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DEPARTMENT OF PHYSICS AND GEOPHYSICAL SCIENCES
SCHOOL OF SCIENCES AND HEALTH PROFESSIONS
OLD DOMINION UNIVERSITY
NORFOLK, VIRGINIA

Technical Report PGSTR-AP75-08

DATA SET FOR BACKGROUND INVESTIGATION OF ATMOSPHERIC
CONSTITUENTS FOR CAPE HENRY SITE: AUGUST 5-22, 1974

(NASA-CR-147925) DATA SET FOR BACKGRCUND
INVESTIGATION OF ATMOSPHERIC CONSTITUENTS
FOR CAPE HENRY SITE: AUGUST 5-22 1974 (Old
Dominion Univ. Research Foundation) 48 p HC
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Prepared by the
Old Dominion University Atmospheric Research Group
Earl C. Kindle, Principal Investigator

Sponsored by
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Grant NGL 47-003-067

May 1975



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Faculty Participants

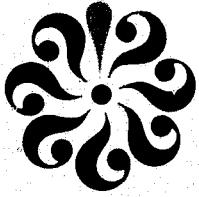
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Submitted by the
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May 1975



1. BACKGROUND AND PARTICULATE DATA

1.A. Experimental Description

This investigation was conducted at the request of the Virginia State Air Pollution Control Board, region VI director. The primary objective of the study was to provide background air quality data to the U. S. Navy and the City of Virginia Beach municipal authorities. This report includes processed and edited data.

The Old Dominion University Mobile Air Pollution Laboratory was located within the Fort Story Military Reservation at Cape Henry between 5 August and 21 August 1974. Total sulfur, total hydrocarbons, NO, NO₂, NO_x, and O₃ were monitored and reported as hourly averages. Visibility was measured using an integrating nephelometer and reported as hourly averages. Twenty-four hour averaged mass loading was determined using two high volume air samplers (Hi Vols) located on different levels (25' and 50') at the site. Additionally, temperature, wind speed, relative humidity, barometric pressure and solar radiation intensity were measured at the site or supplemented by readings taken by the U. S. Coast Guard at the Cape Henry Light House. Table 1 contains information on the monitoring methods and estimates of error for the measurements.

The Old Dominion University Mobile Air Pollution Laboratory was placed in a paved area formerly used as a military gas station. The Atlantic Ocean shore line was approximately one-half mile east of the site, the mouth of the Chesapeake Bay was approximately one mile north and Seashore State Park was approximately two miles south by southwest of the site.

Table 1
Monitoring Methods and Estimates of Error*

Parameter	Instrument	Method	Accuracy**
NO, NO ₂ , NO _x	Bendix Model 8101B Nitrogen Oxide Monitor	Photometric detection of gas phase reaction of NO and O ₃	± 5%
Total Sulfur	Meloy labs Model SH 202	Flame photometric detec- tion of Hydrogen burned air sample	± 5%
Total Hydrocarbons	Meloy labs Model SH 202	Flame ionization detec- tion of burned air sampler	± 5%
O ₃	ODU construction RR III-6	Chemiluminescence of O ₃ Ethylene reaction	± 10%
CO	Andros DIF Model 7000	Nondispersion infrared	± 5%
Visibility	Meteorology Research Inc. Model 1550 Inte- grated Nephelometer with part 461 air heater assembly	Light scattering	± 5%
Solar Radiation	Eppley labs Model 8-48 pyrrometer	Differential heating	± 2%
Temperature	ODU construction	Thermistor resistance	± 0.3°C
Wind Speed	Climet Model 011-2B	Direct measurement	± 2 mph
Wind Direction	Climet Model 012-2C	Direct measurement	± 5°
Humidity	Relative humidity detector#	Hair stretching	± 5%
Barometric Pressure	Microbarometer#	#	± 1%

* All instruments calibrated as suggested in Federal Register Oct. 13, 1973

** 67 percentile confidence level (estimated from calibrations)

Manufacturer information unavailable at this time

There is no major industrial site in the vicinity (radius of 5 miles) and the only road of importance is Route 60 which is an east/west throughfare approximately one and one-half miles south of the site.

1.B. Particulate Data

On August 4, two pre-calibrated High Volume Air Samplers were placed at the trailer site. Sampler number 1 was set at the 15 foot level, and sampler number 2 was set at the 25 foot level:

The samples were obtained on a 24 hour basis (12 am to 12 pm EDT). In Table 2, data entered for a given day represents the average of the previous 24 hours. The methods used are reported in *Methods of Air Sampling and Analysis*, Intersociety Committee and in the Federal Register, Vol. 36, No. 84, p. 8193 - 8194 (April 30, 1971).

The particulate samples were transported to Old Dominion where they were dried and weighed. The weight, run time, sampling rate (air flow) were then treated mathematically into the meaningful concentration units ($\mu\text{g}/\text{m}^3$) as presented in Table 2.

2. DIGITIZED MOLECULAR AND SITE METEOROLOGICAL DATA

This section contains two types of data: Molecular and meteorological. The molecular concentrations are nitric oxide, nitrogen dioxide, ozone, total sulfur, total hydrocarbons and carbon monoxide. Each of these molecular concentrations were measured at the 15 foot and 50 foot levels, respectively.

