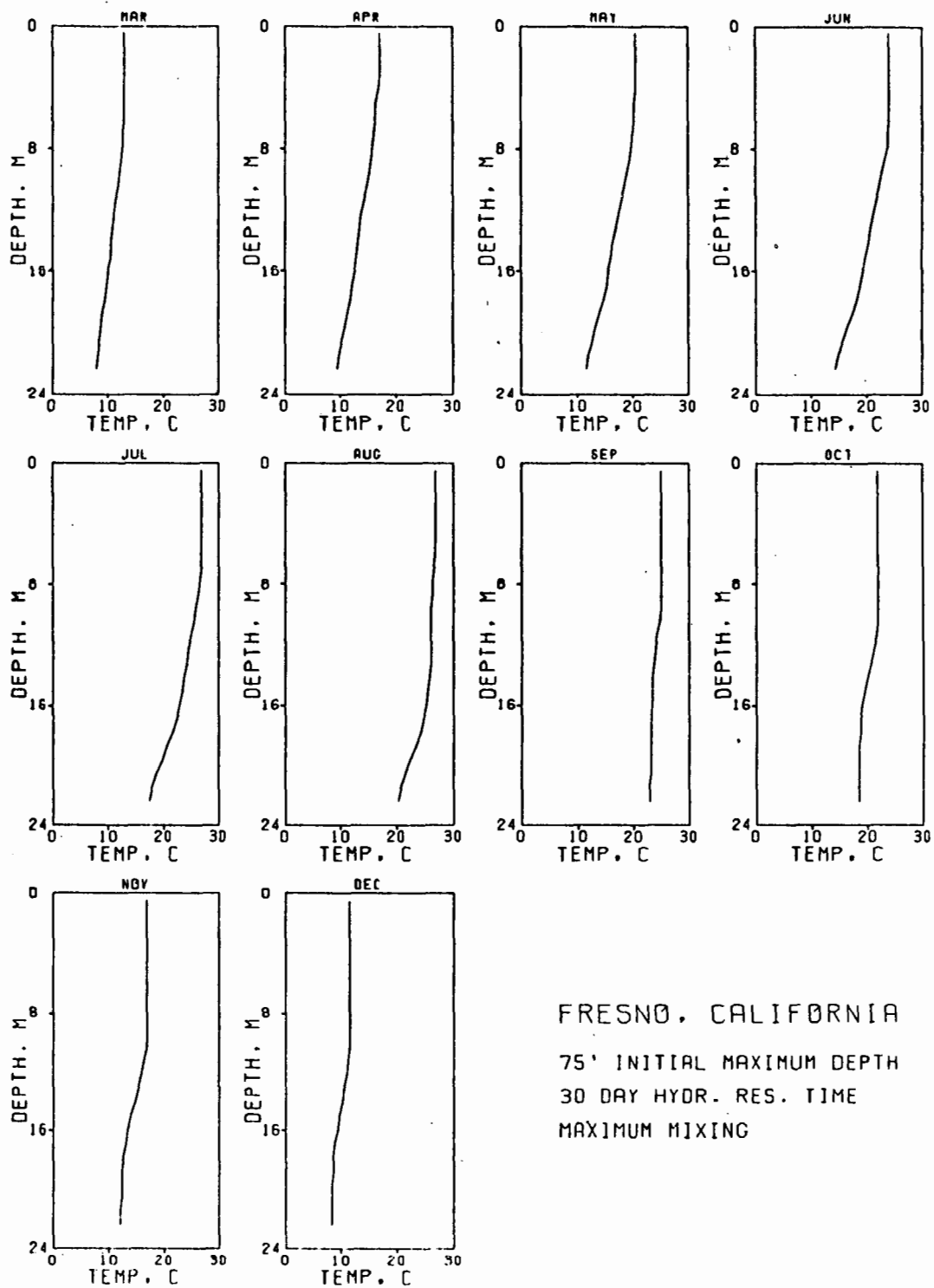
FRESNO, CALIFORNIA

75' INITIAL MAXIMUM DEPTH

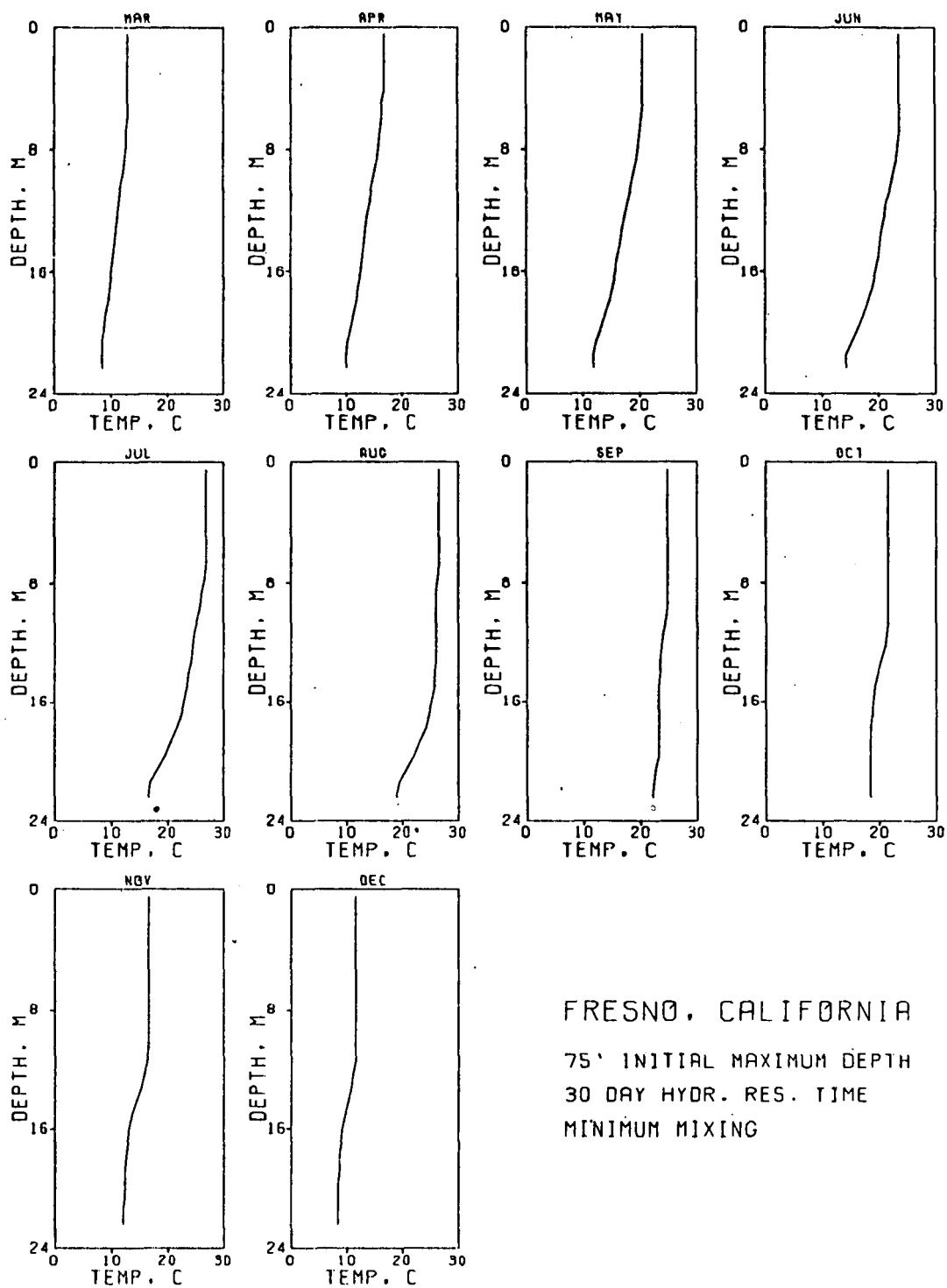
10 DAY HYDR. RES. TIME

MAXIMUM MIXING





FRESNO, CALIFORNIA
 75' INITIAL MAXIMUM DEPTH
 30 DAY HYDR. RES. TIME
 MAXIMUM MIXING

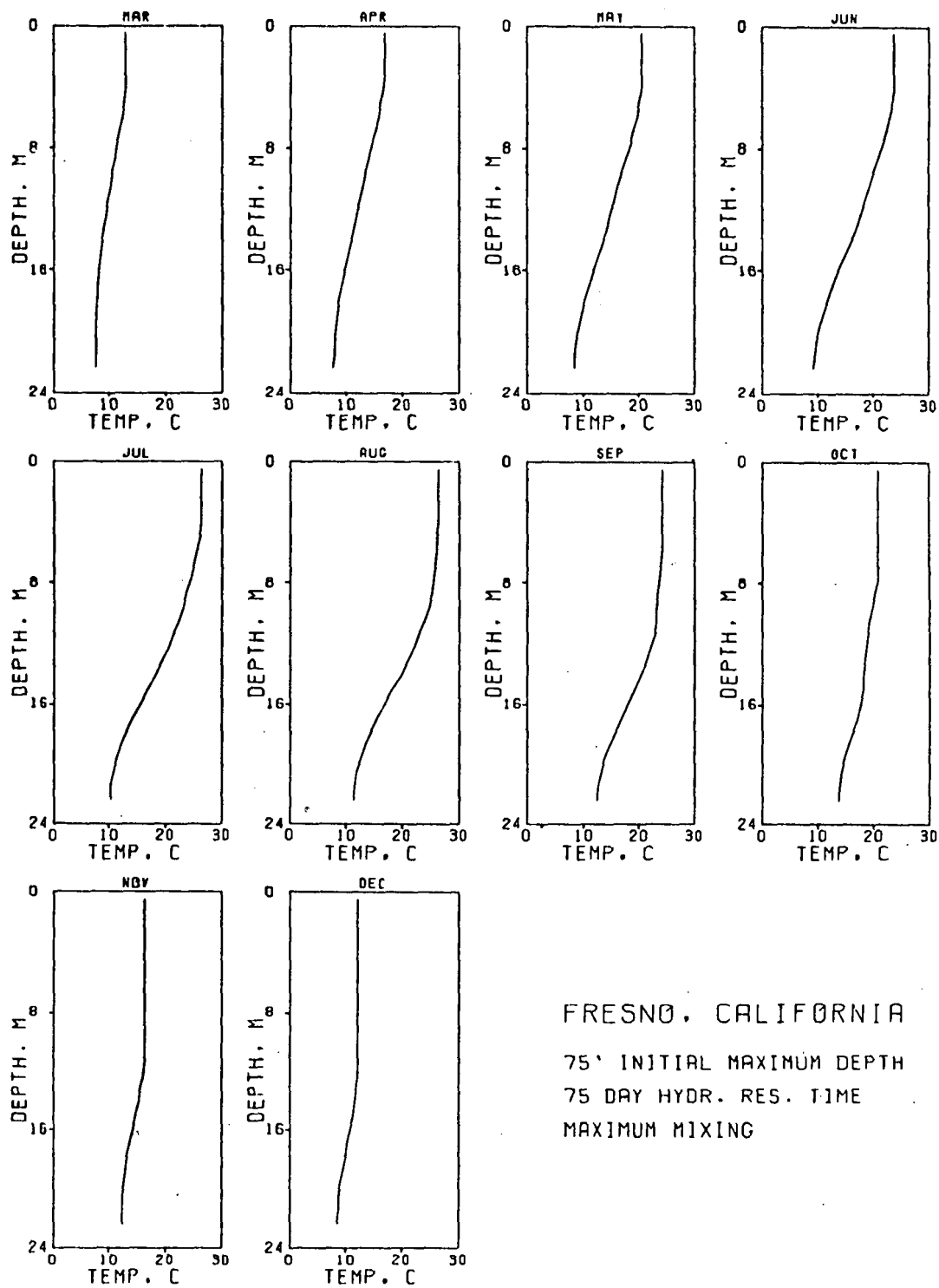


FRESNO, CALIFORNIA

75' INITIAL MAXIMUM DEPTH

30 DAY HYDR. RES. TIME

MINIMUM MIXING

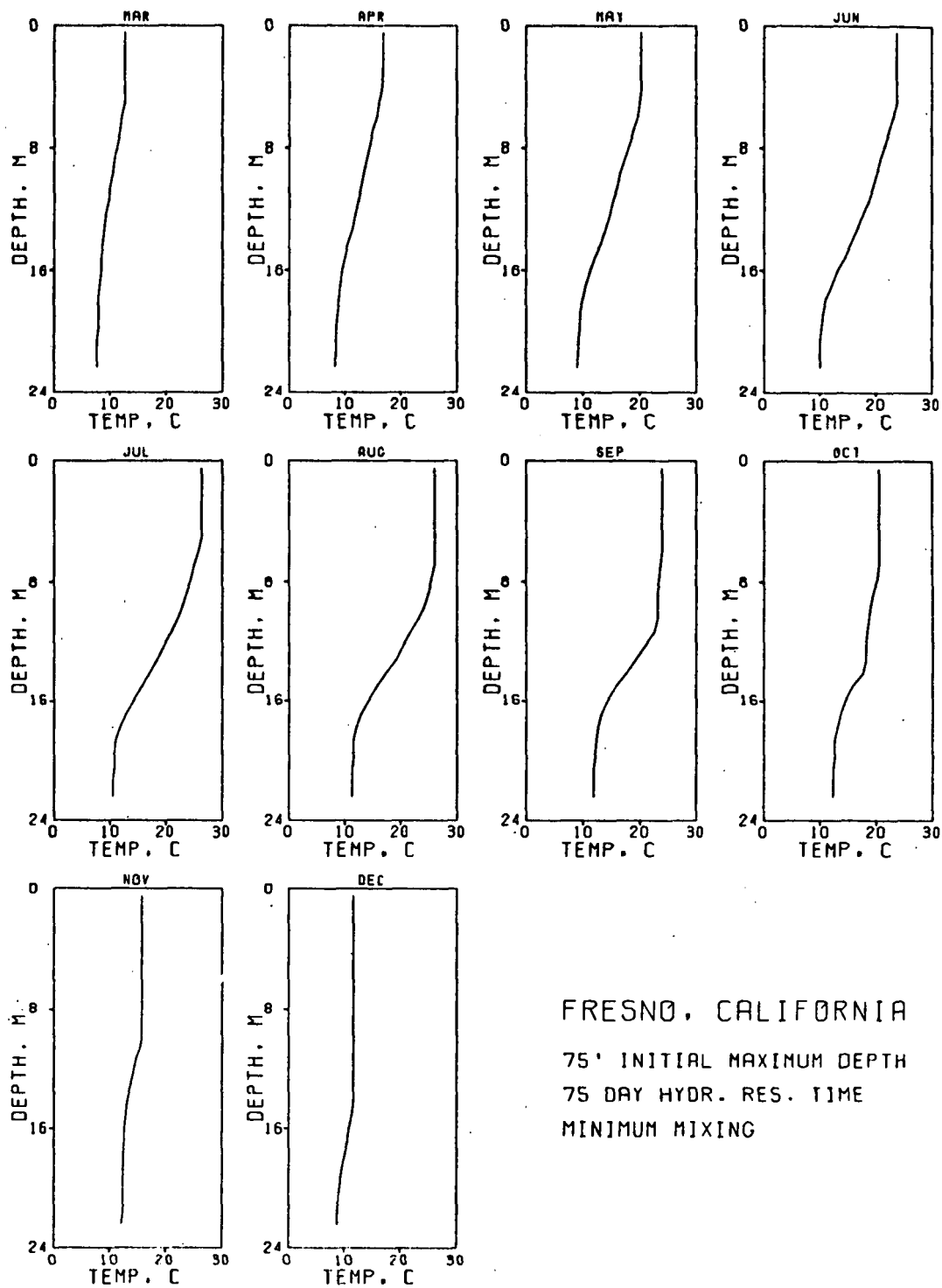


FRESNO, CALIFORNIA

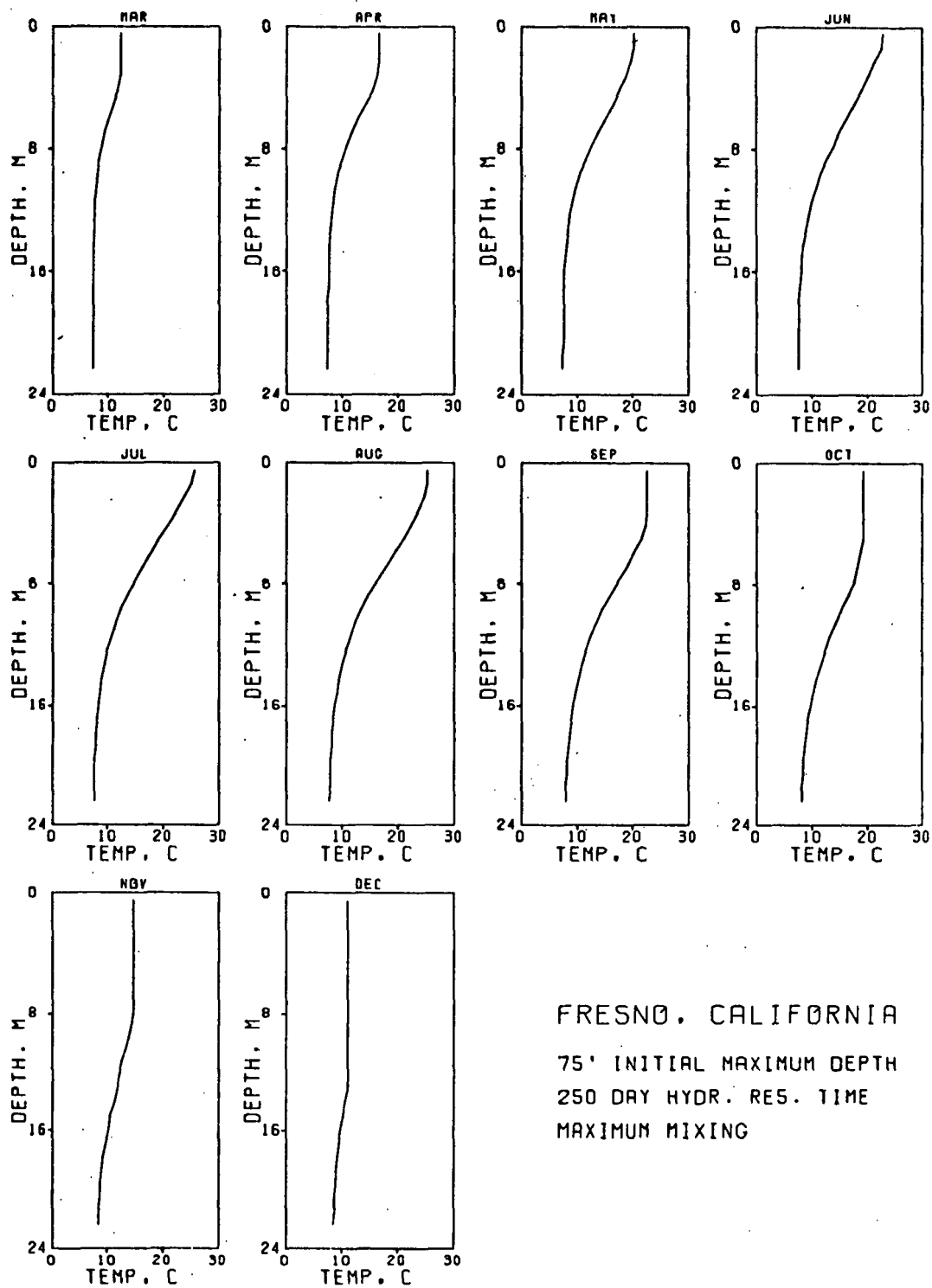
75' INITIAL MAXIMUM DEPTH

75 DAY HYDR. RES. TIME

MAXIMUM MIXING



FRESNO, CALIFORNIA
 75' INITIAL MAXIMUM DEPTH
 75 DAY HYDR. RES. TIME
 MINIMUM MIXING

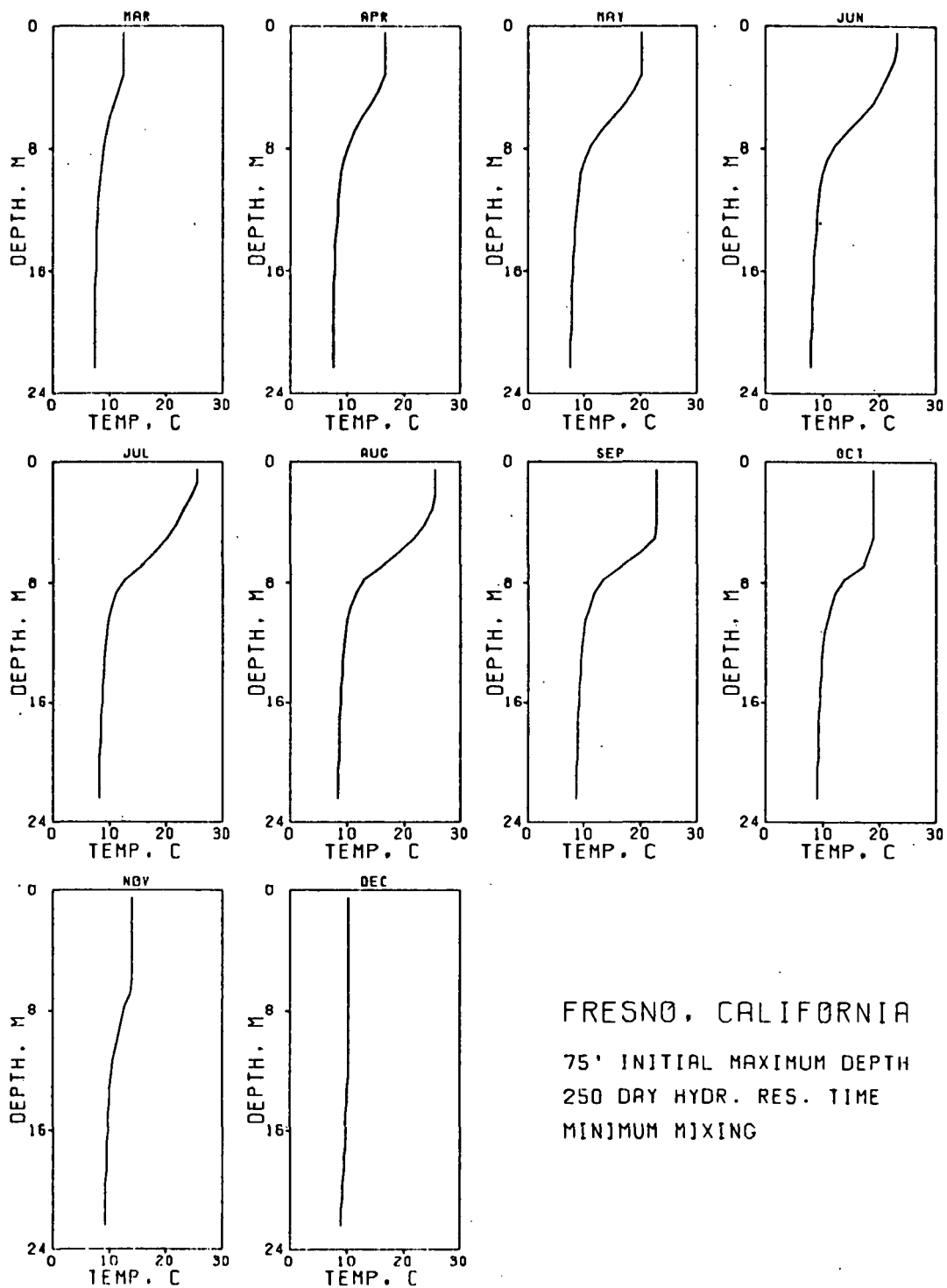


FRESNO, CALIFORNIA

75' INITIAL MAXIMUM DEPTH

250 DAY HYDR. RES. TIME

MAXIMUM MIXING

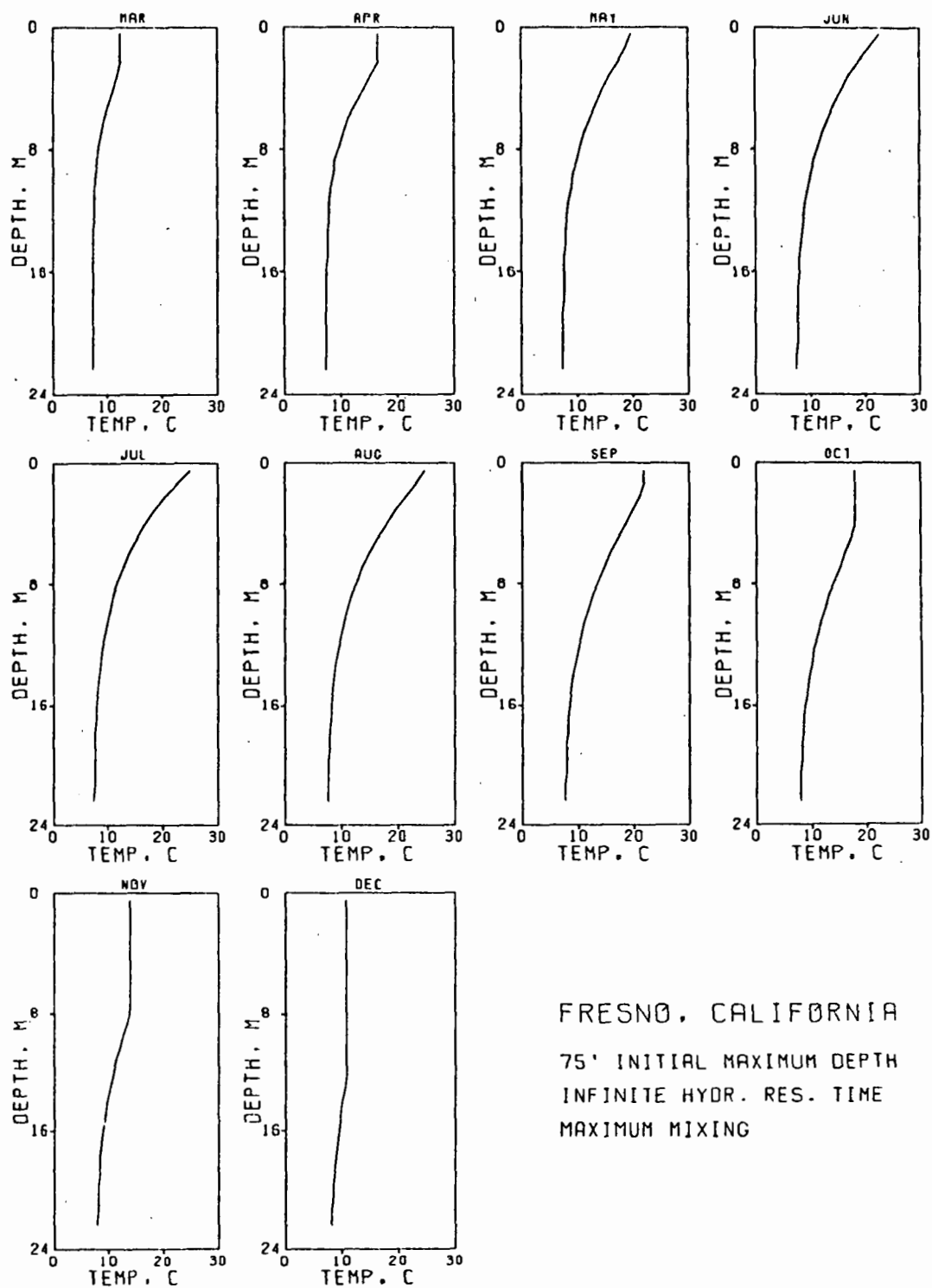


FRESNO, CALIFORNIA

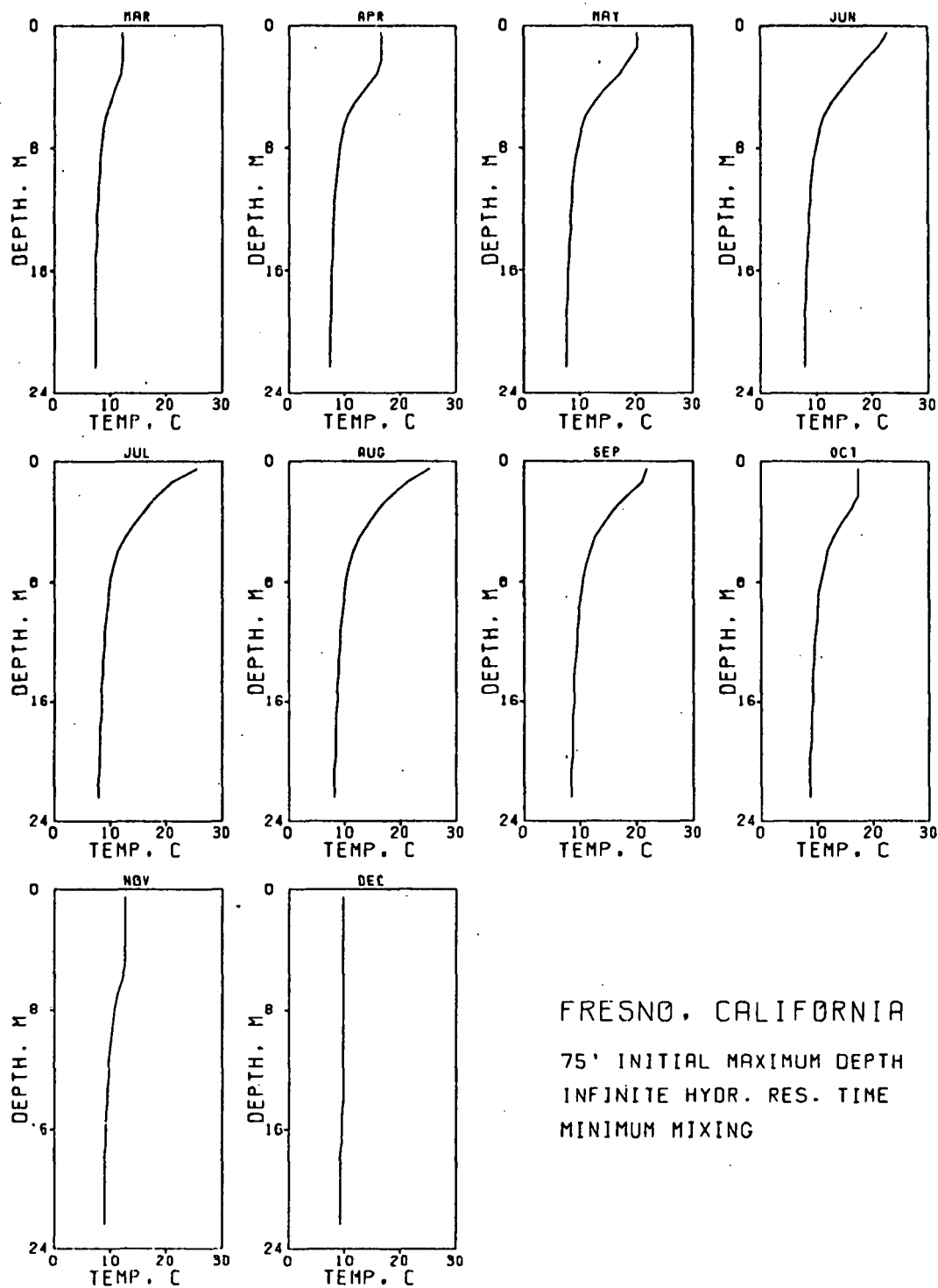
75' INITIAL MAXIMUM DEPTH

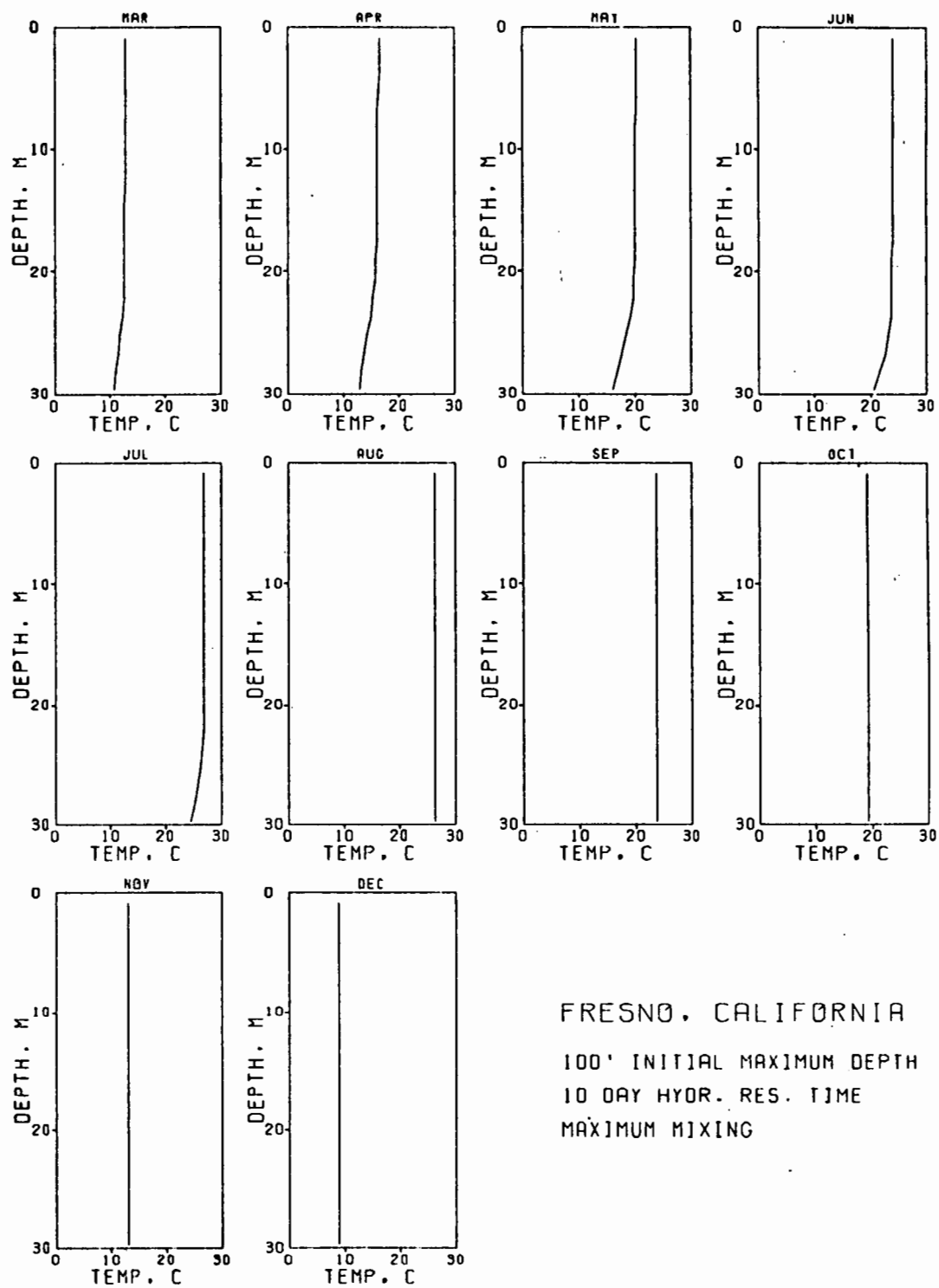
250 DAY HYDR. RES. TIME

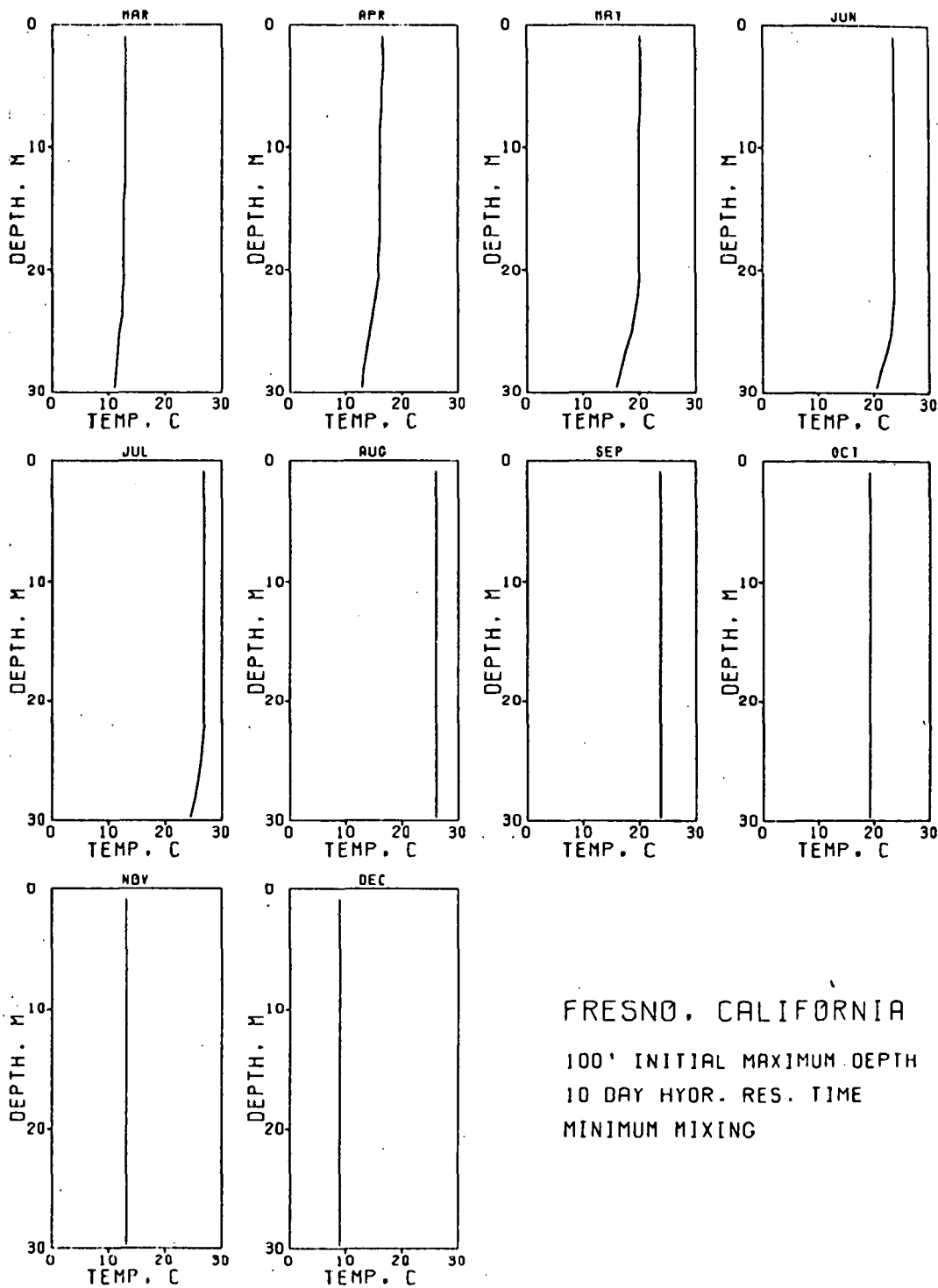
MINIMUM MIXING

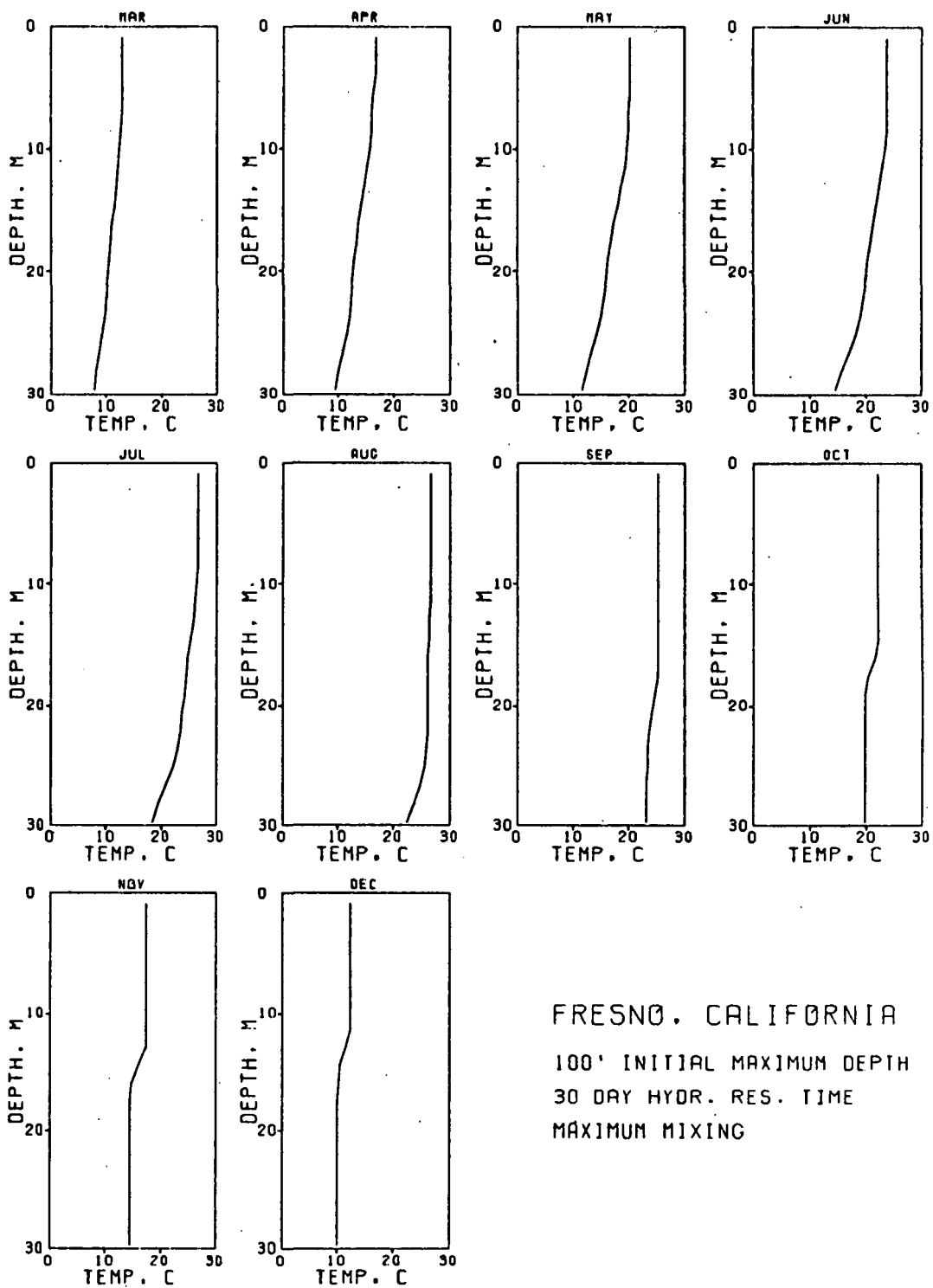


FRESNO, CALIFORNIA
 75' INITIAL MAXIMUM DEPTH
 INFINITE HYDR. RES. TIME
 MAXIMUM MIXING

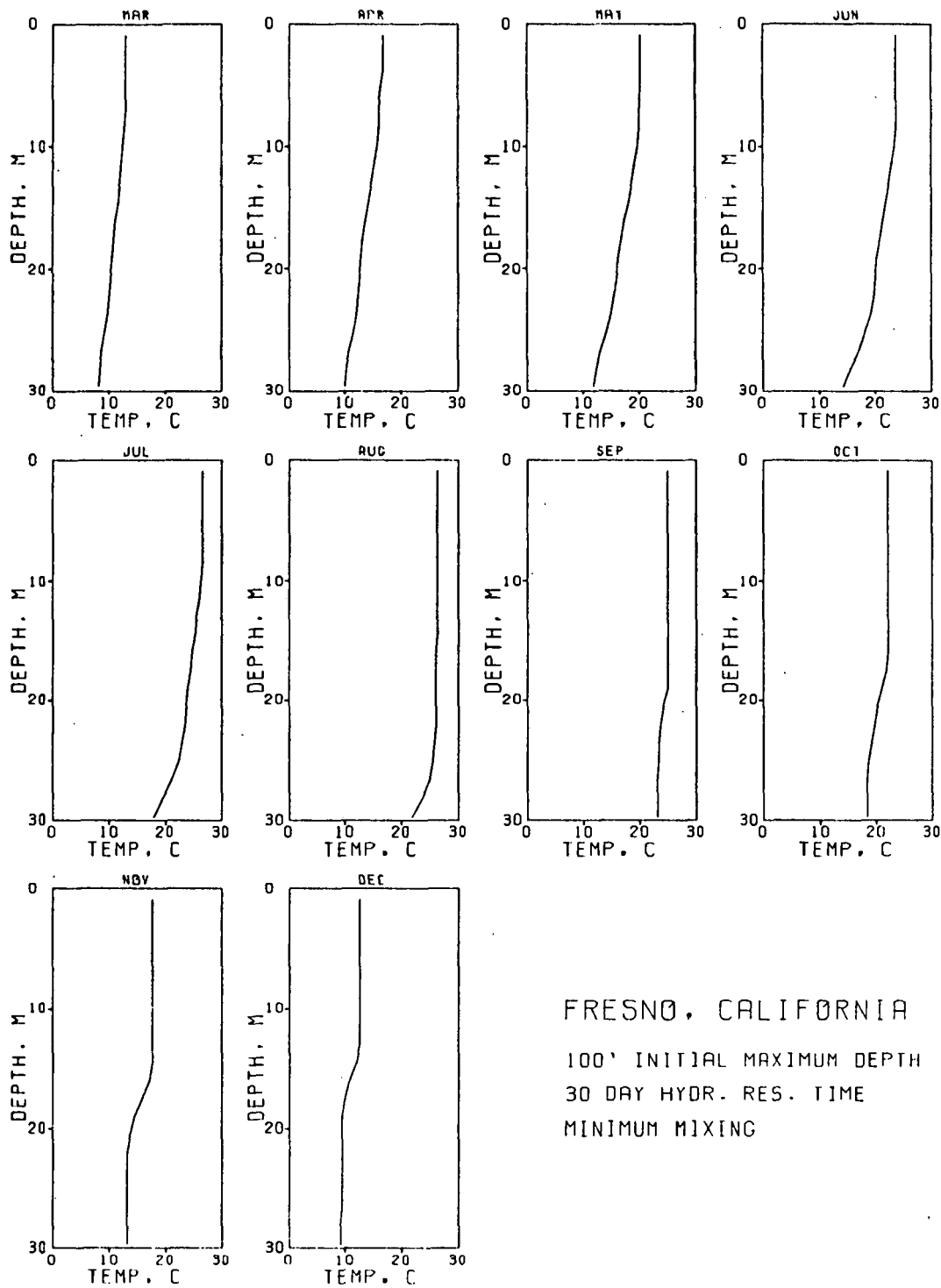


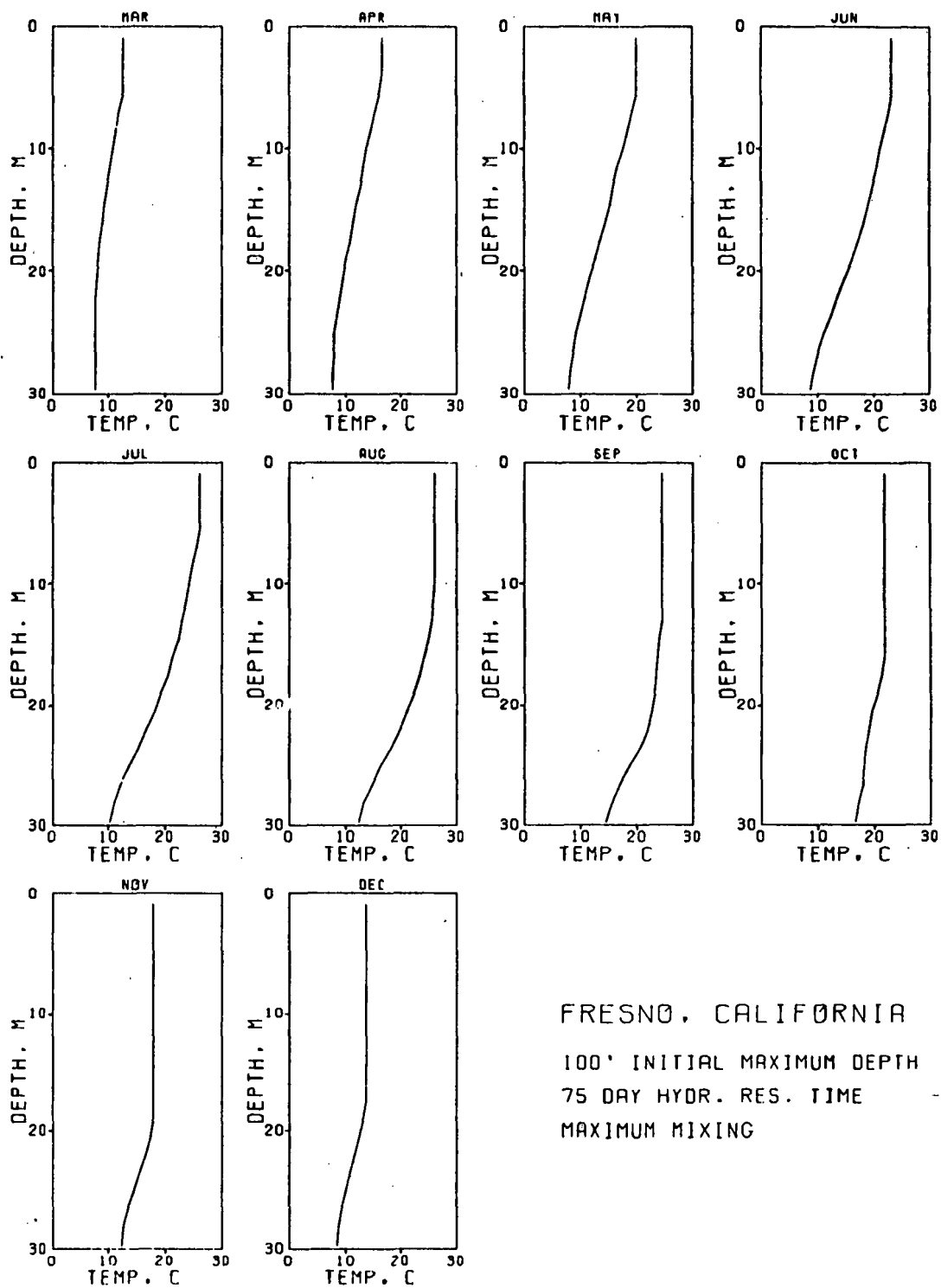


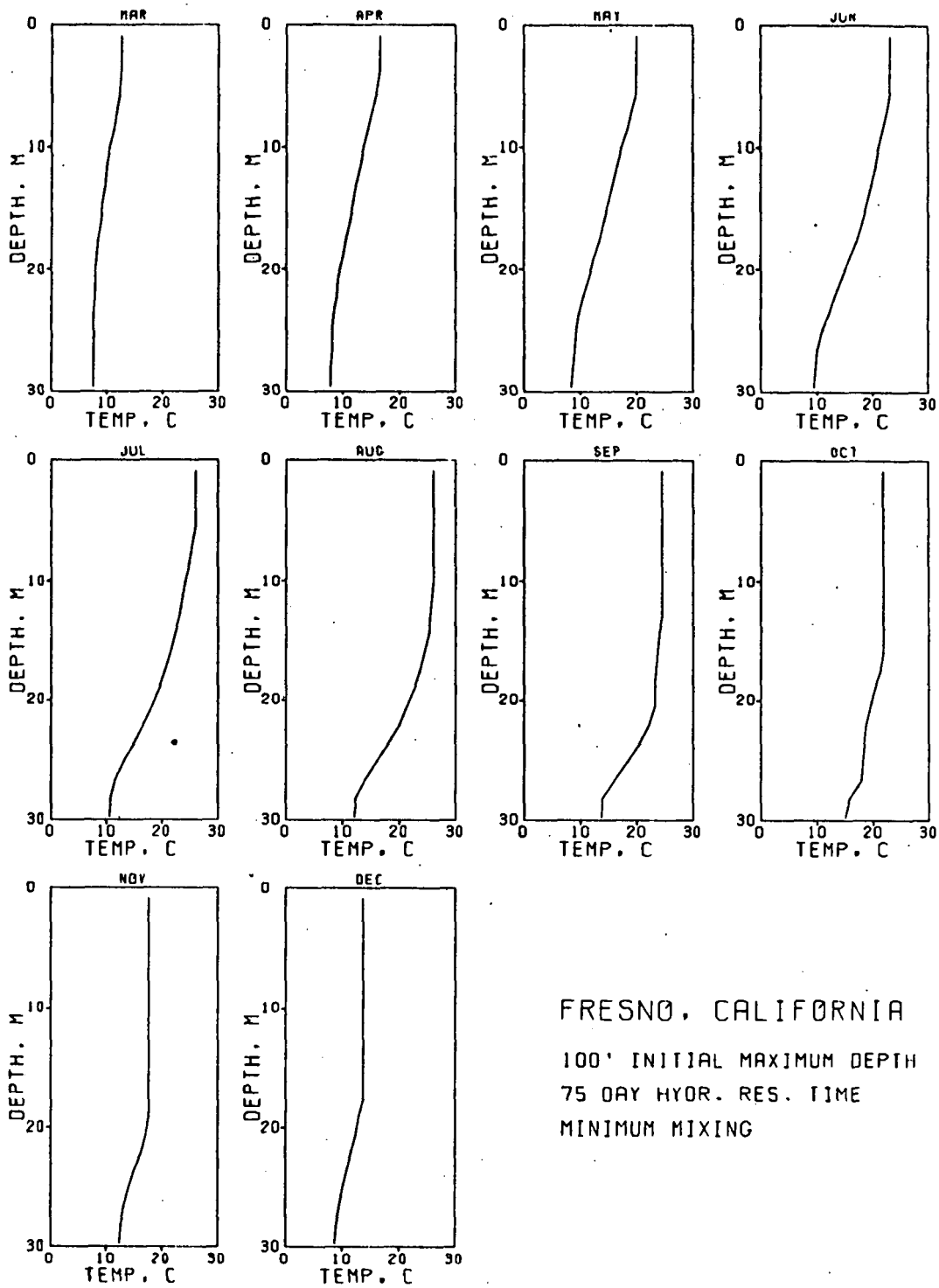




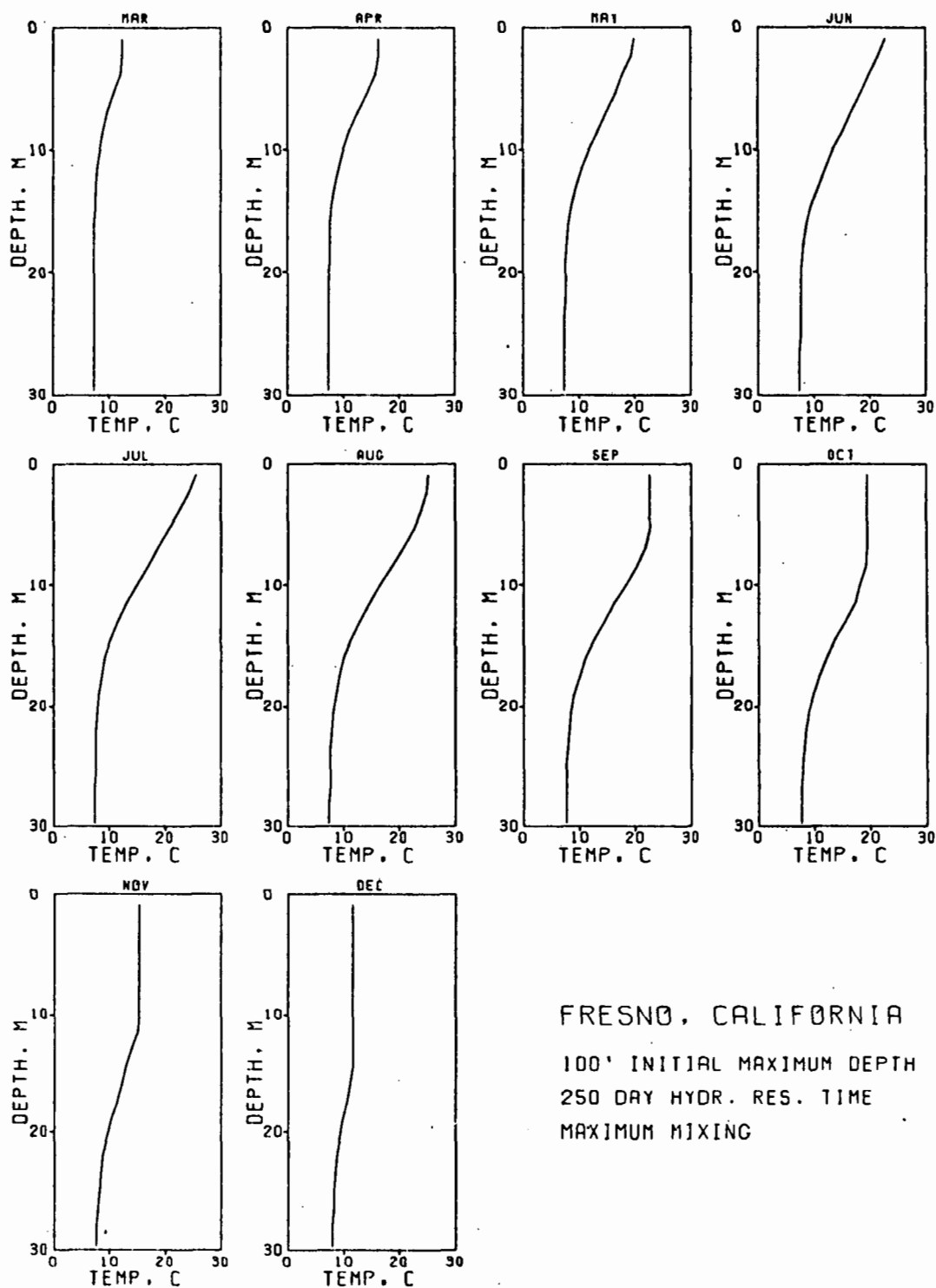
FRESNO, CALIFORNIA
 100' INITIAL MAXIMUM DEPTH
 30 DAY HYDR. RES. TIME
 MAXIMUM MIXING



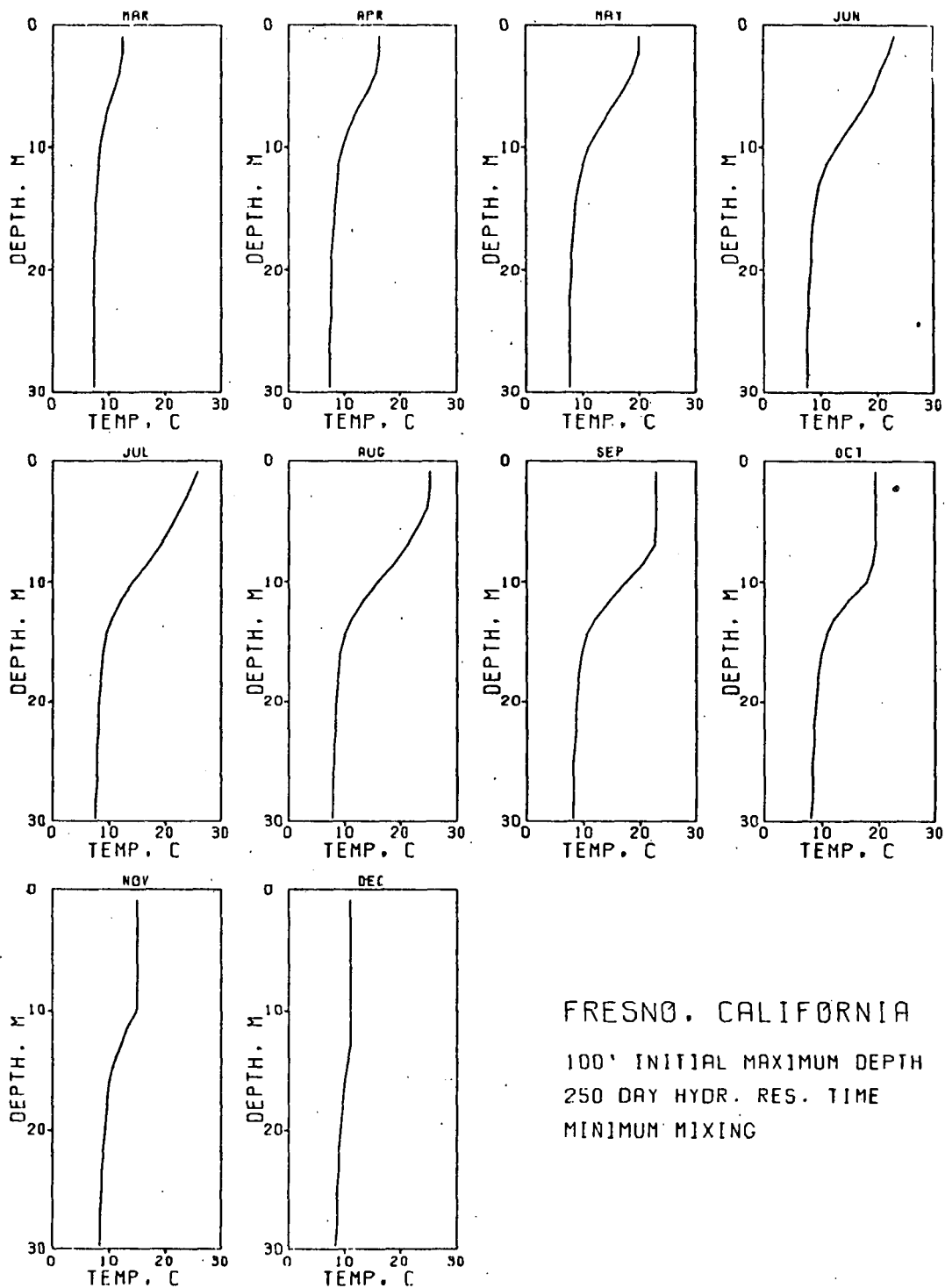




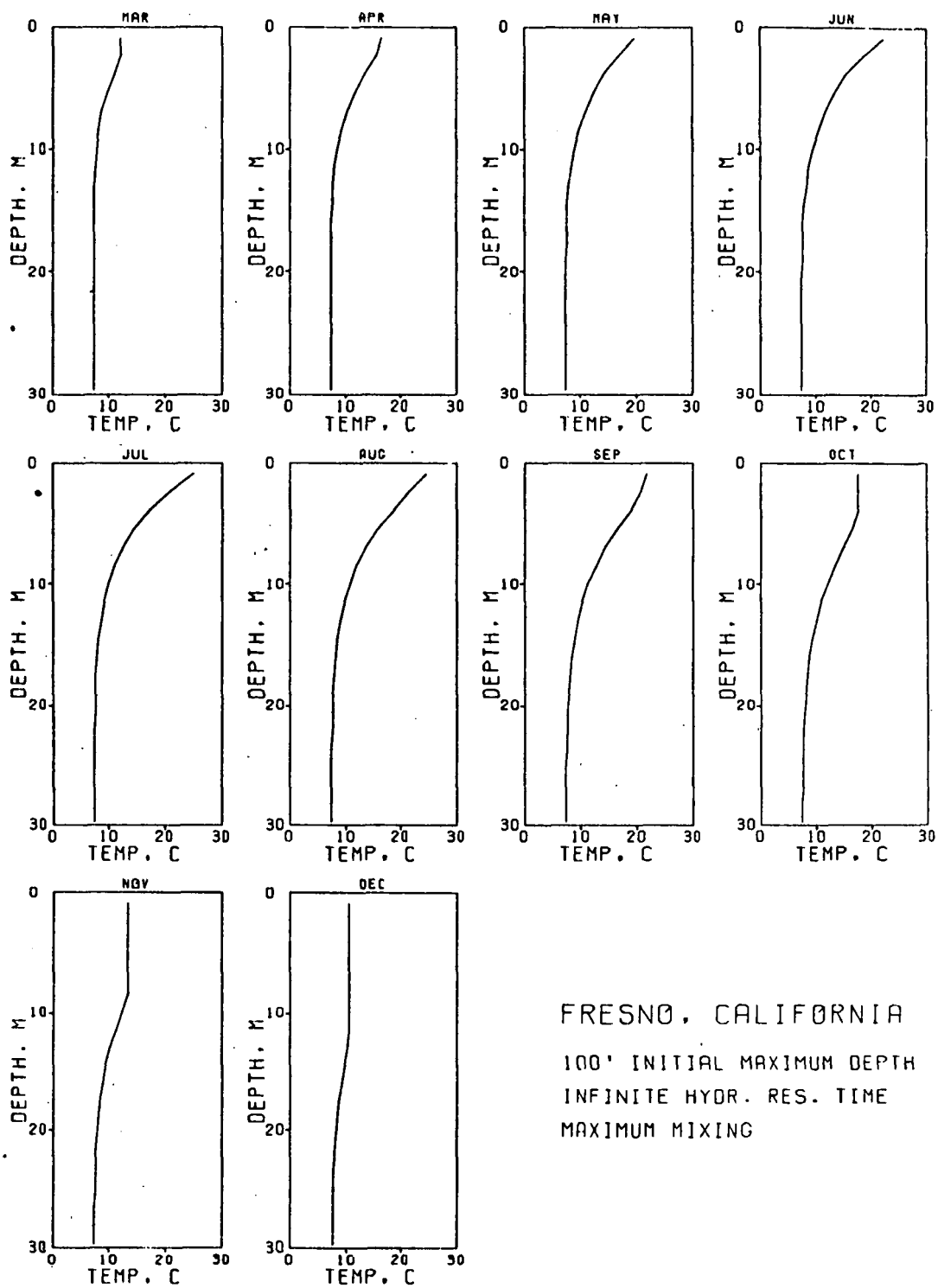
FRESNO, CALIFORNIA
 100' INITIAL MAXIMUM DEPTH
 75 DAY HYDR. RES. TIME
 MINIMUM MIXING



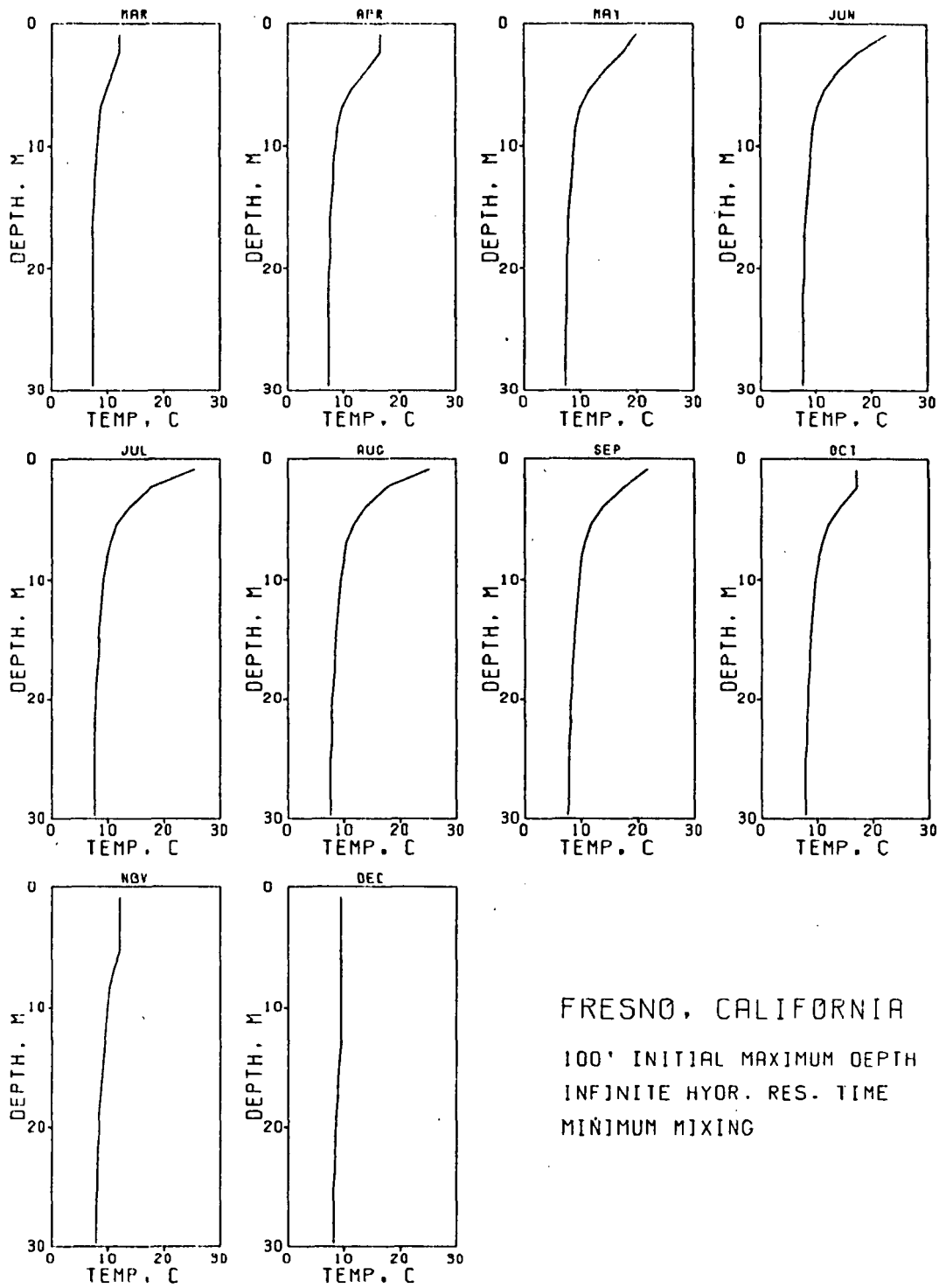
FRESNO, CALIFORNIA
 100' INITIAL MAXIMUM DEPTH
 250 DAY HYDR. RES. TIME
 MAXIMUM MIXING



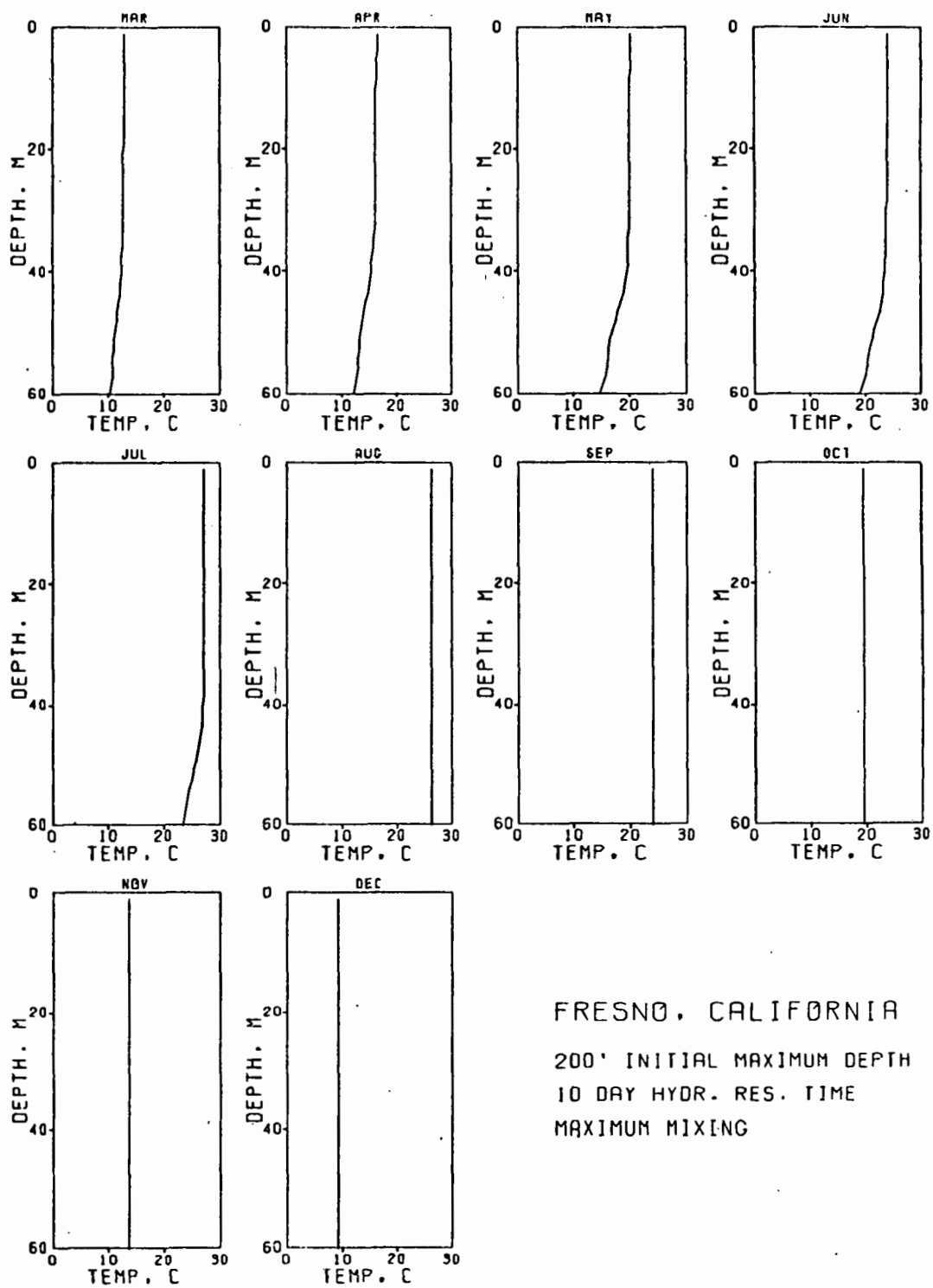
FRESNO, CALIFORNIA
 100' INITIAL MAXIMUM DEPTH
 250 DAY HYDR. RES. TIME
 MINIMUM MIXING



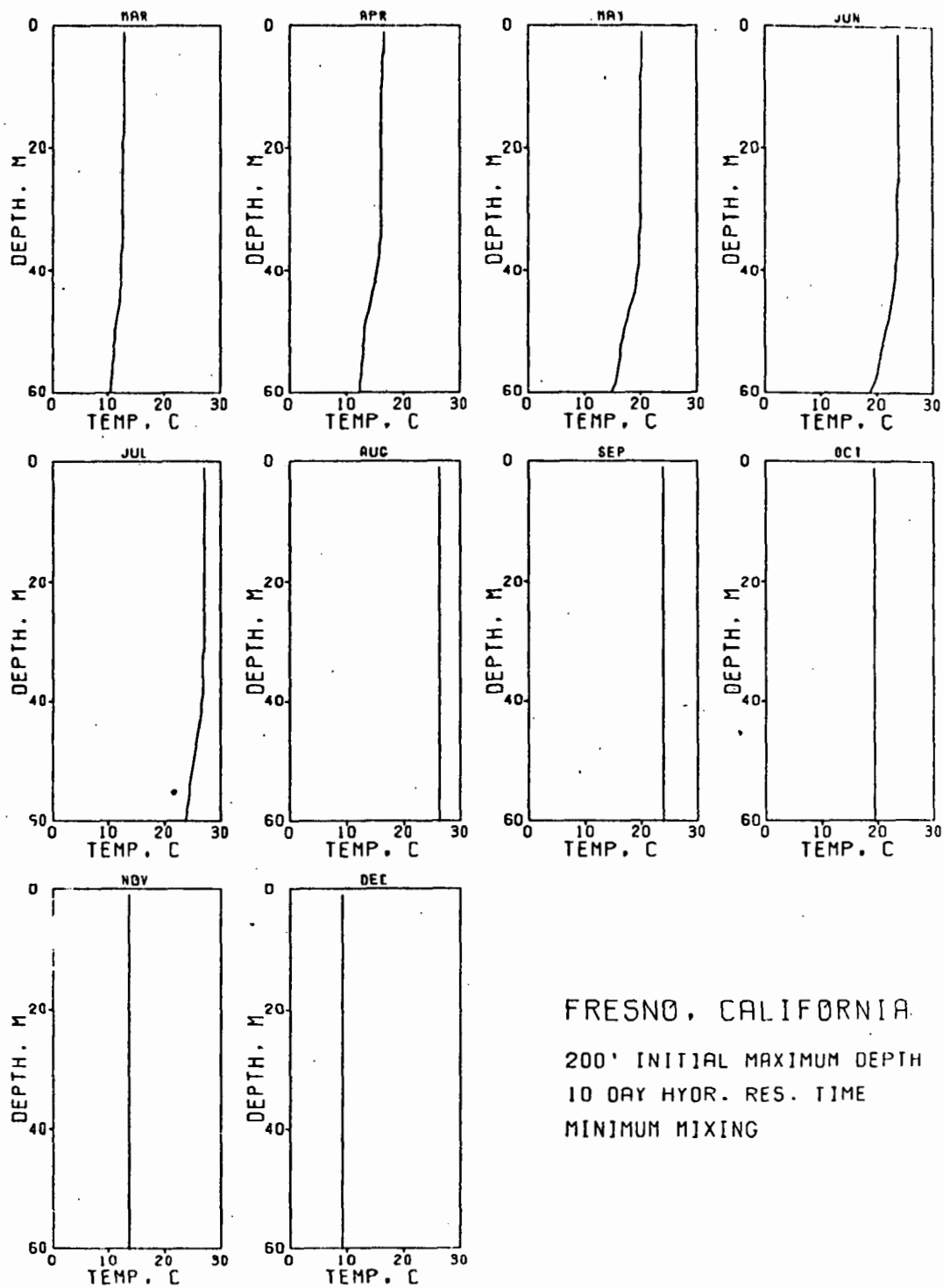
FRESNO, CALIFORNIA
 100' INITIAL MAXIMUM DEPTH
 INFINITE HYDR. RES. TIME
 MAXIMUM MIXING



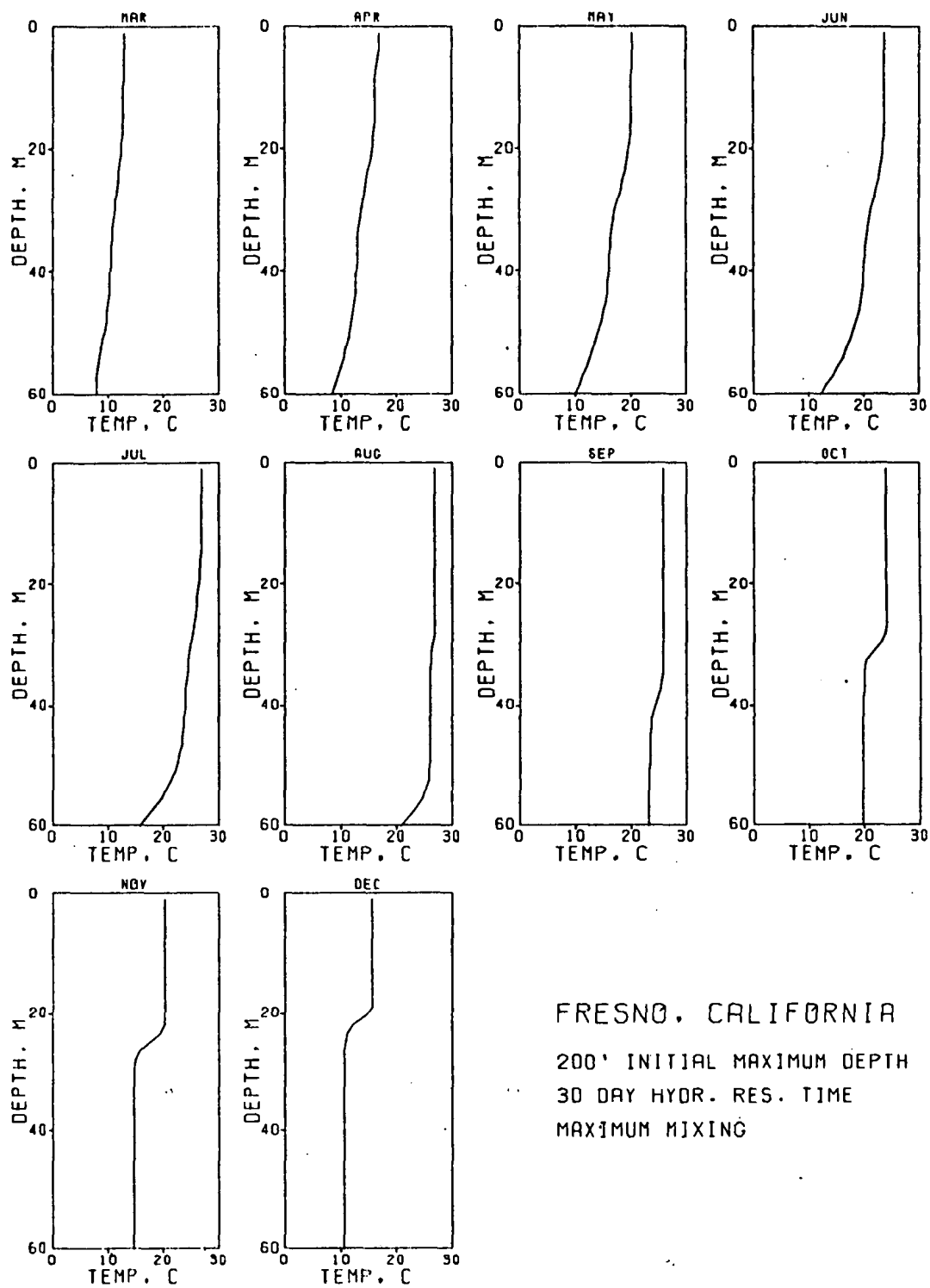
FRESNO, CALIFORNIA
 100' INITIAL MAXIMUM DEPTH
 INFINITE HYOR. RES. TIME
 MINIMUM MIXING



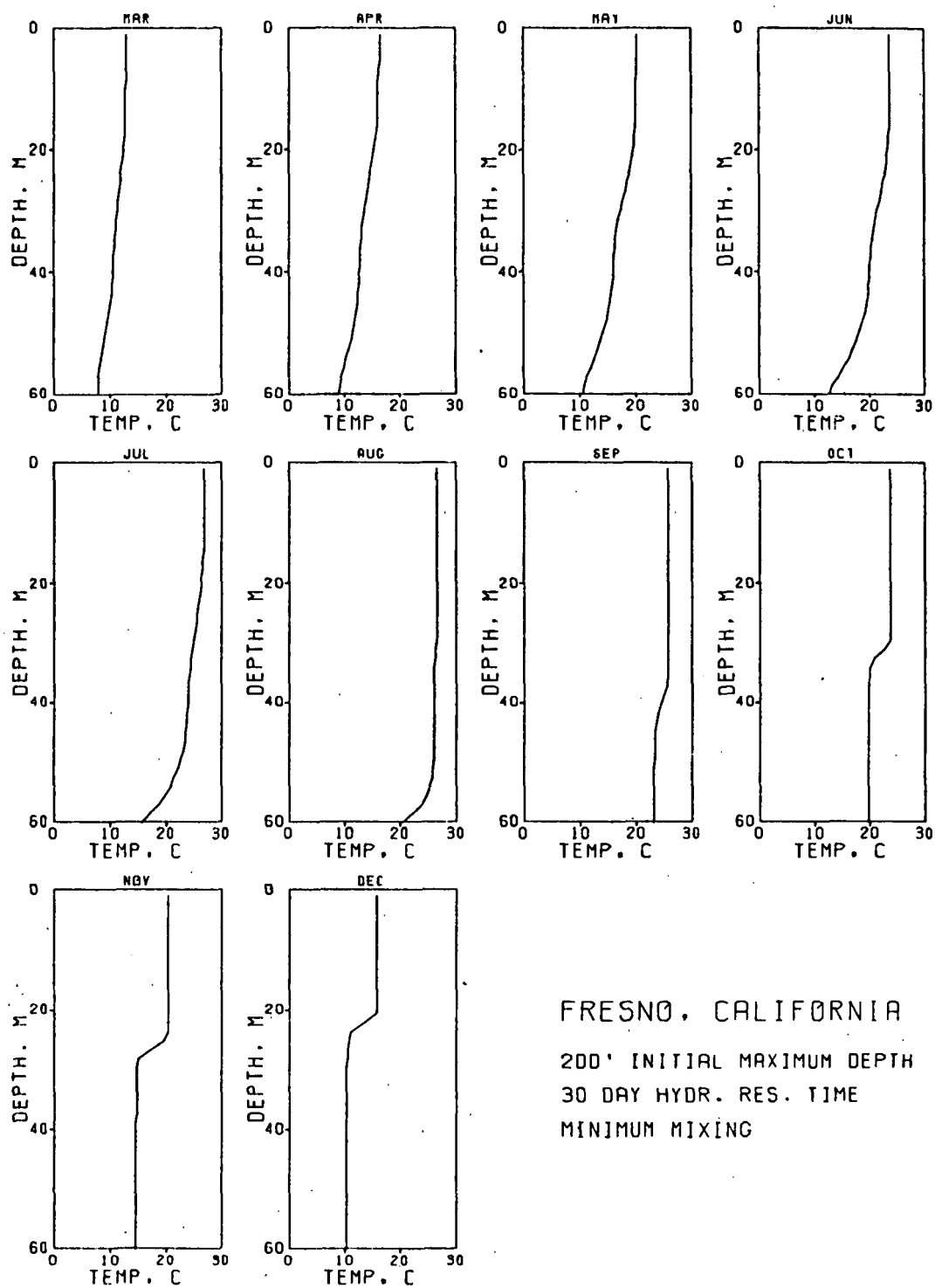
FRESNO, CALIFORNIA
 200' INITIAL MAXIMUM DEPTH
 10 DAY HYDR. RES. TIME
 MAXIMUM MIXING



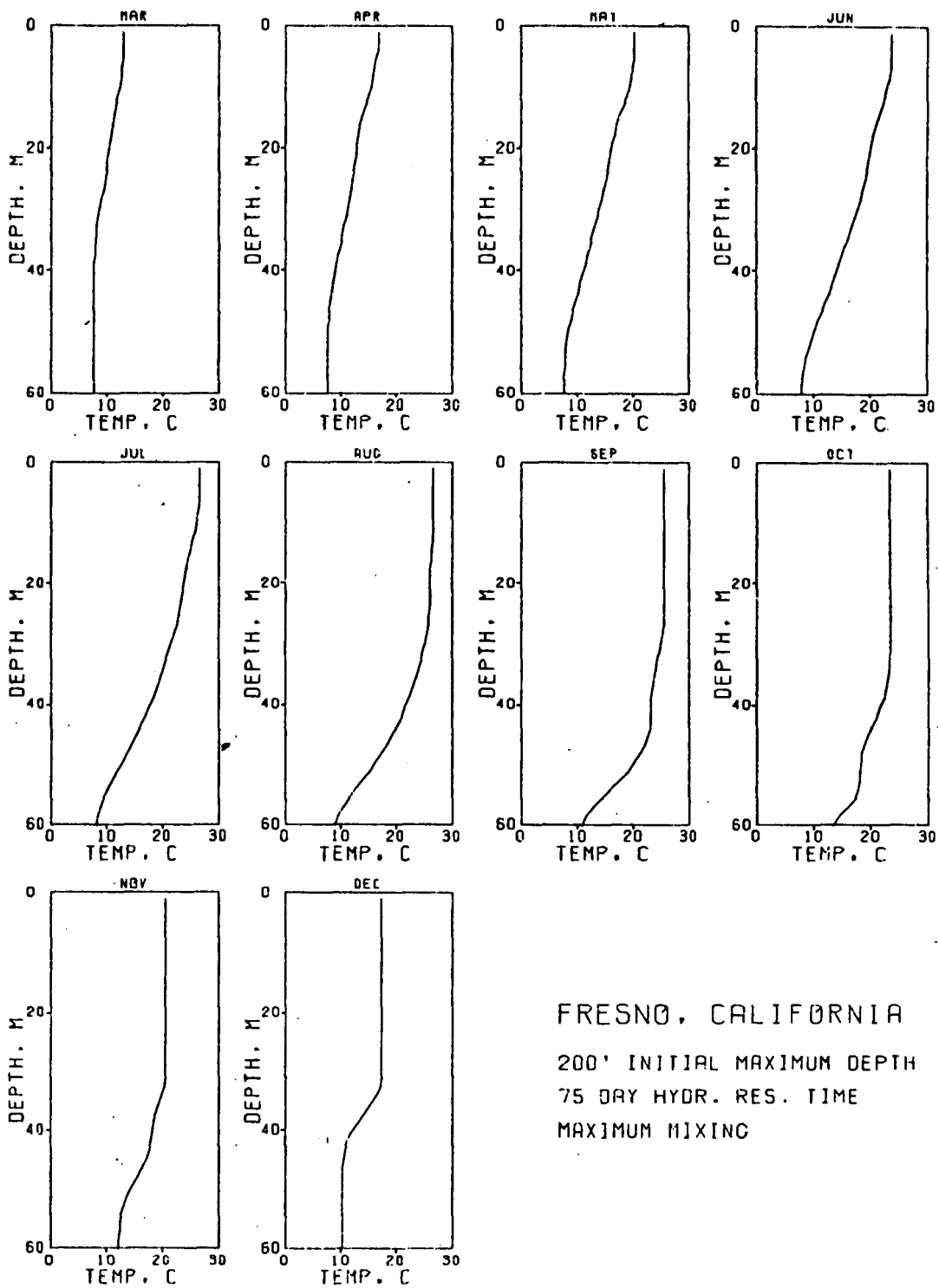
FRESNO, CALIFORNIA
 200' INITIAL MAXIMUM DEPTH
 10 DAY HYDR. RES. TIME
 MINIMUM MIXING



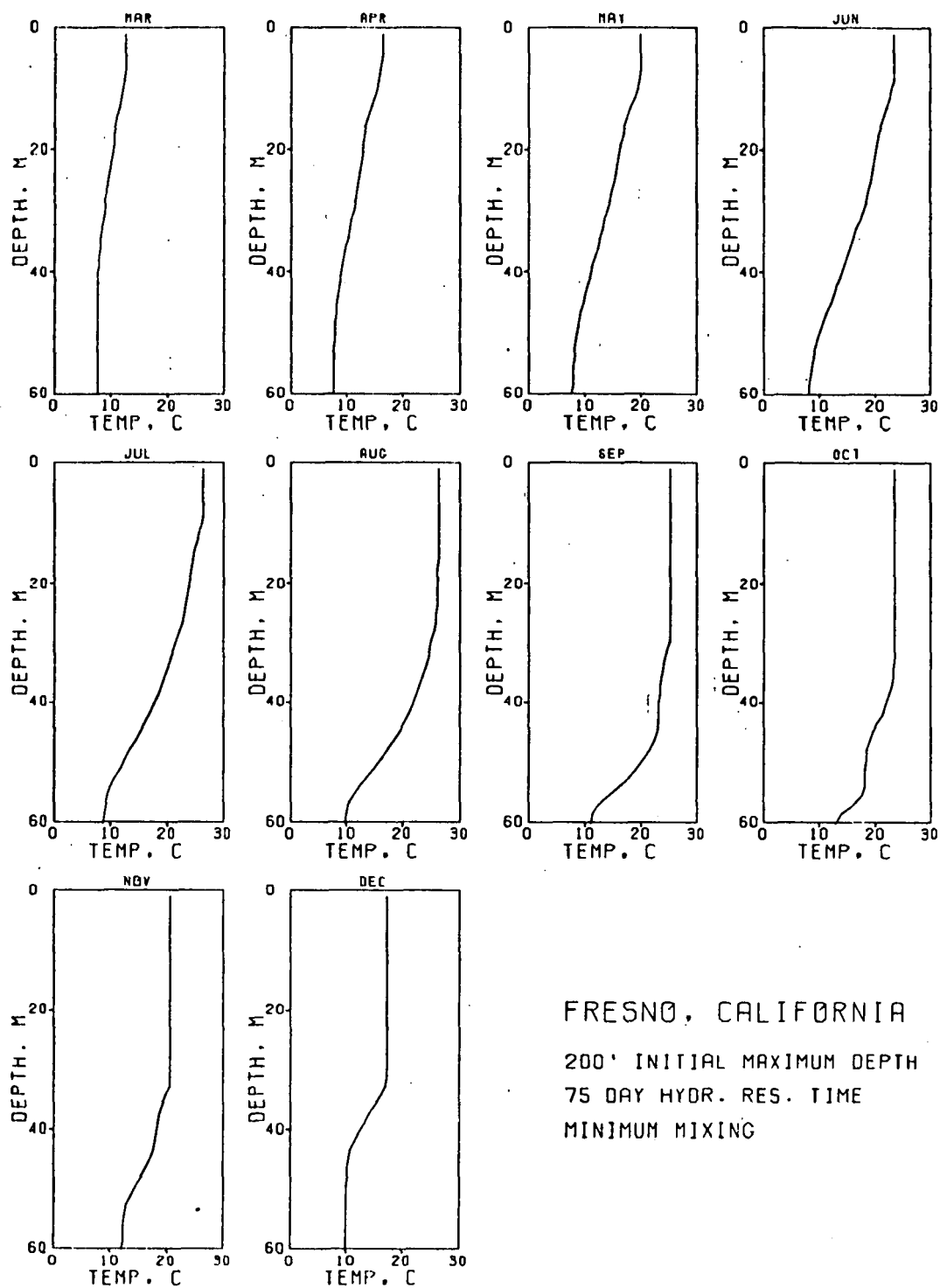
FRESNO, CALIFORNIA
 200' INITIAL MAXIMUM DEPTH
 30 DAY HYDR. RES. TIME
 MAXIMUM MIXING



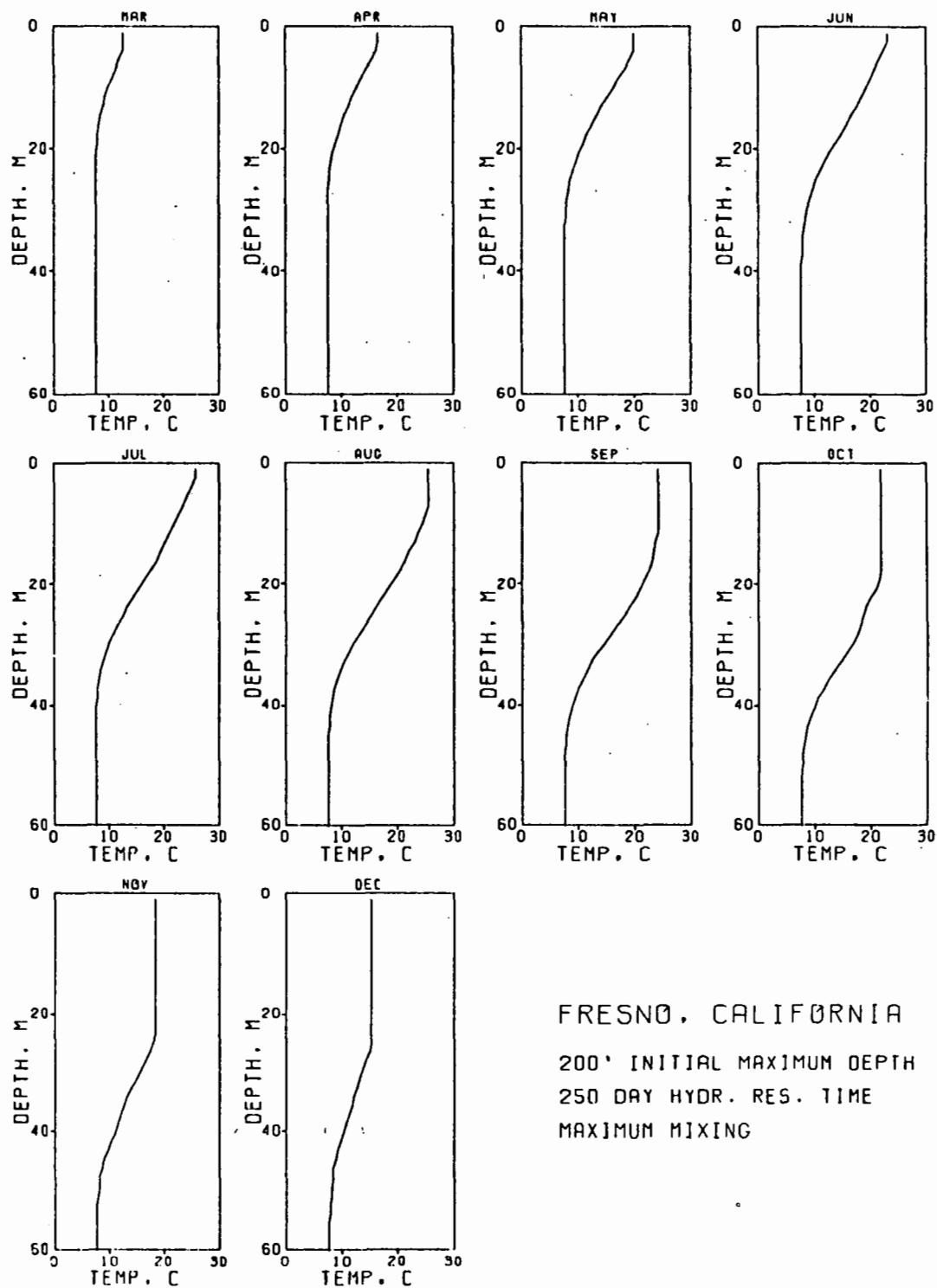
FRESNO, CALIFORNIA
 200' INITIAL MAXIMUM DEPTH
 30 DAY HYDR. RES. TIME
 MINIMUM MIXING



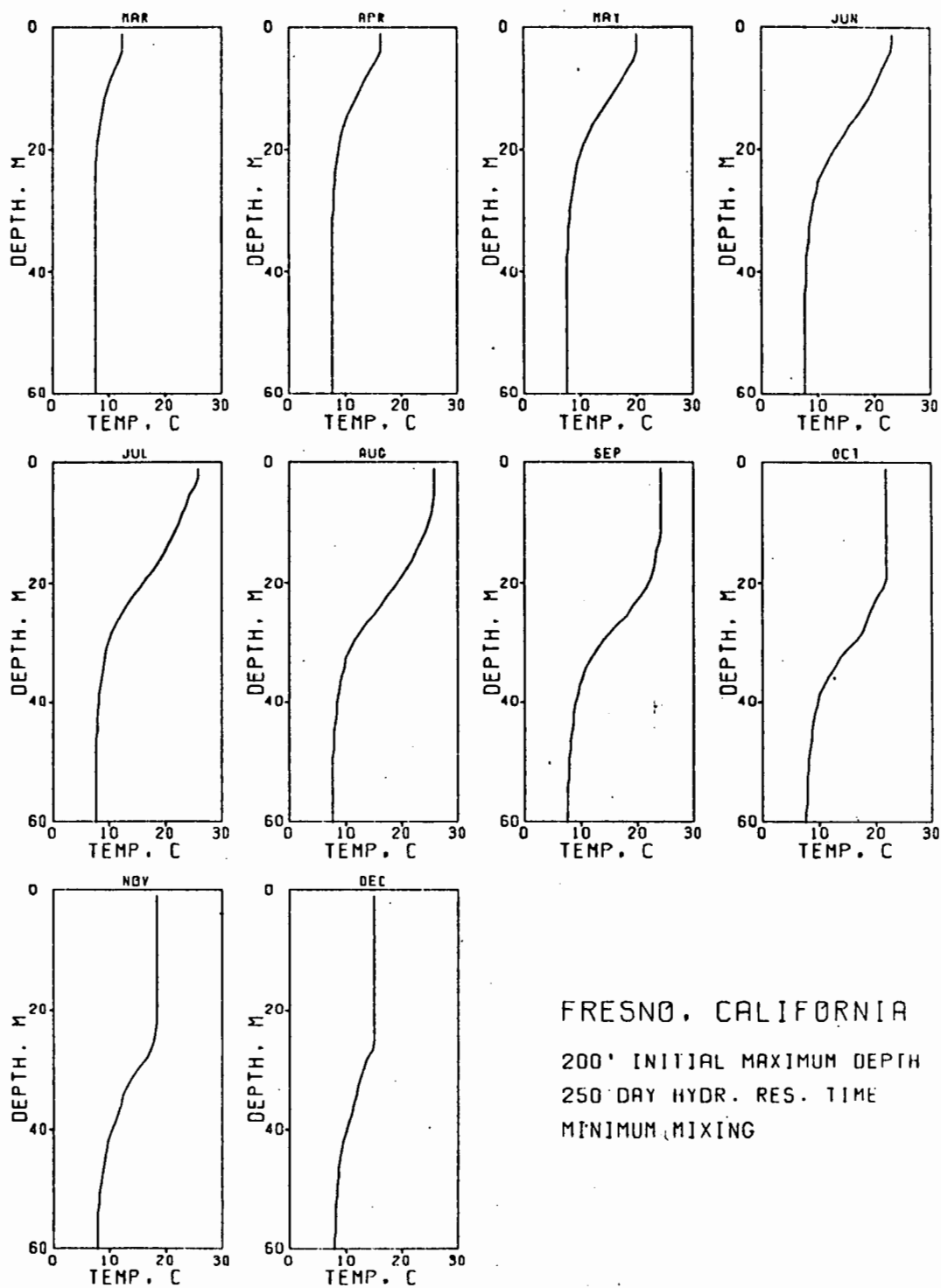
FRESNO, CALIFORNIA
 200' INITIAL MAXIMUM DEPTH
 75 DAY HYDR. RES. TIME
 MAXIMUM MIXING



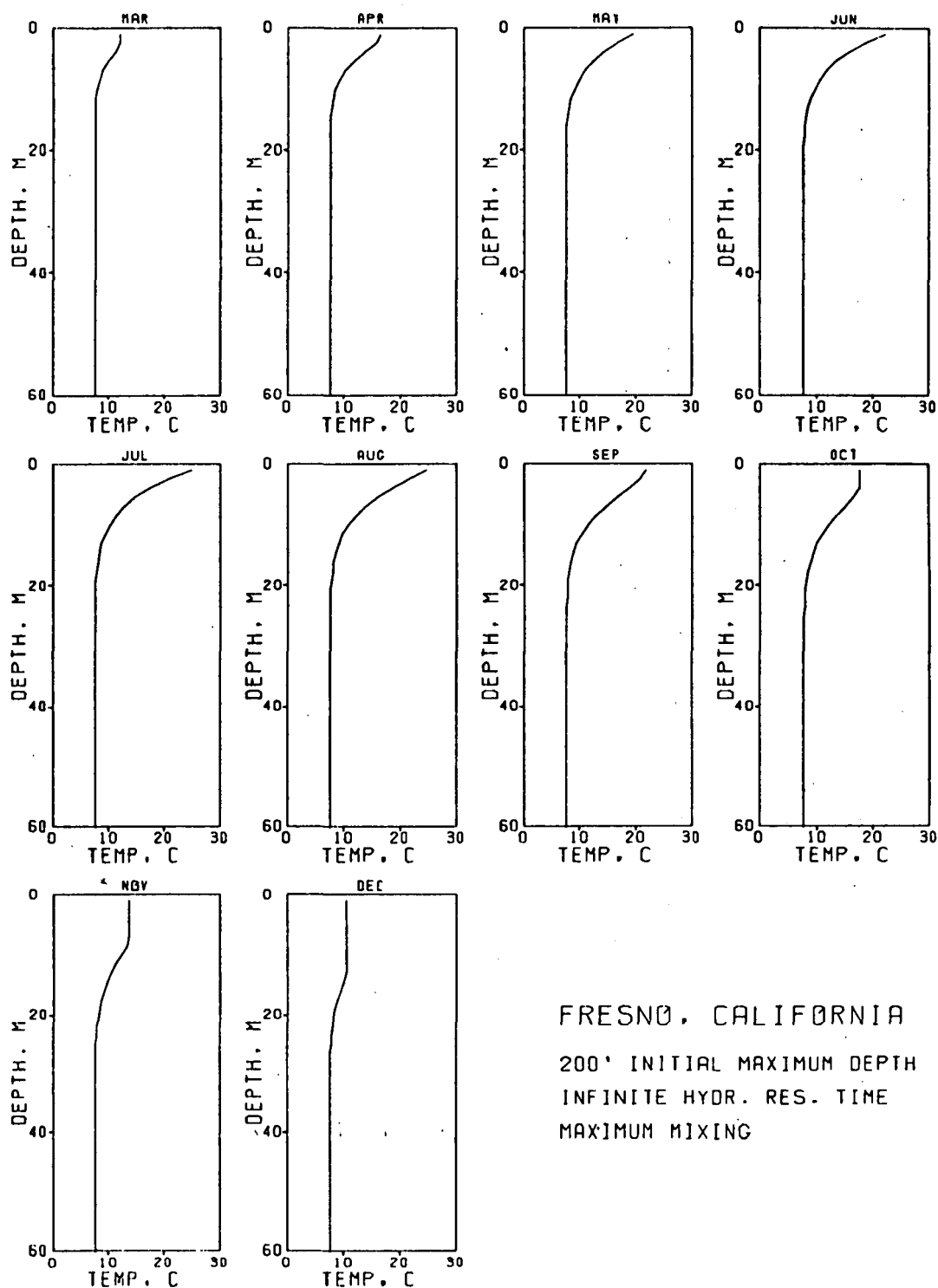
FRESNO, CALIFORNIA
 200' INITIAL MAXIMUM DEPTH
 75 DAY HYDR. RES. TIME
 MINIMUM MIXING



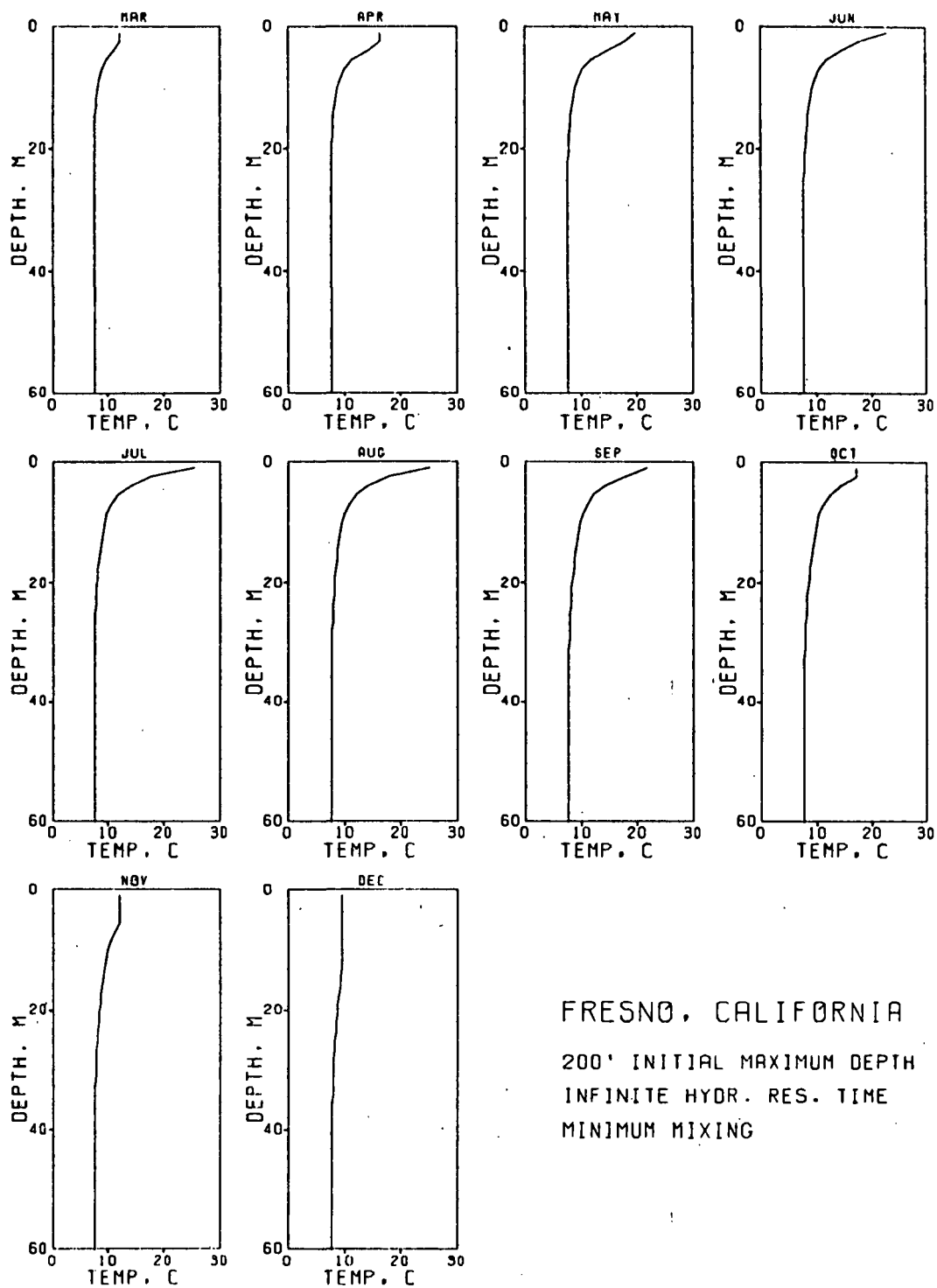
FRESNO, CALIFORNIA
 200' INITIAL MAXIMUM DEPTH
 250 DAY HYDR. RES. TIME
 MAXIMUM MIXING



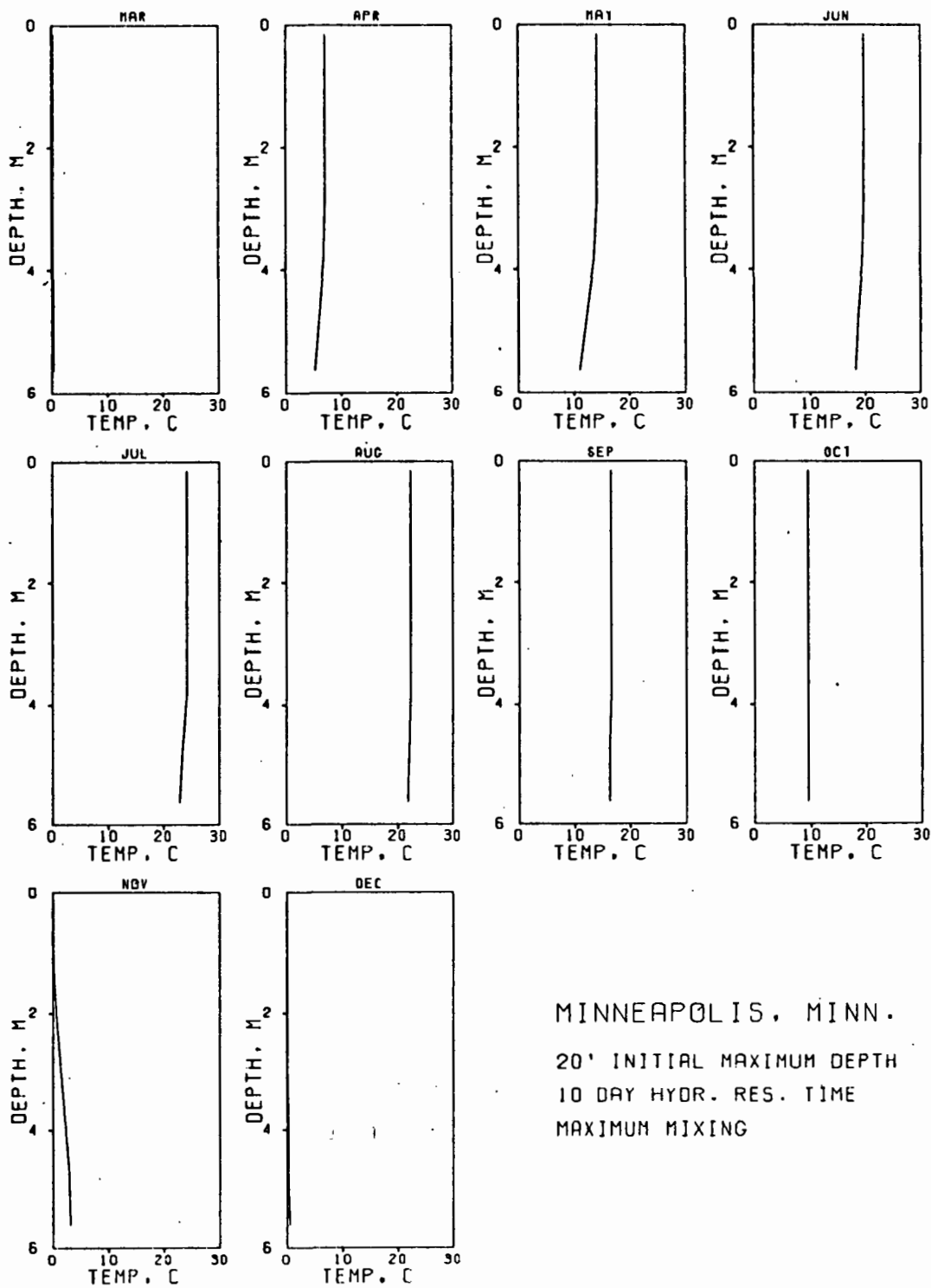
FRESNO, CALIFORNIA
 200' INITIAL MAXIMUM DEPTH
 250 DAY HYDR. RES. TIME
 MINIMUM MIXING

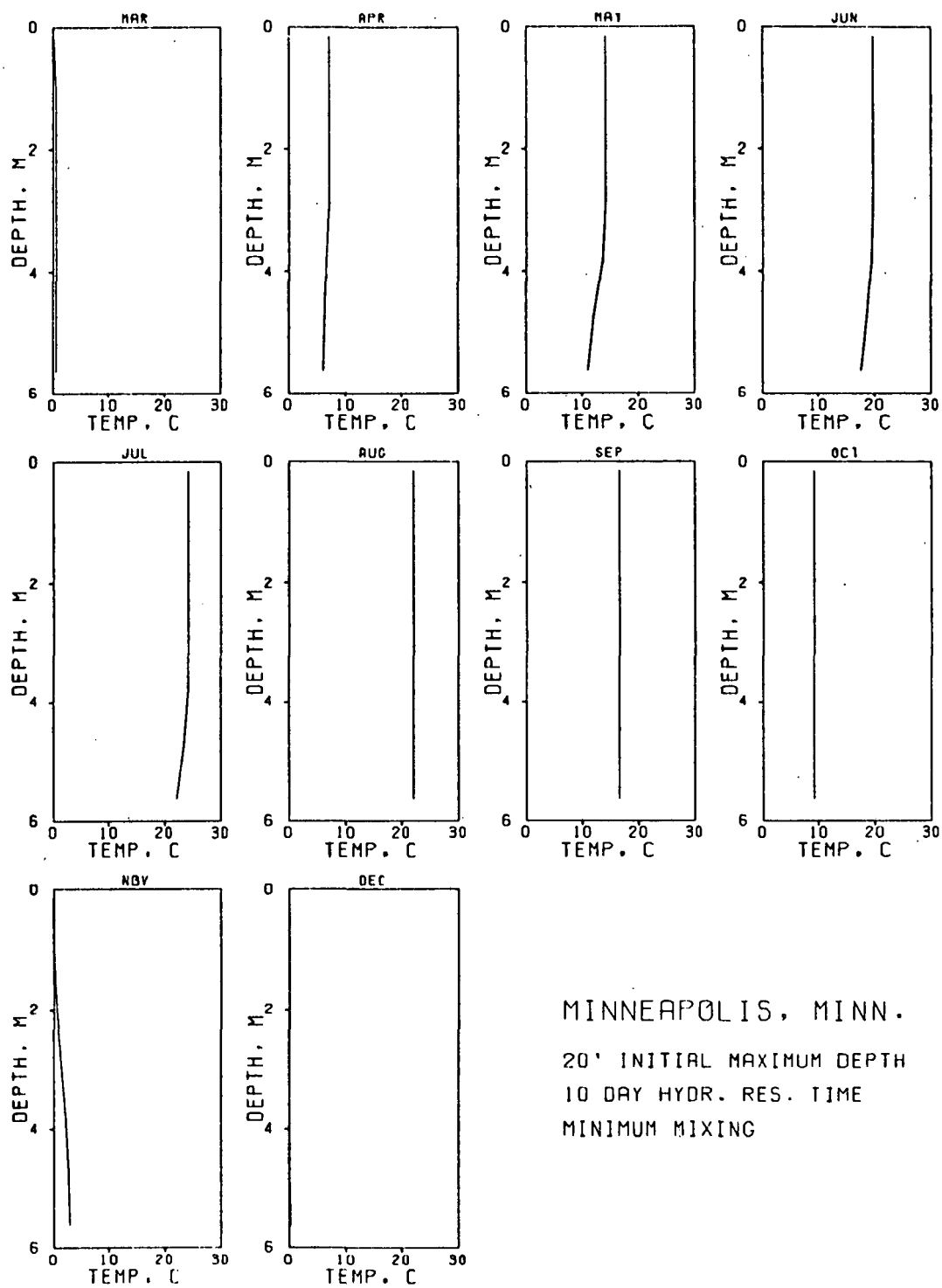


FRESNO, CALIFORNIA
 200' INITIAL MAXIMUM DEPTH
 INFINITE HYDR. RES. TIME
 MAXIMUM MIXING



FRESNO, CALIFORNIA
 200' INITIAL MAXIMUM DEPTH
 INFINITE HYDR. RES. TIME
 MINIMUM MIXING



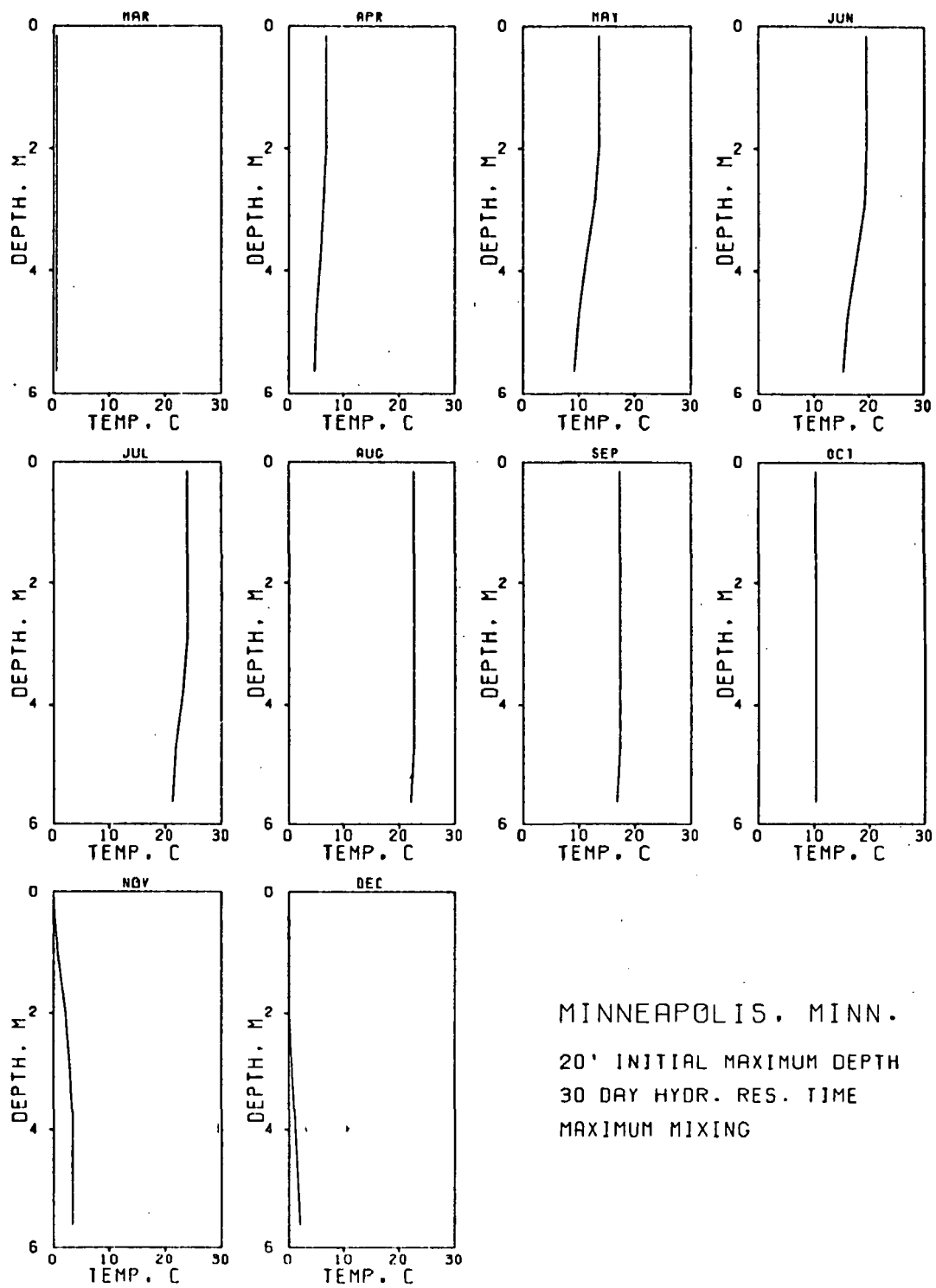


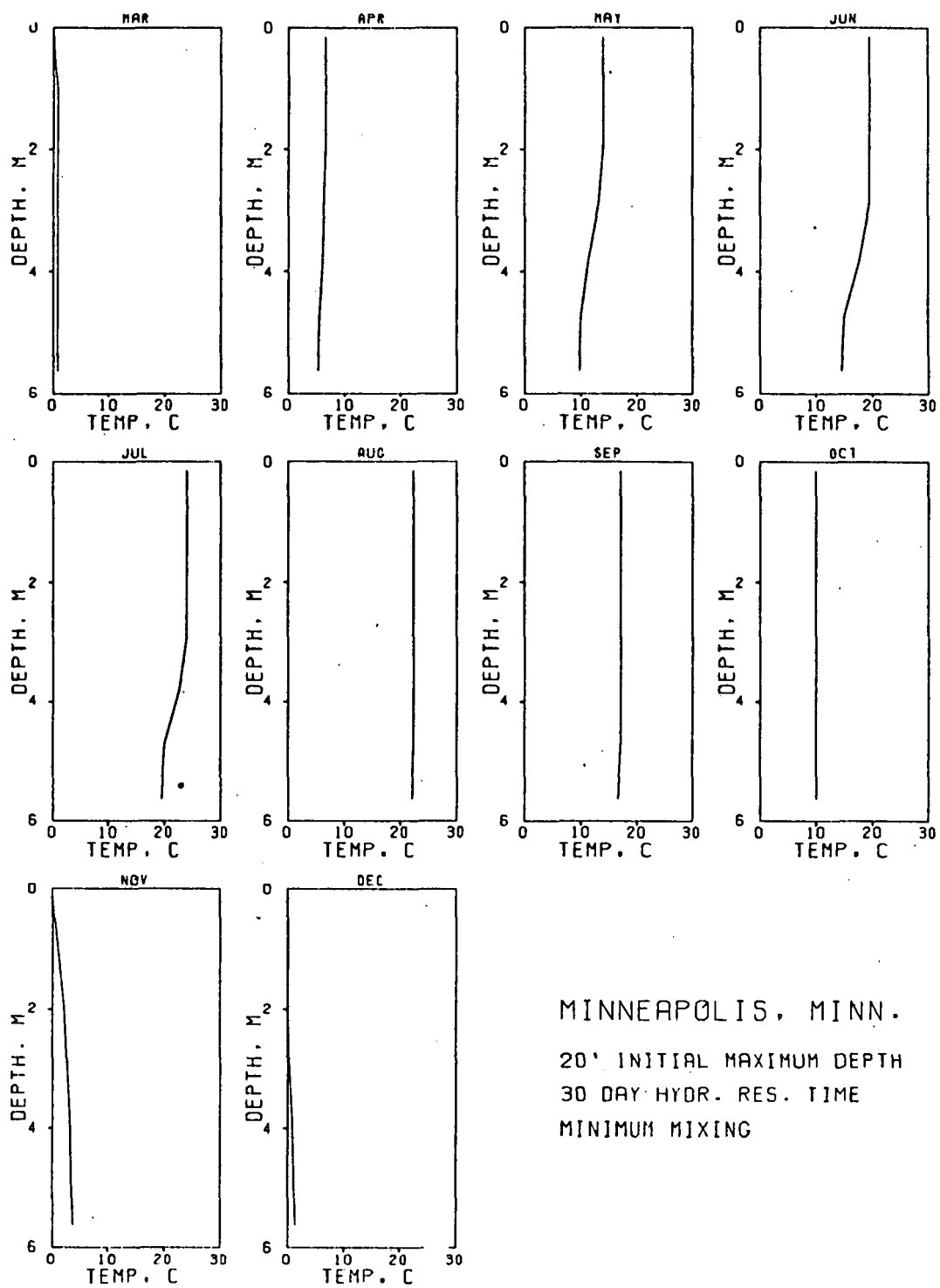
MINNEAPOLIS, MINN.

20' INITIAL MAXIMUM DEPTH

10 DAY HYDR. RES. TIME

MINIMUM MIXING



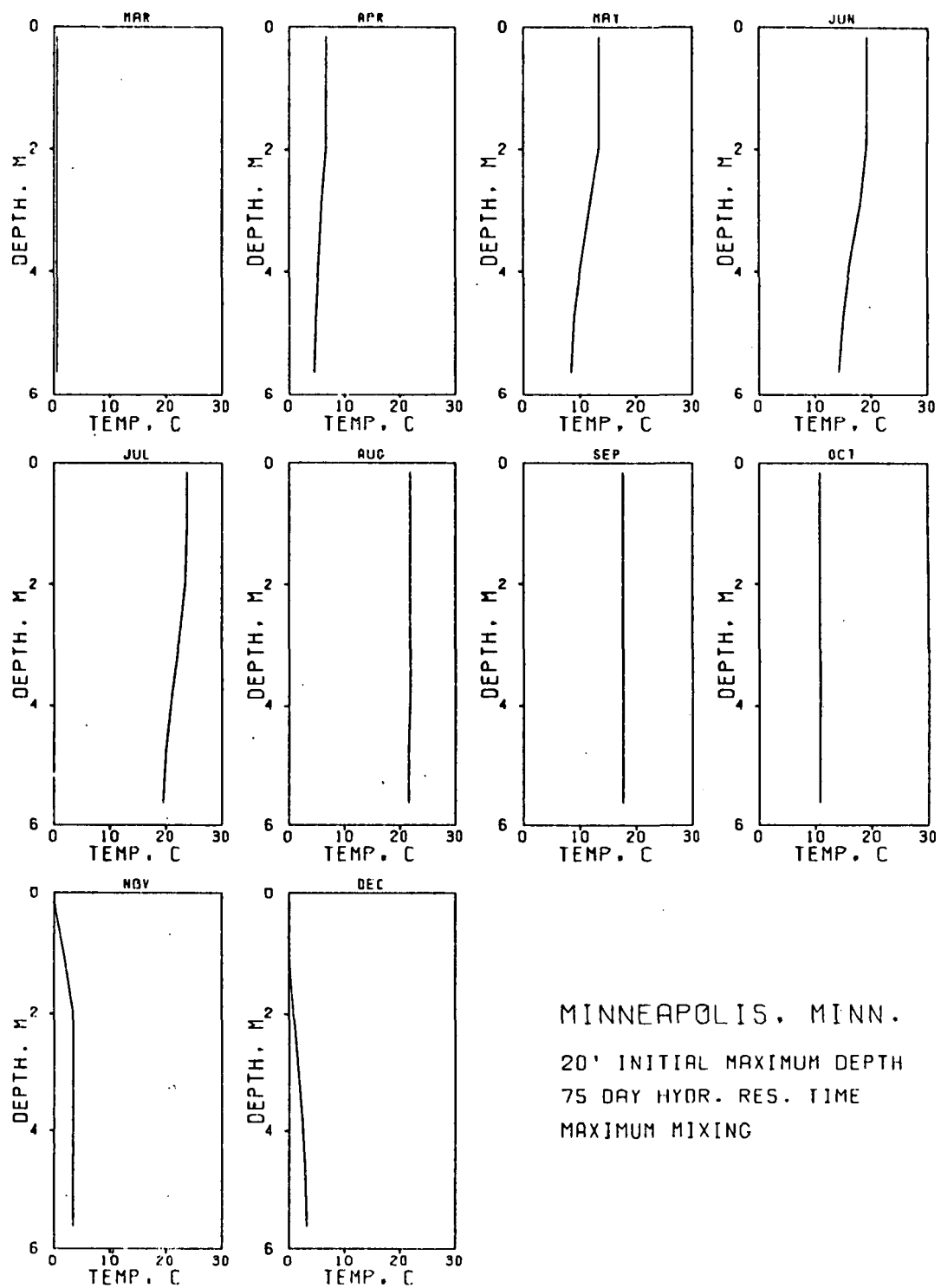


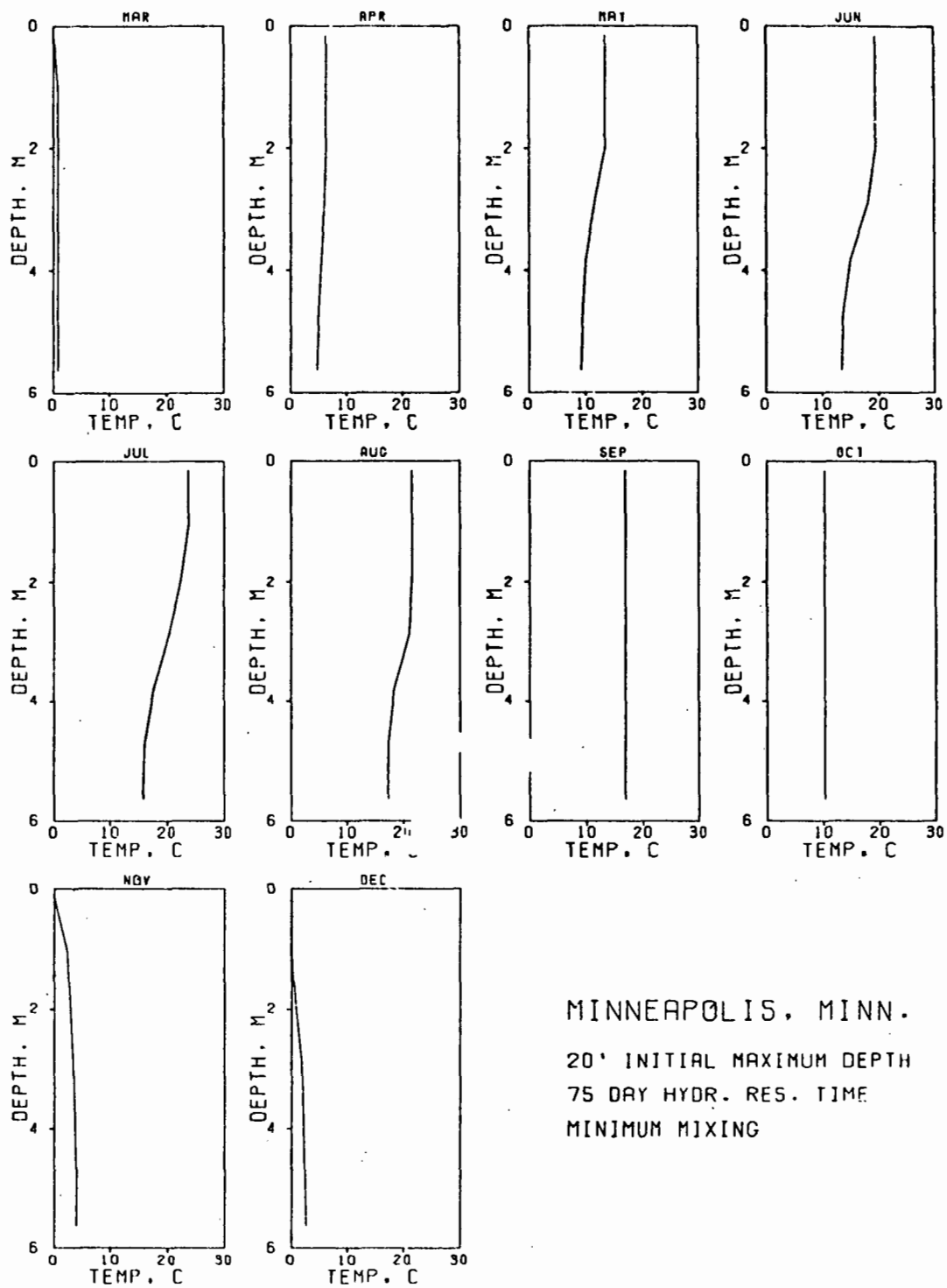
MINNEAPOLIS, MINN.

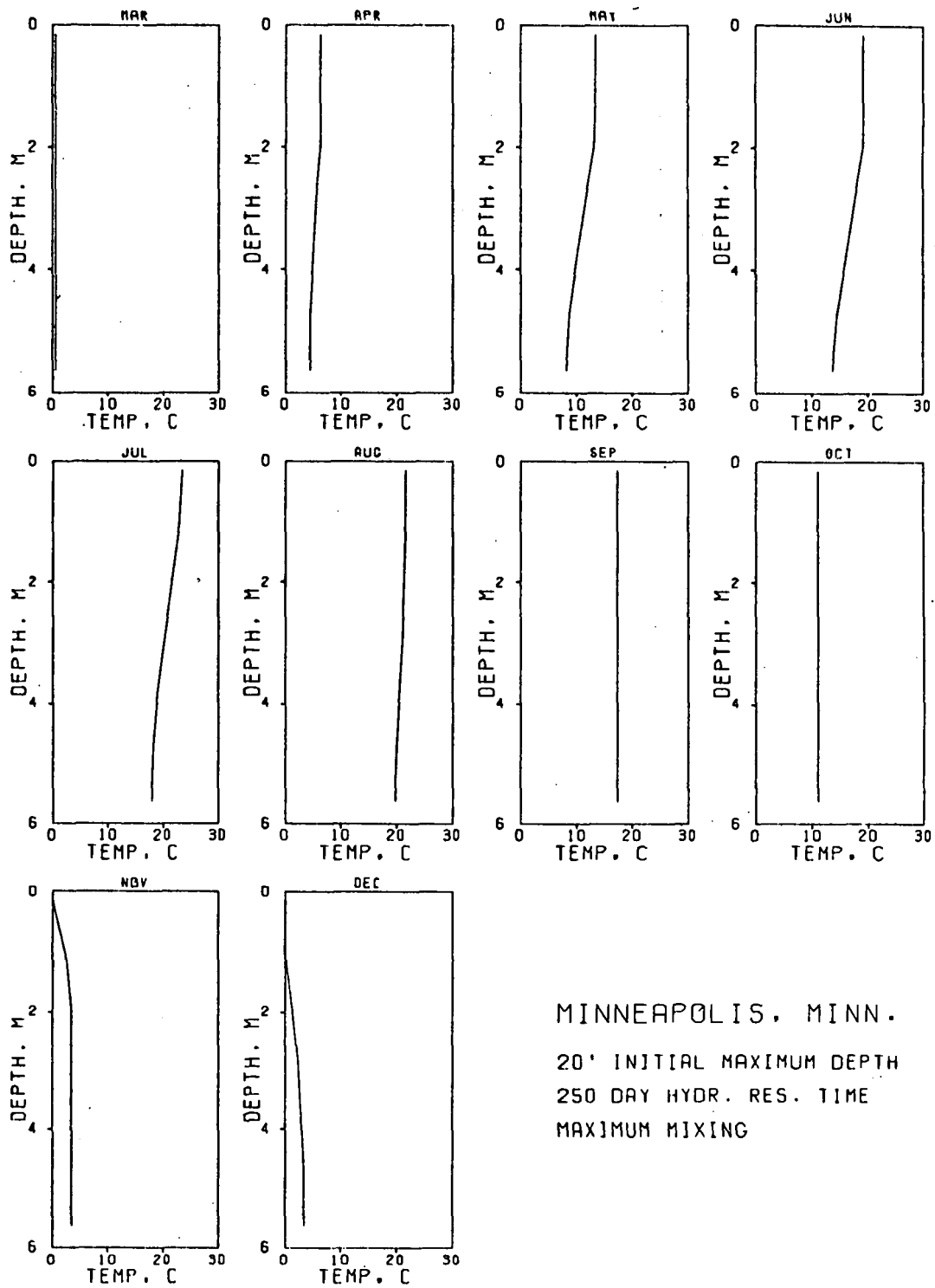
20' INITIAL MAXIMUM DEPTH

30 DAY HYDR. RES. TIME

MINIMUM MIXING





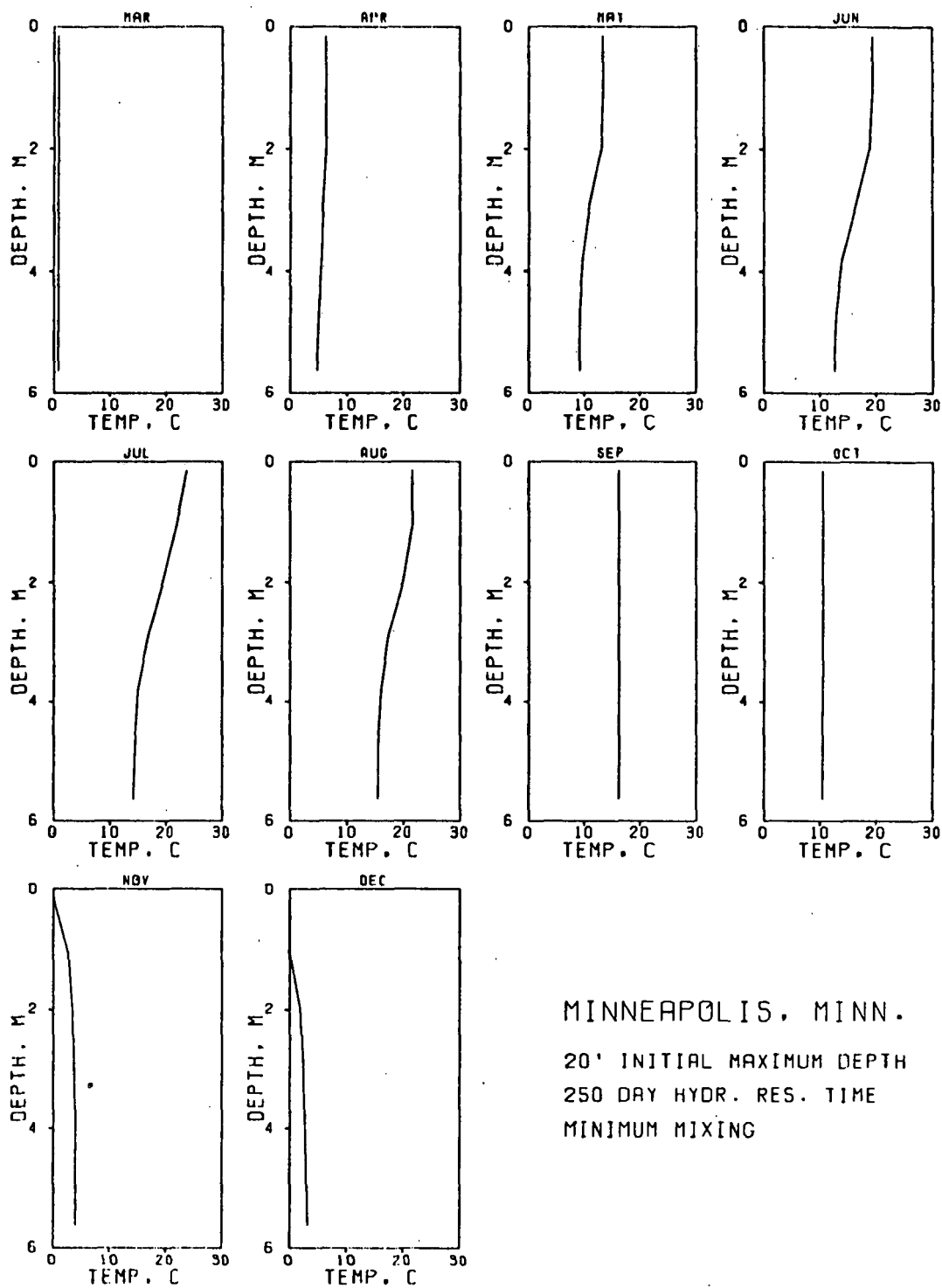


MINNEAPOLIS, MINN.

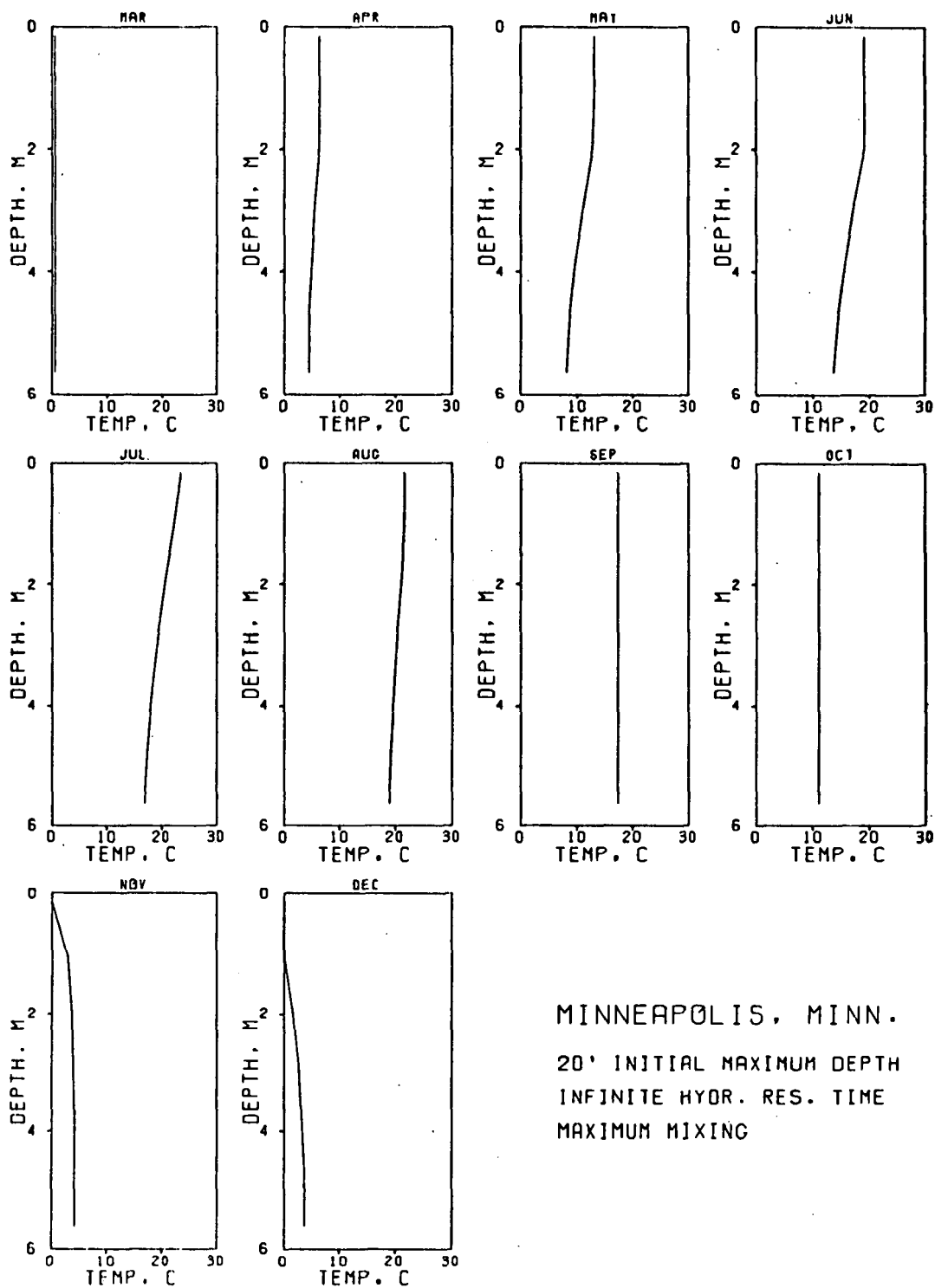
20' INITIAL MAXIMUM DEPTH

250 DAY HYDR. RES. TIME

MAXIMUM MIXING

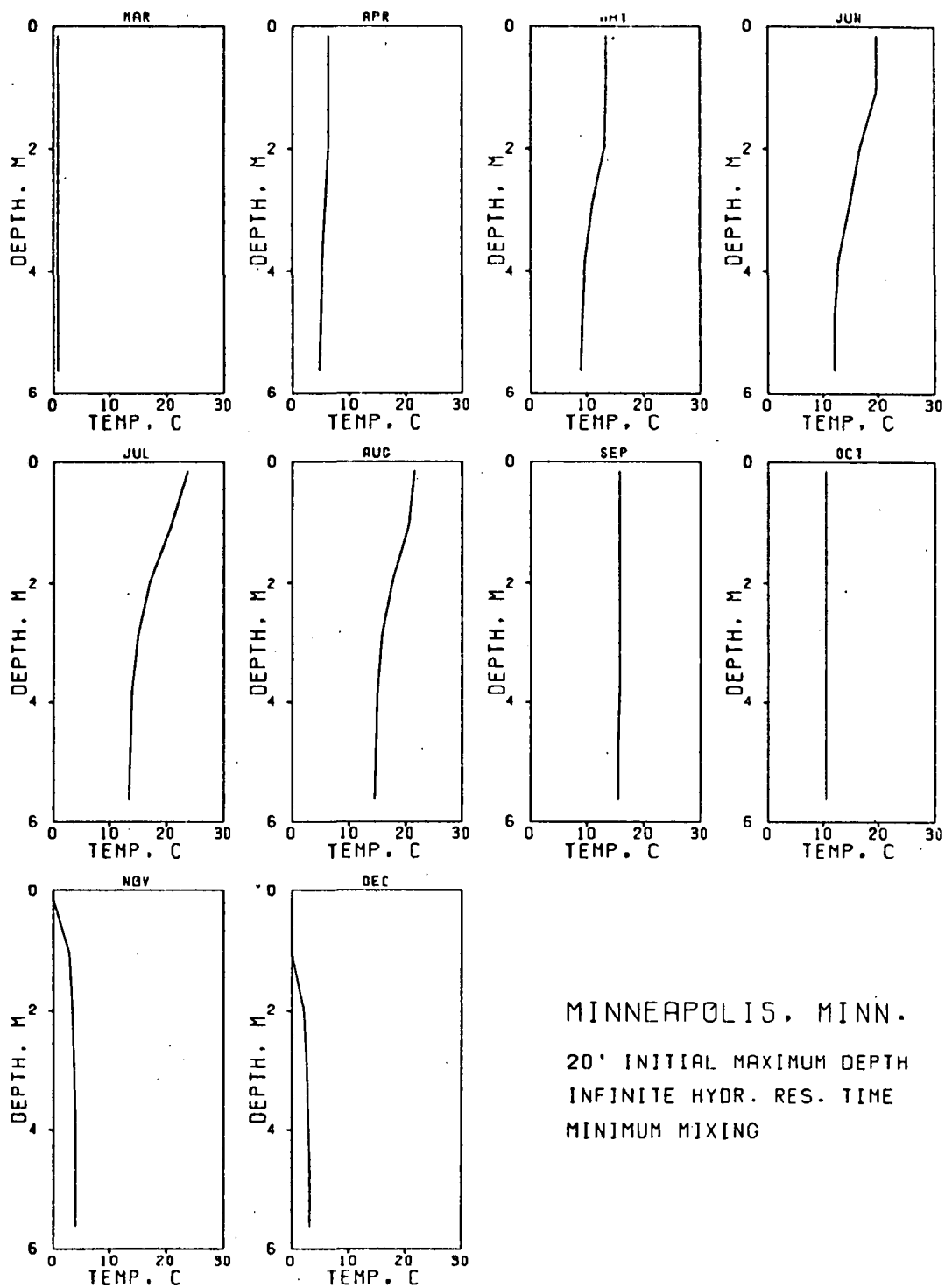


MINNEAPOLIS, MINN.
 20' INITIAL MAXIMUM DEPTH
 250 DAY HYDR. RES. TIME
 MINIMUM MIXING



MINNEAPOLIS, MINN.

20' INITIAL MAXIMUM DEPTH
INFINITE HYDR. RES. TIME
MAXIMUM MIXING

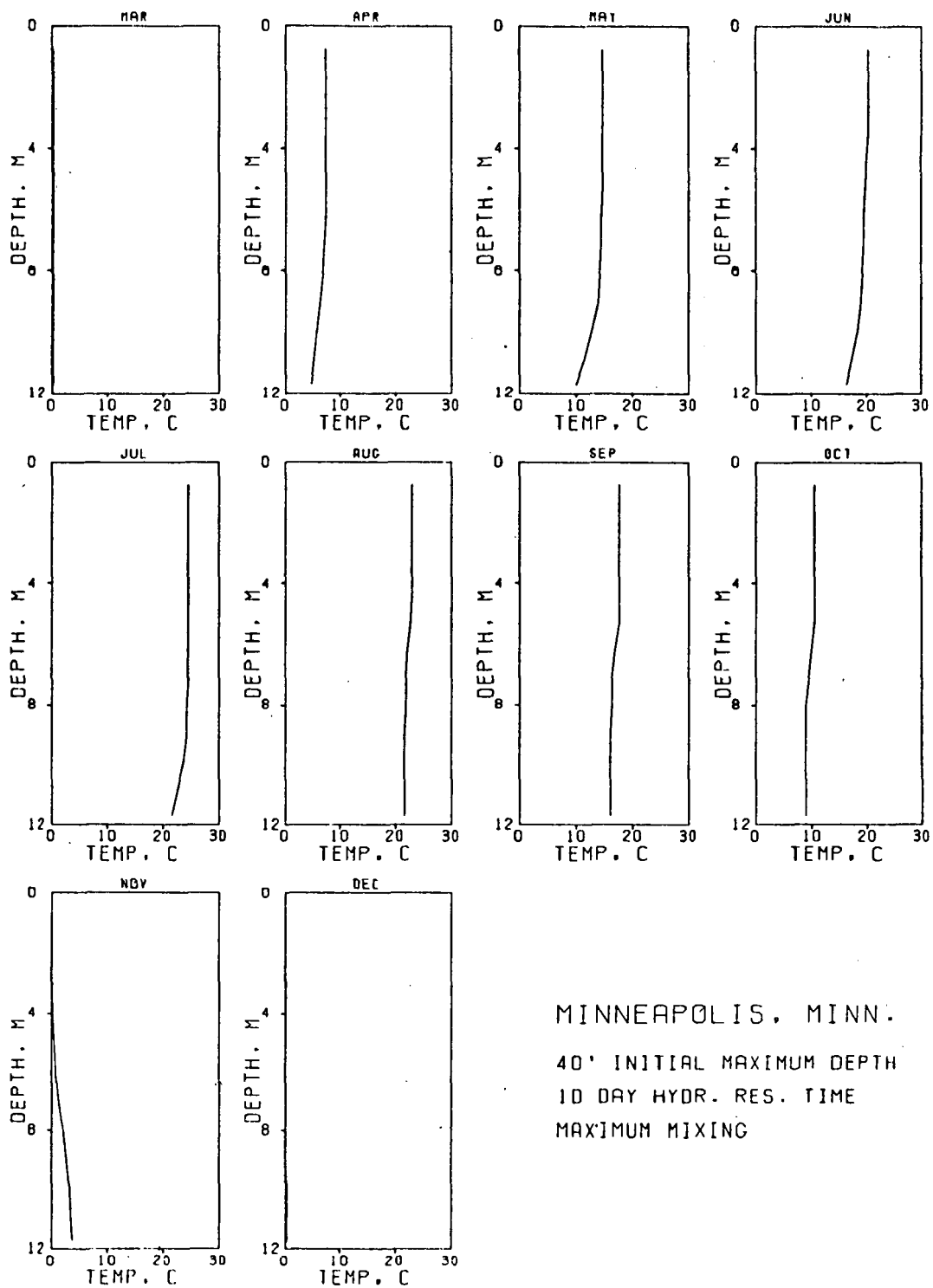


MINNEAPOLIS, MINN.

20' INITIAL MAXIMUM DEPTH

INFINITE HYDR. RES. TIME

MINIMUM MIXING

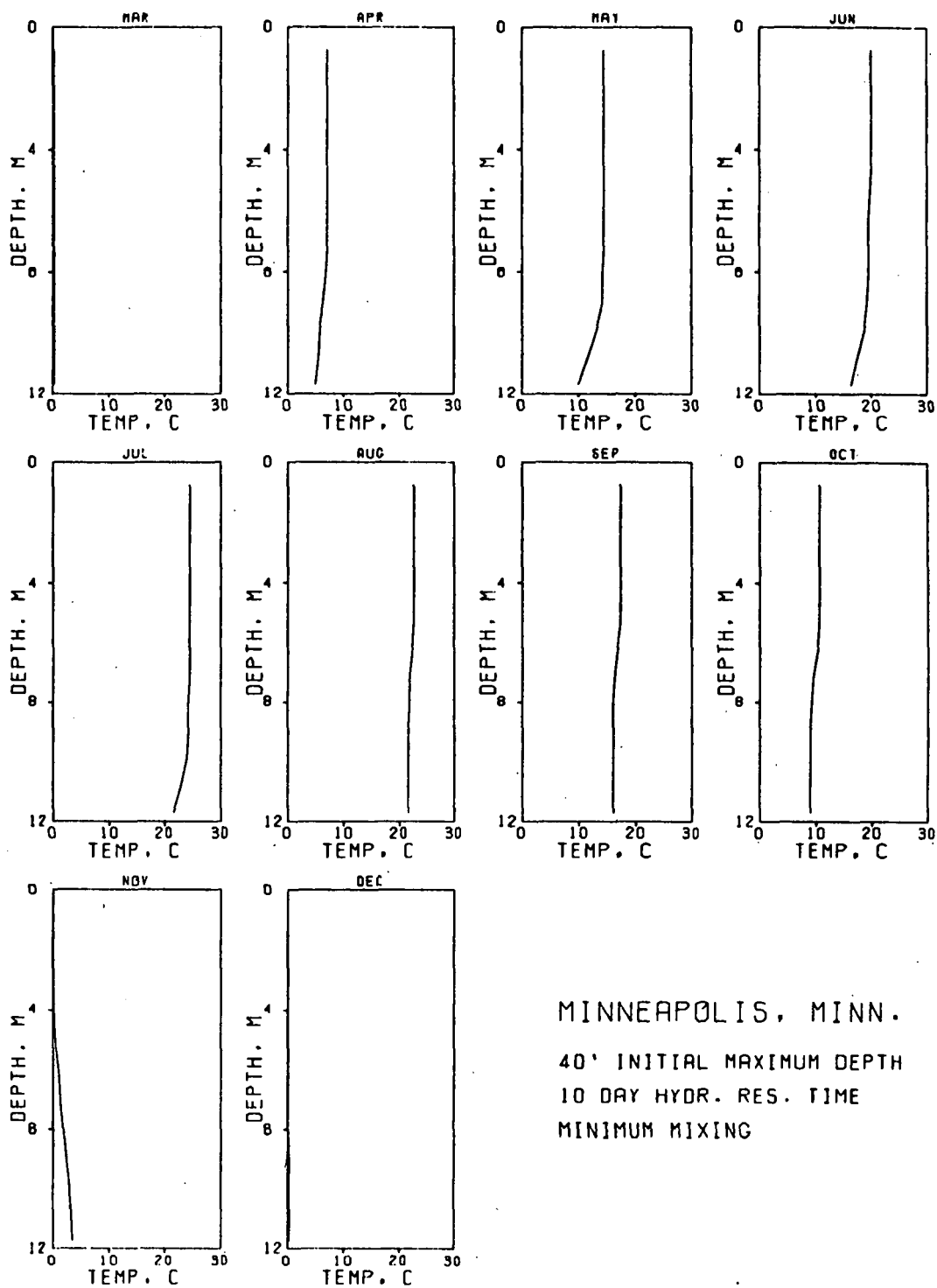


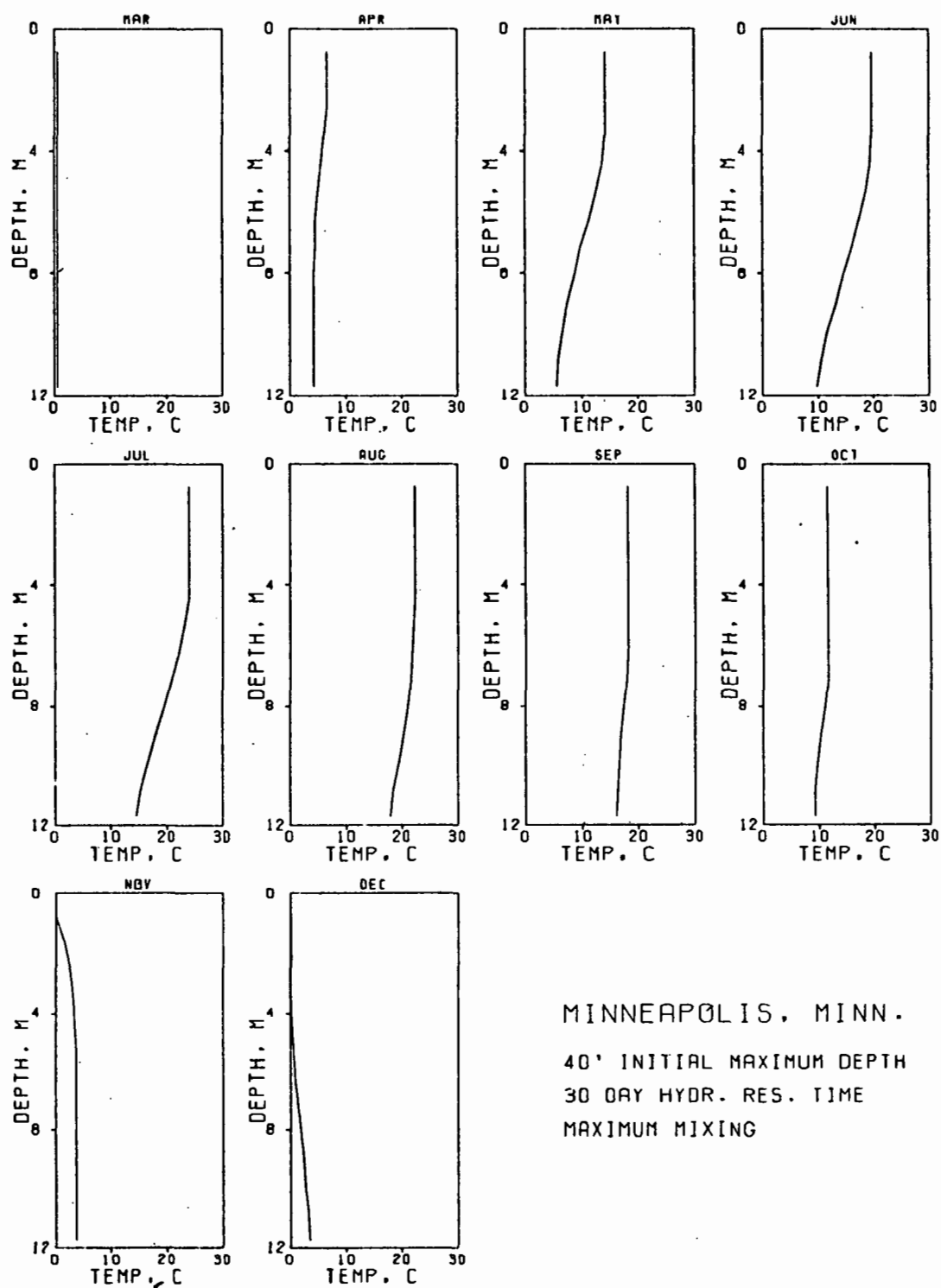
MINNEAPOLIS, MINN.

40' INITIAL MAXIMUM DEPTH

10 DAY HYDR. RES. TIME

MAXIMUM MIXING



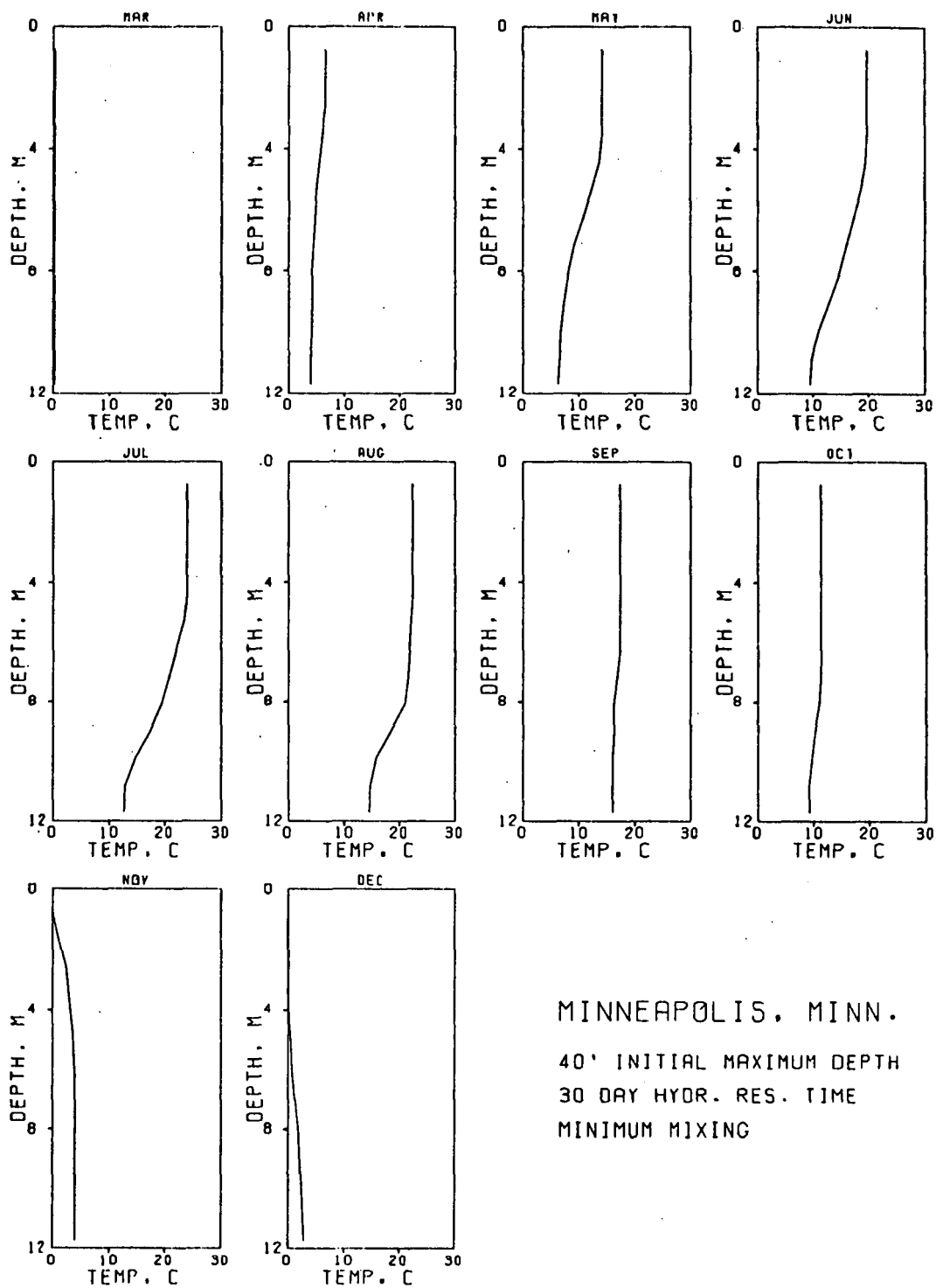


MINNEAPOLIS, MINN.

40' INITIAL MAXIMUM DEPTH

30 DAY HYDR. RES. TIME

MAXIMUM MIXING

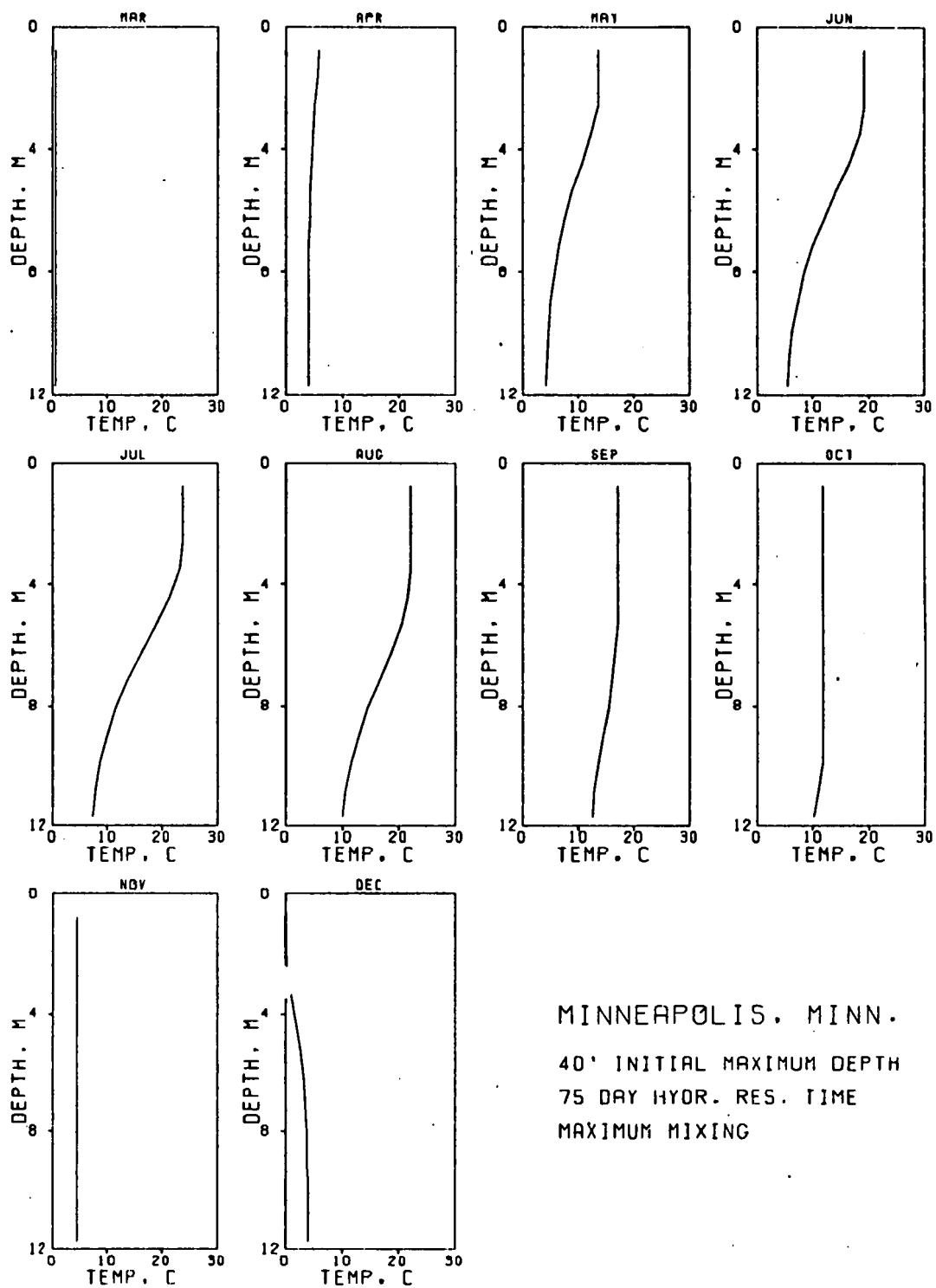


MINNEAPOLIS, MINN.

40' INITIAL MAXIMUM DEPTH

30 DAY HYDR. RES. TIME

MINIMUM MIXING

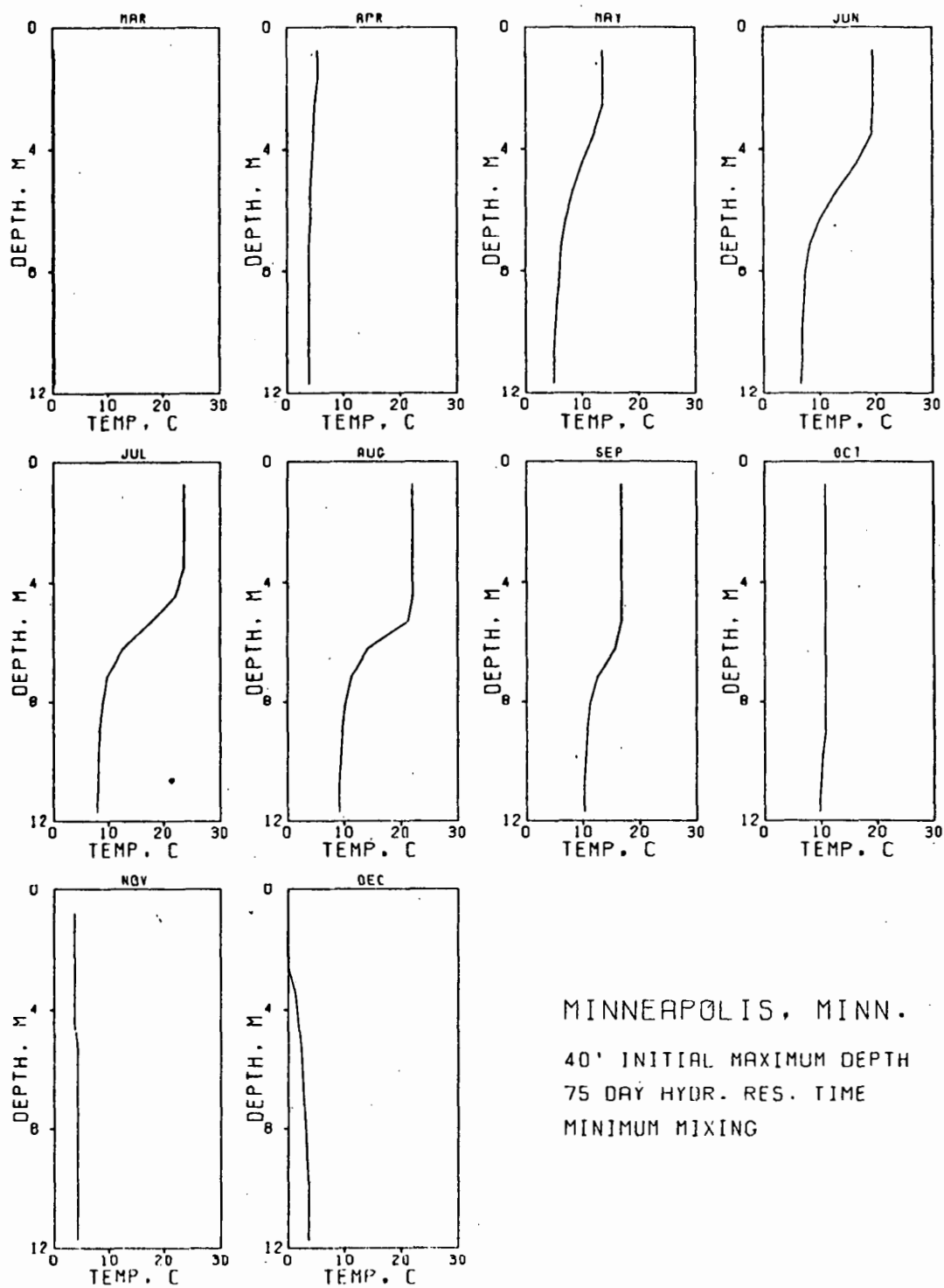


MINNEAPOLIS, MINN.

40' INITIAL MAXIMUM DEPTH

75 DAY HYDR. RES. TIME

MAXIMUM MIXING

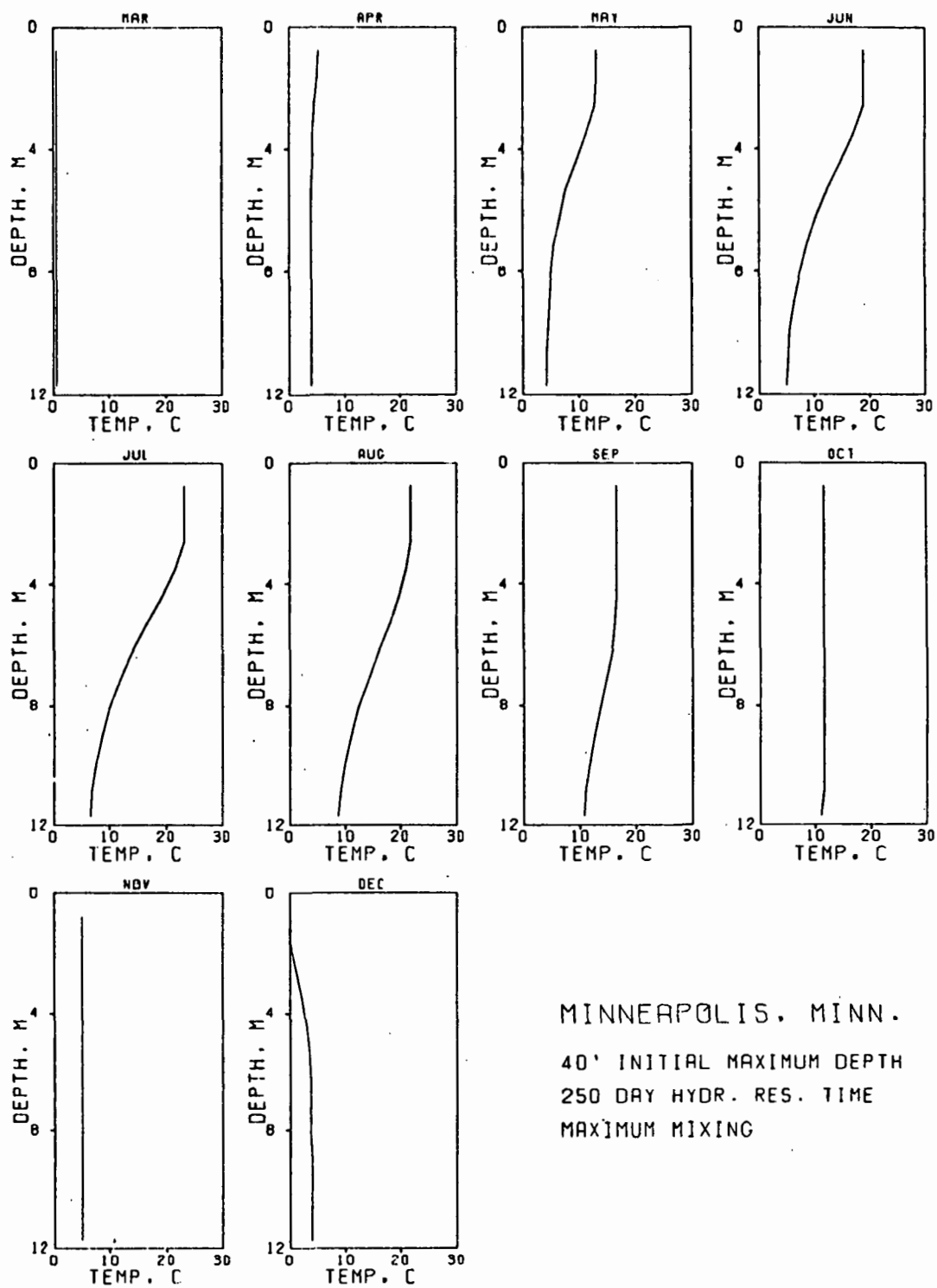


MINNEAPOLIS, MINN.

40' INITIAL MAXIMUM DEPTH

75 DAY HYDR. RES. TIME

MINIMUM MIXING

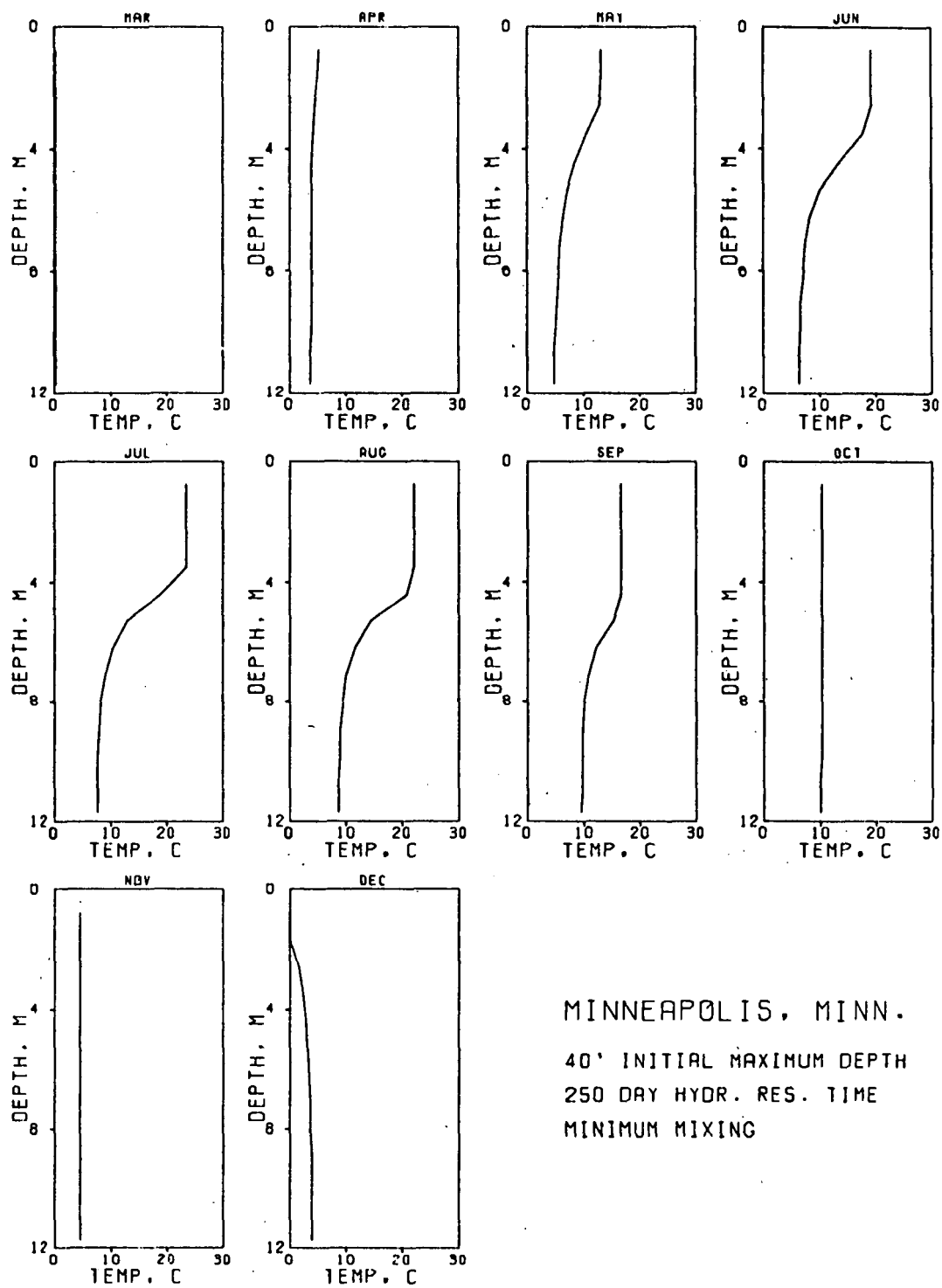


MINNEAPOLIS. MINN.

40' INITIAL MAXIMUM DEPTH

250 DAY HYDR. RES. TIME

MAXIMUM MIXING

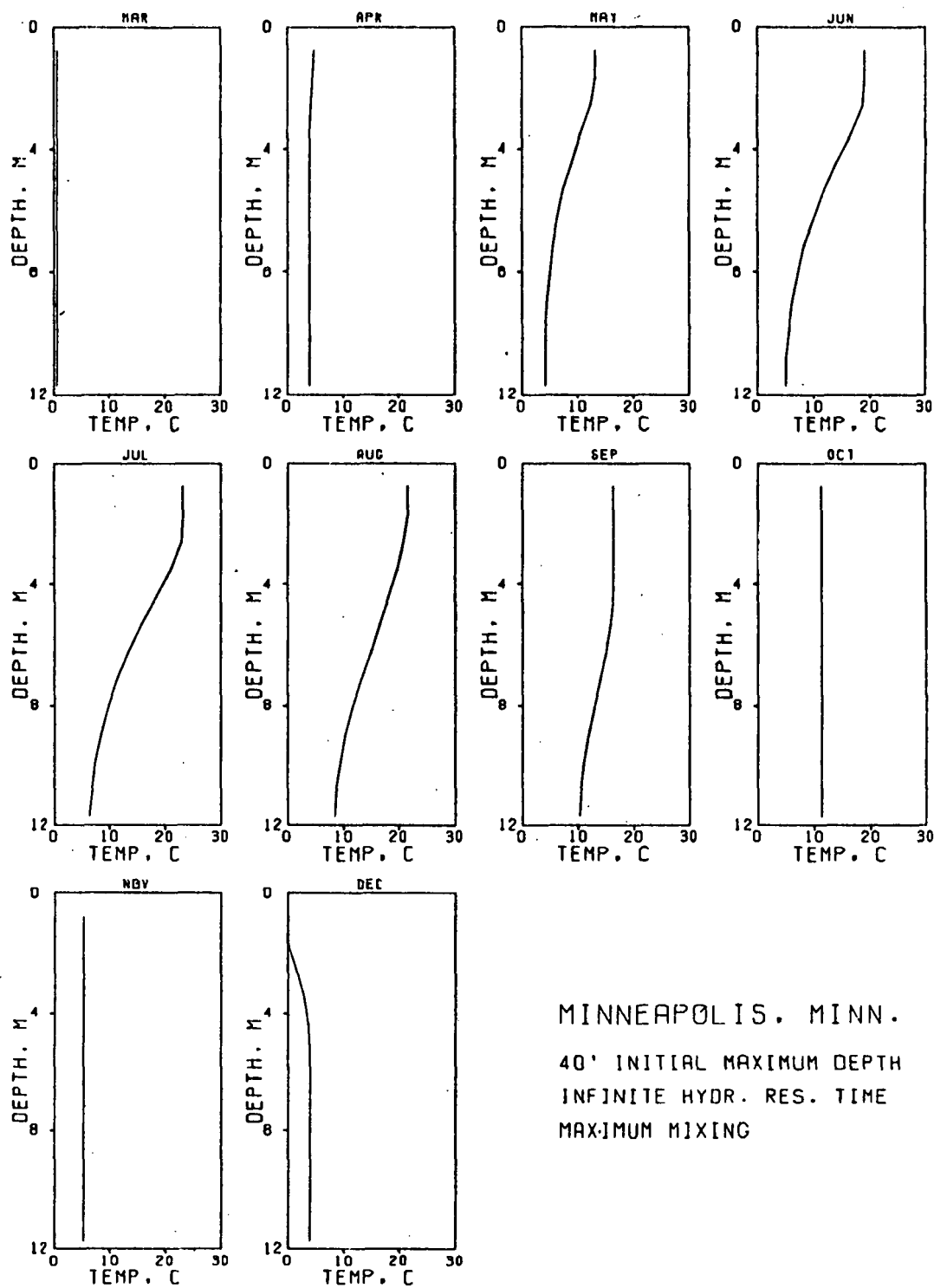


MINNEAPOLIS, MINN.

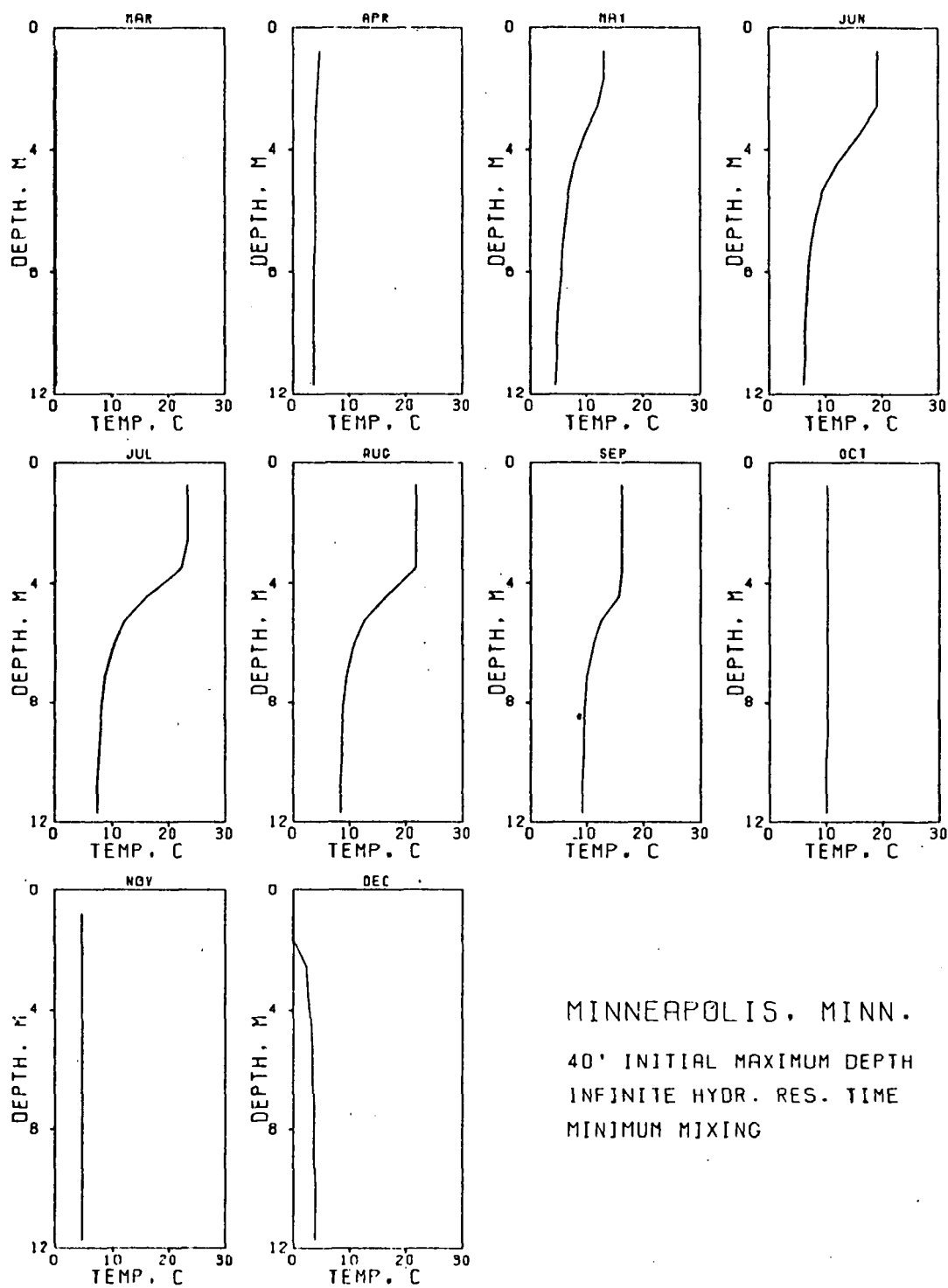
40' INITIAL MAXIMUM DEPTH

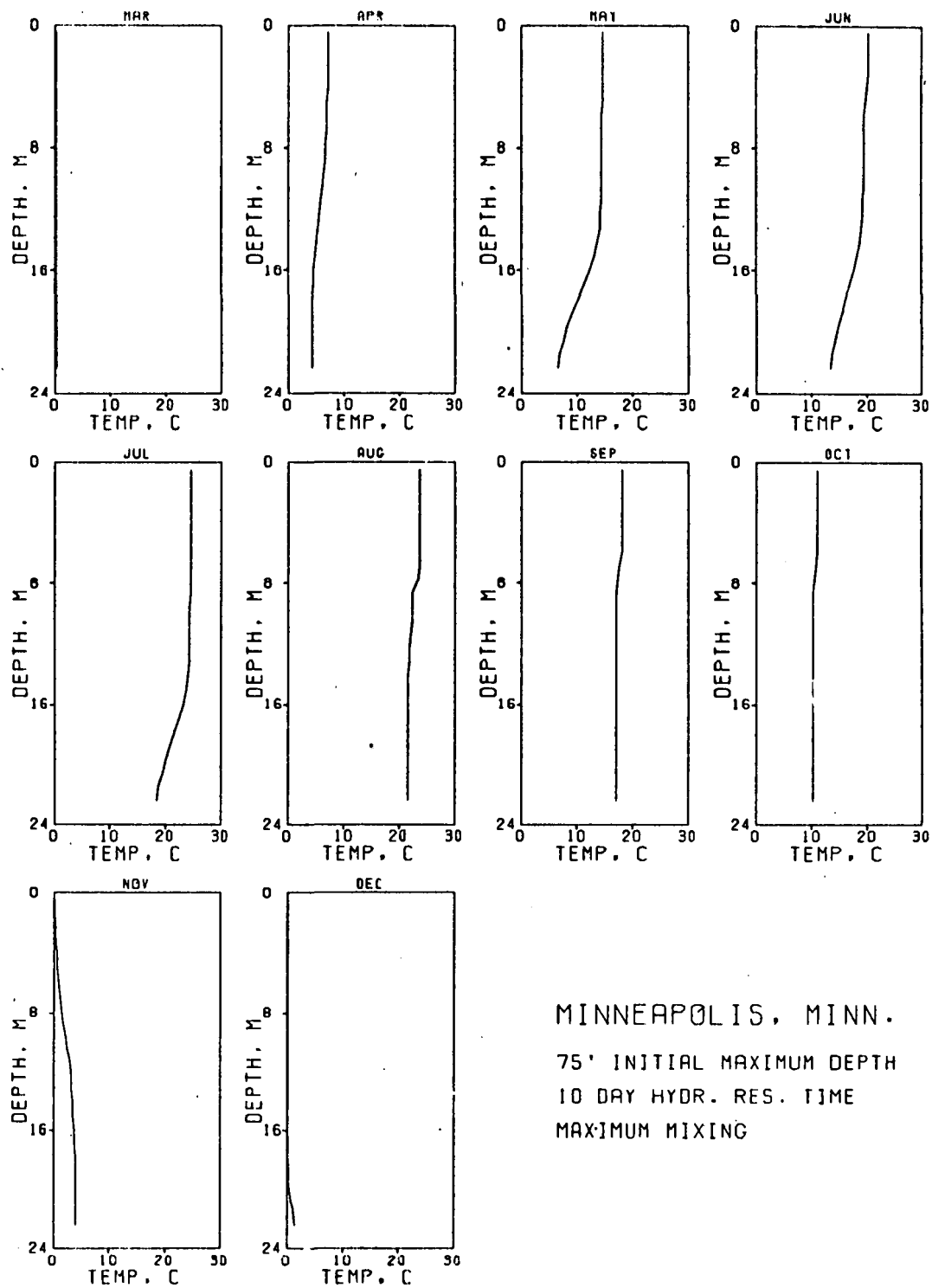
250 DAY HYDR. RES. TIME

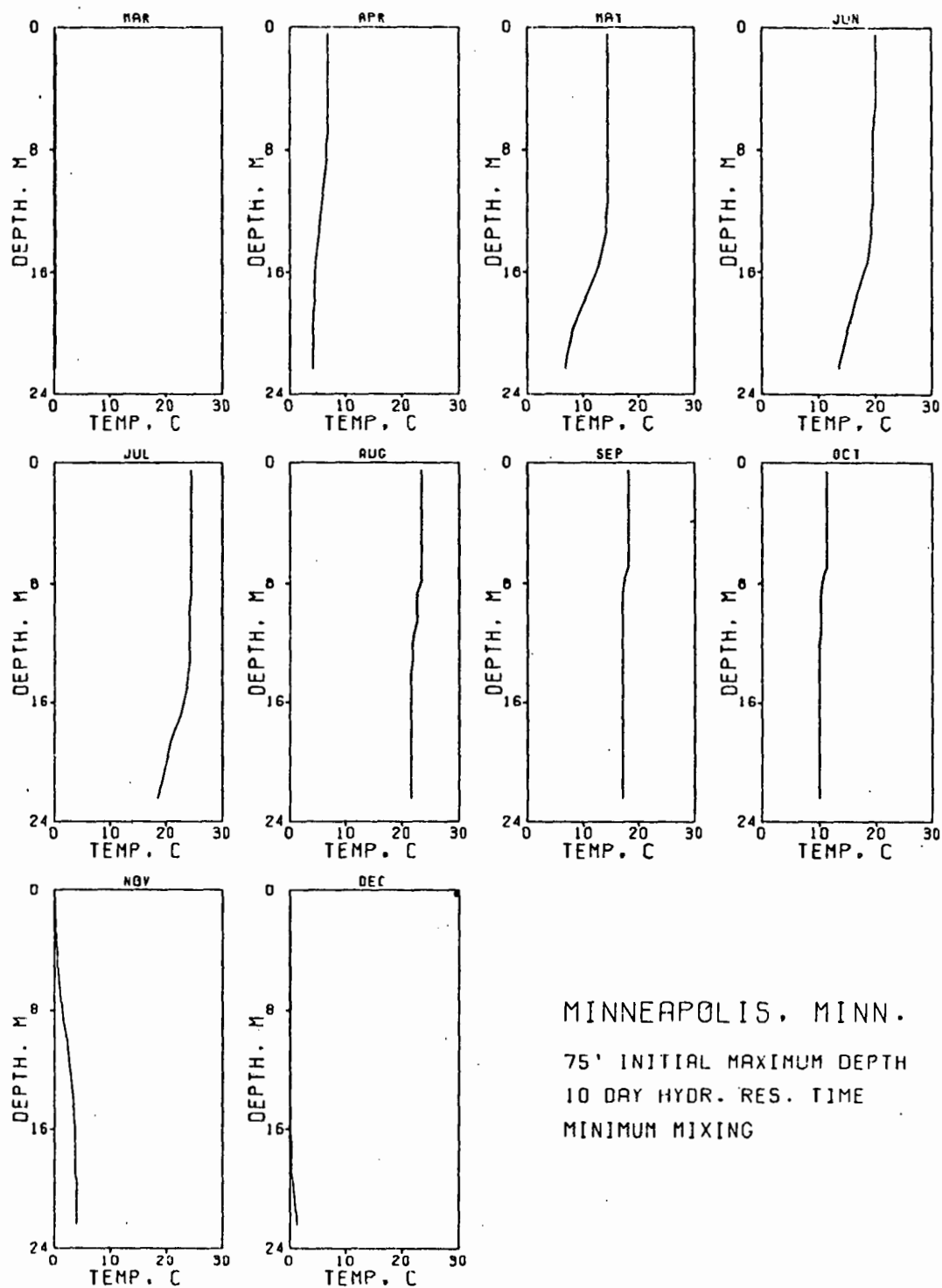
MINIMUM MIXING



MINNEAPOLIS, MINN.
 40' INITIAL MAXIMUM DEPTH
 INFINITE HYDR. RES. TIME
 MAXIMUM MIXING





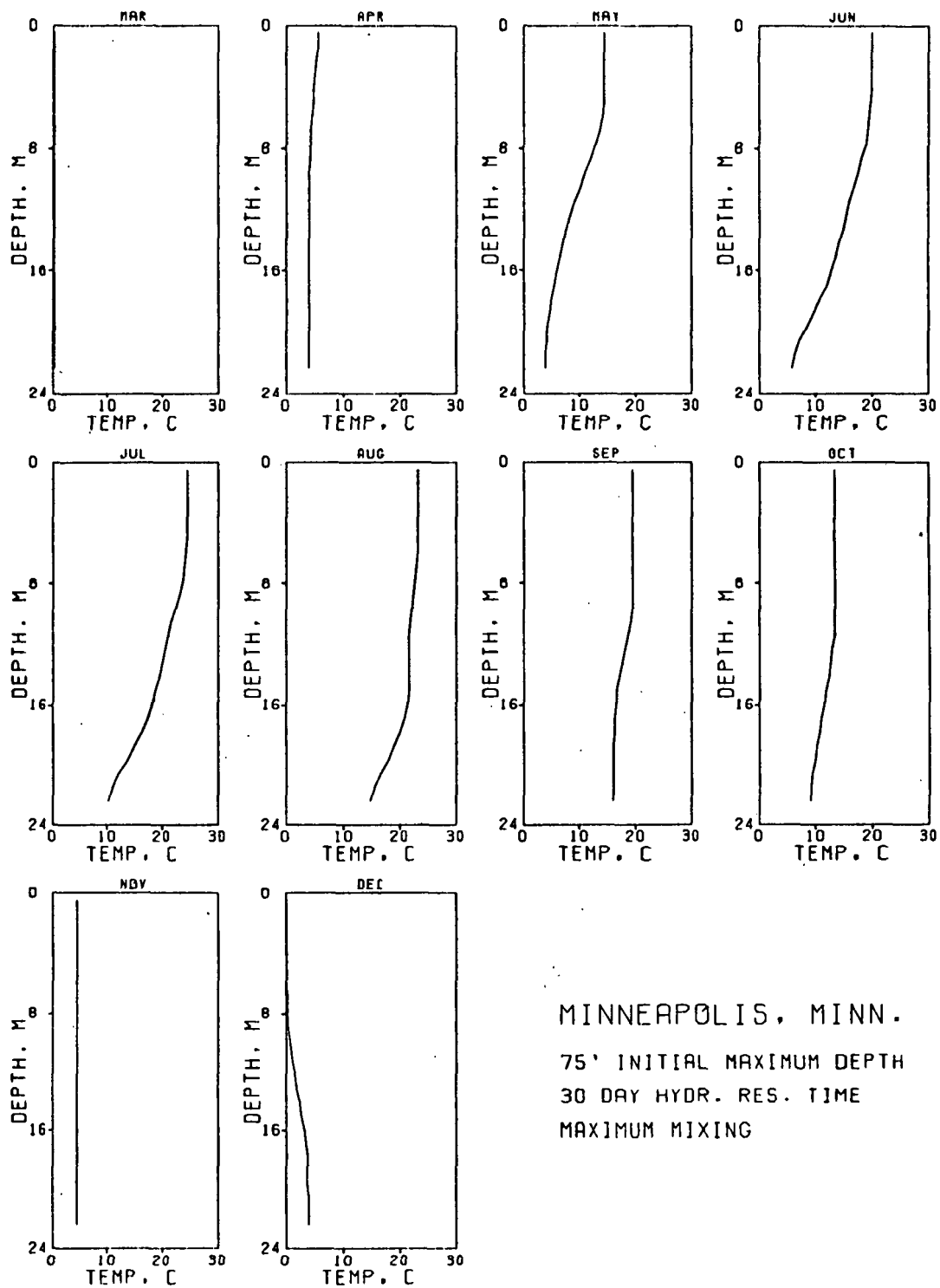


MINNEAPOLIS, MINN.

75' INITIAL MAXIMUM DEPTH

10 DAY HYDR. RES. TIME

MINIMUM MIXING

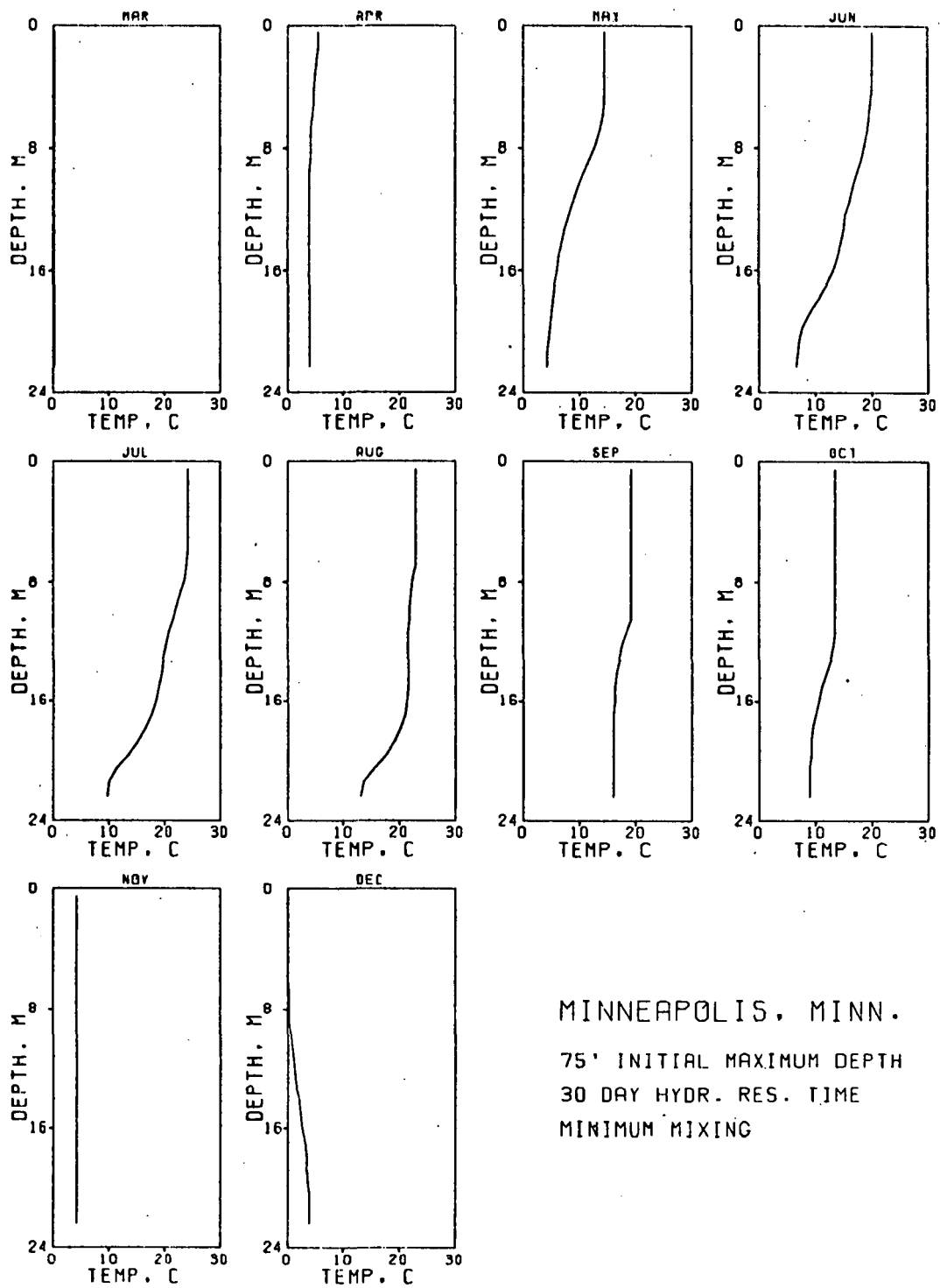


MINNEAPOLIS, MINN.

75' INITIAL MAXIMUM DEPTH

30 DAY HYDR. RES. TIME

MAXIMUM MIXING

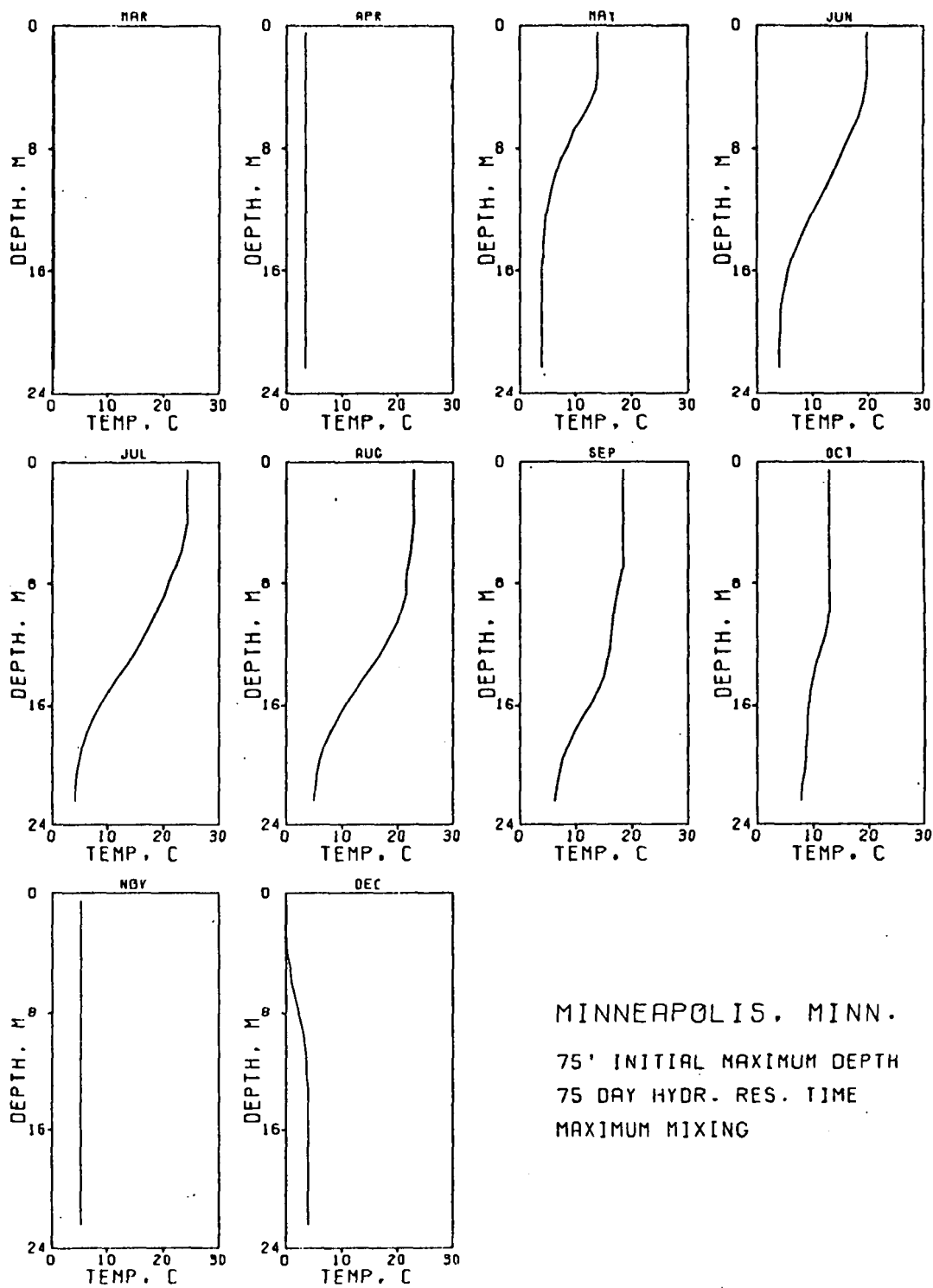


MINNEAPOLIS, MINN.