The meteorological data provides readings of beta-scattering (B-SC), visibility (VSB), solar radiation (SRAD), relative humidity (RH), wind speed (WSPD), wind direction (WDIR) and temperature (T).

Table 2
Mass Loading ($\mu\text{g}/\text{m}^3$) for Cape Henry Site*

Date	Site 1	Site 2
Aug 6	25	35
7	28	35
8	23	28
9	13	11
10	57	76
11	53	62
12	28	33
13	50	60
14	53	64
15	39	48
16	19	25
17	36	47
18	**	**
19	41	51
20	56	60

* Refer to Figure 1 for site locations
 ** Missing Data

The tabulated data for the zero hour is an average of the recorded readings from 00:00 to 00:59 EST. The data set for each hour thereafter is tabulated correspondingly.

Throughout the data array the numbers, -1, -2, -3, -4, -5, -9 are used as indicators of the following data conditions: -1 represents a reading below scale, -2 represents a missing reading, -3 represents a reading off scale, -4 represents a reading that was negatively past the noise level, -5 represents edited data, and -9 represents missing data cards.

The molecular data concentrations are reported in parts per billion, while the meteorological data are reported individually as follows:

Meteorological Data	Unit
B-SC	Inverse Megameters
VSB	Kilometers
SRAD	Calories per Square Centimeters per minute
RH	Percent
WSPD	Miles Per Hour
WDIR	Degrees North
T-15	Degrees Centigrade
T-25	Degrees Centigrade

The wind direction was reported as a -2 on the computer printout because this information was not determined by a wind direction detector in the trailer. Table 3 reports the wind direction as a sixteen point compass. This information was supplied by the U. S. Coast Guard at Cape Henry Light House.

The data for CO and HC are not included on the computer printout because field installation and maintenance were not properly carried out; accordingly, unreliable data was produced.

On August 18th and thereafter the data for O₃ was also removed, because thunderstorms on the evening of the 17th could have been responsible for the disturbance in that set of data.

Table 3
Wind Direction
U. S. Coast Guard at Cape Henry Light House*

Date	Three-Hour Readings								
	0200	0500	0800	1100	1400	1700	2000	2300	
Aug 5	SSW	SSW	SW	S	S	ENE	SSE	S	
6	S	S	ESE	ENE	ENE	NNE	NE	ENE	
7	SE	SSE	S	SW	WSW	NNW	NW	NW	
8	SW	WSW	SW	W	SE	SE	SSE	S	
9	W	SSE	SSE	E	E	SSE	SSE	S	
10	W	E	N	N	NNE	NNE	NNE	N	
11	NNE	NNE	N	N	N	N	NNE	NNE	
12	NE	NW	N	NE	N	NE	ESE	SSE	
13	S	S	SSE	WSW	NW	NW	SE	S	
14	SW	SW	SW	SSW	E	SE	SSW	S	
15	SSW	SW	SW	NW	NNW	ENE	E	SE	
16	SE	S	SSW	NE	NE	SE	SE	SE	
17	SE	SE	SW	S	SSE	S	S	WSW	
18	SSE	SW	SW	N	NNE	ENE	ENE	SSE	
19	ESE	ENE	ENE	ENE	NE	NE	NE	NE	
20	NE	NE	NE	NNE	NNE	NE	NE	NE	
21	NNE	NNE	NE	ENE	NE	NE	NE	NE	

* Approximately 1/4 mi. from the site.

3. GRAPHIC REPRESENTATION OF MOLECULAR DATA

In this section, the Cape Henry data is presented in a line-printer simulation of a multi-channel strip chart. Each day's data is represented on one page with two lines containing the data for each hour as designated at the left end of each line. To the right of each printed hour, a vertical fiducial mark and an asterisk form a vertical left margin for the graphic area.

Vertical fiducials to the right of this margin were spaced at one-inch intervals on the original computer printout, however this interval is actually smaller on these pages through photo reduction. In the following description, these intervals will be spoken of as "inches" in keeping with the scale factors printed at the bottom of each page.

The first "inch" from the margin will normally contain the letter A in the lower line for each hour, representing the presence of NO at the lower level of 15 feet, while the letter B in the upper line represents its concentration at the higher level, 50 feet. As indicated by the scale factor printed at the base of the chart, the first inch from the left represents concentration in the range from 0 to 50 parts per billion. For very low concentration measured, the left fiducial may be replaced by the letter. For an indication of data missing, the letter is replaced by an asterisk which is plotted in the position of 01 concentration.

The second "inch" is the range for the letters C and D, representing concentration of NO₂ at the same levels, and for the same range of concentration. In the third "inch", the letters E and F represent a plot of the sum of the measurements of NO and NO₂.

In the fourth through the seventh "inches", each pair of letters represents concentration of another constituent, though the concentration

represented by a one "inch" displacement is higher for these constituents as indicated by the printed scale factors.

As illustrated perhaps most often by the hydrocarbons, K, L, the concentration is permitted to traverse a second "inch" at the same scale factor. At that point it is limited, so that a "two inch" displacement would represent a concentration of twice the scale printed factor, or more.

As indicated by the legend at the bottom of each page, the various other data observed are represented by additional letter pairs, the lower legend of abbreviation and scale factor applying to the first or lower factor applying to the second letter printed in the upper line for each hour. Thus the final two inches are the range for the letters U and V, which represent temperature at 15 and 50 feet, and cover the range from 0 to 40 degrees C.

Two notes may be of help in interpreting these graphics. First, the units to which the printed scale factors apply are identical to the units shown for the numerical listings in the digitized printout of the section.

Second, should two letters properly occupy the same position, precedence or priority is given in alphabetical order, the second letter of the two being displaced one position toward the right. Thus if the letter R immediately follows the letter P, it is possible that the R belonged in the position occupied by the letter P. On the other hand, if they are adjacent in the order RP, there is no ambiguity.

The tabular description of letters and scales is given below:

NO (A at 15 ft) 1 "inch" represents 50 ppb
(B at 50 ft)

NO₂ (C at 15 ft) 1 "inch" represents 50 ppb
(D at 50 ft)

NO_x (E at 15 ft) 1 "inch" represents 50 ppb
(F at 50 ft)

Ozone	(G at 15 ft) (H at 50 ft)	1 "inch" represents 100 ppb
Sulfur	(I at 15 ft) (J at 50 ft)	1 "inch" represents 100 ppb
Hydrocarbons	(K at 15 ft) (L at 50 ft)	1 "inch" represents 5000 ppb
CO	(M at 15 ft) (N at 50 ft)	1 "inch" represents 5000 ppb
Beta Scattering	O	1 "inch" represents 400/megameter
Visibility (inferred from B scattering)	P	1 "inch" represents 30 km
Solar Radiation	Q	1 "inch" represents 1.5 cal/sq cm/minute
Relative Humidity	R	1 "inch" represents 100%
Wind Speed	S	1 "inch" represents 20 mph
Wind Direction	T	1 "inch" represents 360 degrees
Temperature	(U at 15 ft) (V at 50 ft)	1 "inch" represents 20 degrees C