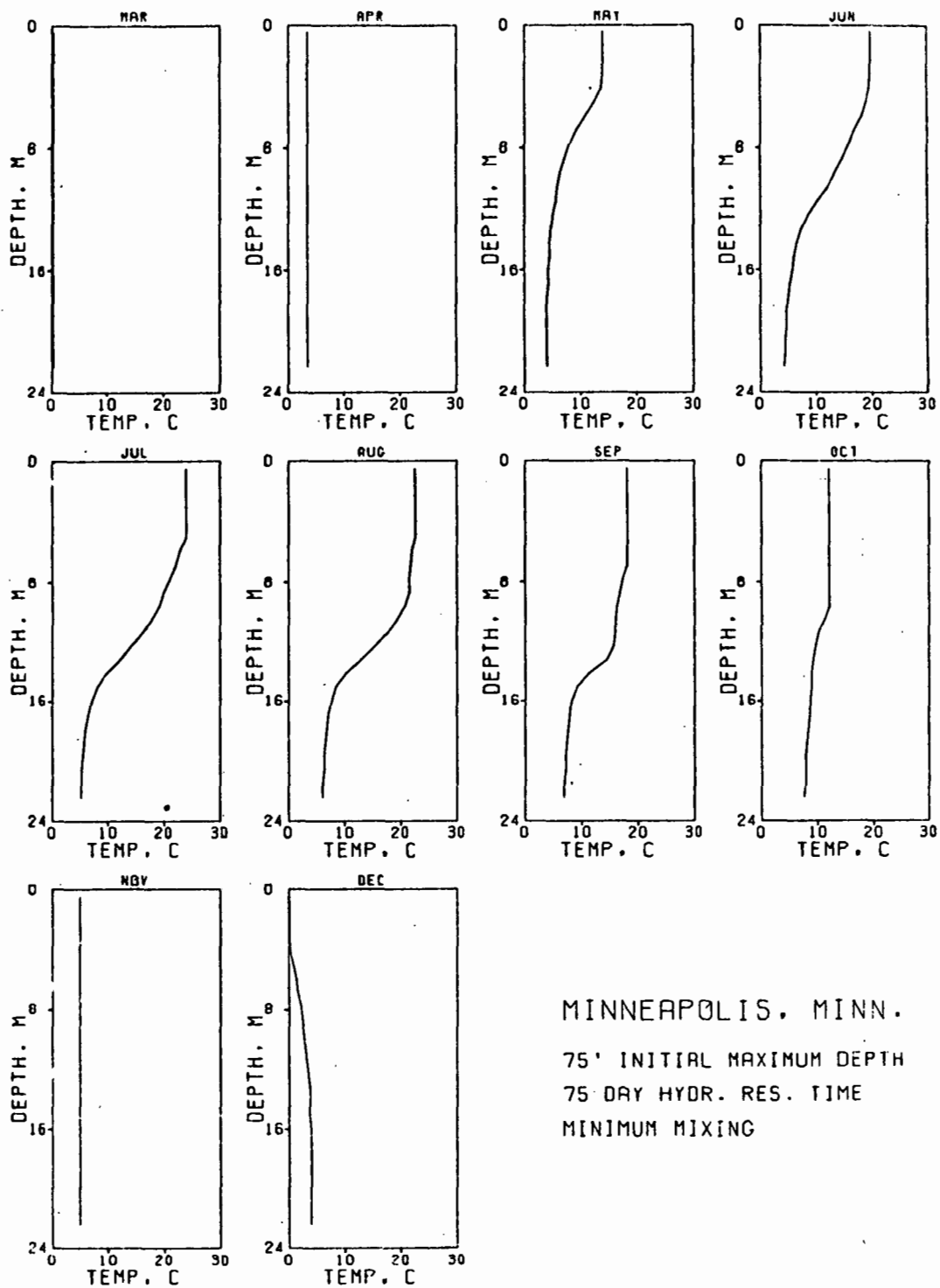
75' INITIAL MAXIMUM DEPTH

30 DAY HYDR. RES. TIME

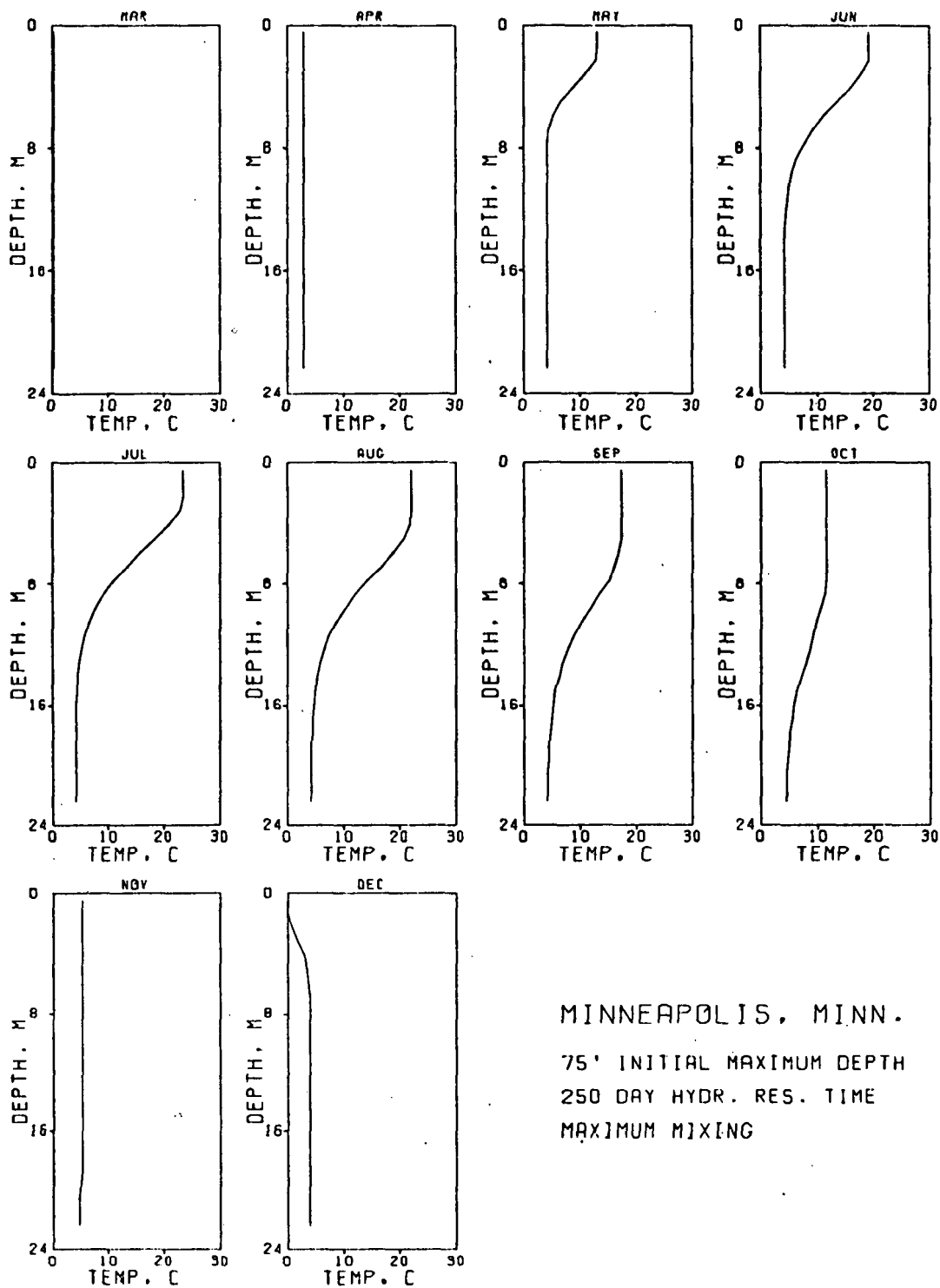
MINIMUM MIXING



MINNEAPOLIS, MINN.
 75' INITIAL MAXIMUM DEPTH
 75 DAY HYDR. RES. TIME
 MAXIMUM MIXING



MINNEAPOLIS, MINN.
 75' INITIAL MAXIMUM DEPTH
 75 DAY HYDR. RES. TIME
 MINIMUM MIXING

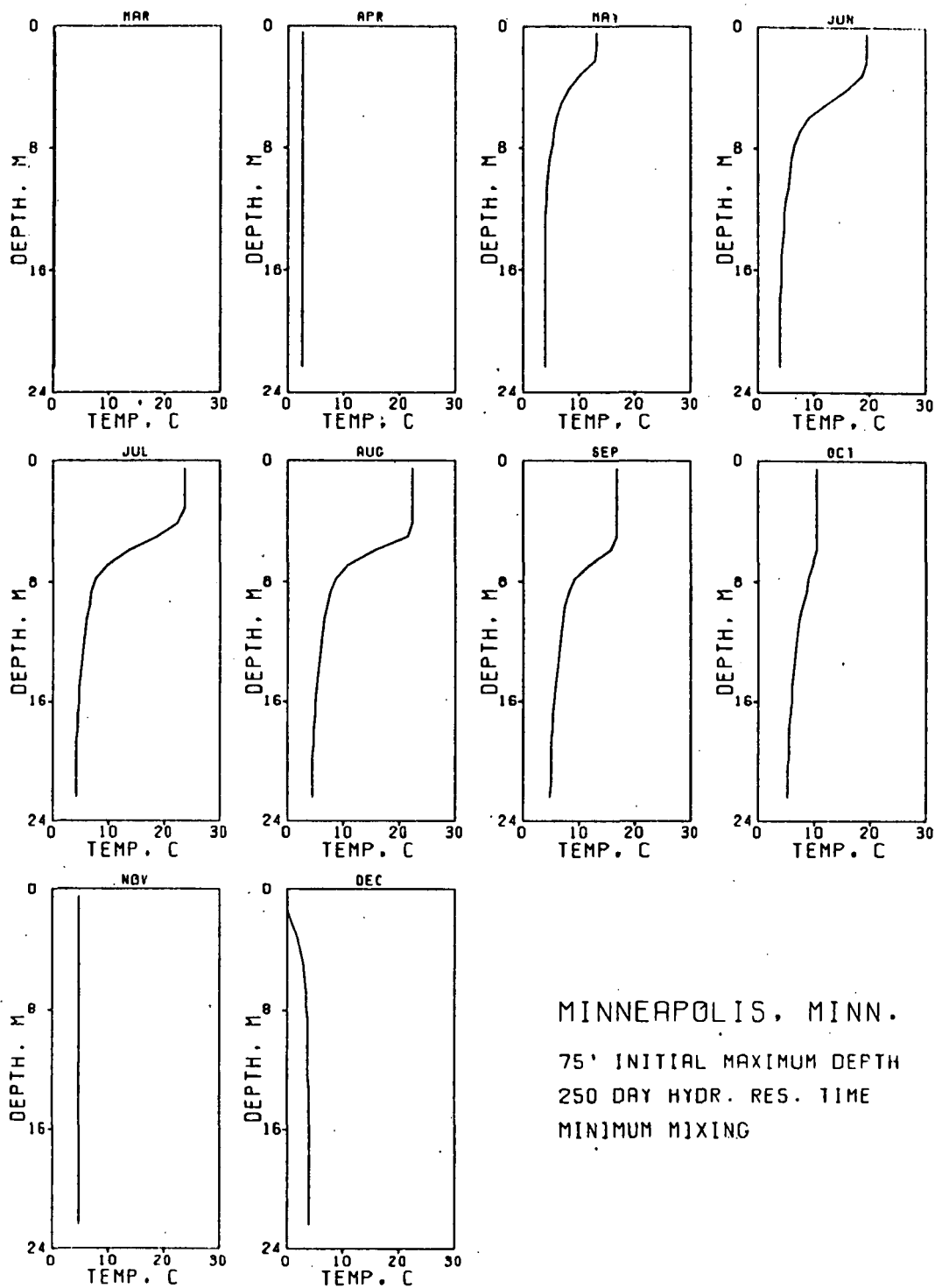


MINNEAPOLIS, MINN.

75' INITIAL MAXIMUM DEPTH

250 DAY HYDR. RES. TIME

MAXIMUM MIXING

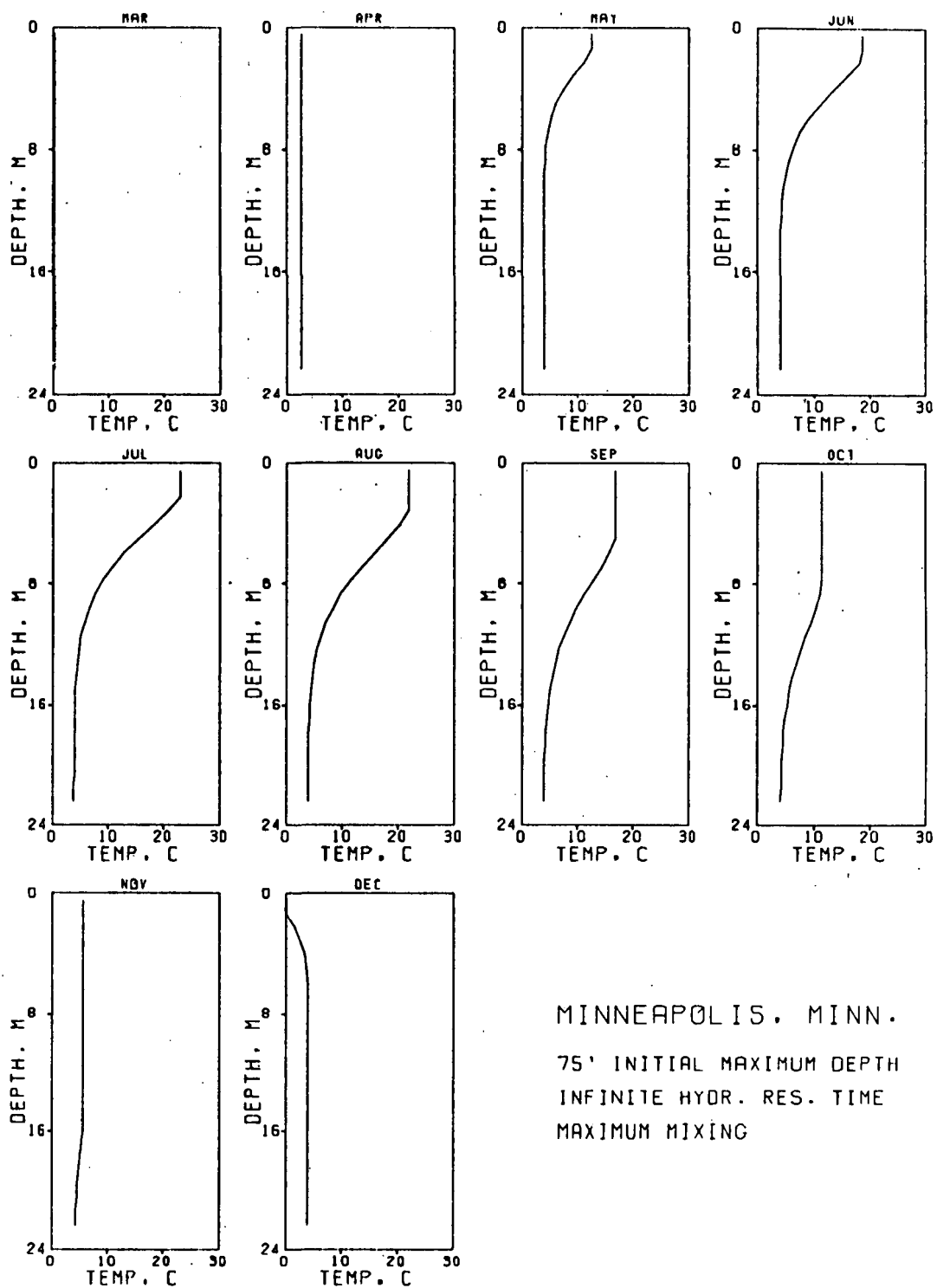


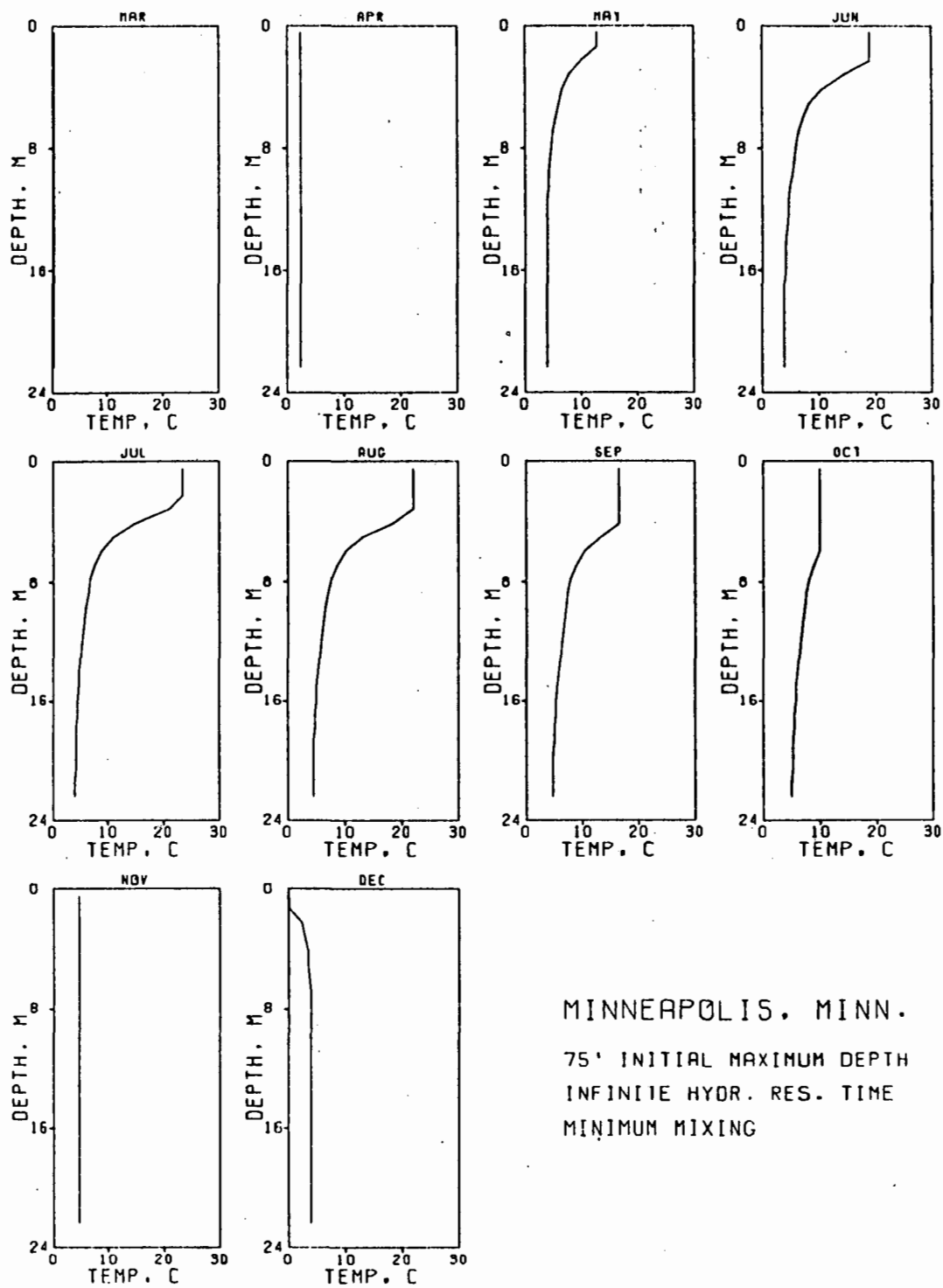
MINNEAPOLIS, MINN.

75' INITIAL MAXIMUM DEPTH

250 DAY HYDR. RES. TIME

MINIMUM MIXING



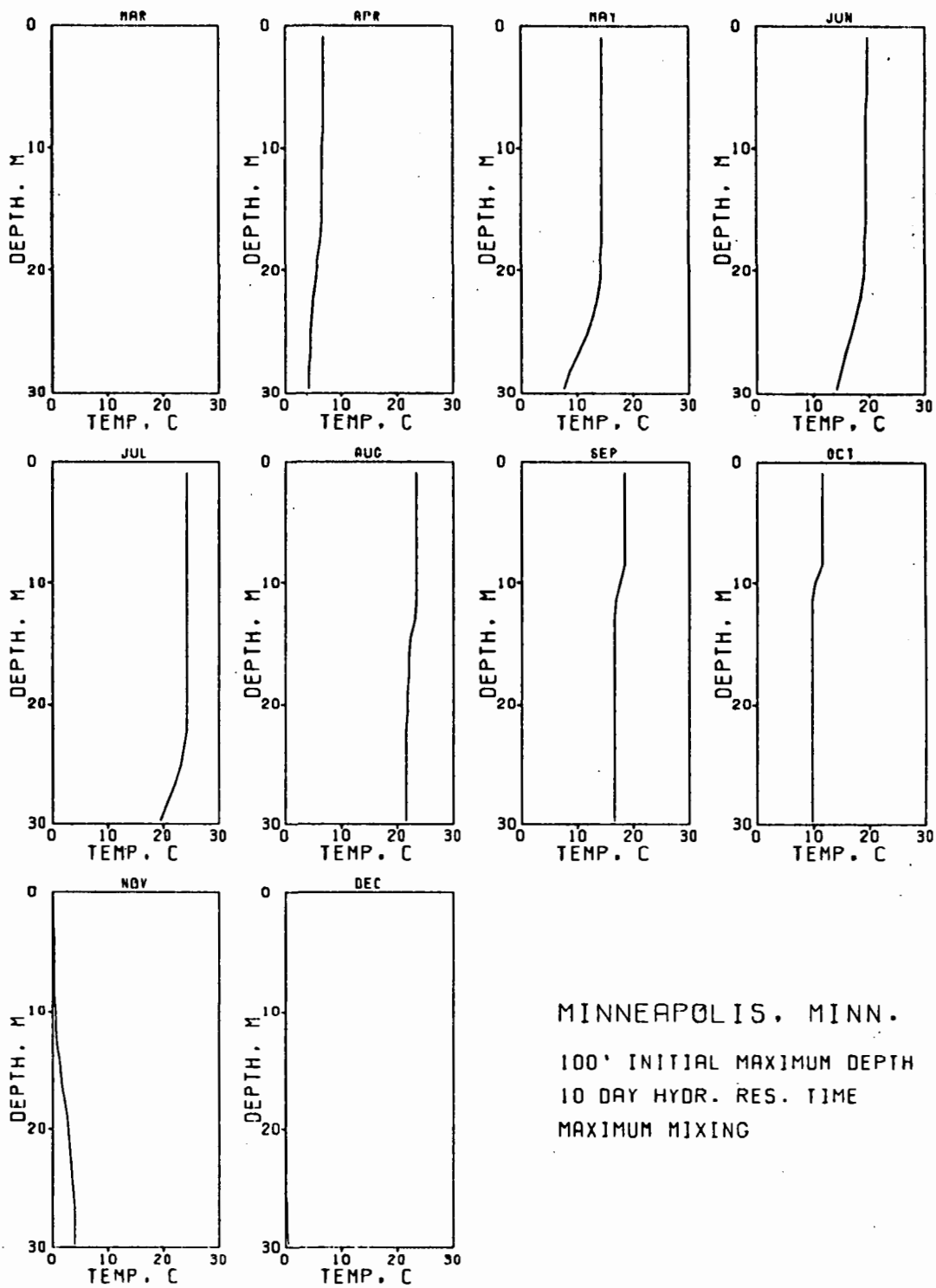


MINNEAPOLIS, MINN.

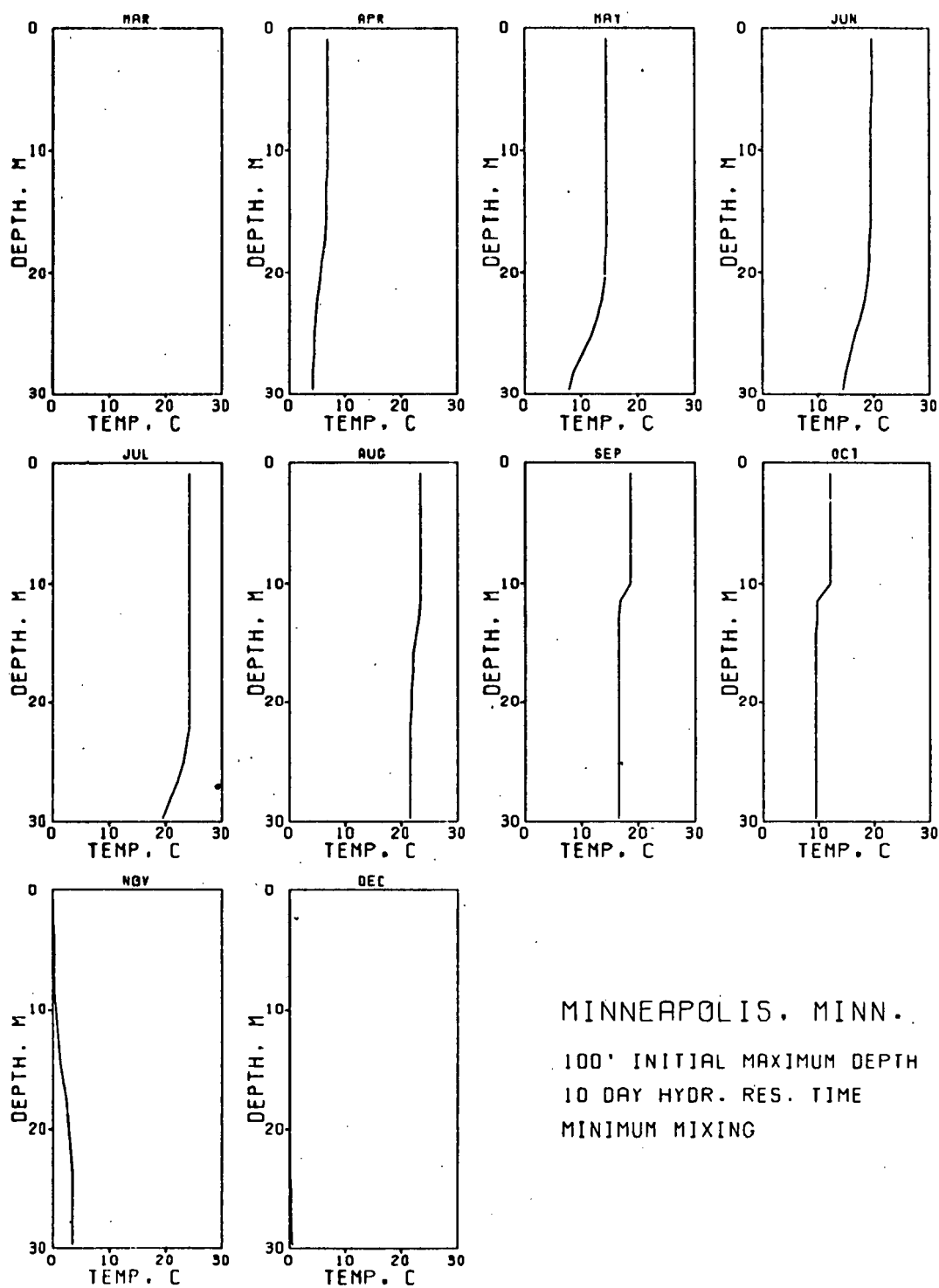
75' INITIAL MAXIMUM DEPTH

INFINITE HYDR. RES. TIME

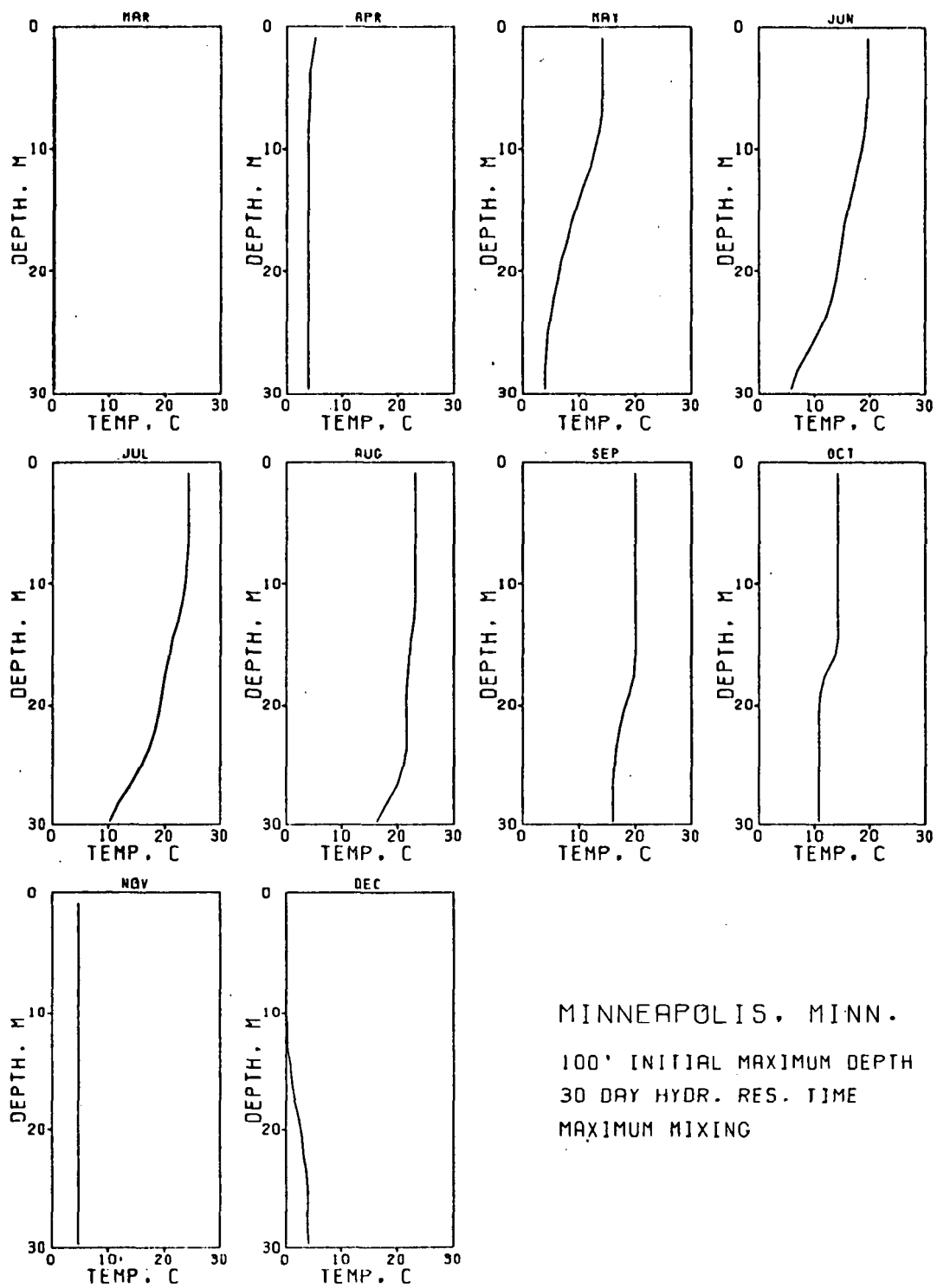
MINIMUM MIXING



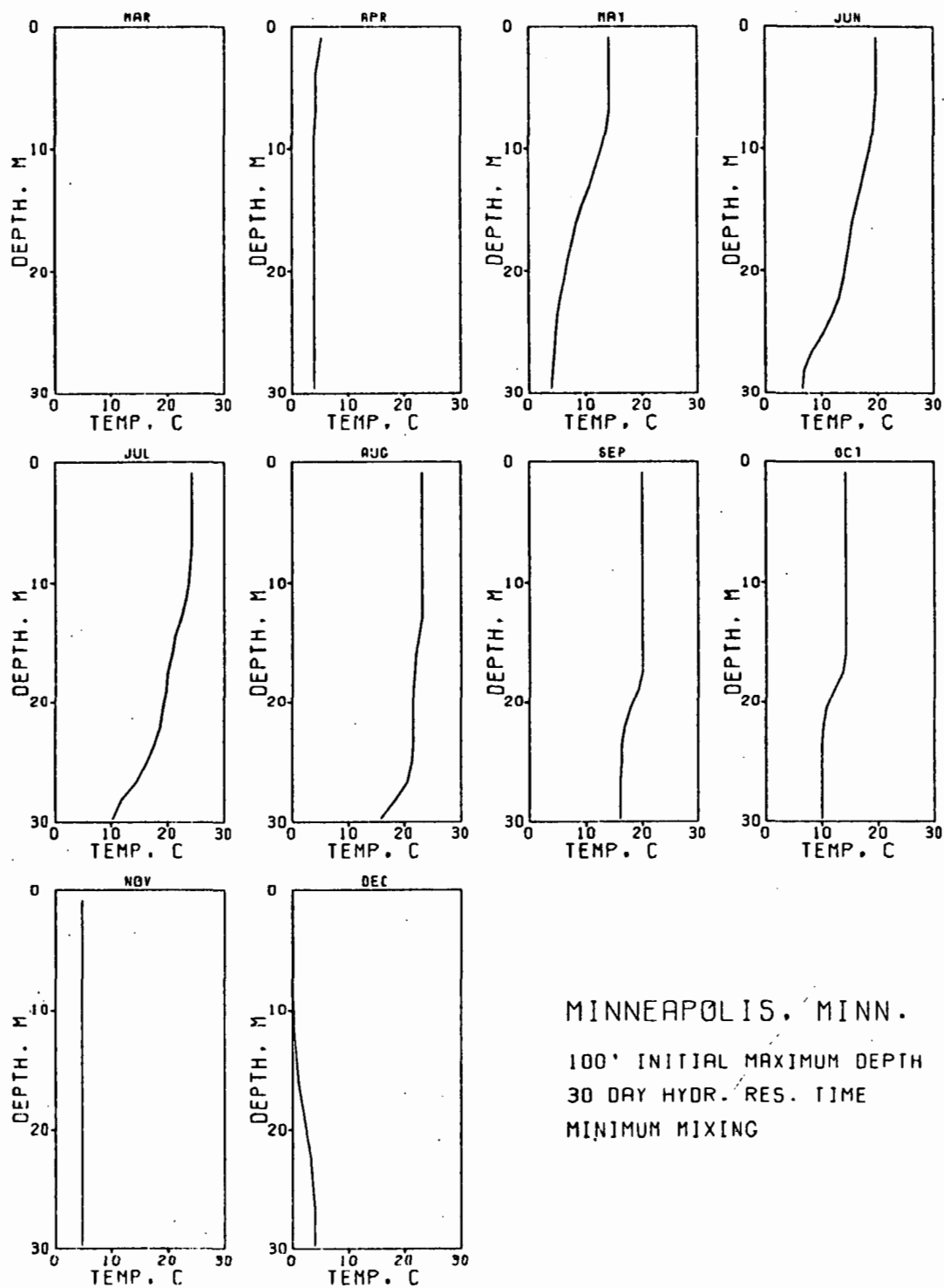
MINNEAPOLIS, MINN.
 100' INITIAL MAXIMUM DEPTH
 10 DAY HYDR. RES. TIME
 MAXIMUM MIXING



MINNEAPOLIS, MINN.
 100' INITIAL MAXIMUM DEPTH
 10 DAY HYDR. RES. TIME
 MINIMUM MIXING



MINNEAPOLIS, MINN.
 100' INITIAL MAXIMUM DEPTH
 30 DAY HYDR. RES. TIME
 MAXIMUM MIXING

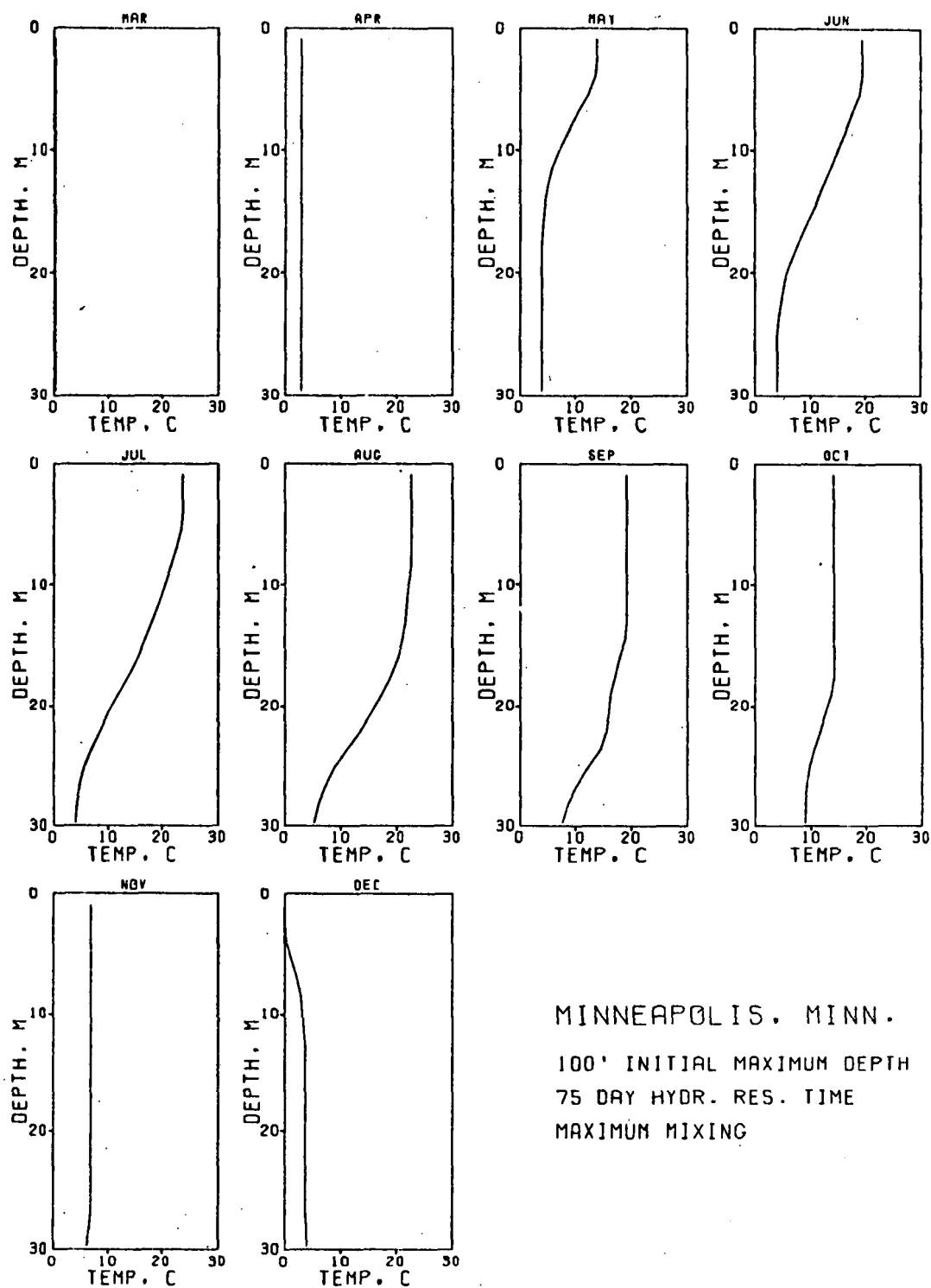


MINNEAPOLIS, MINN.

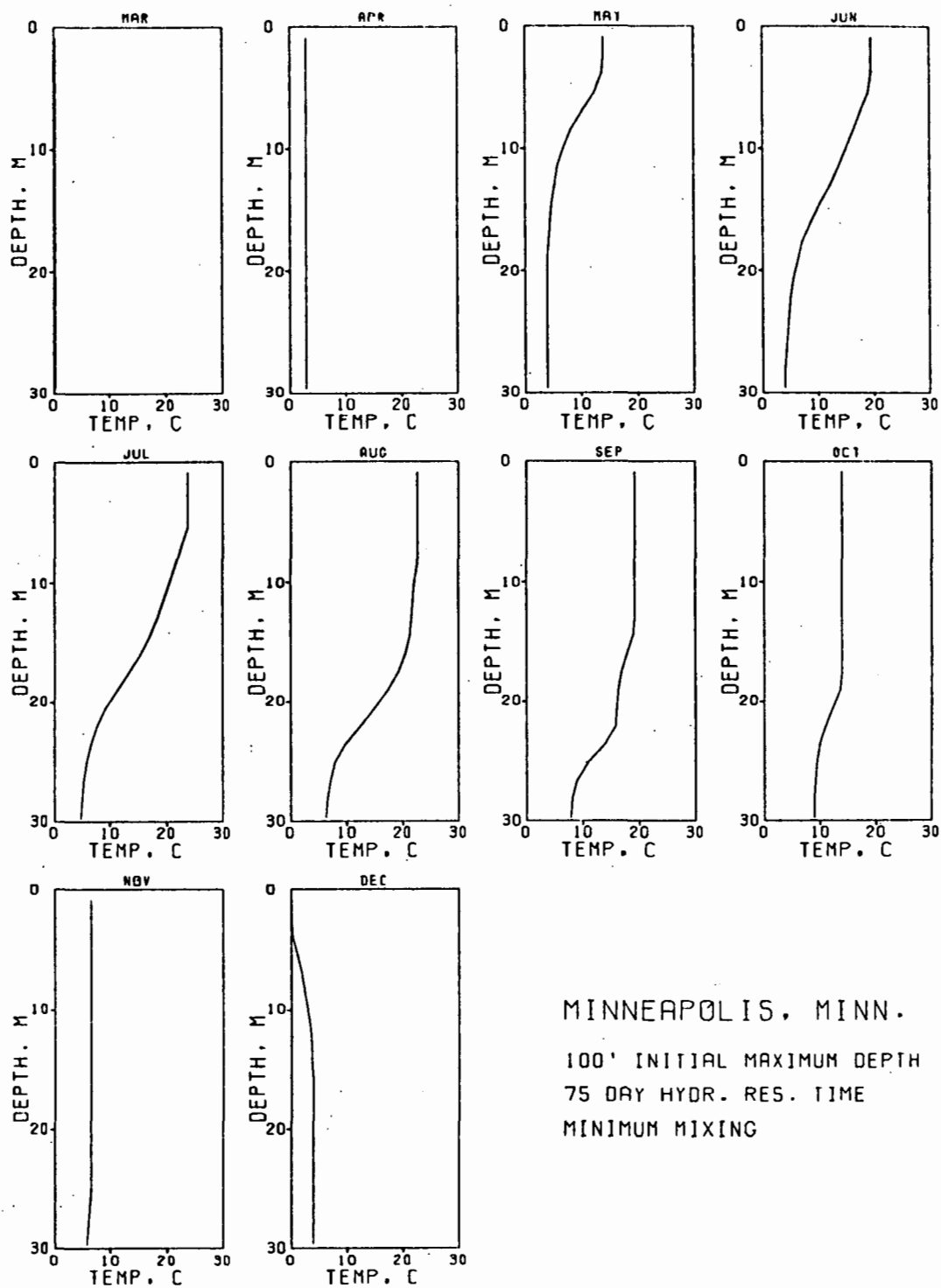
100' INITIAL MAXIMUM DEPTH

30 DAY HYDR. RES. TIME

MINIMUM MIXING



MINNEAPOLIS, MINN.
 100' INITIAL MAXIMUM DEPTH
 75 DAY HYDR. RES. TIME
 MAXIMUM MIXING

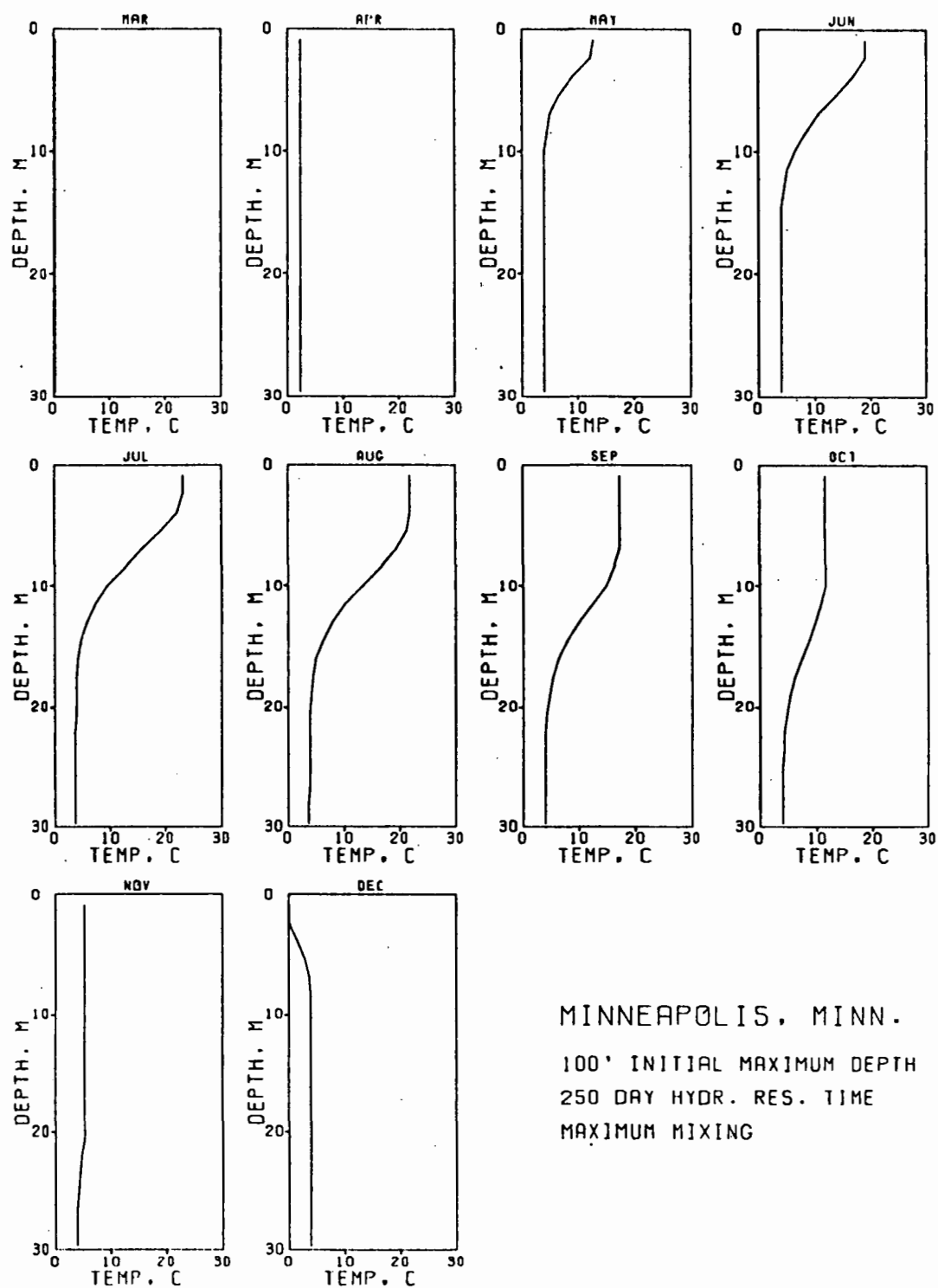


MINNEAPOLIS, MINN.

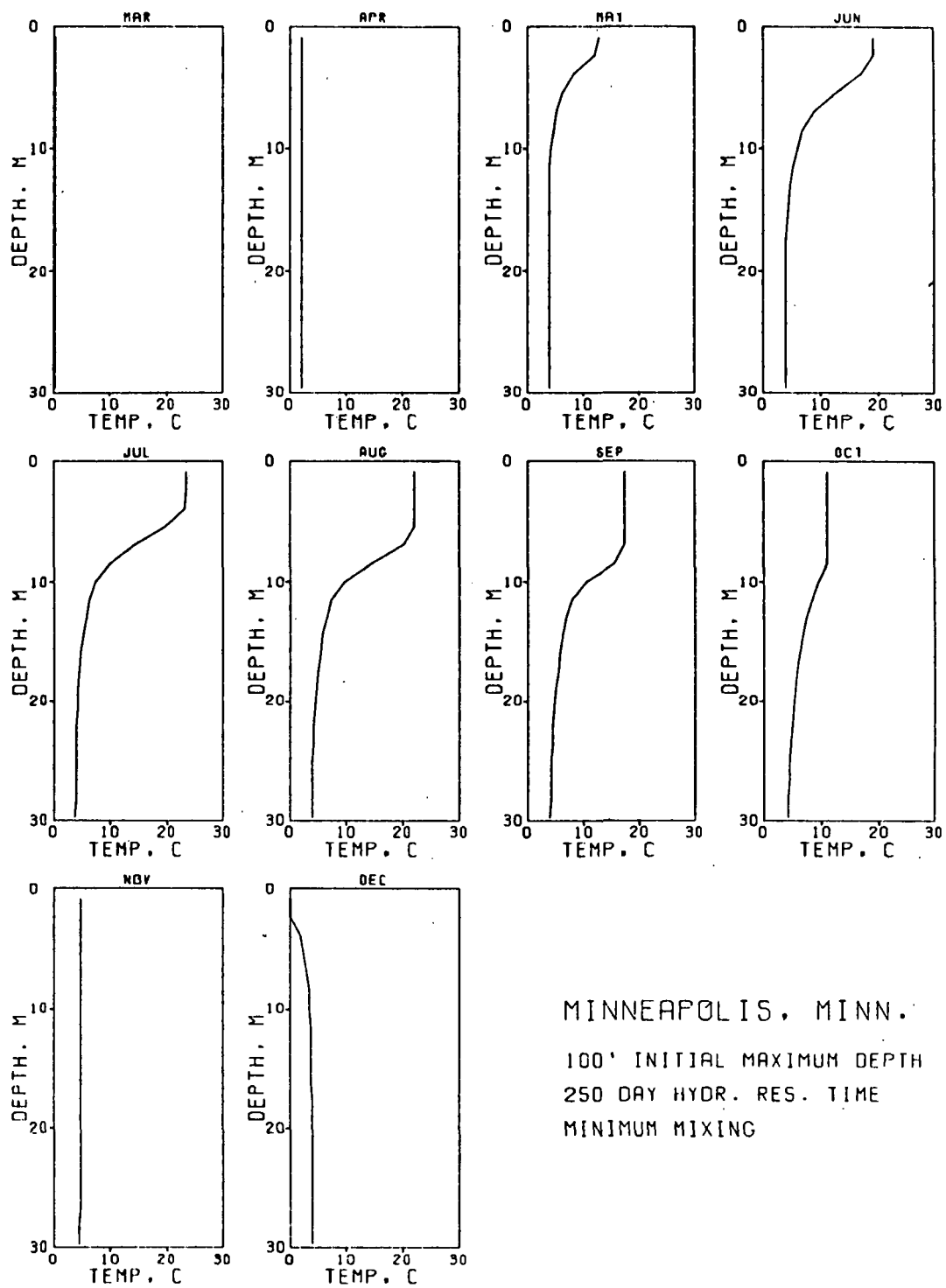
100' INITIAL MAXIMUM DEPTH

75 DAY HYDR. RES. TIME

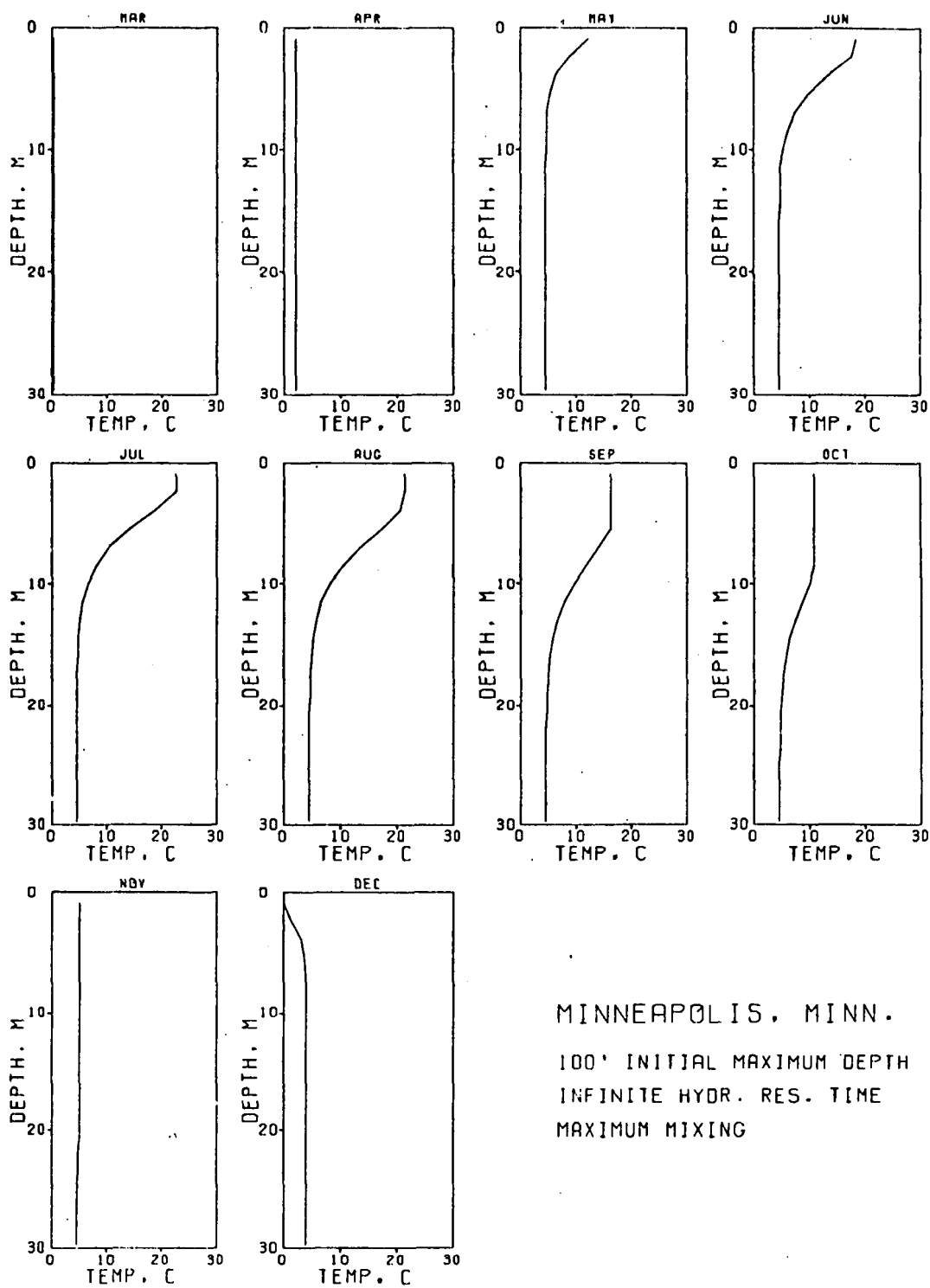
MINIMUM MIXING

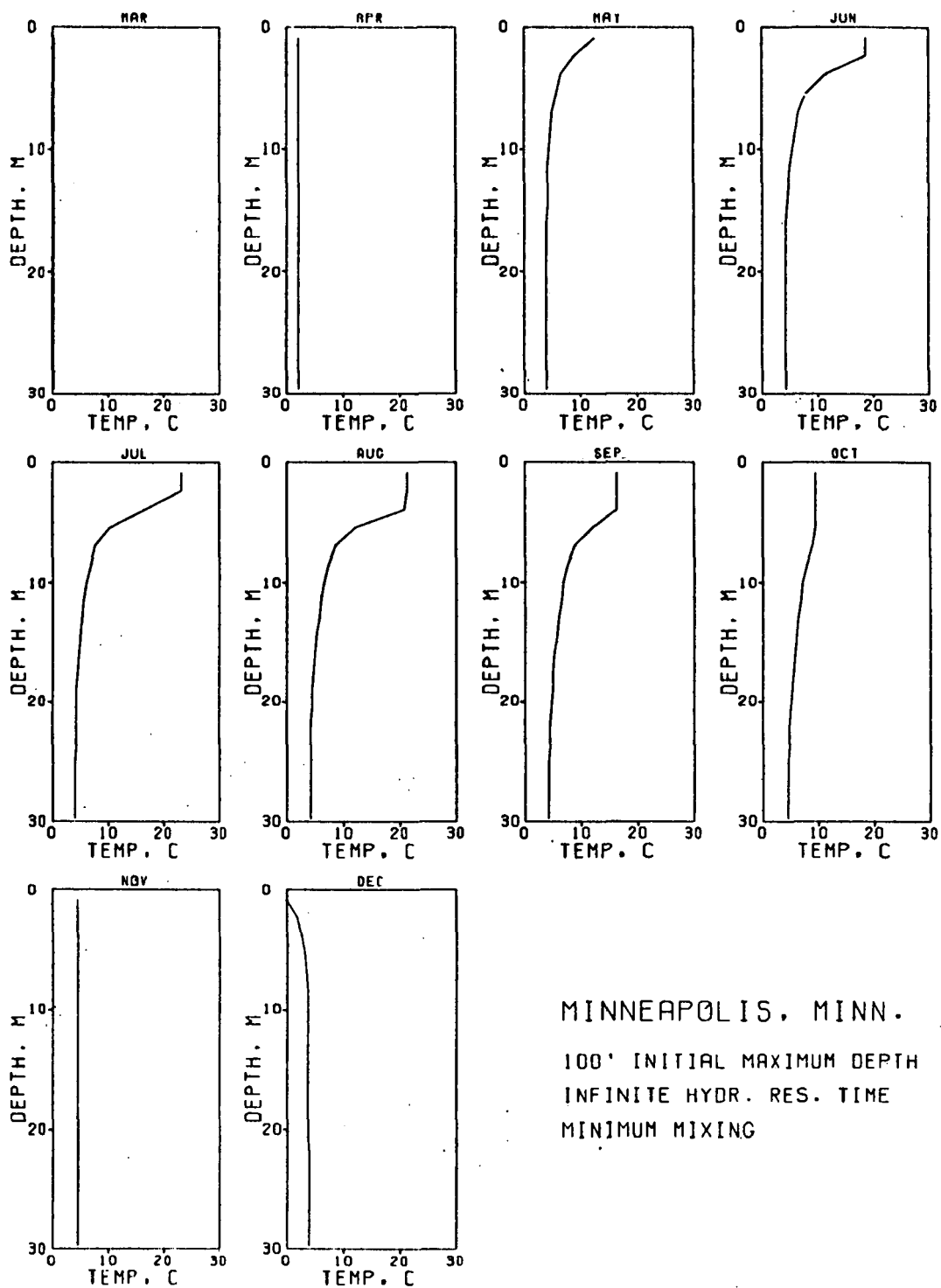


MINNEAPOLIS, MINN.
 100' INITIAL MAXIMUM DEPTH
 250 DAY HYDR. RES. TIME
 MAXIMUM MIXING



MINNEAPOLIS, MINN.
 100' INITIAL MAXIMUM DEPTH
 250 DAY HYDR. RES. TIME
 MINIMUM MIXING



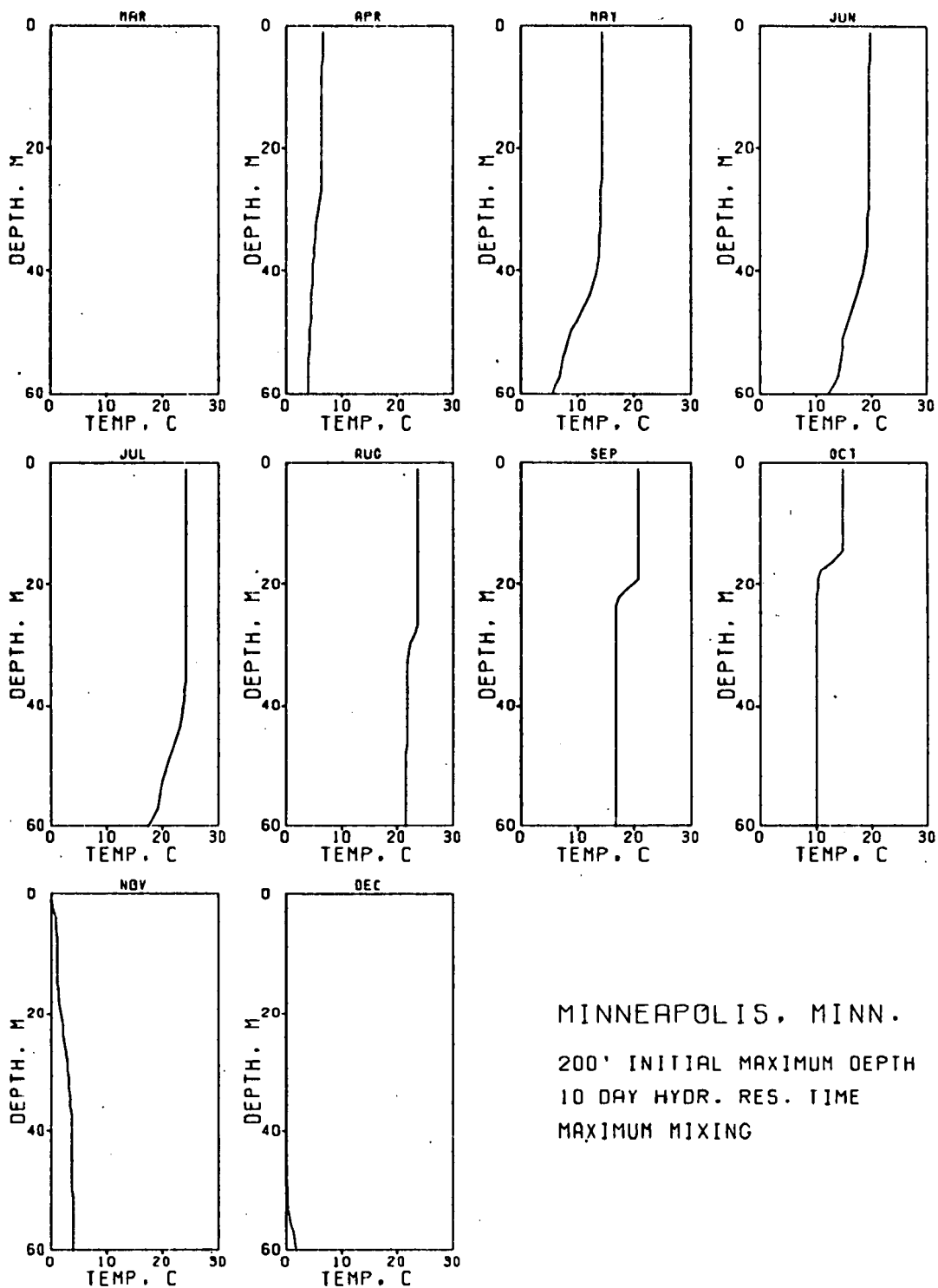


MINNEAPOLIS, MINN.

100' INITIAL MAXIMUM DEPTH

INFINITE HYDR. RES. TIME

MINIMUM MIXING

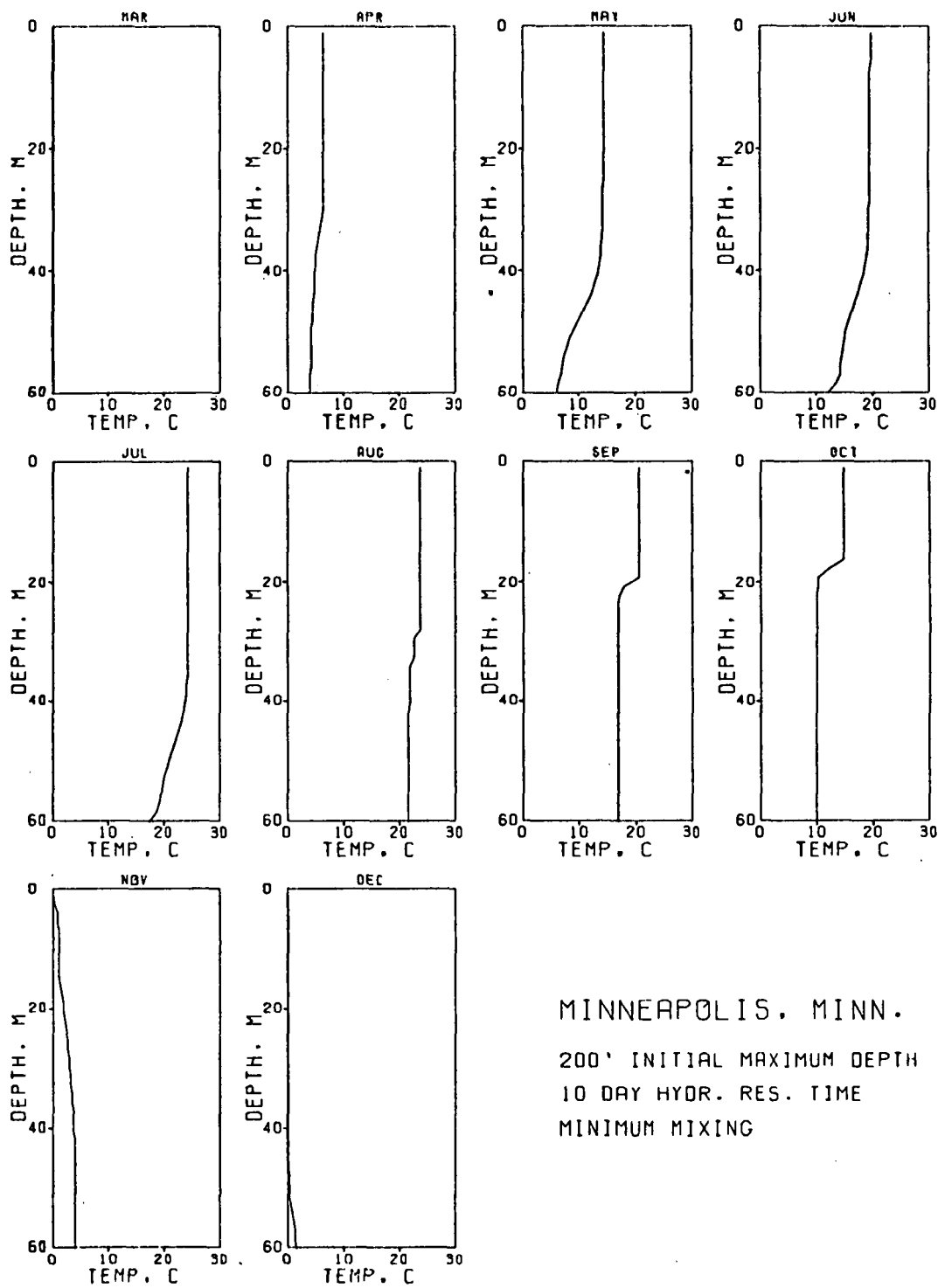


MINNEAPOLIS, MINN.

200' INITIAL MAXIMUM DEPTH

10 DAY HYDR. RES. TIME

MAXIMUM MIXING

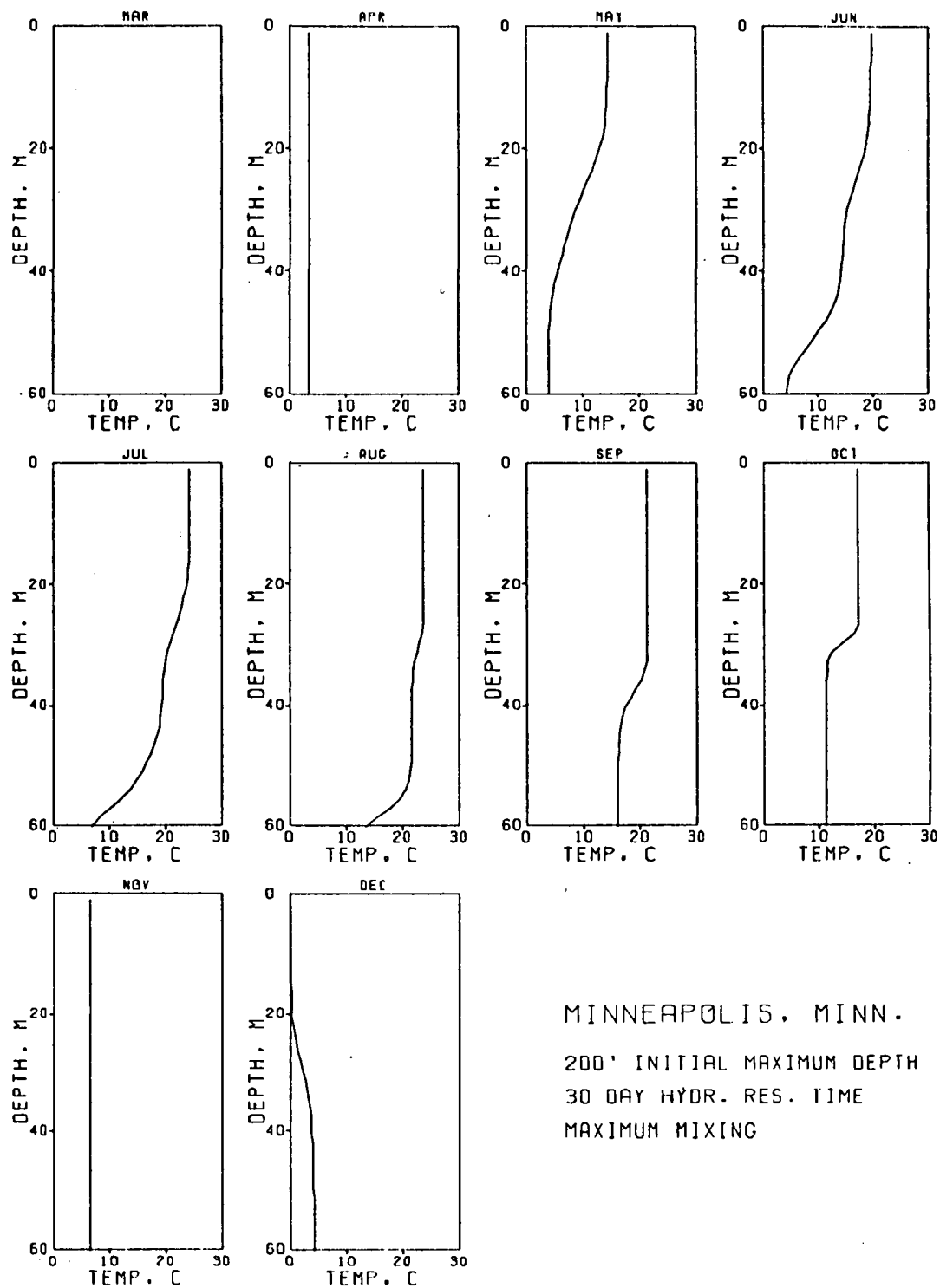


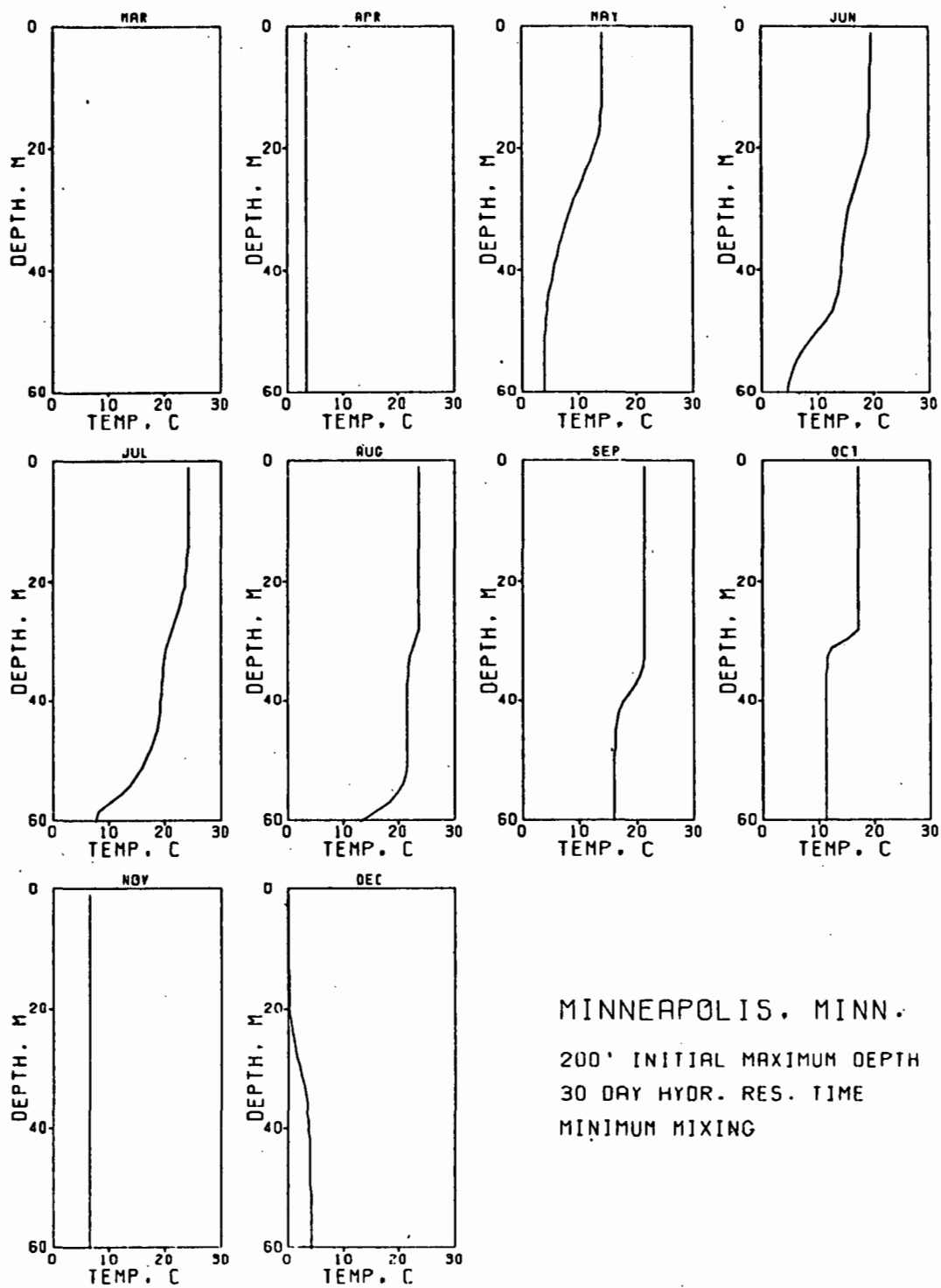
MINNEAPOLIS, MINN.

200' INITIAL MAXIMUM DEPTH

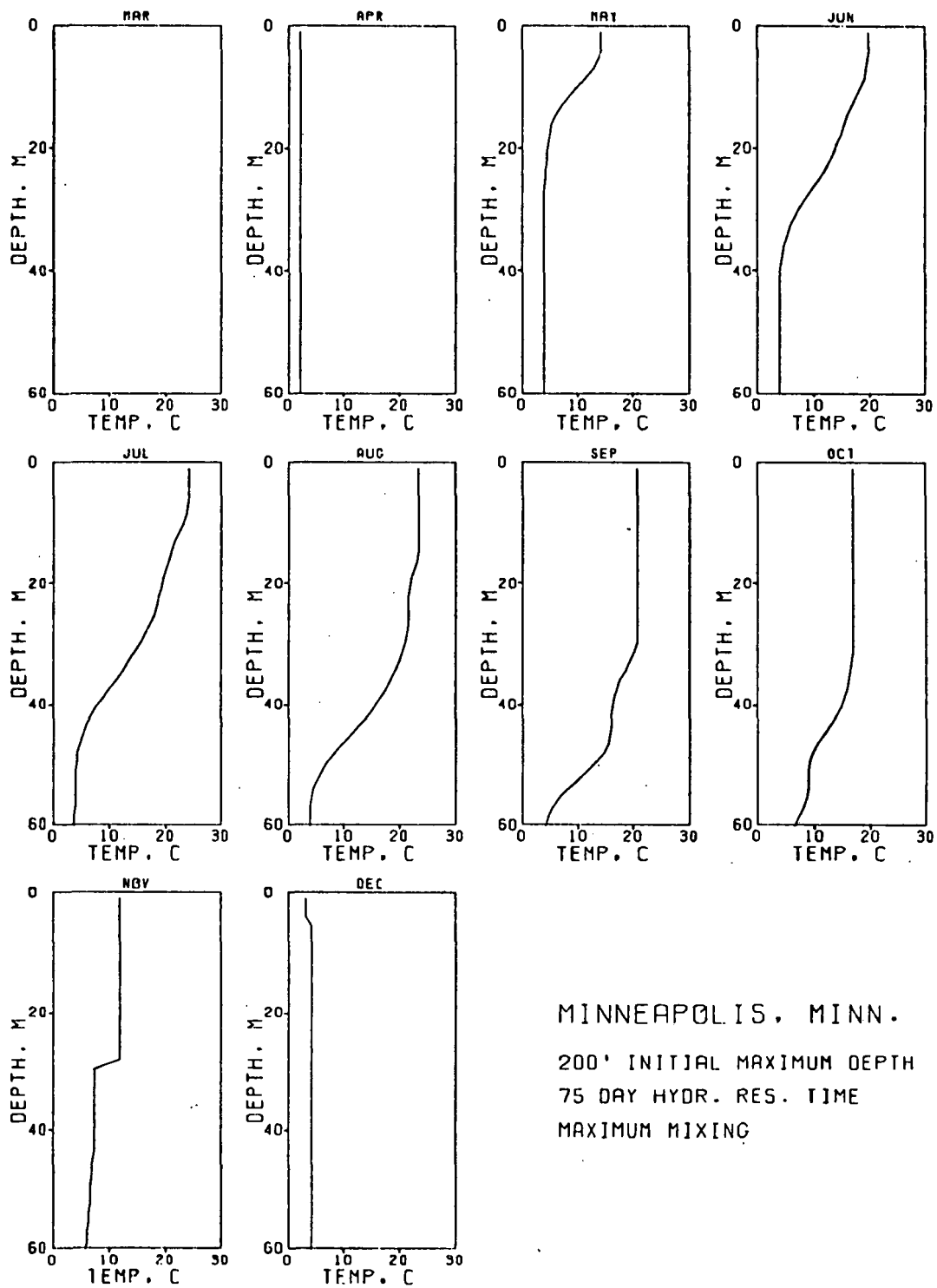
10 DAY HYDR. RES. TIME

MINIMUM MIXING

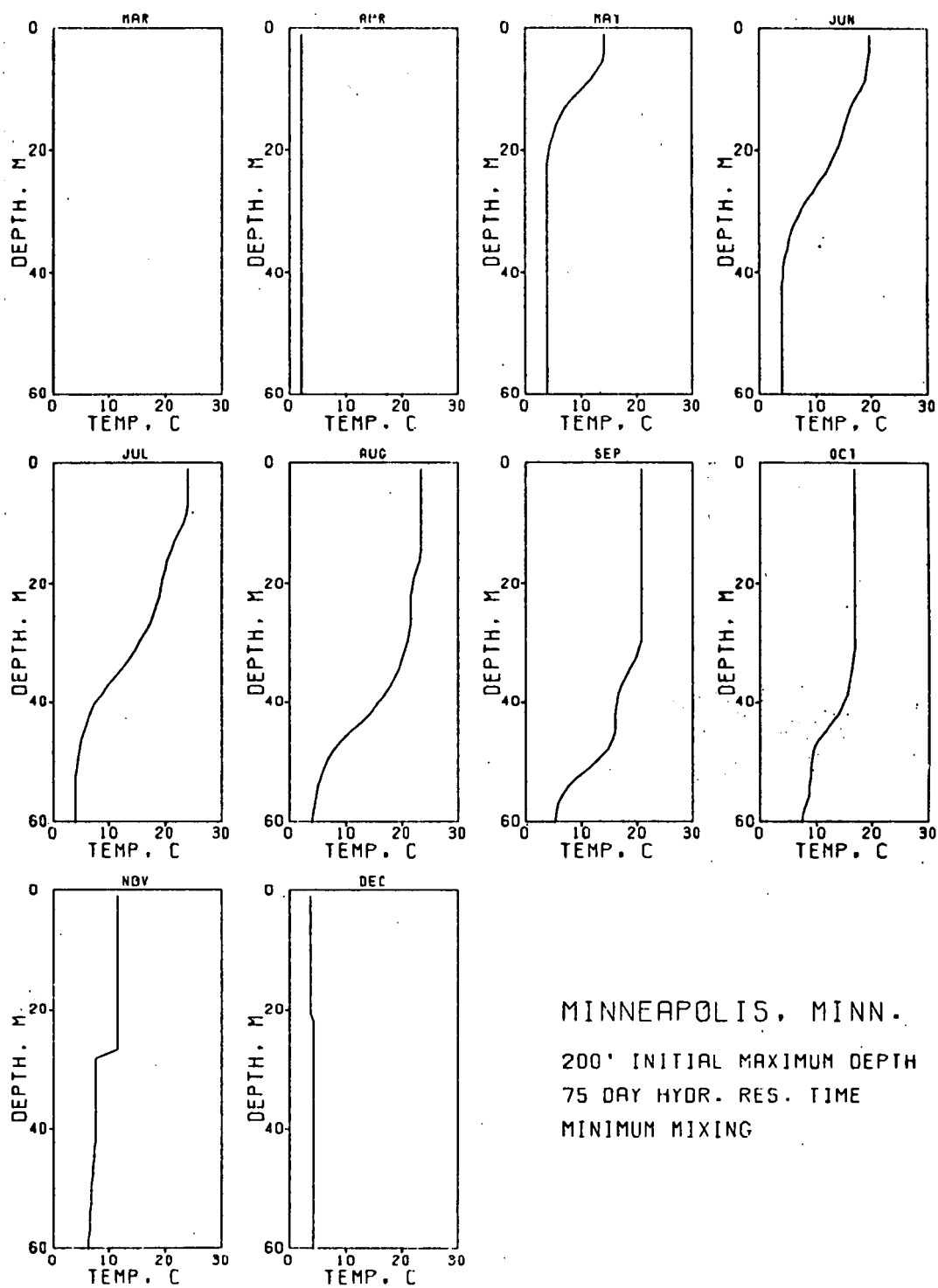




MINNEAPOLIS, MINN.
 200' INITIAL MAXIMUM DEPTH
 30 DAY HYDR. RES. TIME
 MINIMUM MIXING



MINNEAPOLIS, MINN.
 200' INITIAL MAXIMUM DEPTH
 75 DAY HYDR. RES. TIME
 MAXIMUM MIXING

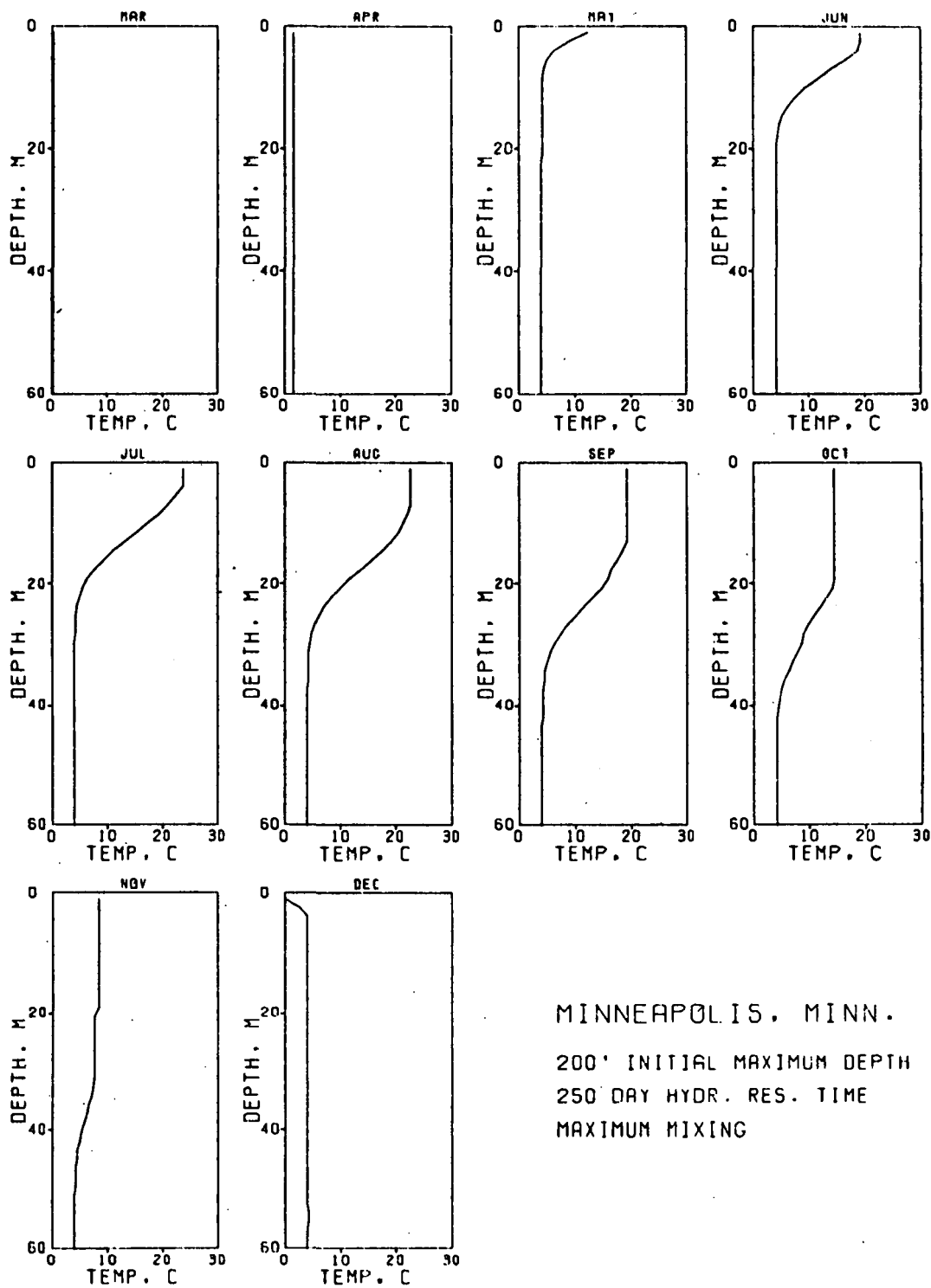


MINNEAPOLIS, MINN.

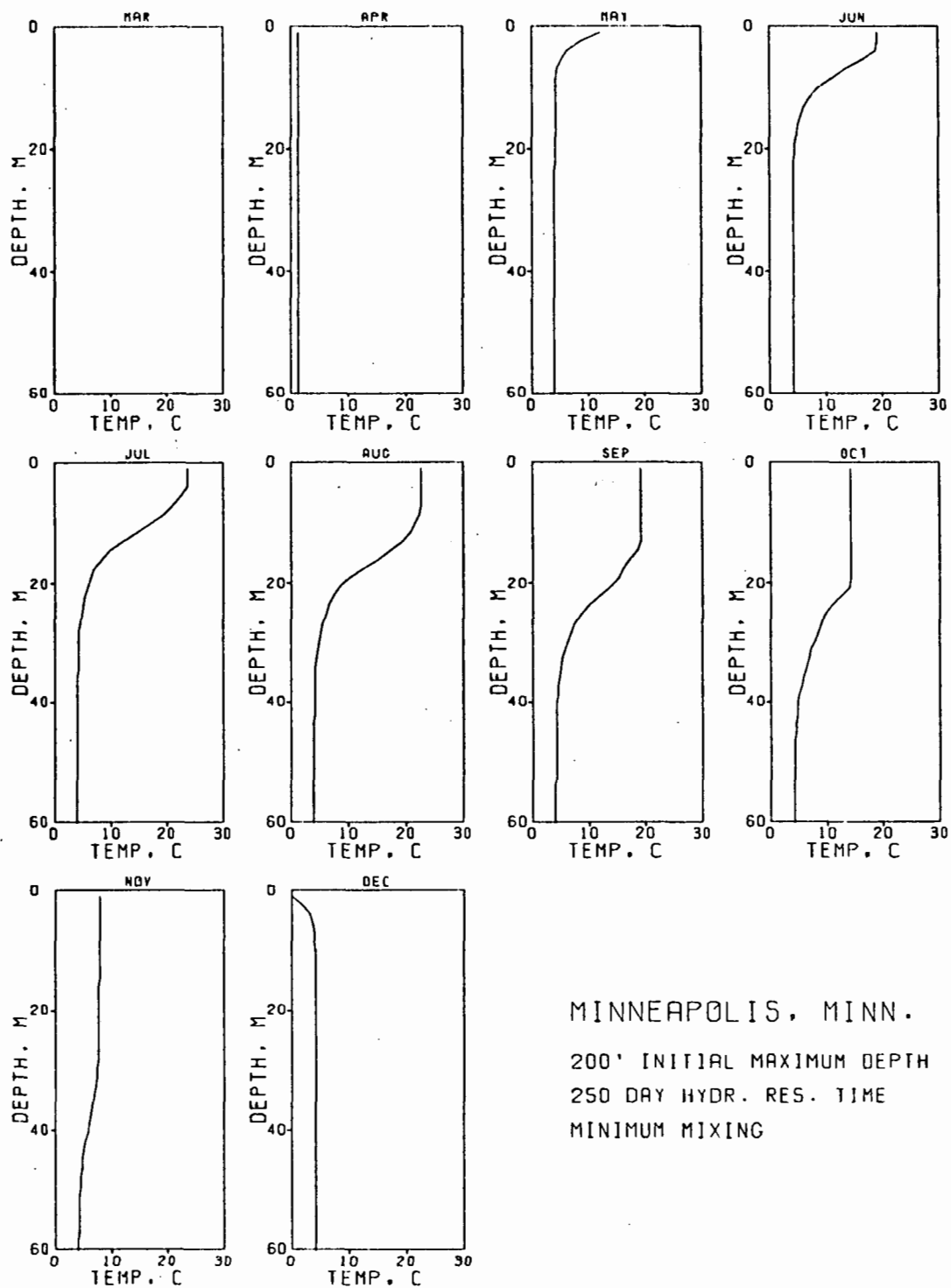
200' INITIAL MAXIMUM DEPTH

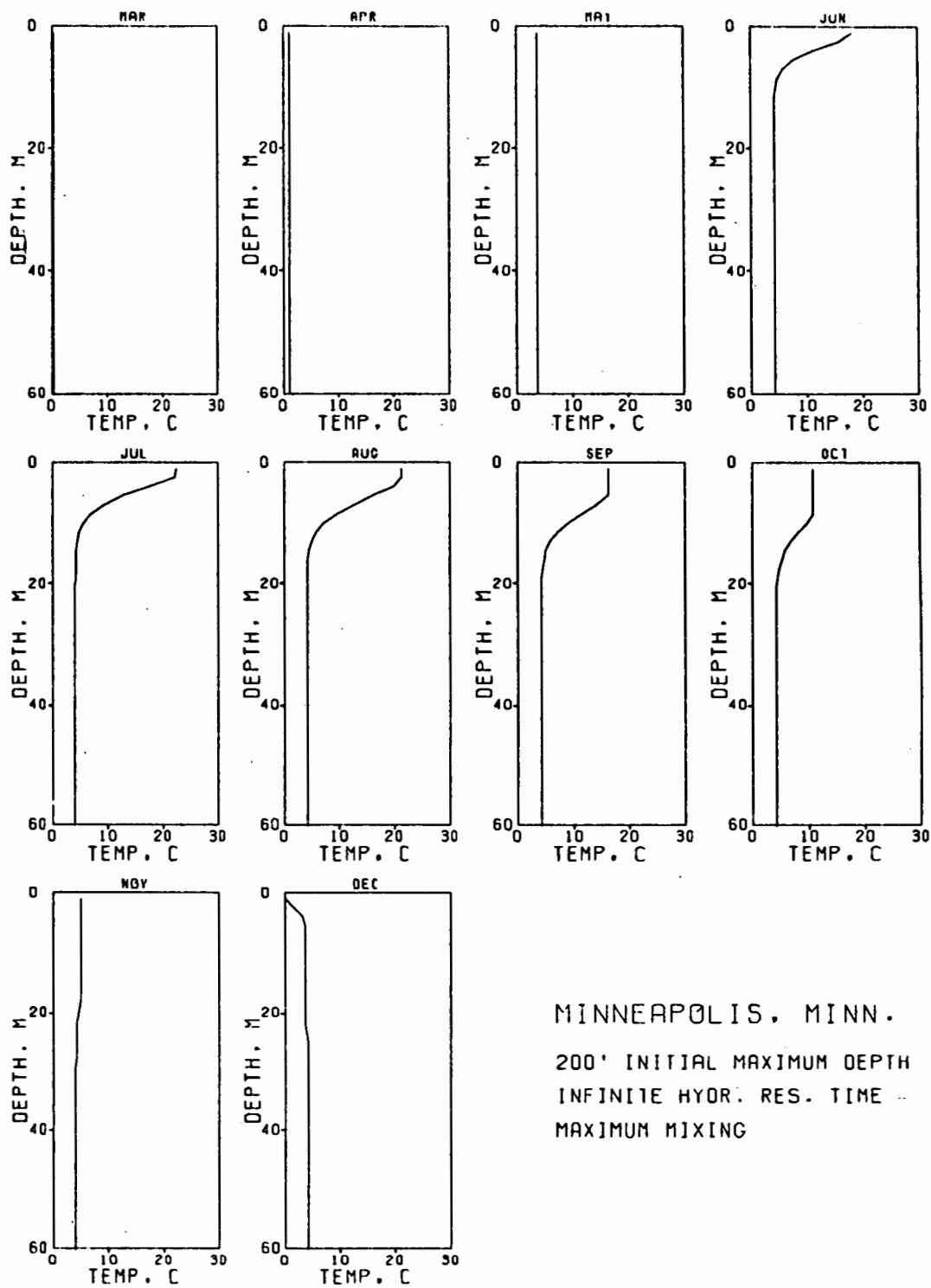
75 DAY HYDR. RES. TIME

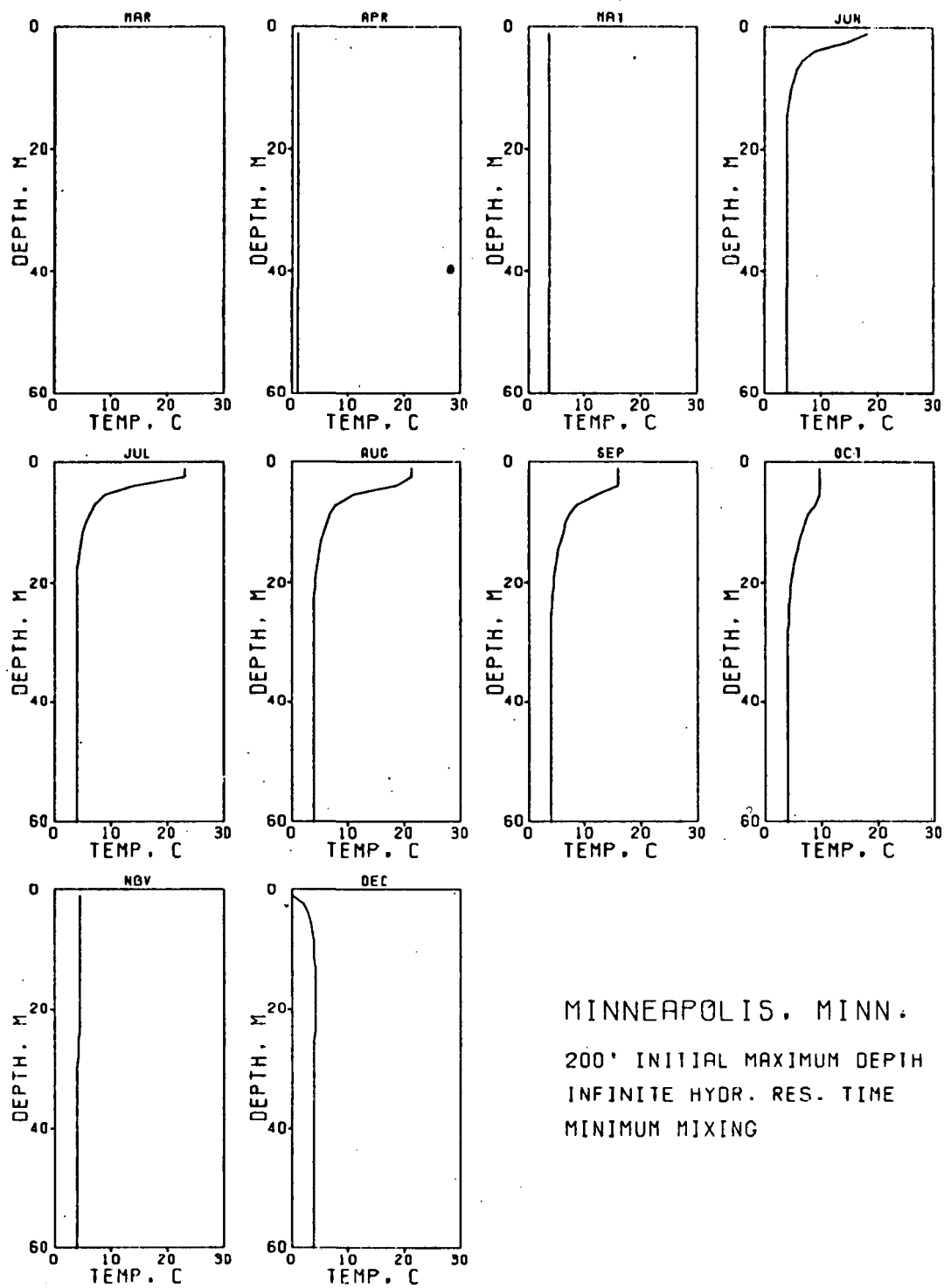
MINIMUM MIXING

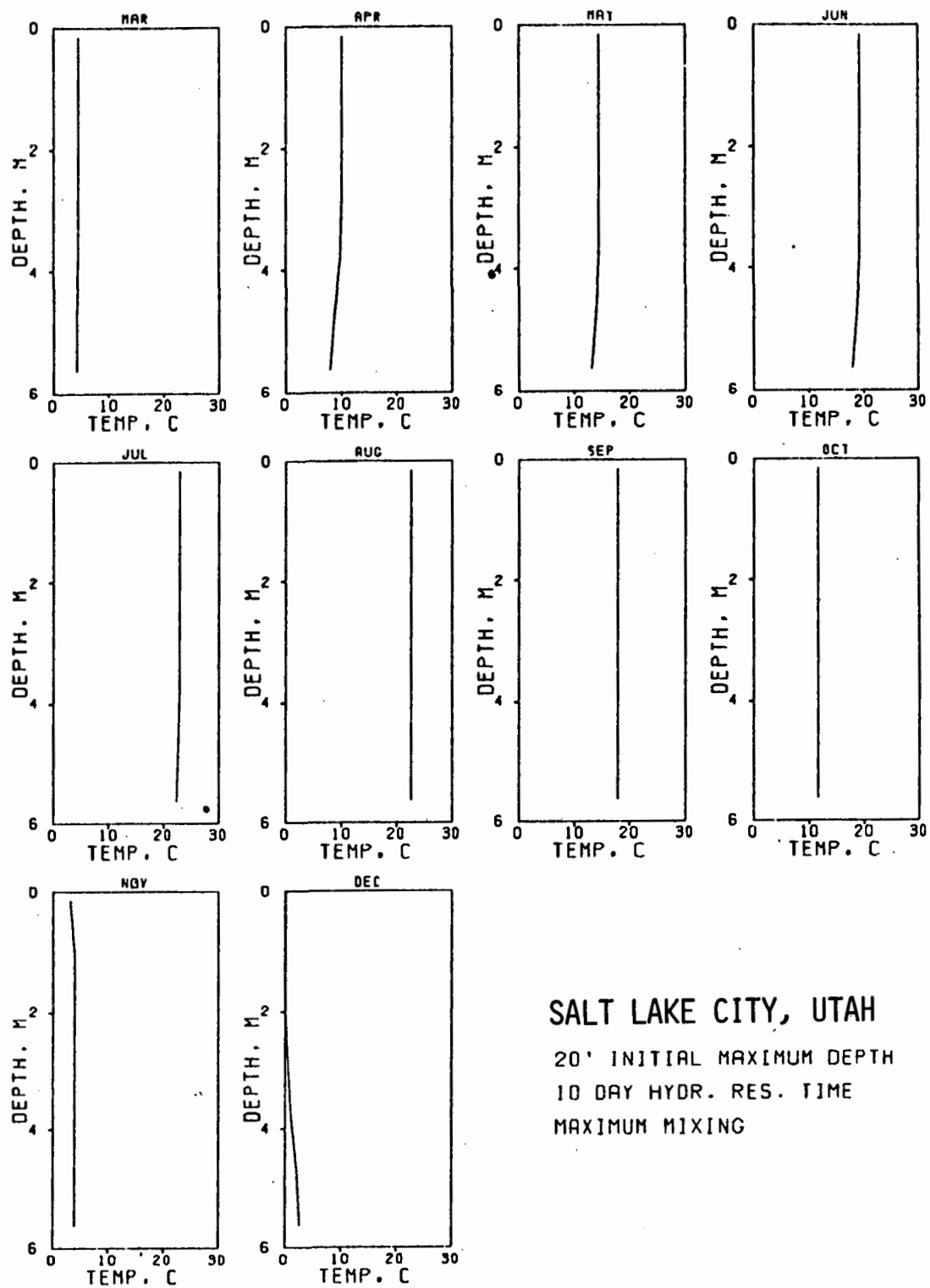


MINNEAPOLIS, MINN.
 200' INITIAL MAXIMUM DEPTH
 250 DAY HYDR. RES. TIME
 MAXIMUM MIXING

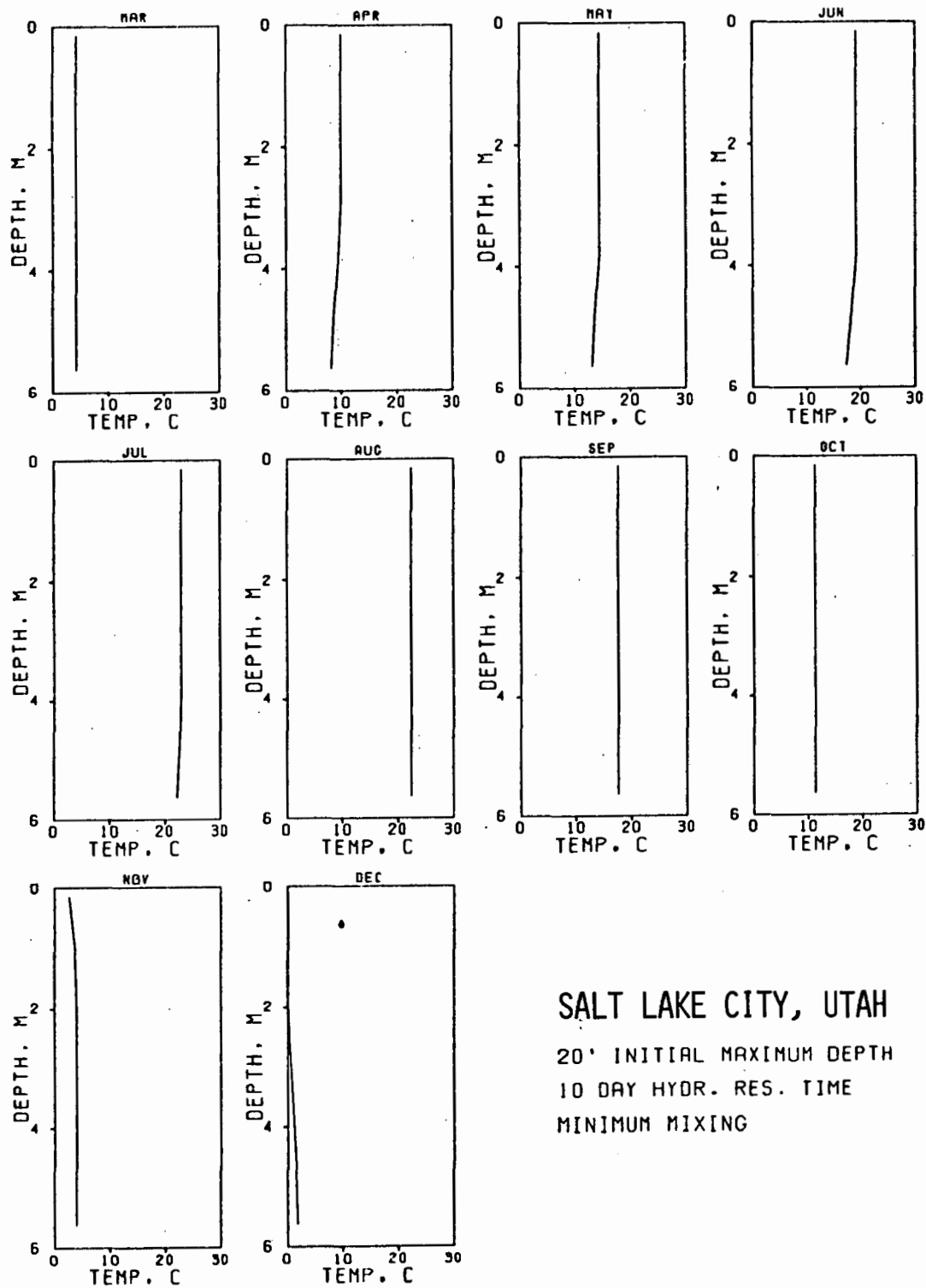








SALT LAKE CITY, UTAH
 20' INITIAL MAXIMUM DEPTH
 10 DAY HYDR. RES. TIME
 MAXIMUM MIXING

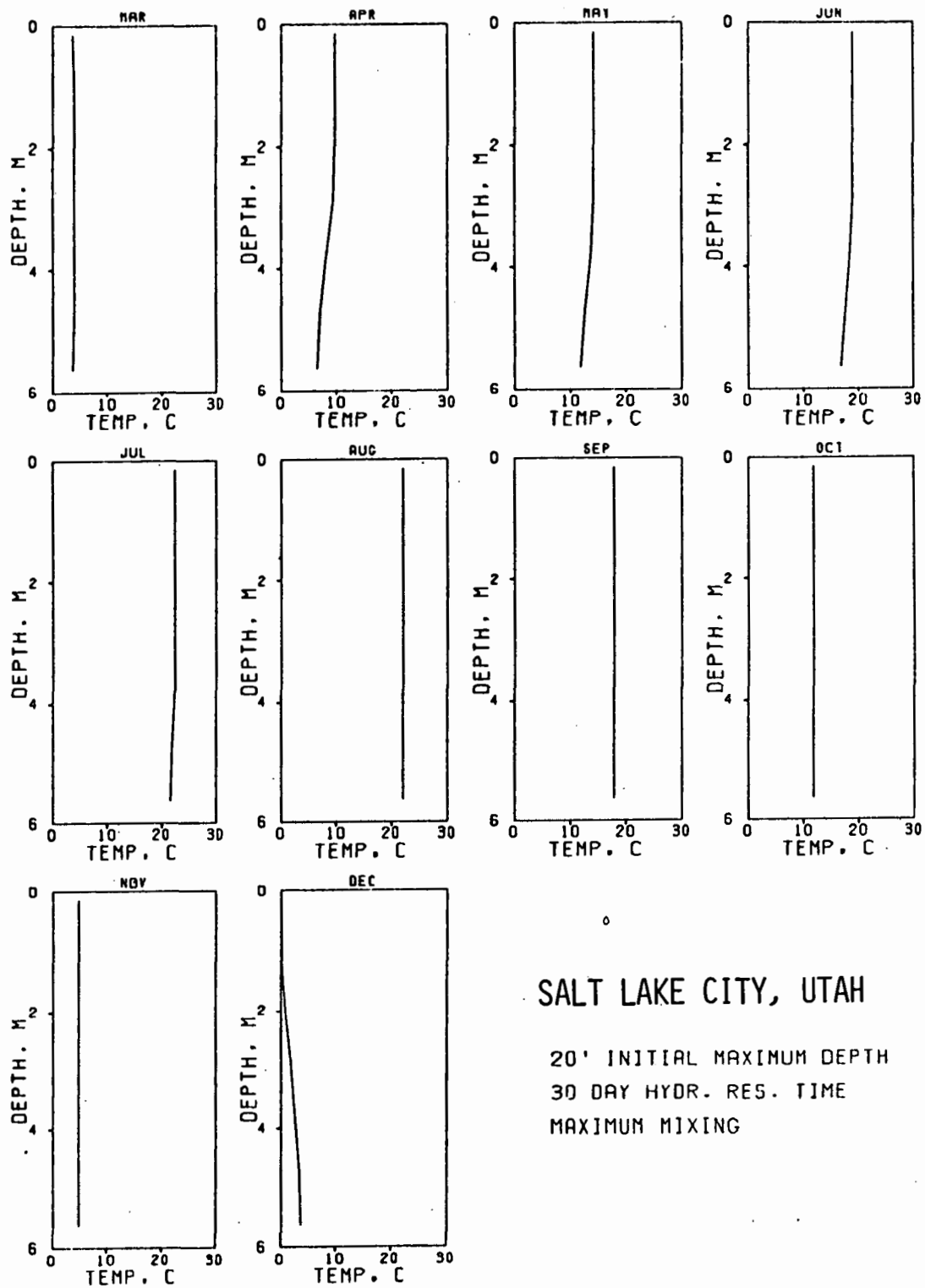


SALT LAKE CITY, UTAH

20' INITIAL MAXIMUM DEPTH

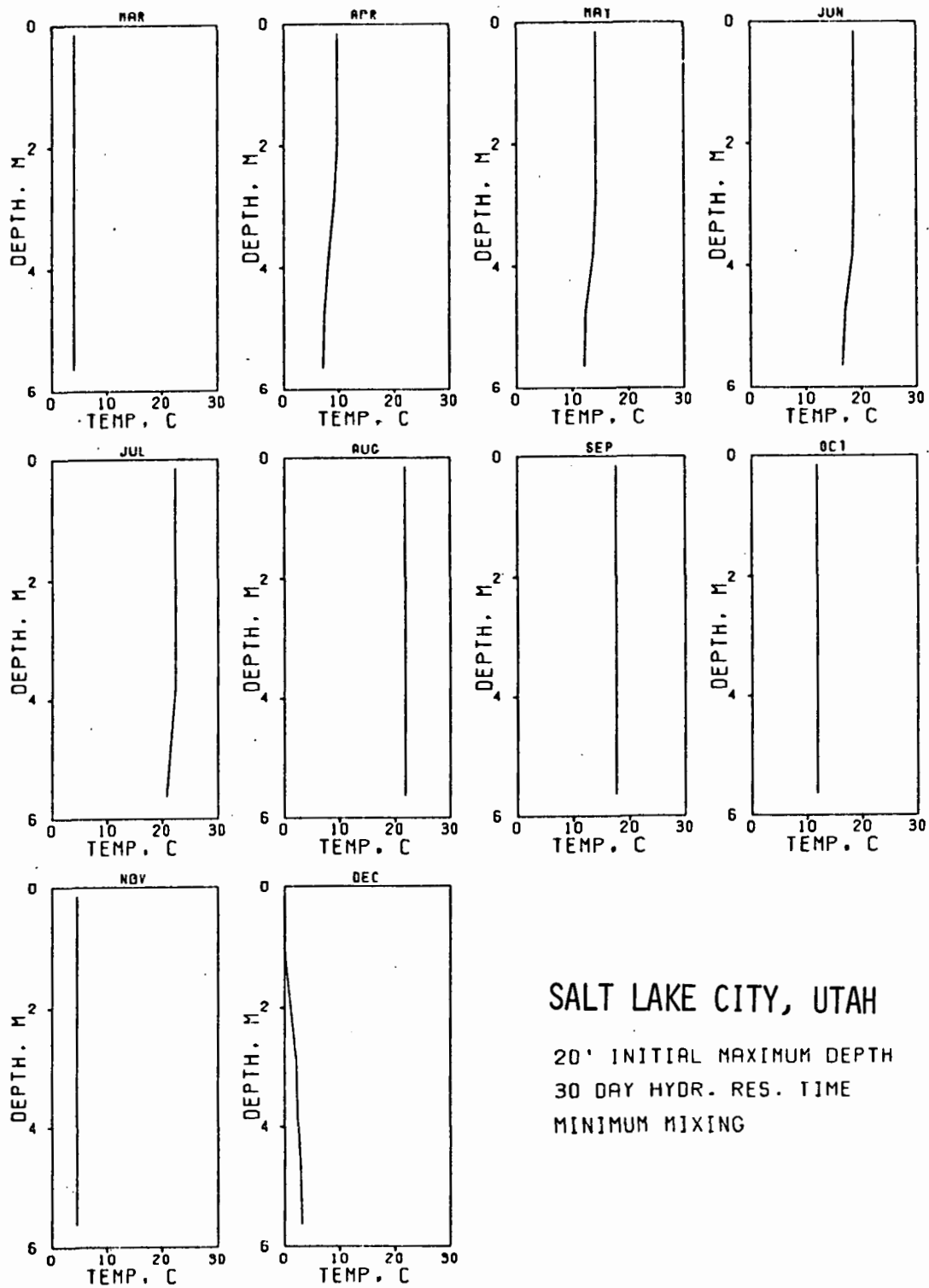
10 DAY HYDR. RES. TIME

MINIMUM MIXING



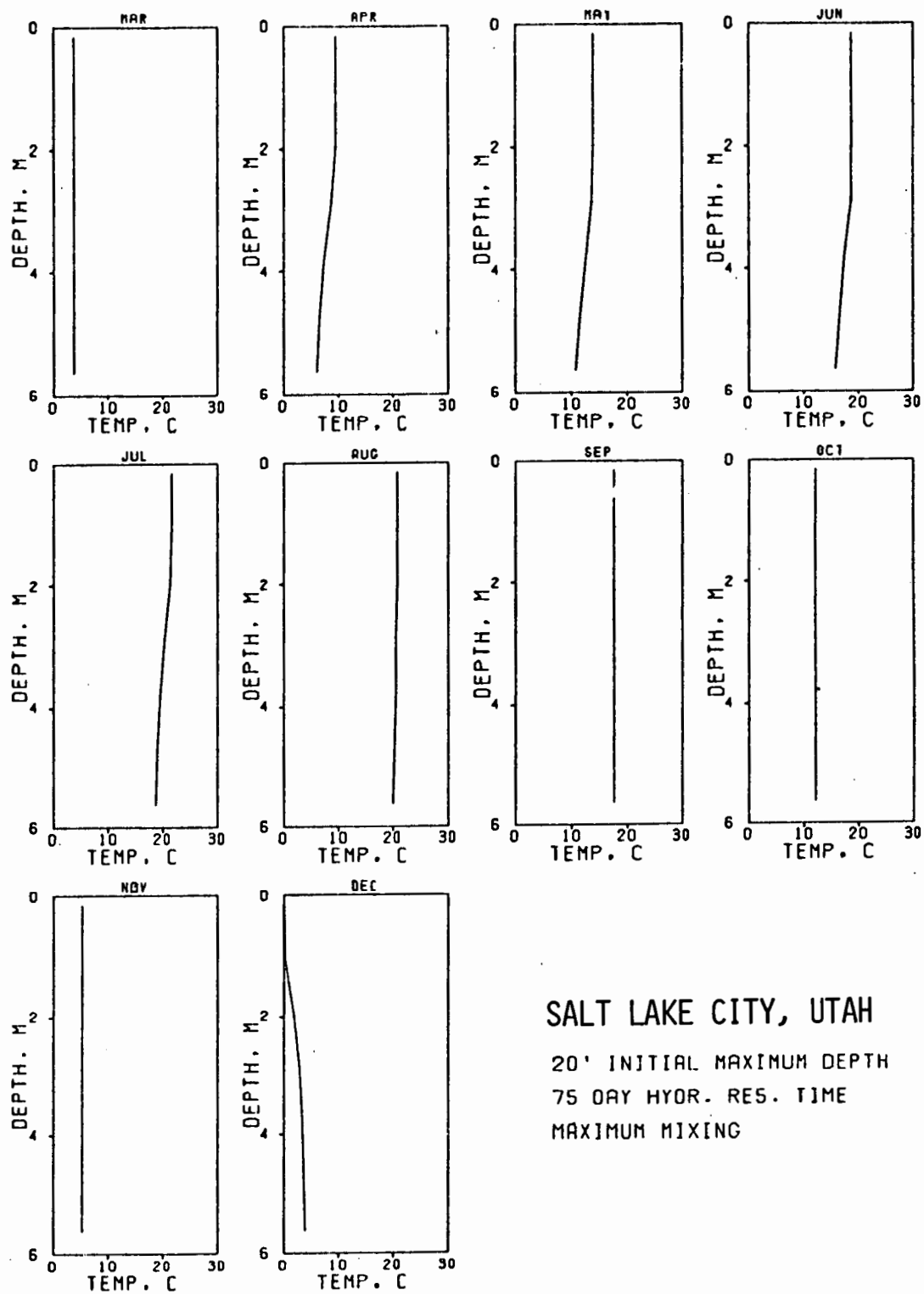
SALT LAKE CITY, UTAH

20' INITIAL MAXIMUM DEPTH
30 DAY HYDR. RES. TIME
MAXIMUM MIXING



SALT LAKE CITY, UTAH

20' INITIAL MAXIMUM DEPTH
30 DAY HYDR. RES. TIME
MINIMUM MIXING

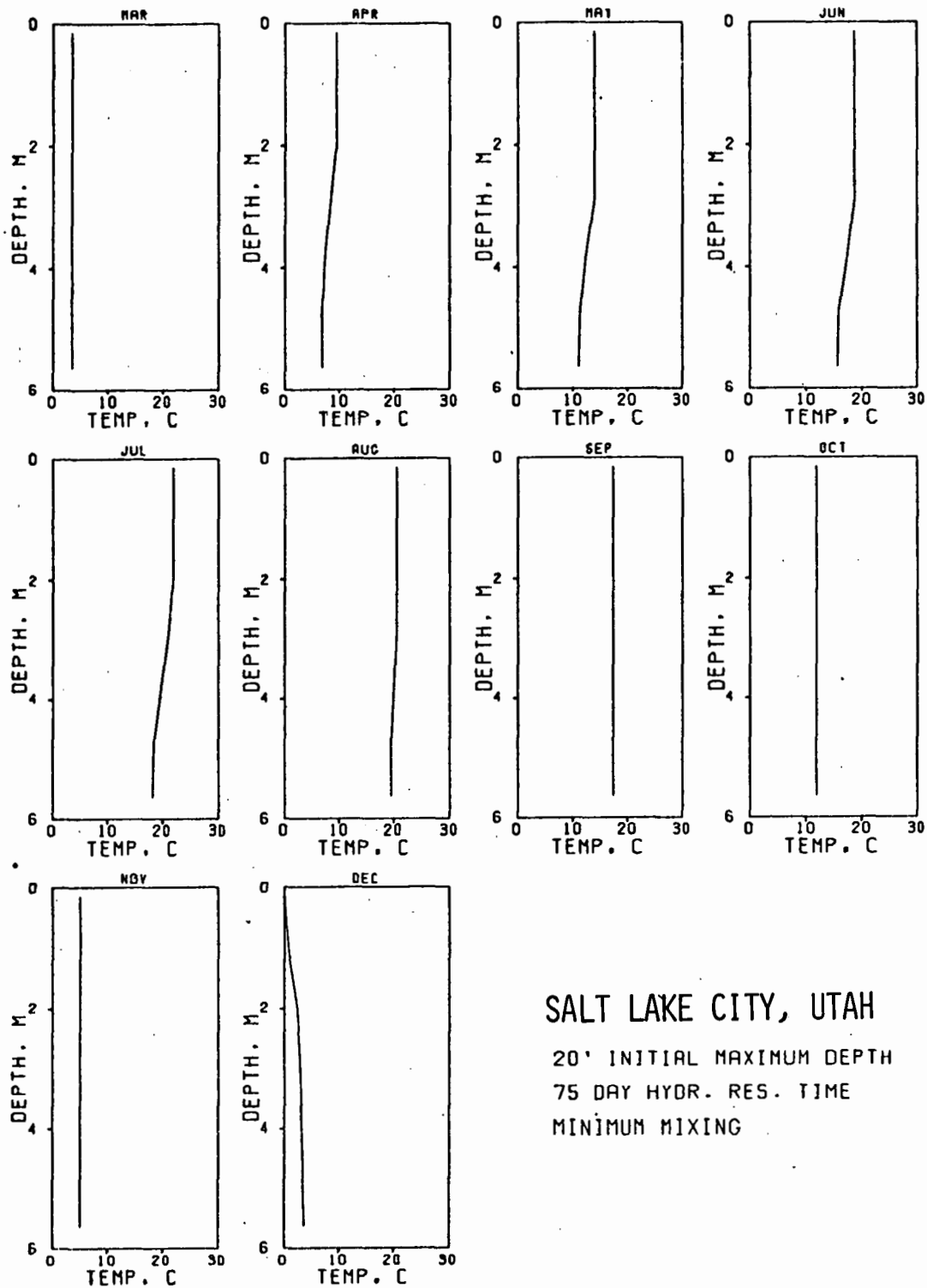


SALT LAKE CITY, UTAH

20' INITIAL MAXIMUM DEPTH

75 DAY HYOR. RES. TIME

MAXIMUM MIXING

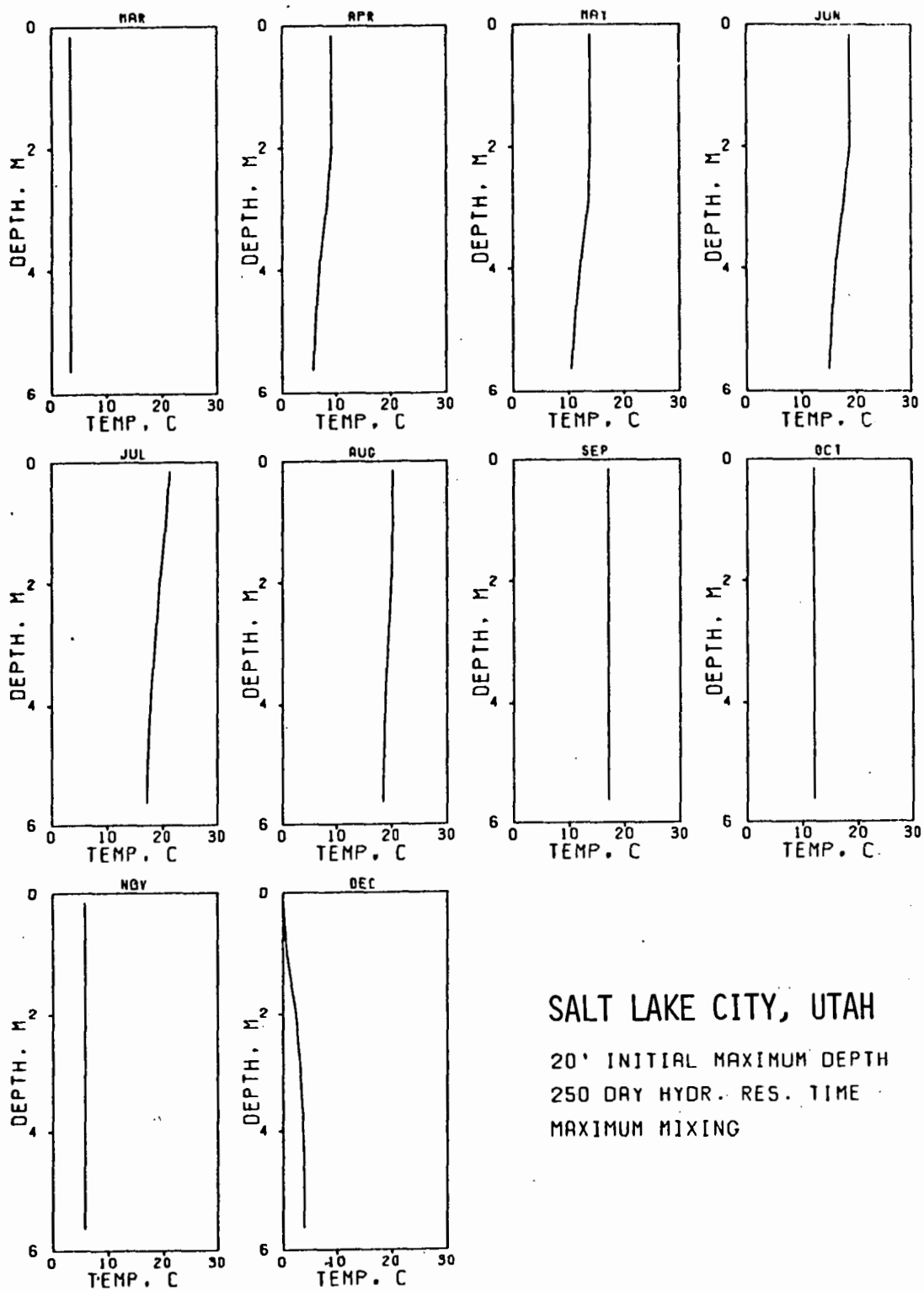


SALT LAKE CITY, UTAH

20' INITIAL MAXIMUM DEPTH

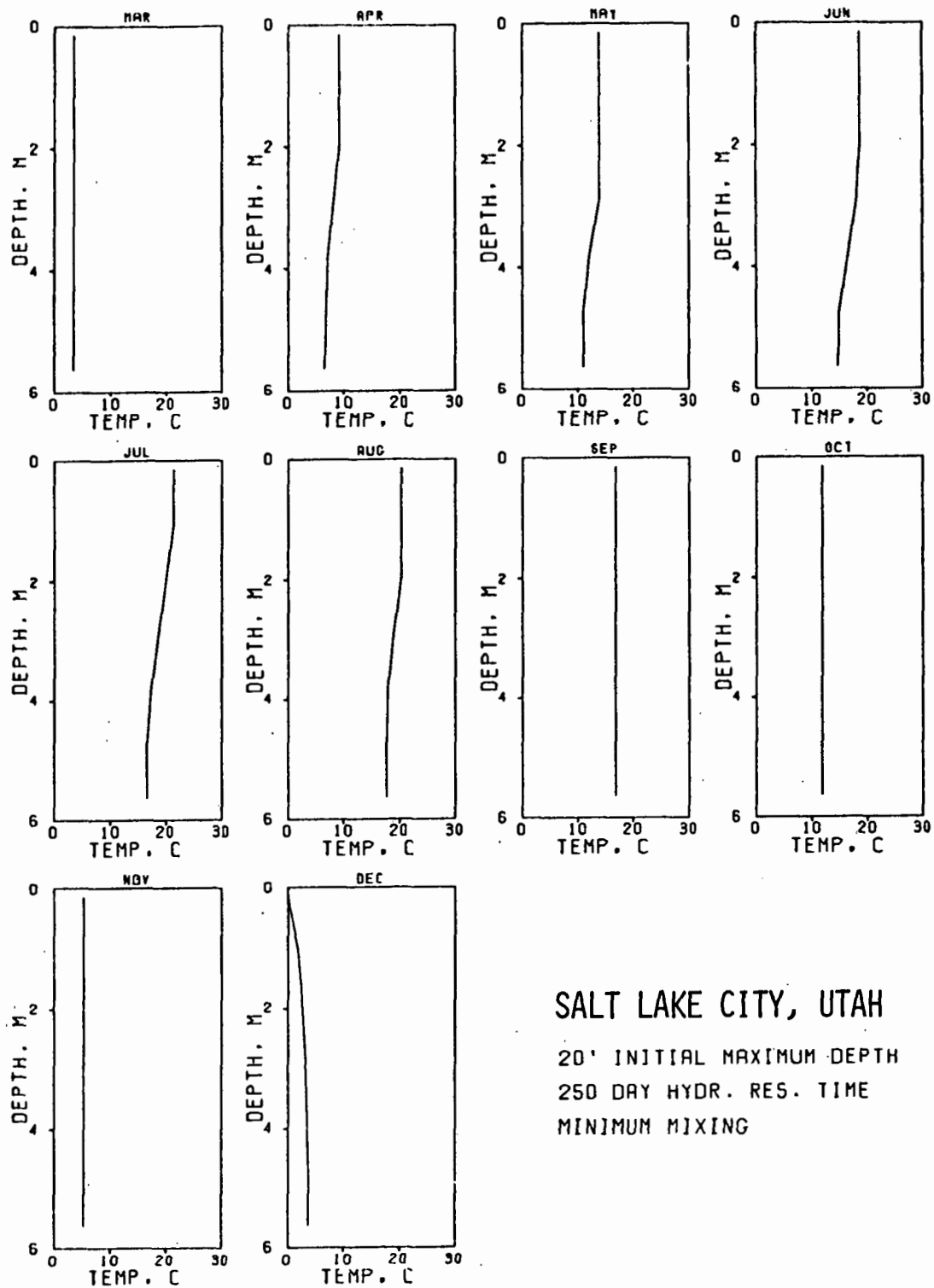
75 DAY HYDR. RES. TIME

MINIMUM MIXING



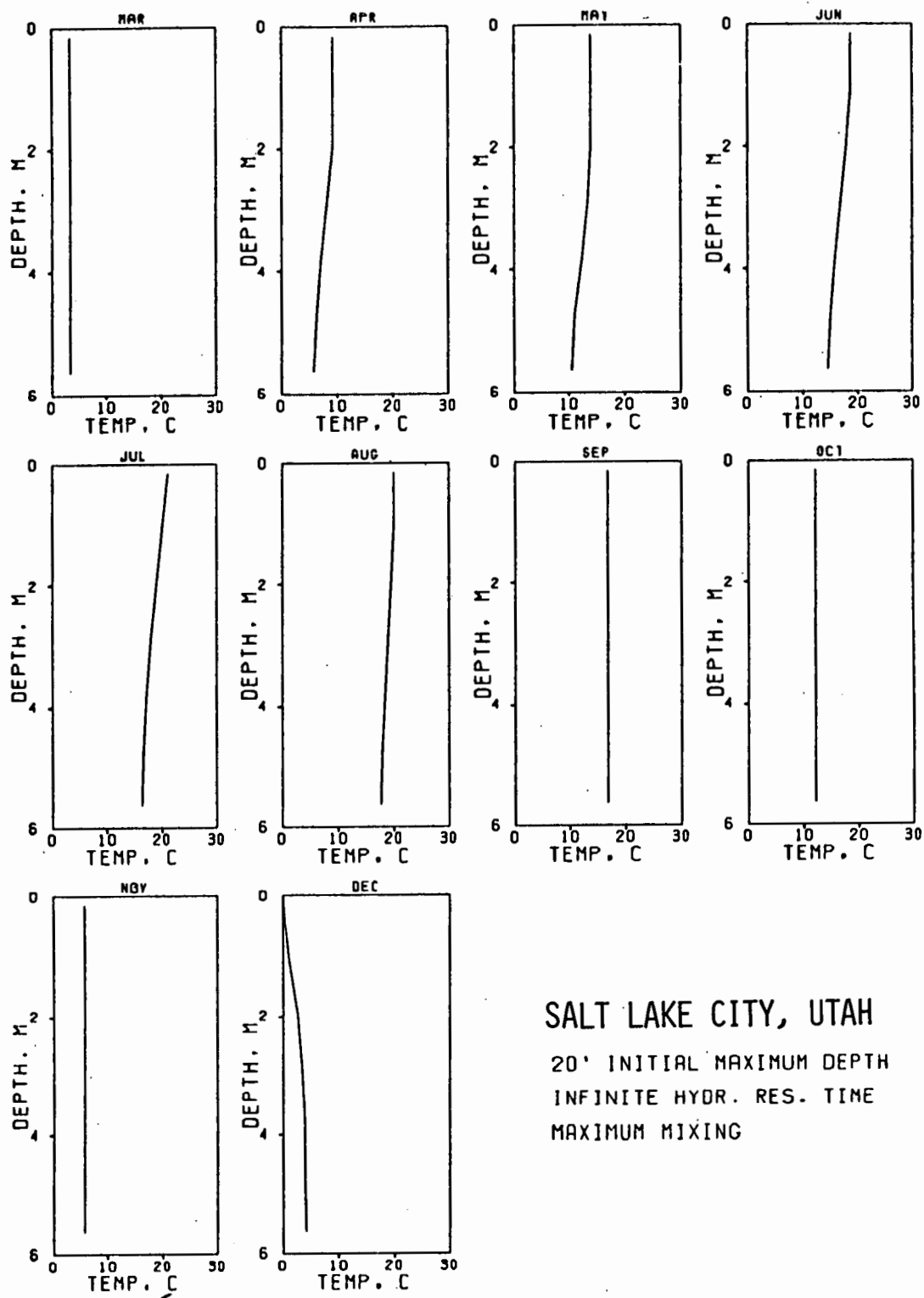
SALT LAKE CITY, UTAH

20' INITIAL MAXIMUM DEPTH
250 DAY HYDR. RES. TIME
MAXIMUM MIXING

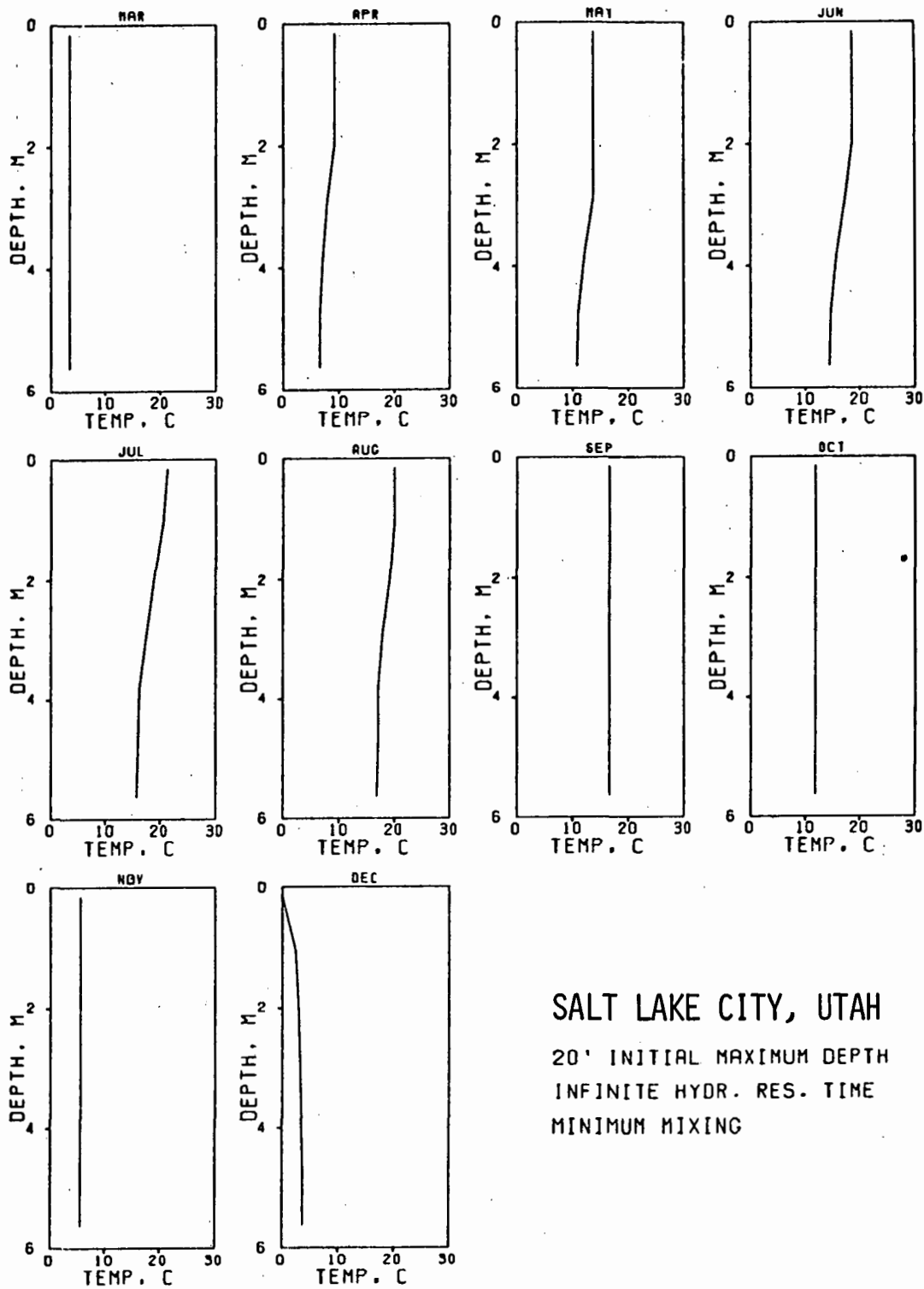


SALT LAKE CITY, UTAH

20' INITIAL MAXIMUM DEPTH
250 DAY HYDR. RES. TIME
MINIMUM MIXING

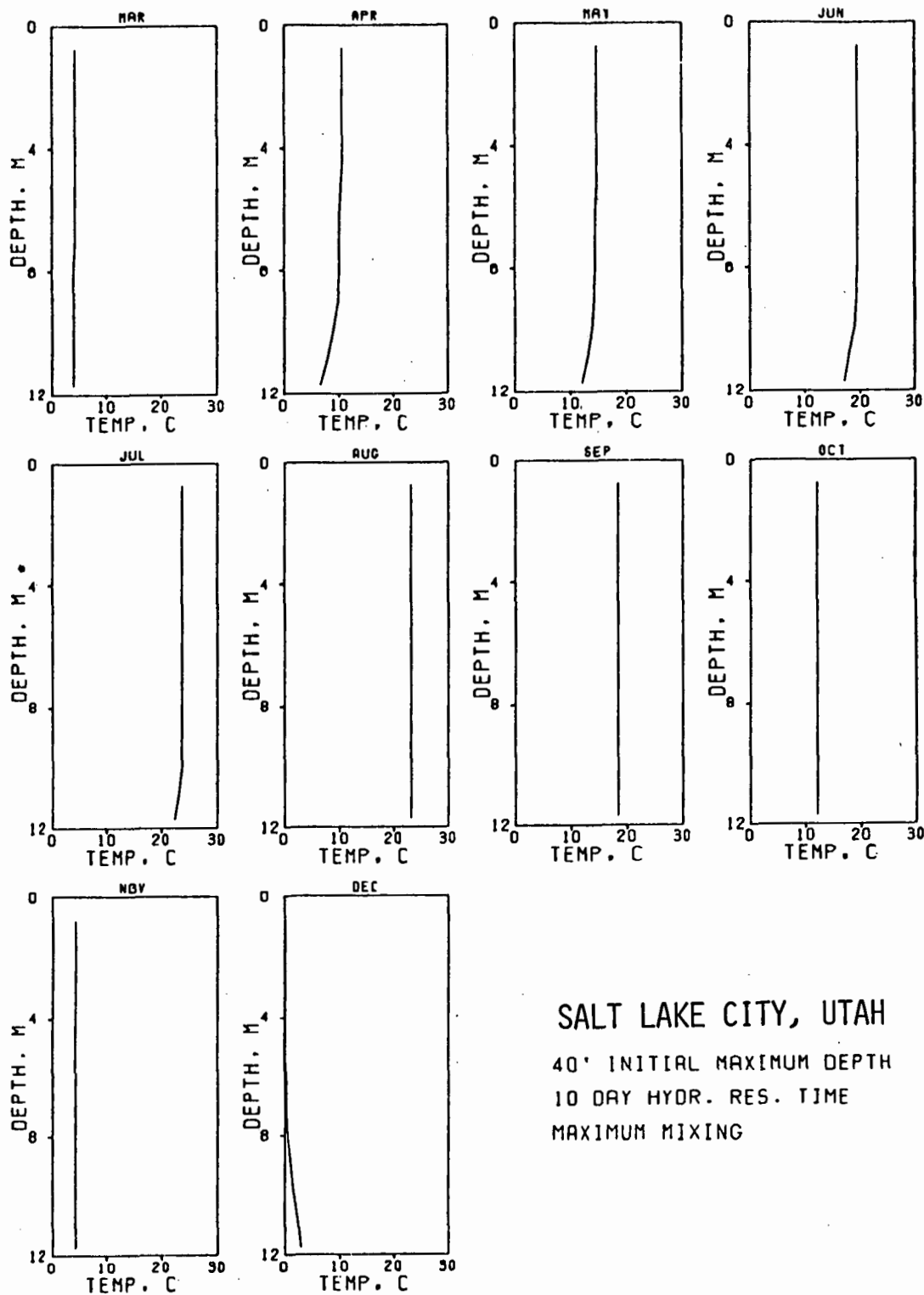


SALT LAKE CITY, UTAH
 20' INITIAL MAXIMUM DEPTH
 INFINITE HYDR. RES. TIME
 MAXIMUM MIXING

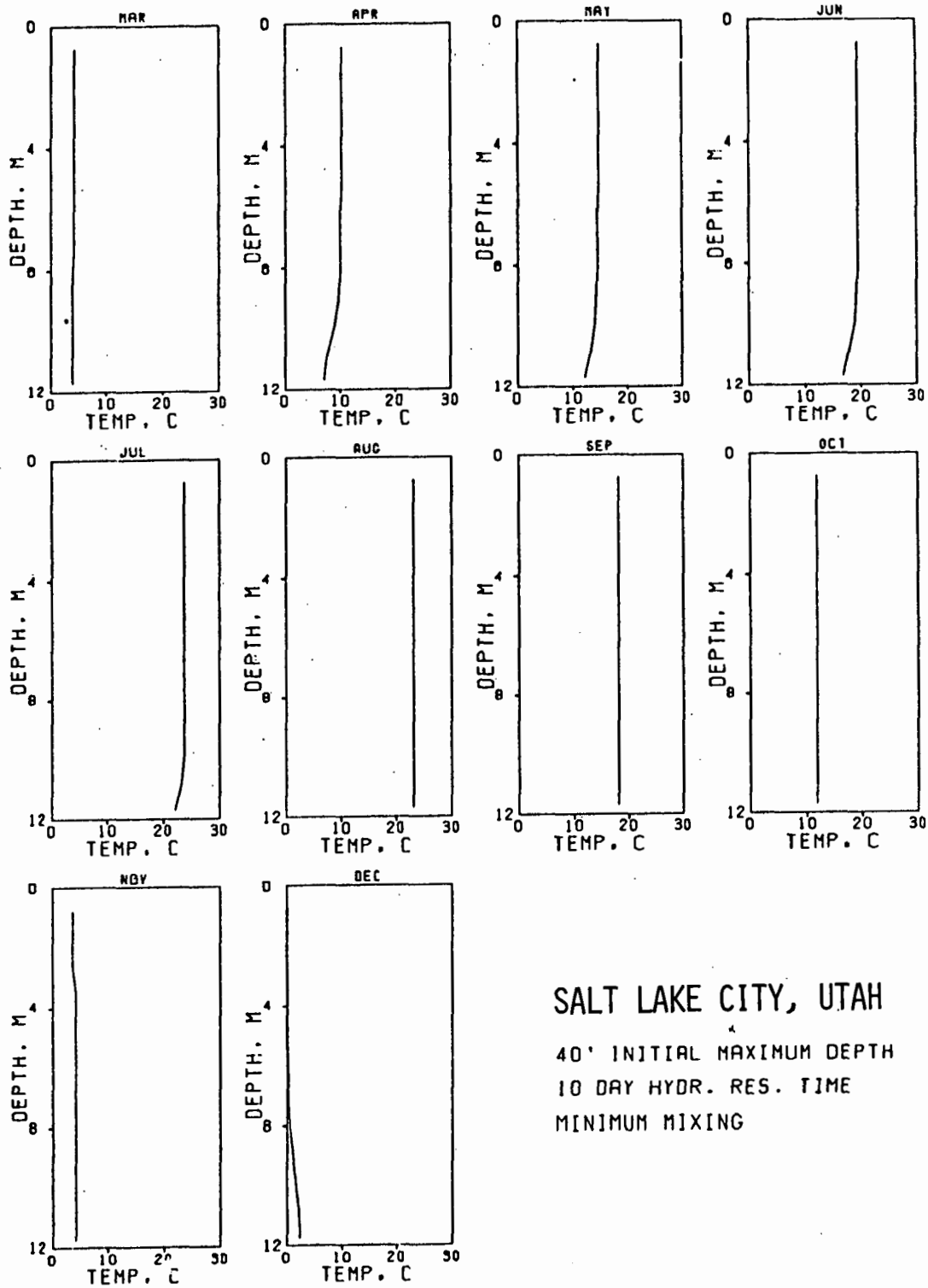


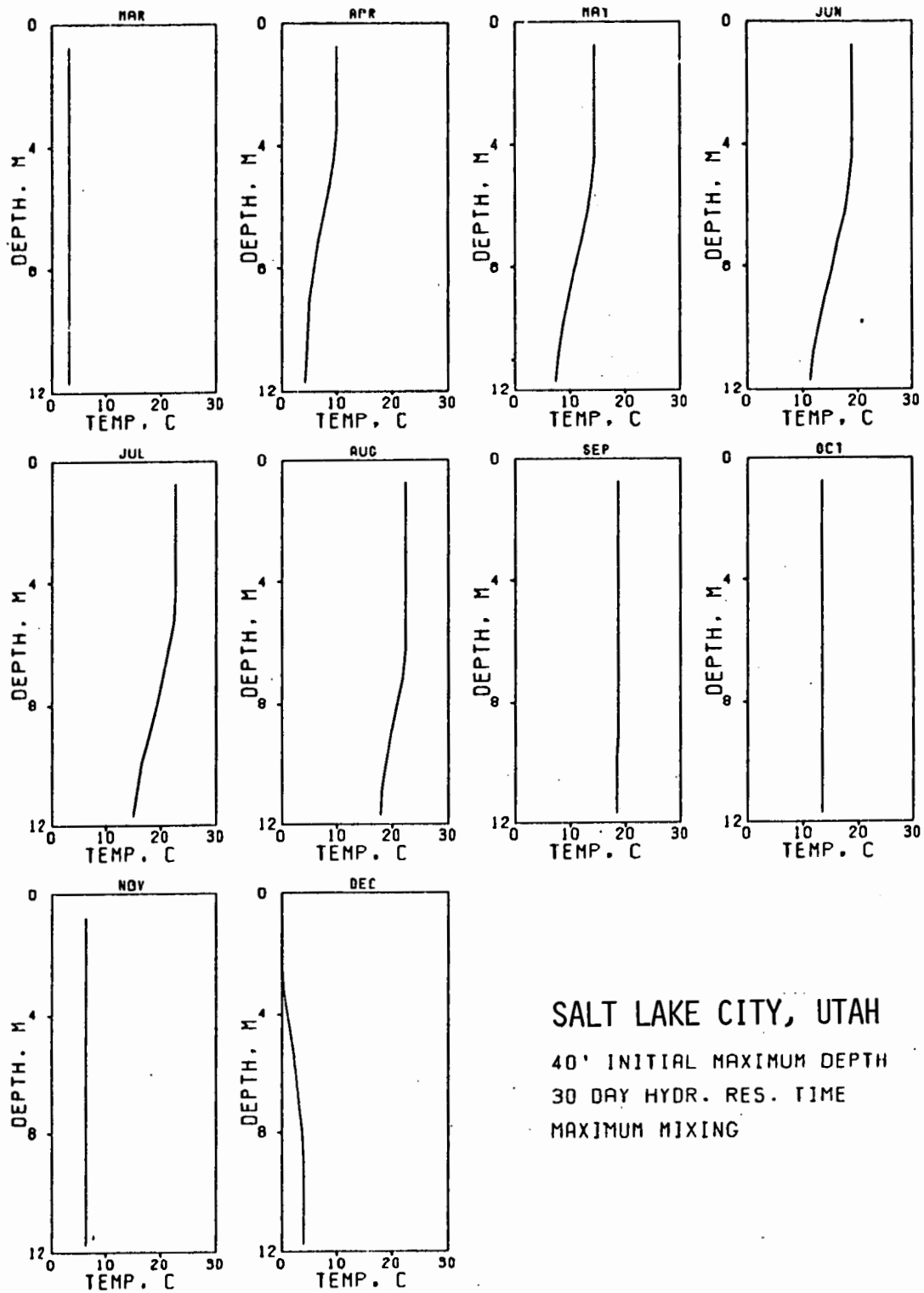
SALT LAKE CITY, UTAH

20' INITIAL MAXIMUM DEPTH
INFINITE HYDR. RES. TIME
MINIMUM MIXING



SALT LAKE CITY, UTAH
 40' INITIAL MAXIMUM DEPTH
 10 DAY HYDR. RES. TIME
 MAXIMUM MIXING



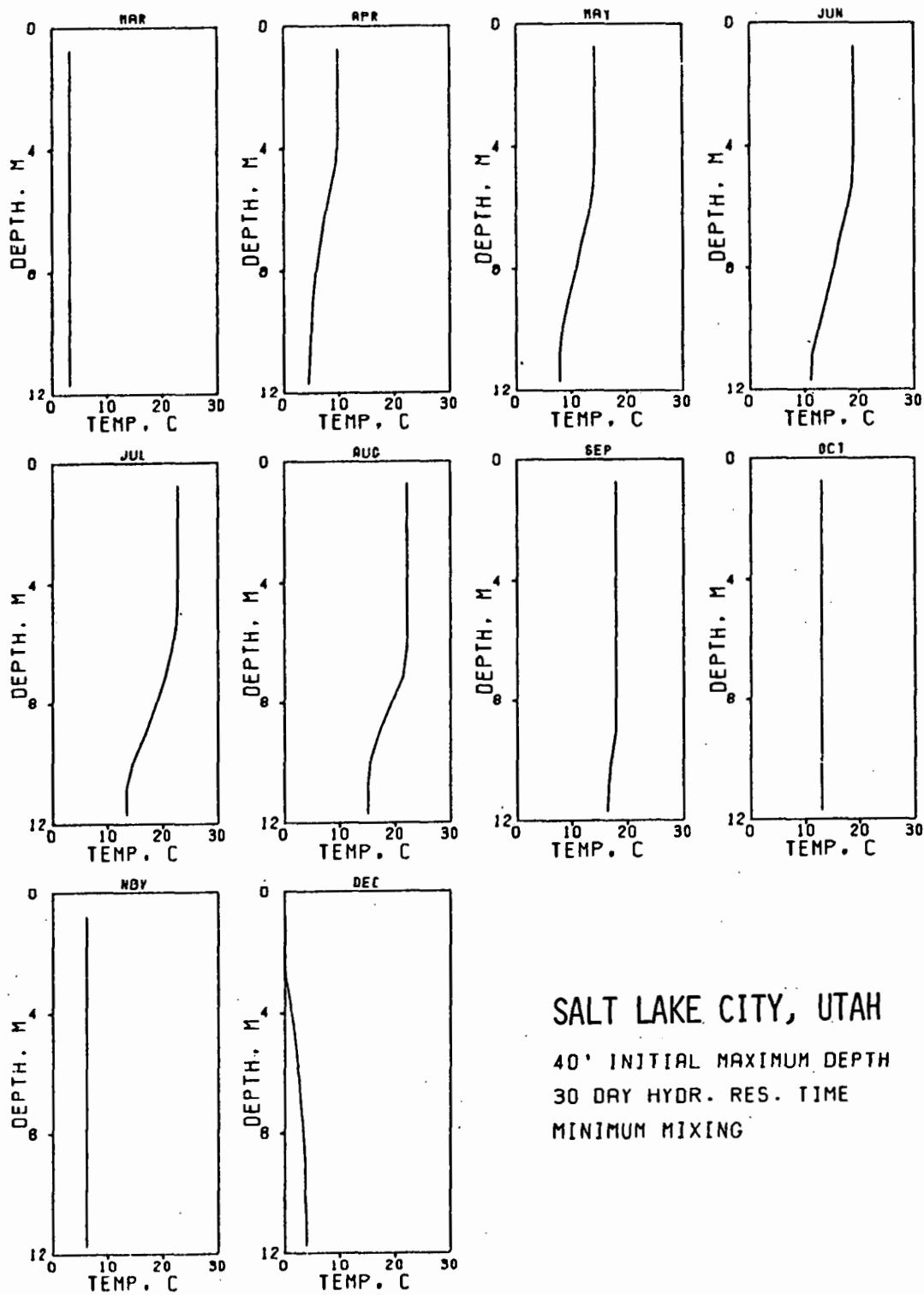


SALT LAKE CITY, UTAH

40' INITIAL MAXIMUM DEPTH

30 DAY HYDR. RES. TIME

MAXIMUM MIXING

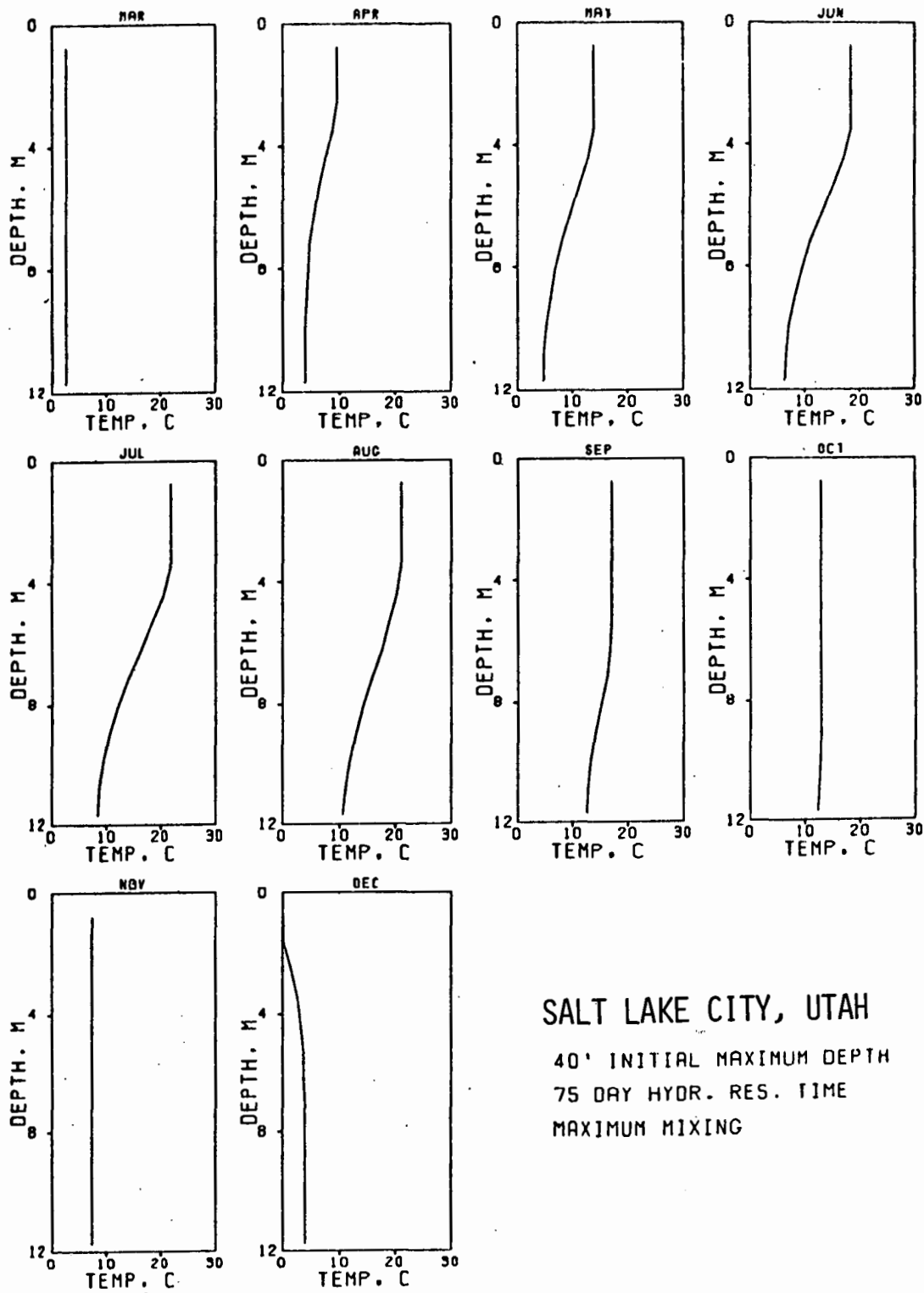


SALT LAKE CITY, UTAH

40' INITIAL MAXIMUM DEPTH

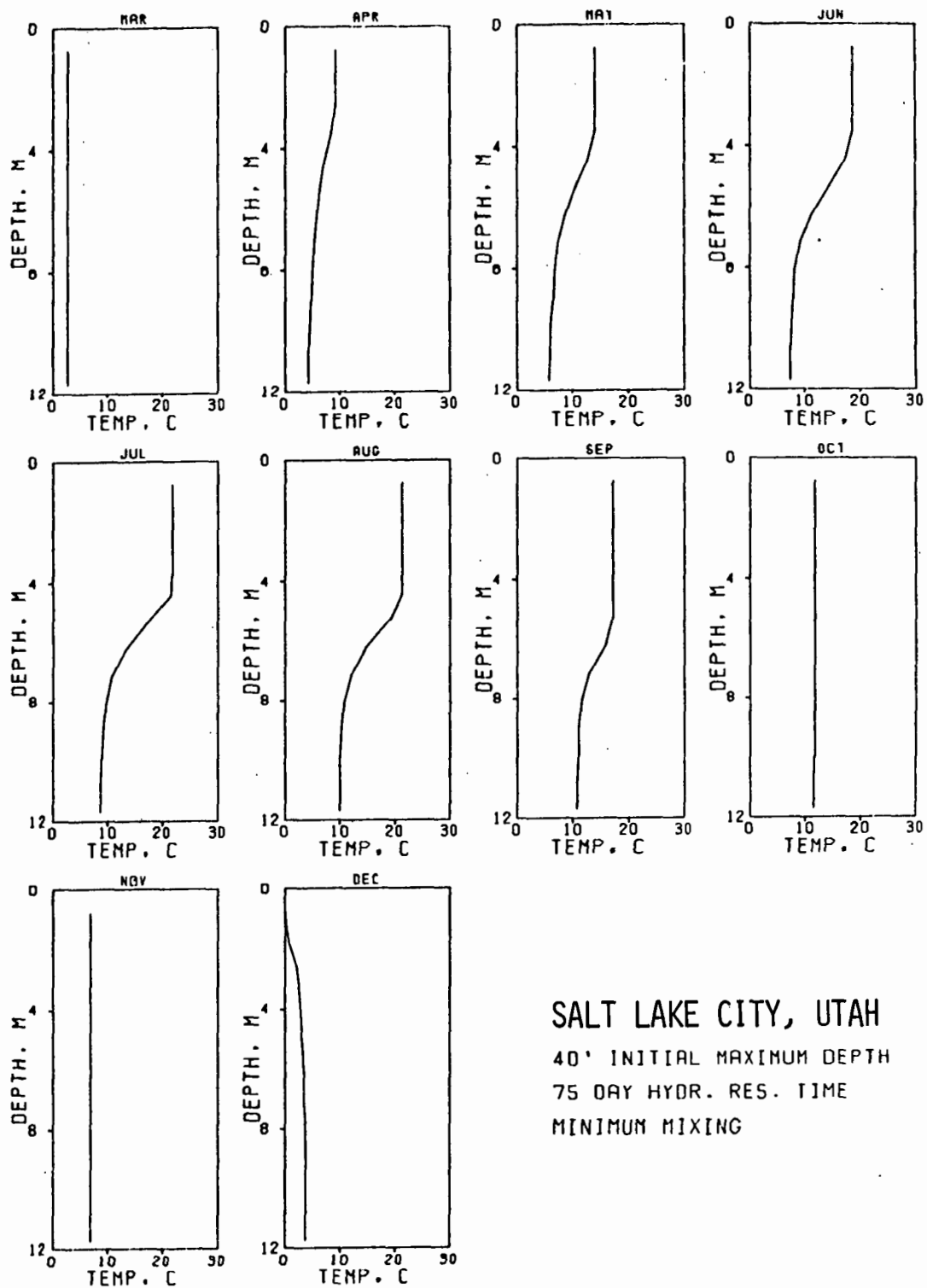
30 DAY HYDR. RES. TIME

MINIMUM MIXING

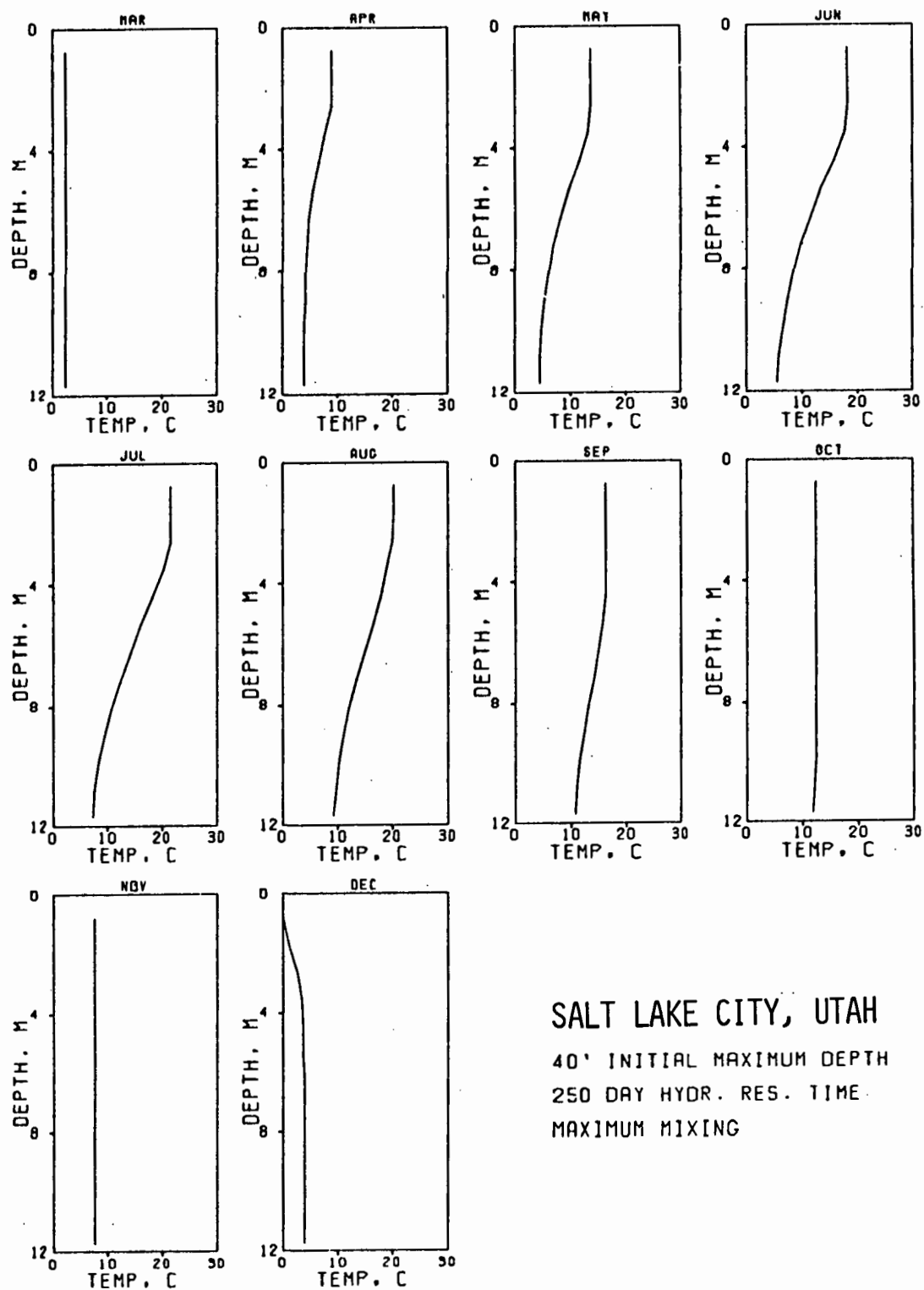


SALT LAKE CITY, UTAH

40' INITIAL MAXIMUM DEPTH
75 DAY HYDR. RES. TIME
MAXIMUM MIXING



SALT LAKE CITY, UTAH
 40' INITIAL MAXIMUM DEPTH
 75 DAY HYDR. RES. TIME
 MINIMUM MIXING

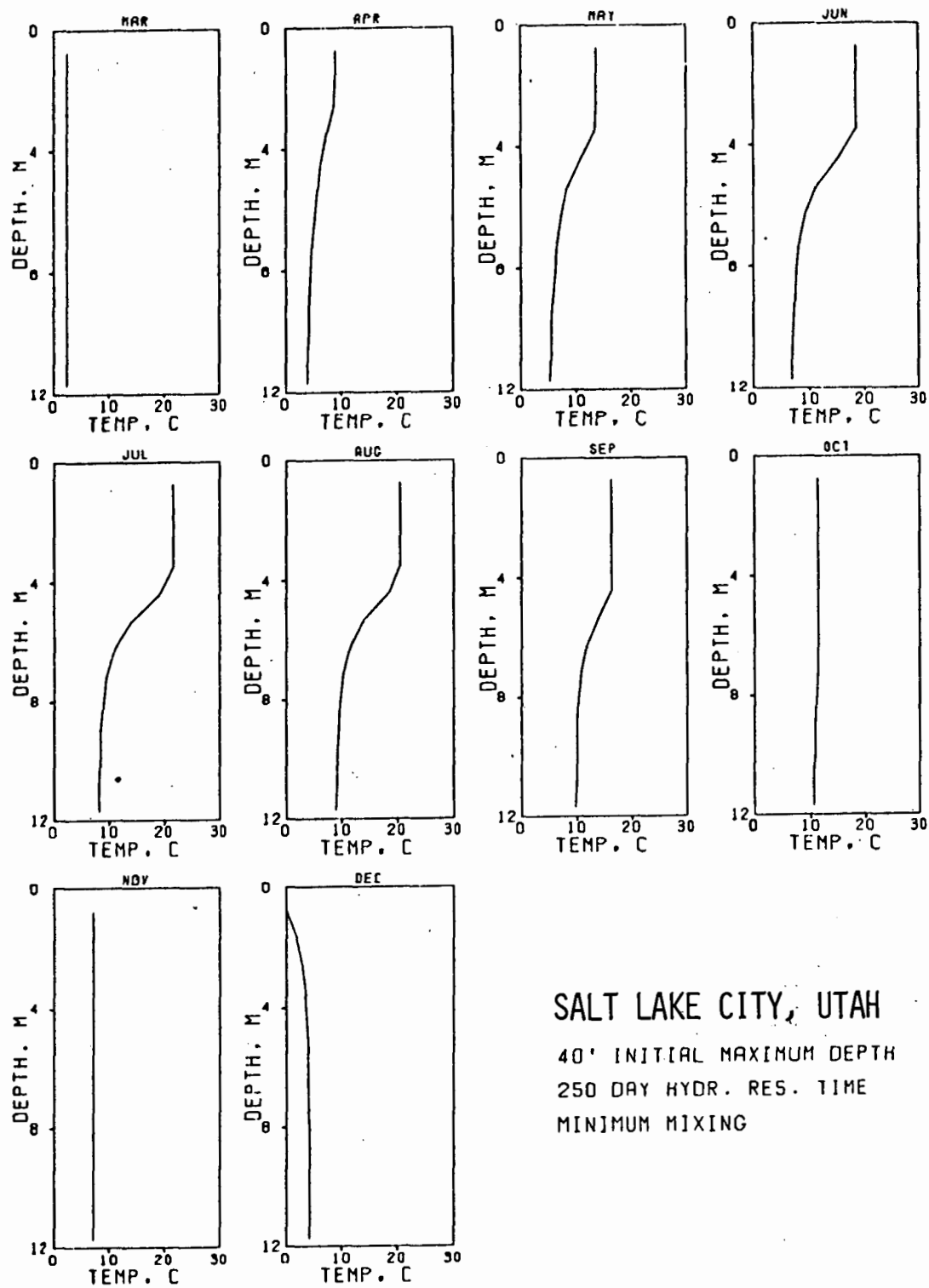


SALT LAKE CITY, UTAH

40' INITIAL MAXIMUM DEPTH

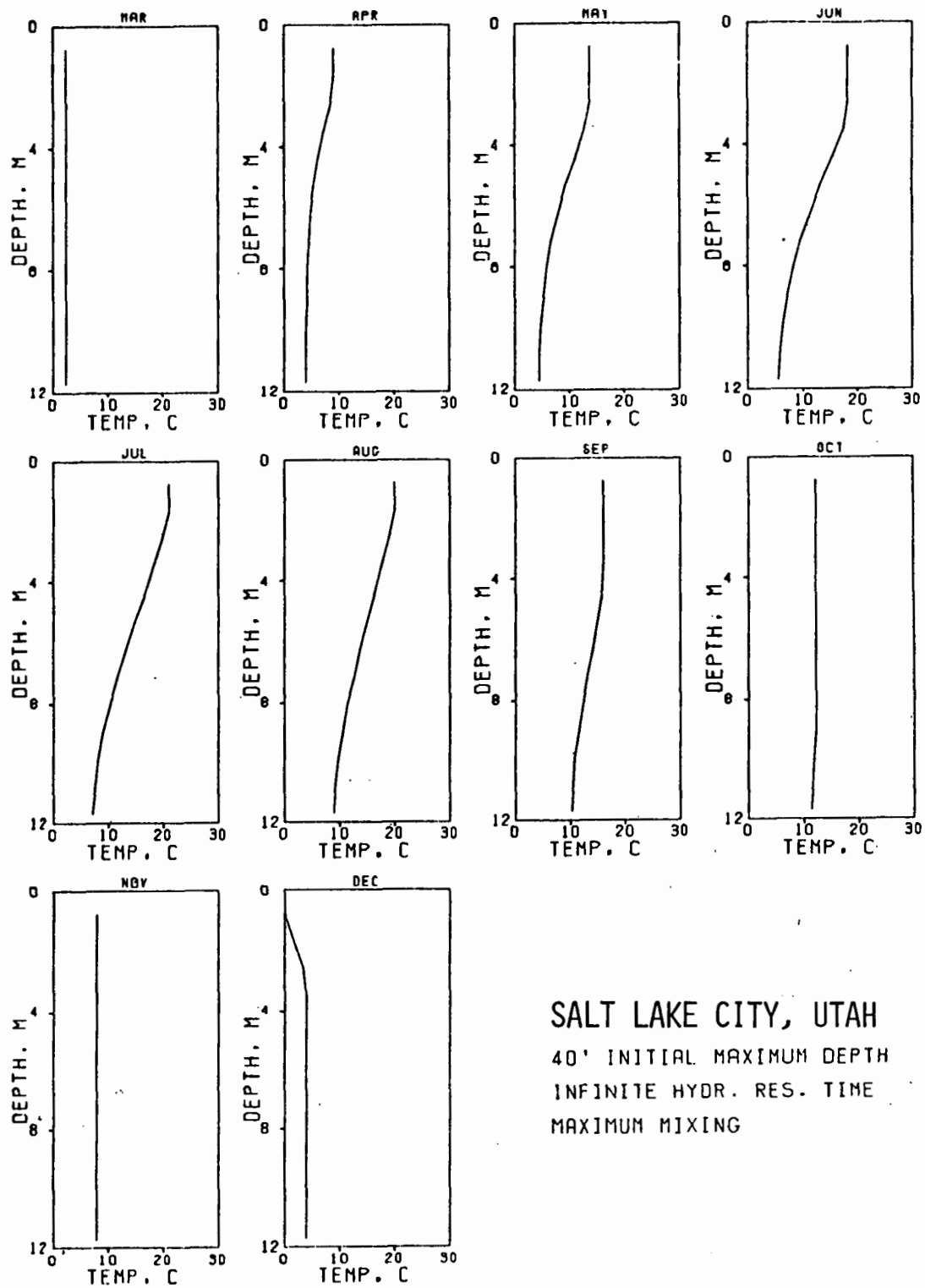
250 DAY HYDR. RES. TIME

MAXIMUM MIXING



SALT LAKE CITY, UTAH

40' INITIAL MAXIMUM DEPTH
250 DAY HYDR. RES. TIME
MINIMUM MIXING

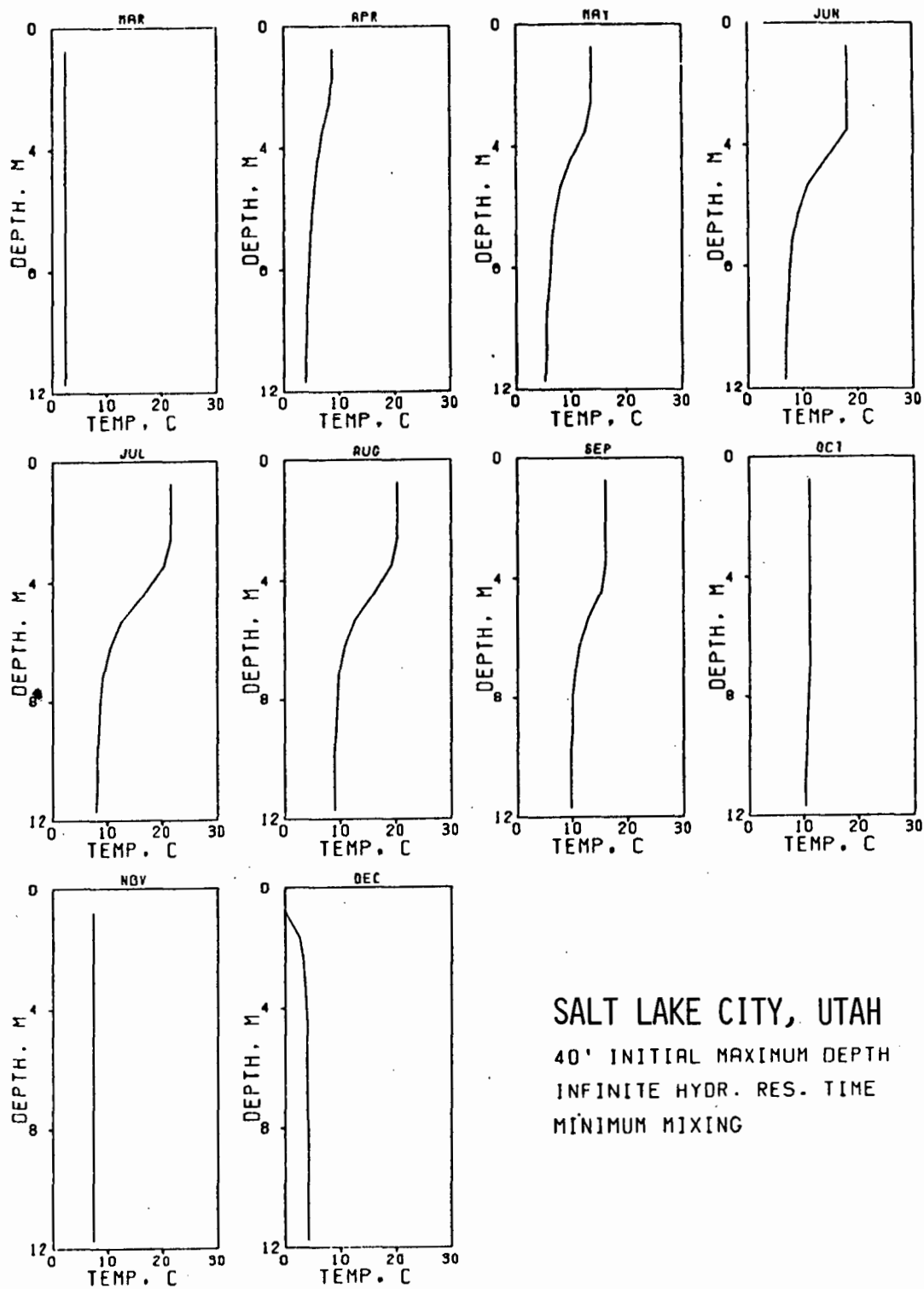


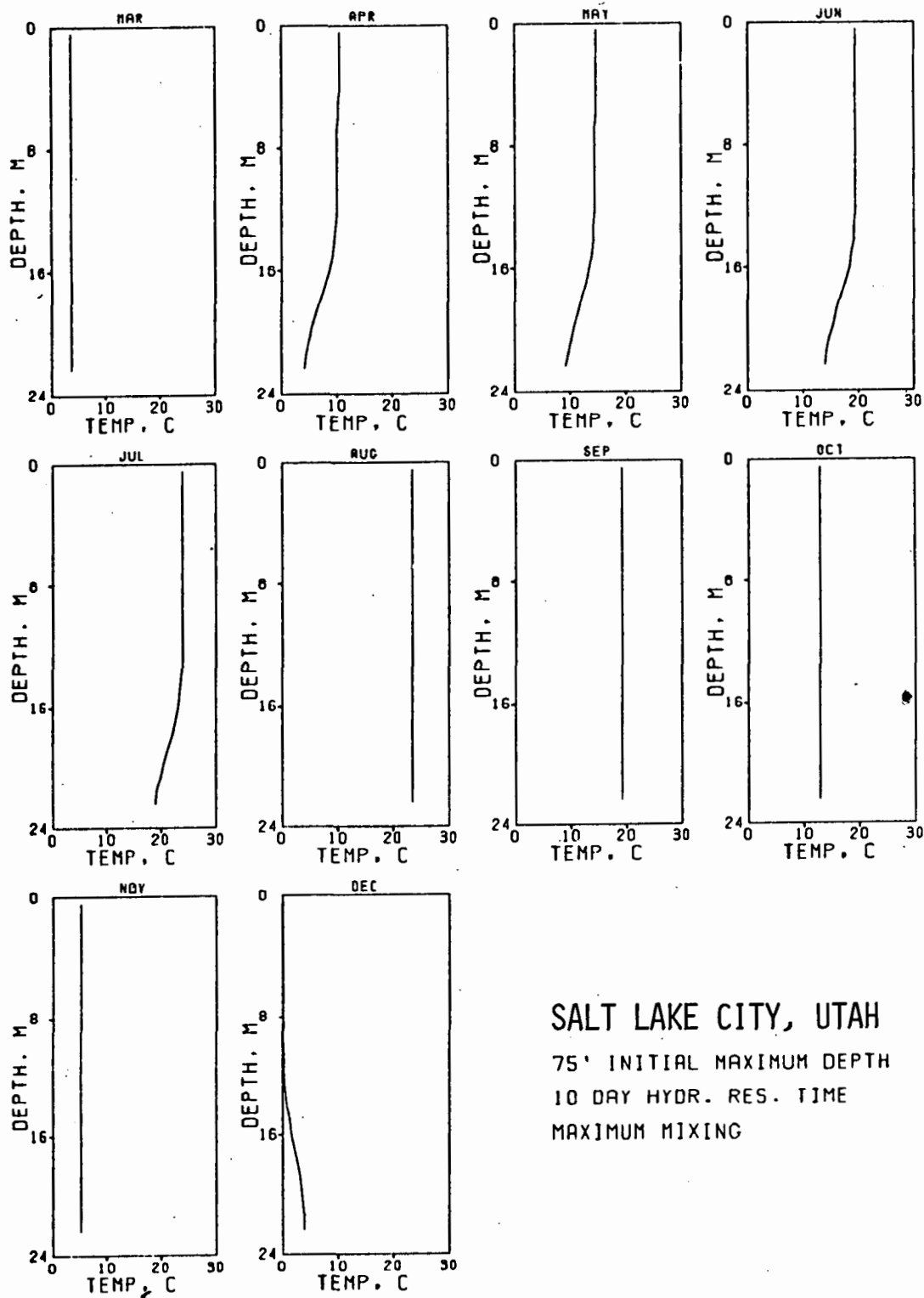
SALT LAKE CITY, UTAH

40' INITIAL MAXIMUM DEPTH

INFINITE HYDR. RES. TIME

MAXIMUM MIXING



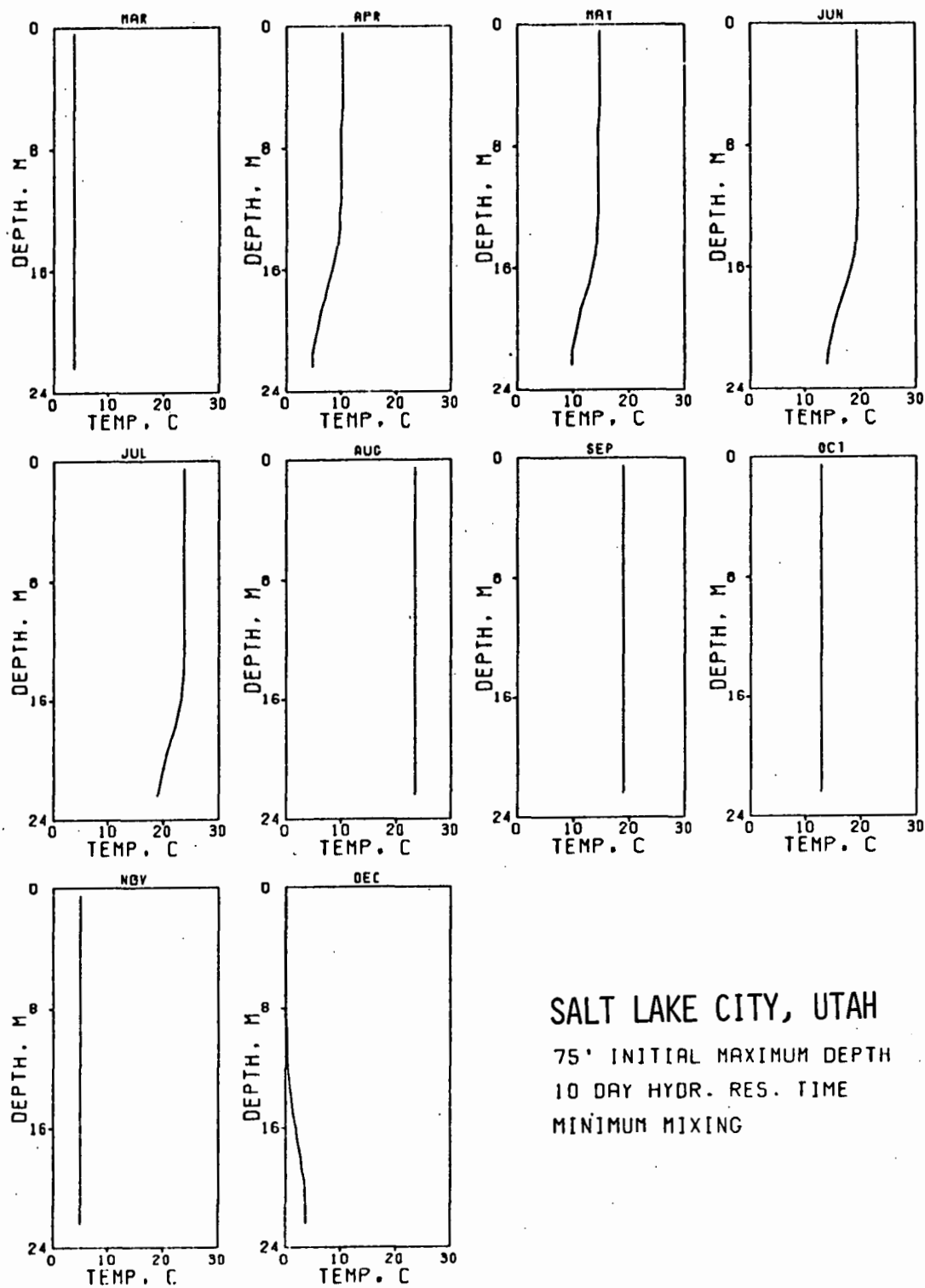


SALT LAKE CITY, UTAH

75' INITIAL MAXIMUM DEPTH

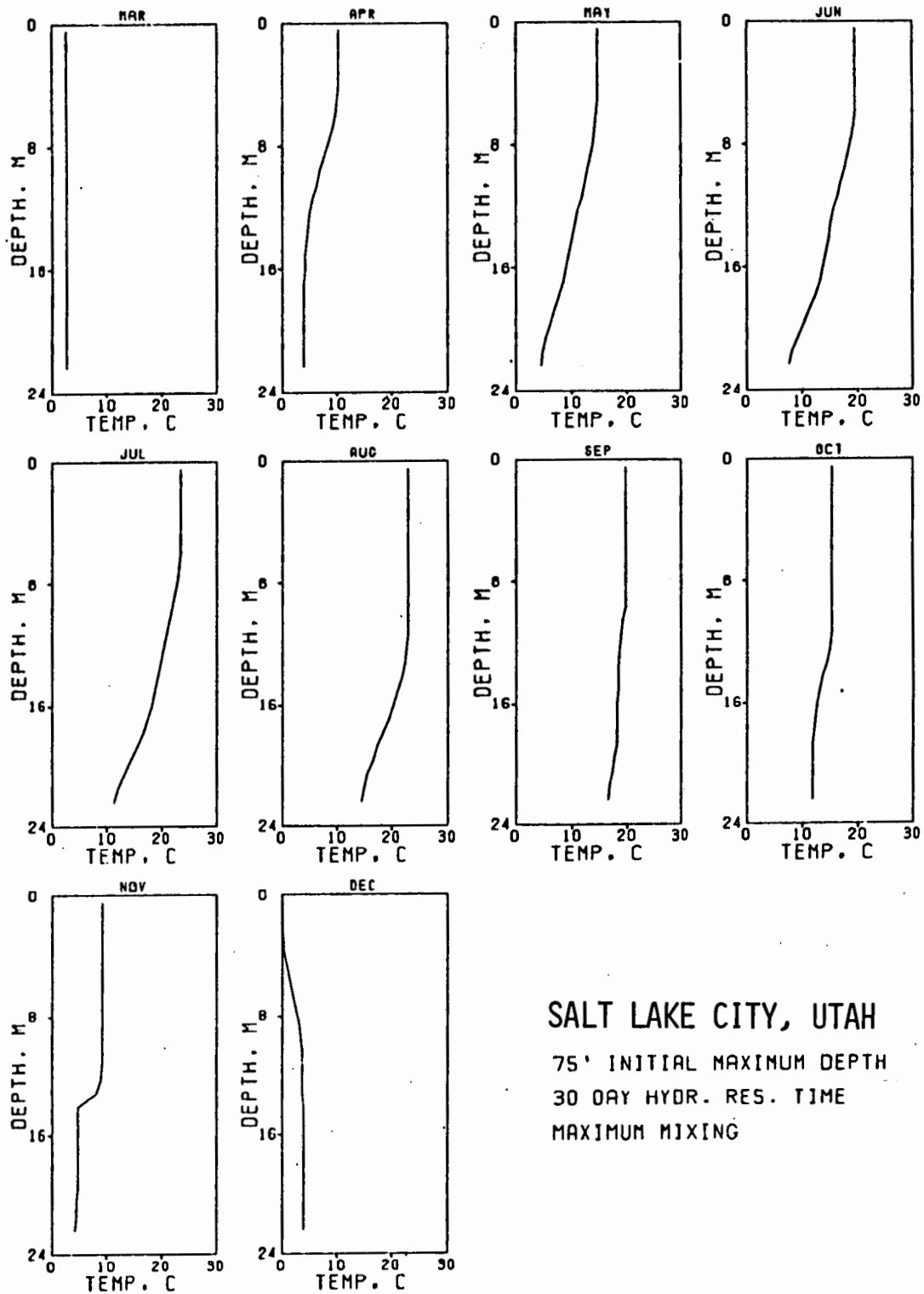
10 DAY HYDR. RES. TIME

MAXIMUM MIXING



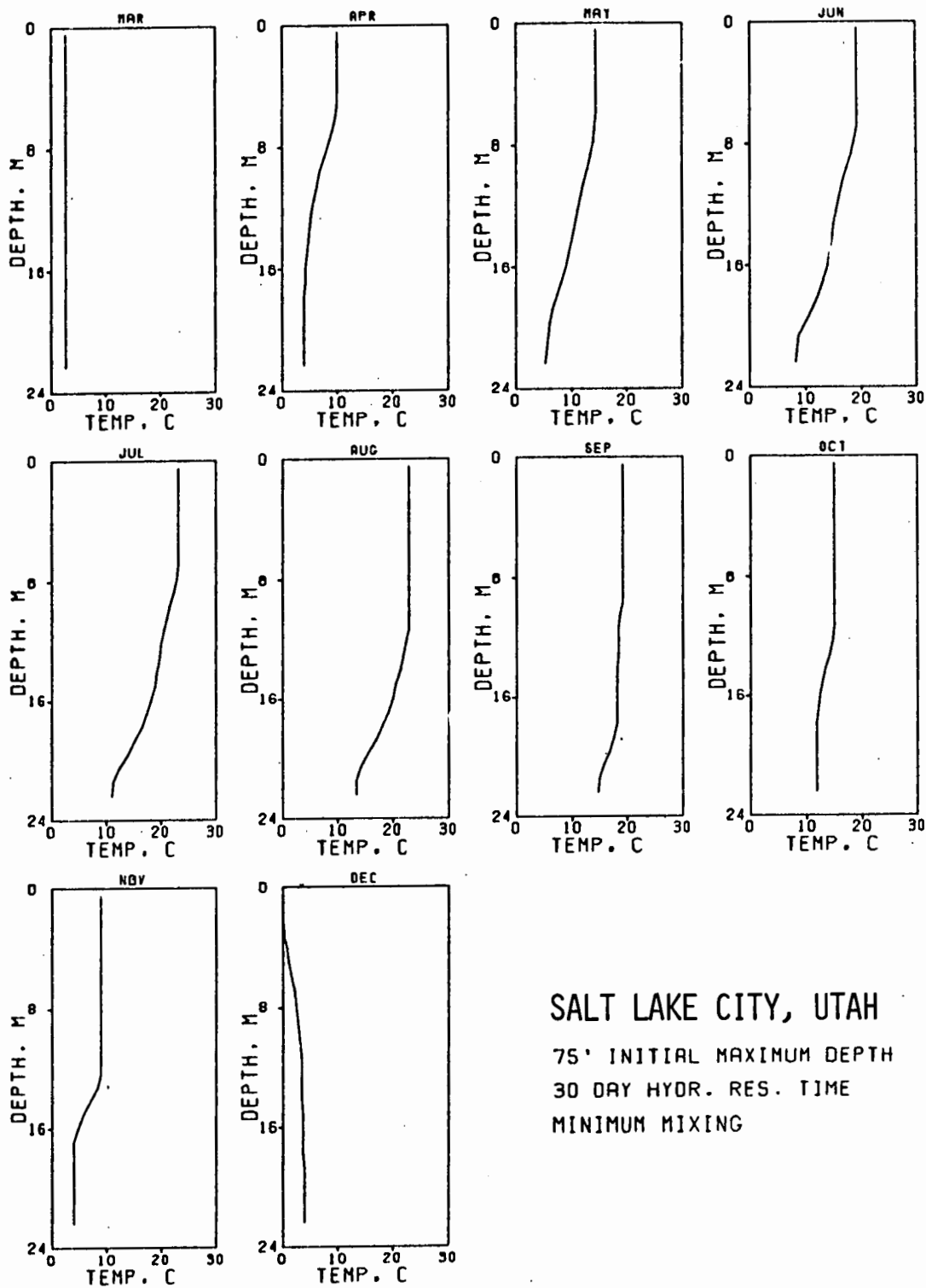
SALT LAKE CITY, UTAH

75' INITIAL MAXIMUM DEPTH
10 DAY HYDR. RES. TIME
MINIMUM MIXING



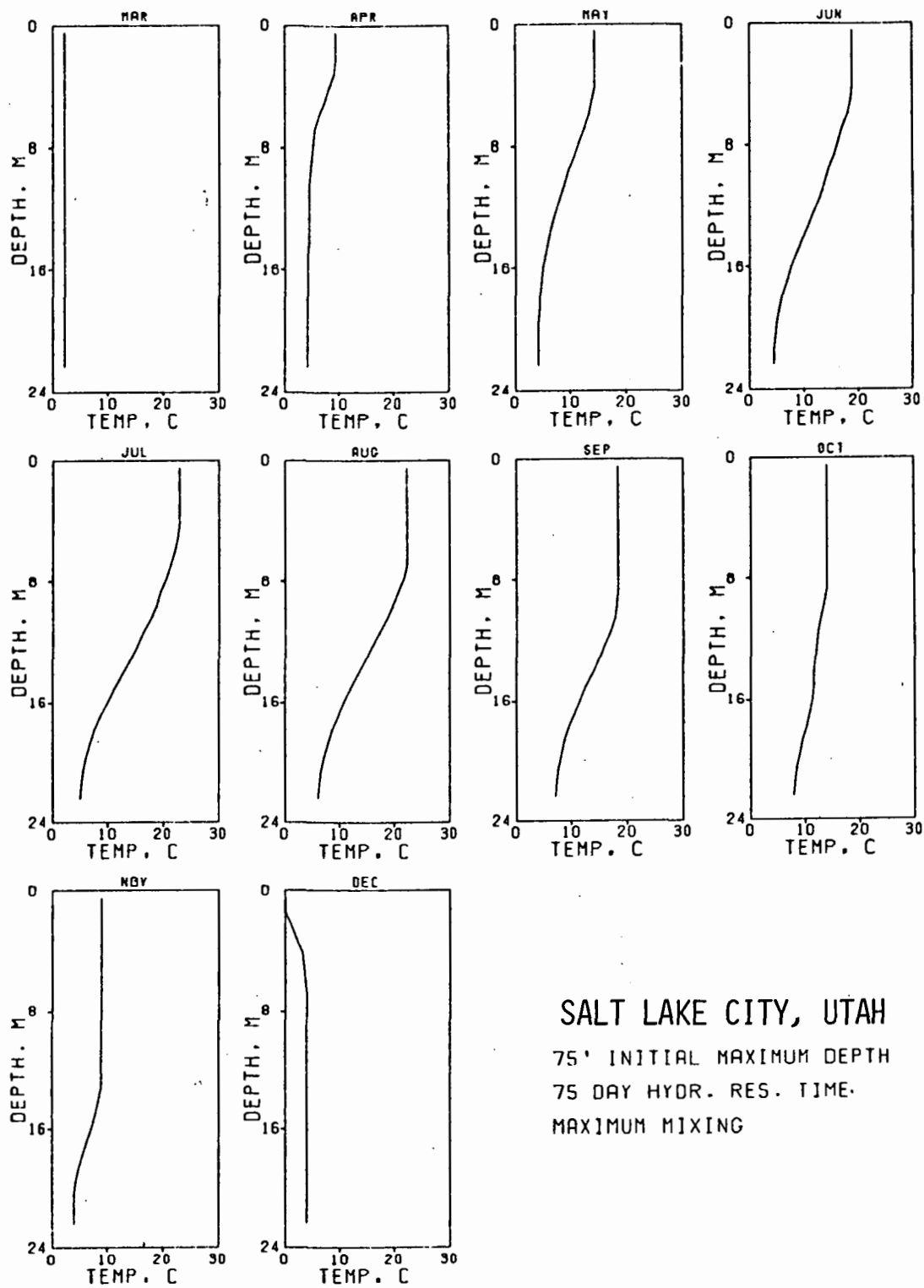
SALT LAKE CITY, UTAH

75' INITIAL MAXIMUM DEPTH
30 DAY HYDR. RES. TIME
MAXIMUM MIXING

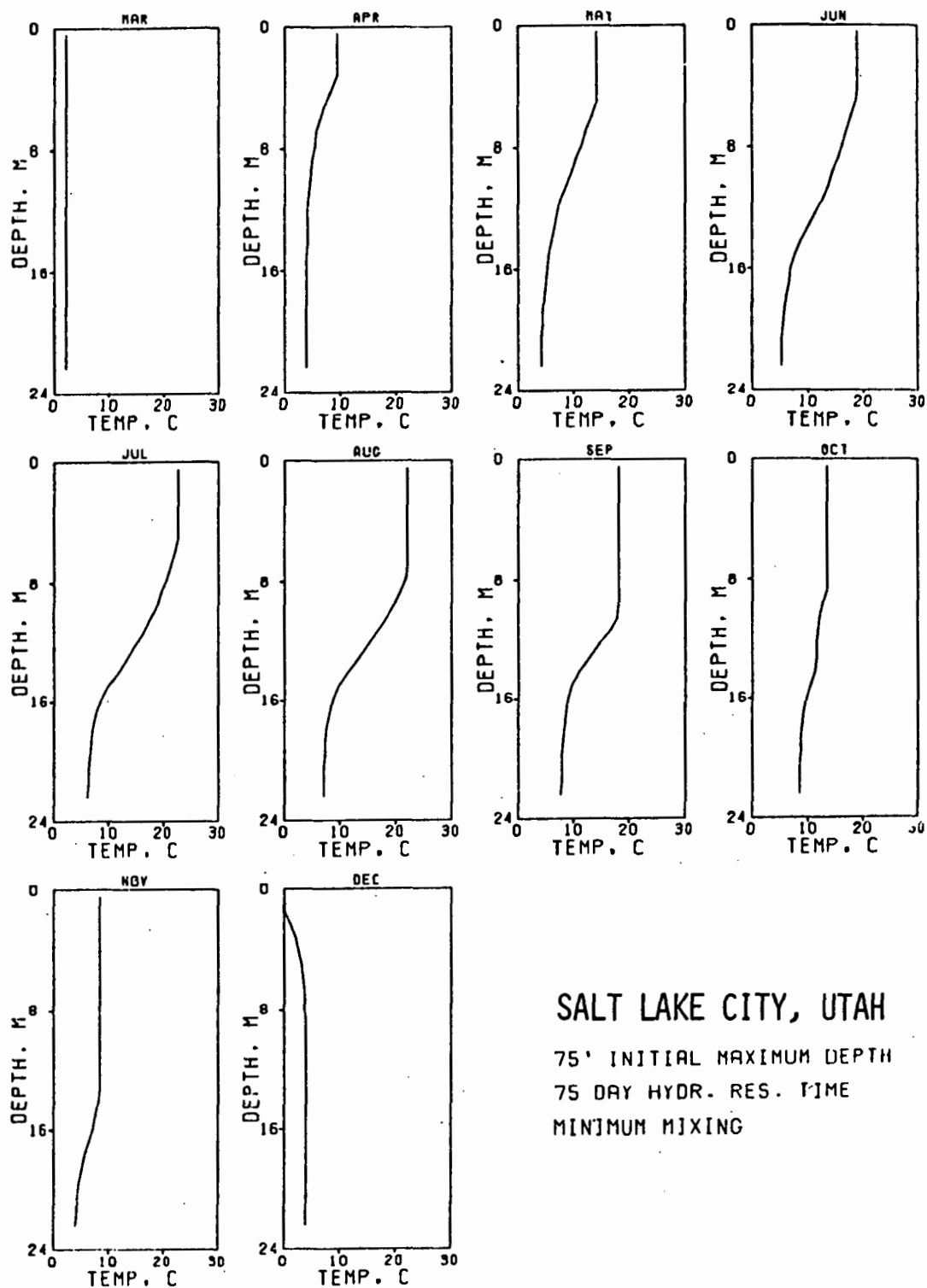


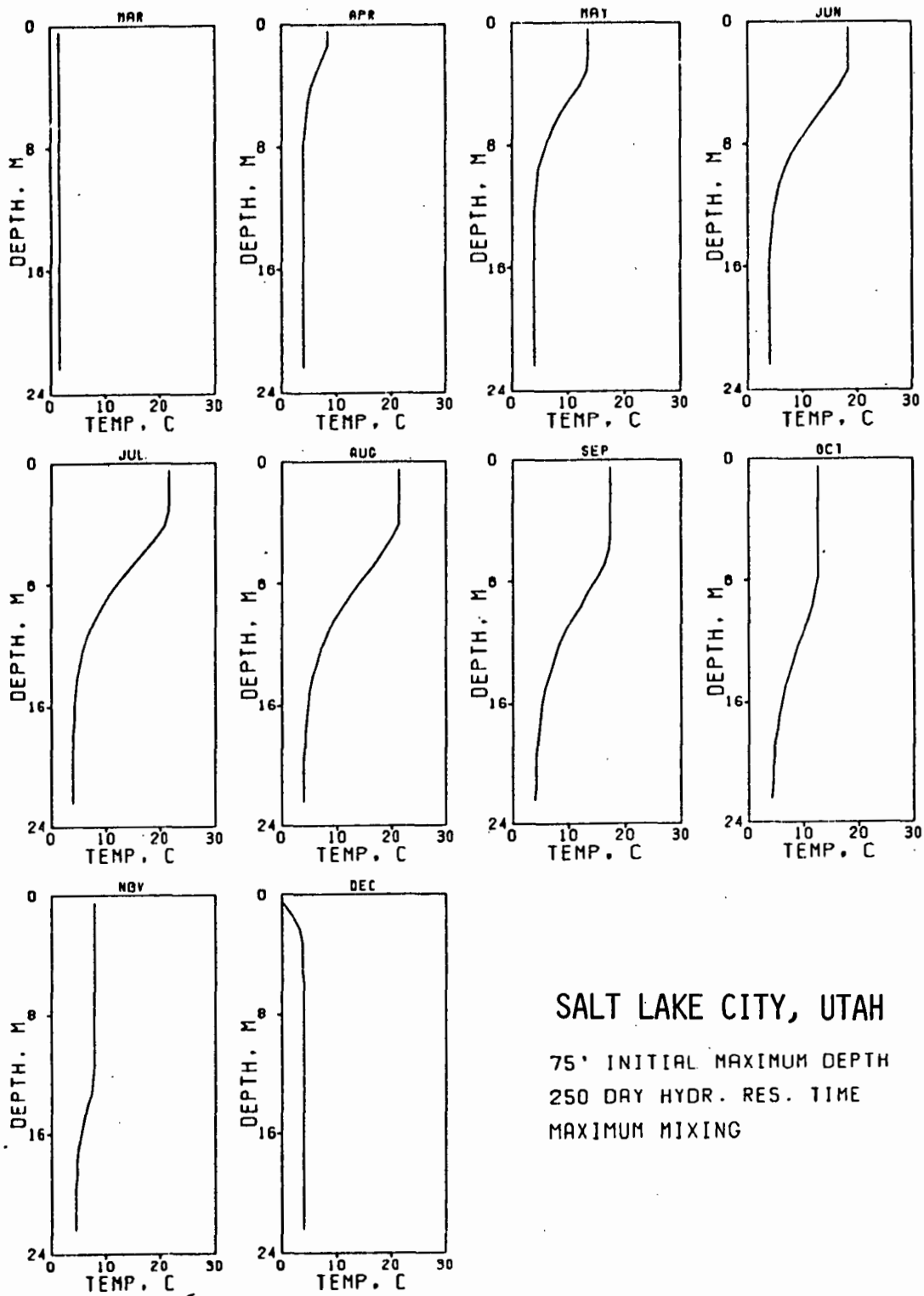
SALT LAKE CITY, UTAH

75' INITIAL MAXIMUM DEPTH
30 DAY HYDR. RES. TIME
MINIMUM MIXING



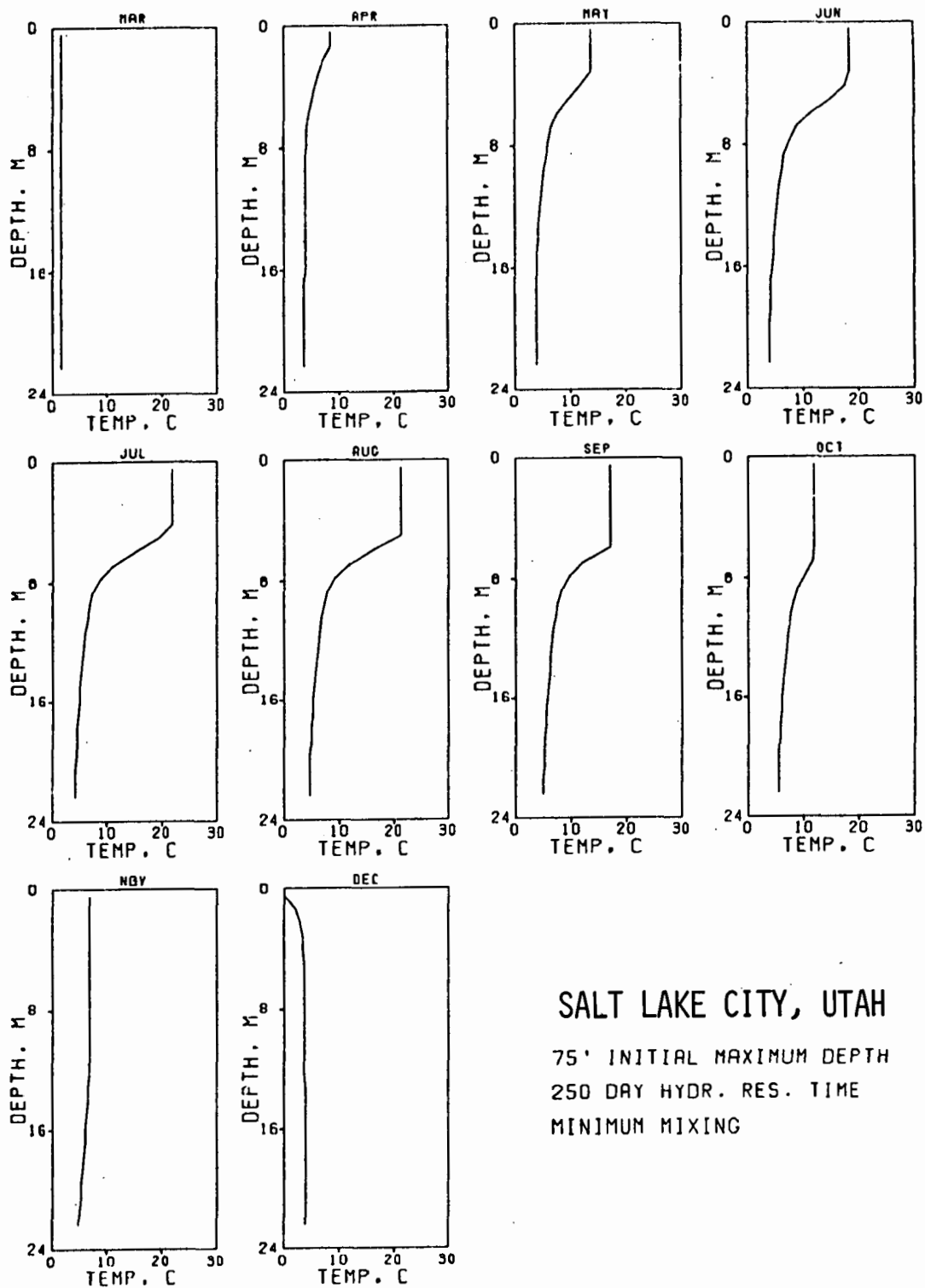
SALT LAKE CITY, UTAH
 75' INITIAL MAXIMUM DEPTH
 75 DAY HYDR. RES. TIME.
 MAXIMUM MIXING