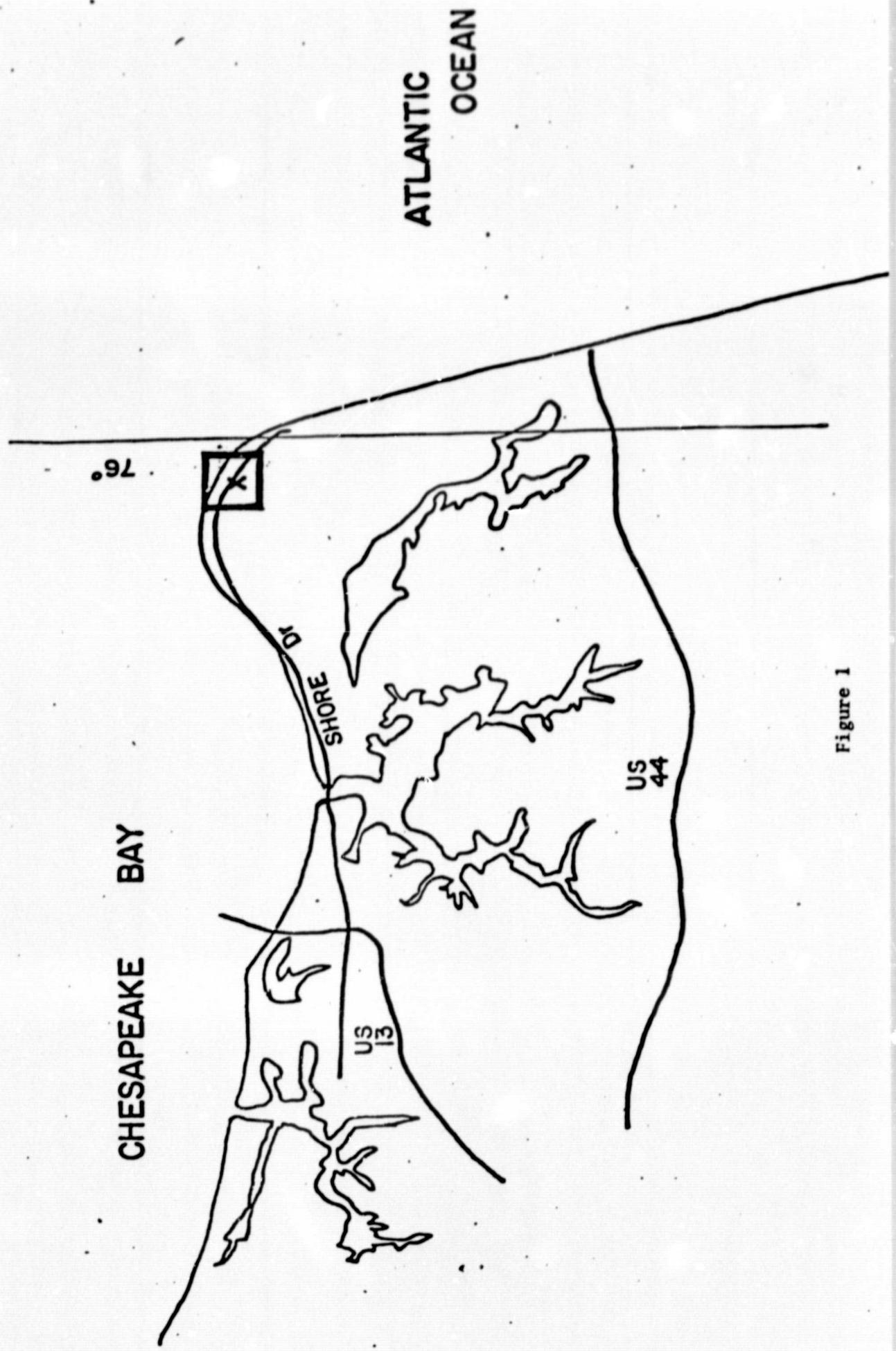


Figure 1

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SOCIAL/SQUARE CROWN

พิจิตรา / THE GATEWAY TO CHONBURI

MEGAHÉROS / MEGAHÉROS

סמלים / מנגנונים / מושגים

• 401 / MEGAMETERS
• 601 / SQUARE CHAMIN

નીમણી/અધ્યાત્મિક માનતાઓ

ORIGINAL PAGE IS
OF POOR QUALITY

MEMBERS/MEMBRES

นี่คือความคิดเห็นของผู้เชี่ยวชาญในด้านนี้

MEGA TEN'S
SACAI / SUYAKE CHUNIN

-----PARTS PER BILLION-----
NO NO₂ N₂O₅ NH₃ CO SO₂ S₂ HCl HClO₄ H₂S₂O₈ S₂O₄
NO₂ NO₃ N₂O₅ NH₃ CO SO₂ S₂ HCl HClO₄ H₂S₂O₈ S₂O₄