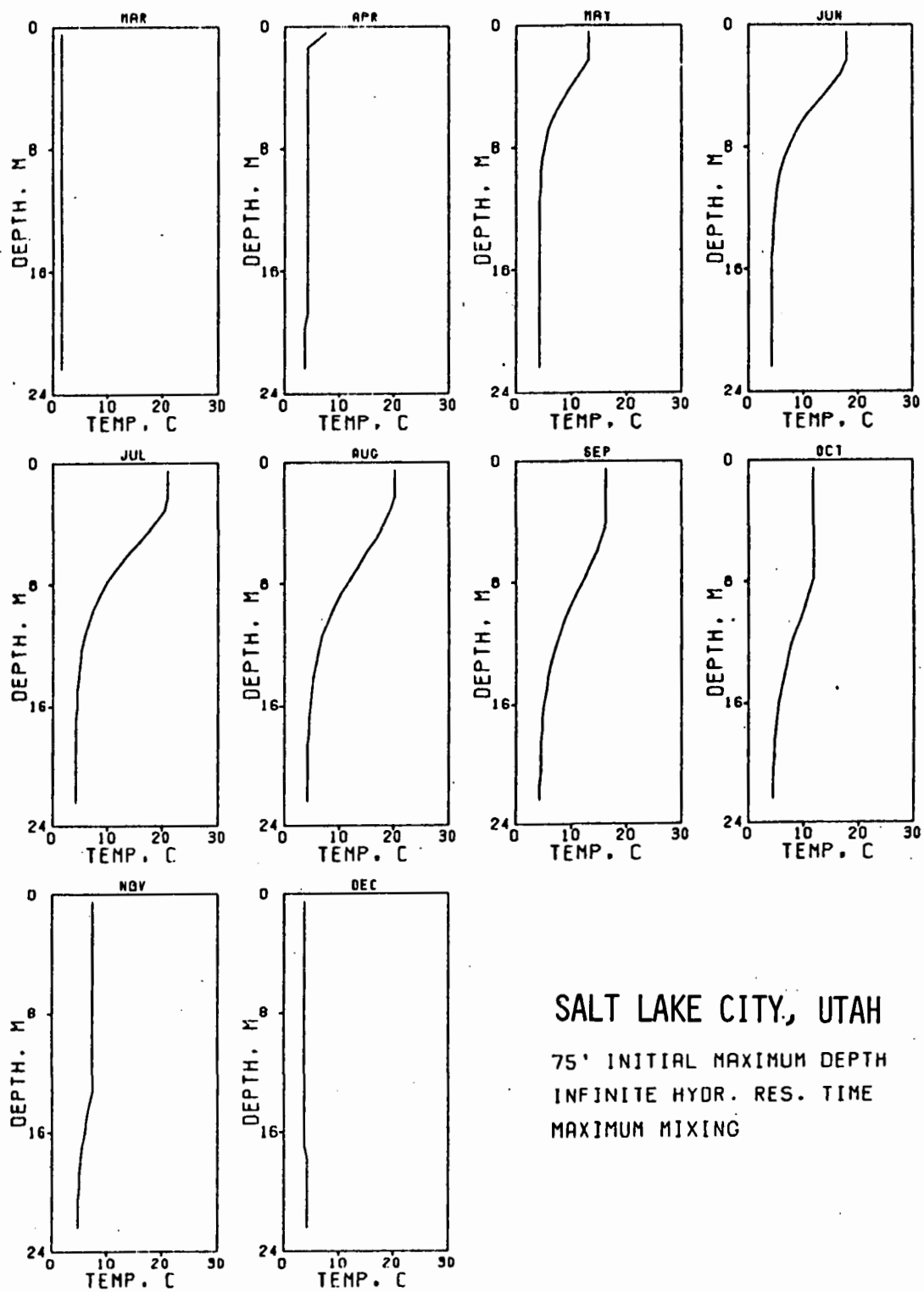
SALT LAKE CITY, UTAH

75' INITIAL MAXIMUM DEPTH
250 DAY HYDR. RES. TIME
MAXIMUM MIXING



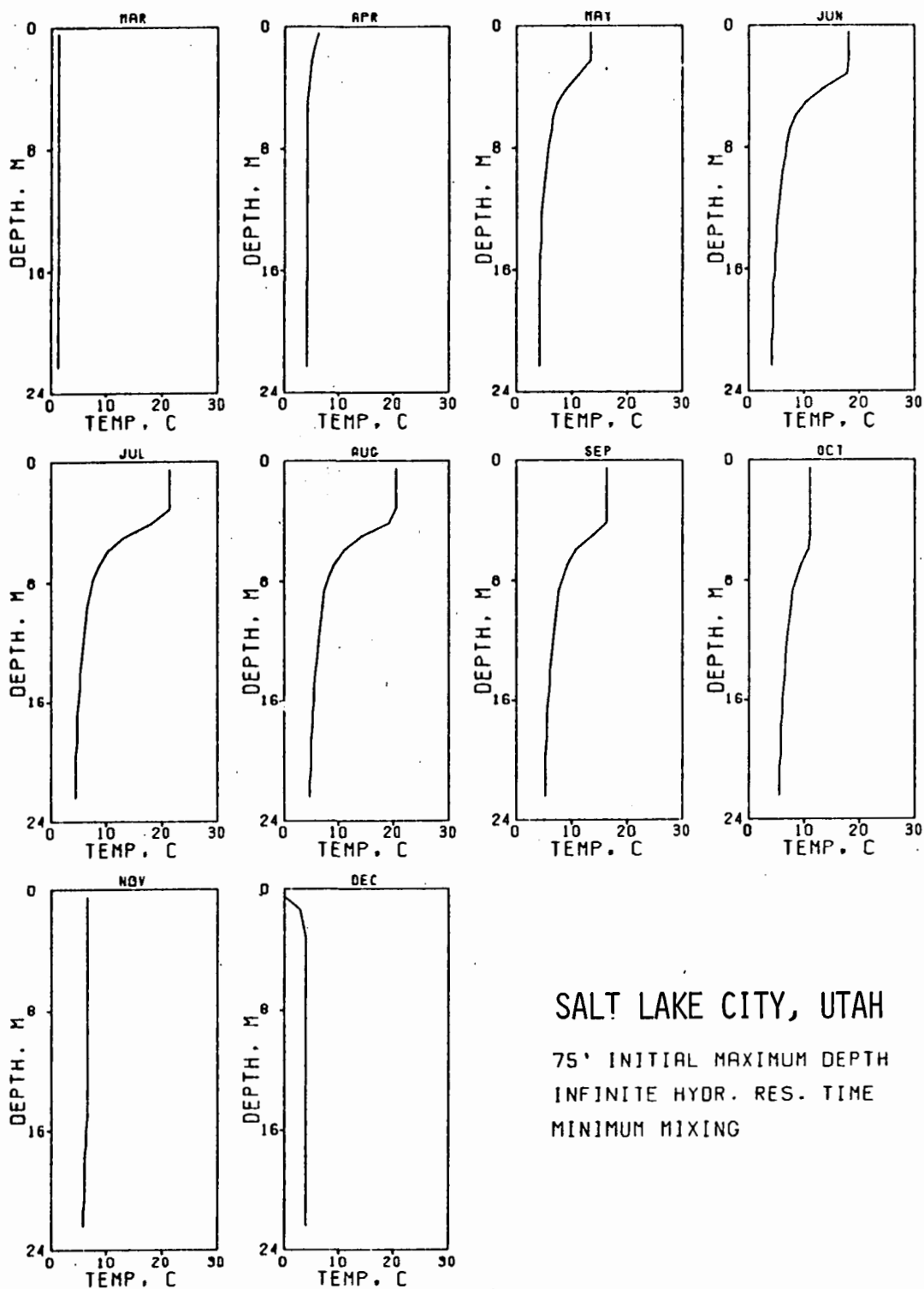
SALT LAKE CITY, UTAH

75' INITIAL MAXIMUM DEPTH
250 DAY HYDR. RES. TIME
MINIMUM MIXING



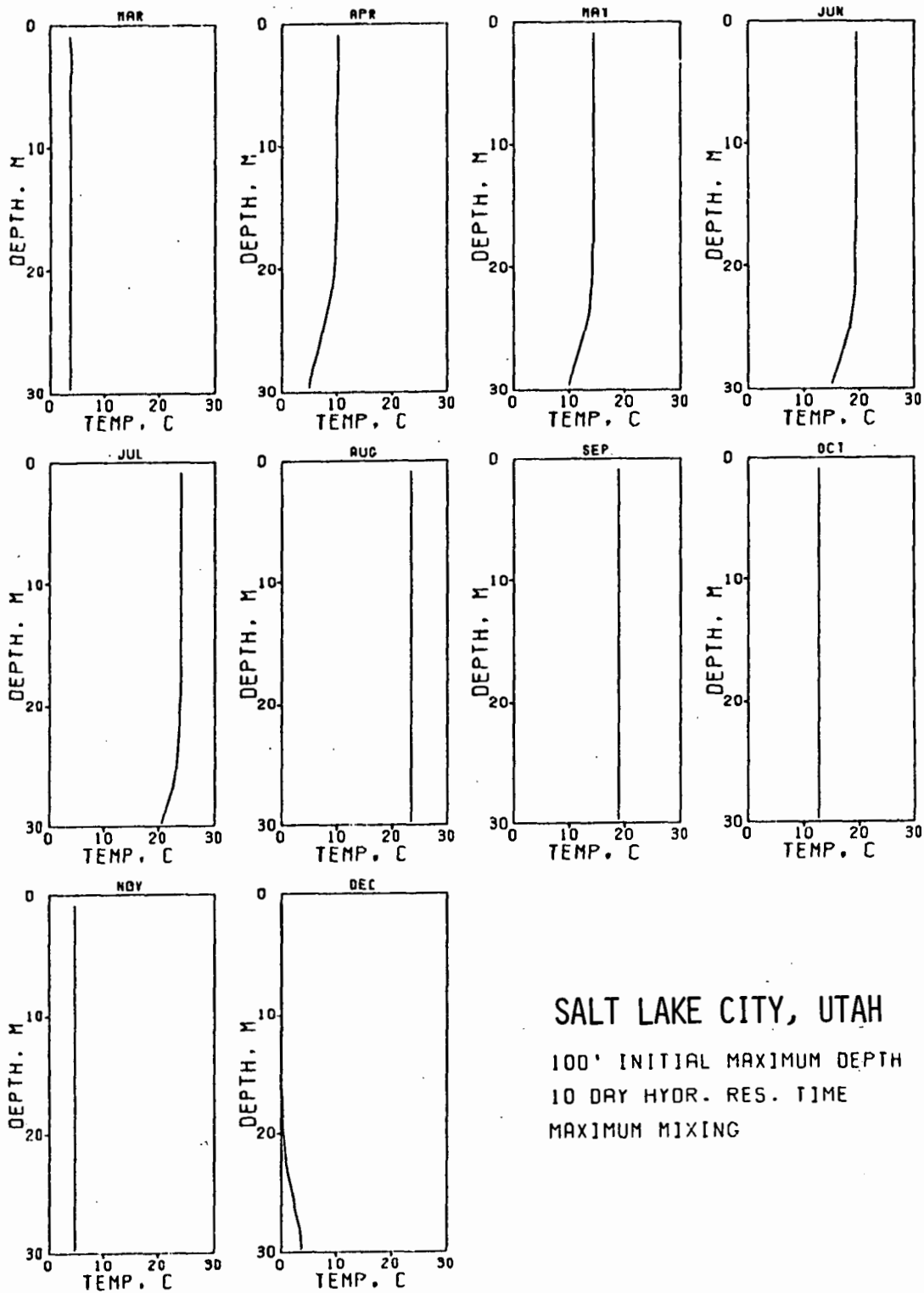
SALT LAKE CITY, UTAH

75' INITIAL MAXIMUM DEPTH
INFINITE HYDR. RES. TIME
MAXIMUM MIXING



SALT LAKE CITY, UTAH

75' INITIAL MAXIMUM DEPTH
INFINITE HYDR. RES. TIME
MINIMUM MIXING

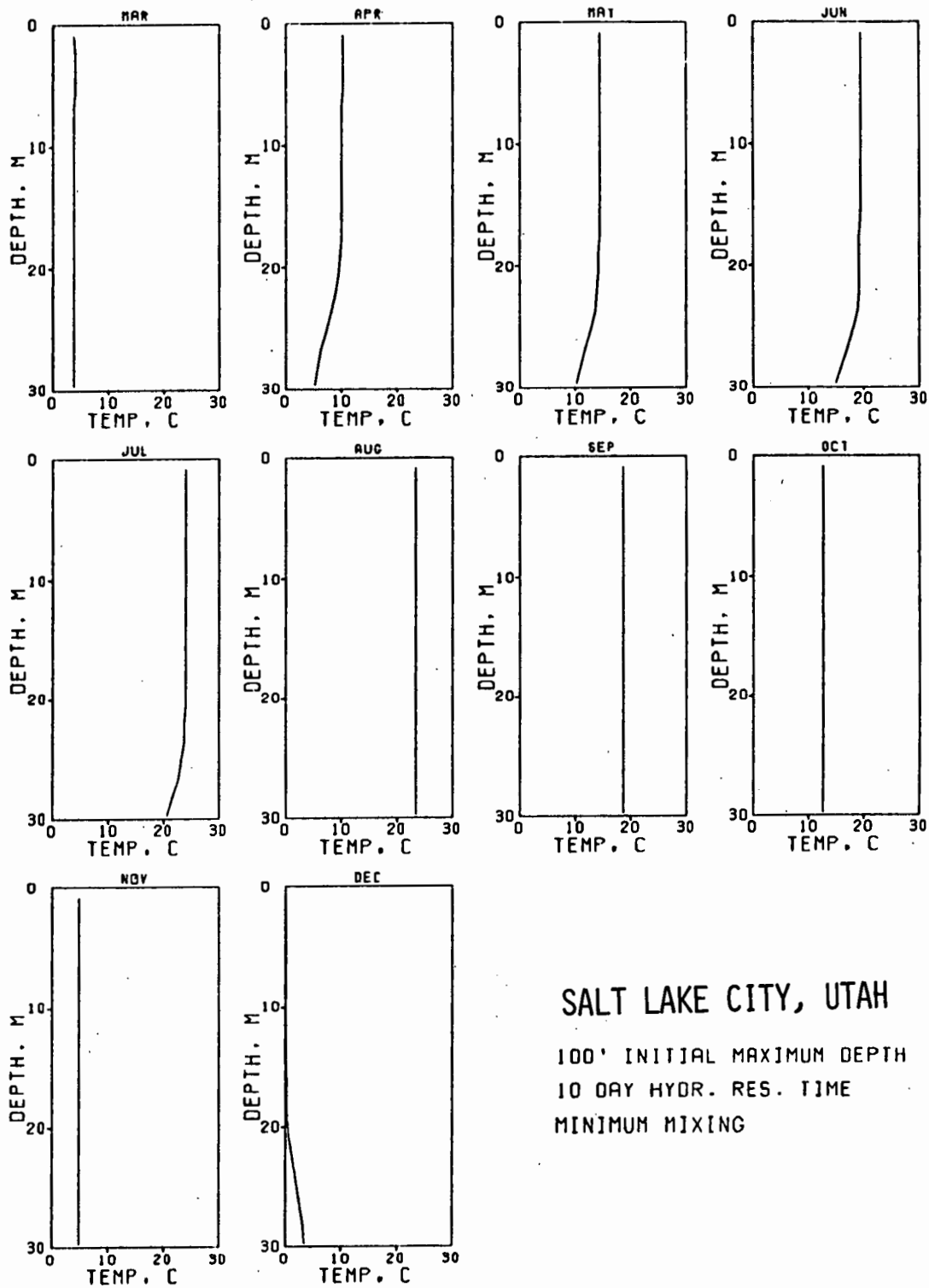


SALT LAKE CITY, UTAH

100' INITIAL MAXIMUM DEPTH

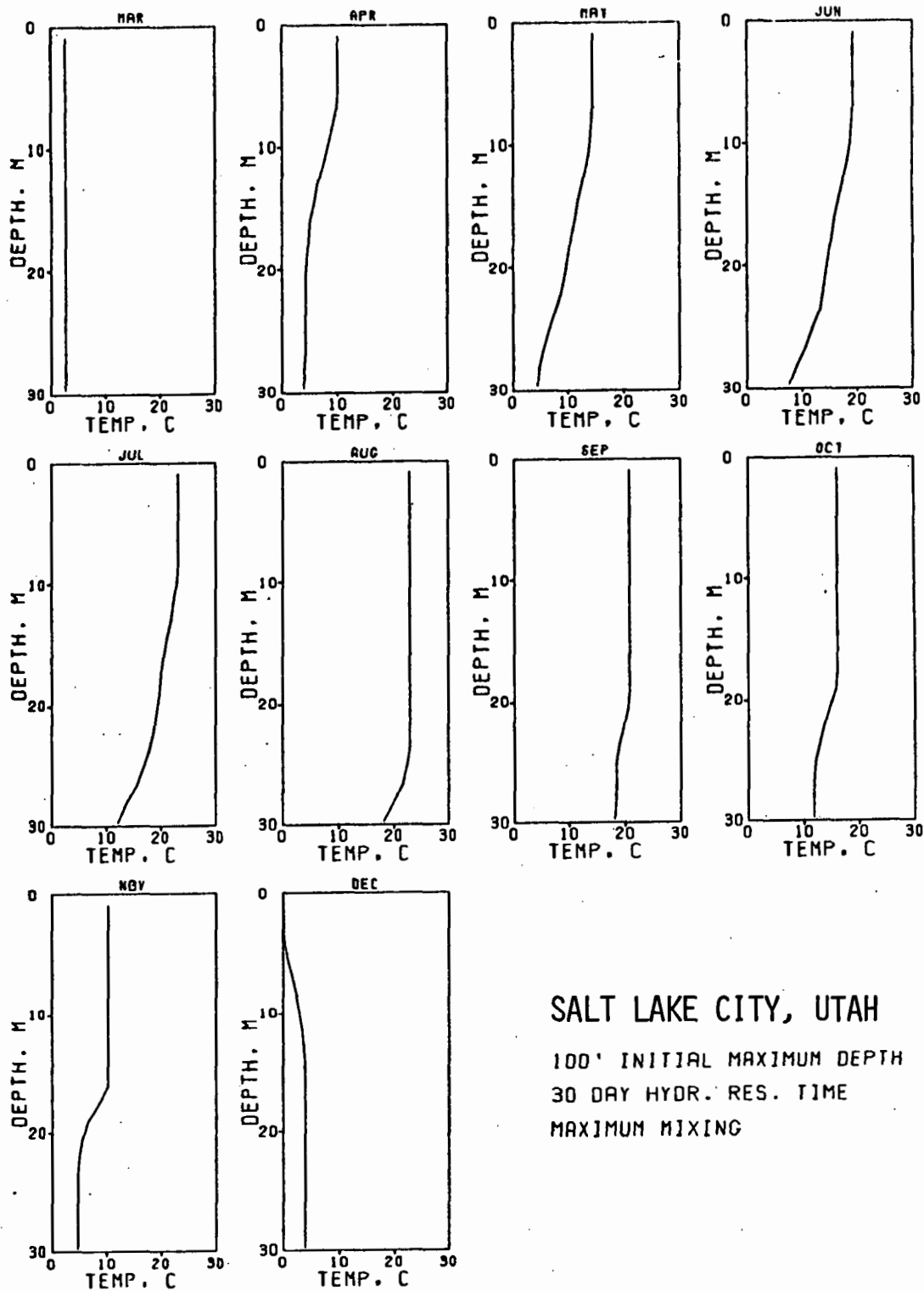
10 DAY HYDR. RES. TIME

MAXIMUM MIXING



SALT LAKE CITY, UTAH

100' INITIAL MAXIMUM DEPTH
10 DAY HYDR. RES. TIME
MINIMUM MIXING

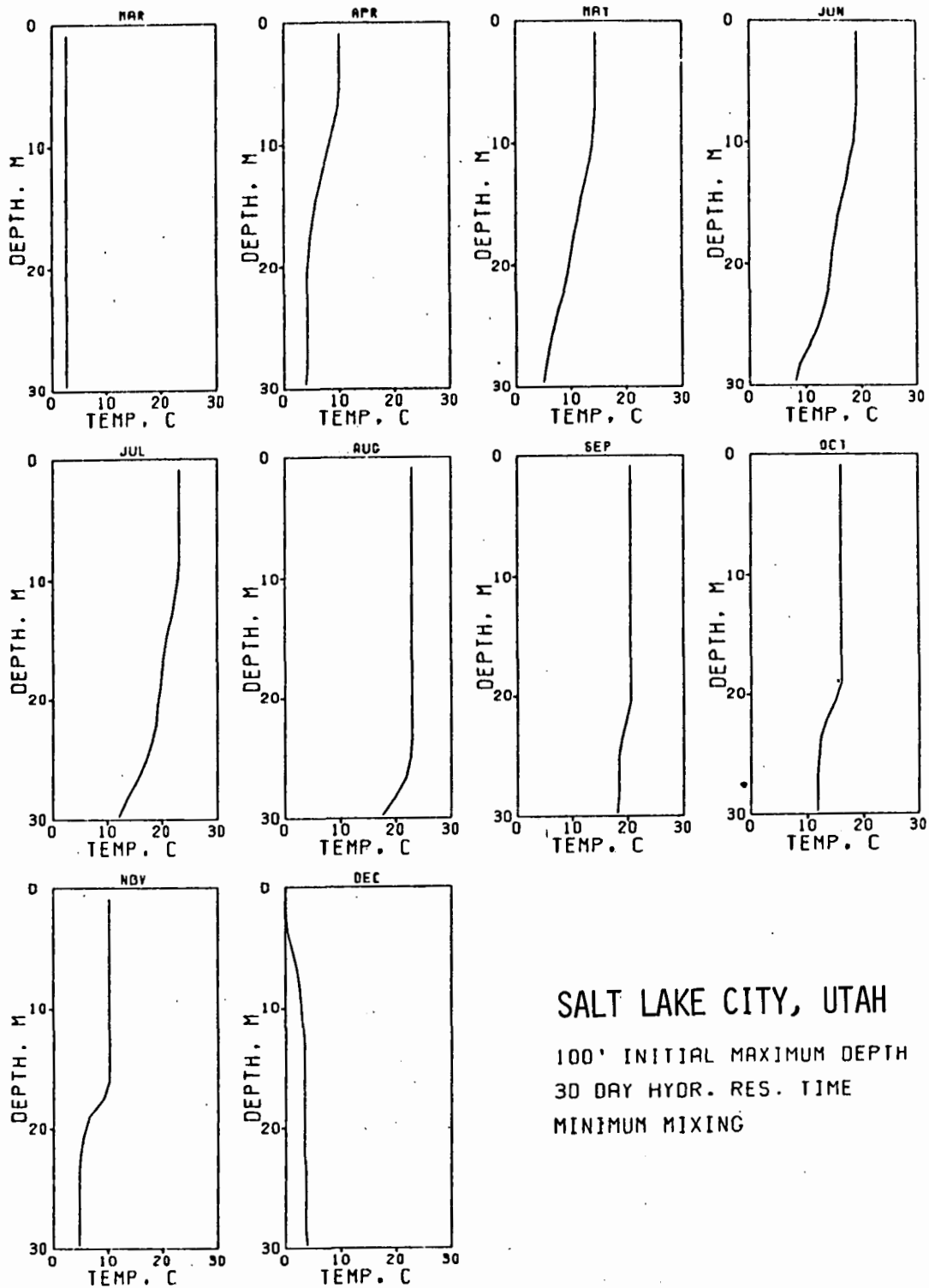


SALT LAKE CITY, UTAH

100' INITIAL MAXIMUM DEPTH

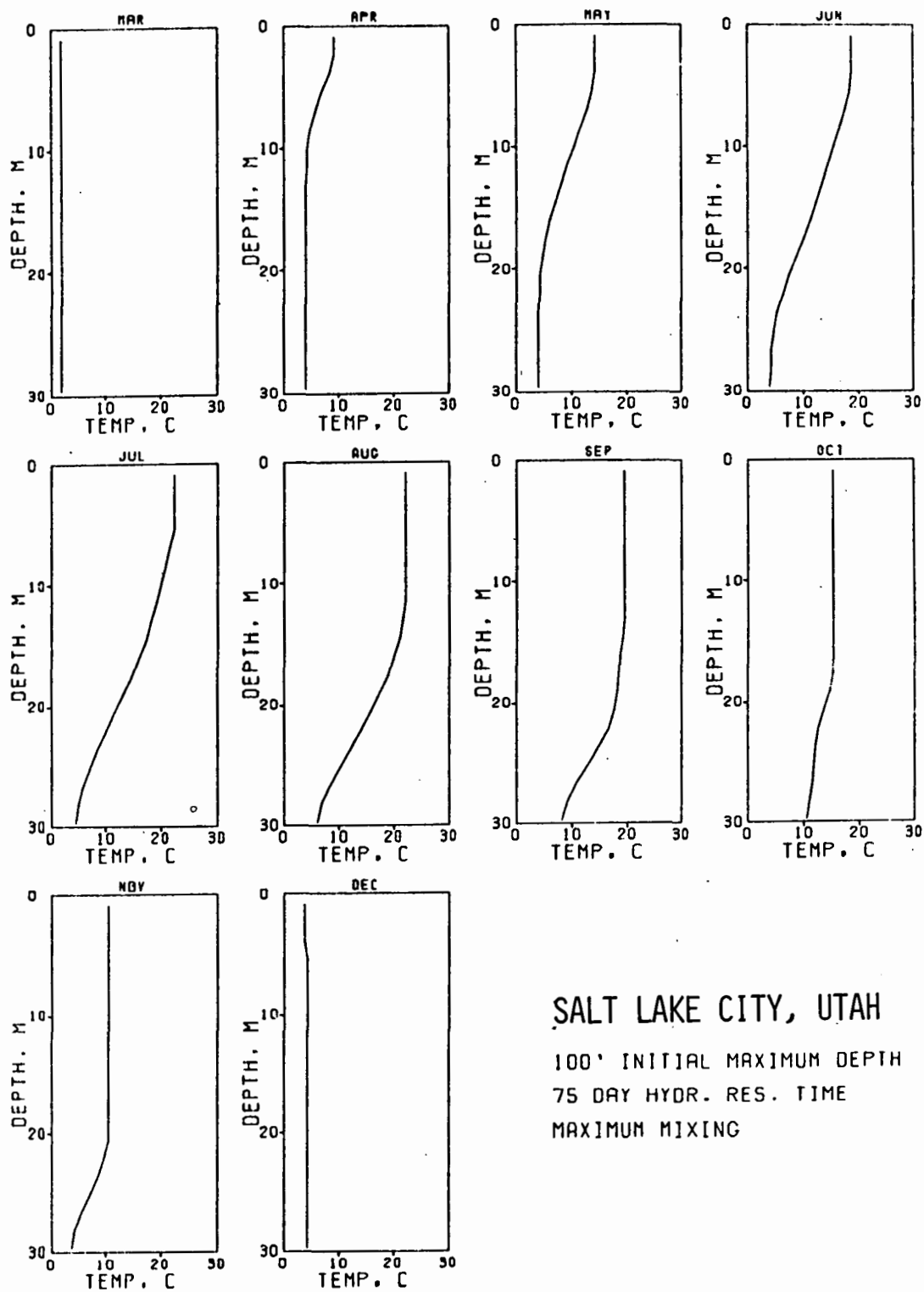
30 DAY HYDR. RES. TIME

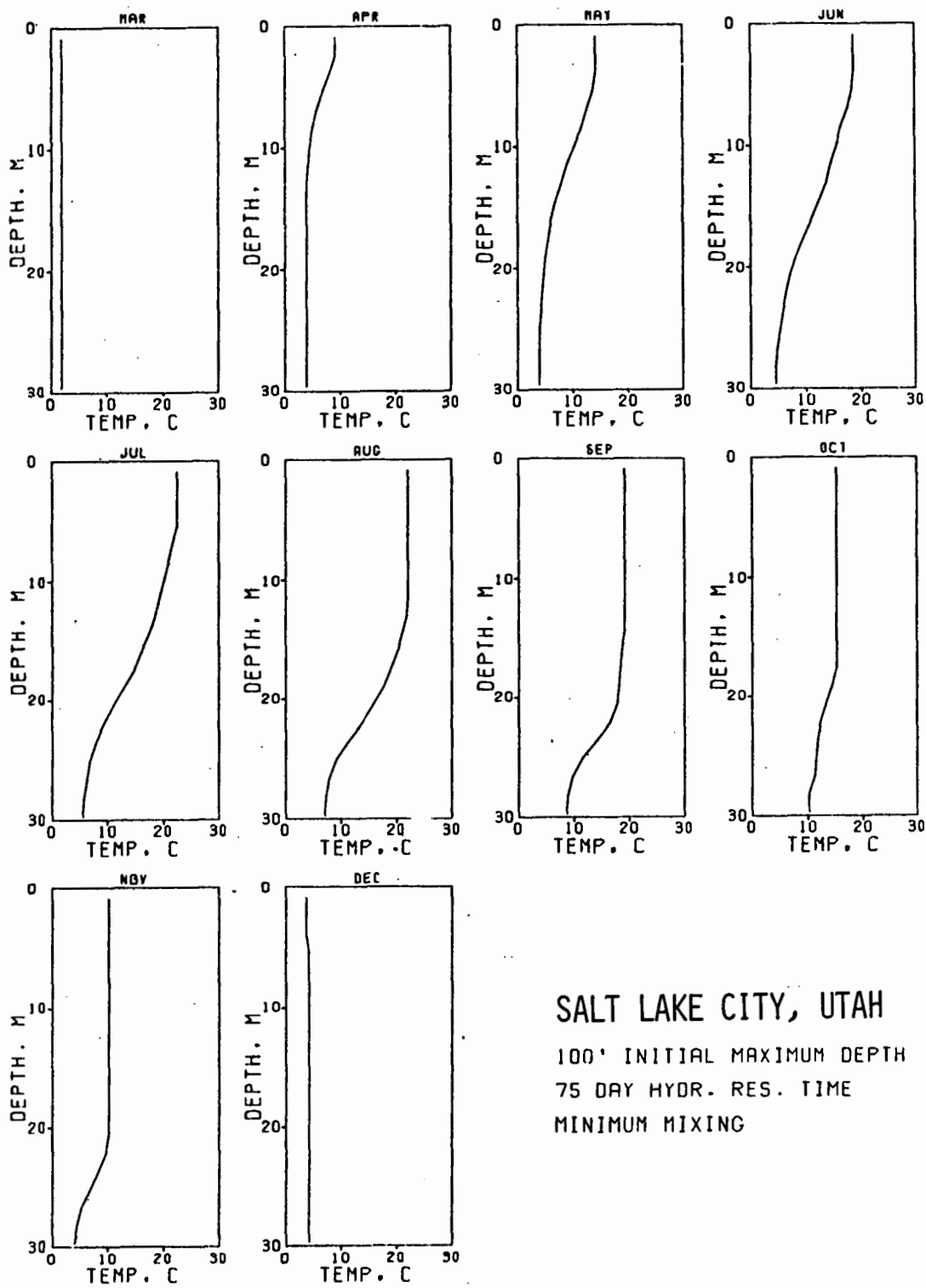
MAXIMUM MIXING



SALT LAKE CITY, UTAH

100' INITIAL MAXIMUM DEPTH
 30 DAY HYDR. RES. TIME
 MINIMUM MIXING



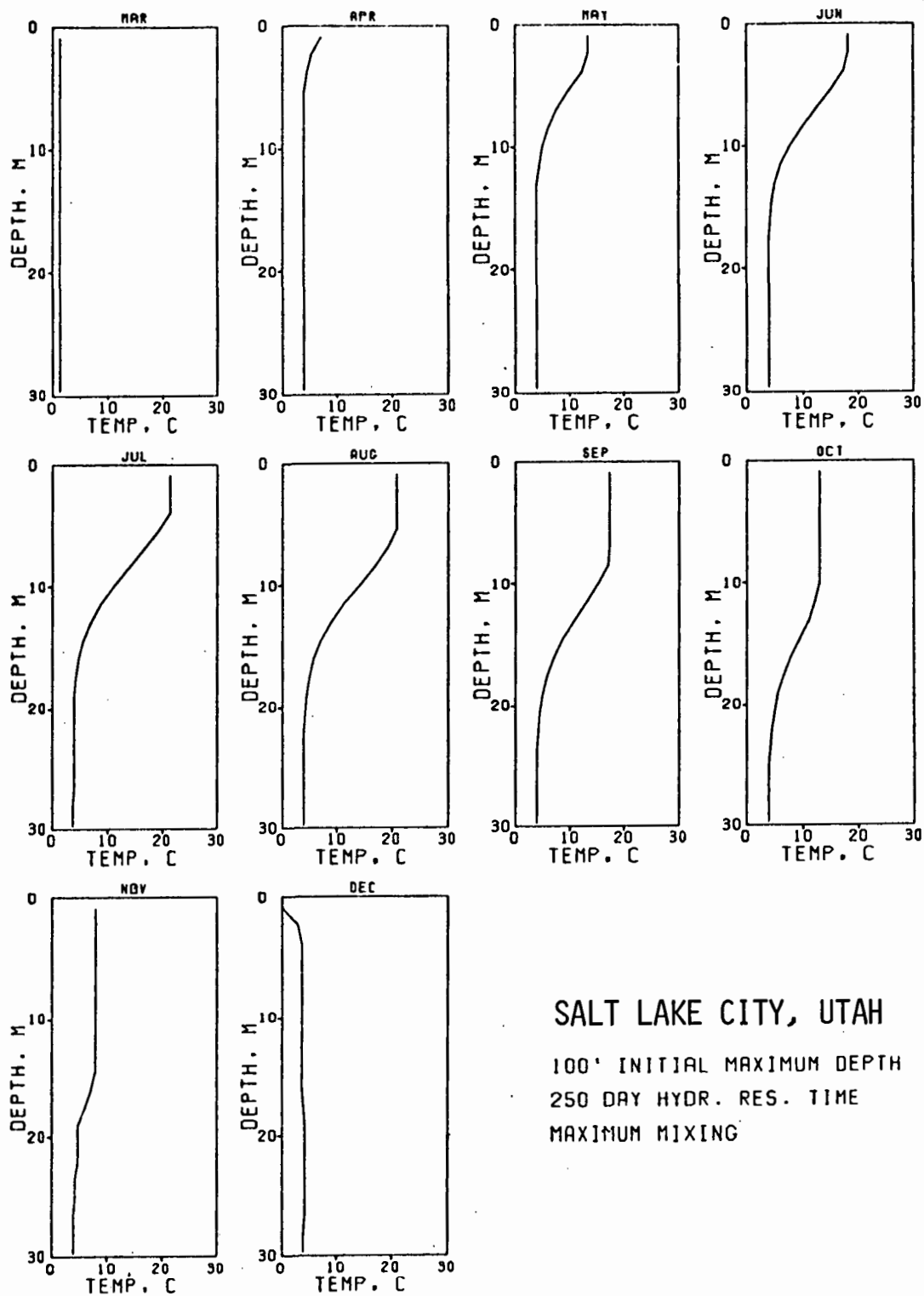


SALT LAKE CITY, UTAH

100' INITIAL MAXIMUM DEPTH

75 DAY HYDR. RES. TIME

MINIMUM MIXING

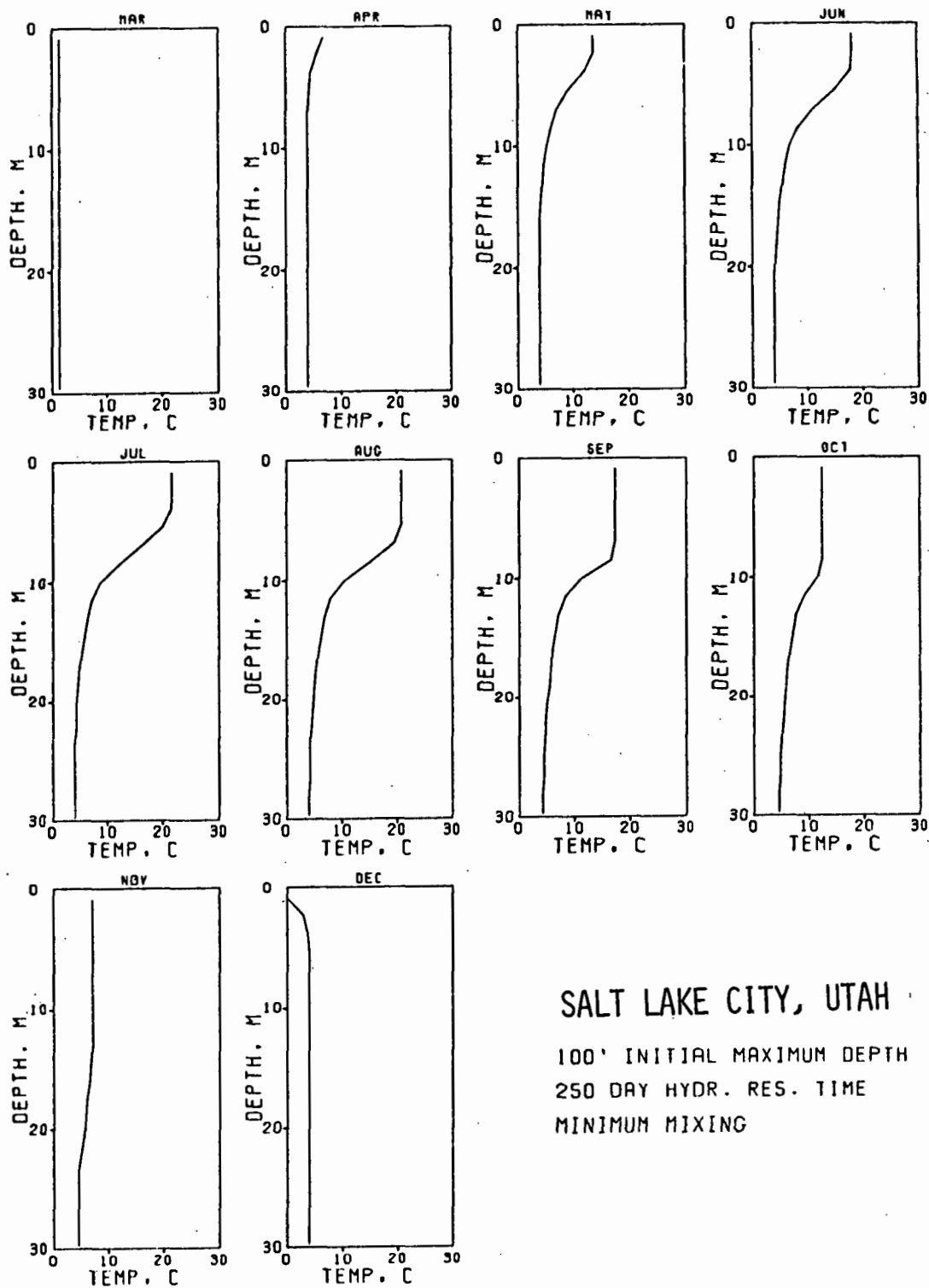


SALT LAKE CITY, UTAH

100' INITIAL MAXIMUM DEPTH

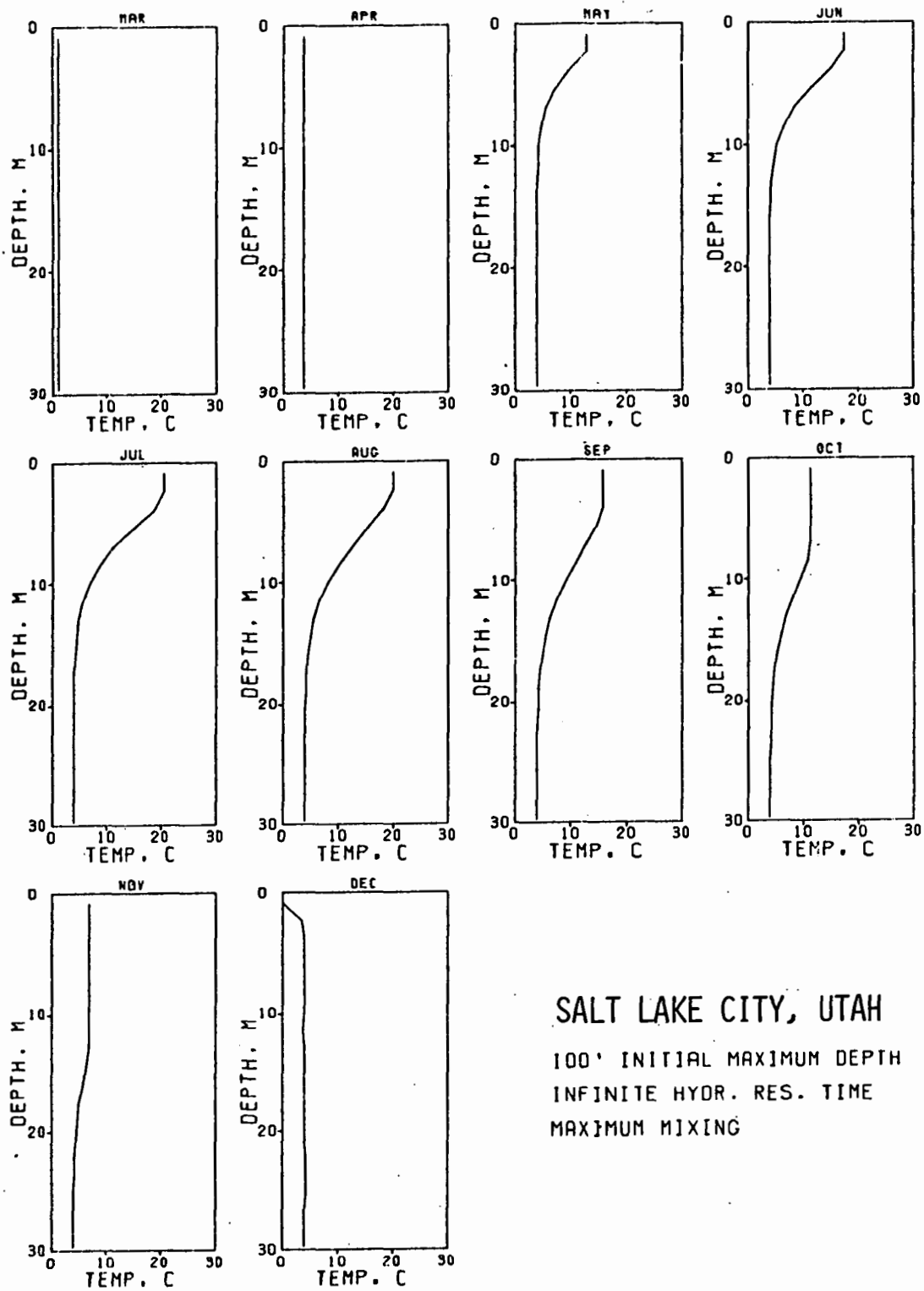
250 DAY HYDR. RES. TIME

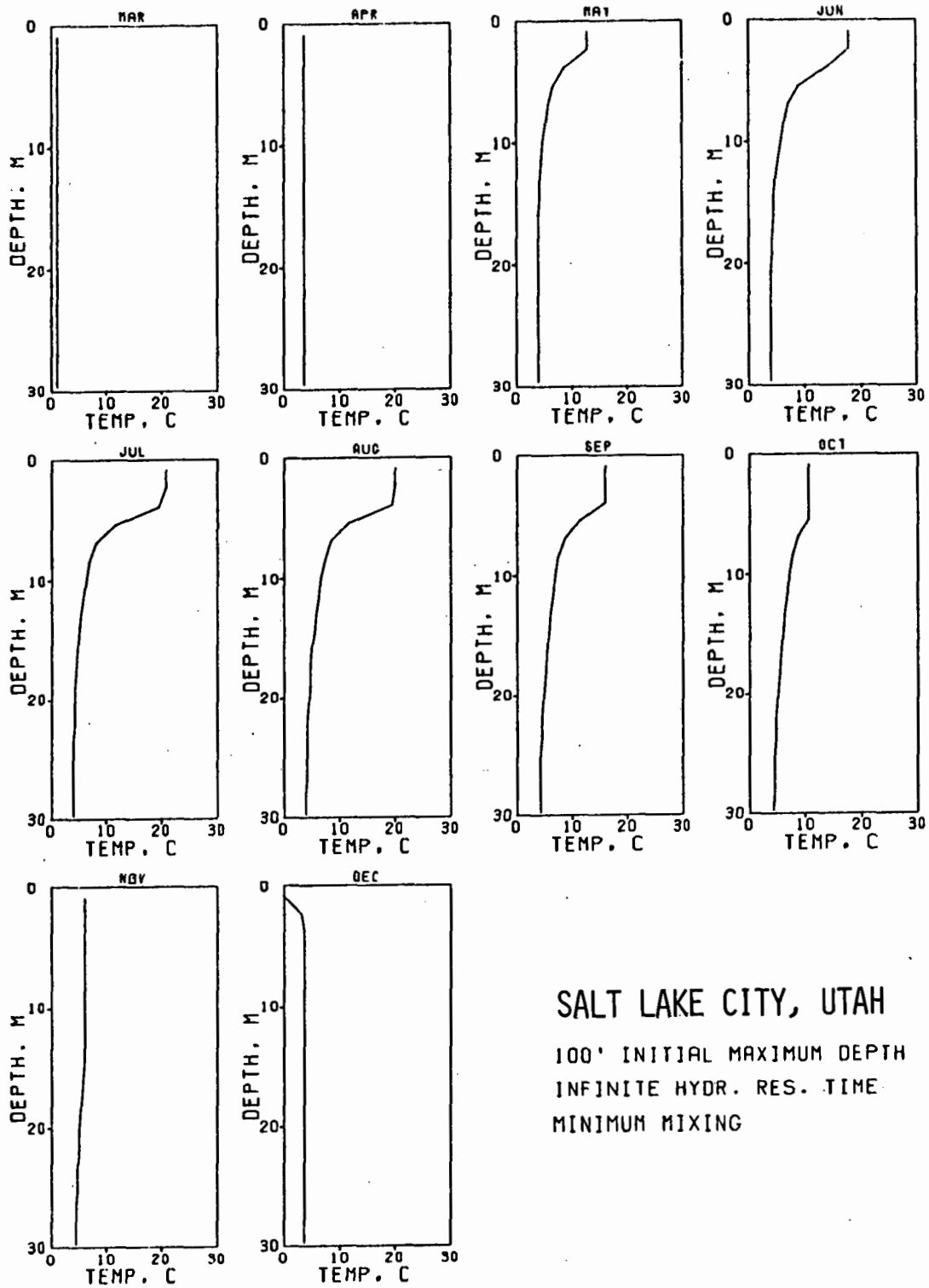
MAXIMUM MIXING



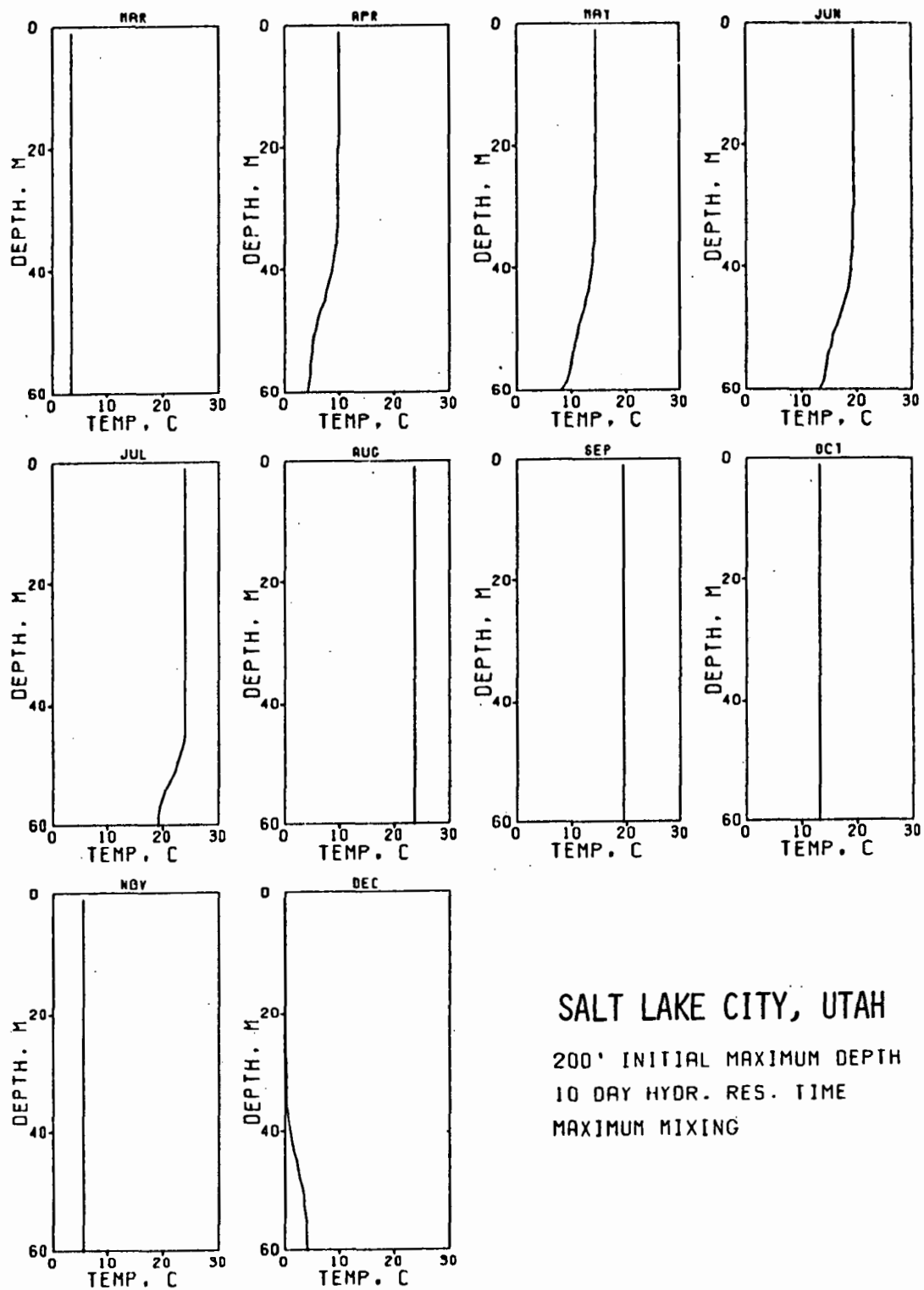
SALT LAKE CITY, UTAH

100' INITIAL MAXIMUM DEPTH
 250 DAY HYDR. RES. TIME
 MINIMUM MIXING



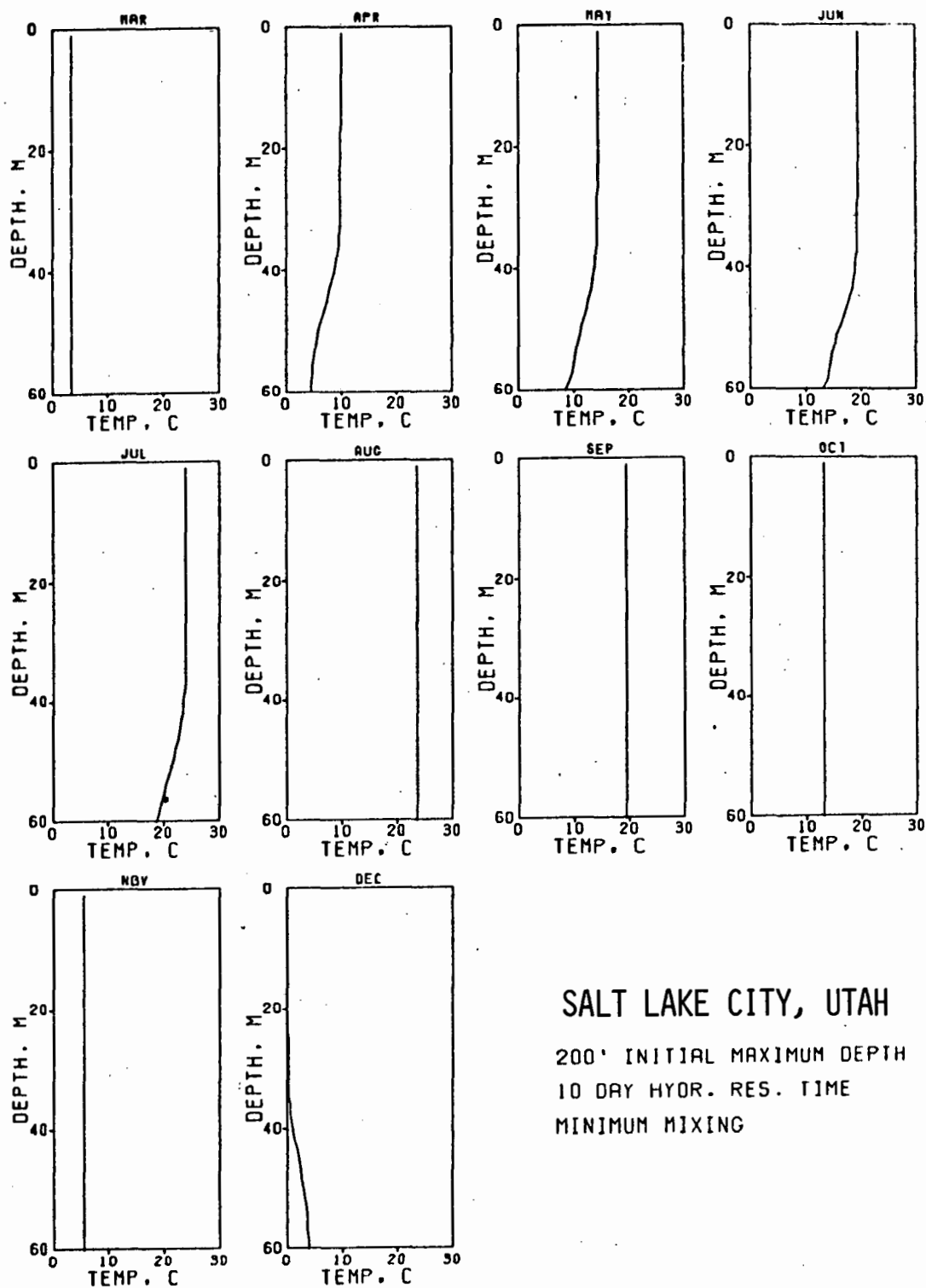


SALT LAKE CITY, UTAH
 100' INITIAL MAXIMUM DEPTH
 INFINITE HYDR. RES. TIME
 MINIMUM MIXING



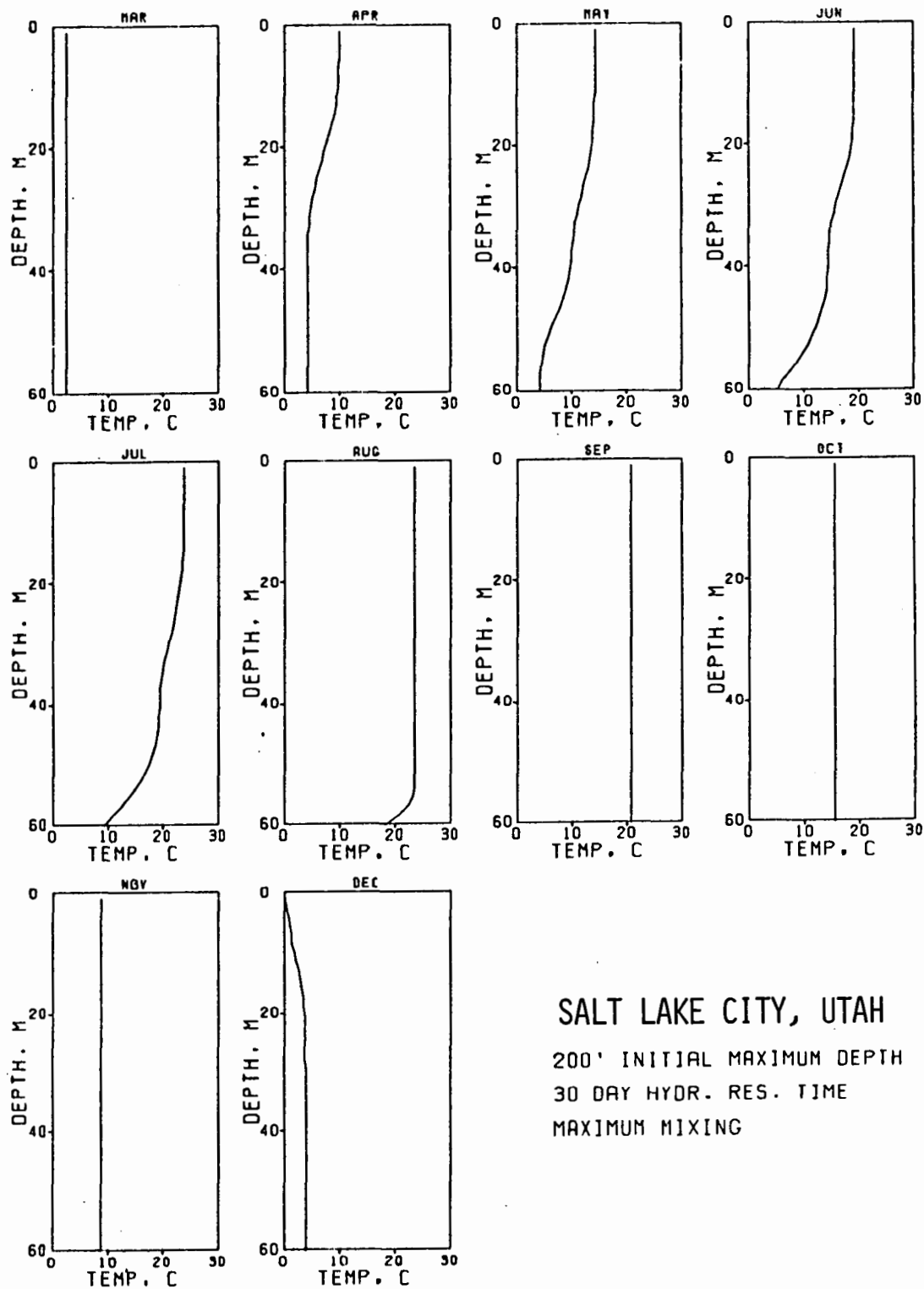
SALT LAKE CITY, UTAH

200' INITIAL MAXIMUM DEPTH
10 DAY HYDR. RES. TIME
MAXIMUM MIXING

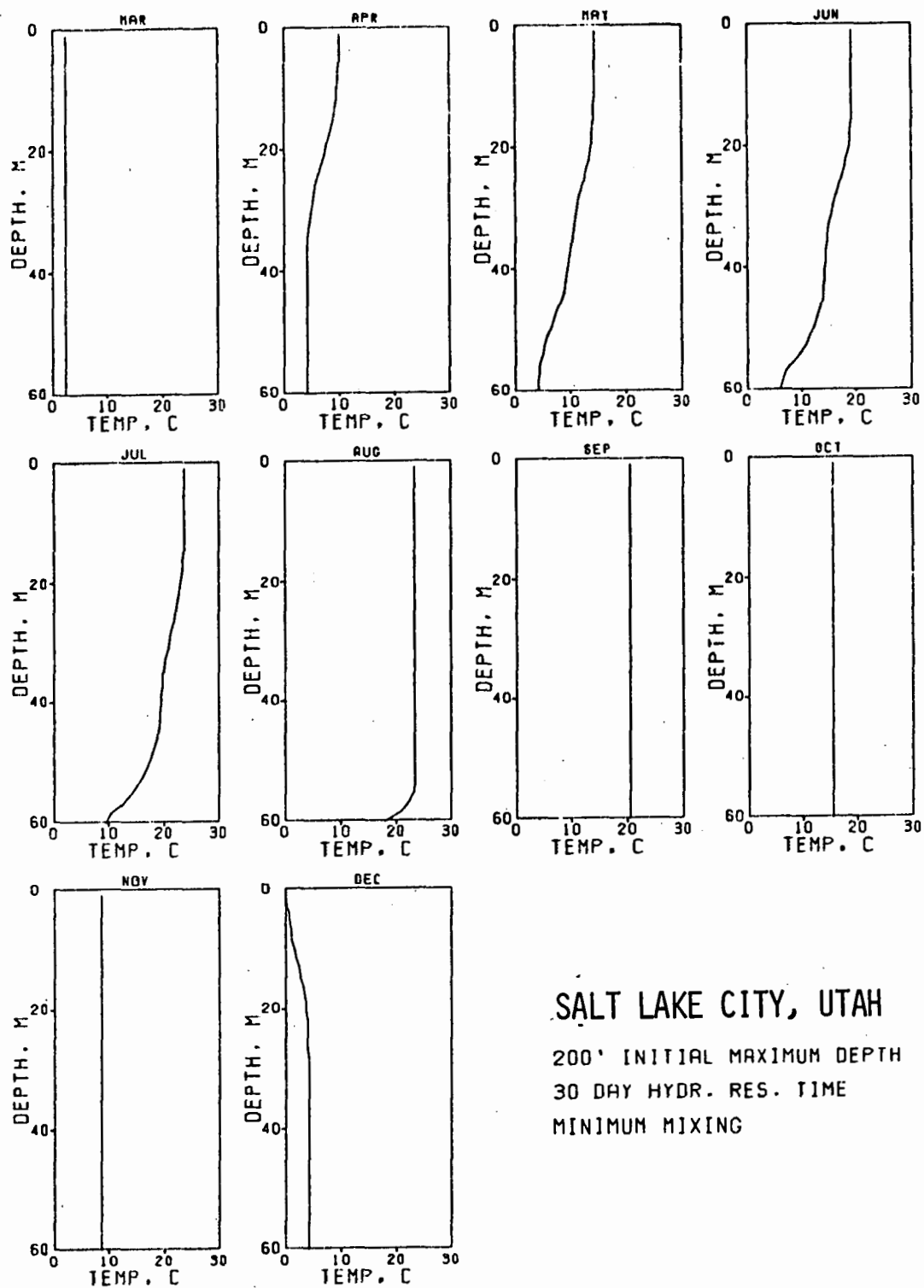


SALT LAKE CITY, UTAH

200' INITIAL MAXIMUM DEPTH
10 DAY HYDR. RES. TIME
MINIMUM MIXING



SALT LAKE CITY, UTAH
 200' INITIAL MAXIMUM DEPTH
 30 DAY HYDR. RES. TIME
 MAXIMUM MIXING

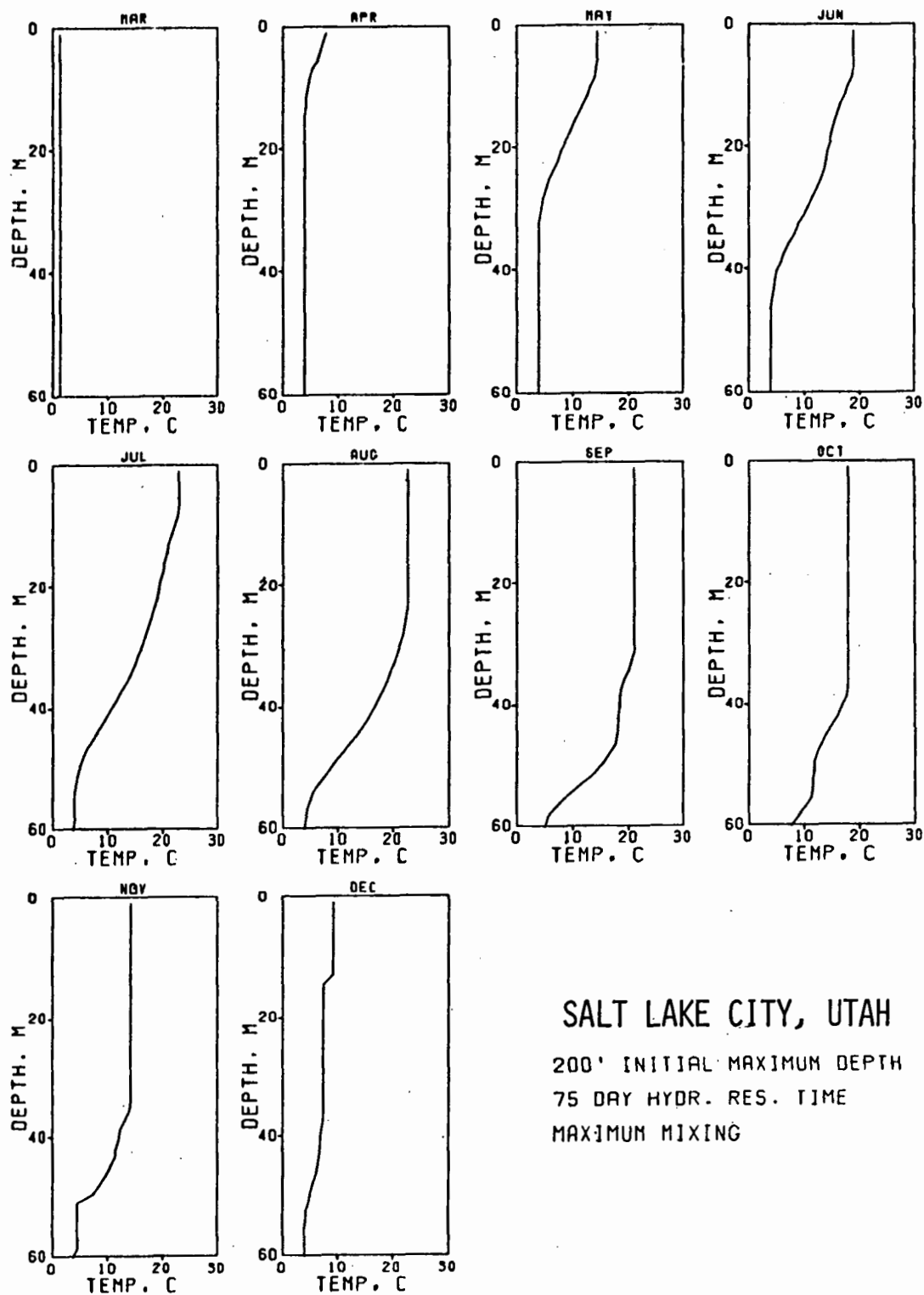


SALT LAKE CITY, UTAH

200' INITIAL MAXIMUM DEPTH

30 DAY HYDR. RES. TIME

MINIMUM MIXING

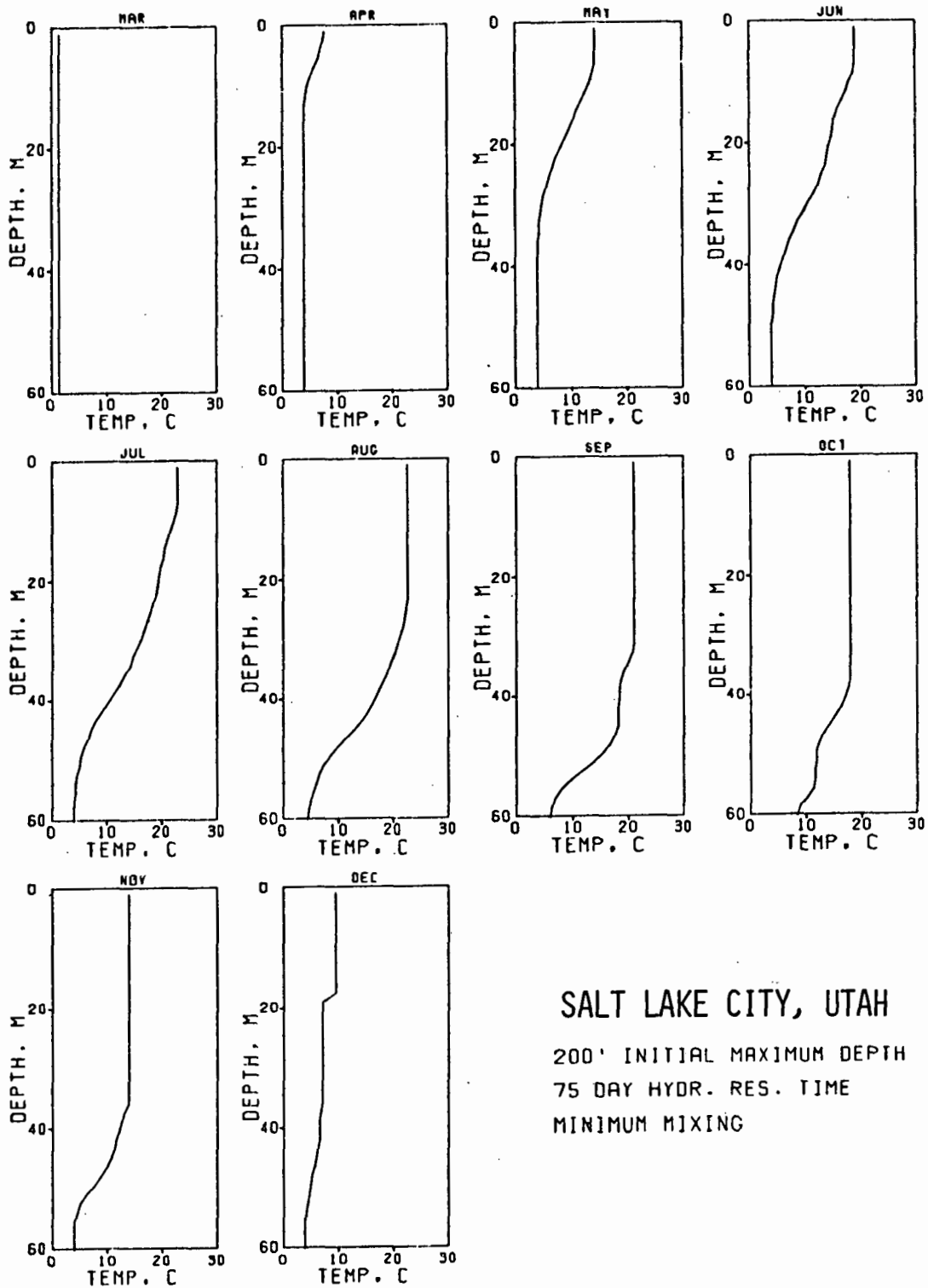


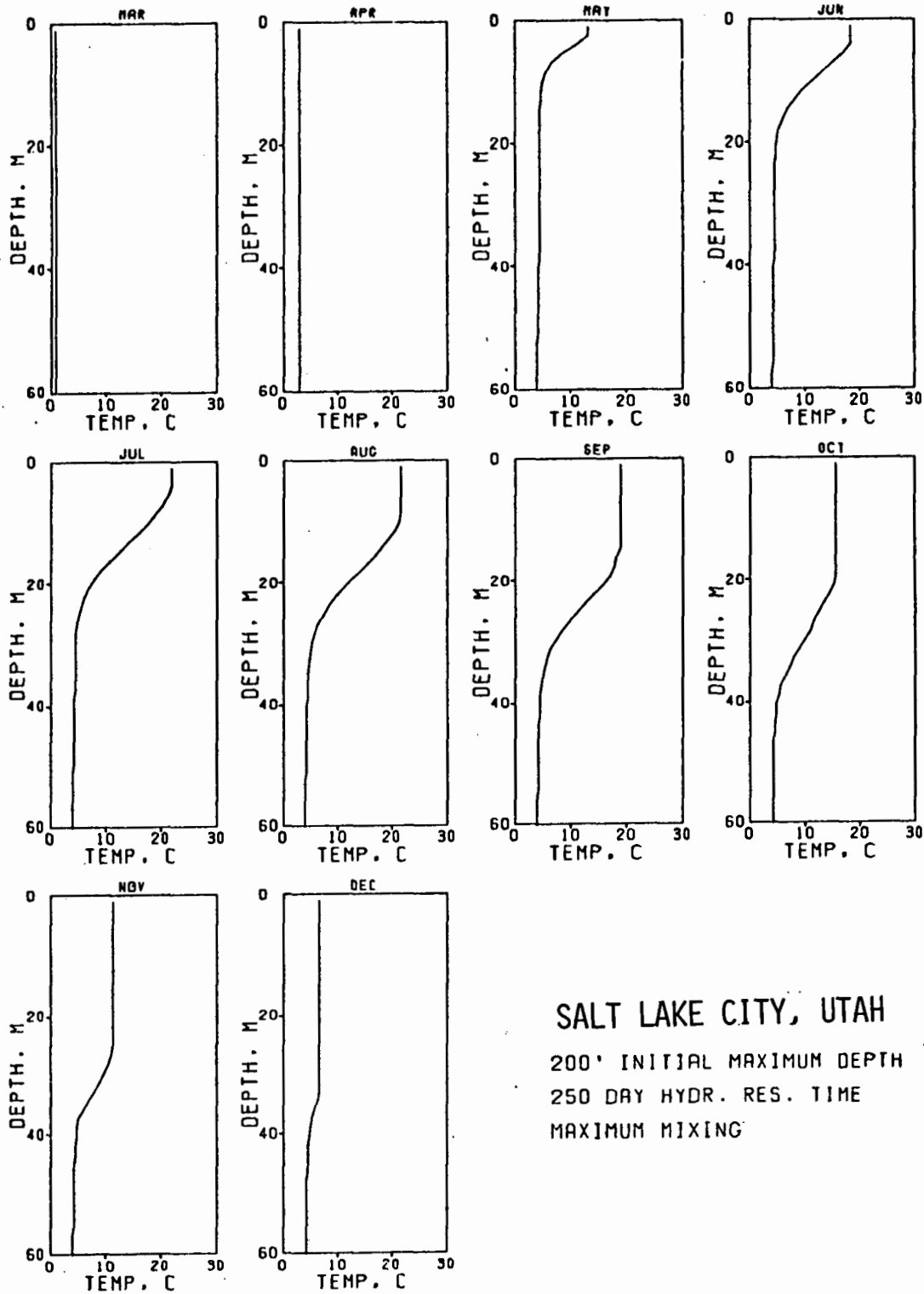
SALT LAKE CITY, UTAH

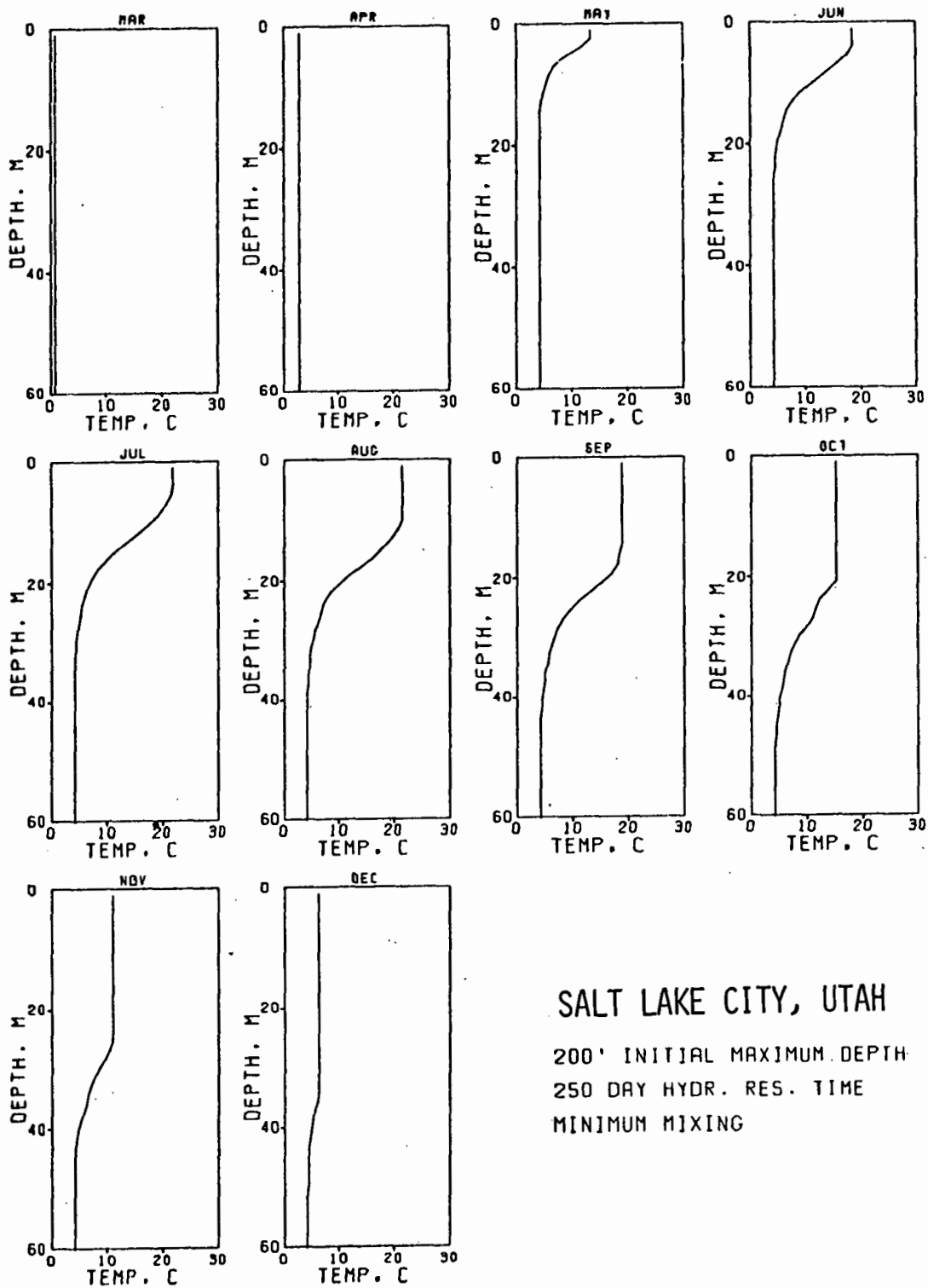
200' INITIAL MAXIMUM DEPTH

75 DAY HYDR. RES. TIME

MAXIMUM MIXING

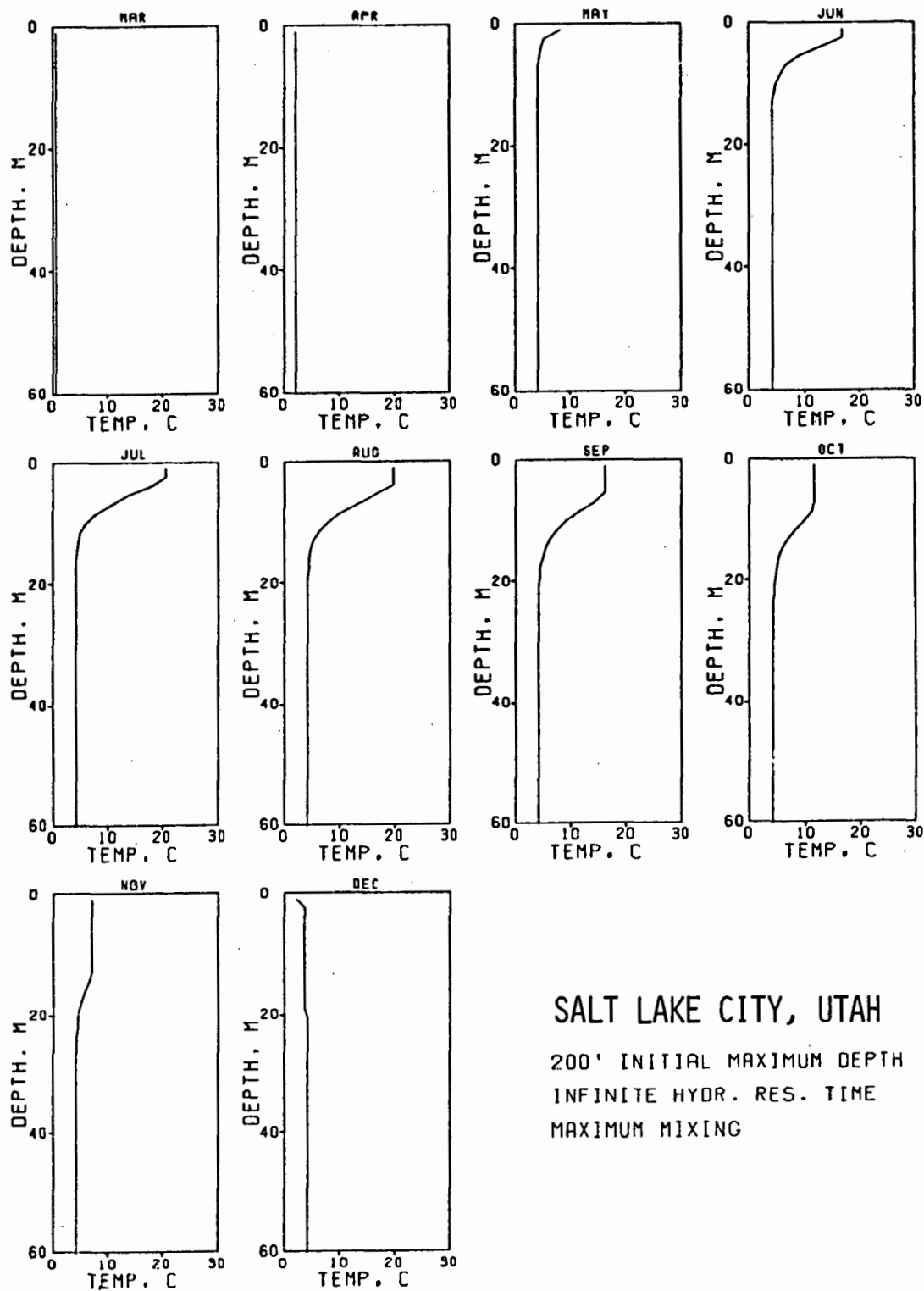






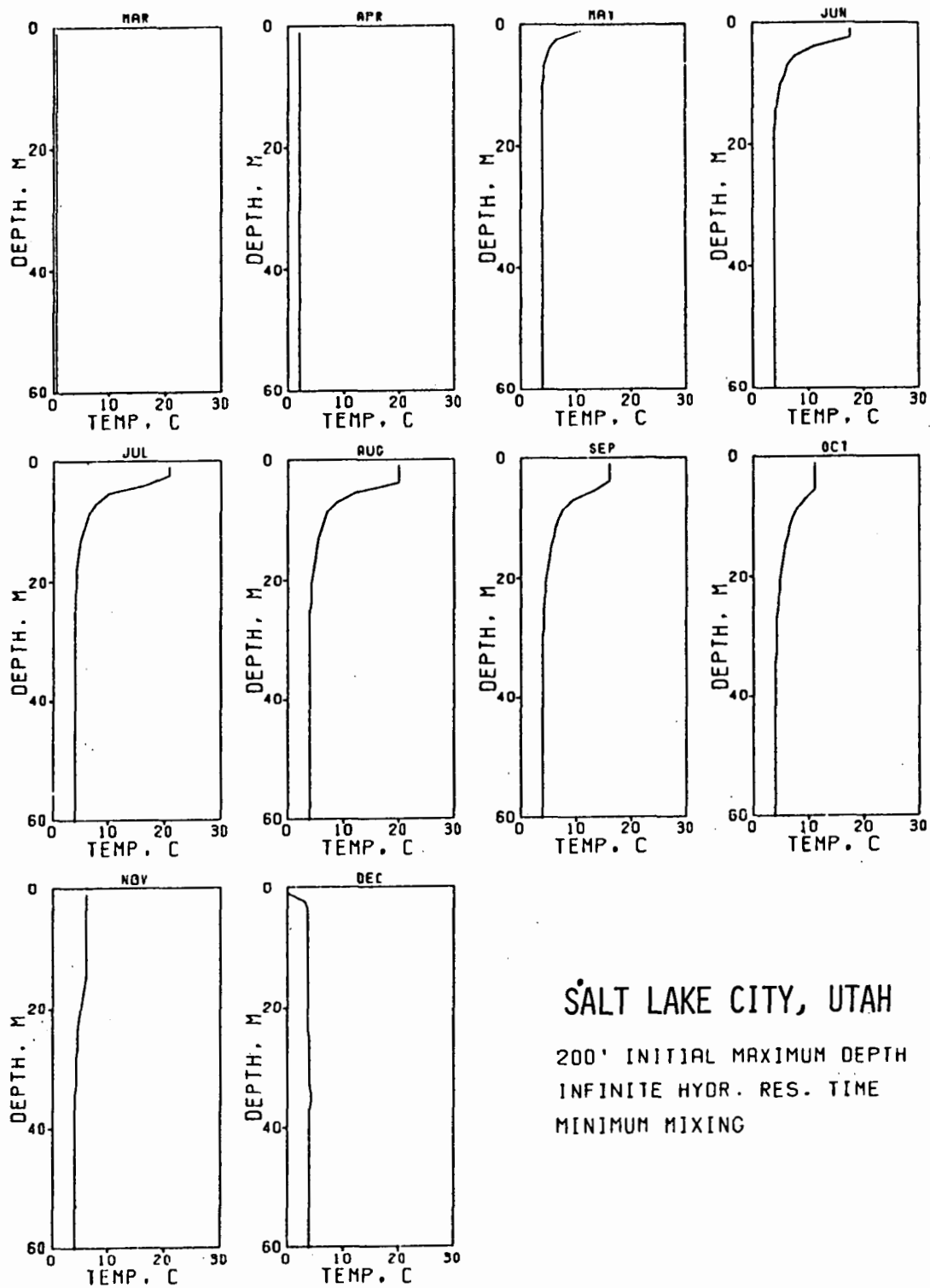
SALT LAKE CITY, UTAH

200' INITIAL MAXIMUM DEPTH
250 DAY HYDR. RES. TIME
MINIMUM MIXING



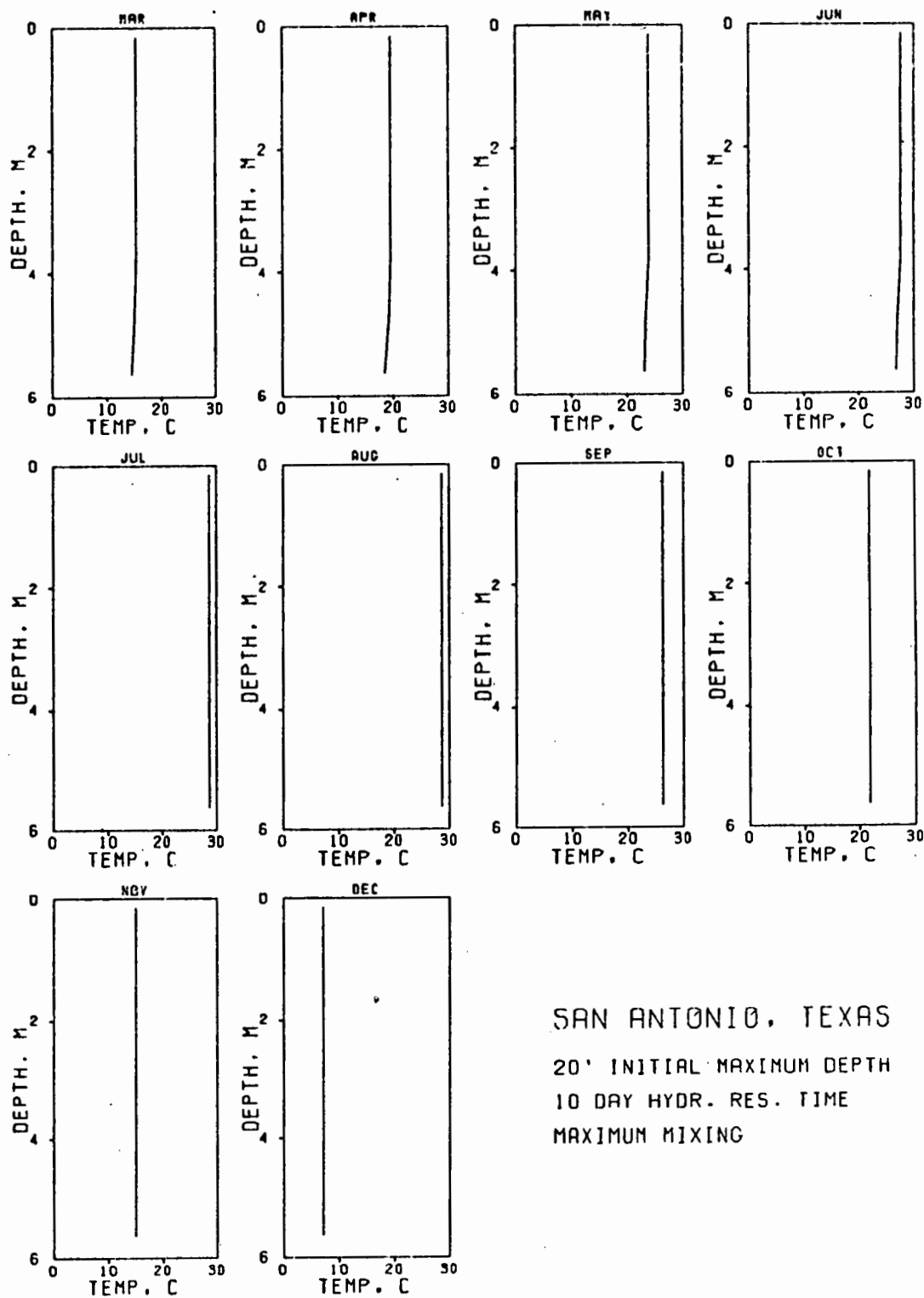
SALT LAKE CITY, UTAH

200' INITIAL MAXIMUM DEPTH
INFINITE HYDR. RES. TIME
MAXIMUM MIXING



SALT LAKE CITY, UTAH

200' INITIAL MAXIMUM DEPTH
INFINITE HYDR. RES. TIME
MINIMUM MIXING

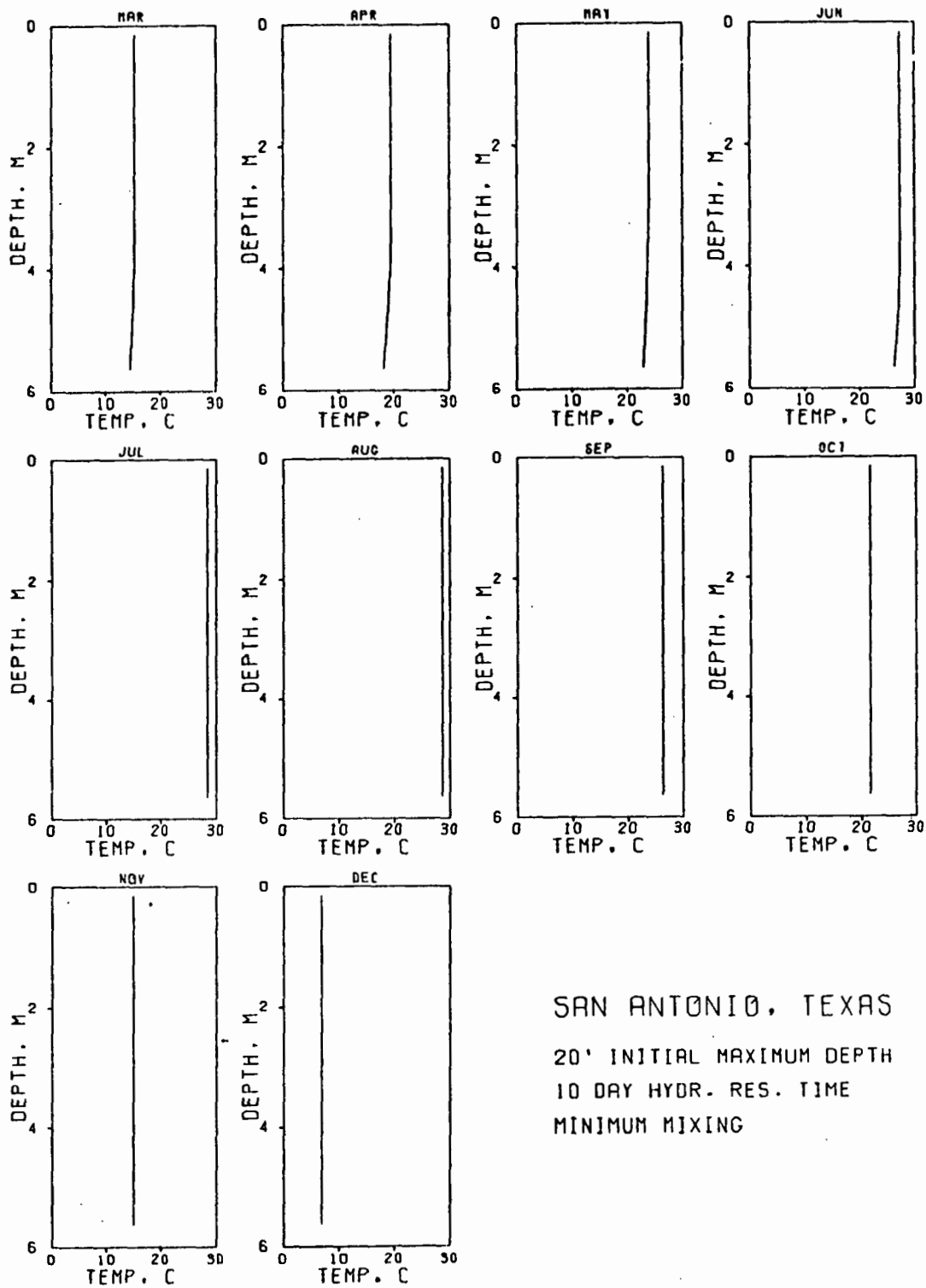


SAN ANTONIO, TEXAS

20' INITIAL MAXIMUM DEPTH

10 DAY HYDR. RES. TIME

MAXIMUM MIXING

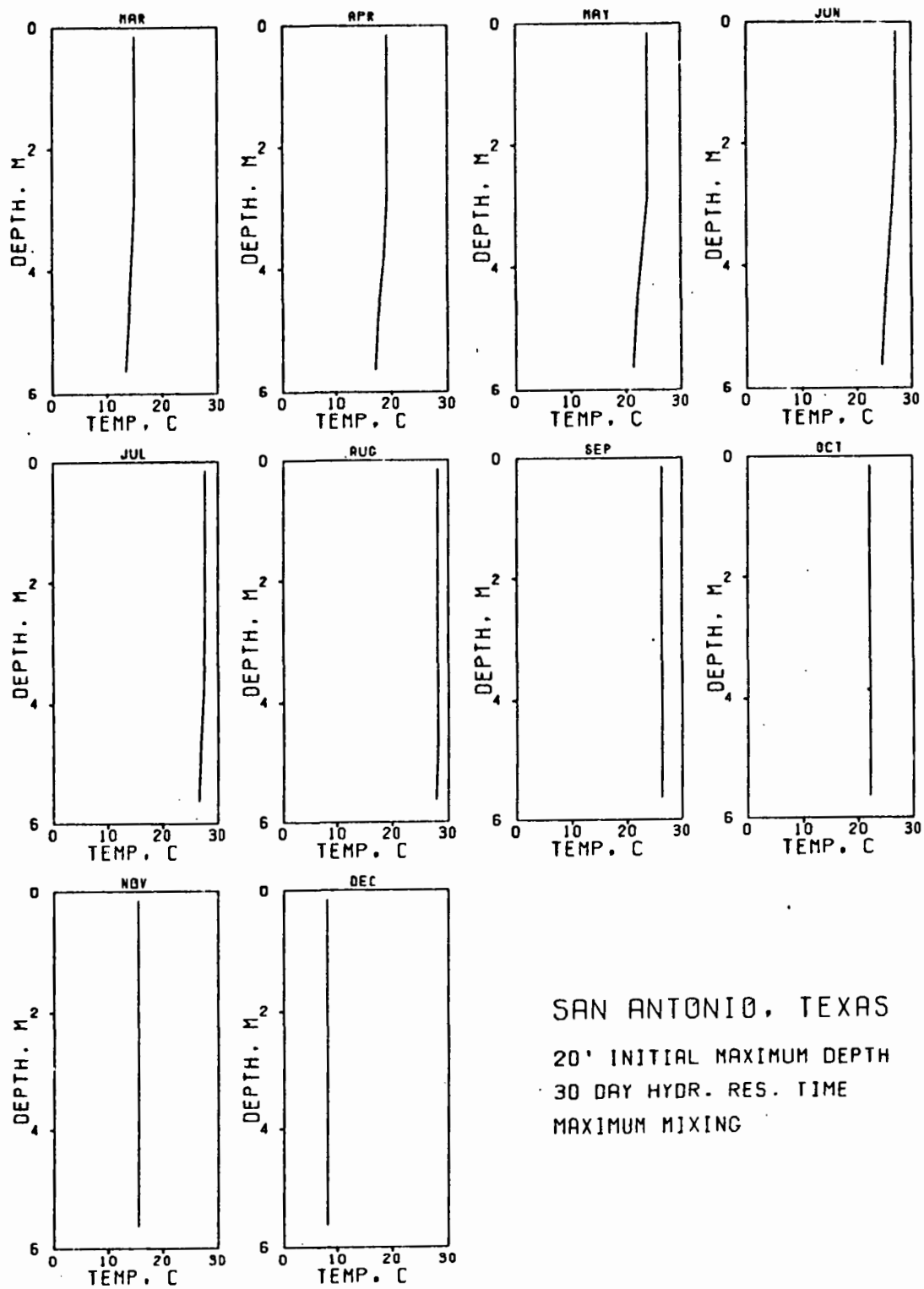


SAN ANTONIO, TEXAS

20' INITIAL MAXIMUM DEPTH

10 DAY HYDR. RES. TIME

MINIMUM MIXING

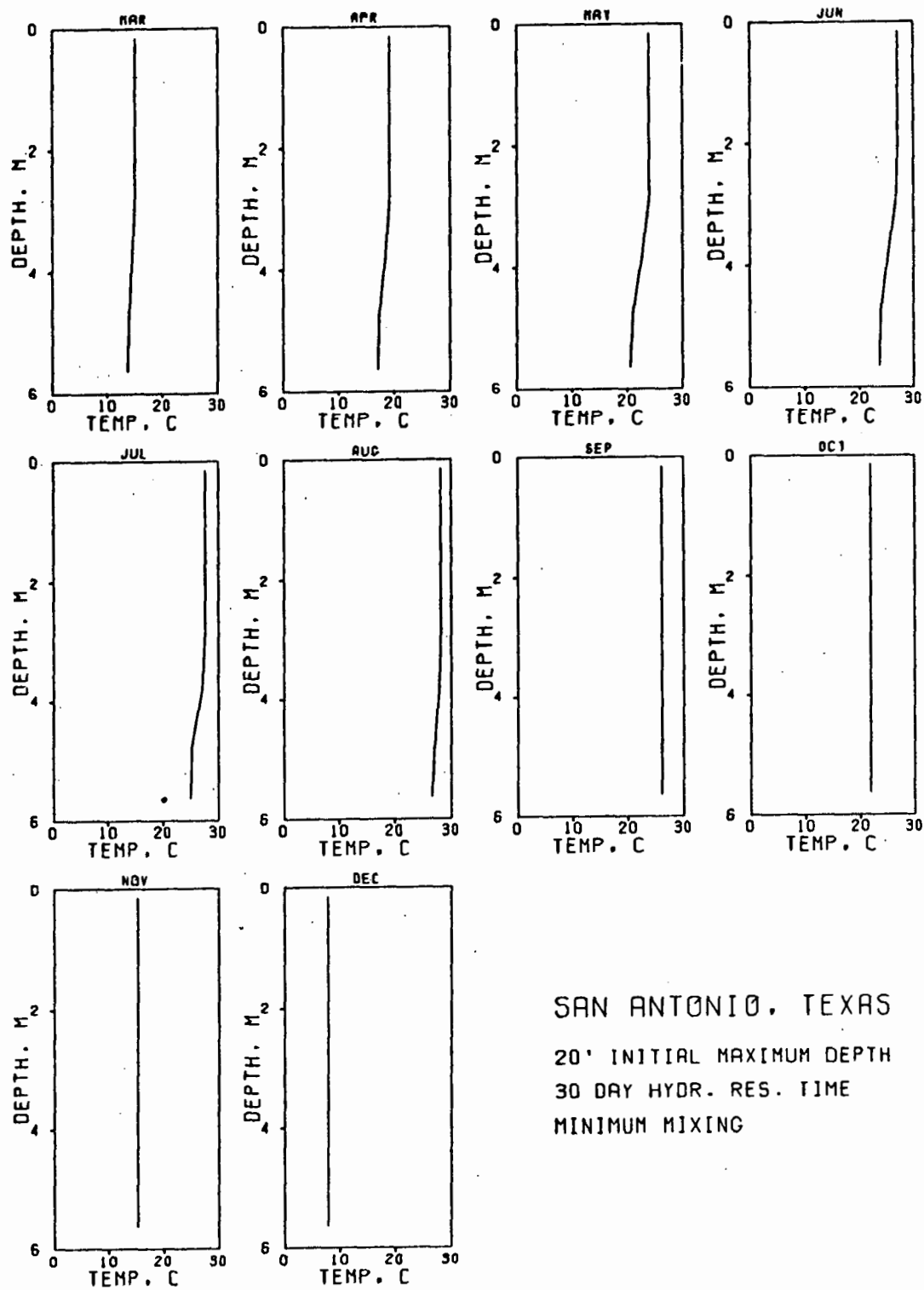


SAN ANTONIO, TEXAS

20' INITIAL MAXIMUM DEPTH

30 DAY HYDR. RES. TIME

MAXIMUM MIXING

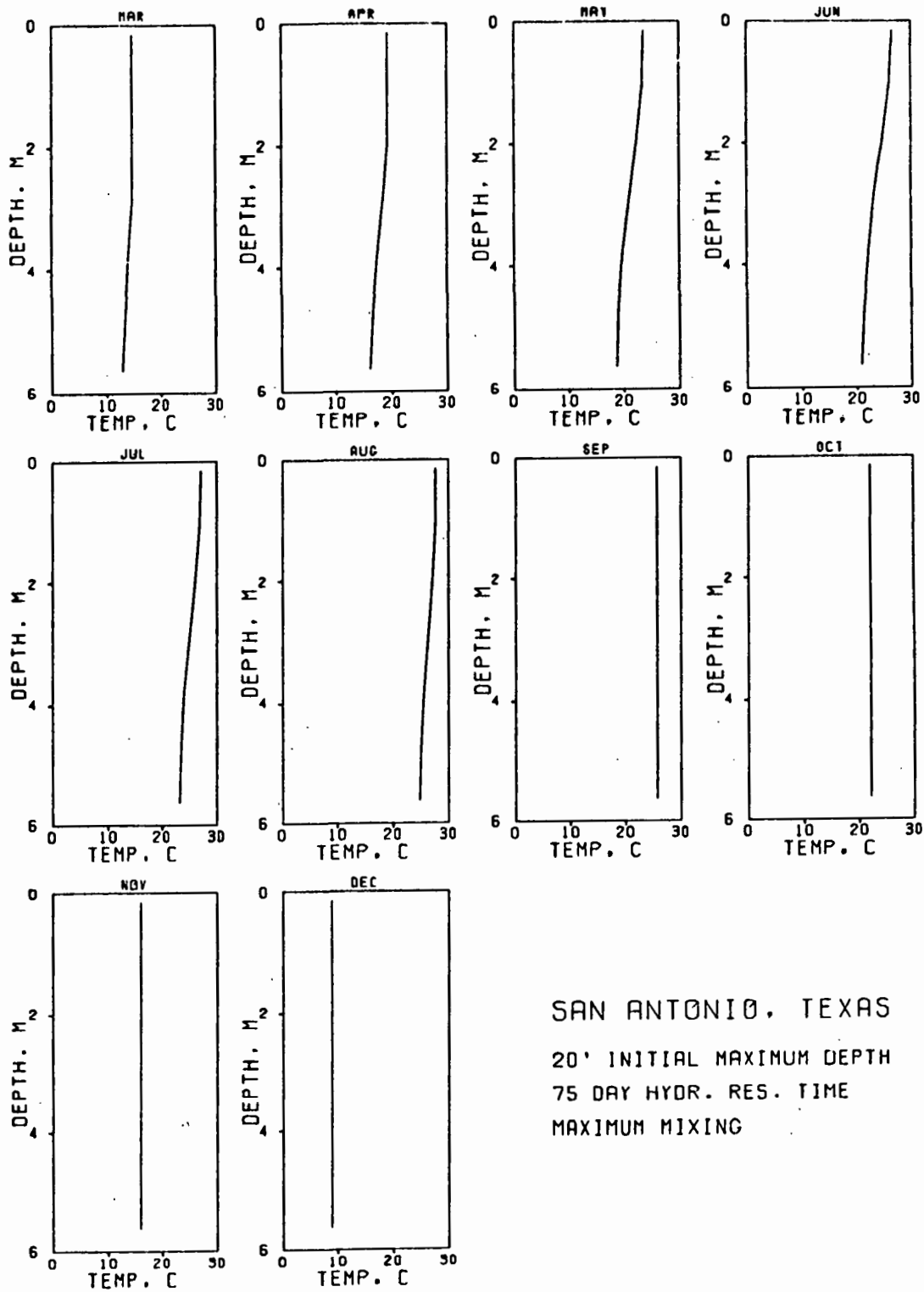


SAN ANTONIO, TEXAS

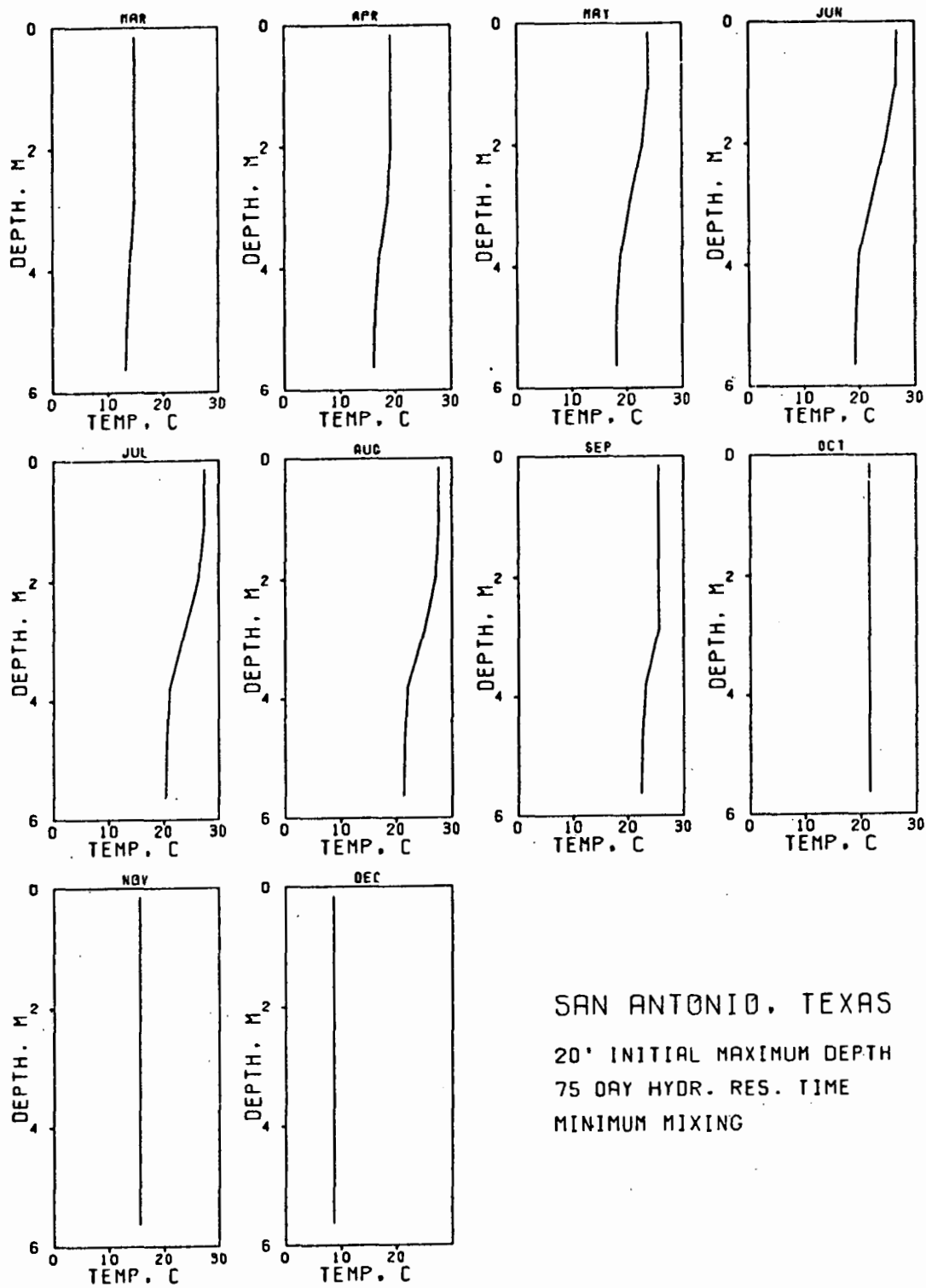
20' INITIAL MAXIMUM DEPTH

30 DAY HYDR. RES. TIME

MINIMUM MIXING



SAN ANTONIO, TEXAS
 20' INITIAL MAXIMUM DEPTH
 75 DAY HYDR. RES. TIME
 MAXIMUM MIXING

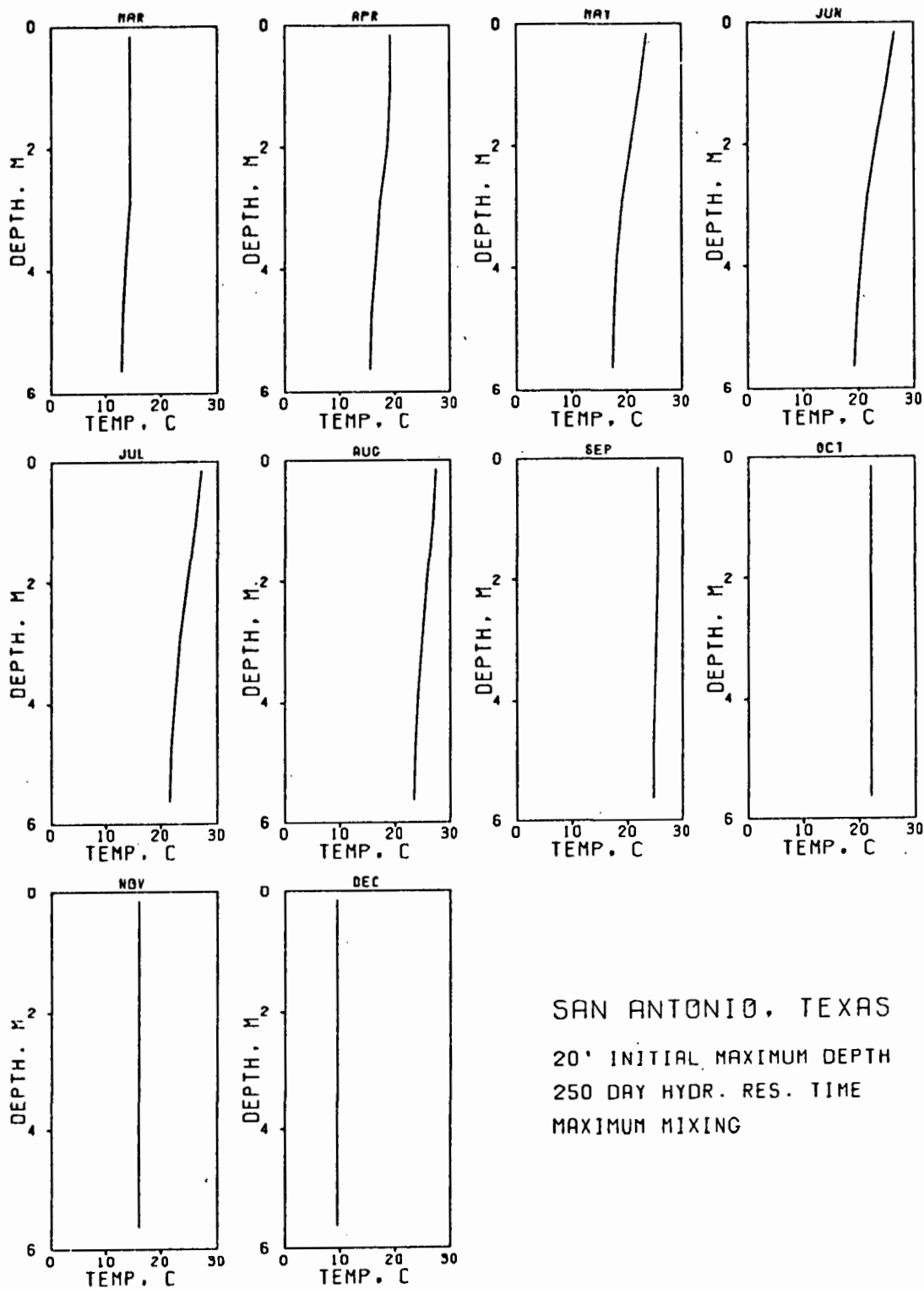


SAN ANTONIO, TEXAS

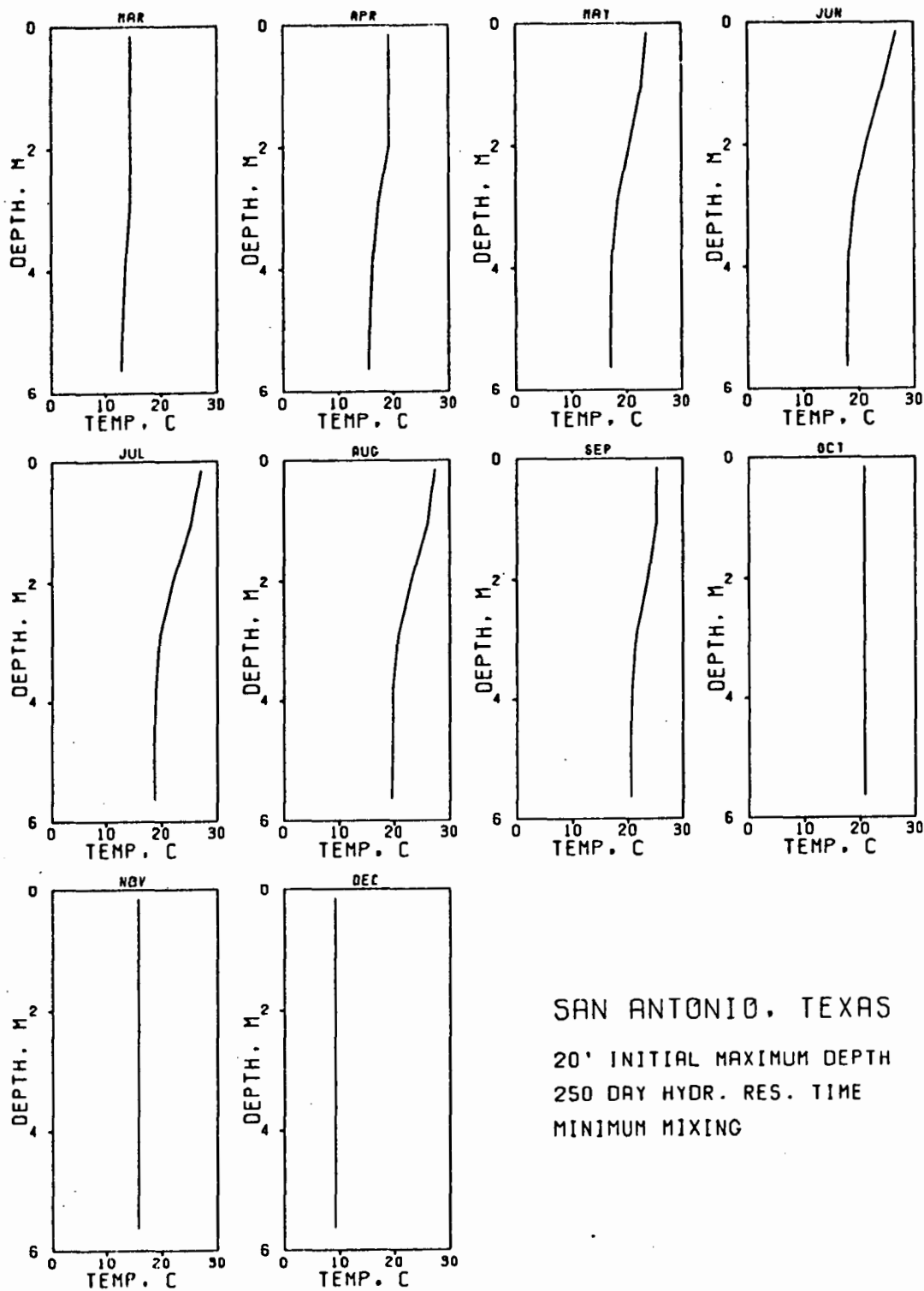
20' INITIAL MAXIMUM DEPTH

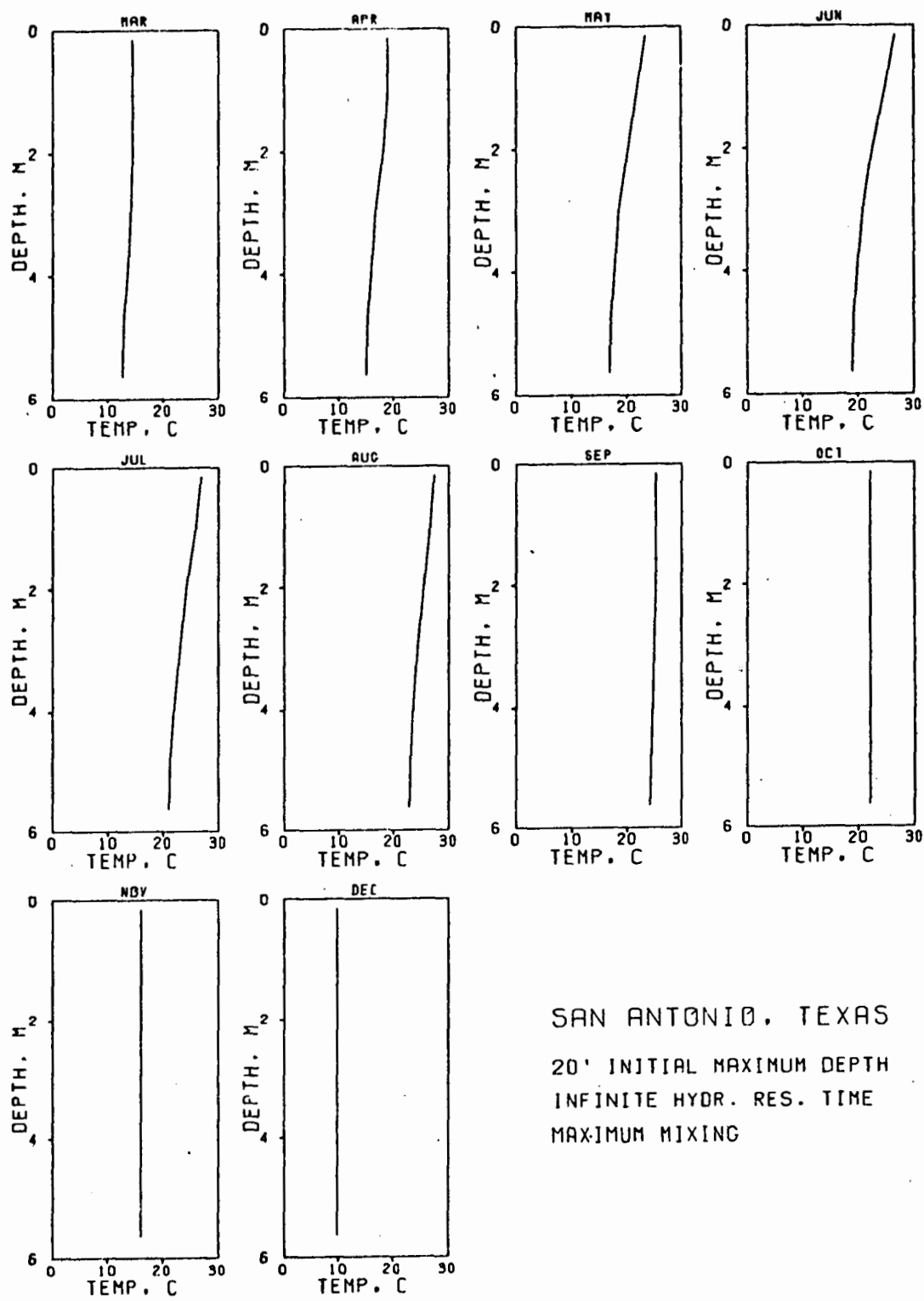
75 DAY HYDR. RES. TIME

MINIMUM MIXING

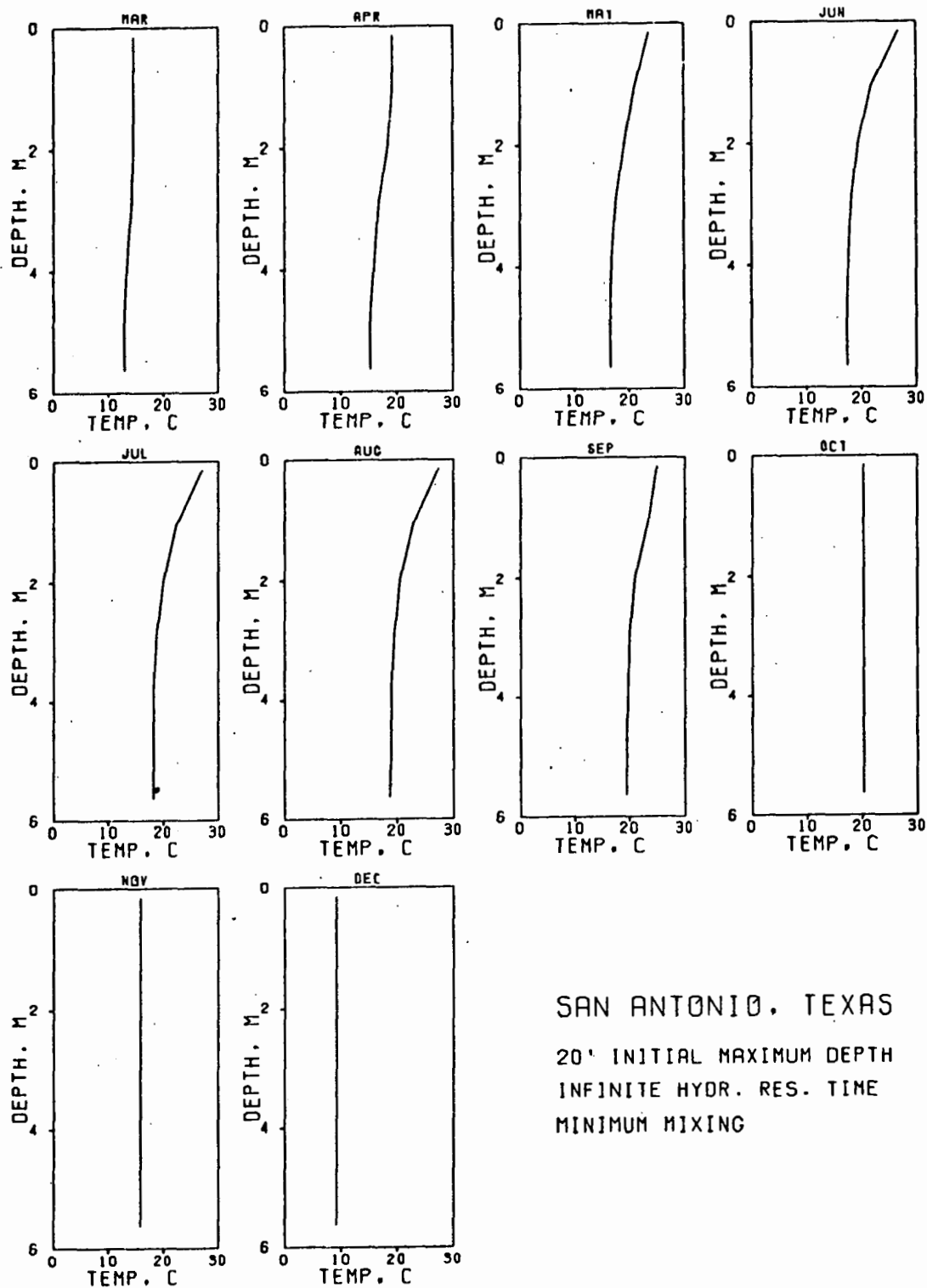


SAN ANTONIO, TEXAS
 20' INITIAL MAXIMUM DEPTH
 250 DAY HYDR. RES. TIME
 MAXIMUM MIXING





SAN ANTONIO, TEXAS
 20' INITIAL MAXIMUM DEPTH
 INFINITE HYDR. RES. TIME
 MAXIMUM MIXING

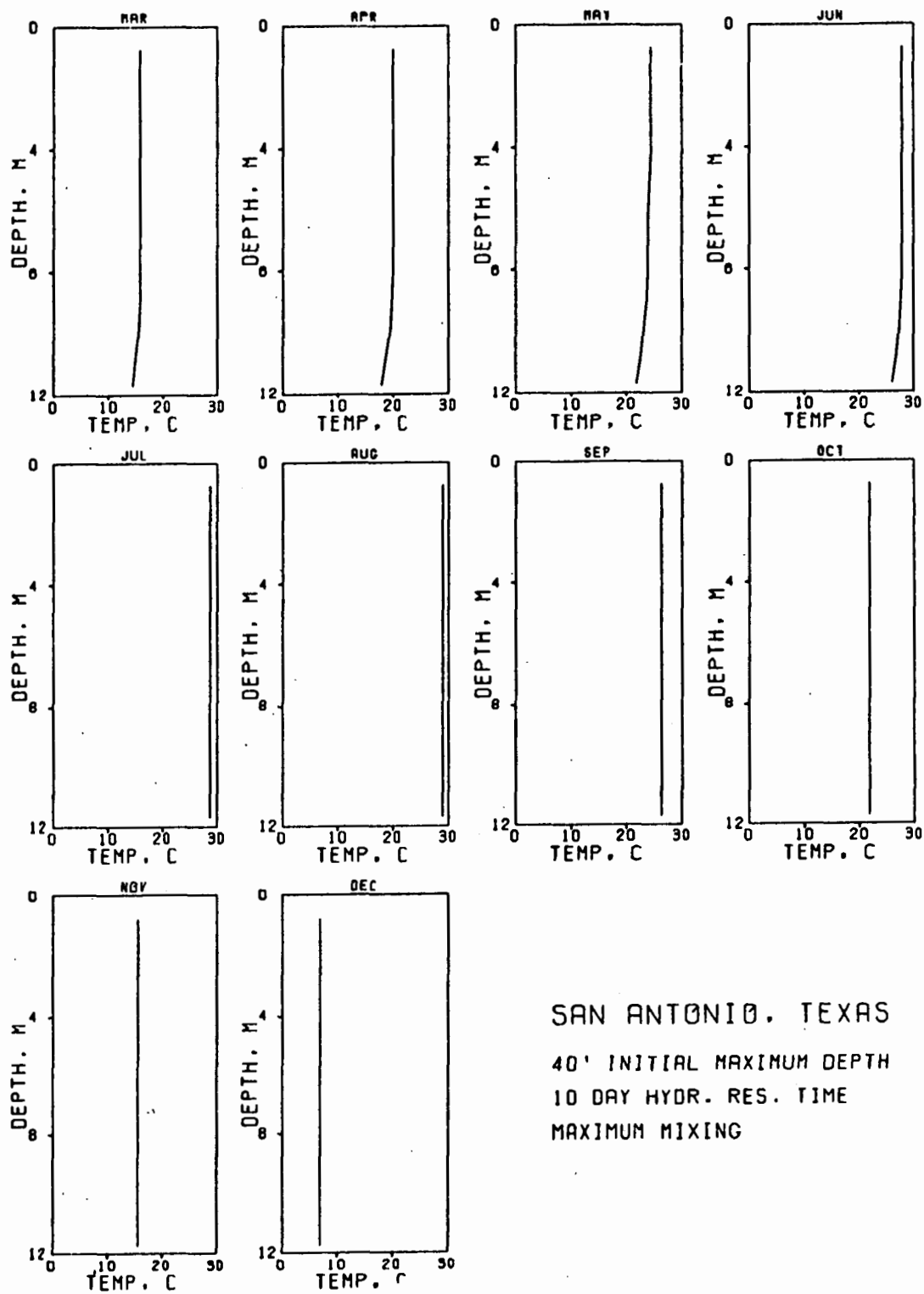


SAN ANTONIO, TEXAS

20' INITIAL MAXIMUM DEPTH

INFINITE HYDR. RES. TIME

MINIMUM MIXING

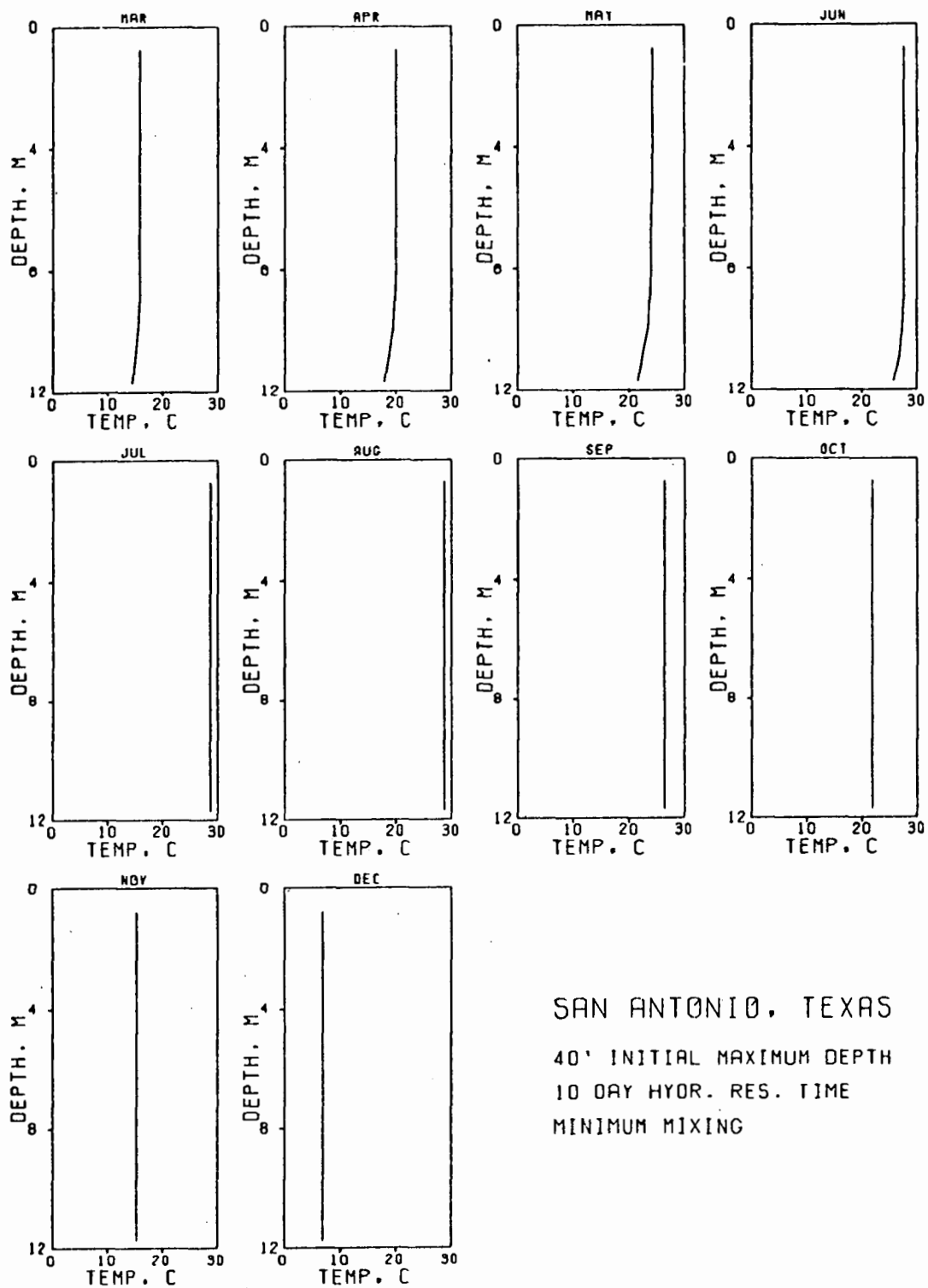


SAN ANTONIO, TEXAS

40' INITIAL MAXIMUM DEPTH

10 DAY HYDR. RES. TIME

MAXIMUM MIXING

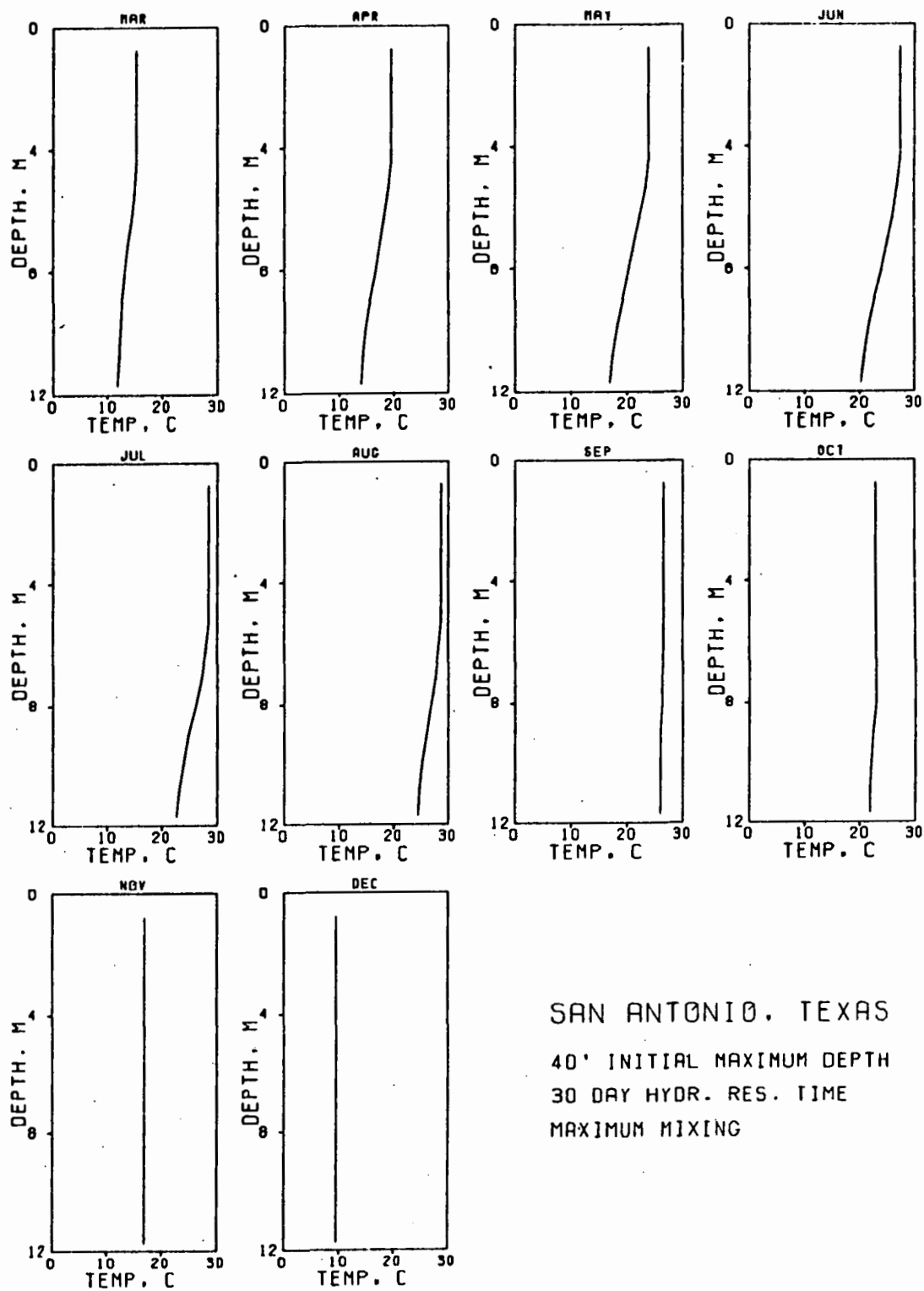


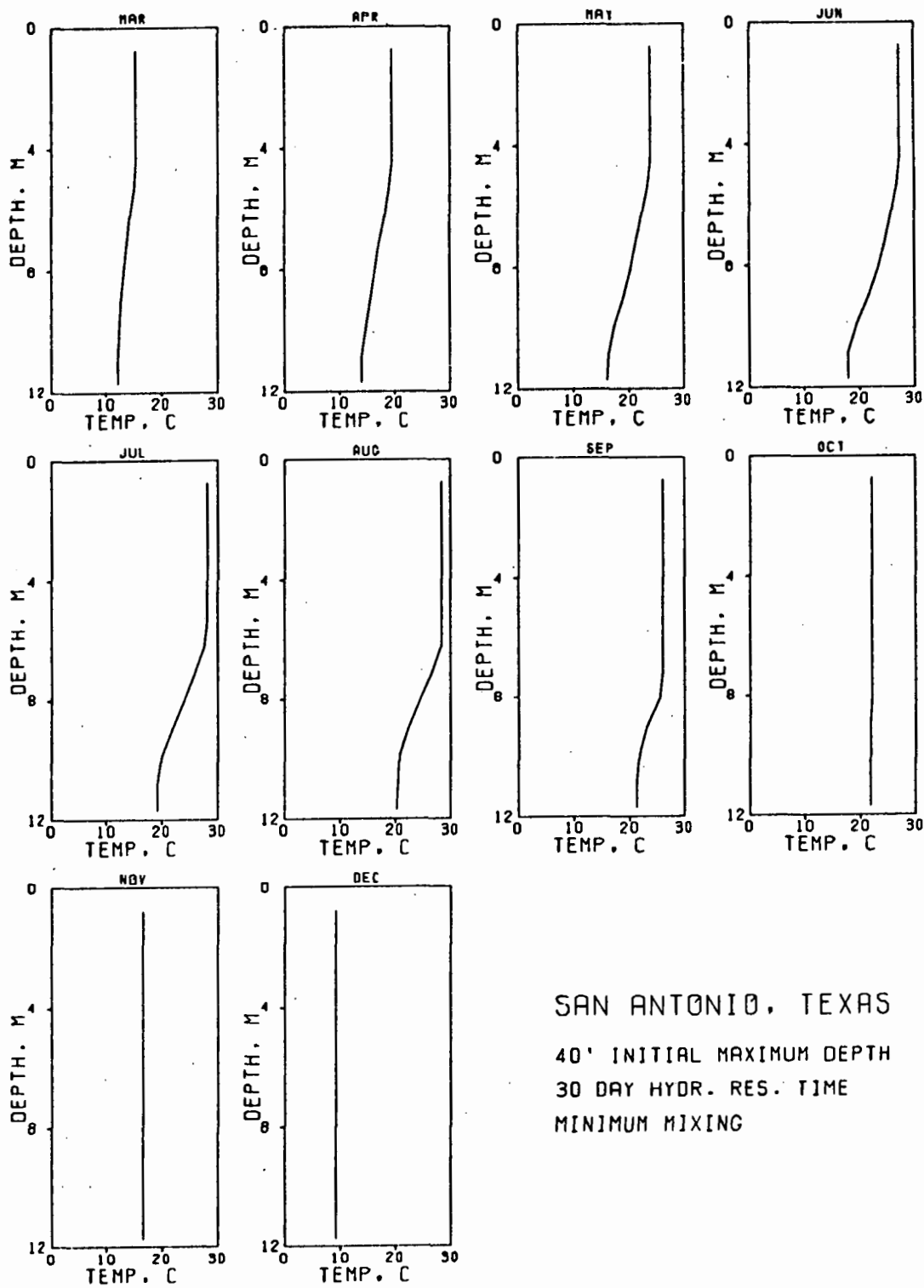
SAN ANTONIO, TEXAS

40' INITIAL MAXIMUM DEPTH

10 DAY HYDR. RES. TIME

MINIMUM MIXING



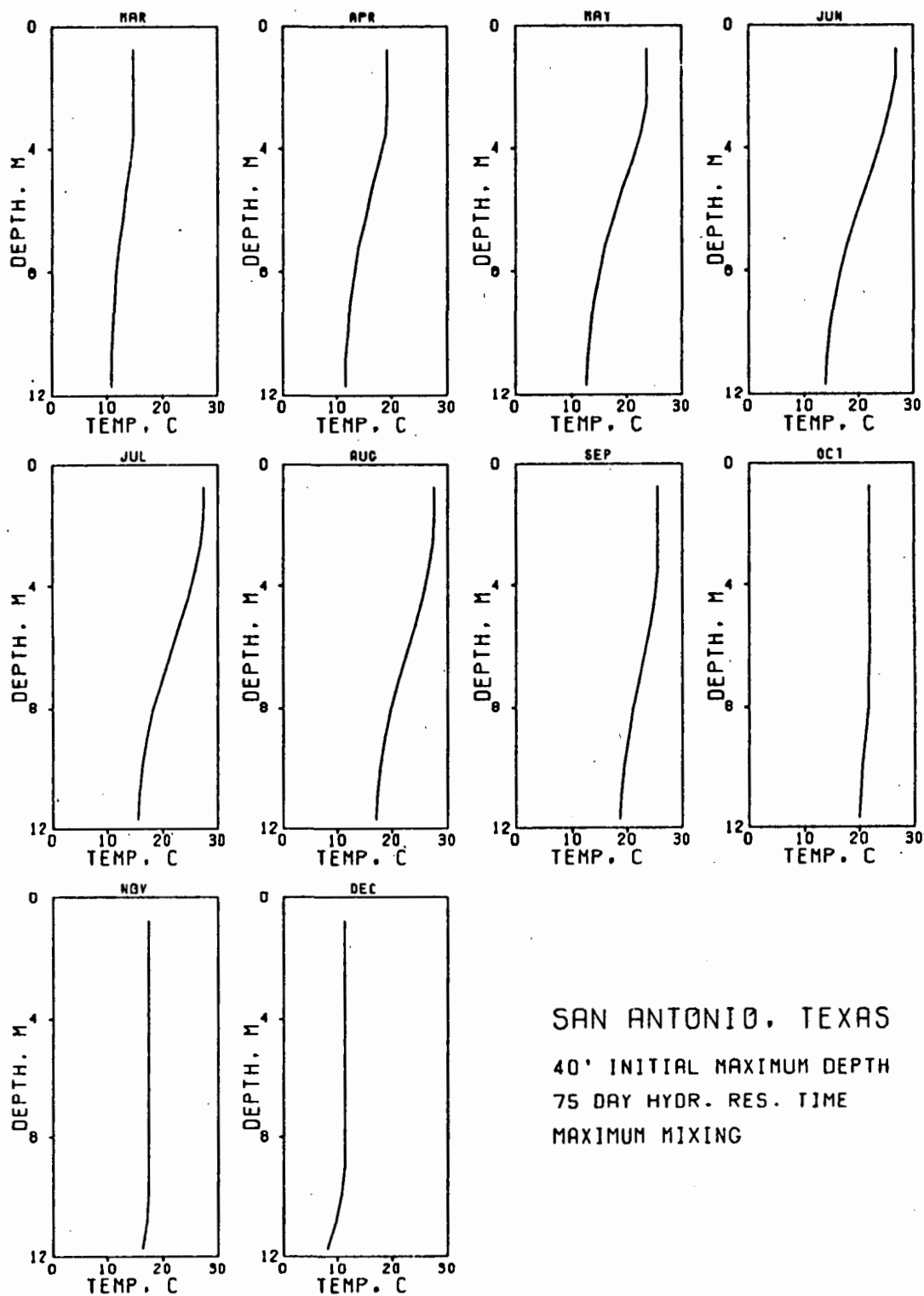


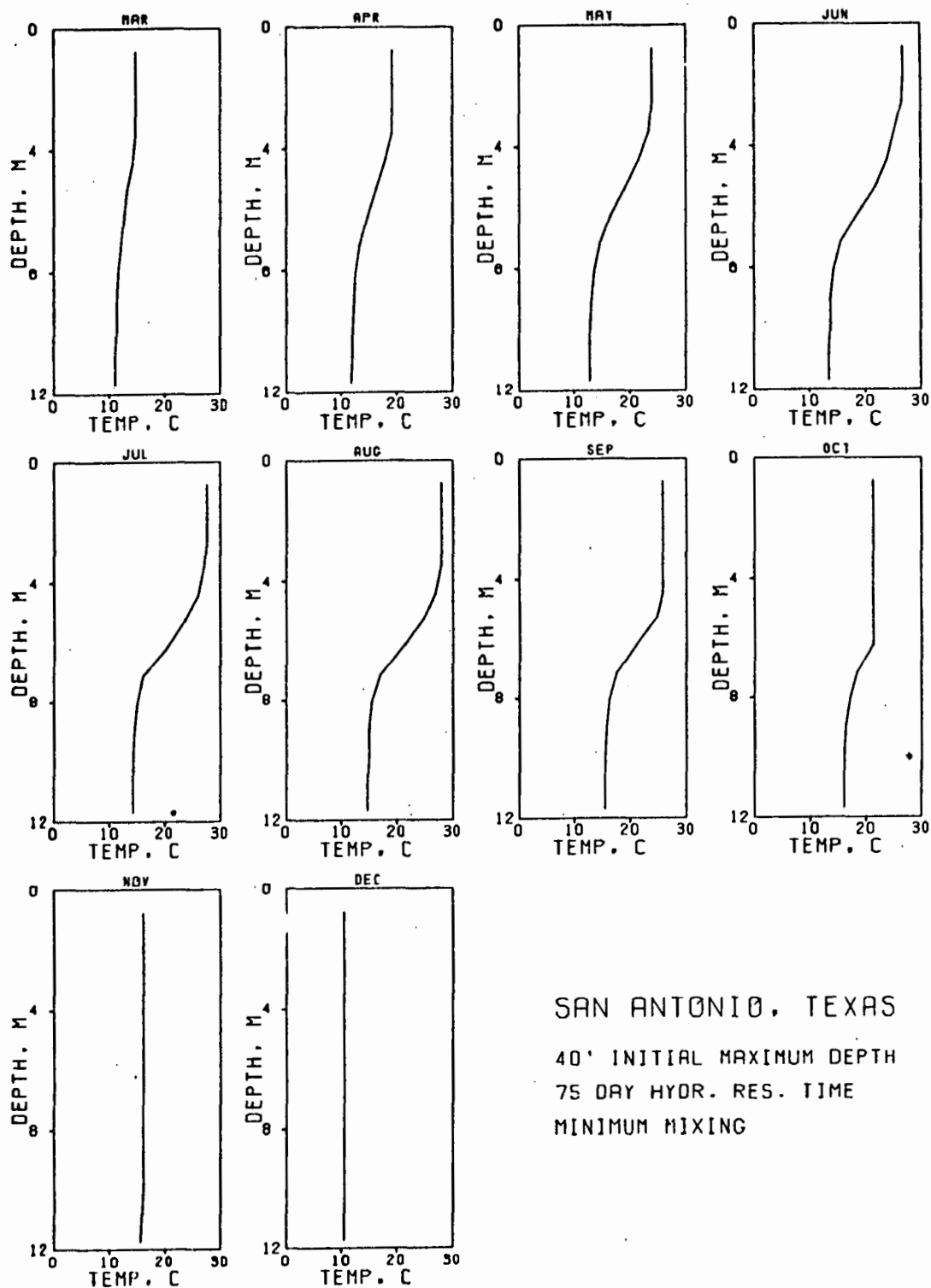
SAN ANTONIO, TEXAS

40' INITIAL MAXIMUM DEPTH

30 DAY HYDR. RES. TIME

MINIMUM MIXING



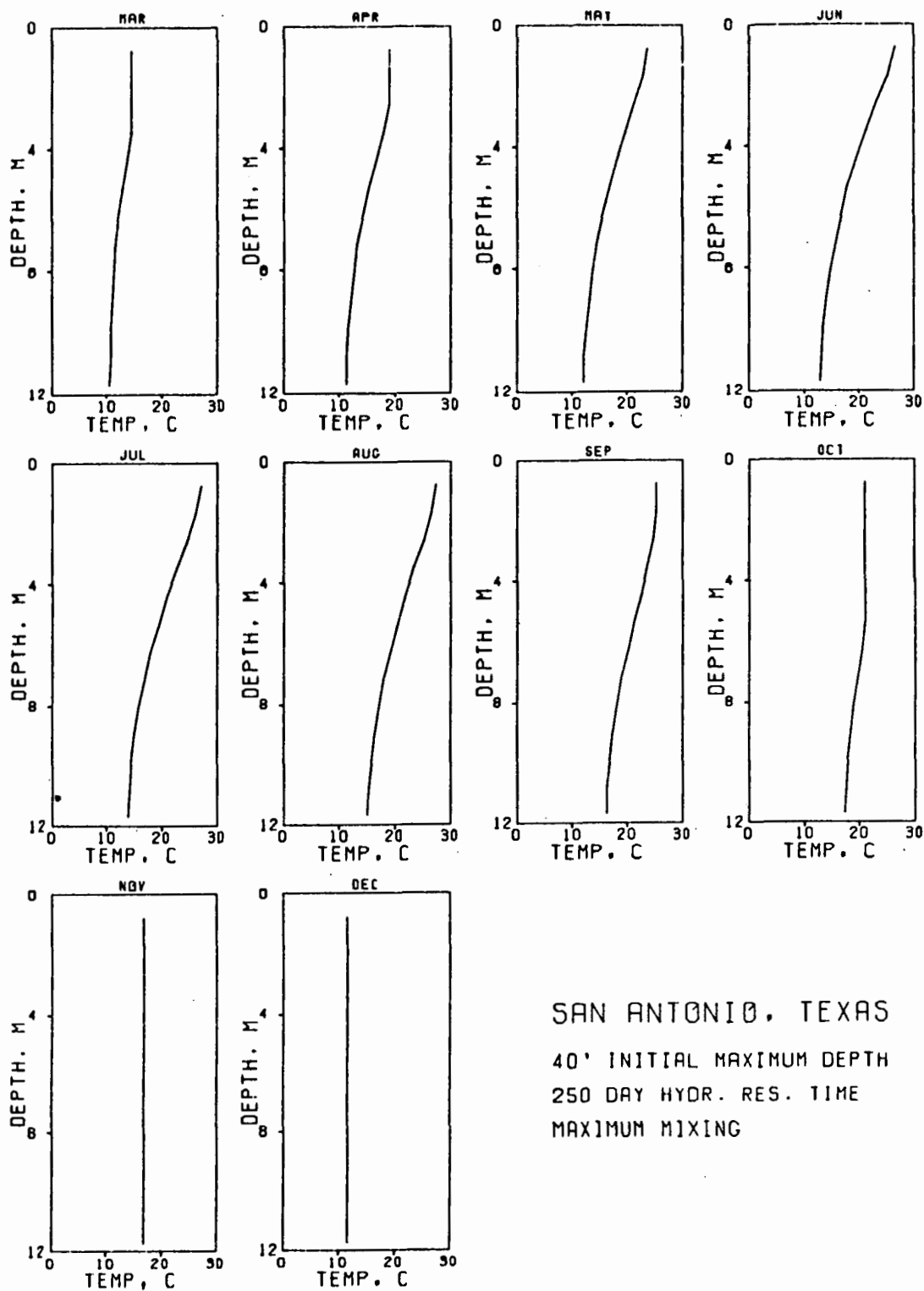


SAN ANTONIO, TEXAS

40' INITIAL MAXIMUM DEPTH

75 DAY HYDR. RES. TIME

MINIMUM MIXING

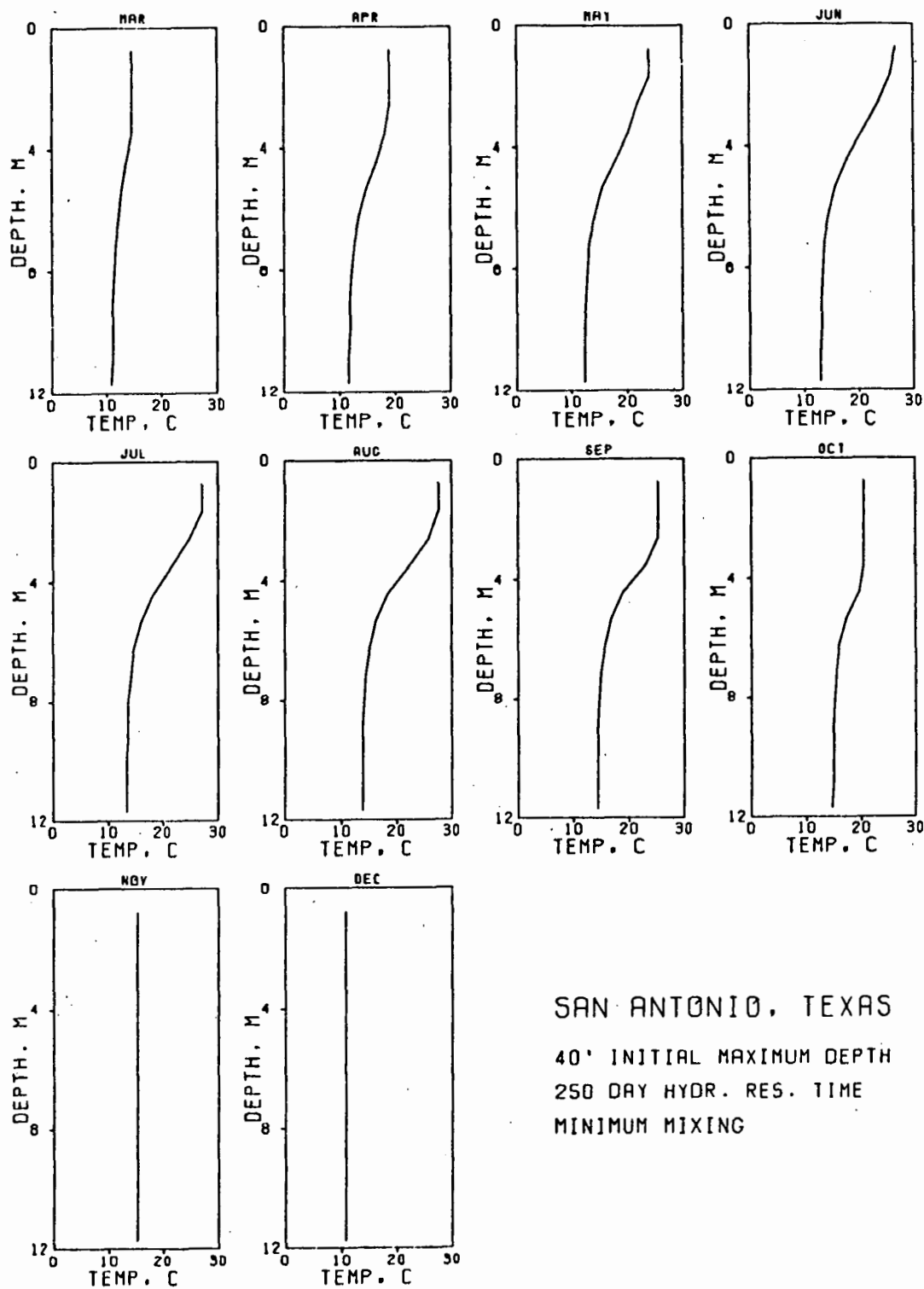


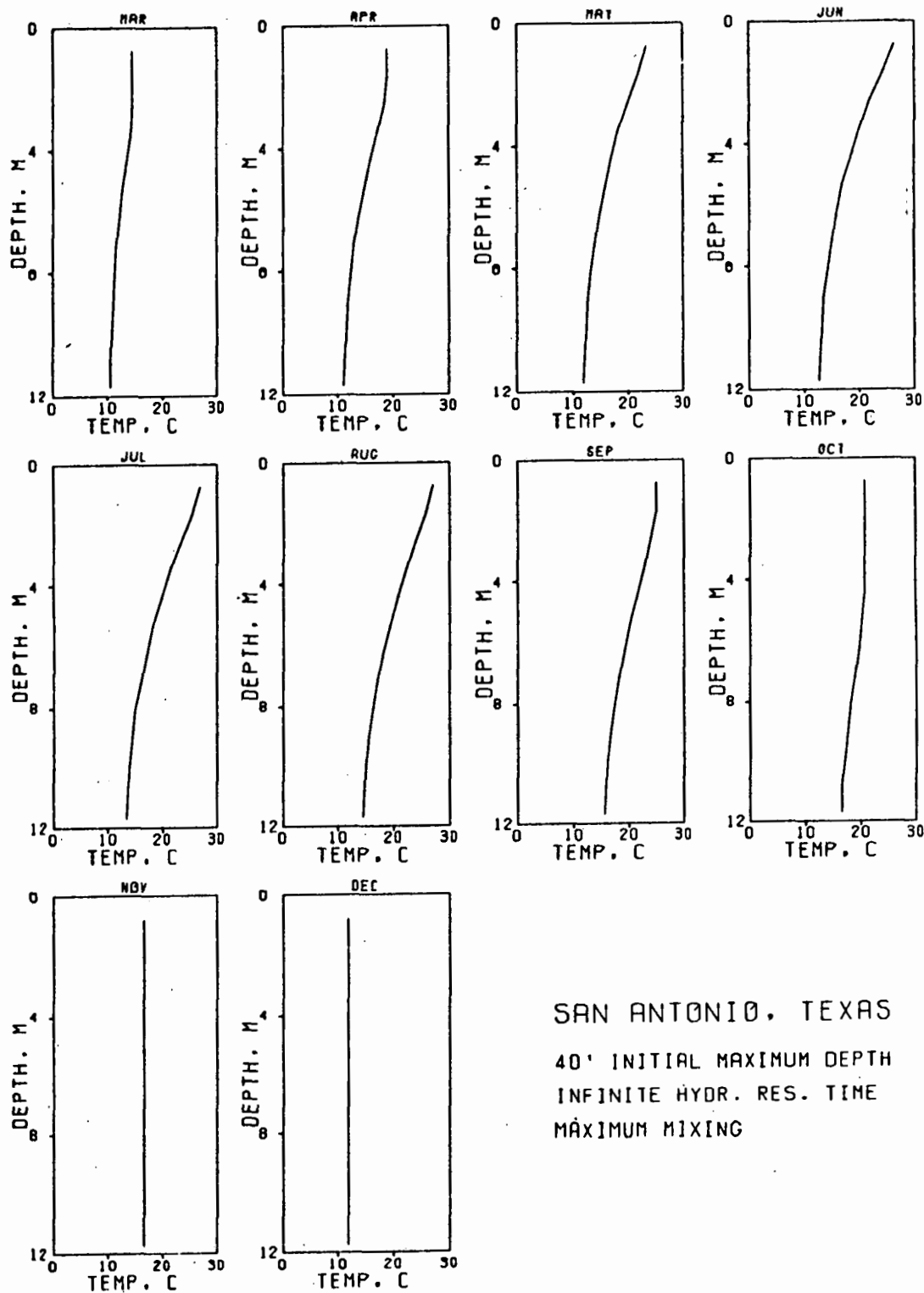
SAN ANTONIO, TEXAS

40' INITIAL MAXIMUM DEPTH

250 DAY HYDR. RES. TIME

MAXIMUM MIXING



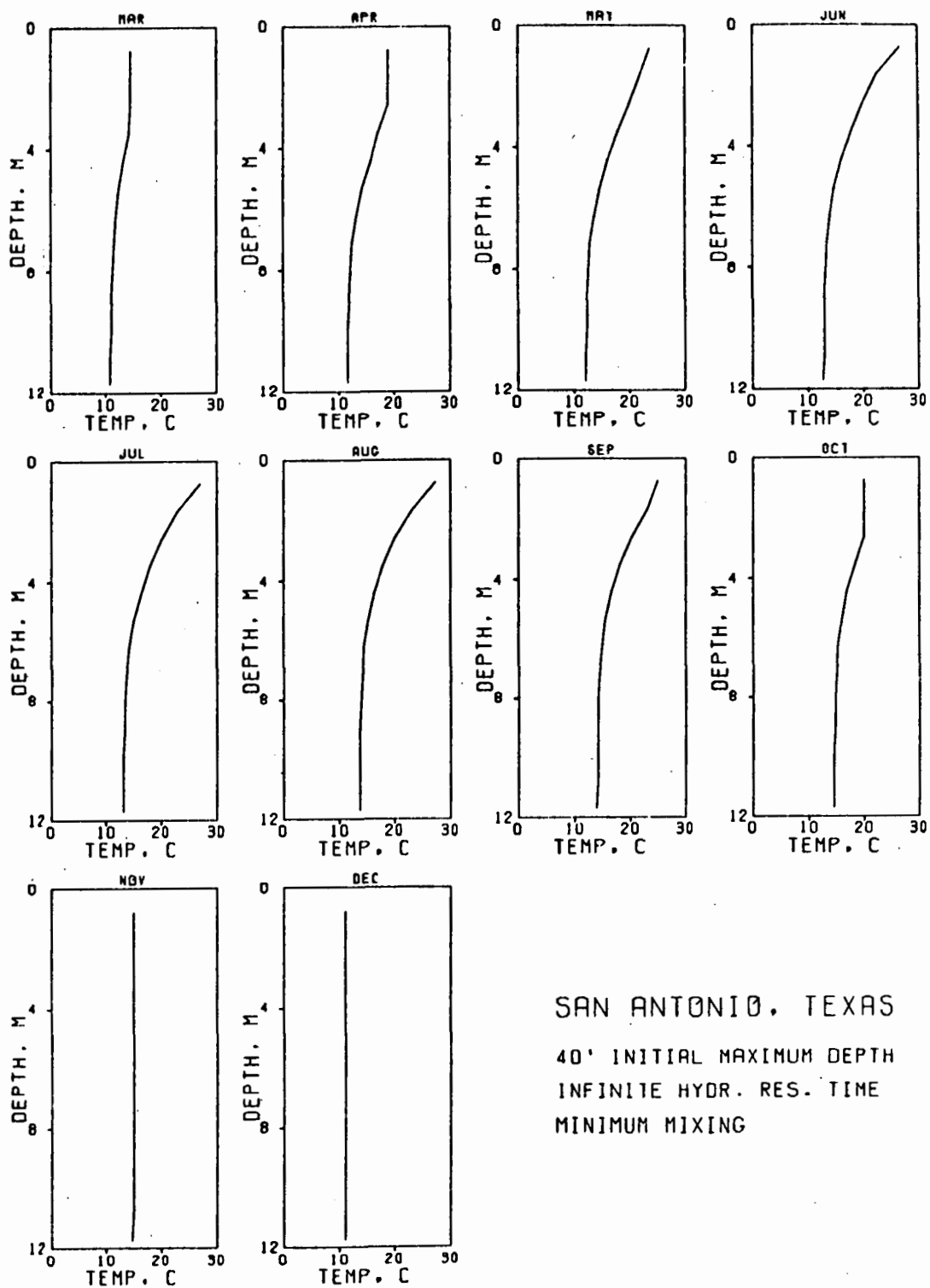


SAN ANTONIO, TEXAS

40' INITIAL MAXIMUM DEPTH

INFINITE HYDR. TIME

MAXIMUM MIXING

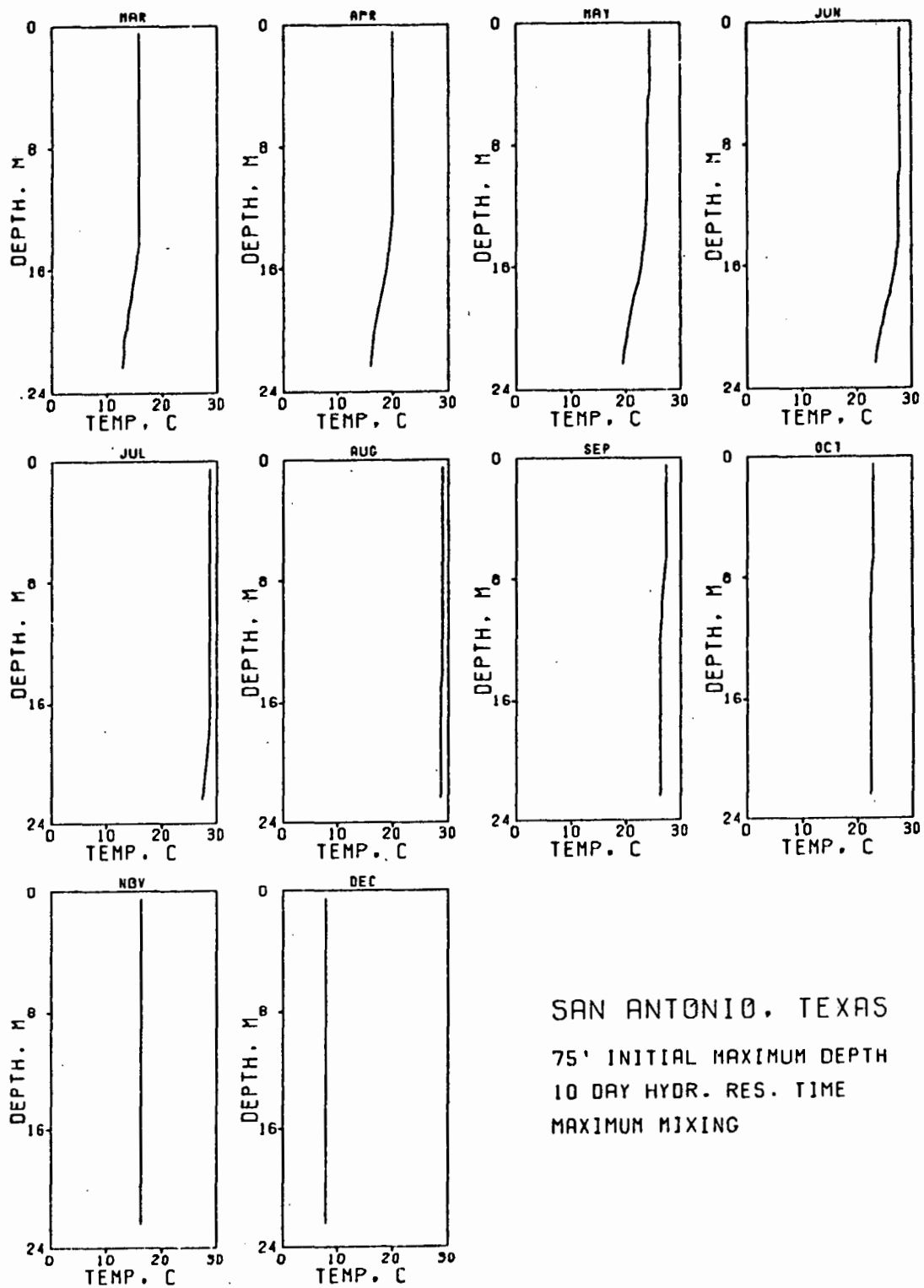


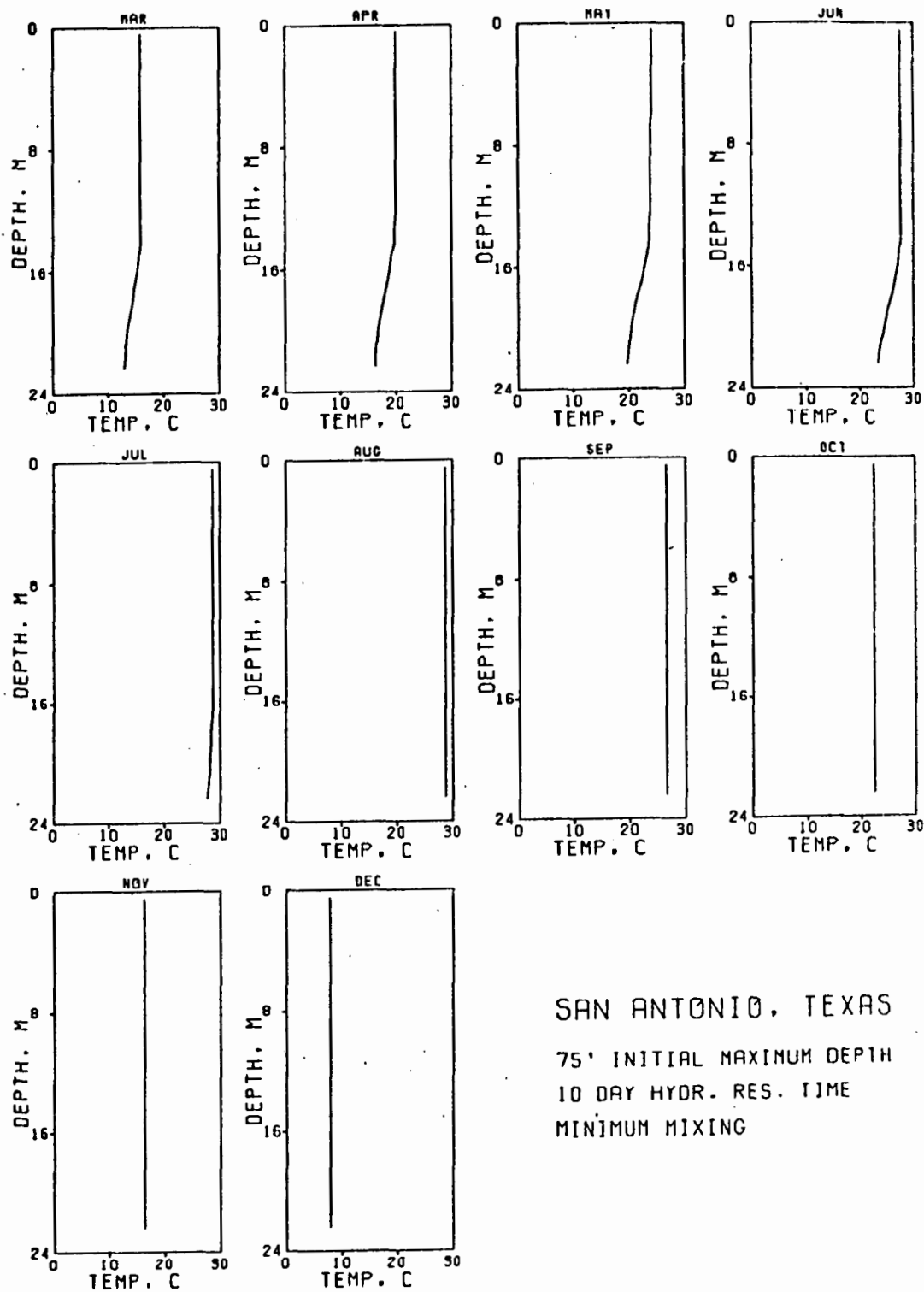
SAN ANTONIO, TEXAS

40' INITIAL MAXIMUM DEPTH

INFINITE HYDR. RES. TIME

MINIMUM MIXING



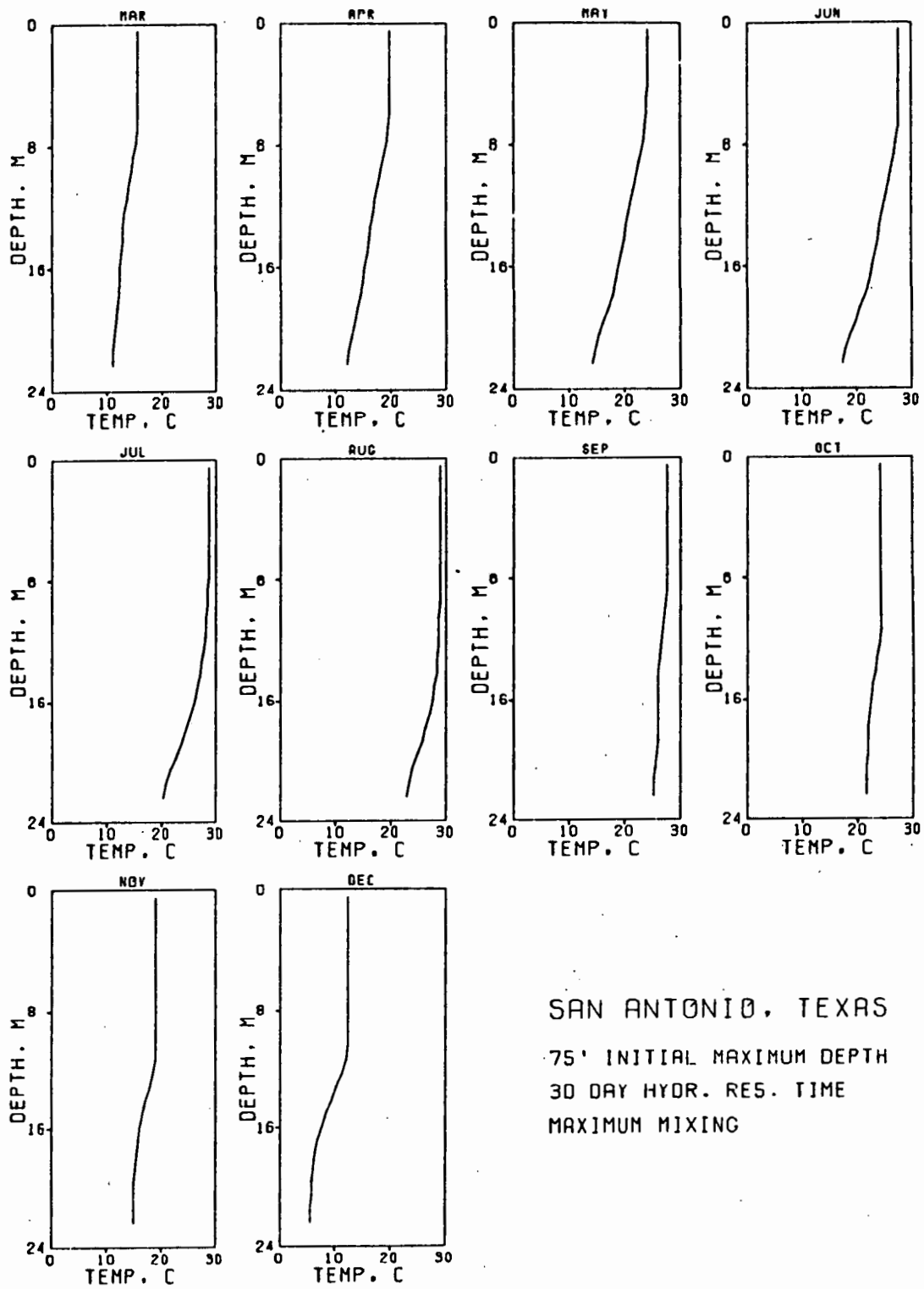


SAN ANTONIO, TEXAS

75' INITIAL MAXIMUM DEPTH

10 DAY HYDR. RES. TIME

MINIMUM MIXING

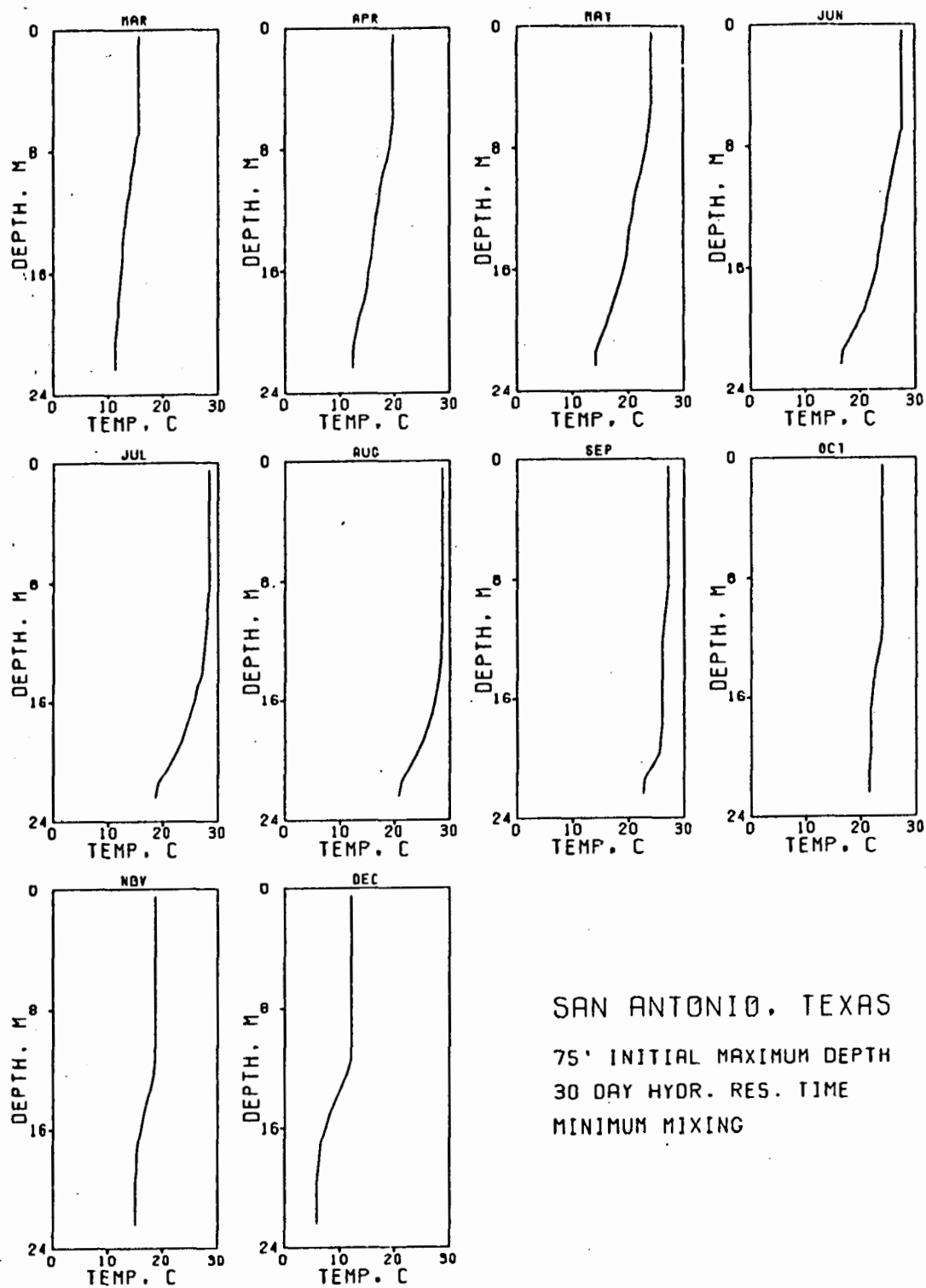


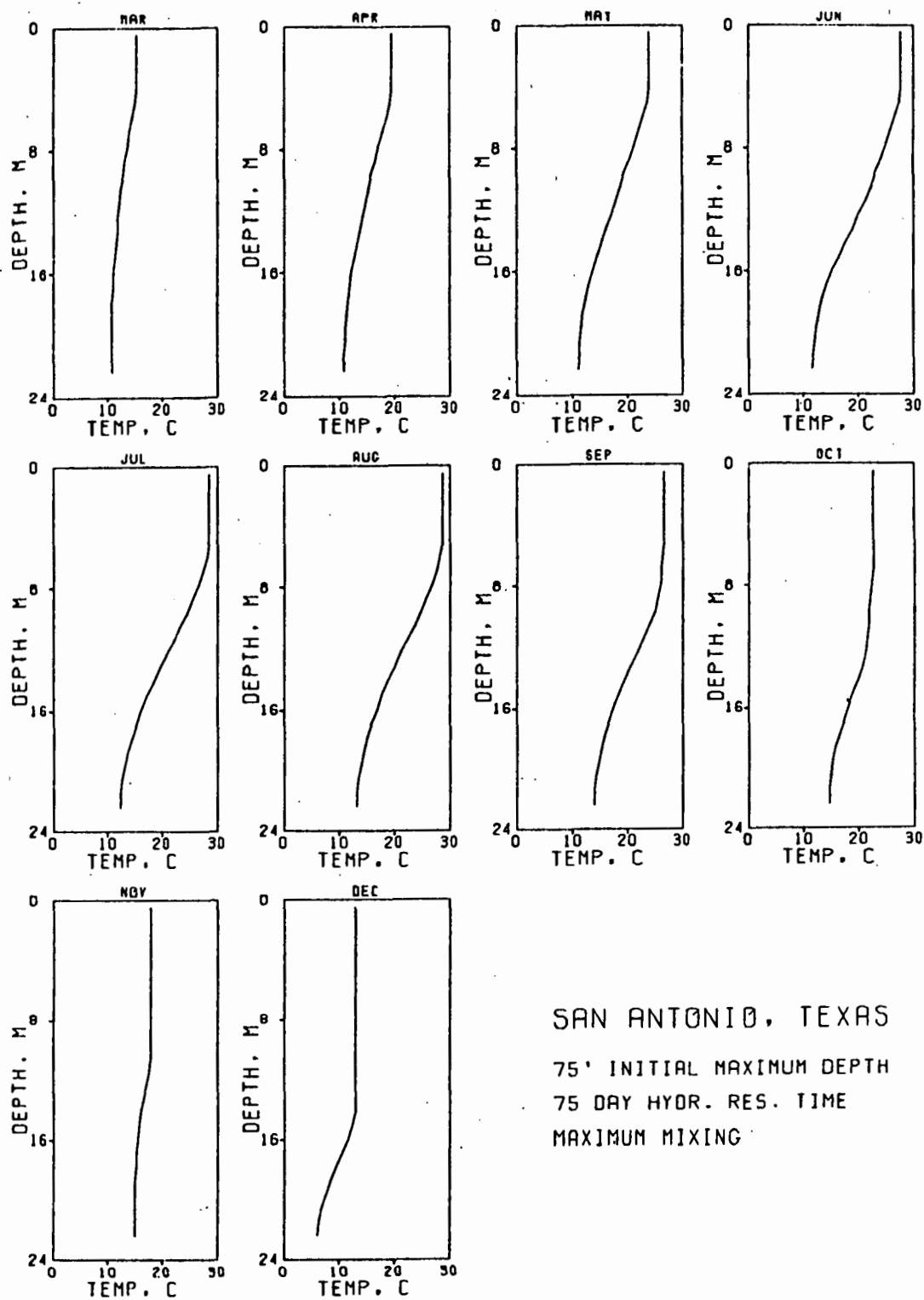
SAN ANTONIO, TEXAS

75' INITIAL MAXIMUM DEPTH

30 DAY HYDR. RES. TIME

MAXIMUM MIXING



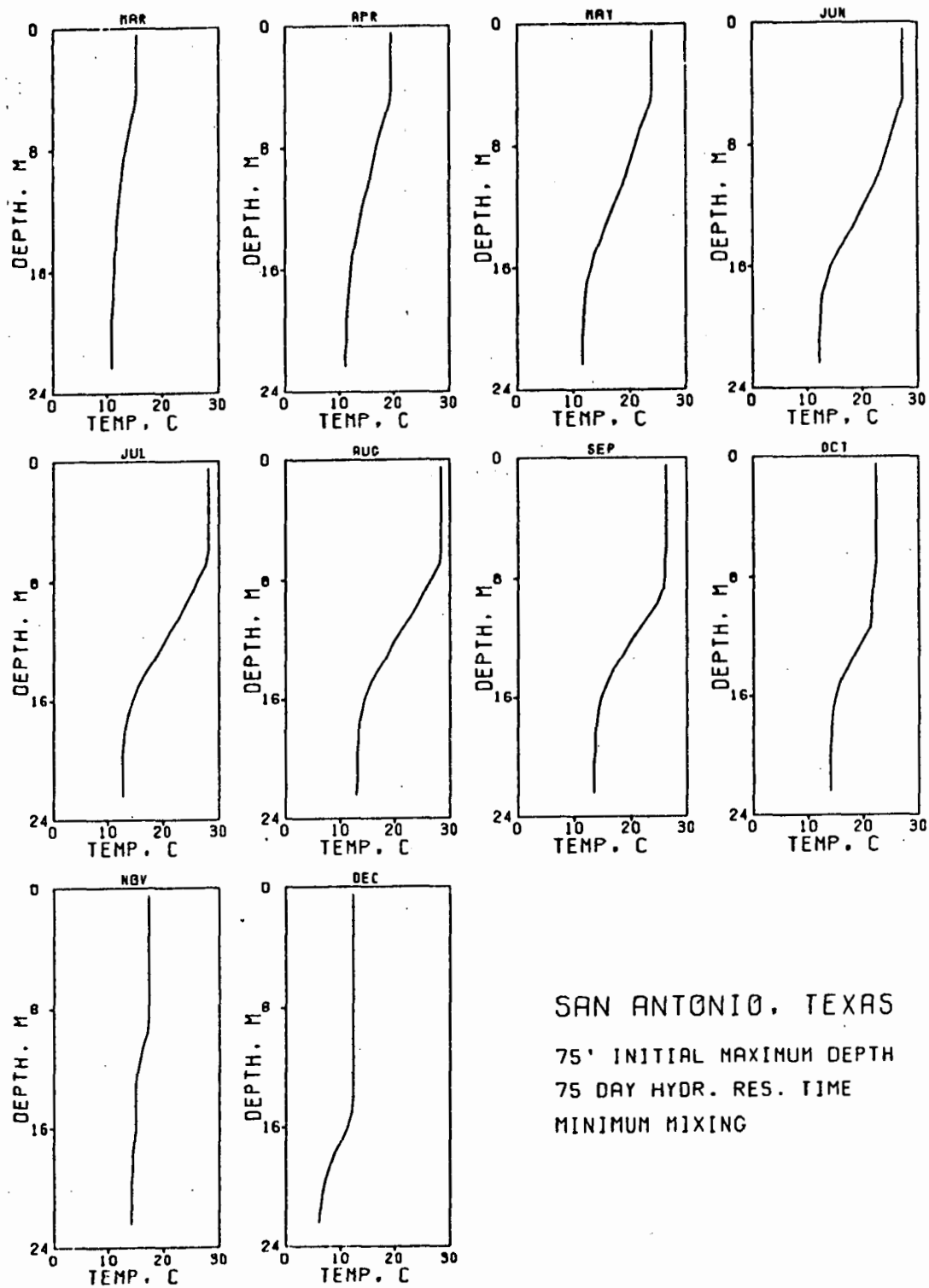


SAN ANTONIO, TEXAS

75' INITIAL MAXIMUM DEPTH

75 DAY HYDR. RES. TIME

MAXIMUM MIXING

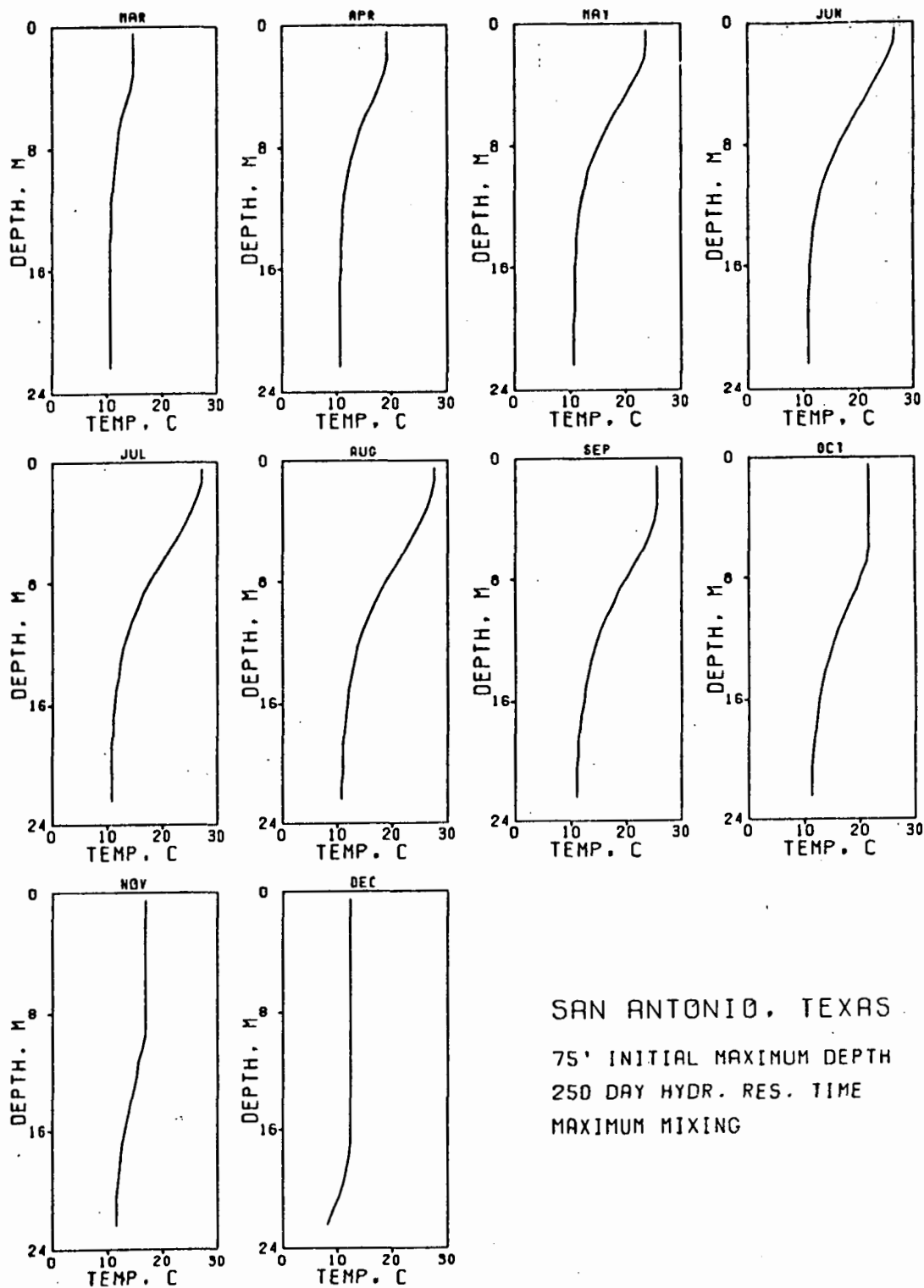


SAN ANTONIO, TEXAS

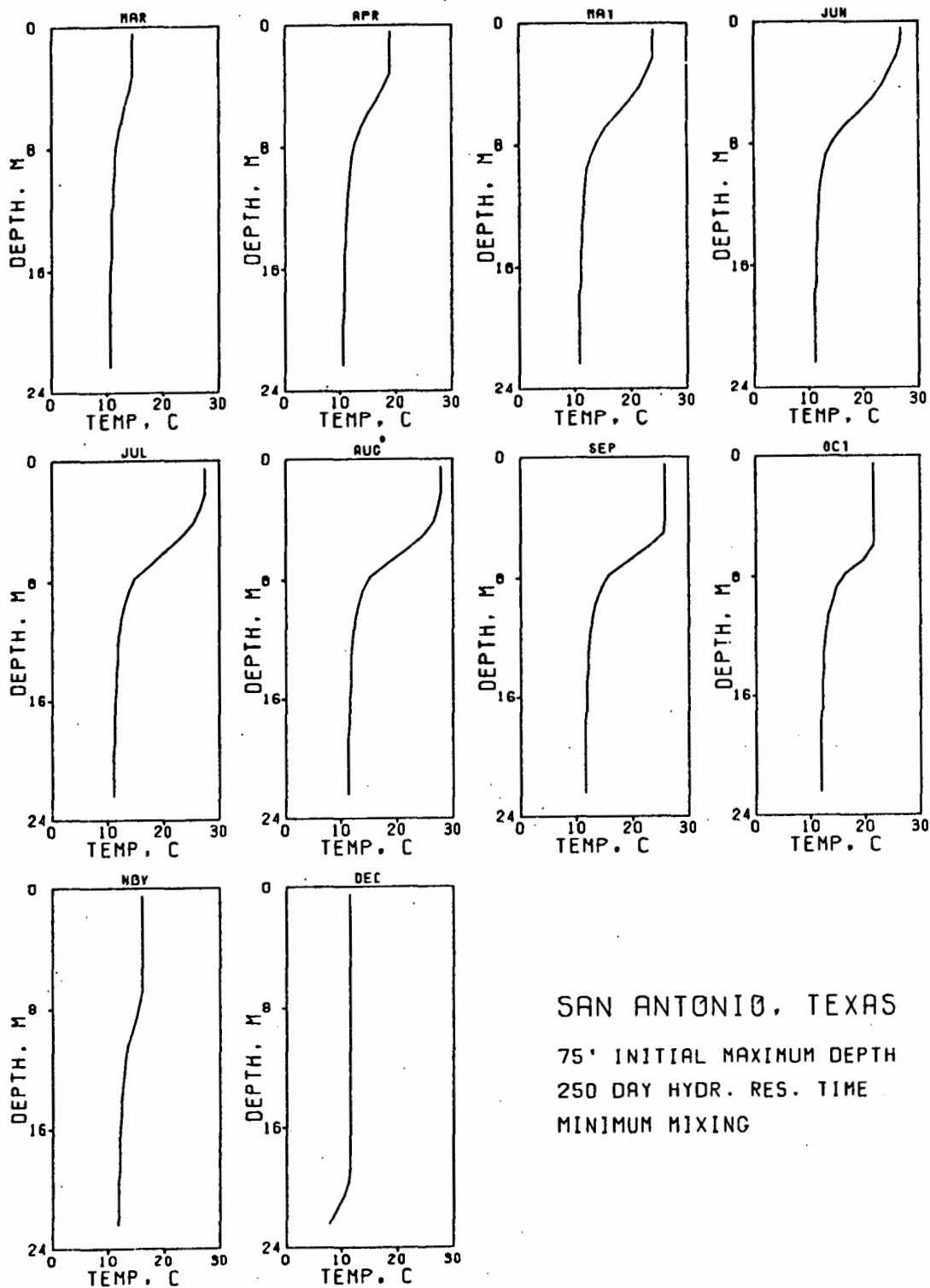
75' INITIAL MAXIMUM DEPTH

75 DAY HYDR. RES. TIME

MINIMUM MIXING



SAN ANTONIO, TEXAS
 75' INITIAL MAXIMUM DEPTH
 250 DAY HYDR. RES. TIME
 MAXIMUM MIXING

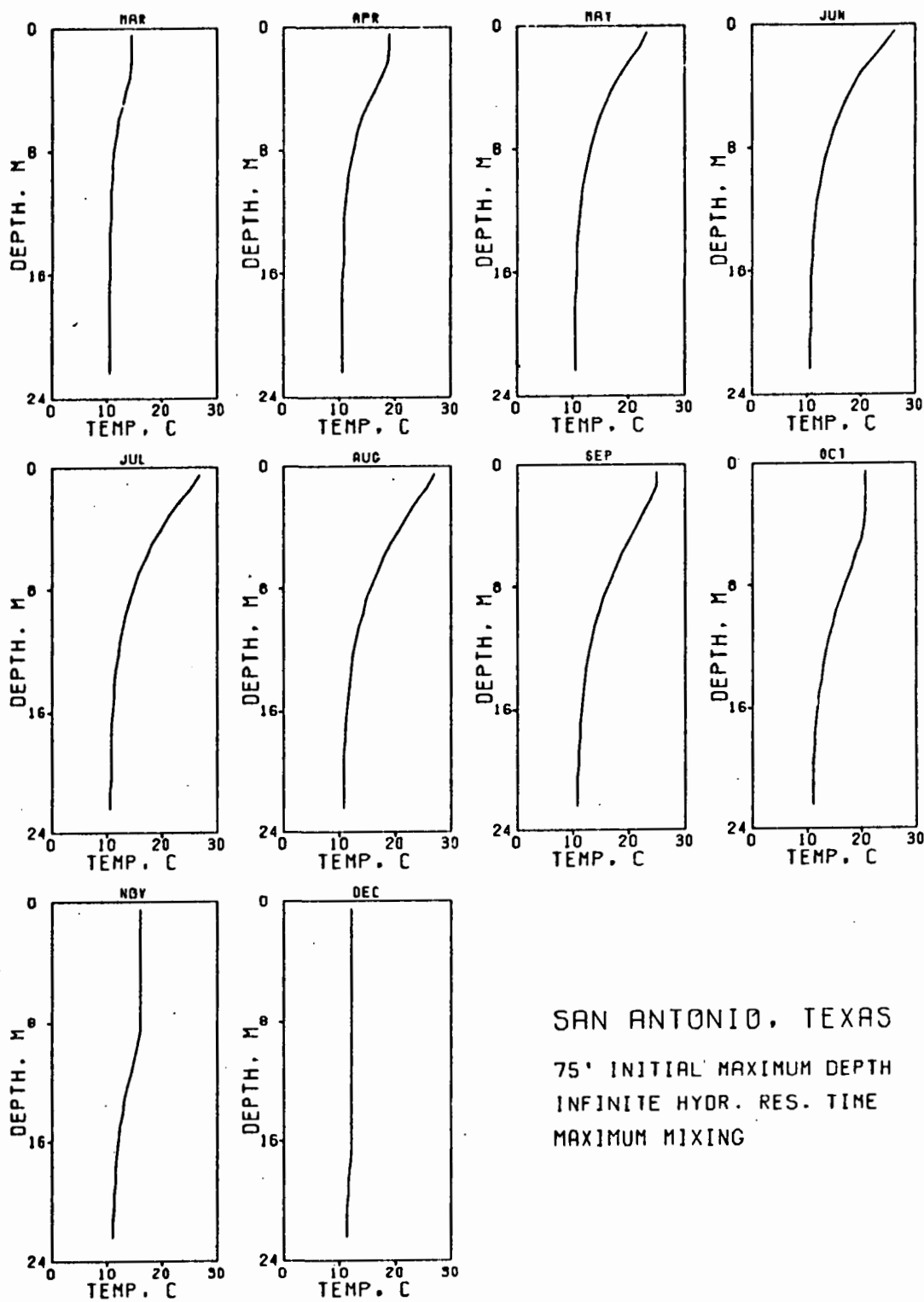


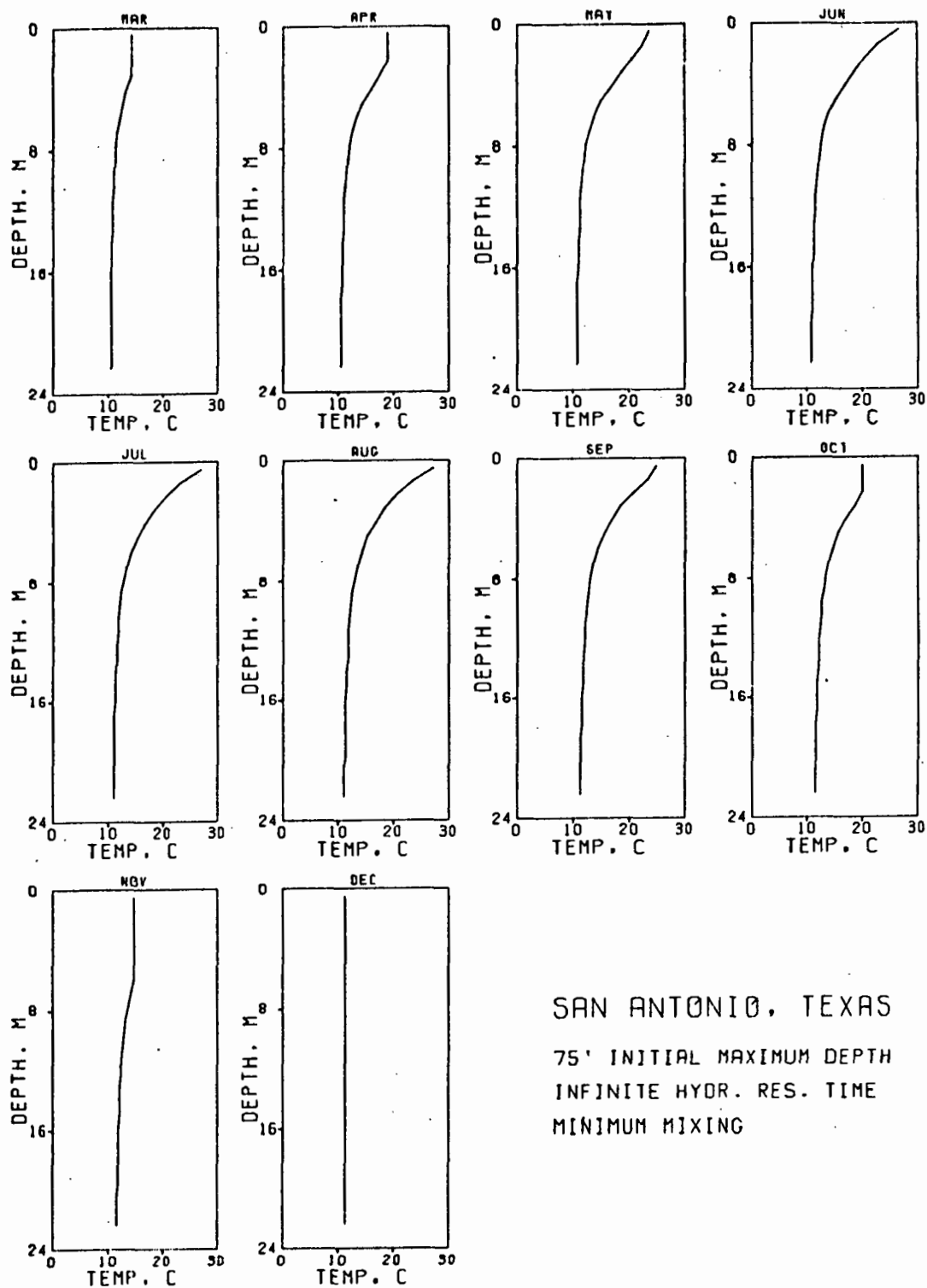
SAN ANTONIO, TEXAS

75' INITIAL MAXIMUM DEPTH

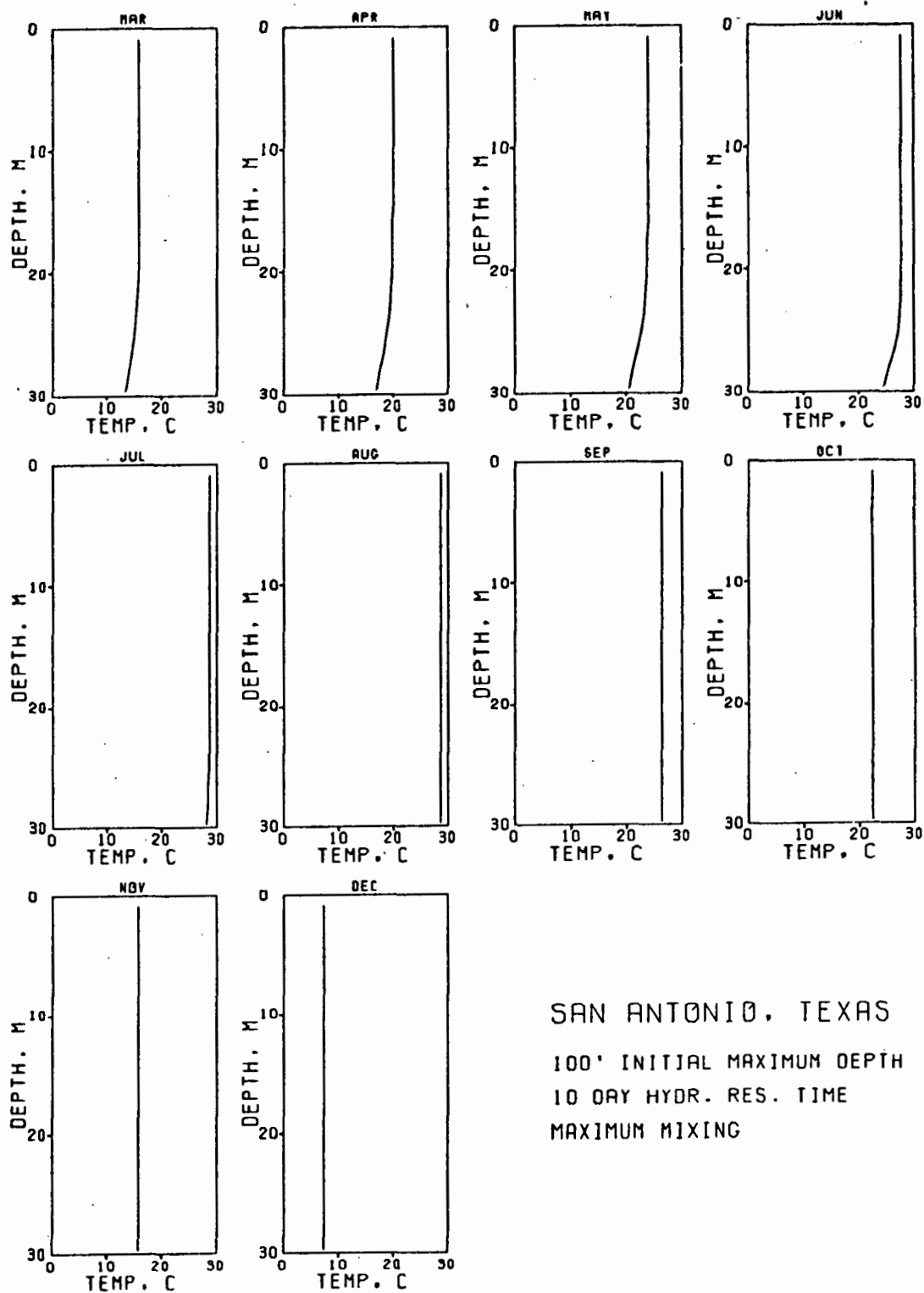
250 DAY HYDR. RES. TIME

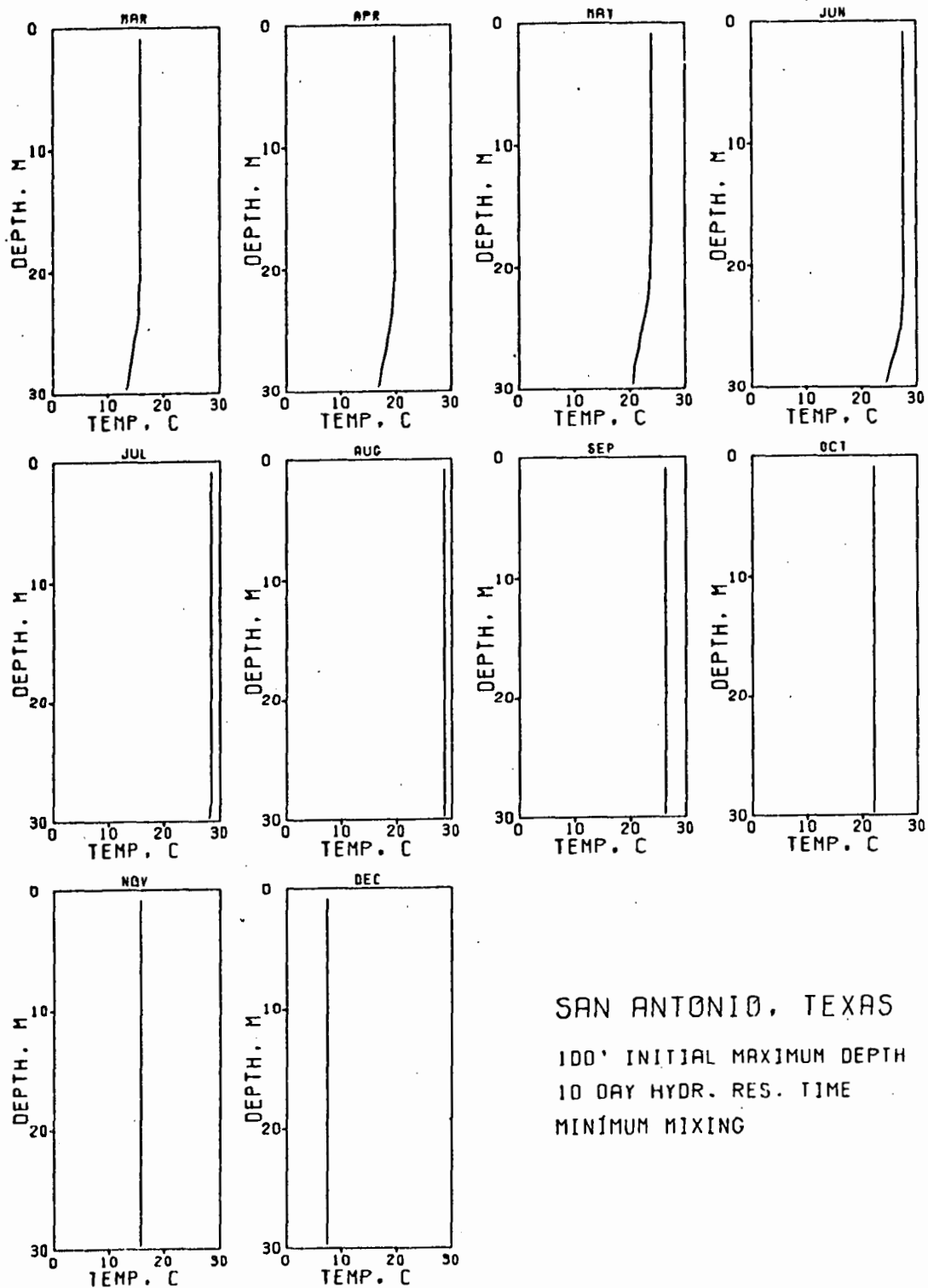
MINIMUM MIXING





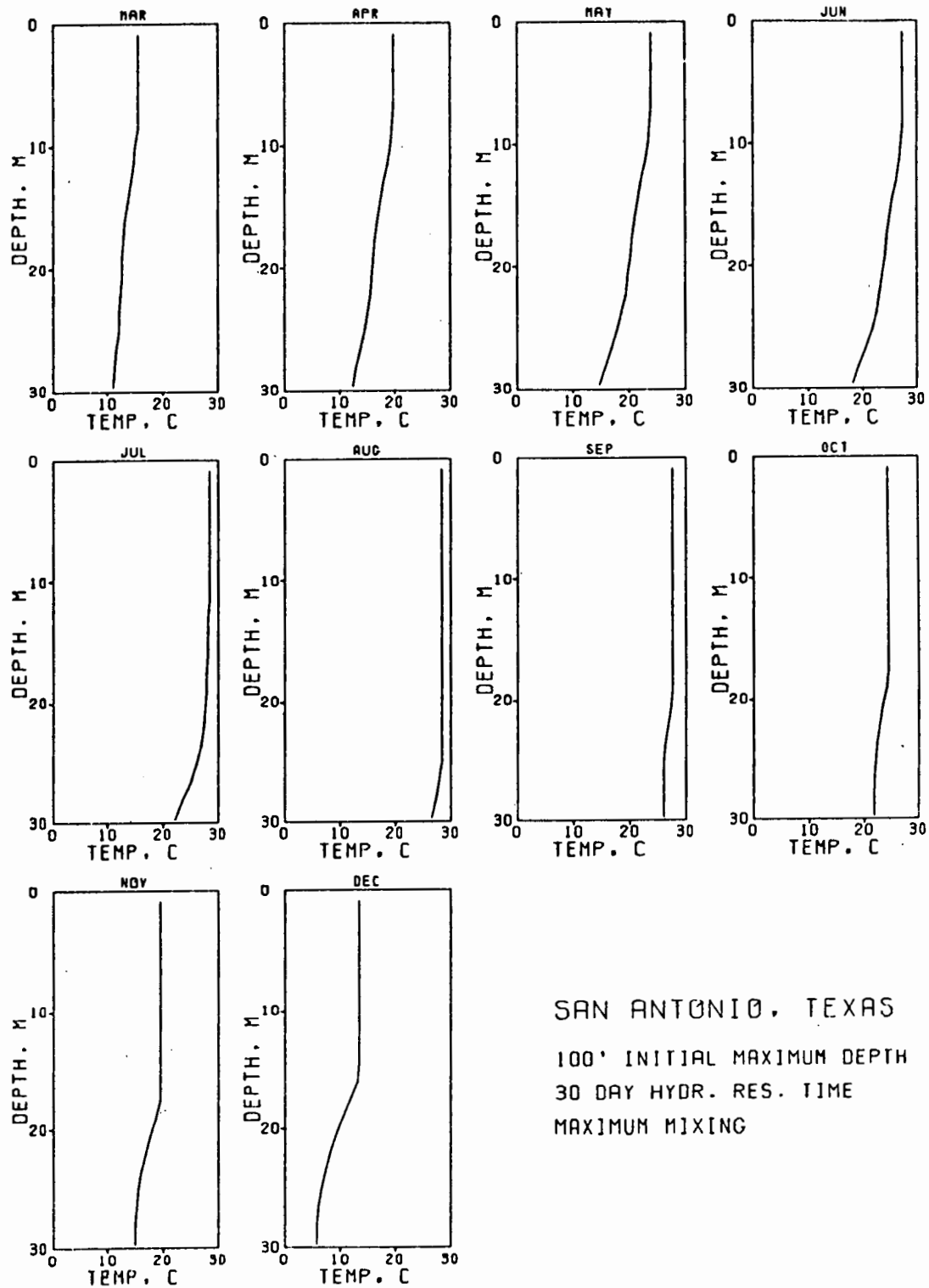
SAN ANTONIO, TEXAS
 75' INITIAL MAXIMUM DEPTH
 INFINITE HYDR. RES. TIME
 MINIMUM MIXING