1000 MEGABITERS
1000 GIGABYTE CH-MIN

GDP IN MILLION RUPEES		GDP PER CAPITA		GDP PER CAPITA IN MILLION RUPEES	
Year	GDP	Population	GDP	Population	GDP
2000	117	117	117	117	117
2001	119	119	119	119	119
2002	121	121	121	121	121
2003	124	124	124	124	124
2004	128	128	128	128	128
2005	132	132	132	132	132
2006	137	137	137	137	137
2007	142	142	142	142	142
2008	147	147	147	147	147
2009	152	152	152	152	152
2010	157	157	157	157	157
2011	162	162	162	162	162
2012	167	167	167	167	167
2013	172	172	172	172	172
2014	177	177	177	177	177
2015	182	182	182	182	182
2016	187	187	187	187	187
2017	192	192	192	192	192
2018	197	197	197	197	197
2019	202	202	202	202	202
2020	207	207	207	207	207
2021	212	212	212	212	212
2022	217	217	217	217	217
2023	222	222	222	222	222
2024	227	227	227	227	227
2025	232	232	232	232	232
2026	237	237	237	237	237
2027	242	242	242	242	242
2028	247	247	247	247	247
2029	252	252	252	252	252
2030	257	257	257	257	257
2031	262	262	262	262	262
2032	267	267	267	267	267
2033	272	272	272	272	272
2034	277	277	277	277	277
2035	282	282	282	282	282
2036	287	287	287	287	287
2037	292	292	292	292	292
2038	297	297	297	297	297
2039	302	302	302	302	302
2040	307	307	307	307	307
2041	312	312	312	312	312
2042	317	317	317	317	317
2043	322	322	322	322	322
2044	327	327	327	327	327
2045	332	332	332	332	332
2046	337	337	337	337	337
2047	342	342	342	342	342
2048	347	347	347	347	347
2049	352	352	352	352	352
2050	357	357	357	357	357
2051	362	362	362	362	362
2052	367	367	367	367	367
2053	372	372	372	372	372
2054	377	377	377	377	377
2055	382	382	382	382	382
2056	387	387	387	387	387
2057	392	392	392	392	392
2058	397	397	397	397	397
2059	402	402	402	402	402
2060	407	407	407	407	407
2061	412	412	412	412	412
2062	417	417	417	417	417
2063	422	422	422	422	422
2064	427	427	427	427	427
2065	432	432	432	432	432
2066	437	437	437	437	437
2067	442	442	442	442	442
2068	447	447	447	447	447
2069	452	452	452	452	452
2070	457	457	457	457	457
2071	462	462	462	462	462
2072	467	467	467	467	467
2073	472	472	472	472	472
2074	477	477	477	477	477
2075	482	482	482	482	482
2076	487	487	487	487	487
2077	492	492	492	492	492
2078	497	497	497	497	497
2079	502	502	502	502	502
2080	507	507	507	507	507
2081	512	512	512	512	512
2082	517	517	517	517	517
2083	522	522	522	522	522
2084	527	527	527	527	527
2085	532	532	532	532	532
2086	537	537	537	537	537
2087	542	542	542	542	542
2088	547	547	547	547	547
2089	552	552	552	552	552
2090	557	557	557	557	557
2091	562	562	562	562	562
2092	567	567	567	567	567
2093	572	572	572	572	572
2094	577	577	577	577	577
2095	582	582	582	582	582
2096	587	587	587	587	587
2097	592	592	592	592	592
2098	597	597	597	597	597
2099	602	602	602	602	602
2100	607	607	607	607	607
2101	612	612	612	612	612
2102	617	617	617	617	617
2103	622	622	622	622	622
2104	627	627	627	627	627
2105	632	632	632	632	632
2106	637	637	637	637	637
2107	642	642	642	642	642
2108	647	647	647	647	647
2109	652	652	652	652	652
2110	657	657	657	657	657
2111	662	662	662	662	662
2112	667	667	667	667	667
2113	672	672	672	672	672
2114	677	677	677	677	677
2115	682	682	682	682	682
2116	687	687	687	687	687
2117	692	692	692	692	692
2118	697	697	697	697	697
2119	702	702	702	702	702
2120	707	707	707	707	707
2121	712	712	712	712	712
2122	717	717	717	717	717
2123	722	722	722	722	722
2124	727	727	727	727	727
2125	732	732	732	732	732
2126	737	737	737	737	737
2127	742	742	742	742	742
2128	747	747	747	747	747
2129	752	752	752	752	752
2130	757	757	757	757	757
2131	762	762	762	762	762
2132	767	767	767	767	767
2133	772	772	772	772	772
2134	777	777	777	777	777
2135	782	782	782	782	782
2136	787	787	787	787	787
2137	792	792	792	792	792
2138	797	797	797	797	797
2139	802	802	802	802	802
2140	807	807	807	807	807
2141	812	812	812	812	812
2142	817	817	817	817	817
2143	822	822	822	822	822
2144	827	827	827	827	827
2145	832	832	832	832	832
2146	837	837	837	837	837
2147	842	842	842	842	842
2148	847	847	847	847	847
2149	852	852	852	852	852
2150	857	857	857	857	857
2151	862	862	862	862	862
2152	867	867	867	867	867
2153	872	872	872	872	872
2154	877	877	877	877	877
2155	882	882	882	882	882
2156	887	887	887	887	887
2157	892	892	892	892	892
2158	897	897	897	897	897
2159	902	902	902	902	902
2160	907	907	907	907	907
2161	912	912	912	912	912
2162	917	917	917	917	917
2163	922	922	922	922	922
2164	927	927	927	927	927
2165	932	932	932	932	932
2166	937	937	937	937	937
2167	942	942	942	942	942
2168	947	947	947	947	947
2169	952	952	952	952	952
2170	957	957	957	957	957
2171	962	962	962	962	962
2172	967	967	967	967	967
2173	972	972	972	972	972
2174	977	977	977	977	977
2175	982	982	982	982	982
2176	987	987	987	987	987
2177	992	992	992	992	992
2178	997	997	997	997	997
2179	1002	1002	1002	1002	1002
2180	1007	1007	1007	1007	1007
2181	1012	1012	1012	1012	1012
2182	1017	1017	1017	1017	1017
2183	1022	1022	1022	1022	1022
2184	1027	1027	1027	1027	1027
2185	1032	1032	1032	1032	1032
2186	1037	1037	1037	1037	1037
2187	1042	1042	1042	1042	1042
2188	1047	1047	1047	1047	1047
2189	1052	1052	1052	1052	1052
2190	1057	1057	1057	1057	1057
2191	1062	1062	1062	1062	1062
2192	1067	1067	1067	1067	1067
2193	1072	1072	1072	1072	1072
2194	1077	1077	1077	1077	1077
2195	1082	1082	1082	1082	1082
2196	1087	1087	1087	1087	1087
2197	1092	1092	1092	1092	1092
2198	1097	1097	1097	1097	1097
2199	1102	1102	1102	1102	1102
2200	1107	1107	1107	1107	1107
2201	1112	1112	1112	1112	1112
2202	1117	1117	1117	1117	1117
2203	1122	1122	1122	1122	1122
2204	1127	1127	1127	1127	1127
2205	1132	1132	1132	1132	1132
2206	1137	1137	1137	1137	1137
2207	1142	1142	1142	1142	1142
2208	1147	1147	1147	1147	1147
2209	1152	1152	1152	1152	1152
2210	1157	1157	1157	1157	1157
2211	1162	1162	1162	1162	1162
2212	1167	1167	1167	1167	1167
2213	1172	1172	1172	1172	1172
2214	1177	1177	1177	1177	1177
2215	1182	1182	1182	1182	1182
2216	1187	1187	1187	1187	1187
2217	1192	1192	1192	1192	1192
2218	1197	1197	1197	1197	1197
2219	1202	1202	1202	1202	1202
2220	1207	1207	1207	1207	1207
2221					