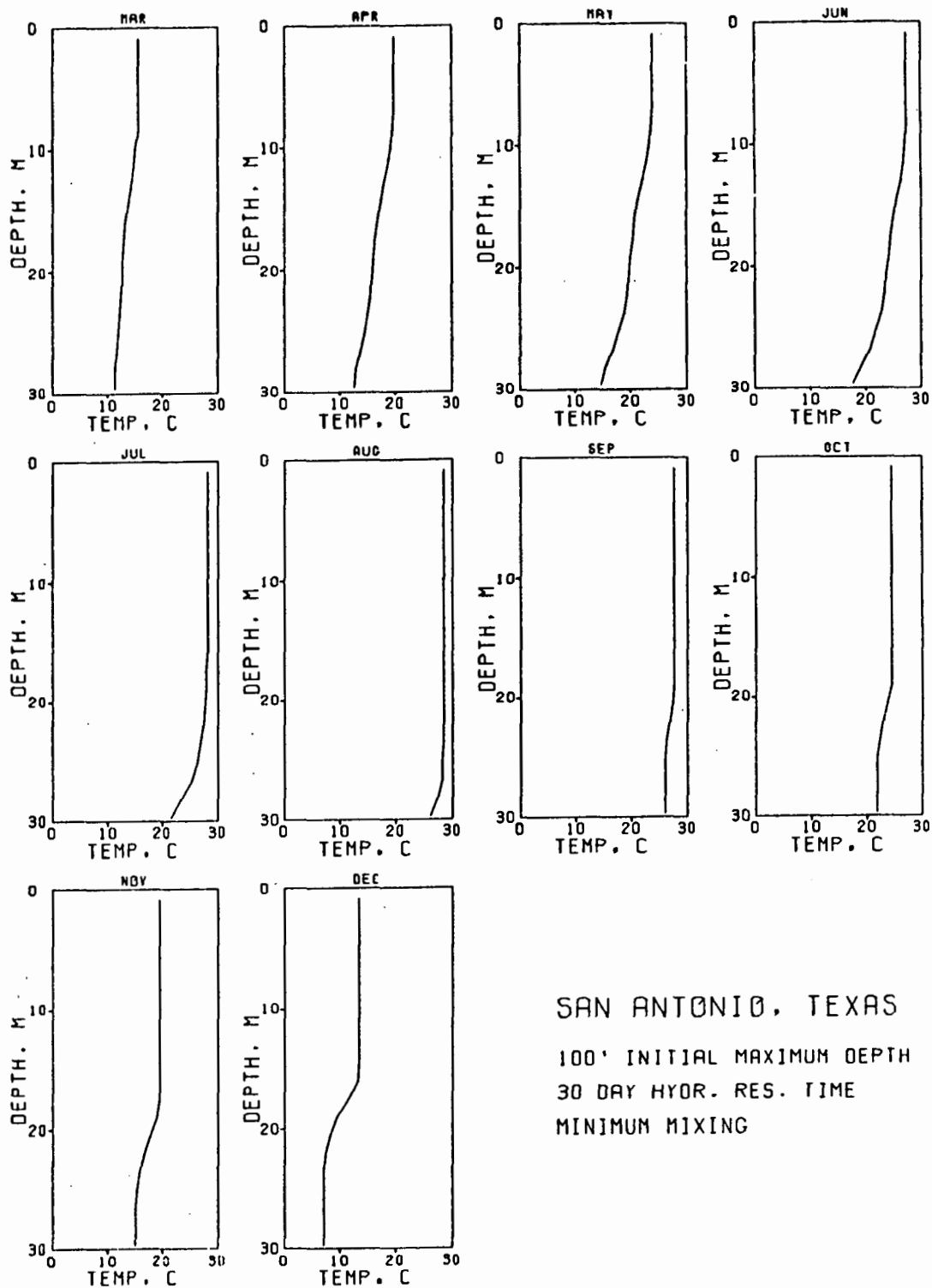


SAN ANTONIO, TEXAS

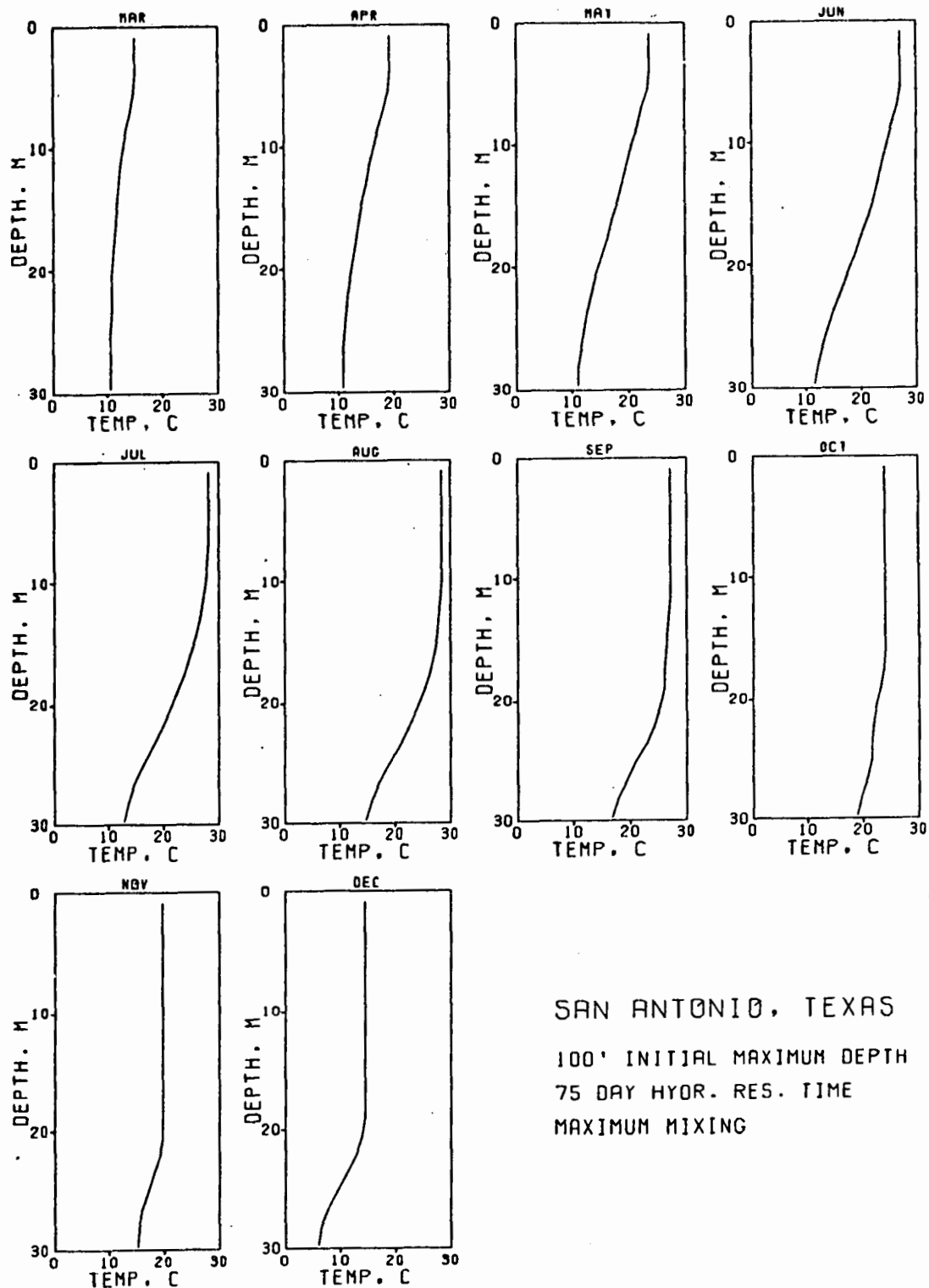
100' INITIAL MAXIMUM DEPTH
10 DAY HYDR. RES. TIME
MINIMUM MIXING



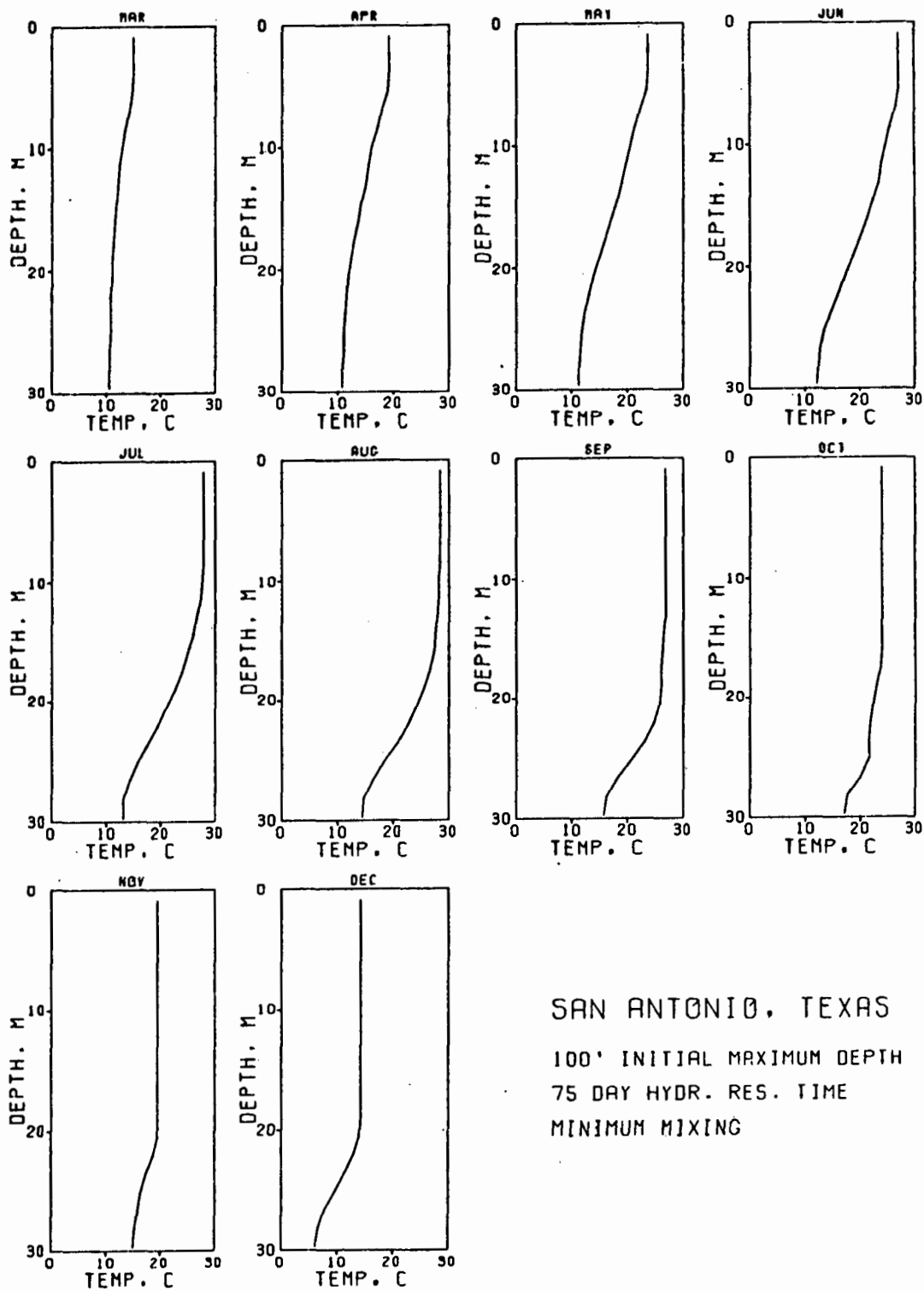
SAN ANTONIO, TEXAS
 100' INITIAL MAXIMUM DEPTH
 30 DAY HYDR. RES. TIME
 MAXIMUM MIXING



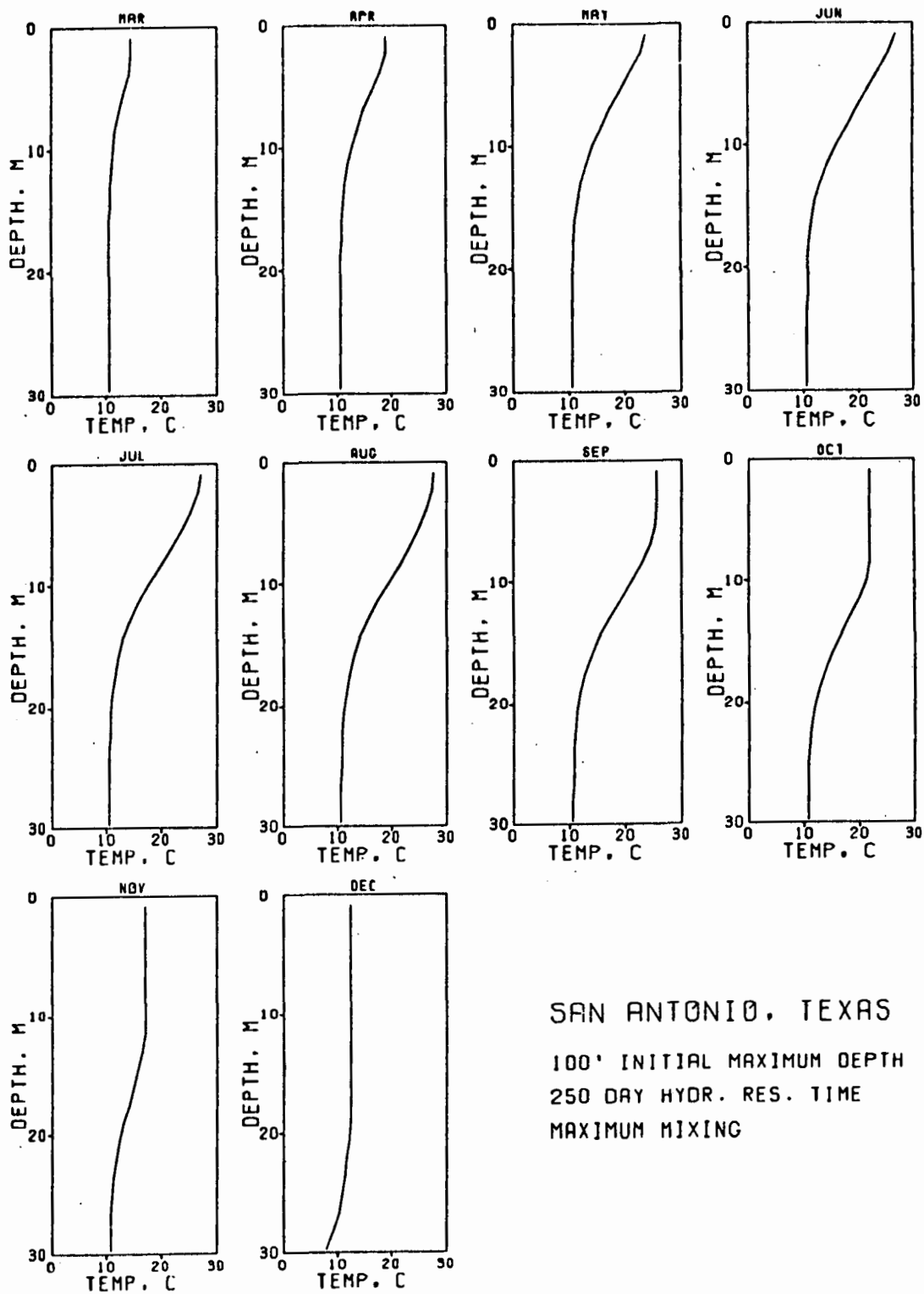
SAN ANTONIO, TEXAS
 100' INITIAL MAXIMUM DEPTH
 30 DAY HYOR. RES. TIME
 MINIMUM MIXING



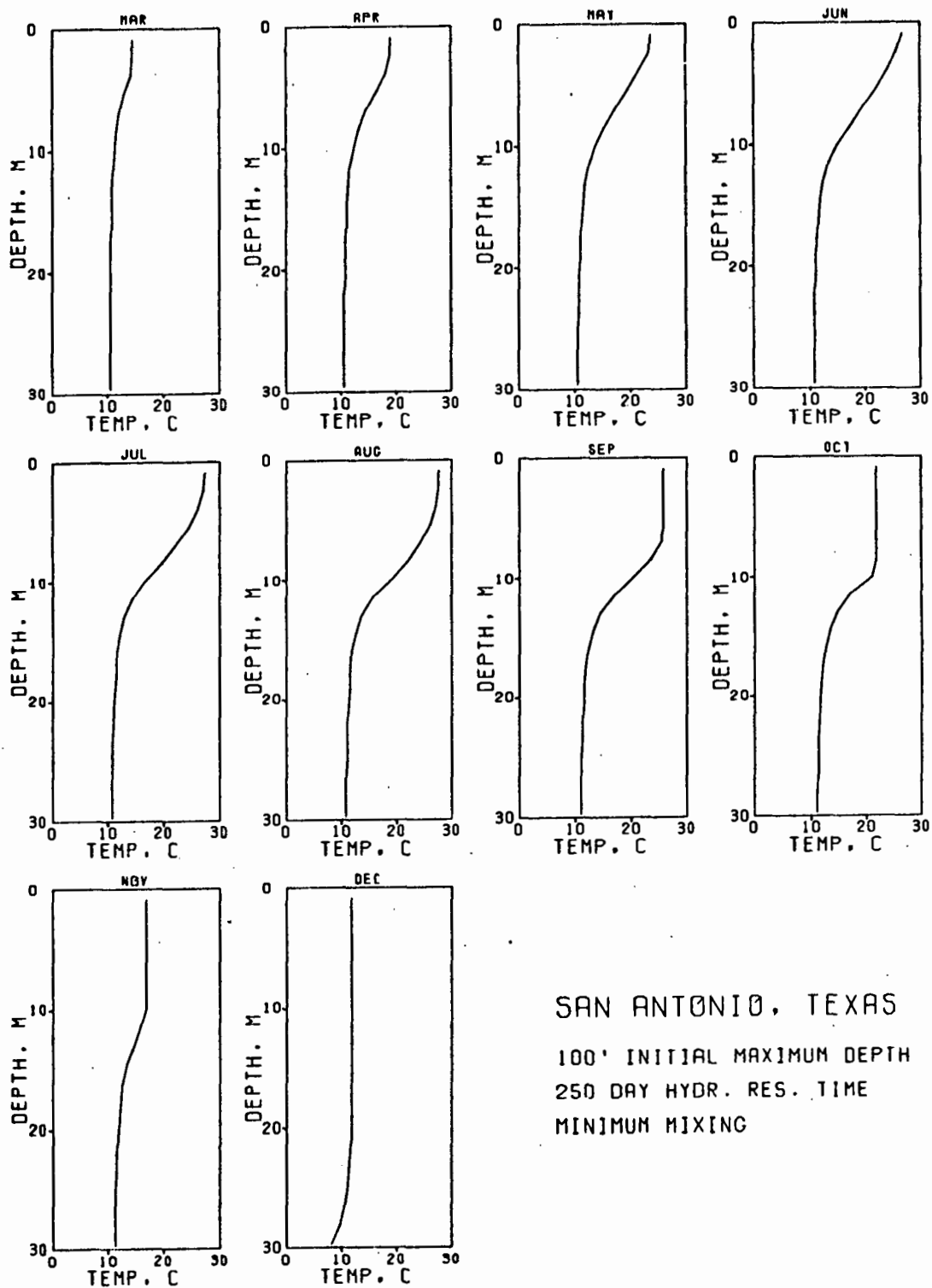
SAN ANTONIO, TEXAS
 100' INITIAL MAXIMUM DEPTH
 75 DAY HYOR. RES. TIME
 MAXIMUM MIXING



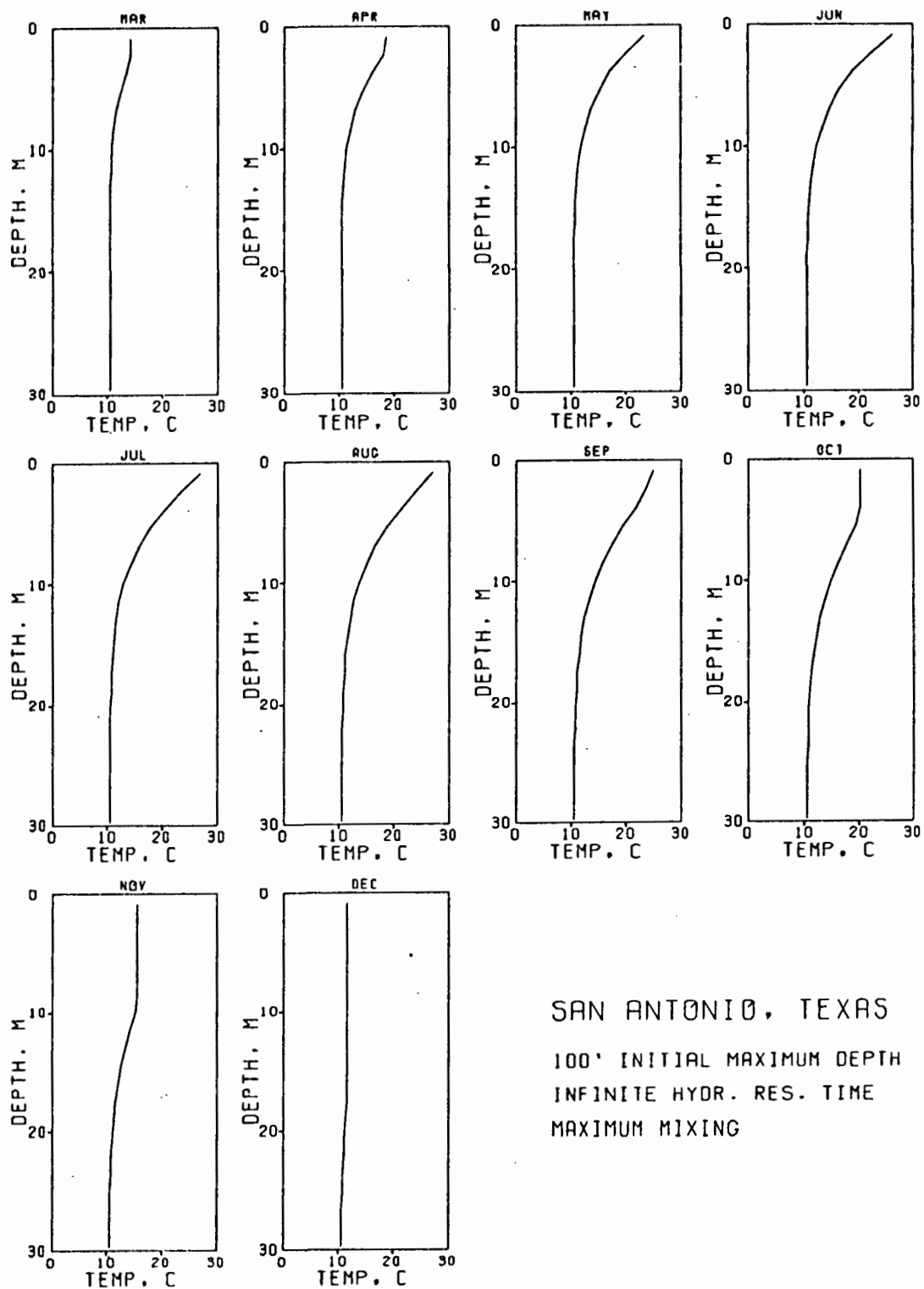
SAN ANTONIO, TEXAS
 100' INITIAL MAXIMUM DEPTH
 75 DAY HYDR. RES. TIME
 MINIMUM MIXING



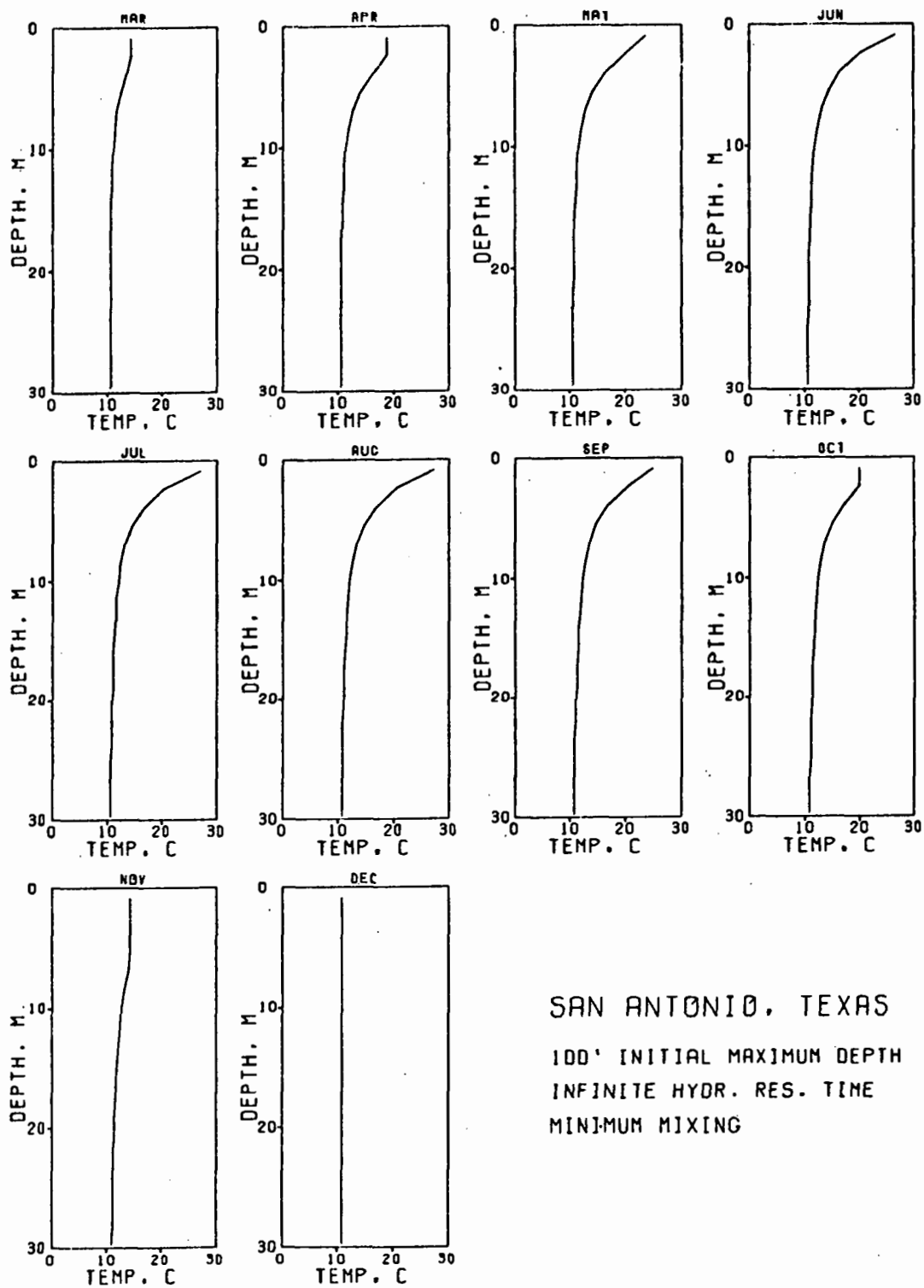
SAN ANTONIO, TEXAS
 100' INITIAL MAXIMUM DEPTH
 250 DAY HYDR. RES. TIME
 MAXIMUM MIXING



SAN ANTONIO, TEXAS
 100' INITIAL MAXIMUM DEPTH
 250 DAY HYDR. RES. TIME
 MINIMUM MIXING



SAN ANTONIO, TEXAS
 100' INITIAL MAXIMUM DEPTH
 INFINITE HYDR. RES. TIME
 MAXIMUM MIXING

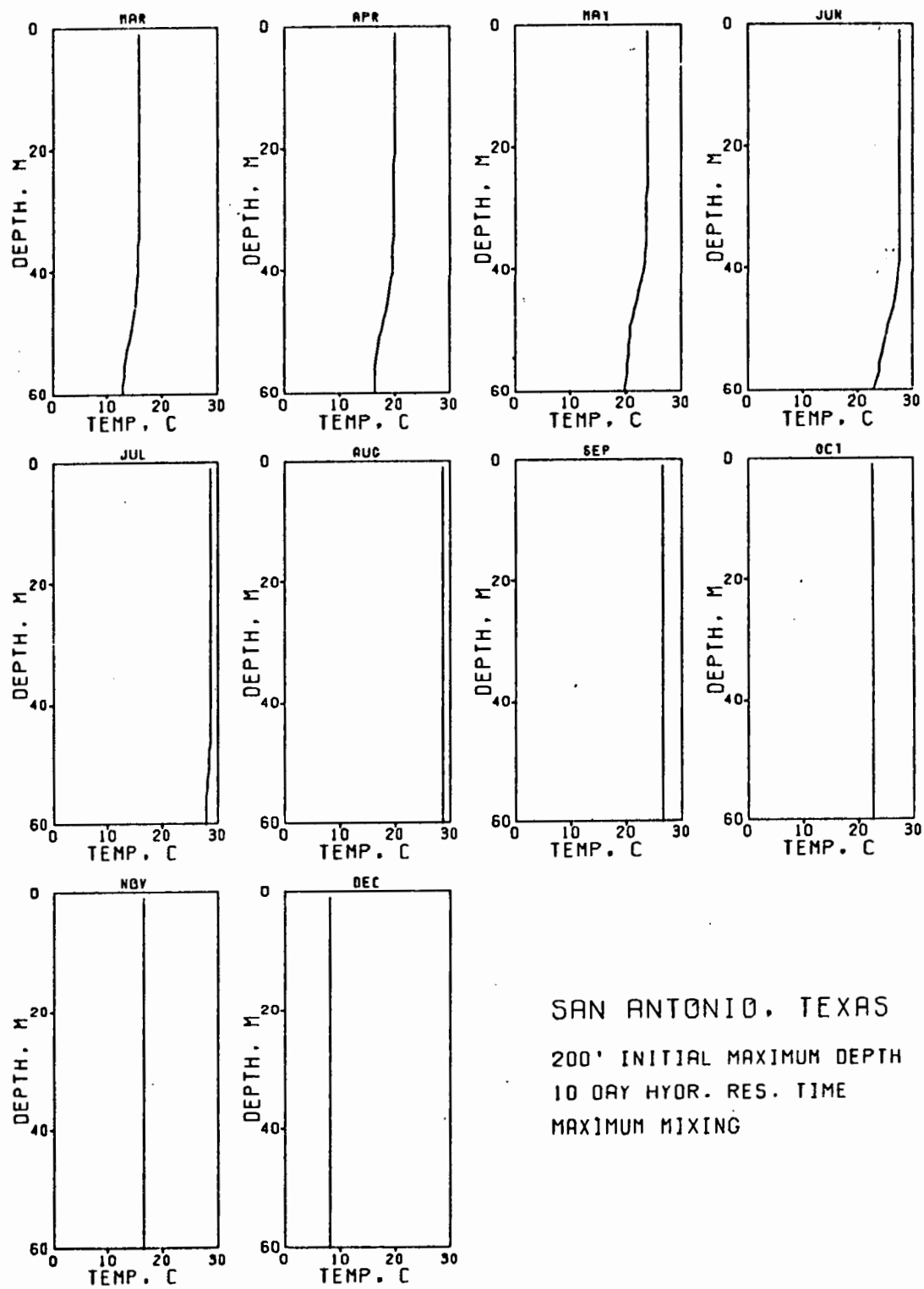


SAN ANTONIO, TEXAS

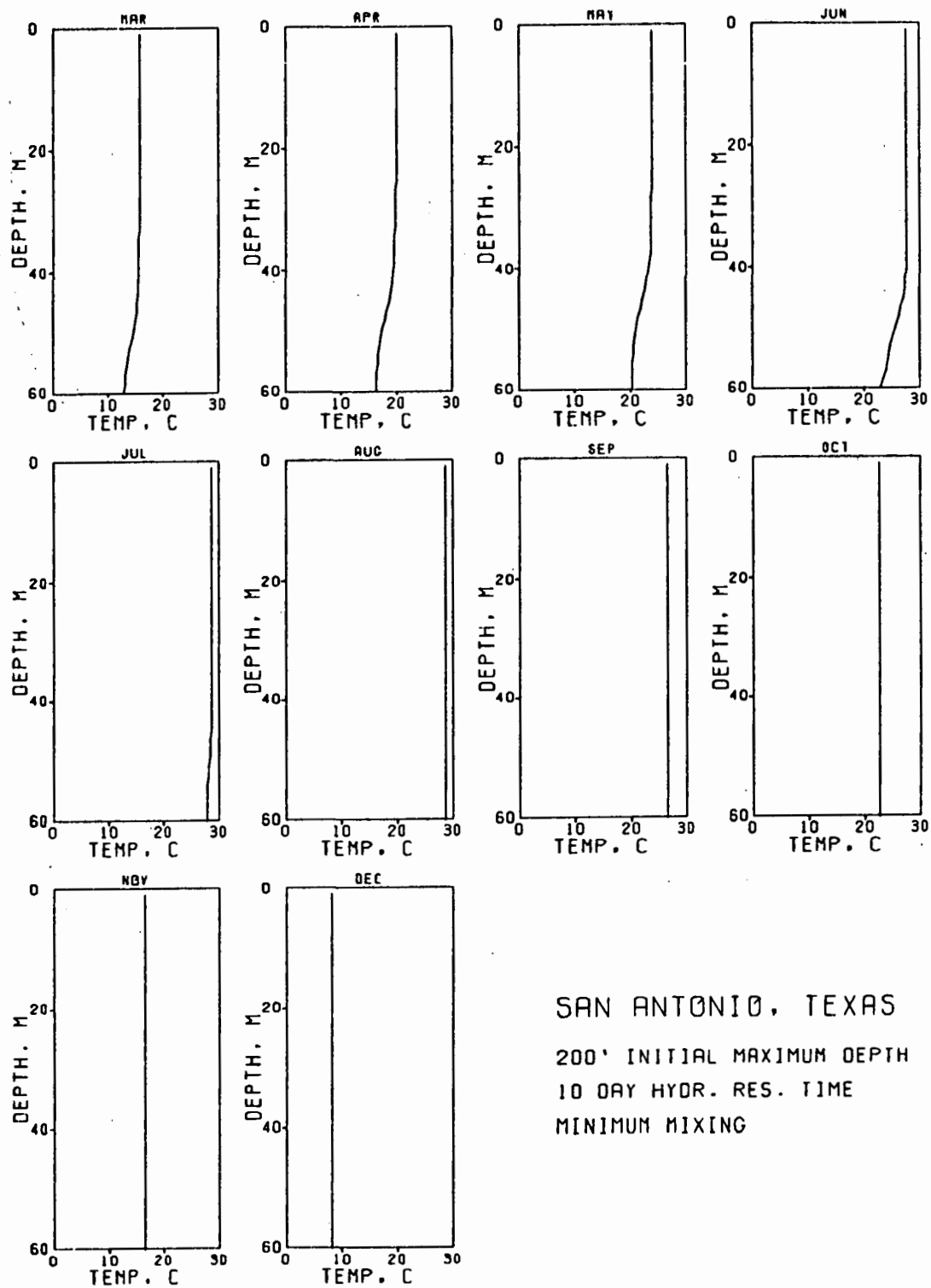
100' INITIAL MAXIMUM DEPTH

INFINITE HYDR. RES. TIME

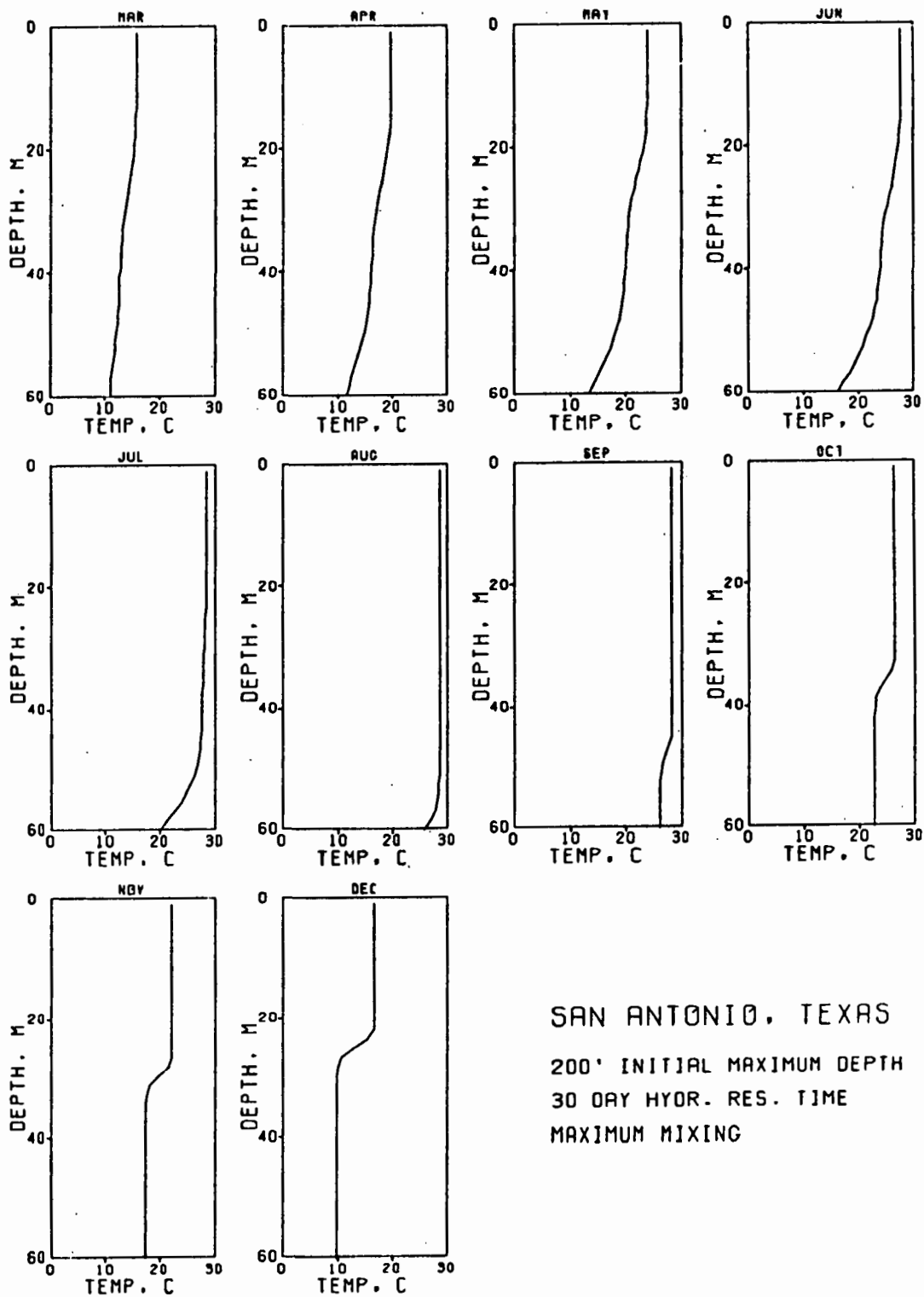
MINIMUM MIXING



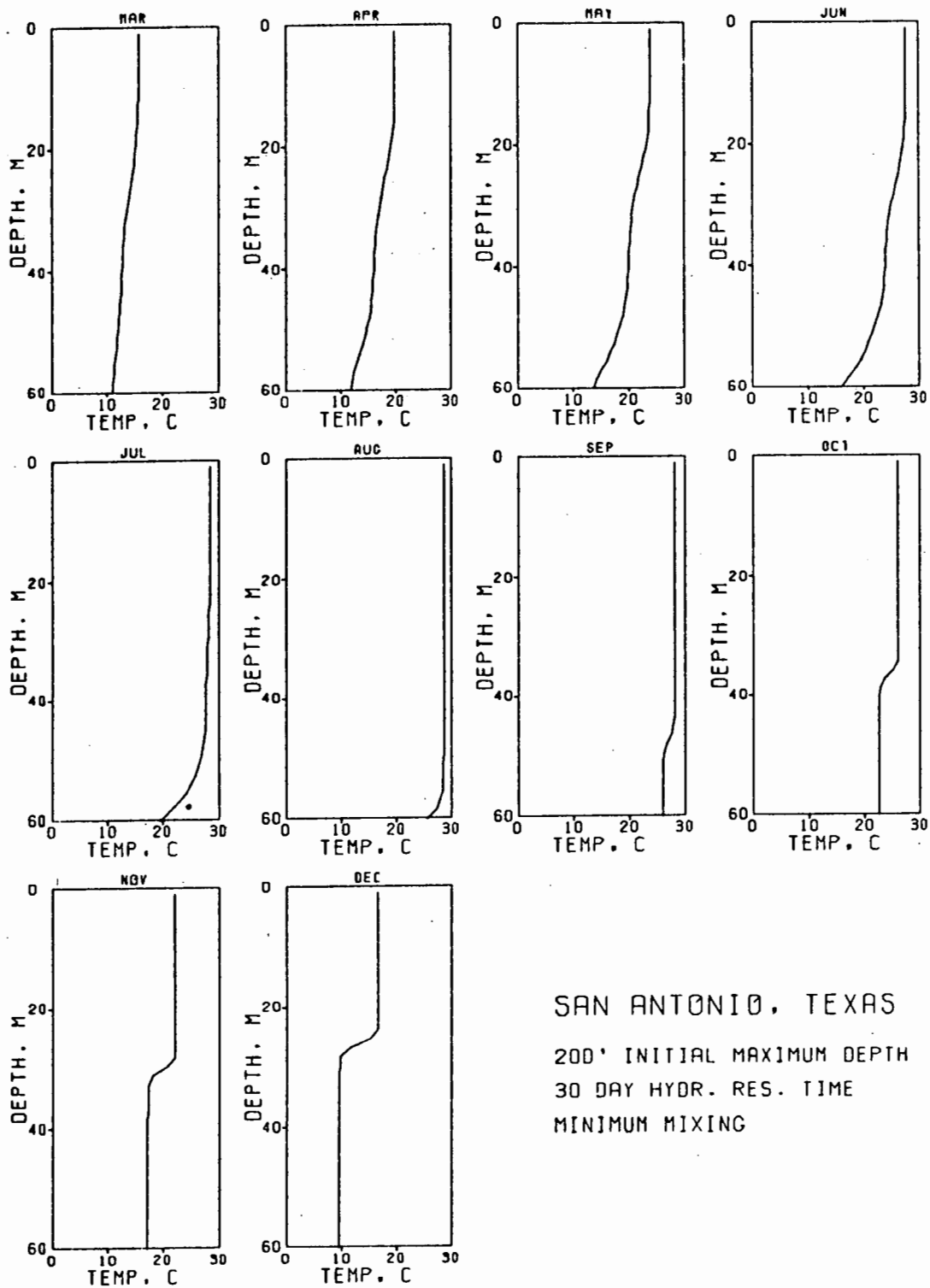
SAN ANTONIO, TEXAS
 200' INITIAL MAXIMUM DEPTH
 10 DAY HYDR. RES. TIME
 MAXIMUM MIXING



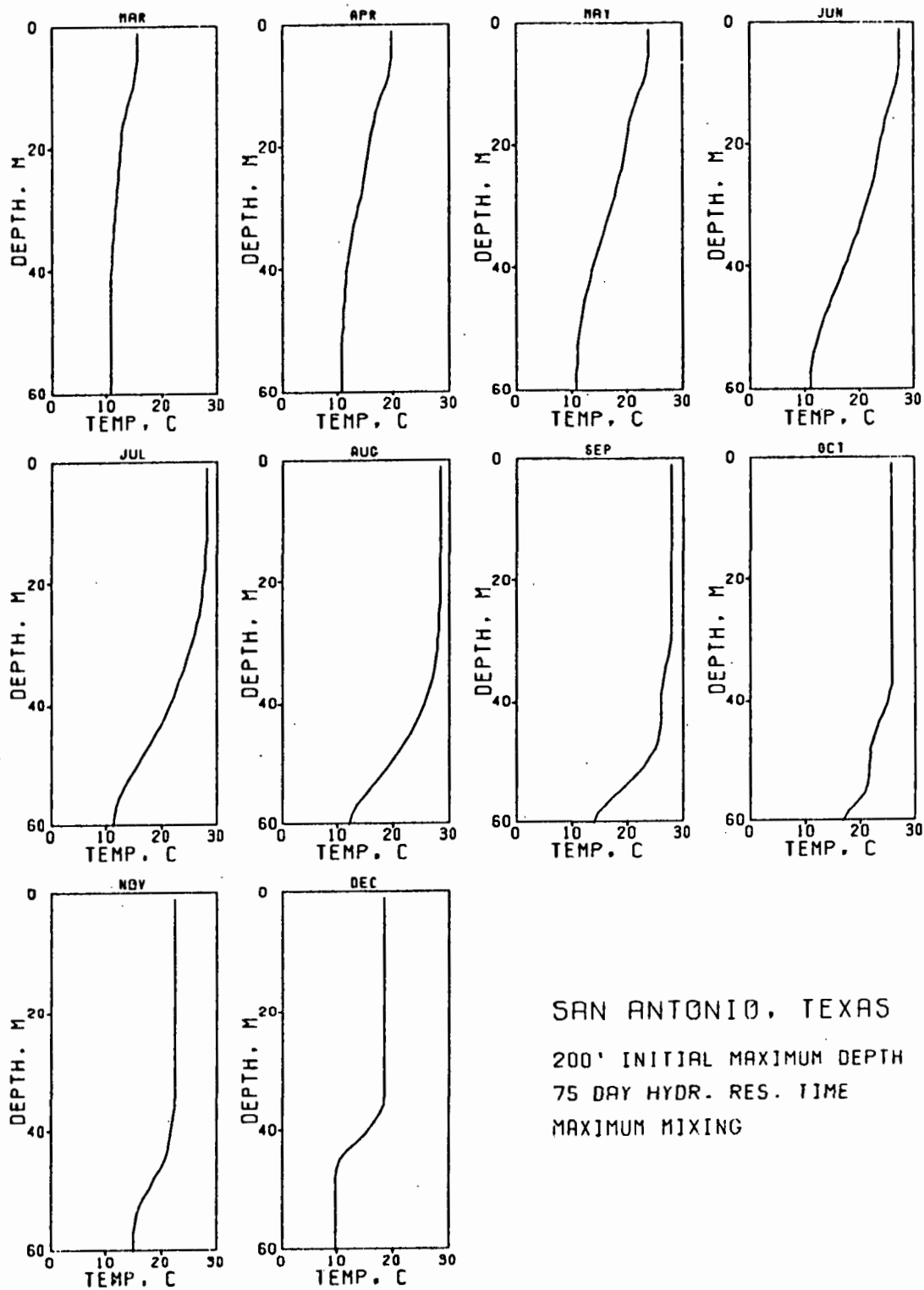
SAN ANTONIO, TEXAS
 200' INITIAL MAXIMUM DEPTH
 10 DAY HYDR. RES. TIME
 MINIMUM MIXING

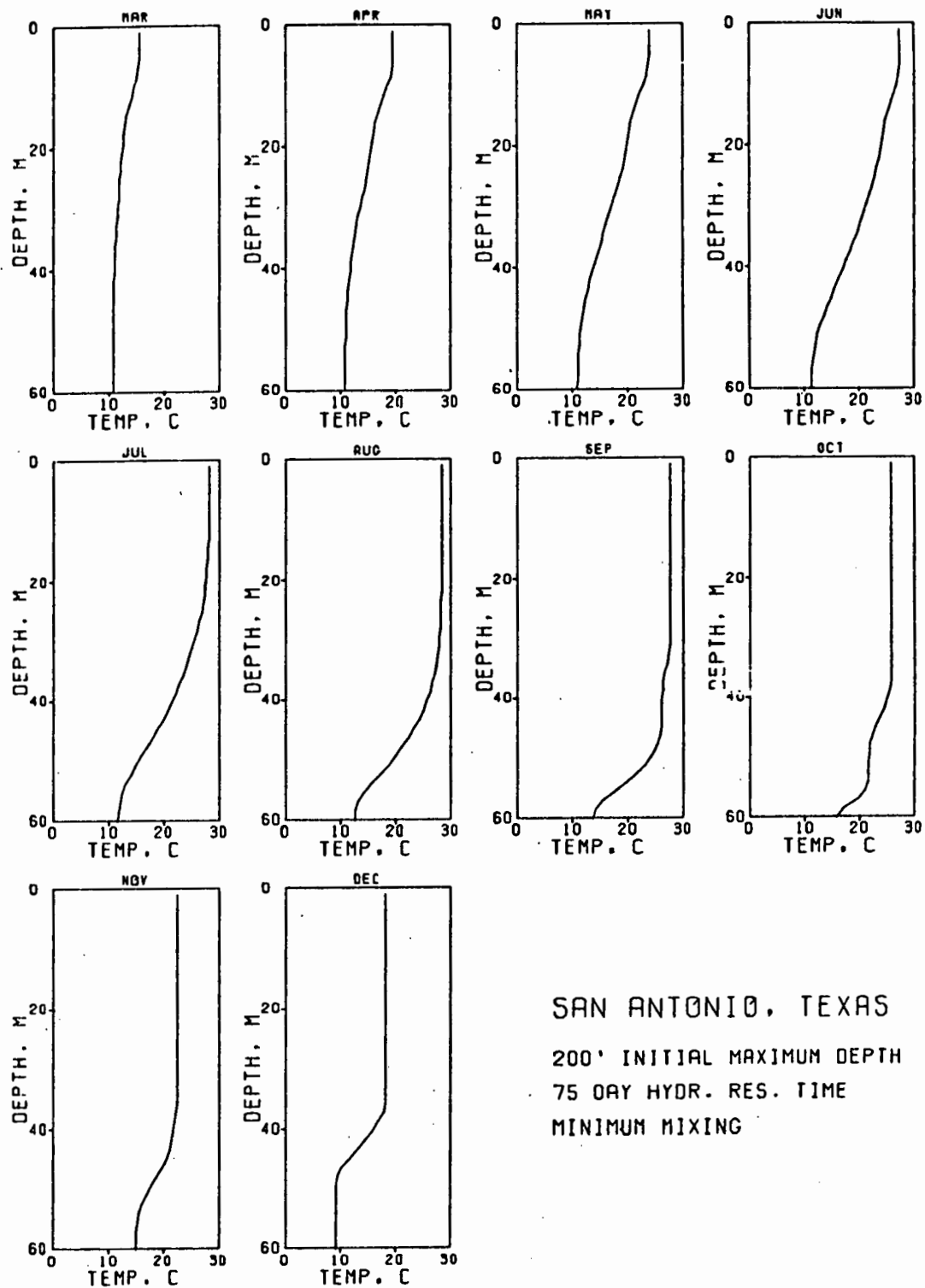


SAN ANTONIO, TEXAS
 200' INITIAL MAXIMUM DEPTH
 30 DAY HYDR. RES. TIME
 MAXIMUM MIXING

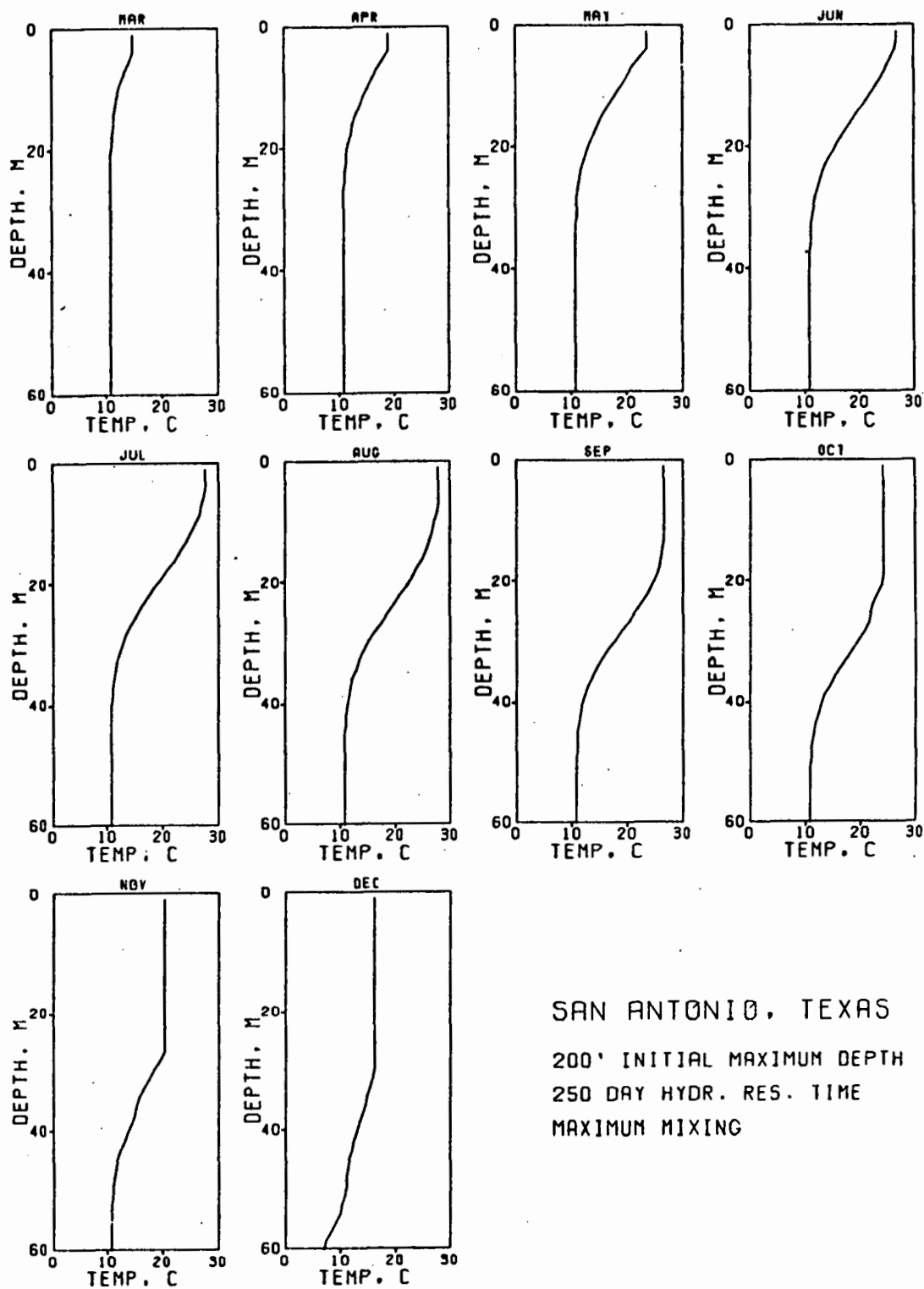


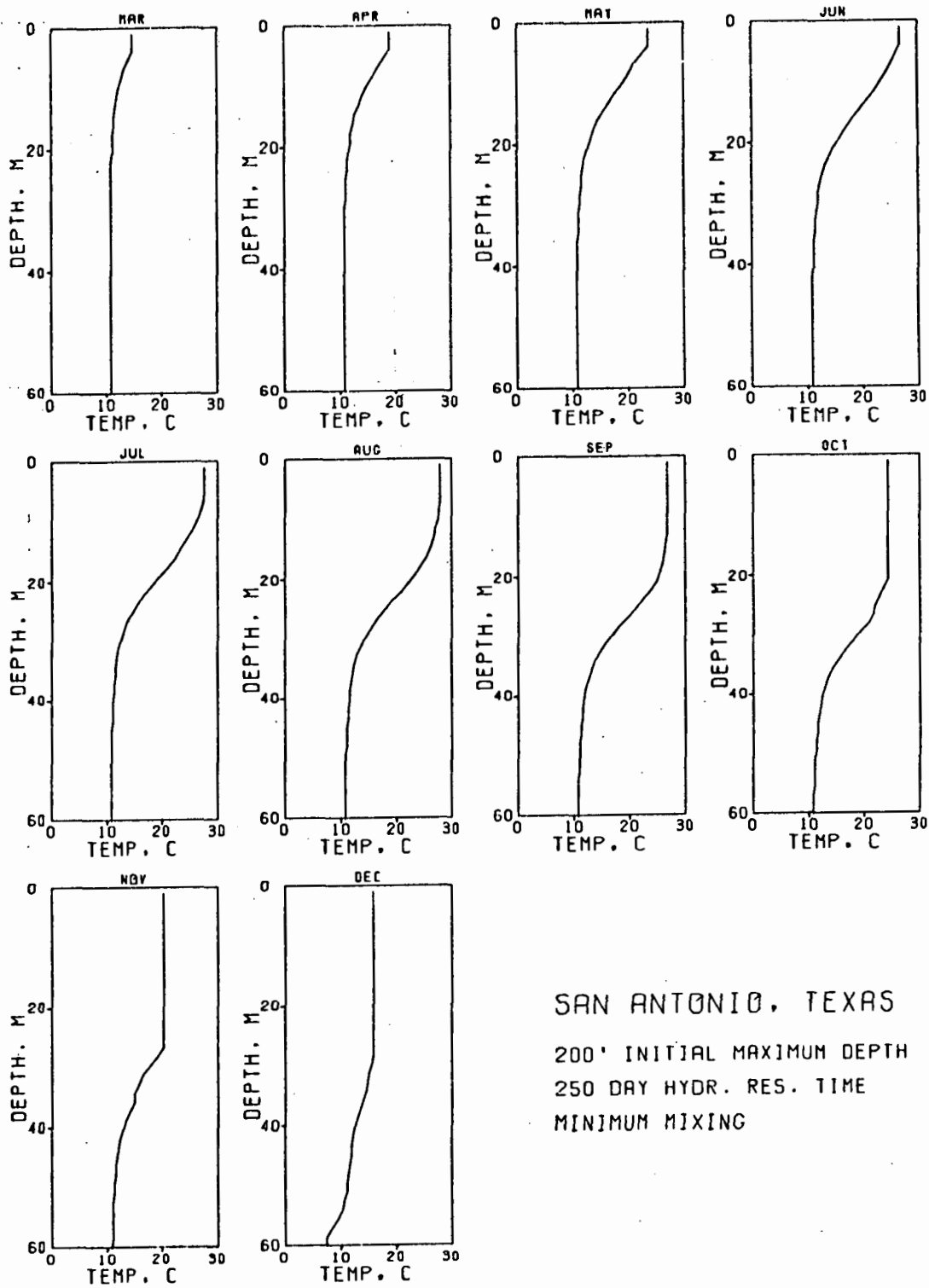
SAN ANTONIO, TEXAS
 200' INITIAL MAXIMUM DEPTH
 30 DAY HYDR. RES. TIME
 MINIMUM MIXING



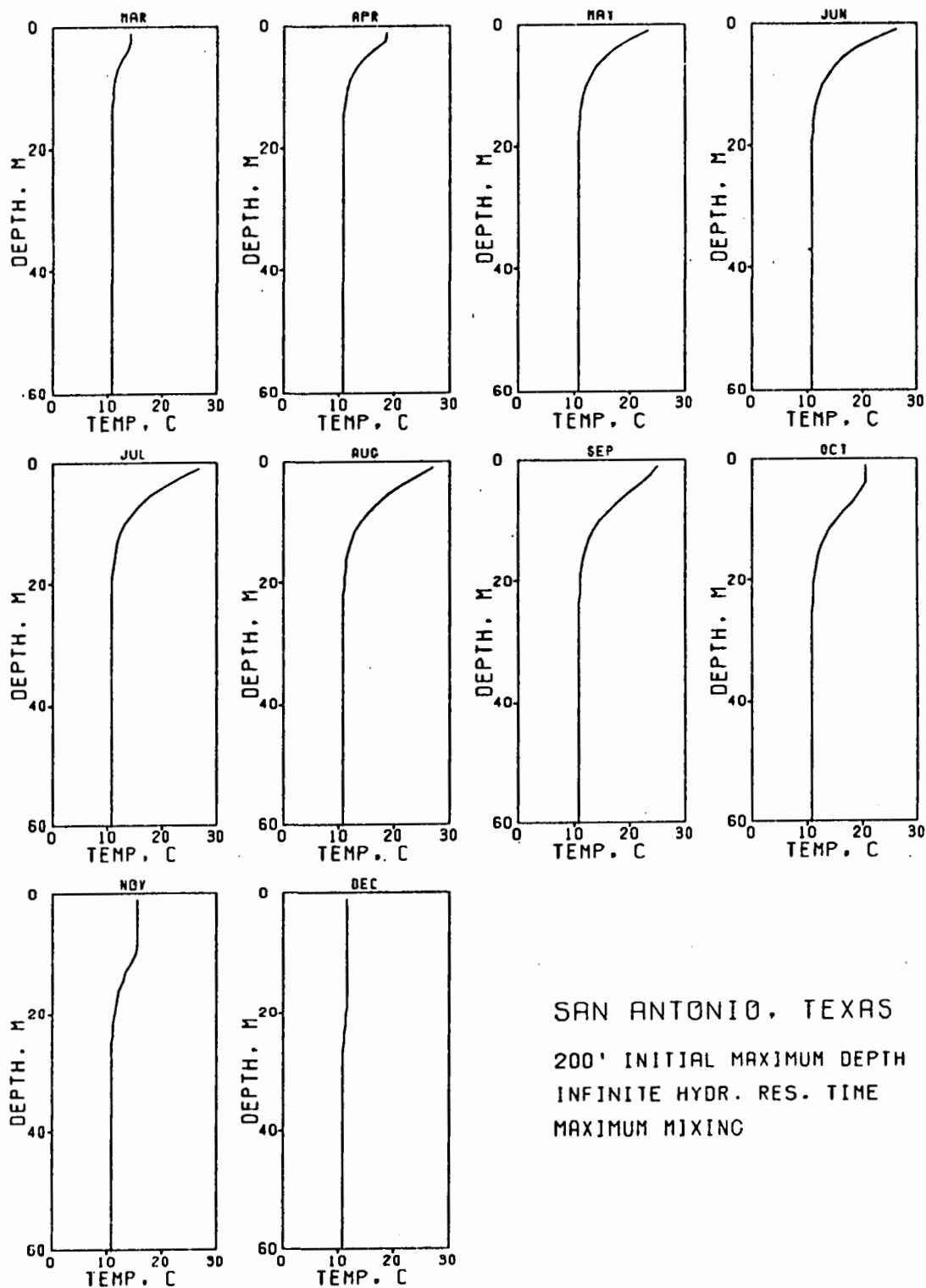


SAN ANTONIO, TEXAS
 200' INITIAL MAXIMUM DEPTH
 75 DAY HYDR. RES. TIME
 MINIMUM MIXING

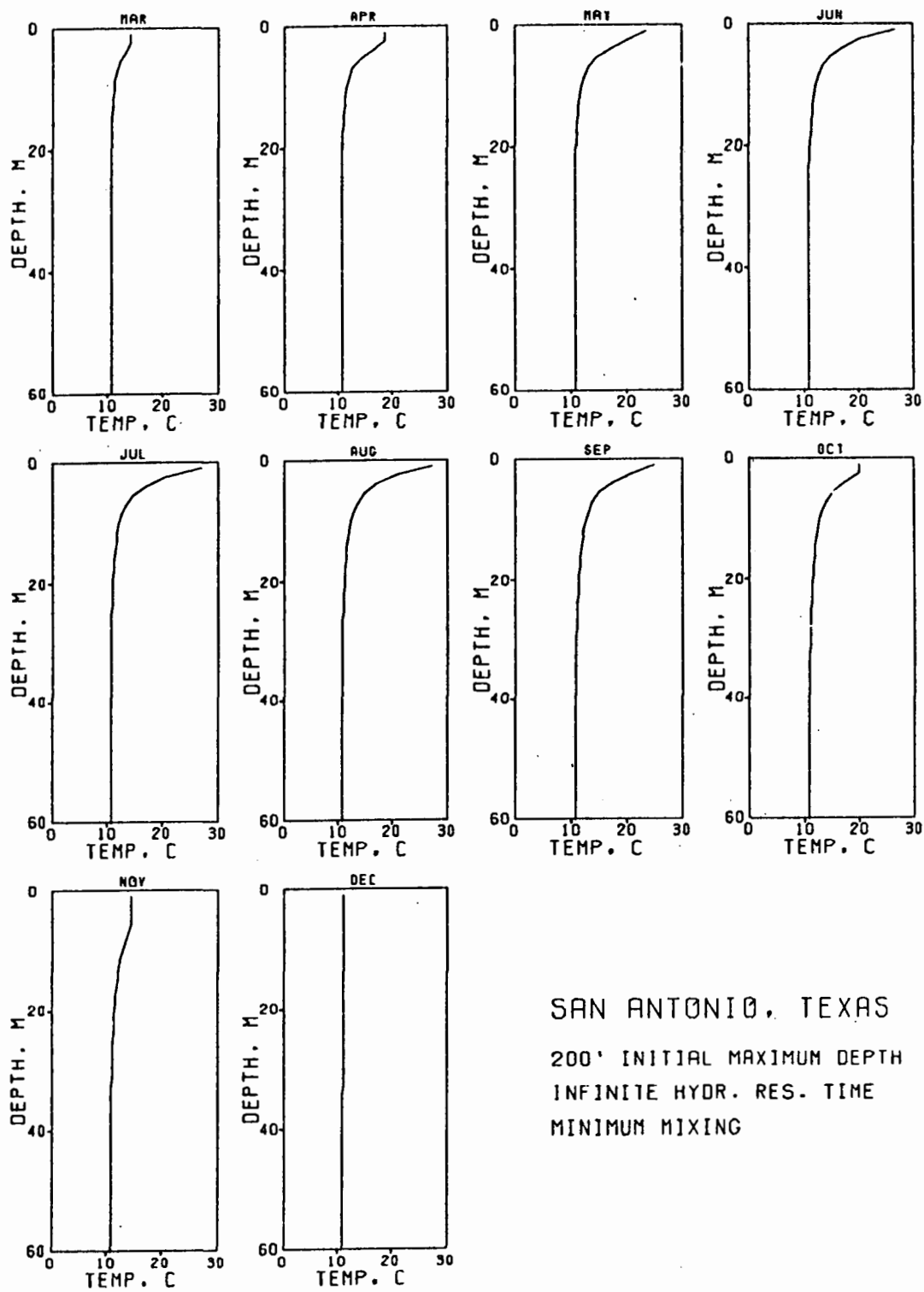




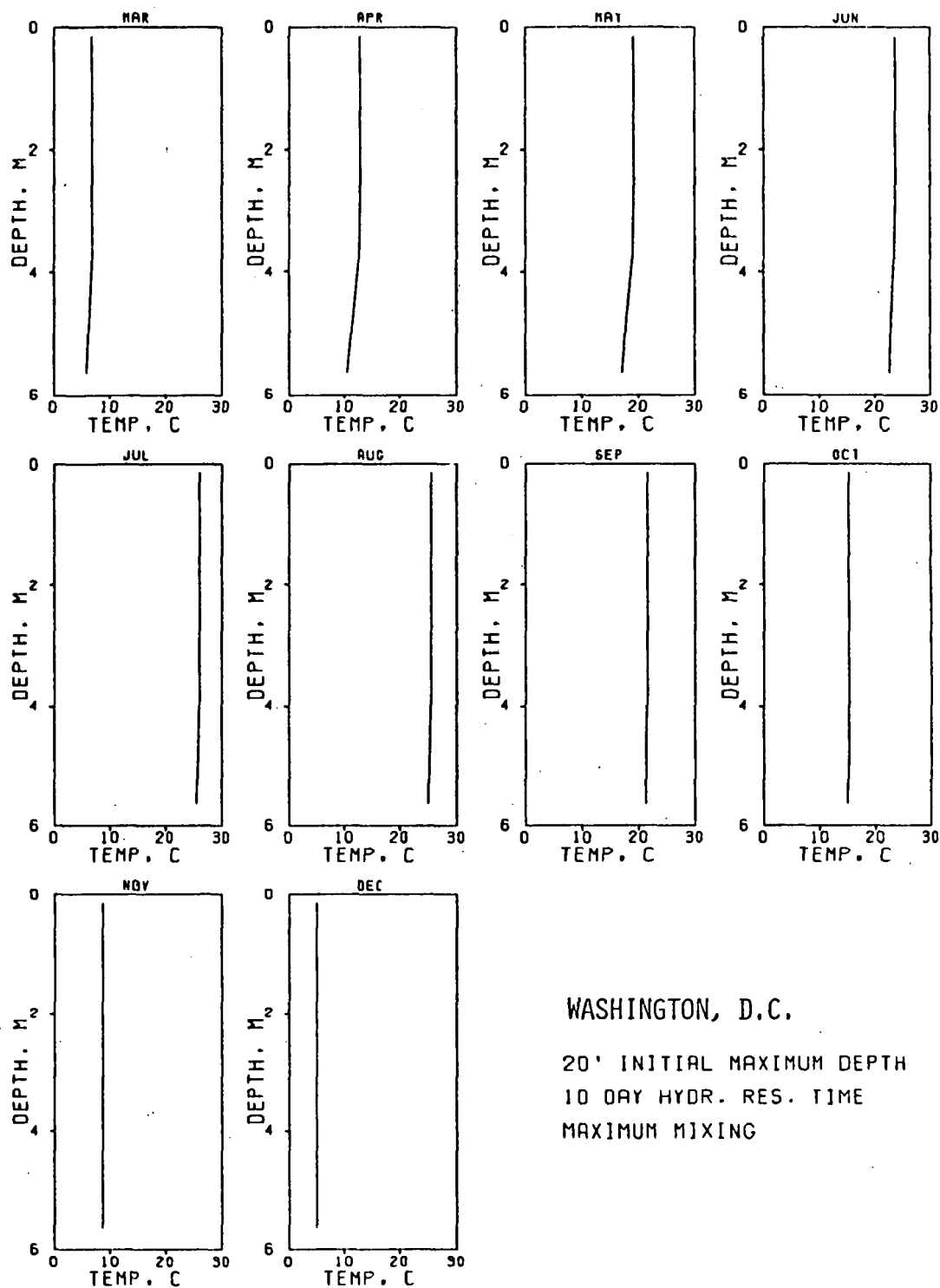
SAN ANTONIO, TEXAS
 200' INITIAL MAXIMUM DEPTH
 250 DAY HYDR. RES. TIME
 MINIMUM MIXING



SAN ANTONIO, TEXAS
 200' INITIAL MAXIMUM DEPTH
 INFINITE HYDR. RES. TIME
 MAXIMUM MIXING

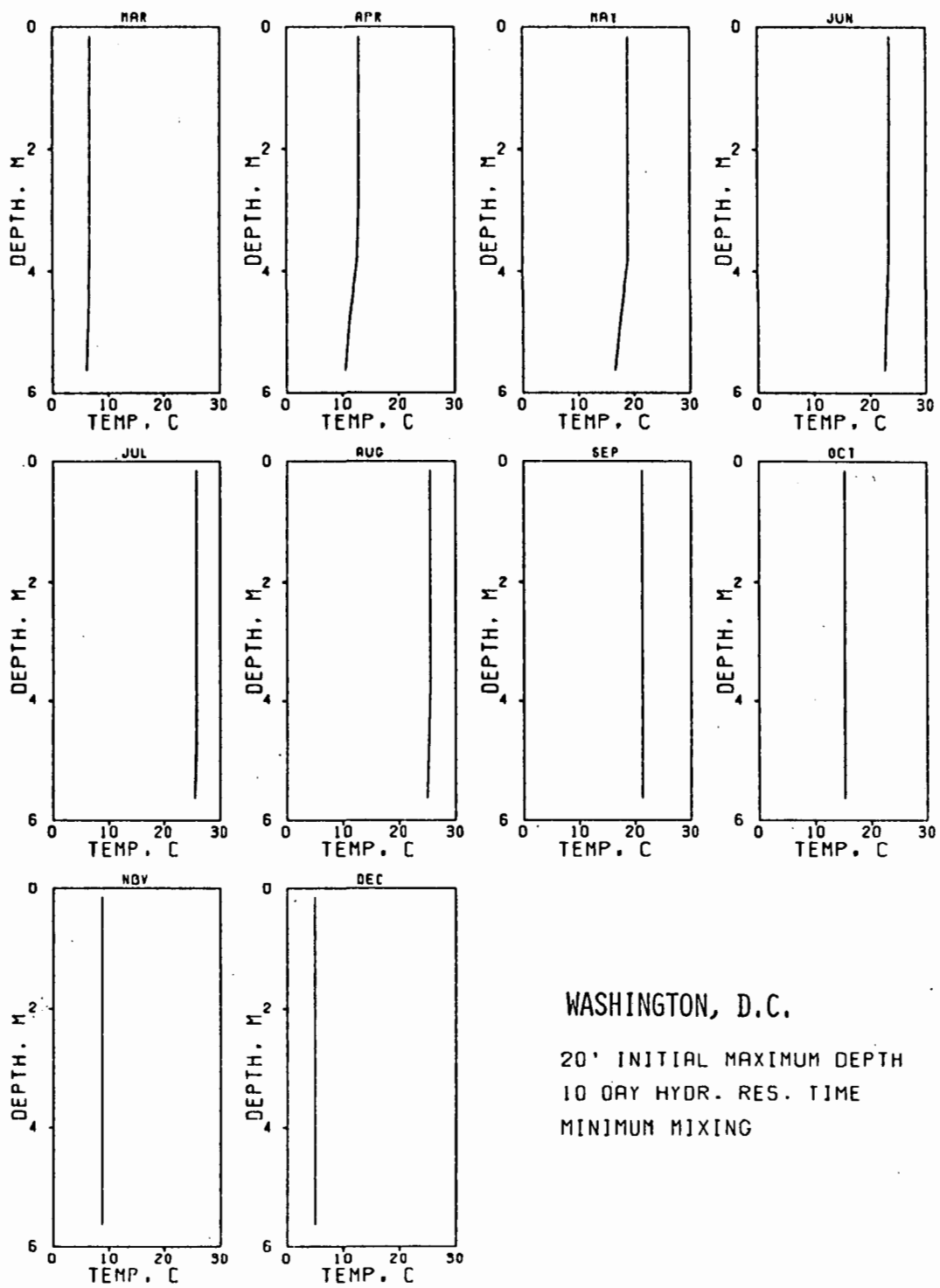


SAN ANTONIO, TEXAS
 200' INITIAL MAXIMUM DEPTH
 INFINITE HYDR. RES. TIME
 MINIMUM MIXING



WASHINGTON, D.C.

20' INITIAL MAXIMUM DEPTH
10 DAY HYDR. RES. TIME
MAXIMUM MIXING

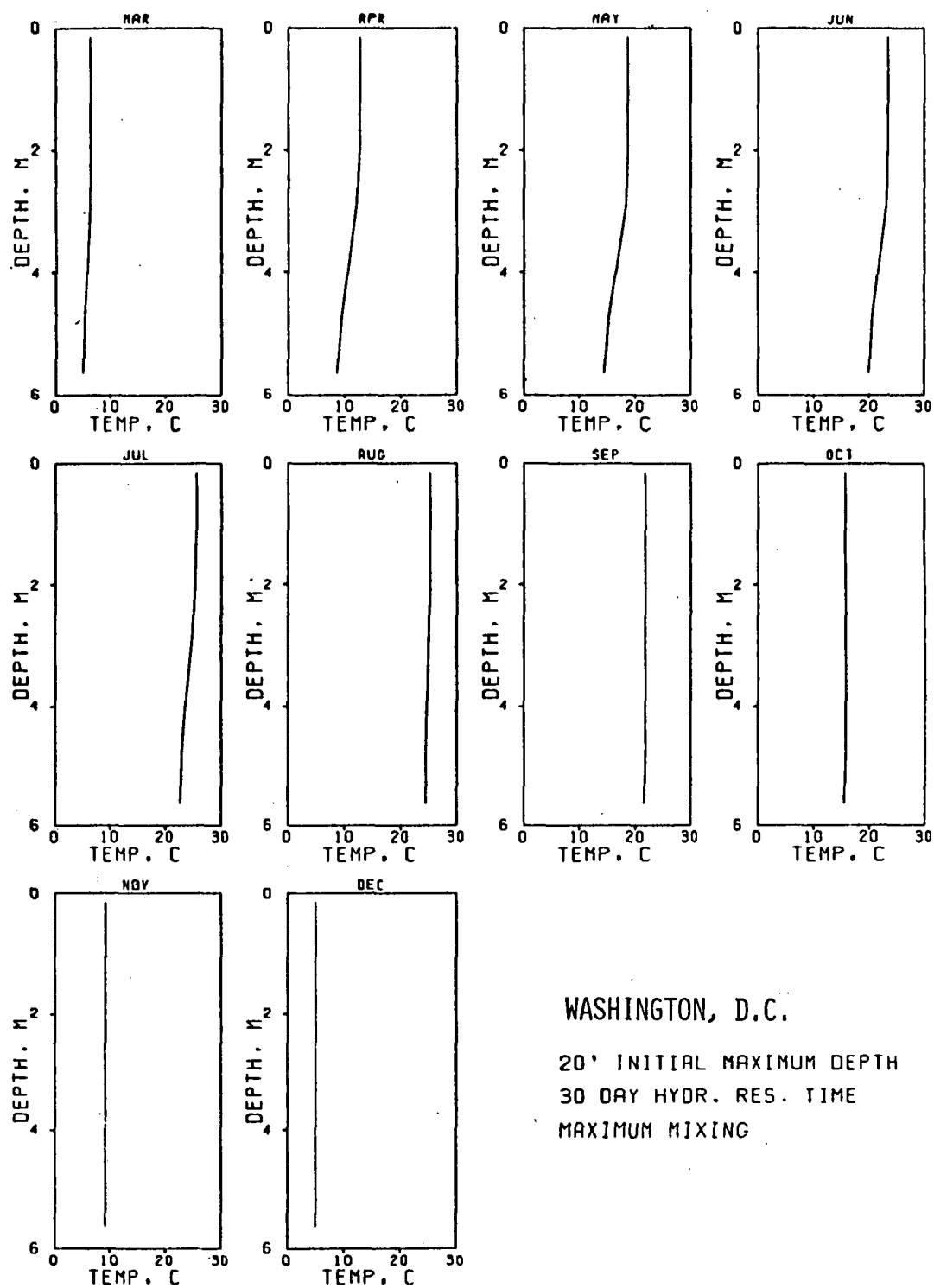


WASHINGTON, D.C.

20' INITIAL MAXIMUM DEPTH

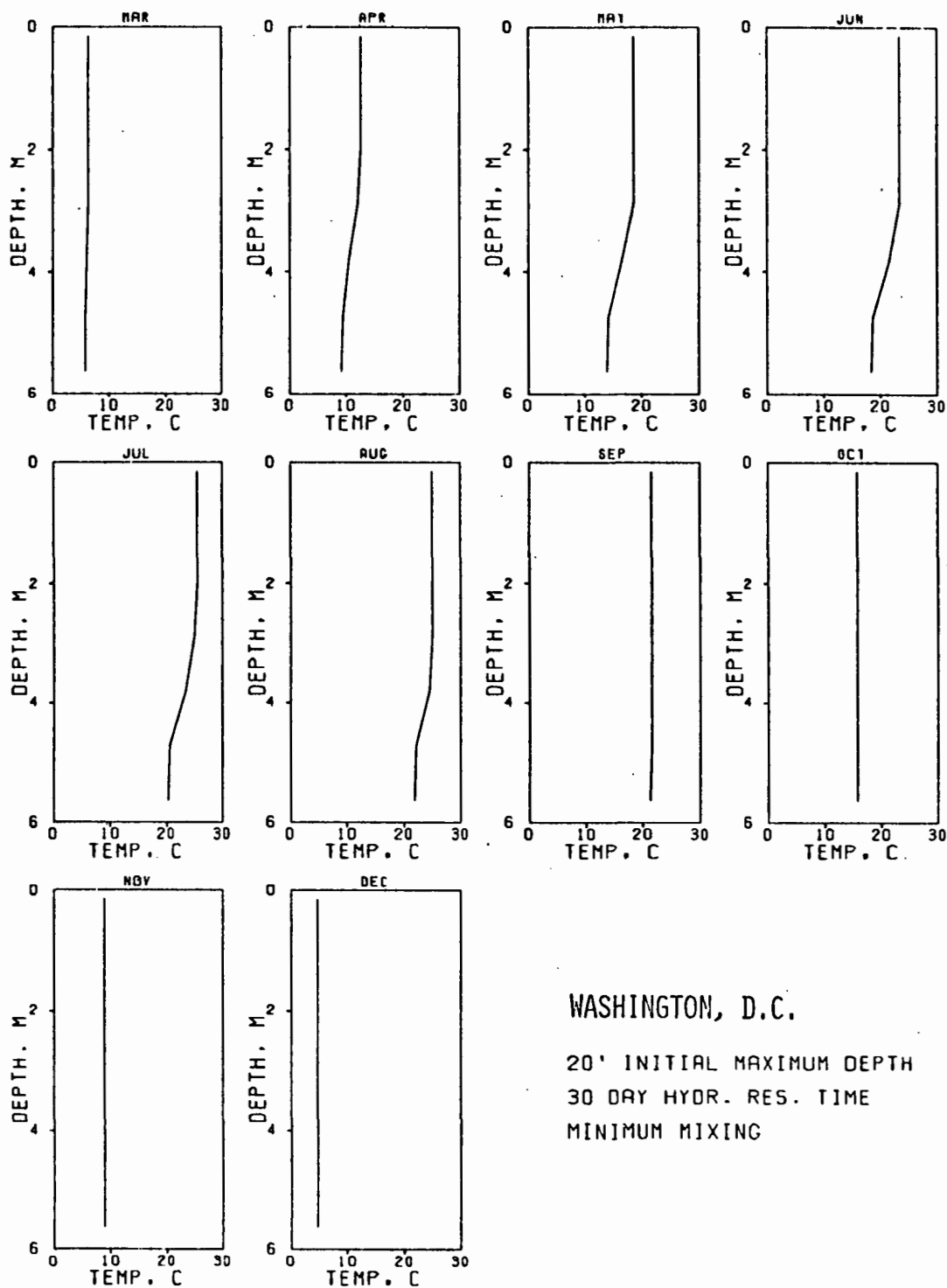
10 DAY HYDR. RES. TIME

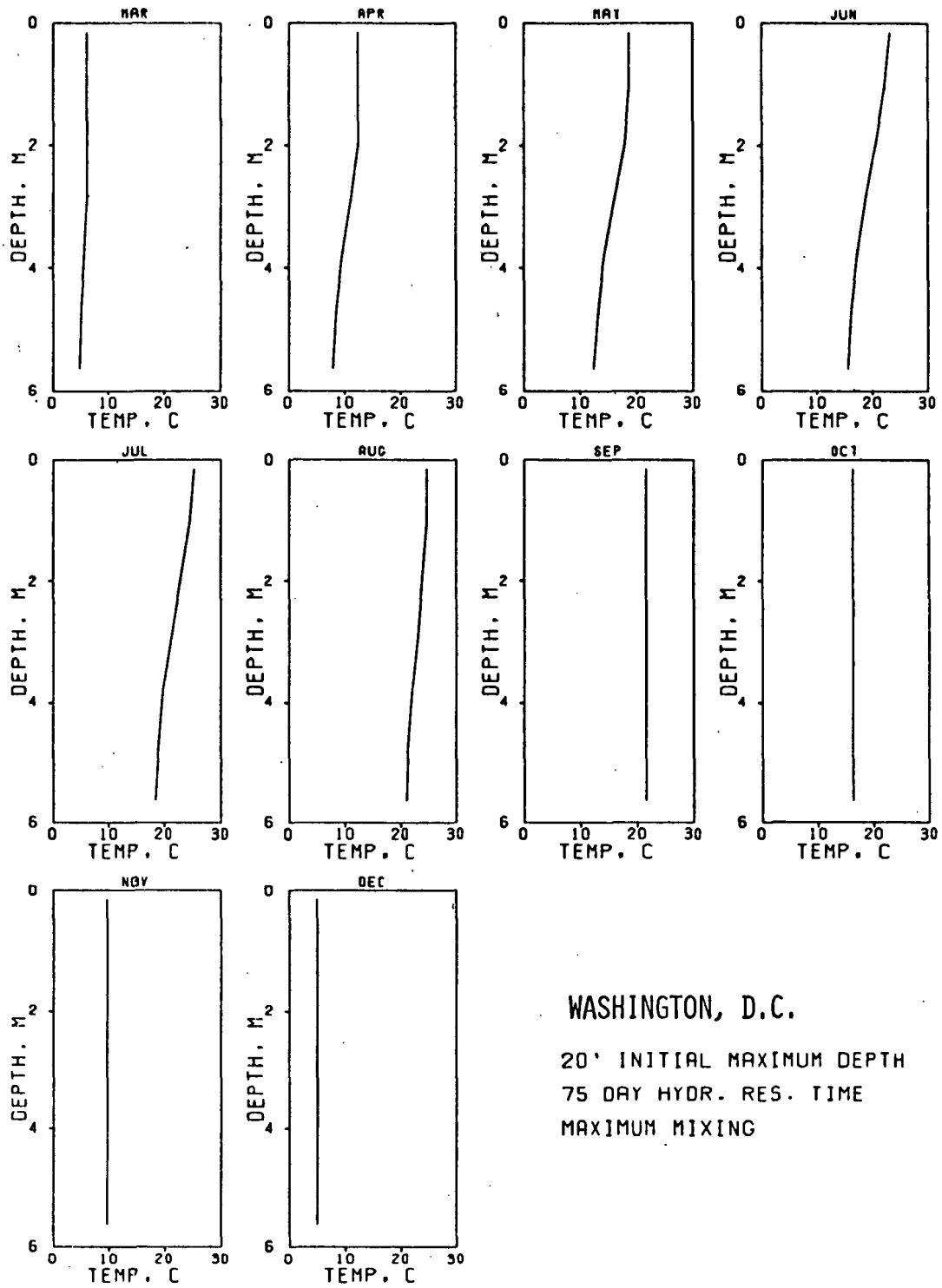
MINIMUM MIXING



WASHINGTON, D.C.

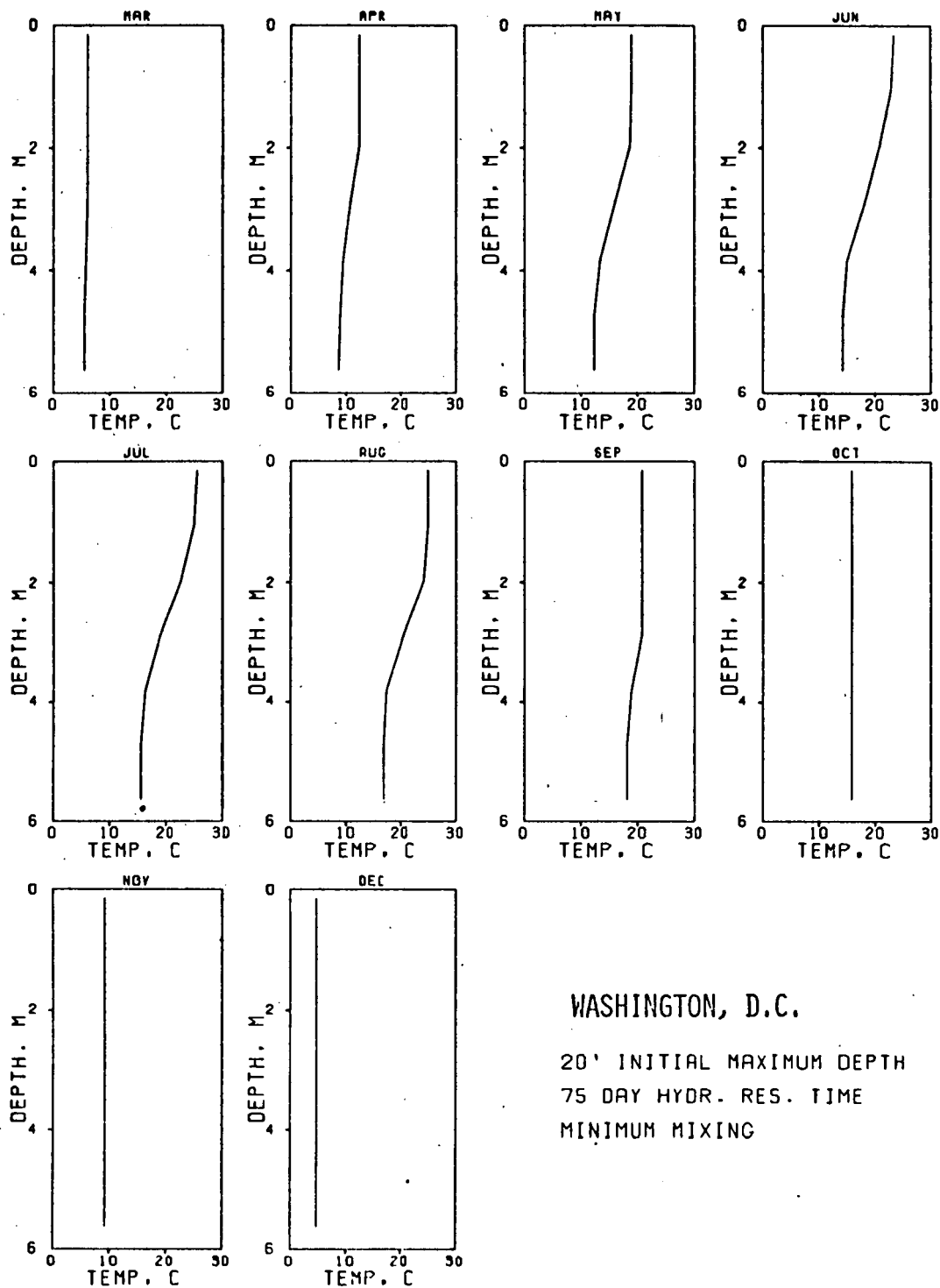
20' INITIAL MAXIMUM DEPTH
30 DAY HYDR. RES. TIME
MAXIMUM MIXING





WASHINGTON, D.C.

20' INITIAL MAXIMUM DEPTH
75 DAY HYDR. RES. TIME
MAXIMUM MIXING

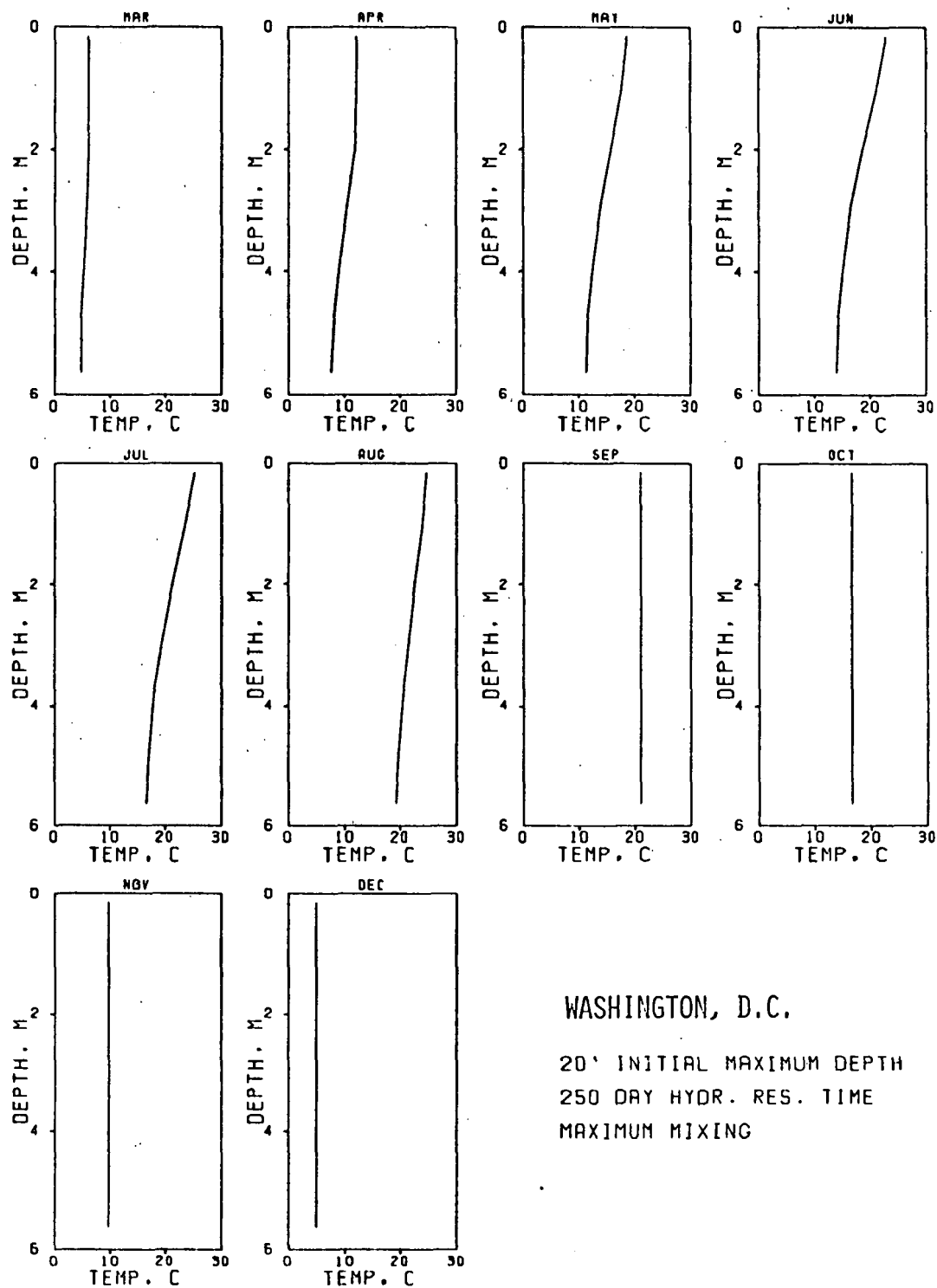


WASHINGTON, D.C.

20' INITIAL MAXIMUM DEPTH

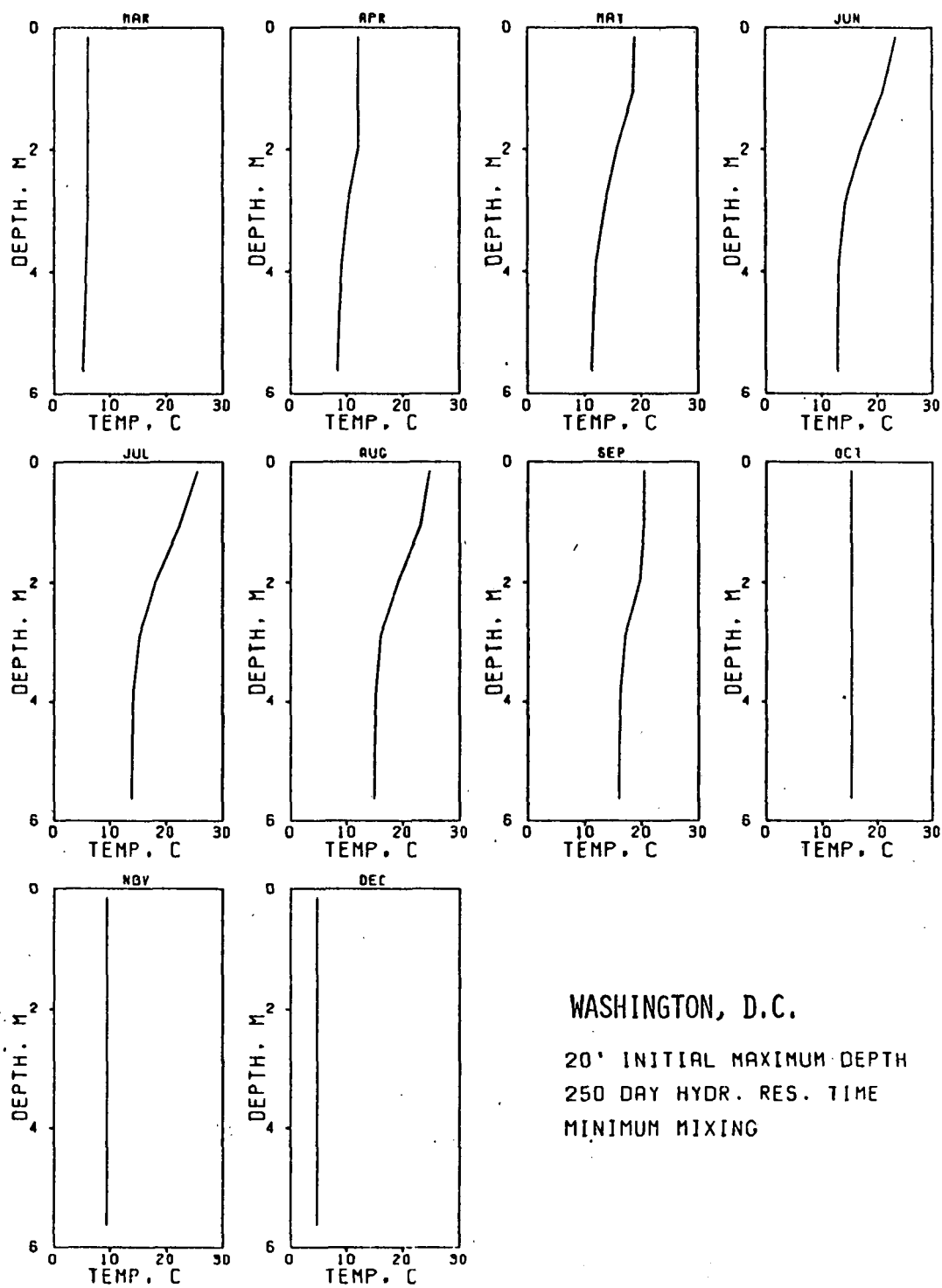
75 DAY HYDR. RES. TIME

MINIMUM MIXING



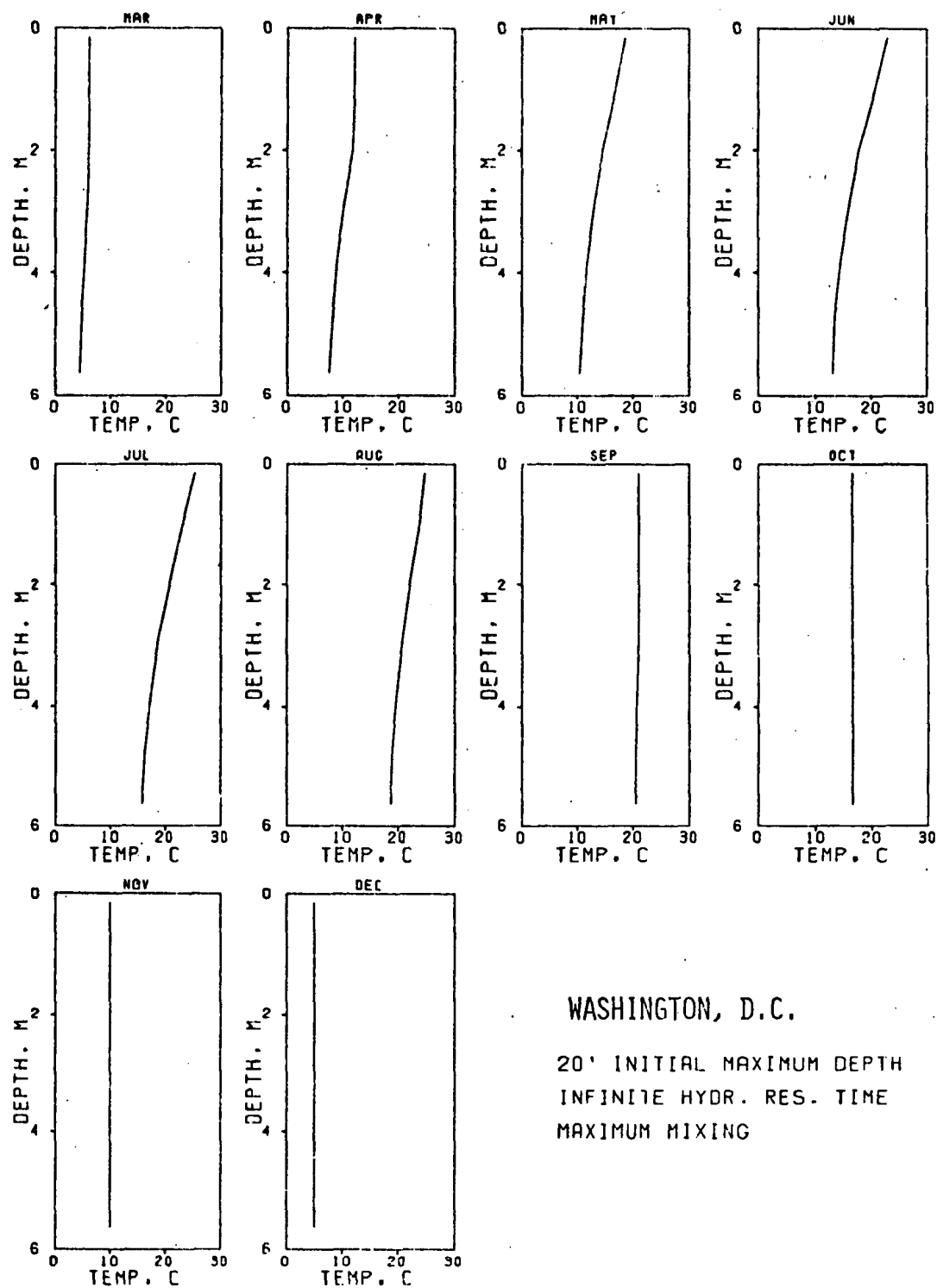
WASHINGTON, D.C.

20' INITIAL MAXIMUM DEPTH
250 DAY HYDR. RES. TIME
MAXIMUM MIXING



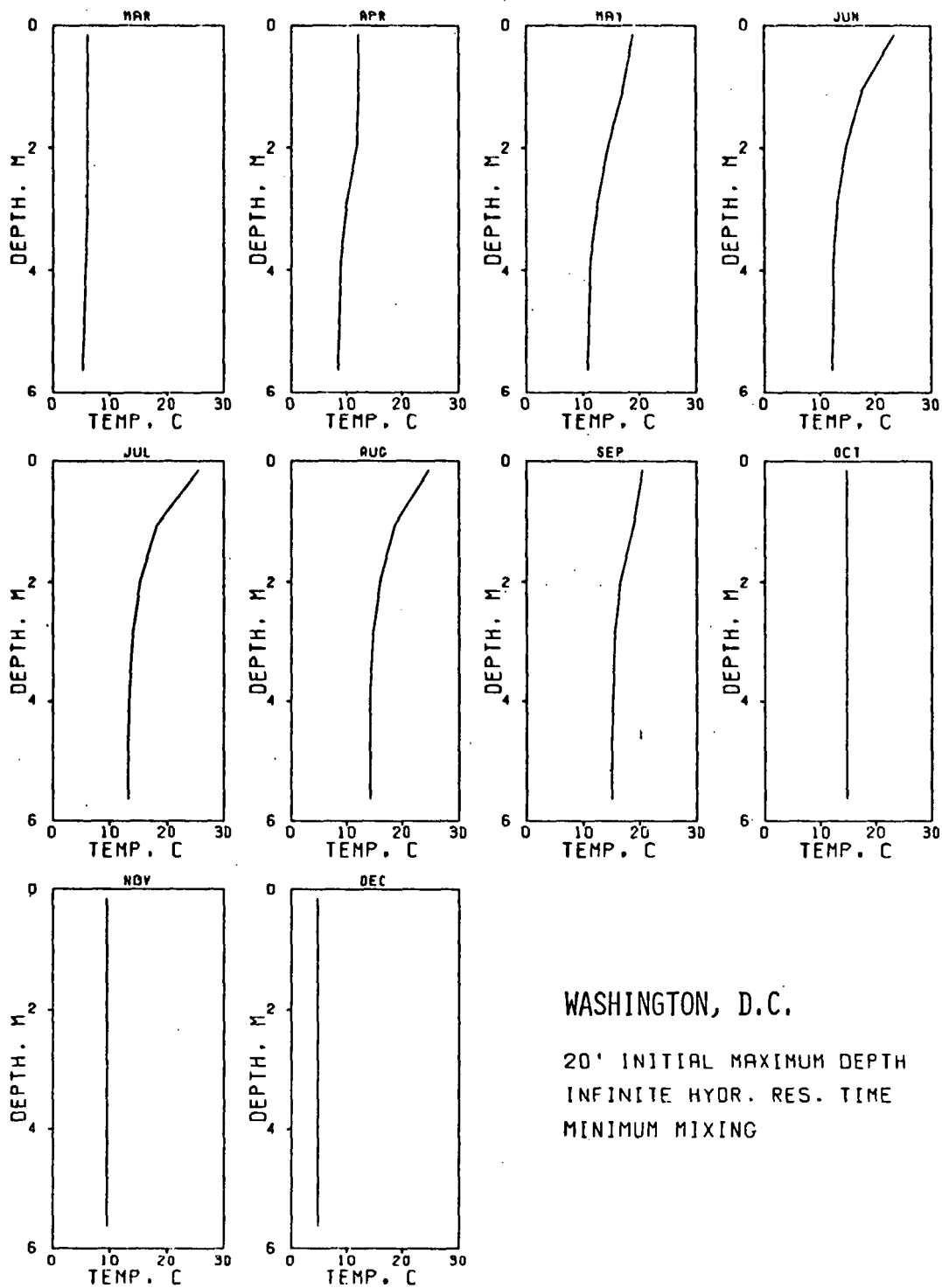
WASHINGTON, D.C.

20' INITIAL MAXIMUM DEPTH
250 DAY HYDR. RES. TIME
MINIMUM MIXING



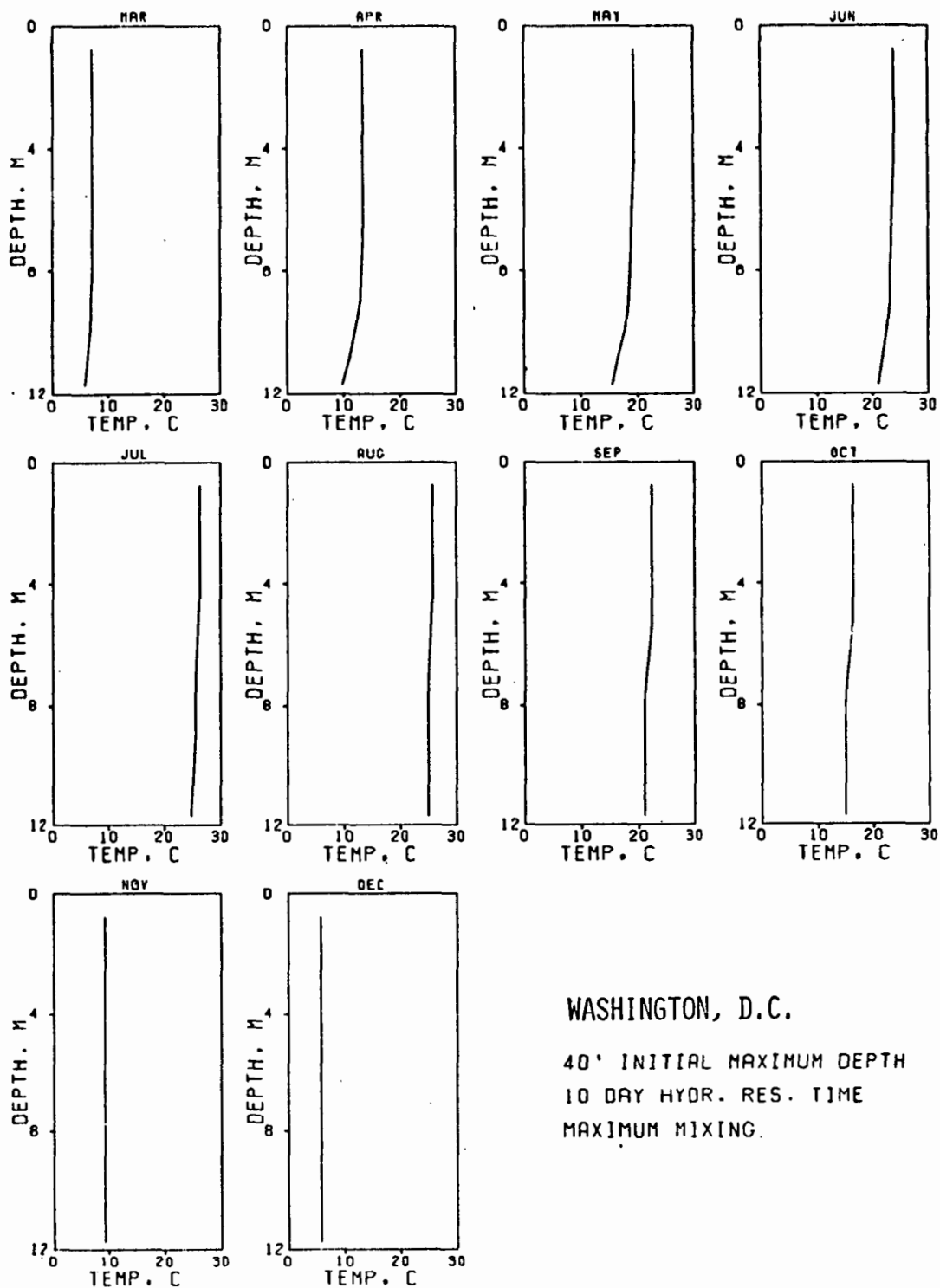
WASHINGTON, D.C.

20' INITIAL MAXIMUM DEPTH
INFINITE HYDR. RES. TIME
MAXIMUM MIXING



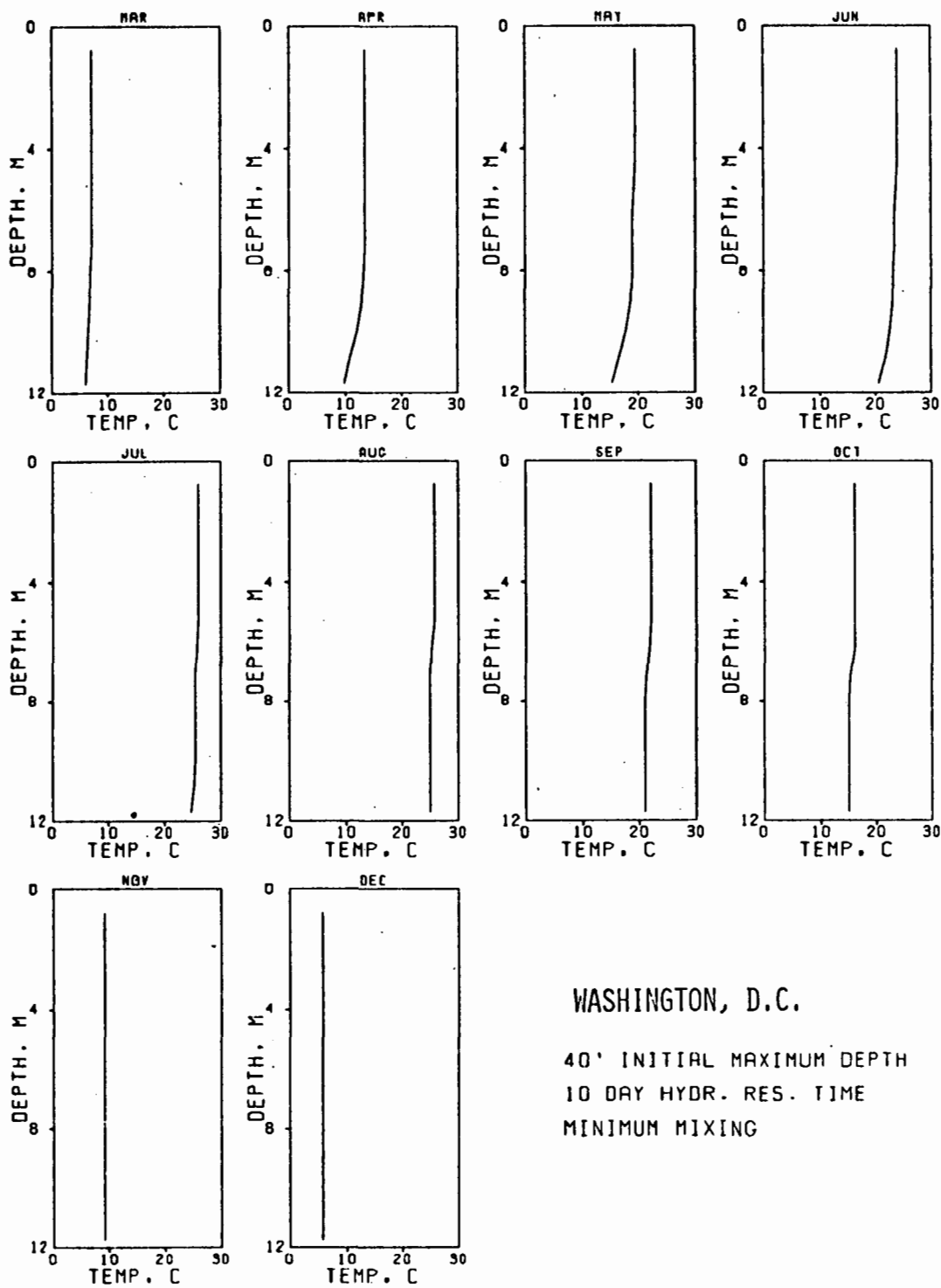
WASHINGTON, D.C.

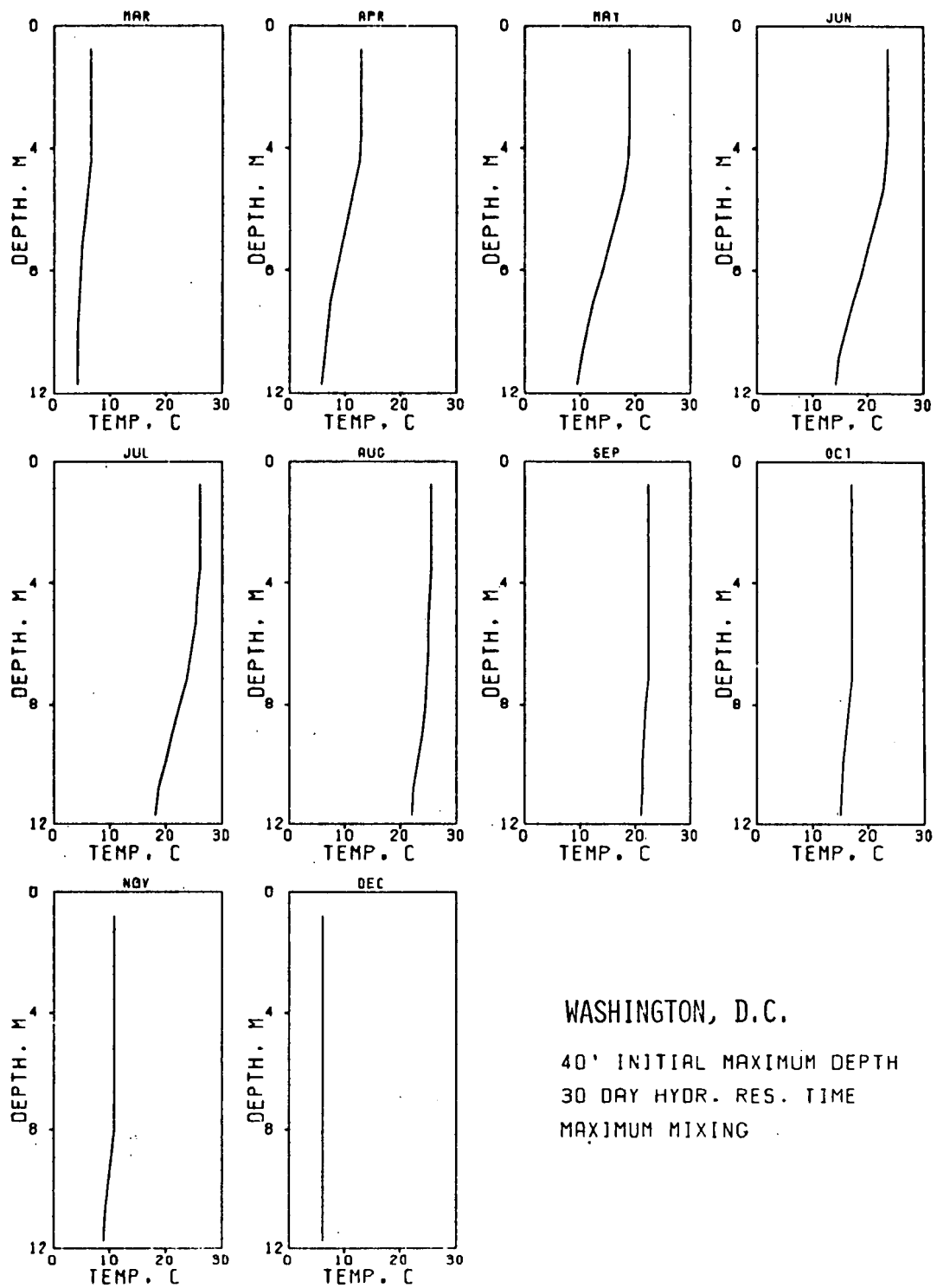
20' INITIAL MAXIMUM DEPTH
INFINITE HYDR. RES. TIME
MINIMUM MIXING

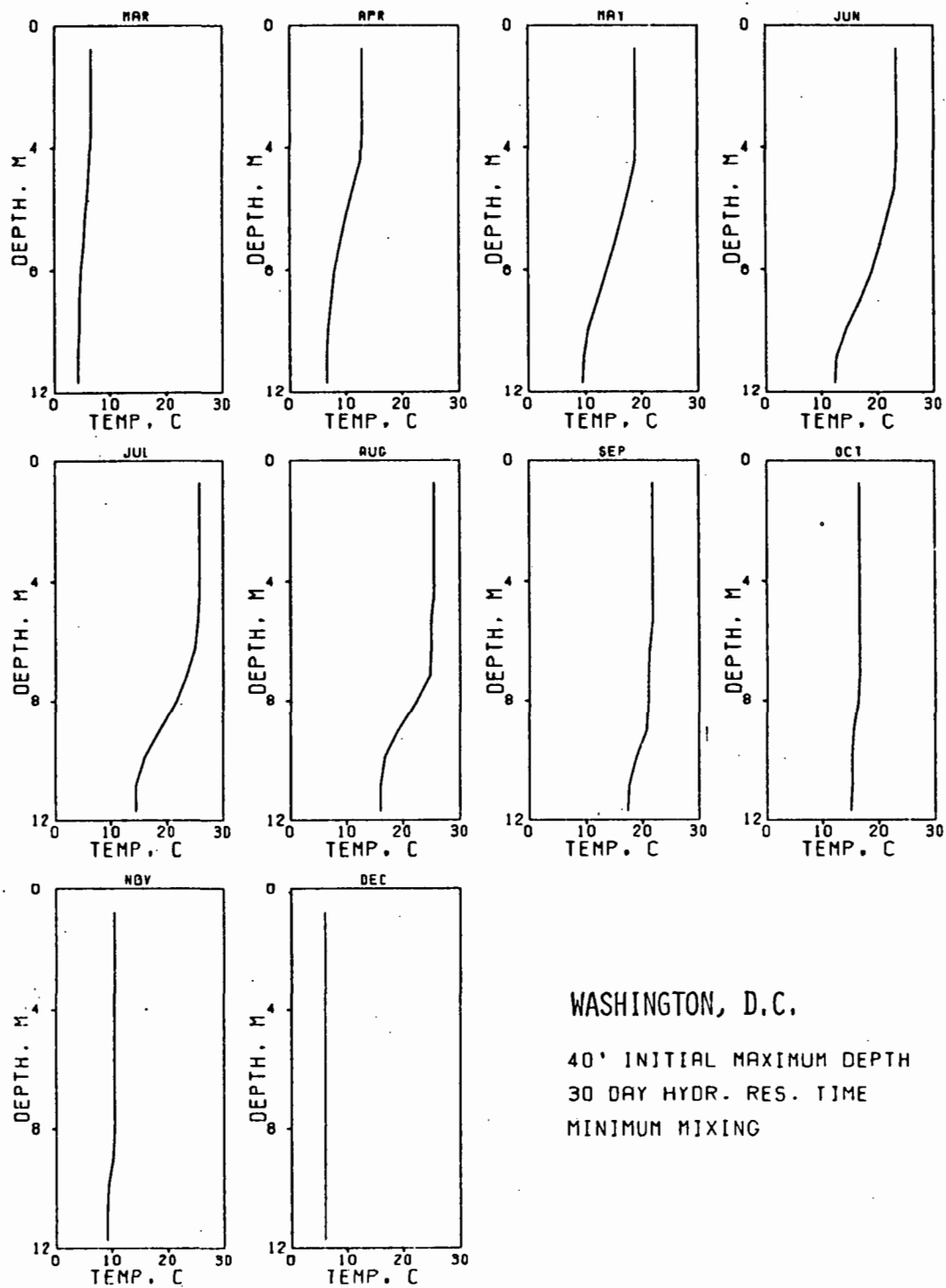


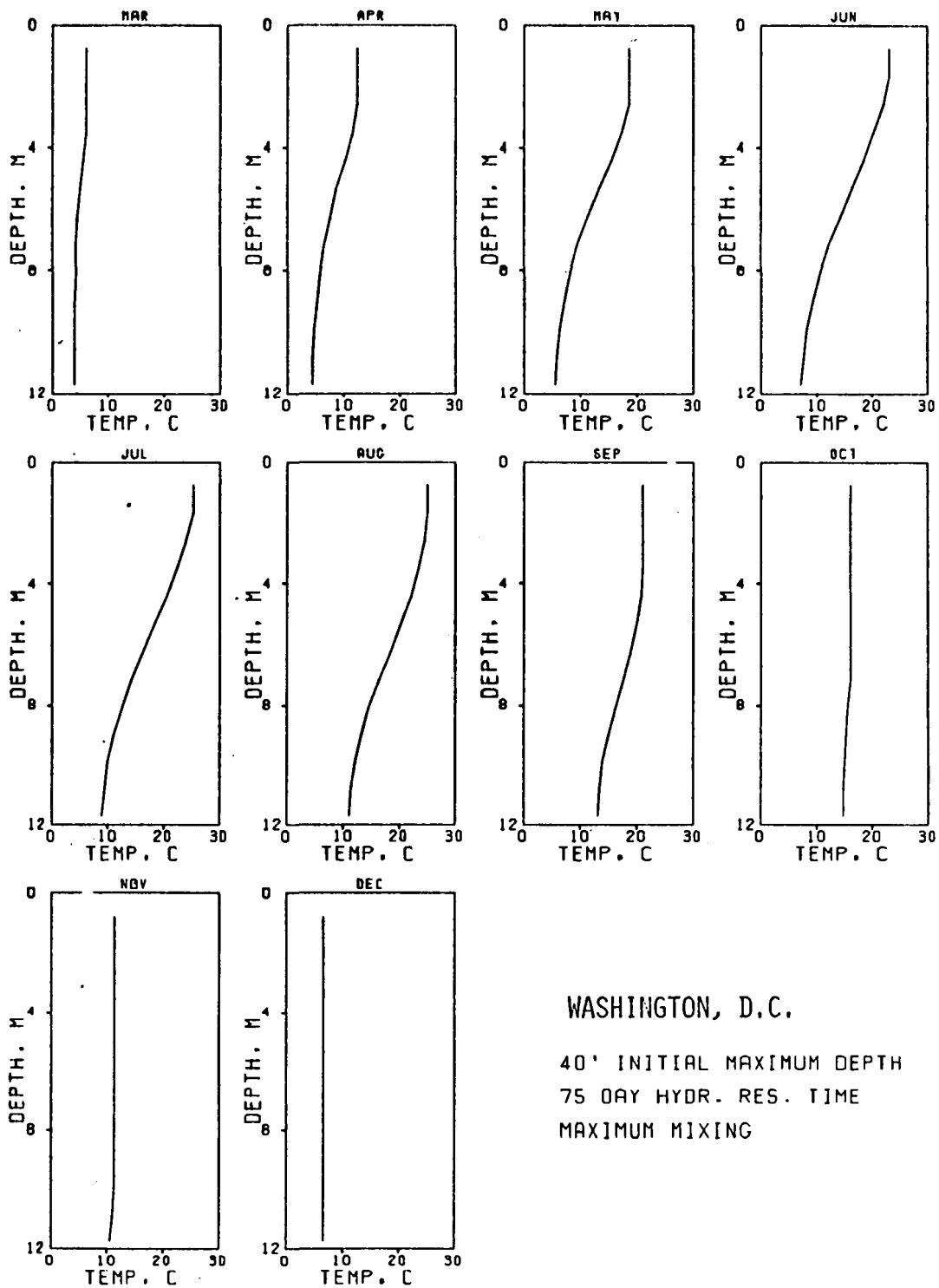
WASHINGTON, D.C.

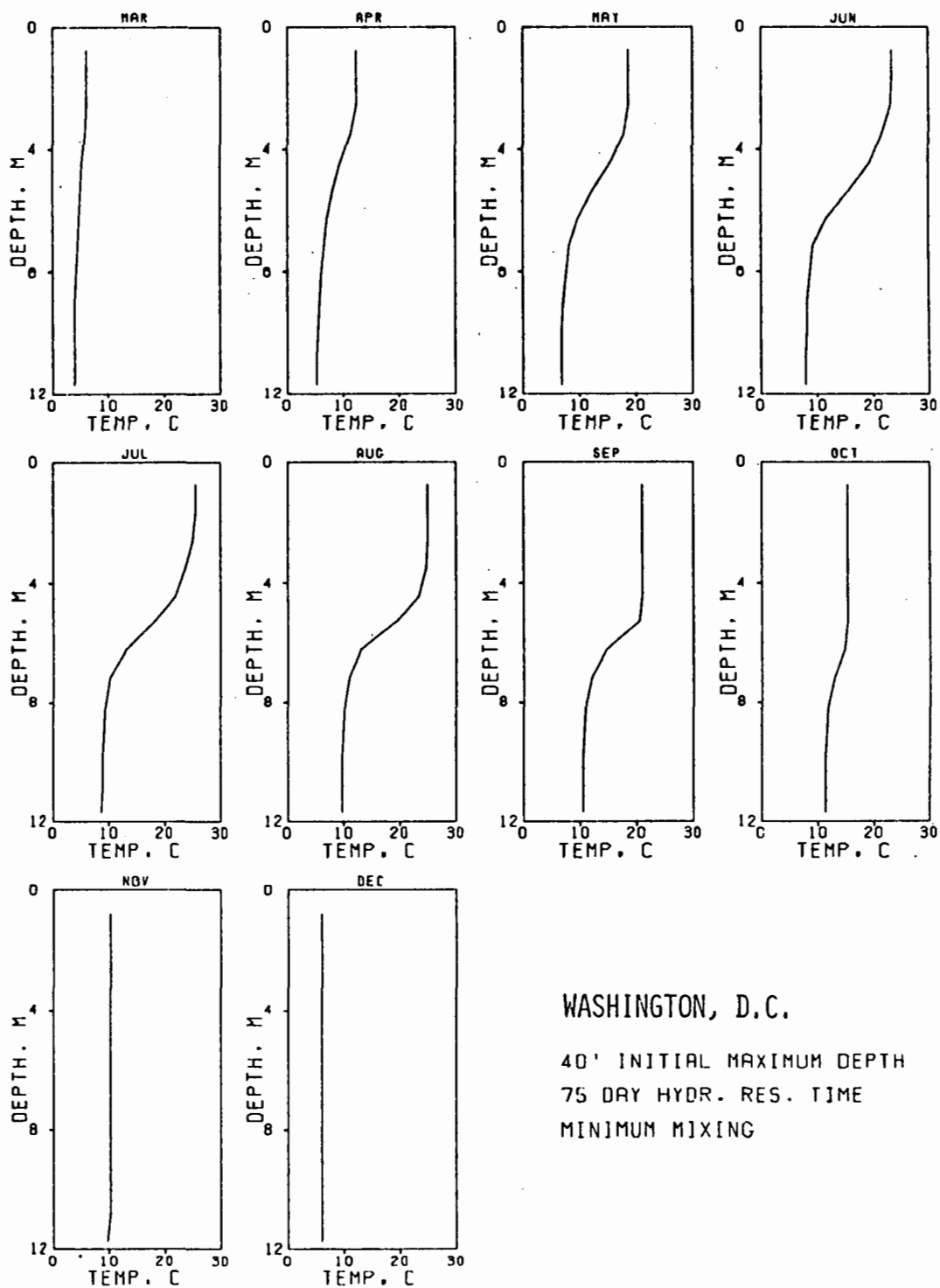
40' INITIAL MAXIMUM DEPTH
10 DAY HYDR. RES. TIME
MAXIMUM MIXING.









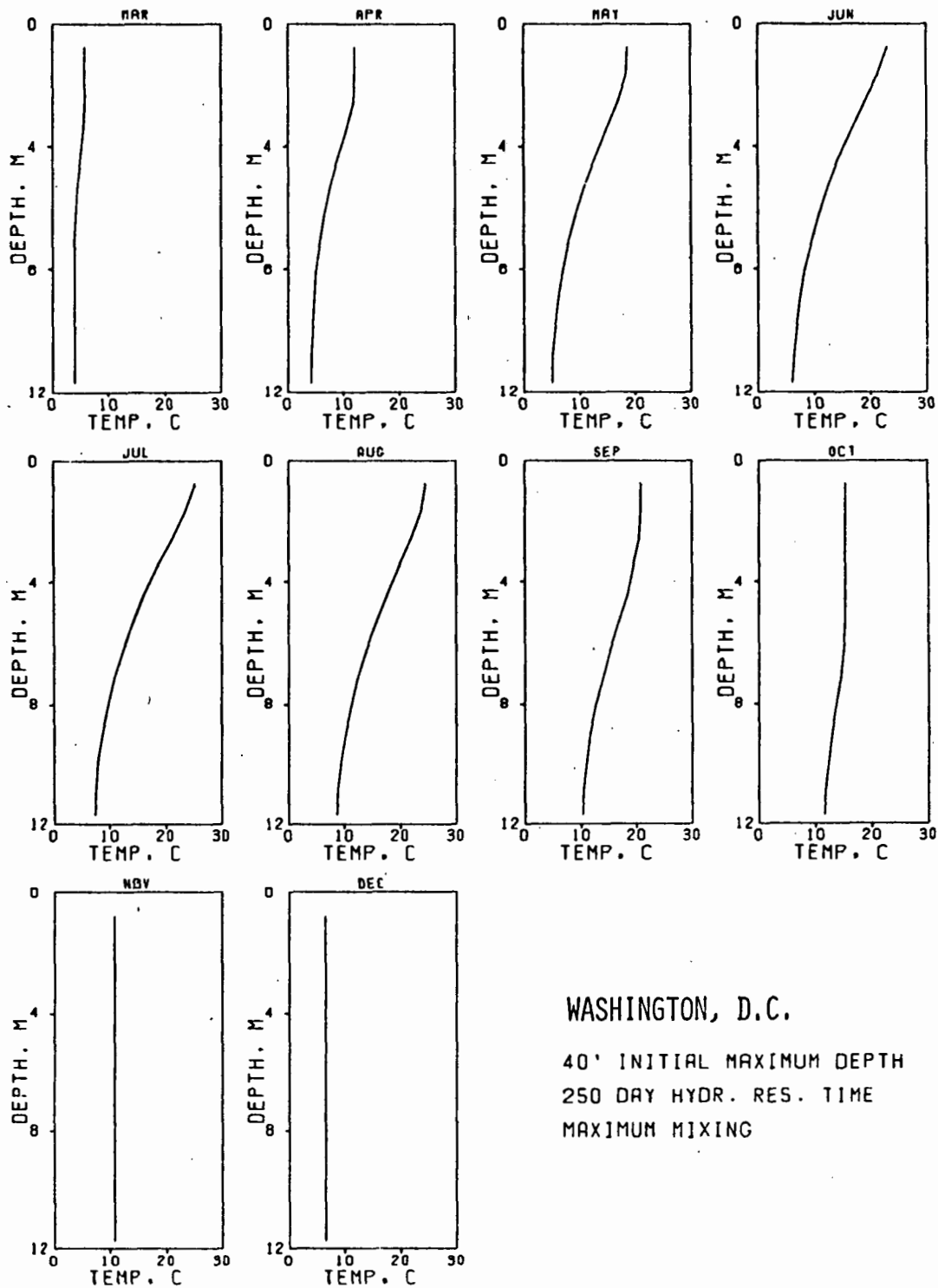


WASHINGTON, D.C.

40' INITIAL MAXIMUM DEPTH

75 DAY HYDR. RES. TIME

MINIMUM MIXING

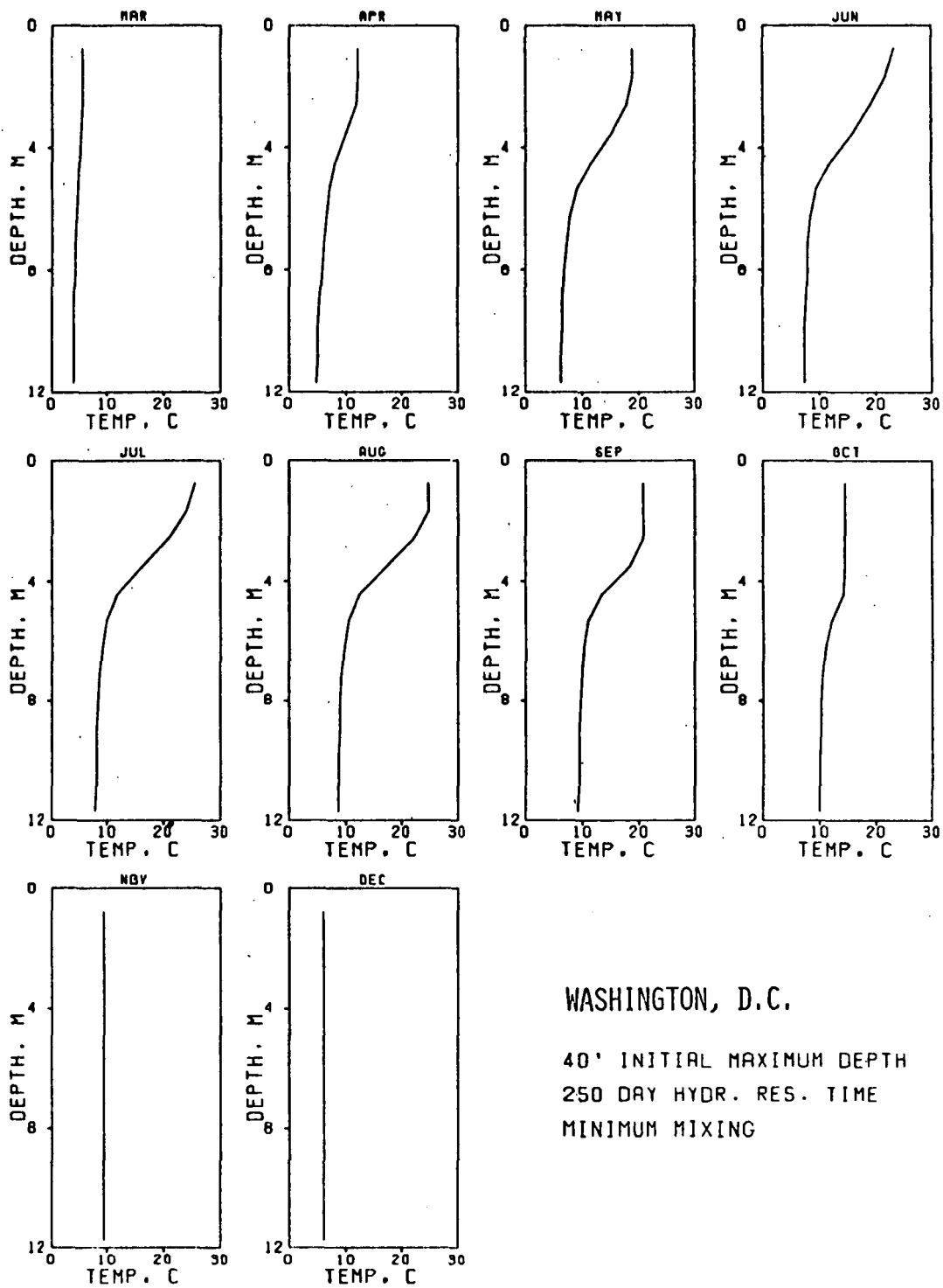


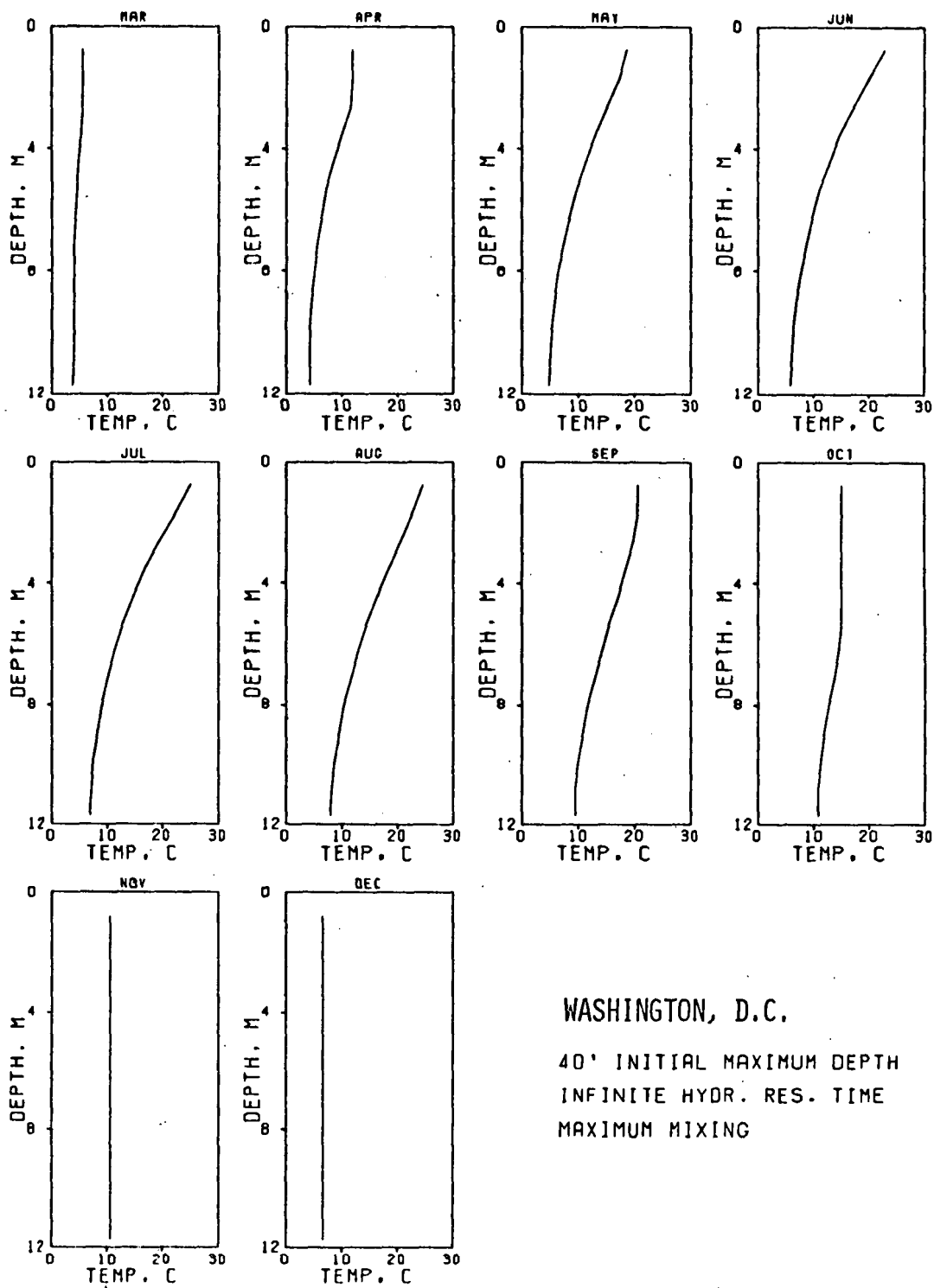
WASHINGTON, D.C.

40' INITIAL MAXIMUM DEPTH

250 DAY HYDR. RES. TIME

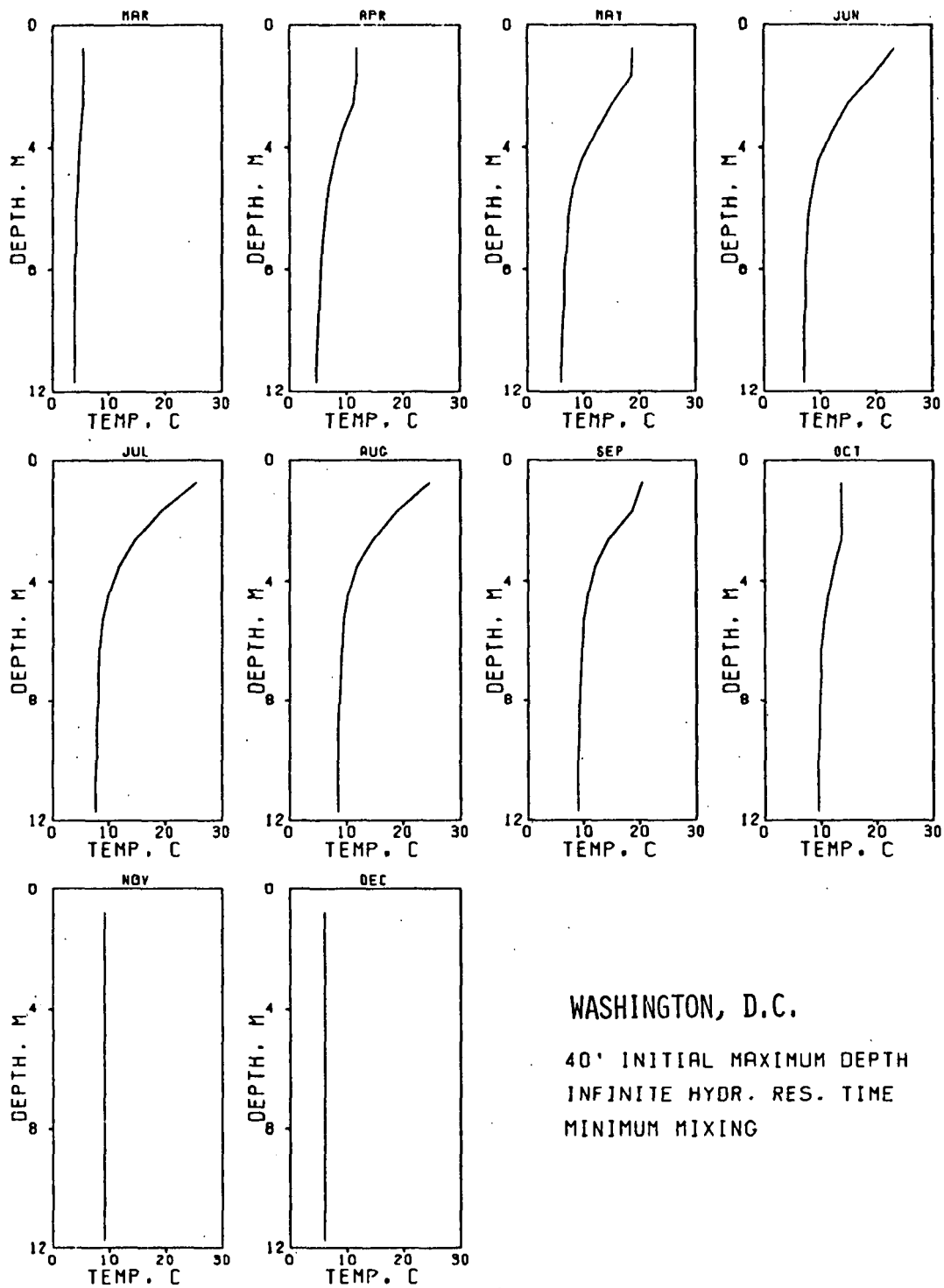
MAXIMUM MIXING





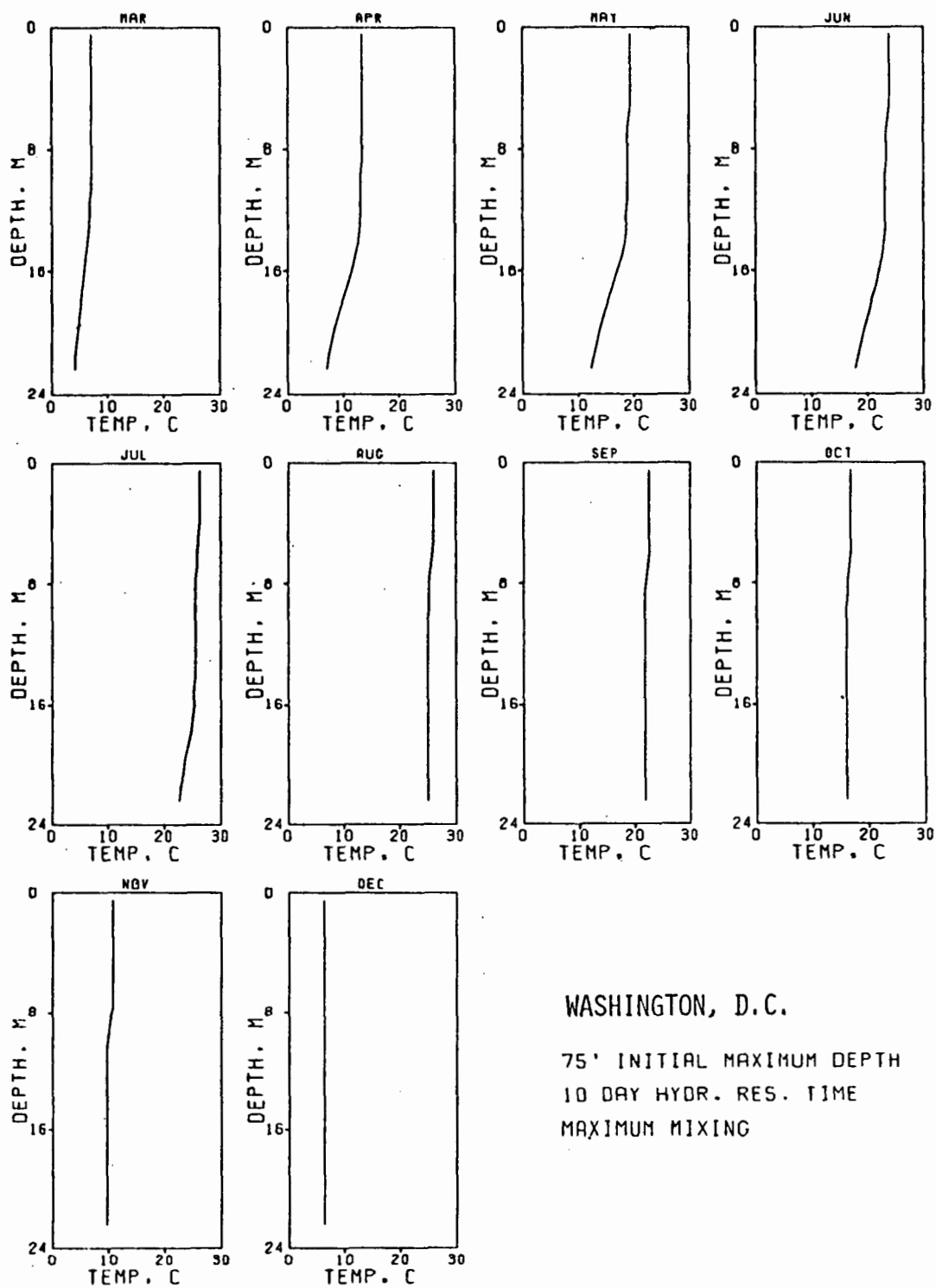
WASHINGTON, D.C.

40' INITIAL MAXIMUM DEPTH
INFINITE HYDR. RES. TIME
MAXIMUM MIXING



WASHINGTON, D.C.

40' INITIAL MAXIMUM DEPTH
INFINITE HYDR. RES. TIME
MINIMUM MIXING

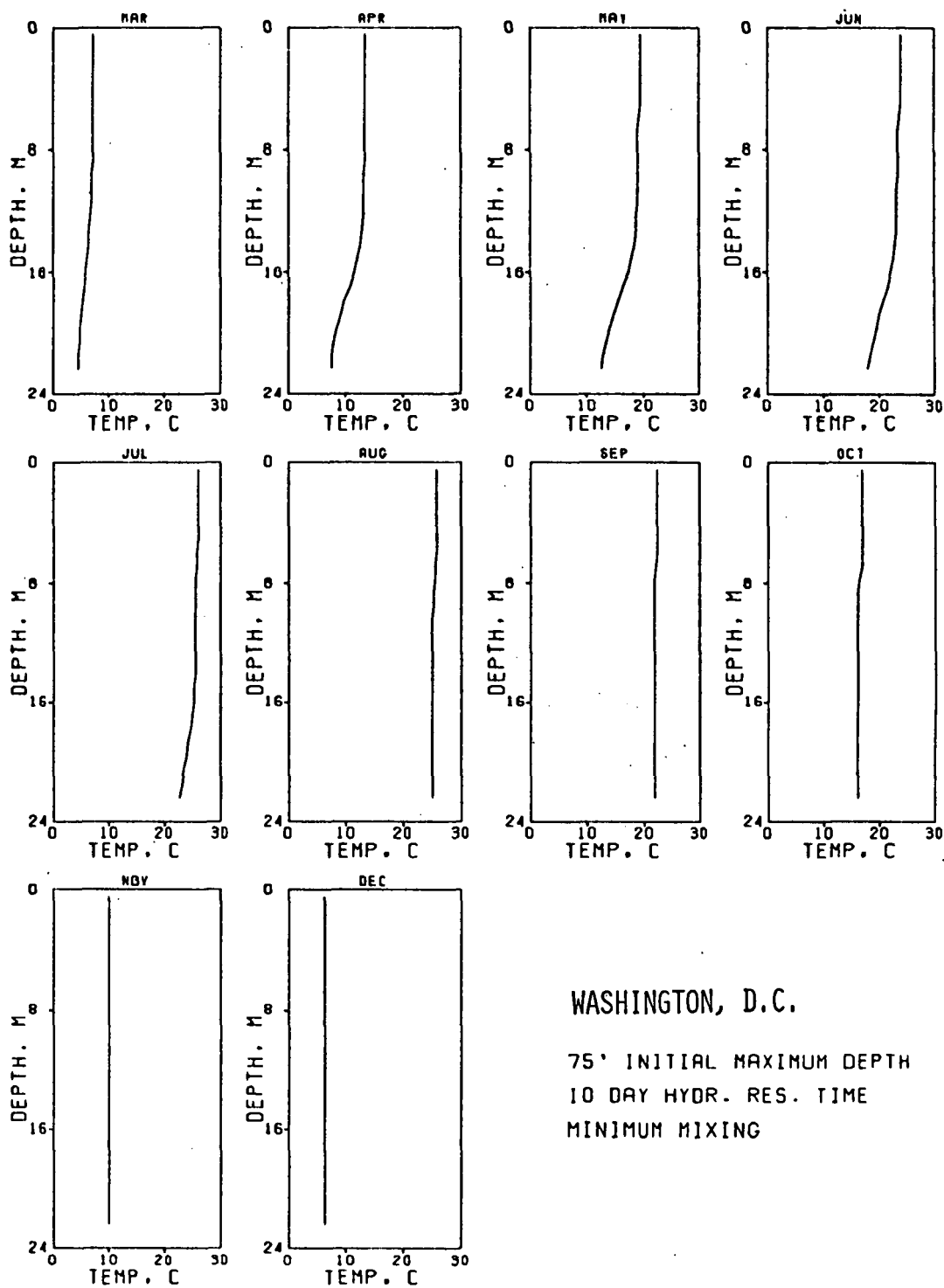


WASHINGTON, D.C.

75' INITIAL MAXIMUM DEPTH

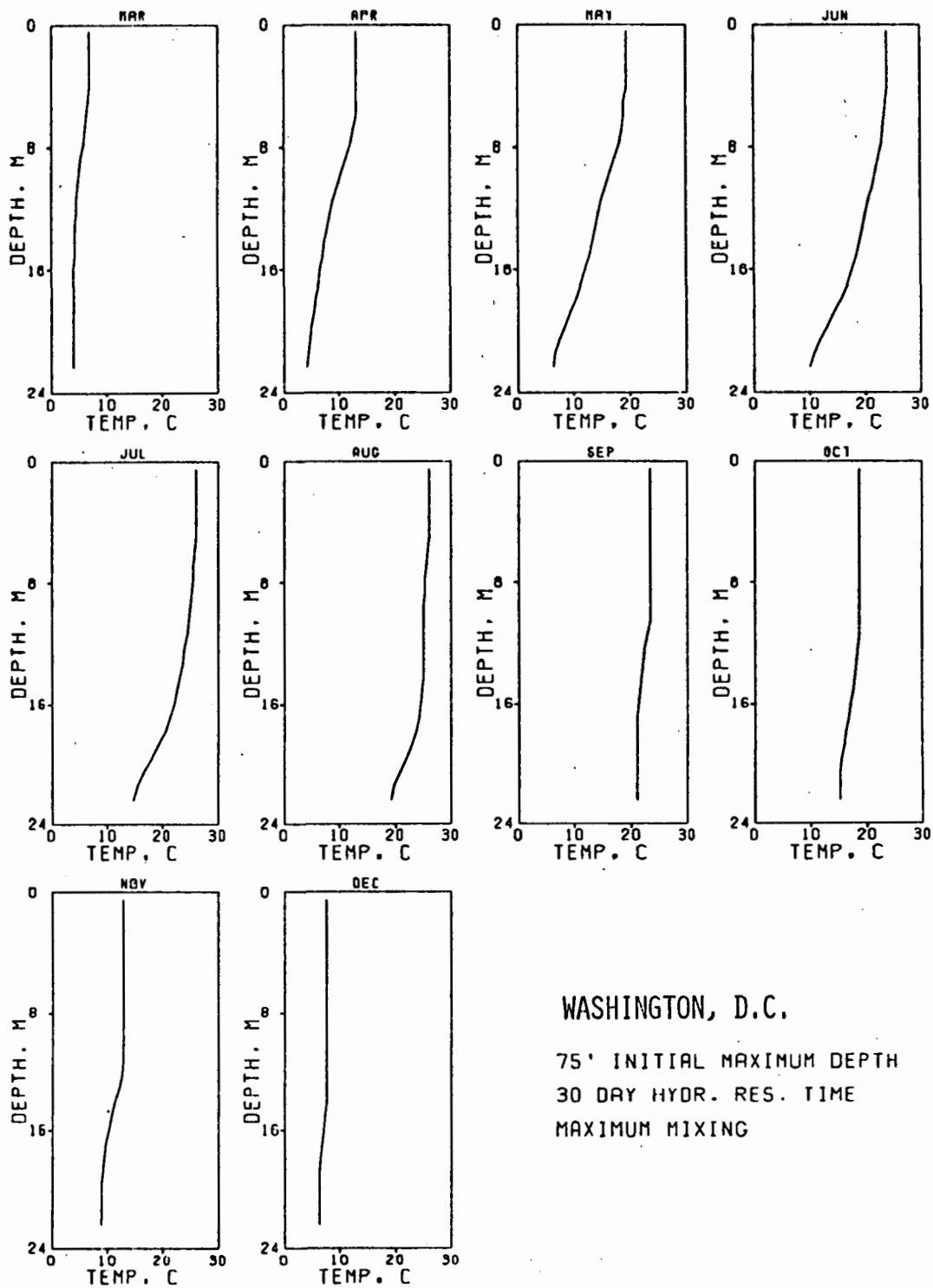
10 DAY HYDR. RES. TIME

MAXIMUM MIXING



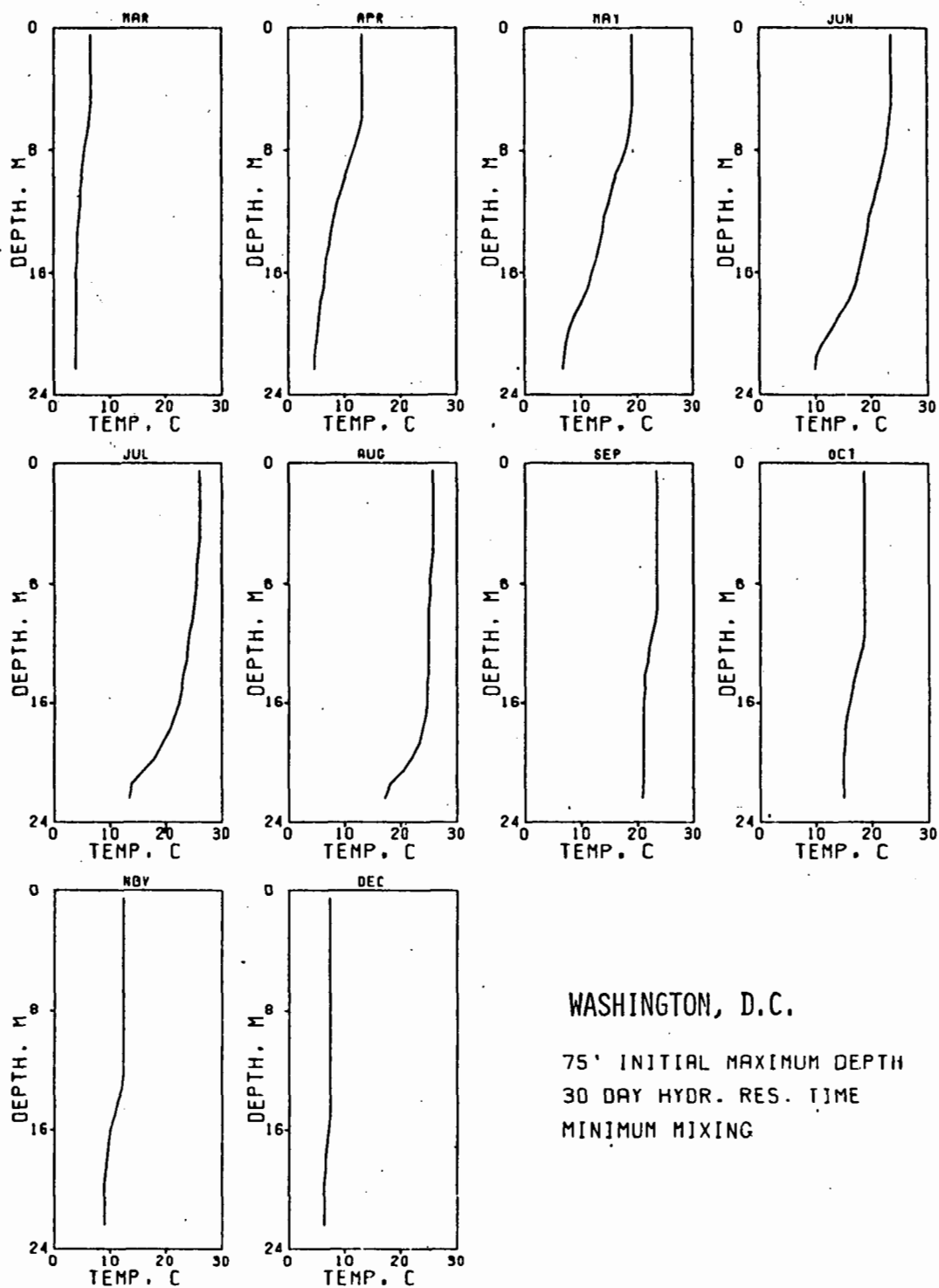
WASHINGTON, D.C.

75' INITIAL MAXIMUM DEPTH
 10 DAY HYDR. RES. TIME
 MINIMUM MIXING



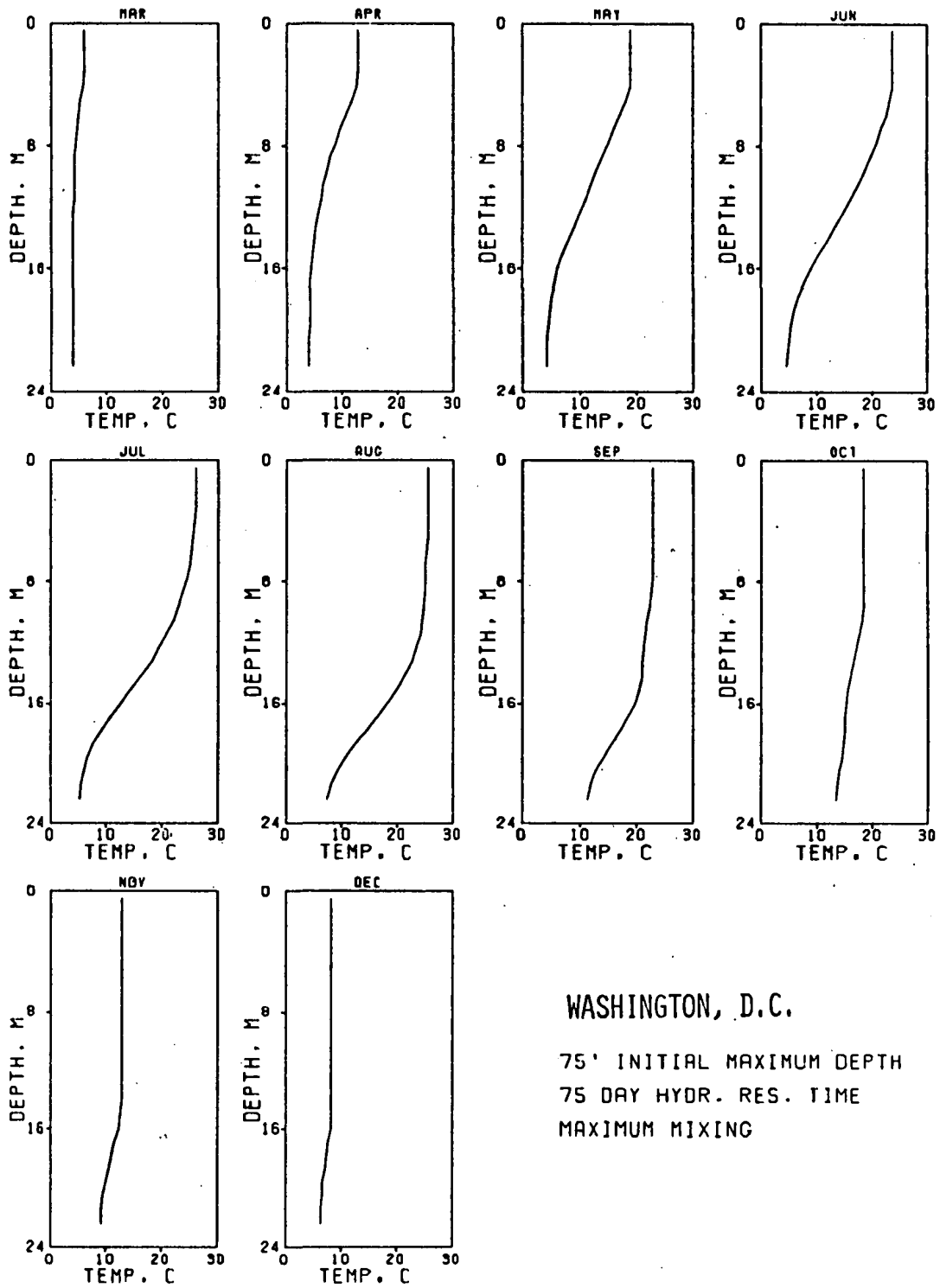
WASHINGTON, D.C.

75' INITIAL MAXIMUM DEPTH
30 DAY HYDR. RES. TIME
MAXIMUM MIXING



WASHINGTON, D.C.

75' INITIAL MAXIMUM DEPTH
30 DAY HYDR. RES. TIME
MINIMUM MIXING

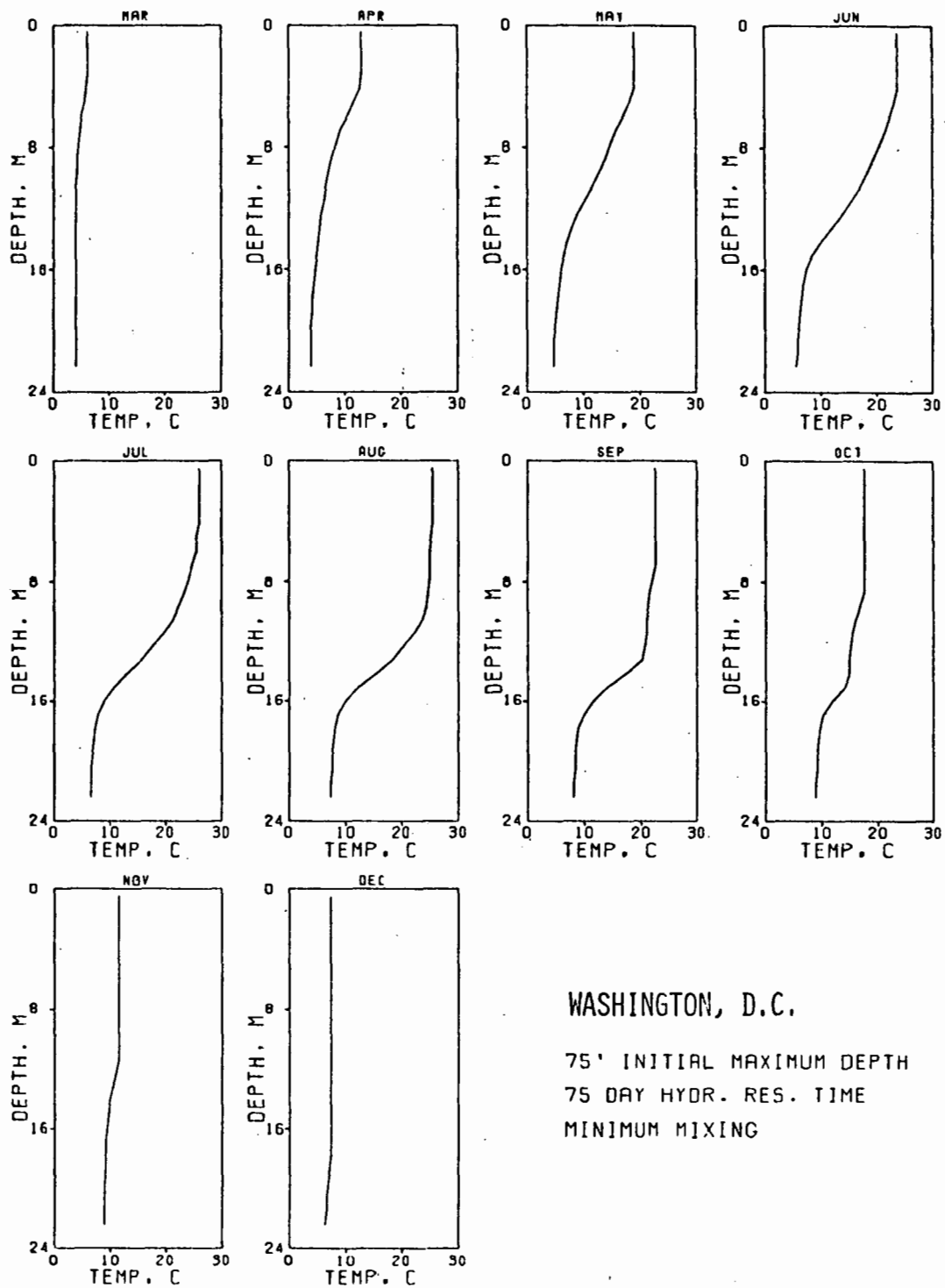


WASHINGTON, D.C.

75' INITIAL MAXIMUM DEPTH

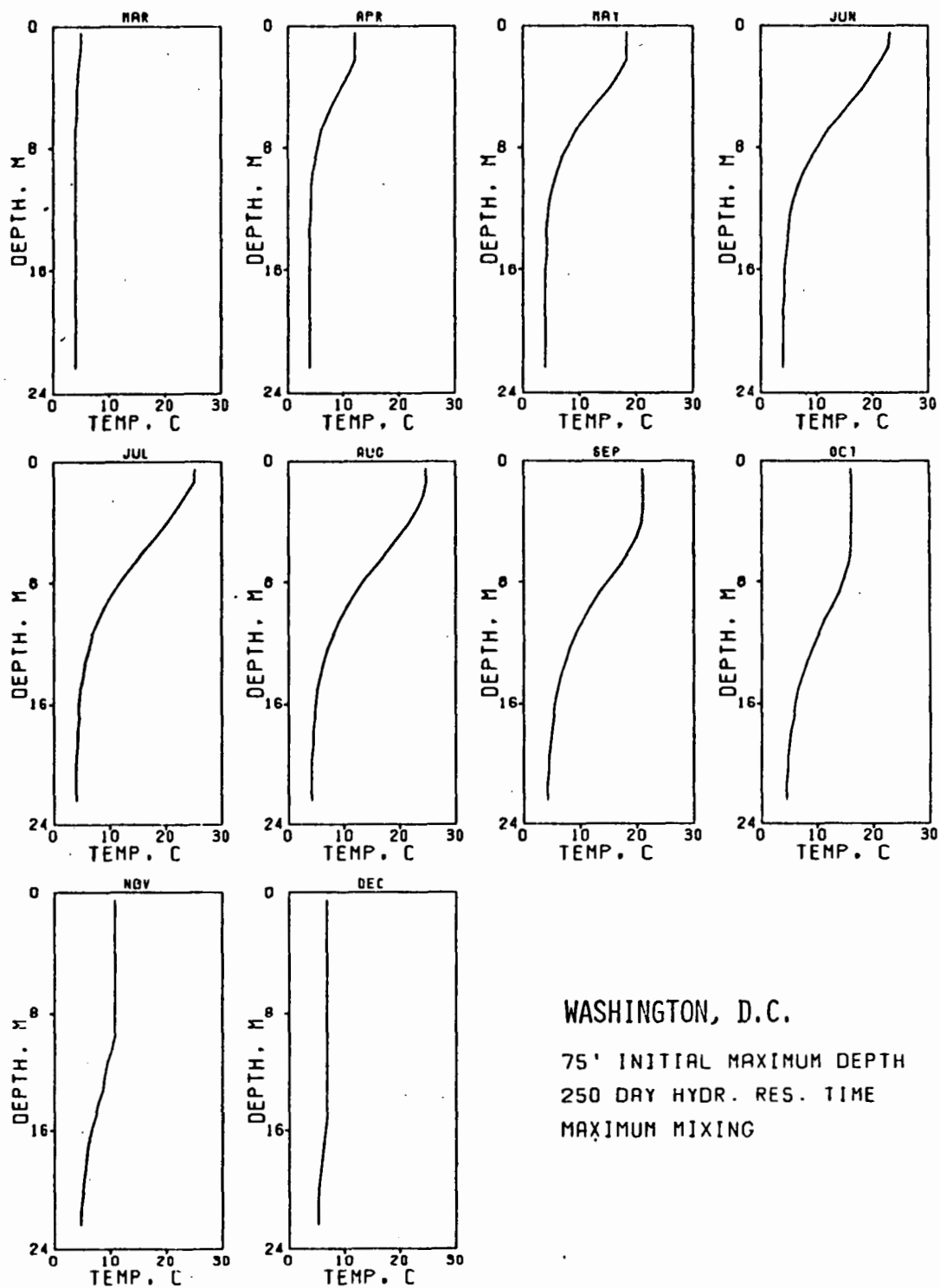
75 DAY HYDR. RES. TIME

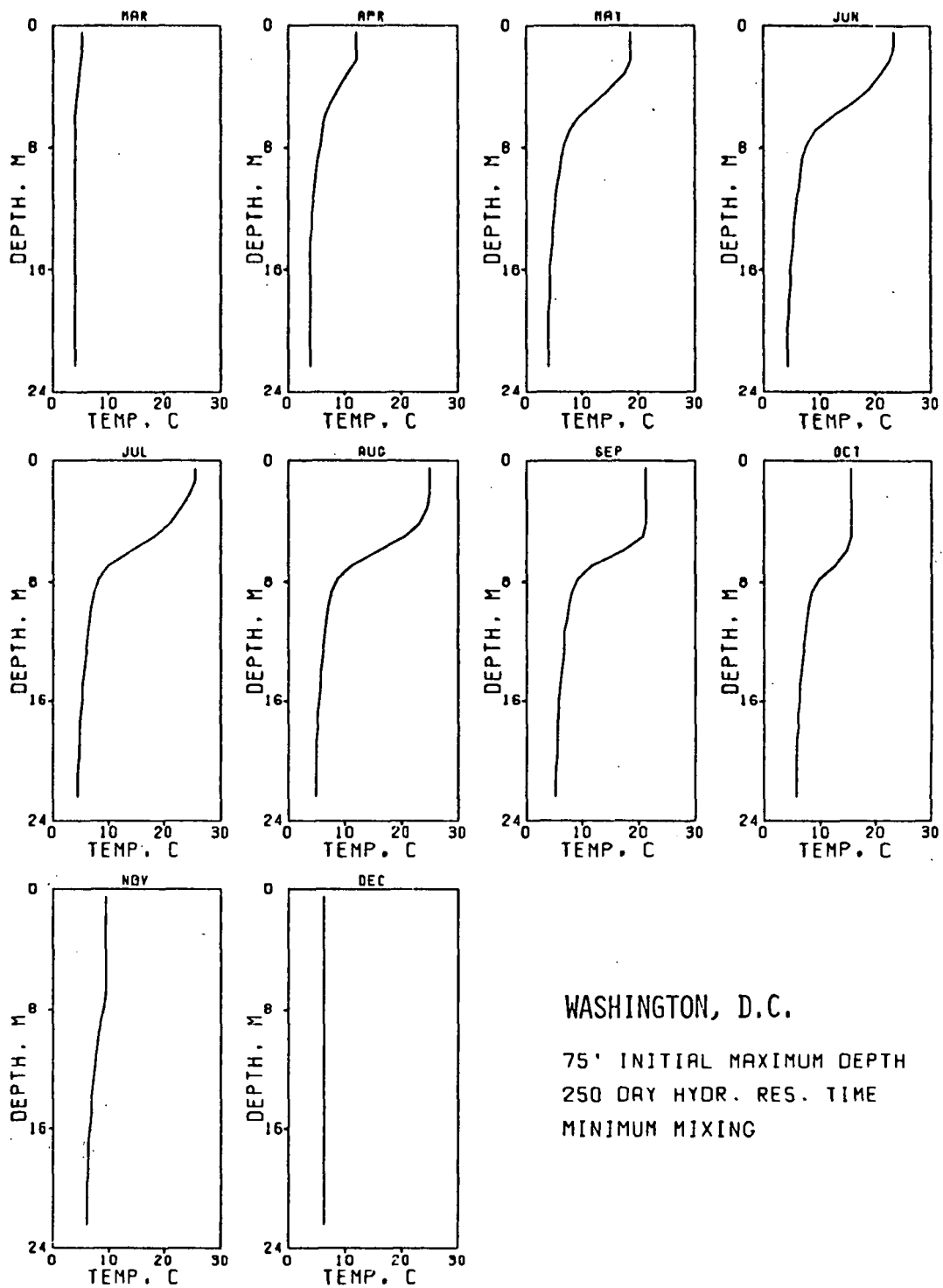
MAXIMUM MIXING



WASHINGTON, D.C.

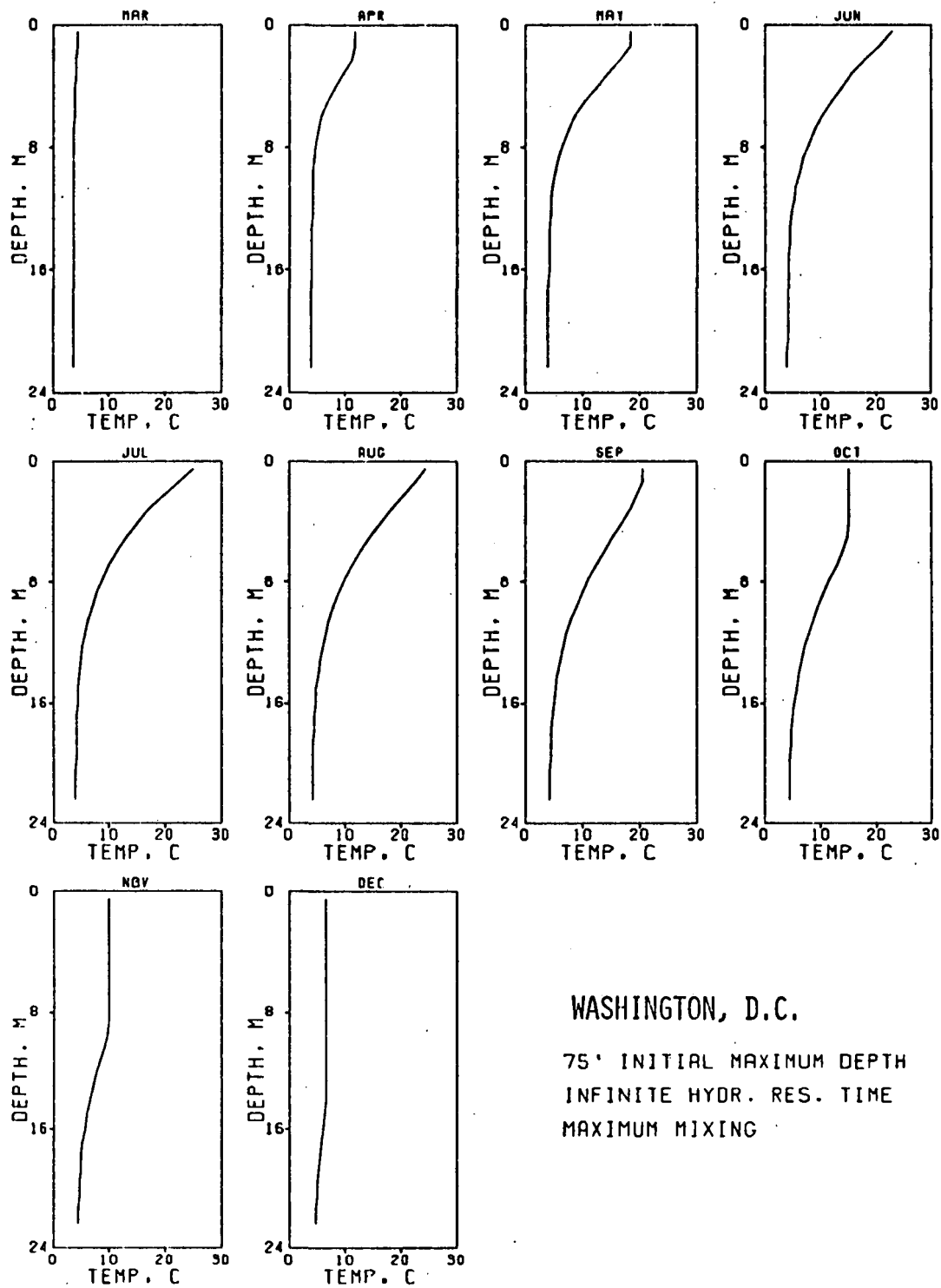
75' INITIAL MAXIMUM DEPTH
75 DAY HYDR. RES. TIME
MINIMUM MIXING





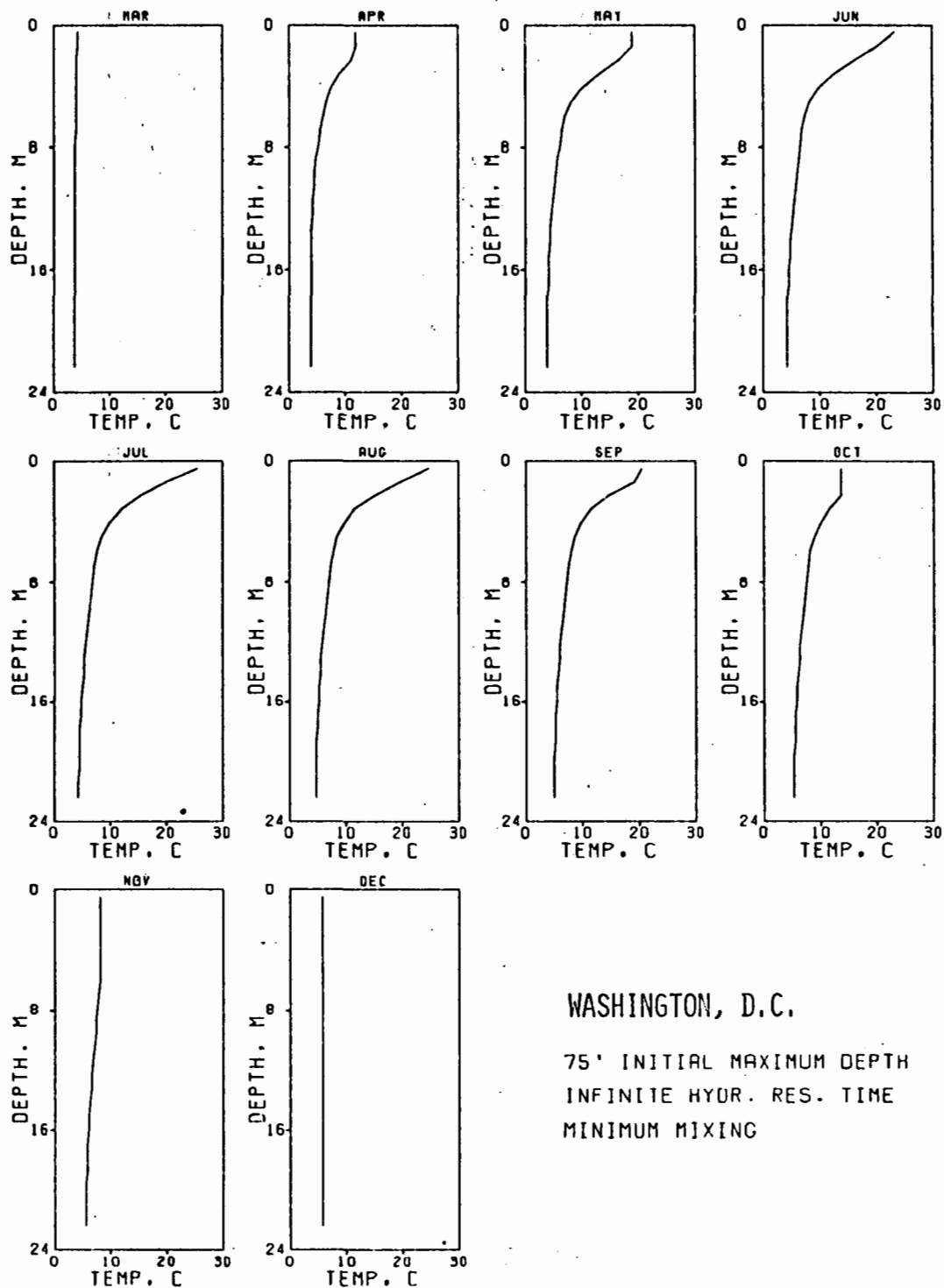
WASHINGTON, D.C.

75' INITIAL MAXIMUM DEPTH
250 DAY HYDR. RES. TIME
MINIMUM MIXING



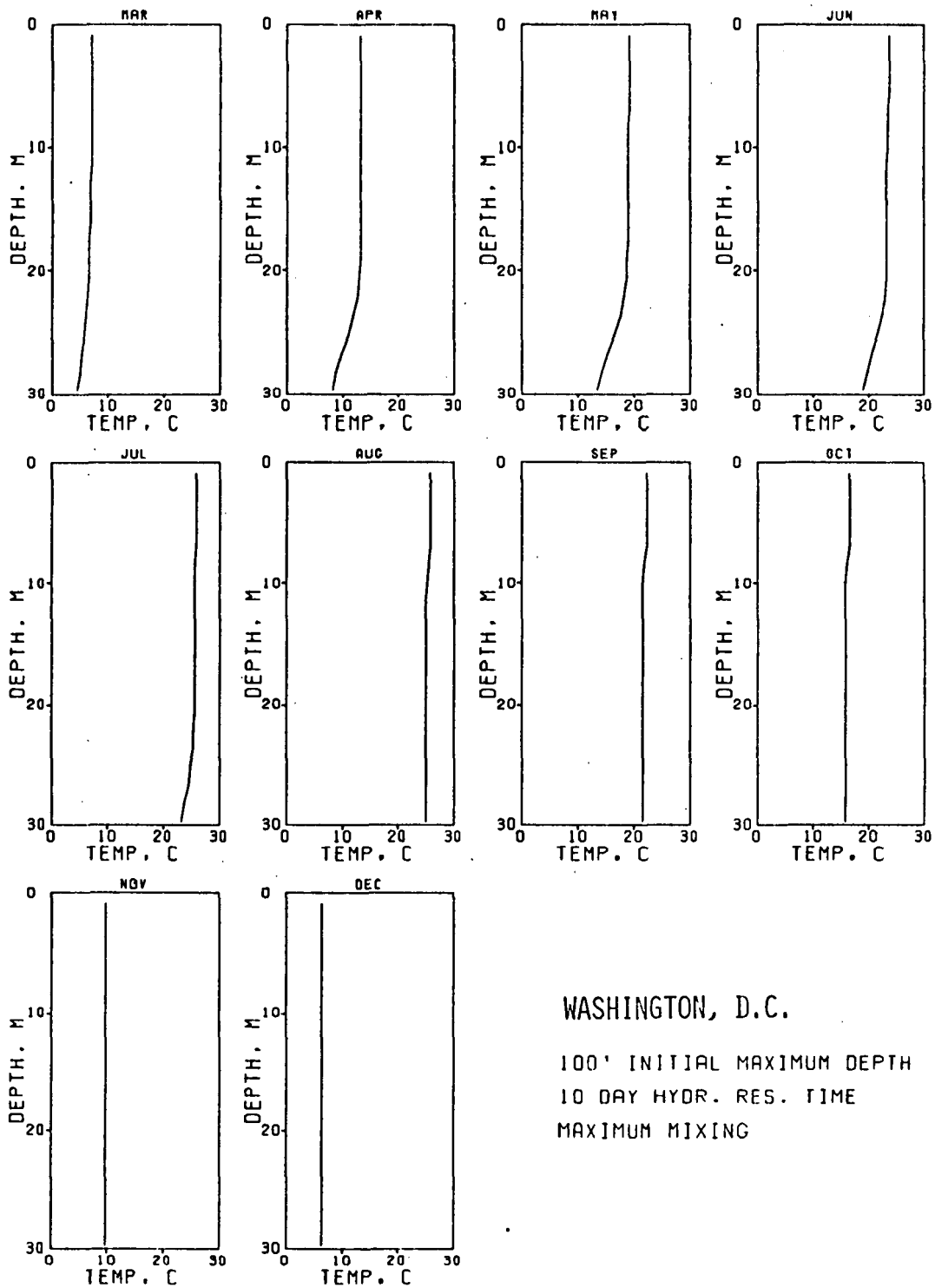
WASHINGTON, D.C.

75' INITIAL MAXIMUM DEPTH
INFINITE HYDR. RES. TIME
MAXIMUM MIXING



WASHINGTON, D.C.

75' INITIAL MAXIMUM DEPTH
INFINITE HYDR. RES. TIME
MINIMUM MIXING

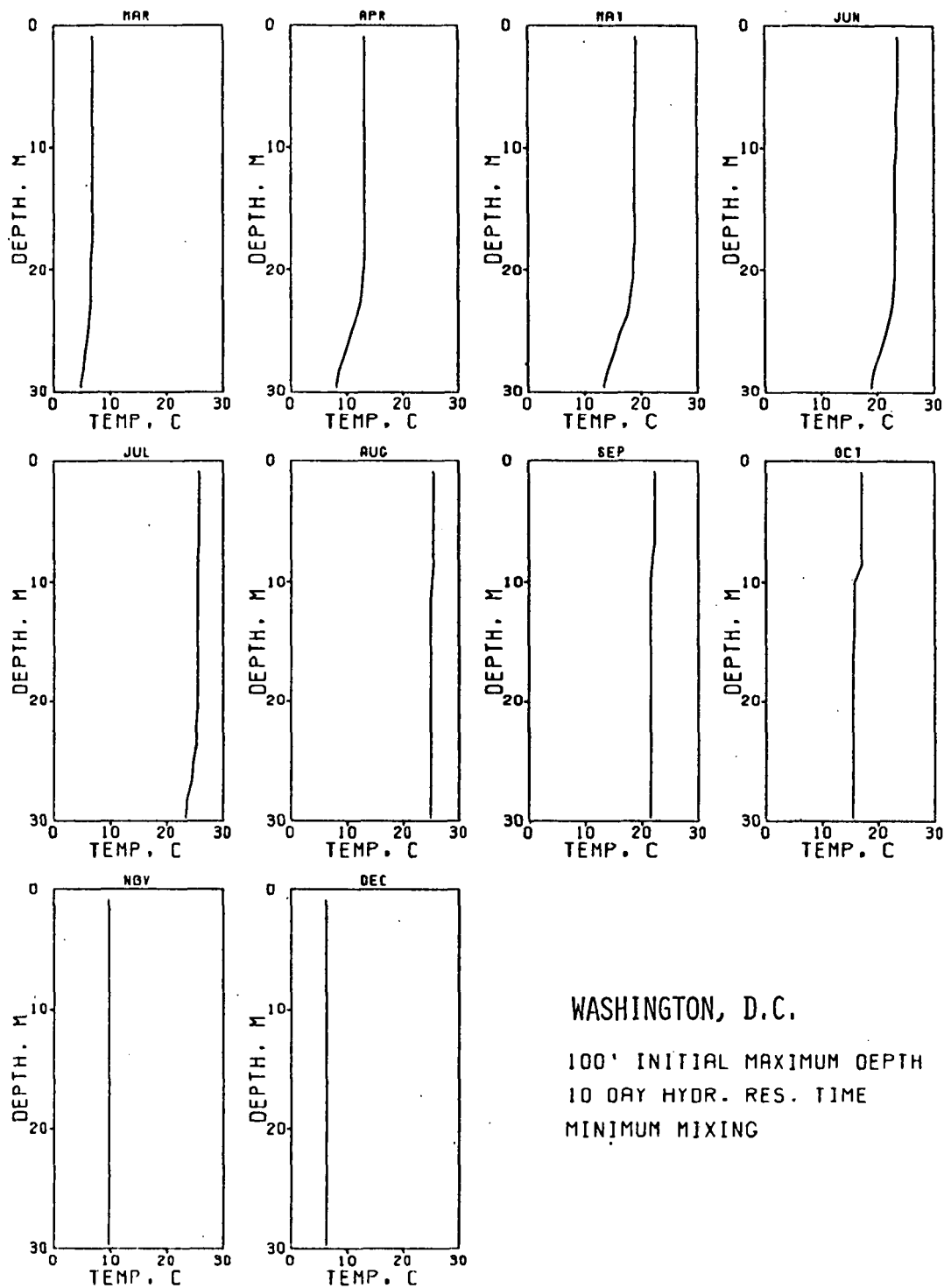


WASHINGTON, D.C.

100' INITIAL MAXIMUM DEPTH

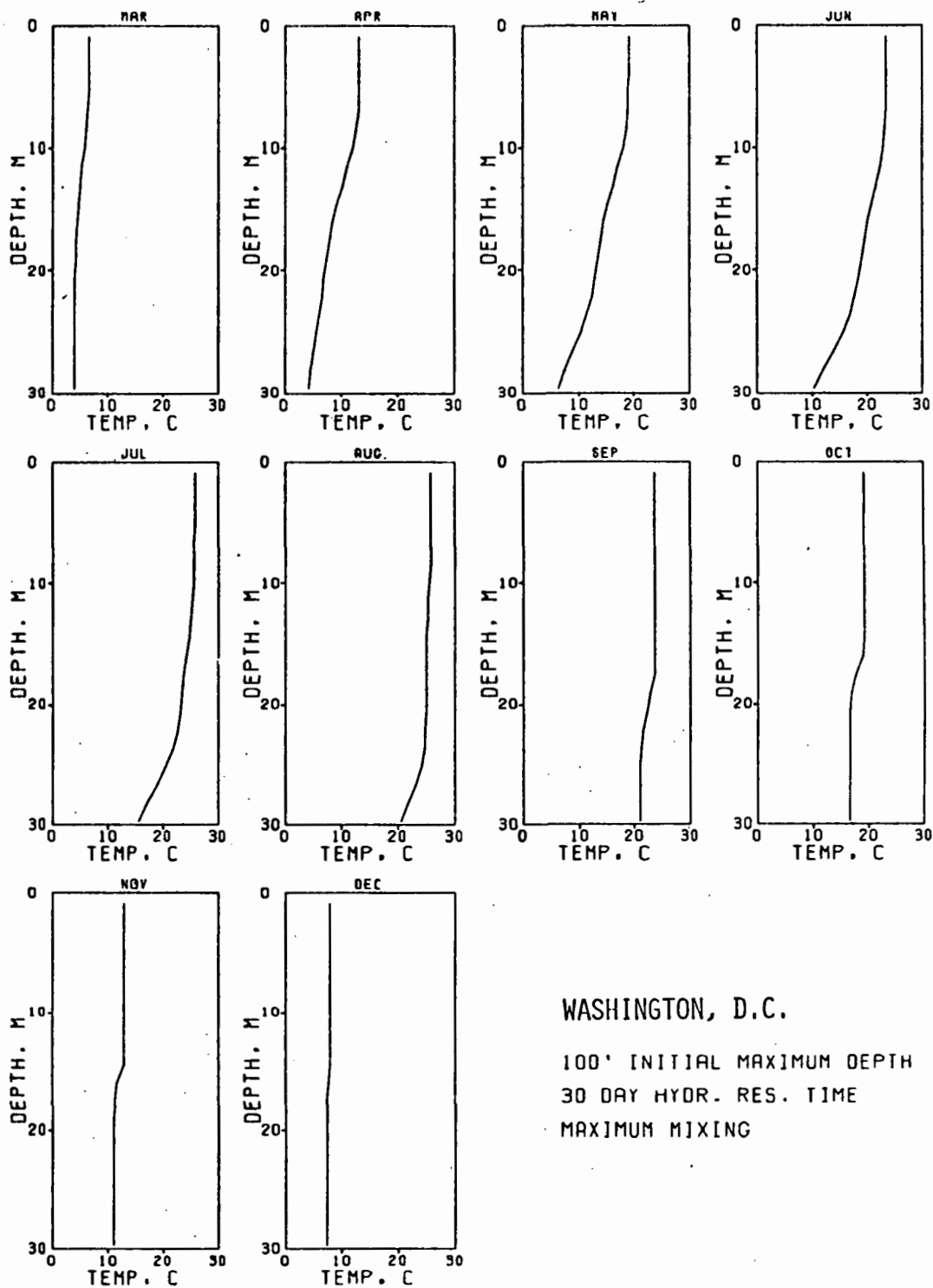
10 DAY HYDR. RES. TIME

MAXIMUM MIXING



WASHINGTON, D.C.

100' INITIAL MAXIMUM DEPTH
10 DAY HYDR. RES. TIME
MINIMUM MIXING

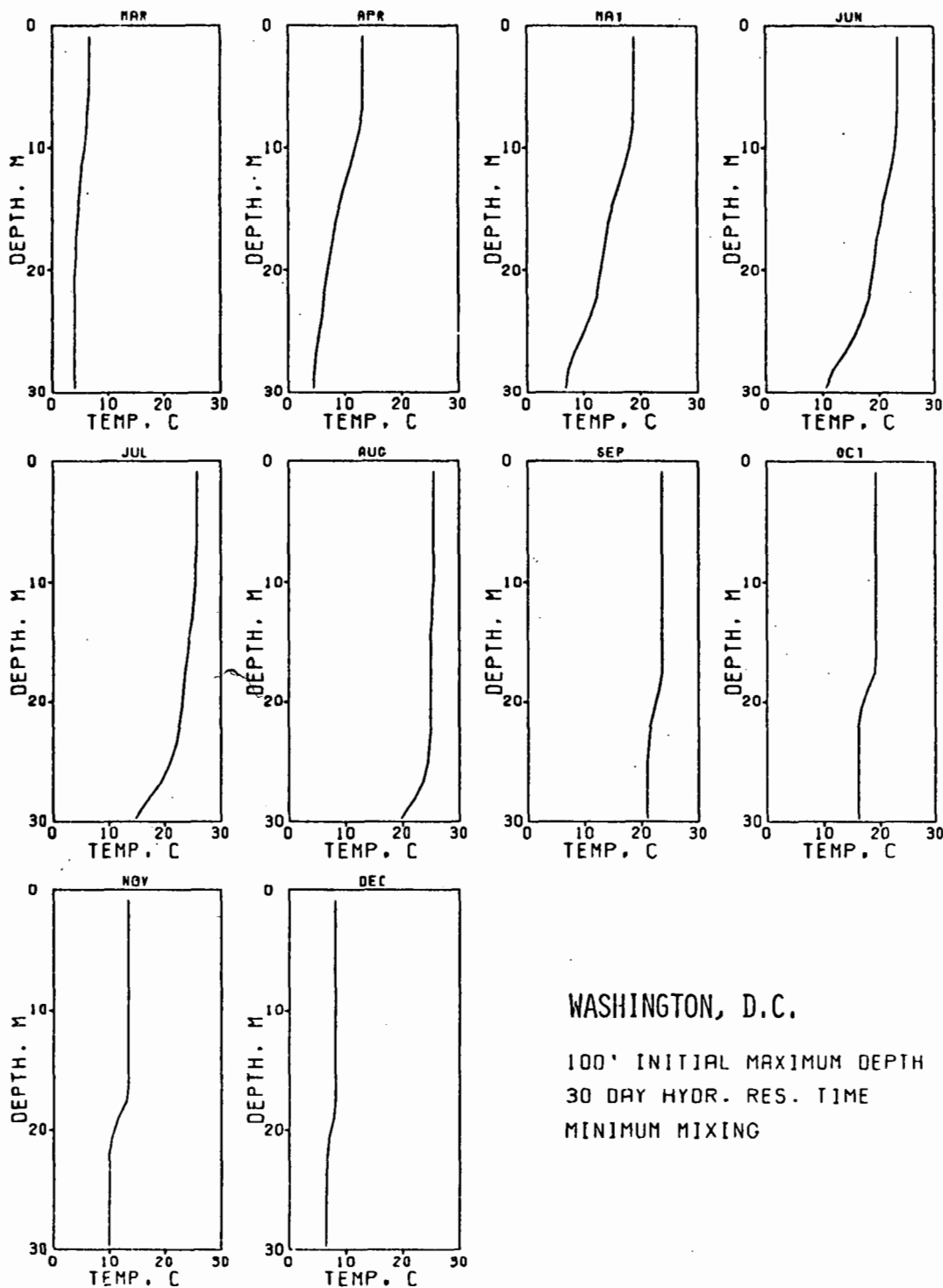


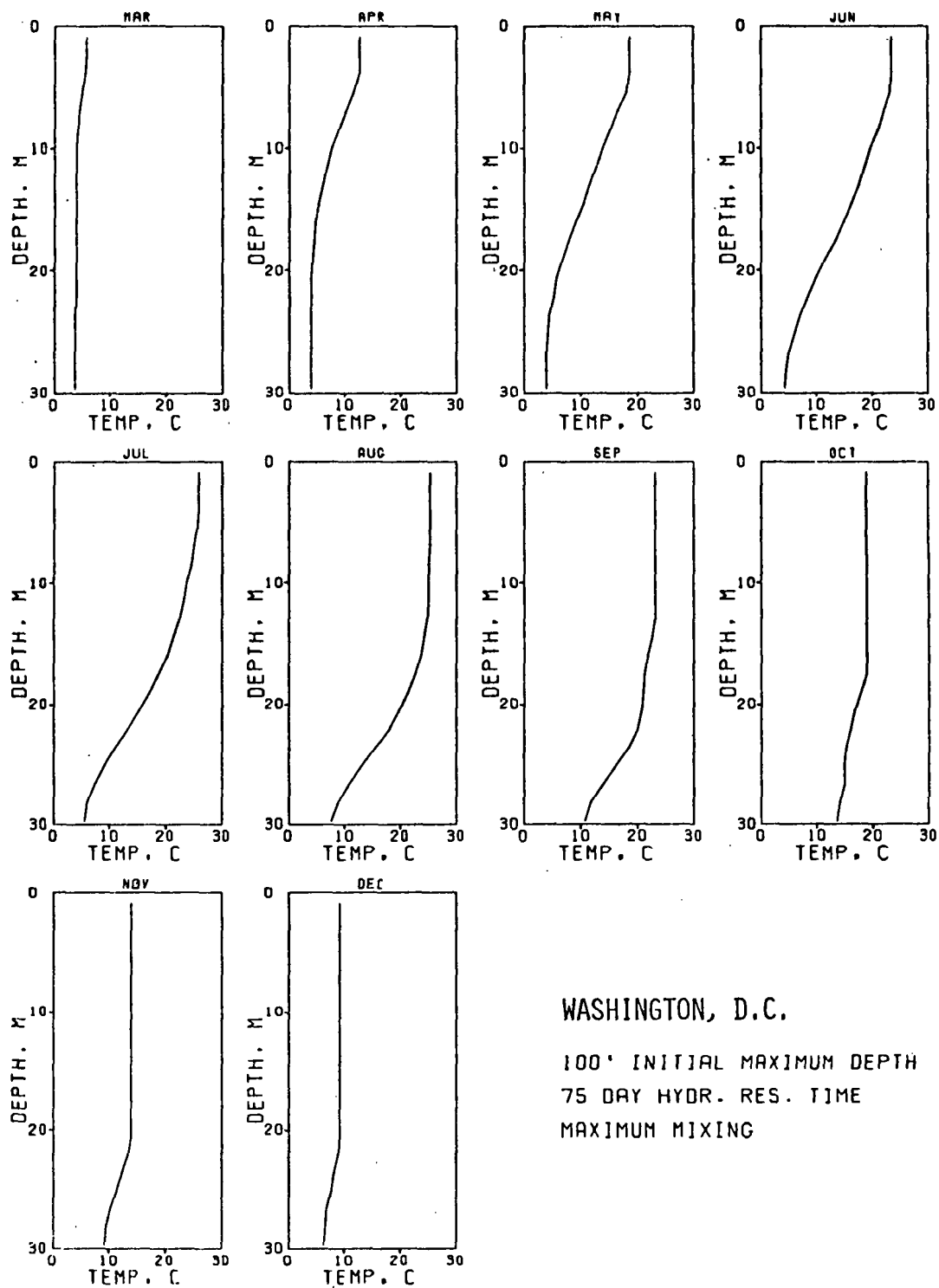
WASHINGTON, D.C.

100' INITIAL MAXIMUM DEPTH

30 DAY HYDR. RES. TIME

MAXIMUM MIXING



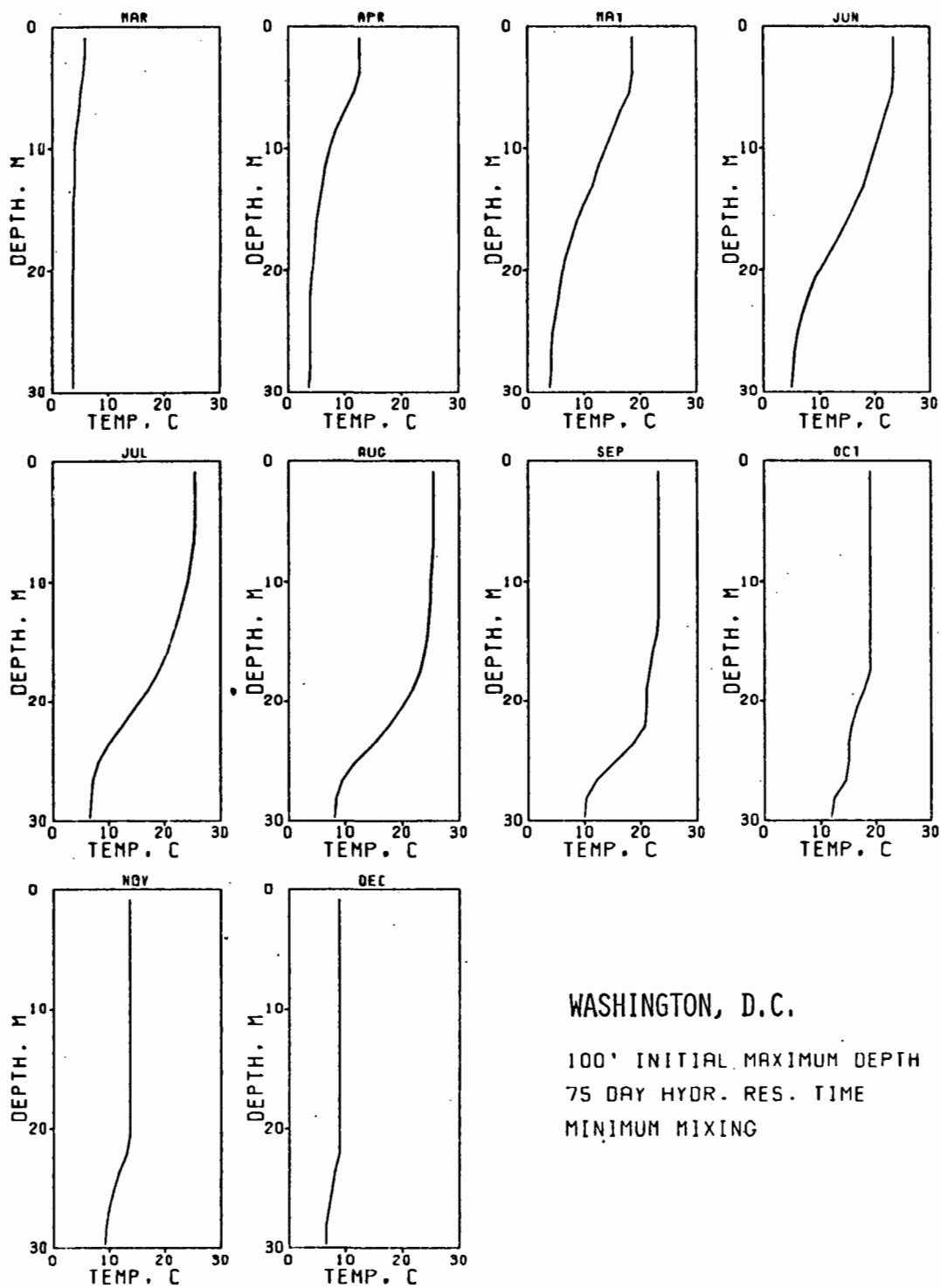


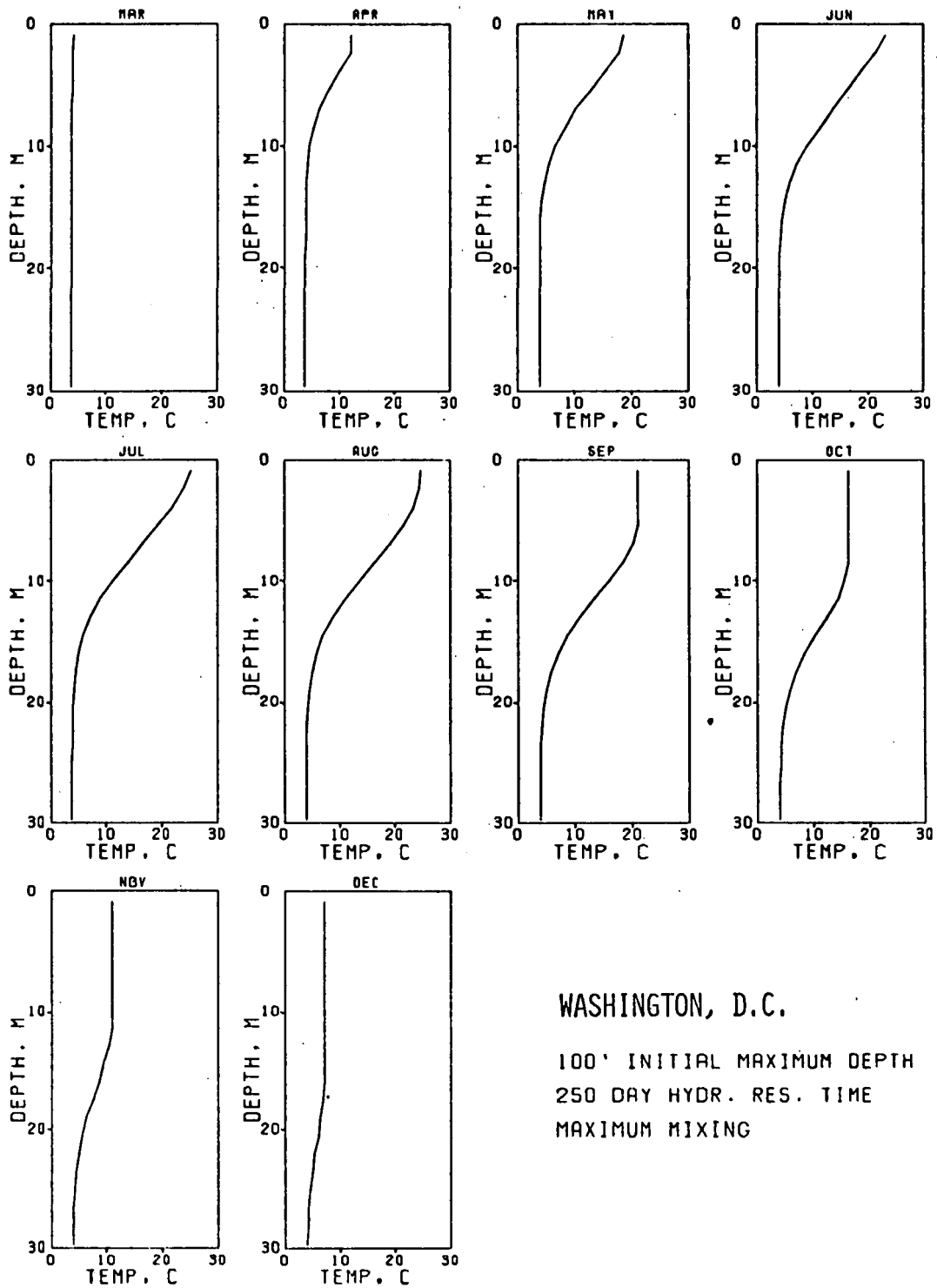
WASHINGTON, D.C.

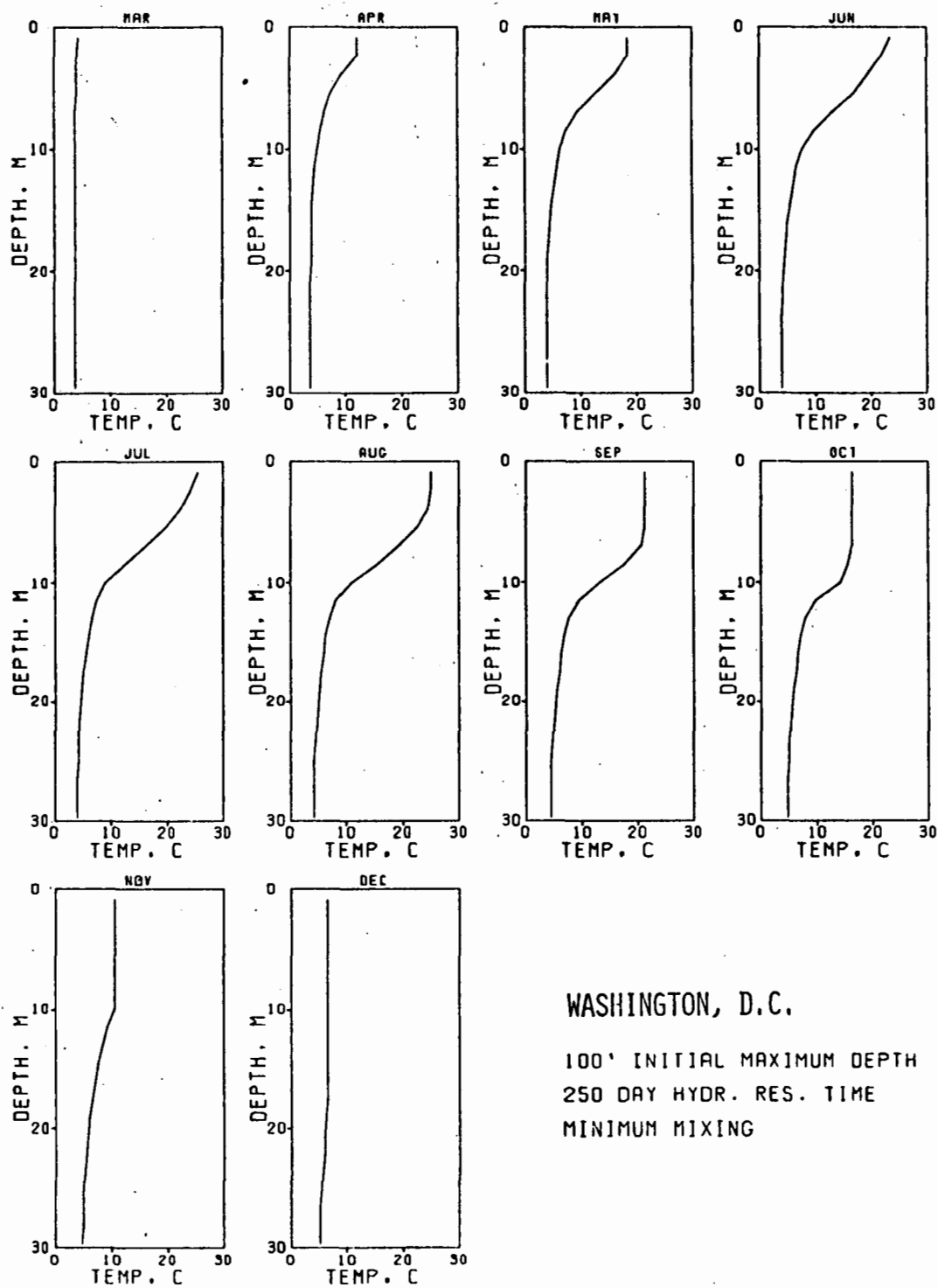
100' INITIAL MAXIMUM DEPTH

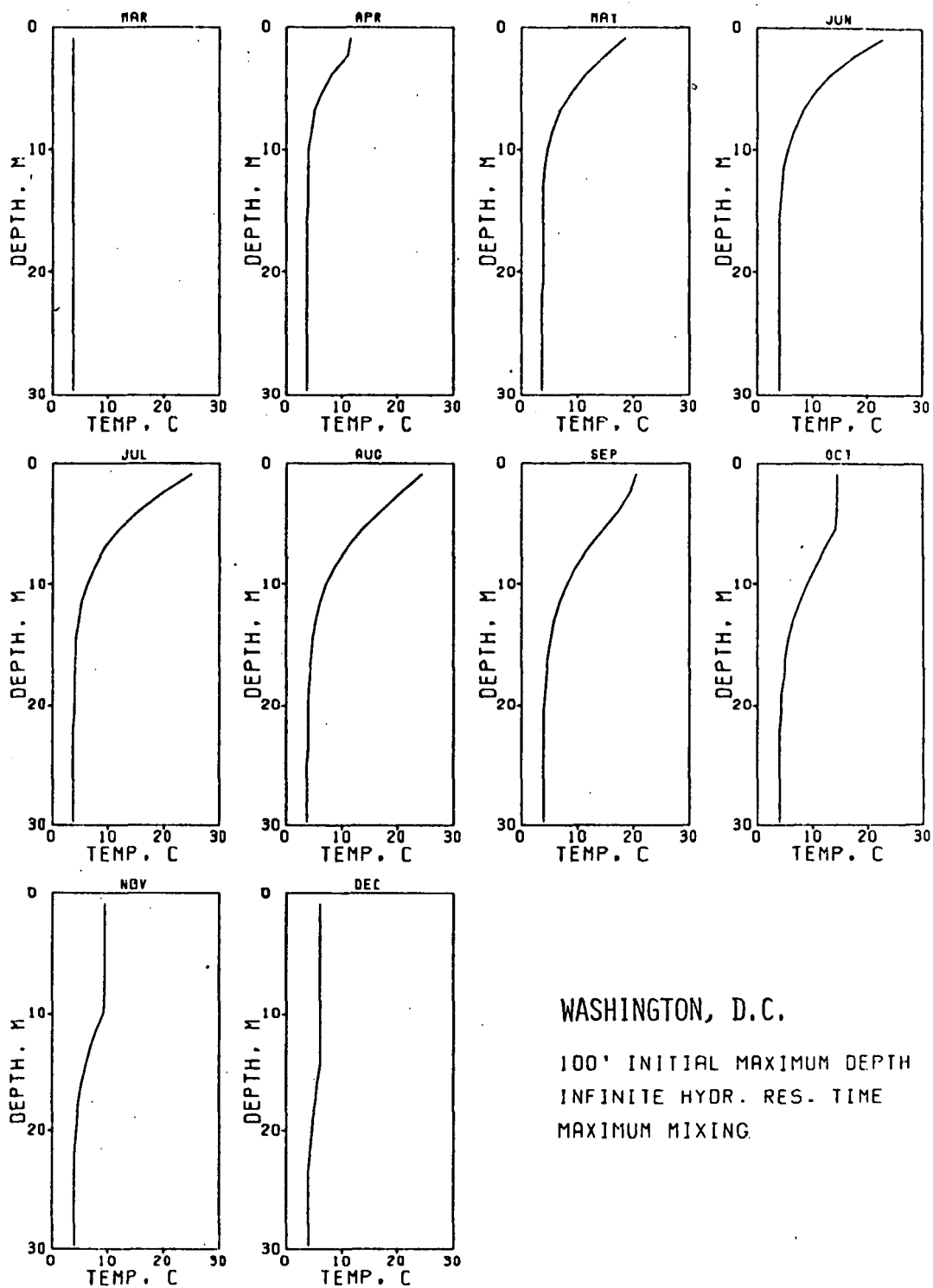
75 DAY HYDR. RES. TIME

MAXIMUM MIXING



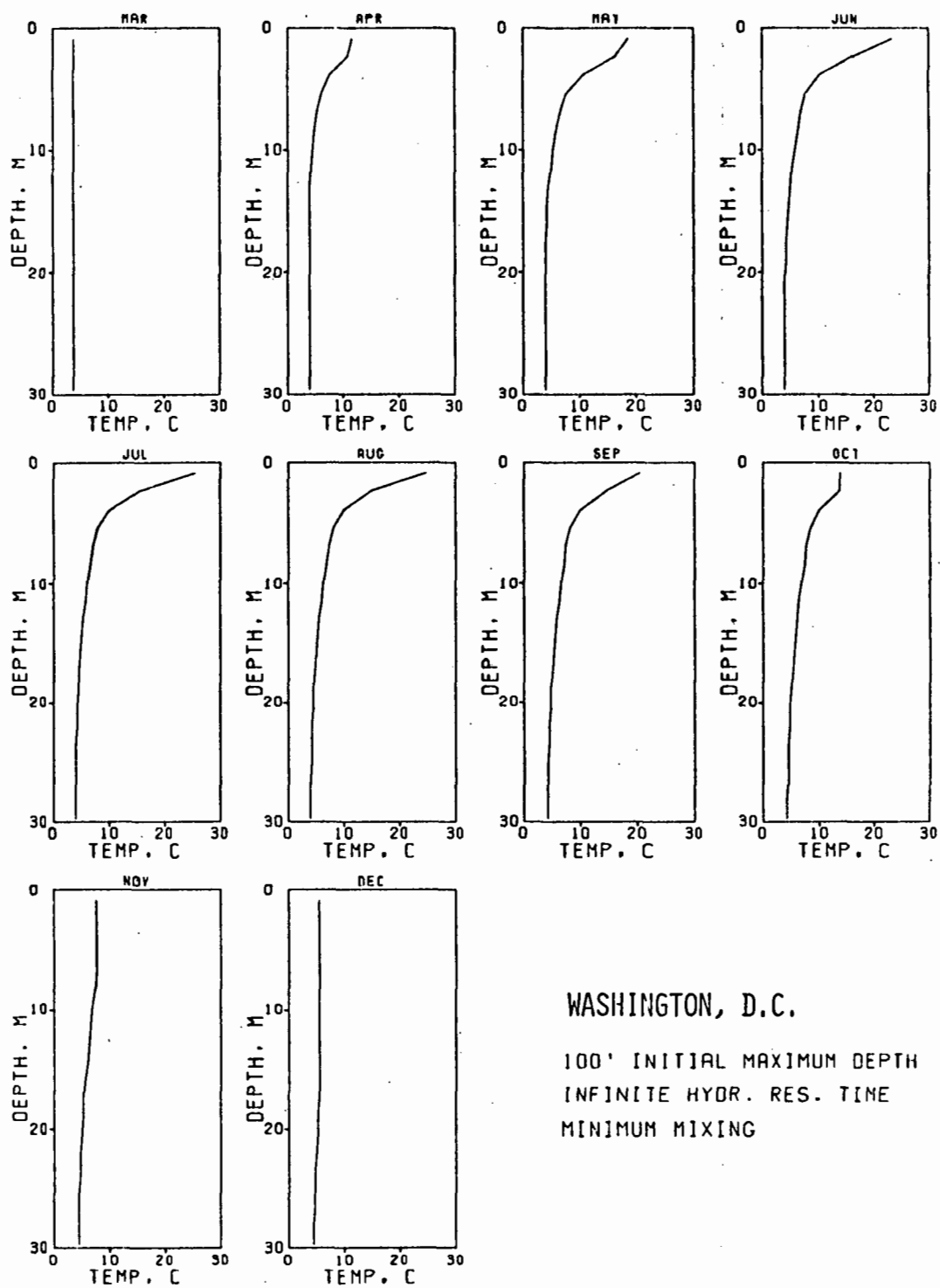






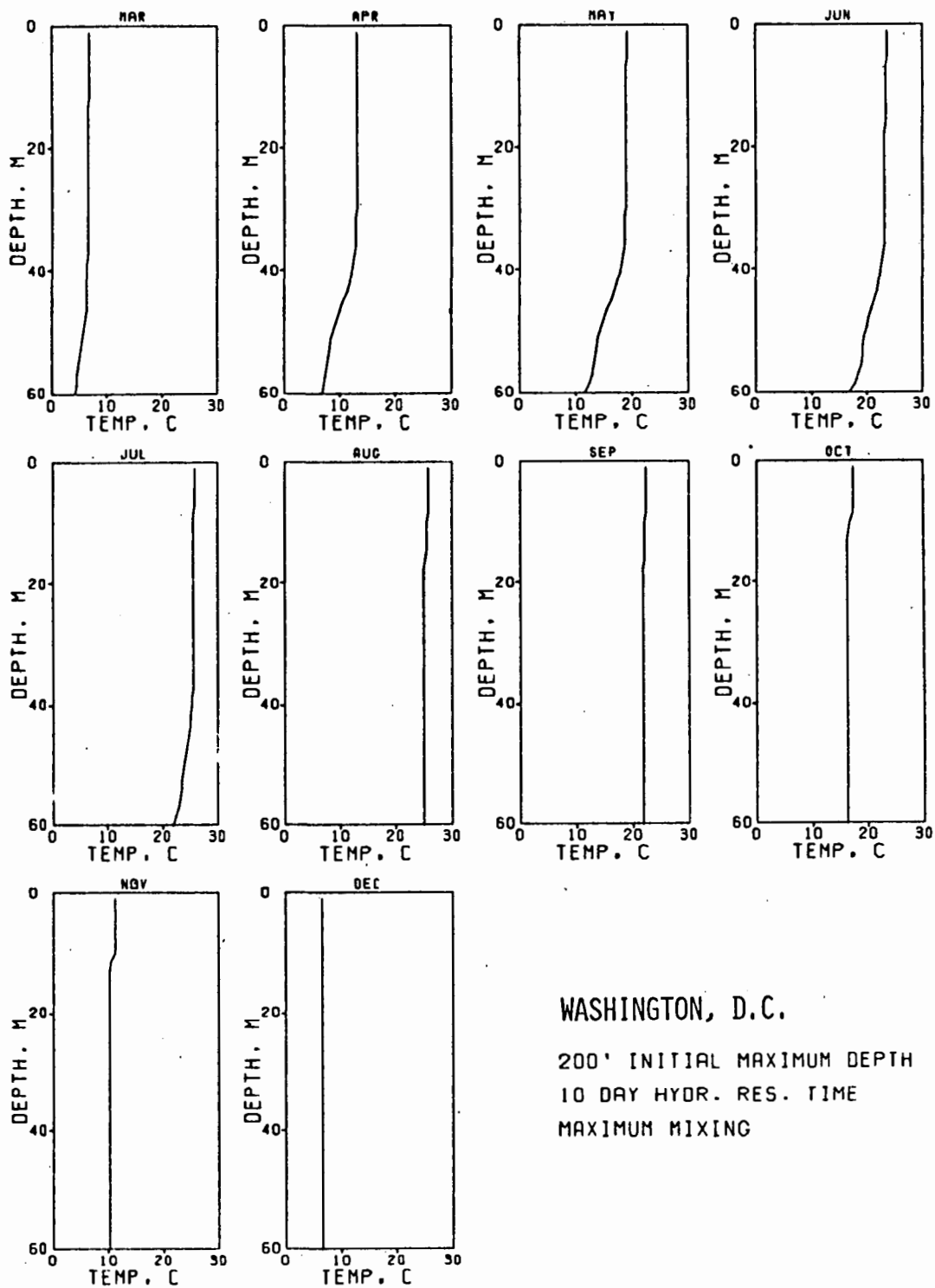
WASHINGTON, D.C.

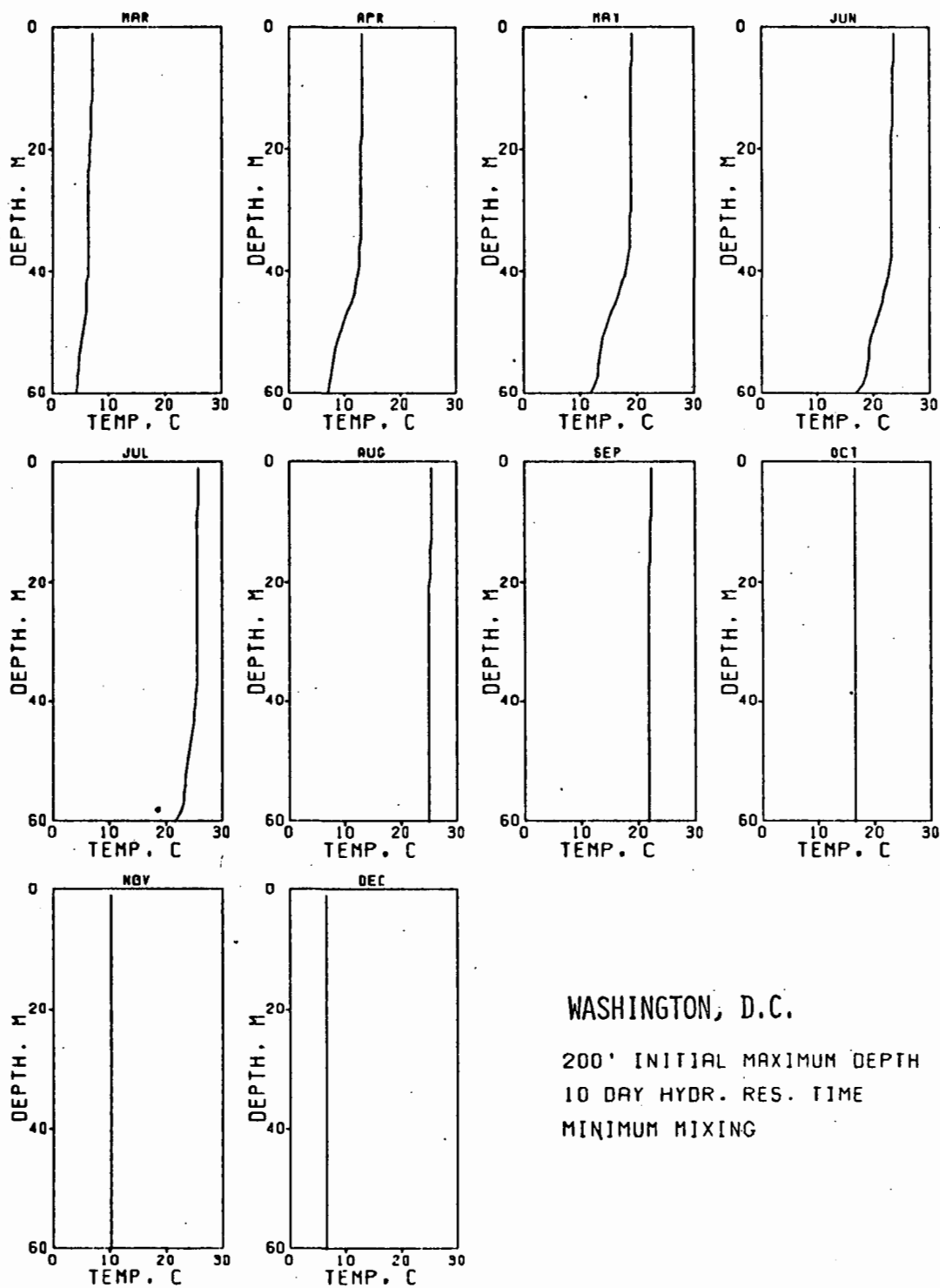
100' INITIAL MAXIMUM DEPTH
INFINITE HYDR. RES. TIME
MAXIMUM MIXING



WASHINGTON, D.C.

100' INITIAL MAXIMUM DEPTH
INFINITE HYDR. RES. TIME
MINIMUM MIXING



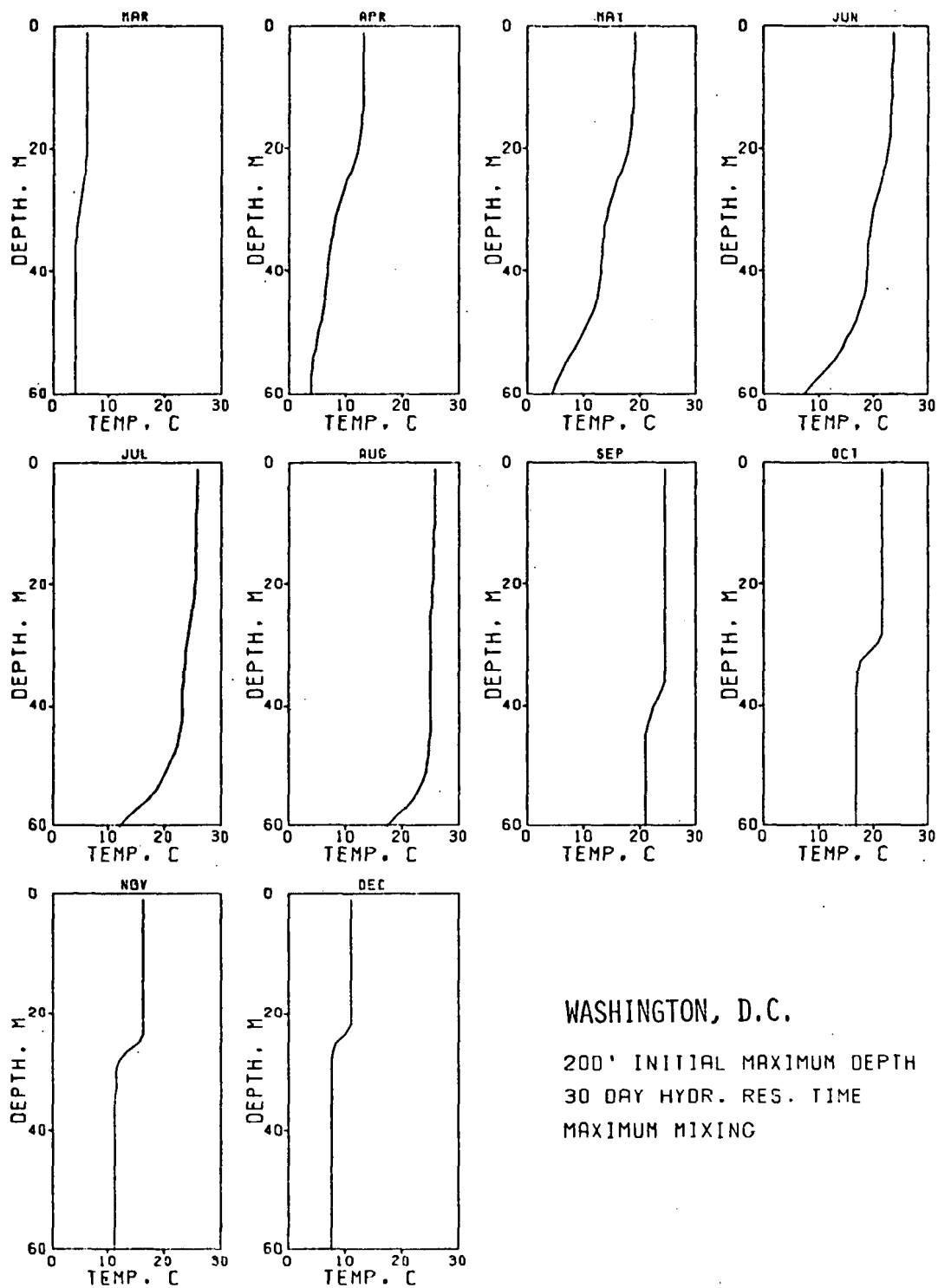


WASHINGTON, D.C.

200' INITIAL MAXIMUM DEPTH

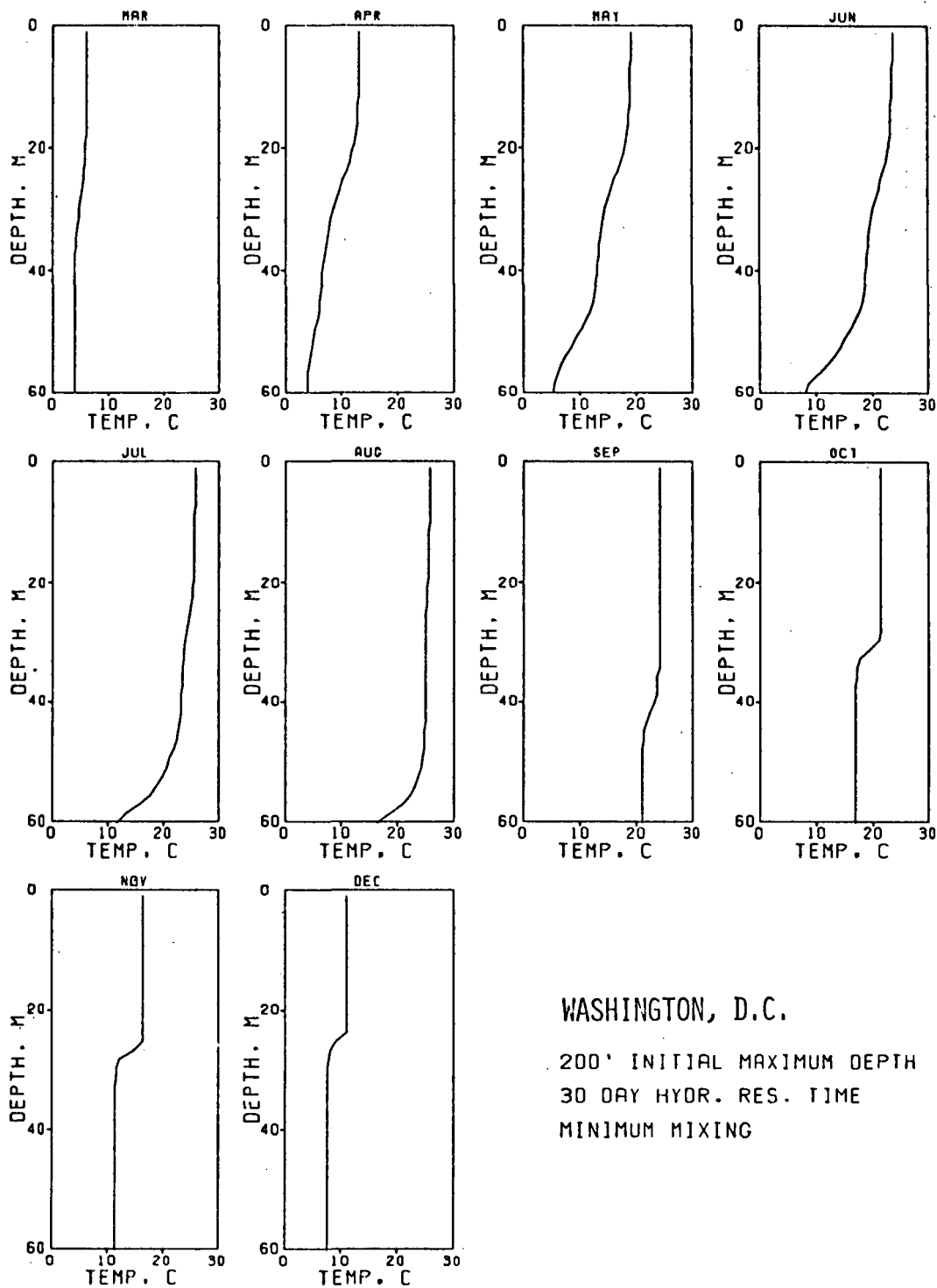
10 DAY HYDR. RES. TIME

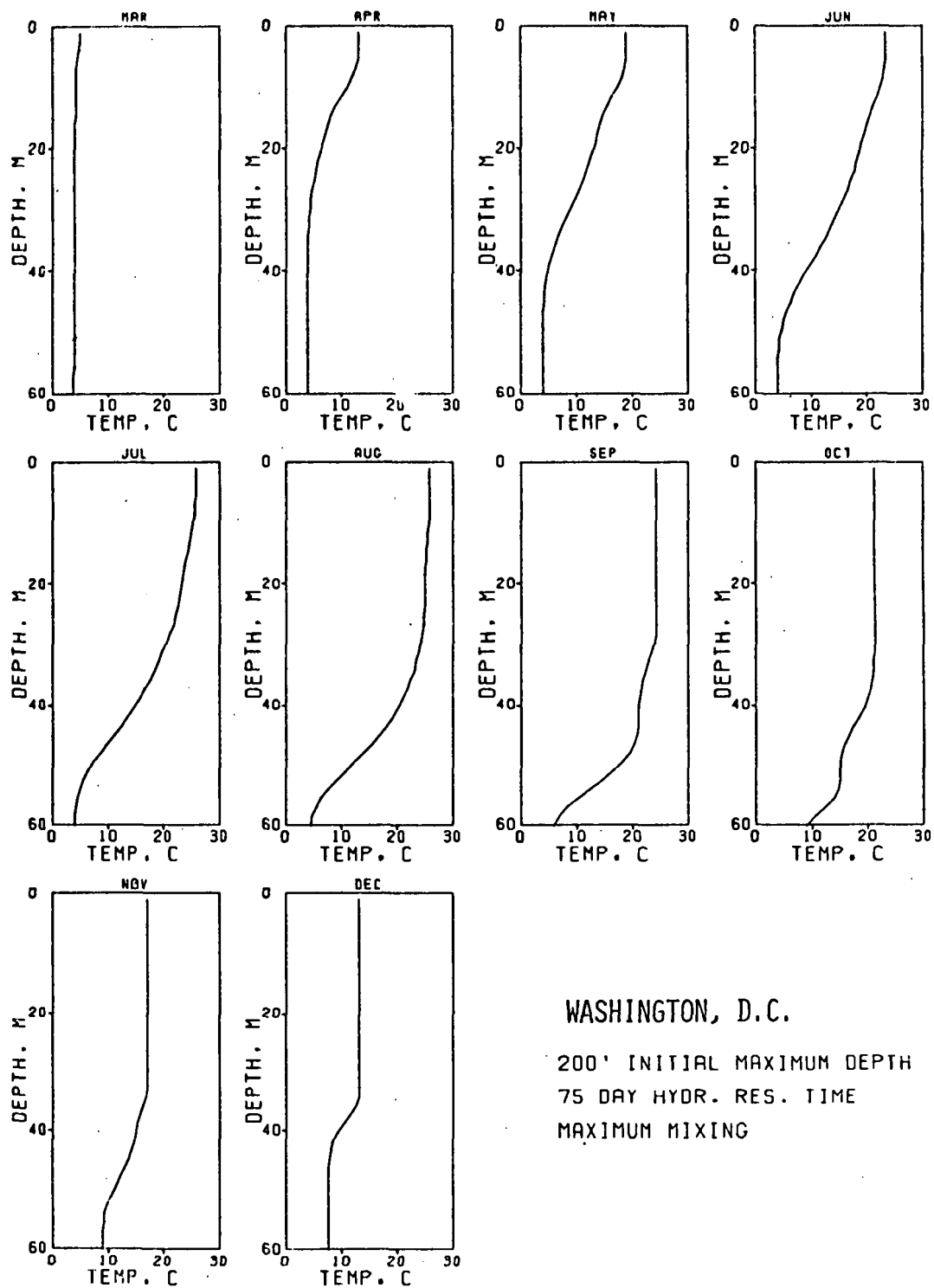
MINIMUM MIXING



WASHINGTON, D.C.

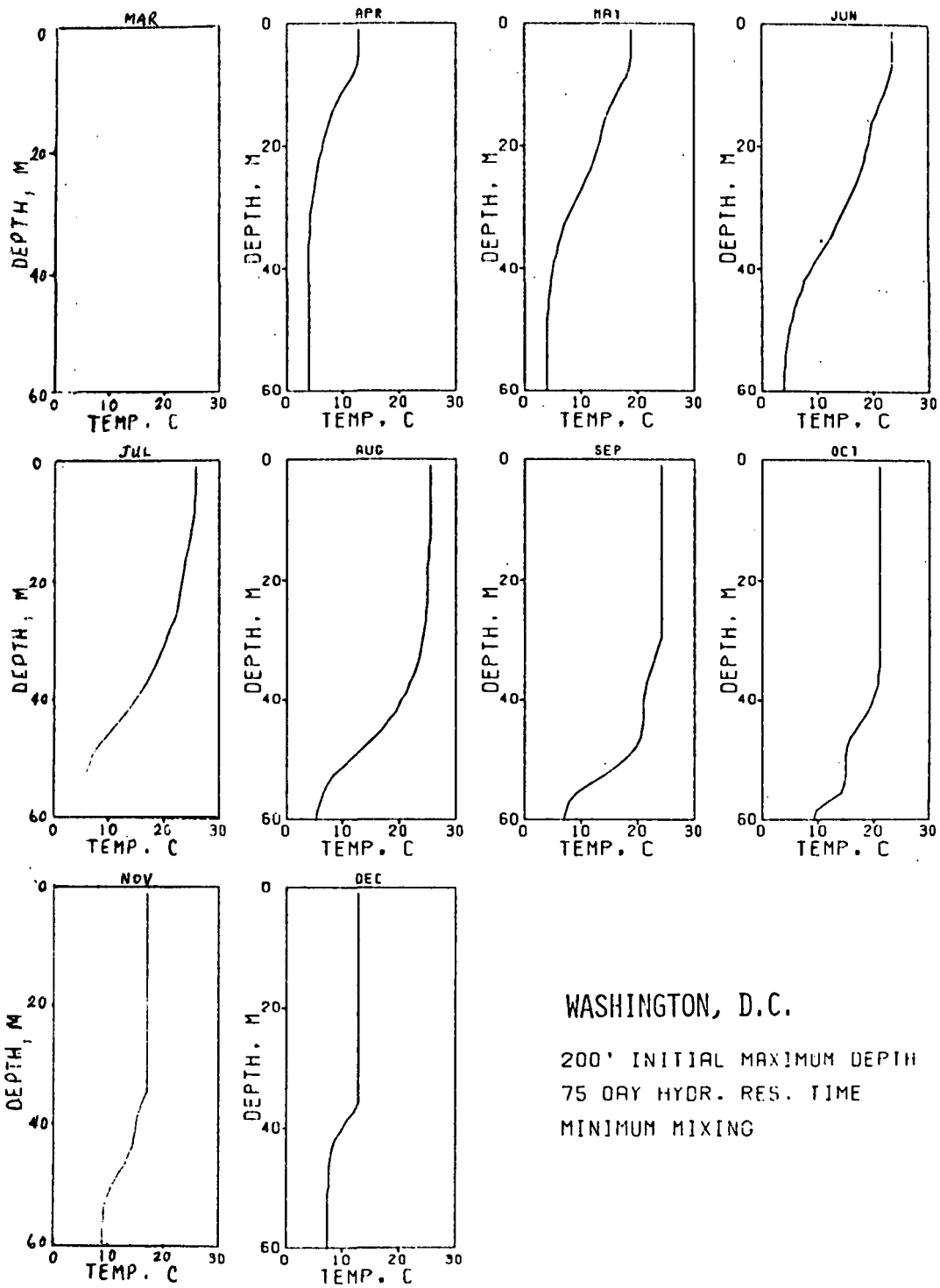
200' INITIAL MAXIMUM DEPTH
30 DAY HYDR. RES. TIME
MAXIMUM MIXING





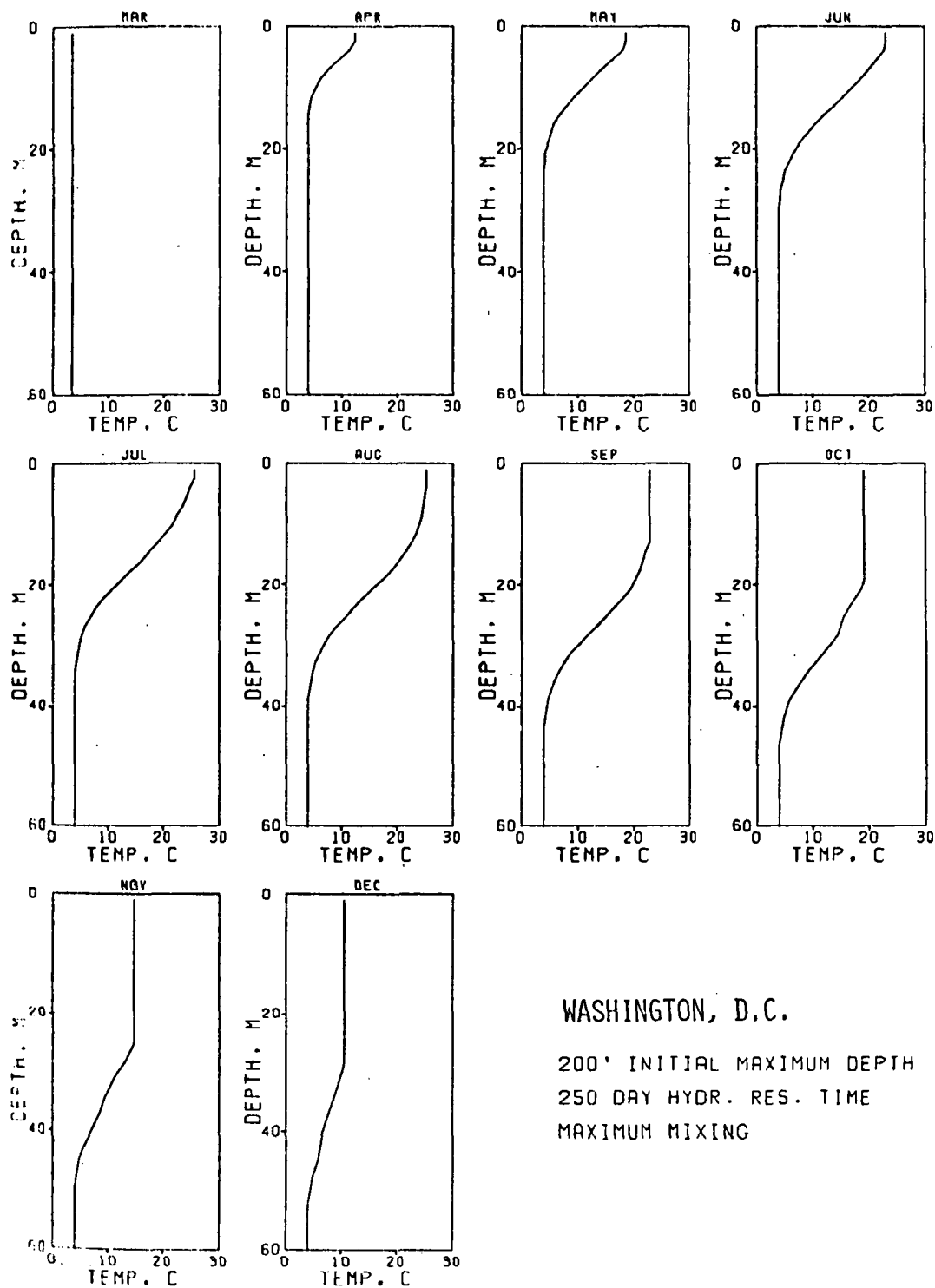
WASHINGTON, D.C.

200' INITIAL MAXIMUM DEPTH
75 DAY HYDR. RES. TIME
MAXIMUM MIXING



WASHINGTON, D.C.

200' INITIAL MAXIMUM DEPTH
75 DAY HYDR. RES. TIME
MINIMUM MIXING

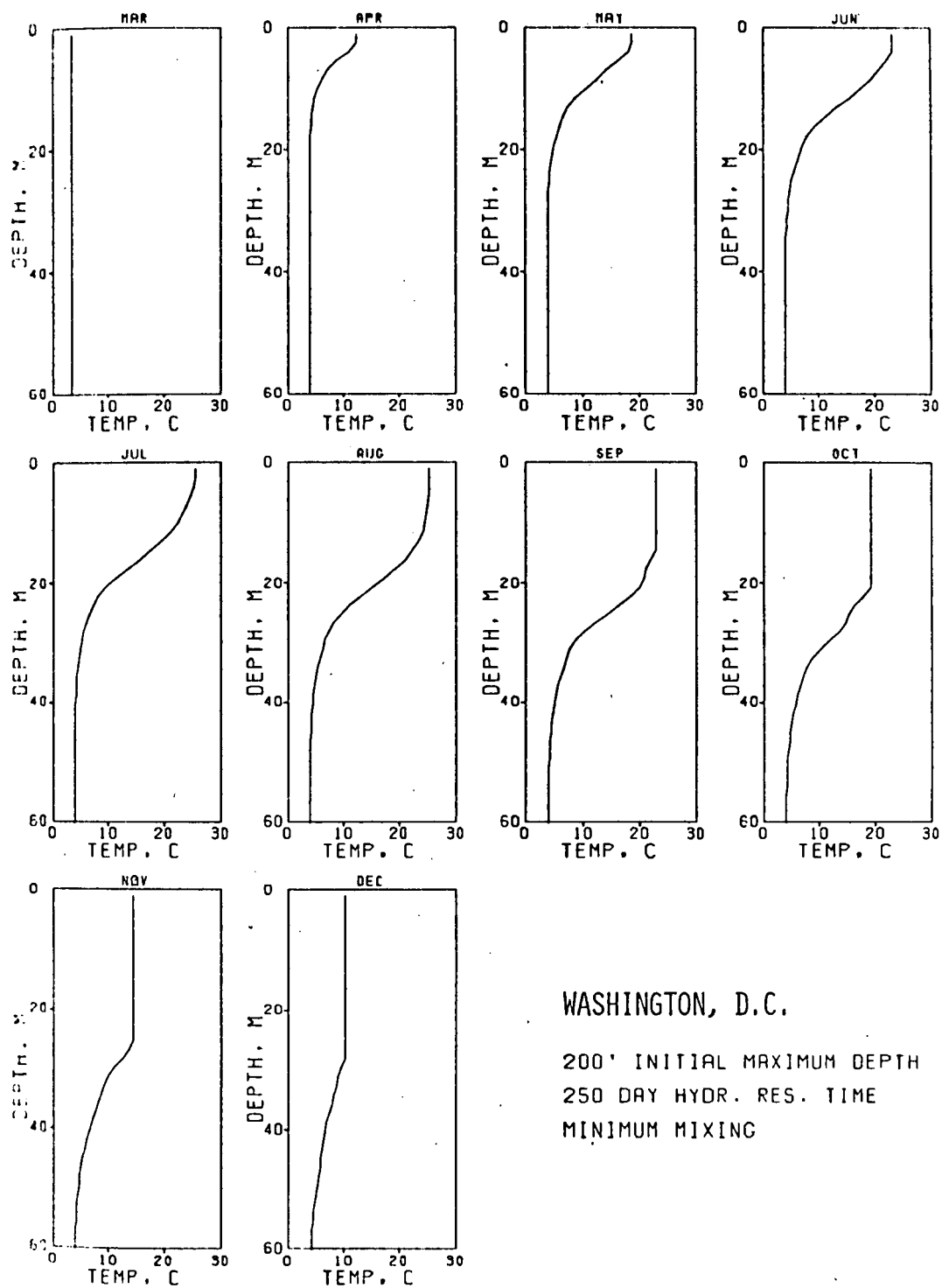


WASHINGTON, D.C.

200' INITIAL MAXIMUM DEPTH

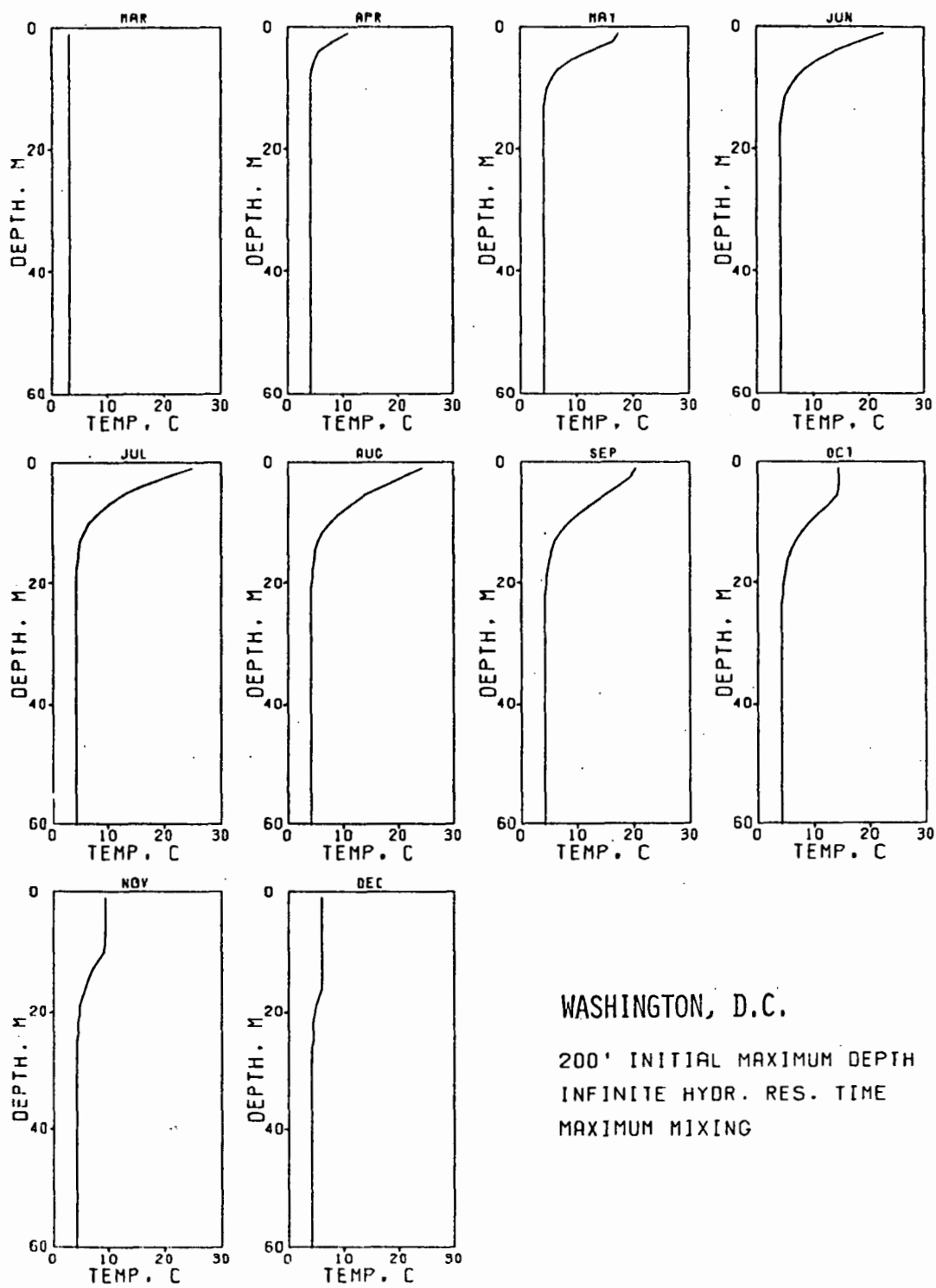
250 DAY HYDR. RES. TIME

MAXIMUM MIXING



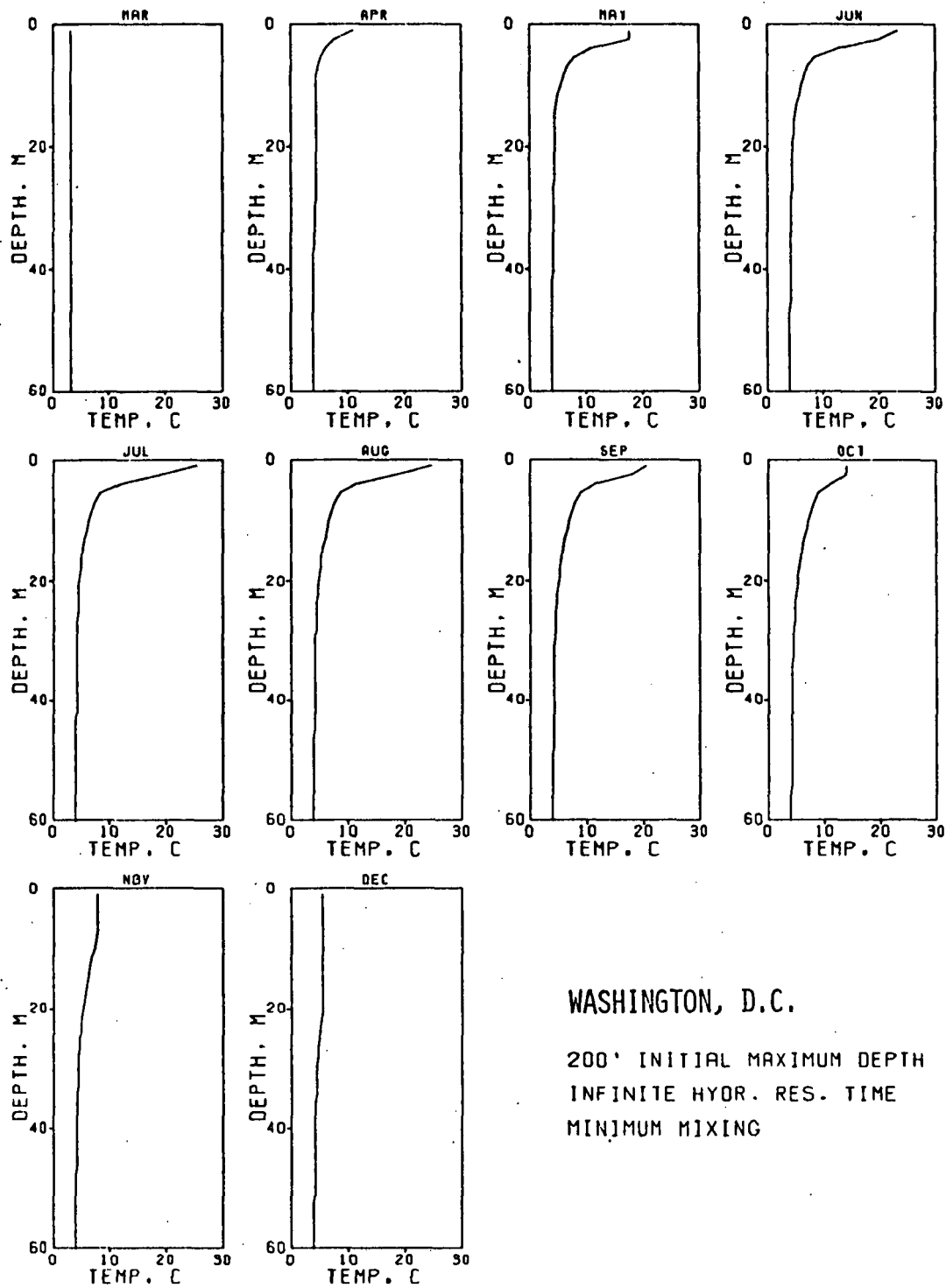
WASHINGTON, D.C.

200' INITIAL MAXIMUM DEPTH
250 DAY HYDR. RES. TIME
MINIMUM MIXING



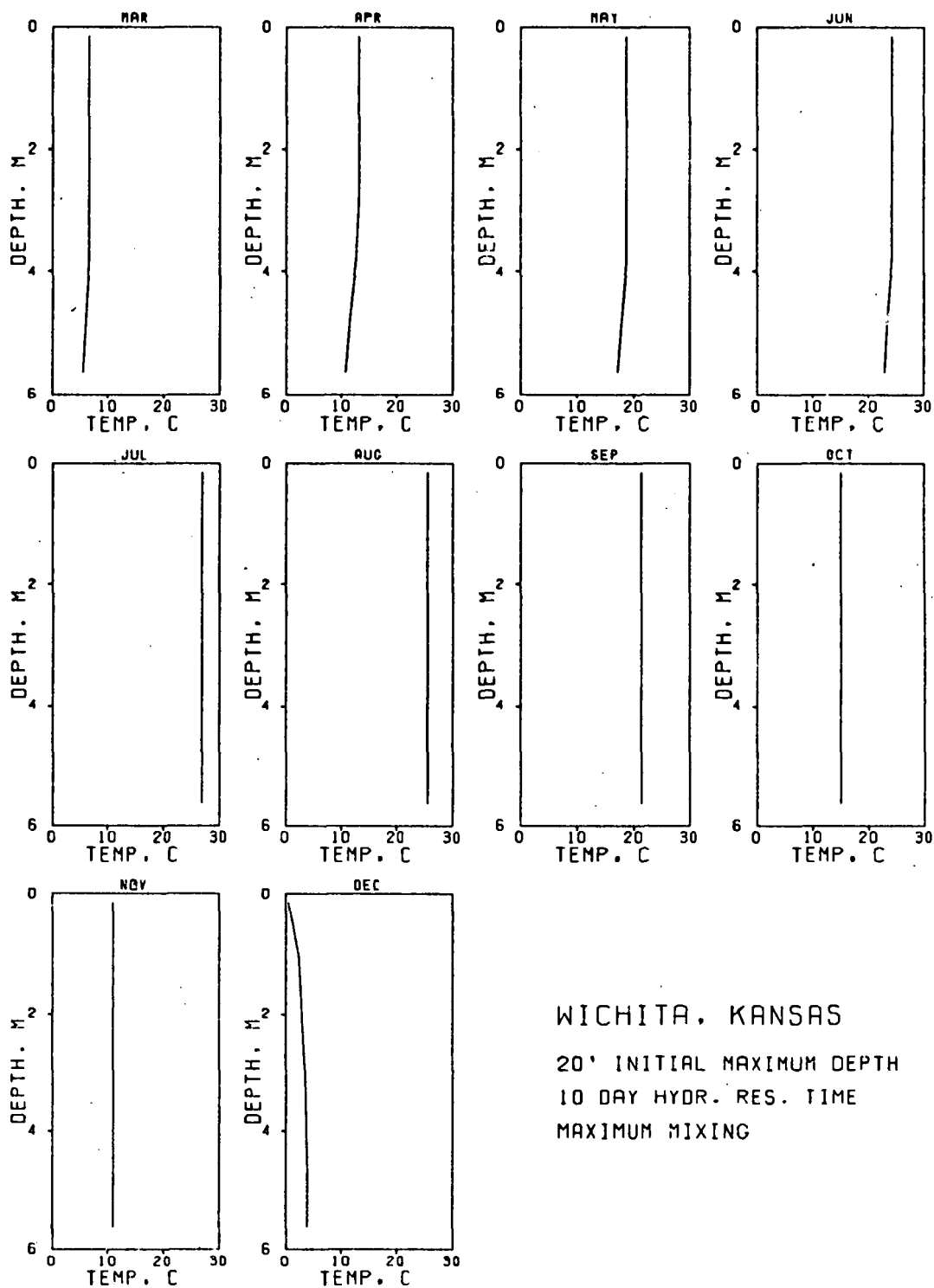
WASHINGTON, D.C.

200' INITIAL MAXIMUM DEPTH
INFINITE HYDR. RES. TIME
MAXIMUM MIXING



WASHINGTON, D.C.

200' INITIAL MAXIMUM DEPTH
INFINITE HYDR. RES. TIME
MINIMUM MIXING

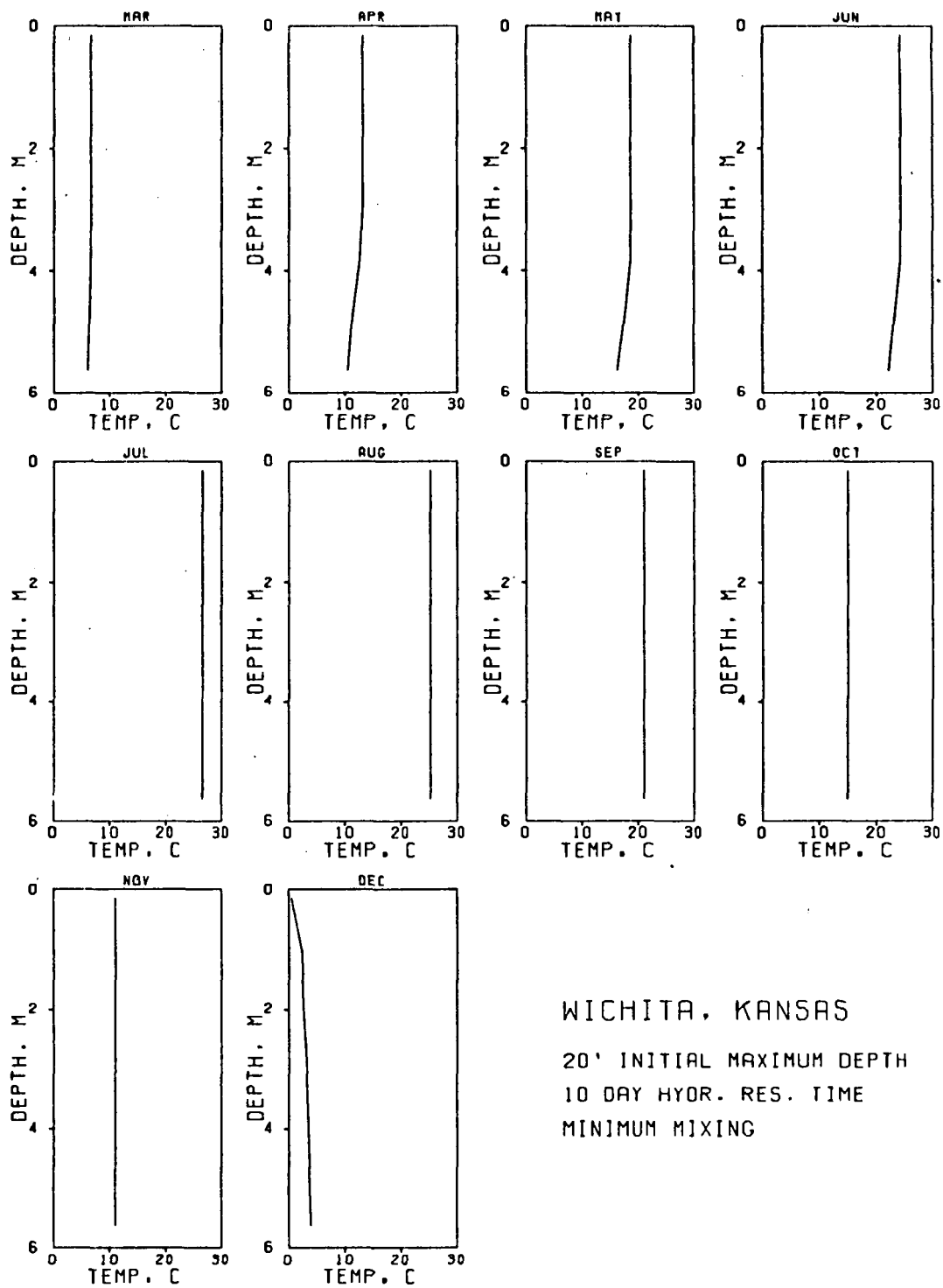


WICHITA, KANSAS

20' INITIAL MAXIMUM DEPTH

10 DAY HYDR. RES. TIME

MAXIMUM MIXING

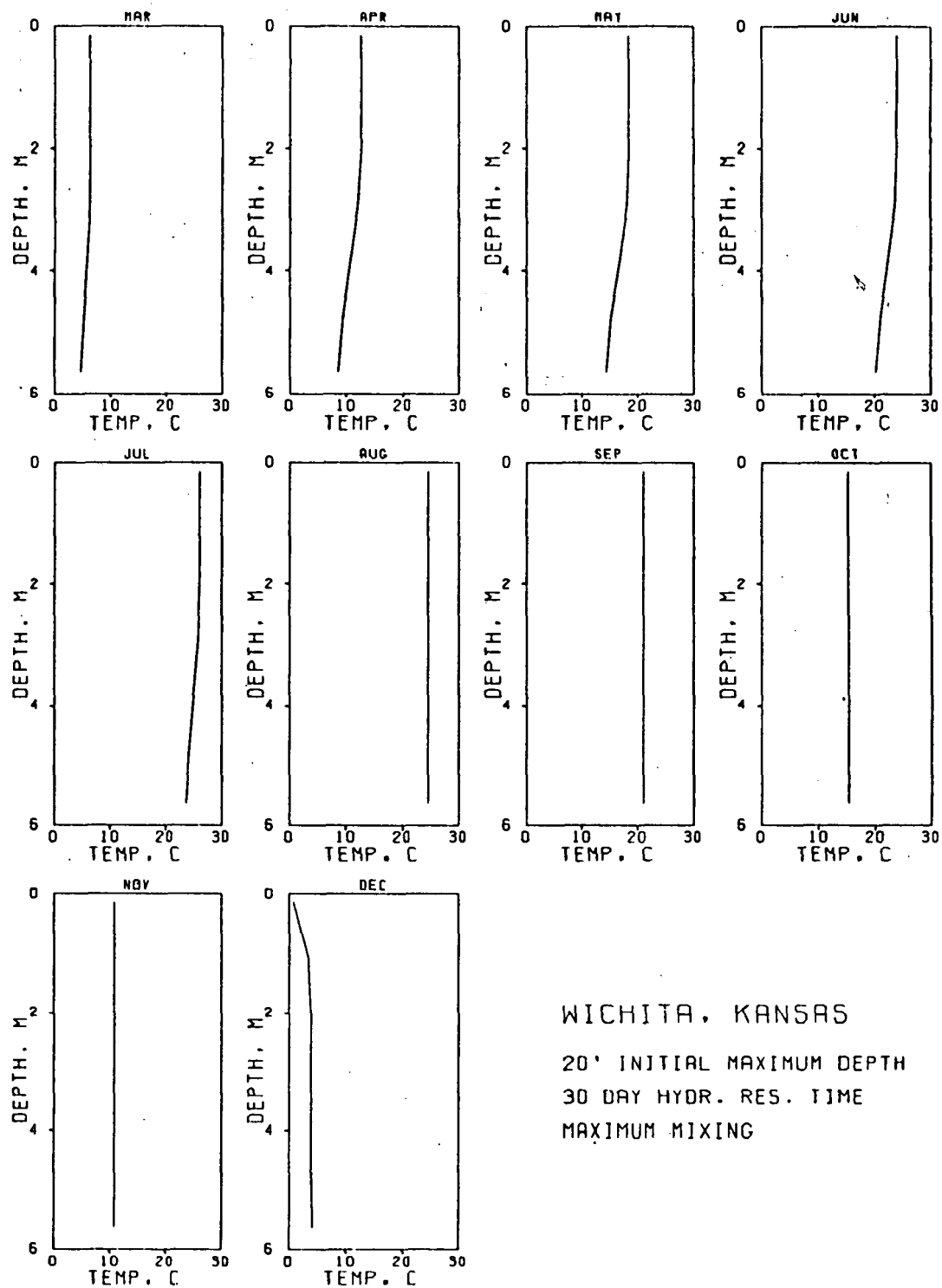


WICHITA, KANSAS

20' INITIAL MAXIMUM DEPTH

10 DAY HYOR. RES. TIME

MINIMUM MIXING

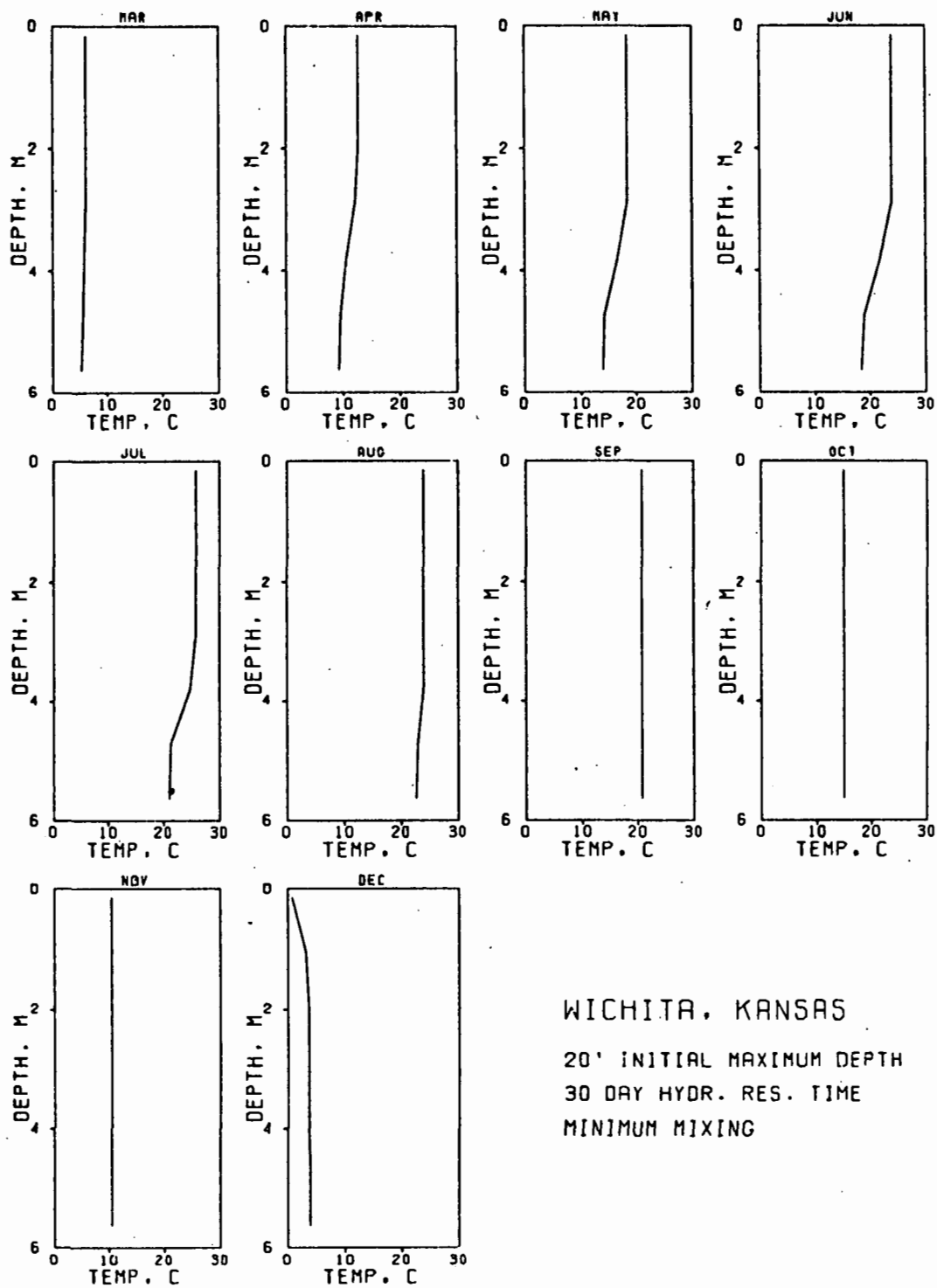


WICHITA, KANSAS

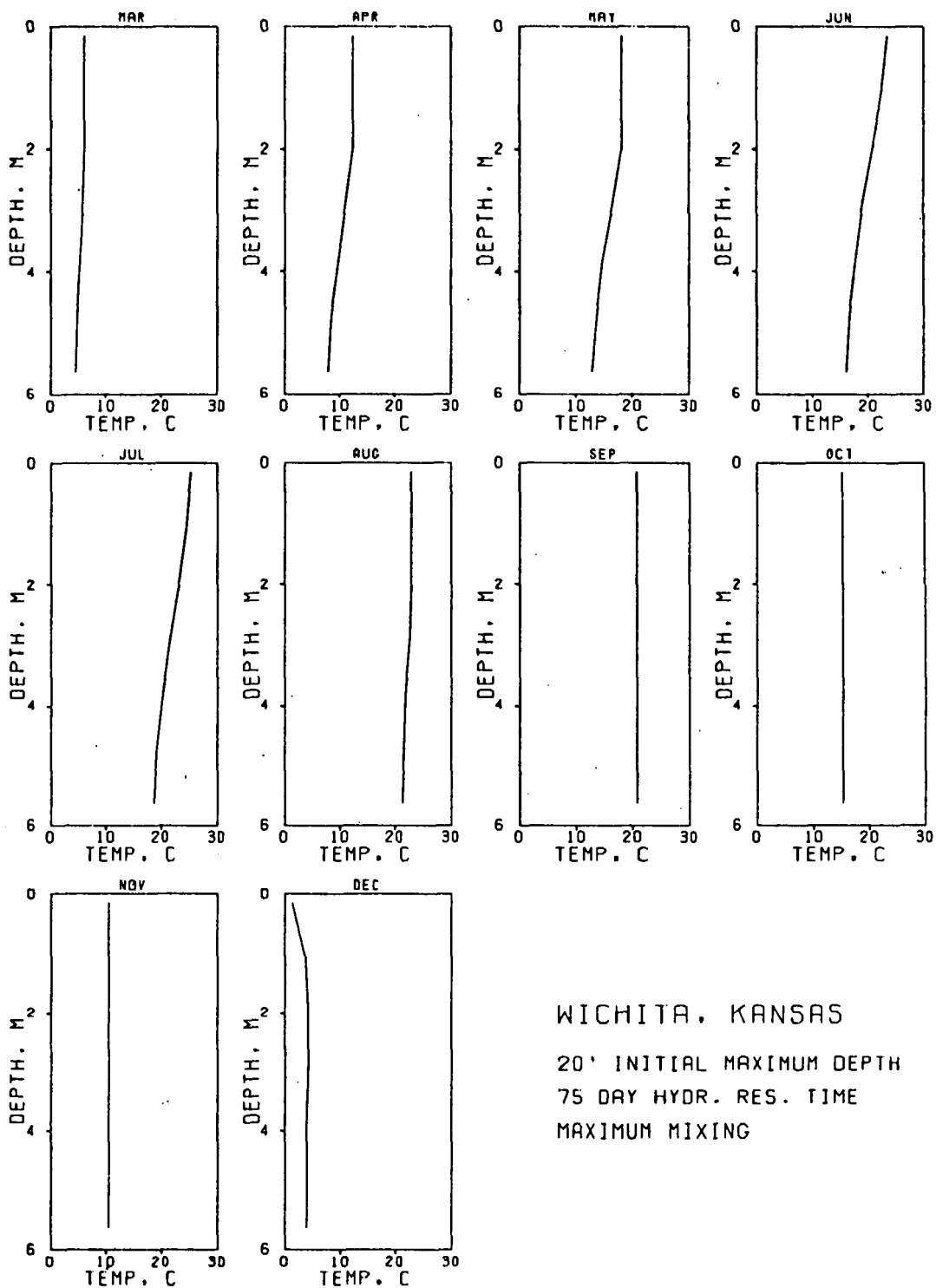
20' INITIAL MAXIMUM DEPTH

30 DAY HYDR. RES. TIME

MAXIMUM MIXING



WICHITA, KANSAS
 20' INITIAL MAXIMUM DEPTH
 30 DAY HYDR. RES. TIME
 MINIMUM MIXING

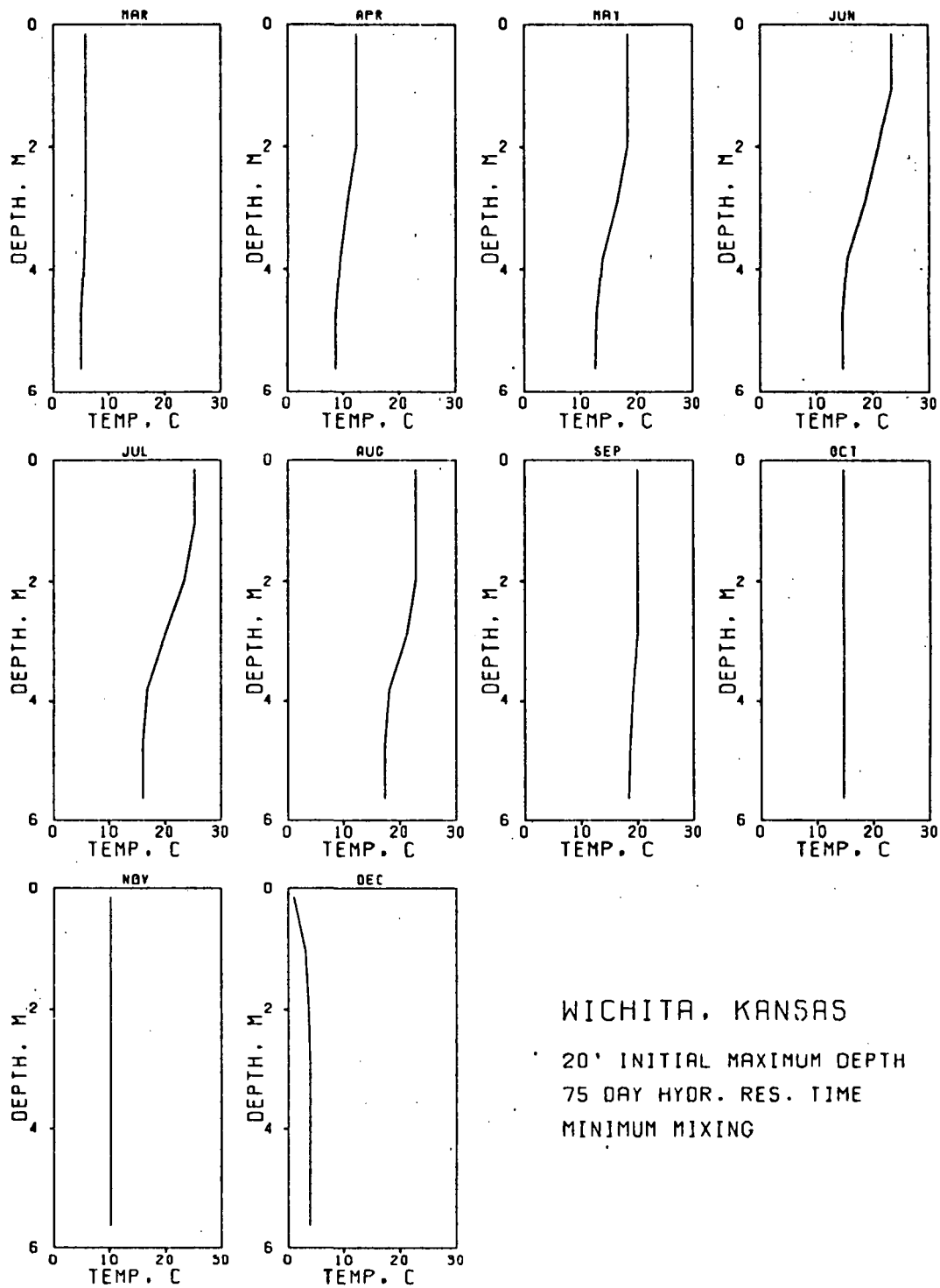


WICHITA, KANSAS

20' INITIAL MAXIMUM DEPTH

75 DAY HYDR. RES. TIME

MAXIMUM MIXING

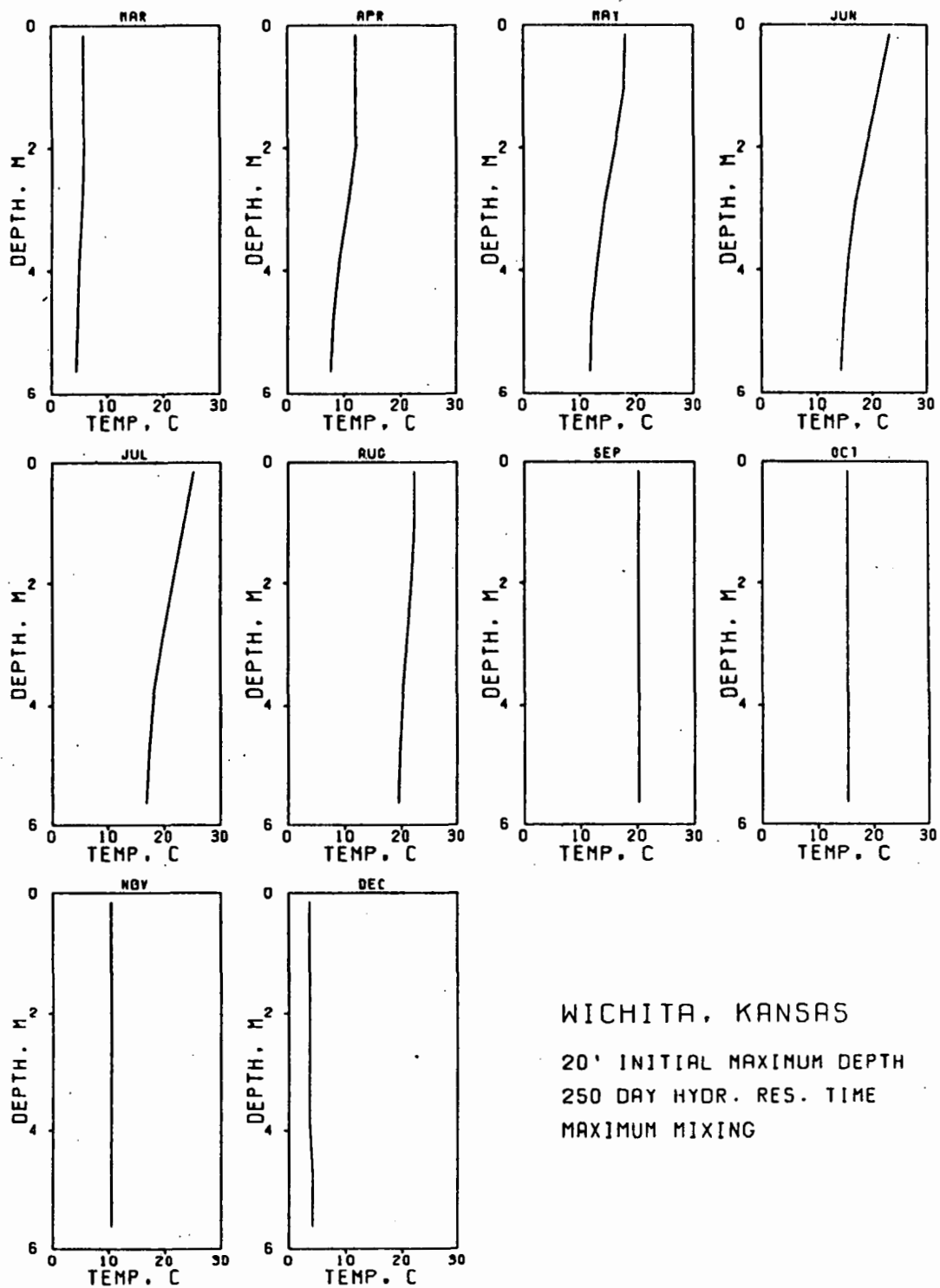


WICHITA, KANSAS

20' INITIAL MAXIMUM DEPTH

75 DAY HYDR. RES. TIME

MINIMUM MIXING

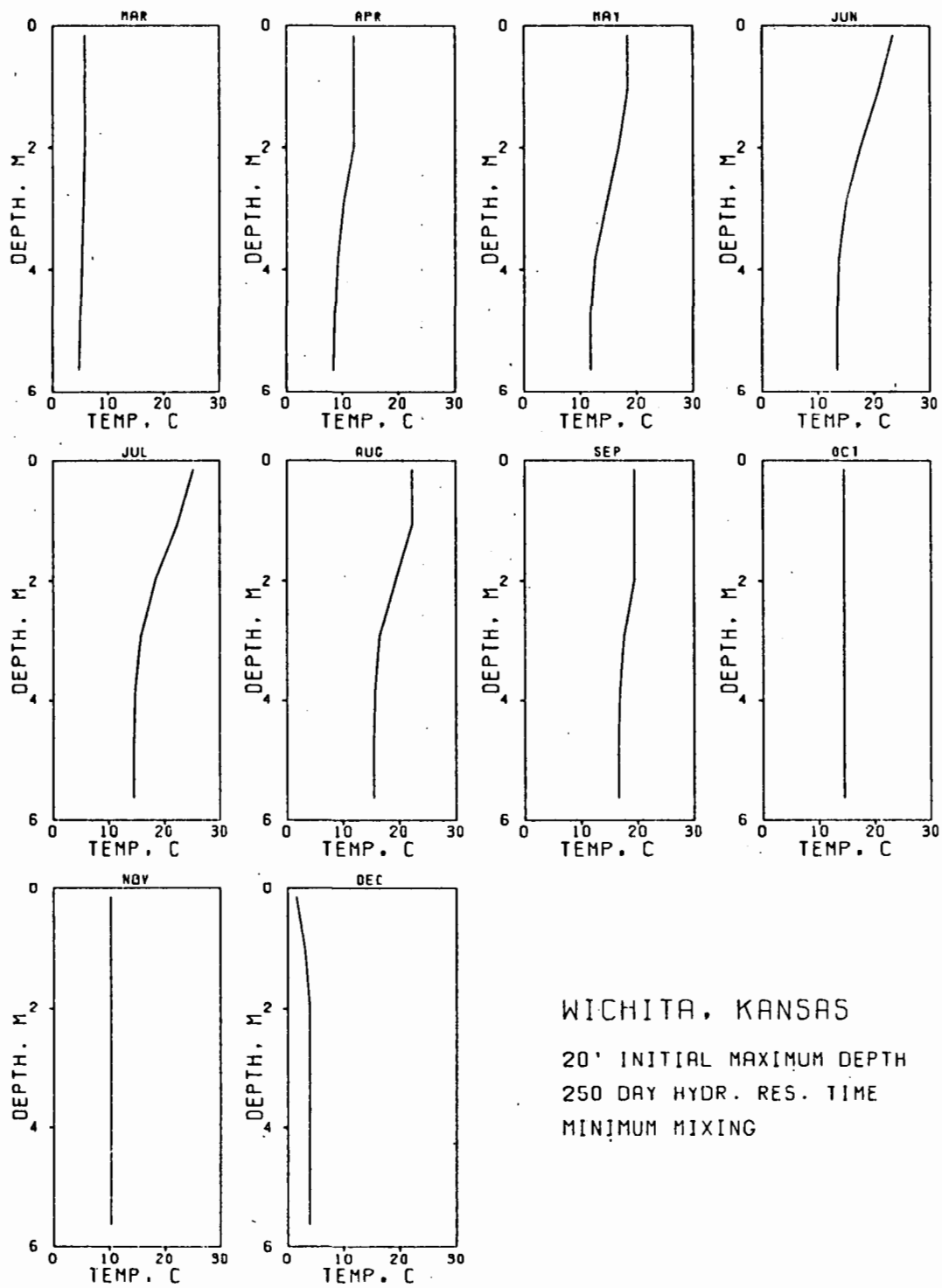


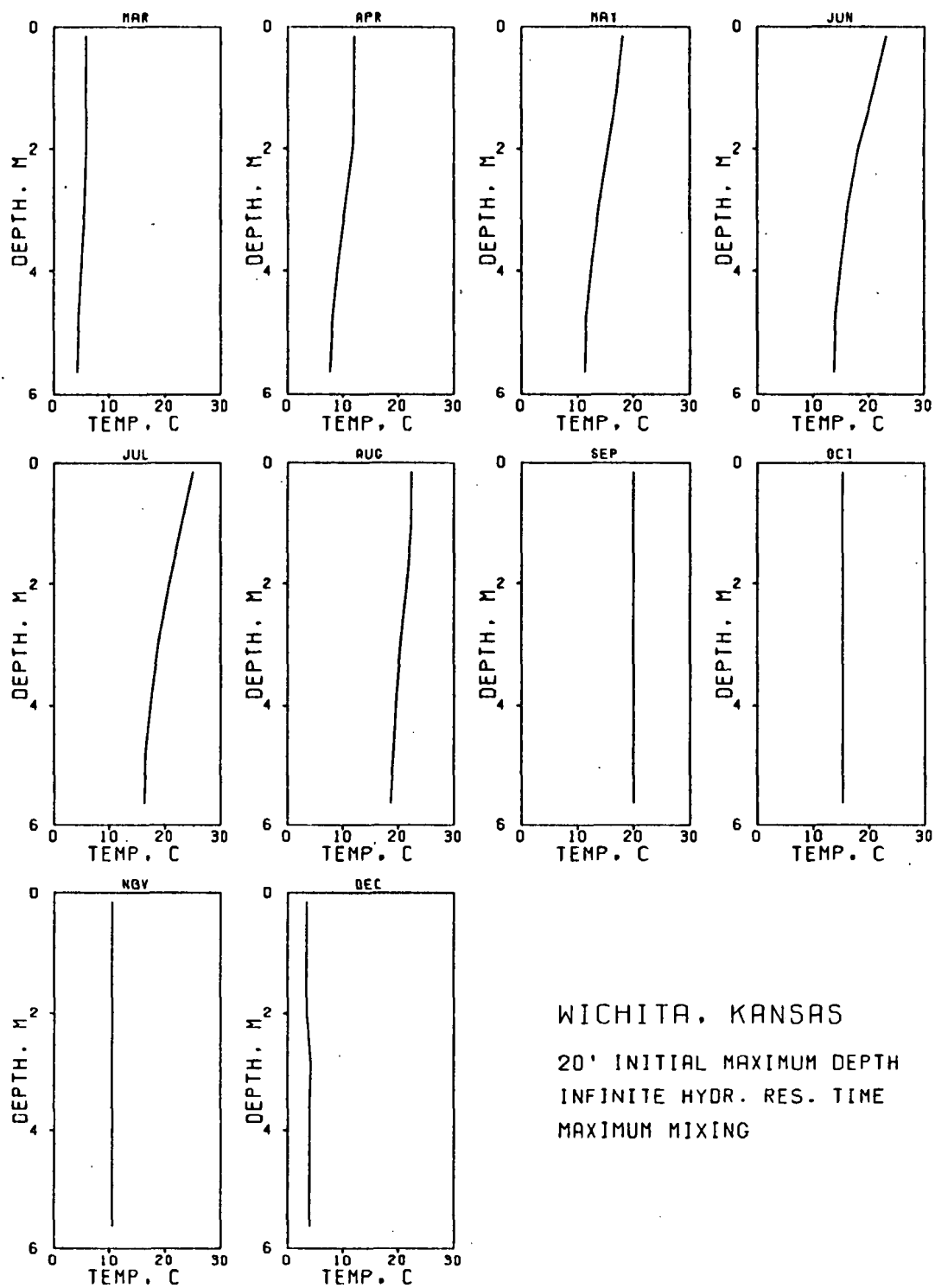
WICHITA, KANSAS

20' INITIAL MAXIMUM DEPTH

250 DAY HYDR. RES. TIME

MAXIMUM MIXING



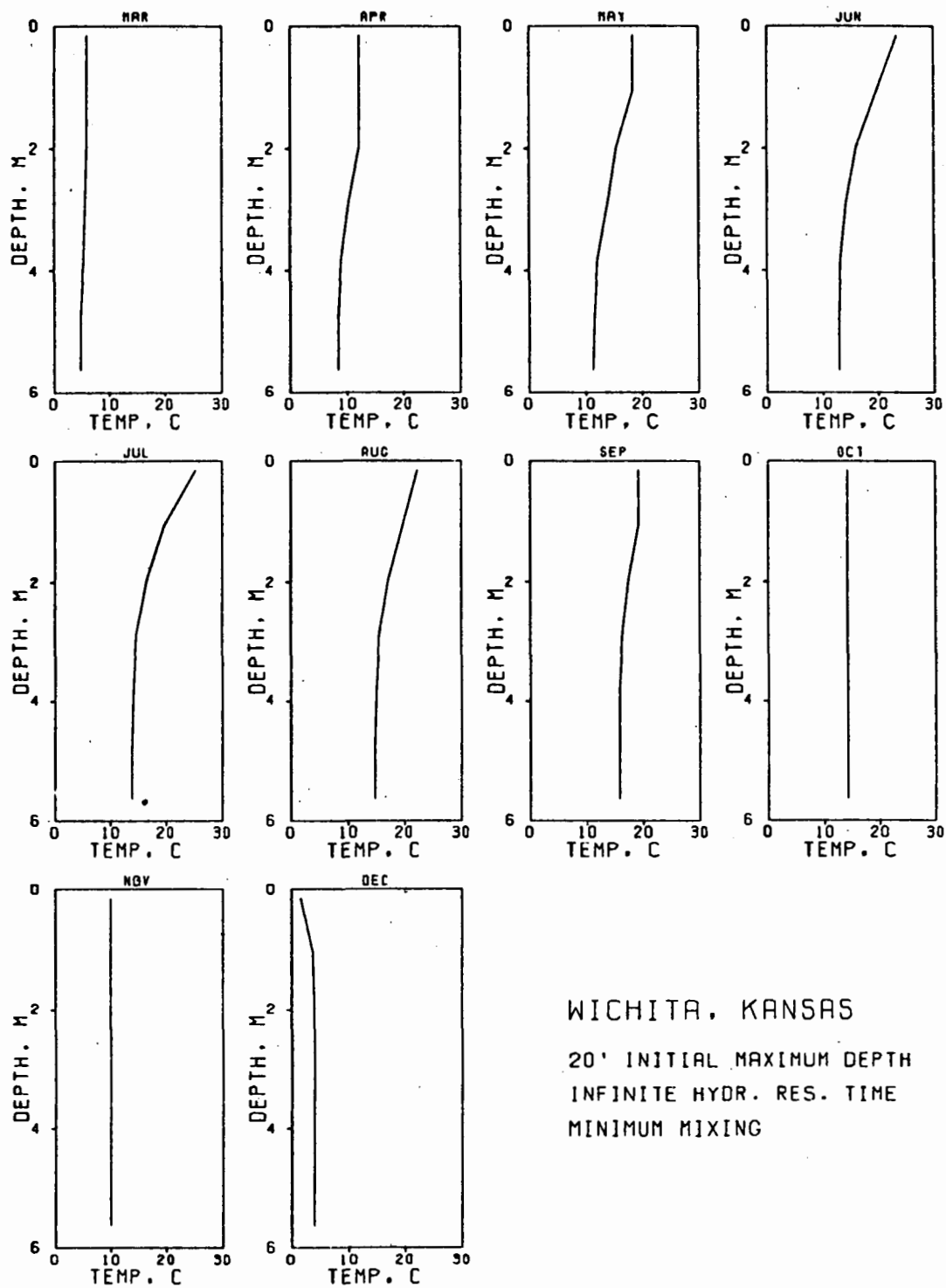


WICHITA, KANSAS

20' INITIAL MAXIMUM DEPTH

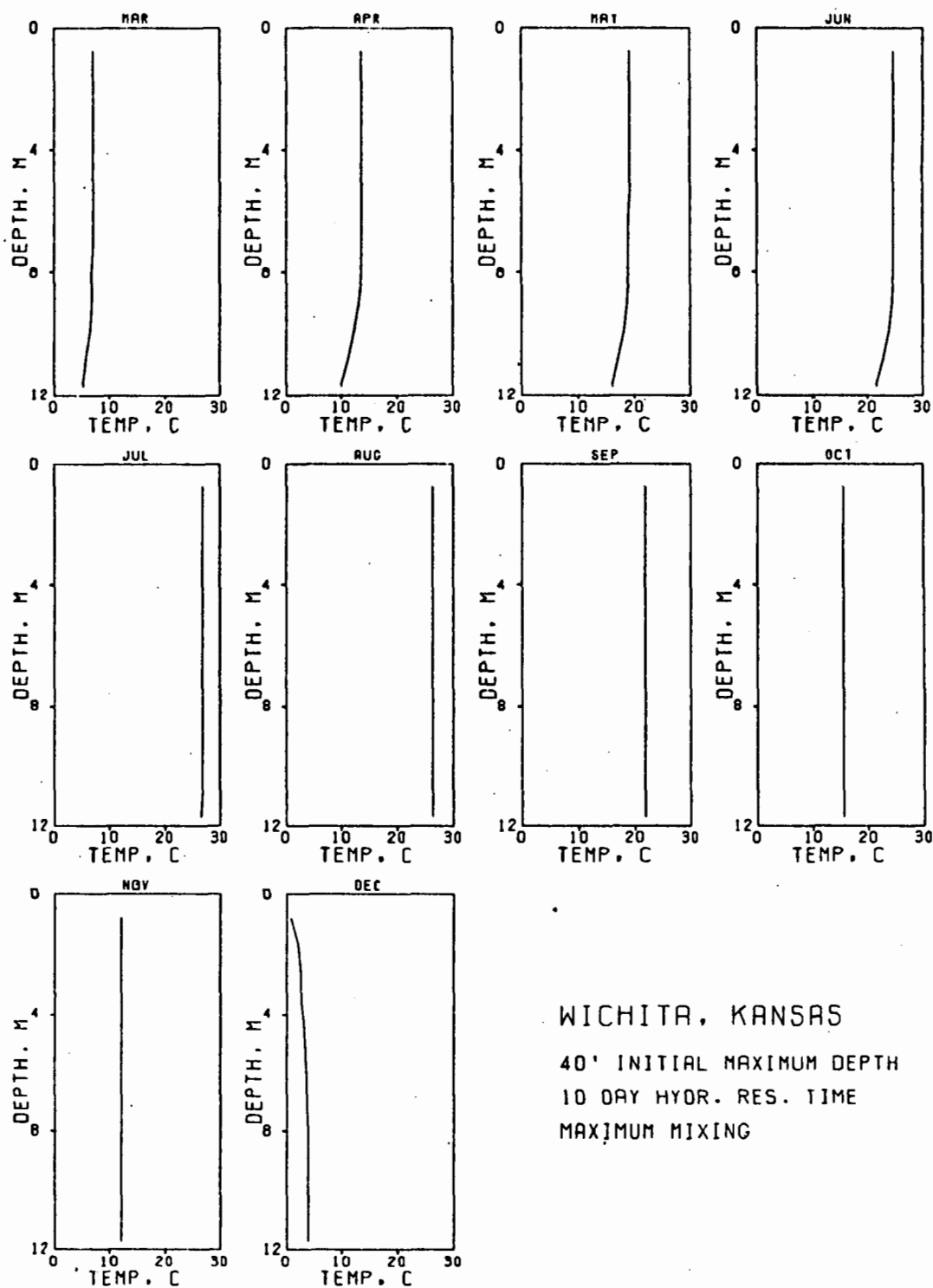
INFINITE HYDR. RES. TIME

MAXIMUM MIXING



WICHITA, KANSAS

20' INITIAL MAXIMUM DEPTH
INFINITE HYDR. RES. TIME
MINIMUM MIXING

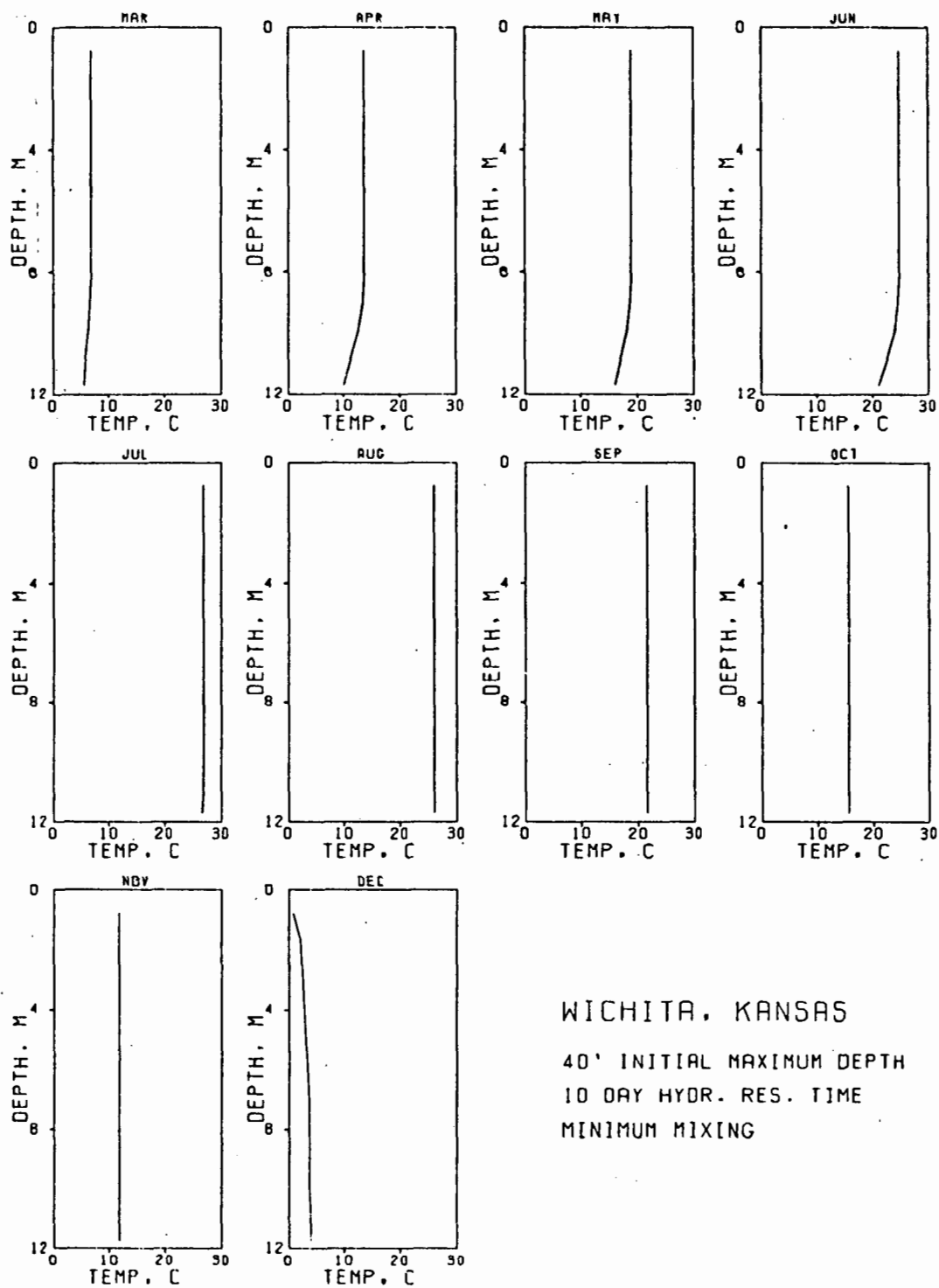


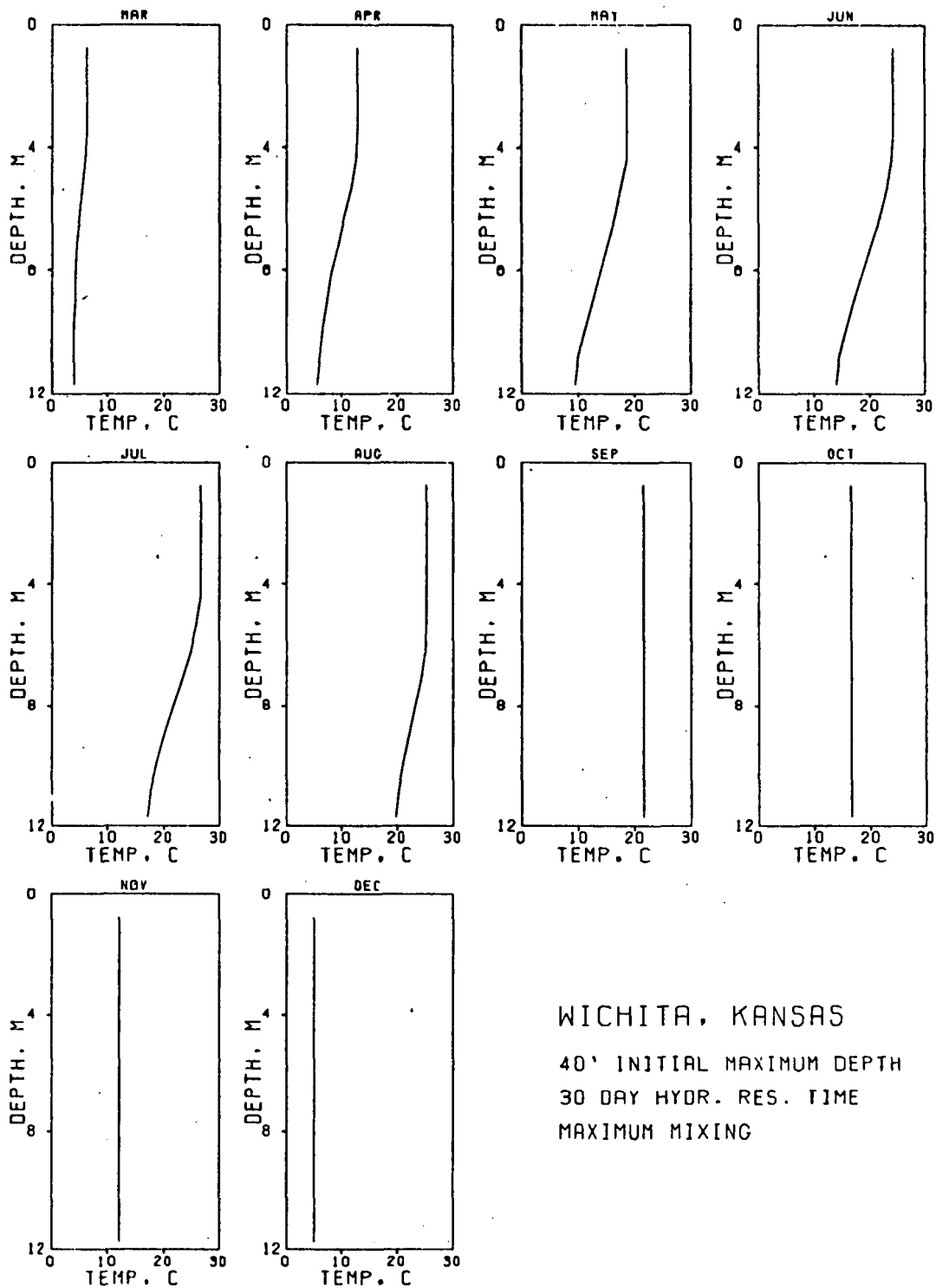
WICHITA, KANSAS

40' INITIAL MAXIMUM DEPTH

10 DAY HYDR. RES. TIME

MAXIMUM MIXING



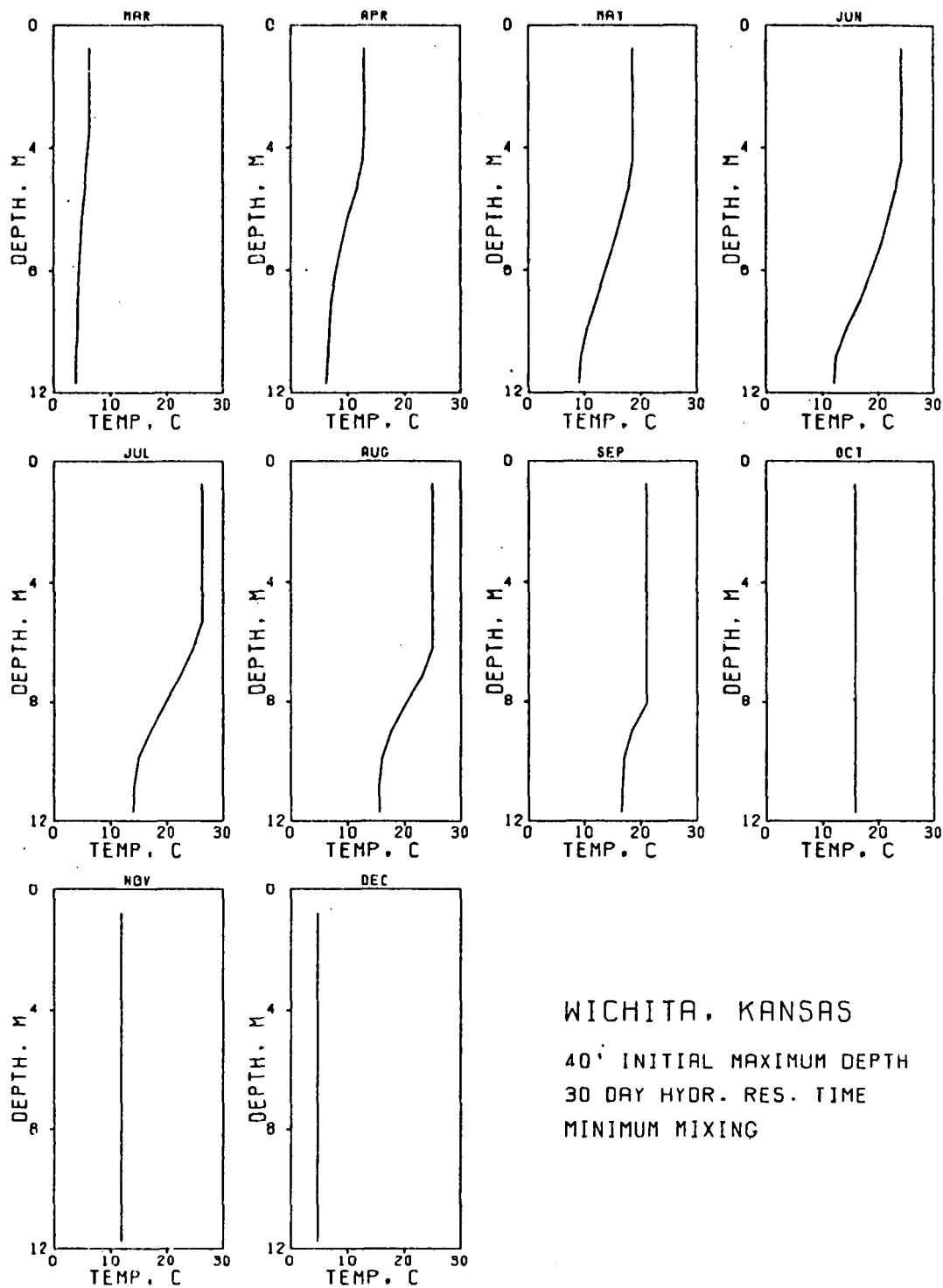


WICHITA, KANSAS

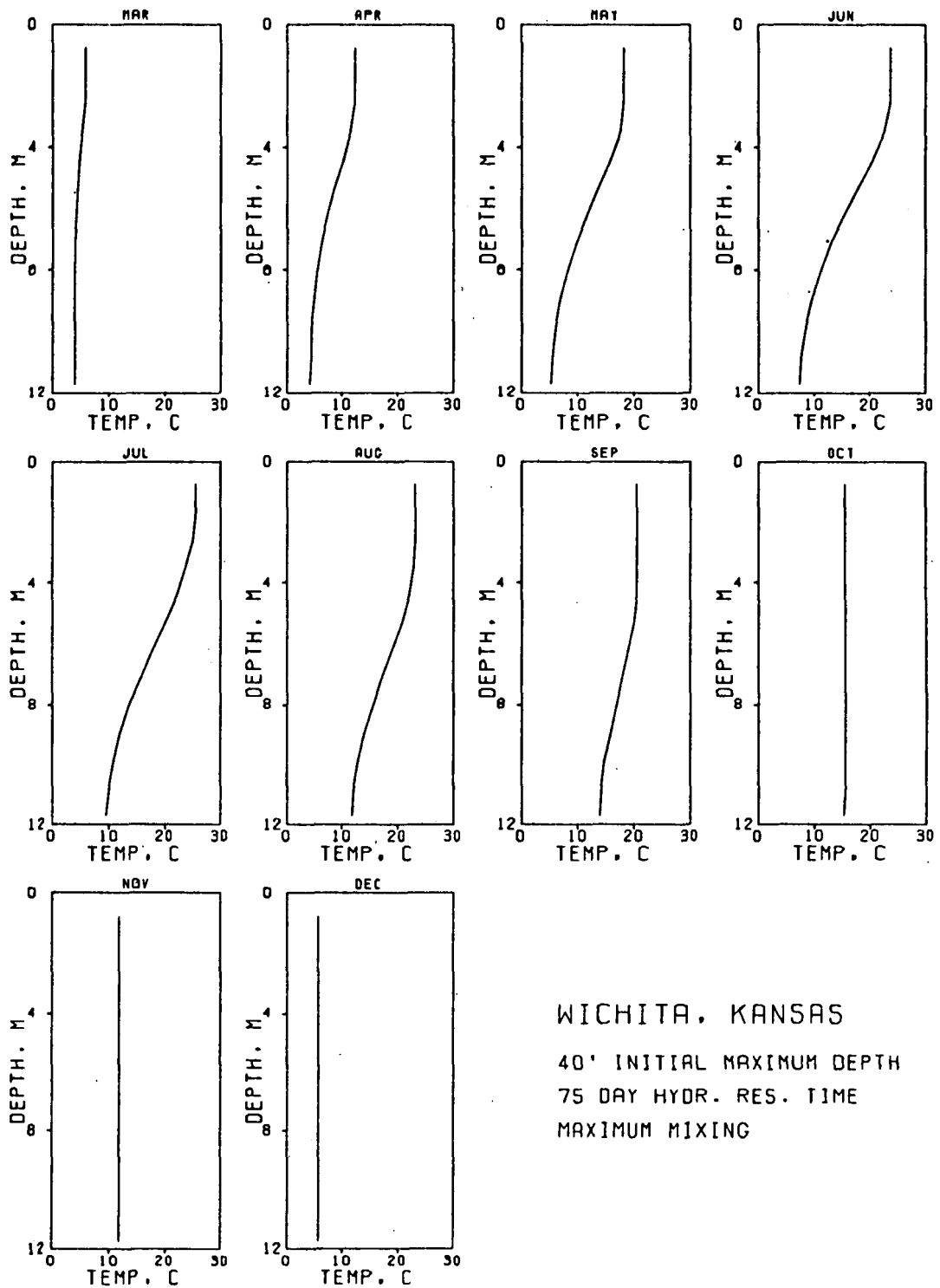
40' INITIAL MAXIMUM DEPTH

30 DAY HYDR. RES. TIME

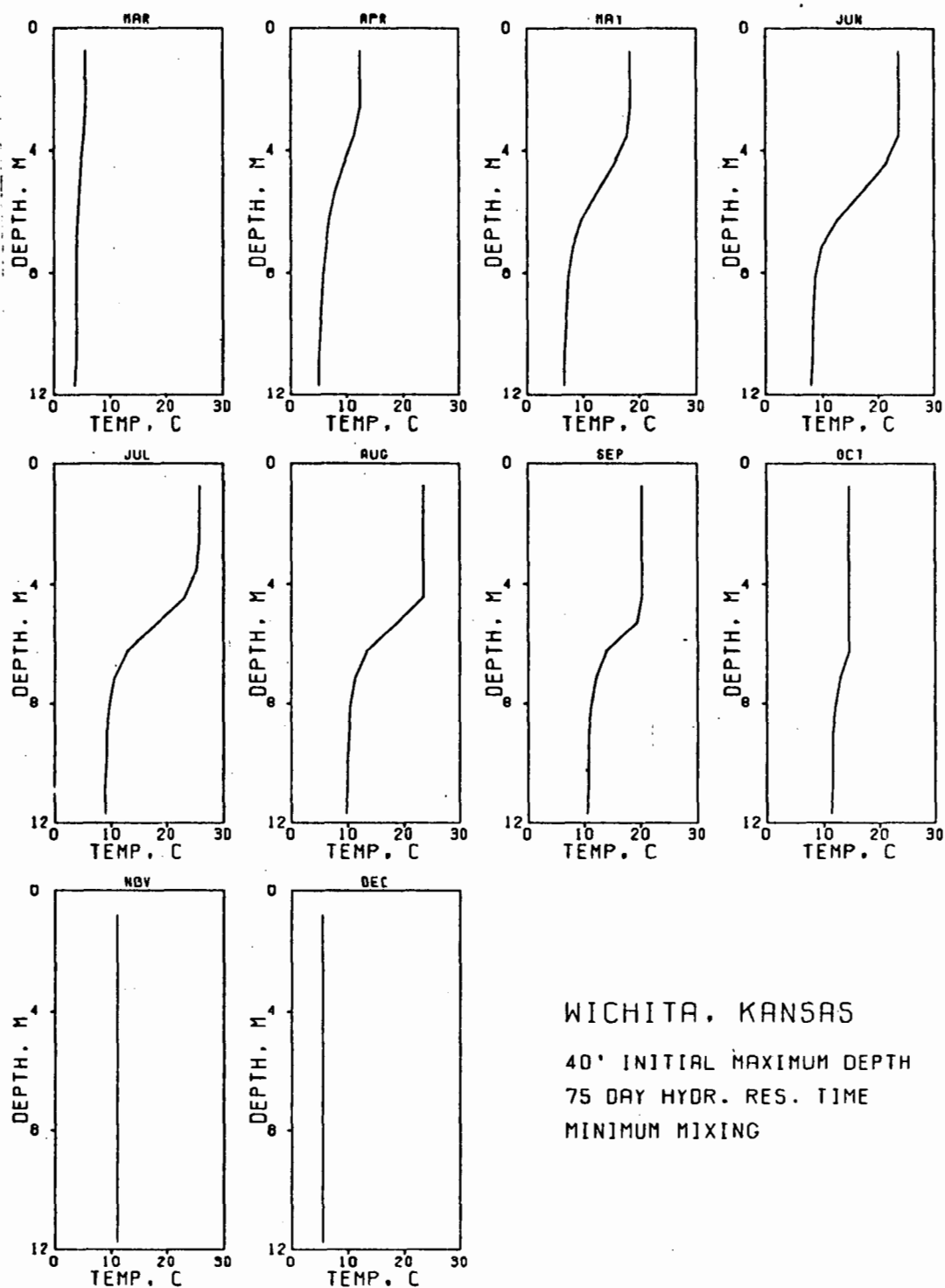
MAXIMUM MIXING



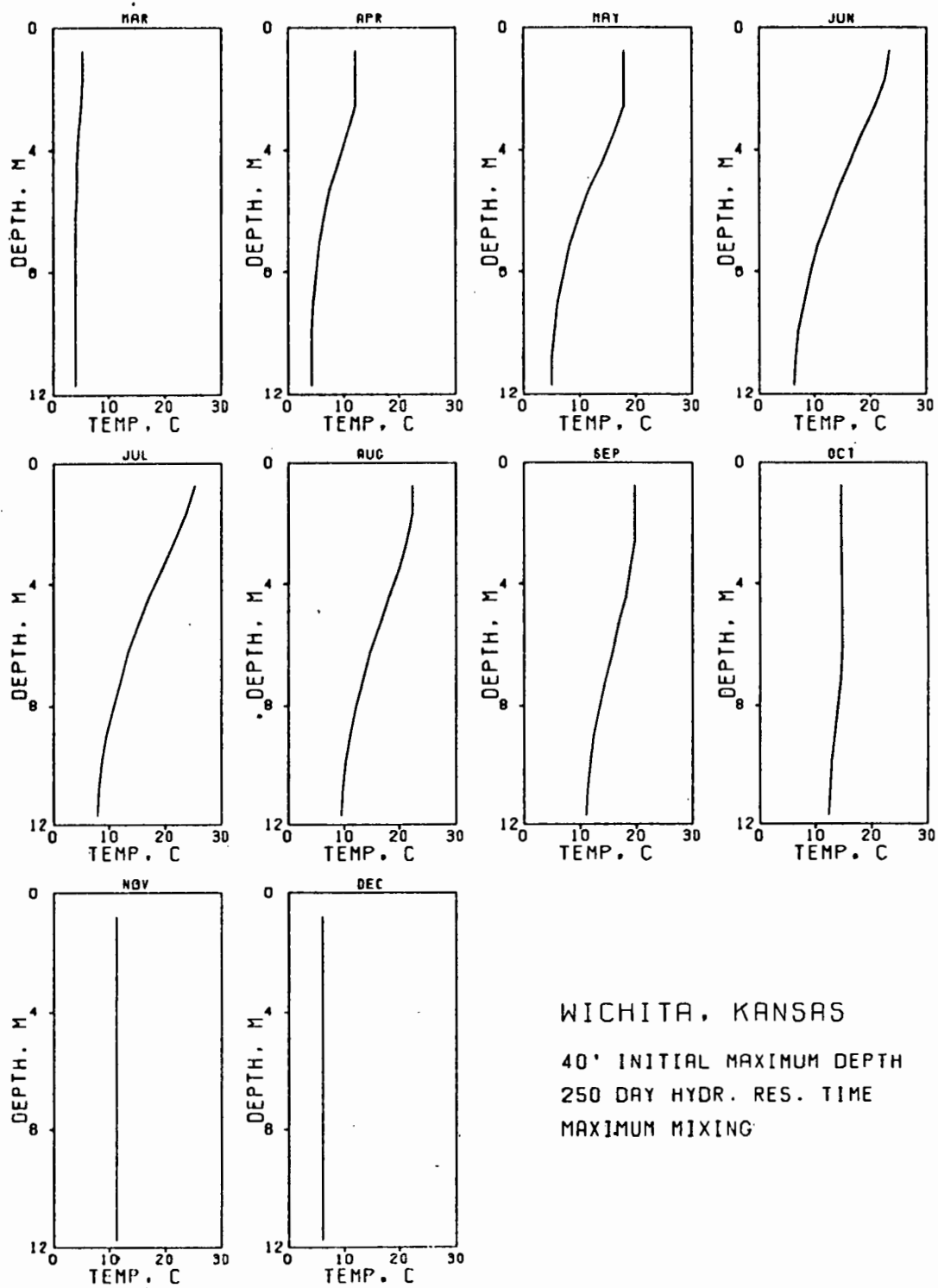
WICHITA, KANSAS
 40' INITIAL MAXIMUM DEPTH
 30 DAY HYDR. RES. TIME
 MINIMUM MIXING



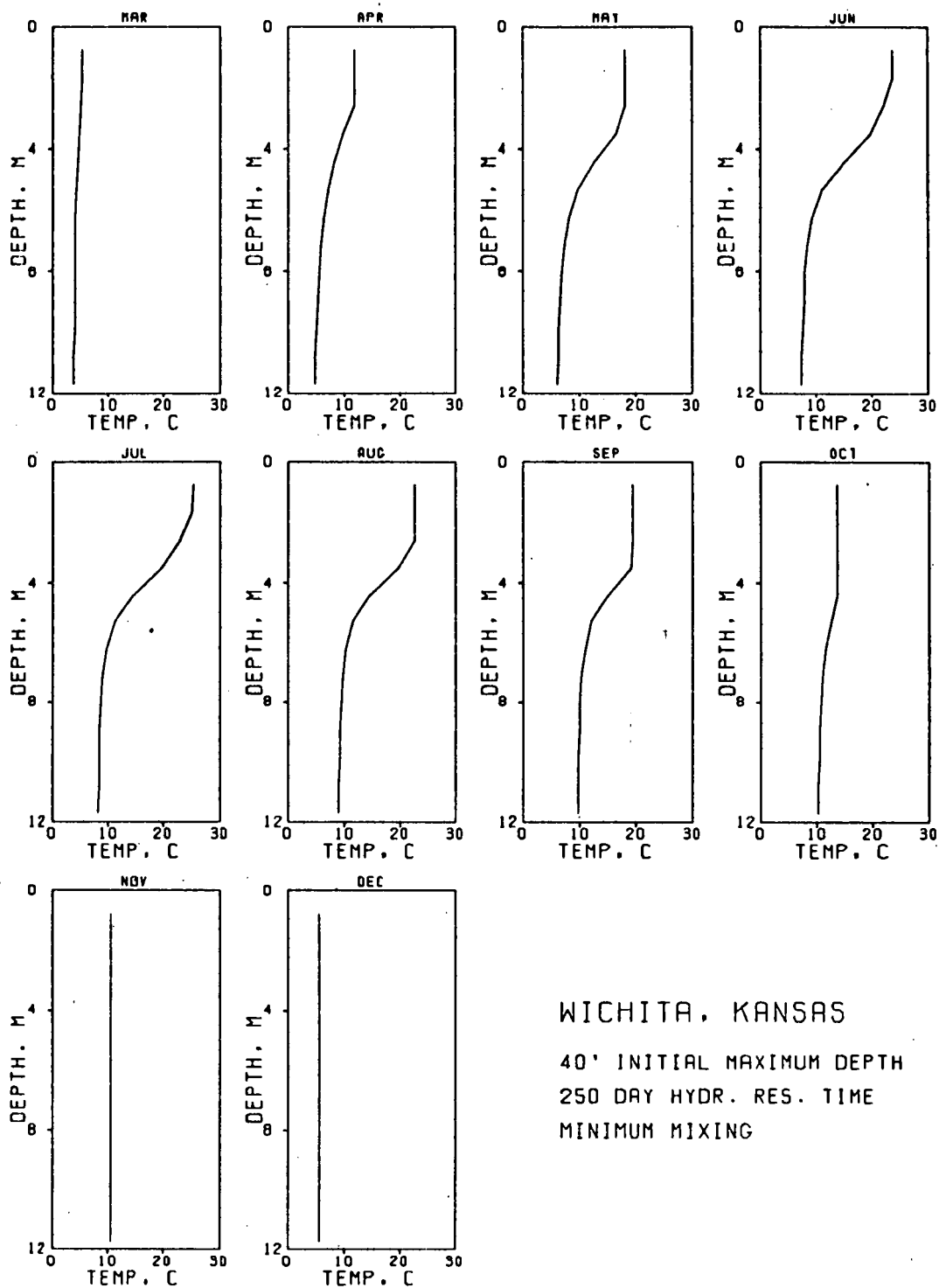
WICHITA, KANSAS
 40' INITIAL MAXIMUM DEPTH
 75 DAY HYDR. RES. TIME
 MAXIMUM MIXING