AGE GROUP	0 TO 4	5 TO 9	10 TO 14	15 TO 19	20 TO 24	25 TO 29	30 TO 34	35 TO 39	40 TO 44	45 TO 49	50 TO 54	55 TO 59	60 TO 64	65 TO 69	70 TO 74	75 TO 79	80 AND OVER
0 TO 4	20.0	21.1	21.7	22.0	22.5	22.9	23.0	23.1	23.4	23.6	23.8	24.0	24.1	24.3	24.7	25.0	25.6
5 TO 9	20.9	21.8	22.0	22.4	22.8	23.2	23.4	23.6	23.9	24.1	24.3	24.5	24.7	24.9	25.2	25.5	25.9
10 TO 14	20.8	21.6	21.9	22.2	22.5	22.9	23.1	23.3	23.6	23.8	24.0	24.2	24.4	24.6	24.9	25.2	25.6
15 TO 19	20.7	21.4	21.7	22.0	22.3	22.6	22.8	23.0	23.3	23.5	23.7	23.9	24.1	24.3	24.6	24.9	25.3
20 TO 24	20.6	21.1	21.4	21.7	22.0	22.3	22.6	22.8	23.1	23.3	23.5	23.7	23.9	24.1	24.4	24.7	25.1
25 TO 29	20.5	21.0	21.3	21.6	21.9	22.2	22.5	22.7	23.0	23.2	23.4	23.6	23.8	24.0	24.3	24.6	25.0
30 TO 34	20.4	20.9	21.2	21.5	21.8	22.1	22.4	22.7	23.0	23.2	23.4	23.6	23.8	24.0	24.3	24.6	25.0
35 TO 39	20.3	20.8	21.1	21.4	21.7	22.0	22.3	22.6	22.9	23.1	23.3	23.5	23.7	23.9	24.2	24.5	24.9
40 TO 44	20.2	20.7	21.0	21.3	21.6	21.9	22.2	22.5	22.8	23.0	23.2	23.4	23.6	23.8	24.1	24.4	24.8
45 TO 49	20.1	20.6	20.9	21.2	21.5	21.8	22.1	22.4	22.7	22.9	23.1	23.3	23.5	23.7	24.0	24.3	24.7
50 TO 54	20.0	20.5	20.8	21.1	21.4	21.7	22.0	22.3	22.6	22.8	23.0	23.2	23.4	23.6	23.9	24.2	24.6
55 TO 59	19.9	20.4	20.7	21.0	21.3	21.6	21.9	22.2	22.5	22.7	22.9	23.1	23.3	23.5	23.8	24.1	24.5
60 TO 64	19.8	20.3	20.6	20.9	21.2	21.5	21.8	22.1	22.4	22.6	22.8	23.0	23.2	23.4	23.7	24.0	24.4
65 TO 69	19.7	20.2	20.5	20.8	21.1	21.4	21.7	22.0	22.3	22.5	22.7	22.9	23.1	23.3	23.6	23.9	24.3
70 TO 74	19.6	20.1	20.4	20.7	21.0	21.3	21.6	21.9	22.2	22.4	22.6	22.8	23.0	23.2	23.5	23.8	24.2
75 TO 79	19.5	20.0	20.3	20.6	20.9	21.2	21.5	21.8	22.1	22.3	22.5	22.7	22.9	23.1	23.4	23.7	24.1
80 AND OVER	19.4	19.9	20.2	20.5	20.8	21.1	21.4	21.7	22.0	22.2	22.4	22.6	22.8	23.0	23.3	23.6	24.0

10. The following table gives the number of hours required to produce a certain quantity of a product.

Figure 1. A photograph of the experimental setup showing the two sets of 10 cylindrical samples used in the study.

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Figure 1. A composite of the first three panels of Figure 10 from the original paper, showing the evolution of the density field in the simulation box.

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The figure consists of a series of horizontal lines, each representing a different parameter or condition. The lines are labeled as follows:

- Line 1: TEMP (top), TTEMP (bottom)
- Line 2: 20.00 (top), 20.00 (bottom)
- Line 3: 1.50 (top), 20.00 (bottom)
- Line 4: 360.00 (top), 360.00 (bottom)
- Line 5: MNDO-01A (top), MNDO-SHO (bottom)
- Line 6: MNDO-AAO (top), MNDO-SHO (bottom)
- Line 7: 50L (top), 50L (bottom)
- Line 8: BIS-CA1 (top), C0 (bottom)
- Line 9: VIASY (top), C0 (bottom)
- Line 10: 3000.00 (top), 3000.00 (bottom)
- Line 11: 5000.00 (top), 5000.00 (bottom)
- Line 12: 100.00 (top), 100.00 (bottom)
- Line 13: 30000.00 (top), 30000.00 (bottom)
- Line 14: 50000.00 (top), 50000.00 (bottom)
- Line 15: 1000.00 (top), 1000.00 (bottom)
- Line 16: 2000.00 (top), 2000.00 (bottom)
- Line 17: 3000.00 (top), 3000.00 (bottom)
- Line 18: 40000.00 (top), 40000.00 (bottom)
- Line 19: 50000.00 (top), 50000.00 (bottom)
- Line 20: 600.00 (top), 600.00 (bottom)
- Line 21: 1000.00 (top), 1000.00 (bottom)
- Line 22: 1500.00 (top), 1500.00 (bottom)
- Line 23: 2000.00 (top), 2000.00 (bottom)
- Line 24: 2500.00 (top), 2500.00 (bottom)
- Line 25: 3000.00 (top), 3000.00 (bottom)
- Line 26: 3500.00 (top), 3500.00 (bottom)
- Line 27: 4000.00 (top), 4000.00 (bottom)
- Line 28: 4500.00 (top), 4500.00 (bottom)
- Line 29: 5000.00 (top), 5000.00 (bottom)
- Line 30: 5500.00 (top), 5500.00 (bottom)
- Line 31: 6000.00 (top), 6000.00 (bottom)
- Line 32: 6500.00 (top), 6500.00 (bottom)
- Line 33: 7000.00 (top), 7000.00 (bottom)
- Line 34: 7500.00 (top), 7500.00 (bottom)
- Line 35: 8000.00 (top), 8000.00 (bottom)
- Line 36: 8500.00 (top), 8500.00 (bottom)
- Line 37: 9000.00 (top), 9000.00 (bottom)
- Line 38: 9500.00 (top), 9500.00 (bottom)
- Line 39: 10000.00 (top), 10000.00 (bottom)
- Line 40: 10500.00 (top), 10500.00 (bottom)
- Line 41: 11000.00 (top), 11000.00 (bottom)
- Line 42: 11500.00 (top), 11500.00 (bottom)
- Line 43: 12000.00 (top), 12000.00 (bottom)
- Line 44: 12500.00 (top), 12500.00 (bottom)
- Line 45: 13000.00 (top), 13000.00 (bottom)
- Line 46: 13500.00 (top), 13500.00 (bottom)
- Line 47: 14000.00 (top), 14000.00 (bottom)
- Line 48: 14500.00 (top), 14500.00 (bottom)
- Line 49: 15000.00 (top), 15000.00 (bottom)
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- Line 53: 17000.00 (top), 17000.00 (bottom)
- Line 54: 17500.00 (top), 17500.00 (bottom)
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- Line 56: 18500.00 (top), 18500.00 (bottom)
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- Line 59: 20000.00 (top), 20000.00 (bottom)
- Line 60: 20500.00 (top), 20500.00 (bottom)
- Line 61: 21000.00 (top), 21000.00 (bottom)
- Line 62: 21500.00 (top), 21500.00 (bottom)
- Line 63: 22000.00 (top), 22000.00 (bottom)
- Line 64: 22500.00 (top), 22500.00 (bottom)
- Line 65: 23000.00 (top), 23000.00 (bottom)
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- Line 77: 29000.00 (top), 29000.00 (bottom)
- Line 78: 29500.00 (top), 29500.00 (bottom)
- Line 79: 30000.00 (top), 30000.00 (bottom)
- Line 80: 30500.00 (top), 30500.00 (bottom)
- Line 81: 31000.00 (top), 31000.00 (bottom)
- Line 82: 31500.00 (top), 31500.00 (bottom)
- Line 83: 32000.00 (top), 32000.00 (bottom)
- Line 84: 32500.00 (top), 32500.00 (bottom)
- Line 85: 33000.00 (top), 33000.00 (bottom)
- Line 86: 33500.00 (top), 33500.00 (bottom)
- Line 87: 34000.00 (top), 34000.00 (bottom)
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- Line 89: 35000.00 (top), 35000.00 (bottom)
- Line 90: 35500.00 (top), 35500.00 (bottom)
- Line 91: 36000.00 (top), 36000.00 (bottom)
- Line 92: 36500.00 (top), 36500.00 (bottom)
- Line 93: 37000.00 (top), 37000.00 (bottom)
- Line 94: 37500.00 (top), 37500.00 (bottom)
- Line 95: 38000.00 (top), 38000.00 (bottom)
- Line 96: 38500.00 (top), 38500.00 (bottom)
- Line 97: 39000.00 (top), 39000.00 (bottom)
- Line 98: 39500.00 (top), 39500.00 (bottom)
- Line 99: 40000.00 (top), 40000.00 (bottom)

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10. The following table gives the number of hours worked by each of the 100 workers in the factory.

DEPARTAMENTO DE INVESTIGACIONES

A decorative horizontal border consisting of a repeating pattern of small black circles and thin horizontal lines.