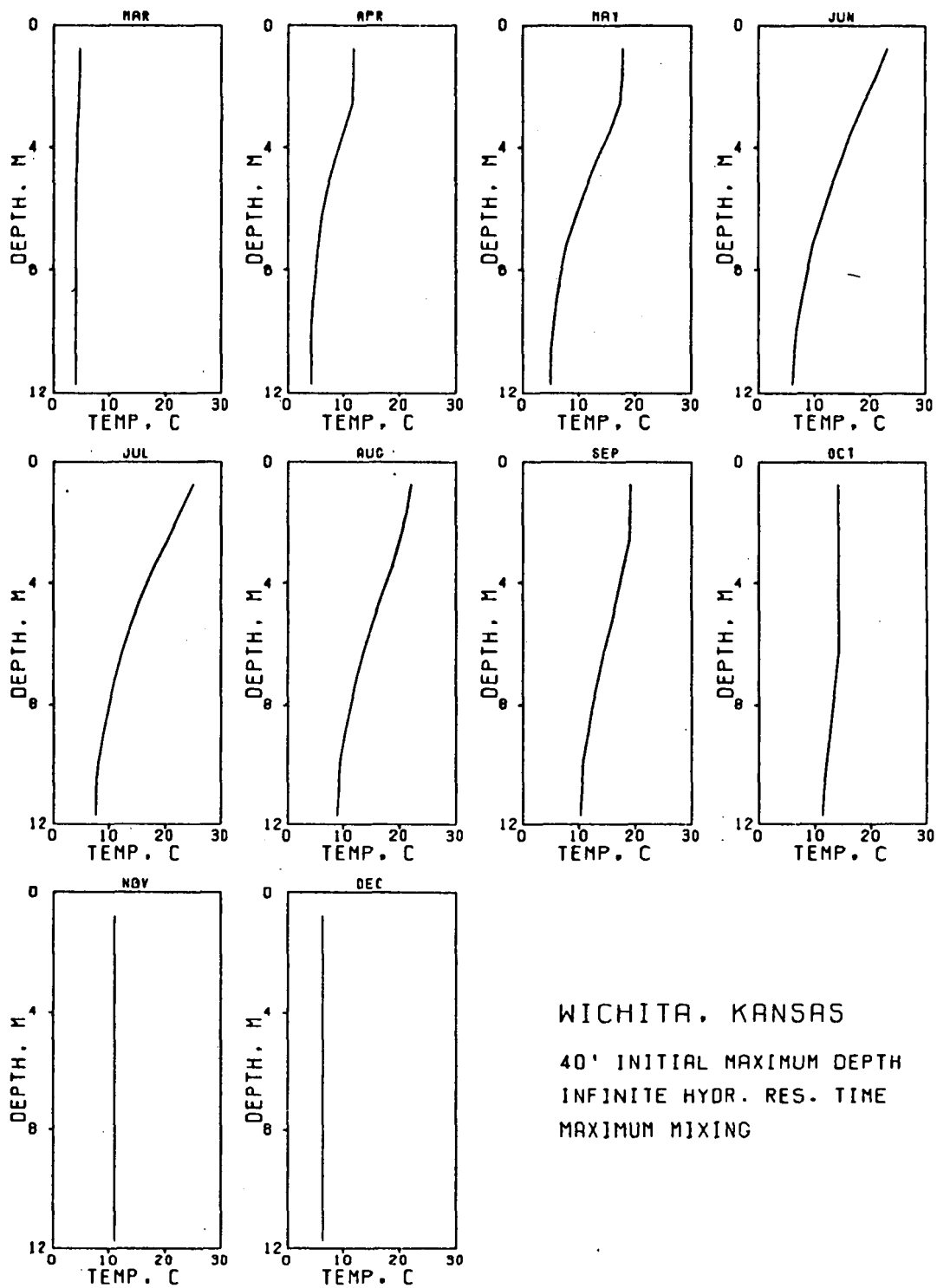


WICHITA, KANSAS
 40' INITIAL MAXIMUM DEPTH
 75 DAY HYDR. RES. TIME
 MINIMUM MIXING



WICHITA, KANSAS
 40' INITIAL MAXIMUM DEPTH
 250 DAY HYDR. RES. TIME
 MAXIMUM MIXING



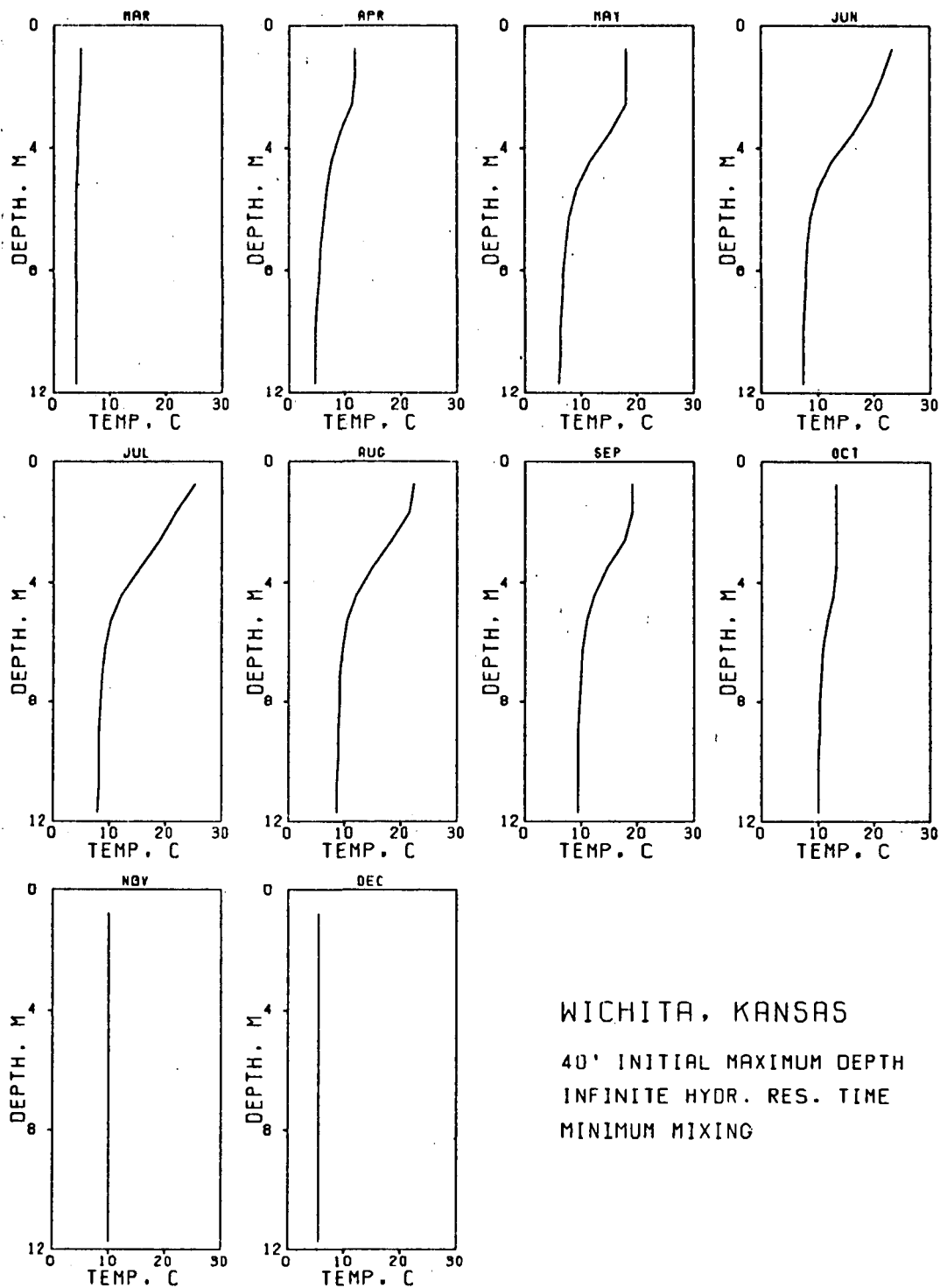


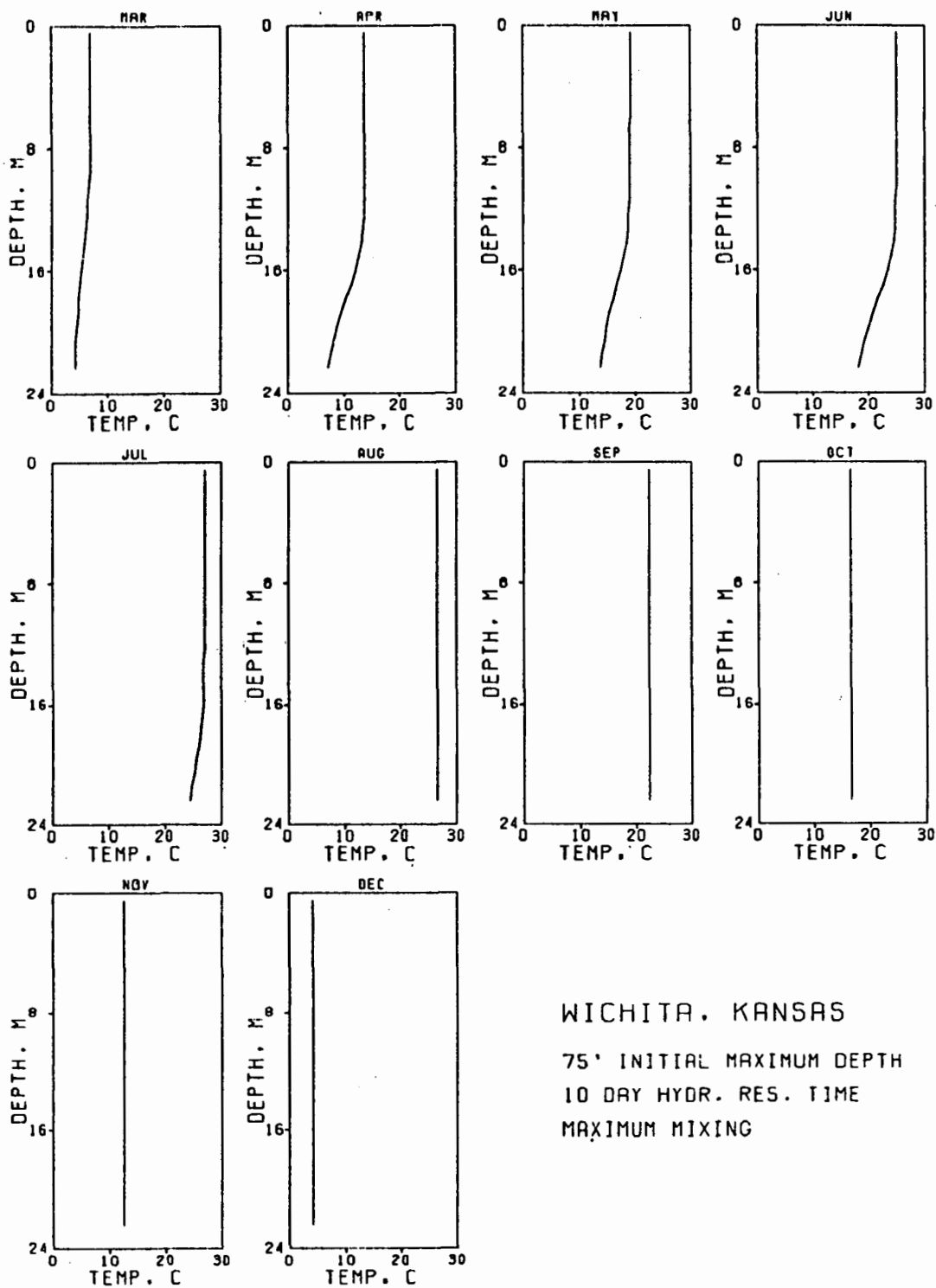
WICHITA, KANSAS

40' INITIAL MAXIMUM DEPTH

INFINITE HYDR. RES. TIME

MAXIMUM MIXING



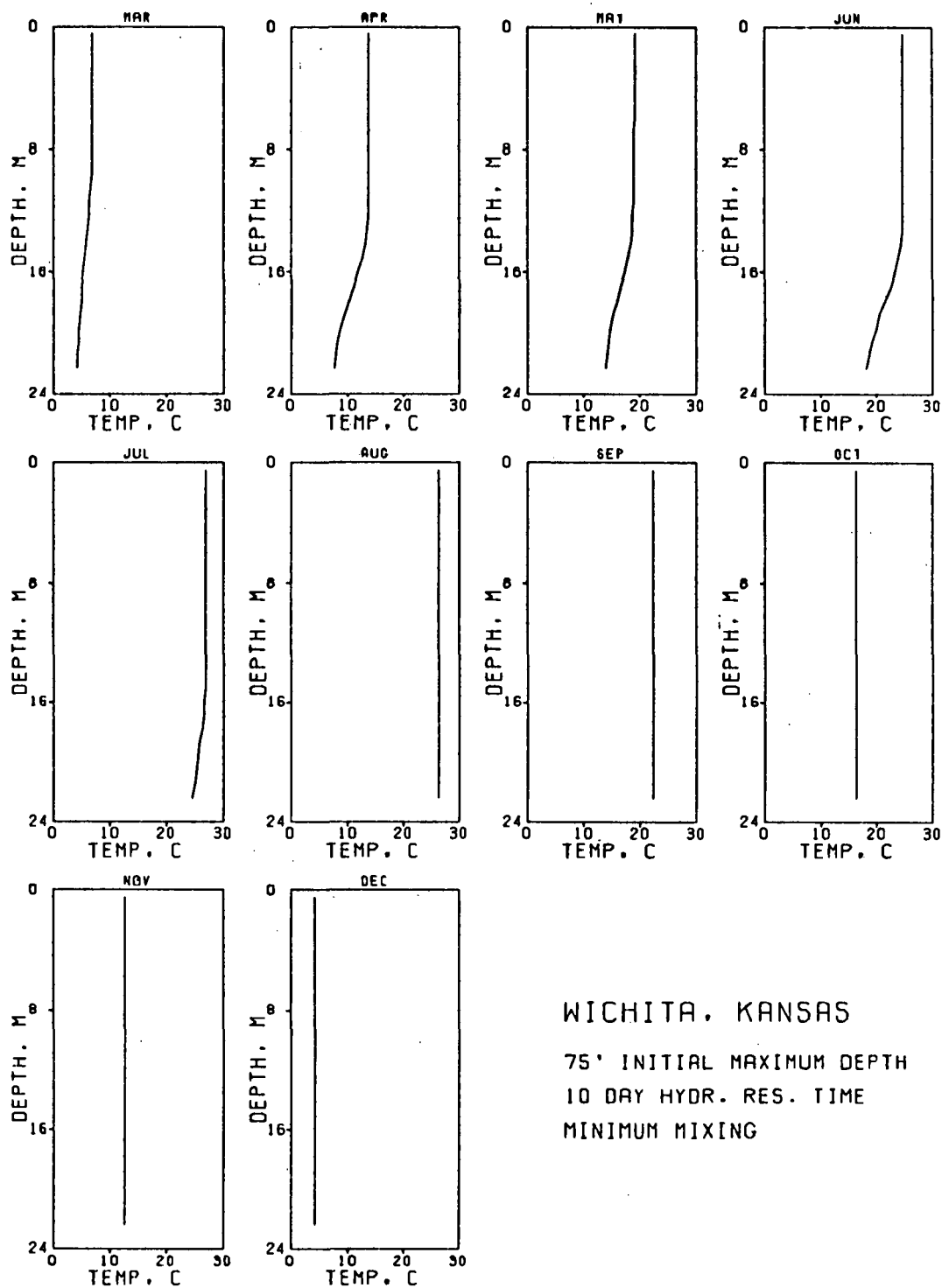


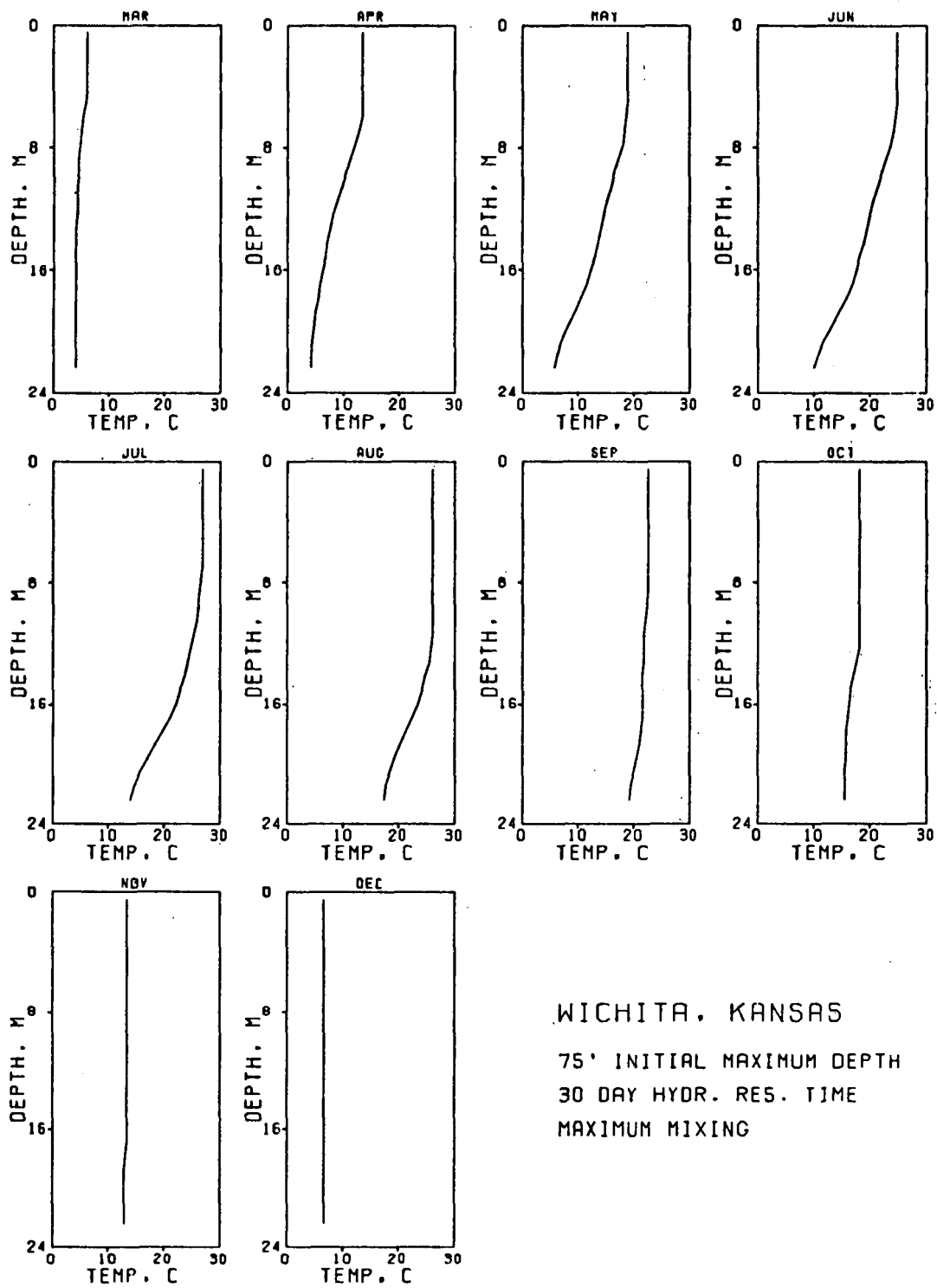
WICHITA, KANSAS

75' INITIAL MAXIMUM DEPTH

10 DAY HYDR. RES. TIME

MAXIMUM MIXING



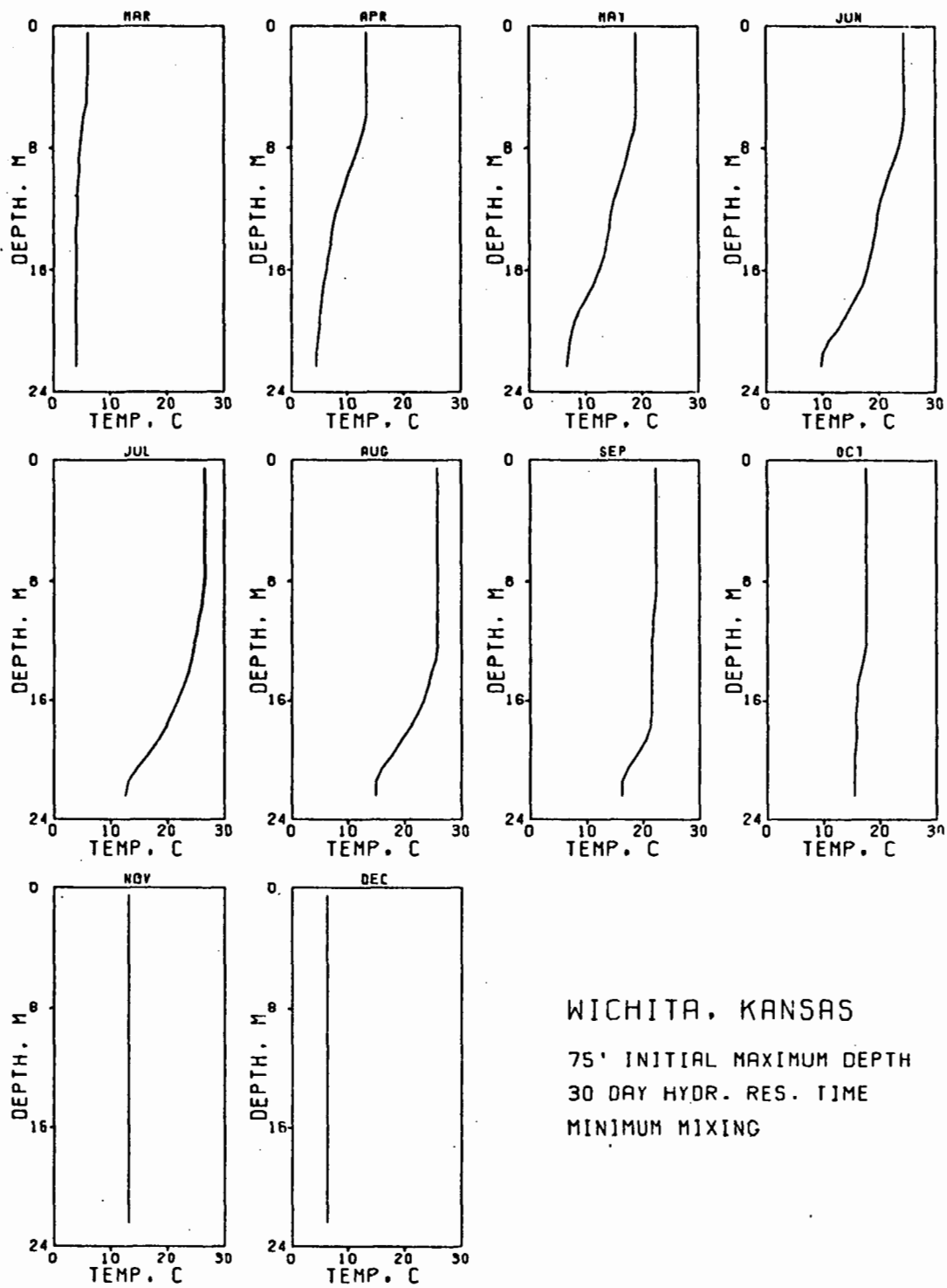


WICHITA, KANSAS

75' INITIAL MAXIMUM DEPTH

30 DAY HYDR. RES. TIME

MAXIMUM MIXING

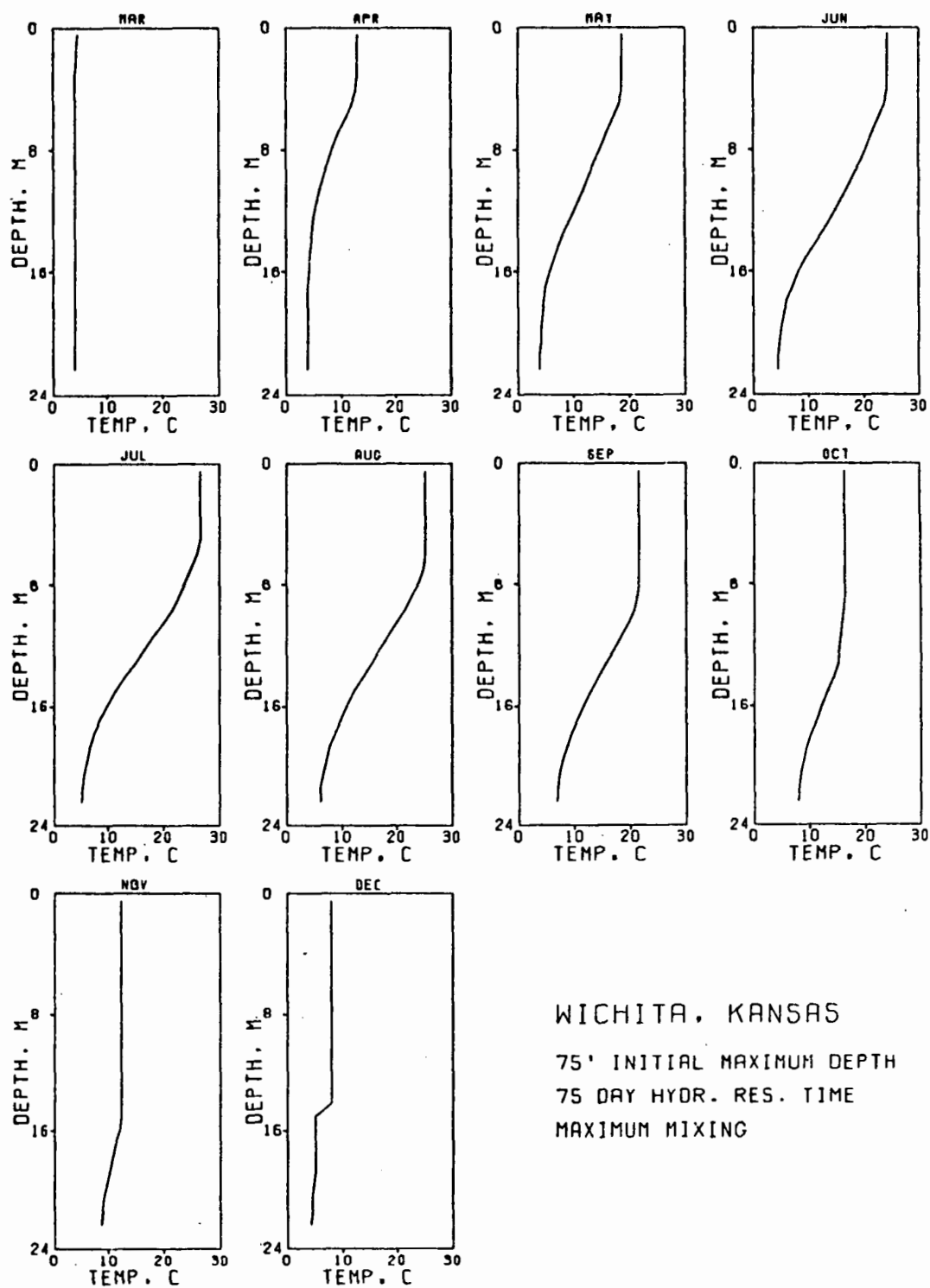


WICHITA, KANSAS

75' INITIAL MAXIMUM DEPTH

30 DAY HYDR. RES. TIME

MINIMUM MIXING

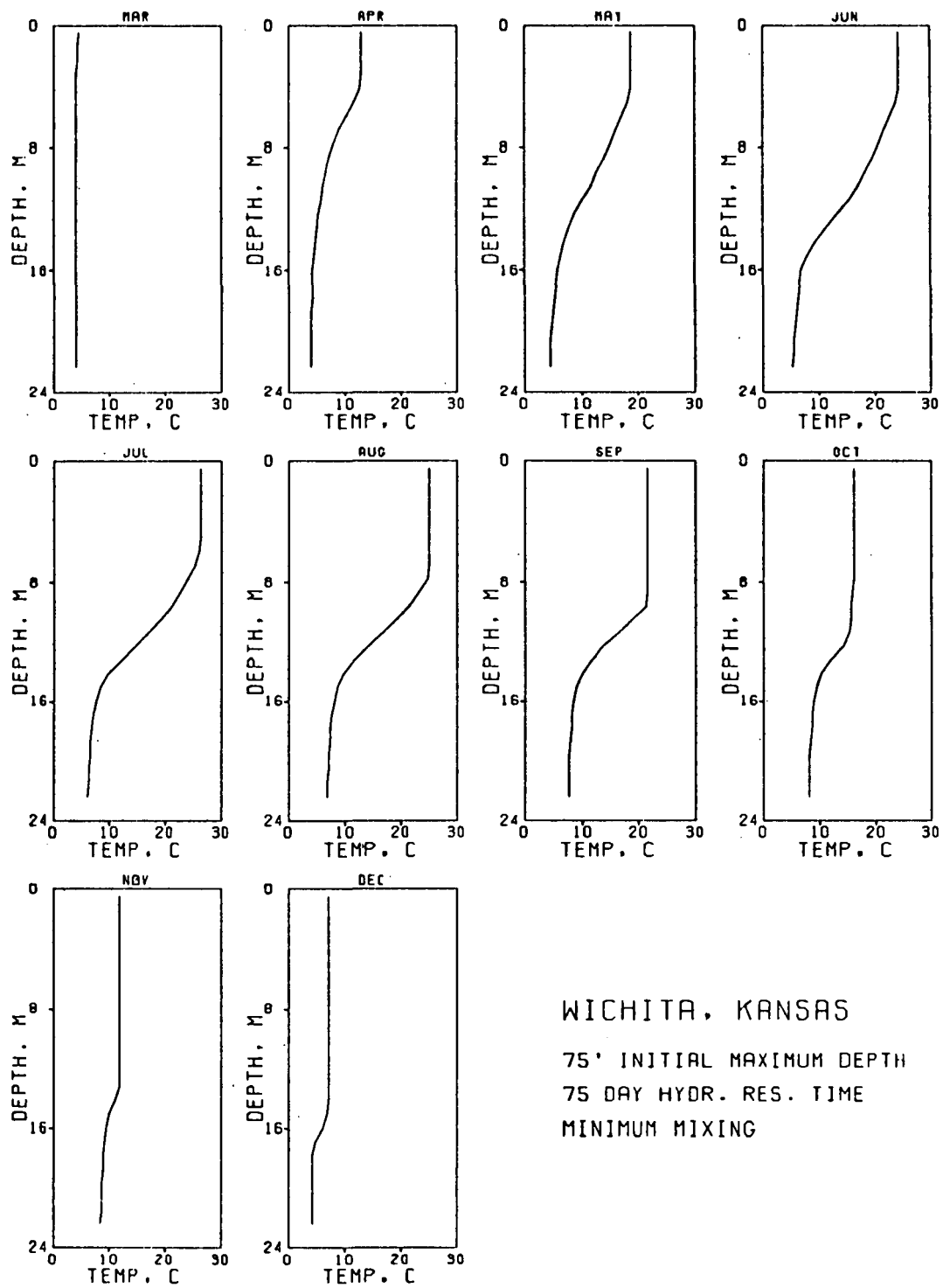


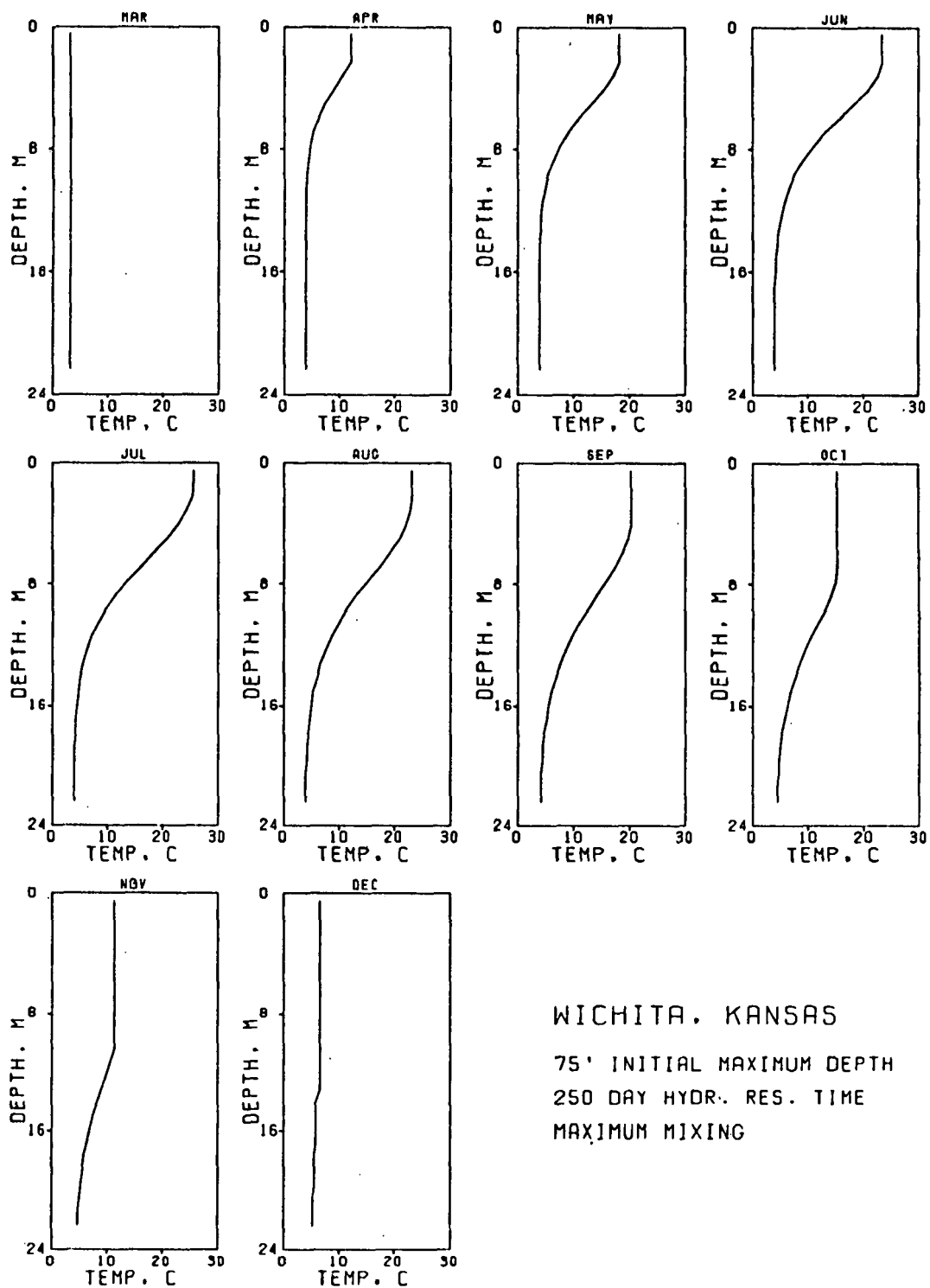
WICHITA, KANSAS

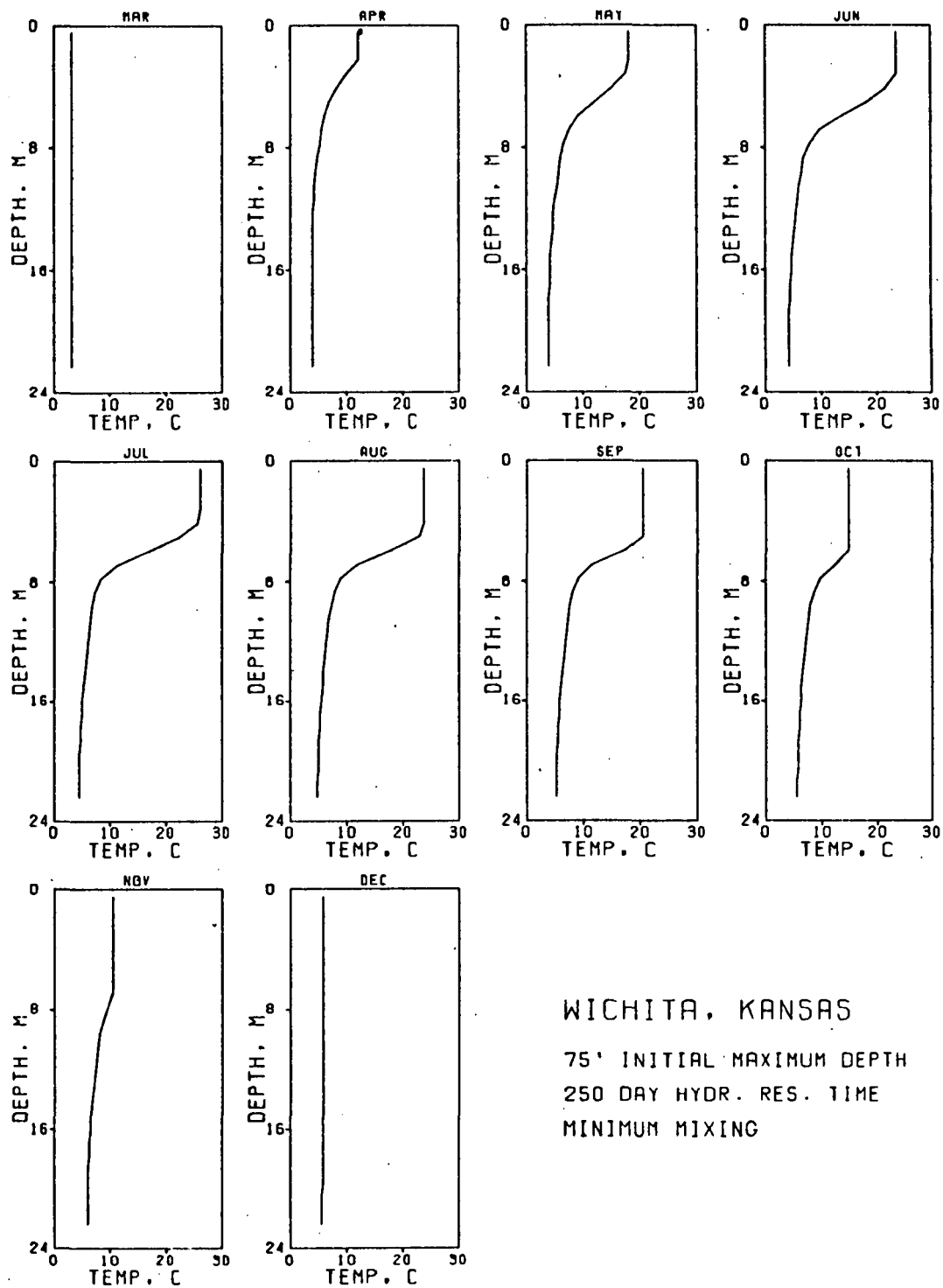
75' INITIAL MAXIMUM DEPTH

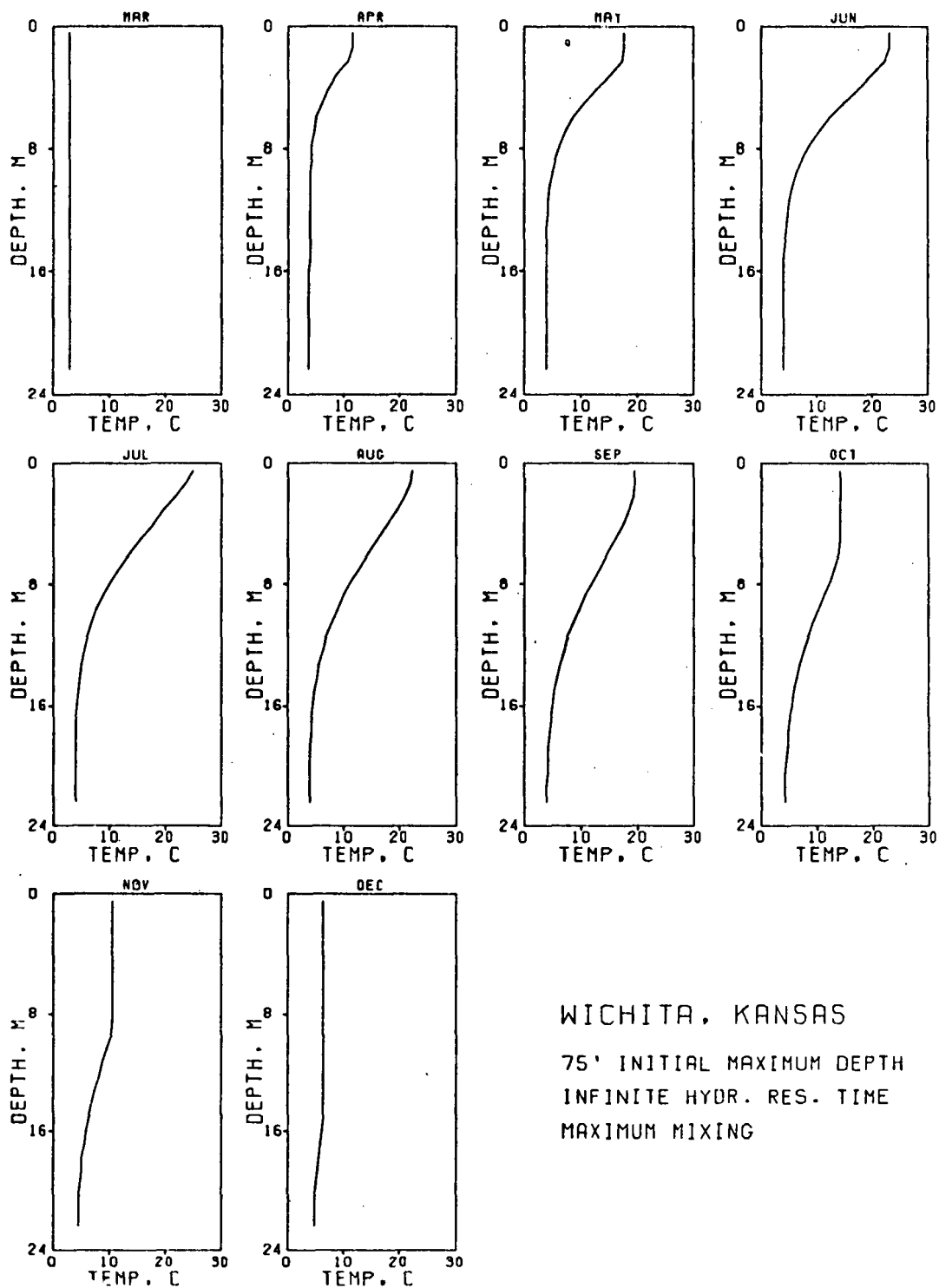
75 DAY HYDR. RES. TIME

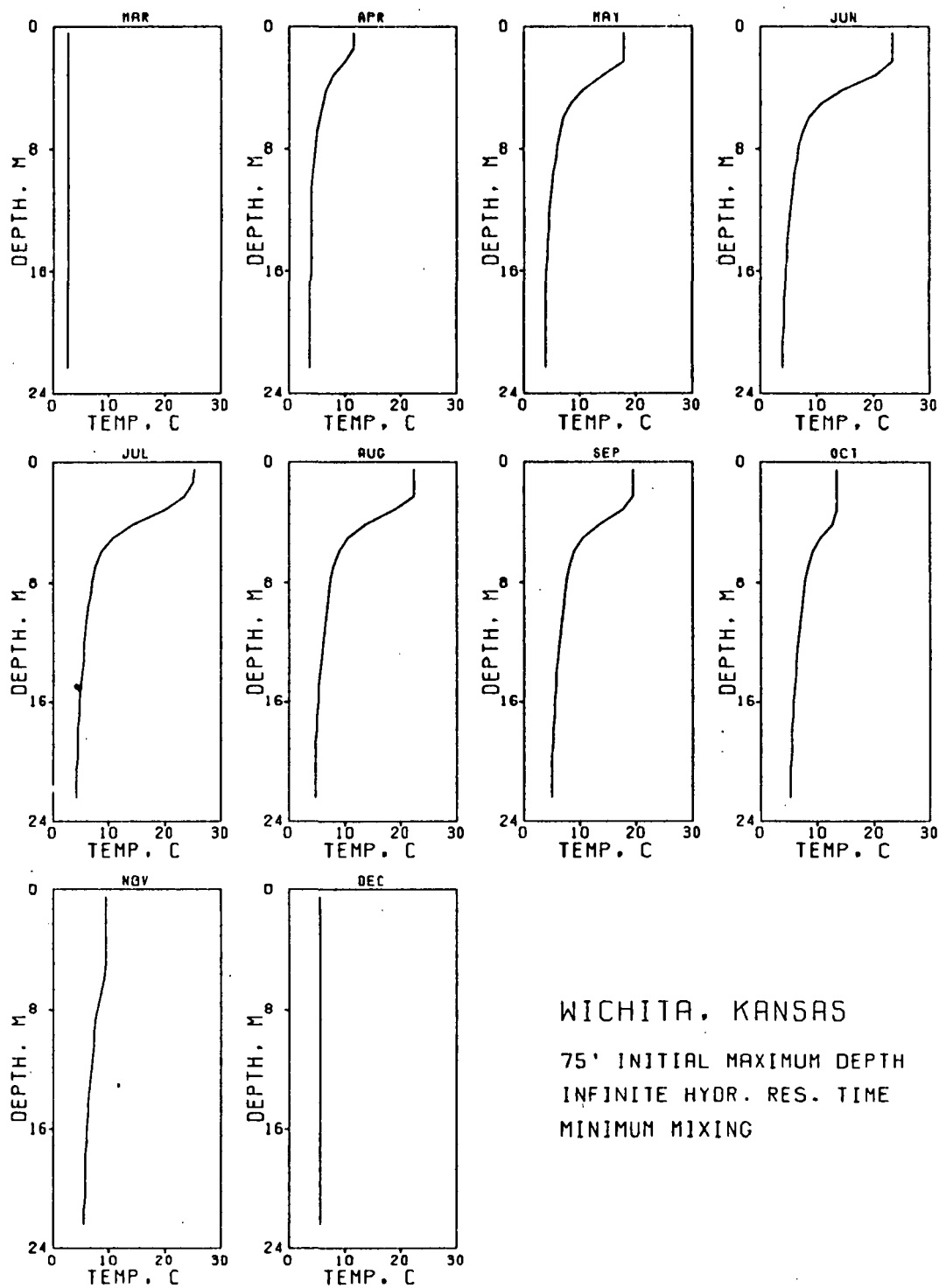
MAXIMUM MIXING





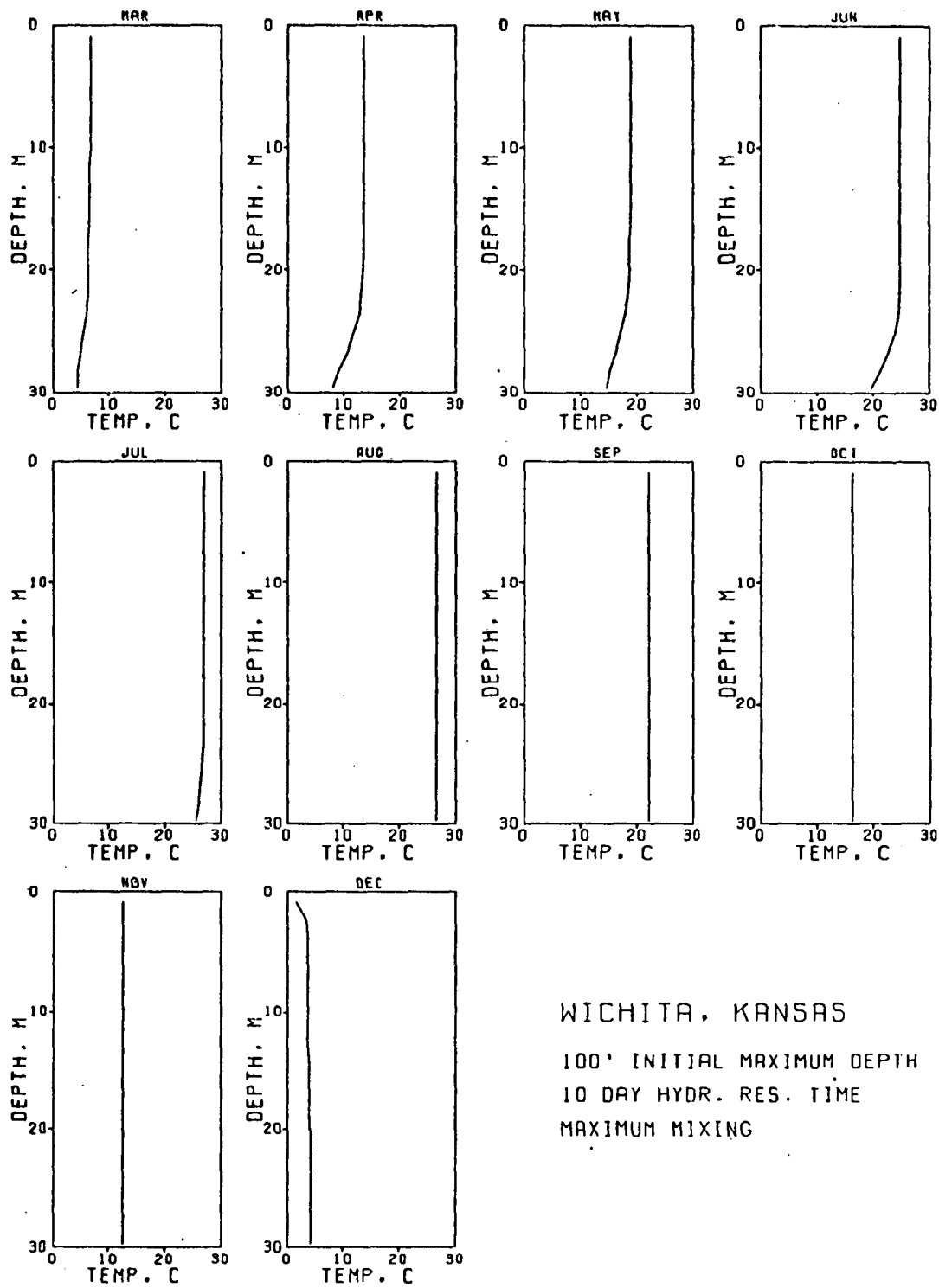






WICHITA, KANSAS

75' INITIAL MAXIMUM DEPTH
INFINITE HYDR. RES. TIME
MINIMUM MIXING

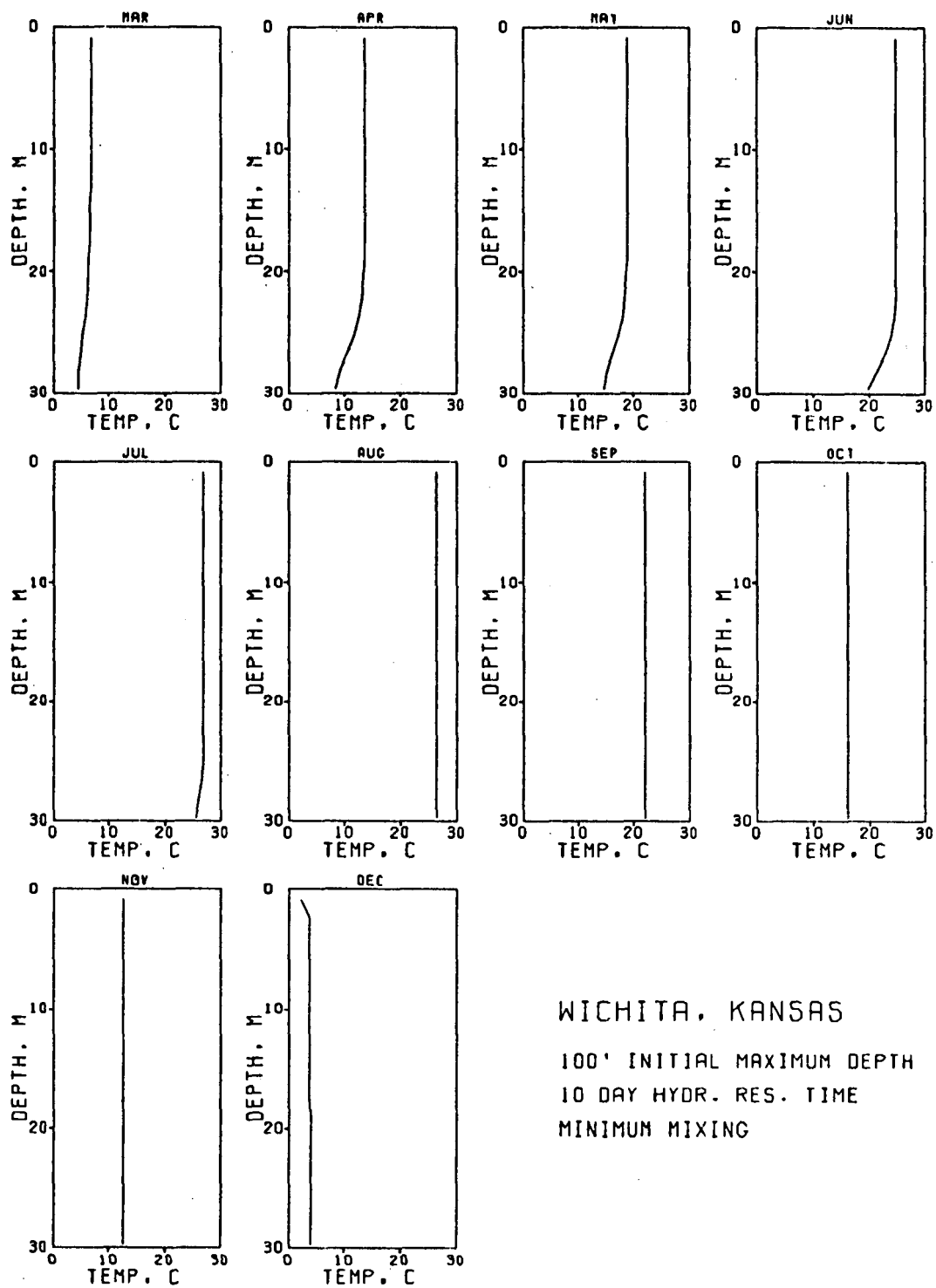


WICHITA, KANSAS

100' INITIAL MAXIMUM DEPTH

10 DAY HYDR. RES. TIME

MAXIMUM MIXING

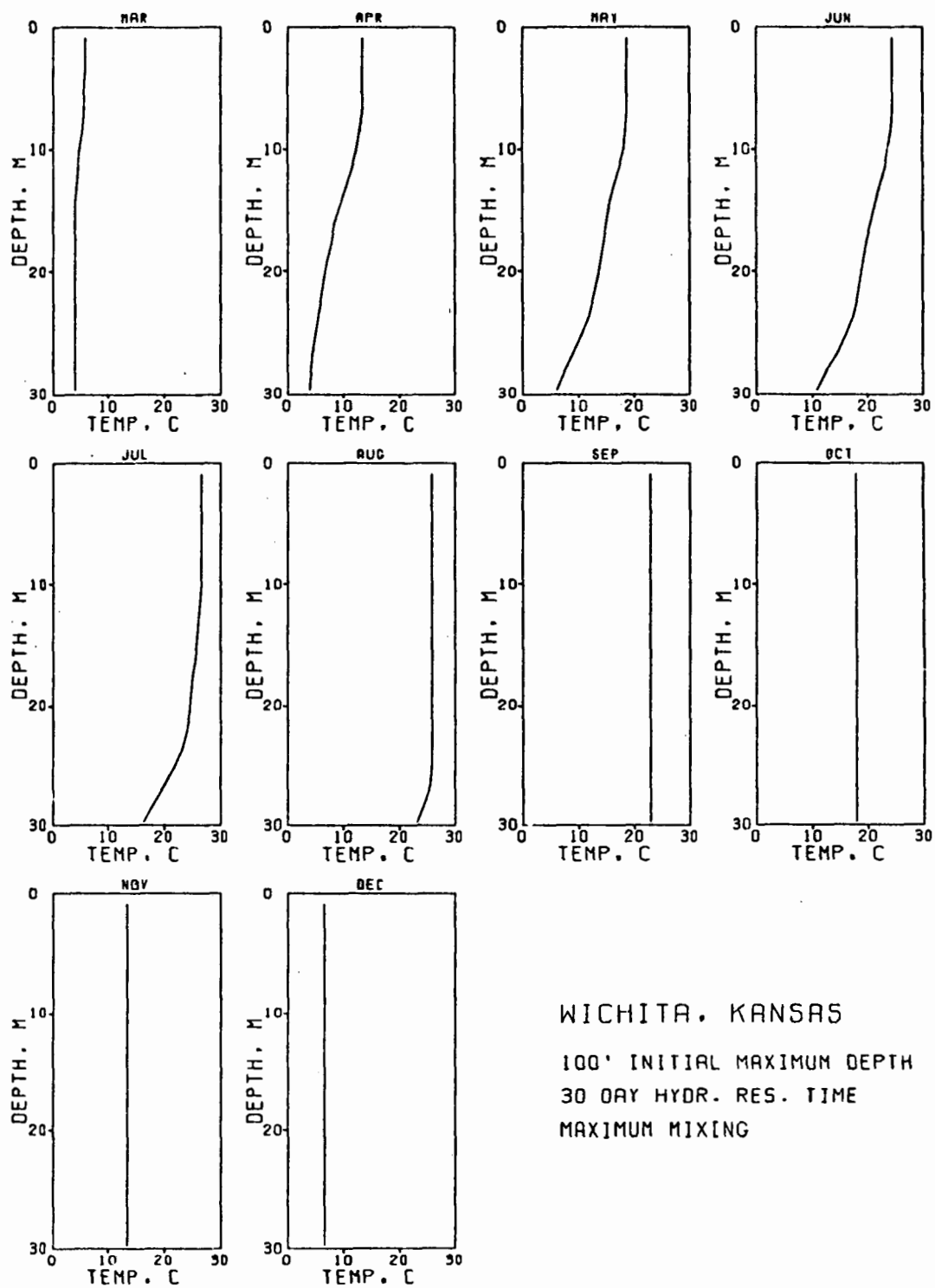


WICHITA, KANSAS

100' INITIAL MAXIMUM DEPTH

10 DAY HYDR. RES. TIME

MINIMUM MIXING

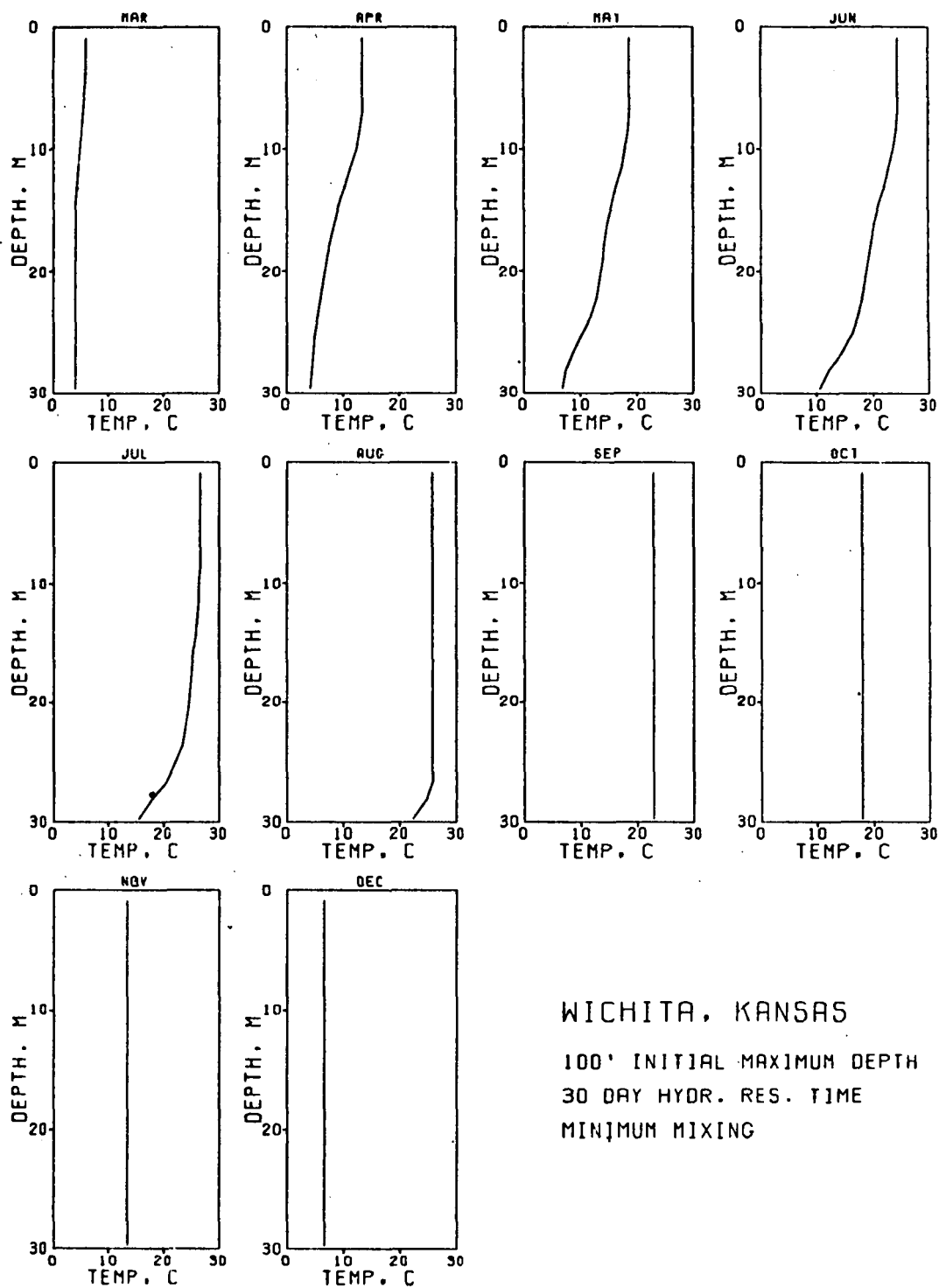


WICHITA, KANSAS

100' INITIAL MAXIMUM DEPTH

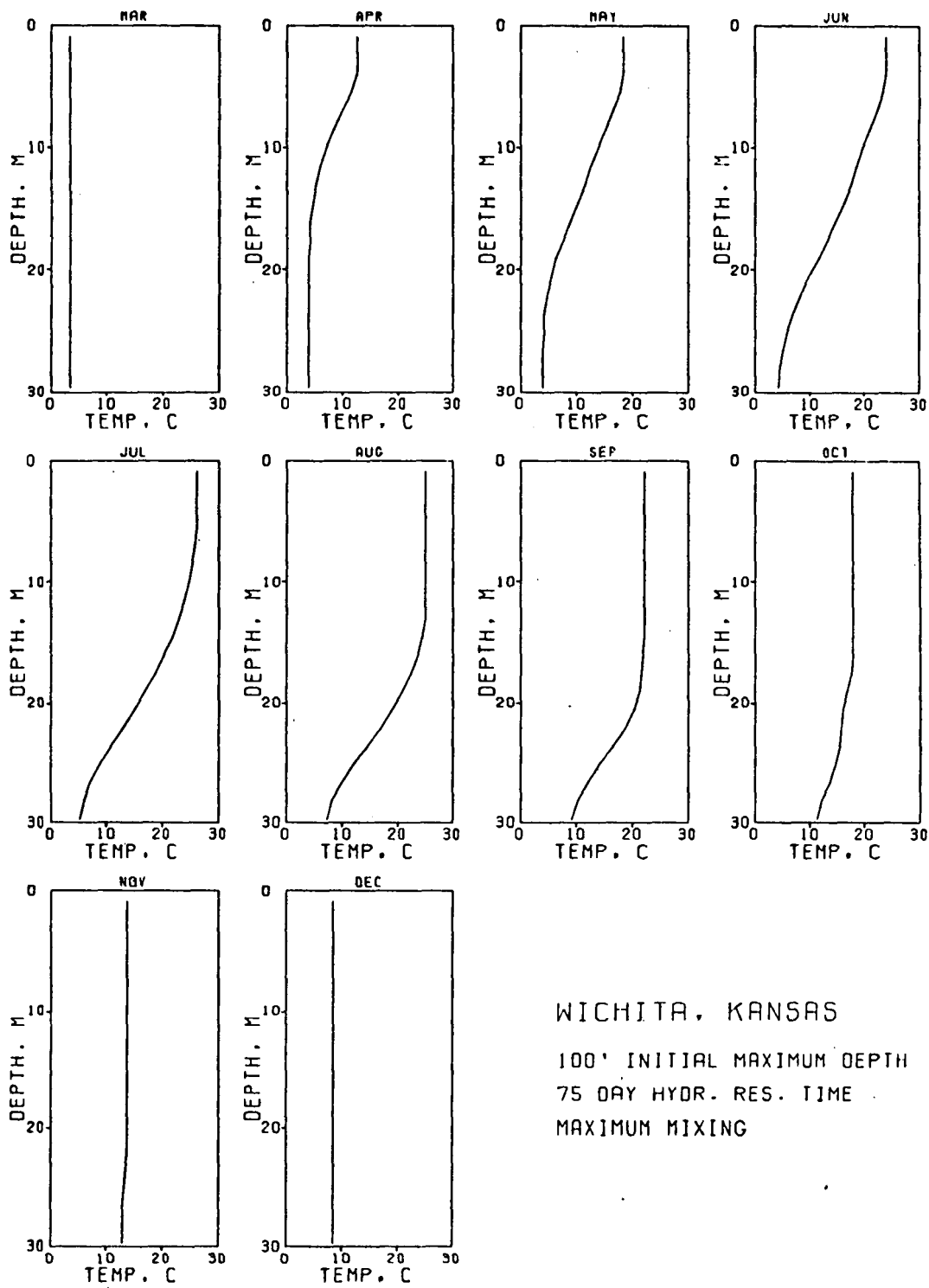
30 DAY HYDR. RES. TIME

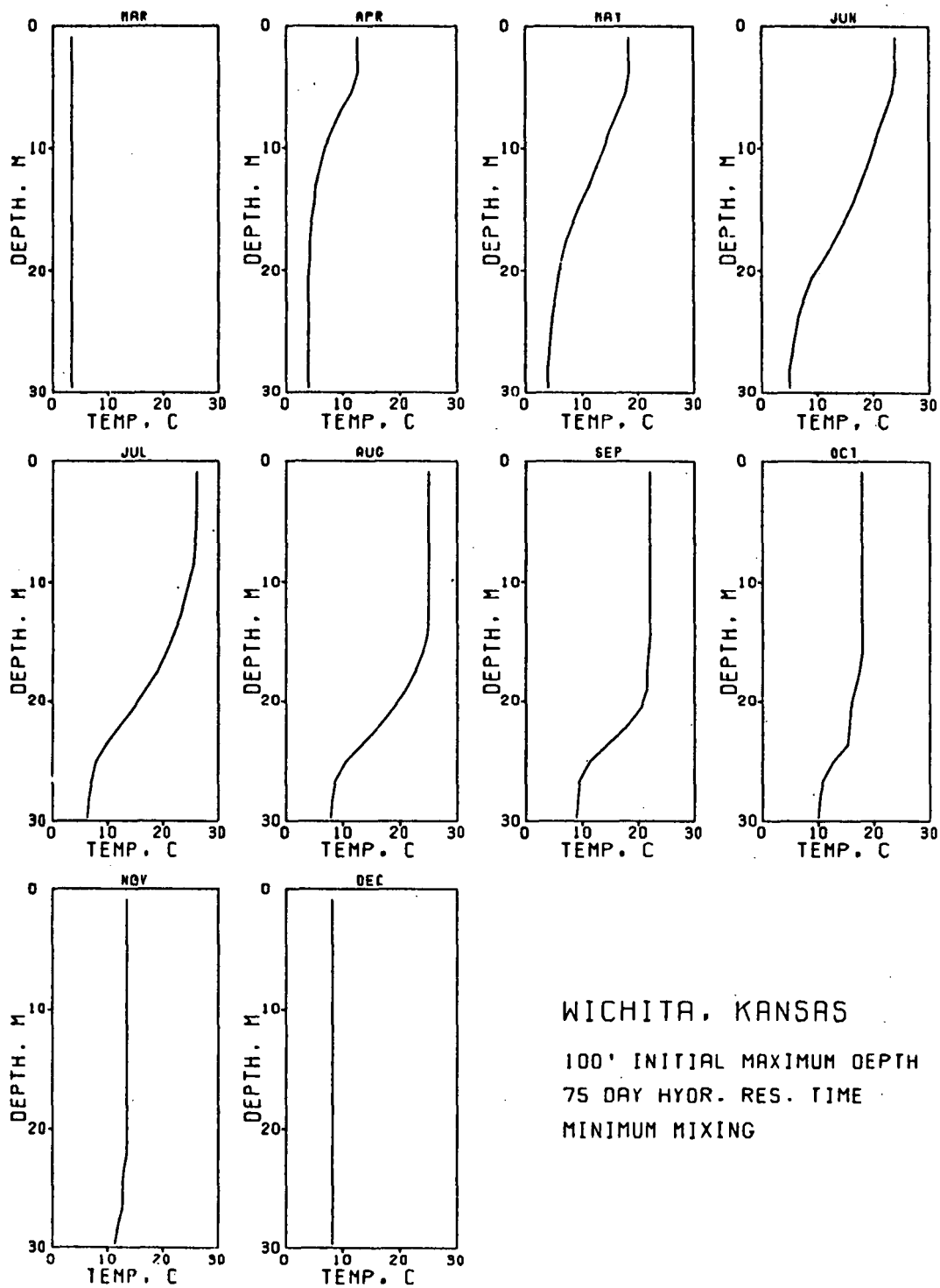
MAXIMUM MIXING

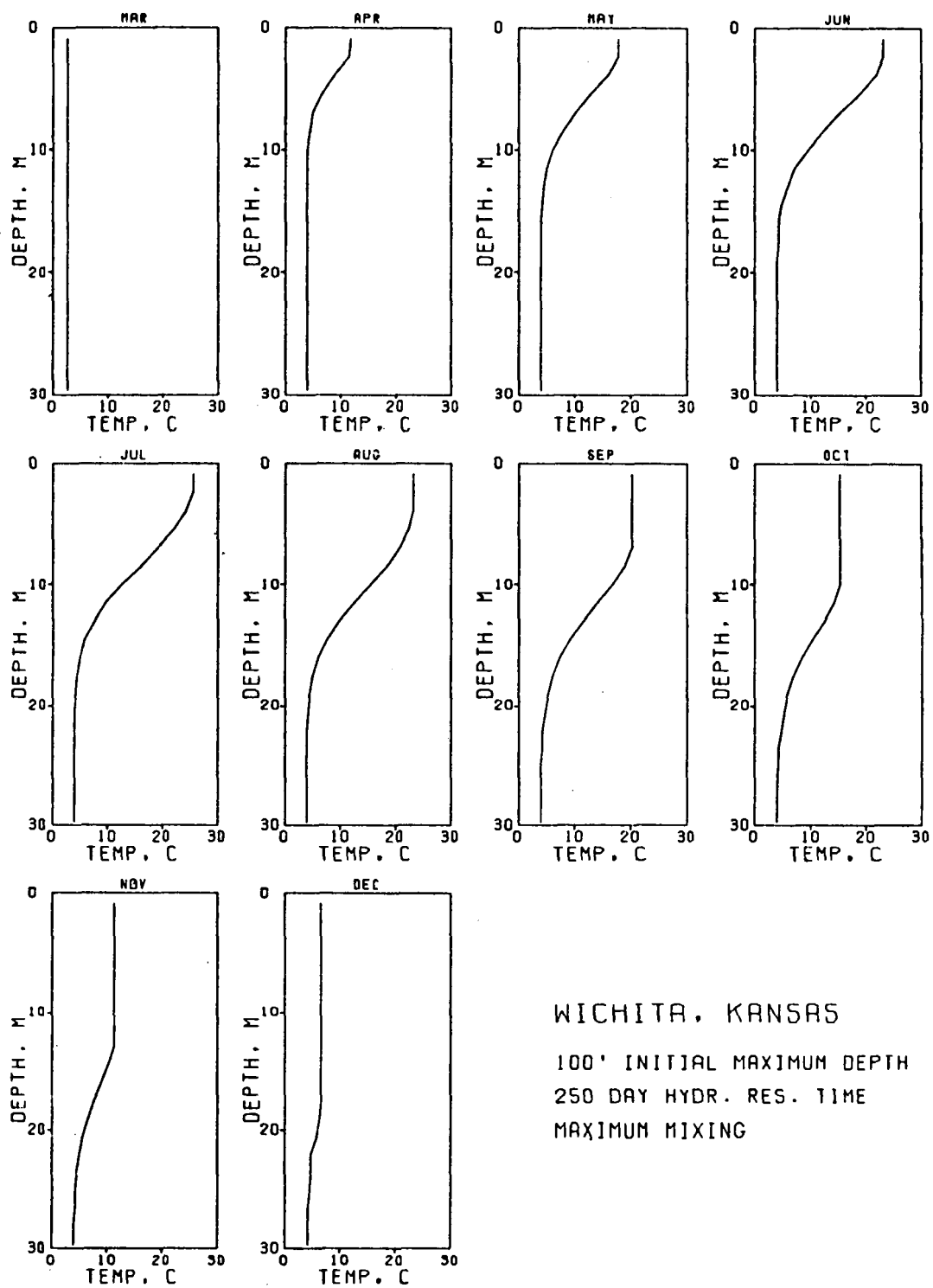


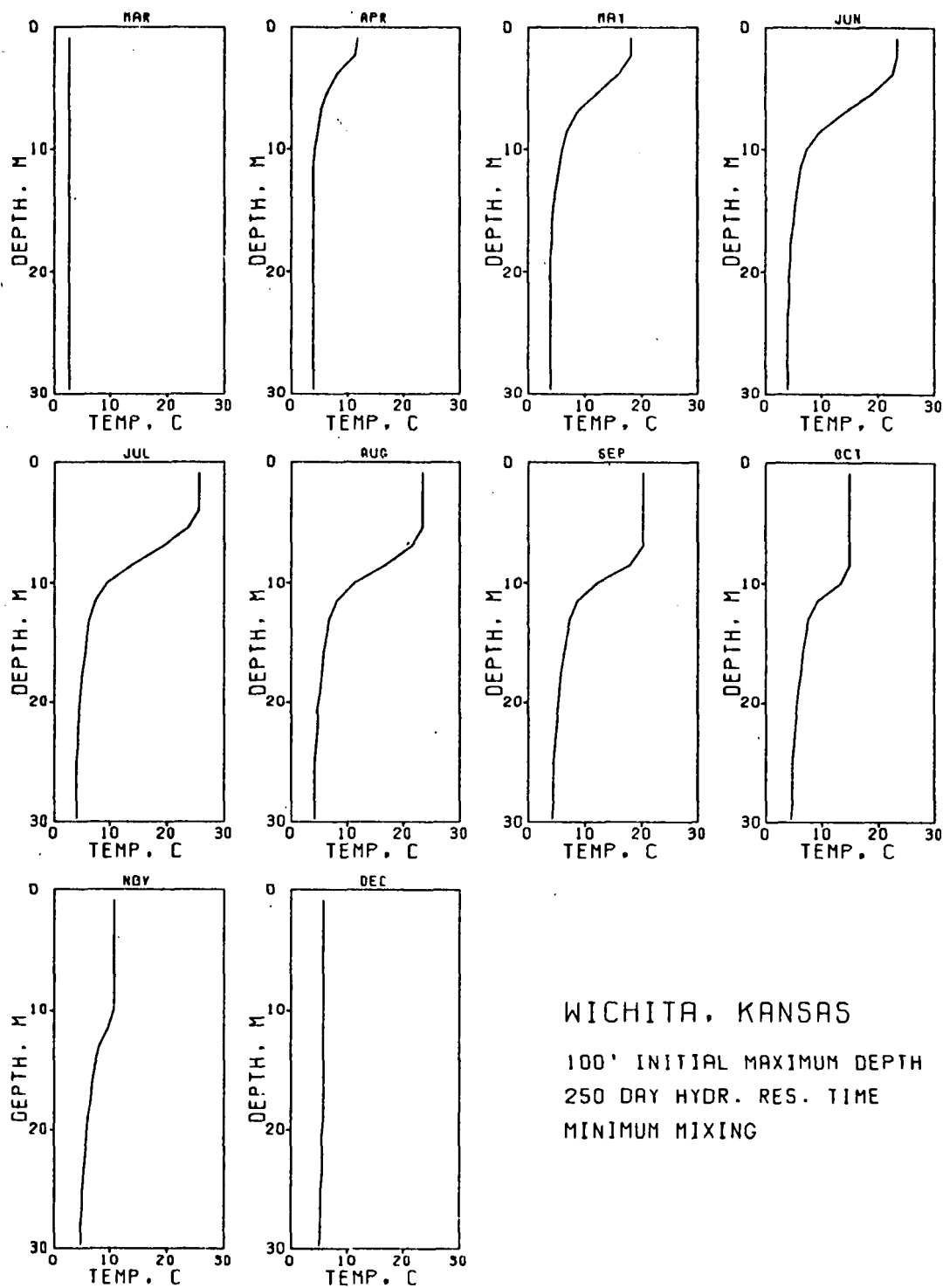
WICHITA, KANSAS

100' INITIAL MAXIMUM DEPTH
 30 DAY HYDR. RES. TIME
 MINIMUM MIXING



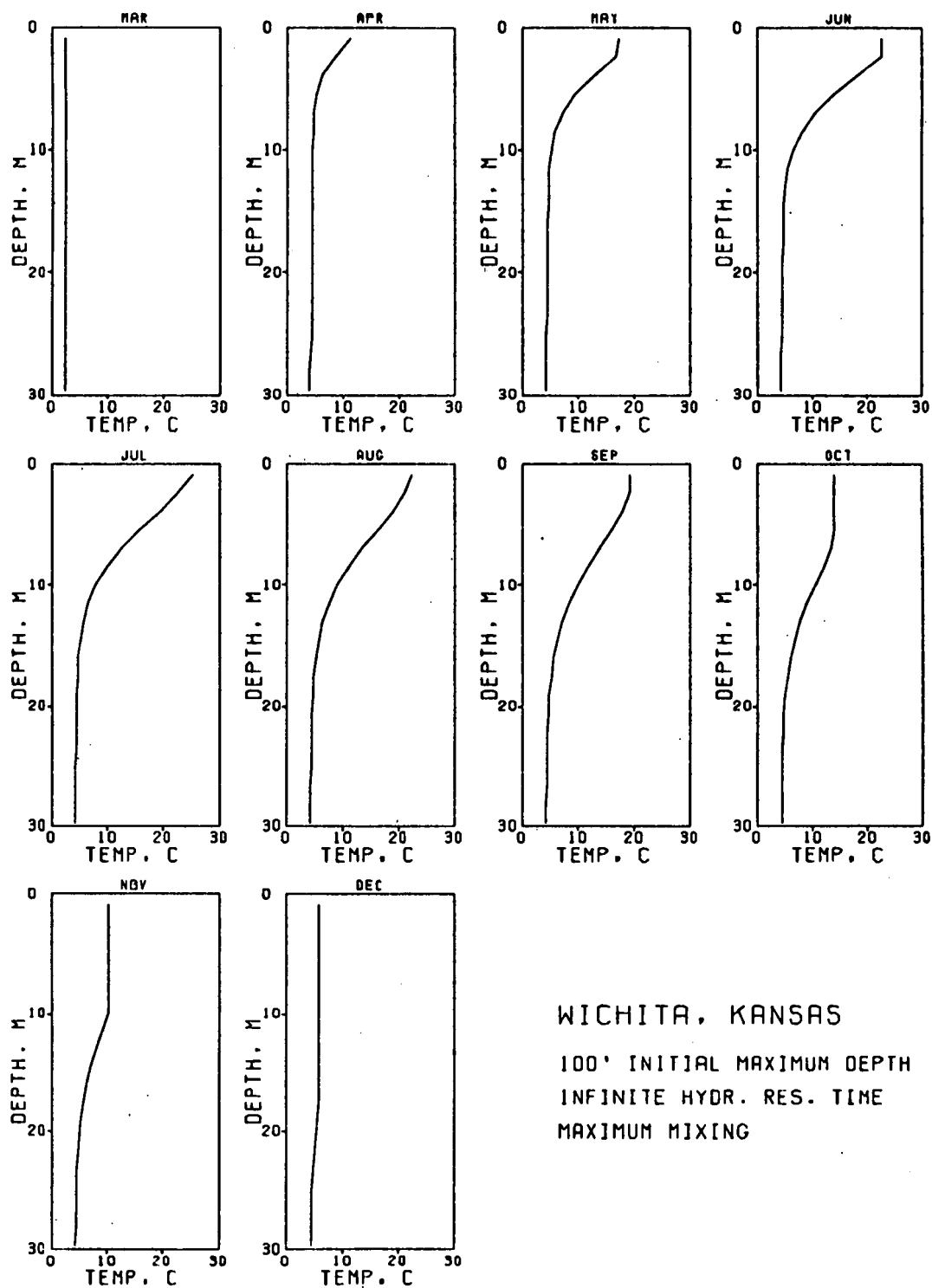






WICHITA, KANSAS

100' INITIAL MAXIMUM DEPTH
250 DAY HYDR. RES. TIME
MINIMUM MIXING

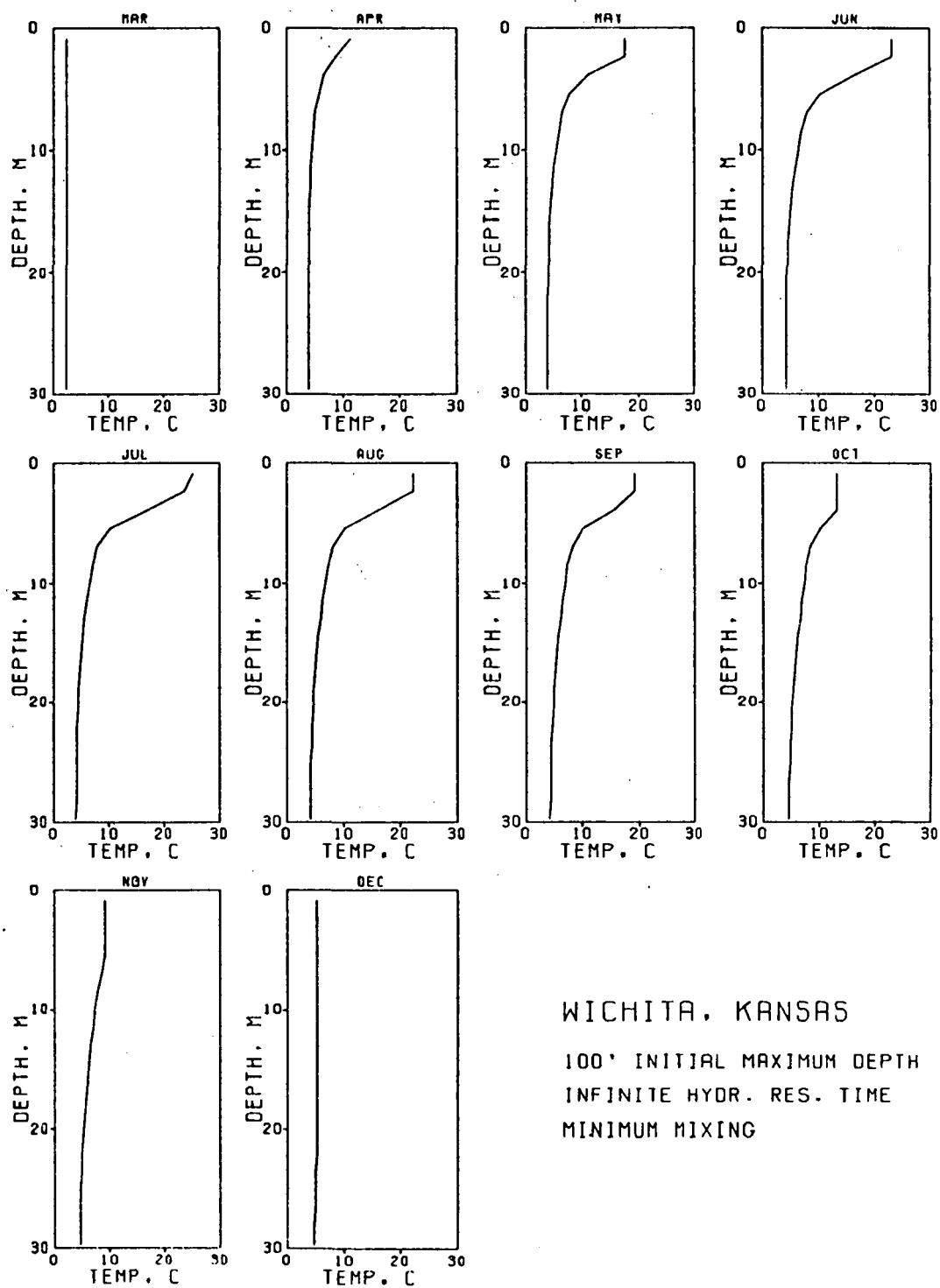


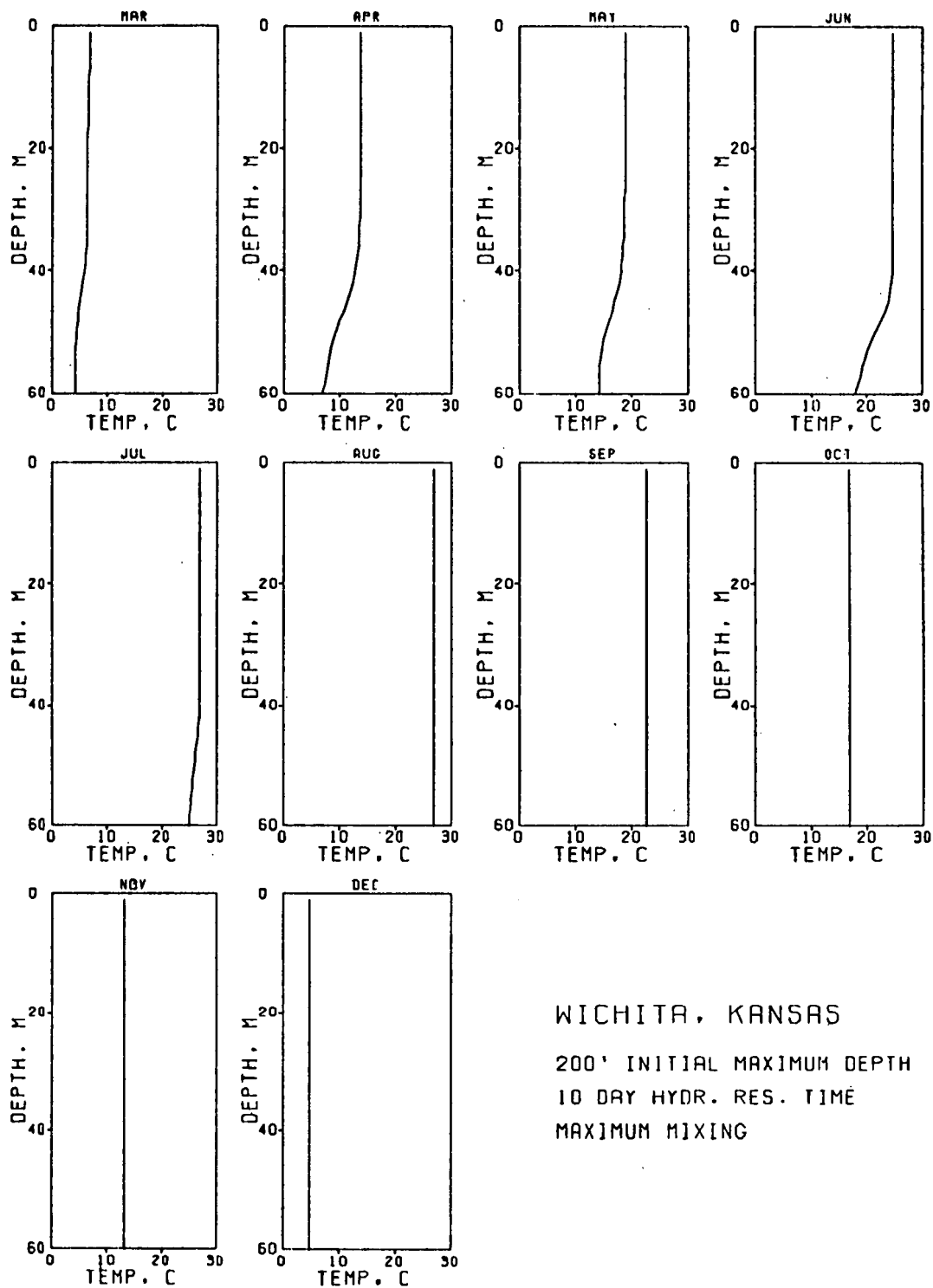
WICHITA, KANSAS

100' INITIAL MAXIMUM DEPTH

INFINITE HYDR. RES. TIME

MAXIMUM MIXING



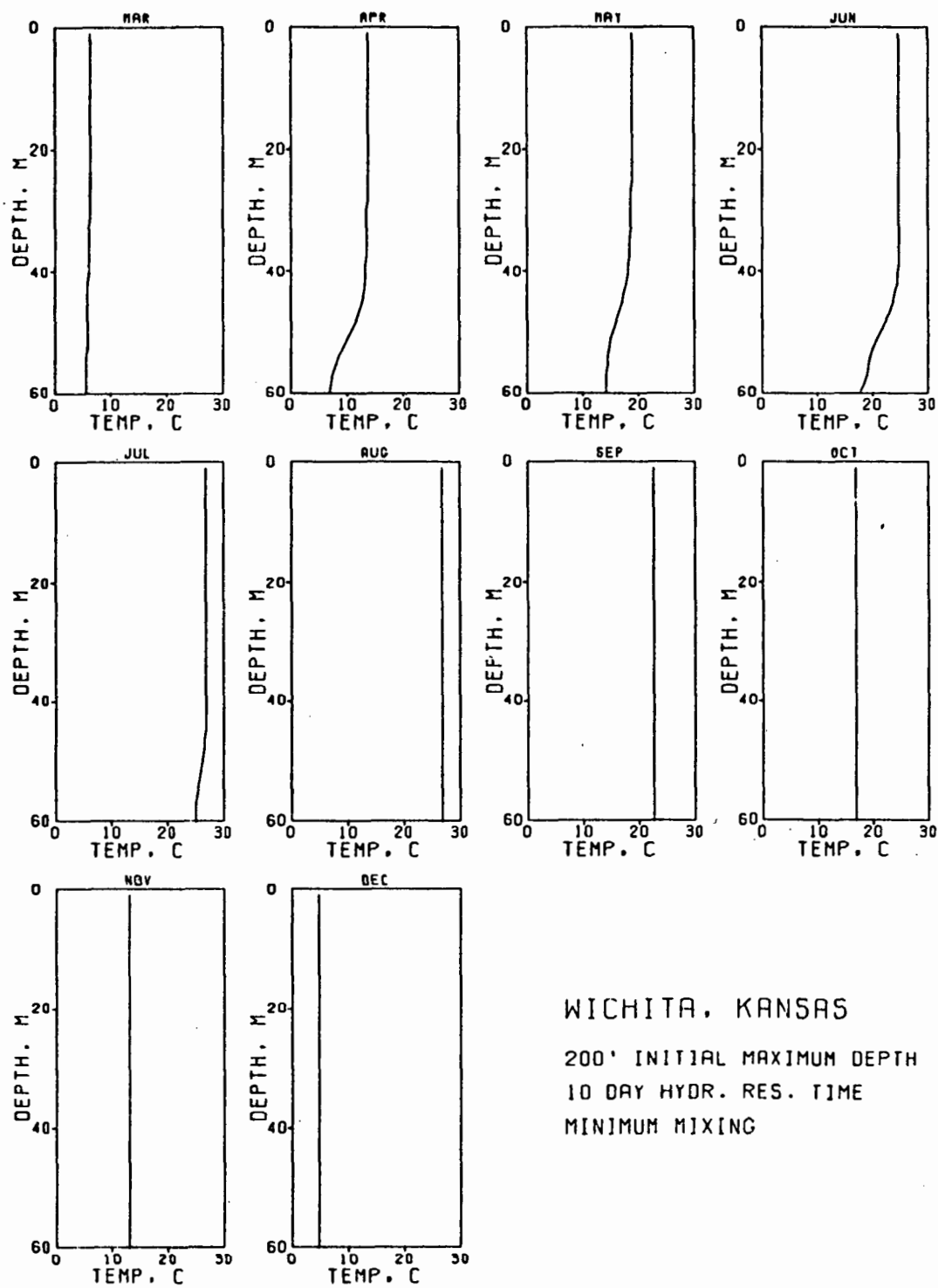


WICHITA, KANSAS

200' INITIAL MAXIMUM DEPTH

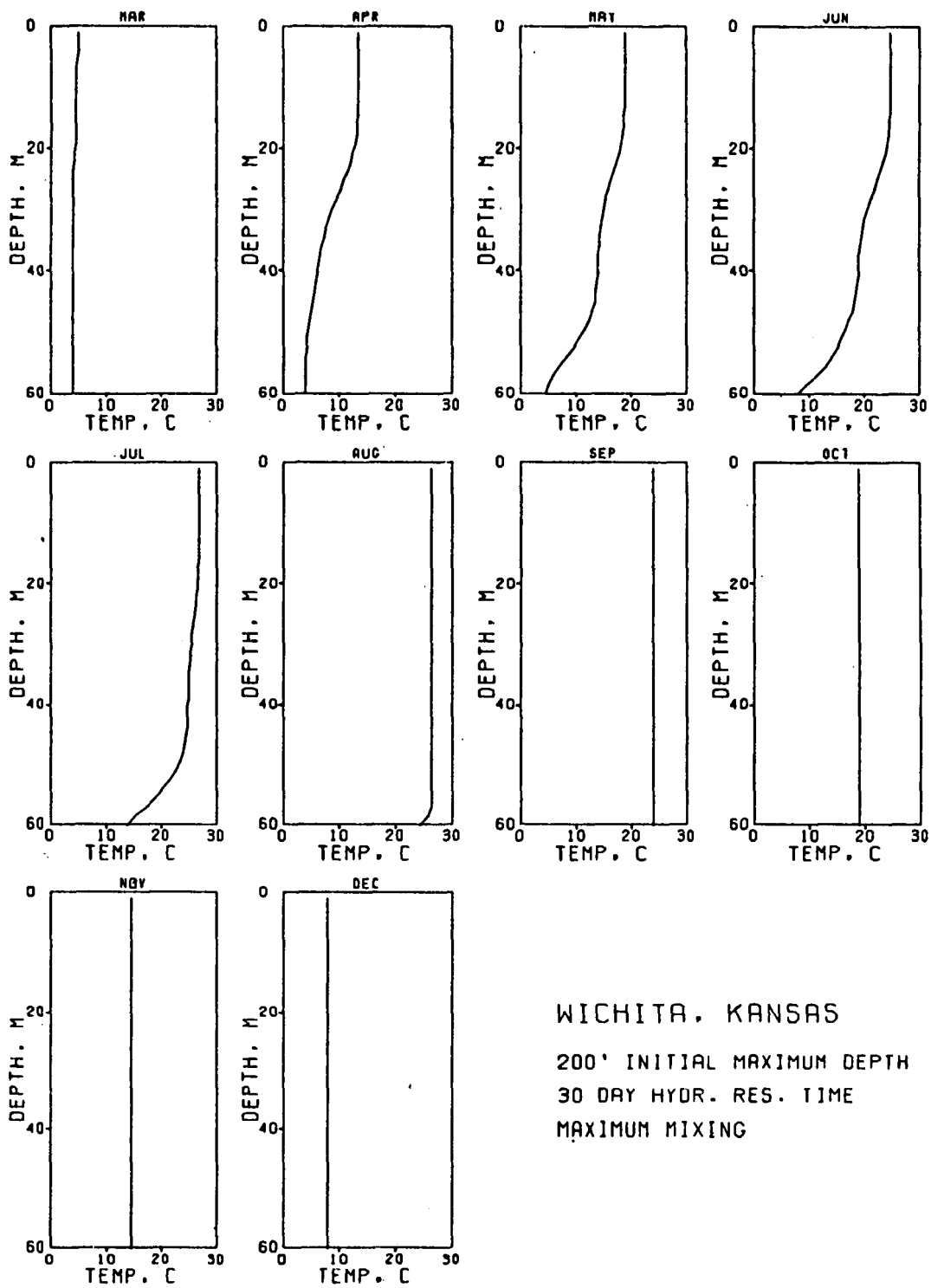
10 DAY HYDR. RES. TIME

MAXIMUM MIXING



WICHITA, KANSAS

200' INITIAL MAXIMUM DEPTH
10 DAY HYDR. RES. TIME
MINIMUM MIXING

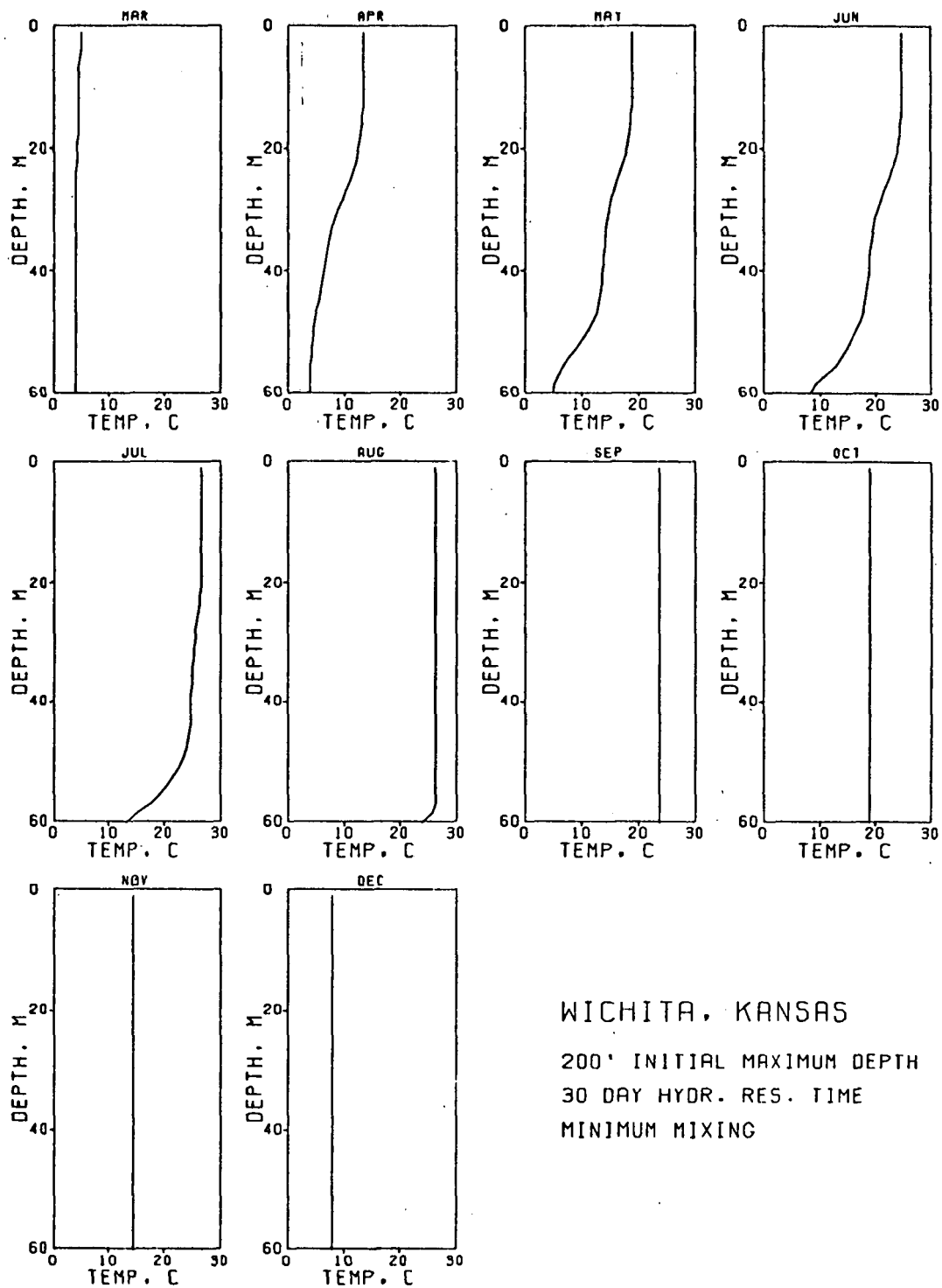


WICHITA, KANSAS

200' INITIAL MAXIMUM DEPTH

30 DAY HYDR. RES. TIME

MAXIMUM MIXING

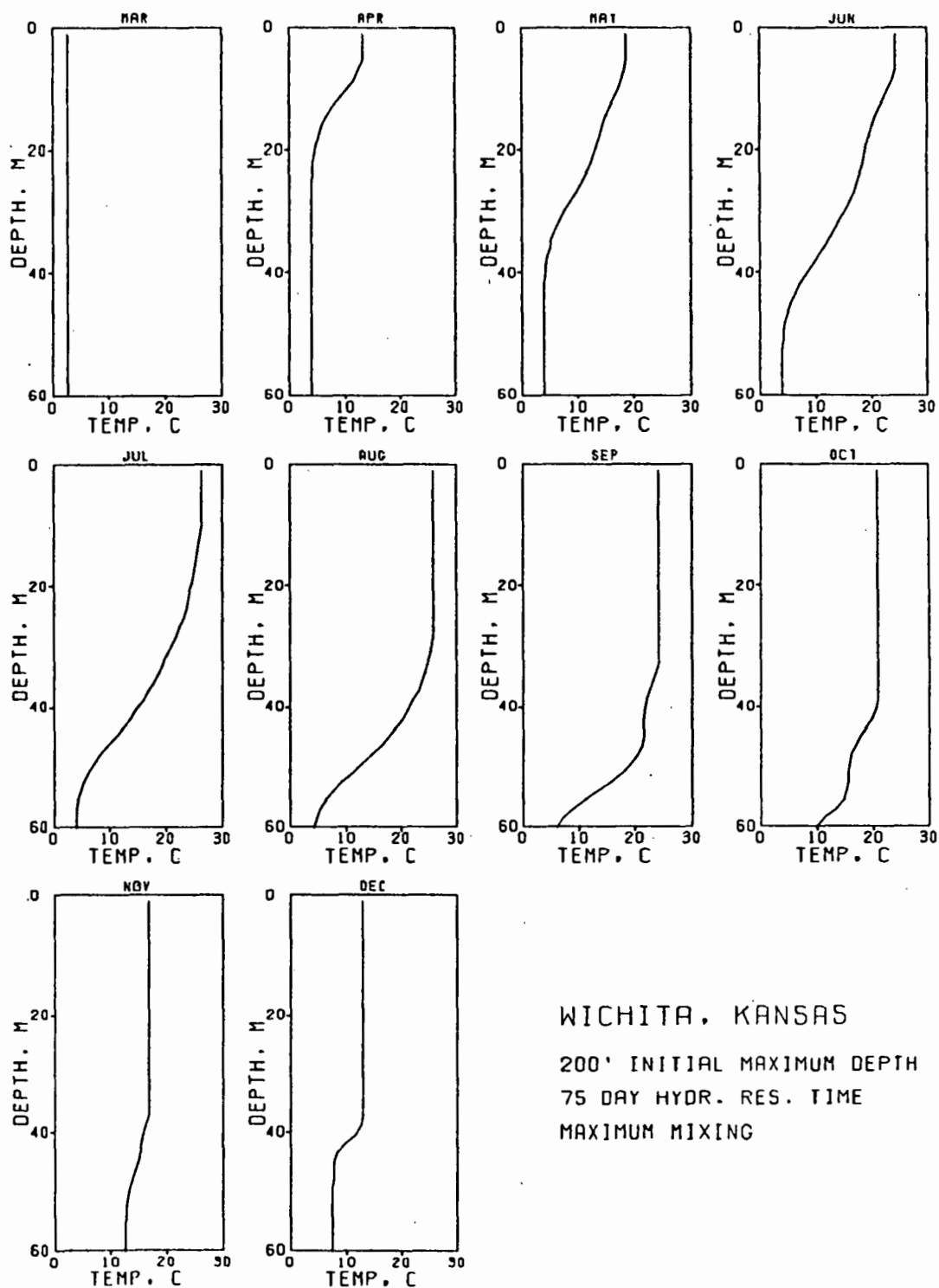


WICHITA, KANSAS

200' INITIAL MAXIMUM DEPTH

30 DAY HYDR. RES. TIME

MINIMUM MIXING

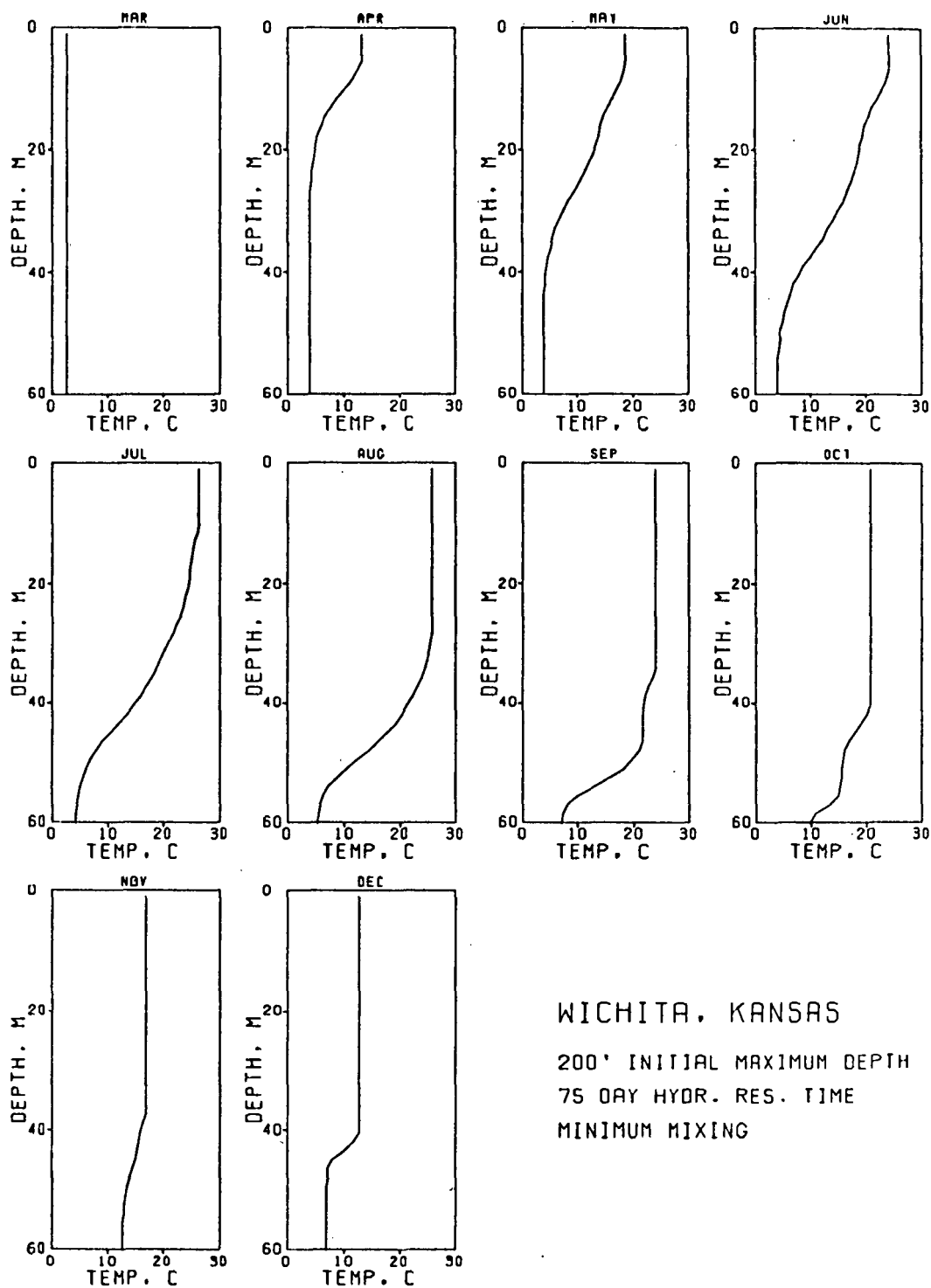


WICHITA, KANSAS

200' INITIAL MAXIMUM DEPTH

75 DAY HYDR. RES. TIME

MAXIMUM MIXING

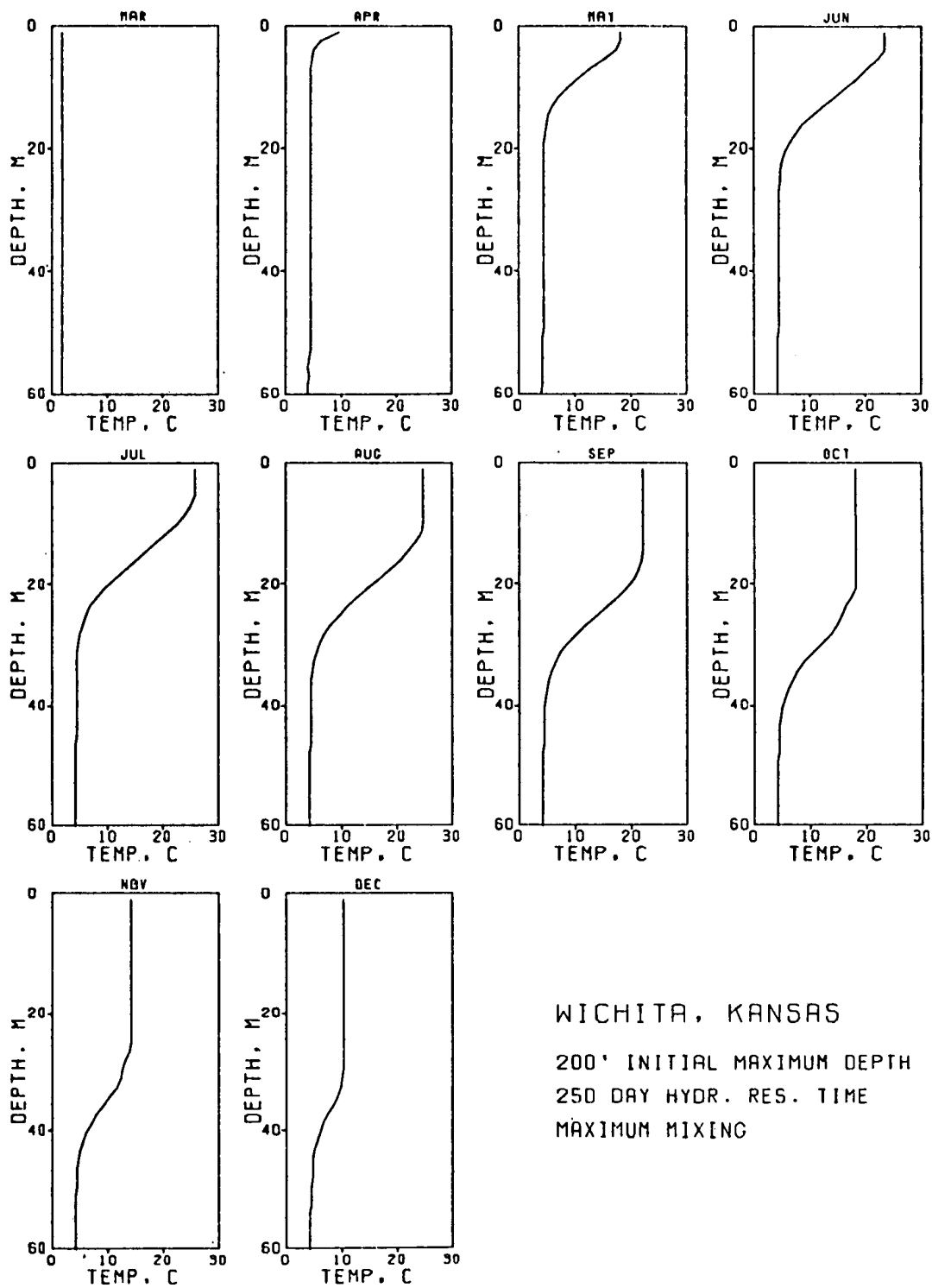


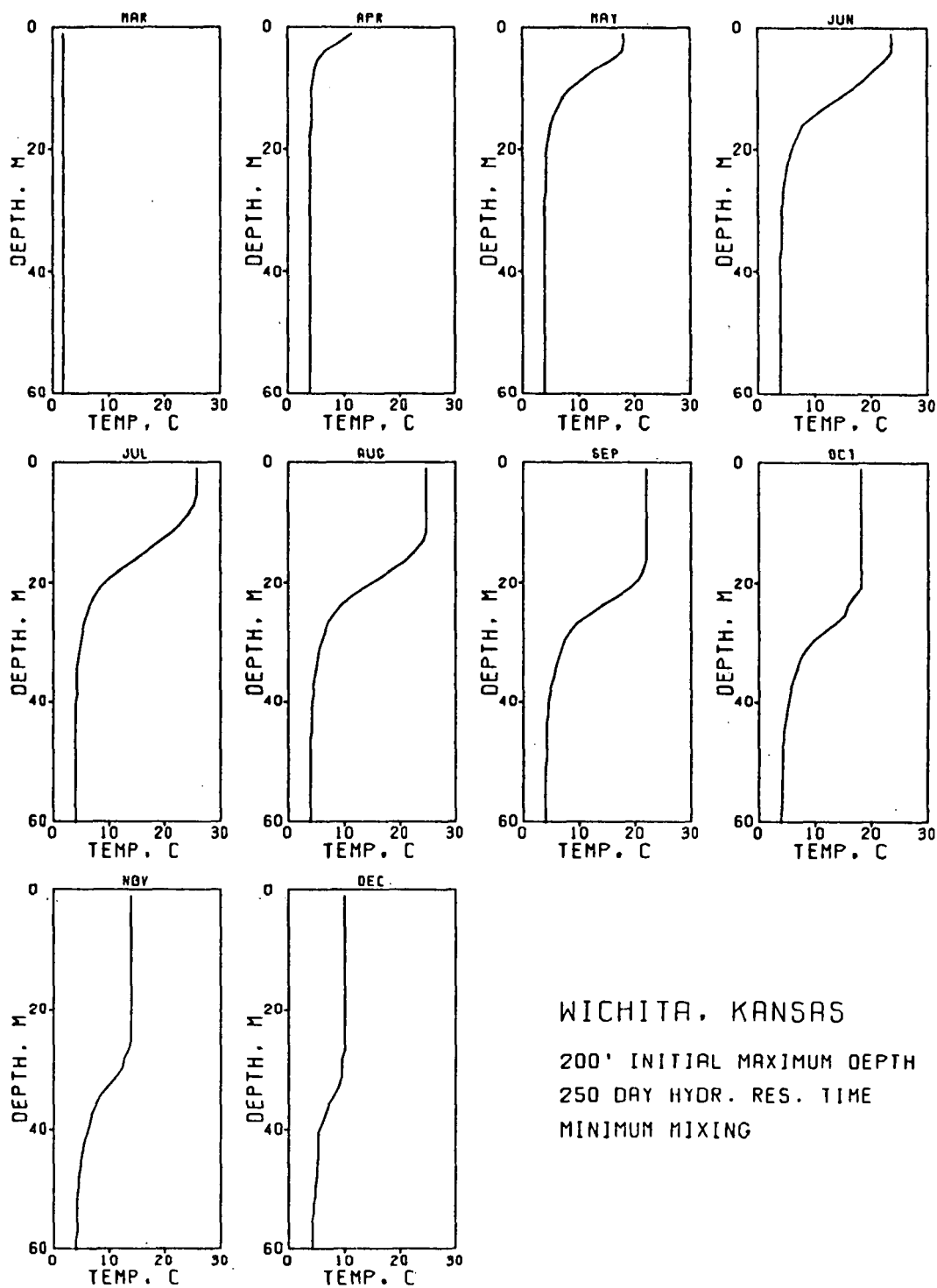
WICHITA, KANSAS

200' INITIAL MAXIMUM DEPTH

75 DAY HYDR. RES. TIME

MINIMUM MIXING



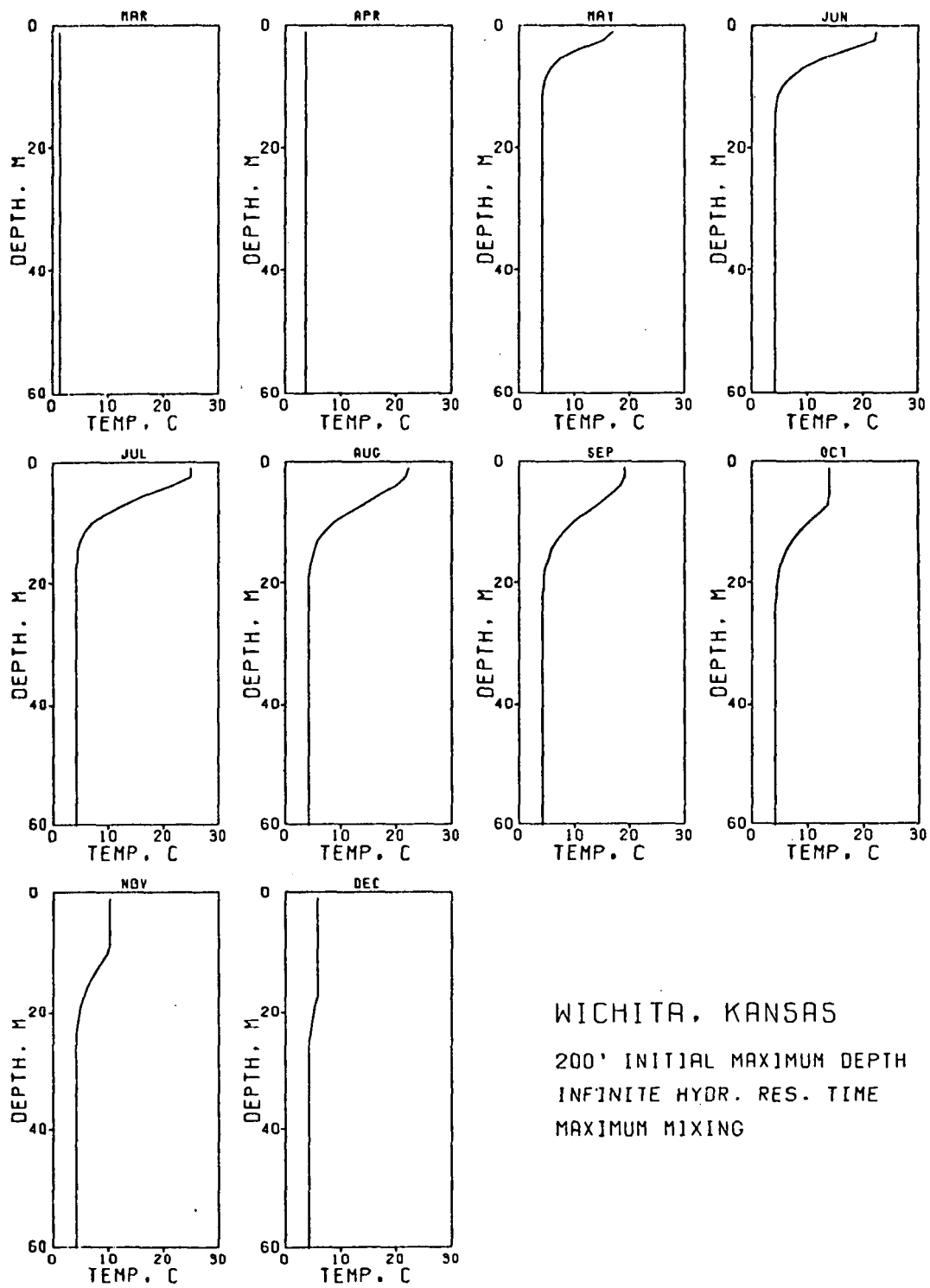


WICHITA, KANSAS

200' INITIAL MAXIMUM DEPTH

250 DAY HYDR. RES. TIME

MINIMUM MIXING

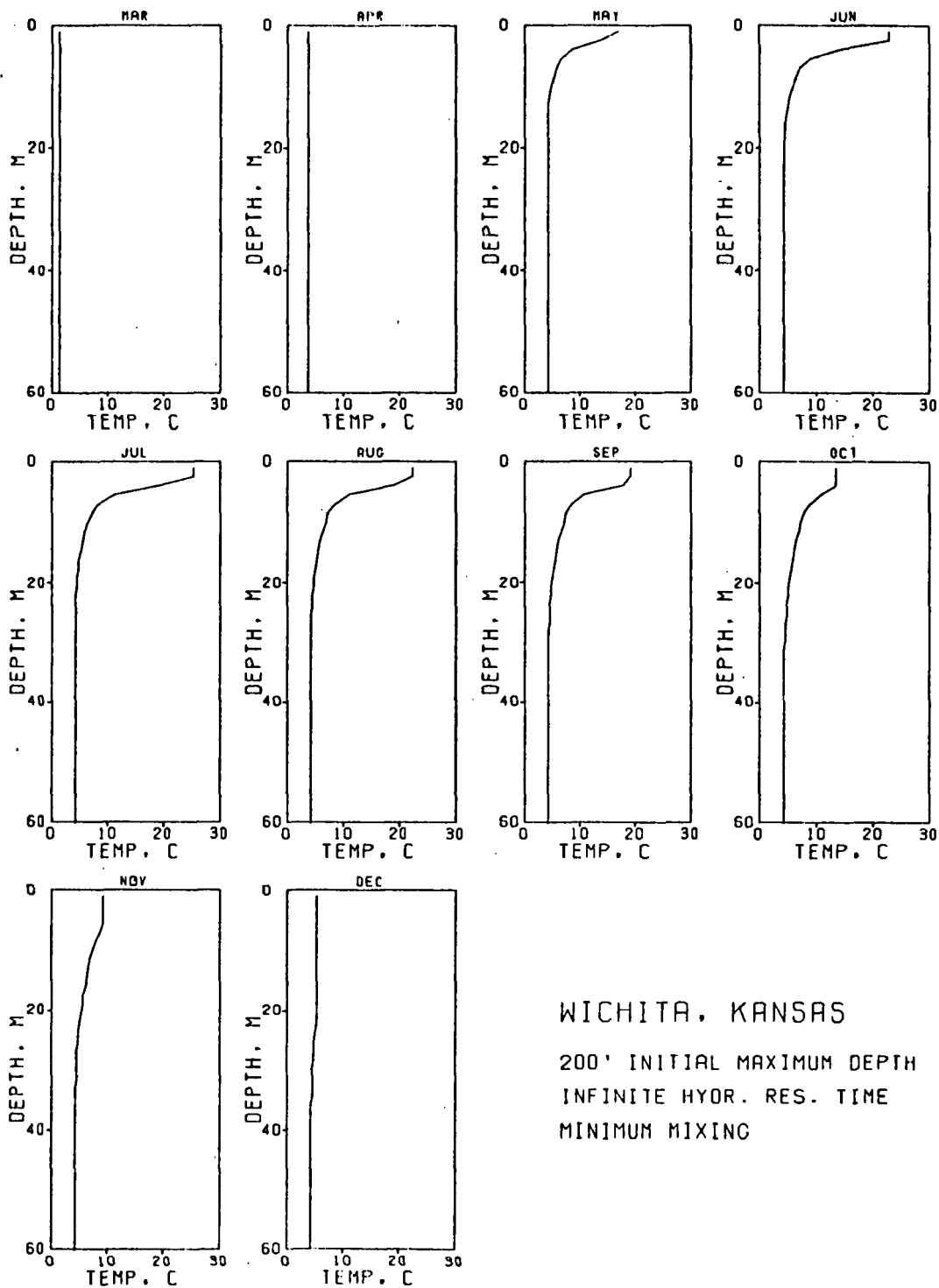


WICHITA, KANSAS

200' INITIAL MAXIMUM DEPTH

INFINITE HYDR. RES. TIME

MAXIMUM MIXING



WICHITA, KANSAS
 200' INITIAL MAXIMUM DEPTH
 INFINITE HYOR. RES. TIME
 MINIMUM MIXING

APPENDIX E

MODELING THERMAL STRATIFICATION IN IMPOUNDMENTS

- Figure E-1 Comparison of Computed and Observed Temperature Profiles in Kezar Lake
- Figure E-2 Comparison of Computed and Observed Temperature Profiles in El Capitan Reservoir
- Figure E-3 Log of Eddy Conductivity Versus Log Stability--Hungry Horse Data

IMPOUNDMENT THERMAL PROFILE MODEL: BACKGROUND

The model used for computation of impoundment temperature profiles is based on the Lake Ecologic Model originally developed by Chen and Orlob (1975). The model was modified for this application to compute temperature alone. The purpose of the model application was to simulate the effects of mixing, impoundment physical characteristics, hydraulic residence time, and climate on the vertical profiles of temperature.

Physical Representation

Each configuration simulated was idealized as a number of horizontally mixed layers. Natural vertical mixing is computed by the use of dispersion coefficients in the vertical mass transport equation. Values of the dispersion coefficients for different size lakes were estimated from previous studies (Water Resources Engineers, Inc., 1969).

Temperature

Temperatures were computed as a function of depth according to Equation (E-1).

$$\bar{v} \frac{\partial T}{\partial t} = \frac{1}{c\rho} \frac{\partial}{\partial z} (A_z D_z \frac{\partial T}{\partial z}) - \frac{\partial}{\partial z} (QT) + \frac{A_s}{c\rho} (\mu - \lambda T) + \frac{\Theta}{c\rho} - T \frac{\partial \bar{v}}{\partial t} \quad (E-1)$$

where T = the local water temperature

c = specific heat

ρ = fluid density

A_z = cross-sectional area at the fluid element boundary

t = time
 z = vertical distance
 D_z = the eddy diffusion coefficient in the vertical direction
 Q = advection across the fluid element boundaries
 A_s = cross-sectional area of the surface fluid element
 μ, λ = coefficients describing heat transfer across air-water interface
 Θ = sum of all external additions of heat to fluid volume of fluid element
 $\bar{v}$ = element volume

Application/Verification

The model has recently been used in a lake aeration study (Lorenzen and Fast, 1976). In that study, the model was applied to Kezar Lake in New Hampshire and El Capitan Reservoir in California to verify that artificial mixing could be adequately simulated.

Computed temperature profiles were compared to observed values as shown in Figures E-1 and E-2. The model performance was judged to be good for the intended purpose of providing guidance for further study.

PREPARATION OF THERMAL PROFILES

The thermal profiles in Appendix D of this report were prepared by inputting the selected climatological conditions, inflow rate, impoundment physical conditions, and wind. Of these, only wind warrants special discussion here. The remaining model parameters are discussed in the text of Chapter 5.

Wind-Induced Mixing and the Eddy Diffusion Coefficient

Figure E-3 is a plot of the eddy conductivity coefficient versus stability. It was used to obtain coefficients for wind mixing for the

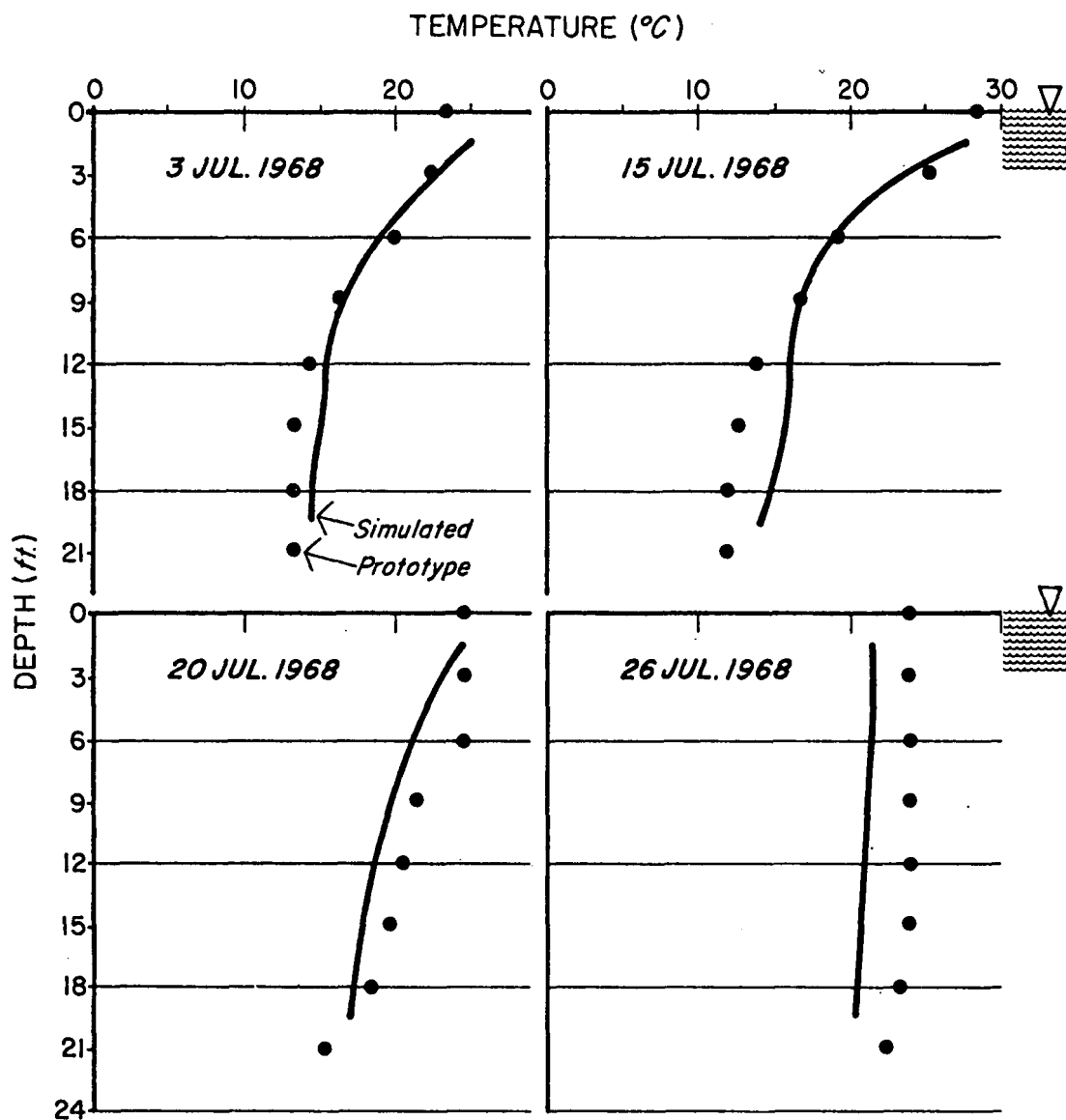
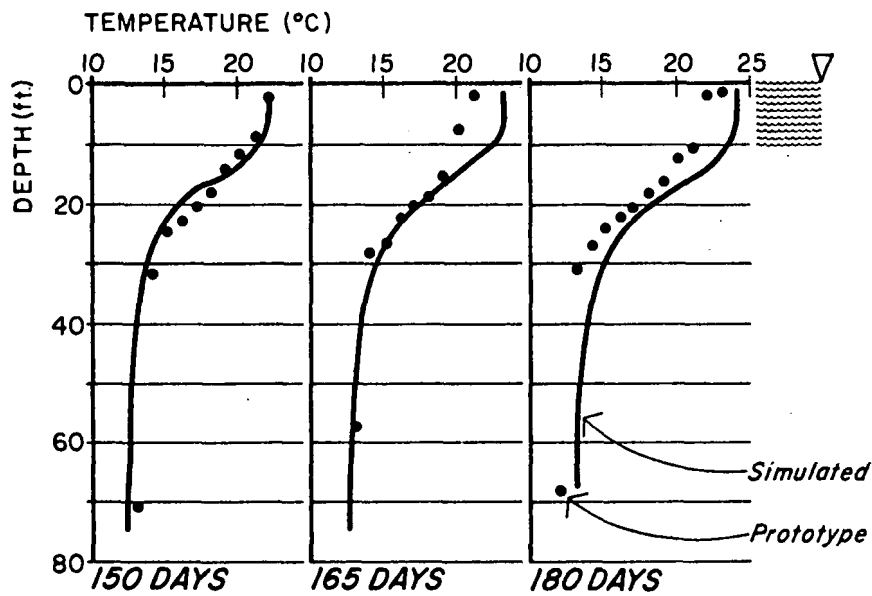


FIGURE E-1 COMPARISON OF COMPUTED AND OBSERVED TEMPERATURE PROFILES IN KEZAR LAKE

EL CAPITAN 1964 - NO MIXING



EL CAPITAN 1966 - WITH AERATION

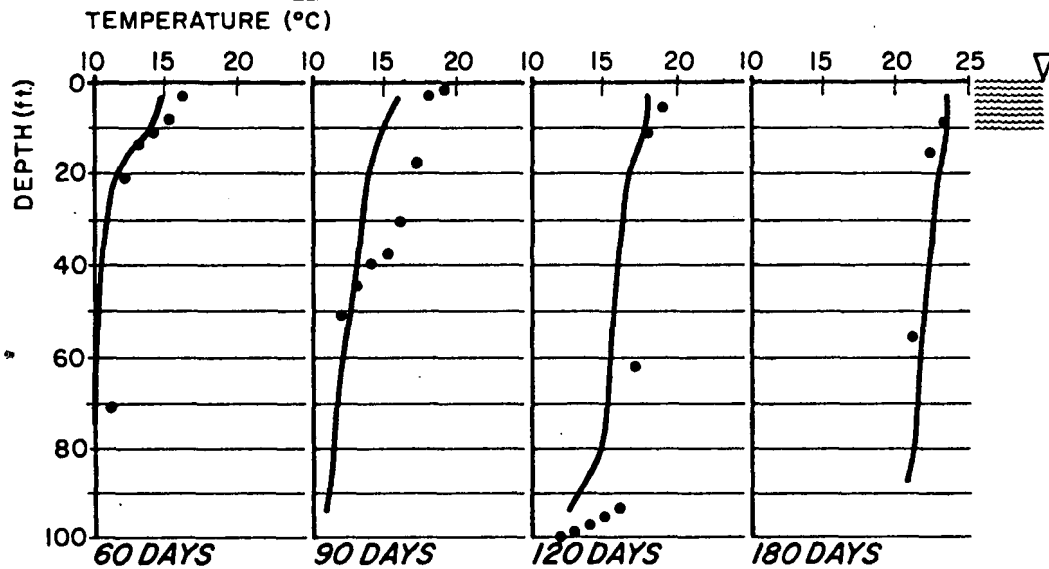


FIGURE E-2 COMPARISON OF COMPUTED AND OBSERVED
TEMPERATURE PROFILES IN EL CAPITAN
RESERVOIR

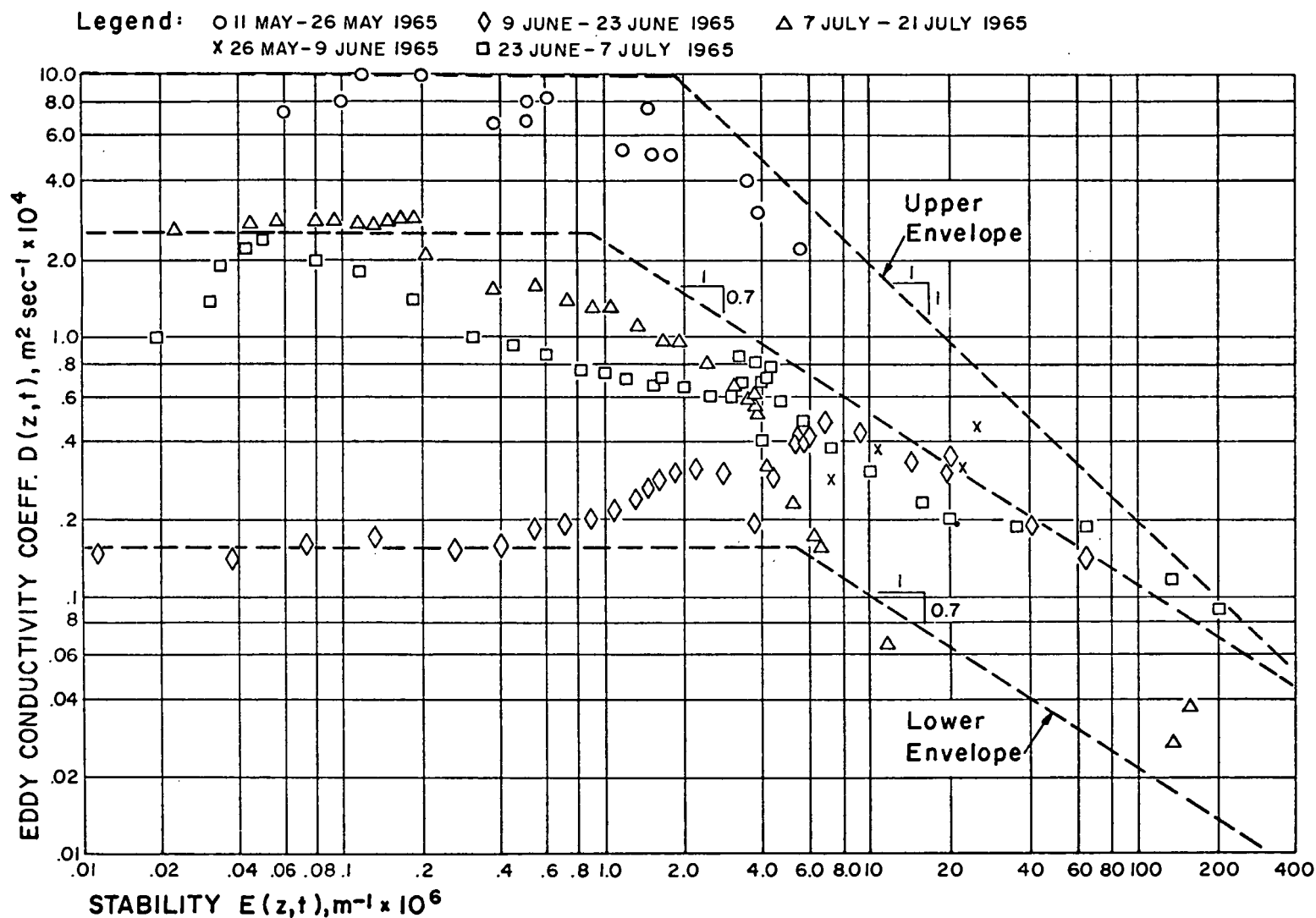


FIGURE E-3 PLOT OF THE EDDY CONDUCTIVITY COEFFICIENT, $D(z,t)$ VERSUS STABILITY, $E(z,t)$ FOR HUNGRY HORSE RESERVOIR DATA (AFTER WATER RESOURCES, INC., 1969)

model runs. The upper envelope represents high wind mixing conditions and the lower envelope represents low wind mixing conditions. Note that the plot in Figure E-3 was developed for this model, and the model was then verified with data from Hungry Horse Reservoir, which is located on the South Fork of the Flathead River in northwestern Montana. Accordingly, the extremes of wind mixing and the effects on impoundment stability are as found for Hungry Horse Reservoir. The coefficients should be applicable elsewhere, however, because the eddy diffusion coefficient is relatively insensitive to climate and location.

The significance of the eddy conductivity coefficient and its implications for wind mixing may be understood by examining an equation describing transport within the system. Mixing implies the transfer of materials or properties within a system from points of high concentration to points of low concentration, and vice versa. For a system which is undergoing forced convection, it has been observed that the time rate of transport, F , of a property, S , through the system is proportional (other things being equal) to the rate of change of concentration of this property with distance, z . In equation form, this rule is expressed as:

$$F = - D \frac{\partial S}{\partial z} \quad (E-2)$$

where D is the coefficient of proportionality. The mixing process as defined by Equation (E-2) is variously called "effective diffusion," "eddy diffusion," or the "diffusion analogy" because it is identical in form to the equation describing the process of molecular diffusion. The difference between the two processes, however, is that for molecular diffusion, D is constant, while for turbulent transfer, D is a function of the dynamic character, or the turbulence level, of the system. In general, D is a temporal and spatial variable, and thus will be

referred to here as $D(z,t)$. Equation (E-2) rewritten for heat flow over the reservoir vertical axis is

$$H = -\rho c D(z,t) \frac{\partial T}{\partial z} \quad (E-3)$$

where H = heat flux, $HL^{-2}T^{-1}$
 ρ = density of water, ML^{-3}
 c = heat capacity of water, $HM^{-1}D^{-1}$
 $D(z,t)$ = coefficient of eddy conductivity, L^2T^{-1}
 T = temperature, D
 z = elevation in the reservoir, L
 t = time T

From Equation (E-3), therefore, it may be seen that the rate of heat flux (H), which describes the rate of energy transfer vertically in an impoundment, is a function of the temperature gradient over depth ($\frac{\partial T}{\partial z}$) and the degree of turbulence (induced by wind and other factors) and is characterized by the eddy diffusion coefficient $D(z,t)$ in the equation. It is this coefficient, $D(z,t)$ which is plotted on the ordinate (stability is on the abscissa) in Figure E-3.

NOTE:

For a more detailed description of the model, its applicability, and the eddy diffusion coefficient, the reader is referred to a report entitled "Mathematical Models for the Prediction of Thermal Energy Changes in Impoundments." (See the list of references at the end of this Appendix.)

REFERENCES FOR APPENDIX E

Chen, C.W., and Orlob, G.T., 1975. Ecologic simulation for aquatic environments in systems analysis and simulation in ecology. Academic Press, N.Y., San Francisco, and London. III:475-588.

Lorenzen, M.W., and Fast, A., 1976. A Guide to Aeration/Circulation Techniques for Lake Management: For U.S. Environmental Protection Agency Corvallis, Oregon.

Water Resources Engineers, Inc., 1969. Mathematical Models for the Prediction of Thermal Energy Changes in Impoundments. Water Quality Office, Environmental Protection Agency.

APPENDIX F

RESERVOIR SEDIMENT DEPOSITION SURVEYS

The material in this appendix consists of a reproduction of a bulletin compiled by F. E. Dendy and W. A. Champion, which provides data on rates of sedimentation in U. S. reservoirs.

INTRODUCTION

Data from known reliable reservoir sedimentation surveys made in the United States through 1970 are summarized in this bulletin. Additional data from surveys made after 1970 are included for a few reservoirs.

This bulletin supersedes USDA Miscellaneous Publication No. 1143, which was published in May, 1969.^{1/} All reservoir surveys reported in Miscellaneous Publication No. 1143 have been repeated in this bulletin. In addition, it includes surveys made before 1965, but not previously reported, and new data on reservoirs surveyed or resurveyed since 1965. The reservoirs are located in all of the 48 conterminous United States, except Florida, and in Puerto Rico. In addition to data on storage reservoirs and ponds, some information on debris basins is included.

A supplement to this bulletin, from which the data were extracted and summarized, contains detailed information about each of the reservoirs

^{1/} Dendy, F.E. and Champion, W.A., Compilers. Summary of Reservoir Sediment Deposition Surveys Made in the United States Through 1965. U.S. Department of Agriculture Miscellaneous Publication No. 1143, 64 pp., May, 1969. (Cooperative report with the Sedimentation Committee. Water Resources Council).

listed in the summary table. The method used in presenting this information is given on pages F-2, F-3, F-4 and F-5. The supplement has not been distributed with this bulletin because of its bulk and because the detailed information is not of general interest. Copies are available in the offices of the agencies represented on the Sedimentation Committee of the Water Resources Council. Reprints of data sheets for specific reservoirs may be obtained on request from the Director, USDA Sedimentation Laboratory, U.S. Department of Agriculture, Oxford, Miss. 38655. Requests for information not contained in this bulletin or in the supplement should be directed to the agency supplying the data.

The accuracy of the survey data varies greatly. Surveys range from reconnaissance measurements of sediment depth at a few locations to detailed surveys based on closely spaced cross sections or contours. No attempt has been made to classify the surveys according to degree of accuracy.

Information in this bulletin and in the supplement should prove useful to engineers and watershed planning specialists in private and public practice who are concerned with problems of reservoir sedimentation. Engineers, engineering firms and local government agencies who have data on similar reservoir surveys are invited to make this information available to the Sedimentation Committee, WRC, for inclusion in supplements to this publication.

EXPLANATION OF THE SUMMARY TABLE

Data in the summary table of this bulletin were obtained from the reservoir sedimentation survey data sheets contained in the supplement. Dashes in columns of the table signify that data were unavailable or that the column is not applicable for the reservoir.

Reservoirs are grouped according to the 79 drainage areas into which the United States has been divided as shown in the publication, "River Basin Maps Showing Hydrologic Stations," compiled under the auspices of the Subcommittee on Hydrology, Federal Inter-Agency River Basin

Committee.^{2/} An index map of these drainage areas is shown on page F-78. The drainage areas in which the reservoirs are located are shown as subheadings in the summary table. The first of the two numbers identifying a reservoir indicates the drainage basin in which it is located. The second number denotes the particular reservoir in the drainage area and is based upon the order in which the data were prepared. These numbers are the same as those identifying the corresponding survey data sheets in the supplement. When a survey data sheet is revised or when another sheet is prepared with information for additional surveys, the identification number is modified by the addition of letters beginning with a; for example, 13-2, 13-2a, and 13-2b.

Total drainage area includes the reservoir area and the area lying above all upstream dams but generally excludes noncontributing drainage areas lying within the watershed boundary. Where available, the drainage area figure published by the U.S. Geological Survey in Water-Supply Papers is usually used. The net drainage area is the sediment-contributing area and generally excludes the reservoir area and the drainage areas above upstream reservoirs, or other structures which are effective sediment traps.

The first date shown usually corresponds to the beginning of storage when sediment deposition began. However, for some reservoirs the first date represents the date of the contour or range survey made after the reservoir had been in operation for some time.

For most reservoirs, the storage capacity given is the total storage below the level of the crest of an ungated spillway or the top of gates (less gate-height freeboard, if any) of gated spillways. Where capacity values below the spillway crest elevation are given, footnotes are used to explain.

^{2/} U.S. Inter-Agency Committee on Water Resources, Subcommittee on Hydrology. River Basin Maps Showing Hydrologic Stations. U.S. Dept. Com., Weather Bur., Notes on Hydrol. Activ. Bul. 11, 79 pp., 1961.

The capacity-average annual inflow ratio (C/I ratio) was derived from the reservoir storage capacity and the average annual inflow. Normally the average annual inflow for the entire period of record was used to compute the C/I ratios. This time period may or may not correspond to the period for which sediment accumulation was given. Generally, the C/I ratio was not given if upstream structures controlled 25 percent or more of the drainage area.

The specific weight of deposited sediment is an average or weighted value for the reservoir, determined generally from samples of deposits. In view of the variations with depth and location within the reservoir, specific weight is generally an approximation for the reservoir. The entry is marked by an asterisk where the specific weight is assumed or is calculated from field data or the size-frequency grading of the deposits.

The average annual rate of sediment accumulation (acre-feet and tons per square mile of net drainage area) pertains to sediment deposited in the reservoir below the full pool elevation. Sediment deposited in deltas above full pool level or sediment discharged from the reservoir is not included unless explained by footnote. For reservoirs with more than one survey and where the latest survey indicated an increase in the specific weight of deposited sediment, the annual sediment accumulation rate in tons per square mile was not always computed in the same manner. For some reservoirs, compaction of earlier sediment was considered and in others it was not. All of the deposited sediment was assumed to have been transported into the reservoir by water.

The agency supplying data is shown in the last column of the table. This agency either has the basic data available or has access to it through cooperative arrangements. The symbols used in this column apply to the following agencies:

ARS - Agricultural Research Service	ODW - Ohio Department Natural Resources-- Division of Water
BR - Bureau of Reclamation	
CE - Corps of Engineers	SCS - Soil Conservation Service
FS - Forest Service	
GS - Geological Survey	TVA - Tennessee Valley Authority
IWS - Illinois State Water Survey	

FORM FOR REPORTING RESERVOIR SEDIMENTATION

A completed sample of the reservoir sedimentation data sheet from the supplement is shown on pages F-79 and F-80. This sheet is a convenient and standard form for reporting results of reservoir surveys. An invitation is extended to readers, particularly those practicing engineering individually, in engineering firms, or in local government agencies, to prepare sheets covering surveys known to them but not included in this publication. A blank "Reservoir Sedimentation Data" sheet is enclosed as a tear sheet on pages F-81 and F-82. Additional data sheets may be obtained from the department offices listed on the title page or the form may be reproduced if desired. The completed forms may be sent to any one of the agencies represented on the Sedimentation Committee for inclusion in supplements to this bulletin.

SUMMARY OF
RESERVOIR SEDIMENTATION SURVEYS MADE IN THE UNITED STATES THROUGH 1970

DATA SHEET NUMBER	RESERVOIR	STREAM	NEAREST TOWN	DRAINAGE AREA (SQUARE MILES)		DATE OF SURVEY	PERIOD BETWEEN SURVEYS (YEARS)	STORAGE CAPACITY (ACRE-FT.)	CAPACITY AVG. ANN. INFLOW RATIO (ACRE-FT. PER ACRE-FT.)	SPECIFIC WEIGHT (DRY) (LB. PER CU. FT.)	AVG. ANN. SEDIMENT ACCUMULATION PER SQ. MI. OF NET DR. AREA FOR PERIOD SHOWN		AGENCY SUPPLYING DATA
				TOTAL	NET						AC.-FT.	TONS	
ST. JOHN MACHIAS, PENOBSCOT, KENNEBEC, ANDROSCOGG, AND PRESUMSCOT RIVER BASIN													
1-1	Little River Res. #2	Little River	Belfast, Me.	13.9	13.8	— 1913	—	456	*0.029	—	—	—	SCS
	do	do	do	—	—	Oct. 1969	56	341	.021	*100	0.15	326	
HOUSATONIC, CONNECTICUT, THAMES, AND MERRIMACK RIVER BASIN													
2-1	Broad Brook	Broad Brook River	Broad Brook, Conn.	5.13	—	— 1916	—	3,706	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1951	35	3,652	—	*50	.33	359.4	
2-2	Mountain Street	Trib. of Beaver Brook	Greenfield, Mass.	.8	—	— 1905	—	1,074.2	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1951	46	1,056.1	—	*50	.56	609.8	
2-3	Plants Pond	Eightmile Run	Plantsville, Conn.	15.76	—	Nov. 1850	—	105.0	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1951	101	84.8	—	*50	.01	10.9	
2-4	Southington Reservoir	Budd River	Southington, Conn.	1.08	—	— 1883	—	321.8	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1951	68	314.0	—	*50	.10	108.9	
2-5	Wallingford	Pine River	Wallingford, Conn.	8.98	—	— 1941	—	433.4	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1951	10	430.0	—	*50	.04	43.6	
2-6	West Whately	Avery Brook	West Whately, Mass.	9.0	—	— 1902	—	76.7	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1951	49	71.2	—	*50	.012	13.07	
2-7	Westfield	Moose Mountain Branch	Westfield, Mass.	2.52	—	— 1874	—	564.6	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1951	77	546.8	—	*50	.094	102.4	
HUDSON RIVER BASIN AND ST. LAWRENCE DRAINAGE IN NEW YORK													
3-1	Schoharie (Gilboa Dam)	Schoharie Creek	Prattsville, N. Y.	311	312.32	Aug. 1926	—	63,821	—	—	—	—	SCS
	do	do	do	—	—	May 1950	23.8	62,702	—	*60	1/.166	1/217	
3-2	Englishtown Pond	Weamconk Creek	Englishtown, N. J.	7.2	7.19	— 1755	—	42.3	.005	—	—	—	SCS
	do	do	do	—	—	Oct. 1955	200	13.5	.002	*60	.02	26.14	
3-3	Carnegie Lake	Millstone River	Princeton, N. J.	155	47.8	Dec. 1907	—	1,256	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1950	42.8	954	—	*50	2/.20	217.8	
3-4	Wappinger	Wappinger Creek	Wappinger Falls, N. Y.	197	—	— 1900	—	3,822	—	—	—	—	SCS
	do	do	do	—	—	July 1952	52	604.4	—	*50	.01	10.89	
SUSQUEHANNA AND DELAWARE RIVER BASINS													
4-1a	Loch Raven Reservoir	Gunpowder Falls River	Towson, Md.	303	5/219.4	— 1914	—	5/70,169	—	—	—	—	SCS
	do	do	do	—	—	Oct. 1943	29	5/64,813	—	*60	4/.618	4/808	
	do	do	do	—	—	June 1961	18	64,072	—	57.3	.187	233	
4-2a	Prettyboy	do	Herford, Md.	80	77.5	Apr. 1933	—	60,979	—	—	—	—	SCS
	do	do	do	—	—	Oct. 1943	10.5	5/60,410	—	*60	.699	913	
	do	do	do	—	—	Sept. 1961	18	59,864	—	64.2	.391	547	
4-3	Griffin	Griffin Creek (Legget)	Scranton, Pa.	3.21	3.04	— 1888	—	1,991	—	—	—	—	SCS
	do	do	do	—	—	May 1941	53	1,953	—	—	.237	—	
4-4	Elmhurst	Roaring Brook	do	34.85	34.55	— 1890	—	3,746	—	—	—	—	SCS
	do	do	do	—	—	May 1941	51	3,686	—	—	.034	—	
4-5	Lake Williams	Cordrus Creek	York, Pa.	42.9	42.6	— 1912	—	2,686	—	—	—	—	SCS
	do	do	do	—	—	Apr. 1939	27	2,232	—	—	—	—	
4-6	Williams Bridge	Stafford Meadow Brook	Scranton, Pa.	5.0	4.94	— 1893	—	1,051	—	—	.394	421	SCS
	do	do	do	—	—	May 1941	48	1,046	—	—	.022	—	
4-7a	Atkisson Reservoir	Winter's Run	Bel Air, Md.	45.46	45.35	— 1942	—	896.19	.025	—	—	—	SCS
	do	do	do	—	—	— 1954	12	705.32	.019	*60	.351	459	
	do	do	do	—	—	— 1965	11	617.06	.017	—	.177	231	
4-8a	Palto Dam	Dean Creek	Spencer, N. Y.	.41	.41	— 1955	—	56.04	.130	—	—	—	SCS
	do	do	do	—	—	Aug. 1957	2	55.90	.129	*80	.170	296	
	do	do	do	—	—	June 1966	8.9	55.60	.128	*79.2	.083	141	
4-9a	Pyllas Dam	do	do	.71	.71	— 1955	—	187.31	.250	—	—	—	SCS
	do	do	do	—	—	Aug. 1957	2	187.13	.250	*80	.130	226.5	
	do	do	do	—	—	June 1966	8.9	186.70	.249	*80	.068	119	
4-10	Columbia Dam	Paulins Kill River	Columbia, N. J.	171	171	— 1937	—	311.77	—	—	—	—	SCS
	do	do	do	—	—	July 1957	20	244.19	—	*64	.02	28	

4-11	Old Glatfelter	W. Br. Codorus Creek	Spring Grove, Pa.	74.3	—	—	1884	—	147.2	—	—	—	—	SCS
	do	do	do	—	—	Apr. 1939	55	—	10.0	—	—	—	—	—
4-12	Pallington Reservoir	Powder Creek	do	2.91	2.90	—	1937	—	63.0	—	—	.034	—	SCS
	do	do	do	—	—	Apr. 1939	1.6	—	59.9	—	33.2	.669	483	—
4-13	Lake Rushford	Canadea Creek	Canadea, N. Y.	60.7	—	—	1925	—	28,000	—	—	—	—	SCS
	do	do	do	—	—	Oct. 1951	26	—	27,426	—	*60	.37	484	—
4-14	Icedale	Brandywine W. Br.	Coatsville, Pa.	20.0	—	—	1900	—	137	—	—	—	—	SCS
	do	do	do	—	—	July 1951	51	—	106	—	*50	.03	33	—
4-15	Coatsville	Rock Run	do	5.0	—	—	1916	—	1,019	—	—	—	—	SCS
	do	do	do	—	—	July 1951	35	—	970	—	*50	.28	305	—
4-16	Liberty Reservoir	Pataasco	Wards Chapel, Md.	164	159.1	—	1954	—	138,762.4	1.133	—	—	—	SCS
	do	do	do	—	—	June 1962	7.9	—	138,227.0	1.129	*60	.426	557	—
4-17	Little Deer No. 1	Cattail Branch	Madonna, Md.	.74	.73	—	1958	—	6/23.37	—	—	—	—	SCS
	do	do	do	—	—	Nov. 1962	4.4	—	6/19.99	—	*60	6/1.055	1,378.7	—
4-18	Mount Morris	Genesee River	Mount Morris, N. Y.	1,077	1,011	—	1951	—	338,010	.347	—	—	—	CE
	do	do	do	—	—	Nov. 1957	5.5	—	336,611	.345	7/—	.25	419	—
	do	do	do	—	—	May 1963	5.9	—	335,393	.344	77	.20	335	—
4-19	Patterson Creek #1	Patterson Creek	Endwell, N. Y.	4.3	4.3	—	1968	—	891.40	.229	—	—	—	SCS
	do	do	do	—	—	Oct. 1970	2	—	887.95	.228	*80	6/4.0	6/696	—
4-20	Little Choconut #2B	West Branch Little Choconut	Choconut Center, N. Y.	1.64	1.64	—	1968	—	272	.183	—	—	—	SCS
	do	do	do	—	—	Oct. 1970	2	—	271.38	.182	*80	6/1.19	6/331	—

POTOMAC, RAPPAHANNOCK, YORK, AND JAMES RIVER BASINS

5-1a	Lake Barcroft	Trib. of Potomac River	Falls Church, Va.	14.5	14.3	Jan. 1915	—	8/1,847	.142	—	—	—	—	SCS
	do	do	do	—	—	Feb. 1938	23.1	8/1,762	.134	*60	.257	336	—	—
	do	do	do	—	—	Aug. 1957	19.5	9/2,092	.161	—	.728	950	—	—
5-2	Pedlar	Pedlar River	Oronoco, Va.	33.21	33.07	Feb. 1907	—	1,860	—	—	—	—	—	SCS
	do	do	do	—	—	Feb. 1938	31	1,723	—	—	.134	—	—	—
5-3	Burnt Mills	N. W. Br. Anacostia River	Silver Spring, Md.	27.0	26.97	May 1930	—	181	—	—	—	—	—	SCS
	do	do	do	—	—	Mar. 1938	—	95	—	*60	.408	533	—	—
5-4b	Greenbelt Lake	Trib. of Indian Creek	Greenbelt, Md.	10/.82	.79	July 1936	—	196	*.312	—	—	—	—	SCS
	do	do	do	—	—	Feb. 1938	1.6	186	*.296	*60	7.91	10,337	—	—
	do	do	do	—	—	Aug. 1957	19.5	151	*.240	*60	2.27	2,970	—	—
	do	do	do	—	—	June 1968	10.8	11/147	.234	*60	1.52	1,945	—	—
5-5a	Staunton	North River	Staunton, Va.	25	25	Dec. 1925	—	385	—	—	—	—	—	SCS
	do	do	do	—	—	Jan. 1940	14	373	—	—	.034	—	—	—
	do	do	do	—	—	June 1957	17.5	350	—	—	.053	—	—	—
5-6	Jackson	Ocoquan Creek	Manassas, Va.	337	336.4	July 1930	—	4,500	—	—	—	—	—	SCS
	do	do	do	—	—	Aug. 1937	7.2	4,158	—	*60	.141	184	—	—
5-7b	Triadelphia L. (Brighton D.)	Patuxent River	Brighton, Md.	81.4	80.0	Jan. 1942	—	12/20,222	.327	—	—	—	—	SCS
	do	do	do	—	—	Oct. 1950	8.3	20,089	.324	*50	.20	218	—	—
	do	do	do	—	—	Sept. 1958	7.9	19,633	.317	*50	.72	784	—	—
	do	do	do	—	—	Aug. 1964	5.9	19,045	.308	61.1	1.25	1,663	—	—
5-8	Gordon Lake	Evitts Creek	Cumberland, Md.	64	13/4	Sept. 1913	—	3,129	—	—	—	—	—	SCS
	do	do	do	—	—	Apr. 1940	26.6	3,004	—	—	14/.090	—	—	—
5-9	Thomas W. Koon Lake	do	do	60	59.6	Mar. 1932	—	7,312	—	—	—	—	—	SCS
	do	do	do	—	—	Apr. 1940	8.1	7,294	—	—	.036	—	—	—
5-10	Savage River Dam	Savage River	Bloomington, Md.	105.0	104.44	Mar. 1952	—	20,300	.172	—	—	—	—	SCS
	do	do	do	—	—	Mar. 1956	4.0	20,020	.169	*60	.643	840	—	—
5-11	Rocky Gorge	Patuxent River	Laurel, Md.	132.8	50.14	Mar. 1954	—	21,390	—	—	—	—	—	SCS
	do	do	do	—	—	Aug. 1964	10.4	20,789	—	—	.67	1.15	1,678	—
5-12	South River, Site 26	Inch Branch	Waynesboro, Va.	2.7	2.7	May 1956	—	610.4	.28	—	—	—	—	SCS
	do	do	do	—	—	Nov. 1970	14.5	607.0	.28	*60	.087	110	—	—
5-13	Wilde Lake	Trib. Little Patuxent	Columbia, Md.	1.88	1.85	Sept. 1966	—	196.97	.140	—	—	—	—	SCS
	do	do	do	—	—	Aug. 1968	1.9	170.99	.122	*60	15/7.3916/11,278	—	—	—
	do	do	do	—	—	Aug. 1969	1.0	163.72	.117	*60	3.93	5,133	—	—

CHOWAN, ROANOKE, TAR, NEUSE, AND CAPE FEAR RIVER BASINS

6-1	Lake Apex	Swift Creek	Apex, N. C.	4.0	4.0	—	1925	—	106	—	—	—	—	SCS
	do	do	do	—	—	June 1941	16	—	94	—	—	.19	—	—
6-2	Franklinton	Sallie Keasney Creek	Franklinton, N. C.	1.13	1.12	Jan. 1925	—	—	34.7	—	—	—	—	SCS
	do	do	do	—	—	May 1938	13.3	—	27.3	—	67	.509	743	—
6-3	Greensboro (L. Brandt)	Reddy Fork	Greensboro, N. C.	74.1	73.4	Feb. 1923	—	2,870	—	—	—	—	—	SCS
	do	do	do	—	—	Aug. 1934	11.5	2,610	—	*60	.308	402	—	—
6-4	High Point	Deep River	High Point, N. C.	62.8	62.3	Jan. 1928	—	4,354	—	—	—	—	—	SCS
	do	do	do	—	—	Aug. 1934	6.5	4,135	—	50.6	.541	596	—	—
	do	do	do	—	—	Apr. 1938	3.75	4,038	—	—	.416	458	—	—

1/ Includes estimated 112 acre-feet passing through Shandaken Tunnel.
2/ Includes 103 acre-feet of sediment dredged in 1937-1939.
3/ Partial survey covering segments 1-14 in Stony Brook Arm Only.
4/ Net sediment contributing area was 299.4 sq. mi. until 1933 when Prettyboy Dam was completed.
This area was used in the 1943 calculations.
5/ Revised after 1961 survey.
6/ Conservation or sediment pool only.
7/ Not determined - assumed equal to that determined in 1963.
8/ Based on original spillway crest elevation 205 feet m. s. l.
9/ Based on spillway crest elevation 210 feet m. s. l. and estimated capacity of 2,480 acre-feet resulting from 1942 addition to top of dam.

10/ Revised 1968.
11/ 9 acre-feet gained by dredging.
12/ Revised due to movable control gates.
13/ Koon Lake, upstream, was built in 1932.
14/ Based on total sediment in both Gordon Lake and Koon Lake.
15/ Does not include 4.34 acre-feet dredged.
16/ Includes 4.34 acre-feet dredged in early spring 1968.
* Estimated or assumed.

SUMMARY OF
RESERVOIR SEDIMENTATION SURVEYS MADE IN THE UNITED STATES THROUGH 1970

DATA SHEET NUMBER	RESERVOIR	STREAM	NEAREST TOWN	DRAINAGE AREA (SQUARE MILES)		DATE OF SURVEY	PERIOD BETWEEN SURVEYS (YEARS)	STORAGE CAPACITY (ACRE-FT.)	CAPACITY AVG. ANN. INFLOW RATIO (ACRE-FT. PER ACRE-FT.)	SPECIFIC WEIGHT (DRY) (LB. PER CU. FT.)	AVG. ANN. SEDIMENT ACCUMULATION PER SQ. MI. OF NET DR. AREA FOR PERIOD SHOWN		AGENCY SUPPLYING DATA
				TOTAL	NET						AC.-FT.	TONS	
CHOWAN, ROANOKE, TAR, NEUSE, AND CAPE FEAR RIVER BASINS (CONTINUED)													
6-5	Lake Michie	Flat River	Durham, N. C.	167.5	166.7	Apr. 1926	—	12,671	—	—	—	—	SCS
6-6	Sanford City	Lick Creek	Sanford, N. C.	3.75	3.73	Jan. 1935	8.75	12,276	—	—	0.271	—	SCS
6-7	University Lake	Morgan Creek	Chapel Hill, N. C.	30.6	30.3	Feb. 1927	—	103	—	—	.150	—	SCS
6-8	Roxboro City Lake	Satterfield Creek	Roxboro, N. C.	7.62	7.52	June 1941	14.33	95	—	—	.728	—	SCS
6-9	Burlington Municipal	Stony Creek	Burlington, N. C.	105.2	105.0	Apr. 1935	2.9	1,851	—	—	.568	—	SCS
6-10a	Walnut Cove	Dan River	Walnut Cove, N. C.	397	397	Apr. 1924	—	531.2	—	—	1/.342	—	CE
6-11	John H. Kerr	Roanoke River	South Hill, Va.	7,800	7,391	June 1941	17.2	460.3	—	—	.155	213	CE
6-12	Philpot	Smith River	Bassett, Va.	212	185.7	Nov. 1946	5.4	448.4	—	—	.104	143	CE
						June 1928	—	1,488	—	63	.214	200	CE
						May 1938	10.0	1,325	—	—	1.06	754	CE
						Sept. 1949	11.3	1,202	—	—	2.08	2,103	CE
						— 1924	—	974	.002	—	—	—	—
						Apr. 1932	2/9	209	.001	*43	—	—	—
						July 1952	—	2,808,400	.494	—	—	—	—
						Dec. 1959	7.4	2,750,349	.484	32.6	—	—	—
						Dec. 1951	—	201,500	.966	—	—	—	—
						Nov. 1960	8.9	198,000	.949	46.2	—	—	—
PEE DEE, SANTEE, AND EDISTO RIVER BASINS													
7-1	Chester	Sandy River	Chester, S. C.	16.05	15.92	Nov. 1926	—	682	—	—	—	—	SCS
7-2	Lancaster	Turkey Quarter Creek	Lancaster, S. C.	9.40	9.34	Oct. 1937	11	585	—	—	.55	—	SCS
7-3a	Spartanburg Municipal	South Pacolet River	Fingerville, S. C.	91.33	90.8	Feb. 1925	—	242	—	—	.417	593	SCS
						June 1938	13.4	190	—	65.3	—	—	SCS
						May 1926	—	3/3,506	—	—	—	—	—
						July 1934	8.2	3/3,199	—	—	3/.432	—	—
						Mar. 1947	12.7	3/2,891	—	—	3/.268	—	—
						Oct. 1965	18.6	3/2,593	—	—	3/.176	—	—
						Oct. 1965	18.6	4/3,109	—	—	—	—	—
7-4	Appalachia	South Tyger River	Greer, S. C.	63.0	62.8	— 1904	—	2,900	—	—	—	—	SCS
7-5	Albemarle City Lake	Long Creek	Albemarle, N. C.	33.0	32.5	July 1934	30	1,600	—	—	.48	—	SCS
7-6	Cannon Lake	Buffalo Creek	Kannapolis, N. C.	18.0	17.7	Feb. 1924	—	1,070	—	—	.302	—	SCS
7-7	Lake Concord	Chambers & Rose Branch	—	4.7	4.54	Aug. 1939	15.5	918	—	—	.774	—	SCS
7-8	Entwhistle No. 3	Hitchcock Creek	Robertell, N. C.	168.0	5/18.0	June 1941	1.9	2,574	—	—	—	—	SCS
7-9	Eury	Little River	Troy, N. C.	269	269	Mar. 1925	—	1,201	—	—	1.71	—	SCS
7-10	High Rock	Tadkin River	Salisbury, N. C.	3,930	3,863	May 1935	10.2	1,122	—	—	.024	—	SCS
7-11	Lake Lee	Richardson Creek	Monroe, N. C.	50.50	50.34	— 1892	—	184	—	—	—	—	SCS
7-12	Pee Dee Mfg. Co.	Hitchcock Creek	Rockingham, N. C.	176	5/25	Mar. 1940	48.0	163	—	—	.019	—	SCS
7-13	Salem	Salem Creek	Winston-Salem, N. C.	27.68	27.26	— 1915	—	1,104	—	—	—	—	SCS
7-14	Norwood L. (Tillery)	Pee Dee River	Mt. Gilead, N. C.	4,600	6/431	Mar. 1940	25.0	976	—	—	—	—	SCS
7-15	Lexington	Leonards Creek	Lexington, N. C.	6.75	6.66	Nov. 1927	—	289,432	—	—	.462	—	SCS
7-16	Third Creek Site No. 7	Third Creek	Statesville, N. C.	4.84	4.74	Aug. 1935	7.8	275,516	—	—	—	—	SCS
						Apr. 1927	—	821	—	61.8	.302	406	SCS
						June 1938	11.1	652	—	—	.036	—	SCS
						Mar. 1940	66	404	—	—	—	—	SCS
						Sept. 1939	19.8	2,860	—	38.0	.444	367	SCS
						July 1928	—	136,823	—	—	.696	—	SCS
						Mar. 1940	11.75	133,300	—	—	—	—	SCS
						Apr. 1935	—	462	—	—	—	—	SCS
						Apr. 1940	4.6	441	—	45.5	.692	685	SCS
						May 1951	11.1	419	—	*45.5	.299	296	SCS
						Sept. 1957	—	961.4	.186	—	—	—	SCS
						Mar. 1962	4.5	948.5	.184	7/62.2	.61	826	SCS
						Mar. 1965	3.2	945.9	.183	7/62.2	.18	244	SCS
						Apr. 1969	4.1	943.1	.183	7/62.2	.14	190	SCS

SAVANNAH, OGECHIEE, AND ALTAMAHA RIVER BASINS

8-1	Lake Isaacswana	Six Mile Creek	Clemson, S. C.	14.02	8/13.84	June 1938	—	1,836	—	—	—	—	SCS
	do	do	do	—	2/13.86	Apr. 1941	2.9	1,748	—	49.82	2.22	2,410	
	do	do	do	—	—	Oct. 1949	8.5	1,626	—	50.9	1.03	1,140	
8-2	Lloyd Shoals	Ocmulgee River	Jackson, Ga.	1,414	1,407	Dec. 1910	—	112,538	—	—	—	—	SCS
	do	do	do	—	—	Mar. 1935	24.3	98,578	—	—	—	—	
8-3a	North Fork Broad No. 2	Denham's Creek	Toccoa, Ga.	.96	.94	Jan. 1956	—	10/198	—	.181	—	—	SCS
	do	do	do	—	—	June 1959	3.4	196.2	—	.179	55.1	—	
	do	do	do	—	—	Apr. 1970	10.8	192.8	—	.176	55.1	—	
8-4a	North Fork Broad No. 6	Bear Creek	Miss, Ga.	3.62	3.50	July 1956	—	10/780.9	—	.199	—	—	SCS
	do	do	do	—	—	June 1959	2.92	770.6	—	.197	74.8	1.01	1,645
	do	do	do	—	—	Apr. 1970	10.8	751.55	—	.192	74.8	.50	814
8-5a	North Fork Broad No. 11	Tom's Creek	Eastonville, Ga.	3.79	3.67	July 1956	—	10/792.4	—	.193	—	—	SCS
	do	do	do	—	—	June 1959	2.9	777.6	—	.190	73.8	1.39	2,234
	do	do	do	—	—	Apr. 1970	10.9	763.9	—	.186	73.8	.34	547
8-6	North Fork Broad No. 1	North Fork Broad River	Toccoa, Ga.	3.75	3.70	June 1958	—	635.2	—	.148	—	—	SCS
	do	do	do	—	—	Apr. 1970	11.9	624.16	—	.146	63.2	.205	282
8-7	North Fork Broad No. 14	Tom's Creek	do	1.2	1.191	Oct. 1954	—	283.1	—	—	—	—	SCS
	do	do	do	—	—	Mar. 1962	7.4	276.8	—	11/68.6	—	.49	732
	do	do	do	—	—	Nov. 1964	2.7	272.0	—	—	—	1.49	—
	do	do	do	—	—	Apr. 1969	4.5	267.0	—	12/66.2	.93	1,341	

SATILLA, ST. MARTS, ST. JOHNS, AND SUMMER RIVER BASINS

SOUTHERN FLORIDA DRAINAGE

APALACHICOLA AND OCHLOCKNEE RIVER BASINS

11-1	Newnan	Bolton Mill Creek	Newnan, Ga.	1.39	1.34	June 1924	—	384	—	—	—	—	SCS
	do	do	do	—	—	Nov. 1937	13.4	358	—	.50	—	1,45	1,580
	do	do	do	—	—	Feb. 1945	7.3	354	—	—	.41	—	446
11-2	Sky Lake	Trib. of Chickamauga Creek	Kelen, Ga.	2.34	2.31	June 1925	—	218.4	—	—	—	—	SCS
	do	do	do	—	—	May 1956	31	176.6	—	67	.58	—	846
11-3	Santee Creek Site #13	Bean Creek	Cleveland, Ga.	2.9	2.8	Dec. 1959	—	654.8	—	.116	—	—	SCS
	do	do	do	—	—	Nov. 1970	10.9	535.2	—	.095	75.8	3.92	6,472

CHOCTAWHATCHEE, YELLOW, ESCAMBIA, AND ALABAMA RIVER BASINS

12-1	Sequoyah	Small Branches	Jasper, Ga.	1.60	1.51	July 1929	—	890	—	—	—	—	SCS
	do	do	do	—	—	July 1939	10.0	865	—	—	1.66	—	—
12-2	White Manganese No. 6	Pettit Creek	Cartersville, Ga.	12.46	13/11.0	Oct. 1929	—	1,021	—	—	—	—	SCS
	do	do	do	—	—	Nov. 1938	9.2	900	—	63.7	1.20	1,660	—
12-3	Lake Auburn	Town Creek (Trib. of)	Auburn, Ala.	1.6	1.6	Feb. 1931	—	102	—	—	—	—	SCS
	do	do	do	—	—	June 1937	6.3	95	—	—	.66	—	—
12-4	LAY	Coosa River	Clanton, Ala.	9,087	9,076.5	Dec. 1913	—	156,525	—	.014	—	—	SCS
	do	do	do	—	—	May 1936	22.3	138,520	—	.012	—	.089	—
12-5	Lake Purdy	Little Cahaba River	Birmingham, Ala.	41.74	40.22	Sept. 1910	—	19,080	—	—	—	—	SCS
	do	do	do	—	—	Nov. 1935	25.2	18,594	—	—	—	.479	—
12-6	Carroll Lake	Curtis Creek	Carrollton, Ga.	7.45	7.18	Oct. 1948	—	1,448.0	—	.182	—	—	SCS
	do	do	do	—	—	May 1957	8.5	1,325.4	—	.167	42.5	2.0	1,851
12-7	Temple Reservoir	Webster Branch	Temple, Ga.	.63	.61	June 1954	—	65.5	—	.097	—	—	SCS
	do	do	do	—	—	May 1957	3	60.5	—	.090	44.2	2.74	2,638
12-8	High Pine Dam No. 5	Trib. of High Pine	Boonoke, Ala.	1.8	1.55	Mar. 1961	—	389.7	—	*.163	—	—	—
	do	do	do	—	—	May 1970	9.17	385.3	—	*.161	14/53.99	.32	376.3

TOMBIGBE, PASCAGOULA, AND PEARL RIVER BASINS

13-1	Bayview	Village Creek	Birmingham, Ala.	72.3	71.6	May 1911	—	11,866	—	—	—	—	SCS
	do	do	do	—	—	Dec. 1935	24.6	9,514	—	—	1.34	—	—
13-2a	Lake Harrie	Yellow Creek	Tuscaloosa, Ala.	30.0	29.8	Feb. 1929	—	2,421	—	.061	—	—	SCS
	do	do	do	—	—	Nov. 1935	6.75	2,373	—	.059	—	.239	—
	do	do	do	—	—	Aug. 1953	17.75	15/2,636	—	.066	59.9	.110	144
13-3	M. C. Crain Farm Pond #2	Bogue Lusa Creek	Bogalusa, La.	.13	.13	Aug. 1949	—	7.631	—	.044	—	—	SCS
	do	do	do	—	—	May 1963	13.5	6.963	—	.040	—	.377	—

LOWER MISSISSIPPI RIVER BASIN (MATCHES TO THE MOUTH)
Calcasieu, Mermentau, and Vermilion River Basins

- 1/ Excluding 2.04 acre-feet of sediment dredged from lake in March 1942.
 2/ Assume storage depletion occurred in 9 years, see H. D. 65, 75th Congress, 1st session ("308" report).
 3/ Elevation of dam raised from 775.0 to 777.1 feet Sept. 1956. Date based on original elevation of 775.0 feet and original capacity of 3506 ac.-ft.
 4/ Present storage capacity at elevation 777.1 feet.
 5/ Leebetter's dam upstream
 6/ Narrows upstream
 7/ Average of 39 samples collected in 1962.

- 8/ In 1940
 9/ In 1949
 10/ Changed on basis of 1970 survey.
 11/ Average of 9 samples.
 12/ Average of 10 samples.
 13/ Drainage area above reservoir No. 3 excluded.
 14/ Weighted average: Submerged sediment 51.75 pcf - areated assumed 83 pcf.
 15/ With 5-foot flashboards added in 1947.
 * Estimated or assumed.

SUMMARY OF
RESERVOIR SEDIMENTATION SURVEYS MADE IN THE UNITED STATES THROUGH 1970

DATA SHEET NUMBER	RESERVOIR	STREAM	NEAREST TOWN	DRAINAGE AREA (SQUARE MILES)		DATE OF SURVEY	PERIOD BETWEEN SURVEYS (YEARS)	STORAGE CAPACITY (ACRE-FT.)	CAPACITY AVG. ANN. INFLOW RATIO (ACRE-FT. PER ACRE-FT)	SPECIFIC WEIGHT (DRY) (LB. PER CU. FT.)	AVG. ANN. SEDIMENT ACCUMULATION PER SQ. MI. OF NET DR. AREA FOR PERIOD SHOWN		AGENCY SUPPLYING DATA
				TOTAL	NET						AC.-FT.	TONS	
LOWER MISSISSIPPI RIVER BASINS (HELENA TO NATCHEZ) Tasoo, Big Black, and Ouachita River Basins													
15-1	Lake Hamilton-----	Ouachita River-----	Hot Springs, Ark.-----	1,421	1,413.4	Dec. 1930	--	156,345	--	--	--	--	SCS
	do-----	do-----	do-----	--	--	May 1950	19.4	153,279	--	*50	0.11	120	--
15-2	Lake Winona-----	Alum Fork Saline River---	Little Rock, Ark.-----	43.0	41.3	Oct. 1937	--	34,533	--	--	--	--	SCS
	do-----	do-----	do-----	--	--	May 1950	12.6	34,340	--	*50	.37	403	--
15-3	O. P. White Pond-----	Trib. of Chenoweth Creek---	Holly Springs, Miss.---	.0097	.0089	Oct. 1947	--	1.46	--	--	--	--	SCS
	do-----	do-----	do-----	--	--	Jan. 1951	3.3	1.07	--	63.65	13.1	18,200	--
15-4	B. H. Monnescocker Pond---	Trib. of Coldwater River---	Slayden, Miss.-----	.0625	.0597	Jan. 1947	--	12.0	--	--	--	--	SCS
	do-----	do-----	do-----	--	--	Jan. 1951	4.0	8.35	--	60.09	15.3	20,000	--
15-5	C. S. Hurdle Pond-----	do-----	do-----	.244	.234	Dec. 1946	--	36.4	--	--	--	--	SCS
	do-----	do-----	do-----	--	--	Jan. 1951	4.1	29.0	--	62.9	7.78	10,700	--
15-6	Agnes Jones Pond-----	Trib. of Coldwater River---	Holly Springs, Miss.---	.0478	.0451	Oct. 1946	--	8.80	--	--	--	--	SCS
	do-----	do-----	do-----	--	--	Jan. 1951	4.3	6.40	--	67.27	12.4	18,200	--
15-7	Lee Johnson Pond-----	Trib. of Red Banks Creek---	do-----	.0833	.0784	Sept. 1948	--	17.8	--	--	--	--	SCS
	do-----	do-----	do-----	--	--	Jan. 1951	2.3	14.8	--	76.13	16.6	27,500	--
15-8	P. T. McAlexander-----	Trib. of Coldwater River---	do-----	.0139	.0128	Aug. 1942	--	2.46	--	--	--	--	SCS
	do-----	do-----	do-----	--	--	Jan. 1951	8.5	1.11	--	84.24	12.4	22,800	--
15-9	Lake Shakkoka-----	Trib. of Camp Creek-----	Olive Branch, Miss.---	.4153	.3663	Jan. 1934	--	306	--	--	--	--	SCS
	do-----	do-----	do-----	--	--	Feb. 1951	17.0	256	--	61.65	8.03	10,800	--
15-10	Lake Woodland-----	do-----	do-----	.5045	.4797	Feb. 1945	--	94	--	--	--	--	SCS
	do-----	do-----	do-----	--	--	Feb. 1951	6.0	78.1	--	39.9	5.52	4,800	--
15-11	C. L. Patton Pond-----	Trib. of Red Banks Creek---	Warsaw, Miss.-----	.1019	.0954	Feb. 1942	--	15.9	--	--	--	--	SCS
	do-----	do-----	do-----	--	--	Feb. 1951	9.0	12.1	--	66.8	4.48	6,520	--
15-12	G. B. Langston, Jr., Pond---	Trib. of Red Banks Creek---	Warsaw, Miss.-----	.0156	.0116	Feb. 1916	--	12.3	--	--	--	--	SCS
	do-----	do-----	do-----	--	--	Feb. 1951	35.0	9.66	--	63.3	6.55	9,040	--
15-13	Fletcher Hurdle Pond (North)-	Trib. of Byhalia Creek---	Victoria, Miss.-----	.0406	.0389	Feb. 1947	--	4.61	--	--	--	--	SCS
	do-----	do-----	do-----	--	--	Feb. 1951	4.0	2.67	--	63.0	12.5	17,100	--
15-14	Fletcher Hurdle Pond (South)-	do-----	do-----	.0297	.0279	Feb. 1947	--	5.48	--	--	--	--	SCS
	do-----	do-----	do-----	--	--	Feb. 1951	4.0	3.61	--	83.1	16.8	30,400	--
15-15	C. C. Stevenson Pond-----	Trib. of Cuffawa Creek---	Holly Springs, Miss.---	.0342	.0320	Aug. 1948	--	6.47	--	--	--	--	SCS
	do-----	do-----	do-----	--	--	Feb. 1951	2.7	4.23	--	78.8	26.0	44,600	--
15-16	Gayoso Lake-----	Trib. of Mississippi River---	Horn Lake, Miss.-----	.2196	.2047	Feb. 1942	--	58.7	--	--	--	--	SCS
	do-----	do-----	do-----	--	--	Feb. 1951	9.0	53.0	--	51.85	3.13	3,530	--
15-17	Ben O. Pettis Pond-----	Trib. of Toby Tubby Creek---	Oxford, Miss.-----	.0075	.0067	Feb. 1916	--	1.63	--	--	--	--	SCS
	do-----	do-----	do-----	--	--	Feb. 1951	35.0	1.07	--	58.72	2.39	3,060	--
15-18	C. D. Williams Pond-----	Trib. of Hudson Creek-----	do-----	.0450	.0418	Mar. 1928	--	9.93	--	--	--	--	SCS
	do-----	do-----	do-----	--	--	Mar. 1951	23.0	6.70	--	55.72	3.35	4,070	--
15-19	R. I. Williams-----	Trib. of Yocoma River-----	Taylor, Miss.-----	.0239	.0210	Sept. 1946	--	4.48	--	--	--	--	SCS
	do-----	do-----	do-----	--	--	Mar. 1951	4.5	2.54	--	47.74	20.5	21,300	--
15-20	Henry W. Ramsey Pond-----	Trib. of Sarter Creek-----	Oxford, Miss.-----	.1375	.1289	Jan. 1933	--	31.0	--	--	--	--	SCS
	do-----	do-----	do-----	--	--	Mar. 1951	18.2	24.9	--	41.75	2.61	2,370	--
15-21	Dr. Bramlett Pond-----	Trib. of Pumpkin Creek---	do-----	.8672	.8131	Jan. 1937	--	227	--	--	--	--	SCS
	do-----	do-----	do-----	--	--	Mar. 1951	14.2	21.4	--	*37	1.12	913	--
15-22	A. S. Kyle Pond-----	Trib. of Tallahatchie R.---	Batesville, Miss.---	.0456	.0398	Mar. 1945	--	17.4	--	--	--	--	SCS
	do-----	do-----	do-----	--	--	Mar. 1951	6.0	16.6	--	52.04	3.14	3,560	--
15-23	Ben P. Smith Pond-----	Trib. of Pigeon Roost Cr.---	Holly Springs, Miss.---	.0278	.0264	July 1947	--	3.77	--	--	--	--	SCS
	do-----	do-----	do-----	--	--	Mar. 1951	3.7	3.29	--	67.58	4.89	7,200	--
15-24	A. L. Rodman Pond-----	Trib. of Arkabutla Creek---	Arkabutla, Miss.---	.1563	.1458	Sept. 1945	--	30.5	--	--	--	--	SCS
	do-----	do-----	do-----	--	--	Mar. 1951	5.5	29.0	--	*50	1.95	2,120	--
15-25	Charles Dockery Pond-----	Trib. of Hurricane Creek---	Endora, Miss.-----	.0644	.0566	Jan. 1946	--	23.0	--	--	--	--	SCS
	do-----	do-----	do-----	--	--	Mar. 1951	5.2	22.0	--	*44	3.60	3,420	--
15-26b	Arkabutla Reservoir-----	Coldwater River-----	Arkabutla, Miss.---	1,000	948	Apr. 1939	--	525,300	.499	--	--	--	CB
	do-----	do-----	do-----	--	--	Dec. 1947	6.33	521,540	.495	*60	.627	819	--
	do-----	do-----	do-----	--	--	May 1962	14.42	513,060	.487	*60	.620	810	--
15-27a	W. W. Murphy Pond-----	Trib. of Jones Creek-----	Holly Springs, Miss.---	.208	.200	Nov. 1953	--	1/22.68	*.194	--	--	--	ARS
	do-----	do-----	do-----	--	--	May 1956	2.5	19.72	*.169	*90	2/8.4	2/16,665.7	--
	do-----	do-----	do-----	--	--	Sept. 1959	3.3	17.84	*.152	*90	2/3.8	2/7,448.8	--
	do-----	do-----	do-----	--	--	Nov. 1963	4.2	15.77	*.135	*90	2/3.5	2/6,860.7	--
15-28a	Powerline Dam-----	East Goose Creek-----	Oxford, Miss.-----	.486	.477	Apr. 1953	--	1/30.54	--	--	--	--	ARS
	do-----	do-----	do-----	--	--	May 1955	2.1	26.26	--	66	2/5.66	2/8,136.1	--
	do-----	do-----	do-----	--	--	Oct. 1958	3.4	21.34	--	70	2/5.87	2/8,949.4	--
	do-----	do-----	do-----	--	--	June 1960	1.66	20.07	--	70	2/5.30	2/8,080.4	--
	do-----	do-----	do-----	--	--	Aug. 1962	2.15	19.40	--	*70	2/1.38	2/2,103.9	--

15-29a	Andrew Smith Pond	Trib. of Jones Creek	Holly Springs, Miss.	.327	.300	Nov. 1953	—	1/22.72	*.123	—	—	—	ARS
—do—	—do—	—do—	—do—	—	—	May 1956	2.5	18.83	*.102	*90	2/6.2 2/12,153.2	—	—
—do—	—do—	—do—	—do—	—	—	Sept. 1959	3.3	17.77	*.096	*90	2/2.07 2/4,757.6	—	—
—do—	—do—	—do—	—do—	—	—	Nov. 1963	4.1	16.47	*.089	*90	2/1.87 2/3,665.6	—	—
15-30a	Sardis Reservoir	Little Tallahatchie River	Sardis, Miss.	1,545	1,454	Mar. 1937	—	1,569,900	.934	—	—	—	CE
—do—	—do—	—do—	—do—	—	—	May 1960	20.6	1,549,336	.922	*60	.687 898	—	—
15-31	Enid Reservoir	Toxona River	Enid, Miss.	560	516	—	—	1940	1.073	—	—	—	CE
—do—	—do—	—do—	—do—	—	—	1951/3	—	—	—	—	—	—	—
—do—	—do—	—do—	—do—	—	—	May 1961	9.83	657,201	1.068	*60	.558 729	—	—
15-32	Grenada Reservoir	Yalobusha River	Grenada, Miss.	1,320	1,219	—	—	1942	—	—	—	—	—
—do—	—do—	—do—	—do—	—	—	July 1953/4	—	1,337,400	.969	—	—	—	—
—do—	—do—	—do—	—do—	—	—	May 1965	11.83	1,320,020	.957	*60	1.205 1,575	—	—

LOWER MISSISSIPPI RIVER BASIN (CHESTER TO HELENA)
St. Francis River Basin

16-1	Graham	Lost Creek	Bismark, Mo.	.46	.45	Oct. 1930	—	24.05	*.077	—	—	—	SCS
—do—	—do—	—do—	—do—	—	—	July 1939	8.8	19.56	*.063	—	75.4	1.133 1,860	—
16-2	Mountain Lake	Trib. of Rings Creek	Patterson, Mo.	1.90	1.87	—	—	1927	—	—	—	—	—
—do—	—do—	—do—	—do—	—	—	July 1939	12	87.7	—	—	—	—	—
16-3	Shepherd Mountain	Trib. of Stouts Creek	Ironton, Mo.	3.99	3.96	—	—	1929	—	—	—	—	—
—do—	—do—	—do—	—do—	—	—	July 1939	10	171	—	—	—	—	—
16-4	Loch Mary	Brown Creek	Karlinton, Ky.	3.81	3.65	—	—	1928	—	—	—	—	—
—do—	—do—	—do—	—do—	—	—	1888	—	158	—	—	—	—	—
16-5	Carbondale	Piles Fork	Carbondale, Ill.	3.00	2.77	Dec. 1908	20	1,228	—	—	—	—	—
—do—	—do—	—do—	—do—	—	—	Aug. 1926	—	1,184	—	*60	.600 784	—	—
—do—	—do—	—do—	—do—	—	—	Sept. 1948	22.1	1,385	—	—	—	—	—
16-6	Dering Coal Co. Pond	Trib. of Wolf Creek	Eldorado, Ill.	.219	.206	—	—	1919	—	—	73.9	3.15 9,070	IWS
—do—	—do—	—do—	—do—	—	—	Oct. 1949	30	89.3	—	—	—	—	—
16-7	Eldorado	Wolf Creek	—do—	2.23	1.87	Oct. 1920	—	73.0	—	*76	2.64 4,370	—	IWS
—do—	—do—	—do—	—do—	—	—	Oct. 1949	29	844.4	—	—	—	—	—
16-8	West Frankfort	Tilley Creek	West Frankfort, Ill.	4.03	3.75	Aug. 1926	—	726.0	—	*67	2.18 3,180	—	IWS
—do—	—do—	—do—	—do—	—	—	Sept. 1936	10.1	5/1,608.4	—	—	—	—	—
—do—	—do—	—do—	—do—	—	—	July 1949	12.8	1,515.0	—	—	2.46	—	—
—do—	—do—	—do—	—do—	—	—	—	—	1,487.8	—	—	6/933	—	—
16-9	Pineview (Lower)	South Fork Jonaca Creek	Farmington, Mo.	.63	.07	—	—	1932	—	—	—	—	—
—do—	—do—	—do—	—do—	—	—	1939	7	8.9	—	—	—	—	—
16-10	Pineview (Middle)	—do—	—do—	.56	.06	—	—	8.2	—	*60	1.43 1,870	—	—
—do—	—do—	—do—	—do—	—	—	1930	—	30.9	—	—	—	—	—
16-11	Pineview (Upper)	—do—	—do—	.49	.48	—	—	1939	9	—	3.3 4,310	—	—
—do—	—do—	—do—	—do—	—	—	1928	—	8.2	*.025	—	—	—	—
—do—	—do—	—do—	—do—	—	—	1938/7	10	5.4	*.016	*65	.583 825	—	—
16-12	Killarnay	Big Creek	Annapolis, Mo.	51	51	—	—	1910	—	—	—	—	—
—do—	—do—	—do—	—do—	—	—	1939	29	818	—	—	—	—	—
16-13a	Wappapello	St. Francis River	Poplar Bluff, Mo.	1,310	1,206	July 1940/8	—	622	—	*60	.133 174	—	—
—do—	—do—	—do—	—do—	—	—	1947	7.0	625,000	.540	—	—	—	—
—do—	—do—	—do—	—do—	—	—	July 1947	—	624,651	.539	—	3/.0414	—	—
16-14a	Lake Miller	Cassidy Fork	Mt. Vernon, Ill.	4.65	4.43	Mar. 1964	16.7	613,161	.530	—	.5705	—	—
—do—	—do—	—do—	—do—	—	—	Feb. 1944	—	1,746	.613	—	—	—	IWS
16-15	Flucke Lake	Unnamed	Marion, Ill.	.339	.316	June 1960	16.3	1,659	.582	34.0	1.20 888	—	IWS
—do—	—do—	—do—	—do—	—	—	1919	—	58.1	.265	—	—	—	—
16-16	Baker's Lake	—do—	—do—	.26	.25	1951	32	46.8	.214	56.6	1.11 1,368	—	IWS
—do—	—do—	—do—	—do—	—	—	1937	—	24.0	.143	—	—	—	—
16-17	Crab Orchard Lake	Crab Orchard Creek	Carbondale, Ill.	171	160	Aug. 1951	14	21.7	.129	36.8	.64 512	—	IWS
—do—	—do—	—do—	—do—	—	—	May 1940	—	67,320	.611	—	—	—	—
16-18	Marion	Limb Branch	Marion, Ill.	6.5	6.31	July 1951	11.2	63,894	.580	47.5	1.91 1,976	—	IWS
—do—	—do—	—do—	—do—	—	—	1921	—	705	.168	—	—	—	—
16-19	Little Grassy Lake	Little Grassy	Carbondale, Ill.	15.7	14.2	July 1951	30	592	.142	34.5	.61 458	—	IWS
—do—	—do—	—do—	—do—	—	—	Mar. 1942	—	25,741	2.543	—	—	—	—
16-20	Herrin Reservoir No. 1	Unnamed	Herrin, Ill.	1.78	1.70	July 1951	9.3	25,365	2.506	38.7	2.85 2,402	—	IWS
—do—	—do—	—do—	—do—	—	—	1913	—	199	.173	—	—	—	—
16-21	Knights of Pythias Lake	—do—	Marion, Ill.	.33	.32	—	—	1951	.155	27.5	.32 192	—	IWS
—do—	—do—	—do—	—do—	—	—	Dec. 1925	—	74.6	.350	—	—	—	—
16-22a	Lake Ashley	Trib. of Muddy River	Ashley, Ill.	1.24	1.22	Aug. 1951	25.7	64.7	.304	62.9	1.22 1,671	—	IWS
—do—	—do—	—do—	—do—	—	—	1941	—	150	.201	—	—	—	—
16-23	Christopher	Trib. of King Creek	Christopher, Ill.	.925	.858	Aug. 1954	14	138	.184	44.5	.69 692	—	IWS
—do—	—do—	—do—	—do—	—	—	—	—	383.94	.598	—	—	—	—
—do—	—do—	—do—	—do—	—	—	July 1960	35	353.59	.551	37.1	1.01 816.1	—	—

1/ Sediment or conservation pool only.
2/ Includes sediment within original flow line of reservoir and above conservation pool.
3/ Original sediment range surveys.
4/ Used as beginning date of sediment deposits.
5/ Spillway crest raised from 439 to 441.77 ft. m.s.l. in April 1943. All data computed on basis of 441.77 ft. at spillway elevation.

6/ Net sediment volume in 1949 was 120.5 ac.-ft. due to compaction of earlier deposits.
7/ Dam failed spring 1938, survey conducted July 24, 1939.
8/ Original data from topographic survey of 1935-36.
9/ Based on incomplete resurvey; 1963 value of 0.57 is more reliable.
* Estimated or assumed.

SUMMARY OF
RESERVOIR SEDIMENTATION SURVEYS MADE IN THE UNITED STATES THROUGH 1970

DATA SHEET NUMBER	RESERVOIR	STREAM	NEAREST TOWN	DRAINAGE AREA (SQUARE MILES)		DATE OF SURVEY	PERIOD BETWEEN SURVEYS (YEARS)	STORAGE CAPACITY (ACRE -FT.)	CAPACITY AVG. ANN. INFLOW RATIO (ACRE-FT. PER ACRE-FT)	SPECIFIC WEIGHT (DRY) (LB. PER CU. FT.)	AVG. ANN. SEDIMENT ACCUMULATION PER SQ. MI. OF NET DR. AREA FOR PERIOD SHOWN		AGENCY SUPPLYING DATA
				TOTAL	NET						AC.-FT.	TONS	
LOWER MISSISSIPPI RIVER BASIN (CHESTER TO HELENA) St. Francis River Basin (Continued)													
16-24	Lake DuQuoin-----	Reese Creek-----	DuQuoin, Ill.-----	10.73	10.35	--- 1937	---	2,003	.316	---	---	---	INS
	do-----	do-----	do-----	---	---	July 1957	20	1,870	.295	38.3	0.64	534	---
16-25	W. F. Farrell-----	Trib. of Harper Creek-----	St. Vernon, Ill.-----	.519	.512	--- 1945	---	35.56	.103	---	---	---	INS
	do-----	do-----	do-----	---	---	June 1960	15	27.41	.079	51.5	1.06	1,189	---
16-26a	ICMR at Thompsonville-----	Trib. of Spring Creek-----	Thompsonville, Ill.-----	1.799	1.725	--- 1926	---	352.44	.283	---	---	---	INS
	do-----	do-----	do-----	---	---	Aug. 1960	34	300.63	.241	48.7	.880	934	---
16-27	Lake Johnston City-----	Lake Creek-----	Johnston City, Ill.-----	3.85	3.75	--- 1922	---	471	.195	---	---	---	INS
	do-----	do-----	do-----	---	---	Aug. 1957	35	394	.163	48.3	.59	620	---
16-28	Valier Outing Club-----	Andy Creek-----	Valier, Ill.-----	2.47	2.37	--- 1922	---	369	.208	---	---	---	INS
	do-----	do-----	do-----	---	---	Aug. 1957	35	320	.180	41.17	.59	530	---
16-29	West Frankfort (New)-----	Stevens Creek-----	West Frankfort, Ill.-----	7.622	7.288	--- 1945	---	2,654.7	.502	---	---	---	INS
	do-----	do-----	do-----	---	---	July 1960	15	2,390.9	.453	35.9	2.41	1,884.4	---
16-30	Lake Reel-De-In (Walker Lake)-----	Unnamed-----	Dixon, Ky.-----	2.05	1.96	--- 1948	---	659.0	.378	---	---	---	SCS
	do-----	do-----	do-----	---	---	May 1964	16	515.4	.296	465	4.6	6,512.2	---
16-31	Rough River FRS No. 1-----	Buffalo Creek-----	Kingswood, Ky.-----	2.86	2.85	Nov. 1955	---	617	.238	---	---	---	SCS
	do-----	do-----	do-----	---	---	June 1970	14.64	596.12	.230	56.13	1/.50	1/611	---
16-32	Obion Creek FRS #24-----	Unnamed Trib. Little Creek-----	Fancy Farm, Ky.-----	.37	.36	Nov. 1960	---	1/30.35	*.23	---	---	---	SCS
	do-----	do-----	do-----	---	---	Nov. 1965	5	1/28.80	*.22	480	1/.86	1/1,498	---
16-33	Mad River FRS No. 14-----	Antioch Creek-----	Sharps Grove, Ky.-----	8.59	8.56	Jan. 1964	---	1,379.87	.15	---	---	---	SCS
	do-----	do-----	do-----	---	---	May 1970	6.33	1,355.49	.15	75.78	1/.45	1/742	---
16-34	Caney Creek FRS #2-----	Bennett Fork-----	Caneyville, Ky.-----	5.77	5.65	Nov. 1965	---	---	---	---	---	---	SCS
	do-----	do-----	do-----	---	---	May 1970	4.5	1,355.4	.33	77.75	1/1.01	1/1,710	---
16-35	Big Reedy FRS #9-----	West Fork-----	Reedyville, Ky.-----	6.76	6.69	June 1964	---	998	.154	---	---	---	SCS
	do-----	do-----	do-----	---	---	Apr. 1970	5.8	976.95	.150	77.58	1/.54	1/912.4	---
OHIO RIVER BASIN (MADISON TO UNIONTOWN) Wabash River Basin													
17-1	Huntingburg (Upper)-----	Trib. of Patoka River-----	Huntingburg, Ind.-----	.67	.63	July 1894	---	137	*.264	---	---	---	SCS
	do-----	do-----	do-----	---	---	Oct. 1940	46.3	119	*.229	440	.617	538	---
17-2a	Oakland City #2-----	S. Fork Patoka River-----	Oakland City, Ind.-----	.52	.40	--- 1921	---	2/850.8	*.216	---	---	---	SCS
	do-----	do-----	do-----	---	---	Sept. 1940	19.0	2/835.8	*.2079	440	1.937	1,720	---
	do-----	do-----	do-----	---	---	Aug. 1965	24.9	811.0	*.2077	70	2.490	3,796	---
17-3	Shaver Lake-----	Tippacanoe River-----	Monticello, Ind.-----	1,700	1,698	June 1923	---	14,722	*.016	---	---	---	SCS
	do-----	do-----	do-----	---	---	Aug. 1940	17.2	14,041	*.016	775	.023	38	---
17-4	Spring Mill-----	Mill Creek-----	Mitchell, Ind.-----	15.03	13/5.29	Oct. 1938	---	178	---	---	---	---	SCS
	do-----	do-----	do-----	---	---	Sept. 1948	9.9	127	---	467	.975	1,420	---
17-5	Greendale Lake-----	Conroy's Branch-----	Lena, Ill.-----	25.1	25.0	Aug. 1927	---	306	*.023	---	---	---	SCS
	do-----	do-----	do-----	---	---	Sept. 1940	13.1	260	*.020	470	.140	213	---
17-6	Ridge Lake-----	Trib. of Embarrass River-----	Charleston, Ill.-----	1.41	1.38	Apr. 1941	---	187.4	---	---	---	---	INS
	do-----	do-----	do-----	---	---	Sept. 1947	6.4	171.9	---	72.4	1.75	2,760	---
17-7	Vermilion Lake-----	N. Fork Vermilion River-----	Danville, Ill.-----	267	266	June 1915	---	4/8,643	*.061	---	---	---	SCS
	do-----	do-----	do-----	---	---	Oct. 1940	25.3	7,438	*.052	470	.179	273	---
17-8	Brown Park Lake-----	Trib. of Raccoon Creek-----	Flora, Ill.-----	1.34	1.33	--- 1938	---	49.08	.057	---	---	---	INS
	do-----	do-----	do-----	---	---	June 1959	21	37.75	.044	58.6	.40	510.5	---
17-9	Craig & Davidson's Lake-----	do-----	Martinsville, Ill.-----	.465	.427	--- 1947	---	187.75	.631	---	---	---	INS
	do-----	do-----	do-----	---	---	June 1959	12	175.18	.588	33.14	2.46	1,775.6	---
17-10	Farina Lake-----	None-----	Laclede, Ill.-----	.538	.531	--- 1928	---	16.4	.057	---	---	---	INS
	do-----	do-----	do-----	---	---	Aug. 1958	30	13.3	.046	61.94	.19	256.35	---
17-11	Graham Lake-----	Trib. of Veale Creek-----	Washington, Ind.-----	.34	.31	Aug. 1950	---	104.8	---	---	---	---	SCS
	do-----	do-----	do-----	---	---	Aug. 1956	6	104.4	---	---	.218	---	---
17-12a	ICMR at Bluford-----	Fourmile Creek-----	Bluford, Ill.-----	3.353	3.199	--- 1926	---	670.7	.300	---	---	---	INS
	do-----	do-----	do-----	---	---	June 1960	34	609.70	.273	43.5	.565	493	---
17-13	Jones Pond-----	Trib. of Flat Creek-----	Oswell, Ind.-----	.034	.031	Oct. 1754	---	10.7	---	---	---	---	SCS
	do-----	do-----	do-----	---	---	Apr. 1946	1.5	10.6	---	---	2.10	---	---
17-14a	Olney Reservoir (New)-----	Trib. of East Fork-----	Olney, Ill.-----	3.36	3.15	Sept. 1954	---	1,555.3	.723	---	---	---	INS
	do-----	do-----	do-----	---	---	Aug. 1960	6.9	1,517.4	.706	30.3	1.70	1,460	---
17-15	Patterson Lake-----	Trib. of Miami Creek-----	Edgewood, Ill.-----	.959	.912	--- 1926	---	316.75	.516	---	---	---	INS
	do-----	do-----	do-----	---	---	July 1959	33	281.09	.458	48.54	1.18	1,247.5	---
17-16a	Plum Creek No. 15-----	Little Plum Creek-----	Taylorville, Ky.-----	1.03	1.02	Sept. 1956	---	224.3	.268	---	---	---	SCS
	do-----	do-----	do-----	---	---	Apr. 1959	2.5	219.6	.262	45	1.84	1,803	---
	do-----	do-----	do-----	---	---	Oct. 1960	1.5	213.2	.254	53	4.19	4,877	---
17-17	Plum Creek No. 17-----	Trib. of Little Plum Creek-----	do-----	.56	.55	Dec. 1956	---	126.3	.263	---	---	---	SCS
	do-----	do-----	do-----	---	---	Apr. 1959	2.33	123.7	.258	56	2.00	2,439	---
	do-----	do-----	do-----	---	---	Oct. 1960	1.5	121.2	.252	47	3.11	3,180	---
17-18	Steiner Lake-----	Trib. of Pond Creek-----	Fairfield, Ill.-----	.308	.295	--- 1945	---	53.68	.261	---	---	---	INS
	do-----	do-----	do-----	---	---	June 1960	15	48.62	.237	41.3	1.15	1,034.3	---

17-19	Stevenson's Lake	Trib. of Kettering Branch	Martinsville, Ill.	.342	.327	—	1950	—	52.11	.238	—	—	—	IMS
—	—	—	—	—	—	June	1959	9	46.5	.212	48.0	1.89	1,975.9	IMS
17-20	Vevay Park Lake	Trib. of Range Creek	Greenville, Ill.	.294	.278	—	1906	—	67.41	.391	—	—	—	IMS
—	—	—	—	—	—	June	1959	53	54.50	.316	47.61	.87	902.1	IMS
17-21	Beaver Lake	Beaver Creek	Dubois, Ind.	3.95	3.57	—	1955	—	2,486.0	*.787	—	—	—	SCS
—	—	—	—	—	—	Oct.	1964	9	2,409.8	*.763	55	2.38	2,851	SCS
17-22	Scottsburg Lake	Trib. of Muscatatuck	Scottsburg, Ind.	2.98	2.98	—	1949	—	749.02	*.294	—	—	—	SCS
—	—	—	—	—	—	Oct.	1961	12	713.24	*.280	60.8	1.00	1,324.2	SCS
17-23	Cagle Mill (Cataract Lake)	Mill Creek	Cloverdale, Ind.	295	287	—	1952	—	5,232,370	1.123	—	—	—	CE
—	—	—	—	—	—	Feb.	1962	9.17	230,906	1.116	62.8	.54	739	CE

MISSISSIPPI RIVER BASIN (BELOW HALE BAR DAM)
Cumberland and Green River Basins

18-1	Radnor Lake	Other Creek	Nashville, Tenn.	2.1	2.0	Mar.	1915	—	1,313	—	—	—	—	SCS
—	—	—	—	—	—	Nov.	1940	25.7	1,779	—	—	.660	—	SCS
18-2a	Lake Tandy	Little River	Hopkinsville, Ky.	6.10	6.00	—	1907	—	769	.135	—	—	—	SCS
—	—	—	—	—	—	Jan.	1941	34	564	.099	43	1.00	936	SCS
—	—	—	—	—	—	June	1959	18.5	509	.089	43	.495	463	SCS
18-3c	Great Falls	Caney Fork River	Rock Island, Tenn.	1,675	1,671	Sept.	1935	—	54,925	.024	—	—	—	TVA
—	—	—	—	—	—	Aug.	1947	12.0	52,370	.023	*60	.127	166	TVA
—	—	—	—	—	—	Jan.	1954	6.4	51,836	.023	*60	.050	65	TVA
—	—	—	—	—	—	Sept.	1960	6.6	51,291	.022	*60	.022	29	TVA
—	—	—	—	—	—	Nov.	1969	9.2	51,281	.023	*60	.02	26	TVA
18-4c	Guntersville	Tennessee River	Guntersville, Ala.	24,450	2,550	Nov.	1940	—	1,097,380	—	—	—	—	TVA
—	—	—	—	—	—	June	1947	6.6	1,080,897	—	*55	.979	1,173	TVA
—	—	—	—	—	—	May	1956	8.9	1,073,164	—	*55	.341	408	TVA
—	—	—	—	—	—	July	1961	5.1	1,064,228	—	*55	.687	823	TVA
18-5c	Wheeler	—	Town Creek, Ala.	29,590	5,503	Oct.	1936	—	7,112,000	—	—	—	—	TVA
—	—	—	—	—	—	June	1947	10.7	7,071,717	—	*55	—	—	TVA
—	—	—	—	—	—	May	1953	6.0	5,106,411	—	*55	.341	408	TVA
—	—	—	—	—	—	June	1956	3.0	1,061,005	—	*55	.027	32	TVA
—	—	—	—	—	—	Aug.	1961	5.1	1,050,303	—	*55	.417	500	TVA
18-6c	Wilson	—	Florence, Ala.	30,750	1,135	Dec.	1928	—	687,000	—	—	—	—	TVA
—	—	—	—	—	—	Dec.	1931	3.0	674,000	—	*53	9,479	552.9	TVA
—	—	—	—	—	—	Dec.	1936	5.0	654,000	—	*53	9,490	565.6	TVA
—	—	—	—	—	—	Sept.	1946	8.8	651,000	—	*53	10,120	138.5	TVA
—	—	—	—	—	—	June	1951	4.7	659,000	—	*53	10,120	138.5	TVA
—	—	—	—	—	—	June	1956	5.0	648,000	—	*53	10,401	462.0	TVA
—	—	—	—	—	—	Aug.	1961	5.1	641,000	—	*53	10,127.4	1,471.0	TVA
18-7c	Pickwick Landing	—	Pickwick, Tenn.	32,820	1,997	Feb.	1938	—	1,130,313	—	—	—	—	TVA
—	—	—	—	—	—	Sept.	1946	8.6	1,116,389	—	*53	.811	936	TVA
—	—	—	—	—	—	June	1951	4.7	1,118,082	—	*53	11,180	—	TVA
—	—	—	—	—	—	June	1956	5.1	1,116,811	—	*53	.125	144	TVA
—	—	—	—	—	—	Aug.	1961	5.2	1,105,256	—	*53	1.113	1,285	TVA
18-8c	Kentucky	—	Gilbertsville, Ky.	40,200	7,131	Aug.	1946	—	7,287,549	—	—	—	—	TVA
—	—	—	—	—	—	May	1951	4.7	7,285,440	—	*53	.719	830	TVA
—	—	—	—	—	—	July	1956	5.2	7,281,388	—	*53	1.107	1,278	TVA
—	—	—	—	—	—	Oct.	1961	5.2	7,279,855	—	*53	.635	733	TVA
18-9	Dale Hollow	Okey River	Celina, Tenn.	935	887	Apr.	1943	—	1,706,000	1.533	—	—	—	CE
—	—	—	—	—	—	June	1960	17.2	—	—	—	—	—	CE
18-10	Old Hickory	Cumberland River	Old Hickory, Tenn.	12/11,674	2,741	June	1954	—	467,000	—	—	—	—	CE
—	—	—	—	—	—	June	1965	11	453,703	—	—	.441	—	CE
18-11	Wolf Creek (Lake Cumberland)	—	Jamestown, Ky.	5,789	5,690	Aug.	1950	—	6,089,000	.912	—	—	—	CE
—	—	—	—	—	—	June	1963	12.83	—	—	—	—	—	CE
18-12	Rough River Reservoir	Rough River	Falls of Rough, Ky.	454	437.56	Dec.	1959	—	332,940	.866	—	—	—	CE
—	—	—	—	—	—	July	1969	9.75	329,670	.857	70.27	.765	1,170	CE
18-13	Upper Green River #5 (Pilot)	South Fork	Stanford, Ky.	1.44	1.41	Sept.	1955	—	320.71	.23	—	—	—	SCS
—	—	—	—	—	—	Apr.	1966	10.5	316.59	.18	59.9	1/.26	1/399	SCS

OHIO RIVER BASIN (POINT PLEASANT TO MADISON)
Kanawha, Big Sandy, Licking, Kentucky, Scioto, and Miami River Basins

19-1	Lake Placid	Unnamed	Lancaster, Ky.	.20	.20	Oct.	1902	—	114	—	—	—	—	SCS
—	—	—	—	—	—	Sept.	1941	38.9	95	—	—	13/2.50	—	SCS
19-2	Radford	Little River	Radford, Va.	329	329	Aug.	1934	—	1,646	—	—	—	—	SCS
—	—	—	—	—	—	July	1941	10	1,018	—	*70	.191	291	SCS
19-3	Englewood	Stillwater	Dayton, Ohio	651	639	—	1927/1A	—	312,000	*.810	—	—	—	SCS
—	—	—	—	—	—	—	1942	15	311,648	*.809	77.5	.037	63	SCS
19-4	Germantown	Twin Creek	Germantown, Ohio	270	264	—	1927/1A	—	106,000	*.554	—	—	—	SCS
—	—	—	—	—	—	—	1942	15	105,618	*.552	79.5	.097	168	SCS
19-5b	Griggs	Scioto River	Columbus, Ohio	1,053	1,052	—	1905	—	4,563	.008	—	—	—	ODW
—	—	—	—	—	—	—	1915	30	3,920	.007	*65	.020	28.3	ODW
—	—	—	—	—	—	—	1951	16	3,908	.007	59.4	—	—	ODW
—	—	—	—	—	—	—	1964	13	3,737	.007	—	.014	—	ODW

- 1/ Sediment pool only.
2/ Items are based on corrected instrument surveys of shore line and range locations as used in the 1965 survey.
3/ The noncontributing drainage area is chiefly closed or plugged limestone sinkholes.
4/ In July 1925. In June 1915, spillway elevation was 5 feet lower and capacity was 1,226 ac.-ft.
5/ Revised from 228,120 to 232,370 ac.-ft.
6/ Guntersville Dam closed Jan. 19, 1939, reducing sediment contributing area to 5,033 sq. mi.
7/ Multiple-use capacity excluding diked areas.

- 8/ 1953 survey revised.
9/ Used drainage area below Hales Bar Dam (8,935 sq. mi.).
10/ Sediment contributing area reduced by closing Wheeler Dam, Oct. 3, 1936, to 1,135 sq. mi.
11/ Minus (-) indicates scour (treated as negative sediment).
12/ Uncontrolled drainage area 2,776 sq. mi.
13/ Including 19,000 cu. yd. dredged in 1930.
14/ Year survey ranges were established.
* Estimated or assumed.

SUMMARY OF
RESERVOIR SEDIMENTATION SURVEYS MADE IN THE UNITED STATES THROUGH 1970

DATA SHEET NUMBER	RESERVOIR	STREAM	NEAREST TOWN	DRAINAGE AREA (SQUARE MILES)		DATE OF SURVEY	PERIOD BETWEEN SURVEYS (YEARS)	STORAGE CAPACITY (ACRE-FT.)	CAPACITY AVG. ANN. INFLOW RATIO (ACRE-FT. PER ACRE-FT.)	SPECIFIC WEIGHT (DRY) (LB. PER CU. FT.)	AVG. ANN. SEDIMENT ACCUMULATION PER SQ. MI. OF NET DR. AREA FOR PERIOD SHOWN		AGENCY SUPPLYING DATA
				TOTAL	NET						AC.-FT.	TONS	
OHIO RIVER BASIN (POINT PLEASANT TO MADISON) Kanawha, Big Sandy, Licking, Kentucky, Scioto, and Miami River Basins (Continued)													
19-6	Ohio Cons. Pond No. 73	Blacklick Creek	Columbus, Ohio	24	24	Nov. 1936	—	4.68	—	—	—	—	SCS
19-7	Ohio Cons. Pond No. 74	—	—	23	23	June 1939	2.6	2.53	—	—	0.035	—	SCS
19-8a	Lake White	Pee Dee Creek	Maverly, Ohio	37.4	36.9	Nov. 1939	2.8	—	.52	—	.008	—	ODW
19-9	Herrington Lake	Dix River	Harrodsburg, Ky.	437	431	Oct. 1925	—	258,949	—	—	—	—	SCS
19-10	Walton	Bank Lick Creek	Walton, Ky.	.25	.24	Oct. 1961	16	255,706	—	—	.471	—	SCS
19-11	Williamstown	Grassy Creek	Williamstown, Ky.	.47	.47	—	6	122	—	*50	4.46	4,860	SCS
19-12	Byllesby	New River	Byllesby, Va.	1,310	1,310	Aug. 1912	—	6,892	—	—	—	—	SCS
19-13a	O'Shaughnessy	Scioto River	Dublin, Ohio	988	987	May 1936	23.66	3,538	—	—	2/1.84	—	ODW
19-14a	Decker Lake	Patterson Run	Piqua, Ohio	2.33	2.30	Fall 1925	—	3/16,673	*.026	*65	.121	171	ODW
19-15a	Madison Lake	Deer Creek	London, Ohio	57.2	57.0	—	9	15,604	*.023	*65	.135	191	ODW
19-16a	Grant Lake	Starling Run	Mt. Orab, Ohio	25.25	24.97	July 1951	9	14,538	*.022	44.2	.063	60.5	ODW
19-17	Caldwell Lake	Trib. of Stoney Creek	Maverly, Ohio	1.02	1.00	—	10	94	*.069	51.91	.913	1,032	ODW
19-18	Stewart Lake	—	Chillicothe, Ohio	.31	.30	—	12	88	*.124	—	.253	331	ODW
19-19	Pine Lake	Tar Hollow Creek	Gillespieville, Ohio	2.42	2.40	Sept. 1951	12.3	74	*.120	*60	.87	1,137	ODW
19-20a	Kiser Lake	Mosquito Creek	St. Paris, Ohio	8.73	8.15	Sept. 1951	12.3	71	*.073	68.95	.396	595	ODW
19-21	Evermore Run (Trib. arm of O'Shaughnessy Res.)	Evermore Run	Dublin, Ohio	13.8	13.7	Aug. 1950	11.7	123	*.067	—	—	—	ODW
19-22	Allen Lake	Trib. of Silver Creek	Kenton, Ohio	.50	.50	Jan. 1960	—	3,215	.575	—	—	—	ODW
19-23	Sylvan Lake (Lower)	Trib. of Beaver Creek	Vienne, Ohio	1.85	1.39	Jan. 1950	10.5	3,010	.539	*50	2.40	2,610	ODW
19-24	Sylvan Lake (Upper)	—	—	.40	.38	July 1954	4.0	2,929	.524	39.7	2.48	2,144	ODW
19-25	Hosterman Lake	Trib. of Mad River	Springfield, Ohio	1.59	1.58	June 1962	8.0	2,867	.513	—	.95	—	ODW
19-26	Raynolds Pond	Trib. of Barren Creek	Bidwell, Ohio	.70	.70	—	26	295	—	55.5	.25	302	ODW
19-27	Mt. Gililand Lake (Upper)	Sans Creek	Mt. Gililand, Ohio	6.55	5/5.50	—	13	12	*.043	52.6	.26	298	ODW
19-28	Schott Pond	Trib. of Big Walnut Creek	Westerville, Ohio	.82	.82	Aug. 1947	—	275	*.036	44.8	2.73	2,664	ODW
19-29a	Lake Alm	Unnamed	Wallston, Ohio	.81	.70	Aug. 1951	3.8	261	—	63	—	—	ODW
19-30	Maple Grove Lake	Shane Creek	Mt. Gililand, Ohio	3.05	3.04	Aug. 1951	2.8	59	—	*45	3.53	3,460	ODW
19-31	Pond Lick Lake	Pond Lick Run	Friendship, Ohio	2.54	2.53	Nov. 1938	—	83	—	66.2	.38	548	ODW
19-32	Wolfden Lake	Wolfden Run	—	.60	.60	Aug. 1951	12.7	75	*.034	57.4	.441	551	ODW
19-33	Bear Lake	Left Fork Bear Creek	—	.48	.47	Aug. 1950	10	15	*.029	57.4	.441	551	ODW
19-34	McBride Lake	Trib. of Pond Run	—	.61	.61	—	1930	18	*.008	*60	.039	51	ODW
						Oct. 1948	18	24	*.005	—	—	—	ODW
						—	1921	—	—	—	—	—	ODW
						Aug. 1951	30	4.8	—	57.1	.10	124	ODW
						—	1933	—	—	—	—	—	ODW
						Sept. 1951	50	744	—	55.5	.84	1,015	ODW
						—	1932	—	*.014	—	—	—	ODW
						Sept. 1949	17	23.9	*.012	83.2	.079	143	ODW
						—	1938	—	*.024	—	—	—	ODW
						July 1950	12.3	39	*.019	58.8	.277	355	ODW
						—	1936	—	*.053	—	—	—	ODW
						July 1950	14.3	23.1	*.048	59.92	.272	355	ODW
						—	1925	—	*.066	—	—	—	ODW
						July 1950	15.3	32	*.081	67.02	.194	283	ODW
						—	1937	—	*.027	—	—	—	ODW
						July 1950	13.3	11	*.023	34.01	.225	167	ODW

[illegible]

- 1/ 1951 survey includes several additional ranges. Results of 1947 and 1951 surveys are not directly comparable.
- 2/ Based on total sediment in Washington Mill, Buck, Bylesby, and Fields Reservoirs; total drainage area 1,320 sq. mi.
- 3/ Without 3 ft. flashboards added in 1945.
- 4/ Survey dates: Sept.-Nov. 1934; Sept.-Dec. 1942.
- 5/ 1942 correction for Maple Grove.
- 6/ Reservoir partially dredged in March-April 1946. Data on amount of material are unreliable. Actual amounts of sediment probably 10 to 25 percent greater than indicated.
- 7/ Sediment pool only.

8/ Flood pool elevation 947. Range renewed to elevation 915.
 No appreciable sediment above elevation 915.
 9/ Revised on basis of topographic maps developed for definite project report and sedimentation range data.
 10 1957 water year included.
 11 Multiple-use storage capacity. Reservoir has greater capacity at spillway crest elevation.
 12 Sediment contributing area reduced from 3,381 sq.mi. to 1,477 sq. mi. by closing of Matagaue Dam Dec. 1, 1948; South Holston on Nov. 20, 1950; Boone on Dec. 16, 1952; and Fort Patrick Henry on Oct. 27, 1953. Area above Matagaue included in 1949 survey as sediment contributing area.
 * Estimated 20 ASSEVED.

SUMMARY OF
RESERVOIR SEDIMENTATION SURVEYS MADE IN THE UNITED STATES THROUGH 1970

DATA SHEET NUMBER	RESERVOIR	STREAM	NEAREST TOWN	DRAINAGE AREA (SQUARE MILES)		DATE OF SURVEY	PERIOD BETWEEN SURVEYS (YEARS)	STORAGE CAPACITY (ACRE-FT.)	CAPACITY AVG. ANN. INFLOW RATIO (ACRE-FT. PER ACRE-FT)	SPECIFIC WEIGHT (DRY) (LB. PER CU. FT.)	AVG. ANN. SEDIMENT ACCUMULATION PER SQ. MI. OF NET DR. AREA FOR PERIOD SHOWN		AGENCY SUPPLYING DATA
				TOTAL	NET						AC.-FT.	TONS	
TENNESSEE RIVER BASIN (ABOVE HALES BAR DAM) (Continued)													
20-6d	Nolichucky	Nolichucky River	Greenville, Tenn.	1,183	1,182	Fall 1913	—	1/3,100	—	—	—	—	TVA
	do	do	do	—	—	Fall 1925	12	2/21,750	.017	—	—	—	
	do	do	do	—	—	Feb. 1938	12.5	14,450	.011	.50	0.252	274	
	do	do	do	—	—	Apr. 1947	9.2	12,010	.009	*50	.224	245	
	do	do	do	—	—	May 1953	6.1	9,850	.008	*50	.299	326	
	do	do	do	—	—	Oct. 1958	5.4	7,760	.006	*50	.327	357	
	do	do	do	—	—	Feb. 1961	2.3	7,470	.006	*50	.107	117	
	do	do	do	—	—	Mar. 1967	6.1	2/3,325	.003	*50	.075	82	
	do	do	do	—	—	Sept. 1970	3.5	2,630	.002	*50	.168	183	
20-7e	Douglas	French Broad River	Sevierville, Tenn.	4,541	2,854	Feb. 1943	—	3/1,511,883	.312	—	—	—	TVA
	do	do	do	—	—	July 1949	6.4	1,496,712	.308	*55	.830	994	
	do	do	do	—	—	May 1955	5.8	1,500,870	.309	*55	4/-251	—	
	do	do	do	—	—	June 1960	5.1	1,489,978	.307	*55	.748	895	
	do	do	do	—	—	Aug. 1967	7.2	1,475,450	.304	*55	.707	847	
20-8e	Fort Loudoun	Tennessee River	Lenoir City, Tenn.	9,550	1,556	Nov. 1946	—	400,945	—	—	—	—	TVA
	do	do	do	—	—	June 1951	4.6	399,414	—	*55	.214	256	
	do	do	do	—	—	Apr. 1956	4.8	398,060	—	*55	.181	217	
	do	do	do	—	—	May 1961	5.1	392,711	—	*55	.674	807	
20-9e	Thorpe	W. Fk. Tuckasee River	Glenville, N. C.	36.7	34.4	Feb. 1941	—	—	—	—	—	—	TVA
	do	do	do	—	—	Sept. 1950	9.6	3/70,700	.888	—	—	—	
	do	do	do	—	—	July 1958	7.8	70,537	.886	*55	.61	731	
	do	do	do	—	—	May 1969	10.9	70,487	.882	*55	.13	160	
20-10b	Nantahala	Nantahala River	Aquone, N. C.	91	88	Sept. 1950	—	138,083	.561	—	—	—	TVA
	do	do	do	—	—	July 1958	7.9	137,882	.560	*55	.284	340	
	do	do	do	—	—	May 1969	10.8	137,159	.570	*55	.761	911	
20-11c	Fontana	Little Tennessee River	Fontana, N. C.	1,571	1,426	Nov. 1944	—	3/1,455,062	.543	—	—	—	TVA
	do	do	do	—	—	Mar. 1950	5.4	1,452,385	.534	*55	.348	416.9	
	do	do	do	—	—	Sept. 1954	4.5	1,450,646	.534	*55	.271	324.6	
	do	do	do	—	—	June 1959	4.7	1,448,311	.533	*55	.349	418.1	
	do	do	do	—	—	Oct. 1967	8.3	1,443,262	.531	*55	.426	511	
20-12	Cheoah	do	Tapoco, N. C.	1,608	1,607	Dec. 1918	—	5/44,030	.016	—	—	—	TVA
	do	do	do	—	—	Sept. 1930	11.8	39,030	.014	*55	.264	316	
	do	do	do	—	—	Aug. 1941	10.9	6/35,030	.013	—	.228	273	
20-13b	Caryville	Cove Creek	Caryville, Tenn.	35.98	35.65	Nov. 1936	—	4/1,726	—	—	—	—	TVA
	do	do	do	—	—	Nov. 1938	2.0	1,652	—	.62	1.038	1,401.7	
	do	do	do	—	—	Jan. 1947	8.2	1,580	—	*62	.250	337.6	
	do	do	do	—	—	Mar. 1954	7.1	1,347	—	*62	.917	1,238.3	
	do	do	do	—	—	Aug. 1960	6.4	1,290	—	*62	.250	337.6	
	do	do	do	—	—	July 1970	9.9	1,118	—	*62	.488	658	
20-14c	Morris	Clinch River	Morris, Tenn.	2,912	2,823	Mar. 1936	—	2/2,061,569	.692	—	—	—	TVA
	do	do	do	—	—	June 1946	10.3	2,052,357	.691	*55	.317	379.7	
	do	do	do	—	—	June 1954	8.0	2,047,527	.690	*55	.214	256.2	
	do	do	do	—	—	Aug. 1960	6.1	2,044,768	.689	*55	.160	191.7	
	do	do	do	—	—	June 1970	9.8	2,036,324	.684	*55	.305	366	
20-15e	Watts Bar	Tennessee River	Spring City, Tenn.	17,310	2,925	Oct. 1946	—	1,195,229	—	—	—	—	TVA
	do	do	do	—	—	June 1951	4.7	1,193,106	—	*55	.155	186	
	do	do	do	—	—	Apr. 1956	4.8	1,183,735	—	*55	.667	799	
	do	do	do	—	—	June 1961	5.1	1,174,954	—	*55	.589	706	
20-16b	Chatuge	Hiwassee River	Hayesville, N. C.	189	178	Feb. 1942	—	242,325	.705	—	—	—	TVA
	do	do	do	—	—	Aug. 1949	7.5	242,032	.704	*55	.219	262.3	
	do	do	do	—	—	Aug. 1954	5.0	241,502	.702	*55	.595	712.8	
	do	do	do	—	—	Sept. 1960	6.0	240,999	.701	*55	.472	565.4	
	do	do	do	—	—	Apr. 1965	4.6	240,316	.699	*55	.590	707.0	
20-17b	Mottely	Mottely River	Hairsville, Ga.	214	207	Jan. 1942	—	3/176,521	.586	—	—	—	TVA
	do	do	do	—	—	Aug. 1949	7.6	175,865	.584	*55	.415	497.1	
	do	do	do	—	—	Apr. 1955	5.7	174,969	.581	*55	.758	908.0	
	do	do	do	—	—	May 1961	6.0	174,429	.579	*55	.435	521.0	
	do	do	do	—	—	Apr. 1965	4.0	174,357	.579	*55	.087	104.0	
20-18b	Hiwassee	Hiwassee River	Murphy, N. C.	968	8/539	Feb. 1940	—	3/439,741	—	—	—	—	TVA
	do	do	do	—	—	Aug. 1947	7.5	436,009	—	*55	8/-	8/-	
	do	do	do	—	—	May 1953	5.8	435,686	—	*55	.104	125	
	do	do	do	—	—	June 1958	5.0	434,243	—	*55	.536	642	
	do	do	do	—	—	May 1965	6.9	433,568	—	*55	.182	218	
20-19e	Apalachia	do	Farner, Tenn.	1,018	48	Feb. 1943	—	58,312	—	—	—	—	TVA
	do	do	do	—	—	Aug. 1950	7.5	57,979	—	*55	.938	1,124	
	do	do	do	—	—	Sept. 1960	10.1	57,550	—	*55	.883	1,058	
	do	do	do	—	—	May 1965	4.7	57,753	—	*55	4/-	—	

20-20c	Blue Ridge	Toccoa River	Blue Ridge, Ga.	232	227	Apr. 1944	—	197,427	.462	—	—	—	TVA
	do	do	do	—	—	Aug. 1949	5.3	196,080	.454	*55	1.119	1,340.5	
	do	do	do	—	—	Aug. 1954	5.0	195,981	.454	*55	.881	1,055.35	
	do	do	do	—	—	June 1959	4.8	194,522	.455	*55	4/-	498	
	do	do	do	—	—	Apr. 1968	8.8	195,908	.454	*55	.308	368	
20-21d	Ocoee No. 3	Ocoee River	Ducktown, Tenn.	496	263	Aug. 1942	—	14,304	.017	—	—	—	TVA
	do	do	do	—	—	July 1945	2.9	12,140	—	*64	2/2.114	2/2.947	
	do	do	do	—	—	Nov. 1946	1.3	11,349	—	*64	2.312	3.223	
	do	do	do	—	—	Aug. 1948	1.8	10,570	—	*64	1.646	2,294	
	do	do	do	—	—	Aug. 1950	2.0	9,849	—	*64	1.373	1,914	
	do	do	do	—	—	July 1953	3.0	8,696	—	*64	1.460	2,035	
	do	do	do	—	—	Oct. 1955	2.1	8,042	—	*64	1.183	1,649	
	do	do	do	—	—	Oct. 1958	3.0	6,766	—	*64	1.616	2,253	
	do	do	do	—	—	Oct. 1960	2.0	5,920	—	*64	1.608	2,242	
	do	do	do	—	—	June 1962	1.8	5,286	—	*64	1.388	1,865	
	do	do	do	—	—	Sept. 1965	3.2	4,653	—	*64	.753	1,050	
	do	do	do	—	—	Mar. 1968	2.6	4,026	.005	*64	.916	1,278	
20-22d	Ocoee No. 1	do	Parkville, Tenn.	595	10/96	Dec. 1911	—	11/109,200	—	—	—	—	TVA
	do	do	do	—	—	Oct. 1940	28.8	12/91,300	—	*64	—	—	
	do	do	do	—	—	Sept. 1949	8.9	13/86,737	—	*64	—	—	
	do	do	do	—	—	Aug. 1954	5.0	87,267	—	*64	4/-1.10	—	
	do	do	do	—	—	June 1959	4.9	86,809	—	*64	.974	1,358	
	do	do	do	—	—	Apr. 1968	8.8	86,466	.091	*64	.406	566	
20-23c	Chickamauga	Tennessee River	Chattanooga, Tenn.	20,790	14/1,805	Nov. 1940	—	746,951	—	—	—	—	TVA
	do	do	do	—	—	July 1947	6.7	734,970	—	*60	14/-	14/-	
	do	do	do	—	—	Aug. 1954	7.0	745,178	—	*60	4/-0.808	—	
	do	do	do	—	—	May 1956	1.8	740,367	—	*60	1.481	1,935	
	do	do	do	—	—	June 1961	5.1	738,820	—	*60	1.68	220	
20-24d	Hales Bar	do	Jasper, Tenn.	21,790	15/990	Oct. 1935	—	153,483	—	—	—	—	TVA
	do	do	do	—	—	Oct. 1940	5.0	152,928	—	61	15/-	—	
	do	do	do	—	—	July 1947	6.7	152,251	—	*61	.102	135	
	do	do	do	—	—	Aug. 1954	7.1	152,992	—	*61	4/-1.05	—	
	do	do	do	—	—	May 1956	1.8	153,032	—	*61	4/-0.022	—	
	do	do	do	—	—	June 1961	5.1	154,002	—	*61	4/-1.192	—	
	do	do	do	—	—	Dec. 1967	6.5	154,012	.0056	—	4/-	—	
20-25	Kanuga Lake	Little Mud Creek	Hendersonville, N. C.	1.54	1.50	—	1908	—	.120	—	—	—	SCS
	do	do	do	—	—	Oct. 1956	48	190	.093	43.1	.780	732	
20-26	Osceola Lake	Shepard Creek	do	4.45	4.39	—	1923	—	.055	—	—	—	SCS
	do	do	do	—	—	Oct. 1956	33	267	.045	45.7	.428	426	
20-27	Melton Hill	Clinch River	Clinton, Tenn.	3,343	422	July 1963	—	125,900	.0429	*55	—	—	TVA
	do	do	do	—	—	May 1970	7	125,578	.0428	*55	.109	131	
20-28	Upper Ollis Creek Reservoir	Ollis Creek	La Follette, Tenn.	10.8	10.75	Apr. 1964	—	561	.051	—	—	—	TVA
	do	do	do	—	—	Oct. 1970	6.5	649	.050	*62	.172	232	

OHIO RIVER BASIN (ABOVE POINT PLEASANT) AND LAKE ERIE DRAINAGE

21-1	Pleasant Hill	Clear Fork	Perryville, Ohio	199	195	Oct. 1938	—	87,700	.676	—	—	—	CE
	do	do	do	—	—	Feb. 1945	6.25	87,424	.674	*65	.227	321	
21-2a	Senecaville	Seneca Fork	Senecaville, Ohio	121	113	Oct. 1936 ^{12/}	—	88,500	.962	—	—	—	CE
	do	do	do	—	—	Mar. 1945	8.3	87,667	.953	*65	.89	1,260	
21-3a	Charles Mill	Black Fork, Mohican River	Mansfield, Ohio	216	207	June 1938	—	88,000	*.657	—	—	—	CE
	do	do	do	—	—	Sept. 1946	8.25	85,886	*.641	*65	1.24	1,755	
	do	do	do	—	—	July 1954	7.75	85,483	*.638	*65	.253	358	
21-4	Hinckston Run	Hinckston Run	Johnstown, Pa.	10.75	10.57	—	1905	—	3,453	—	—	—	SCS
	do	do	do	—	—	Sept. 1937	32	3,315	—	*60	.408	533	
21-5	Quemahoning	Quemahoning Creek	do	92	90.7	Jan. 1912	—	35,295	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1937	25.8	34,413	—	—	.377	—	
21-6	Salt Lick	Salt Lick Run	do	11.86	11.76	—	1914	—	2,492	—	—	—	SCS
	do	do	do	—	—	Sept. 1937	23	2,432	—	*60	.22	287	
21-7a	Bridgeport (Upper)	Jacobs Creek	Mt. Pleasant, Pa.	18/31.64	18/31.52	Mar. 1887	—	642.0	.016	—	—	—	SCS
	do	do	do	—	—	Nov. 1937	50.6	453.0	.011	—	18/118	168	
	do	do	do	—	—	Nov. 1964	27.0	338.5	.008	65.4	.134	191	

1/ Prior to 1925 dam was 35 ft. lower.
2/ Original volume computed from probings obtained Feb. 1938. Sediment deposits and water inflow computed from dam closure in 1913. Five foot flash boards removed Sept. 1964.

3/ Revised.
4/ Minus (-) indicates scour. Treated as negative sediment.
5/ Computed from probings and available maps.
6/ From first accurate area-volume curves, 1941 conditions.
7/ Multiple-use storage capacity. Reservoir has greater capacity at spillway crest elevation.
8/ Notably Dam closed Jan. 24, 1942. Chatuge Dam closed Feb. 12, 1942.
9/ Does not include 553 ac.-ft. of sediment flushed into reservoir when small upstream dam failed in Mar. 1944.
10/ Blue Ridge Reservoir closed Dec. 5, 1930. Ocoee #3 closed Aug. 15, 1942.
11/ Based on Tenn. Electric Power Co. data adjusted to latest topographic maps.

12/ Volume computed by average end area method from first accurate area-volume curves - 1940 conditions.

13/ Volume computed from contours based on 1949 survey.

14/ Sediment contributing area reduced by closing Watts Bar Dam on Jan. 1, 1942, and Apalachia Dam, Feb. 14, 1943.

15/ Morris Dam closed Mar. 4, 1936, and Chickamauga Dam closed Jan. 15, 1940, reducing sediment contributing area to 990 sq. mi.

16/ Determined during 1956 survey.

17/ Date storage began. Sediment ranges established and surveyed in Dec. 1937 by Soil Conservation Service, USDA.

18/ Original data revised. 1964 survey data based on corrected elevation and topography from transit survey (1963).

* Estimated or assumed.

SUMMARY OF
RESERVOIR SEDIMENTATION SURVEYS MADE IN THE UNITED STATES THROUGH 1970

DATA SHEET NUMBER	RESERVOIR	STREAM	NEAREST TOWN	DRAINAGE AREA (SQUARE MILES)		DATE OF SURVEY	PERIOD BETWEEN SURVEYS (YEARS)	STORAGE CAPACITY (ACRE-FT.)	CAPACITY AVG. ANN. INFLOW RATIO (ACRE-FT. PER ACRE-FT.)	SPECIFIC WEIGHT (DRY) (LB. PER CU. FT.)	AVG. ANN. SEDIMENT ACCUMULATION PER SQ. MI. OF NET DR. AREA FOR PERIOD SHOWN		AGENCY SUPPLYING DATA
				TOTAL	NET						AC.-FT.	TONS	
OHIO RIVER BASIN (ABOVE POINT PLEASANT) AND LAKE ERIE DRAINAGE (Continued)													
21-8	Barberton	Wolf Creek	Barberton, Ohio	28.2	28.0	1926	—	2,056	*.101	—	—	—	SCS
21-9	Buckeye Lake	S. Fork Licking River	Millersport, Ohio	149.2	45.1	Dec. 1938	12	1,688	*.083	*55	1.10	1,320	SCS
21-10	Leesville	McGuire Creek	Leesville, Ohio	48.0	45.7	July 1939	107	27,940	—	*50	.860	937	SCS
21-11	Muskingum College	Trib. of Muskingum River	New Concord, Ohio	.32	.31	Nov. 1939	3.3	37,400	*1.159	*50	.067	73	SCS
21-12	Ohio Cons. Pond No. 22	Trib. of Duck Creek	Marietta, Ohio	.05	.05	1915	—	9.42	*.042	—	—	—	SCS
21-13	Ohio Cons. Pond No. 51	Trib. of Ohio River	—	.13	.13	Oct. 1938	1.1	7.05	*.031	*70	.381	581	SCS
21-14	Ohio Cons. Pond No. 52	—	—	.17	.16	Nov. 1939	11	4.43	*.116	—	4.00	3,485	SCS
21-15	Robbins Lake	Ford Creek	Hartford, Ohio	4.47	4.45	Summer 1922	—	4.21	*.110	—	.977	851	SCS
21-16	Gorleys Lake	Trib. of Troughs River	Uniontown, Pa.	3.00	2.97	Dec. 1939	17.4	15.16	*.152	—	1.45	1,579	SCS
21-17	Lake Rockwell	Cuyahoga River	Kent, Ohio	205.5	124.1	1908	—	91.6	*.028	—	.151	224	SCS
21-18a	Story Lake	McGuire Creek	Perryville, Ohio	11.75	11.72	1908	—	79.9	*.025	*68	.135	176	SCS
21-19	Tabor Club Lake	Small Br. Muskingum River	—	.55	.54	June 1939	30	138	—	*60	.120	120	ODW
21-20	Zanesville Nursery Lake	W. Br. Blount Run	Zanesville, Ohio	2.95	2.93	Aug. 1914	—	7,423	—	—	.319	452	SCS
21-21a	Tionesta	Tionesta Creek	Tionesta, Pa.	478	474	Aug. 1950	36	6,887	—	*65	.156	221	SCS
21-22a	Loyalhanna	Loyalhanna Creek	Saltsburg, Pa.	290	285	1927	—	121	—	—	.326	462	CE
21-23a	—	—	—	—	—	Dec. 1938	11.0	80	*.145	—	.203	287	CE
21-23b	—	—	—	—	—	May 1949	10.4	61	*.115	*50	.326	312	CE
21-24a	—	—	—	—	—	Dec. 1936	—	76.62	*.034	—	.284	272	CE
21-24b	—	—	—	—	—	July 1941	4.6	72.23	*.032	*65	.162	229	CE
21-25a	—	—	—	—	—	Feb. 1941	—	133,400	.210	—	.178	167	CE
21-25b	—	—	—	—	—	Sept. 1949	8.6	132,571	.209	*65	.062	87.8	CE
21-26a	—	—	—	—	—	June 1942	—	579,300	.278	—	.277	308	CE
21-26b	—	—	—	—	—	Oct. 1948	6.33	94,652	.276	*44	.358	343	CE
21-27a	—	—	—	—	—	Sept. 1953	4.92	91,192	.275	*44	.326	312	CE
21-27b	—	—	—	—	—	Apr. 1962	8.58	93,502	.273	*44	.284	272	CE
21-28a	—	—	—	—	—	June 1941	—	674,200	.180	—	.162	229	CE
21-28b	—	—	—	—	—	Aug. 1948	7.2	73,807	.172	*65	.178	167	CE
21-29a	—	—	—	—	—	June 1965	16.8	72,800	.177	—	.062	87.8	CE
21-29b	—	—	—	—	—	Apr. 1940	—	7,93,900	.307	—	.277	308	CE
21-30a	—	—	—	—	—	Sept. 1945	5.4	93,808	.307	*65	.062	87.8	CE
21-30b	—	—	—	—	—	Aug. 1964	18.9	92,376	.302	*51	.277	308	CE
21-31a	—	—	—	—	—	Oct. 1937	—	289,600	.175	—	—	—	CE
21-31b	—	—	—	—	—	Feb. 1948	—	—	—	—	—	—	CE
21-32a	—	—	—	—	—	Mar. 1959	21.5	287,700	.174	*65	.075	106	CE
21-32b	—	—	—	—	—	Oct. 1943	—	254,000	.406	—	.342	483	CE
21-33a	—	—	—	—	—	Oct. 1949	6.0	253,121	.405	*65	.342	483	CE
21-33b	—	—	—	—	—	Apr. 1940	—	49,700	.994	—	.29	410	SCS
21-34a	—	—	—	—	—	Dec. 1946	6.7	49,570	.991	*65	.29	410	SCS
21-35a	—	—	—	—	—	—	1932	—	.245	*.019	.15	196	SCS
21-35b	—	—	—	—	—	Apr. 1951	19	.189	*.015	*60	.15	196	SCS
21-36a	—	—	—	—	—	—	1944	1.87	*.019	—	.281	367	SCS
21-36b	—	—	—	—	—	Apr. 1951	7	1.24	*.016	*60	.611	798	SCS
21-37a	—	—	—	—	—	—	1940	3.40	*.058	—	.567	743	SCS
21-37b	—	—	—	—	—	Apr. 1951	11	2.79	*.048	*60	.567	743	SCS
21-38a	—	—	—	—	—	—	1940	1.48	*.076	—	.567	743	SCS
21-38b	—	—	—	—	—	Apr. 1951	11	1.29	*.066	*60	.567	743	SCS
21-39a	—	—	—	—	—	—	1949	2.84	*.027	—	.100	131	ODW
21-39b	—	—	—	—	—	Apr. 1951	2	2.81	*.027	*60	.100	131	ODW
21-40a	—	—	—	—	—	May 1939	—	1,555	.201	—	.442	720	ODW
21-40b	—	—	—	—	—	July 1949	10.2	1,511	.195	74.8	.523	—	ODW
21-41a	—	—	—	—	—	June 1955	5.9	1,481	.191	—	.523	—	ODW
21-41b	—	—	—	—	—	Aug. 1969	14.2	1,451	.187	—	.213	—	ODW
21-42a	—	—	—	—	—	Dec. 1935	—	178	.029	—	.199	164	ODW
21-42b	—	—	—	—	—	Aug. 1950	15	156	.025	77.9	.466	—	ODW
21-43a	—	—	—	—	—	June 1956	6	134	.022	—	.466	—	ODW
21-43b	—	—	—	—	—	June 1961	5	131	.021	—	.466	—	ODW

21-35e	Clouse Lake	Chr. Br. Rush Creek	Somerset, Ohio	8.7	8.66	1948	234	.037	—	—	—	—	ODW
	do	do	do	—	—	1949	217	.035	9/55.7	1.00	10/1.213	—	
	do	do	do	—	—	1950	206	.033	9/50.6	1.27	1.177	—	
	do	do	do	—	—	1951	202	.032	9/53	.45	.693	—	
	do	do	do	—	—	1952	199	.032	9/55.6	.34	.609	—	
	do	do	do	—	—	1953	197	.031	2/65.3	.25	1.239	—	
	do	do	do	—	—	1954	193	.031	2/66.2	.41	.926	—	
	do	do	do	—	—	1955	192	.031	—	.14	—	—	
	do	do	do	—	—	1956	187	.030	—	.55	—	—	
	do	do	do	—	—	1957	183	.029	—	.47	—	—	
	do	do	do	—	—	1958	177	.028	—	.64	—	—	
	do	do	do	—	—	1959	176	.028	—	.18	—	—	
	do	do	do	—	—	1961	170	.027	—	.37	—	—	
	do	do	do	—	—	1962	166	.026	—	.42	—	—	
	do	do	do	—	—	1963	163	.026	—	.33	—	—	
	do	do	do	—	—	1964	159	.025	—	.45	—	—	
	do	do	do	—	—	1966	150	.024	—	.55	—	—	
	do	do	do	—	—	1967	148	.024	—	.22	—	—	
	do	do	do	—	—	1968	146	.023	—	.236	—	—	
	do	do	do	—	—	1969	145	.023	—	.136	—	—	
	do	do	do	—	—	1970	142	.023	—	.319	—	—	
21-36	East Branch	E. Br. Cuyahoga River	Burton, Ohio	17.53	16.88	1939	—	4,659	*.340	—	—	—	ODW
	do	do	do	—	—	June 1949	9.7	4,535	*.331	*.40	.759	661	—
21-37	Westville Lake	Trib. of Mahoning River	Alliance, Ohio	8.36	8.22	1913	—	994	—	—	—	—	ODW
	do	do	do	—	—	Aug. 1950	37	933	—	.66	.20	287	—
21-38	Berlin	Mahoning River	Berlin Center, Ohio	249	246	July 1943	—	—	—	—	—	—	CE
	do	do	do	—	—	Nov. 1951	8.4	91,200	.551	*100	1.30	2,830	—
21-39a	Mountain Lake	Broad Ford Run	Mt. Lake Park, Md.	7.4	7.4	1880*	—	122.75	—	—	—	—	SCS
	do	do	do	—	—	July 1957	76	77.02	—	—	.081	—	—
21-40	Elasor Lake	Trib. of Sandy Creek	Minerva, Ohio	.07	.07	1931	—	.15	—	—	—	—	ODW
	do	do	do	—	—	1938	7	.0	—	*.65	.29	410	—
21-41	Braden Lake	do	do	.12	.12	1930	—	.11	—	—	—	—	ODW
	do	do	do	—	—	1938	8	.00	—	.65	.08	113.3	—
21-42	Lake Milton	Mahoning River	Milton, Ohio	280	277.4	1916	—	28,100	—	—	—	—	ODW
	do	do	do	—	—	1941	25	22,250	—	*.65	.84	1,189	—
21-43	Peters Pond	Trib. of Indian Creek	Lancaster, Ohio	.11	.11	1946	—	9.46	—	—	—	—	ODW
	do	do	do	—	—	1954	8	9.11	—	.48.1	.36	377	—
21-44	Wyandot Lake	Trib. of Clear Creek	Logan, Ohio	.58	.58	1930	—	11.5	—	—	—	—	ODW
	do	do	do	—	—	1948	18	4.65	—	—	.657	—	—
21-45	Orchard Park	Pipe Creek	Orchard Park, N. Y.	1.67	—	1928	—	169.99	—	—	—	—	SCS
	do	do	do	—	—	Oct. 1951	23	161.26	—	*.60	.23	300	—
21-46	Terra Alta Lake	Snowy River	Kingswood, W. Va.	4.76	—	1902	—	144.8	—	—	—	—	SCS
	do	do	do	—	—	June 1952	50	117.3	—	*.50	.117	127	—
21-47	Centerville Mills Lake	Aurora Br. Chargin River	Aurora, Ohio	10.4	10.38	1855	—	86.3	.010	—	—	—	ODW
	do	do	do	—	—	1949	94	38.3	.004	*.65	.0493	69.6	—
21-48	Meander Creek	Meander Creek	Youngstown, Ohio	84.9	81.76	1929	—	32,400	.597	—	—	—	ODW
	do	do	do	—	—	1949	20	31,835	.586	*.65	.346	489	—
21-49	Harvard Mason	Salem Fork	Salem, W. Va.	.29	.29	Oct. 1954	—	69.58	.265	—	—	—	SCS
	do	do	do	—	—	Oct. 1956	2.0	68.95	.262	*.60	1.09	1,424.4	—
	do	do	do	—	—	Oct. 1958	2.0	68.77	.261	—	.31	405.1	—
	do	do	do	—	—	Dec. 1960	2.2	68.60	.261	—	.27	352.8	—
21-50	Knox Lake	E. Branch Kokosing	Fredericktown, Ohio	31.4	30.66	11/Fall 1949	—	3,502	.146	—	—	—	ODW
	do	do	do	—	—	Aug. 1960	7	3,399	.142	—	.48	—	—
	do	do	do	—	—	July 1970	10	3,283	.137	—	.378	—	—
21-51	Veto Lake	Little Hocking River	Belpre, Ohio	20.04	19.79	May 1954	—	1,111	.0642	—	—	—	ODW
	do	do	do	—	—	July 1955	1.2	1,092	.0631	—	.787	—	—
	do	do	do	—	—	July 1960	5	1,059	.0612	—	.341	—	—
	do	do	do	—	—	Aug. 1966	6	1,009	.0583	—	.419	—	—
21-52	Clear Fork Reservoir	Clear Fork	Lexington, Ohio	33.63	32.05	Oct. 1948	—	13,176	.565	—	—	—	ODW
	do	do	do	—	—	Aug. 1956	8	12,886	.553	—	1.13	—	—
	do	do	do	—	—	July 1962	6	12,731	.546	—	.806	—	—
21-53	Findley Lake	Wellington Creek	Wellington, Ohio	6.25	6.12	Mar. 1956	—	760.4	.190	—	—	—	ODW
	do	do	do	—	—	June 1961	5.6	745.5	.186	—	.435	—	—
21-54	Lake Logan	Clear Fork	Logan, Ohio	14.7	14.17	Feb. 1955	—	3,142	.291	—	—	—	ODW
	do	do	do	—	—	Aug. 1966	11.8	3,081	.285	—	.363	—	—
21-55	Ischua Creek Site #2	Johnson Creek	Franklinville, N. Y.	2.8	2.75	Aug. 1964	—	465	.156	—	—	—	SCS
	do	do	do	—	—	July 1967	2.91	464.72	.156	*.80	.0345	60.5	—
	do	do	do	—	—	Sept. 1969	2.16	464.33	.156	.80	.0665	116	—
21-56	Ischua Creek Site #5	Gates Creek	do	6.4	6.28	Aug. 1964	—	1,085	.159	—	—	—	SCS
	do	do	do	—	—	Aug. 1967	3	1,083.77	.159	*.80	.065	113.3	—
	do	do	do	—	—	Sept. 1969	2.12	1,082.95	.159	.80	.062	108	—

1/ Drainage area has been 115 sq. mi. (net) part of the time in the past, when fed partly by feeder from S. Fork Kirtzville River.

2/ At present spillway elevation (lowered in 1908). From 1936 to 1908, spillway elevation was 873.4, surface area 3,636 acres, and capacity 22,090 ac.-ft. From 1832 to 1836, spillway elevation was lower and surface area was 3,136 acres. Natural lake of 650 acres originally.

3/ East Branch Reservoir and many natural lakes act as efficient sediment traps.

4/ Dam failed earlier in 1938 but little sediment lost.

5/ At elevation 975. Elevation top of gates = 976 ft.

6/ At elevation 1,162. Elevation top of gates = 1,164 ft.

7/ At elevation 920. Spillway crest elevation = 918 ft.

8/ In view of the limited amount of sediment computed in the 1945 report (384 ac.-ft.), the values of the 1945 report are not included and were not used in computing survey data for the 1959 report. It is considered that the longer period (21.5 yr.) was necessary to develop a volume capable of being measured with a reasonable degree of accuracy.

9/ Density for entire period of record.

10/ Computed from differences in total sediment accumulation in tons at each survey.

11/ Gate closed Fall 1949. Drained March 1950. Gate closed May 1954.

* Estimated or assumed.

SUMMARY OF
RESERVOIR SEDIMENTATION SURVEYS MADE IN THE UNITED STATES THROUGH 1970

DATA SHEET NUMBER	RESERVOIR	STREAM	NEAREST TOWN	DRAINAGE AREA (SQUARE MILES)		DATE OF SURVEY	PERIOD BETWEEN SURVEYS (YEARS)	STORAGE CAPACITY (ACRE-FT.)	CAPACITY AVG. ANN. INFLOW RATIO (ACRE-FT. PER ACRE-FT.)	SPECIFIC WEIGHT (DRY) (LB. PER CU. FT.)	AVG. ANN. SEDIMENT ACCUMULATION PER SQ. MI. OF NET DR. AREA FOR PERIOD SHOWN		AGENCY SUPPLYING DATA
				TOTAL	NET						AC.-FT.	TONS	
OHIO RIVER BASIN (ABOVE POINT PLEASANT) AND LAKE ERIE DRAINAGE (Continued)													
21-57	North Fk. Cowanesque River (PA-106)	White Branch-----	North Fork, Pa.-----	3.4	3.3	Aug. 1962	--	654.13	.21	--	--	--	SCS
	do	do	do	--	--	July 1967	4.9	653.89	.21	--	--	--	
21-58	Salen Fork No. 11A	Varner Hollow-----	Salen, W. Va.-----	.288	.287	Oct. 1954	--	53	.168	71	1/0.015	1/23.2	SCS
	do	do	do	--	--	Oct. 1955	2	52.25	.166	*60	1.307	1,708	
	do	do	do	--	--	Oct. 1958	2	52.05	.165	--	.348	.455	
	do	do	do	--	--	Dec. 1960	2.17	51.95	.165	--	.16	.209	
	do	do	do	--	--	June 1962	1.58	51.75	.164	--	.443	.579	
21-59	Upper Hooking No. 1	Hunters Run-----	Lancaster, Ohio-----	1.04	.94	Apr. 1956	--	450	.882	--	--	--	SCS
	do	do	do	--	--	June 1962	6.08	446.13	.875	71.6	.678	1,057	
GREAT LAKES DRAINAGE (IN MICHIGAN) AND MAUMEE RIVER BASIN													
22-1	Grand2/	St. Marys and Wabash River	Celina, Ohio-----	118	93	1844	--	2/130,175	*2.193	--	--	--	SCS
	do	do	do	--	--	Aug. 1960	96	106,505	*1.796	*55	2.64	3,162	
22-2	Stronach	Pine R. of Manistee River	Wellston, Mich.-----	291	233	1912	--	640	*.503	--	--	--	SCS
	do	do	do	--	--	Jan. 1953	41	27	*.0001	110.4	.064	154	
22-3	Goller Pond	Unnamed-----	Defiance, Ohio-----	.026	.024	Mar. 1945	--	9.5	*.761	--	--	--	ODW
	do	do	do	--	--	Aug. 1951	6.4	9.4	*.753	*45	.92	902	
22-4a	Auglaize R. Power	Auglaize River-----	do	2,329	2,326	1912	--	1/11,400	.012	--	--	--	ODW
	do	do	do	--	--	1951	39	11,500	.009	--	.031	--	
22-5	Eagle Creek5/	Eagle Creek-----	do	5.23	5.20	1912	--	129	.050	--	--	--	ODW
	do	do	do	--	--	July 1951	39	74	.029	59	.27	347	
22-6	Beetree Creek5/	Beetree Creek-----	do	1.94	1.91	1912	--	148	*.156	--	--	--	ODW
	do	do	do	--	--	Aug. 1951	39	104	*.109	52.5	.59	675	
22-7	Batt Pond	Unnamed-----	do	.013	.012	Apr. 1947	--	2.6	*.417	73.4	2.75	4,396	ODW
	do	do	do	--	--	July 1951	4.3	2.5	*.401	--	--	--	
22-8	Harrison Lake	Mill Creek-----	Fayette, Ohio-----	37.2	37.0	1941	--	991	.051	--	--	--	ODW
	do	do	do	--	--	June 1949	8.3	929.1	.048	53.2	.20	232	
	do	do	do	--	--	July 1951	2.1	902.4	.046	*53	.34	392	
22-9	Allmandinger Pond	Unnamed-----	Ohio City, Ohio-----	.038	.035	Jan. 1945	--	5.08	*.239	--	--	--	ODW
	do	do	do	--	--	July 1951	6.7	4.71	*.221	53.7	1.71	2,001	
22-10	Bucyrus No. 2	Trib. of Sandusky River	Bucyrus, Ohio-----	2.84	2.79	1919	--	242	.120	--	--	--	ODW
	do	do	do	--	--	June 1949	30	218	.108	45.4	.28	277	
22-11c	Contris Pond6/	Trib. of Hoo Creek-----	Lafayette, Ohio-----	.13	.13	1947	--	9.2	.133	--	--	--	ODW
	do	do	do	--	--	1951	4	7.9	.114	57.8	2.60	3,270	
	do	do	do	--	--	1954	3	7.4	.107	*49.3	1.36	1,460	
	do	do	do	--	--	1962	8	6.3	.091	--	.969	--	
22-12	Sixmile Creek5/	Sixmile Creek-----	Defiance, Ohio-----	21.6	21.4	1912	--	995	*.094	--	--	--	ODW
	do	do	do	--	--	July 1951	39	696	*.066	43.8	.36	343	
22-13a	Burt Lake	Unnamed-----	Oakwood, Ohio-----	.76	.74	Sept. 1948	--	59	*.155	--	--	--	ODW
	do	do	do	--	--	July 1951	2.8	57	*.150	37.2	1.13	924	
22-14	Kohart Pond	Unnamed-----	Grover Hill, Ohio-----	.021	.019	Sept. 1943	--	2.4	*.229	--	--	--	ODW
	do	do	do	--	--	July 1951	7.8	2.3	*.219	26.1	.53	301	
22-15	Van Buren Lake	Rocky Ford Creek-----	Findlay, Ohio-----	22.80	22.72	Spring 1939	--	248	.022	--	--	--	ODW
	do	do	do	--	--	Nov. 1948	9.5	205	.019	53.6	.20	233	
	do	do	do	--	--	Aug. 1951	2.8	186	.017	57.9	.31	391	
22-16	Norvell Lake	River Raisin-----	Norvell, Mich.-----	58.5	25.3	May 1969	100+	717.6	.026	--	--	--	SCS
	do	do	do	--	--	May 1969	100+	502.3	.018	23.3	.085	43	
22-17	Sharon Hollow	do	Manchester, Mich.-----	34.7	25	1927	--	258.1	.016	--	--	--	SCS
	do	do	do	--	--	May 1969	42	143.9	.009	30.1	.11	72	
22-18	Brooklyn Mill Pond	do	Brooklyn, Mich.-----	29.6	6.2	1948	--	249.3	.016	--	--	--	SCS
	do	do	do	--	--	May 1969	21	186.3	.012	43.4	.484	457	
22-19	Manchester Power Dam	do	Manchester, Mich.-----	6.4	6.4	1945	--	288.9	.09	--	--	--	SCS
	do	do	do	--	--	May 1969	23	259.5	.08	31.5	.20	137	
22-20	Iron Mill Pond	Iron Creek-----	do	14.4	5.2	--	--	1,551	.224	--	--	--	SCS
	do	do	do	--	--	Aug. 1969	100	1,159	.168	--	.75	--	
22-21	Phoenix Pond	Middle River Rouge-----	Plymouth, Mich.-----	56.85	56.85	--	--	225	.0074	--	--	--	SCS
	do	do	do	--	--	Sept. 1969	100	170	.0056	41.8	.0097	8.8	
22-22	Saline Mill Pond	Saline River-----	Saline, Mich.-----	73.6	63	1937	--	240.1	.0061	--	--	--	SCS
	do	do	do	--	--	Mar. 1969	31	129.6	.0033	44	.057	54	
22-23	Manchester Mill Pond	Raisin River-----	Manchester, Mich.-----	17	17	1906	--	21.33	.0026	--	--	--	SCS
	do	do	do	--	--	May 1969	63	10.9	.0013	38	.01	8	
22-24	Bridgeaway Lake	Unnamed-----	Dexter, Mich.-----	7.5	7.5	1927	--	76.7	.0250	--	--	--	SCS
	do	do	do	--	--	Mar. 1969	41	47.9	.0156	46	.093	93	
22-25	Franklin Mill Pond	Franklin Branch Rouge	Franklin, Mich.-----	13.8	7.8	1833	--	97.8	.0133	--	--	--	SCS
	do	do	do	--	--	Apr. 1969	136	13.1	.0018	50	.079	86	
22-26	Waterford Pond	Middle River Rouge-----	Northville, Mich.-----	54	54	--	--	173	.0067	--	--	--	SCS
	do	do	do	--	--	Sept. 1969	100	101	.0039	39	.013	11	

22-27	Tecumseh Mill Pond	Evans Creek	Tecumseh, Mich.	31.6	26.3	1827	227.8	.01501	--	--	--	SCS
	do	do	do	--	--	Apr. 1969	94.7	.0062	59	.0356	45	SCS
22-28	Belleville Lake	Huron River	Belleville, Mich.	810	20.3	1929	19,945	.0513	--	--	--	SCS
	do	do	do	--	--	July 1969	17,980	.0462	69	2.42	3,637	SCS
22-29	Ford Lake	Ypsilanti, Mich.	790	11.2	1933	17,926	.0472	--	--	--	--	SCS
	do	do	do	--	--	July 1969	16,085	.0424	81	4.56	8,045	SCS
22-30	Barton Pond	do	Ann Arbor, Mich.	708	183	1915	3,150	.0083	--	--	--	SCS
	do	do	do	--	--	July 1969	2,601	.0068	39	.055	46	SCS
22-31	Red Mill Pond	Upper Raisin	Tecumseh, Mich.	172.9	25.9	--	677	.0081	--	--	--	SCS
	do	do	do	--	--	Aug. 1969	336	.0040	41.9	.13	118	SCS
22-32	H. N. Fry Pond	Squaw Creek	Onstead, Mich.	12.45	12.45	Early 1962	121.3	.020	--	--	--	SCS
	do	do	do	--	--	Aug. 1969	7	.019	--	.06	--	SCS
22-33	Newburgh Lake	Middle Rouge	Plymouth, Mich.	54.3	54.3	1973	667.8	.026	--	--	--	SCS
	do	do	do	--	--	Sept. 1969	562.9	.022	56.08	.054	65.96	SCS
22-34	Lake Adrian	Wolf Creek	Adrian, Mich.	65	59	1942	1,000	.032	--	--	--	SCS
	do	do	do	--	--	Sept. 1969	851	.027	75.1	.09	147	SCS

GREAT LAKES DRAINAGE (IN MICHIGAN AND WISCONSIN)

23-

MISSISSIPPI RIVER BASIN (LOUISIANA TO CHESTER) ILLINOIS, KANSAS, AND MERAMEC RIVER BASINS

24-1a	Lake Williamson (Artic Pond)	Trib. of Honey Creek	Carlinville, Ill.	.53	.51	1922	175.6	.614	--	--	--	IWS
	do	do	do	--	--	1949	159.5	.558	46.24	1.18	1,188	IWS
	do	do	do	--	--	1954	152.2	.532	46.24	2.90	2,921	IWS
	do	do	do	--	--	1961	147.6	.516	46.24	1.25	1,259	IWS
24-2b	Lake Bloomington	Money Creek	Hudson, Ill.	61	60	Dec. 1929	6,654	1.981	--	--	--	IWS
	do	do	do	--	--	Aug. 1948	18.7	6,062	41.5	.528	477	IWS
	do	do	do	--	--	Aug. 1952	4.0	5,905	41.5	.655	592	IWS
	do	do	do	--	--	July 1955	2.9	5,863	46	.242	243	IWS
24-3b	Lake Carlinville	Honey Creek	Carlinville, Ill.	26.06	25.79	June 1939	1,725	.118	--	--	--	IWS
	do	do	do	--	--	June 1949	10.4	1,475	59.1	.934	1,200	IWS
	do	do	do	--	--	July 1954	5.1	1,427	65.7	.345	521	IWS
	do	do	do	--	--	Sept. 1959	5.1	1,387	62.4	.302	480	IWS
24-4a	Lake Decatur	Sangamon River	Decatur, Ill.	906	902	Apr. 1922	19,738	--	--	--	--	SCS
	do	do	do	--	--	July 1936	14.2	16,930	--	.220	248	SCS
	do	do	do	--	--	June 1946	10.0	14,567	51.7	.262	295	SCS
24-5	Shaefer Pond	Trib. of Cahokia Creek	Edwardsville, Ill.	.087	.083	Nov. 1937	20.2	--	--	--	--	IWS
	do	do	do	--	--	July 1949	11.8	17.6	*50	2.65	2,890	IWS
24-6	Lake Springfield	Sugar and Lick Creeks	Springfield, Ill.	265	258	Jan. 1934	61,039	--	--	--	--	IWS
	do	do	do	--	--	Aug. 1948	14.6	58,380	43	--	705	IWS
24-7	Spring Lake	Spring Creek	Macomb, Ill.	20.2	20.1	Apr. 1927	607	--	--	--	--	IWS
	do	do	do	--	--	Sept. 1947	20.4	320	59.7	.701	911	IWS
24-8	Lake Bracken	Brush Creek	Galesburg, Ill.	9.14	8.85	Dec. 1923	2,881	--	--	--	--	IWS
	do	do	do	--	--	Aug. 1936	12.7	2,660	--	1.97	2,231	IWS
	do	do	do	--	--	June 1949	12.9	2,452	52	1.82	2,061	IWS
24-9	Pittsfield	Trib. of Panther Creek	Pittsfield, Ill.	1.84	1.77	June 1925	7,367	*.490	--	--	--	SCS
	do	do	do	--	--	Dec. 1946	21.5	232	*.310	3.55	3,090	SCS
24-10a	Lock and Dam 25 (Winfield)	Mississippi River	Winfield, Mo.	142,000	--	July 1939	180,000	--	--	--	--	CE
	do	do	do	--	--	May 1945	5.9	194,100	--	--	--	CE
	do	do	do	--	--	May 1946	1.0	181,400	--	--	--	CE
	do	do	do	--	--	Dec. 1947	1.6	184,000	--	--	--	CE
	do	do	do	--	--	May 1959	11.4	155,000	--	--	--	CE
24-11a	Mt. Sterling	Trib. of Shelby Creek	Mt. Sterling, Ill.	1.80	1.75	1935	306	.393	--	--	--	IWS
	do	do	do	--	--	1951	16	.319	60	2.05	2,679	IWS
24-12	Lake Jacksonville	Sandy Creek	Jacksonville, Ill.	10.8	10.1	1939	7,098	1.167	--	--	--	IWS
	do	do	do	--	--	June 1952	12.0	6,874	32.5	1.51	1,069	IWS
24-13	Mauvaises Terre Lake	Mauvaises Terre Creek	do	32.6	32.2	1921	1,820	.100	--	--	--	IWS
	do	do	do	--	--	June 1952	31	1,215	48.2	.61	640	IWS
24-14a	Morgan Lake	Unnamed	do	2.75	2.72	1900	126	.082	--	--	--	IWS
	do	do	do	--	--	June 1952	52	73	41.2	.38	341	IWS
24-15a	Langdon Pond	do	Franklin, Ill.	.358	.348	1907	56.8	.284	--	--	--	IWS
	do	do	do	--	--	July 1952	45	44.8	31.8	.78	540	IWS
24-16	Franklin Outing Club Lake	do	do	.450	.414	1905	328	1.302	--	--	--	IWS
	do	do	do	--	--	July 1952	47	301	52.4	1.43	1,632	IWS
24-17	Anderson Lake	do	Concord, Ill.	.631	.600	1909	267	.756	--	--	--	IWS
	do	do	do	--	--	July 1952	43	234	36.2	1.28	1,009	IWS
24-18	Maverly City	do	Maverly, Ill.	9.24	9.16	Oct. 1928	308.3	.060	--	--	--	IWS
	do	do	do	--	--	July 1952	13.8	238.4	42.4	.551	509	IWS
24-19	Whitehall City	do	Whitehall, Ill.	.97	.92	1897	459	.846	--	--	--	IWS
	do	do	do	--	--	July 1952	55	408	43.1	1.02	957	IWS
24-20	Roodhouse Park District Lake	do	Roodhouse, Ill.	.451	.439	1917	61.6	.243	--	--	--	IWS
	do	do	do	--	--	July 1952	35	53.9	42.4	.50	462	IWS
24-21	Woodbine Country Club Lake	do	Greenfield, Ill.	.329	.320	1926	58.5	.318	--	--	--	IWS
	do	do	do	--	--	July 1952	26	43.4	54.4	1.81	2,144	IWS
24-22	Dale Cole Pond	do	do	.231	.221	1924	67.2	.521	--	--	--	IWS
	do	do	do	--	--	July 1952	28	56.7	53.7	1.72	2,012	IWS
24-23	Sealy Pond	do	Hillview, Ill.	.093	.091	1902	3.7	.071	--	--	--	IWS
	do	do	do	--	--	July 1952	50	2.2	35.6	.30	233	IWS

1/ Sediment pool only.
2/ Also known as Lake St. Marys.
3/ At present spillway elevation (lowered in 1856). In 1844 surface area was 17,603 acres and storage capacity was 220,400 ac.-ft.
4/ Capacity and sediment figures include that of several tributary arms including Beech, Eagle and Sionville Creeks.

5/ Tributary arm of Auglaize River Power Reservoir.
6/ All figures subject to readjustment because of minor dredging which occurred in 1953.
7/ At present spillway elevation; spillway raised 1.24 ft. in 1944.
* Estimated or assumed.

SUMMARY OF
RESERVOIR SEDIMENTATION SURVEYS MADE IN THE UNITED STATES THROUGH 1970

DATA SHEET NUMBER	RESERVOIR	STREAM	NEAREST TOWN	DRAINAGE AREA (SQUARE MILES)		DATE OF SURVEY	PERIOD BETWEEN SURVEYS (YEARS)	STORAGE CAPACITY (ACRE-FT.)	CAPACITY AVG. ANN. INFLOW RATIO (ACRE-FT. PER ACRE-FT)	SPECIFIC WEIGHT (DRY) (LB. PER CU. FT.)	AVG. ANN. SEDIMENT ACCUMULATION PER SQ. MI. OF NET DR. AREA FOR PERIOD SHOWN		AGENCY SUPPLYING DATA
				TOTAL	NET						AC.-FT.	TONS	
MISSISSIPPI RIVER BASIN (LOUISIANA TO CHESTER) ILLINOIS, KASKASKIA, AND MERAMEC RIVER BASINS (Continued)													
24-24	Vineyard Pond	Unnamed	Whitehall, Ill.	0.054	0.052	Jan. 1937	--	1.58	.053	--	--	--	IWS
	do	do	do	--	--	July 1952	15.6	1.32	.044	36.2	0.33	260	IWS
24-25	Knapp	do	Springfield, Ill.	3.49	3.43	1907	--	181.8	.093	--	--	--	IWS
	do	do	do	--	--	Aug. 1952	45	115.3	.059	38.7	.431	363	IWS
24-26	Aschaner Pond	do	Riverton, Ill.	.526	.518	1939	--	18.3	.062	--	--	--	IWS
	do	do	do	--	--	Aug. 1952	13	9.4	.032	56.2	1.31	1,603	IWS
24-27	Schmidt Pond	do	Chatham, Ill.	1.31	1.30	1943	--	6.0	.008	--	--	--	IWS
	do	do	do	--	--	Aug. 1952	9	3.4	.005	41.2	.22	197	IWS
24-28	Ayers	Trib. of Shoal Creek	Ayers, Ill.	1.43	1.39	1906	--	200	.262	--	--	--	IWS
	do	do	do	--	--	Aug. 1958	52	150	.197	51.03	.69	766.87	IWS
24-29a	Bodeman Reservoir	Trib. of West Creek	Brunswick, Ind.	2.73	2.39	Aug. 1947	--	52.1	*.036	--	--	--	SCS
	do	do	do	--	--	Sept. 1960	13	44.8	*.031	56.7	.23	284	SCS
24-30	C B & Q R. R. Lake	Trib. of Sangamon River	Tallula, Ill.	.85	.84	1902	--	31.7	.067	--	--	--	IWS
	do	do	do	--	--	July 1952	50	15.4	.033	49.3	.39	419	IWS
24-31	Edwards Lake	Trib. of Cahokia Creek	Gillespie, Ill.	.42	.40	1949	--	74.2	.351	--	--	--	IWS
	do	do	do	--	--	Aug. 1958	9	68.0	.122	46.86	1.72	1,755.47	IWS
24-32	Etcheson's Lake	Trib. of Kaskaskia River	Vandalia, Ill.	.27	.26	1943	--	19.7	.137	--	--	--	IWS
	do	do	do	--	--	Aug. 1958	15	16.0	.111	55.66	.93	1,127.33	IWS
24-33	Glossier No. 1	Lost Creek	Kisberry, Mo.	1.05	1.04	Apr. 1956	--	1,772.5	--	--	--	--	SCS
	do	do	do	--	--	July 1960	4.3	70.3	--	--	--	--	SCS
24-34	I. C. at Kimbundy	Trib. of East Fork of Kaskaskia River	Kimbundy, Ill.	.618	.581	1902	--	174.14	.459	--	--	--	IWS
	do	do	do	--	--	July 1959	57	149.10	.323	35.5	.756	584.5	IWS
24-35	King's Lake	Trib. of Cahokia Creek	Eagarville, Ill.	.46	.44	1921	--	158.6	.680	--	--	--	IWS
	do	do	do	--	--	June 1958	37	139.5	.598	54.42	1.17	1,386.73	IWS
24-36	Lake Coulterville	South Fork Mud Creek	Coulterville, Ill.	1.22	1.18	1940	--	200	.276	--	--	--	IWS
	do	do	do	--	--	Aug. 1954	14	188	.260	34	.73	541	IWS
24-37	Lake Bunker Hill	Wood River	Bunker Hill, Ill.	7.19	7.15	1937	--	133	.033	--	--	--	IWS
	do	do	do	--	--	June 1954	17	36	.009	79.2	.80	1,380	IWS
24-38	Lake Gillespie	Dry Fork	Gillespie, Ill.	5.73	5.62	1923	--	799	.272	--	--	--	IWS
	do	do	do	--	--	July 1954	32	696	.237	37.9	.57	470	IWS
24-39	Lake Nashville	Nashville Creek	Nashville, Ill.	1.39	1.33	1936	--	320	.376	--	--	--	IWS
	do	do	do	--	--	Aug. 1954	19	289	.339	35.3	1.19	913	IWS
24-40	Lake Staunton	East Creek	Staunton, Ill.	3.68	3.54	1926	--	1,248	.630	--	--	--	IWS
	do	do	do	--	--	July 1954	28	1,140	.575	28.1	1.09	667	IWS
24-41	Macoupin County Lake Club	Trib. of Hurricane Creek	Carlinville, Ill.	.28	.26	1904	--	160.5	1.131	--	--	--	IWS
	do	do	do	--	--	June 1958	54	135.8	.976	37.13	1.76	1,423.32	IWS
24-42a	Mine Pond No. 4	Trib. of Cahokia Creek	Wilsonville, Ill.	5.29	5.23	1916	--	296.1	.110	--	--	--	IWS
	do	do	do	--	--	July 1958	42	141.6	.053	65.34	.70	996	IWS
24-43	New M. Olive	do	White City, Ill.	5.21	5.12	1938	--	432.8	.164	--	--	--	IWS
	do	do	do	--	--	June 1958	20	335.3	.127	52.35	.94	1,071.79	IWS
24-44a	Panama Lake	Trib. of Indian Creek	Panama, Ill.	.85	.84	1928	--	177.8	.536	--	--	--	IWS
	do	do	do	--	--	Aug. 1958	30	151.9	.458	48.2	1.01	1,130	IWS
24-45	Power Farm Ponds	Trib. of Sangamon River	Centrall, Ill.	.668	.666	1940	--	4.2	.011	--	--	--	IWS
	do	do	do	--	--	July 1952	12	1.3	.003	54.9	.36	430	IWS
24-46	Raccoon Lake	Raccoon Creek	Centrall, Ill.	48.4	47.3	1943	--	4,496.3	.152	--	--	--	IWS
	do	do	do	--	--	Sept. 1959	16	4,143.6	.140	39.7	.47	406	IWS
24-47	Robinson Pond	Terre Creek	Jacksonville, Ill.	.314	.304	1900	--	47.1	.277	--	--	--	IWS
	do	do	do	--	--	July 1952	52	35.6	.209	46.8	.70	713.51	IWS
24-48	Salem City	Trib. of Crooked Creek	Salem, Ill.	4.02	3.90	1912	--	597.86	.233	--	--	--	IWS
	do	do	do	--	--	Aug. 1960	48	530.88	.207	40.8	.36	320	IWS
24-49a	Virginia	Job's Creek	Virginia, Ill.	.828	.799	1933	--	154	.345	--	--	--	IWS
	do	do	do	--	--	1950	17	118	.260	*40	2.70	2,352	IWS
24-50	Walton Club Lake	Long Branch	Litchfield, Ill.	2.72	2.67	1882	--	378.3	.272	--	--	--	IWS
	do	do	do	--	--	July 1959	97	1,879.2	.136	48.4	.73	769.5	IWS
24-51	Look and Dam 26	Mississippi River	Alton, Ill.	171,470	--	May 1938	--	395,000	--	--	--	--	CS
	do	do	do	--	--	May 1945	7.1	390,200	--	--	--	--	CS
	do	do	do	--	--	Dec. 1945	.6	--	--	--	--	--	CS
	do	do	do	--	--	May 1946	.4	381,200	--	--	--	--	CS
	do	do	do	--	--	Oct. 1947	1.4	408,200	--	--	--	--	CS
	do	do	do	--	--	Apr. 1959	11.5	343,900	--	--	--	--	CS
	do	do	do	--	--	July 1958	--	93,458	--	--	--	--	CS
24-52a	Pool No. 22	do	Saverton, Mo.	137,500	--	Dec. 1954	16.33	85,231	.0017	--	.004	--	CS
	do	do	do	--	--	Dec. 1969	15	2,102,362	.0018	--	--	--	CS

UPPER MISSISSIPPI RIVER BASIN (FAIRMONT TO LOUISIANA)
Iowa, Shunk, and Des Moines River Basins

25-1	Pool No. 19 (Lake Cooper, Keokuk Dam)	Mississippi River	Keokuk, Iowa	119,000	--	--	1913	--	479,590	--	--	--	--	CE
	do	do	do	do	--	--	June 1928	15	370,300	--	--	--	--	
	do	do	do	do	--	--	June 1938	10	337,000	--	--	--	--	
	do	do	do	do	--	--	June 1946	8	312,266	--	--	--	--	
25-2	Upper Pile	Pine Creek	Kidore, Iowa	13.9	13.8	--	May 1934	--	660	--	.145	--	--	SCS
	do	do	do	do	--	--	Sept. 1947	13.3	452	--	.099	*60	1.14	*1,490
25-3	Lake Calhoun	Pitch Creek	Galva, Ill.	13.1	13.0	--	Sept. 1924	--	2/425	--	--	--	--	IWS
	do	do	do	do	--	--	Aug. 1936	11.9	273	--	--	--	.977	1,190
	do	do	do	do	--	--	July 1947	11.0	112	--	--	56	1.12	1,370
25-4	Carthage	Long Creek	Carthage, Ill.	2.94	2.88	--	Mar. 1926	--	406.3	--	--	--	--	IWS
	do	do	do	do	--	--	Aug. 1949	--	308.2	--	--	--	--	
25-5	McCraney Creek New Desilting Basin	McCraney Creek	Kinderhook, Ill.	52.0	50.2	--	Dec. 1936	--	*2,400	--	--	*50	1.45	1,580
	do	do	do	do	--	--	Dec. 1939	3	*1,770	--	--	*85	4.18	7,740
	do	do	do	do	--	--	Dec. 1941	2	*1,664	--	--	*85	1.06	1,960
25-6	Pine Lake	Pine Creek	Kidore, Iowa	15.34	15.24	--	Dec. 1924	--	738	--	*.148	--	--	SCS
	do	do	do	do	--	--	Winter 1932	8	552	--	*.111	*60	1.52	*1,990
25-7	Hadley Creek Old Desilting Basin	Hadley Creek	New Canton, Ill.	77.0	5/72.7	--	Dec. 1921	--	3,000	--	*.067	--	--	SCS
	do	do	do	do	--	--	Dec. 1936	15	1,845	--	*.041	*85	1.06	1,960
25-8	Hadley Creek New Desilting Basin	do	do	77.0	5/72.7	--	Dec. 1936	--	3,080	--	*.068	--	--	SCS
	do	do	do	do	--	--	Dec. 1939	3	2,556	--	*.057	*85	2.41	4,460
25-9	Kiser Creek Desilting Basin	Kiser Creek	do	66.0	5/59.6	--	Dec. 1936	--	*2,800	--	*.073	--	--	SCS
	do	do	do	do	--	--	Dec. 1939	3	*2,490	--	*.059	*85	2.85	5,280
25-10	Beeds Lake	Unnamed	Hampton, Iowa	31.8	31.6	--	1935	--	1,154	--	*.069	--	--	SCS
	do	do	do	do	--	--	1946	11	1,070	--	*.064	*65	.24	340
25-11	C N St. P & F RR Res.	Trib. of Big Creek	Madrid, Iowa	2.34	2.52	--	1903	--	43	--	*.069	--	--	SCS
	do	do	do	do	--	--	1918	15	25	--	*.040	*70	.476	726
25-12a	Fairfield No. 3	Crow Creek	Fairfield, Iowa	2.05	2.00	--	1927	--	207	--	*.303	--	--	SCS
	do	do	do	do	--	--	1934	7	166	--	*.242	*51.6	2.96	3,327
25-13	Springbrook	Spring Brook	Outhrie Center, Iowa	2.1	2.1	--	July 1953	135	.198	--	*.198	*51.6	.795	893
	do	do	do	do	--	--	1935	--	185	--	*.386	--	--	SCS
	do	do	do	do	--	--	1946	10	172	--	*.359	*50	.638	695
25-14	Pool No. 16	Mississippi River	Muscotie, Iowa	99,400	--	--	Mar. 1938	--	113,370	--	--	--	--	CE
	do	do	do	do	--	--	Nov. 1949	11.7	106,347	--	--	--	--	
25-15	Pool No. 20	do	Canton, Mo.	134,300	--	--	Oct. 1937	--	89,850	--	--	--	--	CE
	do	do	do	do	--	--	Nov. 1950	13.1	87,740	--	--	--	--	
25-16	Bloomfield	Unnamed	Bloomfield, Iowa	2.25	2.13	--	Sept. 1937	--	896	--	*.664	--	--	SCS
	do	do	do	do	--	--	Sept. 1945	14.0	831	--	*.616	*60	2.16	2,823
25-17	Pool No. 17	Mississippi River	New Boston, Ill.	99,600	--	--	Aug. 1938	--	70,800	--	--	--	--	CE
	do	do	do	do	--	--	Mar. 1954	15.6	69,350	--	--	--	.001	
25-18	Pool No. 21	do	Quincy, Ill.	135,000	--	--	July 1938	--	78,040	--	--	--	.004	CE
	do	do	do	do	--	--	Mar. 1954	15.7	69,570	--	--	--	--	
25-19a	Caralville	Iowa River	Iowa City, Iowa	3,115	3,076	--	Sept. 1958	--	492,000	--	.47	--	--	CE
	do	do	do	do	--	--	Jan. 1964	5.33	485,400	--	.46	40	.402	390.2
	do	do	do	do	--	--	Apr. 1968	4.33	490,110	--	.46	45	.397	443.2

UPPER MISSISSIPPI RIVER BASIN (PRAIRIE DU CHIEN TO ROCK ISLAND) AND LAKE MICHIGAN DRAINAGE
Rock and Wapsipinicon River Basins

26-1a	Pool No. 15	Mississippi River	Rock Island, Ill.	88,500	--	--	Mar. 1934	--	39,432	--	--	--	--	CE
	do	do	do	do	--	--	Aug. 1938	4.5	38,546	--	--	--	.002	--
	do	do	do	do	--	--	Nov. 1944	6.2	38,229	--	--	--	.001	--
	do	do	do	do	--	--	Dec. 1946	2.1	39,224	--	--	--	.005	--
	do	do	do	do	--	--	Nov. 1948	1.9	37,643	--	--	--	.009	--
	do	do	do	do	--	--	Nov. 1950	2.0	37,881	--	--	--	.001	--
26-2	Beckham Lake (Forestville Lake)	Maquoketa River	Strawberry Pt., Iowa	116	116	--	Nov. 1952	2.0	37,086	--	--	--	.004	SCS
	do	do	do	do	--	--	July 1934	--	608	--	--	--	--	
	do	do	do	do	--	--	Feb. 1942	7.6	539	--	--	--	.078	127
	do	do	do	do	--	--	Feb. 1949	7.0	473	--	--	75.1	.082	134
26-3	Pool No. 11	Mississippi River	Dubuque, Iowa	61,600	--	--	Apr. 1938	--	171,664	--	--	--	--	CE
	do	do	do	do	--	--	Feb. 1953	14.8	144,526	--	--	--	.014	--

UPPER MISSISSIPPI RIVER BASIN (ST. PAUL TO PRAIRIE DU CHIEN)
Wisconsin, Root, Chippewa, and St. Croix River Basins

27-1	Elk Creek Lake	Elk Creek	San Claire, Wisc.	60	60	--	1926	--	683	--	*.018	--	--	SCS
	do	do	do	do	--	--	Oct. 1941	15	457	--	*.012	*70	.252	384
27-2	Etrick Mill Pond	N. Br. Beaver Creek	Etrick, Wisc.	50.75	50.70	--	1871	--	127	--	--	--	--	SCS
	do	do	do	do	--	--	June 1939	68	46	--	*80	--	.023	40
27-3	Marinka (Davis Lake)	Beaver Creek	Galesville, Wisc.	138.6	138.2	--	1867	--	1,677	--	*.022	--	--	SCS
	do	do	do	do	--	--	June 1939	72	683	--	*.009	72.5	.100	158
27-4	Prairie du Sac	Wisconsin River	Prairie du Sac, Wisc.	8,900	8/600	--	1914	--	100,000	--	--	--	--	CE
	do	do	do	do	--	--	1933	19	91,851	--	--	*90	.717	1,400

1/ Conservation Pool.
2/ All 31 ranges show scour, partially due to removal of borrow material.
3/ Spillway raised 2.89 ft. in 1946. Original capacity was 285.6 ac.-ft. All sedimentation and storage loss data based on higher spillway elevation.

4/ Excludes 3.8 sq. mi. Mississippi River bottom land.
5/ Excludes 5.8 sq. mi. Mississippi River bottom land.
6/ Flow from 8,300 sq. mi. of drainage area passes through power dams, which act as silt traps.
* Estimated or assumed.

SUMMARY OF
RESERVOIR SEDIMENTATION SURVEYS MADE IN THE UNITED STATES THROUGH 1970

DATA SHEET NUMBER	RESERVOIR	STREAM	NEAREST TOWN	DRAINAGE AREA (SQUARE MILES)		DATE OF SURVEY	PERIOD BETWEEN SURVEYS (YEARS)	STORAGE CAPACITY (ACRE-FT.)	CAPACITY AVG. ANN. INFLOW RATIO (ACRE-FT. PER ACRE-FT)	SPECIFIC WEIGHT (DRY) (LB. PER CU. FT.)	AVG. ANN. SEDIMENT ACCUMULATION PER SQ. ML. OF NET DR. AREA FOR PERIOD SHOWN		AGENCY SUPPLYING DATA
				TOTAL	NET						AC.-FT.	TONS	
UPPER MISSISSIPPI RIVER BASIN (ST. PAUL TO PRAIRIE DU CHIEN) WISCONSIN, IOWA, MINNESOTA, AND ST. CROIX RIVER BASIN (Continued)													
27-5	Pool No. 5A	Mississippi River	Winona, Minn. - Wisc.	59,100	--	July 1936	--	30,000	--	--	--	--	CE
	do	do	do	do	do	Feb. 1945	9.6	28,690	--	*90	--	--	
27-6a	DA-1 - Fishbaugh	Trib. D. E. Willow Creek	Preston, Minn.	1.31	1.29	Nov. 1956	--	168.7	*474	--	--	--	SCS
	do	do	do	do	do	Mar. 1960	3.4	166.5	*468	*70	0.51	778	
	do	do	do	do	do	Apr. 1964	4.1	164.1	*461	*70	.43	656	
27-7	Franklin Farm Pond	Trib. of Spring Creek	Red Wing, Minn.	1.188	1.181	May 1958	--	110.5	*345	--	--	--	SCS
	do	do	do	do	do	June 1962	4.1	104.56	*327	*65	1.23	1,741	
27-8	Friehelt Farm Pond	Trib. of Zumbro River	Zumbro Falls, Minn.	.269	.268	Aug. 1955	--	14.27	*166	--	--	--	SCS
	do	do	do	do	do	May 1964	6.8	13.29	*155	49.5	.52	560	
27-9	Stalplough Farm Pond	Trib. of Corey Creek	Money Creek, Minn.	.231	.230	Sept. 1957	--	19.09	*313	--	--	--	SCS
	do	do	do	do	do	May 1962	4.7	18.04	*296	*65	.96	1,359	
27-10	Muhlfiel Farm Pond	Trib. of Zumbro River	Millville, Minn.	.386	.384	July 1955	--	27.98	*227	--	--	--	SCS
	do	do	do	do	do	May 1962	6.8	26.71	*217	*55	.49	587	
27-11	Mold Farm Pond	Trib. of Crooked Creek	Spring Grove, Minn.	.194	.193	Aug. 1954	--	10.50	*157	--	--	--	SCS
	do	do	do	do	do	Jan. 1962	7.3	10.03	*150	51.86	.331	374	
27-12	FD-28 Structure East Willow Creek Watershed	Trib. of Root River	Preston, Minn.	.436	.433	Oct. 1954	--	56.79	*444	--	--	--	SCS
	do	do	do	do	do	June 1962	7.7	55.18	*431	*65	.48	680	
27-13	E-3 Mansink	Trib. of E.E. Willow Creek	do	3.16	3.10	May 1956	--	292.2	*340	--	--	--	SCS
	do	do	do	do	do	Mar. 1960	3.83	291.0	*338	*50	.11	120	
	do	do	do	do	do	Apr. 1964	4.08	287.2	*334	*50	.30	330	
UPPER MISSISSIPPI RIVER BASIN (ABOVE ST. PAUL)													
LAKE SUPERIOR AND LAKE OF THE WOODS AREA (IN MINNESOTA)													
RED RIVER OF THE NORTH BASIN													
30-1	Lake Bronson	Two Rivers	Bronson, Minn.	439	438.5	Summer 1940	--	3,792	--	--	--	--	SCS
	do	do	do	do	do	Oct. 1950	10	3,626	--	30.94	.038	25.6	
30-2	Fraser	Otter Tail River	Fraser, Minn.	210	24	1926	--	155	--	--	--	--	SCS
	do	do	do	do	do	May 1952	26	137.1	--	20	.029	12.6	
30-3	Blabon Dam	Trib. of Goose River	Blabon, N. Dak.	1.219	1.188	1935	--	130.69	*3,354	--	--	--	SCS
	do	do	do	do	do	Oct. 1955	20	107.29	*2,753	41	.98	875	
30-4	Dougherty Dam	N. Br. Forest River	Adams, N. Dak.	20.2	14.6	1935	--	150.7	*209	--	--	--	SCS
	do	do	do	do	do	Aug. 1957	22	139.6	*194	25	.034	18.81	
30-5	Quatafson Farm Pond	Park River	do	3.755	3.670	1941	--	38.70	*284	--	--	--	SCS
	do	do	do	do	do	May 1955	14	33.36	*245	*35	.101	76.99	
30-6	Owinner Dam	Trib. of Wild Rice River	Owinner, N. Dak.	.226	.222	1936	--	12.92	*2,494	--	--	--	SCS
	do	do	do	do	do	Aug. 1956	20	10.29	*1,986	29	.59	372.6	
30-7	Wadson Farm Pond	Sunn Creek	Wheatland, N. Dak.	27.76	27.76	1939	--	22.82	*026	--	--	--	SCS
	do	do	do	do	do	June 1956	17	19.10	*022	*35	.0078	5.95	
30-8	Magnolia Dam	Buffalo Creek	do	12.16	11.72	1908	--	157.92	*406	--	--	--	SCS
	do	do	do	do	do	June 1956	48	127.40	*328	*35	.052	39.64	
30-9	Mason Siding Dam	Rush River	Erie, N. Dak.	30.2	30.2	1912	--	43.15	*045	--	--	--	SCS
	do	do	do	do	do	June 1956	44	35.40	*037	*35	.0098	4.44	
30-10	Malvin Bellerud Farm Pond	Park River	Adams, N. Dak.	1.125	1.121	1942	--	16.78	*412	--	--	--	SCS
	do	do	do	do	do	May 1955	13	14.47	*355	*35	.1579	114.68	
30-11	Milton WPA Dam	do	Milton, N. Dak.	14.375	14.356	1934	--	66.59	*128	--	--	--	SCS
	do	do	do	do	do	May 1955	21	46.19	*089	*35	.0676	51.93	
30-12	Morby Dam	Trib. of Wild Rice River	Havana, N. Dak.	.183	.183	1934	--	5.227	*1,191	--	--	--	SCS
	do	do	do	do	do	Aug. 1956	22	4.467	*1,018	*45	.188	184.3	
30-13	Raleigh Dam	Gog Tooth Creek	Raleigh, N. Dak.	4.45	4.45	1909	--	175.47	*925	--	--	--	SCS
	do	do	do	do	do	July 1956	47	145.23	*766	*35	.144	109.8	
30-14	Stout Railroad Reservoir	Park River	Adams, N. Dak.	16.855	16.66	1911	--	88.37	*145	--	--	--	SCS
	do	do	do	do	do	May 1955	44	69.16	*113	*35	.026	18.88	
30-15	White Lake	Trib. of Wild Rice River	Havana, N. Dak.	37.0	21.08	1938	--	1,895.6	--	--	--	--	SCS
	do	do	do	do	do	1957	19	1,808.8	--	32	.2167	151	
30-16	Beldhill Dam (Lake Ashtabula)	Sheyenne River	Valley City, N. Dak.	1/4,138	2/1,979	Dec. 1952	--	76,400	--	--	--	--	CE
	do	do	do	do	do	Jan. 1958	5.1	75,410	--	*90	.0981	192	
30-17	Horne Dam (Park River)	S. Br. Park River	Park River, N. Dak.	229	229	Jan. 1953	--	3,650	.204	--	--	--	CE
	do	do	do	do	do	Mar. 1958	5.2	3,382	.189	*90	.225	441	
MISSOURI RIVER BASIN (NEBRASKA CITY TO HERMANSBURG)													
31-1	Lake of the Omars (Bagnell Dam)	Osage River	Eldon, Mo.	14,000	13,900	Feb. 1931	--	2,087,223	.299	--	--	--	CE
	do	do	do	do	do	Oct. 1948	17.8	1,972,531	.283	59.2	.464	598	
31-2	Carl Chiquist	Trib. of West Nodaway River	Stanton, Iowa	.166	.163	June 1938	--	3/9.46	*231	--	--	--	SCS
	do	do	do	do	do	May 1949	10.9	2.59	*063	49.9	3.87	4,200	

11-3	L. W. Pundling	Trib. of Tarkio Creek	Westboro, Mo.	1.05	1.04	July 1939	—	3/31.80	*.132	—	—	—	SCS
11-4	McDaniel Lake	Little Sac River	Springfield, Mo.	41.9	41.5	May 1949	9.8	1.93	*.008	62.5	2.99	3,900	SCS
11-5	Doniphan Co. Old Desilting Basin	Chase Creek	Hair, Kans.	1.62	1.58	June 1940	11	3,207	*.324	*60	.538	703	SCS
11-6	Leavenworth Co. State Lake	Unnamed Trib.	Tonganoxie, Kans.	3.83	3.56	Sept. 1931	—	3,916	*.048	84.4	8.58	15,770	SCS
11-7	Lyon Co. State (Reading Lake)	—	Reading, Kans.	2.19	2/1.79	Nov. 1947	16.1	3,771	*.564	61.45	2.53	3,386	SCS
11-8	Martin Farm Lake	Ozage River	Ottawa, Kans.	.18	.17	Aug. 1939	4.0	1,870	*3.428	—	7.73	3,568	SCS
11-9b	Mission Lake	Mission Creek	Horton, Kans.	8.15	7.76	Nov. 1930	—	33	*.599	—	—	—	SCS
11-10	Moran	S. R. Ozage River	Moran, Kans.	5.35	5.28	Oct. 1937	6.9	30	*.508	*60	2.82	3,685	AB3
11-11	Lake Olathe	Cedar Creek	Olathe, Kans.	6.20	6.11	May 1924	—	1,866	*1.025	—	—	—	SCS
11-12	Richmond	—	—	—	—	Apr. 1937	13	1,563	*.858	62.2	3.00	4,064	SCS
11-13	Large Farm Pond	Trib. of Muddy Creek	Richmond, Kans.	2.17	2.07	July 1954	17.2	1,181	*.649	53.3	2.86	3,326	SCS
11-14	E. W. Howell	Trib. of Tarkio Creek	Tarkio, Mo.	.509	.505	Aug. 1967	13.1	1,891.5	*.599	58.5	.88	12.65	SCS
11-15	Allerton	South Chariton River	Allerton, Iowa	4.98	4.82	Sept. 1939	26.4	298	*.108	49.15	.477	511	SCS
11-16	Centerville No. 2	Manson's Branch	Centerville, Iowa	2.70	2.62	July 1932	—	721	—	—	—	—	SCS
11-17	Lake of Three Fires	E. R. 102 River	Bedford, Iowa	6.15	5.97	June 1937	4.9	666	—	60.4	1.84	2,421	SCS
11-18	Dandey Reservoir	Longe Creek	Johnson, Mo.	.703	.699	July 1949	12.1	488	—	57.6	2.41	3,023	SCS
11-19	Hawley Reservoir	Trib. of Nemaha River	Brock, Mo.	.12	.115	Oct. 1909	—	405	—	—	—	—	SCS
11-20a	Schneider Reservoir	Long Branch	Johnson, Mo.	.188	.184	Oct. 1937	28	289	—	*60	2.00	2,614	SCS
11-21	Cox	Unnamed Trib.	Blue Rapids, Kans.	.31	.30	Aug. 1942	—	1.00	*.231	—	—	—	SCS
11-22	Droegge	—	—	—	—	Dec. 1948	6.3	2.04	*.157	57.4	2.41	3,010	SCS
11-23	Flinner	—	—	—	—	July 1934	—	3/33.7	*.303	—	—	—	SCS
11-24	Honey Creek No. A-2	Trib. of Honey Creek	Russell, Iowa	.278	.274	May 1949	6/6.9	.03	*.0003	72.5	9.66	15,250	SCS
11-25	Honey Creek No. A-4	—	—	—	—	Oct. 1913	—	511	—	—	—	—	SCS
11-26	Honey Creek No. F-1	—	—	—	—	Nov. 1939	25.5	401	—	*60	.894	1,170	SCS
11-27	Honey Creek No. E-1	—	—	—	—	Oct. 1928	—	1,111	—	—	—	—	SCS
11-28	Honey Creek No. I-1	—	—	—	—	Oct. 1937	11	1,050	—	*60	2.12	2,760	SCS
11-29	Miller Ranch	Unnamed Trib.	Miller, Kans.	.71	.70	July 1936	—	1,231	—	—	—	—	SCS
11-30	Wolfe	Trib. of Wolf River	Hiamatha, Kans.	.42	.42	Feb. 1950	13.6	860	—	—	4.58	—	SCS
11-31	Prairie Lake	Unnamed Trib.	Holton, Kans.	1.49	1.40	Oct. 1952	—	13.4	—	*65	—	—	SCS
11-32	Ryhart	—	—	—	—	Oct. 1956	—	10.7	—	*65	.964	1,365	SCS
11-33	Sabetha Lake	Deer Creek Trib. of Nemaha	Sabetha, Kans.	9.17	8.99	Jan. 1961	1.42	63.3	*.706	66	0	0	SCS
						Nov. 1955	—	184	*.600	—	—	—	SCS
						Oct. 1958	2.92	181	*.590	66	.77	1,100	SCS
						Oct. 1959	1.00	179	*.584	66	2.02	2,900	SCS
						Jan. 1961	1.25	179	*.584	66	0	0	SCS
						July 1955	—	142	*1.175	—	—	—	SCS
						June 1958	2.92	140	*1.158	66	1.35	1,900	SCS
						Sept. 1959	1.25	138	*1.142	66	2.61	3,800	SCS
						Jan. 1961	1.33	138	*1.142	66	0	0	SCS
						Nov. 1955	—	106	*.833	—	—	—	SCS
						Oct. 1958	2.92	105	*.826	66	.85	1,200	SCS
						Sept. 1959	.92	104	*.818	66	2.22	3,200	SCS
						Jan. 1961	1.33	104	*.818	66	0	0	SCS
						Nov. 1936	—	52.72	—	—	—	—	SCS
						Sept. 1955	18.8	37.83	—	52.7	1.13	1,297	SCS
						May 1931	—	3/71.55	—	68.43	1.12	1,649	SCS
						Oct. 1955	4.0	5.67	—	—	—	—	SCS
						Oct. 1947	—	721.7	—	—	—	—	SCS
						Oct. 1955	8.0	653.1	—	54.3	6.12	7,197	SCS
						Oct. 1949	—	3/49.4	—	—	—	—	SCS
						Oct. 1957	7.9	46.3	—	*60	2.4	3,136	AB3
						Jan. 1936	—	1,934	—	804	—	—	SCS
						June 1951	15.5	1,310	—	54.7	4.48	5,377	SCS
						Aug. 1952	1.2	1,234	—	53.7	7.04	6,980	SCS
						Oct. 1953	1.1	1,259	—	58.0	2/-2.52	—	SCS
						Apr. 1955	1.5	1,206	—	54.1	3.93	379	SCS
						Apr. 1956	1.0	1,205	—	55.0	.11	1,720	SCS
						Apr. 1958	2.0	1,200	—	56.2	.28	1,400	SCS
						July 1960	2.3	1,117	—	54.6	4.02	3,577	SCS

1/ Total drainage area (exclusive of closed Devils Lake Basin with drainage area of 3,940 sq. mi.).
 2/ About 2,150 sq. mi. of the total drainage area shown is also noncontributing.
 3/ Water supply pool capacity. Reservoir has greater capacity at spillway crest elevation.
 4/ Water diverted from basin after June, 1930.
 5/ Excluding area of lake and 0.31 sq. mi. above stock pond.

6/ Reservoir silted full Dec. 1936; Crest raised June 1937; silted full again Dec. 1940; crest raised again May 1943; silted full again May 1949. Age computed as 6.9 yr.
 7/ Minus (-) indicated scour or compaction (treated as negative sediment).
 * Estimated or assumed.

SUMMARY OF
RESERVOIR SEDIMENTATION SURVEYS MADE IN THE UNITED STATES THROUGH 1970

DATA SHEET NUMBER	RESERVOIR	STREAM	NEAREST TOWN	DRAINAGE AREA (SQUARE MILES)		DATE OF SURVEY	PERIOD BETWEEN SURVEYS (YEARS)	STORAGE CAPACITY (ACRE-FT.)	CAPACITY AVG. ANN. INFLOW RATIO (ACRE-FT. PER ACRE-FT.)	SPECIFIC WEIGHT (DRY) (LB. PER CU. FT.)	AVG. ANN. SEDIMENT ACCUMULATION PER SQ. MI. OF NET DR. AREA FOR PERIOD SHOWN		AGENCY SUPPLYING DATA
				TOTAL	NET						AC.-FT.	TONS	
MISSOURI RIVER BASIN (NEBRASKA CITY TO HERMAN) (Continued)													
11-34	Sutter	Unnamed Trib.	Effingham, Kans.	.17	.16	Jan. 1950	--	1/53.2	--	--	--	--	SCS
	do	do	do	--	--	Oct. 1957	7.7	50.86	--	60	1.88	2,457	SCS
11-35	Shirley Pond	do	Lawrence, Kans.	.18	.18	Mar. 1939	--	20.86	--	--	--	--	SCS
	do	do	do	--	--	Nov. 1956	17.7	19.05	--	86.7	.56	1,057.5	SCS
11-36	Troutman	do	Fairview, Kans.	.18	.18	May 1947	--	1/3.78	--	--	--	--	SCS
	do	do	do	--	--	Oct. 1955	8.4	2.42	--	62.01	.90	1,201	SCS
11-37	Thorne	do	Effingham, Kans.	1.17	1.16	Sept. 1946	--	1/29.13	--	--	--	--	SCS
	do	do	do	--	--	Aug. 1957	11	17.7	--	60	.90	1,176	SCS
11-38a	Ashland Reservoir	Brushy Creek	Ashland, Mo.	3.78	3.75	Apr. 1937	--	280.48	--	--	--	--	ARS
	do	do	do	--	--	Nov. 1949	12.6	212.01	--	69	1.44	2,178	ARS
	do	do	do	--	--	Apr. 1951	1.4	208.14	--	68	.73	807	ARS
	do	do	do	--	--	July 1955	4.3	202.23	--	68	.36	543	ARS
	do	do	do	--	--	June 1962	6.9	186.07	--	69.4	.62	1,038	ARS
	do	do	do	--	--	July 1968	6.1	171.52	--	64.7	.62	614	ARS
11-39	Higginsville Old City Lake	Trib. of Davis Creek	Higginsville, Mo.	2.728	2.633	Sept. 1924	--	520.0	--	--	--	--	ARS
	do	do	do	--	--	July 1964	39.8	304.0	--	55.94	2.061	2,511	ARS
11-40	Buscher	Trib. of Brush Creek	do	.334	2/181	Oct. 1950	--	32.26	--	--	--	--	ARS
	do	do	do	--	--	Aug. 1964	13.8	25.55	--	58.74	2.686	3,436	SCS
11-41	Mitchell	Trib. of Washington Creek	Lawrence, Kans.	.119	.117	Oct. 1949	--	7.94	--	--	--	--	SCS
	do	do	do	--	--	June 1962	12.67	6.73	--	56.8	.85	1,051	SCS
11-42	McNee	do	Clinton, Kans.	.61	.58	Jan. 1950	--	6.77	--	--	--	--	SCS
	do	do	do	--	--	May 1962	12.4	6.26	--	47.9	.07	73	SCS
11-43	Kennedy	Trib. of Makarusa River	Richland, Kans.	.23	.22	Apr. 1937	--	61.19	--	--	--	--	SCS
	do	do	do	--	--	May 1962	25.1	54.27	--	46.7	1.27	1,294	SCS
11-44	Jarvisberger	do	Budora, Kans.	.125	.122	May 1955	--	1/7.52	--	--	--	--	SCS
	do	do	do	--	--	June 1962	7.1	5.68	--	56.2	2.13	2,609	SCS
11-45	Lake Elbow	Trib. of Kansas River	Manhattan, Kans.	3.20	3.14	Spr. 1949	--	206	.303	--	--	--	SCS
	do	do	do	--	--	Sept. 1965	16.33	176	.259	75	.58	947	SCS
11-46	Bokey	Trib. of Nemaha River	Sabetha, Kansas	.284	.280	May 1956	--	1/13.97	--	--	--	--	SCS
	do	do	do	--	--	Apr. 1962	5.9	11.32	--	50.7	1.61	1,777	ARS
11-47	Callahan Cr. Watershed (C-1)	Barley Branch	Columbia, Mo.	5.625	5.515	Apr. 1967	--	1,017.07	--	--	--	--	ARS
	do	do	do	--	--	Aug. 1967	.25	1,010.8	--	41.6	4.57	4,144	ARS
	do	do	do	--	--	Aug. 1969	2	989.3	--	53	1.94	2,379	ARS
	do	do	do	--	--	July 1971	1.9	974.9	--	58.2	1.38	2,059	ARS
11-48	Waterfield	Trib. Marias Des Cygnes	Mound City, Kans.	.83	.82	-- 1936	--	19.67	.05	--	--	--	SCS
	do	do	do	--	--	July 1967	31	11.06	.03	60	.34	444	SCS
11-49	Pool	Trib. Elk Creek	Circleville, Kans.	.16	.16	Oct. 1958	--	18.07	.39	--	--	--	SCS
	do	do	do	--	--	July 1968	9.75	16.18	.35	60	1.19	1,555	SCS
11-50	Richter	Trib. Straight Creek	Holton, Kans.	.28	.27	Fall 1957	--	64.36	.80	--	--	--	SCS
	do	do	do	--	--	July 1968	11	59.98	.74	60	1.47	1,921	SCS
11-51	Russner	do	do	.23	.23	July 1956	--	31.26	.47	--	--	--	SCS
	do	do	do	--	--	July 1968	12	27.3	.41	60	1.43	1,869	SCS
11-52	Rogers	Big Sugar	Garrett, Kans.	1.17	1.16	-- 1936	--	22.8	.069	--	--	--	SCS
	do	do	do	--	--	June 1967	31	14.1	.03	67	.24	350	SCS
11-53	Lemon	Trib. of Elm Creek	Parker, Kans.	.19	.19	June 1961	--	6.7	.08	--	--	--	SCS
	do	do	do	--	--	July 1967	6	6.16	.08	60	.47	614	SCS
11-54	Elko Camara Reservoir	Trib. Bull Creek	Gardner, Kans.	.77	.69	July 1960	--	204.3	.607	--	--	--	SCS
	do	do	do	--	--	Sept. 1970	10.2	191.1	.568	60	1.88	2,457	SCS
11-55	Oberholson Pond	do	Edgerton, Kans.	.57	.50	Sept. 1960	--	14.883	.061	--	--	--	SCS
	do	do	do	--	--	Sept. 1970	10	11.03	.045	65	.77	1,090	SCS
11-56	Richmond Lake	Dry Branch	Richmond, Kans.	.86	.84	Sept. 1955	--	232.86	.68	--	--	--	SCS
	do	do	do	--	--	July 1967	12	222.06	.65	60	1.07	1,398	SCS
11-57	Hall Pond	Trib. Little Sugar	Parlinville, Kans.	.38	.37	Feb. 1955	--	46.22	.25	--	--	--	SCS
	do	do	do	--	--	July 1967	12	42.87	.24	60	.76	993	SCS
11-58	Johnson Pond	do	Blue Mound, Kans.	.94	.93	-- 1936	--	24.03	.05	--	--	--	SCS
	do	do	do	--	--	July 1967	31	17.3	.039	60	.24	313	SCS
SMOKEY HILL AND LOWER REPUBLICAN RIVER BASINS													
12-1	Ottawa County State Lake	Sand Creek	Bennington, Kans.	20.47	20.26	-- 1929	--	1,001	--	--	--	--	SCS
	do	do	do	--	--	Apr. 1937	8.0	930	--	--	.438	--	SCS
12-2	Sheridan County State Lake	Saline River	Quinter, Kans.	.93	.463	Aug. 1937	--	777	--	--	--	--	BR
	do	do	do	--	--	Aug. 1948	10.8	436	--	66.5	.0481	98.6	CE
12-3a	Kanopolis	Smoky Hill River	Kanopolis, Kans.	7,860	1/2,560	July 1946	--	446,000	--	--	--	--	SCS
	do	do	do	--	--	Sept. 1960	14.2	436,320	--	50.0	.27	294	SCS
12-4	Allington Reservoir	Stilly Creek	Beatrice, Mo.	.52	.512	-- 1936	--	33.104	--	--	--	--	SCS
	do	do	do	--	--	-- 1956	20	14,704	--	65	1.77	2,506	SCS
12-5	Burnard Farm Reservoir	Indian Creek	do	.675	.661	Aug. 1947	--	30.5	--	--	--	--	SCS
	do	do	do	--	--	May 1954	8.75	22.22	--	65	1.400	1,982	SCS
12-6	Bears Reservoir	Trib. of Little Blue River	Hubbell, Mo.	.175	.171	-- 1937	--	8.058	--	--	--	--	SCS
	do	do	do	--	--	-- 1958	21	2.301	--	65	1.566	2,217	SCS

32-7	Fling Ketate	do	do	do	108	103	1945	18,686	---	---	---	---
32-8	Reynolds Reservoir	do	Reynolds, Mebr.	do	---	---	1948 13	11,852	---	665	3.44	4,670
32-9	Kapke Reservoir	do	Gladstone, Mebr.	do	306	302	1948 10	5,943	---	665	2.56	3,624
32-10	Kenna Reservoir No. 1	do	do	do	---	---	1913	9,806	---	---	---	---
32-11	Kenna Reservoir No. 2	do	do	do	---	---	1958 45	5,179	---	665	.337	477
32-12	Ommer Reservoir	do	do	do	---	---	1899	70.7	---	---	---	---
32-13	Peitham Reservoir	do	do	do	---	---	1956 57	30.8	---	770	1.66	2,531
32-14	Wit Reservoir	do	do	do	---	---	1946	9.67	---	---	---	---
32-15a	Woody Hereford Ranch	do	do	do	---	---	1956 10	8.06	---	665	1.58	2,237
32-16a	Daugherty	do	do	do	---	---	1946	5,587	---	---	---	---
32-17	Lost Creek D-1	do	do	do	---	---	1958 12	5,735	---	665	.527	746
32-18	Jeppon	do	do	do	---	---	1950	9,934	---	---	---	---
32-19	Wilson Bros.	do	do	do	---	---	1958 8	5,574	---	665	2.523	3,572
32-20	Evoland	do	do	do	---	---	1946	12,274	---	665	2.508	3,551
32-21	Rhine	do	do	do	---	---	1958 12	6,522	---	---	---	---
32-22	Corralson	do	do	do	---	---	Nov. 1936	41.6	---	---	---	---
32-23	Droge	do	do	do	---	---	Sept. 1955	19	---	660	.79	1,032
32-24	Robeson	do	do	do	---	---	Sept. 1947	22.5	---	.435	---	---
32-25	Jacobson	do	do	do	---	---	Sept. 1955	8	---	.311	.83	1,085
32-26	Pray	do	do	do	---	---	Jan. 1957	1/32.43	---	---	---	---
32-27	Book	do	do	do	---	---	July 1952	1/47.67	---	---	---	---
32-28	Dodd	do	do	do	---	---	May 1953	1/47.73	---	47.1	.69	708
32-29	Harlan County	do	do	do	---	---	July 1962	39.44	---	---	---	---
32-30	Grant Foster	do	do	do	---	---	Sept. 1950	1/9.51	---	61.2	.90	1,200
32-31	Helms Pond	do	do	do	---	---	July 1962	11.8	---	660	.68	627
32-32	Pinney Pond	do	do	do	---	---	Nov. 1953	1/16.65	---	---	---	---
32-33	Christie Pond	do	do	do	---	---	July 1962	8.75	---	70.6	.73	1,122
32-34	Chancy Pond	do	do	do	---	---	July 1956	1/15.29	---	---	---	---
32-35	Bruce Pond	do	do	do	---	---	May 1962	14.14	---	80.9	1.33	2,344
32-36	Burger Pond	do	do	do	---	---	June 1956	1/8.16	---	---	---	---
32-37	Dewell Pond	do	do	do	---	---	May 1962	5.84	---	63.6	3.25	4,500
32-38	Jennings Pond	do	do	do	---	---	July 1958	1/27.30	---	---	---	---
32-39	Jeane Pond	do	do	do	---	---	May 1962	25.45	---	59.4	1.44	1,863
32-40	King Pond	do	do	do	---	---	June 1956	1/105.51	---	---	---	---
32-41	Klansy Pond	do	do	do	---	---	June 1962	6	---	75.6	.92	1,515
32-42	Lee Pond	do	do	do	---	---	July 1950	11.78	---	62.9	2.67	3,658
32-43	Lindley Pond	do	do	do	---	---	June 1962	12	---	---	---	---
32-44	Lloyd Pond	do	do	do	---	---	Dec. 1954	1.78	---	---	---	---
32-45	Lowell Pond	do	do	do	---	---	June 1962	7.6	---	55.7	.31	376
32-46	Mallenkamp Pond	do	do	do	---	---	Oct. 1954	4.88	---	---	---	---
32-47	Morth Pond	do	do	do	---	---	July 1962	4.72	---	53.4	.51	593
32-48	Naleigh Pond	do	do	do	---	---	Oct. 1953	1/74.07	---	---	---	---
		do	do	do	---	---	May 1962	8.6	---	53.2	1.62	1,878
		do	do	do	---	---	July 1951	850,000	---	---	---	---
		do	do	do	20,753	9,277	Sept. 1962	837,900	---	72	.116	182
32-30	Grant Foster	do	do	do	---	---	Mar. 1952	1/71.9	---	---	---	---
32-31	Helms Pond	do	do	do	---	---	Sept. 1965	13.6	---	772	.84	1,317
32-32	Pinney Pond	do	do	do	---	---	Oct. 1957	31	---	.466	---	---
32-33	Christie Pond	do	do	do	---	---	Aug. 1970	12.8	---	.356	.32	523
32-34	Chancy Pond	do	do	do	---	---	Sept. 1960	---	---	1,003	---	---
32-35	Bruce Pond	do	do	do	---	---	June 1970	9.7	---	.951	.53	923
32-36	Burger Pond	do	do	do	---	---	Dec. 1956	---	---	1,055	---	---
32-37	Dewell Pond	do	do	do	---	---	July 1970	13.6	---	1.02	.77	1,004
32-38	Jennings Pond	do	do	do	---	---	Dec. 1956	---	---	.939	---	---
32-39	Jeane Pond	do	do	do	---	---	June 1970	13.5	---	.862	.72	947
32-40	King Pond	do	do	do	---	---	Apr. 1956	---	---	.395	---	---
32-41	Klansy Pond	do	do	do	---	---	June 1970	13.3	---	.78.19	.36	831
32-42	Lee Pond	do	do	do	---	---	June 1953	---	---	.38	---	---
32-43	Lindley Pond	do	do	do	---	---	June 1970	17	---	.195	1.15	1,632
32-44	Lloyd Pond	do	do	do	---	---	Dec. 1960	---	---	.855	---	---
32-45	Lowell Pond	do	do	do	---	---	July 1970	9.6	---	.104.86	.12	204
32-46	Mallenkamp Pond	do	do	do	---	---	Nov. 1954	---	---	100	.168	---
32-47	Morth Pond	do	do	do	---	---	July 1970	15.7	---	.91	1.54	733
32-48	Naleigh Pond	do	do	do	---	---	Dec. 1944	---	---	.23.42	---	---
		do	do	do	---	---	Aug. 1970	25.7	---	.21.25	.09	158
		do	do	do	---	---	Nov. 1960	---	---	.453	---	---
		do	do	do	---	---	June 1970	9.6	---	.45.3	.36	507
		do	do	do	---	---	Sept. 1950	---	---	.51.9	.193	---
		do	do	do	---	---	June 1970	19.8	---	.88.4	.25	348
		do	do	do	---	---	Apr. 1952	---	---	152.4	---	---
		do	do	do	---	---	June 1970	18.2	---	146.3	.61	492
		do	do	do	---	---	Oct. 1960	---	---	.39.2	---	---
		do	do	do	---	---	June 1970	9.7	---	.35.8	.53	811
		do	do	do	---	---	July 1952	---	---	.23.15	---	---
		do	do	do	---	---	July 1970	38	---	.81.12	.078	---
		do	do	do	---	---	July 1951	---	---	126.72	---	---
		do	do	do	---	---	July 1970	19	---	.95.86	.78	1,106
		do	do	do	---	---	Apr. 1961	---	---	.90.6	---	---
		do	do	do	---	---	Aug. 1970	9.3	---	.79.4	.20	277
		do	do	do	---	---	Mar. 1955	---	---	.96.83	---	---
		do	do	do	---	---	July 1970	15.3	---	.91.55	.38	537
		do	do	do	---	---	Mar. 1964	---	---	.81.5	---	---
		do	do	do	---	---	July 1970	6.3	---	.79.6	.62	544

1/ Water supply pool capacity. Reservoir has greater capacity at spillway crest elevation.
2/ Encloses conservation pool area and terraced area of watershed.

3/ 7,860 prior to closure of Cedar Bluff Dam Sept. 1950.
* Estimated or assumed.

**SUMMARY OF
RESERVOIR SEDIMENTATION SURVEYS MADE IN THE UNITED STATES THROUGH 1970**

DATA SHEET NUMBER	RESERVOIR	STREAM	NEAREST TOWN	DRAINAGE AREA (SQUARE MILES)		DATE OF SURVEY	PERIOD BETWEEN SURVEYS (YEARS)	STORAGE CAPACITY (ACRE-FT.)	CAPACITY AVG. ANN. INFLOW RATIO (ACRE-FT. PER ACRE-FT.)	SPECIFIC WEIGHT (DRY) (LB. PER CU. FT.)	AVG. ANN. SEDIMENT ACCUMULATION PER SQ. MI. OF NET DR. AREA FOR PERIOD SHOWN		AGENCY SUPPLYING DATA
				TOTAL	NET						AC.-FT.	TONS	
SMOKEY HILL AND LOWER REPUBLICAN RIVER BASINS (Continued)													
33-49	Sanger Pond	Trib. S. F. Solomon River	Morland, Kans.	2.53	2.32	Mar. 1954	--	332.12	3.519	--	--	--	SCS
33-50	Shucins Pond	Trib. Rose Creek	Munden, Kans.	1.61	1.61	Aug. 1970	16.4	307.5	3.271	.65	0.65	917	SCS
33-51	Schurle Pond	Trib. Mall Creek	Green, Kans.	.73	.67	July 1954	--	12.896	.058	--	--	--	SCS
33-52	Wals Pond	Trib. Saline River	Ogallah, Kans.	3.93	3.8	July 1970	16	6.8	.030	.70	.24	361	SCS
33-53	Woolhoff Pond	Trib. Five Creek	Morganville, Kans.	.61	.59	Nov. 1960	--	127.1	1.088	--	--	--	SCS
33-54	Herrington City Lake	Lyons Creek	Herrington, Kans.	17.24	16.93	June 1970	9.6	123.3	1.053	.60	.59	767	SCS
						Aug. 1958	--	69.32	.389	--	--	--	SCS
						Aug. 1970	12	63.64	.357	.60	.12	162	SCS
						June 1954	--	29.05	.331	--	--	--	SCS
						July 1970	16.1	24.52	.278	.65	.48	680	SCS
						May 1922	--	2,180	.68	--	--	--	SCS
						May 1966	44	1,455	.45	.70	.96	1,463	SCS
UPPER REPUBLICAN, NORTH PLATTE, RIVER BASINS (FT. LARAMIE TO NORTH PLATTE) AND SOUTH PLATTE RIVER BASIN (SUBLETTE TO NORTH PLATTE)													
33-1	Wellfleet	Medicine Creek	Wellfleet, Nebr.	1/15.00	14.89	Oct. 1931	--	519	--	--	--	--	SCS
33-2	Lookhart Farm Pond	Trib. of N. Platte River	Gering, Nebr.	2/2.564	2.558	May 1937	5.6	464	--	.65	.66	934	SCS
33-3a	Harry Strunk Lake (Medicine Creek Dam)	Medicine Creek	Cambridge, Nebr.	656	653	Aug. 1939	--	15.64	.229	--	--	--	SCS
						July 1952	12.9	8.83	.129	57.3	.206	257	BR
						Aug. 1949	--	92,817	1.691	--	--	--	BR
33-4a	Flanagan Reservoir	Trib. of Republican River	Bartley, Nebr.	.500	.497	Oct. 1951	2.16	90,920	1.656	71.4	1.34	2,084	SCS
33-5a	Gallatin Reservoir	Trib. of Beaver Creek	Danberry, Nebr.	3.44	3.09	Dec. 1962	11.17	88,663	1.615	70.3	.31	475	SCS
33-6	Klein Reservoir	Trib. of Republican River	McCook, Nebr.	1.59	1.57	1940	--	9.71	--	--	--	--	SCS
33-7	Dempsey Pond	Trib. of East Curtis Creek	Moorefield, Nebr.	.516	.51	1956	16	4.89	--	.70	.602	918	SCS
33-8a	Reichelt Stock Pond	Unnamed	Julesburg, Colo.	.72	.71	Apr. 1946	--	419.5	--	--	--	--	SCS
33-9	Doshaba Pond	Trib. Beaver Creek	Atwood, Kans.	1.41	1.4	Sept. 1956	10.4	381.6	--	.70	1.18	1,800	SCS
33-10	Frickey Pond	Trib. Sappa Creek	Morcatat, Kans.	3.32	3.28	1936	20	56.0	--	.70	1.58	2,409	SCS
33-11	Walker Pond	Trib. Beaver Creek	Atwood, Kans.	4.78	4.77	1956	20	11.00	--	--	--	--	AB3
33-12	Stroud Pond	Trib. Jones Canyon Creek	McDonald, Kans.	.83	.82	June 1949	--	10.10	--	--	.447	--	SCS
33-13	Franktown-Parker M-1 W'shed	Willow Creek	Castle Rock, Colo.	7.6	7.57	July 1953	4	9.12	--	75.6	.392	645	SCS
33-14	Bondagard Stock Pond	Sedgewick Draw	Lodgepole, Nebr.	1.5	1.5	Oct. 1950	--	22.12	--	--	--	--	SCS
						Nov. 1957	7	20.69	--	80.4	.28	450	SCS
						Nov. 1948	--	18.19	.968	--	--	--	SCS
						Aug. 1970	21.8	9.74	.541	.70	.28	422	SCS
						Dec. 1958	--	72.48	.683	--	--	--	SCS
						July 1970	11.6	63.17	.596	.60	.24	320	SCS
						Oct. 1948	--	20.96	.329	--	--	--	SCS
						Aug. 1970	21.8	13.82	.215	.70	.07	105	SCS
						Nov. 1958	--	111.25	10.053	--	--	--	SCS
						July 1970	11.7	102.01	9.274	.70	.96	1,467	SCS
						Jan. 1963	--	387	.1.92	--	--	--	SCS
						Jan. 1967	4	337.4	.1.67	--	1.6	--	SCS
						1952	--	27.68	1.20	--	--	--	SCS
						Dec. 1967	15	23.88	1.04	.75	.17	277	SCS
NORTH PLATTE RIVER BASIN (ABOVE FT. LARAMIE) SOUTH PLATTE RIVER BASIN (ABOVE SUBLETTE)													
34-1	Castlewood	Cherry Creek	Denver, Colo.	167.2	166.9	1890	--	3,834	--	--	--	--	SCS
34-2	Kamwood	--	--	387	386	3/Aug. 1933	43	3,126	--	77.5	.099	167	SCS
34-3d	Ogareway Reservoir	North Platte River	Osage, Mo.	15,004	675	Mar. 1936	--	9,802	--	--	--	--	SCS
						June 1938	2.25	9,710	--	75.6	.106	175	SCS
						June 1939	1.00	9,624	--	--	.743	1,220	BR
						Feb. 1927	--	73,810	--	--	--	--	BR
						Jan. 1931	3.83	67,840	--	--	.28	--	BR
						Jan. 1933	2.00	65,050	--	--	.26	--	BR
						Jan. 1935	2.00	62,940	--	--	.20	--	BR
						Feb. 1937	2.10	60,930	--	--	.18	--	BR
						Feb. 1939	2.00	58,450	--	--	.23	--	BR
						Jan. 1941	2.00	56,600	--	--	.17	--	BR
						Jan. 1944	3.00	53,180	--	--	.21	--	BR
						July 1947	3.50	49,150	--	--	.21	243	BR
						June 1957	9.92	44,800	--	60.7	.103	107	BR
						Dec. 1966	9.40	4,453,228	.0467	.54	--	--	BR
						Oct. 1900	--	79,064	.595	--	--	--	BR
34-4a	Lake Cheesman	South Platte R. and Goose or Lost Park Cr.	Decker, Colo.	1,766	1,460	Sept. 1931	31	77,958	.586	.70	.025	37.2	BR

34-5	Pathfinder	North Platte River	Alcoa, Wyo.	10,700	5/3,315	June 1909	—	1,096,300	—	—	—	—	—	—
	do	do	do	—	—	July 1950	41.1	1,015,876	—	—	81.1	6/078	2/138	—
34-6	Sandino	do	Leo, Wyo.	7,348	7,317	—	1979	—	1,020,000	1.158	—	—	—	—
	do	do	do	—	—	Sept. 1950	11.5	1,012,000	1.149	465	9/108	9/133	—	—
34-7	Englewood	Little Dry Creek	Littleton, Colo.	9.40	9.25	—	1956	—	1,282.3	—	—	—	—	—
	do	do	do	—	—	Aug. 1956	19.5	1,215.2	—	—	—	—	—	—
34-8a	B-3 Kiowa Creek Watershed	Kiowa Creek	Kibort, Colo.	2.92	2.89	July 1956	—	147.59	0.27	—	—	—	—	—
	do	do	do	—	—	Mar. 1966	10	136.22	0.25	480	—	32	557	—
34-9	Round Butte	Coal Creek	Wellington, Colo.	11.7	11.6	—	1905	—	831	—	—	—	—	—
	do	do	do	—	—	June 1965	60	785	—	69	—	07	105	—
34-10a	Q-51 Kiowa Creek Watershed	Kiowa Creek	Kibort, Colo.	0.56	0.56	June 1957	—	32.30	0.31	—	—	—	—	—
	do	do	do	—	—	Jan. 1966	9	30.17	0.29	480	—	43	749	—
34-11	J-73 Kiowa Creek Watershed	do	Eastonville, Colo.	1.07	1.06	July 1956	—	42.55	—	—	—	—	—	—
	do	do	do	—	—	July 1965	9	42.05	—	480	—	05	87	—
34-12	B-9 Kiowa Creek Watershed	do	Kibort, Colo.	0.65	0.64	Dec. 1955	—	49.36	—	—	—	—	—	—
	do	do	do	—	—	July 1965	9.5	46.81	—	480	—	09	157	—
34-13	Slab Canyon CDD	Slab Canyon	Wellington, Colo.	3.15	3.08	July 1957	—	311.4	01.85	—	—	—	—	—
	do	do	do	—	—	Feb. 1968	30	286.3	01.72	—	—	25	—	—

MISSOURI RIVER BASIN (ABOVE BLAIR TO NEBRASKA CITY) PLATTE RIVER BASIN (BELOW NORTH PLATTE)

35-1	Otto Baak	Trib. of Soldier River	Richetts, Iowa	0.159	0.157	Sept. 1944	—	2/6.91	0.177	—	—	—	—	—
	do	do	do	—	—	Apr. 1949	4.6	2.28	0.058	54.9	6.43	7,470	—	—
35-2	Fred Brown	Trib. of Willow River	Logan, Iowa	0.100	0.097	June 1941	—	2/11.89	0.594	—	—	—	—	—
	do	do	do	—	—	May 1949	4.61	—	0.250	63.2	9.51	13,080	—	—
35-3	William Kubeck	Trib. of Elkhorn Creek	Elkhorn, Iowa	0.208	0.204	May 1940	—	2/12.60	0.208	—	—	—	—	—
	do	do	do	—	—	May 1949	9.0	4.51	0.087	56.2	4.41	5,390	—	—
35-4	O. & A. Bure Lower Reservoir	Trib. of Boyer River	Danison, Iowa	0.187	0.139	Dec. 1938	—	2/6.63	0.138	—	—	—	—	—
	do	do	do	—	—	Apr. 1949	10.3	1.26	0.026	69.8	3.75	5,700	—	—
35-5	O. & A. Bure Upper Reservoir	do	do	0.045	0.044	Mar. 1939	—	2/1.90	0.158	—	—	—	—	—
	do	do	do	—	—	Apr. 1949	10.1	1.22	0.018	71.4	3.77	5,870	—	—
35-6	Charles Fienhold	do	Danlay, Iowa	0.428	0.425	May 1945	—	2/12.63	0.123	—	—	—	—	—
	do	do	do	—	—	Apr. 1949	3.9	2.90	0.028	63.1	5.07	6,070	—	—
35-7a	C. F. Gaud	Trib. of E. Nebraskans R.	Stamett, Iowa	0.081	0.079	Dec. 1940	—	14.48	0.762	—	—	—	—	—
	do	do	do	—	—	May 1949	6.4	12.82	0.675	63.9	2.51	3,492	—	—
	do	do	do	—	—	June 1952	3.1	11.98	0.631	57.9	3.43	4,330	—	—
35-8	Otto Goslar	Trib. of Middle Soldier R.	Charter Oak, Iowa	0.089	0.086	May 1940	—	2/10.18	0.485	—	—	—	—	—
	do	do	do	—	—	Mar. 1949	8.8	8.29	0.395	68.8	2.50	3,750	—	—
35-9	Thomas Bodin	Trib. of Boyer River	Dow City, Iowa	0.130	0.127	Aug. 1941	—	2/19.39	0.588	—	—	—	—	—
	do	do	do	—	—	May 1949	10/2.8	0.21	0.006	83.2	53.9	97,740	—	—
35-10	Fred Hollrab	Trib. of Willow Creek	Uta, Iowa	0.217	0.213	Aug. 1944	—	2/18.98	0.365	—	—	—	—	—
	do	do	do	—	—	Mar. 1949	4.6	12.76	0.245	58.3	6.35	8,060	—	—
35-11b	Jonas Creek	Jonas Creek	Pingah, Iowa	2.26	2.23	Feb. 1942	—	254.2	0.527	—	—	—	—	—
	do	do	do	—	—	Jan. 1949	6.9	221.8	0.460	47.8	2.11	2,397	—	—
	do	do	do	—	—	Sept. 1950	1.7	211.5	0.439	64.8	2.48	3,620	—	—
	do	do	do	—	—	Jan. 1953	2.3	199.2	0.413	61.8	2.40	3,230	—	—
35-12a	Russ La Prairie	Trib. of Boyer River	Danison, Iowa	0.155	0.152	May 1942	—	15.28	0.377	—	—	—	—	—
	do	do	do	—	—	Apr. 1949	6.9	10.38	0.392	56.7	4.47	5,767	—	—
	do	do	do	—	—	July 1953	4.2	9.47	0.357	62.0	1.43	1,904	—	—
35-13	Jensen-O'Reil Farm Pond	Trib. of L. Nebraskans R.	Syracuse, Neb.	0.199	0.193	Nov. 1936	—	23.7	0.658	—	—	—	—	—
	do	do	do	—	—	Nov. 1948	12.0	16.8	0.467	56.9	2.97	3,680	—	—
35-14	Peterson Farm Pond	do	do	0.075	0.074	Oct. 1936	—	2.06	0.158	—	—	—	—	—
	do	do	do	—	—	July 1948	11.75	0.16	0.012	59.7	2.19	2,830	—	—
35-15b	Alfred Lago	Trib. of Elk Creek	Aspinwall, Iowa	0.184	0.182	June 1941	—	11.23	0.229	—	—	—	—	—
	do	do	do	—	—	Apr. 1949	7.8	8.56	0.175	53.2	1.88	2,180	—	—
	do	do	do	—	—	June 1952	3.2	7.14	0.146	51.9	2.42	2,735	—	—
35-16a	Berens Lago	do	do	0.098	0.096	July 1941	—	12.07	0.207	—	—	—	—	—
	do	do	do	—	—	Apr. 1949	7.8	10.83	0.183	54.8	4.437	5,270	—	—
	do	do	do	—	—	June 1952	3.2	8.98	0.098	49.5	14.1	17,598	—	—
35-17a	Howard Watson	Trib. of Boyer River	Danison, Iowa	0.100	0.098	July 1944	—	16.44	0.361	—	—	—	—	—
	do	do	do	—	—	Apr. 1949	4.8	12.56	0.355	69.1	8.26	12,431	—	—
	do	do	do	—	—	July 1953	4.3	5.71	0.334	87.1	16.3	30,900	—	—
35-18a	Wilbur Meyer	do	do	0.297	0.293	Nov. 1944	—	43.80	0.376	—	—	—	—	—
	do	do	do	—	—	Apr. 1949	4.4	37.33	0.481	56.3	5.02	6,160	—	—
	do	do	do	—	—	June 1952	3.2	34.43	0.456	56.1	2.88	3,520	—	—
35-19a	Max Miller No. 1	Trib. of M. Nebraskans R.	Neodesha, Iowa	0.223	0.218	Nov. 1941	—	43.84	0.377	—	—	—	—	—
	do	do	do	—	—	May 1949	7.5	35.46	0.709	65.2	5.12	7,280	—	—
	do	do	do	—	—	June 1952	3.1	32.10	0.642	69.7	4.95	7,520	—	—
35-20b	Max Miller No. 5	do	do	0.235	0.228	Nov. 1941	—	53.19	0.1020	—	—	—	—	—
	do	do	do	—	—	May 1949	7.5	41.94	0.807	72.6	6.28	10,405	—	—
	do	do	do	—	—	June 1952	3.1	41.06	0.790	74.5	1.23	1,996	—	—
35-21a	Harvey Hamft	Trib. of Boyer River	Danison, Iowa	0.336	0.330	Oct. 1944	—	41.35	0.481	—	—	—	—	—
	do	do	do	—	—	Apr. 1949	4.5	33.08	0.385	54.8	11/3.66	11,6790	—	—
	do	do	do	—	—	June 1952	3.2	29.22	0.340	55.5	11/3.67	11,4,440	—	—
35-22a	Tracy North	do	Well, Iowa	0.245	0.238	Nov. 1939	—	48.64	0.141	—	—	—	—	—
	do	do	do	—	—	Mar. 1949	9.4	40.04	0.356	52.7	3.84	4,410	—	—
	do	do	do	—	—	July 1953	4.3	37.43	0.493	55.7	2.97	3,120	—	—
35-23	Lake Erlanson	Cedar River	Brinsford, Neb.	12/500	41	May 1945	—	1,452	—	—	—	—	—	—
	do	do	do	—	—	Apr. 1948	32.9	1,066	—	80	434	756	—	—
35-24a	Ree Farm Pond	Trib. of Turkey Creek	Dunsmog, Neb.	0.18	0.18	July 1947	—	01.0	0.104	—	—	—	—	—
	do	do	do	—	—	Aug. 1953	5	0.643	0.067	465	0.39	522	—	—

- 1/ Excludes 28 sq. mi. of noncontributing drainage.
2/ Drainage area includes partial sediment trap for 0.133 sq. mi. and is estimated to retain 0.6 cu.-ft. of sediment per year.
3/ Dam failed in 1933; survey made in 1939.
4/ Data in capacity due to sediment cleared from dam.
5/ Excludes 7,348 sq. mi. above Sandino Dam, which was closed in April 1939.
6/ For period April 1935 - July 1950.

- 7/ For period June 1909 - July 1950.
8/ Below elevation 6,340 which is 17 ft. below spillway crest.
9/ Water supply pool capacity. Reservoir has greater capacity at spillway crest elevation.
10/ Reservoir silted full June 1944.
11/ Includes 0.13 cu.-ft. of sediment above emergency spillway.
12/ Area assumed to contribute surface runoff is 41 sq. mi.

SUMMARY OF
RESERVOIR SEDIMENTATION SURVEYS MADE IN THE UNITED STATES THROUGH 1970

DATA SHEET NUMBER	RESERVOIR	STREAM	NEAREST TOWN	DRAINAGE AREA (SQUARE MILES)		DATE OF SURVEY	PERIOD BETWEEN SURVEYS (YEARS)	STORAGE CAPACITY (ACRE-FT.)	CAPACITY AVG. ANN. INFLOW RATIO (ACRE-FT. PER ACRE-FT.)	SPECIFIC WEIGHT (DRY) (LB. PER CU. FT.)	AVG. ANN. SEDIMENT ACCUMULATION PER SQ. MI. OF NET DR. AREA FOR PERIOD SHOWN		AGENCY SUPPLYING DATA
				TOTAL	NET						AC.-FT.	TONS	
MISSOURI RIVER BASIN (ABOVE BLAIR TO NEBRASKA CITY) PLATTE RIVER BASIN (BELOW NORTH PLATTE) (Continued)													
35-25	Howe Farm Pond	Trib. of Dead Horse Creek	Loup City, Nebr.	1.80	1.79	Aug. 1948	—	15.6	*.163	—	—	—	SCS
	do	do	do	—	—	Aug. 1953	5	13.9	*.145	—	—	—	
35-26	Muller Farm Pond	Trib. of Oak Creek	Farwell, Nebr.	.358	.354	Aug. 1949	—	15.40	*.811	—	.20	283	SCS
	do	do	do	—	—	Aug. 1953	4	14.39	*.757	—	.71	1,005	SCS
35-27	Rusicka Farm Pond	do	do	.27	.26	Aug. 1949	—	30.74	*2.135	—	—	—	SCS
	do	do	do	—	—	Aug. 1953	4	28.03	*1.947	—	2.62	3,709	SCS
35-28	Brehmer Reservoir	Trib. of L. Nemaha River	Dunbar, Nebr.	.184	.180	—	—	11.78	—	—	—	—	SCS
	do	do	do	—	—	—	—	9.93	—	—	2.01	2,846	SCS
35-29	Cook Reservoir	Trib. of Papillion Creek	Arlington, Nebr.	.391	.383	—	—	29.4	—	—	—	—	SCS
	do	do	do	—	—	—	—	21.1	—	—	.921	1,304	SCS
35-30a	Ingwerson Reservoir No. 1	Turkey Creek	Louisville, Nebr.	.211	.209	—	—	12.17	—	—	—	—	SCS
	do	do	do	—	—	—	—	10.19	—	—	1.89	2,676	SCS
35-31	Ingwerson Reservoir No. 2	do	do	.074	.073	—	—	.72	—	—	—	—	SCS
	do	do	do	—	—	—	—	.19	—	—	1.43	2,024	SCS
35-32	Ingwerson Reservoir No. 3	do	do	.335	.331	—	—	18.73	—	—	—	—	SCS
	do	do	do	—	—	—	—	17.01	—	—	1.71	2,421	SCS
35-33	Kraus Reservoir	Papillion Creek	Elkhorn, Nebr.	.80	.779	—	—	61.5	—	—	—	—	SCS
	do	do	do	—	—	—	—	11.2	—	—	2.99	4,233	SCS
35-34	Lugn Reservoir	Unnamed	Douglas, Nebr.	.263	.257	—	—	12.8	—	—	—	—	SCS
	do	do	do	—	—	—	—	4.33	—	—	2.93	4,148	SCS
35-35	Miesner Reservoir	Trib. of L. Nemaha River	Dunbar, Nebr.	.163	.158	—	—	14.48	—	—	—	—	SCS
	do	do	do	—	—	—	—	10.92	—	—	2.72	3,851	SCS
35-36	O'Brien Reservoir	South Cedar Creek	Manley, Nebr.	.417	.412	—	—	22.09	—	—	—	—	SCS
	do	do	do	—	—	—	—	7.28	—	—	1.77	2,506	SCS
35-37a	O'Neill Reservoir	Trib. of L. Nemaha River	Syracuse, Nebr.	.140	.130	—	—	35.69	—	—	—	—	SCS
	do	do	do	—	—	—	—	23.98	—	—	4.29	6,073	SCS
35-38	Pickrell Reservoir No. 1	Russell Creek	Unadilla, Nebr.	.336	.326	—	—	35.76	—	—	—	—	SCS
	do	do	do	—	—	—	—	32.35	—	—	1.27	1,798	SCS
35-39	Pickrell Reservoir No. 2	do	do	.102	.100	—	—	3.18	—	—	—	—	SCS
	do	do	do	—	—	—	—	2.96	—	—	.725	1,026	SCS
35-40	Pickrell Reservoir No. 3	do	do	.088	.086	—	—	5.04	—	—	—	—	SCS
	do	do	do	—	—	—	—	1.40	—	—	2.31	3,270	SCS
35-41	Pickrell Reservoir No. 4	do	do	.114	.113	—	—	2.30	—	—	—	—	SCS
	do	do	do	—	—	—	—	1.60	—	—	.272	385	SCS
35-42	Pollard Reservoir	Weeping Water Creek	Nehawka, Nebr.	.100	.098	—	—	7.63	—	—	—	—	SCS
	do	do	do	—	—	—	—	4.38	—	—	1.55	2,194	SCS
35-43	Rosa Farm Reservoir	N. Fork Little Fox River	Otoe, Nebr.	.077	.074	—	—	8.12	—	—	—	—	SCS
	do	do	do	—	—	—	—	6.71	—	—	2.04	2,888	SCS
35-44	Rosher Reservoir	Long Creek	Fort Calhoun, Nebr.	.30	.298	—	—	12.7	—	—	—	—	SCS
	do	do	do	—	—	—	—	4.12	—	—	3.57	5,054	SCS
35-45b	Mule Creek "A"	Trib. of Nishnabotna River	Malvern, Iowa	.188	.177	July 1954	—	43.9	*1.109	—	—	—	SCS
	do	do	do	—	—	Oct. 1956	2.33	42.0	*1.061	73.4	4.63	7,400	
	do	do	do	—	—	Sept. 1957	.92	40.2	*1.015	73.4	11.40	18,200	
	do	do	do	—	—	Oct. 1958	1.08	39.6	*1.000	72.3	3.11	4,900	
	do	do	do	—	—	Jan. 1960	1.33	38.9	*.982	58.7	2.99	3,800	
	do	do	do	—	—	Dec. 1960	.92	36.5	*.922	60.3	14.50	19,000	
	do	do	do	—	—	Feb. 1962	1/1.00	36.0	*.909	2/60.3	2.99	3,940	
	do	do	do	—	—	Jan. 1963	.92	34.7	*.876	69.5	7.85	11,880	
	do	do	do	—	—	Jan. 1964	1.00	33.54	*.897	2/60.3	4/-4.66	—	
	do	do	do	—	—	Jan. 1965	1.00	34.45	*.870	2/60.3	6.20	8,140	
	do	do	do	—	—	Jan. 1966	1.00	31.97	*.807	2/60.3	13.99	18,370	
	do	do	do	—	—	Jan. 1967	1.00	32.81	*.828	2/60.3	4/-6.22	—	
	do	do	do	—	—	Jan. 1968	1.00	30.88	*.780	2/60.3	10.91	14,328	
	do	do	do	—	—	Mar. 1969	1.17	31.37	*.792	2/75.5	4/-2.372	—	
35-46b	Mule Creek "B"	do	do	.383	.368	Aug. 1954	—	55.3	*.684	—	—	—	SCS
	do	do	do	—	—	Oct. 1956	2.17	52.6	*.651	72.6	3.31	5,200	
	do	do	do	—	—	Sept. 1957	.92	51.8	*.641	69.5	2.55	3,900	
	do	do	do	—	—	Oct. 1958	1.08	50.3	*.623	59.2	3.64	4,700	
	do	do	do	—	—	Jan. 1960	1.33	47.6	*.589	67.2	5.52	8,100	
	do	do	do	—	—	Dec. 1960	.92	47.1	*.583	55.3	1.55	1,900	
	do	do	do	—	—	Feb. 1962	1/1.08	45.1	*.558	2/55.3	5.11	6,150	
	do	do	do	—	—	Jan. 1963	.92	43.5	*.538	62.1	4.73	6,400	
	do	do	do	—	—	Jan. 1964	1.00	44.6	*.552	51.8	4/-2.88	—	
	do	do	do	—	—	Jan. 1965	1.00	42.7	*.528	51.8	4.92	5,550	
	do	do	do	—	—	Jan. 1966	1.00	36.5	*.452	51.8	16.91	19,080	
	do	do	do	—	—	Aug. 1966	.58	39.09	.494	51.8	4/-15.704	—	
	do	do	do	—	—	June 1969	2.75	40.069	.50	5/71.64	4/-2.98	—	
35-47b	Mule Creek "C"	do	do	.916	.923	July 1954	—	76.2	—	—	—	—	SCS
	do	do	do	—	—	Oct. 1956	2.33	73.8	—	53.9	3.28	3,900	
	do	do	do	—	—	Sept. 1957	.92	69.1	—	66.1	15.50	22,300	

6/ Includes upstream structures.
7/ Water supply pool capacity. Reservoir capacity is greater at spillway crest elevation.
8/ Conservation pool capacity. Flood pool capacity is 1,952 ac.-ft.
9/ Increase in capacity in 1950 was due to settlement of dam.
* Estimated or assumed.

SUMMARY OF
RESERVOIR SEDIMENTATION SURVEYS MADE IN THE UNITED STATES THROUGH 1970

DATA SHEET NUMBER	RESERVOIR	STREAM	NEAREST TOWN	DRAINAGE AREA (SQUARE MILES)		DATE OF SURVEY	PERIOD BETWEEN SURVEYS (YEARS)	STORAGE CAPACITY (ACRE-FT.)	CAPACITY AVG. ANN. INFLOW RATIO (ACRE-FT. PER ACRE-FT.)	SPECIFIC WEIGHT (DRY) (LB. PER CU. FT.)	AVG. ANN. SEDIMENT ACCUMULATION PER SQ. MI. OF NET DR. AREA FOR PERIOD SHOWN		AGENCY SUPPLYING DATA
				TOTAL	NET						AC.-FT.	TONS	
RIVER BASIN (NIOBRARA TO ABOVE BLAIR) JAMES AND BIG SIOUX RIVER BASINS (Continued)													
36-9	Theobald Main	Unnamed	Anthony, Iowa	.683	.642	June 1949	—	103.2	*1.053	—	—	—	SCS
	do	do	do	—	—	Aug. 1950	1.15	94.0	*.959	*72.3	18.1	28,502	
	do	do	do	—	—	May 1951	.77	93.5	*.954	*72.3	1.36	2,142	
	do	do	do	—	—	Oct. 1952	1.38	89.2	*.910	72.3	7.13	11,228	
36-10	Theobald Lateral C.	do	do	.250	.234	Nov. 1948	—	37.5	*.735	—	—	—	SCS
	do	do	do	—	—	July 1950	1.70	34.5	*.676	*67.9	7.65	11,313	
	do	do	do	—	—	May 1951	.83	34.3	*.673	*67.9	1.08	1,597	
	do	do	do	—	—	May 1952	.94	33.5	*.657	67.9	3.60	5,324	
36-11	Theobald Lateral D.	do	do	.098	.089	Nov. 1948	—	19.5	*.975	—	—	—	SCS
	do	do	do	—	—	July 1950	1.71	18.9	*.945	*73.1	3.63	5,780	
	do	do	do	—	—	May 1951	.82	18.7	*.935	*73.1	2.86	4,560	
	do	do	do	—	—	Oct. 1952	1.42	18.6	*.930	73.1	.72	1,146	
36-12a	Mortenson	do	Cherokee, Iowa	1.39	1.37	Oct. 1950	—	229.0	*.718	—	—	—	SCS
36-13	Bartlett	Green Creek	Alcester, S. Dak.	.234	.234	Nov. 1936	—	12.84	1.035	—	—	—	SCS
	do	do	do	—	—	Nov. 1955	19	6.86	.553	77.0	1.35	2,264	
36-14b	Lake Mitchell	Firesteel Creek	Mitchell, S. Dak.	584	496	Oct. 1928	—	10,943	.49	—	—	—	SCS
	do	do	do	—	—	July 1948	19.8	10,380	.47	*46.79	.057	58	
	do	do	do	—	—	Aug. 1958	10.0	9,798	.44	*46.79	.117	119	
	do	do	do	—	—	July 1969	11.0	9,235	.42	65.47	.103	231	
36-15	Salem Dam	Silver Creek	Sioux Falls, S. Dak.	1.158	1.158	Aug. 1950	—	12.79	.206	—	—	—	SCS
	do	do	do	—	—	Aug. 1955	5.0	8.16	.132	*60	.80	1,045.44	
36-16	Scott No. 2	Scott Creek	Alcester, S. Dak.	.152	.152	Oct. 1936	—	7.36	.909	—	—	—	SCS
	do	do	do	—	—	Apr. 1955	18.5	3.14	.388	56.4	1.52	1,867.2	
36-17	Lake Vermillion	Vermillion	Montrose, S. Dak.	402.9	402.0	Mar. 1959	—	5,173.7	.297	—	—	—	SCS
	do	do	do	—	—	June 1964	5.25	4,927.5	.283	35	.117	89	
36-18	Vermillion Watershed No. A	Trib. of Vermillion	Salem, S. Dak.	.075	.075	Aug. 1955	10.3	2.67	1.000	.834	.68	740	
	do	do	do	—	—	Nov. 1965	15	5.06	.629	*50	.40	435	
36-19	Vermillion Watershed No. B	do	do	.237	.237	Oct. 1950	—	6.48	.629	—	—	—	SCS
	do	do	do	—	—	Nov. 1965	15	5.06	.491	*50	.40	435	
36-20	Lake Okabena	Trib. of Okabena Creek	Worthington, Minn.	17.40	16.27	—	*1897	5,183	2.234	—	—	—	SCS
	do	do	do	—	—	Mar. 1963	65	1/5,100	2.198	26	.87	492	
36-21a	Scott Creek #11	Scott Creek	Alcester, S. Dak.	1.85	1.45	Oct. 1954	—	196.64	2.55	—	—	—	SCS
	do	do	do	—	—	Apr. 1965	10.5	192.7	2.50	*65	.26	368	
	do	do	do	—	—	May 1970	5.1	179.75	2.33	—	1.785	2,527	
36-22	Richmond Lake	Foot Creek	Aberdeen, S. Dak.	82	73.5	Jan. 1937	—	9,880.9	7.53	—	—	—	SCS
	do	do	do	—	—	Sept. 1969	32.75	8,971.08	6.84	51.8	.378	426	
MISSOURI RIVER BASIN (ABOVE PIERRE TO NIOBRARA) Niobrara and White River Basins													
37-1a	Elkins Stock Pond No. 1	Br. of Froeseeman Creek	Hayes, S. Dak.	.58	.57	May 1907	—	18.61	—	—	—	—	SCS
	do	do	do	—	—	June 1937	30	15.78	—	41.3	.16	144	
37-2	Elkins Stock Pond No. 2	do	do	.33	.33	May 1911	—	4.34	—	—	—	—	SCS
	do	do	do	—	—	June 1937	26.0	3.18	—	36.6	.136	108	
37-3	Land Utilization Project No. 226-1.	Trib. of Bad River	Pierre, S. Dak.	.203	.197	Mar. 1936	—	16.7	—	—	—	—	SCS
	do	do	do	—	—	July 1945	9.3	15.2	—	—	.822	—	
37-4	Land Utilization Project No. 226-2.	Trib. of Missouri River	do	.995	.981	Mar. 1936	—	34.0	—	—	—	—	SCS
	do	do	do	—	—	July 1945	9.3	29.8	—	—	.458	—	
37-5	Land Utilization Project No. 226-4.	Trib. of Bad River	do	.748	.742	May 1936	—	13.6	—	—	—	—	SCS
	do	do	do	—	—	July 1945	9.2	9.9	—	—	.539	—	
37-6	Land Utilization Project No. 226-6.	Trib. of Missouri River	do	2.555	2.541	Apr. 1936	—	31.8	—	—	—	—	SCS
	do	do	do	—	—	July 1945	9.3	25.1	—	—	.285	—	
37-7	Land Utilization Project No. 226-13.	Trib. of Bad River	do	.166	.163	Oct. 1936	—	9.1	—	—	—	—	SCS
	do	do	do	—	—	July 1945	8.7	8.3	—	—	.521	—	
37-8	Land Utilization Project No. 226-21.	Trib. of Missouri River	do	.245	.234	Oct. 1936	—	28.9	—	—	—	—	SCS
	do	do	do	—	—	July 1945	8.7	26.1	—	—	1.389	—	
37-9	Land Utilization Project No. 226-22.	Trib. of Bad River	do	.514	.511	Nov. 1936	—	9.2	—	—	—	—	SCS
	do	do	do	—	—	July 1945	8.7	8.3	—	—	.200	—	

17-10	Land Utilization Project No. 226-25.	Trib. of Missouri River	do	.147	.144	Nov. 1937	—	9.3	—	—	—	—	SCS
	do	do	do	—	—	July 1945	7.7	8.4	—	—	.799	—	SCS
17-11	Land Utilization Project No. 226-31.	do	do	.225	.220	Mar. 1937	—	13.9	—	—	—	—	SCS
	do	do	do	—	—	July 1945	8.3	12.3	—	—	.859	—	SCS
17-12	Land Utilization Project No. 226-32.	do	do	.477	.472	Mar. 1937	—	14.1	—	—	—	—	SCS
	do	do	do	—	—	July 1945	8.3	12.1	—	—	.508	—	SCS
17-13	Land Utilization Project No. 226-34.	do	do	1.222	1.209	June 1937	—	44.3	—	—	—	—	SCS
	do	do	do	—	—	July 1945	8.1	40.0	—	—	.443	—	SCS
17-14	Land Utilization Project No. 226-35.	do	do	.508	.502	May 1938	—	18.4	—	—	—	—	SCS
	do	do	do	—	—	July 1945	7.2	16.1	—	—	.631	—	SCS
17-15	Land Utilization Project No. 243-1.	do	do	.108	.106	Nov. 1937	—	2.7	—	—	—	—	SCS
	do	do	do	—	—	July 1945	7.7	2.0	—	—	.811	—	SCS
17-16	Land Utilization Project No. 243-2.	Unnamed Stream (interior drainage)	do	.134	.131	Nov. 1937	—	5.2	—	—	—	—	SCS
	do	do	do	—	—	July 1945	7.7	3.0	—	—	2.206	—	SCS
17-17	Land Utilization Project No. 243-5.	Trib. of Missouri River	do	.072	.070	Nov. 1937	—	2.6	—	—	—	—	SCS
	do	do	do	—	—	July 1945	7.7	2.2	—	—	.700	—	SCS
17-18	Land Utilization Project No. 243-6.	Trib. of Bad River	do	.117	.116	Nov. 1937	—	3.2	—	—	—	—	SCS
	do	do	do	—	—	July 1945	7.7	2.8	—	—	.474	—	SCS
17-19	Land Utilization Project No. 243-10.	Trib. of Missouri River	do	.533	.532	June 1938	—	3.7	—	—	—	—	SCS
	do	do	do	—	—	July 1945	7.1	2.9	—	—	.222	—	SCS
17-20	Land Utilization Project No. 243-11.	do	do	.339	.338	July 1938	—	4.5	—	—	—	—	SCS
	do	do	do	—	—	July 1945	7.0	3.9	—	—	.266	—	SCS
17-21	Harris Reservoir North	Unnamed	Gordon, Nebr.	.577	.573	May 1947	—	7.3	—	—	—	—	SCS
	do	do	do	—	—	Nov. 1956	9.5	5.57	—	*70	.315	480	SCS
17-22	Harris Reservoir South	do	do	11.9	11.85	May 1947	—	18.64	—	—	—	—	SCS
	do	do	do	—	—	Nov. 1956	9.5	15.77	—	*70	.025	38	SCS
17-23	Johnson Reservoir	do	do	.856	.849	—	—	16.25	—	—	—	—	SCS
	do	do	do	—	—	Nov. 1956	10.3	12.39	—	*70	.435	663	SCS
17-24a	Lake Dante	Trib. of Choteau Creek	Wagner, S. Dak.	2.89	2.89	Nov. 1937	—	260.73	.352	—	—	—	SCS
	do	do	do	—	—	Oct. 1955	17.9	230.95	.312	*60	.578	756	SCS
17-25	Eggers	Trib. of Missouri River	do	10.3	10.3	July 1937	—	231.0	.840	—	—	—	SCS
	do	do	do	—	—	July 1965	28	200.32	.728	50	.107	115	SCS

MISSOURI RIVER BASIN (MOBRIDGE TO ABOVE PIERRE)
Cheyenne and Belle Fourche River Basins

18-1	Johnson's Stock Pond	Trib. of L. Cheyenne River	Gettysburg, S. Dak.	.191	.188	—	1912	—	2.56	—	—	—	SCS
	do	do	do	—	—	June 1937	25.0	1.85	—	—	.16	202	SCS
18-2	Bartel Stock Pond	Little Cheyenne Creek	do	.609	.606	—	1908	—	4.30	—	—	—	SCS
	do	do	do	—	—	June 1937	29.0	2.80	—	53.6	.08	93.4	ARS
18-3a	W-14 (Anderson)	Trib. of Fourmile Creek	Vale, S. Dak.	.054	.054	Nov. 1956	—	5.60	1.42	—	—	—	ARS
	do	do	do	—	—	Oct. 1958	1.9	5.14	1.30	70	4.48	6,708	ARS
	do	do	do	—	—	Dec. 1962	4.2	4.51	1.14	70	2.78	4,158	ARS
	do	do	do	—	—	Apr. 1967	4.3	4.36	1.11	70	.65	967	ARS
18-4a	W-9 (Smeek)	Sulphur Creek	Sulphur, S. Dak.	1.27	1.27	Nov. 1951	—	350.9	10.35	—	—	—	ARS
	do	do	do	—	—	June 1961	9.6	334	9.85	84	1.38	2,525	ARS
	do	do	do	—	—	June 1969	8.0	315.3	9.3	84	1.84	3,367	ARS
18-5	Angostura Reservoir	Cheyenne River	Hot Springs, S. Dak.	9,100	9,093	Oct. 1949	—	159,919	.866	—	—	—	BR
	do	do	do	—	—	Sept. 1965	16	138,761	.752	56.4	.145	178	PS
18-6	Sturgis Watershed No. 1	Alkali Creek	Sturgis, S. Dak.	.339	.339	Oct. 1965	—	—	—	—	—	—	PS
	do	do	do	—	—	Oct. 1966	1.0	—	—	92.2	2/-	.019	PS
	do	do	do	—	—	Oct. 1967	1.0	—	—	92.2	2/-	.687	PS
	do	do	do	—	—	Oct. 1968	1.0	—	—	92.2	2/-	.044	PS
	do	do	do	—	—	Oct. 1969	1.0	—	—	92.2	2/-	.252	PS
	do	do	do	—	—	Oct. 1970	1.0	—	—	92.2	2/-	.495	PS
18-7	Sturgis Watershed No. 2	do	do	.139	.139	Oct. 1965	—	—	—	—	—	—	PS
	do	do	do	—	—	Oct. 1966	1.0	—	—	92.2	2/-	.05	PS
	do	do	do	—	—	Oct. 1967	1.0	—	—	92.2	2/-	.2248	PS
	do	do	do	—	—	Oct. 1968	1.0	—	—	92.2	2/-	.04	PS
	do	do	do	—	—	Oct. 1969	1.0	—	—	92.2	2/-	.036	PS
	do	do	do	—	—	Oct. 1970	1.0	—	—	92.2	2/-	.004	PS
18-8	Sturgis Watershed No. 3	do	do	.297	.297	Oct. 1965	—	—	—	—	—	—	PS
	do	do	do	—	—	Oct. 1966	1.0	—	—	92.2	2/-	.106	PS
	do	do	do	—	—	Oct. 1967	1.0	—	—	92.2	2/-	.404	PS
	do	do	do	—	—	Oct. 1968	1.0	—	—	92.2	2/-	.034	PS
	do	do	do	—	—	Oct. 1969	1.0	—	—	92.2	2/-	.022	PS
	do	do	do	—	—	Oct. 1970	1.0	—	—	92.2	2/-	.001	PS
18-9	Canyon Lake	Rapid Creek	Rapid City, S. Dak.	385	366.35	Sept. 1933	—	300.77	.011	—	—	—	SCS
	do	do	do	—	—	Oct. 1970	37	221.75	.008	65	4/-032	4/50	SCS

1/ 837 ac.-ft. of storage created by dredging.

2/ Less than .001. Material removed from Weir Pond facility periodically.

3/ Pastola Reservoir controls about 120 sq. mi.

4/ 9.9 ac.-ft. sediment, removed in 1956, not included.

* Estimated or assumed.

SUMMARY OF
RESERVOIR SEDIMENTATION SURVEYS MADE IN THE UNITED STATES THROUGH 1970

DATA SHEET NUMBER	RESERVOIR	STREAM	NEAREST TOWN	DRAINAGE AREA (SQUARE MILES)		DATE OF SURVEY	PERIOD BETWEEN SURVEYS (YEARS)	STORAGE CAPACITY (ACRE-FT.)	CAPACITY AVG. ANN. INFLOW RATIO (ACRE-FT. PER ACRE-FT.)	SPECIFIC WEIGHT (DRY) (LB. PER CU. FT.)	AVG. ANN. SEDIMENT ACCUMULATION PER SQ. MI. OF NET DR. AREA FOR PERIOD SHOWN		AGENCY SUPPLYING DATA
				TOTAL	NET						AC-FT.	TONS	
MISSOURI RIVER BASIN (MOBRIDGE TO ABOVE PIERRE) Cheyenne and Belle Fourche River Basins (Continued)													
38-10	Barrel Detention Dam	Unnamed	New Castle, Wy.	6.15	4.83	Aug. 1968	--	454.6	*6.7	--	--	--	SCS
	do	do	do	--	--	Dec. 1970	2.25	438.4	*6.7	86	1.49	2,799	SCS
38-11	New Underwood Reservoir	do	New Underwood, S. Dak.	2.97	2.94	-- 1935	--	138.5	--	--	--	--	SCS
	do	do	do	--	--	Aug. 1970	35	120.2	--	*60	.177	231	
MISSOURI RIVER BASIN (WILLISTON TO MOBRIDGE) Moreau, Grand, Cannonball, Heart, and Little Missouri River Basins													
39-1	Frederick Stock Dam	Louise Creek	Flasher, N. Dak.	1.17	1.17	-- 1935	--	1.06	*.021	--	--	--	SCS
	do	do	do	--	--	Aug. 1956	21	.864	*.017	*35	.00797	6.07	
39-2a	Hiddenwood Lake	Hiddenwood Creek	Selby, S. Dak.	31.8	27.2	May 1926	--	1/207.78	.549	--	--	--	SCS
	do	do	do	--	--	Sept. 1959	33.3	165.70	.438	55	.047	56	
39-3	Kambisch Reservoir	Tri'b. of Moreau	Sorum, S. Dak.	2.20	1.97	Aug. 1924	--	389.80	--	--	--	--	SCS
	do	do	do	--	--	Aug. 1964	40	380.75	--	*60	.12	156.8	
39-4	Clark Reservoir	do	do	3.56	2.56	Aug. 1949	--	62.00	--	--	--	--	SCS
	do	do	do	--	--	Aug. 1964	15	56.15	--	*60	.15	196	
39-5	Wenner Reservoir	Tri'b. of Grand	Lenmon, S. Dak.	.493	.493	Aug. 1951	--	35.96	3.182	--	--	--	SCS
	do	do	do	--	--	Aug. 1964	13	33.96	3.005	*60	.30	392	
39-6	Cole Reservoir	do	Bison, S. Dak.	4.66	2.21	Aug. 1937	--	161.1	--	--	--	--	SCS
	do	do	do	--	--	Aug. 1964	27	144.01	--	*60	.29	379	
39-7	Van Oosting Dam	Tri'b. of Missouri River	Hensler, N. Dak.	1.78	1.76	Apr. 1950	--	171.5	*3.618	--	--	--	SCS
	do	do	do	--	--	Oct. 1964	14.5	167.0	*3.523	60.4	2/176	2/51.5	
39-8	Battle Creek Detention Dam	Battle Creek	Hullett, Wy.	18.44	18.44	Nov. 1967	--	620.1	*.63	--	--	--	SCS
	do	do	do	--	--	Sept. 1970	2.83	614.7	*.62	71.4	.104	161.8	
MISSOURI RIVER BASIN (ZORTMAN TO WILLISTON) Milk and Musselshell River Basins													
40-1	Yellow Water	Yellow Water Creek	Winnett, Mont.	55	54	June 1938	--	4,796	--	--	--	--	SCS
	do	do	do	--	--	Sept. 1948	10.3	4,616	--	*32	.32	224	
40-2	Fort Peck	Missouri River	Fort Peck, Mont.	57,725	2/--	Oct. 1937	--	19,557,492	--	--	--	--	CR
	do	do	do	--	--	June 1950	12.67	19,233,686	--	56.7	.65	803	
	do	do	do	--	--	Sept. 1952	2.25	19,186,698	--	57.4	.53	724	
	do	do	do	--	--	June 1954	1.75	19,164,369	--	57.9	.33	471	
	do	do	do	--	--	May 1958	3.92	19,162,468	--	58.8	.013	75	
	do	do	do	--	--	June 1961	3.08	19,138,511	--	59.4	.22	338	
MISSOURI RIVER BASIN (ABOVE ZORTMAN)													
41-1	Anderson Reservoir	Tri'b. of Pondera Creek	Conrad, Mont.	.156	.156	-- 1916	--	9.27	--	--	--	--	SCS
	do	do	do	--	--	Oct. 1955	39	8.44	--	*60	.136	183	
41-2a	Kropp	do	do	.625	.625	-- 1900	--	4.70	--	--	--	--	SCS
	do	do	do	--	--	Oct. 1955	55	3.84	--	*60	.025	33	
41-3	Walston	do	do	2.96	2.96	-- 1915	--	66.13	--	--	--	--	SCS
	do	do	do	--	--	Oct. 1955	40	51.71	--	*60	.122	166	
LOWER YELLOWSTONE RIVER BASIN Tongue and Powder River Basins													
42-1a	Baker Lake	Sandstone Creek	Baker, Mont.	5.20	5.01	May 1908	--	756	3.40	--	--	--	SCS
	do	do	do	--	--	May 1937	29.1	502	2.26	39	1.74	1,478	
	do	do	do	--	--	May 1955	18.0	393	1.77	45	1.21	1,553	
	do	do	do	--	--	July 1970	15.2	235	1.06	40	2.08	1,288	
42-2	Tongue River	Tongue River	Decker, Mont.	1,740	1,734.5	May 1939	--	72,510	.248	--	--	--	BR
	do	do	do	--	--	Oct. 1948	9.42	69,439	.237	70.5	.188	288.7	
42-3	Harang Reservoir	Dry Creek	Miles City, Mont.	6.92	6.92	-- 1941	--	300	4.05	--	--	--	SCS
	do	do	do	--	--	-- 1969	28	222	3.0	70	.403	614	

UPPER YELLOWSTONE RIVER BASIN

43-1b	Buffalo Bill	Shoshone River	Cody, Wy.	1,470	1,470	May 1910	—	455,838	.492	—	—	—	BR
	do	do	do	—	—	1941	31.7	439,851	.474	—	.34	—	
	do	do	do	—	—	1958	17.0	421,333	.455	—	.62	—	
43-2	Big Gin	Trib. of Fifteenmile Creek	Morland, Wy.	.942	.918	Oct. 1954	—	99.2	3.906	—	—	—	GS
	do	do	do	—	—	Oct. 1955	1	98.1	3.862	—	1.2	—	
	do	do	do	—	—	Oct. 1958	3	96.0	3.780	—	.8	—	
	do	do	do	—	—	Oct. 1961	3	93.2	3.669	—	1.0	—	
43-3	Fraser Draw	Fraser Draw	Moneta, Wy.	27.4	27.4	Oct. 1954	—	90.2	1.797	—	—	—	GS
	do	do	do	—	—	Oct. 1958	4	87.7	1.747	—	.02	—	
	do	do	do	—	—	Nov. 1960	2	83.3	1.659	—	.08	—	
43-4	East Fork	Graham Draw	do	.81	.81	June 1949	—	12.30	4.241	—	—	—	GS
	do	do	do	—	—	Nov. 1949	.42	11.73	4.045	—	1.68	—	
	do	do	do	—	—	May 1952	2.54	11.01	3.797	—	.35	—	
	do	do	do	—	—	Oct. 1955	3.42	10.83	3.734	—	.06	—	
	do	do	do	—	—	Oct. 1957	2.00	10.61	3.659	—	.14	—	
	do	do	do	—	—	Oct. 1960	3.00	10.58	3.648	—	.01	—	
43-5	West Fork	do	do	.38	.38	July 1948	—	3.13	3.817	—	—	—	GS
	do	do	do	—	—	Nov. 1949	1.25	2.94	3.585	—	.39	—	
	do	do	do	—	—	May 1952	2.54	2.54	3.098	—	.42	—	
	do	do	do	—	—	Oct. 1955	3.42	2.62	3.195	—	0	—	
	do	do	do	—	—	Oct. 1957	2.00	2.59	3.159	—	.05	—	
	do	do	do	—	—	Oct. 1960	3.00	2.47	3.012	—	.11	—	
43-6	Red Spire	Rock Waterhole Creek	Morland, Wy.	5.24	5.20	Oct. 1954	—	193.4	1.098	—	—	—	GS
	do	do	do	—	—	Oct. 1955	1	192.3	1.086	—	.40	—	
	do	do	do	—	—	Oct. 1958	3	176.1	1.000	—	.98	—	
	do	do	do	—	—	Oct. 1961	3	154.5	.877	—	1.38	—	
43-7	Boysen	Wind River	Thermopolis, Wy.	7,700	7,670	Oct. 1951	—	819,132	.625	—	—	—	BR
	do	do	do	—	—	Aug. 1964	12.8	802,004	.612	83	.17	307	

ARKANSAS RIVER BASIN (VAN BUREN TO LITTLE ROCK) WHITE RIVER BASIN

44-1a	Lake Bennett	East Fork Creek	Conway, Ark.	4.16	4.11	June 1935	—	494	—	—	—	—	SCS
	do	do	do	—	—	Nov. 1935	0.4	490	—	—	2.43	—	
	do	do	do	—	—	Nov. 1946	11.0	481	.130	—	.20	—	
44-2	Lake Booneville	Trib. of Petit Jean Creek	Booneville, Ark.	2.60	2.57	Mar. 1929	—	289	.127	—	—	—	SCS
	do	do	do	—	—	Nov. 1935	6.75	282	—	—	.455	—	
44-3	Lake Fort Smith	Jack and Jones Creeks	Mountainburg, Ark.	65	64	Feb. 1936	—	*13,810	—	—	—	—	SCS
	do	do	do	—	—	Apr. 1940	4.2	13,727	—	—	.31	—	
44-4	Lake Bailey	Cedar Creek	Morrilton, Ark.	15.2	15	Sept. 1937	—	629	—	—	—	—	SCS
	do	do	do	—	—	May 1940	2.7	602	—	—	.66	—	
44-5	Lake Taneycomo	White River	Branson, Mo.	4,610	4,606	Mar. 1913	—	43,980	—	—	—	—	SCS
	do	do	do	—	—	Aug. 1935	22.4	23,714	—	—	.196	—	
44-6	Wimrod	Fourche La Pave River	Wimrod, Ark.	680	652	May 1942	—	336,000	.532	—	—	—	CE
	do	do	do	—	—	Apr. 1950	7.9	4/336,000	.532	—	4/-	—	
44-7	Norfolk	North Fork River	Norfolk, Ark.	1,806	1,772	June 1943	—	1,560,500	1.138	—	—	—	CE
	do	do	do	—	—	May 1950	6.9	5/1,560,500	1.138	—	5/-	—	
44-8	Cove Lake	Arkansas River Trib.	Paris, Ark.	10.90	10.66	May 1938	—	2,206	*.298	—	—	—	SCS
	do	do	do	—	—	Dec. 1953	15.5	2,141	*.290	—	.39	—	
44-9	Charleston Lake	do	Charleston, Ark.	1.03	.93	Apr. 1937	—	325	*.455	—	—	—	SCS
	do	do	do	—	—	Dec. 1953	16.66	264	*.370	—	3.94	—	
44-10	Six Mile Creek No. 2	Shaver Creek	Caulkeville, Ark.	5.38	5.26	Oct. 1954	—	6/1,613.93	.469	—	—	—	SCS
	do	do	do	—	—	July 1961	6.67	5/1,608.15	.467	—	8/-17	—	
	do	do	do	—	—	Oct. 1954	—	7/309.52	.090	—	—	—	
	do	do	do	—	—	July 1961	6.67	7/301.01	.087	—	7/-24	—	
44-11	Six Mile Creek No. 5	Little Caney Creek	do	1.90	1.81	Dec. 1954	—	6/860.98	.08	—	—	—	SCS
	do	do	do	—	—	July 1961	6.63	6/854.63	.073	—	6/-53	—	
	do	do	do	—	—	Dec. 1954	—	7/221.96	.183	—	—	—	
	do	do	do	—	—	July 1961	6.63	7/215.77	.177	—	7/-51	—	
44-12	Six Mile Creek No. 23	Trib. of Hurricane Creek	Peter Pender, Ark.	4.16	3.91	July 1955	—	6/989.25	.372	—	—	—	SCS
	do	do	do	—	—	July 1961	6.00	6/983.27	.369	—	6/-26	—	
	do	do	do	—	—	July 1955	—	7/75.92	.029	—	—	—	
	do	do	do	—	—	July 1961	6.00	7/70.64	.027	—	7/-23	—	

1/ Conservation pool capacity. Reservoir has greater capacity at spillway crest elevation.

2/ Includes 0.03 ac.-ft. above crest deposits.

3/ 1937-1955=39,097 sq. mi.; 1956-1961=34,692 sq. mi.

4/ Suspended - load inflow was 608 ac.-ft.; suspended - load outflow was 200 ac.-ft. during period. Deposits too small to measure by range survey.

5/ Sediment inflow volume was computed to be 2,350 ac.-ft.; much of this probably settled out over a large area in deposits too thin to be measured accurately by echo sounders.

6/ Both sediment and flood pools.

7/ Sediment pool only.

* Estimated or assumed.

SUMMARY OF
RESERVOIR SEDIMENTATION SURVEYS MADE IN THE UNITED STATES THROUGH 1970

DATA SHEET NUMBER	RESERVOIR	STREAM	NEAREST TOWN	DRAINAGE AREA (SQUARE MILES)		DATE OF SURVEY	PERIOD BETWEEN SURVEYS (YEARS)	STORAGE CAPACITY (ACRE-FT.)	CAPACITY AVG. ANN. INFLOW RATIO (ACRE-FT. PER ACRE-FT.)	SPECIFIC WEIGHT (DRY) (LB. PER CU. FT.)	AVG. ANN. SEDIMENT ACCUMULATION PER SQ. MI. OF NET DR. AREA FOR PERIOD SHOWN		AGENCY SUPPLYING DATA
				TOTAL	NET						AC.-FT.	TONS	
ARKANSAS RIVER BASIN (VAN BUREN TO LITTLE ROCK) WHITE RIVER BASIN (Continued)													
44-13	Dardanelle Reservoir	Arkansas River	Dardanelle, Ark.	1/153,703	11,333	Oct. 1964	—	460,300	2/.0532	—	—	—	CE
	do	do	do	—	—	Oct. 1965	1.08	452,600	2/.0532	*80	0.626	1,090	
	do	do	do	—	—	Apr. 1968	2.50	443,500	2/.0540	80	.321	560	
44-14	Six Mile Creek Site No. 6	Six Mile Creek	Chismville, Ark.	4.14	4.07	Oct. 1954	—	1,304.03	.446	—	—	—	SCS
	do	do	do	—	—	May 1964	9.58	1,275.62	.436	68.8	.73	1,093	
	do	do	do	—	—	Oct. 1970	6.42	1,253.26	.429	76.1	.86	1,425	
ARKANSAS RIVER BASIN (TULSA TO VAN BUREN) Grand, Verdigris, and Lower Canadian River Basins													
45-1	Lake Wadlington	Trib. of Illinois River	Fayetteville, Ark.	4.06	3.92	July 1937	—	1,260	—	—	—	—	SCS
	do	do	do	—	—	Aug. 1947	10.1	1,249	—	—	.278	—	
45-2	Wilson	Wilson Creek	do	2.35	2.30	Oct. 1930	—	522	—	—	—	—	SCS
	do	do	do	—	—	June 1940	9.75	517	—	—	.23	—	
45-3	Lake Sapulpa	Euchee Creek	Sapulpa, Okla.	8.72	8.57	— 1913	—	1,094	—	—	—	—	SCS
	do	do	do	—	—	Dec. 1935	22.5	911	—	—	.949	—	
	do	do	do	—	—	Dec. 1946	11.0	842	—	—	.732	—	
45-4b	Brown Lake	Peaceable Creek	McAlester, Okla.	20.9	19.9	May 1943	—	4,995	.640	—	—	—	SCS
	do	do	do	—	—	July 1952	9.2	4,660	.597	54.2	1.83	2,160	
	do	do	do	—	—	Apr. 1963	10.75	4,525	.580	—	.63	743	
45-5	Lake McAlester	Bull Creek	do	30.7	28.2	— 1919	—	18,397	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1941	22	17,509	—	—	1.43	—	
45-6	Lake Okmulgee	Salt Creek	Okmulgee, Okla.	40.1	39.2	— 1928	—	10,355	—	—	—	—	SCS
	do	do	do	—	—	Apr. 1950	22	9,896	—	—	.532	—	
45-7a	Shawnee Lake	Deer Creek	Shawnee, Okla.	21.2	18.9	Aug. 1937	—	3,226,600	—	—	—	—	SCS
	do	do	do	—	—	Dec. 1947	12.3	24,468	—	—	—	—	
	do	do	do	—	—	5/23,816	—	23,429	—	94.72	2.8	5,776	
	do	do	do	—	—	5/22,327	9.2	580	—	94.72	2.7	5,339	
45-8	Taft Lake	Br. of Pecan Creek	Taft, Okla.	2.3	2.2	— 1937	—	574	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1947	10	574	—	—	.29	—	
45-9	Himanssee Lake	Trib. of Deep Fk. Creek	Arcadia, Okla.	4.58	4.29	— 1936	—	2,341	—	—	—	—	SCS
	do	do	do	—	—	Apr. 1950	14	2,158	—	—	3.05	—	
45-10	Lake Carleton	Fourche Maline Creek	Wilburton, Okla.	19.8	19.7	— 1933	—	6,570	—	—	—	—	SCS
	do	do	do	—	—	July 1947	14	511	—	—	.21	—	
45-11	Holdenville City Lake	Besmore Creek	Holdenville, Okla.	8.95	8.30	June 1931	—	9,844	—	—	—	—	SCS
	do	do	do	—	—	Apr. 1950	18.8	9,030	—	—	5.22	—	
45-12	Pretty Water Lake	Pretty Water Creek	Sapulpa, Okla.	2.43	2.40	Mar. 1936	—	344	—	—	—	—	SCS
	do	do	do	—	—	Dec. 1946	10.75	322	—	—	.85	—	
45-13	Greenleaf Lake	Big Greenleaf Creek	Muskogee, Okla.	81.25	79.84	Mar. 1937	—	13,005	—	—	—	—	SCS
	do	do	do	—	—	Nov. 1941	4.7	12,828	—	—	.47	—	
45-15	Kirk Lake	Unnamed	Iola, Kans.	2.41	2.36	— 1897	—	111	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1939	42	69	—	48.10	.43	450	
45-16	Lovell	Sprg. R. & Shoal Creek	Baxter Springs, Kans.	2,210.0	2,208.6	Mar. 1905	—	10,404	—	—	—	—	SCS
	do	do	do	—	—	Aug. 1939	34.4	7,580	—	*60	.04	52.3	
45-17	Neosho County State Lake (Lake McKinley)	Small Trib. of Neosho River	Parsons, Kans.	3.38	3.24	July 1927	—	680	—	—	—	—	SCS
	do	do	do	—	—	Aug. 1939	12.1	651	—	*60	.74	967	
45-18	Lake Claremore	Dog Creek	Claremore, Okla.	56.44	55.70	May 1931	—	4,258	—	—	—	—	SCS
	do	do	do	—	—	Oct. 1939	8.4	3,909	—	51.17	.749	835	
45-19	Lake Spavinaw	Spavinaw Creek	Spavinaw, Okla.	400.0	397.2	Apr. 1924	—	31,686	—	—	—	—	SCS
	do	do	do	—	—	July 1935	11	30,509	—	—	.269	—	
45-20	Kennamer Lake	Trib. of Pryors Creek	Chelsea, Okla.	.28	.27	— 1923	—	28	—	—	—	—	SCS
	do	do	do	—	—	— 1939	16	26.5	—	—	.35	—	
45-21	State Fish Hatchery Lake	Happy Creek	Claremore, Okla.	1.21	1.20	— 1934	—	34.0	—	—	—	—	SCS
	do	do	do	—	—	— 1939	5	32.9	—	—	.18	—	
45-22	Lake Seabow	Trib. of Pryor Creek	Pryor, Okla.	3.07	3.04	— 1931	—	123	—	—	—	—	SCS
	do	do	do	—	—	— 1939	8	111.9	—	—	.46	—	
45-23	Wewoka Lake	Coon Cr. or Spring Cr.	Wewoka, Okla.	16.27	15.72	July 1925	—	2/4,961	1.028	—	—	—	SCS
	do	do	do	—	—	Apr. 1945	19.6	4,489	.930	—	1.51	—	
	do	do	do	—	—	Feb. 1954	8.0	4,357	.903	—	8/1.05	—	
45-24	Wetumka City Lake	Salt Creek	Wetumka, Okla.	4.15	3.88	Jan. 1931	—	2,076	1.341	—	—	—	SCS
	do	do	do	—	—	Feb. 1954	23.2	1,898	1.226	—	1.98	—	
45-25	Adair	N. Caney River	Sedan, Kans.	.33	.33	Mar. 1953	—	20.9	—	—	.28	335	SCS
	do	do	do	—	—	Sept. 1960	7.5	20.2	—	55	—	—	
45-26	Bevroy	Big Caney River	Cedar Vale, Kans.	.16	.16	Jan. 1938	—	22.8	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1960	22.7	21.2	—	60	.44	574	

45-27	Buffalo	Bea Creek	Havana, Kans.	.26	.26	1934	51.7	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1960	48.5	—	50	.45	490	—
45-28a	Poster	N. Caney River	Sedan, Kans.	2.25	2.25	Jan. 1951	484	—	—	—	—	SCS
	do	do	do	—	—	Aug. 1960	477.8	—	55	.29	347	—
45-29	House	Caney River	Hewins, Kans.	.25	.25	Sept. 1936	10.66	—	60	.23	300	—
	do	do	do	—	—	Sept. 1960	9.26	—	—	—	—	—
45-30	Herbert Miles Pond	Unnamed	Lebo, Kans.	.194	.192	Jan. 1939	10.59	—	—	—	—	—
	do	do	do	—	—	July 1957	8.56	—	*60	2/.60	2/10.2	—
45-31	Kahola	Kahola Creek	Dunlap, Kans.	15.9	15.3	Dec. 1936	6,491	*1.591	—	—	—	ABS
	do	do	do	—	—	Apr. 1954	18.3	*1.455	51.6	1.99	2,236	—
45-32	Mills	Big Caney River	Sedan, Kans.	.2	.2	1920	23.9	—	—	—	—	—
	do	do	do	—	—	Sept. 1960	40	—	70	.28	427	—
45-33	Payer Pond	Unnamed	Burlington, Kans.	.345	.345	Jan. 1938	54.97	—	—	—	—	—
	do	do	do	—	—	July 1957	44.12	—	57	1.61	1,998.8	—
45-34	Stasie	Middle Caney River	Cadavale, Kans.	.49	.49	Jan. 1943	81.46	—	—	—	—	—
	do	do	do	—	—	Sept. 1960	77.94	—	60	.41	536	—
45-35	Hulah	Caney River	Hulah, Okla.	732	712	Feb. 1950	295,130	1.109	—	—	—	—
	do	do	do	—	—	June 1958	8.4	292,565	44.2	.429	413	—
45-36a	Double Creek Site No. 5	do	Ramona, Okla.	2.39	2.36	Feb. 1955	747.36	.83	—	—	—	—
	do	do	do	—	—	Apr. 1964	9.2	734.29	.81	54.3	.60	710
	do	do	do	—	—	Sept. 1969	5.5	730.53	.81	54.3	.29	343
45-37	Waldron Lake	Square Rock Creek	Waldron, Ark.	7.65	7.58	Mar. 1943	361.44	.059	—	—	—	—
	do	do	do	—	—	Oct. 1961	18.58	325.78	.053	—	.25	—
45-38	Howard City Lake	Gane Creek	Howard, Kans.	10.16	10.06	Sept. 1936	771.0	.316	—	—	—	—
	do	do	do	—	—	Sept. 1965	28.9	604.7	*60	.57	745	—
45-39	Hayburn Reservoir	Polecat Creek	Hayburn, Okla.	123	117	Mar. 1950	59,650	1.447	—	—	—	—
	do	do	do	—	—	Dec. 1959	9.8	57,270	1.389	77.23	2.08	3,499
45-40	Toronto Lake	Verdigris	Toronto, Kans.	730	714	Mar. 1960	195,300	.559	—	—	—	—
	do	do	do	—	—	May 1966	6.21	192,060	.550	50.4	.731	802
45-41	Eufaula Lake	Canadian	Whitefield, Okla.	47,522	13,693	Feb. 1964	3,848,000	.89	—	—	—	—
	do	do	do	—	—	June 1969	5.33	3,798,400	.88	62.2	.68	921
45-42	Hatch	Trib. Neosho River	Burlington, Kans.	.19	.18	Oct. 1939	4.74	.07	—	—	—	—
	do	do	do	—	—	Aug. 1967	28	3.54	*60	.24	314	—
45-43	Mound Valley Experimental Sta.	Trib. of Pumpkin Creek	Mound Valley, Kans.	.42	.42	June 1954	6.90	.032	—	—	—	—
	do	do	do	—	—	June 1968	14	4.77	*60	.36	470	—
45-44	Cranor	Trib. Verdigris River	Edna, Kans.	.22	.22	Nov. 1953	5.01	.044	—	—	—	—
	do	do	do	—	—	June 1968	14.6	3.92	*60	.32	418	—
45-45	Scott	Trib. Neosho	Parsons, Kans.	.23	.23	Dec. 1956	—	12.0	.10	—	—	—
	do	do	do	—	—	June 1968	11.8	11.1	.093	*60	.35	457
45-46	Fletcher	Big Creek	Gridley, Kans.	.20	.19	1934	24.41	.33	—	—	—	—
	do	do	do	—	—	Aug. 1967	33	20.1	.27	*60	.68	888
45-47	Isch Pond	do	do	.38	.37	1927	—	15.37	.110	—	—	—
	do	do	do	—	—	Aug. 1967	40	8.72	.062	*60	.46	601
45-48	Hess Pond	Trib. Duck Creek	Elk City, Kans.	1.75	1.73	1933	—	53.04	.080	—	—	—
	do	do	do	—	—	July 1967	34	29.69	.045	*60	.40	522
45-49	Olenhouse	do	La Fontaine, Kans.	.13	.13	July 1937	—	3.8	.080	—	—	—
	do	do	do	—	—	July 1967	30	3.0	.062	*60	.23	300
45-50	Sierman	do	do	.23	.23	June 1937	—	5.3	.062	—	—	—
	do	do	do	—	—	July 1967	30	4.5	.052	*60	.13	170
45-51	Hubert	do	Longton, Kans.	.41	.40	Oct. 1948	—	16.38	.11	—	—	—
	do	do	do	—	—	Aug. 1967	19	15.0	.098	*60	.18	235
45-52	Meritt Pond	Big Creek	Burlington, Kans.	.25	.25	1939	—	8.09	.09	—	—	—
	do	do	do	—	—	Aug. 1967	28	4.17	.045	*60	.56	731
45-53	Big Wewoka Site No. 36	Big Wewoka	Holdenville, Okla.	2.26	2.20	June 1960	—	690.3	.95	—	—	—
	do	do	do	—	—	Aug. 1969	9.1	679.0	.94	62	.56	762
45-54	Cane Creek Site No. 11	Cane Creek	Okmulgee, Okla.	8.96	8.89	Nov. 1965	—	2,983.6	.96	—	—	—
	do	do	do	—	—	Sept. 1969	3.85	2,954.7	.95	55	.85	1,018
45-55	Big Wewoka Site No. 17	Big Wewoka	Wewoka, Okla.	2.16	2.11	Mar. 1963	—	691.3	1.36	—	—	—
	do	do	do	—	—	Sept. 1968	5.53	680.7	1.34	60	.91	1,189
ARKANSAS RIVER BASIN (GARDEN CITY TO TULSA)												
Middle Canadian, Lower Cimarron, and Salt Fork River Basins												
46-1b	Fort Supply Lake	Wolf Creek	Fort Supply, Okla.	1,735	1,485	Jan. 1943	—	107,340	1.27	—	—	—
	do	do	do	—	—	June 1949	6.42	106,150	1.26	57.8	.125	157
	do	do	do	—	—	June 1958	9.0	101,750	1.21	67.0	.329	498
	do	do	do	—	—	Dec. 1969	11.50	100,720	1.66	65.3	.061	74

1/ 22,241 sq. mi. is probably noncontributing.
 2/ Based on inflow from net sediment contributing area.
 3/ Original topographic survey.
 4/ From "A" reconnaissance investigation, Shawnee Lake, by Victor H. Jones, Geologist, SCS.
 5/ Present ac.-ft. as shown by the two surveys.

6/ Lake drained and dam raised 1937. Original capacity at 1938 crest.
 7/ Dam raised 11 feet Mar. 1946; all values based on present elevation.
 8/ Dam broke Apr. 1945; rebuilt Mar. 1946; this period not included.
 9/ Includes 0.03 ac.-ft. above crest deposits.
 * Estimated or assumed.

SUMMARY OF
RESERVOIR SEDIMENTATION SURVEYS MADE IN THE UNITED STATES THROUGH 1975

DATA SHEET NUMBER	RESERVOIR	STREAM	NEAREST TOWN	DRAINAGE AREA (SQUARE MILES)		DATE OF SURVEY	PERIOD BETWEEN SURVEYS (YEARS)	STORAGE CAPACITY (ACRE-FT.)	CAPACITY AVG. ANN. INFLOW RATIO (ACRE-FT. PER ACRE-FT)	SPECIFIC WEIGHT (DRY) (LB. PER CU. FT.)	AVG. ANN. SEDIMENT ACCUMULATION PER SQ. MI. OF NET DR. AREA FOR PERIOD SHOWN		AGENCY SUPPLYING DATA
				TOTAL	NET						AC.-FT.	TONS	
ARKANSAS RIVER BASIN (GARDEN CITY TO TULSA)													
Middle Canadian, Lower Cimarron, and Salt Fork River Basins (Continued)													
46-2a	Great Salt Plains-----	Salt Fk. of Arkansas River	Jet, Okla.	3,200	3,156	June 1941	—	308,000	1.067	—	—	—	OK
	do-----	do-----	do-----	—	—	Dec. 1949	8.5	292,000	1.011	48.6	0.586	620	
	do-----	do-----	do-----	—	—	Apr. 1961	11.4	280,200	—	58.9	.336	529	
46-3	Boomer Lake-----	Boomer Creek	Stillwater, Okla.	9.13	8.67	Mar. 1925	—	2,812	—	—	—	—	SCS
	do-----	do-----	do-----	—	—	June 1935	10.25	2,641	—	*60	1.93	2,522	
46-4	Bennington's Lake-----	Chikaskia River	Rago, Kans.	1.42	1.40	Aug. 1929	—	75	—	—	—	—	SCS
	do-----	do-----	do-----	—	—	Oct. 1940	11.2	33	—	69.47	2.68	4,055	
46-5	Meade County State Lake (Lake Larrabee).-----	Stump Arroyo	Meade, Kans.	18.00	17.84	June 1928	—	891	—	—	—	—	SCS
	do-----	do-----	do-----	—	—	Apr. 1937	8.8	819	—	*60	.459	600	
46-6	Lake Medicine-----	Medicine Lodge Creek-----	Medicine Lodge, Kans.	1.89	1.84	Aug. 1929	—	365	—	—	—	—	SCS
	do-----	do-----	do-----	—	—	Oct. 1940	11.2	295	—	98.52	3.40	7,296	
46-7	Santa Fe-----	Indianola Creek-----	Augusta, Kans.	37.93	37.55	Oct. 1928	—	1,741	—	—	—	—	SCS
	do-----	do-----	do-----	—	—	May 1937	8.6	1,595	—	58.1	.45	569	
46-8	Outhrie-----	Trib. of Cottonwood Creek-----	Outhrie, Okla.	13.30	12.95	Oct. 1920	—	3,064	—	—	—	—	SCS
	do-----	do-----	do-----	—	—	May 1935	14.5	2,608	—	*60	2.42	3,162	
46-9	Gelmer's Stock Pond-----	Bois d'Arc Creek-----	Blackwell, Okla.	.31	.31	Oct. 1939	—	3.74	—	—	—	—	SCS
	do-----	do-----	do-----	—	—	Sept. 1940	1.0	3.43	—	*65	1.0	1,416	
46-10	Harris Stock Pond-----	do-----	do-----	.22	.21	Apr. 1938	—	12.63	—	—	—	—	SCS
	do-----	do-----	do-----	—	—	Sept. 1940	2.5	12.37	—	*65	.495	701	
46-11	Lake Eldorado-----	Satchel Creek-----	Eldorado, Kans.	35.1	34.3	—	—	3,213	—	—	—	—	SCS
	do-----	do-----	do-----	—	—	Apr. 1937	9	3,082	—	66	.426	612	
46-12a	Lake Fryer-----	Wolf Creek-----	Perryton, Tex.	108	108	—	—	844	.372	—	—	—	SCS
	do-----	do-----	do-----	—	—	May 1947	7.4	717	.316	—	.16	—	
46-12b	Canton Lake-----	North Canadian River-----	Canton, Okla.	12,483	1/6,081	July 1947	—	401,500	2.15	—	—	—	OK
	do-----	do-----	do-----	—	—	May 1953	5.83	390,800	2.10	70.9	.302	4,664	
	do-----	do-----	do-----	—	—	Oct. 1959	6.42	385,900	2.07	56.2	.125	65.3	
	do-----	do-----	do-----	—	—	Sept. 1966	6.92	383,300	2.06	56.1	.063	76.4	
46-14	Outhrie Municipal Reservoir No. 2-----	Cottonwood Creek-----	Outhrie, Okla.	11.63	11.29	May 1949	—	3,192.68	1.391	—	—	—	SCS
	do-----	do-----	do-----	—	—	Sept. 1960	11.40	2,945.06	1.283	95.66	1.92	4,000.27	
46-15a	Lake Carl Blackwell-----	Stillwater Creek-----	Stillwater, Okla.	75.35	70.53	Mar. 1938	—	58,326	—	—	—	—	SCS
	do-----	do-----	do-----	—	—	Sept. 1958	20.50	54,556	—	*60	2.61	3,410.75	
46-16	Lies Pond-----	Unnamed-----	Andale, Kans.	3.36	3.36	June 1942	—	20.44	—	—	—	—	SCS
	do-----	do-----	do-----	—	—	Sept. 1956	14	9.62	—	94.89	2/28	5/578.68	
46-17	Longton-----	do-----	Cimarron, Kans.	.55	.54	July 1935	—	3/51.10	—	—	—	—	SCS
	do-----	do-----	do-----	—	—	Aug. 1955	20	50.28	—	85.7	.07	134	
46-18	Hughes No. 1-----	do-----	Ingalls, Kans.	.64	.63	—	—	3/8.50	—	—	—	—	SCS
	do-----	do-----	do-----	—	—	1942	—	5.44	—	72.07	.32	502	
46-19	Perry City Lake-----	Cow Creek-----	Perry, Okla.	16.67	16.64	June 1937	—	4,371	1.311	—	—	—	SCS
	do-----	do-----	do-----	—	—	May 1955	17.9	3,986	1.196	83.5	1.33	2,419	
46-20	Pottessinger Pond-----	Unnamed-----	Andale, Kans.	.9	.9	Aug. 1949	—	14.87	—	—	—	—	SCS
	do-----	do-----	do-----	—	—	Sept. 1956	7	8.97	—	103.4	1/1.0	1/2,252	
46-21	O. F. Scott Ponds-----	Trib. of So. Canadian R.-----	Union City, Okla.	1.80	1.79	May 1941	—	26.3	.085	—	—	—	SCS
	do-----	do-----	do-----	—	—	May 1955	14	20.7	.067	65.4	.22	313	
46-22	Tom Hill Pond-----	Trib. of Bridge Creek-----	Tuttle, Okla.	.530	.526	July 1943	—	13.38	.147	—	—	—	SCS
	do-----	do-----	do-----	—	—	May 1955	11.8	6.43	.071	—	1.12	—	
46-23	Wichlaus-----	Trib. Slough Creek-----	Haven, Kans.	2.29	2.27	May 1932	—	46.14	.15	—	—	—	SCS
	do-----	do-----	do-----	—	—	May 1967	35	5/13.6	.04	70	.22	335	
46-24	Thever-----	Trib. Slate Creek-----	Wellington, Kans.	.14	.14	—	—	4.09	.16	—	—	—	SCS
	do-----	do-----	do-----	—	—	Aug. 1967	9	3.38	.13	*60	.57	745	
46-25	Kouklouris-----	Trib. Sand Creek-----	Newton, Kans.	.24	.24	Oct. 1948	—	9.64	.219	—	—	—	SCS
	do-----	do-----	do-----	—	—	Sept. 1968	19.92	6.95	.158	*60	.58	758	
46-26	Adams-----	Trib. Bluff Creek-----	Anthony, Kans.	.24	.23	Sept. 1934	—	13.50	.56	—	—	—	SCS
	do-----	do-----	do-----	—	—	Aug. 1968	33.92	4.76	.24	*60	1.00	1,307	
46-27	Smith - Case-----	Trib. Little Ark. River-----	Little River, Kans.	.56	.56	Dec. 1958	—	66.89	1.86	—	—	—	SCS
	do-----	do-----	do-----	—	—	Aug. 1968	9.75	62.29	1.73	*60	.84	1,098	
46-28	Workman-----	Trib. Medicine Lodge River-----	Medicine Lodge, Kans.	.59	.59	June 1936	—	10.0	.18	—	—	—	SCS
	do-----	do-----	do-----	—	—	Aug. 1968	32.17	1.79	.03	*60	.44	575	
46-29	Cant-----	do-----	do-----	.30	.30	Mar. 1955	—	25.26	.87	—	—	—	SCS
	do-----	do-----	do-----	—	—	Aug. 1968	13.42	20.29	.70	*60	1.23	1,607	
46-30	Schubach-----	do-----	Kiowa, Kans.	.34	.34	June 1956	—	26.73	.81	—	—	—	SCS
	do-----	do-----	do-----	—	—	Aug. 1968	12.17	21.91	.66	*60	1.18	1,542	
46-31	Barrett-----	Wild Creek-----	Anthony, Kans.	.67	.67	Spring 1957	—	39.92	.59	—	—	—	SCS
	do-----	do-----	do-----	—	—	July 1968	11.25	32.24	.47	*60	1.01	1,320	
46-32	Miller-----	Beaver Creek-----	Walton, Kans.	1.20	1.20	Aug. 1959	—	6.08	.028	—	—	—	SCS
	do-----	do-----	do-----	—	—	July 1968	9	2.87	.013	*60	.30	392	

46-33	Roupp	Trib. Sand Creek	Hesston, Kans.	.49	.49	June 1950	—	5.47	.066	—	—	—	SCS
	do	do	do	—	—	Sept. 1968	18.12	3.33	.037	*60	.24	314	SCS
46-34	Mease	Trib. Medicine Lodge River	Medicine Lodge, Kans.	1.73	1.71	Feb. 1961	—	108.3	.65	—	—	—	SCS
	do	do	do	—	—	Aug. 1968	7.5	105.19	.63	*60	.24	314	SCS
46-35	Berger Pond	Trib. Pawnee River	Jetmore, Kans.	3.0	3.0	Mar. 1952	—	18.55	.29	—	—	—	SCS
	do	do	do	—	—	Aug. 1967	15.5	12.95	.20	*60	.12	156	SCS
46-36	Paris	Trib. Wet Walnut Creek	Dighton, Kans.	3.6	2.2	Aug. 1940	—	41.69	.87	—	—	—	SCS
	do	do	do	—	—	Aug. 1967	27	36.66	.76	*60	.09	117	SCS
46-37	Siebert	Trib. Big Sandy	Meade, Kans.	.23	.23	Jan. 1952	—	8.0	1.6	—	—	—	SCS
	do	do	do	—	—	June 1966	14.5	7.15	1.5	80	.26	453	SCS
46-38	Hoop	Trib. Crooked Creek	do	1.07	.90	May 1961	—	4.0	.19	—	—	—	SCS
	do	do	do	—	—	June 1966	—	3.76	.19	80	.06	104	SCS
46-39	Harris	do	do	7.57	4.75	Oct. 1962	—	161.4	1.1	—	—	—	SCS
	do	do	do	—	—	June 1966	3.7	160.8	1.1	*70	.04	61	SCS
46-40	Whitford	Trib. Hackberry Creek	Ashland, Kans.	1.98	1.97	May 1947	—	14.2	.22	—	—	—	SCS
	do	do	do	—	—	July 1966	19.2	8.2	.13	75	.15	245	SCS
46-41	Davis	Pawnee	Kalvesta, Kans.	2.40	2.37	Jan. 1951	—	104.82	3.28	—	—	—	SCS
	do	do	do	—	—	Sept. 1967	16.75	97.94	3.06	*60	.17	222	SCS
46-42	Lippoldt	Trib. Pawnee River	Jetmore, Kans.	1.83	1.82	Dec. 1952	—	5/30.5	.78	—	—	—	SCS
	do	do	do	—	—	Aug. 1967	14.75	27.74	.71	*60	.10	131	SCS
46-43	Sebes Pond	do	do	1.20	1.20	July 1956	—	5.6	.22	—	—	—	SCS
	do	do	do	—	—	Aug. 1967	11.13	4.34	.17	*60	.09	117	SCS
46-44	Fry	Trib. Ark. River	Little River, Kans.	1.07	1.07	Aug. 1949	—	4.13	.06	—	—	—	SCS
	do	do	do	—	—	Aug. 1968	19	1.37	.02	*60	.14	183	SCS
46-45	Barber	do	Raymond, Kans.	.57	.57	June 1962	—	21.50	.60	—	—	—	SCS
	do	do	do	—	—	June 1968	6.2	17.97	.50	*70	1.0	1,525	SCS
46-46	Coberly	Trib. Buffalo Creek	Dighton, Kans.	2.1	2.1	Aug. 1946	—	18.0	.65	—	—	—	SCS
	do	do	do	—	—	Aug. 1967	21	12.93	.48	*60	.11	143	SCS
46-47	Smith Pond	Trib. Pawnee River	Jetmore, Kans.	.30	.30	Dec. 1951	—	5.93	.93	—	—	—	SCS
	do	do	do	—	—	Aug. 1967	15.75	3.56	.59	*60	.50	653	SCS
46-48	Saltman	Trib. Walnut Creek	Rush Center, Kans.	1.63	1.61	Oct. 1958	—	26.07	.43	—	—	—	SCS
	do	do	do	—	—	Aug. 1967	8.8	22.23	.37	*60	.27	352	SCS
46-49	Bayl	Trib. Slate Creek	Wellington, Kans.	.56	.56	—	1949	5.44	.05	—	—	—	SCS
	do	do	do	—	—	Aug. 1967	18	2.96	.03	*60	.25	326	SCS
46-50	Lang	do	Conway Springs, Kans.	.31	.31	—	1956	8.11	.14	—	—	—	SCS
	do	do	do	—	—	Aug. 1967	11	5.37	.09	*60	.81	1,058	SCS
46-51	Brodie	Spring Creek	Ashland, Kans.	2.17	2.0	June 1951	—	31.2	.36	—	—	—	SCS
	do	do	do	—	—	July 1966	15.1	29.0	.33	*70	.07	107	SCS
46-52	Glen	Trib. Little Sandy Creek	do	.95	.93	Nov. 1958	—	57.1	1.88	—	—	—	SCS
	do	do	do	—	—	July 1966	7.75	54.5	1.79	*60	.35	457	SCS
46-53	Issac	Trib. Big Sandy	Meade, Kans.	.82	.52	Jan. 1952	—	6.65	.38	—	—	—	SCS
	do	do	do	—	—	June 1966	14.5	4.8	.27	75	.25	408	SCS
46-54	Fox	Trib. Bluff Creek	Ashland, Kans.	2.18	2.17	July 1954	—	10.0	.11	—	—	—	SCS
	do	do	do	—	—	July 1966	12	7.3	.08	*65	.11	156	SCS

ARKANSAS RIVER BASIN (LAMAR TO GARDEN CITY)
Upper Cimarron and Upper Canadian River Basins

47-1b	Conchas Reservoir	Canadian and Conchas	Conchas Dam, N. Mex.	7,409	6,976	Jan. 1939	—	601,112	3.13	—	—	—	CS
	do	do	do	—	—	May 1940	1.4	599,712	3.12	75.7	—	—	—
	do	do	do	—	—	June 1942	2.1	585,112	3.04	75.7	.996	1,643	—
	do	do	do	—	—	Nov. 1942	.4	581,112	3.02	75.7	—	—	—
	do	do	do	—	—	Oct. 1944	1.9	576,756	3.00	75.7	.328	541	—
	do	do	do	—	—	Feb. 1949	4.3	566,163	2.95	*75.7	.353	581	—
	do	do	do	—	—	Oct. 1963	14.7	550,799	2.87	*75.7	.150	247	—
	do	do	do	—	—	Oct. 1970	6.92	528,951	2.75	75.7	.453	746	—
47-2	Reservoir No. 2	(Offstream)	Maxwell, N. Mex.	—	—	1912	—	3,010	—	—	—	—	BR
	do	do	do	—	—	1946	34	1,836	—	—	—	—	—
47-3	Reservoir No. 7 and 8	do	do	—	—	1912	—	2/1,064	—	—	—	—	BR
	do	do	do	—	—	1946	34	2,063	—	—	—	—	—
47-4	Reservoir No. 11	do	do	—	—	1912	—	8/1,004	—	—	—	—	BR
	do	do	do	—	—	1946	34	637	—	—	—	—	—
47-5	Reservoir No. 12	do	do	—	—	1912	—	9/2,260	—	—	—	—	BR
	do	do	do	—	—	1946	34	1,822	—	—	—	—	—
47-6	Reservoir No. 13	do	do	—	—	1912	—	10/2,236	—	—	—	—	BR
	do	do	do	—	—	1946	34	1,628	—	—	—	—	—
47-7	Reservoir No. 14	do	do	—	—	1912	—	11/816	—	—	—	—	BR
	do	do	do	—	—	1946	34	680	—	—	—	—	—
47-8	Boles	Cimarron	Liberal, Kans.	.36	.36	Mar. 1962	—	9.16	1.9	—	—	—	SCS
	do	do	do	—	—	June 1966	4.25	8.98	1.9	*65	.12	170	—

- 1/ Excludes 4,642 sq. mi. of watershed not contributed to runoff, 1,735 sq. mi. above Fort Supply Dam, and 25 sq. mi. surface area of Canton Reservoir.
2/ Includes 2.33 ac.-ft. above crest deposits.
3/ Water supply pool capacity. Reservoir has greater capacity at spillway crest elevation.
4/ Includes 0.39 ac.-ft. above crest deposits.
5/ Spillway eroded 2 ft.
6/ Capacity based on surface area x 1/3 deepest fill.

- 7/ During the period 1912-46, a total of 2,435-ac.-ft. capacity was added by reservoir enlargement.
8/ During the period 1912-46, a total of 126-ac.-ft. capacity was added by reservoir enlargement.
9/ During the period 1912-46, a total of 672-ac.-ft. capacity was added by reservoir enlargement.
10/ During the period 1912-46, a total of 490-ac.-ft. capacity was added by reservoir enlargement.
11/ During the period 1912-46, a total of 264-ac.-ft. capacity was added by reservoir enlargement.
* Estimated or assumed.

SUMMARY OF
RESERVOIR SEDIMENTATION SURVEYS MADE IN THE UNITED STATES THROUGH 1970

DATA SHEET NUMBER	RESERVOIR	STREAM	NEAREST TOWN	DRAINAGE AREA (SQUARE MILES)		DATE OF SURVEY	PERIOD BETWEEN SURVEYS (YEARS)	STORAGE CAPACITY (ACRE-FT.)	CAPACITY AVG. ANN. INFLOW RATIO (ACRE-FT. PER ACRE-FT)	SPECIFIC WEIGHT (DRY) (LB. PER CU. FT.)	AVG. ANN. SEDIMENT ACCUMULATION PER SQ. MI. OF NET DR. AREA FOR PERIOD SHOWN		AGENCY SUPPLYING DATA
				TOTAL	NET						AC.-FT.	TONS	
ARKANSAS RIVER BASIN (LAMAR TO GARDEN CITY) Upper Cimarron and Upper Canadian River Basins (Continued)													
47-9	Gregory	Trib. Ark. River	Syracuse, Kans.	6.5	6.5	Apr. 1951	—	62.2	1.79	—	—	—	SCS
—	—	—	—	—	—	June 1967	16.5	50.83	1.50	70	0.11	167	—
47-10	Lahay	Trib. Cimarron	Moscow, Kans.	2.78	2.75	Oct. 1960	—	135.6	4.6	—	—	—	SCS
—	—	—	—	—	—	June 1966	5.7	133.8	4.5	*50	.11	120	—
47-11	Hartshorn	Trib. Little Bear Creek	Syracuse, Kans.	1.90	1.89	Mar. 1950	—	14.6	.72	—	—	—	SCS
—	—	—	—	—	—	June 1966	16.25	8.75	.43	*75	.19	310	—
47-12	Christian	Trib. Cimarron	Ulysses, Kans.	1.06	1.06	June 1961	—	4.5	.40	—	—	—	SCS
—	—	—	—	—	—	June 1964	5	3.75	.33	*75	.14	229	—
47-13	Downing	—	Moscow, Kans.	.47	.46	Aug. 1961	—	31.8	6.4	—	—	—	SCS
—	—	—	—	—	—	June 1966	4.8	31.2	6.2	65	.28	396	—
47-14	Amerline	Trib. Little Bear Creek	Syracuse, Kans.	3.42	3.40	Mar. 1953	—	128	3.5	—	—	—	SCS
—	—	—	—	—	—	June 1966	13.3	119	3.3	*75	.20	327	—
47-15	Roy Kura	Shirley	—	8.91	8.91	Apr. 1951	—	92.7	1.97	—	—	—	SCS
—	—	—	—	—	—	June 1967	16.5	78.2	1.65	*70	.10	152	—
RIO GRANDE BASIN (ABOVE ESPANOLA) AND ARKANSAS RIVER BASIN													
48-1d	John Martin Reservoir (formerly Caddos Res. Proj.)	Arkansas River	Hasty, Colo.	178,915	18,102	Apr. 1942	—	701,775	2.47	—	—	—	CS
—	—	—	—	—	—	July 1942	0.3	690,345	2.43	*75.7	—	—	—
—	—	—	—	—	—	Dec. 1943	1.4	688,550	2.43	*75.7	.075	124	—
—	—	—	—	—	—	Sept. 1944	0.7	683,257	2.41	*75.7	.443	790	—
—	—	—	—	—	—	May 1948	3.7	675,097	2.38	*75.7	.129	213	—
—	—	—	—	—	—	Oct. 1951	3.4	662,870	2.34	*75.7	.210	346	—
—	—	—	—	—	—	Aug. 1957	5.7	645,512	2.28	*75.7	.178	293	—
—	—	—	—	—	—	Mar. 1962	4.6	642,390	2.26	*75.7	.0798	65.6	—
—	—	—	—	—	—	Sept. 1966	4.5	631,121	2.22	*75.7	.147	242	—
—	—	—	—	—	—	Aug. 1968	1.9	618,668	2.18	*75.7	.362	597	—
48-2	Brown Reservoir No. 1	Van Bremer Arroyo	Trinidad, Colo.	74.6	74.4	—	1900	758	—	—	—	—	SCS
—	—	—	—	—	—	Nov. 1939	39	82	—	89.07	.233	452	—
48-3	Muddy Creek	Muddy Creek, Johnny Creek	Caddos, Colo.	154.2	152.4	Fall 1919	—	16,918	—	—	—	—	SCS
—	—	—	—	—	—	Dec. 1939	20	15,287	—	75.25	.535	877	—
48-4	Horse Creek 2/	Horse Creek	Ordway, Colo.	52.01	47.44	Nov. 1900	—	36,203	—	—	—	—	SCS
—	—	—	—	—	—	Apr. 1940	39.4	30,738	—	68.36	3/.241	4/1,515	—
48-5	Teller	Turkey Creek	Pueblo, Colo.	78.8	78.5	Mar. 1911	—	4,005	—	—	—	—	SCS
—	—	—	—	—	—	Feb. 1940	28.9	2,463	—	75.4	.680	1,117	—
48-6	Cucharas	Cucharas River	Walsenburg, Colo.	608	608	—	1912	38,274	—	—	—	—	BE
—	—	—	—	—	—	—	1937	25	25,020	—	.87	—	—
—	—	—	—	—	—	—	1939	2	23,040	—	1.63	—	—
48-7	S-1 Big Sandy Creek Watershed	Big Sandy Creek	Peyton, Colo.	5.4	5.3	May 1962	—	326	—	—	—	—	SCS
—	—	—	—	—	—	July 1965	3	302	—	*80	1.5	2,613	—
48-8	Abiquiu Reservoir	Rio Chama	Abiquiu, N. Mex.	2,146	2,127	Apr. 1963	—	579,039	1.80	—	—	—	CS
—	—	—	—	—	—	Oct. 1967	4.58	572,695	1.78	*75.7	.65	1,072	—
48-9	Hardesty Reservoir	Hungerford Hollow	Fowler, Colo.	13.48	13.34	—	1908	563	*3.9	—	—	—	SCS
—	—	—	—	—	—	Mar. 1968	60	527	*3.7	—	3/.045	—	—
RED RIVER BASIN (DENISON TO GRAND EBORE) Little and Sulphur River Basins													
49-1a	Lake Crook	Pine Creek	Paris, Tex.	51.6	49.6	Feb. 1923	—	11,487	.418	—	—	—	SCS
—	—	—	—	—	—	Mar. 1936	13.1	10,755	.391	—	1.13	—	—
—	—	—	—	—	—	July 1956	19.7	9,964	.362	36.4	.81	642	—
49-2a	Lake Gibbons	Trib. of Pine Creek	—	1.46	1.26	—	1900	6/1,394	1.792	—	—	—	SCS
—	—	—	—	—	—	Mar. 1936	36	1,324	1.702	—	1.54	—	—
—	—	—	—	—	—	July 1956	20.3	1,285	1.652	31.5	1.52	1,043	—
49-3	Nashville	Mine Creek	Nashville, Ark.	10.4	10.3	Mar. 1931	—	181	—	—	—	—	SCS
—	—	—	—	—	—	July 1941	10.3	128	—	—	.50	—	—
49-4	Jenkins Pond	Trib. of Lewis Creek	Mansfield, La.	.35	.32	Sept. 1925	—	157	.561	—	—	—	SCS
—	—	—	—	—	—	Sept. 1954	29	150	.536	68.6	.78	1,165	—
49-5	Gordon Country Club Lake	Ands Creek	Paris, Tex.	1.41	1.30	—	1898	558	.742	—	—	—	SCS
—	—	—	—	—	—	June 1959	61.0	430	.572	33.14	1.62	1,169	—
49-6	Bayou Borcau	Bayou Borcau River	Cotton Valley, La.	683	613	Mar. 1949	—	967,900	1.516	—	—	—	CS
—	—	—	—	—	—	May 1961	11.5	967,900	1.516	—	—	—	—

49-7a	Lake Texarkana-----	Sulphur River-----	Texarkana, Tex.-----	3,400	3,213	Sept. 1954	--	2,654,300	.13	--	--	--	CE
	do-----	do-----	do-----	--	--	Aug. 1958	3.92	2,654,300	.13	--	--	--	
	do-----	do-----	do-----	--	--	July 1970	12	2,654,300	.13	--	--	--	
49-8	Wallace Lake-----	Cypress Bayou-----	Shreveport, La.-----	266	251	Dec. 1946	--	96,100	.405	--	--	--	CE
	do-----	do-----	do-----	--	--	Oct. 1951	4.8	96,100	.405	--	--	--	
	do-----	do-----	do-----	--	--	Apr. 1961	9.5	96,100	.405	--	--	--	
49-9	Century Lake-----	Sulphur River-----	Sulphur Springs, Tex.-----	52.50	51.46	-- 1953	--	3,495.2	.125	--	--	--	SCS
	do-----	do-----	do-----	--	--	Sept. 1962	9	2,787.9	.100	*85	1.53	2,832	
RED RIVER BASIN (ABOVE DENISON)													
50-1	Ardmore Club Lake-----	Caddo Creek-----	Ardmore, Okla.-----	4.15	3.91	Dec. 1922	--	1,797	--	--	--	--	SCS
	do-----	do-----	do-----	--	--	June 1938	15.5	1,644	--	40.7	2.52	2,234	
50-2	Byars Club Lake-----	Unnamed Stream-----	Byars, Okla.-----	2.66	2.55	-- 1904	--	507	--	--	--	--	SCS
	do-----	do-----	do-----	--	--	-- 1950	46	371	--	--	1.16	--	
50-3	Carter Lake-----	Big Glasses Creek-----	Madill, Okla.-----	1.81	1.70	-- 1936	--	865	--	--	--	--	SCS
	do-----	do-----	do-----	--	--	Nov. 1949	13	837	--	--	1.26	--	
50-4	J. J. Harrison Lake-----	Trib. of Washita River-----	Lindsay, Okla.-----	.88	.81	Feb. 1932	--	349	--	--	--	--	SCS
	do-----	do-----	do-----	--	--	Mar. 1950	18	282	--	--	4.59	--	
50-5	C. W. Lester Farm Pond No. 1-----	Trib. of Broken Leg Creek-----	Cheyenne, Okla.-----	2.04	2.03	-- 1945	--	42.4	--	--	--	--	SCS
	do-----	do-----	do-----	--	--	June 1949	4	22.8	--	--	2.41	--	
50-6	C. W. Lester Farm Pond No. 2-----	do-----	do-----	.64	.63	June 1944	--	16.3	--	--	--	--	SCS
	do-----	do-----	do-----	--	--	June 1949	5.0	13.1	--	--	1.02	--	
50-7	Santa Rosa Lake-----	Beaver Creek-----	Vernon, Tex.-----	336	334	Oct. 1929	--	15,755	--	--	--	--	SCS
	do-----	do-----	do-----	--	--	Jan. 1948	18.2	11,568	--	--	.689	--	
50-8	Lake Duncan-----	Pittspatrick Creek-----	Duncan, Okla.-----	11.0	10.4	Oct. 1937	--	6,291	--	--	--	--	SCS
	do-----	do-----	do-----	--	--	Aug. 1950	12.8	5,783	--	63.4	3.82	5,275	
50-9	Lake Clinton-----	Turkey Creek-----	Canute, Okla.-----	23.6	23.1	Dec. 1930	--	4,435	--	--	--	--	SCS
	do-----	do-----	do-----	--	--	June 1938	7.4	3,981	--	63.36	2.54	3,505	
	do-----	do-----	do-----	--	--	Nov. 1950	12.4	3,343	--	65.9	2.23	3,201	
50-10	Belleuve-----	Clay Creek-----	Belleuve, Tex.-----	*1.5	1.44	-- 1888	--	131	--	--	--	--	SCS
	do-----	do-----	do-----	--	--	May 1938	50	85	--	--	.64	--	
50-11c	Altus Reservoir-----	North Fork Red River-----	Altus, Okla.-----	2,515	2,104	Dec. 1940/7	--	192,842	--	--	--	--	BR
	do-----	do-----	do-----	--	--	June 1948	7.5	185,035	--	52.3	.495	564	
	do-----	do-----	do-----	--	--	July 1953	5.1	178,610	1.74	66.9	.599	1,104	
	do-----	do-----	do-----	--	--	Apr. 1967	13.8	168,117	1.61	70.2	.361	588	
50-12b	Lake Texoma (Denison Dam)-----	Red River-----	Denison, Tex.-----	39,719	28,925	July 1942	--	5,859,000	--	--	--	--	CE
	do-----	do-----	do-----	--	--	Oct. 1948	6.2	5,718,000	--	52.1	.785	891	
	do-----	do-----	do-----	--	--	June 1954	5.7	5,553,000	--	57.9	1.00	1,261	
	do-----	do-----	do-----	--	--	Mar. 1962	7.8	5,392,900	--	62.5	.709	965	
50-13	Barbour Pond-----	Trib. of Little Washita R.-----	Chickasha, Okla.-----	.68	.67	Sept. 1935	--	59.9	.512	--	--	--	SCS
	do-----	do-----	do-----	--	--	May 1955	19.7	61.8	.357	*75	1.37	2,238	
50-14a	Cavalry Creek Site No. 1-----	Washita-----	Cordell, Okla.-----	2.19	2.15	July 1948	--	505.4	1.05	--	--	--	SCS
	do-----	do-----	do-----	--	--	Sept. 1959	11.15	476.6	2.87	74.5	1.20	1,946	
	do-----	do-----	do-----	--	--	Aug. 1964	4.89	471.8	2.84	74.5	.46	746	
	do-----	do-----	do-----	--	--	June 1969	4.85	458.8	2.77	*74	1.25	1,993	
50-15a	Chigley Sandy Site No. 5-----	Chigley Sandy-----	Wynnewood, Okla.-----	.81	.79	June 1955	--	263.67	1.410	--	--	--	SCS
	do-----	do-----	do-----	--	--	Aug. 1959	4.12	258.74	1.384	60.3	1.52	1,996	
	do-----	do-----	do-----	--	--	Oct. 1963	4.15	248.20	1.327	60.3	3.22	4,229	
50-16	Coit Pond No. 1-----	Unnamed-----	Clinton, Okla.-----	.39	.38	Mar. 1947	--	25.69	.706	--	--	--	SCS
	do-----	do-----	do-----	--	--	July 1957	10.28	21.53	.591	61.49	1.07	1,433	
50-17	Dean Pond No. 1-----	Trib. of Mine Mile Creek-----	Cheyenne, Okla.-----	.0359	.0354	Spring 1944	--	1.078	.469	--	--	--	SCS
	do-----	do-----	do-----	--	--	Mar. 1955	11	.807	.351	91	.69	1,368	
50-18	Dean Pond No. 2-----	do-----	do-----	.164	.161	Spring 1941	--	15.8	1.505	--	--	--	SCS
	do-----	do-----	do-----	--	--	Mar. 1955	14	13.4	1.276	88	1.06	2,032	
50-19	George Pond-----	Unnamed-----	Canadian, Tex.-----	.535	.535	June 1952	--	15.197	.407	--	--	--	SCS
	do-----	do-----	do-----	--	--	Apr. 1958	5.796	13.463	.361	70.95	.559	863.82	
50-20	Hall Pond No. 1-----	do-----	Leadley, Okla.-----	.20	.20	May 1939	--	17.59	.239	--	--	--	SCS
	do-----	do-----	do-----	--	--	Aug. 1957	18.25	13.47	.183	*70.42	1.15	1,758.30	
50-21	Harrison No. 1-----	do-----	Canadian, Tex.-----	.237	.237	May 1952	--	22.163	.594	--	--	--	SCS
	do-----	do-----	do-----	--	--	Apr. 1958	--	21.706	.581	79.68	.325	564.01	
50-22	Harrison No. 2-----	do-----	do-----	.292	.292	Sept. 1951	--	15.655	.419	--	--	--	SCS
	do-----	do-----	do-----	--	--	Apr. 1958	6.59	14.242	.382	68.53	.733	1,094.06	
50-23	Lake Kemp-----	Wichita River-----	Seymour, Tex.-----	2,099	2,067	Oct. 1922	--	560,000	2.493	--	--	--	SCS
	do-----	do-----	do-----	--	--	Sept. 1958	36	461,757	2.056	--	1.32	--	
50-24a	Mill Creek No. 17-----	Washita-----	Mill Creek, Okla.-----	1.61	1.58	Dec. 1948	--	498.45	1.06	--	--	--	SCS
	do-----	do-----	do-----	--	--	July 1959	10.63	492.13	1.04	70	.37	564	
	do-----	do-----	do-----	--	--	Aug. 1966	7.06	487.11	1.03	*75	.45	816	
50-25	Mumcrief Farm Pond-----	Trib. of Sandy Creek-----	Wynnewood, Okla.-----	.031	.029	Aug. 1935	--	8.710	--	--	--	--	SCS
	do-----	do-----	do-----	--	--	Nov. 1957	22.22	7.968	--	*60	1.15	1,502.82	

1/ Drainage area adjusted to conform with U.S.G.S. published drainage area.
 2/ Off channel reservoir.
 3/ Excludes water and sediment diverted from Arkansas River and Horse Creek.
 4/ Per 100 ac.-ft. of water diverted from Ark. River and Horse Cr. Total of 564,918 ac.-ft. diverted to reservoir between 1910 and 1939.

5/ Little deposition due to dam washout, 1930-47. True sediment accumulation rate for period was about 0.063 ac.-ft./mi²-yr.
 6/ Spillway crest was lowered 3 ft. in 1932; capacities are based on present elevation.
 7/ Date of original survey for new dam over deposits placed behind old dam.
 8/ Estimated or assumed.

SUMMARY OF
RESERVOIR SEDIMENTATION SURVEYS MADE IN THE UNITED STATES THROUGH 1970

DATA SHEET NUMBER	RESERVOIR	STREAM	NEAREST TOWN	DRAINAGE AREA (SQUARE MILES)		DATE OF SURVEY	PERIOD BETWEEN SURVEYS (YEARS)	STORAGE CAPACITY (ACRE-FT.)	CAPACITY AVG. ANN. INFLOW RATIO (ACRE-FT. PER ACRE-FT.)	SPECIFIC WEIGHT (DRY) (LB. PER CU. FT.)	AVG. ANN. SEDIMENT ACCUMULATION PER SQ. MI. OF NET DR. AREA FOR PERIOD SHOWN		AGENCY SUPPLYING DATA
				TOTAL	NET						AC.-FT.	TONS	
RED RIVER BASIN (ABOVE DENISON) (Continued)													
50-26a	Cobb Creek No. 3	Washita	Weatherford, Okla.	8.28	8.18	Jan. 1957	—	2,401.1	2.72	—	—	—	SCS
	do	do	do	—	—	Aug. 1960	3.58	2,303.3	2.61	90	3.34	6,547	
	do	do	do	—	—	Oct. 1964	4.14	2,477.3	2.56	90	.77	1,509	
	do	do	do	—	—	Aug. 1970	5.81	2,218.1	2.51	*91	1.24	2,563	
50-27b	Sandstone Site No. 1	do	Hammon, Okla.	5.33	5.22	May 1951	—	1,591.29	4.67	—	—	—	SCS
	do	do	do	—	—	Apr. 1956	4.96	1,453.69	4.26	61.45	5.31	7,111	
	do	do	do	—	—	May 1960	4.06	1,380.47	4.05	83.11	3.46	6,263	
	do	do	do	—	—	Aug. 1965	5.02	1,344.75	3.94	83.11	1.36	2,462	
	do	do	do	—	—	July 1970	4.92	1,338.82	3.93	*83	.23	360	
50-28b	Sandstone Site No. 3	do	Elk City, Okla.	.62	.61	Apr. 1951	—	157.68	4.38	—	—	—	SCS
	do	do	do	—	—	Oct. 1956	5.47	148.40	4.12	70.20	2.79	4,266	
	do	do	do	—	—	Oct. 1961	5.00	139.98	3.89	77.87	2.75	4,672	
	do	do	do	—	—	July 1966	4.80	125.60	3.49	*77	4.92	8,184	
50-29a	Sandstone Site No. 5	do	do	3.89	3.84	Mar. 1951	—	1,273.21	4.45	—	—	—	SCS
	do	do	do	—	—	July 1957	6.39	1,217.58	4.26	95.7	2.27	4,731	
	do	do	do	—	—	Sept. 1961	4.19	1,152.23	4.03	—	4.06	5,501	
	do	do	do	—	—	July 1966	4.81	1,127.06	3.94	*80	1.36	1,980	
50-30b	Sandstone Site No. 6	Sandstone	do	6.46	5.24	Apr. 1951	—	1,956.05	4.12	—	—	—	SCS
	do	do	do	—	—	Oct. 1962	11.53	1,813.2	3.82	70.7	2.36	3,634	
	do	do	do	—	—	Sept. 1967	4.96	1,806.22	3.80	*72	.27	529	
50-31a	Sandstone Site No. 9	do	do	3.50	3.46	Mar. 1951	—	1,775.09	4.94	—	—	—	SCS
	do	do	do	—	—	Oct. 1957	6.58	1,217.59	4.72	75.78	2.52	4,160	
	do	do	do	—	—	Oct. 1962	5.0	1,178.72	4.57	79.4	2.20	4,148	
	do	do	do	—	—	Sept. 1967	4.93	1,175.25	4.56	*80	.20	436	
50-32b	Sandstone Site No. 104	Washita	do	2.87	2.80	Apr. 1951	—	1,046.02	6.23	—	—	—	SCS
	do	do	do	—	—	Oct. 1956	5.50	1,018.8	6.06	79.3	1.77	3,057	
	do	do	do	—	—	Sept. 1961	4.90	943.9	5.62	82.8	5.46	9,996	
	do	do	do	—	—	July 1966	4.80	888.0	5.29	*75	4.16	5,627	
50-33b	Sandstone Site No. 11	do	do	1.02	1.00	Sept. 1951	—	315.15	4.85	—	—	—	SCS
	do	do	do	—	—	May 1960	8.68	288.09	4.43	93.08	3.12	6,320	
	do	do	do	—	—	Aug. 1965	5.25	286.79	4.60	68.1	.25	371	
	do	do	do	—	—	July 1970	4.98	275.82	4.24	*75	2.20	3,611	
50-34b	Sandstone Site No. 16	do	do	11.47	11.28	Aug. 1952	—	4,463.43	7.29	—	—	—	SCS
	do	do	do	—	—	July 1957	4.92	4,294.49	7.02	77.94	3.04	5,161	
	do	do	do	—	—	Sept. 1961	4.21	4,164.87	6.81	74.85	2.73	4,209	
	do	do	do	—	—	Aug. 1966	4.86	4,038.34	6.60	*76	2.31	3,874	
50-35b	Sandstone Site No. 164	do	Cherokee, Okla.	8.78	5.11	Dec. 1951	—	2,065.88	4.41	—	—	—	SCS
	do	do	do	—	—	Oct. 1956	4.82	2,033.89	4.35	80.6	1.30	2,281	
	do	do	do	—	—	Sept. 1961	4.88	1,987.93	4.25	79.79	1.84	3,181	
	do	do	do	—	—	Aug. 1966	4.86	1,979.45	4.23	*77	.34	402	
50-36b	Sandstone Site No. 17	Current Creek	do	10.13	10.04	Aug. 1951	—	3,584.9	5.53	—	—	—	SCS
	do	do	do	—	—	Oct. 1956	5.13	3,465.8	5.35	70.4	2.31	3,540	
	do	do	do	—	—	Oct. 1960	4.04	3,322.4	5.13	59	3.53	5,418	
	do	do	do	—	—	Aug. 1965	4.79	3,292.7	5.08	59	.62	797	
	do	do	do	—	—	June 1970	4.91	3,276.0	5.06	*60	.34	526	
50-37a	Sandstone Site No. 22	Sandstone	do	2.25	2.20	Aug. 1951	—	970.7	6.14	—	—	—	SCS
	do	do	do	—	—	Oct. 1957	6.16	942.12	5.97	81.53	2.08	3,698	
	do	do	do	—	—	Oct. 1962	5.0	913.51	5.78	79.4	2.64	4,445	
	do	do	do	—	—	Sept. 1967	4.96	873.9	5.63	*83	3.63	7,036	
50-38	Stickley Pond No. 4	Canadian River	Canadian, Tex.	.171	.171	Jan. 1947	—	15.794	.329	—	—	—	SCS
	do	do	do	—	—	Apr. 1958	11.266	13.943	.290	77.65	.959	1,621.88	
50-39	Stickley Pond No. 6	do	do	.162	.162	Oct. 1945	—	21.035	.438	—	—	—	SCS
	do	do	do	—	—	Apr. 1958	12.564	16.627	.346	85.34	2.167	4,027.81	
50-40	Wheeler Farm Pond	do	do	.205	.205	Dec. 1964	—	7.353	.197	—	—	—	SCS
	do	do	do	—	—	Apr. 1958	13.33	6.673	.179	82.73	.249	448.66	
50-41b	Whitesfield Creek Site No. 4	Washita	Elk City, Okla.	.62	.60	Jan. 1949	—	223.4	4.33	—	—	—	SCS
	do	do	do	—	—	Sept. 1959	10.70	207.7	4.02	75.68	2.45	4,038.4	
	do	do	do	—	—	Aug. 1964	4.91	199.6	3.87	75.68	2.75	4,532.9	
	do	do	do	—	—	June 1969	4.85	179.9	3.49	*75	6.77	10,872	
50-42b	Wildhorse Site No. 1	Wildhorse	Davis, Okla.	.97	.95	May 1949	—	242.4	1.11	—	—	—	SCS
	do	do	do	—	—	July 1959	10.25	236.2	1.08	61	.63	834.1	
	do	do	do	—	—	Oct. 1963	4.25	233.8	1.07	61	.60	794.4	
	do	do	do	—	—	July 1968	4.82	229.3	1.05	*61	.98	1,274.6	
50-43a	Wildhorse Creek Site No. 33	do	Duncan, Okla.	1.77	1.73	Mar. 1950	—	587.38	1.700	—	—	—	SCS
	do	do	do	—	—	Sept. 1960	10.50	566.24	1.716	85	1.16	2,147	
	do	do	do	—	—	Aug. 1965	4.95	548.66	1.663	74	2.05	3,304	

50-44b	Owl Creek No. 1	Owl Creek	Wayne, Okla.	.61	.59	Apr. 1949	—	206.3	.91	—	—	—	SCS
	do	do	do	—	—	Aug. 1959	10.32	200.0	.88	65.5	1.07	1,527.2	
	do	do	do	—	—	Oct. 1963	4.12	194.0	.86	65.5	2.05	3,166.6	
	do	do	do	—	—	Aug. 1968	4.84	190.3	.84	*63	1.29	1,721.1	
50-45a	Chigley Sandy Site No. 4	Washita	Wynnewood, Okla.	3.80	3.73	Apr. 1955	—	1,075.3	1.24	—	—	—	SCS
	do	do	do	—	—	Mar. 1958	2.62	1,054.8	1.21	51.61	2.10	2,361	
	do	do	do	—	—	Oct. 1963	5.52	1,018.0	1.17	51.61	1.79	2,012	
	do	do	do	—	—	July 1969	5.76	966.7	1.11	*59	2.39	3,454	
50-46	Flood Retarding Structure No. 2 Rush Cr. Watershed	Rush Creek	Rush Springs, Okla.	2.13	2.05	Aug. 1959	—	655.99	1.929	—	—	—	SCS
	do	do	do	—	—	July 1965	5.90	639.60	1.881	77.75	1.36	2,303	
50-47a	Barnits No. 14	Barnits	Clinton, Okla.	4.22	4.11	Nov. 1958	—	1,723.2	4.28	—	—	—	SCS
	do	do	do	—	—	Sept. 1963	4.85	1,645.9	4.08	*70	3.87	5,900	
	do	do	do	—	—	Aug. 1968	4.87	1,633.9	4.05	*70	.61	877.9	
50-48	Sugar Creek Site No. 13	Sugar Creek	Hinton, Okla.	1.99	1.93	Feb. 1964	—	532.17	2.137	—	—	—	SCS
	do	do	do	—	—	Oct. 1965	1.70	503.79	2.033	82.27	8.65	15,499	
50-49	Upper Washita River Site #25	Washita River	Canadian, Tex.	7.14	6.96	Nov. 1961	—	1,315.92	4.62	—	—	—	SCS
	do	do	do	—	—	July 1966	4.6	1,312.74	4.61	91.8	1/10	1/199.9	
50-50	Kent Creek Watershed Site #1	Kent Creek	Quitague, Tex.	1.52	1.46	Apr. 1964	—	622.01	15.4	—	—	—	SCS
	do	do	do	—	—	June 1966	2.1	613.83	15.2	61	1/2.67	1/3.547	
50-51	Rush Creek No. 2	Rush Creek	Rush Springs, Okla.	2.13	2.05	Aug. 1959	—	656.0	2.31	—	—	—	SCS
	do	do	do	—	—	July 1965	5.9	639.6	2.25	77.75	1.36	2,303	
	do	do	do	—	—	Sept. 1970	5.19	635.4	2.24	*77	.39	654	
50-52	Saddle Mountain No. 2	Saddle Mountain Creek	Carnegie, Okla.	3.43	3.37	Apr. 1959	—	771.3	2.11	—	—	—	SCS
	do	do	do	—	—	Apr. 1965	6	771.3	2.11	38	2/47	2/389	
	do	do	do	—	—	Sept. 1970	5.26	751.4	2.05	*60	.53	734	
SABINE, NECHES, AND TRINITY RIVER BASINS													
51-1	Terrill City Lake	Kings Creek	Terrill, Tex.	9.20	8.71	Oct. 1921	—	2,219	—	—	—	—	SCS
	do	do	do	—	—	Dec. 1949	28.25	1,605	—	59.2	2.49	3,211	
51-2	Lower Beaton Lake	Trib. of Nla Creek	Corrigan, Tex.	.91	.82	—	1895*	319	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1949	54	205	—	—	2.57	—	
51-3	Burke Neck Lake	do	do	.58	.54	—	1880	181	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1949	69	92	—	—	2.39	—	
51-4	Lake Dallas	Nla R. of Trinity River	Denton, Tex.	1,174	1,157	Feb. 1928	—	180,759	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1938	10.5	167,072	—	53	1.13	1,304	
51-5	Lake Halbert	Nla Creek	Corrigan, Tex.	3/9.48	8.56	—	1921	8,012	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1949	28	6,657	—	67.4	5.66	8,308	
51-6	Magnolia Lake (Red Horse)	Trib. of Nla Creek	do	.59	.43	—	1885	756	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1949	64	659	—	—	3.53	—	
51-7	Mountain Creek	Mountain Creek	Dallas, Tex.	280	274.4	Mar. 1937	—	37,520	—	—	—	—	SCS
	do	do	do	—	—	Nov. 1946	9.7	27,100	—	—	3.91	—	
51-8b	White Rock Lake	White Rock Creek	do	99.1	97.4	Apr. 1910	—	18,158	.80	—	—	—	SCS
	do	do	do	—	—	Apr. 1935	25	14,276	.63	49	1.60	1,708	
	do	do	do	—	—	Mar. 1956	20.9*	12,321	.54	35	.97	151	
	do	do	do	—	—	Oct. 1970	14.6	10,743	.47	32	1.11	505	
51-9	Grand Saline	Simmons Branch	Grand Saline, Tex.	2.12	2.02	Feb. 1925	—	531	—	—	—	—	SCS
	do	do	do	—	—	Apr. 1938	13.25	509	—	38.7	.82	691	
51-10	T & P	Town Creek	Weatherford, Tex.	6.24	6.18	—	1930	370	—	—	—	—	SCS
	do	do	do	—	—	Nov. 1938	8.5	328	—	61	.796	1,058	
51-11	Lake Clark	Marbach Creek	Emis, Tex.	3.14	2.87	—	1950	5/2,085	—	*50	5/2.60	2,831	
	do	do	do	—	—	Dec. 1950	—	5/1,741	—	—	—	—	SCS
51-12	Kemp City	Cedar Creek	Kemp, Tex.	1.48	1.42	June 1926	—	376	—	—	—	—	SCS
	do	do	do	—	—	Apr. 1939	—	298	—	—	4.29	—	
51-13	Variety Club Boys' Ranch Lake	Unnamed trib.	Bedford, Tex.	.30	.29	June 1942	—	58	—	—	—	—	SCS
	do	do	do	—	—	Apr. 1950	7.8	33	—	—	2.2	—	
51-14	Wills Point	Maghee Creek	Wills Point, Tex.	1.83	1.75	Sept. 1914	—	396	—	—	—	—	SCS
	do	do	do	—	—	Apr. 1938	23.6	275	—	60.1	2.93	3,835	
51-15	Bridgeport	West Fork of Trinity River	Bridgeport, Tex.	1,051	1,033	—	1932	6/292,000	—	—	—	—	SCS
	do	do	do	—	—	Feb. 1943	10.8	283,240	—	—	.785	—	
51-16a	Eagle Mountain	do	Fort Worth, Tex.	1,875	2/809	Mar. 1934	—	6/211,000	—	—	—	—	SCS
	do	do	do	—	—	Mar. 1939	5	205,175	—	—	1.44	—	
	do	do	do	—	—	Nov. 1952	13	182,000	—	—	2.20	—	
51-17	Lake Erie	Unnamed trib.	do	1.05	1.01	—	1889	270	—	—	—	—	SCS
	do	do	do	—	—	Apr. 1939	40	204	—	—	1.63	—	
51-18	Mabank City Lake	Trib. of Cedar Creek	Athens, Tex.	.36	.33	—	1926	295	—	—	—	—	SCS
	do	do	do	—	—	Apr. 1939	13	271	—	—	5.51	—	
51-19	Wolf Creek	Wolf Creek	Palestine, Tex.	2.55	2.50	—	1919	222	—	—	—	—	SCS
	do	do	do	—	—	Apr. 1939	20	199	—	—	.46	—	
51-20	Kilkins Lake	East Sandy Creek	Huntsville, Tex.	3.18	3.05	—	1930	856	—	—	—	—	SCS
	do	do	do	—	—	July 1950	20	812	—	—	.72	—	

1/ Sediment pool only.

2/ Area above sediment pool riser was not surveyed in 1965.

3/ Excludes area above two lakes in watershed which contributes occasional flow to Lake Halbert.

4/ Lake Clark was built in 1940 downstream from "Emis New Lake" or "Club Lake" which was built in 1895. Club Lake and a small pond now submerged by Lake Clark.

5/ Data based upon combined capacities, drainage area, and sediment volumes of all lakes in system.

6/ Water supply pool capacity. Does not include surcharge or flood storage.

7/ Excludes area above Bridgeport Reservoir which lies upstream from Eagle Mt. Reservoir.

* Estimated or assumed.

SUMMARY OF
RESERVOIR SEDIMENTATION SURVEYS MADE IN THE UNITED STATES THROUGH 1970

DATA SHEET NUMBER	RESERVOIR	STREAM	NEAREST TOWN	DRAINAGE AREA (SQUARE MILES)		DATE OF SURVEY	PERIOD BETWEEN SURVEYS (YEARS)	STORAGE CAPACITY (ACRE-FT.)	CAPACITY AVG. ANN. INFLOW RATIO (ACRE-FT. PER ACRE-FT.)	SPECIFIC WEIGHT (DRY) (LB. PER CU. FT.)	AVG. ANN. SEDIMENT ACCUMULATION PER SQ. ML. OF NET DR. AREA FOR PERIOD SHOWN		AGENCY SUPPLYING DATA
				TOTAL	NET						AC.-FT.	TONS	
SABINE, NECHES, AND TRINITY RIVER BASINS (Continued)													
51-21	Murphy Lake-----	East Fork of Trinity River	Grandall, Tex.-----	4.09	3.98	Oct. 1922	—	397	—	—	—	—	SCS
51-22	do-----	do-----	do-----	—	—	Apr. 1939	16.5	138	—	*60	3.94	5,150	SCS
	Loring Lake-----	Trib. of Herring Creek	Zwolle, La.-----	1.05	.95	Sept. 1928	—	663	.789	—	—	—	
51-23	do-----	do-----	do-----	—	—	Sept. 1954	26	623	.742	85.08	1.62	3,002	SCS
	Kerens City Lake-----	Cow Creek-----	Kerens, Tex.-----	6.42	6.28	Sept. 1935	—	630	.237	—	—	—	
51-24	do-----	do-----	do-----	—	—	July 1954	18.8	554	.208	54.49	.64	759	SCS
	Variety Club Lake-----	Trib. of Trinity River-----	Bedford, Tex.-----	.29	.29	July 1942	—	38	*.491	—	—	—	
51-25a	do-----	do-----	do-----	—	—	May 1950	7.8	33	*.426	—	2.21	—	SCS
	Clear Fk. Watershed Site No. 10.	Trinity River-----	Weatherford, Tex.-----	4.30	4.25	Oct. 1955	—	1,473.49	1.90	—	—	—	
51-26b	do-----	do-----	do-----	—	—	Apr. 1963	7.5	1,430.91	1.84	—	—	—	SCS
	do-----	do-----	do-----	—	—	May 1968	5.1	1,411.04	1.82	86	.92	1,682	
51-27b	do-----	do-----	do-----	—	—	Feb. 1952	—	1,291.0	1.89	—	—	—	SCS
	Honey Creek Site No. 11	Honey Creek-----	McKinney, Tex.-----	1.99	1.92	Apr. 1962	10.2	1,201.8	1.76	—	—	—	
51-27b	do-----	do-----	do-----	—	—	July 1967	5.3	1,186.7	1.74	51.9	1.48	3,956	SCS
	Honey Creek Site No. 12	Trib. E. Fork Trinity-----	do-----	1.28	1.26	Jan. 1952	—	553.33	1.27	—	—	—	
51-28a	do-----	do-----	do-----	—	—	July 1969	17.5	475.52	1.09	40.72	3.53	3,130	SCS
	Dawson City Lake-----	Trib. of Richland Creek-----	Dawson, Tex.-----	1.16	1.07	Apr. 1937	—	610	1.473	—	—	—	
51-29	do-----	do-----	do-----	—	—	Feb. 1956	18.8	466	1.126	—	7.16	5,130	SCS
	Lake Cherokees-----	Sabine River-----	Longview, Tex.-----	170.00	163.77	Sept. 1963	7.5	390.1	.942	—	9.46	6,387	
51-30	do-----	do-----	do-----	—	—	Oct. 1948	—	49,295	.426	—	—	—	SCS
	Lavon Reservoir-----	East Fork Trinity River-----	Lavon, Tex.-----	777.0	745.7	Apr. 1960	11.5	46,705	.412	83.12	1.37	2,480	
51-31a	do-----	do-----	do-----	—	—	Oct. 1951/	0	423,400	1.329	—	—	—	CR
	do-----	do-----	do-----	—	—	1953/	—	434,450	1.363	—	—	—	
51-31a	do-----	do-----	do-----	—	—	Oct. 1959	6.0	425,960	1.337	53.1	1.90	2,197	SCS
	Site No. 11B Elm Fk. Watershed	Trinity River-----	Gainesville, Tex.-----	2.00	1.87	Nov. 1958	—	678.2	1.33	—	—	—	
51-32	do-----	do-----	do-----	—	—	July 1963	4.67	670.0	1.31	1/78.3	.96	1/1,637	CR
	do-----	do-----	do-----	—	—	Oct. 1968	5.25	654.6	1.28	87	1.57	2,402	
51-32	Garsa-Little Elm Reservoir (Lewisville Dam).	Elm Fork of Trinity River-----	Lewisville, Tex.-----	1,660	1,599	— 1946	—	1,016,200	2.311	—	—	—	CR
	do-----	do-----	do-----	—	—	— 1952/	—	1,002,900	2.281	—	—	—	
51-33	do-----	do-----	do-----	—	—	Nov. 1954/	—	1,003,400	2.282	—	—	—	CR
	Dam B Reservoir-----	Neches-----	Jasper, Tex.-----	6/7,573	7,546.6	Sept. 1960	5.88	989,728	2.251	50.6	1.46	1,609	
51-34	do-----	do-----	do-----	—	—	— 1947	—	124,700	.032	—	—	—	SCS
	Clear Creek Watershed Site No. 21.	Trinity River-----	Muenster, Tex.-----	1.54	1.46	— 1951	—	7/131,142	.034	60.9	8/.025	8/33.16	
51-34	do-----	do-----	do-----	—	—	Feb. 1960	8.83	131,681	.034	—	—	—	SCS
	do-----	do-----	do-----	—	—	May 1962	—	479.4	1.37	—	—	—	
51-35	do-----	do-----	do-----	—	—	Aug. 1967	5.19	468.8	1.34	—	1.40	—	SCS
	Upper Lake Fk. Watershed Site 23	Sabine River-----	Sulphur Springs, Tex.-----	9.39	8.80	Aug. 1962	—	3,303.5	.69	—	—	—	
51-36	do-----	do-----	do-----	—	—	Oct. 1967	5.2	3,282.9	.69	—	.45	652	SCS
	Lake Amos G. Carter-----	Big Sandy Creek-----	Bowie, Tex.-----	103	101	May 1956	—	15,805.75	1.07	—	—	—	
51-37	do-----	do-----	do-----	—	—	May 1967	11	15,238.06	1.07	55.19	.51	613	SCS
	Chambers Creek Site 37-----	Trinity River-----	Cleburne, Tex.-----	2.05	1.95	Dec. 1960	—	624.84	1.34	—	—	—	
51-38	do-----	do-----	do-----	—	—	Sept. 1964	3.8	619.37	1.33	—	—	—	SCS
	do-----	do-----	do-----	—	—	May 1969	4.7	617.89	1.33	49	.16	448	
51-38	Chambers Creek Site 101-A-----	do-----	do-----	—	—	Apr. 1960	—	1,152.11	1.20	—	—	—	SCS
	do-----	do-----	do-----	—	—	Oct. 1964	4.5	1,137.61	1.18	—	—	—	
51-39	do-----	do-----	do-----	—	—	Sept. 1968	3.9	1,114.89	1.16	54.9	2.49	2,806	SCS
	Clear Fork Watershed Site No. 7.	do-----	do-----	2.55	2.44	Oct. 1955	—	746.9	1.57	—	—	—	
51-40	do-----	do-----	do-----	—	—	Apr. 1969	13.5	626.29	1.32	47.2	3.66	3,760	SCS
	Denton Creek Watershed Site No. 17.	do-----	Decatur, Tex.-----	4.10	3.94	Oct. 1963	—	1,621.33	2.7	—	—	—	
51-41	do-----	do-----	do-----	—	—	Oct. 1968	5	1,557.16	2.6	—	3.26	—	SCS
	East Keeschi Creek Site No. 1-----	Brason River-----	Jacksboro, Tex.-----	6.63	6.30	Jan. 1964	—	1,845.56	1.76	—	—	—	
51-41	do-----	do-----	do-----	—	—	June 1968	4.4	1,827.15	1.74	*72	.66	1,035	SCS
LOWER BRAZOS, LOWER COLORADO, GUADALUPE, SAN ANTONIO, AND NUECES RIVER BASINS													
52-1	Lake Corpus Christi-----	Nueces River-----	Mathis, Tex.-----	16,800	16,791	July 1934	—	54,426	.080	—	—	—	SCS
52-2	do-----	do-----	do-----	—	—	Mar. 1942	7.6	43,801	.064	34.9	.083	63	SCS
	do-----	do-----	do-----	—	—	Mar. 1948	6.0	39,387	.058	35.6	.044	36	
52-2	Medine Lake-----	Medina River-----	San Antonio, Tex.-----	587	578	Mar. 1913	—	274,065	—	—	—	—	SCS
	do-----	do-----	do-----	—	—	Jan. 1937	23.9	267,630	—	61.1	.465	619	
52-2	do-----	do-----	do-----	—	—	May 1948	11.3	265,075	—	75.0	.391	—	SCS

52-3	Buchanan	Colorado River	Burnet, Tex.	2/19,350	19,313	June 1937	—	970,010	*.649	—	—	—	SCS
	do	do	do	—	—	Feb. 1941	3.7	954,859	*.639	—	—	.21	—
52-4	Moss Ranch Stock Pond	S. Bull Creek	Llano, Tex.	.07	.07	—	1909	4.7	—	—	—	—	SCS
	do	do	do	—	—	Feb. 1941	32	4.5	—	—	—	.07	—
52-5	Moss Ranch Stock Pond	W. Bull Creek	do	.20	.19	—	1903	9.3	—	—	—	—	SCS
	do	do	do	—	—	Feb. 1941	38	9.1	—	—	—	.021	—
52-6	Helms Tank	Trib. of Sandy Creek	do	.15	.14	—	1916	12	—	—	—	—	SCS
	do	do	do	—	—	Feb. 1941	25	11.6	—	—	—	.12	—
52-7	Baker Lake	Trib. of San Antonio River	Somerset, Tex.	3.17	3.10	Sept. 1950	—	251	.595	—	—	—	SCS
	do	do	do	—	—	Aug. 1955	—	4.95	.540	34.65	1.50	1.132	—
52-8a	Calaveras Creek Site No. 6	Calaveras Creek	San Antonio, Tex.	7.01	6.70	Dec. 1956	—	1,697.82	1.65	—	—	—	SCS
	do	do	do	—	—	Mar. 1968	—	1,661.12	1.62	66.17	.49	.706	—
52-9	Escondido No. 11	Trib. of Escondido Creek	Kenedy, Tex.	8.43	7.94	July 1958	—	2,728.0	2.022	—	—	—	—
	do	do	do	—	—	July 1960	2.0	2,667.8	1.978	47.08	3.79	3,886	—
52-10	Rudder Pond	Trib. of Llano River	Hext, Tex.	1.35	1.34	Aug. 1951	—	11.96	.081	—	—	—	SCS
	do	do	do	—	—	Aug. 1955	4	11.45	.078	—	.09	—	—
52-11	Sirianni Lake	Trib. of Hondo Creek	Moore, Tex.	.769	.747	Feb. 1951	—	80.3	1.959	—	—	—	SCS
	do	do	do	—	—	Sept. 1955	4.54	76.5	1.866	45.6	1.12	1,112	—
52-12	Smith Pond	Trib. of Bonito Creek	Jourdanton, Tex.	.191	.188	Apr. 1953	—	6.41	.361	—	—	—	SCS
	do	do	do	—	—	Aug. 1955	2.4	5.60	.315	27.8	1.80	1,090	—
52-13	Thornton Lake	Cibola Creek	Boerne, Tex.	1.54	1.52	Sept. 1952	—	142.4	.578	—	—	—	SCS
	do	do	do	—	—	Aug. 1955	2.91	135.2	.549	—	1.64	—	—
52-14	Fley Lake	Guadalupe River	Gonzales, Tex.	2.34	2.32	Jan. 1949	—	10/48.97	.078	—	—	—	SCS
	do	do	do	—	—	June 1964	15.42	43.75	.070	28.3	.15	.92	—
52-15	Blackwell Lake	Trib. of Deer Creek	Cuero, Tex.	2.76	2.75	Sept. 1949	—	10/45.12	.061	—	—	—	SCS
	do	Quadruped River Basin.	do	—	—	—	—	—	—	—	—	—	—
52-16a	Site No. 1 Escondido Creek	San Antonio River	Kenedy, Tex.	3.01	2.83	June 1964	14.75	41.51	.056	49.6	.09	.97	—
	do	do	do	—	—	Sept. 1954	—	924.7	2.30	—	—	—	—
	do	do	do	—	—	June 1964	9.8	906.2	2.26	—	.67	3/763	—
52-17	Cummings Creek Watershed	Trib. Cummings Creek	Giddings, Tex.	2.99	2.76	July 1969	5.1	890.1	2.22	—	1.12	1,710	—
	do	do	do	—	—	Aug. 1958	—	858.3	.77	—	—	—	SCS
	do	do	do	—	—	Sept. 1963	5.1	855.2	.77	—	.22	—	—
	do	do	do	—	—	Aug. 1969	5.9	854.1	.76	—	.07	—	—

BRAZOS RIVER BASIN (SOUTH END TO WASHINGTON) MIDDLE, AND COLORADO RIVER BASINS

53-1	Lake Scarborough	Trib. of Jim Ned Creek	Coleman, Tex.	10.8	10.6	May 1923	—	2,153	—	—	—	—	SCS
	do	do	do	—	—	May 1940	17	2,007	—	51.41	.81	.907	—
53-2	Santa Anna Lake	Mad Creek	Santa Anna, Tex.	1.17	1.05	May 1923	—	766	—	—	—	—	SCS
	do	do	do	—	—	May 1940	17	745	—	45.2	1.18	1,162	—
53-3	Lake Ranco	Comanche Creek	Comanche, Tex.	13.76	13.57	May 1926	—	1,313	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1946	20.3	1,221	—	—	.334	—	—
53-4	Lake Merritt	Browne Creek	Goldthwaite, Tex.	11.65	11.50	May 1917	—	962	—	—	—	—	SCS
	do	do	do	—	—	May 1940	23	855	—	43	.40	.375	—
53-5	Hubbard City Lake No. 3	Trib. of E. Cottonwood Cr.	Hubbard, Tex.	.16	.14	—	1913	11/104.5	—	—	—	—	SCS
	do	do	do	—	—	May 1949	36	90.2	—	—	2.86	—	—
53-6	Hubbard City Lake No. 4	E. Cottonwood Creek	do	1.40	1.35	—	1917	11/318.2	—	—	—	—	SCS
	do	do	do	—	—	May 1949	32	255.4	—	—	1.45	—	—
53-7a	Rogers Lake	Trib. of Little River	Rogers, Tex.	.55	.51	Fall 1922	—	164	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1934	12	126.5	—	—	6.12	—	—
53-8	Hubbard City Lake No. 1	Trib. E. Cottonwood Creek	Hubbard, Tex.	.5	.5	—	1898	12/110	—	—	—	—	SCS
	do	do	do	—	—	May 1949	51	84	—	—	1.0	—	—
53-9	Hubbard City Lake No. 2	do	do	.03	.03	—	1912	12/36.3	—	—	—	—	SCS
	do	do	do	—	—	May 1949	37	33.0	—	—	3.0	—	—
53-10	Hubbard City Lake No. 5	East Cottonwood Creek	do	.11	.10	—	1925	44.8	—	—	—	—	SCS
	do	do	do	—	—	May 1949	24	37.8	—	—	3.0	—	—
53-11	Lake Lawn	Redbank Creek	Lawn, Tex.	13.0	12.8	—	1911	530	—	—	—	—	SCS
	do	do	do	—	—	Mar. 1941	30	354	—	—	.46	—	—
53-12	Lometa	Salt & Emory Creeks	Lometa, Tex.	4.74	4.60	—	1912	759	—	—	—	—	—
	do	do	do	—	—	Feb. 1941	29	732	—	—	.20	—	—
53-13	Meridian Lake	Boe Creek	Meridian, Tex.	3.30	3.20	—	1934	723	—	—	—	—	SCS
	do	do	do	—	—	Apr. 1948	14	692	—	—	.69	—	—
53-14	Miller Lake	Trib. of Horse Creek	San Saba, Tex.	.41	.38	Sept. 1913	—	83	—	—	—	—	SCS
	do	do	do	—	—	Mar. 1941	27.5	75	—	—	.71	—	—
53-15	Odell Lake	Unnamed trib.	Hubbard, Tex.	.56	.55	July 1925	—	75.1	—	—	—	—	SCS
	do	do	do	—	—	July 1949	24	52.6	—	—	1.71	—	—
53-16	Possum Kingdom Lake	Brazos River	Graford, Tex.	13/14,098	12,955	May 1941	—	729,985	—	—	—	—	SCS
	do	do	do	—	—	Feb. 1949	7.75	672,420	—	—	.57	—	—
53-17	Rock Crusher	Bachelor Creek	Coleman, Tex.	16.5	16.48	—	1910	153	—	—	—	—	SCS
	do	do	do	—	—	Feb. 1941	31	80	—	—	.14	—	—
53-18	Old Santa Anna City Lake	Mikewater Creek	Santa Anna, Tex.	.90	.87	Jan. 1910	—	153	—	—	—	—	SCS
	do	do	do	—	—	June 1940	30.5	118	—	—	1.31	—	—

- 1/ Original capacity from map by stereo photogrammetric methods.
 2/ "Original" or 1945 capacity adjusted in 1961 by range line controls established in 1953
 give "Oct. 53" area and capacity.
 3/ Sediment pool only.
 4/ Adjusted for 1952 survey of Lake Dallas.
 5/ Adjusted in Apr. 1963 for detailed range survey in 1952-53-54.
 6/ Determined by USGS Nov. 1961.
 7/ 1951 adjusted data.
 8/ Deposits above Highway 190 bridge only. Not corrected for degradation between highway and dam.

- 9/ Drainage area is 31,250 sq. mi., of which 11,900 sq. mi. are noncontributing.
 10/ Original capacity determined by spudding on 1964 survey.
 11/ Dam was raised in 1925 and 1949. Capacities based on 1949 level.
 12/ Dam was raised in 1925. Capacity based on 1925 level.
 13/ Includes 1,111 sq. mi. of partially contributing drainage above lakes in watershed; excludes 8,900 sq. mi. of noncontributing drainage at head of watershed.
 * Estimated or assumed.

SUMMARY OF
RESERVOIR SEDIMENTATION SURVEYS MADE IN THE UNITED STATES THROUGH 1970

DATA SHEET NUMBER	RESERVOIR	STREAM	NEAREST TOWN	DRAINAGE AREA (SQUARE MILES)		DATE OF SURVEY	PERIOD BETWEEN SURVEYS (YEARS)	STORAGE CAPACITY (ACRE-FT.)	CAPACITY AVG. ANN. INFLOW RATIO (ACRE-FT. PER ACRE-FT.)	SPECIFIC WEIGHT (DRY) (LB. PER CU. FT.)	AVG. ANN. SEDIMENT ACCUMULATION PER SQ. MI. OF NET DR. AREA FOR PERIOD SHOWN		AGENCY SUPPLYING DATA
				TOTAL	NET						AC.-FT.	TONS	
BRAZOS RIVER BASIN (SOUTH BEND TO WASHINGTON) MIDDLE, AND COLORADO RIVER BASINS (Continued)													
53-19	Old Coleman City Lake	Ross Creek	Coleman, Tex.	0.73	0.69	Nov. 1906	—	289	—	—	—	—	SCS
	do	do	do	—	—	May 1940	33.6	273	—	—	0.67	—	SCS
53-20	Hamilton City Lake	Two Mile Creek	Hamilton, Tex.	12.0	11.9	June 1923	—	610	—	—	—	—	SCS
	do	do	do	—	—	Mar. 1941	17.75	560	—	—	.24	—	SCS
53-21	Lake Leon	Leon River	Eastland, Tex.	225	224.7	June 1920	—	1,637	—	—	—	—	SCS
	do	do	do	—	—	Mar. 1941	20.75	1,275	—	—	.08	—	SCS
53-22	Lake Mineral Wells	Rock Creek	Mineral Wells, Tex.	74.4	73.4	— 1922	—	10,741	—	—	—	—	SCS
	do	do	do	—	—	Dec. 1941	19.5	9,032	—	—	1.19	—	SCS
53-23	Buffalo Tank (Knox Tank)	Trib. of Pecan Bayou	Coleman, Tex.	1.73	1.71	1900	—	33	—	—	—	—	SCS
	do	do	do	—	—	Feb. 1941	41	29	—	—	.058	—	SCS
53-24	R. G. Hollingsworth Stock Pond	do	do	2.60	2.58	June 1937	—	20	—	—	—	—	SCS
	do	do	do	—	—	Feb. 1941	3.7	14	—	—	.66	—	SCS
53-25	J. S. Wall Stock Pond	Trib. of Brady Creek	Brady, Tex.	.35	.35	— 1927	—	13	—	—	—	—	SCS
	do	do	do	—	—	Mar. 1941	14	12.2	—	—	.16	—	SCS
53-26	White Tank	Trib. of Pecan Bayou	Brownwood, Tex.	.80	.80	May 1936	—	4.5	—	—	—	—	SCS
	do	do	do	—	—	Mar. 1941	4.8	3.6	—	—	.24	—	SCS
53-27	Zimmerlee Stock Pond (North)	Trib. of Jim Red Creek	Lawn, Tex.	.13	.13	— 1916	—	1.12	—	—	—	—	SCS
	do	do	do	—	—	Feb. 1941	25	.80	—	—	.10	—	SCS
53-28	Stith Lake	Redbank Creek	do	1.04	1.01	Aug. 1926	—	102	—	—	—	—	SCS
	do	do	do	—	—	Mar. 1941	14.6	93	—	—	.63	—	SCS
53-29	Philpeco Lake	Paint Creek	Pioneer, Tex.	9.04	9.00	Apr. 1925	—	183	—	—	—	—	SCS
	do	do	do	—	—	Feb. 1941	15.9	173	—	—	.07	—	SCS
53-30b	Lake Brownwood	Pecan Bayou (Colo. River)	Brownwood, Tex.	1,544	1,533	July 1932	—	149,925	1.011	—	—	—	SCS
	do	do	do	—	—	Feb. 1940	7.6	145,720	.983	41.9	.361	329	SCS
	do	do	do	—	—	Sept. 1939	19.6	135,963	.917	42.2	.325	299	CR
53-31a	Lake Maco (Old)	Boaque	Maco, Tex.	2/1,649	2/1,645	Apr. 1930	—	39,378	—	—	—	—	CR
	do	do	do	—	—	Feb. 1935	4.9	33,717	—	*58.5	.695	886	CR
	do	do	do	—	—	Feb. 1936	1.0	31,588	—	*58.5	1.28	1,631	CR
	do	do	do	—	—	Dec. 1947	11.8	22,026	—	*58.5	.487	621	CR
	do	do	do	—	—	Dec. 1964	17.0	15,427	—	—	.236	—	CR
53-32	Lake Edleman	Flint Creek	Graham, Tex.	42	41.4	Feb. 1929	—	6,583	1.144	—	—	—	SCS
	do	do	do	—	—	May 1954	25.25	5,917	1.028	49.2	.64	687	SCS
53-33b	Site No. 3 Cow Bayou	Brasos	Moody, Tex.	1.40	1.32	Nov. 1955	—	458.5	1.23	—	—	—	SCS
	do	do	do	—	—	Aug. 1960	4.75	393.3	1.05	—	10.40	—	SCS
	do	do	do	—	—	Aug. 1965	5.04	375.4	1.00	—	2.69	—	SCS
	do	do	do	—	—	Apr. 1970	4.69	366.7	.98	—	1.41	1,572	SCS
53-34a	Cow Bayou No. 4	Poster Creek	Maco, Tex.	5.25	5.20	July 1956	—	1,915	1.24	—	—	—	SCS
	do	do	do	—	—	Sept. 1969	13.2	1,833.53	1.19	—	1.19	1,419	SCS
53-35	Deep Creek No. 3	Trib. of Deep Creek	Brady, Tex.	3.42	3.19	Nov. 1953	—	925.18	2.821	—	—	—	SCS
	do	do	do	—	—	Aug. 1960	6.8	881.80	2.688	76.57	2.00	3,335	SCS
53-36a	Green Creek No. 1	Green Creek	Dublin, Tex.	3.57	3.38	Apr. 1955	—	1,095	1.98	—	—	—	SCS
	do	do	do	—	—	Jan. 1957	1.8	1,080	1.96	—	—	—	SCS
	do	do	do	—	—	Apr. 1962	5.2	1,065	1.93	—	—	—	SCS
	do	do	do	—	—	June 1967	5.2	1,063	1.93	73.6	.11	2/88	SCS
	do	do	do	—	—	— 1910	—	153.8	2.435	—	—	—	SCS
53-37	Silver Lake	H. E. Trib. of Leon River	do	.37	.334	— 1960	50	145.0	2.296	—	.527	—	SCS
	do	do	do	—	—	Aug. 1953	—	1,326.7	4.755	—	—	—	SCS
53-38	Main Res. Deep Creek Site 5	Colorado	Brady, Tex.	2.91	2.72	July 1961	7.9	1,295.7	4.644	—	1.44	—	SCS
	do	do	do	—	—	Aug. 1953	—	15.2	.072	—	—	—	SCS
53-39	Upper Res. Deep Creek Site 5	do	do	2.19	2.18	— 1961	7.9	11.2	.053	49.9	.23	250	SCS
	do	do	do	—	—	Jan. 1961	—	732.84	1.38	—	—	—	SCS
53-40a	Makemler Creek Site No. 9	Mid. Colorado River	Bangs, Tex.	4.75	4.55	June 1965	—	708.42	1.33	—	1.22	—	SCS
	do	do	do	—	—	July 1970	5.1	703.41	1.32	—	.22	—	SCS
53-41a	Sulphur Creek Site 3	Lampasas River	Lampasas, Tex.	10.81	10.58	Dec. 1959	—	3,229.2	1.6	—	—	—	SCS
	do	do	do	—	—	Nov. 1962	2.8	3,224.7	1.6	—	—	—	SCS
	do	do	do	—	—	Aug. 1968	5.8	3,223.3	1.6	55	2/02	2/24	CR
53-42	Whitney Reservoir	Brasos River	Whitney, Tex.	4/17,656	5/3,480	Dec. 1941	—	6/2,013,600	—	—	—	—	CR
	do	do	do	—	—	Apr. 1959	7.4	1,999,500	—	62.6	.55	749.88	SCS
53-43	Site No. 8 Deep Creek	Dry Prong	Brady, Tex.	4.26	4.02	Dec. 1951	—	1,409.81	2.70	—	—	—	SCS
	do	do	do	—	—	Sept. 1966	14.8	1,367.81	2.62	—	.71	—	SCS
53-44	Site No. 10-4 Makemler Creek	Makemler Creek	Bangs, Tex.	15.26	14.59	Mar. 1965	—	3,164.89	1.85	—	—	—	SCS
	do	do	do	—	—	Aug. 1966	1.4	3,177.99	1.85	—	.34	—	SCS
53-45	Lake Daniel	Gonzales Creek	Brackenridge, Tex.	115	113	June 1949	—	10,731	.81	—	—	—	SCS
	do	do	do	—	—	Nov. 1970	21.4	9,515	.72	48	.49	512	SCS
53-46	Site 9 Lower San Sabá River	Colorado River	San Sabá, Tex.	3.03	2.88	Jan. 1960	—	645.79	1.60	—	—	—	SCS
	do	do	do	—	—	Sept. 1967	7.67	635.49	1.57	—	.46	723	SCS

UPPER BRAZOS AND UPPER COLORADO RIVER BASINS

54-1	Lake Abilene	Kila Creek	Abilene, Tex.	98.5	97.5	Aug. 1921	10,325	--	--	--	SCS
	do	do	do	--	--	Sept. 1948	9,786	--	*60	.21	274
54-2b	Lake Mansworthy	South Concho	San Angelo, Tex.	3,294	3,119	Oct. 1930	11,485	*.046	--	--	SCS
	do	do	do	--	--	Dec. 1938	8.2	10,294	*.041	.67.5	.046
	do	do	do	--	--	May 1953	14.5	7/12,628	*.051	.67.5	.023
54-3	Lake Sweetwater	Bitter Creek	Sweetwater, Tex.	110	108.8	Feb. 1930	13,810	--	--	--	SCS
	do	do	do	--	--	Dec. 1941	11.8	13,287	--	--	.41
54-4	Lake Kirby	Cedar Creek	Abilene, Tex.	44	42.8	Sept. 1928	8,133	--	--	--	SCS
	do	do	do	--	--	Nov. 1941	13.2	7,618	--	--	.91
54-5	Lake Throckmorton	South Kila River	Throckmorton, Tex.	11.54	11.32	Sept. 1918	8/1,947	1,534	--	--	SCS
	do	do	do	--	--	June 1954	35.7	1,829	1.441	31.55	.29
54-6a	Lake Fort Phantom Hill	Kila Fork, Brazos River	Abilene, Tex.	478	268	Oct. 19389/	76,966	--	--	--	SCS
	do	do	do	--	--	Aug. 1953	14.8	74,312	--	35.99	.67
54-7	Mountain Creek	Mountain Creek	Robert Lee, Tex.	32.00	31.88	May 1950	945.3	.369	--	--	SCS
	do	do	do	--	--	Apr. 1961	10.9	804.9	.314	53.06	.40
54-8	HQZ Ranch Pond	Trib. of S. Concho River	San Angelo, Tex.	1.60	1.53	May 1937	276	2,240	--	--	SCS
	do	do	do	--	--	Aug. 1955	18.2	2,029	--	63.6	.93
54-9	Lake Stamford	Paint Creek	Stamford, Tex.	360	352.34	June 1953	57,632.35	1.71	--	--	1,288
	do	do	do	--	--	May 1966	12.9	53,927.57	1.60	42.56	.82
54-10	Site 18 Valley Cr. Watershed	Trib. Valley Creek	Winters, Tex.	4.21	4.11	Aug. 1964	--	719.89	2.38	--	760
	do	do	do	--	--	June 1969	4.8	717.05	2.36	69	.14
54-11	Lake Ballinger	Valley Creek	Ballinger, Tex.	210	209	Nov. 1947	--	3,872.09	.28	--	210
	do	do	do	--	--	Aug. 1970	22.8	3,070.42	.22	37	.17
54-12	Lake Winters	Kila Creek	Winters, Tex.	63.62	63.14	Oct. 1945	--	2,518.2	.59	--	137
	do	do	do	--	--	July 1970	24.75	1,886.2	.44	39	.40

RIO GRANDE BASIN (BELOW EAGLE PASS)

55-1	Site 6 Olmitos & Garcias Creeks	Kil Gato Creek	Rio Grande City, Tex.	13.19	12.94	June 1962	2,258.11	21.5	--	--	SCS
	do	do	do	--	--	Sept. 1966	4.25	2,252.03	21.4	6/75	.11

RIO GRANDE BASIN (FORT QUITMAN TO EAGLE PASS) AND LOWER PECOS RIVER BASIN

56-1a	Cottonwood Detention	San Felipe Arroyo River	Fabens, Tex.	2.34	2.19	July 1937	500	16.129	--	--	SCS
	do	do	do	--	--	July 1954	17	378	--	3.28	--
56-2	Rattlesnake Detention	do	do	5.15	10/2.81	July 1937	--	224.4	--	--	SCS
	do	do	do	--	--	July 1954	17	175.7	--	1.02	--
56-3	Roberts Detention	do	do	2.34	2.31	July 1937	--	145.3	4.687	--	SCS
	do	do	do	--	--	July 1954	17	104.8	3.381	1.03	--
56-4a	Press Pond	Trib. of Devils River	Sonora, Tex.	.435	.430	Dec. 1944	--	7.31	.222	--	SCS
	do	do	do	--	--	Aug. 1955	10.75	6.97	.211	69.6	.074
56-5	Lowrey Draw, Site No. 9	Lowrey Draw	do	2.77	2.64	June 1961	--	3/31.1	.49	--	ABS
	do	do	do	--	--	Feb. 1969	7.65	30.84	.48	64	.01
56-6	Lowrey Draw, Site No. 10	Trib. Lowrey Draw	do	8.43	8.20	June 1961	--	1/95	.68	--	ABS
	do	do	do	--	--	Mar. 1969	7.83	94.38	.68	64	.01
56-7	Lowrey Draw, Site No. 12	do	do	4.38	4.19	June 1961	--	3/85.46	.68	--	ABS
	do	do	do	--	--	Feb. 1969	7.65	84.03	.67	64	.04
56-8	Lowrey Draw, Site No. 13	do	do	1.07	1.02	June 1961	--	1/56.26	3.28	--	ABS
	do	do	do	--	--	Mar. 1969	7.74	56.10	3.26	64	.02
56-9	Site No. 1 Diablo Arroyo	Rio Grande	McHary, Tex.	29.89	29.51	Apr. 1960	--	4,489.7	11.3	--	SCS
	do	do	do	--	--	Apr. 1965	5	4,343.1	10.9	--	--
	do	do	do	--	--	Apr. 1970	5	4,235.1	10.6	--	.86

1/ Dam was raised 1 ft. in 1928. Capacity at 1928 spillway level.

2/ Latest drainage area by USGS in 1964.

3/ Sediment pool only.

4/ Does not include 8,900 sq. mi. which is considered to be noncontributing to the total 26,606 sq. mi. drainage area.

5/ For the 3,558 sq. mi. area between Possum Kingdom and Whitney Dams, excluding 77.8 sq. mi. which is reservoir surface area at elevation 571.

6/ Original storage capacity 2,017,500 ac.-ft. Adjusted in 1963 for detailed range survey in 1951.

7/ Spillway raised 2.3 ft. in Sept. 1948.

8/ Dam was raised 13 ft. in 1940; capacity at 1940 spillway elevation.

9/ Date storage began has not been verified.

10/ Includes Hucco Watershed but does not include Roberts Watershed.

* Estimated or assumed.

SUMMARY OF
RESERVOIR SEDIMENTATION SURVEYS MADE IN THE UNITED STATES THROUGH 1970

DATA SHEET NUMBER	RESERVOIR	STREAM	NEAREST TOWN	DRAINAGE AREA (SQUARE MILES)		DATE OF SURVEY	PERIOD BETWEEN SURVEYS (YEARS)	STORAGE CAPACITY (ACRE-FT.)	CAPACITY AVG. ANN. INFLOW RATIO (ACRE-FT. PER ACRE-FT.)	SPECIFIC WEIGHT (DRY) (LB. PER CU. FT.)	AVG. ANN. SEDIMENT ACCUMULATION PER SQ. MI. OF NET DR. AREA FOR PERIOD SHOWN		AGENCY SUPPLYING DATA
				TOTAL	NET						AC.-FT.	TONS	
RIO GRANDE BASIN (ESPANOLA TO FORT QUINN)													
57-1b	Elephant Butte	Rio Grande River	Elephant Butte, N. Mex.	25,923	25,866	Jan. 1915	—	2,634,800	—	—	—	—	SE
	do	do	do	—	—	Dec. 1916	1.9	2,584,865	—	—	1.02	—	
	do	do	do	—	—	Aug. 1920	3.7	2,498,850	—	—	.899	—	
	do	do	do	—	—	Aug. 1925	5.0	2,389,380	—	—	.846	—	
	do	do	do	—	—	Apr. 1935	9.7	2,270,300	—	.960	.475	621	
	do	do	do	—	—	Oct. 1940	5.5	2,219,000	—	—	.361	—	
	do	do	do	—	—	Apr. 1947	6.5	2,197,600	—	.965.9	.127	182	
	do	do	do	—	—	Feb. 1957	9.75	1/2, 206,780	2.20	60.0	—	—	
	do	do	do	—	—	Apr. 1969	12.2	2,137,219	2.31	62	.22	357	
57-2	Caballo	do	Truth of Consequences, N. Mex.	2/30, 700	1/1, 237	Jan. 1938	—	345,872	—	—	—	—	SE
	do	do	do	—	—	Nov. 1957	19.9	343,990	—	—	.0761	—	
57-3a	Santa Cruz	Santa Cruz River	Espanola, N. Mex.	93.1	93.1	Feb. 1929	—	4,464	.190	—	—	—	SCS
	do	do	do	—	—	Aug. 1956	27.4	3,758	.160	80	.27	470	
57-4	Cornfield Wash (1)	Trib. of Rio Puerco River	Cuba, N. Mex.	.29	.28	Apr. 1951	—	24.0	1.446	—	—	—	GS
	do	do	do	—	—	Oct. 1960	1/10	10.3	.620	—	.489	—	
57-5	Cornfield Wash (2)	do	do	.87	.85	Apr. 1951	—	54.1	3.127	—	—	—	GS
	do	do	do	—	—	Oct. 1960	1/10	45.1	2.607	—	1.06	—	
57-6	Cornfield Wash (3)	do	do	.25	.25	Apr. 1951	—	5.9	.711	—	—	—	GS
	do	do	do	—	—	Oct. 1960	1/10	2.6	.313	—	1.32	—	
57-7	Cornfield Wash (4)	do	do	1.18	1.17	Apr. 1951	—	22.1	1.277	—	—	—	GS
	do	do	do	—	—	Oct. 1960	1/10	17.4	1.006	—	.40	—	
57-8	Cornfield Wash (5)	do	do	1.04	1.04	Apr. 1951	—	9.2	.474	—	—	—	GS
	do	do	do	—	—	Oct. 1960	1/10	3.0	.155	—	.60	—	
57-9	Cornfield Wash (9)	do	do	.09	.09	Apr. 1951	—	4.6	.948	—	—	—	GS
	do	do	do	—	—	Oct. 1960	1/10	3.1	.639	—	1.67	—	
57-10	Cornfield Wash (13)	do	do	.33	.33	Apr. 1951	—	7.4	.561	—	—	—	GS
	do	do	do	—	—	Oct. 1960	1/10	.3	.023	—	2.15	—	
57-11	Cornfield Wash (15)	do	do	1.04	1.03	Dec. 1953	—	17.9	6.630	—	—	—	GS
	do	do	do	—	—	Oct. 1960	1/7	17.8	6.593	—	.01	—	
57-12	San Luis (1)	do	do	1.06	1.05	Aug. 1952	—	16.3	.676	—	—	—	GS
	do	do	do	—	—	Oct. 1960	1/8	12.0	.498	—	.51	—	
57-13	San Luis (3)	do	do	.67	.66	Aug. 1952	—	22.6	.958	—	—	—	GS
	do	do	do	—	—	Oct. 1960	1/8	19.6	.831	—	.58	—	
57-14	Zia Reservoir	Trib. of James River	San Ysidro, N. Mex.	2.4	2.4	June 1954	—	59.9	2.155	—	—	—	GS
	do	do	do	—	—	Oct. 1960	1/7	19.0	.683	—	2.43	—	
57-15a	James Canyon Reservoir	James River	Bernalillo, N. Mex.	1,034	1,034	Oct. 1953	—	117,213	2.844	—	—	—	SE
	do	do	do	—	—	Jan. 1958	1/4.25	115,821	2.810	.775.7	.317	523	
	do	do	do	—	—	Aug. 1959	1/1.67	113,874	2.763	.775.7	1.128	1,860	
	do	do	do	—	—	Dec. 1965	1/6.33	112,809	2.737	.775.7	.162	267	
57-16	San Luis #2	Rio Puerco River	Cuba, N. Mex.	.74	.74	July 1952	—	3.0	.120	—	—	—	FS
	do	do	do	—	—	July 1962	—	—	—	—	.62	—	
57-17	Caballo Arroyos Site 1 (Underwood)	Underwood Arroyo	Derry, N. Mex.	.87	.87	Nov. 1959	—	73.21	15.9	—	—	—	SCS
	do	do	do	—	—	Aug. 1967	7.8	68.79	14.9	111	.64	1,547	
57-18	Site #6 (Alamo Arroyo)	Alamo Arroyo	Chimayo, N. Mex.	3.15	3.12	Apr. 1962	—	232	6.9	—	—	—	SCS
	do	do	do	—	—	Dec. 1968	6.7	160	4.76	.100	3.30	7,187	
57-19	Site #3 (Ramones Arroyo)	Ramones Arroyo	do	1.17	1.16	Sept. 1962	—	111	8.9	—	—	—	SCS
	do	do	do	—	—	Jan. 1969	6.3	69	5.5	.110	6.03	14,446	
	do	do	do	—	—	Oct. 1969	.7	37.5	3.0	.110	27.16	102,597	
57-20	North Salem Site #2	North Salem Arroyo	Salem, N. Mex.	3.8	3.8	Apr. 1957	—	204.71	.10.1	—	—	—	SCS
	do	do	do	—	—	Aug. 1967	10.25	190.82	.9.4	.98.5	.35	750.9	
57-21	Rodney (Hatch Valley Arroyo #5)	Rodney Arroyo	Hatch, N. Mex.	2.1	2.1	July 1958	—	170.91	15.4	—	—	—	SCS
	do	do	do	—	—	Aug. 1967	9.1	141.25	12.7	85	1.55	2,869	
UPPER Pecos RIVER BASIN													
58-1	Bonito	Bonito Creek, Grant Gulch	Capitan, N. Mex.	40.0	39.9	June 1931	—	1,180	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1940	9	1,150	—	—	.083	—	
58-2a	Alamogordo	Pecos River	Pt. Sumner, N. Mex.	4,393	3,749	—	1936	156,750	.946	—	—	—	SE
	do	do	do	—	—	Sept. 1940	3.25	146,071	.881	.773.5	.076	1,410	
	do	do	do	—	—	Oct. 1943	3.08	130,280	.786	—	—	—	
	do	do	do	—	—	Apr. 1944	0.50	132,171	.797	.773.5	1.03	1,649	
	do	do	do	—	—	Sept. 1954	20.42	110,655	.668	.773.5	.281	450	
58-3a	Avalon (Lake Avalon)	Pecos River	Carlsbad, N. Mex.	16,030	1,080	Apr. 1907	—	7,600	—	—	—	—	SE
	do	do	do	—	—	Apr. 1941	34.00	6,633	—	—	5/.0263	—	
	do	do	do	—	—	July 1956	15.25	5,647	—	76.7	.0599	—	

58-4a	McMillan (Lake McMillan)	do	do	14,950	14,950	Jan. 1894	—	91,000	.344	—	—	—	BR
	do	do	do	—	—	June 1904	10.42	73,000	.276	—	.116	—	
	do	do	do	—	—	Nov. 1910	6.42	61,500	.232	—	.120	—	
	do	do	do	—	—	May 1913	4.50	45,500	.172	—	.238	—	
	do	do	do	—	—	June 1925	10.08	42,000	.159	—	.023	—	
	do	do	do	—	—	Dec. 1932	7.50	40,500	.153	—	.013	—	
	do	do	do	—	—	Jan. 1940	7.08	38,655	.146	*70	.017	—	
	do	do	do	—	—	July 1956	16.50	27,394,000	.149	8/62.4	.004	—	
58-5	Upper-Bondo Site #1	Salado Creek	Capitan, N. Mex.	122	93.92	May 1959	—	4,972.14	—	—	—	—	SCS
	do	do	do	—	—	Oct. 1959	—	4,946.54	—	*75	.65	1,060	
	do	do	do	—	—	May 1961	1.58	4,896.60	—	75	.34	555	
	do	do	do	—	—	Mar. 1962	.83	4,818.00	—	75	1.01	1,649	
	do	do	do	—	—	Feb. 1963	.92	4,796.41	—	75	.25	408	
	do	do	do	—	—	Jan. 1965	1.92	4,749.54	—	75	.26	424	
58-6	Bancroft #7	do	do	12	12	Feb. 1955	—	4.77	—	—	—	—	SCS
	do	do	do	—	—	Oct. 1965	10.67	3.52	—	*75	.01	16	
58-7	Bancroft #9	do	do	.57	.57	Feb. 1955	—	7.20	—	—	—	—	SCS
	do	do	do	—	—	Oct. 1965	10.67	1.59	—	*75	.92	1,500	
58-8	Bancroft #11	do	do	.69	.69	Feb. 1955	—	4.09	—	—	—	—	SCS
	do	do	do	—	—	Oct. 1965	10.67	1.59	—	*75	.34	554	
58-9	Pearson #6	do	do	.19	.19	Mar. 1955	—	2.21	—	—	—	—	SCS
	do	do	do	—	—	May 1957	2.17	1.60	—	*75	1.46	2,380	
	do	do	do	—	—	Apr. 1959	1.91	1.52	—	*75	.24	391	
	do	do	do	—	—	Oct. 1965	6.50	.49	—	*75	.83	1,352	
58-10	Pearson #8	do	do	.24	.24	Mar. 1955	—	5.45	—	—	—	—	SCS
	do	do	do	—	—	Dec. 1956	1.75	4.30	—	*75	2.75	4,555	
	do	do	do	—	—	Jan. 1958	1.08	3.62	—	*75	2.63	4,280	
	do	do	do	—	—	Jan. 1959	1.00	3.02	—	*75	2.49	4,130	
	do	do	do	—	—	Oct. 1965	6.75	.55	—	*75	1.53	2,519	
58-11	Pearson #9	do	do	1.56	1.56	Nov. 1954	—	23.78	—	—	—	—	SCS
	do	do	do	—	—	Oct. 1965	10.92	16.05	—	*75	.45	734	
58-12	Pearson #10	do	do	.71	.71	Mar. 1955	—	20.19	—	—	—	—	SCS
	do	do	do	—	—	May 1957	2.17	18.04	—	*75	1.39	2,262	
	do	do	do	—	—	Jan. 1958	.67	17.99	—	*75	.14	228	
	do	do	do	—	—	Oct. 1958	.75	17.58	—	*75	.76	1,241	
	do	do	do	—	—	Oct. 1965	7.00	16.05	—	*75	.31	505	
58-13	Pearson #18	do	do	1.80	1.80	Mar. 1955	—	15.60	—	—	—	—	SCS
	do	do	do	—	—	Oct. 1965	10.67	2.20	—	*75	.70	1,142	
58-14	Pearson #20	do	do	3/.16	3/.16	Mar. 1955	—	6.55	—	—	—	—	SCS
	do	do	do	—	—	Oct. 1965	10.58	5.77	—	*75	.46	752	
COLORADO RIVER BASIN (BELOW HOOVER DAM)													
Williams and Lower Gila River Basins													
59-	GILA RIVER BASIN												
60-1	Lake Pleasant	Agua Fria River	Phoenix, Ariz.	1,450	1,444	Apr. 1928	—	184,500	—	—	—	—	SCS
	do	do	do	—	—	Feb. 1941	12.9	176,456	—	—	—	—	
60-2a	San Carlos (Coolidge Dam)	Gila River	Globe, Ariz.	12,900	*11,900	Nov. 1928	—	1,266,837	6.054	—	.432	—	GS
	do	do	do	—	—	Feb. 1935	6.3	1,232,725	5.891	—	.455	—	
	do	do	do	—	—	Jan. 1937	1.9	1,230,695	5.882	—	.090	—	
	do	do	do	—	—	Jan. 1947	10.0	1,209,343	5.780	—	.179	—	
	do	do	do	—	—	— 1966	19.6	1,170,118	5.592	—	.168	—	
60-3	Stock Tank No. 16 (Bryce Dam)	Butler Wash	Eden, Ariz.	.69	.69	Mar. 1936	—	11.43	—	—	—	—	SCS
	do	do	do	—	—	— 1941	5.2	5.13	—	—	1.75	—	
60-4	Roosevelt-Salt River Project	Salt River & Tonto Creek	Globe, Ariz.	5,760	5,760	May 1909	—	1,522,200	1.886	—	—	—	BR
	do	do	do	—	—	Dec. 1914	5.7	1,495,460	1.853	*70	.819	1,248	
	do	do	do	—	—	Oct. 1916	1.8	1,460,150	1.809	*70	3.350	5,107	
	do	do	do	—	—	Sept. 1925	8.9	1,425,813	1.767	*70	.670	1,021	
	do	do	do	—	—	Jan. 1935	9.3	1,418,013	1.757	*70	.145	221	
	do	do	do	—	—	Jan. 1939	4.0	1,398,430	1.733	*70	.850	1,296	
	do	do	do	—	—	Jan. 1946	7.0	1,381,580	1.712	*70	.418	637	

- 1/ Total storage shows a gain of 9,180 ac.-ft. since 1947 survey attributable primarily to compaction.
 2/ Includes 2,940 sq. mi. in closed basin in San Luis Valley, Colo.
 3/ Drainage area between gaging station below Elephant Butte Dam and gaging station below Caballo Dam less original water surface area of Caballo Reservoir at elevation 4,225.3.
 4/ Runoff seasons.
 5/ Time periods adjusted.
 6/ Compacted sediment for 1,080 sq. mi.; values for 16,030 sq. mi. are given in appendix summaries.