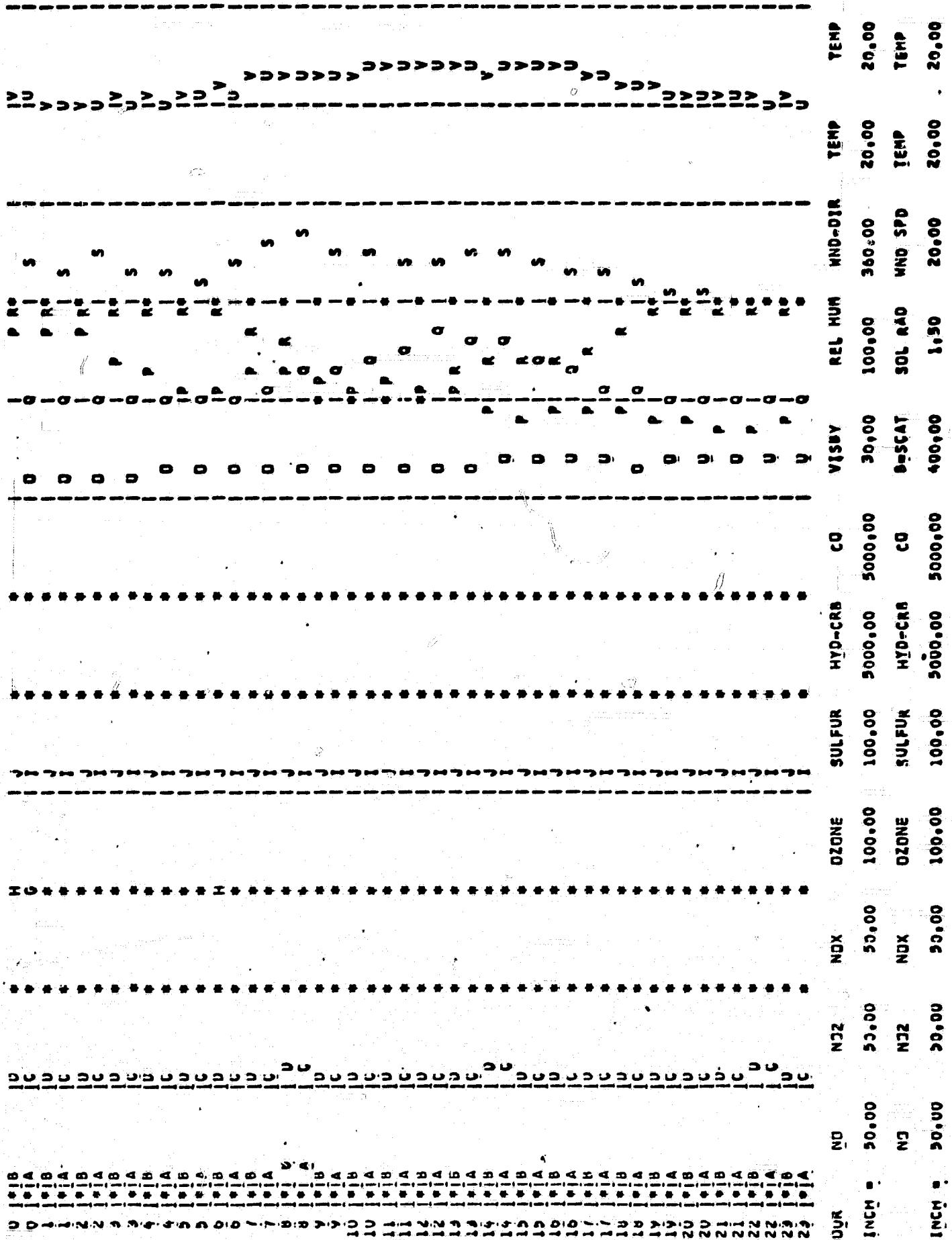
CAPE HENRY • AUG 12 1974

A musical score page featuring five staves of music. The top staff uses vertical stems, the second staff uses horizontal stems, the third staff uses vertical stems, the fourth staff uses horizontal stems, and the bottom staff uses vertical stems. The music consists of quarter notes and eighth notes.

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CAPE HENRY - AUG 18 1974



TEMP TEMP
WIND-DIR WIND-SPD
REL HUM SOL RAD
H2O-CRS CO 85%AT 1.50
SULFUR SULFUR 400100 30000.00
OZONE OZONE 100.00 30000.00
NO NO 50.00 30000.00
NO₂ NO₂ 50.00 30000.00
CO CO 50.00 30000.00
CH₄ CH₄ 50.00 30000.00
C₂H₆ C₂H₆ 50.00 30000.00
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C₁₃₅H₂₇₂ C₁₃₅H₂₇₂ 50.00 30000.00
C₁₃₆H₂₇₄ C₁₃₆H₂₇₄ 50.00 30000.00
C₁₃₇H₂₇₆ C₁₃₇H₂₇₆ 50.00 30000.00
C₁₃₈H₂₇₈ C₁₃₈H₂₇₈ 50.00 30000.00
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C₁₅₂H₃₀₆ C₁₅₂H₃₀₆ 50.00 30000.00
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C₂₂₇H₄₅₆ C₂₂₇H₄₅₆ 50.00 30000.00
C₂₂₈H₄₅₈ C₂₂₈H₄₅₈ 50.00 30

This image shows a horizontal strip of ancient Hebrew manuscript. The top line consists of a series of square characters, likely representing a vocalized text. The bottom line consists of a series of circular characters, which are likely the underlying consonantal text. The script is written in a cursive, flowing style typical of ancient Hebrew manuscripts.

A horizontal dashed line with black 'S' marks at regular intervals, serving as a scale or ruler.

This image shows a horizontal strip of film with a series of circular holes and sprocket hole patterns. The top row consists of a series of small circular holes. Below this is a row of larger, irregularly shaped holes. A dashed horizontal line runs through the center of the frame. Below the dashed line is another row of small circular holes, followed by a row of larger, irregularly shaped holes. The bottom row consists of a series of small circular holes.

.....

וְיַעֲשֵׂה יְהוָה כָּל־אֲשֶׁר־יֹאמְרָה לְךָ בְּנֵי־יִשְׂרָאֵל

.....

8:40 8:40

100.00	50000.00	20.00	200.00
100.00	50000.00	20.00	200.00
100.00	50000.00	20.00	200.00
100.00	50000.00	20.00	200.00
100.00	50000.00	20.00	200.00

כְּאֵלֶיךָ כְּאֵלֶיךָ כְּאֵלֶיךָ כְּאֵלֶיךָ כְּאֵלֶיךָ

100 200 300 400 500 600 700 800 900

0 0 0 0 0 0 0 0 0 0 0 0 0

.....

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TEMP
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WND-
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REL
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