- 7/ Increase in capacity due mainly to compaction.
 8/ Only surface samples (1.0-3.1 ft.) in approximately 1/3 of reservoir area below spillway crest.
 9/ Drainage area is 100 ac. plus pipe flow from Pearson #11, which has a drainage area of 10 ac., plus pipe and emergency spillway flow from Pearson #18, which has a drainage area of 1.80 sq. mi.
 * Estimated or assumed.

SUMMARY OF
RESERVOIR SEDIMENTATION SURVEYS MADE IN THE UNITED STATES THROUGH 1970

DATA SHEET NUMBER	RESERVOIR	STREAM	NEAREST TOWN	DRAINAGE AREA (SQUARE MILES)		DATE OF SURVEY	PERIOD BETWEEN SURVEYS (YEARS)	STORAGE CAPACITY (ACRE-FT.)	CAPACITY AVG. ANN. INFLOW RATIO (ACRE-FT. PER ACRE-FT.)	SPECIFIC WEIGHT (DRY) (LB. PER CU. FT.)	AVG. ANN. SEDIMENT ACCUMULATION PER SQ. MI. OF NET DR. AREA FOR PERIOD SHOWN		AGENCY SUPPLYING DATA
				TOTAL	NET						AC.-FT.	TONS	
GILA RIVER BASIN (Continued)													
60-5	Allen	Trib. of Gila River	Thatcher, Ariz.	1/4.17	4.13	—	1936	—	279	2.847	—	—	SCS
60-6	" " " " Tank No. 1	Whitewater Draw	Douglas, Ariz.	—	—	June 1938	22	253	2.582	—	0.27	—	SCS
60-7	" " " " No. 2	—	—	10.92	10.92	Nov. 1958	41	—	2.54	.446	.05	81.7	SCS
60-8	" " " " No. 3	—	—	2.48	2.48	Nov. 1958	20	—	2.55	.009	.008	13.1	SCS
60-9	" " " " No. 4	—	—	—	—	Sept. 1947	—	14.7	.70	.002	.008	—	SCS
60-10	" " " " No. 5	—	—	12.3	12.3	Nov. 1958	3/7	—	.0	0	.85	1,573	SCS
60-11	" " " " Pond No. 6	—	—	5.68	5.68	Mar. 1942	—	—	.43	—	.10	196	SCS
60-12	Don Cabanas No. 4 SM	Trib. of Wilcox Dry Lake	Don Cabanas, Ariz.	—	—	Nov. 1958	3/12	—	.0	—	.90	—	SCS
60-13a	Don Cabanas No. 15	—	—	—	—	Nov. 1958	3/5	—	3.0	.009	.006	9.8	SCS
60-14	Salmon	Trib. of Gila River	Florence, Ariz.	—	—	Nov. 1958	5/6	—	2.7	.008	.006	9.8	SCS
60-15	Humstead	—	—	—	—	Nov. 1958	—	—	.8	.005	.006	—	SCS
60-16	Lower Foote Wash	Foote Wash	Safford, Ariz.	4.80	5/63	Nov. 1949	—	—	.6	.004	.006	9.8	SCS
60-17	Wagon No. 1	Wagon Wash	Florence, Ariz.	1.78	1.78	Nov. 1960	11	—	6.0	.312	.29	599	SCS
60-18	Wagon No. 2	—	—	—	—	Nov. 1960	20	—	4.1	.214	.26	510	SCS
60-19a	Wagon No. 3	—	—	21.9	21.9	Oct. 1960	—	—	4.7	.385	—	—	SCS
60-20	Riggs	Trib. Wilcox Dry Lake	Don Cabanas, Ariz.	—	—	Oct. 1960	20	—	2.8	.230	.26	510	SCS
60-21	Upper Foote Wash	Foote Wash	Safford, Ariz.	4.95	4.95	June 1960	19	—	6.8	1.889	.75	1,388	SCS
60-22	Whitlow Old Tank	Trib. of Gila River	Florence, Ariz.	—	—	June 1960	6	—	3.9	1.083	.78	1,530	SCS
60-23a	Bartlett	Verde	Sumflower, Ariz.	5,812	190	June 1960	—	—	6.00	.348	.112	—	SCS
60-24a	Mormon	—	—	5,618	5,614	June 1960	—	—	1.83	.112	.90	—	SCS
60-25	Foote Wash Pond #3	Trib. of Foote Wash	Safford, Ariz.	—	—	June 1936	—	—	14.8	—	.13	—	SCS
60-26	Foote Wash Pond #4	Trib. of Gila River	—	—	—	June 1958	22	—	13.0	—	.13	—	SCS
60-27	Williams-Chandler Pond #1	Trib. of Queen Creek	Florence Junction, Ariz.	1.09	1.09	May 1959	11	—	5.7	.176	.15	261	SCS
60-28	Williams-Chandler Pond #2	—	—	—	—	May 1959	5.4	—	2.7	.084	.15	278	SCS
60-29	Big Horn No. 1, Tank #1	Trib. of Centennial Wash	Tonopah, Ariz.	—	—	Feb. 1954	—	—	1.6	.212	.15	278	SCS
60-30	Big Horn No. 1, Tank #2	—	—	—	—	May 1959	—	—	1.3	.188	.03	49	SCS
60-31	Centennial Wash Tank	—	—	2/60	2/60	—	—	—	6.0	—	.03	49	SCS
60-32	New Tank	—	—	2/1.88	2/1.88	Oct. 1960	14	—	1.9	.099	.06	105	SCS
60-33	West Tank	—	—	—	—	Oct. 1960	22	—	1.4	.073	.06	105	SCS
60-34	Upper Twin Tank	Tiger Wash	Agulla, Ariz.	1.83	1.83	June 1958	—	—	24.2	.209	.04	—	SCS
60-35	Hargreaves No. 1, Tank #1	Trib. of Brown's Canyon Wash	—	—	—	June 1950	10	—	19.5	.168	.04	—	SCS
60-36	Judith Wash Retarding Dam	Judith Wash	Solomon, Ariz.	4.60	4.57	June 1960	—	—	3.4	.254	.23	426	SCS
60-37	—	—	—	—	—	June 1960	10	—	1.8	.134	.23	426	SCS
60-38	—	—	—	—	—	Feb. 1959	—	182,608	—	—	—	—	SCS
60-39	—	—	—	—	—	Aug. 1942	3.50	179,480	—	—	6/154	—	SCS
60-40	—	—	—	—	—	Nov. 1950	8.33	7/179,348	—	—	.424	—	SCS
60-41	—	—	—	—	—	Jan. 1964	13.17	178,488	—	—	.424	—	SCS
60-42	—	—	—	—	—	Nov. 1945	—	67,900	.241	—	.064	—	SCS
60-43	—	—	—	—	—	Oct. 1950	4.9	8/142,830	.507	—	.069	—	SCS
60-44	—	—	—	—	—	Nov. 1963	13.1	139,238	.494	—	.069	—	SCS
60-45	—	—	—	—	—	—	—	19.10	*1.705	—	.12	199	SCS
60-46	—	—	—	—	—	Jan. 1964	*28	17.10	*1.527	76.2	.12	199	SCS
60-47	—	—	—	—	—	Jan. 1964	*28	6.462	*1.049	—	.12	190	SCS
60-48	—	—	—	—	—	Jan. 1964	*28	5.325	*.864	72.6	.12	190	SCS
60-49	—	—	—	—	—	—	—	2.10	.197	—	.03	43	SCS
60-50	—	—	—	—	—	July 1961	30	1.00	.094	60	.03	43	SCS
60-51	—	—	—	—	—	July 1961	—	9.33	1.346	60	.03	44	SCS
60-52	—	—	—	—	—	July 1961	17	8.95	1.291	60	.03	44	SCS
60-53	—	—	—	—	—	June 1960	—	21.30	*7.83	47.6	.11	114	SCS
60-54	—	—	—	—	—	Oct. 1964	4.3	21.08	*7.74	47.6	.11	114	SCS
60-55	—	—	—	—	—	July 1960	—	11.46	*4.88	—	.11	120	SCS
60-56	—	—	—	—	—	Oct. 1964	4.3	11.26	*4.79	*50	.11	120	SCS
60-57	—	—	—	—	—	—	—	1.27	.397	—	.09	180	SCS
60-58	—	—	—	—	—	May 1965	*11	.67	.209	91.97	.09	180	SCS
60-59	—	—	—	—	—	—	—	7.61	.759	—	.09	180	SCS
60-60	—	—	—	—	—	May 1965	20	4.08	.407	77.12	.09	180	SCS
60-61	—	—	—	—	—	June 1960	—	10.09	*6.51	—	.13	148.7	SCS
60-62	—	—	—	—	—	Oct. 1964	4.3	9.93	*6.41	52.5	.13	148.7	SCS
60-63	—	—	—	—	—	Oct. 1944*	—	2.21	*.228	—	.13	15	SCS
60-64	—	—	—	—	—	Oct. 1964	20	10/1.68	*.173	46	.05	15	SCS
60-65	—	—	—	—	—	June 1958	—	6.64	*11.25	—	.18	196	SCS
60-66	—	—	—	—	—	—	—	—	—	—	.18	196	SCS
60-67	—	—	—	—	—	Oct. 1964	6.3	6.50	*11.02	*50	.18	196	SCS
60-68	—	—	—	—	—	Jan. 1957	—	158.79	*1.849	—	.14	234.5	SCS
60-69	—	—	—	—	—	Jan. 1964	7	154.24	*1.796	76.9	.14	234.5	SCS
60-70	—	—	—	—	—	July 1964	.6	153.16	*1.784	*76.9	.14	234.5	SCS

60-37a	Three Bar B Debris Basin	Trib. of Rock Creek	Roosevelt, Ariz.	.073	.073	Aug. 1959	--	11/.23	.05	--	--	--	FS
	do	do	do	--	--	Oct. 1960	1.17	--	--	*110	12/18.77	12/44.969	
	do	do	do	--	--	Oct. 1961	1.00	--	--	*110	12/4.66	12/11.159	
	do	do	do	--	--	Oct. 1962	1.00	--	--	*110	0	0	
	do	do	do	--	--	Oct. 1964	2.00	--	--	*110	12/.55	12/1.313	
	do	do	do	--	--	Oct. 1965	1.00	--	--	*110	12/.14	12/328	
	do	do	do	--	--	Oct. 1966	1.00	--	--	*110	12/.27	12/656	
	do	do	do	--	--	Oct. 1967	1.00	--	--	*110	0	0	
	do	do	do	--	--	Oct. 1968	1.00	--	--	*110	12/.14	12/328	
	do	do	do	--	--	Oct. 1969	1.00	--	--	*110	0	0	
	do	do	do	--	--	Oct. 1970	1.00	--	--	*110	0	0	
60-38a	Three Bar C Debris Basin	do	do	.149	.149	Aug. 1959	--	11/.08	.002	--	--	--	FS
	do	do	do	--	--	Oct. 1960	1.17	--	--	*110	12/5.57	12/13.345	
	do	do	do	--	--	Oct. 1961	1.00	--	--	*110	12/.67	12/1.608	
	do	do	do	--	--	Oct. 1962	1.00	--	--	*110	12/.67	12/1.608	
	do	do	do	--	--	Oct. 1964	2.00	--	--	*110	0	0	
	do	do	do	--	--	Oct. 1965	1.00	--	--	*110	0	0	
	do	do	do	--	--	Oct. 1966	1.00	--	--	*110	12/.34	12/804	
	do	do	do	--	--	Oct. 1967	1.00	--	--	*110	0	0	
	do	do	do	--	--	Oct. 1968	1.00	--	--	*110	0	0	
	do	do	do	--	--	Oct. 1969	1.00	--	--	*110	0	0	
	do	do	do	--	--	Oct. 1970	1.00	--	--	*110	0	0	
60-39a	Three Bar D Debris Basin	do	do	.126	.126	Aug. 1959	--	11/.21	.01	--	--	--	FS
	do	do	do	--	--	Oct. 1960	1.17	--	--	*110	12/12.70	12/30.427	
	do	do	do	--	--	Oct. 1961	1.00	--	--	*110	12/3.73	12/8.977	
	do	do	do	--	--	Oct. 1962	1.00	--	--	*110	12/.63	12/1.521	
	do	do	do	--	--	Oct. 1964	2.00	--	--	*110	12/.04	12/95	
	do	do	do	--	--	Oct. 1965	1.00	--	--	*110	12/.08	12/190	
	do	do	do	--	--	Oct. 1966	1.00	--	--	*110	12/.08	12/190	
	do	do	do	--	--	Oct. 1967	1.00	--	--	*110	0	0	
	do	do	do	--	--	Oct. 1968	1.00	--	--	*110	0	0	
	do	do	do	--	--	Oct. 1969	1.00	--	--	*110	0	0	
	do	do	do	--	--	Oct. 1970	1.00	--	--	*110	0	0	
60-40a	Three Bar F Debris Basin	do	do	.107	.107	Mar. 1963	--	11/.04	.004	--	--	--	FS
	do	do	do	--	--	Oct. 1963	.51	--	--	*110	0	0	
	do	do	do	--	--	Oct. 1964	1.0	--	--	*110	12/.37	12/886	
	do	do	do	--	--	Oct. 1965	1.0	--	--	*110	12/.09	12/224	
	do	do	do	--	--	Oct. 1966	1.0	--	--	*110	12/.19	12/448	
	do	do	do	--	--	Oct. 1967	1.0	--	--	*110	0	0	
	do	do	do	--	--	Oct. 1968	1.0	--	--	*110	0	0	
	do	do	do	--	--	Oct. 1969	1.0	--	--	*110	0	0	
	do	do	do	--	--	Oct. 1970	1.0	--	--	*110	12/.08	12/2,016	
60-41	Bennett 14	Walnut Gulch	Tombstone, Ariz.	.6	.6	June 1961	--	17	.6	--	--	--	SCS
60-42	Cowan 7	do	do	.4	.4	June 1967	6	14	1.7	--	.2	326	SCS
60-43	Horsethief Basin	Horsethief Canyon	Crown King, Ariz.	.85	.85	Nov. 1934	--	42.4	.44	--	--	--	FS
60-44	Lynx Lake	Lynx Creek	Prescott, Ariz.	18.14	*10	Nov. 1969	36	35.6	.37	--	.22	--	FS
60-45	Granite Basin	Mint Wash	do	4.69	*4.69	Nov. 1962	--	1,472	1.07	--	--	--	FS
60-46	Keller Tank	Trib. Verde River	Scottsdale, Ariz.	.06	.06	Nov. 1968	6	1,460	1.06	--	.197	--	FS
60-47	Galleta Tank	Trib. Cent. Wash	Tonopah, Ariz.	.66	.645	Aug. 1939	--	89	*.32	--	--	--	FS
60-48	Wellick Tank	Trib. Flying "E" Wash	Wickenburg, Ariz.	.79	.77	Aug. 1967	28	58	*.21	--	.236	--	SCS
60-49	Pouquette Tank	Trib. Cemetery Wash	do	.13	.129	Apr. 1961	--	--	--	--	.09	--	SCS
	do	do	do	--	--	June 1939	--	1.529	*1.91	--	--	--	SCS
	do	do	do	--	--	Apr. 1967	37.9	21	6.63	74.8	.21	342	SCS
	do	do	do	--	--	May 1956	--	79.1	20.87	--	--	--	SCS
	do	do	do	--	--	Sept. 1970	14.3	77.3	20.39	94.1	.16	328	SCS
	do	do	do	--	--	May 1965	--	.99	1.59	--	--	--	SCS
	do	do	do	--	--	Dec. 1970	5.6	.91	1.46	88.2	.10	192	

LITTLE COLORADO AND SAN JUAN RIVER BASINS

61-1	Oak Creek Reservoir	Trib. of Zuni River	Zuni, N. Mex.	9.41	9.41	Oct. 1954	--	334.8	1.425	--	--	--	GS
	do	do	do	--	--	May 1960	14/6	148.0	.630	--	3.32	--	

- 1/ Drainage area includes 1.87 sq. mi. diverted from Hawk Hollow.
2/ Reservoir was full of sediment in 1954.
3/ Constructed 1943, cleaned 1953.
4/ Constructed 1941, cleaned 1952.
5/ This reservoir is downstream from Upper Foote Wash Reservoir. Little or no sediment is contributed from the 4.17 sq. mi. above this dam.
6/ Based on total drainage area of 5,812 sq. mi. before construction of Horseshoe Dam upstream.
7/ Increase in capacity probably due to compaction.
8/ Capacity increased 76,130 ac.-ft. by installation of spillway gates in June 1950.

- 9/ Drainage area is smallest area that could be positively delineated.
10/ Storage capacity at original spillway crest elevation - storage capacity at eroded spillway elevation 0.53 ac.-ft.
11/ Basin cleaned as needed to maintain capacity.
12/ Includes sediment trapped above spillway level.
13/ Basin filled during storm of 9-5-70 and undetermined amount of sediment escaped from pond.
14/ Runoff seasons.
15/ Estimated or assumed.

SUMMARY OF
RESERVOIR SEDIMENTATION SURVEYS MADE IN THE UNITED STATES THROUGH 1970

DATA SHEET NUMBER	RESERVOIR	STREAM	NEAREST TOWN	DRAINAGE AREA (SQUARE MILES)		DATE OF SURVEY	PERIOD BETWEEN SURVEYS (YEARS)	STORAGE CAPACITY (ACRE-FT.)	CAPACITY AVG. ANN. INFLOW RATIO (ACRE-FT. PER ACRE-FT.)	SPECIFIC WEIGHT (DRY) (LB. PER CU. FT.)	AVG. ANN. SEDIMENT ACCUMULATION PER SQ. MI. OF NET DR. AREA FOR PERIOD SHOWN		AGENCY SUPPLYING DATA
				TOTAL	NET						AC-FT.	TONS	
LITTLE COLORADO AND SAN JUAN RIVER BASINS (Continued)													
61-2a	Millet Swale Reservoir	Trib. of Silver Creek	Taylor, Ariz.	40.0	39.7	June 1959	—	1,342.0	2.1	—	—	—	SCS
	do	do	do	—	—	June 1962	3	1,259.4	2.0	67	0.69	1,007	—
	do	do	do	—	—	June 1966	4	1,118.5	1.7	80	.89	1,551	—
61-3	Stockyard Tank	Trib. Cottonwood Wash	Snowflake, Ariz.	.48	.476	—	—	6.04	*.79	—	—	—	SCS
	do	do	do	—	—	May 1966	25	4.02	*.52	101.6	.17	376	—
61-4	Thomas Tank I	do	do	.55	.549	—	—	3.09	*.35	—	—	—	SCS
	do	do	do	—	—	June 1966	21	1.38	*.16	77.9	.15	250	—
61-5	Kilmorth Tank	Trib. Snow Low Creek	Taylor, Ariz.	.25	.249	—	—	1.50	*.23	—	—	—	SCS
	do	do	do	—	—	Aug. 1966	20	1.27	*.19	80	.044	79	—
61-6	New Tank	Trib. Cottonwood Wash	Snowflake, Ariz.	2.45	2.45	—	—	10.13	*.15	—	—	—	SCS
	do	do	do	—	—	May 1966	30	9.10	*.14	87.7	.014	27	—
61-7	West Hall Tank	do	Clay Springs, Ariz.	.32	.32	—	—	.76	*.09	—	—	—	SCS
	do	do	do	—	—	June 1966	24	.61	*.07	93.4	.02	41	—
61-8	Thomas Tank II	Trib. Perkins Spring Draw	do	.10	.10	—	—	1.39	*.52	—	—	—	SCS
	do	do	do	—	—	July 1966	4	1.35	*.50	89.3	.10	194	—
COLORADO RIVER BASIN (HALLS CROSSING TO HOOVER DAM)													
63-1	Lake Mead (Hoover Dam)	Colorado River	Boulder City, Nev.	167,800	1/167,600	Feb. 1935	—	31,290,000	2.140	—	—	—	GS
	do	do	do	—	—	Sept. 1948/	13.7	29,827,000	2.043	3/65	.620	877	—
63-2	Brookside Tank	Trib. of Johnson Wash	Fredonia, Ariz.	.4	.4	—	—	.697	.327	—	—	—	SCS
	do	do	do	—	—	Sept. 1965	1/14	.140	.066	97	1/10	211	—
63-3	Riggs Flat Charco	Sandy Canyon Wash	do	57.86	57.83	Oct. 1956	—	54.93	.178	—	—	—	SCS
	do	do	do	—	—	Sept. 1965	8.9	36.58	.119	72	.035	55	—
63-4	Leroy Judd Tank	Trib. of Kanab Creek	do	.38	.38	—	—	.95	.468	—	—	—	SCS
	do	do	do	—	—	Aug. 1965	3	.22	.108	105.7	.63	1,430	—
63-5	Kaibab Indian Reservation Erosion Control Structure	do	Indian Moccasin, Ariz.	1.27	1.27	—	—	6.008	.887	—	—	—	SCS
	do	do	do	—	—	Oct. 1965	30	2.247	.332	87.2	.098	186	—
63-6	Jesse Judd Tank	do	Fredonia, Ariz.	5/3.49	5/3.49	—	—	7.10	—	—	—	—	SCS
	do	do	do	—	—	Aug. 1965	6/10	2.77	—	80	6/12	209	—
63-7	Frog Hollow Detention Res.	Frog Hollow Wash	Marionette, Utah	9.2	9.2	Jan. 1957	—	223.0	*1.317	—	—	—	SCS
	do	do	do	—	—	Jan. 1958	—	216.4	*1.472	80	.72	1,255	—
	do	do	do	—	—	Nov. 1965	7.8	140.8	*.958	80	1.05	1,830	—
63-8	OGC Pond (West)	Trib. Santa Clara River	St. George, Utah	.03	.03	—	—	—	—	—	—	—	SCS
	do	do	do	—	—	Apr. 1966	25	*.2	*.63	92	2/23	461	—
63-9	OGC Pond (East)	do	do	.32	.32	—	—	—	—	—	—	—	SCS
	do	do	do	—	—	Apr. 1966	25	*.2	*.06	90	2/107	33	—
63-10	Rondo Reseach Debris Basin #2	Trib. Virgin River	do	.026	.026	—	—	—	—	—	—	—	SCS
	do	do	do	—	—	Feb. 1966	22	*1.5	*5.3	90	2/3.35	6,566	—
63-11	Rondo Reseach Debris Basin #1	do	do	.09	.09	—	—	—	—	—	—	—	SCS
	do	do	do	—	—	Feb. 1966	22	*1.0	*9.0	90	2/61	1,196	—
63-12	Cliff Andrus	Trib. Warner Draw	do	1.09	1.08	—	—	—	—	—	—	—	SCS
	do	do	do	—	—	Jan. 1966	17	*20	*2.2	78	2/76	1,290	—
63-13	Winfred Spandlove	Trib. Fort Pearce Wash	do	.85	.84	—	—	—	—	—	—	—	SCS
	do	do	do	—	—	Mar. 1966	20	*7.0	*1.1	87.5	2/42	800	—
63-14	Black Knolls	Trib. City Creek	do	.59	.58	—	—	—	—	—	—	—	SCS
	do	do	do	—	—	Nov. 1965	43	*20	*3.2	*75	.34	555	—
63-15	Little Grass Pond	Unknown	do	2.3	2.3	—	—	—	—	—	—	—	SCS
	do	do	do	—	—	Mar. 1966	23	*2.0	—	94	2/1043	88	—
63-16	Bill Snow Pond	Trib. Santa Clara River	do	.057	.057	—	—	—	—	—	—	—	SCS
	do	do	do	—	—	June 1966	10	*2.0	*3.3	72	2/1.79	2,820	—
63-17	Mangness Wash	Mangness Wash	do	.17	.17	—	—	—	—	—	—	—	SCS
	do	do	do	—	—	Apr. 1966	10	*1.0	*.2	80	2/38	662	—
COLORADO RIVER BASIN (ABOVE HALLS CROSSING) Gunnison, Dolores and Fremont River Basins													
63-1	Badger Detention (1A)	Badger Wash	Hack, Colo.	1.53	1.49	May 1957	—	201.52	3.336	—	—	—	GS
	do	do	do	—	—	Nov. 1958	1.6	199.35	3.300	—	.91	—	—
	do	do	do	—	—	Nov. 1959	1.0	196.27	3.250	—	2.07	—	—
	do	do	do	—	—	Nov. 1961	2.0	190.38	3.152	—	1.97	—	—

63-2	Badger Wash West Twin (2A)	do	do	.167	.165	Dec. 1953	—	6.30	.957	—	—	—	08
	do	do	do	—	—	July 1955	1.6	4.47	.679	—	6.91	—	
	do	do	do	—	—	Nov. 1956	1.4	4.47	.679	—	—	—	
	do	do	do	—	—	Oct. 1957	1.0	3.98	.605	—	2.97	—	
	do	do	do	—	—	Nov. 1958	1.0	3.98	.605	—	0	—	
	do	do	do	—	—	Nov. 1959	1.0	3.65	.555	—	2.00	—	
	do	do	do	—	—	Nov. 1961	2.0	2.43	.369	—	3.70	—	
63-3	Badger Wash Lower Oil Well (3A)	do	do	.059	.055	Dec. 1953	—	12.90	4.813	—	—	—	08
	do	do	do	—	—	July 1955	1.6	12.65	4.720	—	2.91	—	
	do	do	do	—	—	Nov. 1956	1.4	12.65	4.720	—	0	—	
	do	do	do	—	—	Oct. 1957	1.0	12.55	4.683	—	1.82	—	
	do	do	do	—	—	Nov. 1958	1.0	12.55	4.683	—	0	—	
	do	do	do	—	—	Nov. 1959	1.0	12.33	4.601	—	4.00	—	
	do	do	do	—	—	Nov. 1961	2.0	12.12	4.522	—	1.82	—	
63-4	East Basin (11)	do	do	.089	.087	Apr. 1954	—	5.45	1.135	—	—	—	08
	do	do	do	—	—	Nov. 1956	2.6	4.92	1.025	—	2.30	—	
	do	do	do	—	—	Oct. 1957	1.0	4.76	.992	—	1.84	—	
	do	do	do	—	—	Nov. 1959	2.0	4.65	.969	—	.69	—	
63-5	Middle Basin (12)	do	do	.092	.088	Apr. 1954	—	16.93	2.996	—	—	—	08
	do	do	do	—	—	Nov. 1956	2.6	15.87	2.809	—	4.66	—	
	do	do	do	—	—	Oct. 1957	1.0	15.38	2.722	—	5.57	—	
	do	do	do	—	—	Nov. 1959	2.0	15.32	2.712	—	.34	—	
63-6a	Prairie Dog (1A)	Trib. Badger Wash	do	.022	.022	Dec. 1953	—	3.05	4.36	—	—	—	08
	do	do	do	—	—	July 1955	1.6	2.64	3.77	*90	11.8	23,130	
	do	do	do	—	—	Nov. 1956	1.3	2.64	3.77	*90	0	13,365	
	do	do	do	—	—	Oct. 1957	1.0	2.49	3.56	*90	6.82	—	
	do	do	do	—	—	Nov. 1958	1.1	2.49	3.56	*90	0	—	
	do	do	do	—	—	Nov. 1959	1.0	2.43	3.47	*90	2.73	5,346	
	do	do	do	—	—	Nov. 1961	2.0	2.28	3.26	*90	3.18	6,682	
	do	do	do	—	—	Nov. 1963	2.0	2.17	3.10	*90	2.27	4,900	
	do	do	do	—	—	Nov. 1964	1.0	2.03	2.90	*90	6.36	12,474	
	do	do	do	—	—	Nov. 1965	1.0	1.82	2.60	*90	9.55	18,711	
	do	do	do	—	—	Nov. 1966	1.0	1.91	2.73	*90	—	—	
	do	do	do	—	—	Oct. 1967	1.0	1.80	2.57	*90	5.50	9,801	
	do	do	do	—	—	Nov. 1968	1.0	1.66	2.37	*90	6.36	10,494	
	do	do	do	—	—	June 1970	1.6	8/2.52	3.60	*90	0	—	
	do	do	do	—	—	Oct. 1970	.4	2.50	3.57	*90	2.27	4,455	
63-7	Southeast (13)	Badger Wash	do	.484	.477	Apr. 1954	—	27.25	1.854	—	—	—	08
	do	do	do	—	—	Nov. 1956	2.6	24.85	1.690	—	1.93	—	
	do	do	do	—	—	Oct. 1957	1.0	23.44	1.595	—	2.96	—	
	do	do	do	—	—	Nov. 1959	2.0	22.26	1.514	—	1.24	—	
63-8a	Upper Banks (1A)	Trib. Badger Wash	do	.066	.066	Dec. 1953	—	8.30	3.81	—	—	—	08
	do	do	do	—	—	July 1955	1.6	7.59	3.48	*90	6.68	13,094	
	do	do	do	—	—	Nov. 1956	1.3	7.59	3.48	*90	0	—	
	do	do	do	—	—	Nov. 1957	1.0	7.34	3.37	*90	3.78	7,425	
	do	do	do	—	—	Nov. 1958	1.1	7.34	3.37	*90	0	—	
	do	do	do	—	—	Nov. 1959	1.0	7.04	3.23	*90	4.55	9,061	
	do	do	do	—	—	Nov. 1961	2.0	6.70	3.07	*90	2.73	5,198	
	do	do	do	—	—	Nov. 1963	2.0	6.59	3.02	*90	.83	1,634	
	do	do	do	—	—	Nov. 1964	1.0	6.55	3.00	*90	.60	1,188	
	do	do	do	—	—	Nov. 1965	1.0	6.10	2.84	*90	6.82	13,365	
	do	do	do	—	—	Nov. 1966	1.0	6.16	2.82	*90	2/-	—	
	do	do	do	—	—	Oct. 1967	1.0	6.00	2.75	*90	2.41	4,752	
	do	do	do	—	—	Nov. 1968	1.0	5.48	2.51	*90	7.84	15,444	
	do	do	do	—	—	Nov. 1969	1.0	5.54	2.54	*90	2/-	—	
63-9	West Twin (2-4)	do	do	.148	.148	Dec. 1953	—	6.30	1.51	—	—	—	08
	do	do	do	—	—	July 1955	1.6	4.38	.91	*90	8.10	15,878	
	do	do	do	—	—	Nov. 1956	1.3	4.38	.91	*90	0	—	
	do	do	do	—	—	Oct. 1957	1.0	3.90	.81	*90	3.24	6,357	
	do	do	do	—	—	Nov. 1958	1.1	3.90	.81	*90	0	—	
	do	do	do	—	—	Nov. 1959	1.0	10/15.08	3.13	*90	1.49	2,824	
	do	do	do	—	—	Nov. 1961	2.0	13.86	2.88	*90	4.12	8,079	
	do	do	do	—	—	Nov. 1963	2.0	13.52	2.80	*90	1.15	2,252	
	do	do	do	—	—	Nov. 1964	1.0	12.39	2.57	*90	7.64	14,966	
	do	do	do	—	—	Nov. 1965	1.0	12.06	2.50	*90	2.23	4,371	
	do	do	do	—	—	Nov. 1966	1.0	12.10	2.51	*90	2/-	—	
	do	do	do	—	—	Oct. 1967	1.0	11.53	2.39	*90	3.85	7,549	
	do	do	do	—	—	Nov. 1968	1.0	10.56	2.09	*90	6.55	12,847	
	do	do	do	—	—	Nov. 1969	1.0	10.64	2.10	*90	2/-	—	

1/ Not adjusted for numerous small reservoirs. Runoff used to compute C/I ratio was not adjusted for upstream diversion.
 2/ Period of survey was from Mar. 1948 - Mar. 1949.
 3/ Based on measured and estimated sediment inflow of 2,000,000,000 tons in 13.7 yr. period.
 4/ Estimated effective life of pond is 5 yr. 1951 - 1956.
 5/ Reservoir is off main channel. Estimate reservoir intercepts 1/3 of flow and sediment from total drainage area.
 6/ Effective life of reservoir is estimated at 8 yr. storm in 1963 filled reservoir and changed channel course.

7/ Includes deposition above spillway crest level.
 8/ Reservoir cleaned in June 1970.
 9/ Capacity increase.
 10/ Dam and spillway raised in 1959.
 * Estimated or assumed.

SUMMARY OF
RESERVOIR SEDIMENTATION SURVEYS MADE IN THE UNITED STATES THROUGH 1970

DATA SHEET NUMBER	RESERVOIR	STREAM	NEAREST TOWN	DRAINAGE AREA (SQUARE MILES)		DATE OF SURVEY	PERIOD BETWEEN SURVEYS (YEARS)	STORAGE CAPACITY (ACRE-FT.)	CAPACITY AVG. ANN. INFLOW RATIO (ACRE-FT. PER ACRE-FT.)	SPECIFIC WEIGHT (DRY) (LB. PER CU. FT.)	AVG. ANN. SEDIMENT ACCUMULATION PER SQ. MI. OF NET DR. AREA FOR PERIOD SHOWN		AGENCY SUPPLYING DATA
				TOTAL	NET						AC.-FT.	TONS	
COLORADO RIVER BASIN (ABOVE HALLS CROSSING) Gunnison, Dolores and Fremont River Basins (Continued)													
63-10	Oil Well (3-A)	Trib. of Badger Wash	Mack, Colo.	0.059	0.059	Dec. 1953	—	12.92	5.71	—	—	—	GS
	do	do	do	—	—	July 1955	1.6	12.18	5.39	*90	7.80	15,289	
	do	do	do	—	—	Nov. 1956	1.3	12.18	5.39	*90	0	—	
	do	do	do	—	—	Oct. 1957	1.0	11.90	5.26	*90	4.75	9,302	
	do	do	do	—	—	Nov. 1958	1.1	11.90	5.26	*90	0	—	
	do	do	do	—	—	Nov. 1959	1.0	11.64	5.15	*90	4.40	8,638	
	do	do	do	—	—	Nov. 1961	2.0	11.31	5.00	*90	2.71	5,482	
	do	do	do	—	—	Nov. 1963	2.0	11.25	4.98	*90	.51	997	
	do	do	do	—	—	Nov. 1964	1.0	11.21	4.96	*90	.68	1,329	
	do	do	do	—	—	Nov. 1965	1.0	10.73	4.75	*90	8.14	15,947	
	do	do	do	—	—	Nov. 1966	1.0	10.82	4.79	*90	1/—	—	
	do	do	do	—	—	Oct. 1967	1.0	10.62	4.70	*90	3.39	6,645	
	do	do	do	—	—	Nov. 1968	1.0	10.15	4.49	*90	7.96	15,615	
	do	do	do	—	—	Nov. 1969	1.0	10.13	4.48	*90	.34	664	
	do	do	do	—	—	Oct. 1970	1.0	9.99	4.42	*90	2.38	4,651	
63-11	Windy Point (A-B)	do	do	.019	.019	Dec. 1953	—	4.52	9.62	—	—	—	GS
	do	do	do	—	—	July 1955	1.6	4.31	9.17	*90	6.85	13,427	
	do	do	do	—	—	Nov. 1956	1.3	4.31	9.17	*90	0	—	
	do	do	do	—	—	Oct. 1957	1.0	4.19	8.91	*90	6.32	12,380	
	do	do	do	—	—	Nov. 1958	1.1	4.19	8.91	*90	0	—	
	do	do	do	—	—	Nov. 1959	1.0	4.16	8.85	*90	1.58	3,095	
	do	do	do	—	—	Nov. 1961	2.0	4.14	8.80	*90	.53	1,032	
	do	do	do	—	—	Nov. 1963	2.0	4.12	8.76	*90	.53	1,032	
	do	do	do	—	—	Nov. 1964	1.0	4.03	8.57	*90	4.74	9,285	
	do	do	do	—	—	Nov. 1965	1.0	3.89	8.28	*90	7.37	14,443	
	do	do	do	—	—	Nov. 1966	1.0	3.89	8.28	*90	0	—	
	do	do	do	—	—	Oct. 1967	1.0	3.81	8.11	*90	4.21	8,253	
	do	do	do	—	—	Nov. 1968	1.0	3.74	7.96	*90	3.68	7,222	
	do	do	do	—	—	Nov. 1969	1.0	3.83	8.15	*90	1/—	—	
63-12	Yucca (2-B)	do	do	.158	.158	Dec. 1953	—	8.45	2.14	—	—	—	GS
	do	do	do	—	—	July 1955	1.6	6.05	1.53	*90	9.50	18,622	
	do	do	do	—	—	Nov. 1956	1.3	6.05	1.53	*90	0	—	
	do	do	do	—	—	Oct. 1957	1.0	5.94	1.50	*90	.70	1,365	
	do	do	do	—	—	Nov. 1958	1.1	5.94	1.50	*90	0	—	
	do	do	do	—	—	Nov. 1959	1.0	2/24.80	6.28	*90	2.15	2,840	
	do	do	do	—	—	Nov. 1961	2.0	24.18	6.12	*90	1.96	3,846	
	do	do	do	—	—	Nov. 1963	2.0	23.89	6.05	*90	.95	1,110	
	do	do	do	—	—	Nov. 1964	1.0	23.45	5.94	*90	2.78	5,459	
	do	do	do	—	—	Nov. 1965	1.0	23.15	5.86	*90	1.90	3,722	
	do	do	do	—	—	Nov. 1966	1.0	23.23	5.88	*90	1/—	—	
	do	do	do	—	—	Oct. 1967	1.0	22.86	5.79	*90	2.34	4,590	
	do	do	do	—	—	Nov. 1968	1.0	21.88	5.54	*90	6.20	12,158	
	do	do	do	—	—	Nov. 1969	1.0	22.12	5.60	*90	1/—	—	
63-13	North Basin (3-B)	do	do	.048	.048	Dec. 1953	—	8.10	4.60	—	—	—	GS
	do	do	do	—	—	July 1955	1.6	7.69	4.37	*90	5.42	10,624	
	do	do	do	—	—	Nov. 1956	1.3	7.69	4.37	*90	0	—	
	do	do	do	—	—	Oct. 1957	1.0	7.58	4.31	*90	2.29	4,492	
	do	do	do	—	—	Nov. 1958	1.1	7.58	4.31	*90	0	—	
	do	do	do	—	—	Nov. 1959	1.0	7.51	4.27	*90	1.46	2,859	
	do	do	do	—	—	Nov. 1961	2.0	7.38	4.19	*90	1.46	2,654	
	do	do	do	—	—	Nov. 1963	2.0	7.10	4.03	*90	2.92	5,717	
	do	do	do	—	—	Nov. 1964	1.0	7.05	4.00	*90	1.04	2,042	
	do	do	do	—	—	Nov. 1965	1.0	6.81	3.87	*90	5.00	9,801	
	do	do	do	—	—	Nov. 1966	1.0	6.81	3.87	*90	0	—	
	do	do	do	—	—	Oct. 1967	1.0	6.54	3.72	*90	5.63	11,026	
	do	do	do	—	—	Nov. 1968	1.0	6.07	3.45	*90	9.80	19,194	
	do	do	do	—	—	Nov. 1969	1.0	6.18	3.51	*90	1/—	—	
	do	do	do	—	—	Oct. 1970	1.0	6.13	3.48	*90	1.04	2,042	

63-14	Lower Hanks (1-8)	do	do	.084	.084	Dec. 1953	19.80	8.69	--	--	--	OS
	do	do	do	--	--	July 1955	19.17	8.41	*90	4.65	9,095	
	do	do	do	--	--	Nov. 1956	19.17	8.41	*90	0	0	
	do	do	do	--	--	Oct. 1957	19.17	8.41	*90	0	0	
	do	do	do	--	--	Nov. 1958	19.17	8.41	*90	0	0	
	do	do	do	--	--	Nov. 1959	19.17	8.41	*90	0	0	
	do	do	do	--	--	Nov. 1961	18.85	8.27	*90	1.90	3,734	
	do	do	do	--	--	Nov. 1963	18.74	8.22	*90	.59	1,283	
	do	do	do	--	--	Nov. 1964	18.72	8.21	*90	.24	467	
	do	do	do	--	--	Nov. 1965	18.38	8.06	*90	4.05	7,934	
	do	do	do	--	--	Nov. 1966	18.42	8.08	*90	1/-	--	
	do	do	do	--	--	Oct. 1967	18.25	8.00	*90	2.02	3,967	
	do	do	do	--	--	Nov. 1968	17.63	7.73	*90	7.38	14,468	
	do	do	do	--	--	Nov. 1969	17.60	7.72	*90	.36	700	
63-15	Rose Mountain No. 1	Trib. Alkali Creek	Walcott, Colo.	.0116	.011	July 1965	1.877	--	--	--	--	OS
	do	do	do	--	--	Nov. 1965	.30	1.851	2.64	*90	7.91	15,500
	do	do	do	--	--	Oct. 1966	1.0	1.860	2.66	*90	1/-	--
	do	do	do	--	--	Nov. 1967	1.0	1.852	2.65	*90	.73	1,420
	do	do	do	--	--	Nov. 1968	1.0	1.842	2.63	*90	.91	1,780
	do	do	do	--	--	Nov. 1969	1.0	1.841	2.63	*90	.09	178
	do	do	do	--	--	Nov. 1970	1.0	1.837	2.62	*90	.36	710
63-16	Rose Mountain No. 3	do	do	.008	.008	July 1965	--	1.686	3.24	--	--	OS
	do	do	do	--	--	Nov. 1965	.28	1.644	3.16	*90	18.8	36,890
	do	do	do	--	--	Oct. 1966	1.0	1.651	3.18	*90	1/-	--
	do	do	do	--	--	Nov. 1967	1.0	1.634	3.14	*90	2.13	4,165
	do	do	do	--	--	Nov. 1968	1.0	1.637	3.15	*90	1/-	--
	do	do	do	--	--	Nov. 1969	1.0	1.619	3.11	*90	2.25	4,410
	do	do	do	--	--	Nov. 1970	1.0	1.613	3.10	*90	.75	1,470
63-17	Fool Creek Debris Basin	Fool Creek	Fraser, Colo.	1.11	1.11	Oct. 1951	--	--	--	--	--	FS
	do	do	do	--	--	Oct. 1952	1.0	--	--	--	.032	65.28
	do	do	do	--	--	Oct. 1953	1.0	--	--	--	.016	32.64
	do	do	do	--	--	Oct. 1954	1.0	--	--	--	--	0
	do	do	do	--	--	Oct. 1955	1.0	--	--	--	--	0
	do	do	do	--	--	Oct. 1956	1.0	--	--	--	.026	53.12
	do	do	do	--	--	Oct. 1957	1.0	--	--	--	.051	101.76
	do	do	do	--	--	Oct. 1958	1.0	--	--	--	.031	62.08
	do	do	do	--	--	Oct. 1959	1.0	--	--	--	.006	12.48
	do	do	do	--	--	Oct. 1960	1.0	--	--	--	.010	20.16
	do	do	do	--	--	Oct. 1961	1.0	--	--	--	.004	8.96
	do	do	do	--	--	Oct. 1962	1.0	--	--	--	.012	23.68
	do	do	do	--	--	Oct. 1963	1.0	--	--	--	--	0
	do	do	do	--	--	Oct. 1964	1.0	--	--	--	--	0
	do	do	do	--	--	Oct. 1965	1.0	--	--	--	.018	36.16
	do	do	do	--	--	Oct. 1966	1.0	--	--	--	.004	8.0
	do	do	do	--	--	Oct. 1967	1.0	--	--	--	.005	10.32
	do	do	do	--	--	Oct. 1968	1.0	--	--	--	.008	17.96
	do	do	do	--	--	Oct. 1969	1.0	--	--	--	.010	22.43
	do	do	do	--	--	Oct. 1970	1.0	--	--	--	.011	24.66
63-18	Deadhorse Weir	Deadhorse Creek	do	1.04	1.04	Oct. 1954	--	--	--	--	--	FS
	do	do	do	--	--	Oct. 1955	1.0	--	--	--	.003	6.4
	do	do	do	--	--	Oct. 1956	1.0	--	--	--	.012	26.88
	do	do	do	--	--	Oct. 1957	1.0	--	--	--	.016	35.52
	do	do	do	--	--	Oct. 1958	1.0	--	--	--	.006	3.2
	do	do	do	--	--	Oct. 1959	1.0	--	--	--	.004	7.68
	do	do	do	--	--	Oct. 1960	1.0	--	--	--	.004	7.68
	do	do	do	--	--	Oct. 1961	1.0	--	--	--	.001	1.60
	do	do	do	--	--	Oct. 1962	1.0	--	--	--	.009	19.84
	do	do	do	--	--	Oct. 1963	1.0	--	--	--	.001	1.28
	do	do	do	--	--	Oct. 1964	1.0	--	--	--	.001	2.24
	do	do	do	--	--	Oct. 1965	1.0	--	--	--	.005	11.20
	do	do	do	--	--	Oct. 1966	1.0	--	--	--	.001	1.28
	do	do	do	--	--	Oct. 1967	1.0	--	--	--	.0004	.83
	do	do	do	--	--	Oct. 1968	1.0	--	--	--	.001	1.81
	do	do	do	--	--	Oct. 1969	1.0	--	--	--	.002	3.46
	do	do	do	--	--	Oct. 1970	1.0	--	--	--	.005	10.71

1/ Capacity increase.
2/ Dam and spillway raised in 1959.

* Estimated or assumed.

SUMMARY OF
RESERVOIR SEDIMENTATION SURVEYS MADE IN THE UNITED STATES THROUGH 1970

DATA SHEET NUMBER	RESERVOIR	STREAM	NEAREST TOWN	DRAINAGE AREA (SQUARE MILES)		DATE OF SURVEY	PERIOD BETWEEN SURVEYS (YEARS)	STORAGE CAPACITY (ACRE-FT.)	CAPACITY AVG. ANN. INFLOW RATIO (ACRE-FT. PER ACRE-FT.)	SPECIFIC WEIGHT (DRY) (LB. PER CU. FT.)	AVG. ANN. SEDIMENT ACCUMULATION PER SQ. ML. OF NET DR. AREA FOR PERIOD SHOWN		AGENCY SUPPLYING DATA
				TOTAL	NET						AC.-FT.	TONS	
COLORADO RIVER BASIN (ABOVE HALLS CROSSING) Gunnison, Dolores and Fremont River Basins (Continued)													
63-19	Lexen Creek Weir	Lexen Creek	Fraser, Colo.	0.48	0.48	Oct. 1955	—	—	—	—	—	—	PS
	do	do	do	—	—	Oct. 1956	1.0	—	—	—	0.005	10.24	
	do	do	do	—	—	Oct. 1957	1.0	—	—	—	.009	17.92	
	do	do	do	—	—	Oct. 1958	1.0	—	—	—	.011	21.12	
	do	do	do	—	—	Oct. 1959	1.0	—	—	—	.002	3.84	
	do	do	do	—	—	Oct. 1960	1.0	—	—	—	.002	3.52	
	do	do	do	—	—	Oct. 1961	1.0	—	—	—	.0003	.64	
	do	do	do	—	—	Oct. 1962	1.0	—	—	—	.005	8.96	
	do	do	do	—	—	Oct. 1963	1.0	—	—	—	.0002	.32	
	do	do	do	—	—	Oct. 1964	1.0	—	—	—	.002	2.88	
	do	do	do	—	—	Oct. 1965	1.0	—	—	—	.003	5.76	
	do	do	do	—	—	Oct. 1966	1.0	—	—	—	.002	2.24	
	do	do	do	—	—	Oct. 1967	1.0	—	—	—	.001	1.73	
	do	do	do	—	—	Oct. 1968	1.0	—	—	—	.001	1.50	
	do	do	do	—	—	Oct. 1969	1.0	—	—	—	.001	1.50	
	do	do	do	—	—	Oct. 1970	1.0	—	—	—	.002	4.00	
63-20	East St. Louis Creek Weir	East St. Louis Creek	do	3.10	3.10	Oct. 1964	1.0	—	—	—	—	—	PS
	do	do	do	—	—	Oct. 1965	1.0	—	—	*100	.002	5.45	
	do	do	do	—	—	Oct. 1966	1.0	—	—	*100	.001	1.35	
	do	do	do	—	—	Oct. 1967	1.0	—	—	*100	.002	3.40	
	do	do	do	—	—	Oct. 1968	1.0	—	—	*100	.002	4.20	
	do	do	do	—	—	Oct. 1969	1.0	—	—	*100	.001	2.90	
	do	do	do	—	—	Oct. 1970	1.0	—	—	*100	.002	4.25	
63-21	EW-1 Roubatop Wash Watershed	Roubatop Wash	Olathe, Colo.	11.6	11.5	Dec. 1964	—	829.6	*7.0	—	—	—	SCS
	do	do	do	—	—	Nov. 1970	6	810.0	*6.9	—	.28	—	
GREEN RIVER BASIN													
64-1	Duck Fork	Ferron Creek	Ferron, Utah	3.56	3.56	— 1942	—	718	*.236	—	—	—	SCS
	do	do	do	—	—	Oct. 1962	20	1/870	*.286	*60	.14	1.83	
64-2	South Soda Creek Weir	South Soda Creek	Steamboat Springs, Colo.	3.40	3.40	Oct. 1967	—	—	—	—	—	—	PS
	do	do	do	—	—	Oct. 1968	1.0	—	—	*135	.005	13.43	
	do	do	do	—	—	Oct. 1969	1.0	—	—	*135	.0003	1.08	
	do	do	do	—	—	Oct. 1970	1.0	—	—	*135	.005	14.92	
64-3	North Fish Creek Weir	North Fish Creek	do	2.24	—	Oct. 1968	—	—	—	—	—	—	PS
	do	do	do	—	—	Oct. 1969	1.0	—	—	*135	.001	1.62	
	do	do	do	—	—	Oct. 1970	1.0	—	—	*135	.004	11.74	
64-4	West Walton Creek Weir	Trib. Walton Creek	do	1.33	1.33	Oct. 1967	—	—	—	—	—	—	PS
	do	do	do	—	—	Oct. 1968	1.0	—	—	*110	.016	38.28	
	do	do	do	—	—	Oct. 1969	1.0	—	—	*110	.006	15.07	
	do	do	do	—	—	Oct. 1970	1.0	—	—	*110	.020	47.90	
64-5	Bullwinkle	Trib. Brush Creek	Vernal, Utah	.11	.11	— 1938	—	—	—	—	—	—	SCS
	do	do	do	—	—	Oct. 1968	30	*5.0	—	*70	2/.79	1,204	
64-6	Rock Canyon	Rock Canyon	do	1.41	1.41	— 1936	—	—	—	—	—	—	SCS
	do	do	do	—	—	Oct. 1968	22	*5.0	—	*60	.011	14	
64-7	Miles Haslem Pond	Trib. Steinkjer Draw	do	.095	.095	— 1932	—	—	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1967	15	*2.0	—	*70	2/.67	1,021	
64-8	Manser Reservoir	Trib. Twelve Mile Wash	do	.65	.65	— 1942	—	—	—	—	—	—	SCS
	do	do	do	—	—	May 1968	26	*8.0	—	*90	2/.23	450	
GREAT SALT LAKE BASIN													
65-1	East Canyon	East Canyon Creek	Morgan, Utah	144	144	— 1896	—	1/3,850	.098	—	—	—	BB
	do	do	do	—	—	Oct. 1954	58	28,730	.733	1/77.1	.124	208	
65-2	Echo	Weber River	Echo, Utah	732	732	Oct. 1930	—	75,718	.373	—	—	—	BB
	do	do	do	—	—	Oct. 1954	24	73,900	.364	1/71	.104	161	
65-3a	Santaquin Debris Basin	Summit Creek	Santaquin, Utah	17.65	13.5	Fall 1954	—	*84	.008	—	—	—	SCS
	do	do	do	—	—	Dec. 1957	3	*65	.006	*90	.47	921	
SEVIER RIVER BASIN													
66-1	Booby Hole	Booby Hole Creek	Koonsharen, Utah	5.0	4.9	— 1895	—	607	—	—	—	—	SCS
	do	do	do	—	—	Oct. 1940	75	598	—	—	.024	—	

66-2	Indian Creek No. 1	Indian Creek	Beaver, Utah	12.0	11.95	--	1898	--	318	--	--	--	--	SCS
	do	do	do	--	--	Nov.	1940	42	299	--	--	.038	--	SCS
66-3	Rocky Ford	Beaver River	do	510	508	Feb.	1915	--	23,260	--	--	--	--	SCS
	do	do	do	--	--	Nov.	1940	25.8	21,509	--	--	.134	--	SCS
66-4	Rocky Ford	Sevier River	Sigurd, Utah	900	900	--	1890	--	2,115	--	--	.029	--	SCS
	do	do	do	--	--	Nov.	1940	50	790	--	--	--	--	SCS
66-5	Skutumpah	Skutumpah Creek	Salina, Utah	10.0	9.92	--	1893	--	667	--	--	.508	--	SCS
	do	do	do	--	--	Nov.	1940	47	430	--	--	--	--	SCS
66-6	Enterprise	Pine Creek	Enterprise, Utah	25.0	23.4	--	1909	--	9,000	--	--	--	--	SCS
	do	do	do	--	--	Nov.	1940	31	8,550	--	--	.620	--	SCS
66-7	Yankee Meadows	Pole Creek	Parowan, Utah	7.0	6.9	Dec.	1926	--	2,500	--	--	--	--	SCS
	do	do	do	--	--	Nov.	1940	14	2,200	--	--	3.10	--	SCS
66-8	Piute	Sevier River	Marysville, Utah	2,440	2,436	--	19105/	--	81,200	--	--	.106	--	SCS
	do	do	do	--	--	--	1938	28	74,010	--	--	--	--	SCS
66-9	Sevier Bridge	do	Nephi, Utah	5,120	1,089	--	1908	--	250,000	--	--	--	--	SCS
	do	do	do	--	--	--	1932	24	234,462	--	--	.594	--	SCS
66-10	Chalk Creek Debris Basin	Chalk Creek	Pillmore, Utah	60.8	*60	July	1936	.5	44,12	.002	*70	6/.73	1,112.9	SCS
	do	do	do	--	--	--	1946	10	0	0	*75	7/.14	228.7	SCS
	do	do	do	--	--	Mar.	1955	8.5	0	0	75	--	--	SCS
66-11a	Fiddlers Canyon Debris Basin	Fiddlers Canyon	Cedar City, Utah	12.6	12.6	--	1947	--	--	--	--	--	--	SCS
	do	do	do	--	--	Nov.	1956	9	*15.00	*.089	*70	8/.145	221	SCS
66-12a	Mill Canyon Retarding Structure	Mill Canyon	Glenwood, Utah	19.5	19.5	Dec.	1957	--	208	*1.600	--	--	--	SCS
	do	do	do	--	--	Dec.	1960	3	186	*1.431	*70	.38	578	SCS

GREAT BASIN (NORTHWESTERN PART IN CALIFORNIA, NEVADA AND OREGON)

67-

GREAT BASIN
Humboldt, Carson, and Truckee River Basins

68-1	Willow Creek	Willow Creek	Elko, Nev.	112	111	--	1924	--	15,300	--	--	--	--	SCS
	do	do	do	--	--	Sept.	1939	15	15,050	--	--	.15	--	SCS
68-2	Elko Summit Reservoir No. 1	(ephemeral)	do	1.25	1.25	Mar.	1941	--	7.44	.223	--	.04	--	SCS
	do	do	do	--	--	Aug.	1963	22.4	6.38	.192	66	.04	57.5	SCS
68-3	Elko Summit Reservoir No. 2	do	do	.63	.63	Aug.	1945	--	5.45	.324	--	--	--	SCS
	do	do	do	--	--	Aug.	1963	18	4.96	.295	66.9	.05	73	SCS
68-4	Dorsey Creek Reservoir	Dorsey Creek	do	9.16	9.14	Oct.	1952	--	131	.358	--	--	--	SCS
	do	do	do	--	--	Sept.	1963	10.9	128	.350	56.9	8/.12	8/149	SCS

GREAT BASIN
Owens, Walker, and Mono Lake Drainages

69-1	Weber	Walker River	Shurs, Nev.	2,800	2,440	Sept.	1935	--	13,200	--	--	--	--	SCS
	do	do	do	--	--	Sept.	1939	4	12,980	--	--	.02	--	SCS

SALTON SEA AND SOUTHERN CALIFORNIA COASTAL AND GREAT BASIN DRAINAGE

70-1a	Fullerton Flood-Control Basin	Fullerton Creek	Brea, Calif.	9/5.05	2/4.95	Oct.	1941	--	753.5	--	--	--	--	CR
	do	do	do	--	--	Nov.	1944	3.1	743.0	--	--	.69	--	SCS
	do	do	do	--	--	Mar.	1962	17.3	706.3	--	--	.42	--	SCS
70-2	Lake Hodges	San Dieguito River	Escondido, Calif.	303	301	Jan.	1919	--	36,601	--	--	--	--	SCS
	do	do	do	--	--	July	1935	16.5	34,779	--	*65	.365	517	SCS
	do	do	do	--	--	July	1948	13.0	33,482	--	--	.332	470	SCS
70-3	Railroad Canyon	San Jacinto River	Elsinore, Calif.	718	651	May	1928	--	12,218	--	--	--	--	SCS
	do	do	do	--	--	June	1939	11	12,034	--	*60	.03	39	SCS
70-4	Lake Sherwood	Triunfo Creek	Hollywood, Calif.	16	15.7	--	1905	--	2,870	--	--	--	--	SCS
	do	do	do	--	--	Mar.	1936	31	2,792	--	*50	.16	174	SCS
	do	do	do	--	--	Mar.	1938	2	2,772	--	--	.64	697	SCS
70-5	Stone Canyon	Stone Canyon Creek	Sawtelle, Calif.	1.36	1.16	May	1921	--	7,998	--	--	--	--	SCS
	do	do	do	--	--	June	1939	18.1	7,949	--	*60	2.34	3,058	SCS
70-6	Bonita Canyon	Bonita Creek	Orange, Calif.	4.00	4.00	Jan.	1938	--	526	--	--	--	--	SCS
	do	do	do	--	--	June	1939	10/2	305	--	*60	2.63	3,437	SCS

1/ Dam was raised about 6 ft. in 1952.

2/ Includes above crest deposits.

3/ Formed by original rock-filled dam 58 feet high, which was subsequently raised in 1900, 1902, and 1916.

4/ Computed from Size Analysis.

5/ Original survey made in 1908.

6/ Basin filled with sediment by one summer flash flood.

7/ Has no meaning as a large portion of the sediment passed through the basin.

8/ Includes some deposition above crest of spillway.

9/ Drainage area and sediment contributing area were increased when Loftus diversion channel was completed on Dec. 21, 1954.

10/ Based on runoff seasons.

* Estimated or assumed.

SUMMARY OF
RESERVOIR SEDIMENTATION SURVEYS MADE IN THE UNITED STATES THROUGH 1970

DATA SHEET NUMBER	RESERVOIR	STREAM	NEAREST TOWN	DRAINAGE AREA (SQUARE MILES)		DATE OF SURVEY	PERIOD BETWEEN SURVEYS (YEARS)	STORAGE CAPACITY (ACRE-FT.)	CAPACITY AVG. ANN. INFLOW RATIO (ACRE-FT. PER ACRE-FT.)	SPECIFIC WEIGHT (DRY) (LB. PER CU. FT.)	AVG. ANN. SEDIMENT ACCUMULATION PER SQ. MI. OF NET DR. AREA FOR PERIOD SHOWN		AGENCY SUPPLYING DATA
				TOTAL	NET						AC.-FT.	TONS	
SALTION SEA AND SOUTHERN CALIFORNIA COASTAL AND GREAT BASIN DRAINAGE (Continued)													
70-7	Bouquet Canyon	Bouquet Creek	San Fernando, Calif.	12.6	11.6	Mar. 1934	—	36,500	—	—	—	—	SCS
70-8a	Chatsworth	Trib. of Los Angeles River	do	5.40	4.45	June 1939	1/5	36,436	—	*40	1.10	958	SCS
70-9	Lake Hemet	Trib. of San Jacinto River	Hemet, Calif.	66.0	65.3	June 1939	21	10,077	—	*40	.51	444	SCS
70-10	Laguna	Trib. of Newport Bay	Orange, Calif.	.75	.72	June 1939	48	14,000	—	—	—	—	SCS
70-11	Encino	Encino Creek	Los Angeles, Calif.	1.42	1.30	June 1939	1/2	11,702	—	*75	.73	1,190	SCS
70-12	Fairmont	Antelope Valley River	Lancaster, Calif.	2.64	2.37	June 1939	18	274	—	*40	5.56	4,840	SCS
70-13b	Little Rock Irrigation Dist.	Little Rock Creek	Palmdale, Calif.	60.0	67.84	Oct. 1913	—	3,229	—	—	—	—	SCS
	do	do	do	—	—	June 1939	1/26	3,210	—	*40	.815	710	SCS
	do	do	do	—	—	Apr. 1924	—	7,487	—	—	—	—	SCS
	do	do	do	—	—	Jan. 1936	1/11.0	7,393	—	—	1.53	—	SCS
	do	do	do	—	—	June 1938	3.0	4,217	—	*85	.10	185	—
	do	do	do	—	—	Oct. 1943	5.0	4,139	—	—	2.41	4,460	—
	do	do	do	—	—	Dec. 1946	3.0	3,648	—	—	.72	1,330	—
	do	do	do	—	—	Oct. 1951	5.0	3,404	—	—	.25	460	—
	do	do	do	—	—	Aug. 1953	2.2	3,352	—	*85	.15	278	—
70-14a	Live Oak Dam	Live Oak Creek	LaVerne, Calif.	2.3	2.3	—	1919/	3,297	—	*85	3/—	2/—	CE
	do	do	do	—	—	Mar. 1929	6.3	3,313	—	—	—	—	—
	do	do	do	—	—	Mar. 1936	7.0	247	—	—	0	—	—
	do	do	do	—	—	May 1938	2.1	242	—	—	.31	—	—
	do	do	do	—	—	Nov. 1952	14.5	228	—	—	2.90	—	—
	do	do	do	—	—	Dec. 1961	9.0	221	—	—	.21	—	—
	do	do	do	—	—	Dec. 1962	1.0	170	—	—	2.46	—	—
	do	do	do	—	—	Mar. 1967	4.3	166	—	—	1.74	—	—
	do	do	do	—	—	Jan. 1969	1.75	1,221.8	1.33	—	2.83	—	—
	do	do	do	—	—	Oct. 1970	1.75	197.1	1.11	—	6.13	—	—
70-15	Morana	Cottonwood Creek	San Diego, Calif.	112.0	109.4	Mar. 1910	—	251.1	1.13	—	5.70	—	SCS
	do	do	do	—	—	Mar. 1910	—	66,767	—	—	—	—	—
	do	do	do	—	—	Dec. 1935	25.7	60,699	—	*60	2.16	2,823	—
	do	do	do	—	—	July 1948	12.6	58,733	—	—	1.28	1,673	—
70-16b	Prado Flood-Control Reservoir	Santa Ana River	Corona, Calif.	2,233	1,131	Sept. 1941	—	222,840	—	—	—	—	CE
	do	do	do	—	—	Aug. 1960	18.9	216,960	—	—	.275	—	—
70-17	Mockingbird Canyon 5/	Mockingbird Canyon	Arlington, Calif.	11.6	11.5	—	1914	91,000	—	—	—	—	SCS
	do	do	do	—	—	Mar. 1940	26	961	—	*60	.130	170	—
70-18a	Ransen Flood-Control Basin	Tujunga Creek	San Fernando, Calif.	147	146	Sept. 1940	—	35,800	2.06	—	—	—	CE
	do	do	do	—	—	July 1941	.8	35,200	2.02	—	4.10	—	—
	do	do	do	—	—	Oct. 1943	2.3	34,100	1.96	—	3.78	—	—
	do	do	do	—	—	Nov. 1945	2.1	33,500	1.92	—	2.06	—	—
	do	do	do	—	—	Jan. 1962	16.2	33,265	1.91	—	.10	—	—
	do	do	do	—	—	Aug. 1969	7.58	29,700	1.71	—	3.22	—	—
70-19	Brea F. C. Basin	Brea Creek	Fullerton, Calif.	23.4	23.1	Mar. 1942	—	4,168	3.97	—	—	—	CE
	do	do	do	—	—	Oct. 1949	7.5	4,097	3.90	—	.41	—	—
70-20c	Cogswell (San Gabriel Dam #2)	San Gabriel River	Asusa, Calif.	39.2	39.0	Apr. 1935	—	12,881	—	—	—	—	CE
	do	do	do	—	—	Jan. 1936	.8	12,298	—	—	—	—	—
	do	do	do	—	—	Apr. 1938	2.2	10,786	—	—	17.6	—	—
	do	do	do	—	—	Nov. 1939	1.6	11,029	—	—	6/—	—	—
	do	do	do	—	—	Nov. 1940	1.0	11,102	—	—	8/—	—	—
	do	do	do	—	—	Nov. 1941	1.0	10,915	—	—	4.79	—	—
	do	do	do	—	—	Oct. 1943	1.9	10,501	—	—	5.59	—	—
	do	do	do	—	—	Jan. 1945	1.2	10,536	—	—	6/—	—	—
	do	do	do	—	—	Sept. 1946	1.7	10,597	—	—	6/—	—	—
	do	do	do	—	—	Sept. 1947	1.0	10,634	—	—	8/—	—	—
	do	do	do	—	—	Dec. 1957	10.2	10,585	—	—	.12	—	—
	do	do	do	—	—	Oct. 1958	.7	10,446	.612	*85	2.48	—	—
	do	do	do	—	—	Nov. 1962	4.1	10,228	.643	—	1.4	—	—
	do	do	do	—	—	June 1966	3.7	9,999	.642	—	1.62	—	—
	do	do	do	—	—	Mar. 1969	2.75	9,339	.512	—	6.15	—	—
70-21d	San Gabriel Dam No. 1	do	do	203	2/203	—	1937	8/53,344	—	—	—	—	CE
	do	do	do	—	—	Oct. 1938	.9	47,191	—	—	28.1	—	—
	do	do	do	—	—	Nov. 1940	2.1	46,335	—	—	1.68	—	—
	do	do	do	—	—	Sept. 1941	.8	45,862	—	—	—	—	—
	do	do	do	—	—	Oct. 1942	1.0	45,759	—	—	.43	—	—
	do	do	do	—	—	Sept. 1943	1.0	44,032	—	—	7.13	—	—
	do	do	do	—	—	Oct. 1944	1.1	44,388	—	—	—	—	—
	do	do	do	—	—	Nov. 1945	1.0	44,342	—	—	.19	—	—
	do	do	do	—	—	Nov. 1948	3.0	43,825	—	—	.97	—	—
	do	do	do	—	—	Nov. 1951	3.0	43,928	—	—	.23	—	—
	do	do	do	—	—	Jan. 1953	1.2	43,853	—	—	.94	—	—

	do	do	do	--	--	May 1954	1.3	44,013	--	--	.127	--
	do	do	do	--	--	Aug. 1958	4.3	44,614	--	--	.193	--
	do	do	do	--	--	Sept. 1961	3.1	44,366	--	--	.329	--
	do	do	do	--	--	Nov. 1962	1.2	43,642	.51	--	2.49	--
	do	do	do	--	--	Dec. 1965	3.1	42,371	.49	--	2.02	--
	do	do	do	--	--	Apr. 1966	.3	42,075	.51	--	--	--
	do	do	do	--	--	Aug. 1967	1.3	40,697	.46	--	5.22	--
	do	do	do	--	--	Feb. 1969	1.5	38,778	.45	--	8.86	--
	do	do	do	--	--	May 1969	.25	36,748	.42	--	--	--
	do	do	do	--	--	Oct. 1969	.42	37,822	.43	--	--	--
	do	do	do	--	--	Oct. 1970	1.0	41,549	.48	--	--	--
70-22b	Morris Reservoir	do	do	211.3	2/210.7	Jan. 1934	--	39,316	--	--	--	CE
	do	do	do	--	--	Jan. 1936	2.1	38,692	.45	--	1.41	--
	do	do	do	--	--	Feb. 1938	2.1	37,175	.43	--	3.43	--
	do	do	do	--	--	Oct. 1938	.7	36,655	.43	--	3.53	--
	do	do	do	--	--	Dec. 1949	11.2	35,174	.41	--	.63	--
	do	do	do	--	--	Sept. 1956	6.8	34,861	.41	--	.22	--
	do	do	do	--	--	Nov. 1960	4.2	33,827	.40	--	1.17	--
	do	do	do	--	--	Jan. 1967	6.2	32,961	.39	--	.66	--
	do	do	do	--	--	Oct. 1970	3.8	30,085	.35	--	3.59	--
70-23b	San Dimas F. C. Basin	San Dimas Wash	San Dimas, Calif.	16.2	16.1	Sept. 1922	--	4/1,496	--	--	--	CE
	do	do	do	--	--	Dec. 1935	13.2	1,373	--	--	.58	--
	do	do	do	--	--	Oct. 1938	2.9	1,155	--	--	4.67	--
	do	do	do	--	--	Nov. 1939	1.0	1,189	--	--	--	--
	do	do	do	--	--	Dec. 1941	2.1	1,145	--	--	1.30	--
	do	do	do	--	--	Oct. 1943	1.9	1,071	--	--	2.42	--
	do	do	do	--	--	Nov. 1944	1.0	1,042	--	--	1.80	--
	do	do	do	--	--	Oct. 1954	9.8	1,025	--	--	.11	--
	do	do	do	--	--	Nov. 1961	7.1	705	.25	--	2.80	--
	do	do	do	--	--	Apr. 1962	.4	729	.28	--	--	--
	do	do	do	--	--	Aug. 1966	4.3	1,234	.49	--	16.0	--
	do	do	do	--	--	Apr. 1967	.7	1,129	.25	--	--	--
	do	do	do	--	--	Jan. 1969	1.75	847	.32	--	10.0	--
	do	do	do	--	--	Feb. 1969	.08	756	.29	--	--	--
70-24c	Puddingstone Diversion Dam	do	do	19.9	19/19.7	Nov. 1970	1.75	1,515	.47	--	1.12	CE
	do	do	do	--	--	Oct. 1929	--	4/148	.06	--	--	--
	do	do	do	--	--	Jan. 1936	6.25	121	.05	--	1.66	--
	do	do	do	--	--	Mar. 1938	2.17	50	.02	--	12.58	--
	do	do	do	--	--	Nov. 1939	1.66	76	.03	--	--	--
	do	do	do	--	--	Oct. 1942	2.92	101	.04	--	--	--
	do	do	do	--	--	Sept. 1944	1.92	112	.05	--	--	--
	do	do	do	--	--	Jan. 1952	7.33	119	.05	--	--	--
	do	do	do	--	--	Sept. 1953	1.67	138	.06	--	--	--
	do	do	do	--	--	Sept. 1962	9.0	203	.09	--	.28	--
	do	do	do	--	--	May 1966	3.67	125	.05	--	1.07	--
	do	do	do	--	--	Oct. 1967	1.41	200	.08	--	2.03	--
	do	do	do	--	--	Jan. 1969	1.25	74	.03	--	5.13	--
	do	do	do	--	--	Mar. 1969	.17	42	.02	--	--	--
	do	do	do	--	--	Nov. 1970	1.66	156.3	.07	--	1.69	--
70-25a	Puddingstone Dam F. C. Basin	Puddingstone Creek	do	32.2	11/11.0	--	1915	--	17,398	--	--	CE
	do	do	do	--	--	--	1927	0	17,398	--	--	--
	do	do	do	--	--	Jan. 1941	13	17,190	--	--	1.45	--
70-26c	Big Dalton F. C. Basin	Big Dalton Creek	Glendora, Calif.	4.5	4.5	Jan. 1930	--	4/1,194	--	--	--	CE
	do	do	do	--	--	Sept. 1931	1.7	1,039	--	--	20.26	--
	do	do	do	--	--	Jan. 1935	3.3	1,053	--	--	--	--
	do	do	do	--	--	Mar. 1938	3.1	969	--	--	6.02	--
	do	do	do	--	--	Sept. 1943	5.5	953	--	--	.65	--
	do	do	do	--	--	Oct. 1944	1.0	952	--	--	.22	--
	do	do	do	--	--	Oct. 1958	14.0	951	--	--	.02	--
	do	do	do	--	--	Nov. 1961	3.1	880	1.25	--	5.09	--
	do	do	do	--	--	Jan. 1962	.2	869	1.24	--	--	--
	do	do	do	--	--	Aug. 1966	4.7	752	1.14	--	5.53	--
	do	do	do	--	--	Apr. 1967	.7	692	1.05	--	--	--
	do	do	do	--	--	Jan. 1969	1.75	515	.78	--	.225	--
	do	do	do	--	--	Mar. 1969	.17	452	.68	--	--	--

1/ Based on runoff seasons.

2/ Not computed because of occur during period.

3/ Normal operation began 1922.

4/ Sediment removed at various times.

5/ Equalizing reservoir on Gage Canal System obtaining water from the Santa Ana River.

6/ No record of quantities sluiced.

7/ Includes San Gabriel Dams drainage area 39.2 sq. mi. as sediment is sluiced into San Gabriel Dam 1 drainage area.

8/ Storage capacity is regained by sluicing at various times.

9/ Includes Cogswell and San Gabriel Dam #1. (Drainage area 203 sq. mi.) Sediment sluiced into this area.

10/ Includes San Dimas drainage area (16.2 sq. mi.). Sediment sluiced into this area.

11/ 21.1 sq. mi. controlled by San Dimas, Live Oak Dam, and Puddingstone Diversion Dams.

* Estimated or assumed.

SUMMARY OF
RESERVOIR SEDIMENTATION SURVEYS MADE IN THE UNITED STATES THROUGH 1970

DATA SHEET NUMBER	RESERVOIR	STREAM	NEAREST TOWN	DRAINAGE AREA (SQUARE MILES)		DATE OF SURVEY	PERIOD BETWEEN SURVEYS (YEARS)	STORAGE CAPACITY (ACRE-FT.)	CAPACITY AVG. ANN. INFLOW RATIO (ACRE-FT. PER ACRE-FT.)	SPECIFIC WEIGHT (DRY) (LB. PER CU. FT.)	AVG. ANN. SEDIMENT ACCUMULATION PER SQ. MI. OF NET DR. AREA FOR PERIOD SHOWN		AGENCY SUPPLYING DATA
				TOTAL	NET						AC.-FT.	TONS	
SALTON SEA AND SOUTHERN CALIFORNIA COASTAL AND GREAT BASIN DRAINAGE (Continued)													
70-27c	Big Santa Anita F. C. Basin	Santa Anita Creek	Arcadia, Calif.	10.8	10.8	1923	—	1/1,376	—	—	—	—	CE
	do	do	do	—	—	Feb. 1935/	7.9	1,068	—	—	3.61	—	
	do	do	do	—	—	Feb. 1936	1.0	1,014	—	—	5.00	—	
	do	do	do	—	—	July 1938	2.4	688	—	—	12.6	—	
	do	do	do	—	—	Feb. 1940	1.6	710	—	—	7.18	—	
	do	do	do	—	—	Feb. 1942	2.0	701	—	—	1.43	—	
	do	do	do	—	—	Mar. 1943	1.1	568	—	—	11.2	—	
	do	do	do	—	—	Sept. 1943	.5	604	—	—	—	—	
	do	do	do	—	—	May 1944	.7	697	—	—	—	—	
	do	do	do	—	—	Jan. 1947	2.7	728	—	—	.44	—	
	do	do	do	—	—	Dec. 1952	5.9	728	—	—	.22	—	
	do	do	do	—	—	July 1954	1.6	584	—	—	9.15	—	
	do	do	do	—	—	Feb. 1956	1.5	613	—	—	1.30	—	
	do	do	do	—	—	Sept. 1958	2.6	587	—	—	.94	—	
	do	do	do	—	—	Apr. 1962	3.6	630	.16	—	3.31	—	
	do	do	do	—	—	Sept. 1966	4.4	552	.14	—	1.90	—	
	do	do	do	—	—	Oct. 1968	2.1	600	.14	—	3.09	—	
	do	do	do	—	—	Mar. 1969	.42	258	.06	—	—	—	
	do	do	do	—	—	Nov. 1970	1.67	836	.16	—	.94	—	
70-28c	Big Tujunga F. C. Basin	Big Tujunga Creek	Sunland, Calif.	82.3	82.2	1931	—	1/6,240	—	—	—	—	CE
	do	do	do	—	—	May 1938	6.9	4,734	—	—	2.65	—	
	do	do	do	—	—	Oct. 1939	1.5	4,488	—	—	2.00	—	
	do	do	do	—	—	Feb. 1940	.3	4,568	—	—	2.64	—	
	do	do	do	—	—	July 1941	1.5	4,425	—	—	7.33	—	
	do	do	do	—	—	Feb. 1943	1.5	4,043	—	—	3.10	—	
	do	do	do	—	—	Apr. 1943	.2	4,236	.28	—	—	—	
	do	do	do	—	—	June 1944	1.1	4,235	.28	—	2.19	—	
	do	do	do	—	—	Oct. 1953	9.3	4,099	.27	—	.18	—	
	do	do	do	—	—	June 1958	4.8	4,123	.27	—	.28	—	
	do	do	do	—	—	July 1962	4.1	4,065	.26	—	.40	—	
	do	do	do	—	—	Oct. 1966	4.25	3,819	.25	—	.71	—	
	do	do	do	—	—	Feb. 1969	2.33	2,758	.18	—	6.03	—	
	do	do	do	—	—	Oct. 1970	1.67	6,027	.39	—	—	—	
70-29b	Devil's Gate F. C. Basin	Arroyo Seco River	Pasadena, Calif.	31.9	31.7	1916	—	1/4,601	—	—	—	—	CE
	do	do	do	—	—	June 1933	13.0	4,554	—	—	.11	—	
	do	do	do	—	—	Sept. 1934	1.2	4,127	—	—	11.15	—	
	do	do	do	—	—	Jan. 1935	.3	3,996	—	—	13.69	—	
	do	do	do	—	—	June 1938	3.5	2,967	—	—	9.22	—	
	do	do	do	—	—	Jan. 1942	3.6	2,728	—	—	2.08	—	
	do	do	do	—	—	Jan. 1943	1.0	2,504	.38	—	5.02	—	
	do	do	do	—	—	Fall 1948	5.7	2,561	.39	—	1.25	—	
	do	do	do	—	—	July 1952	3.8	2,630	.40	—	1.86	—	
	do	do	do	—	—	Sept. 1955	3.3	2,709	.41	—	.58	—	
	do	do	do	—	—	Dec. 1959	4.2	2,839	.43	—	.63	—	
	do	do	do	—	—	May 1961	1.4	2,886	.44	—	4.87	—	
	do	do	do	—	—	May 1962	1.0	2,749	.42	—	9.59	—	
	do	do	do	—	—	Sept. 1966	4.3	2,598	.50	—	4.20	—	
	do	do	do	—	—	Nov. 1969	3.2	2,002	.30	—	7.32	—	
70-30d	Eaton Wash (Eaton Wash Dam)	Eaton Creek	—	9.5	9.4	1936	—	1/956	—	—	—	—	CE
	do	do	do	—	—	Feb. 1937	1.0	945	—	—	1.17	—	
	do	do	do	—	—	May 1938	1.3	698	—	—	20.2	—	
	do	do	do	—	—	Dec. 1938	.6	699	—	—	—	—	
	do	do	do	—	—	Oct. 1940	1.8	711	—	—	—	—	
	do	do	do	—	—	Aug. 1941	.8	681	—	—	—	—	
	do	do	do	—	—	Sept. 1942	1.1	722	—	—	—	—	
	do	do	do	—	—	Oct. 1943	1.1	632	.29	—	12.7	—	
	do	do	do	—	—	Oct. 1944	1.0	607	.27	—	2.7	—	
	do	do	do	—	—	Oct. 1946	2.0	674	.31	—	0	—	
	do	do	do	—	—	June 1947	.7	661	.30	—	2.0	—	
	do	do	do	—	—	June 1950	3.0	665	.30	—	0	—	
	do	do	do	—	—	Jan. 1952	1.6	703	.32	—	0.1	—	
	do	do	do	—	—	May 1957	5.3	655	.30	—	1.0	—	
	do	do	do	—	—	Nov. 1958	1.5	725	.33	—	.50	—	
	do	do	do	—	—	Sept. 1961	2.9	807	.37	—	2.48	—	
	do	do	do	—	—	Oct. 1963	2.0	828	.37	—	.53	—	
	do	do	do	—	—	Feb. 1964	.2	872.8	.40	—	—	—	
	do	do	do	—	—	Apr. 1966	2.2	769.7	.35	—	4.98	—	
	do	do	do	—	—	July 1967	1.3	758.4	.34	—	6.49	—	
	do	do	do	—	—	Dec. 1969	2.4	879	.40	—	11.3	—	

70-31c	Pacoima F. C. Basin	Pacoima Canyon	San Fernando, Calif.	28.2	28.2	Oct. 1929	—	1/6,060	—	—	—	—	CE
	do	do	do	—	—	Jan. 1936	6.3	5,592	—	—	2.63	—	
	do	do	do	—	—	Mar. 1938	2.2	5,006	—	—	9.47	—	
	do	do	do	—	—	Oct. 1942	4.6	4,837	—	—	1.29	—	
	do	do	do	—	—	Dec. 1944	2.1	4,714	—	—	2.84	—	
	do	do	do	—	—	Oct. 1954	9.8	4,787	—	—	.15	—	
	do	do	do	—	—	June 1958	3.8	4,651	—	—	2.97	—	
	do	do	do	—	—	May 1962	3.9	4,581	.83	—	.64	—	
	do	do	do	—	—	Aug. 1966	4.25	4,453	.81	—	1.08	—	
	do	do	do	—	—	Mar. 1969	2.58	3,841	.70	—	8.40	—	
70-32	Santiago	Santiago Creek	Villa Park, Calif.	60	62.1	Dec. 1931	—	25,000	1,619	—	—	—	CE
70-33b	Sawpit F. C. Basin	Sawpit Creek	Monrovia, Calif.	3.3	3.3	Sept. 1948	16.8	24,849	1,609	—	.15	—	CE
	do	do	do	—	—	19231/	—	1/476	—	—	—	—	
	do	do	do	—	—	Oct. 1935	8.3	389	—	—	3.18	—	
	do	do	do	—	—	May 1938	2.6	320	—	—	8.03	—	
	do	do	do	—	—	May 1941	3.0	342	—	—	2.94	—	
	do	do	do	—	—	Dec. 1943	2.6	322	—	—	3.03	—	
	do	do	do	—	—	Mar. 1954	10.2	305	—	—	.51	—	
	do	do	do	—	—	Sept. 1959	5.5	289	—	—	3.03	—	
	do	do	do	—	—	May 1962	2.7	271.8	.52	—	1.91	—	
	do	do	do	—	—	Aug. 1964	2.2	308.5	.61	—	5.09	—	
	do	do	do	—	—	July 1966	1.9	284.3	.55	—	3.82	—	
	do	do	do	—	—	May 1967	.7	269.2	.48	—	—	—	
	do	do	do	—	—	Nov. 1969	2.7	391.0	.47	—	16.39	—	
70-34b	Sierra Madre Debris Dam	Little Santa Anita Creek	Sierra Madre, Calif.	2.39	2.39	Feb. 1928	—	1/50.3	—	—	—	—	CE
	do	do	do	—	—	Feb. 1930	2.0	50.3	—	—	—	—	
	do	do	do	—	—	Feb. 1932	2.0	47.4	—	—	.61	—	
	do	do	do	—	—	Nov. 1939	7.8	34.4	—	—	.70	—	
	do	do	do	—	—	Jan. 1944	4.1	44.3	—	—	—	—	
	do	do	do	—	—	Oct. 1944	.8	42.4	—	—	1.00	—	
	do	do	do	—	—	Oct. 1956	12.0	40.6	—	—	1.95	—	
	do	do	do	—	—	Sept. 1969	13.0	—	—	—	4/2.10	—	
	do	do	do	—	—	Sept. 1970	1.0	—	—	—	1.53	—	
70-35b	Thompson Creek F. C. Basin	Thompson Creek	Claremont, Calif.	3.5	3.5	—	1916	1/692	3.51	—	—	—	CE
	do	do	do	—	—	Oct. 1932	5/4.6	64.3	3.26	—	3.04	—	
	do	do	do	—	—	Jan. 1943	10.3	612	3.11	—	.86	—	
	do	do	do	—	—	Sept. 1954	11.7	571	2.90	—	1.00	—	
	do	do	do	—	—	Jan. 1957	3.3	566	2.87	—	.86	—	
	do	do	do	—	—	June 1957	.4	570	2.89	—	—	—	
	do	do	do	—	—	Dec. 1959	1.5	578	2.93	—	—	—	
	do	do	do	—	—	July 1962	2.6	554	2.81	—	2.64	—	
	do	do	do	—	—	Feb. 1967	4.6	510	2.59	—	2.73	—	
	do	do	do	—	—	Feb. 1969	2.0	448	2.27	—	8.93	—	
70-36c	Wilbur Ave. Debris Basin	Aliso Creek	Northridge, Calif.	8.63	8.63	June 1942	—	1/—	—	—	4/—	—	CE
	do	do	do	—	—	Sept. 1943	1.33	—	—	—	2.37	—	
	do	do	do	—	—	Sept. 1944	1	—	—	—	2.72	—	
	do	do	do	—	—	Sept. 1947	3.0	—	—	—	.85	—	
	do	do	do	—	—	Sept. 1950	3.0	—	—	—	.25	—	
	do	do	do	—	—	Sept. 1952	2	—	—	—	2.09	—	
	do	do	do	—	—	Sept. 1957	5	—	—	—	.47	—	
	do	do	do	—	—	Sept. 1960	3	—	—	—	.90	—	
	do	do	do	—	—	Sept. 1962	2	—	—	—	1.29	—	
	do	do	do	—	—	Sept. 1965	3	—	—	—	.41	—	
	do	do	do	—	—	Sept. 1966	1	—	—	—	3.99	—	
	do	do	do	—	—	Sept. 1967	1	—	—	—	2.35	—	
	do	do	do	—	—	Sept. 1968	1	—	—	—	2.17	—	
	do	do	do	—	—	Sept. 1969	1	—	—	—	2.72	—	
70-37b	Altadena Debris Basin	Rubio Wash	Altadena, Calif.	.65	.65	Sept. 1947	1	1/—	—	—	4/1.34	—	CE
	do	do	do	—	—	Sept. 1948	1	—	—	—	1.92	—	
	do	do	do	—	—	Sept. 1949	1	—	—	—	1.35	—	
	do	do	do	—	—	Sept. 1950	1	—	—	—	1.58	—	
	do	do	do	—	—	Mar. 1952	1.5	—	—	—	1.75	—	
	do	do	do	—	—	Feb. 1956	3.9	—	—	—	1.11	—	
	do	do	do	—	—	Sept. 1957	1.6	—	—	—	1.23	—	
	do	do	do	—	—	Apr. 1958	.6	—	—	—	8.97	—	
	do	do	do	—	—	Sept. 1959	1.4	—	—	—	2.57	—	

1/ Sediment is removed at various times by sluicing and/or excavation.

2/ Date normal operation began - Mar. 1927.

3/ Date normal operation began - June 1927.

4/ Sedimentation values as computed by Los Angeles County FCD are based on complete water year.

5/ Storage and surface area assumed same at time of initial normal operations, Mar. 1928 as in 1916 survey.

6/ Estimated or assumed.

SUMMARY OF
RESERVOIR SEDIMENTATION SURVEYS MADE IN THE UNITED STATES THROUGH 1970

DATA SHEET NUMBER	RESERVOIR	STREAM	NEAREST TOWN	DRAINAGE AREA (SQUARE MILES)		DATE OF SURVEY	PERIOD BETWEEN SURVEYS (YEARS)	STORAGE CAPACITY (ACRE -FT.)	CAPACITY AVG. ANN. INFLOW RATIO (ACRE-FT. PER ACRE-FT)	SPECIFIC WEIGHT (DRY) (LB. PER CU. FT.)	AVG. ANN. SEDIMENT ACCUMULATION PER SQ. MI. OF NET DR. AREA FOR PERIOD SHOWN		AGENCY SUPPLYING DATA
				TOTAL	NET						AC.-FT.	TONS	
SALTON SEA AND SOUTHERN CALIFORNIA COASTAL AND GREAT BASIN DRAINAGE (Continued)													
70-38a	Bailey Debris Dam	Bailey Channel	Sierra Madre, Calif.--	0.60	0.60	Sept. 1966	1	1/--	--	--	2/0.84	--	CE
	do	do	do	--	--	Sept. 1967	1	--	--	--	0	--	
	do	do	do	--	--	Sept. 1968	1	--	--	--	0	--	
	do	do	do	--	--	Sept. 1969	1	--	--	--	0	--	
	do	do	do	--	--	Sept. 1970	1	--	--	--	0	--	
	do	do	do	--	--	Sept. 1952	2	--	--	--	.18	--	
	do	do	do	--	--	Sept. 1959	4.8	--	--	--	2.88	--	
	do	do	do	--	--	Sept. 1962	3.0	--	--	--	8.83	--	
	do	do	do	--	--	Sept. 1966	6.0	--	--	--	.86	--	
	do	do	do	--	--	Sept. 1970	2.0	--	--	--	2.33	--	
70-39a	Brand Debris Basin	Brand Canyon Channel	La Canada, Calif.--	1.03	1.03	Sept. 1960	5	1/--	--	--	2/.98	--	CE
	do	do	do	--	--	Sept. 1961	1	--	--	--	.63	--	
	do	do	do	--	--	Sept. 1962	1	--	--	--	0	--	
	do	do	do	--	--	Sept. 1963	1	--	--	--	1.86	--	
	do	do	do	--	--	Sept. 1964	1	--	--	--	.19	--	
	do	do	do	--	--	Sept. 1965	1	--	--	--	0	--	
	do	do	do	--	--	Sept. 1966	1	--	--	--	0	--	
	do	do	do	--	--	Sept. 1967	1	--	--	--	.09	--	
	do	do	do	--	--	Sept. 1968	1	--	--	--	0	--	
	do	do	do	--	--	Sept. 1969	1	--	--	--	0	--	
	do	do	do	--	--	Sept. 1970	1	--	--	--	0	--	
	do	do	do	--	--	Sept. 1952	2	--	--	--	1.59	--	
	do	do	do	--	--	Sept. 1964	12	--	--	--	1.17	--	
	do	do	do	--	--	Sept. 1965	1	--	--	--	27.86	--	
	do	do	do	--	--	Sept. 1970	5	--	--	--	2.87	--	
70-40a	Donsmir Debris Basin	Donsmir Canyon Channel	Tujunga, Calif.--	.84	.84	Sept. 1936	1	1/--	--	--	2/.69	--	CE
	do	do	do	--	--	Sept. 1938	2	--	--	--	29.0	--	
	do	do	do	--	--	Sept. 1940	2	--	--	--	8.14	--	
	do	do	do	--	--	Sept. 1941	1	--	--	--	8.74	--	
	do	do	do	--	--	Sept. 1942	1	--	--	--	.27	--	
	do	do	do	--	--	Sept. 1943	1	--	--	--	10.3	--	
	do	do	do	--	--	Sept. 1944	1	--	--	--	2.87	--	
	do	do	do	--	--	Sept. 1945	1	--	--	--	.56	--	
	do	do	do	--	--	Sept. 1946	1	--	--	--	3.13	--	
	do	do	do	--	--	Sept. 1947	1	--	--	--	1.15	--	
	do	do	do	--	--	Sept. 1948	1	--	--	--	0	--	
	do	do	do	--	--	Sept. 1949	1	--	--	--	0	--	
	do	do	do	--	--	Sept. 1950	1	--	--	--	0	--	
	do	do	do	--	--	Sept. 1952	2	--	--	--	4.07	--	
	do	do	do	--	--	Sept. 1954	2	--	--	--	.36	--	
	do	do	do	--	--	Sept. 1959	5	--	--	--	3.17	--	
	do	do	do	--	--	Sept. 1970	11	--	--	--	1.58	--	
70-41a	Eagle Debris Basin	Eagle Canyon	La Crescenta, Calif.--	.61	.61	Sept. 1938	2	1/--	--	--	2/21.2	--	CE
	do	do	do	--	--	Sept. 1939	1	--	--	--	11.7	--	
	do	do	do	--	--	Sept. 1941	2	--	--	--	7.03	--	
	do	do	do	--	--	Sept. 1942	1	--	--	--	.34	--	
	do	do	do	--	--	Sept. 1943	1	--	--	--	15.7	--	
	do	do	do	--	--	Sept. 1944	1	--	--	--	4.59	--	
	do	do	do	--	--	Sept. 1945	1	--	--	--	1.11	--	
	do	do	do	--	--	Sept. 1946	1	--	--	--	.59	--	
	do	do	do	--	--	Sept. 1947	1	--	--	--	.61	--	
	do	do	do	--	--	Sept. 1948	1	--	--	--	.07	--	
	do	do	do	--	--	Sept. 1949	1	--	--	--	0	--	
	do	do	do	--	--	Sept. 1950	1	--	--	--	0	--	
	do	do	do	--	--	Sept. 1952	2	--	--	--	2.66	--	
	do	do	do	--	--	Aug. 1956	3.9	--	--	--	.02	--	
	do	do	do	--	--	Sept. 1960	4.1	--	--	--	1.67	--	
	do	do	do	--	--	Sept. 1961	1	--	--	--	2.05	--	
	do	do	do	--	--	Sept. 1966	5	--	--	--	5.28	--	
	do	do	do	--	--	Sept. 1970	4	--	--	--	5.87	--	
70-42a	Fair Oaks Debris Basin	Fair Oaks Canyon	Altadena, Calif.--	.21	.21	Sept. 1936	1	1/--	--	--	2/66.4	--	CE
	do	do	do	--	--	Sept. 1938	2	--	--	--	47.6	--	
	do	do	do	--	--	Sept. 1941	3	--	--	--	3.9	--	
	do	do	do	--	--	Sept. 1943	2	--	--	--	4.8	--	
	do	do	do	--	--	Sept. 1944	1	--	--	--	.24	--	
	do	do	do	--	--	Sept. 1945	1	--	--	--	1.71	--	
	do	do	do	--	--	Sept. 1946	1	--	--	--	2.86	--	
	do	do	do	--	--	Sept. 1947	1	--	--	--	1.95	--	

	do	do	do			Sept. 1948	1				.019	
	do	do	do			Sept. 1949	1				0	
	do	do	do			Sept. 1950	1				0	
	do	do	do			Sept. 1952	2				4.57	
	do	do	do			Oct. 1956	4.1				.14	
	do	do	do			June 1958	1.7				19.05	
	do	do	do			Sept. 1963	5.2				4.76	
	do	do	do			Sept. 1966	3				10.14	
	do	do	do			Sept. 1968	2				3.10	
	do	do	do			Sept. 1969	1				46.9	
70-43b	Fern Debris Basin	Fern Canyon		.30	.30	Sept. 1936	1	1/-		2/31.2		CE
	do	do	do			Sept. 1938	2			41.3		
	do	do	do			Sept. 1941	3			3.30		
	do	do	do			Sept. 1942	1			0		
	do	do	do			Sept. 1943	1			22.0		
	do	do	do			Sept. 1944	1			6.17		
	do	do	do			Sept. 1945	1			3.07		
	do	do	do			Sept. 1946	1			2.77		
	do	do	do			Sept. 1947	1			.43		
	do	do	do			Sept. 1948	1			0		
	do	do	do			Sept. 1949	1			0		
	do	do	do			Sept. 1950	1			0		
	do	do	do			Sept. 1952	2			5.47		
	do	do	do			Sept. 1964	12			1.23		
	do	do	do			Sept. 1966	2			16.67		
	do	do	do			Sept. 1968	2			11.5		
70-44c	Gould Debris Basin	Gould Canyon Channel	La Canada, Calif.	.47	.47	Sept. 1969	1	1/-		24.6		CE
	do	do	do			Sept. 1948	1			2/0		
	do	do	do			Sept. 1950	2			0		
	do	do	do			Sept. 1952	2			5.32		
	do	do	do			June 1958	5.8			3.29		
	do	do	do			Sept. 1962	4.2			5.83		
	do	do	do			Sept. 1966	4.0			9.04		
	do	do	do			Sept. 1968	2			1.98		
70-45a	Haines Debris Basin	Haines Canyon	Tujunga, Calif.	1.53	1.53	Sept. 1969	1	1/-		28.7		CE
	do	do	do			Sept. 1938	3			2/6.93		
	do	do	do			Sept. 1940	2			2.31		
	do	do	do			Sept. 1941	1			5.09		
	do	do	do			Sept. 1943	2			4.22		
	do	do	do			Sept. 1944	1			3.58		
	do	do	do			Sept. 1945	1			2.59		
	do	do	do			Sept. 1946	1			0		
	do	do	do			Sept. 1947	1			.37		
	do	do	do			Sept. 1948	1			0		
	do	do	do			Sept. 1949	1			0		
	do	do	do			Sept. 1950	1			0		
70-46c	Hall's Debris Basin	Hall - Beckley Canyon	La Canada, Calif.	3/.84	.84	May 1952	1.6	1/-		1.57		CE
	do	do	do			Sept. 1936	1			2/17.2		
	do	do	do			Sept. 1937	1			13.7		
	do	do	do			Sept. 1938	1			75.4		
	do	do	do			Sept. 1941	3			12.0		
	do	do	do			Sept. 1943	2			17.9		
	do	do	do			Sept. 1944	1			6.10		
	do	do	do	2/1.06	1.06	Sept. 1945	1			2.97		
	do	do	do			Sept. 1946	1			1.00		
	do	do	do			Sept. 1947	1			2.60		
	do	do	do			Sept. 1948	1					
	do	do	do			Sept. 1949	1					
	do	do	do			Sept. 1950	1					
	do	do	do			Sept. 1952	2			6.40		
	do	do	do			Feb. 1957	4.4			.14		
	do	do	do			Sept. 1959	2.6			11.03		
	do	do	do			Sept. 1962	3			.063		
	do	do	do			Sept. 1964	2			4.48		
	do	do	do			Sept. 1968	4			3.49		
	do	do	do			Sept. 1969	1			34.4		

1/ Capacity of debris basin varies. Debris excavated at various times.

2/ Sedimentation values as computed by LACFCD are based on complete water year.

3/ Drainage area 0.84 sq. mi. to 1945; 1.0659 sq. mi. beginning 1945.

SUMMARY OF
RESERVOIR SEDIMENTATION SURVEYS MADE IN THE UNITED STATES THROUGH 1970

DATA SHEET NUMBER	RESERVOIR	STREAM	NEAREST TOWN	DRAINAGE AREA (SQUARE MILES)		DATE OF SURVEY	PERIOD BETWEEN SURVEYS (YEARS)	STORAGE CAPACITY (ACRE-FT.)	CAPACITY AVG. ANN. INFLOW RATIO (ACRE-FT. PER ACRE-FT.)	SPECIFIC WEIGHT (DRY) (LB. PER CU. FT.)	AVG. ANN. SEDIMENT ACCUMULATION PER SQ. MI. OF NET DR. AREA FOR PERIOD SHOWN		AGENCY SUPPLYING DATA
				TOTAL	NET						AC.-FT.	TONS	
SALTON SEA AND SOUTHERN CALIFORNIA COASTAL AND GREAT BASIN DRAINAGE (Continued)													
70-47c	Hay Debris Basin	Hay Canyon Channel	La Canada, Calif.	0.20	0.20	Sept. 1938	2	1/-	--	--	2/28.3	--	CE
	do	do	do	--	--	Sept. 1939	1	--	--	--	6.30	--	
	do	do	do	--	--	Sept. 1940	1	--	--	--	.55	--	
	do	do	do	--	--	Sept. 1941	1	--	--	--	1.90	--	
	do	do	do	--	--	Sept. 1943	2	--	--	--	4.75	--	
	do	do	do	--	--	Sept. 1944	1	--	--	--	.65	--	
	do	do	do	--	--	Sept. 1945	1	--	--	--	1.55	--	
	do	do	do	--	--	Sept. 1946	1	--	--	--	0	--	
	do	do	do	--	--	Sept. 1947	1	--	--	--	0	--	
	do	do	do	--	--	Sept. 1948	1	--	--	--	0	--	
	do	do	do	--	--	Sept. 1949	1	--	--	--	0	--	
	do	do	do	--	--	Sept. 1950	1	--	--	--	0	--	
	do	do	do	--	--	Sept. 1952	2	--	--	--	2.30	--	
	do	do	do	--	--	Sept. 1961	9	--	--	--	3.58	--	
	do	do	do	--	--	Sept. 1964	3	--	--	--	5.95	--	
	do	do	do	--	--	Sept. 1968	4	--	--	--	3.25	--	
	do	do	do	--	--	Sept. 1970	2	--	--	--	11.5	--	
70-48c	Las Flores Debris Basin	Las Flores Channel	Altadena, Calif.	.45	.45	Sept. 1936	1	1/-	--	--	2/14.7	--	CE
	do	do	do	--	--	Sept. 1938	2	--	--	--	38.2	--	
	do	do	do	--	--	Sept. 1939	1	--	--	--	1.53	--	
	do	do	do	--	--	Sept. 1943	4	--	--	--	4.40	--	
	do	do	do	--	--	Sept. 1944	1	--	--	--	3.71	--	
	do	do	do	--	--	Sept. 1945	1	--	--	--	.93	--	
	do	do	do	--	--	Sept. 1946	1	--	--	--	.96	--	
	do	do	do	--	--	Sept. 1947	1	--	--	--	.67	--	
	do	do	do	--	--	Sept. 1948	1	--	--	--	0	--	
	do	do	do	--	--	Sept. 1949	1	--	--	--	0	--	
	do	do	do	--	--	Sept. 1950	1	--	--	--	0	--	
	do	do	do	--	--	Sept. 1952	2	--	--	--	1.29	--	
	do	do	do	--	--	Sept. 1963	11	--	--	--	4.00	--	
	do	do	do	--	--	Sept. 1966	3	--	--	--	8.82	--	
	do	do	do	--	--	Sept. 1969	3	--	--	--	13.0	--	
70-49d	Lincoln Debris Basin	Lincoln Canyon	do	.50	.50	Sept. 1936	1	1/-	--	--	2/19.86	--	CE
	do	do	do	--	--	Sept. 1938	2	--	--	--	17.8	--	
	do	do	do	--	--	Sept. 1940	2	--	--	--	.92	--	
	do	do	do	--	--	Sept. 1941	1	--	--	--	15.1	--	
	do	do	do	--	--	Sept. 1943	2	--	--	--	6.48	--	
	do	do	do	--	--	Sept. 1944	1	--	--	--	2.32	--	
	do	do	do	--	--	Sept. 1945	1	--	--	--	.58	--	
	do	do	do	--	--	Sept. 1946	1	--	--	--	0	--	
	do	do	do	--	--	Sept. 1947	1	--	--	--	2.00	--	
	do	do	do	--	--	Sept. 1948	1	--	--	--	--	--	
	do	do	do	--	--	Sept. 1949	1	--	--	--	--	--	
	do	do	do	--	--	Sept. 1950	1	--	--	--	--	--	
	do	do	do	--	--	Mar. 1952	1.4	--	--	--	1.82	--	
	do	do	do	--	--	Sept. 1961	9.5	--	--	--	.10	--	
	do	do	do	--	--	Sept. 1967	6	--	--	--	3.34	--	
	do	do	do	--	--	Sept. 1969	2	--	--	--	16.20	--	
70-50c	Nichols Debris Basin	Nichols Canyon	Hollywood, Calif.	.94	.94	Sept. 1942	5	1/-	--	--	2/13.8	--	CE
	do	do	do	--	--	Sept. 1943	1	--	--	--	1.98	--	
	do	do	do	--	--	Sept. 1944	1	--	--	--	.48	--	
	do	do	do	--	--	Sept. 1945	1	--	--	--	.20	--	
	do	do	do	--	--	Sept. 1946	1	--	--	--	.15	--	
	do	do	do	--	--	Sept. 1947	1	--	--	--	3.72	--	
	do	do	do	--	--	Sept. 1948	1	--	--	--	.29	--	
	do	do	do	--	--	Sept. 1949	1	--	--	--	.38	--	
	do	do	do	--	--	Sept. 1950	1	--	--	--	.80	--	
	do	do	do	--	--	Apr. 1952	1.6	--	--	--	5.82	--	
	do	do	do	--	--	Feb. 1956	3.8	--	--	--	.47	--	
	do	do	do	--	--	Sept. 1959	3.6	--	--	--	1.39	--	
	do	do	do	--	--	Sept. 1960	1	--	--	--	3.79	--	
	do	do	do	--	--	Sept. 1966	6	--	--	--	1.06	--	
	do	do	do	--	--	Sept. 1968	2	--	--	--	2.15	--	
	do	do	do	--	--	Sept. 1970	2	--	--	--	2.77	--	

70-51b	Paradise Debris Basin	Paradise Canyon	La Canada, Calif.	.96	.96	Sept. 1945	1	1/--	--	2/1.18	CE
	do	do	do	--	--	Sept. 1946	1	--	--	.92	--
	do	do	do	--	--	Sept. 1947	1	--	--	1.00	--
	do	do	do	--	--	Sept. 1948	1	--	--	.14	--
	do	do	do	--	--	Sept. 1949	1	--	--	.10	--
	do	do	do	--	--	Sept. 1950	1	--	--	0	--
	do	do	do	.58	.58	Apr. 1952	1.4	--	--	5.38	--
	do	do	do	--	--	Mar. 1956	3.9	--	--	.98	--
70-52c	Pickens Debris Basin	Pickens Canyon	La Crescenta, Calif.	1.84	1.84	Sept. 1936	1	1/--	--	2/11.0	CE
	do	do	do	--	--	Sept. 1937	1	--	--	6.89	--
	do	do	do	--	--	Sept. 1938	1	--	--	44.9	--
	do	do	do	--	--	Sept. 1939	1	--	--	2.95	--
	do	do	do	--	--	Sept. 1940	1	--	--	4.75	--
	do	do	do	--	--	Sept. 1941	1	--	--	11.6	--
	do	do	do	--	--	Sept. 1943	2	--	--	9.03	--
	do	do	do	--	--	Sept. 1944	1	--	--	3.00	--
	do	do	do	--	--	Sept. 1945	1	--	--	.51	--
	do	do	do	--	--	Sept. 1946	1	--	--	.23	--
	do	do	do	--	--	Sept. 1947	1	--	--	.37	--
	do	do	do	--	--	Sept. 1948	1	--	--	.15	--
	do	do	do	--	--	Sept. 1949	1	--	--	0	--
	do	do	do	--	--	Sept. 1950	1	--	--	0	--
	do	do	do	--	--	Sept. 1952	2	--	--	2.25	--
	do	do	do	--	--	Sept. 1959	7	--	--	2.81	--
	do	do	do	--	--	Sept. 1966	7	--	--	3.41	--
	do	do	do	--	--	Sept. 1970	4	--	--	4.44	--
70-53c	Rubio Debris Dam	Rubio Wash	Altadena, Calif.	1.3	1.3	Sept. 1946	3	1/--	--	2/6.69	CE
	do	do	do	--	--	Sept. 1947	1	--	--	.32	--
	do	do	do	--	--	Sept. 1948	1	--	--	0	--
	do	do	do	--	--	Sept. 1949	1	--	--	0	--
	do	do	do	--	--	Sept. 1950	1	--	--	0	--
	do	do	do	--	--	Sept. 1952	2	--	--	1.23	--
	do	do	do	--	--	Apr. 1957	4.7	--	--	.05	--
	do	do	do	--	--	Sept. 1966	9.4	--	--	2.07	--
	do	do	do	--	--	Sept. 1969	3	--	--	10.0	--
70-54b	Scholl Debris Basin	Scholl Canyon	Glendale, Calif.	.66	.66	Sept. 1947	2	1/--	--	2/3.32	CE
	do	do	do	--	--	Sept. 1948	1	--	--	0	--
	do	do	do	--	--	Sept. 1949	1	--	--	0	--
	do	do	do	--	--	Sept. 1950	1	--	--	0	--
	do	do	do	--	--	Sept. 1952	2	--	--	1.45	--
	do	do	do	--	--	Sept. 1961	9	--	--	.53	--
	do	do	do	--	--	Sept. 1970	9	--	--	.88	--
70-55c	Shields Debris Basin	Shields Channel	La Crescenta, Calif.	.27	.27	Sept. 1938	1	1/--	--	2/77.0	CE
	do	do	do	--	--	Sept. 1939	1	--	--	10.1	--
	do	do	do	--	--	Sept. 1941	2	--	--	10.9	--
	do	do	do	--	--	Sept. 1943	2	--	--	5.85	--
	do	do	do	--	--	Sept. 1944	1	--	--	2.33	--
	do	do	do	--	--	Sept. 1945	1	--	--	.52	--
	do	do	do	--	--	Sept. 1946	1	--	--	1.04	--
	do	do	do	--	--	Sept. 1947	1	--	--	.04	--
	do	do	do	--	--	Sept. 1948	1	--	--	0	--
	do	do	do	--	--	Sept. 1949	1	--	--	0	--
	do	do	do	--	--	Sept. 1950	1	--	--	0	--
	do	do	do	--	--	Sept. 1952	1.5	--	--	10.9	--
	do	do	do	--	--	Sept. 1961	9.5	--	--	2.07	--
	do	do	do	--	--	Sept. 1966	5	--	--	6.81	--
70-56c	Shover Debris Basin	Shover Canyon	do	.23	.23	Sept. 1938	2	1/--	--	2/22.6	CE
	do	do	do	--	--	Sept. 1939	1	--	--	57.0	--
	do	do	do	--	--	Sept. 1941	2	--	--	4.4	--
	do	do	do	--	--	Sept. 1943	2	--	--	8.30	--
	do	do	do	--	--	Sept. 1945	2	--	--	.65	--
	do	do	do	--	--	Sept. 1952	7	--	--	1.09	--
	do	do	do	--	--	Sept. 1961	9	--	--	.06	--
	do	do	do	--	--	Sept. 1968	7	--	--	3.30	--
	do	do	do	--	--	Sept. 1969	1	--	--	56.5	--
70-57b	Sparr Debris Basin	Sparr Channel	Montrose, Calif.	.84	.84	Sept. 1947	.6	1/--	--	2/0	CE
	do	do	do	--	--	Sept. 1948	1	--	--	0	--
	do	do	do	--	--	Sept. 1949	1	--	--	0	--
	do	do	do	--	--	Sept. 1950	1	--	--	0	--
	do	do	do	--	--	Mar. 1952	1.5	--	--	3.56	--
	do	do	do	--	--	Feb. 1956	3.9	--	--	1.13	--
70-58b	Stough Debris Basin	Stough Canyon Channel	Burbank, Calif.	1.65	1.65	Sept. 1943	3	1/--	--	2/4.22	CE
	do	do	do	--	--	Sept. 1944	1	--	--	2.84	--
	do	do	do	--	--	Sept. 1945	1	--	--	1.76	--
	do	do	do	--	--	Sept. 1946	1	--	--	0	--
	do	do	do	--	--	Sept. 1947	1	--	--	0	--
	do	do	do	--	--	Sept. 1950	3	--	--	0	--
	do	do	do	--	--	Apr. 1952	1.6	--	--	2.73	--
	do	do	do	--	--	Sept. 1958	6.4	--	--	.37	--
	do	do	do	--	--	Sept. 1960	2.0	--	--	.75	--

1/ Capacity of debris basin varies. Debris excavated at various times.

2/ Sedimentation values as computed by LACPCD are based on complete water year.

SUMMARY OF
RESERVOIR SEDIMENTATION SURVEYS MADE IN THE UNITED STATES THROUGH 1970

DATA SHEET NUMBER	RESERVOIR	STREAM	NEAREST TOWN	DRAINAGE AREA (SQUARE MILES)		DATE OF SURVEY	PERIOD BETWEEN SURVEYS (YEARS)	STORAGE CAPACITY (ACRE-FT.)	CAPACITY AVG. ANN. INFLOW RATIO (ACRE-FT. PER ACRE-FT)	SPECIFIC WEIGHT (DRY) (LB. PER CU. FT.)	AVG. ANN. SEDIMENT ACCUMULATION PER SQ. ML. OF NET DR. AREA FOR PERIOD SHOWN		AGENCY SUPPLYING DATA
				TOTAL	NET						AC.-FT.	TONS	
SALTON SEA AND SOUTHERN CALIFORNIA COASTAL AND GREAT BASIN DRAINAGE (Continued)													
70-59a	Sunset Canyon Debris Dam (upper)	Sunset Canyon Channel	Burbank, Calif.	0.44	0.44	Sept. 1942	13	1/-	--	--	2/1.34	--	CS
	do	do	do	--	--	Sept. 1944	2	--	--	--	.84	--	
	do	do	do	--	--	Sept. 1945	1	--	--	--	.18	--	
	do	do	do	--	--	Sept. 1946	1	--	--	--	.20	--	
	do	do	do	--	--	Sept. 1950	4	--	--	--	0	--	
	do	do	do	--	--	Sept. 1952	2	--	--	--	2.41	--	
	do	do	do	--	--	Sept. 1959	7	--	--	--	1.68	--	
	do	do	do	--	--	Sept. 1966	7	--	--	--	7.80	--	
	do	do	do	--	--	Sept. 1969	3	--	--	--	6.20	--	
70-60	Vanalden Debris Basin	Vanalden Channel	Encino, Calif.	1.08	1.08	Sept. 1946	1	1/-	--	--	2/1.32	--	CS
	do	do	do	--	--	Sept. 1947	1	--	--	--	.02	--	
	do	do	do	--	--	Sept. 1950	3	--	--	--	--	--	
70-61a	Verdugo Debris Basin	Verdugo Wash	Montrose, Calif.	15.5	10.0	Sept. 1938	3.58	1/-	--	--	2/1.83	--	CS
	do	do	do	--	--	Sept. 1941	3	--	--	--	.81	--	
	do	do	do	--	--	Sept. 1943	2	--	--	--	2.05	--	
	do	do	do	--	--	Sept. 1944	1	--	--	--	4.27	--	
	do	do	do	--	--	Sept. 1950	6	--	--	--	.06	--	
	do	do	do	--	--	Sept. 1952	2	--	--	--	.82	--	
	do	do	do	--	--	Sept. 1953	1	--	--	--	3.73	--	
	do	do	do	--	--	May 1956	2.67	--	--	--	.002	--	
	do	do	do	--	--	Jan. 1959	2.67	--	--	--	.89	--	
	do	do	do	--	--	Sept. 1960	1.66	--	--	--	.05	--	
	do	do	do	--	--	Sept. 1964	4	--	--	--	.51	--	
	do	do	do	--	--	Sept. 1966	2	--	--	--	1.71	--	
	do	do	do	--	--	Sept. 1968	2	--	--	--	.05	--	
	do	do	do	--	--	Sept. 1970	2	--	--	--	3.14	--	
70-62a	Ward Debris Basin (lower)	Ward Canyon	La Crescenta, Calif.	3/.64	3/.64	Sept. 1945	1	1/-	--	--	2/.51	--	CS
	do	do	do	--	--	Sept. 1946	1	--	--	--	1.63	--	
	do	do	do	--	--	Sept. 1947	1	--	--	--	4.86	--	
	do	do	do	--	--	Sept. 1948	1	--	--	--	1.00	--	
	do	do	do	--	--	Sept. 1949	1	--	--	--	.36	--	
	do	do	do	--	--	Sept. 1950	1	--	--	--	1.11	--	
	do	do	do	--	--	Feb. 1952	1.3	--	--	--	6.41	--	
	do	do	do	--	--	Apr. 1952	.2	--	--	--	--	--	
	do	do	do	--	--	Sept. 1956	4.4	--	--	--	.52	--	
	do	do	do	--	--	Sept. 1958	2.0	--	--	--	.70	--	
70-63a	West Ravine Debris Basin	West Ravine Canyon	Altadena, Calif.	.25	.25	Sept. 1936	1	1/-	--	--	2/47.85	--	CS
	do	do	do	--	--	Sept. 1937	1	--	--	--	45.42	--	
	do	do	do	--	--	Sept. 1938	1	--	--	--	73.85	--	
	do	do	do	--	--	Sept. 1940	2	--	--	--	3.60	--	
	do	do	do	--	--	Sept. 1941	1	--	--	--	21.4	--	
	do	do	do	--	--	Sept. 1942	1	--	--	--	.44	--	
	do	do	do	--	--	Sept. 1943	1	--	--	--	20.20	--	
	do	do	do	--	--	Sept. 1944	1	--	--	--	8.00	--	
	do	do	do	--	--	Sept. 1945	1	--	--	--	.80	--	
	do	do	do	--	--	Sept. 1946	1	--	--	--	1.56	--	
	do	do	do	--	--	Sept. 1947	1	--	--	--	1.52	--	
	do	do	do	--	--	Sept. 1948	1	--	--	--	.02	--	
	do	do	do	--	--	Sept. 1949	1	--	--	--	0	--	
	do	do	do	--	--	Sept. 1950	1	--	--	--	0	--	
	do	do	do	--	--	Sept. 1952	2	--	--	--	4.76	--	
	do	do	do	--	--	Sept. 1964	12	--	--	--	1.08	--	
	do	do	do	--	--	Sept. 1968	4	--	--	--	8.49	--	
	do	do	do	--	--	Sept. 1969	1	--	--	--	43.2	--	
70-64	Camp Hurston	Dehr Creek	Julian, Calif.	1.6	1.59	1918	--	44.1	--	--	--	--	SCS
	do	do	do	--	--	Sept. 1951	33	36.9	--	--	.14	183.0	
70-65a	Cooks Canyon Debris Basin	Cooks Canyon	La Crescenta, Calif.	.58	.58	Mar. 1952	.2	1/-	--	--	--	--	CS
	do	do	do	--	--	Sept. 1961	9.5	--	--	--	2/.280	--	
	do	do	do	--	--	Sept. 1969	8	--	--	--	.028	--	
70-66	Auburn Debris Basin	Auburn River	Sierra Madre, Calif.	.19	.19	Dec. 1954	--	1/-	--	--	--	--	CS
	do	do	do	--	--	Sept. 1959	4.8	--	--	--	2.6	--	
70-67a	Bradbury Debris Basin	Bradbury Canyon	Monrovia, Calif.	.68	.68	Jan. 1955	--	1/-	--	--	--	--	CS
	do	do	do	--	--	Sept. 1959	4.67	--	--	--	2/8.15	--	
	do	do	do	--	--	Sept. 1961	2.0	--	--	--	1.62	--	
	do	do	do	--	--	Sept. 1966	5	--	--	--	6.65	--	
	do	do	do	--	--	Sept. 1969	3	--	--	--	23.5	--	

70-68a	Carter Debris Basin	Carter Canyon	Sierra Madre, Calif.	.12	.12	Dec. 1954	1/-	--	--	--	--	CE
	do	do	do	--	--	Sept. 1959	4.8	--	--	2/2.8	--	
	do	do	do	--	--	Sept. 1962	3	--	--	23.7	--	
	do	do	do	--	--	Sept. 1969	7	--	--	4.06	--	
70-69a	Deer Debris Basin	Deer Canyon	Glendale, Calif.	.59	.59	Jan. 1955	1/-	--	--	--	--	CE
	do	do	do	--	--	Sept. 1959	4.83	--	--	2/55	--	
	do	do	do	--	--	Sept. 1964	5	--	--	2.10	--	
	do	do	do	--	--	Sept. 1965	1	--	--	24.74	--	
	do	do	do	--	--	Sept. 1966	1	--	--	21.19	--	
	do	do	do	--	--	Sept. 1969	3	--	--	19.0	--	
70-70	Floral (Upper) Debris Basin	Floral Canyon	Sierra Madre, Calif.	.06	.06	Mar. 1954	1/-	--	--	--	--	CE
	do	do	do	--	--	Sept. 1959	5.6	--	--	2.4	--	
70-71	La Tuna Debris Basin	La Tuna Canyon	Los Angeles, Calif.	5.34	5.34	Jan. 1956	1/-	--	--	--	--	CE
	do	do	do	--	--	Feb. 1956	1	--	--	--	--	
	do	do	do	--	--	July 1957	1.4	--	--	2/04	--	
	do	do	do	--	--	Sept. 1958	1.2	--	--	.13	--	
	do	do	do	--	--	Sept. 1959	1.0	--	--	2.15	--	
	do	do	do	--	--	Sept. 1960	1.0	--	--	1.22	--	
70-72a	Lanman Debris Basin	Lanman Wash	Sierra Madre, Calif.	.25	.25	Mar. 1954	1/-	--	--	--	--	CE
	do	do	do	--	--	Sept. 1959	5.6	--	--	2/5.44	--	
	do	do	do	--	--	Sept. 1962	3	--	--	11.3	--	
	do	do	do	--	--	Sept. 1967	5	--	--	.48	--	
	do	do	do	--	--	Sept. 1970	3	--	--	20.4	--	
70-73b	Maddock Debris Basin	Maddock Canyon	Duarte, Calif.	.25	.25	Jan. 1955	1/-	--	--	--	--	CE
	do	do	do	--	--	Mar. 1956	1.2	--	--	2/17.8	--	
	do	do	do	--	--	Sept. 1959	3.5	--	--	3.88	--	
	do	do	do	--	--	Sept. 1967	8.0	--	--	1.8	--	
	do	do	do	--	--	Sept. 1969	2	--	--	15.8	--	
	do	do	do	--	--	Sept. 1970	1	--	--	2.96	--	
70-74a	May No. 1 Debris Basin	May Canyon	San Fernando, Calif.	.70	.70	Aug. 1953	1/-	--	--	--	--	CE
	do	do	do	--	--	Sept. 1959	6.2	--	--	2/7.78	--	
	do	do	do	--	--	Sept. 1967	8	--	--	7.20	--	
	do	do	do	--	--	Sept. 1968	1	--	--	23.3	--	
	do	do	do	--	--	Sept. 1969	1	--	--	104.0	--	
70-75a	May No. 2 Debris Basin	do	do	.09	.09	Aug. 1953	1/-	--	--	--	--	CE
	do	do	do	--	--	Sept. 1959	6.2	--	--	2/3.36	--	
	do	do	do	--	--	Sept. 1967	8	--	--	11.9	--	
	do	do	do	--	--	Sept. 1968	1	--	--	45.5	--	
	do	do	do	--	--	Sept. 1969	1	--	--	28.9	--	
70-76a	McClure Debris Basin	McClure Canyon	Burbank, Calif.	.62	.62	Dec. 1953	1/-	--	--	--	--	CE
	do	do	do	--	--	Sept. 1959	5.8	--	--	2/5.6	--	
	do	do	do	--	--	Sept. 1961	2.0	--	--	9.27	--	
	do	do	do	--	--	Sept. 1965	4	--	--	2.9	--	
	do	do	do	--	--	Sept. 1966	1	--	--	10.0	--	
	do	do	do	--	--	Sept. 1967	1	--	--	9.52	--	
70-77	Rowley Debris Basin	Rowley Canyon	Tujunga, Calif.	.98	.98	Jan. 1954	1/-	--	--	--	--	CE
	do	do	do	--	--	Sept. 1959	5.67	--	--	2/6.2	--	
	do	do	do	--	--	Sept. 1968	9	--	--	1.5	--	
	do	do	do	--	--	Sept. 1969	1	--	--	11.8	--	
70-78	Ruby - Upper Debris Basin	Ruby Canyon	Sierra Madre, Calif.	.21	.21	Jan. 1954	1/-	--	--	--	--	CE
	do	do	do	--	--	Sept. 1959	5.8	--	--	2/5.2	--	
	do	do	do	--	--	Sept. 1961	2.0	--	--	.29	--	
70-79a	Ruby - Lower Debris Basin	do	do	.10	.10	Dec. 1955	1/-	--	--	--	--	CE
	do	do	do	--	--	Sept. 1959	3.8	--	--	2/2.9	--	
	do	do	do	--	--	Sept. 1962	3	--	--	1.0	--	
	do	do	do	--	--	Sept. 1969	7	--	--	12.8	--	
70-80a	Sawpit Debris Dam	Sawpit Creek	Monrovia, Calif.	6.34	2.84	Jan. 1955	1/-	--	--	--	--	CE
	do	do	do	--	--	Sept. 1959	4.67	--	--	2/4.6	--	
	do	do	do	--	--	Sept. 1962	3	--	--	6.9	--	
	do	do	do	--	--	Sept. 1969	7	--	--	9.82	--	
70-81a	Sierra Madre Villa Debris Basin	Sierra Madre Villa Canyon	Sierra Madre, Calif.	1.46	1.46	May 1958	1/-	--	--	--	--	CE
	do	do	do	--	--	Sept. 1959	1.4	--	--	2/34	--	
	do	do	do	--	--	Sept. 1962	3	--	--	16.92	--	
	do	do	do	--	--	Sept. 1968	6	--	--	.18	--	
	do	do	do	--	--	Sept. 1970	2	--	--	45.89	--	
70-82a	Spinks Debris Basin	Spinks Canyon	Monrovia, Calif.	.44	.44	Dec. 1958	1/-	--	--	--	--	CE
	do	do	do	--	--	Sept. 1959	.8	--	--	2/-	--	
	do	do	do	--	--	Sept. 1962	3	--	--	1.66	--	
	do	do	do	--	--	Sept. 1969	7	--	--	5.32	--	
70-83a	Turnbull Debris Basin	Turnbull Canyon Wash	Whittier, Calif.	.99	.99	Jan. 1953	1/-	--	--	--	--	CE
	do	do	do	--	--	Sept. 1959	6.8	--	--	2/28	--	
	do	do	do	--	--	Sept. 1968	9	--	--	1.33	--	
	do	do	do	--	--	Sept. 1969	1	--	--	16.0	--	
70-84a	Zachau Debris Basin	Zachau Canyon	Tujunga, Calif.	.35	.35	Aug. 1956	1/-	--	--	--	--	CE
	do	do	do	--	--	Sept. 1959	3.2	--	--	2/80	--	
	do	do	do	--	--	Sept. 1961	2.0	--	--	.80	--	
	do	do	do	--	--	Sept. 1969	8	--	--	2.37	--	

1/ Capacity of debris basin varies. Debris excavated at various times.
 2/ Sedimentation valves computed by Los Angeles County FCE are based on complete wateryear.

3/ Drainage area 0.35 sq. mi. through 1947; 0.64 after 1947.
 4/ Estimated or assumed.

SUMMARY OF
RESERVOIR SEDIMENTATION SURVEYS MADE IN THE UNITED STATES THROUGH 1970

DATA SHEET NUMBER	RESERVOIR	STREAM	NEAREST TOWN	DRAINAGE AREA (SQUARE MILES)		DATE OF SURVEY	PERIOD BETWEEN SURVEYS (YEARS)	STORAGE CAPACITY (ACRE-FT.)	CAPACITY AVG. ANN. INFLOW RATIO (ACRE-FT. PER ACRE-FT.)	SPECIFIC WEIGHT (DRY) (LB. PER CU. FT.)	AVG. ANN. SEDIMENT ACCUMULATION PER SQ. MI. OF NET DR. AREA FOR PERIOD SHOWN		AGENCY SUPPLYING DATA
				TOTAL	NET						AC.-FT.	TONS	
SALTON SEA AND SOUTHERN CALIFORNIA COASTAL AND GREAT BASIN DRAINAGE (Continued)													
70-85a	Ward Debris Basin (Upper)	Ward Canyon	La Crescenta, Calif.	0.10	0.10	Nov. 1956	—	1/-	—	—	—	—	CE
	do	do	do	—	—	Sept. 1957	.8	—	—	—	2/30.1	—	—
	do	do	do	—	—	Sept. 1958	1.0	—	—	—	39.3	—	—
	do	do	do	—	—	Sept. 1959	1.0	—	—	—	17.5	—	—
	do	do	do	—	—	Sept. 1967	8	—	—	—	.4	—	—
	do	do	do	—	—	Sept. 1968	1	—	—	—	3.1	—	—
	do	do	do	—	—	Sept. 1969	1	—	—	—	22.9	—	—
70-86	Sepulveda Flood Control Basin	Los Angeles River	Van Nuys, Calif.	152	142	Nov. 1941	—	16,720	1.00	—	—	—	CE
	do	do	do	—	—	Nov. 1944	3.0	17,437	1.04	—	—	—	—
	do	do	do	—	—	June 1961	16.6	17,296	1.03	—	.06	—	—
70-87a	Santa Fe Flood Control Basin	San Gabriel River	Baldwin Park, Calif.	236.0	2/20.54	Apr. 1943	—	34,670	—	—	—	—	CE
	do	do	do	—	—	Nov. 1949	6.6	34,276	—	—	2.91	—	—
	do	do	do	—	—	Mar. 1959	9.3	33,987	—	—	1.51	—	—
	do	do	do	—	—	June 1961	2.2	33,385	—	—	13.32	—	—
	do	do	do	—	—	Feb. 1967	5.7	32,716	—	—	5.72	—	—
	do	do	do	—	—	Sept. 1968	1.6	34,916	—	—	—	—	—
	do	do	do	—	—	Aug. 1969	.9	32,642	—	—	123.0	—	—
70-88a	Bell IV (0804)	Bell Creek	Glendora, Calif.	.061	.061	Jan. 1966	—	2.30	.234	—	—	—	FS
	do	do	do	—	—	Dec. 1966	.96	—	—	—	1.16	—	—
	do	do	do	—	—	Oct. 1968	1.86	—	—	—	0	—	—
	do	do	do	—	—	Mar. 1969	.43	—	—	—	39.6	—	—
	do	do	do	—	—	July 1970	1.41	—	—	—	.018	—	—
70-89	Bell Debris Basin	do	Canoga Park, Calif.	7.0	7.0	—	—	1/-	—	—	—	—	CE
	do	do	do	—	—	Sept. 1970	3	—	—	—	2/.71	—	—
70-90	Carbon Canyon F. C. Basin	Carbon Canyon Creek	Brea, Calif.	19.3	19.3	Mar. 1961	—	7,033	10.0	—	—	—	CE
	do	do	do	—	—	Sept. 1969	8.5	6,615	9.45	—	2.54	—	—
70-91	Childs Debris Basin	Childs Canyon	Glendale, Calif.	.31	.31	Sept. 1963	—	1/-	—	—	—	—	CE
	do	do	do	—	—	Sept. 1966	3	—	—	—	2/8.81	—	—
70-92	Kimwood Debris Basin	Kimwood Canyon	Burbank, Calif.	.31	.31	—	1964	1/-	—	—	—	—	CE
	do	do	do	—	—	Sept. 1968	4	—	—	—	2/7.90	—	—
	do	do	do	—	—	Sept. 1970	2	—	—	—	.10	—	—
70-93	Englewild Debris Basin	Englewild Canyon	Glendora, Calif.	.4	.4	Sept. 1961	—	1/-	—	—	—	—	CE
	do	do	do	—	—	Sept. 1969	8	—	—	—	2/10.4	—	—
	do	do	do	—	—	Sept. 1970	1	—	—	—	13.5	—	—
70-94	Narrow Debris Basin	Narrow Canyon	Glendora, Calif.	.43	.43	Sept. 1958	—	1/-	—	—	—	—	CE
	do	do	do	—	—	Sept. 1969	11	—	—	—	2/6.77	—	—
	do	do	do	—	—	Sept. 1970	1	—	—	—	16.3	—	—
70-95	Hook East Debris Basin	Hook Canyon	Assam, Calif.	.18	.18	Sept. 1967	—	1/-	—	—	—	—	CE
	do	do	do	—	—	Sept. 1969	2	—	—	—	2/66.7	—	—
	do	do	do	—	—	Sept. 1970	1	—	—	—	2.78	—	—
70-96	Kimmel Debris Basin	Kimmel Canyon	Pasadena, Calif.	.20	.20	Oct. 1964	—	1/-	—	—	—	—	CE
	do	do	do	—	—	Sept. 1966	1.92	—	—	—	2/10.90	—	—
	do	do	do	—	—	Sept. 1969	3	—	—	—	21.65	—	—
	do	do	do	—	—	Sept. 1970	1	—	—	—	12.70	—	—
70-97	Kimmel - West Debris Basin	do	Altadena, Calif.	.16	.16	Sept. 1966	—	1/-	—	—	—	—	CE
	do	do	do	—	—	Sept. 1969	3	—	—	—	2/30.8	—	—
	do	do	do	—	—	Sept. 1970	1	—	—	—	19.4	—	—
70-98	Little Dalton Debris Basin	Little Dalton	Glendora, Calif.	3.3	3.3	Feb. 1960	—	1/-	—	—	—	—	CE
	do	do	do	—	—	Sept. 1962	2.6	—	—	—	2/15.9	—	—
	do	do	do	—	—	Sept. 1969	7	—	—	—	12.4	—	—
70-99	Morgan Debris Basin	Morgan Canyon	—	.6	.6	Sept. 1964	—	1/-	—	—	—	—	CE
	do	do	do	—	—	Sept. 1969	5	—	—	—	2/2.95	—	—
70-100	San Antonio F. C. Basin	San Antonio Creek	Claremont, Calif.	26.7	26.7	Aug. 1956	—	9,285	.90	—	—	—	CE
	do	do	do	—	—	July 1969	12.91	6,718	.65	—	7.45	—	—
70-101	Schoolhouse Debris Basin	Manfield Av. Storm Drain	Olive View, Calif.	.28	.28	June 1963	—	1/-	—	—	—	—	CE
	do	do	do	—	—	Sept. 1967	4.2	—	—	—	2/11.1	—	—
70-102	Sunset Debris Basin (Lower)	Sunset Canyon	Glendale, Calif.	.65	.65	Jan. 1965	—	1/-	—	—	—	—	CE
	do	do	do	—	—	Sept. 1967	2.7	—	—	—	2/5.58	—	—
70-103	Santa Anita Debris Basin	Santa Anita Creek	Arcadia, Calif.	1.7	1.7	Dec. 1959	—	1/-	—	—	—	—	CE
	do	do	do	—	—	Sept. 1962	2.8	—	—	—	2/19.1	—	—
	do	do	do	—	—	Sept. 1968	6	—	—	—	.67	—	—
	do	do	do	—	—	Sept. 1970	2	—	—	—	90.0	—	—
70-104	Wilson Debris Basin	Wilson Canyon	Olive View, Calif.	2.58	2.58	June 1963	—	1/-	—	—	—	—	CE
	do	do	do	—	—	Sept. 1967	4.2	—	—	—	2/5.23	—	—

- 1/ Capacity of debris basin varies. Debris excavated at various times.
- 2/ Sedimentation values as computed by Los Angeles County FOD are based on complete water year.
- 3/ Excludes drainage area above Morris Dam (215.66 sq. mi.).
- 4/ Some sediment sluiced out incidental to work on outlet.
- 5/ Before construction of Don Pedro Reservoir in 1923.

6/ Excluding drainage area of Strawberry Reservoir.
7/ Excluding noncontributing areas above Salt Springs and Bear River Reservoirs.
8/ Excluding pond area.
* Estimated or assumed.

SUMMARY OF
RESERVOIR SEDIMENTATION SURVEYS MADE IN THE UNITED STATES THROUGH 1970

DATA SHEET NUMBER	RESERVOIR	STREAM	NEAREST TOWN	DRAINAGE AREA (SQUARE MILES)		DATE OF SURVEY	PERIOD BETWEEN SURVEYS (YEARS)	STORAGE CAPACITY (ACRE-FT.)	CAPACITY AVG. ANN. INFLOW RATIO (ACRE-FT. PER ACRE-FT)	SPECIFIC WEIGHT (DRY) (LB. PER CU. FT.)	AVG. ANN. SEDIMENT ACCUMULATION PER SQ. MI. OF NET DR. AREA FOR PERIOD SHOWN		AGENCY SUPPLYING DATA
				TOTAL	NET						AC.-FT.	TONS	
SAN JOAQUIN AND KERN RIVER BASINS AND ADJACENT COASTAL DRAINAGE (Continued)													
71-31a	Teakettle Reservoir No. 1	Teakettle Creek	Fresno, Calif.	0.77	0.77	Fall 1938	—	0.39	—	—	—	—	FS
	do	do	do	—	—	Fall 1948	10.0	.18	—	—	0.0271	—	
	do	do	do	—	—	Fall 1951	3.0	.002	—	—	.1100	—	
	do	do	do	—	—	Fall 1955	4.0	0	—	—	.0078	—	
	do	do	do	—	—	Fall 1956	—	2/.352	—	—	—	—	
	do	do	do	—	—	Fall 1957	1.0	—	—	—	—	—	
	do	do	do	—	—	Fall 1958	1.0	—	—	—	.0591	—	
	do	do	do	—	—	Fall 1959	1.0	—	—	—	0	—	
	do	do	do	—	—	Fall 1960	1.0	—	—	—	.0158	—	
	do	do	do	—	—	Fall 1961	1.0	—	—	—	0	—	
	do	do	do	—	—	Fall 1962	1.0	—	—	—	.0065	—	
	do	do	do	—	—	Fall 1963	1.0	—	—	—	.1228	—	
	do	do	do	—	—	Fall 1964	1.0	—	—	—	.0889	—	
	do	do	do	—	—	Fall 1965	1.0	—	—	—	.0054	—	
71-32a	Teakettle Reservoir No. 2a	do	do	.273	.273	Fall 1938	—	.079	—	—	—	—	FS
	do	do	do	—	—	Fall 1941	3.0	.068	—	—	.0146	—	
	do	do	do	—	—	Fall 1948	7.0	.090	—	—	.0084	—	
	do	do	do	—	—	Fall 1951	3.0	.030	—	—	.0280	—	
	do	do	do	—	—	Fall 1955	4.0	.015	—	—	.0110	—	
	do	do	do	—	—	Fall 1956	1.0	2/.066	—	—	—	—	
	do	do	do	—	—	Fall 1957	1.0	—	—	—	—	—	
	do	do	do	—	—	Fall 1958	1.0	—	—	—	.0241	—	
	do	do	do	—	—	Fall 1959	1.0	—	—	—	.0059	—	
	do	do	do	—	—	Fall 1960	1.0	—	—	—	0	—	
	do	do	do	—	—	Fall 1961	1.0	—	—	—	0	—	
	do	do	do	—	—	Fall 1962	1.0	—	—	—	.0003	—	
	do	do	do	—	—	Fall 1963	1.0	—	—	—	.0462	—	
	do	do	do	—	—	Fall 1964	1.0	—	—	—	.0572	—	
	do	do	do	—	—	Fall 1965	1.0	—	—	—	0	—	
71-33a	Teakettle Reservoir No. 2	do	do	.847	.847	Fall 1938	—	.134	—	—	—	—	FS
	do	do	do	—	—	Fall 1948	10.0	.078	—	—	.0066	—	
	do	do	do	—	—	Fall 1951	3.0	.021	—	—	.0250	—	
	do	do	do	—	—	Fall 1955	4.0	.0022	—	—	.0080	—	
	do	do	do	—	—	Fall 1956	—	2/.101	—	—	—	—	
	do	do	do	—	—	Fall 1957	1.0	—	—	—	—	—	
	do	do	do	—	—	Fall 1958	1.0	—	—	—	.0166	—	
	do	do	do	—	—	Fall 1959	1.0	—	—	—	0	—	
	do	do	do	—	—	Fall 1960	1.0	—	—	—	.0032	—	
	do	do	do	—	—	Fall 1961	1.0	—	—	—	.0032	—	
	do	do	do	—	—	Fall 1962	1.0	—	—	—	.0015	—	
	do	do	do	—	—	Fall 1963	1.0	—	—	—	.0474	—	
	do	do	do	—	—	Fall 1964	1.0	—	—	—	0	—	
	do	do	do	—	—	Fall 1965	1.0	—	—	—	—	—	
71-34a	Teakettle Reservoir No. 3	do	do	.856	.856	Fall 1938	—	.131	—	—	—	—	FS
	do	do	do	—	—	Fall 1940	2.0	.127	—	—	.0026	—	
	do	do	do	—	—	Fall 1941	1.0	.109	—	—	.0204	—	
	do	do	do	—	—	Fall 1948	7.0	.040	—	—	.0112	—	
	do	do	do	—	—	Fall 1951/3	3.0	.007	—	—	.0160	—	
	do	do	do	—	—	Fall 1956	—	2/.117	—	—	—	—	
	do	do	do	—	—	Fall 1957	1.0	—	—	—	—	—	
	do	do	do	—	—	Fall 1958	1.0	—	—	—	.0073	—	
	do	do	do	—	—	Fall 1959	1.0	—	—	—	.0042	—	
	do	do	do	—	—	Fall 1960	1.0	—	—	—	.0003	—	
	do	do	do	—	—	Fall 1961	1.0	—	—	—	0	—	
	do	do	do	—	—	Fall 1962	1.0	—	—	—	.0049	—	
	do	do	do	—	—	Fall 1963	1.0	—	—	—	.1457	—	
	do	do	do	—	—	Fall 1964	1.0	—	—	—	.0619	—	
	do	do	do	—	—	Fall 1965	1.0	—	—	—	.0338	—	
71-35	Teakettle No. 7	do	do	.091	.091	Fall 1956 (1938-56)	—	.222	.159	—	—	—	FS
	do	do	do	—	—	Fall 1957	19.0	.181	.129	—	.029	—	
	do	do	do	—	—	Fall 1958	1.0	.178	.127	—	1/- .013	—	
	do	do	do	—	—	Fall 1959	1.0	.182	.130	—	1/- .037	—	
	do	do	do	—	—	Fall 1960	1.0	.178	.127	—	.069	—	

71-36	Pine Flat	Kings River	Sanger, Calif.	1,542	1,542	May 1952	1,013,400	.612	--	--	--	CE
	do	do	do	--	--	Feb. 1954	5/1.8	1,013,290	.612	*62	.04	54
	do	do	do	--	--	Nov. 1956	5/3	1,011,950	.611	*62	.29	392
71-37	Salinas Boys Ranch	Trib. of Natividad Creek	Salinas, Calif.	.13	.13	Oct. 1953 ^{1/}	--	2/9.65	--	--	--	SCS
	do	do	do	--	--	Sept. 1964	11	9.34	--	*65	.23	325.6
71-38	Roy Alexander	do	do	.205	.203	19518 ^{2/}	--	8/8.40	--	--	--	SCS
	do	do	do	--	--	Sept. 1964	13	8.15	--	*65	.10	141.6
71-39	Gibraltar	Santa Ynez	Santa Barbara, Calif.	216	6/202.2	Oct. 1919	--	15,296	.42	--	--	GS
	do	do	do	--	--	Aug. 1923	--	13,674	.38	--	1.96	--
	do	do	do	--	--	Aug. 1944	21	7,720	.21	--	2/1.47	--
	do	do	do	--	--	Feb. 1956	11.42	14,777	.41	--	.43	--
	do	do	do	--	--	Aug. 1969	13.5	9,654	.27	--	1.88	--
71-40	Santa Felicia	Piru Creek	Piru, Calif.	425	425	Oct. 1955	--	101,200	--	--	--	GS
	do	do	do	--	--	Oct. 1965	10	98,730	--	52	.58	658
71-41	Success Lake	Tule River	Porterville, Calif.	393	393	Sept. 1960	--	*86,160	.681	--	--	CE
	do	do	do	--	--	Nov. 1965	5.2	86,160	.681	--	*0	*0
	do	do	do	--	--	Nov. 1967	2.0	83,610	.660	*62	3.244	4,383
	do	do	do	--	--	Dec. 1968	1.1	83,680	.661	*62	-.163	-218.7
71-42	Isabella Reservoir	Kern River	Isabella, Calif.	2,074	2,074	June 1953	--	539,665	.81	--	--	CE
	do	do	do	--	--	Sept. 1956	3.3	539,115	.81	*62	.074	100
	do	do	do	--	--	Dec. 1968	12.2	534,465	.803	*62	.186	252
71-43	Lake Kaweah (Terminal Dam)	Kaweah River	Leamon Cove, Calif.	560	560	Nov. 1961	--	149,599	.389	--	--	CE
	do	do	do	--	--	Nov. 1967	6	147,099	.382	*62	.745	1,006
71-44	Cachuma	Santa Ynez River	Santa Ynez, Calif.	417	196	Jan. 1953	--	204,874	--	--	--	BR
	do	do	do	--	--	Aug. 1969	16.58	10/292,574	--	--	10/3.79	--

SACRAMENTO, EEL AND RUSSIAN RIVER BASINS

72-1a	Ridgewood (Walker)	Walker Creek	Willits, Calif.	5.7	5.6	-- 1930	--	313	.10	--	--	SCS
	do	do	do	--	--	June 1966	36	216	.07	--	77.5	1,063
72-2a	Morris	Davis Creek	do	5.1	5.03	-- 1924	--	*320	.12	--	--	SCS
	do	do	do	--	--	-- 1927	3	*775	.29	--	--	--
	do	do	do	--	--	May 1960	36	660	.24	*50	.63	686
	do	do	do	--	--	May 1966	6	643	.24	--	50.3	642
72-3	Big Canyon	Big Canyon Creek	French Town, Calif.	5.50	5.48	Nov. 1934	--	200	--	--	--	SCS
	do	do	do	--	--	Oct. 1945	11	195	--	44.7	.069	67.2
72-4	Blodgett	Trib. of Cosumnes River	Sacramento, Calif.	3.12	3.05	Mar. 1940	--	258	--	--	--	SCS
	do	do	do	--	--	Oct. 1945	5.6	254	--	46	.217	217
72-5	Bullards Bar	North Yuba River	Camptonville, Calif.	480	479	Oct. 1919	--	31,500	--	--	--	SCS
	do	do	do	--	--	Jan. 1939	19.2	28,893	--	*70	.284	433
72-6	Conbie (Van Geisen)	Bear River	Auburn, Calif.	130	129	June 1928	--	8,545	--	--	--	SCS
	do	do	do	--	--	Oct. 1935	7.3	7,840	--	*70	.749	1,140
72-7b	East Park	Little Stony Creek	Stonyford, Calif.	11/101.5	98.9	Dec. 1910	--	12/50,900	--	--	--	GS
	do	do	do	--	--	Nov. 1962	52	48,940	.80	55	13/.37	13/443
72-8	Faulke Lake (False Lake)	N. Pk. Jenney Creek	Shasta, Calif.	.71	.68	-- 1851	--	130	--	--	--	SCS
	do	do	do	--	--	Dec. 1945	94	120	--	54	.147	173
72-9	Gerber	Trib. of Burch Creek	Corning, Calif.	.31	.28	June 1917	--	190	--	--	--	SCS
	do	do	do	--	--	Dec. 1945	28.5	182	--	78.3	.971	1,656
72-10	Magalia	Little Butte Creek	Chico, Calif.	14/8.23	8.08	Jan. 1918	--	3,718	--	--	--	SCS
	do	do	do	--	--	Jan. 1946	28	3,648	--	48.8	.307	328
72-11b	Stony Gorge	Stony Creek	Elk Creek, Calif.	15/1.9	197	Nov. 1928	--	16/50,000	--	--	--	GS
	do	do	do	--	--	Nov. 1962	34.1	48,160	.29	54	13/.27	13/319
72-12	Misselbeck	N. Pk. Cottonwood Creek	Redding, Calif.	12.0	11.8	May 1920	--	4,300	--	--	--	SCS
	do	do	do	--	--	Dec. 1945	25.5	4,086	--	*75	.711	1,161
72-13	Lake Pillsbury (Scott Dam)	Eel River	Potter Valley, Calif.	283	284	Dec. 1921	--	94,396	.248	--	--	GS
	do	do	do	--	--	May 1959	37.5	86,785	.228	73	.71	1,129
72-14	Catacoula (Bar 49)	Maxwell Creek	St. Helena, Calif.	.71	.69	-- 1953	--	183.0	--	--	--	SCS
	do	do	do	--	--	Nov. 1958	5	181.4	--	--	.46	--
72-15	Milliken	Milliken Creek	Napa, Calif.	10.5	10.4	-- 1924	--	2,000	--	--	--	SCS
	do	do	do	--	--	Oct. 1958	34	1,988	--	--	.04	--
72-16a	Onion Creek No. 1	Onion Creek, trib. of Amer. River	Soda Springs, Calif.	.19	.19	-- 1957	--	.114	.039	--	--	FS
	do	do	do	--	--	-- 1958	1.0	.096	.033	--	.074	--
	do	do	do	--	--	-- 1959	1.0	.097	.033	--	.071	--
	do	do	do	--	--	-- 1960	1.0	.093	.032	--	.024	--
72-17	Onion Creek No. 2	do	do	.48	.48	-- 1957	--	.132	.042	--	--	FS
	do	do	do	--	--	-- 1958	1.0	.083	.026	--	.1226	--
	do	do	do	--	--	-- 1959	1.0	.081	.026	--	.0004	--
	do	do	do	--	--	-- 1960	1.0	.069	.022	--	.0206	--
72-18	Onion Creek No. 3	do	do	.65	.65	-- 1958	--	.191	.062	--	--	FS
	do	do	do	--	--	-- 1959	1.0	.205	.067	--	17/.0000	--
	do	do	do	--	--	-- 1960	1.0	.186	.061	--	.0273	--

- 1/ Overtopped by sediment, no measurements taken in 1956; sediment removed down to original reservoir bottom.
2/ Sediment removed in summer 1956 - no measurements taken.
3/ Last data for which significant data are available; reservoir inoperative until 1956 when sediment was removed.
4/ Loss of sediment not applicable to watershed as a whole.
5/ Period of abnormal operation. Represents 0.3 year of sediment accumulation behind partially closed gates and 1.5 years of sediment depletion with wide open gates. Sediment value is residue at end of period.
6/ Represents sedimentation for 3 full runoff years because no significant inflow occurred from Oct. 1, 1953, to Feb. 13, 1954, or from Oct. 1, 1956, to Nov. 15, 1956.
7/ Original capacity determined from 1965 survey.
8/ Original capacity determined from 1964 survey.
9/ Effective drainage area prior to 1931 was 216 sq. mi. There after 202.2 sq. mi.

- 10/ Data at elevation 748 (limit of 8-7-69 survey). Spillway crest elevation 750 ft.
11/ Natural drainage area. Flow diverted into the reservoir from Stony Gorge drainage basin after 1914.
12/ Spillway elevation (flashboard crest elevation 50,900); USGS Water-Supply Paper 1798-F.
13/ Based on the natural drainage area.
14/ Excluding 3 sq. mi. above P. G. & E. Canal.
15/ The natural drainage area less area above East Park Reservoir. Flow diverted from the basin to East Park Reservoir after 1914.
16/ U. S. Bureau of Reclamation capacity curve (3-31-45); USGS Water-Supply Papers 1635 Part II, 1798-F.
17/ Net sediment loss - treated as 0 gain.
18/ Estimated or assumed.

SUMMARY OF
RESERVOIR SEDIMENTATION SURVEYS MADE IN THE UNITED STATES THROUGH 1970

DATA SHEET NUMBER	RESERVOIR	STREAM	NEAREST TOWN	DRAINAGE AREA (SQUARE MILES)		DATE OF SURVEY	PERIOD BETWEEN SURVEYS (YEARS)	STORAGE CAPACITY (ACRE -FT.)	CAPACITY AVG. ANN. INFLOW RATIO (ACRE-FT. PER ACRE-FT.)	SPECIFIC WEIGHT (DRY) (LB. PER CU. FT.)	AVG. ANN. SEDIMENT ACCUMULATION PER SQ. MI. OF NET DR. AREA FOR PERIOD SHOWN		AGENCY SUPPLYING DATA
				TOTAL	NET						AC.-FT.	TONS	
SACRAMENTO, EEL AND RUSSIAN RIVER BASINS (Continued)													
72-19a	Onion Creek No. 5	Onion Creek, trib. of Amer. River.	Soda Springs, Calif.--	0.39	0.39	1957	—	0.177	0.098	—	—	—	FS
	do	do	do	—	—	1958	1.0	.112	.037	—	0.1248	—	
	do	do	do	—	—	1959	1.0	.101	.033	—	.0256	—	
	do	do	do	—	—	1960	1.0	.046	.015	—	.1750	—	
72-20a	Onion Creek No. 7	do	do	.80	.80	1958	—	.0734	.025	—	—	—	FS
	do	do	do	—	—	1959	1.0	.0723	.024	—	.0069	—	
	do	do	do	—	—	1960	1.0	.0605	.020	—	.0010	—	
72-21	Leo Trentadue	Trib. of Dry Creek	Geyersville, Calif.--	.038	.037	Aug. 1961/	—	1/10.30	*.221	—	—	—	SCS
	do	do	do	—	—	Oct. 1965	4	9.86	*.211	.66	2.97	4,269	
72-22	Hasel Hill	do	do	.175	.173	Oct. 1960/	—	1/21.50	*.099	—	—	—	SCS
	do	do	do	—	—	Oct. 1965	5	21.04	*.097	.65	.52	736	
72-23	Babe Wood	do	Cloverdale, Calif.--	1.69	1.68	Oct. 1958/	—	1/34.83	*.027	—	—	—	SCS
	do	do	do	—	—	Nov. 1965	7	46.76	*.023	.78	.69	1,186	
72-24	Wickson	Trib. of Santa Rosa Creek	Santa Rosa, Calif.--	.187	.184	Nov. 1962/	—	2/17.36	.092	—	—	—	SCS
	do	do	do	—	—	Nov. 1964	4	16.62	.088	.65	.96	1,359	
72-25	Leo Frediani	Seven Oaks Creek	Healdsburg, Calif.--	.594	.592	Oct. 1960/	—	1/6.78	*.010	—	—	—	SCS
	do	do	do	—	—	Oct. 1965	5	4.61	*.007	.47	.73	1,383	
72-26a	Casper Creek - South Fork	Casper Creek	Casper, Calif.	1.63	1.63	Fall 1962	—	—	—	—	—	—	FS
	do	do	do	—	—	Summer 1963	.80	—	—	—	.054	—	
	do	do	do	—	—	Summer 1964	1.0	—	—	—	.028	—	
	do	do	do	—	—	Summer 1965	1.0	—	—	—	.139	—	
	do	do	do	—	—	Summer 1966	1.0	—	—	—	.119	—	
	do	do	do	—	—	Summer 1967	1.0	—	—	—	.068	—	
	do	do	do	—	—	Summer 1968	1.0	—	—	—	.083	—	
	do	do	do	—	—	Summer 1969	1.0	—	—	—	.143	—	
	do	do	do	—	—	Summer 1970	1.0	—	—	—	.091	—	
72-27a	Casper Creek - North Fork	do	Fort Bragg, Calif.--	1.92	1.92	Fall 1962	—	—	—	—	—	—	FS
	do	do	do	—	—	Summer 1963	.78	—	—	—	.039	—	
	do	do	do	—	—	Summer 1964	1.0	—	—	—	.043	—	
	do	do	do	—	—	Summer 1965	1.0	—	—	—	.425	—	
	do	do	do	—	—	Summer 1966	1.0	—	—	—	.491	—	
	do	do	do	—	—	Summer 1967	1.0	—	—	—	.037	—	
	do	do	do	—	—	Summer 1968	1.0	—	—	—	.033	—	
	do	do	do	—	—	Summer 1969	1.0	—	—	—	.242	—	
	do	do	do	—	—	Summer 1970	1.0	—	—	—	.141	—	
72-28	McQuire	Virgin Creek	Fort Bragg, Calif.--	.084	.083	July 1954/	—	7.3	.11	—	—	—	SCS
	do	do	do	—	—	July 1967	13	7.07	.11	.60	.21	274	
72-29	Laxy Creek	do	Philo, Calif.	.666	.663	Aug. 1955/	—	26.94	.038	—	—	—	SCS
	do	do	do	—	—	July 1967	12	19.50	.027	.67	.94	1,372	
72-30	Appleton	Unnamed	Healdsburg, Calif.--	.166	.161	Aug. 1950/	—	25.18	.189	—	—	—	SCS
	do	do	do	—	—	Aug. 1967	17	24.24	.182	.59	.37	475	
72-31	M. S. Wilson	Bourne Gulch	Qualala, Calif.	.285	.283	July 1952/	—	14.06	*.040	—	—	—	SCS
	do	do	do	—	—	July 1967	15	13.02	*.037	.60	.24	314	
KLAMATH, ROGUE, AND UMPQUA RIVER BASINS													
73-1	Emigrant Gap	Emigrant Creek	Ashland, Oreg.--	61.6	61.2	Oct. 1924	—	6/8,300	—	—	—	—	BR
	do	do	do	—	—	Oct. 1951	27	7,500	—	—	.214	—	
73-2	Coyote Creek #1	Trib. South Umpqua River	Tiller, Oreg.--	.267	.267	June 1965	—	7/.019	.0001	—	—	—	FS
	do	do	do	—	—	Aug. 1966	1.12	—	—	—	.0052	—	
	do	do	do	—	—	Aug. 1967	1.01	—	—	—	.0005	—	
	do	do	do	—	—	Aug. 1968	1.0	—	—	—	.0016	—	
	do	do	do	—	—	July 1969	.94	—	—	—	.0002	—	
	do	do	do	—	—	July 1970	.98	—	—	—	.0019	—	
73-3	Coyote Creek #2	do	do	.264	.264	June 1965	—	7/.012	.00004	—	—	—	FS
	do	do	do	—	—	Aug. 1966	1.11	—	—	—	.0031	—	
	do	do	do	—	—	Aug. 1967	1.01	—	—	—	.0007	—	
	do	do	do	—	—	Aug. 1968	1.0	—	—	—	.0008	—	
	do	do	do	—	—	July 1969	.94	—	—	—	.0002	—	
	do	do	do	—	—	July 1970	.98	—	—	—	.0004	—	
73-4	Coyote Creek #3	do	do	.192	.192	June 1965	—	7/.011	.0001	—	—	—	FS
	do	do	do	—	—	Aug. 1966	1.11	—	—	—	.0147	—	
	do	do	do	—	—	Aug. 1967	1.01	—	—	—	.002	—	
	do	do	do	—	—	Aug. 1968	1.0	—	—	—	.0023	—	
	do	do	do	—	—	July 1969	.94	—	—	—	.001	—	
	do	do	do	—	—	July 1970	.98	—	—	—	.0057	—	

73-5	Coyote Creek #4-----	Trib. South Umpqua River-----	Tiller, Oreg.-----	.188	.188	June 1965	---	2/---	---	---	---	---	---	FS
	do-----	do-----	do-----	---	---	Aug. 1966	1.11	---	---	---	---	.0094	---	
	do-----	do-----	do-----	---	---	Aug. 1967	1.01	---	---	---	---	.0009	---	
	do-----	do-----	do-----	---	---	Aug. 1968	1.0	---	---	---	---	.001	---	
	do-----	do-----	do-----	---	---	July 1969	.98	---	---	---	---	.0049	---	
	do-----	do-----	do-----	---	---	July 1970	.98	---	---	---	---	.0049	---	
LOWER COLUMBIA RIVER BASIN AND PACIFIC COAST BASINS IN NORTHERN OREGON														
74-1	Condit (White Salmon)-----	White Salmon River-----	Underwood, Wash.-----	337	337	1913	---	8/1,081	---	---	---	---	---	SCS
	do-----	do-----	do-----	---	---	May 1936	23	1,054	---	---	---	.004	---	
74-2	Lake Harriet (Oak Grove)-----	Trib. of Clackamas River-----	Portland, Oreg.-----	126	126	Aug. 1924	---	256	.001	---	---	.0013	---	SCS
	do-----	do-----	do-----	---	---	Aug. 1948	24	252	.001	---	---	.0013	---	
74-3	McKay-----	McKay Creek-----	Pendleton, Oreg.-----	186	184	Oct. 1926	---	73,737	---	---	---	---	---	SCS
	do-----	do-----	do-----	---	---	July 1946	19.75	73,474	---	*40	---	.61	---	
74-4	Cottage Grove-----	Coast Fk. Willamette River-----	Cottage Grove, Oreg.-----	104	102	Oct. 1942	---	33,000	*.165	---	---	.24	---	CE
	do-----	do-----	do-----	---	---	Dec. 1947	5.1	32,873	*.164	---	---	.244	---	
74-5a	Luther Claypool Pond-----	Trib. of Beaver Creek-----	Post, Oreg.-----	1.09	1.09	1946	---	3.79	---	---	---	.037	56.4	SCS
	do-----	do-----	do-----	---	---	Oct. 1951	5	3.59	---	*70	---	.037	56.4	
74-6	Paul Jaeger No. 1 Pond-----	Trib. of John Day River-----	Condon, Oreg.-----	.625	.624	1943	---	1.82	---	---	---	.085	130	SCS
	do-----	do-----	do-----	---	---	Oct. 1951	8	1.40	---	*70	---	.085	130	
74-7	Paul Jaeger No. 2 Pond-----	Trib. of Rock Creek-----	do-----	.468	.467	1946	---	3.19	---	---	---	.299	456	SCS
	do-----	do-----	do-----	---	---	Oct. 1951	5	2.51	---	*70	---	.299	456	
74-8a	Paul Jaeger No. 3 Pond-----	Trib. of John Day River-----	do-----	.250	.249	1944	---	3.04	---	---	---	.12	183	SCS
	do-----	do-----	do-----	---	---	Oct. 1951	7	2.81	---	*70	---	.12	183	
74-9	J. M. Wilson Pond-----	Trib. of Deschutes River-----	Moro, Oreg.-----	1.50	1.50	1946	---	1.08	---	---	---	.01	15.24	SCS
	do-----	do-----	do-----	---	---	Oct. 1951	5	.97	---	*70	---	.01	15.24	
74-10	Willard Barnett Pond-----	Buck Creek-----	Kent, Oreg.-----	.210	.209	1941	---	2.91	---	---	---	.24	366	SCS
	do-----	do-----	do-----	---	---	Oct. 1951	10	2.41	---	*70	---	.24	366	
74-11	Arthur Schmidt Pond-----	Trib. of Buck Creek-----	Shaniko, Oreg.-----	.115	.114	1940	---	2.00	---	---	---	.03	45.73	SCS
	do-----	do-----	do-----	---	---	Oct. 1951	11	1.97	---	*70	---	.03	45.73	
74-12	Rock Creek Improvement Co.---	Trib. of White River-----	Tygh Valley, Oreg.---	5.62	5.60	Oct. 1951/	13	250	---	---	---	.045	68.61	SCS
	do-----	do-----	do-----	---	---	Oct. 1951/	13	247	---	*70	---	.045	68.61	
74-13	Vernon Christ Pond-----	Five Mile Creek-----	Dufur, Oreg.-----	.089	.088	1941	---	1.61	---	---	---	.227	346	SCS
	do-----	do-----	do-----	---	---	Oct. 1951	10	1.39	---	*70	---	.227	346	
74-14	Milt J. Martin Pond-----	Mill Creek-----	The Dalles, Oreg.---	.070	.069	1944	---	2.72	---	---	---	.29	442	SCS
	do-----	do-----	do-----	---	---	Oct. 1951	7	2.58	---	*70	---	.29	442	
74-15	Hunt Livestock Co. Pond-----	Trib. of Buck Creek-----	Shaniko, Oreg.-----	.050	.050	1942	---	2.25	---	---	---	.20	305	SCS
	do-----	do-----	do-----	---	---	Oct. 1951	9	2.15	---	*70	---	.20	305	
74-16	Cold Springs-----	Cold Springs Canyon-----	Cold Springs, Oreg.---	188	186	Feb. 1908	---	49,709	---	---	---	.63	1,070	SCS
	do-----	do-----	do-----	---	---	May 1951	43	44,668	---	78	---	.63	1,070	
74-17	Dorena-----	Row River-----	Cottage Grove, Oreg.---	265	262	Oct. 1949	---	77,500	.143	---	---	.150	---	CE
	do-----	do-----	do-----	---	---	Sept. 1958	8.9	77,150	.142	---	---	.150	---	
74-18	H. J. Andrews #1-----	Trib. Blue River-----	Blue River, Oreg.---	.37	.37	Aug. 1965	---	7/.12	.0001	---	---	.011	---	FS
	do-----	do-----	do-----	---	---	Aug. 1966	1.05	---	---	---	---	.011	---	
	do-----	do-----	do-----	---	---	July 1967	.92	---	---	---	---	.011	---	
	do-----	do-----	do-----	---	---	Aug. 1968	.99	---	---	---	---	.011	---	
	do-----	do-----	do-----	---	---	Aug. 1969	.84	---	---	---	---	.011	---	
	do-----	do-----	do-----	---	---	Aug. 1970	.96	---	---	---	---	.011	---	
74-19	H. J. Andrews #2-----	do-----	do-----	.233	.233	Aug. 1965	---	7/.056	.0001	---	---	.0311	---	FS
	do-----	do-----	do-----	---	---	Aug. 1966	.98	---	---	---	---	.0311	---	
	do-----	do-----	do-----	---	---	July 1967	.92	---	---	---	---	.0311	---	
	do-----	do-----	do-----	---	---	Aug. 1968	.99	---	---	---	---	.0311	---	
	do-----	do-----	do-----	---	---	Aug. 1969	1.0	---	---	---	---	.0311	---	
	do-----	do-----	do-----	---	---	Aug. 1970	1.0	---	---	---	---	.0311	---	
74-20	H. J. Andrews #3-----	do-----	do-----	.391	.391	Dec. 1965	---	7/.061	.00005	---	---	.054	---	FS
	do-----	do-----	do-----	---	---	Apr. 1966	.31	---	---	---	---	.054	---	
	do-----	do-----	do-----	---	---	Aug. 1967	.97	---	---	---	---	.054	---	
	do-----	do-----	do-----	---	---	Aug. 1968	1.0	---	---	---	---	.054	---	
	do-----	do-----	do-----	---	---	Aug. 1969	1.0	---	---	---	---	.054	---	
	do-----	do-----	do-----	---	---	Aug. 1970	.96	---	---	---	---	.054	---	

1/ Original capacity determined by 1965 survey.

2/ Original capacity determined from 1964 survey. Capacity shown is for an elevation 4 ft. below spillway crest.

3/ Original capacity obtained during 1965 survey. Total capacity with flashboards = 9.21 ac.-ft.

4/ From one disturbed and two undisturbed samples.

5/ Original capacity determined from 1967 survey.

6/ Based on original topographic survey; believed to be unreliable.

7/ Sediment measured and removed periodically.

8/ Dam was raised 5 feet in 1927.

9/ Built in 1941. Reservoir was thoroughly cleaned in 1945.

* Estimated or assumed.

SUMMARY OF
RESERVOIR SEDIMENTATION SURVEYS MADE IN THE UNITED STATES THROUGH 1970

DATA SHEET NUMBER	RESERVOIR	STREAM	NEAREST TOWN	DRAINAGE AREA (SQUARE MILES)		DATE OF SURVEY	PERIOD BETWEEN SURVEYS (YEARS)	STORAGE CAPACITY (ACRE-FT.)	CAPACITY AVG. ANN. INFLOW RATIO (ACRE-FT. PER ACRE-FT)	SPECIFIC WEIGHT (DRY) (LB. PER CU. FT.)	AVG. ANN. SEDIMENT ACCUMULATION PER SQ. MI. OF NET DR. AREA FOR PERIOD SHOWN		AGENCY SUPPLYING DATA
				TOTAL	NET						AC.-FT.	TONS	
COLUMBIA RIVER BASIN (GRAND COULES TO UMATILLA) AND PACIFIC COAST DRAINAGE IN WASHINGTON Yakima, Chelan, and Okanogan River Basins													
75-1	Diablo	Skagit River	Bellingham, Wash.	1,100	1,100	July 1930	—	89,220	—	—	—	—	SCS
	do	do	do	—	—	July 1936	6	88,862	—	—	0.054	—	—
75-2	High Valley Ranch #1 Pond	Wenas Creek	Yakima, Wash.	4.11	4.10	Oct. 1939	—	8.61	—	—	—	—	SCS
	do	do	do	—	—	Oct. 1951	12	7.63	—	*70	.02	30.49	—
75-3	High Valley Ranch #2 Pond	do	Ellensburg, Wash.	.184	.184	Oct. 1940	—	.58	—	—	—	—	SCS
	do	do	do	—	—	Oct. 1951	11	.51	—	*70	.04	61.0	—
75-4	High Valley Ranch #3 Pond	do	do	.312	.312	Oct. 1945	—	1.53	—	—	—	—	SCS
	do	do	do	—	—	Oct. 1951	11	1.42	—	*70	.03	46.0	—
75-5	Henry Clert Pond	Rye Grass Creek	do	6.47	6.47	Oct. 1946	—	2.38	—	—	—	—	SCS
	do	do	do	—	—	Oct. 1951	5	2.02	—	*70	.01	15.24	—
75-6	Coffin Sheep Co. Pond	Haches River	Yakima, Wash.	.482	.480	Oct. 1939	—	2.63	—	—	—	—	SCS
	do	do	do	—	—	Oct. 1951	12	2.47	—	*70	.027	41.16	—
75-7	Fox Creek	Fox	Ardenvoir, Wash.	1.82	1.82	Summer 1965	—	1/—	—	—	—	—	FS
	do	do	do	—	—	Summer 1966	1	—	—	110	.0076	18.4	—
	do	do	do	—	—	Summer 1967	1	—	—	—	.0076	18.4	—
	do	do	do	—	—	Summer 1968	1	—	—	—	.0022	5.3	—
	do	do	do	—	—	Summer 1969	1	—	—	—	.0076	18.4	—
	do	do	do	—	—	Summer 1970	1	—	—	—	0	0	—
	do	do	do	—	—	Summer 1971	1	—	—	—	.0577	136.5	—
75-8	Burns	Burns	do	2.18	2.18	Summer 1965	—	1/—	—	—	—	—	FS
	do	do	do	—	—	Summer 1966	1	—	—	—	.0	0	—
	do	do	do	—	—	Summer 1967	1	—	—	—	.0	0	—
	do	do	do	—	—	Summer 1968	1	—	—	—	.0	0	—
	do	do	do	—	—	Summer 1969	1	—	—	—	.0	0	—
	do	do	do	—	—	Summer 1970	1	—	—	—	.0	0	—
	do	do	do	—	—	Summer 1971	1	—	—	110	.0366	87.9	—
75-9	McCree	McCree	do	1.985	1.985	Summer 1965	—	1/—	—	—	—	—	FS
	do	do	do	—	—	Summer 1966	1	—	—	—	0	0	—
	do	do	do	—	—	Summer 1967	1	—	—	—	0	0	—
	do	do	do	—	—	Summer 1968	1	—	—	—	0	0	—
	do	do	do	—	—	Summer 1969	1	—	—	—	0	0	—
	do	do	do	—	—	Summer 1970	1	—	—	—	0	0	—
	do	do	do	—	—	Summer 1971	1	—	—	110	.0165	39.7	—
75-10	Crabtree	Trib. White	Auburn, Wash.	.475	.11	May 1967	—	6.92	.01	—	—	—	SCS
	do	do	do	—	—	June 1970	3	6.38	.009	*60	1.65	2,156	—
75-11	Llewellyn	Trib. Goose	Wilbur, Wash.	1.25	1.25	July 1957	—	17.52	.26	—	—	—	SCS
	do	do	do	—	—	July 1967	10	8.42	.13	*80	.73	1,272	—
75-12	Schwisow	No name	Ritzville, Wash.	4.15	4.15	May 1959	—	5.54	.04	—	—	—	SCS
	do	do	do	—	—	May 1969	10	0	—	*80	.09	156.8	—
75-13	Rex Lyle	do	do	.71	.71	June 1959	—	2.75	.2	—	—	—	SCS
	do	do	do	—	—	May 1969	10	1.66	.12	*80	.155	270	—
75-14	Schoeweler	do	do	.31	.31	June 1951	—	2.24	.37	—	—	—	SCS
	do	do	do	—	—	May 1969	18	0	—	*80	.40	696.8	—
75-15	John Landa (PU 90, BLK. 81)	do	Moses Lake, Wash.	.092	.092	Jan. 1970	—	2/—	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1970	1	—	—	*60	.8	1,045	—
75-16	Shaffer	do	do	.356	.356	June 1958	—	2/—	—	—	—	—	SCS
	do	do	do	—	—	Nov. 1970	12	—	—	*60	.28	366	—
75-17	Sun Spiced No. 1	do	do	.17	.17	—	—	2/—	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1970	1	—	—	*60	.73	954	—
75-18	Sun Spiced No. 2	do	do	.80	.80	June 1969	—	2/—	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1970	1	—	—	*60	.52	680	—
75-19	Sheffels	do	Wilbur, Wash.	4.77	4.77	Apr. 1963	—	5.1	.02	—	—	—	SCS
	do	do	do	—	—	May 1969	6	.85	.003	*70	.15	229	—
75-20	Talecky	Trib. Crab	Edwall, Wash.	2.26	2.26	Apr. 1957	—	13.43	.09	—	—	—	SCS
	do	do	do	—	—	June 1964	7	0	—	*80	.85	1,480	—
75-21	Terwilliger (PU 273, BLK. 1)	No Name	Warden, Wash.	.05	.05	Apr. 1968	—	2/—	—	—	—	—	SCS
	do	do	do	—	—	Dec. 1968	1	—	—	*60	1.4	1,829	—
	do	do	do	—	—	Dec. 1969	1	—	—	*60	8.6	11,238	—
75-22	Roby	Goose Creek	Davenport, Wash.	4.10	3.85	—	—	22.91	.10	—	—	—	SCS
	do	do	do	—	—	Apr. 1969	30	2.56	.01	*70	.175	266	—

COLUMBIA RIVER BASIN (INTERNATIONAL BOUNDARY TO GRAND COULEE) AND PACIFIC COAST DRAINAGE IN WASHINGTON
Pendrellville, Spokane, Walla Walla, and Lower Snake River Basins

76-1	Mrs. Weiss No. 1 Pond	Asotin Creek	Asotin, Wash.	.129	.128	Sept. 1945	6	1.45	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1951	6	1.23	—	*70	.31	473	SCS
76-2	Mrs. Weiss No. 2 Pond	Trib. of Asotin Creek	do	.218	.217	Sept. 1945	—	2.54	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1951	6	2.14	—	*70	.31	473	SCS
76-3a	Lester Reeves No. 1 Pond	Asotin Creek N. & S. Fork	do	.101	.100	Sept. 1941	—	1.45	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1951	10	1.18	—	*70	.27	4,116	SCS
76-4	Lester Reeves No. 2 Pond	Asotin Creek	do	.125	.125	Sept. 1945/	6	1.21	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1951	6	.69	—	*70	.70	1,067	SCS
76-5	Dan Bolt Pond	Latah Creek	Maverly, Wash.	.110	.109	Sept. 1944	—	2.20	—	—	—	—	SCS
	do	do	do	—	—	Oct. 1951	7	2.11	—	*70	.12	1,183	SCS
76-6	Roy T. Wood Pond	Trib. of Clearwater River	Lewiston, Idaho	.014	.013	Sept. 1946	—	4.22	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1951	5	3.87	—	*70	5.38	9,202	SCS
76-7	Ed Knudsen Pond	Clearwater River	Orofino, Idaho	.021	.020	Sept. 1946	—	2.54	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1951	5	2.12	—	*70	4.20	6,403	SCS
76-8	Malden Masson Pond	do	Mos Pierce, Idaho	.015	.014	Sept. 1945	—	4.58	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1951	6	4.40	—	*70	2.14	3,263	SCS
76-9	Henry Kortmeier Pond	Palouse River	Portlatch, Idaho	.021	.020	Sept. 1943	—	2.71	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1951	8	2.52	—	*70	1.20	1,830	SCS
76-10	George Hoidal Pond	do	Harvard, Idaho	.043	.042	Sept. 1941	—	2.49	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1951	10	2.41	—	*70	.19	290	SCS
76-11a	Johanna Nelson Pond	do	Deary, Idaho	.014	.012	Sept. 1943	—	5.16	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1951	8	4.97	—	*70	2.0	3,030	SCS
76-12	Ed Galloway Pond	do	do	.014	.014	Sept. 1944	—	1.29	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1951	7	1.23	—	*70	.64	976	SCS
76-13	A. K. Tweedy Pond	Clearwater River	Mos Pierce, Idaho	.014	.014	Sept. 1931	—	.80	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1951	20	.62	—	*70	.64	976	SCS
76-14	Walla Walla River Arm Mollary Reservoir	Walla Walla River	Mallula, Wash.	1,760	1,760	Apr. 1953	—	9,688	.023	—	—	—	CS
	do	do	do	—	—	Nov. 1956	3.61	7,237	.017	*75	.405	662	
	do	do	do	—	—	Nov. 1958	2.00	5,507	.013	—	.484	791	
	do	do	do	—	—	Nov. 1960	2.00	4,656	.011	—	.255	417	
	do	do	do	—	—	Sept. 1961	.83	3,569	.008	—	.744	1,215	
	do	do	do	—	—	Sept. 1962	1.00	3,458	.008	—	.073	119	
	do	do	do	—	—	Sept. 1963	1.00	2,918	.007	*75	.307	501	
	do	do	do	—	—	Oct. 1964	1.08	2,874	.007	—	.029	38	
	do	do	do	—	—	July 1965	.75	1,912	.004	—	1/1.027	1/1.678	
76-15	Main Fork Horse Creek	Horse Creek	Elk City, Idaho	6.51	6.51	Oct. 1965	—	1/.087	—	—	—	—	FS
	do	do	do	—	—	Oct. 1966	1	—	—	*90	.0024	4.8	
	do	do	do	—	—	Oct. 1967	1	—	—	*90	.0064	12.9	
	do	do	do	—	—	Oct. 1968	1	—	—	*90	.0024	4.7	
	do	do	do	—	—	Oct. 1969	1	—	—	*90	.0043	8.5	
	do	do	do	—	—	Oct. 1970	1	—	—	*90	.0048	9.4	
	do	do	do	—	—	Oct. 1971	1	—	—	*90	.0134	26.2	
76-16	East Fork Horse Creek	East Fork Horse Creek	do	5.56	5.56	Oct. 1965	—	1/.039	—	—	—	—	FS
	do	do	do	—	—	Oct. 1966	1	—	—	*90	.0022	4.1	
	do	do	do	—	—	Oct. 1967	1	—	—	*90	.0056	11.0	
	do	do	do	—	—	Oct. 1968	1	—	—	*90	.0016	3.8	
	do	do	do	—	—	Oct. 1969	1	—	—	*90	.0029	5.6	
	do	do	do	—	—	Oct. 1970	1	—	—	*90	.0045	8.8	
	do	do	do	—	—	Oct. 1971	1	—	—	*90	.0070	13.7	

COLUMBIA RIVER BASIN IN CANADA

77-

SHAKE RIVER BASIN (FROM KING HILL TO GRANGE RONDE RIVER)

78-1	Orchard	Indian Creek	Boise, Idaho	43	42.8	1892	—	4,737	—	—	—	—	SCS
	do	do	do	—	—	June 1947	55	4,668	—	—	.03	—	SCS
78-2	Black Canyon	Payette River	Ramett, Idaho	2,750	5/2,540	June 1924	—	37,659	.017	—	—	—	SCS
	do	do	do	—	—	June 1936	12	33,622	.015	—	.132	—	SCS
78-3	Pleasant Valley	Black's Creek	Boise, Idaho	*16	*16	1905	—	7,897	—	—	.063	—	SCS
	do	do	do	—	—	June 1947	42	7,855	—	—	—	—	SCS
78-4	Arrowrock-Boise Project	Boise River	do	2,211	2,170	Feb. 1915	—	279,250	.186	—	—	—	BR
	do	do	do	—	—	Oct. 1947	32.6	271,550	.181	73	.109	173.3	SCS
78-5	Andy Anderson Pond	Wester River	Cambridge, Idaho	.614	.590	1905	—	104.20	—	—	—	—	SCS
	do	do	do	—	—	Aug. 1951	46	100.67	—	*70	.136	207	
78-6	Wilton Branch Pond	Trib. of Wester River	do	.436	.424	1940	—	44.49	—	—	—	—	
	do	do	do	—	—	Sept. 1951	11	43.24	—	*70	.259	395	

- 1/ Sediment measured and removed periodically.
2/ Desilting structure for return irrigation water.
3/ Built 1941. Reservoir was thoroughly cleaned in 1945.

- 4/ Includes above crest deposits within original flow lines.
5/ Does not include drainage area above Payette Lakes.
6/ Estimated or assumed.

SUMMARY OF
RESERVOIR SEDIMENTATION SURVEYS MADE IN THE UNITED STATES THROUGH 1970

DATA SHEET NUMBER	RESERVOIR	STREAM	NEAREST TOWN	DRAINAGE AREA (SQUARE MILES)		DATE OF SURVEY	PERIOD BETWEEN SURVEYS (YEARS)	STORAGE CAPACITY (ACRE-FT.)	CAPACITY AVG. ANN. INFLOW RATIO (ACRE-FT. PER ACRE-FT.)	SPECIFIC WEIGHT (DRY) (LB. PER CU. FT.)	AVG. ANN. SEDIMENT ACCUMULATION PER SQ. MI. OF NET DR. AREA FOR PERIOD SHOWN		AGENCY SUPPLYING DATA
				TOTAL	NET						AC.-FT.	TONS	
SHAKE RIVER BASIN (FROM KING HILL TO GRANDE BONNE RIVER) (Continued)													
78-7	W. B. Winger Pond	Trib. of Wester River	Cambridge, Idaho	0.543	0.538	Aug. 1963	8	17.58	—	—	—	—	SCS
	do	do	do	—	—	Aug. 1951	—	16.57	—	970	0.240	366	—
78-8	Miller Smead Pond	Little Willow Creek	Payette, Idaho	.218	.217	—	1945	2.90	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1951	6	2.71	—	970	.147	224	—
78-9	Twin Paddies Pond	Trib. of Boise River	Boise, Idaho	1.61	1.61	—	1941	7.82	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1951	10	7.52	—	970	.02	30.49	—
78-10	Lambkin Pond	do	Mountain Home, Idaho	.193	.191	—	1941	4.54	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1951	10	4.49	—	970	.05	76.23	—
78-11	Nad Springs Pond	do	do	1.07	1.06	—	1939	12.18	—	—	—	—	SCS
	do	do	do	—	—	Sept. 1951	12	11.81	—	970	.03	45.73	—
78-12	J. J. Colton Pond	Trib. of Powder River	Kestling, Oreg.	.484	.483	—	1939	1.08	—	—	—	—	SCS
	do	do	do	—	—	Oct. 1951	12	.84	—	970	.04	61.0	—
78-13	Hawkins Pond No. 1	Trib. of Clover Creek	Westfall, Oreg.	.12	—	—	1952	1.56	—	—	—	—	SCS
	do	do	do	—	—	May 1956	4	1.52	—	—	.079	—	—
78-14	Hawkins Pond No. 2	do	do	.27	—	—	1952	6.94	—	—	—	—	SCS
	do	do	do	—	—	May 1956	4	6.76	—	—	.17	—	—
78-15a	Wheaton	Wheaton Creek	do	14.0	—	—	1948	52.27	—	—	—	—	SCS
	do	do	do	—	—	May 1956	8	31.97	—	—	.18	—	—
78-16	K-1 Creek Sediment Dam	Trib. Silver Creek	Cascade, Idaho	.098	.098	Aug. 1965	—	1/.008	—	—	—	—	FS
	do	do	do	—	—	June 1966	—	.80	—	—	.0002	—	—
	do	do	do	—	—	June 1967	—	.98	—	—	.0007	—	—
	do	do	do	—	—	July 1968	1.09	—	—	—	.0047	—	—
	do	do	do	—	—	Nov. 1968	.35	—	—	—	.0003	—	—
	do	do	do	—	—	June 1969	.60	—	—	—	.0409	—	—
	do	do	do	—	—	Aug. 1969	.21	—	—	—	0	—	—
	do	do	do	—	—	July 1970	.84	—	—	—	.0194	—	—
	do	do	do	—	—	Sept. 1970	.21	—	—	—	0	—	—
78-17	Control Creek Sediment Dam	do	do	.775	.775	Aug. 1965	—	1/.013	—	—	—	—	FS
	do	do	do	—	—	June 1966	—	.79	—	—	.0002	—	—
	do	do	do	—	—	June 1967	1.0	—	—	—	.0014	—	—
	do	do	do	—	—	July 1968	1.07	—	—	—	.0006	—	—
	do	do	do	—	—	Nov. 1968	.36	—	—	—	.0011	—	—
	do	do	do	—	—	June 1969	.62	—	—	—	.0079	—	—
	do	do	do	—	—	Aug. 1969	.17	—	—	—	0	—	—
	do	do	do	—	—	June 1970	.83	—	—	—	.0028	—	—
	do	do	do	—	—	Sept. 1970	.21	—	—	—	0	—	—
78-18	Cabin Creek Sediment Dam	do	do	.40	.40	July 1965	—	1/.046	—	—	—	—	FS
	do	do	do	—	—	June 1966	—	.87	—	—	.0002	—	—
	do	do	do	—	—	June 1967	—	.99	—	—	.0008	—	—
	do	do	do	—	—	July 1968	1.07	—	—	—	.0028	—	—
	do	do	do	—	—	Nov. 1968	.37	—	—	—	.0081	—	—
	do	do	do	—	—	June 1969	.60	—	—	—	.0416	—	—
	do	do	do	—	—	Aug. 1969	.19	—	—	—	0	—	—
	do	do	do	—	—	June 1970	.82	—	—	—	.0162	—	—
	do	do	do	—	—	Sept. 1970	.21	—	—	—	0	—	—
78-19	Ditch Creek Sediment Dam	do	do	.41	.41	Sept. 1965	—	1/.023	—	—	—	—	FS
	do	do	do	—	—	June 1966	—	.75	—	—	.0006	—	—
	do	do	do	—	—	June 1967	1.0	—	—	—	.0107	—	—
	do	do	do	—	—	July 1968	1.07	—	—	—	.0039	—	—
	do	do	do	—	—	Nov. 1968	.36	—	—	—	.002	—	—
	do	do	do	—	—	June 1969	.56	—	—	—	.067	—	—
	do	do	do	—	—	Aug. 1969	.23	—	—	—	0	—	—
	do	do	do	—	—	June 1970	.82	—	—	—	.0214	—	—
	do	do	do	—	—	Sept. 1970	.21	—	—	—	0	—	—
78-20	"C" Creek Sediment Dam	do	do	.75	.75	Aug. 1965	—	1/.0207	—	—	—	—	FS
	do	do	do	—	—	June 1966	—	.80	—	—	.0103	—	—
	do	do	do	—	—	June 1967	—	.98	—	—	.007	—	—
	do	do	do	—	—	July 1968	1.08	—	—	—	.00011	—	—
	do	do	do	—	—	Oct. 1968	.20	—	—	—	.0177	—	—
	do	do	do	—	—	June 1969	.60	—	—	—	.04	—	—
	do	do	do	—	—	Aug. 1969	.24	—	—	—	0	—	—
	do	do	do	—	—	June 1970	.82	—	—	—	.0276	—	—
	do	do	do	—	—	Sept. 1970	.21	—	—	—	0	—	—
78-21	"D" Creek Sediment Dam	do	do	.47	.47	July 1965	—	1/.017	—	—	—	—	FS
	do	do	do	—	—	June 1966	—	.85	—	—	.0017	—	—
	do	do	do	—	—	June 1967	—	.99	—	—	.0187	—	—

SNAKE RIVER BASIN (ABOVE KINGS HILL) AND SALMON RIVER BASIN

[illegible]

PUERTO RICO

80-1	Caonillas	Caonillas River	Utua, Puerto Rico	h/48.9	47.9	June 1948	—	5/50,149	.566	—	—	—	SCB
	do	do	do	—	—	Nov. 1942	1.3	19,883	.463	28.1	1.20	1.070	

1/ Pond used to take bedload samples and organic matter.
2/ All values lost due to incorrect survey.
3/ Total drainage for this dam includes drainage for Tailholt A, B and C Creeks after 8-22-67.

4/ Caonillas extension project increased the drainage area to 85.5 sq. mi.; put into operation Oct. 1952.
5/ Determined by 1952 survey.
6/ Estimated or assumed.

INDEX OF RIVER BASIN MAPS

RESERVOIR SEDIMENT
DATA SUMMARY

CONCHAS RESERVOIR
NAME OF RESERVOIR

47-1b
DATA SHEET NO.

DAM	1. OWNER <u>Cotton of Endrean</u>			2. STREAM <u>Canadian and Conchas</u>		3. STATE <u>New Mexico</u>		
	4. DEC. 83 <u>TWP. 14N RANGE 26E</u>			5. NEAREST P. O. <u>Conchas Dam</u>		6. COUNTY <u>San Miguel</u>		
	7. LAT. <u>35° 24' 10"</u> LONG. <u>104° 11' 25"</u>			8. TOP OF DAM ELEVATION <u>4240</u>		9. SPILLWAY CREST ELEV. <u>4201 1/2</u>		
RESERVOIR	10. STORAGE ALLOCATION		11. ELEVATION TOP OF POOL	12. ORIGINAL SURFACE AREA, ACRES	13. ORIGINAL CAPACITY, ACRE-Feet	14. GROSS STORAGE, ACRE-Feet	15. DATE STORAGE BEGAN	
	a. FLOOD CONTROL		4,218	13,715	201,834	801,112	1 Jan. 1939	
	b. MULTIPLE USE							
	c. POWER							
	d. WATER SUPPLY						16. DATE NORMAL OPER. BEGAN	
	e. IRRIGATION							
	f. CONSERVATION		4,201	10,073	298,412	899,278	Jan. 1939	
	g. INACTIVE		4,155	8,520	102,866	102,866		
WATERSHED	17. LENGTH OF RESERVOIR <u>Canadian 28 1/2</u> MILES			18. AV. WIDTH OF RESERVOIR <u>4200 Contour 0.78</u> MILES				
	19. TOTAL DRAINAGE AREA <u>7,409</u> SQ. MI.			20. MEAN ANNUAL PRECIPITATION <u>15.2 3/4</u> INCHES				
	21. NET SEDIMENT CONTRIBUTING AREA <u>6,976</u> SQ. MI.			22. MEAN ANNUAL RUNOFF <u>0.486 4/5 (65.8)</u> INCHES				
	23. LENGTH <u>100</u> MILES AV. WIDTH <u>73</u> MILES			24. MEAN ANNUAL RUNOFF <u>192,200 (65.8)</u> AC.-FT.				
SURVEY DATA	25. MAX. ELEV. <u>13,000</u>		26. MIN. ELEV. <u>4,074</u>		27. ANNUAL TEMP: MEAN <u>49°</u> RANGE <u>20-75 3/4</u>			
	28. DATE OF SURVEY <u>5/</u>	29. PERIOD YEARS	30. ACCL. YEARS	31. TYPE OF SURVEY	32. NO. OF RANGES OR CONTOUR INT.	33. SURFACE AREA, ACRES	34. CAPACITY, ACRE-Feet	
	Jan. 1939			Contour	10 feet	13,715	801,112	
	May 1940	1.4	1.4	Range	14 ranges		899,712	
	June 1942	2.1	3.4	Range	24 ranges		885,112	
	Nov. 1942	.4	3.8	Range	28 ranges		881,112	
	Oct. 1944	1.9	5.7	Contour	10 feet	13,349	576,756	
	Feb. 1949	4.8	10.1	Contour	10 feet	13,552	566,162	
	Oct. 1963	14.7	24.83	Range (D)	45 ranges	13,677	550,796	
	Oct. 1970	6.92	31.75	Contour	5 feet	13,664	528,951	
							3.13	
							3.12	
						3.04		
						3.02		
						3.00		
						2.95		
						2.87		
						2.75		
SURVEY DATA	26. DATE OF SURVEY <u>5/</u>	34. PERIOD ANNUAL PRECIPITATION	35. PERIOD WATER INFLOW, ACRE-Feet			36. WATER INFL. TO DATE, AC.-FT.		
			a. MEAN ANNUAL	b. MAX. ANNUAL	c. PERIOD TOTAL	d. MEAN ANNUAL	e. TOTAL TO DATE	
	May 1940	14.26	72,700		101,780	72,700	101,780	
	June 1942	22.40	859,780	1,059,699	1,805,540	560,980	1,907,320	
	Nov. 1942	12.50	1,079,980		431,990	615,607	2,339,310	
	Oct. 1944	14.32	143,750	1,188,360	273,180	458,320	2,612,440	
	Feb. 1949	13.68	120,500	188,858	518,140	309,960	3,130,560	
	Oct. 1963	13.01	144,340	336,514	2,121,860	211,790	5,252,430	
	Oct. 1970	12.04	157,100	394,190	1,087,100	199,670	6,339,530	
SURVEY DATA	26. DATE OF SURVEY <u>5/</u>	37. PERIOD CAPACITY LOSS, ACRE-Feet			38. TOTAL SED. DEPOSITS TO DATE, ACRE-Feet			
		a. PERIOD TOTAL	b. AV. ANNUAL	c. PER SQ. MI.-YEAR	d. TOTAL TO DATE	e. AV. ANNUAL	f. PER SQ. MI.-YEAR	
	May 1940	1,400			1,400	1,000	0.143	
	June 1942	14,600	6,952	0.996	16,000	4,710	.675	
	Nov. 1942	4,000			20,000	5,260	.754	
	Oct. 1944	4,356	2,290	.328	24,356	4,270	.612	
	Feb. 1949	10,593	2,460	.353	34,949	3,460	.496	
	Oct. 1963	15,364	1,045	.150	50,313	2,030	.291	
	Oct. 1970	21,848	3,157	.453	72,161	2,273	.326	
SURVEY DATA	26. DATE OF SURVEY <u>5/</u>	39. AV. DRY WGT., LBS. PER CU. FT.	40. SED. DEP., TONS PER SQ. MI.-YR.		41. STORAGE LOSS, PCT.		42. SED. INFLOW, PPM	
			a. PERIOD	b. TOTAL TO DATE	a. AV. ANN.	b. TOT. TO DATE	a. PERIOD	b. TOT. TO DATE
	May 1940	75.7°		236	0.17	0.23	16,687	16,687
	June 1942	75.7	1,643	1,113	.78	2.66	9,810	10,177
	Nov. 1942	75.7		1,243	.86	3.33	11,233	10,372
	Oct. 1944	75.7	841	1,009	.71	4.06	19,348	11,310
	Feb. 1949	75.7	681	818	.58	5.61	24,602	13,543
	Oct. 1963	75.7	247	479	.34	8.87	6,743	11,621
	Oct. 1970	75.7	746	537	.38	12.00	24,376	13,606

*Estimated

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION											
	178-128	128-108	108-88	88-68	68-58	58-48	48-38	38-28	28-Crest	Crest-17	17-29	
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION											
May 1940												
June 1942												
Nov. 1942												
Oct. 1944	16	4	7	10	6	10	15	16	16			
Feb. 1949	13	4	5	9	5	7	11	14	14	16	2	
Oct. 1963	9	9	8	15	9	11	18	11	8	7		
Oct. 1970	3	7	12	10	5	6	8	11	38	4	1	

26. DATE OF SURVEY	44. REACH DESIGNATION PERCENT OF TOTAL ORIGINAL LENGTH OF RESERVOIR														
	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	-105	-110	-115	-120	-125
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN REACH DESIGNATION														
May 1940 ^{6/}	114	23	3	-26	-16	2									
	30	22	7	10	18	13									
June 1942	6	3	4	4	22	14	27	18	2						
	20	21	-12	12	13	27	5	14							
Nov. 1942	6	2	5	8	16	16	29	16	2						
	-1	0	1	2	19	57	5	14	3						

45. RANGE IN RESERVOIR OPERATION							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.
1947	4,202.46	4,199.00	129,330	1959	4,200.38	4,193.40	112,620
1948	4,201.46	4,195.63	154,700	1960	4,199.37	4,192.68	131,520
1949	4,200.97	4,192.50	153,260	1961	4,201.75	4,196.55	216,440
1950	4,198.59	4,185.85	131,410	1962	4,201.13	4,193.03	119,280
1951	4,194.68	4,184.24	106,770	1963	4,193.01	4,176.16	76,510
1952	4,184.15	4,168.23	125,930	1964	4,178.58	4,156.05	31,060
1953	4,176.16	4,162.07	107,950	1965	4,201.83	4,157.61	394,190
1954	4,173.22	4,155.80	32,030	1966	4,200.77	4,192.25	103,660
1955	4,190.37	4,157.10	297,760	1967	4,195.35	4,185.79	142,740
1956	4,189.98	4,173.19	51,880	1968	4,193.13	4,183.51	113,130
1957	4,175.40	4,163.80	129,930	1969	4,193.65	4,180.65	192,830
1958	4,201.82	4,173.97	336,510	1970	4,197.55	4,189.30	105,630

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
4,230	16,880	709,119	4,180	5,513	173,912	4,110	311	1,299
4,220	14,110	556,724	4,170	4,323	125,102	4,100	2	24
4,218	13,664	528,951	4,160	3,394	86,519	4,090	1	9
4,210	11,845	426,866	4,150	2,642	56,348	4,080		2
4,201	9,692	330,124	4,140	1,959	33,495	4,070	0	0
4,200	9,463	320,546	4,130	1,323	17,170	4,060	0	0
4,190	7,290	237,119	4,120	797	6,690			

47. REMARKS AND REFERENCES

1/ Emergency Spillway Crest at 4218.

2/ Conchas 13.8 miles.

3/ From climatic Atlas dated June 1968.

4/ This figure affected by water taken out above reservoir for irrigation.

5/ Totals computed to end of each month shown.

6/ Only dates computed.

48. AGENCY MAKING SURVEY	Albuquerque District Corps of Engineers	50. DATE	May 1970
49. AGENCY SUPPLYING DATA	Corps of Engineers		

April 1968

RESERVOIR SEDIMENT
DATA SUMMARY

NAME OF RESERVOIR _____

DATA SHEET NO. _____

DAM	1. OWNER				2. STREAM				3. STATE						
	4. SEC.		TWP.		RANGE		5. NEAREST P.O.		6. COUNTY						
	7. LAT.		" LONG.		"		8. TOP OF DAM ELEVATION		9. SPILLWAY CREST ELEV.						
RESERVOIR	10. STORAGE ALLOCATION		11. ELEVATION TOP OF POOL		12. ORIGINAL SURFACE AREA, ACRES		13. ORIGINAL CAPACITY, ACRE-FEET		14. GROSS STORAGE, ACRE-FEET		15. DATE STORAGE BEGAN				
	a. FLOOD CONTROL										16. DATE NORMAL OPER. BEGAN				
	b. MULTIPLE USE														
	c. POWER														
	d. WATER SUPPLY														
	e. IRRIGATION														
	f. CONSERVATION														
	g. INACTIVE														
17. LENGTH OF RESERVOIR				MILES		AV. WIDTH OF RESERVOIR				MILES					
WATERSHED	18. TOTAL DRAINAGE AREA				SQ. MI.		22. MEAN ANNUAL PRECIPITATION				INCHES				
	19. NET SEDIMENT CONTRIBUTING AREA				SQ. MI.		23. MEAN ANNUAL RUNOFF				INCHES				
	20. LENGTH		MILES		AV. WIDTH		MILES		24. MEAN ANNUAL RUNOFF				AC.-FT.		
	21. MAX. ELEV.		MIN. ELEV.				25. ANNUAL TEMP.: MEAN RANGE								
SURVEY DATA	26. DATE OF SURVEY		27. PERIOD YEARS	28. ACCL. YEARS	29. TYPE OF SURVEY	30. NO. OF RANGES OR CONTOUR INT.	31. SURFACE AREA, ACRES	32. CAPACITY, ACRE-FEET	33. C/I. RATIO, AC.-FT. PER AC.-FT.						
	26. DATE OF SURVEY		34. PERIOD ANNUAL PRECIPITATION		35. PERIOD WATER INFLOW, ACRE-FEET				36. WATER INFL. TO DATE, AC.-FT.						
					a. MEAN ANNUAL		b. MAX. ANNUAL		c. PERIOD TOTAL		a. MEAN ANNUAL		b. TOTAL TO DATE		
	26. DATE OF SURVEY		37. PERIOD CAPACITY LOSS, ACRE-FEET				38. TOTAL SED. DEPOSITS TO DATE, ACRE-FEET								
			a. PERIOD TOTAL		b. AV. ANNUAL		c. PER SQ. MI.-YEAR		a. TOTAL TO DATE		b. AV. ANNUAL		c. PER SQ. MI.-YEAR		
	26. DATE OF SURVEY		39. AV. DRY WGT., LBS. PER CU. FT.		40. SED. DEP., TONS PER SQ. MI.-YR.		41. STORAGE LOSS, PCT.		42. SED. INFLOW, PPM						
					a. PERIOD		b. TOTAL TO DATE		a. AV. ANN.		b. TOT. TO DATE		a. PERIOD		b. TOT. TO DATE

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION														
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION														
26. DATE OF SURVEY	44. REACH DESIGNATION PERCENT OF TOTAL ORIGINAL LENGTH OF RESERVOIR														
	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	-105	-110	-115	-120	-125
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN REACH DESIGNATION														
45. RANGE IN RESERVOIR OPERATION															
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.								
46. ELEVATION-AREA-CAPACITY DATA															
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY							
47. REMARKS AND REFERENCES															
48. AGENCY MAKING SURVEY															
49. AGENCY SUPPLYING DATA															
50. DATE _____															

REFERENCES FOR APPENDIX F

Miscellaneous Publication No. 1266, U.S. Department of Agriculture,
Sedimentation Laboratory, Oxford, Mississippi, July, 1973.

APPENDIX G

EQUIVALENTS OF COMMONLY USED UNITS OF MEASUREMENT

TABLE G-1
EQUIVALENTS OF COMMONLY USED UNITS OF MEASUREMENT

English Unit	Multiplier	SI Unit	English Unit	Multiplier	SI Unit
acre	$\times 4.046.724 \rightarrow$ $+ 2.471 \times 10^{-4} \times$	m ²	gpd/ft	$\times 0.0124 \rightarrow$ $+ 80.65 \times$	m ³ /day m
acre	$\times 0.405 \rightarrow$ $+ 2.471 \times$	ha*	gpd/sq ft	$\times 0.0408 \rightarrow$ $+ 24.51 \times$	m ³ /day m ²
acre-ft	$\times 1,233.5 \rightarrow$ $+ 8.11 \times 10^{-4} \times$	m ³	gpm	$\times 0.0631 \rightarrow$ $+ 15.85 \times$	dm ³ /s
Btu	$\times 1.055 \rightarrow$ $+ 0.9478 \times$	kJ	gpm	$\times 0.0631 \rightarrow$ $+ 15.85 \times$	l*/s
Btu	$\times 0.252 \rightarrow$ $+ 3.968 \times$	kg-cal*	gpm/sq ft	$\times 40.7 \rightarrow$ $+ 0.0245 \times$	l*/min m ²
Btu/hr/sq ft	$\times 3.158 \rightarrow$ $+ 0.316 \times$	J/s-m ²	hp	$\times 0.7454 \rightarrow$ $+ 1.341 \times$	kW
Btu/lb	$\times 0.555 \rightarrow$ $+ 1.80 \times$	kg-cal/kg*	hp-hr	$\times 2.684 \rightarrow$ $+ 0.372 \times$	MJ
cfm	$\times 0.028 \rightarrow$ $+ 35.71 \times$	m ³ /min	in.	$\times 2.54 \rightarrow$ $+ 0.3937 \times$	cm
cfs	$\times 1.7 \rightarrow$ $+ 0.588 \times$	m ³ /min	lb/day/acre-ft	$\times 3.68 \rightarrow$ $+ 0.2717 \times$	g/day m ³
cfs/sq miles	$\times 0.657 \rightarrow$ $+ 1.522 \times$	m ³ /min km ²	lb/1,000 cu ft	$\times 16.0 \rightarrow$ $+ 0.0625 \times$	g/m ³
cu ft	$\times 0.028 \rightarrow$ $+ 35.314 \times$	m ³	lb/day/cu ft	$\times 16 \rightarrow$ $+ 0.0625 \times$	kg/day m ³
cu ft	$\times 28.32 \rightarrow$ $+ 0.0353 \times$	l*	lb/mil gal	$\times 0.92 \rightarrow$ $+ 8.333 \times$	g/m ³
cu in.	$\times 16.39 \rightarrow$ $+ 0.061 \times$	cm ³	mil gal	$\times 3,785 \rightarrow$ $+ 2.64 \times 10^{-4} \times$	m ³
cu yd	$\times 0.75 \rightarrow$ $+ 1.3709 \times$	m ³	mgd	$\times 3,785 \rightarrow$ $+ 2.64 \times 10^{-4} \times$	m ³ /day
°F	$0.555(^{\circ}\text{F}-32) \rightarrow$ $+ 1.8(^{\circ}\text{C})+32$	°C	mgd	$\times 0.0438 \rightarrow$ $+ 22.82 \times$	m ³ /s
°C	plus 273 $\rightarrow$ + minus 273	K	mile	$\times 1.61 \rightarrow$ $+ 0.621 \times$	km
ft	$\times 0.3048 \rightarrow$ $+ 3.28 \times$	m	ppb	$\times 10^{-3} \rightarrow$ $+ 1,000 \times$	mg/l*
ft-lb	$\times 1.356 \rightarrow$ $+ 0.737 \times$	J	ppm	approximately equal to	mg/l*
gal	$\times 3.785 \rightarrow$ $+ 0.264 \times$	l*	sq ft	$\times 0.0929 \rightarrow$ $+ 10.76 \times$	m ²
gal	$\times 0.003785 \rightarrow$ $+ 264.2 \times$	m ³	sq in.	$\times 645.2 \rightarrow$ $+ 0.00155$	mm ²
gpd/acre	$\times 0.9365 \rightarrow$ $+ 1.068 \times$	m ³ /day km ²	sq miles	$\times 2.590 \rightarrow$ $+ 0.3861 \times$	km ²

Other commonly used conversions:

1 MGD = 1.55cfs

1 MW = 3.414×10^6 BTU/hr

1 BTU = 252 cal

$\gamma_{C_p} = 62.4$ BTU/ft³/°F

1 BTU = 778 ft-lb

1 Langley/day = 3.7 BTU/ft.²/day

*Not an SI unit, but a term commonly used and preferred as a wastewater unit of expression.

TECHNICAL REPORT DATA <i>(Please read Instructions on the reverse before completing)</i>		
1. REPORT NO. EPA-600/9-77-023	2.	3. RECIPIENT'S ACCESSION NO.
4. TITLE AND SUBTITLE WATER QUALITY ASSESSMENT: A Screening Method for Nondesignated 208 Areas	5. REPORT DATE August 1977 issuing date	
	6. PERFORMING ORGANIZATION CODE	
7. AUTHOR(S) S.W. Zison, K.F. Haven, and W.B. Mills	8. PERFORMING ORGANIZATION REPORT NO.	
9. PERFORMING ORGANIZATION NAME AND ADDRESS Tetra Tech, Inc. Lafayette, CA 94549	10. PROGRAM ELEMENT NO. 1HB617	
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15. SUPPLEMENTARY NOTES		
16. ABSTRACT The objective of this study is to develop a methodology for the preliminary screening of surface water quality applicable for use by nondesignated 208 planning agencies. Analytical methods are included for the assessment of rivers, impoundments and estuaries. Additionally, methods are provided by which point and nonpoint sources can be evaluated. The water quality parameters analyzed for all three water body types are biochemical oxygen demand, dissolved oxygen, temperature, and sediment accumulation. Other constituents, more pertinent to a particular water body type, are also addressed. The analyses are designed to be performed with, at most, the assistance of a desk top calculator and with a minimal amount of data input.		
17. KEY WORDS AND DOCUMENT ANALYSIS		
a. DESCRIPTORS Water quality Runoff	b. IDENTIFIERS/OPEN ENDED TERMS Point pollution Nonpoint pollution Section 208 program Stream analysis	c. COSATI Field/Group 08H 13B
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