

A PRELIMINARY COMPARISON OF
1990 OZONE CONCENTRATIONS
TO
1988 AND 1989
OZONE CONCENTRATIONS
(FINAL REPORT)

*The data used in this report have not gone
through the normal validation procedures and
as such are not suitable for regulatory purposes.*

December 1990

U.S. ENVIRONMENTAL PROTECTION AGENCY
MONITORING AND REPORTS BRANCH
TECHNICAL SUPPORT DIVISION
OFFICE OF AIR QUALITY PLANNING AND STANDARDS
RESEARCH TRIANGLE PARK, NORTH CAROLINA 27711

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(FINAL REPORT)

The Headquarters and Regional National Air Monitoring Station (NAMS) Coordinators have once again completed a nationwide survey of preliminary summer ozone (O_3) data. This report represents 1990 ozone data as collected through October 31 and provides the summary statistics from 600 of the approximately 770 (proposed for 1990 operation) nationally operating ozone monitoring sites. The data were compiled by EPA Regional Offices through queries to State and local air pollution control agencies in order to monitor the severity of the 1990 ozone season.

To be expeditious in the reporting of the ozone data it must be understood that the data, as summarized in this report, were gathered as they were being measured and therefore were not subjected to the quality assurance (QA) procedures that State and local air pollution control agencies normally apply. It must also be emphasized that the data depicted in this report, have not gone through the normal validation process, and as such are not suitable for regulatory purposes. It is believed that the prescribed final QA procedures are necessary before the data are suitable for regulatory purposes.

This report compares the 1990 ozone data to the two previous years, 1988 and 1989. The last four columns of Table 1 represent the net change for each monitoring location from 1988 to 1989, and 1989 to 1990. Table 2 is a summary, by Regions, of the number of

reported exceedances of the preliminary ozone concentrations through October 31, 1990. Figures 1 and 2 illustrate the comparisons between the number and percentages of reported ozone standard exceedances to the number of reporting monitoring sites. Figures 3 and 4 contrast these comparisons between the years 1989 and 1990.

SUMMARY

The preliminary ozone data as reported for the summer of 1990 were lower than concentrations reported in both 1989 and 1988. This is attributed to the less elevated summertime temperatures and stagnation of 1990 as compared to 1988 and to the near similar (albeit slightly higher) range of summertime temperatures when compared to 1989. An important factor to once again keep in mind, was the difference in meteorological conditions between the summer of 1988 and the summers of 1989/1990. It is well known that ozone concentrations for 1988 were the highest in recent history, particularly in areas east of the Mississippi River. As EPA reported in the National Air Quality and Emission Trends Report, 1988, the summer of 1988 was the third hottest since 1931 and this contributed greatly to the increase in 1988 ozone levels. In contrast, meteorological conditions during the summer of 1989 were not favorable for ozone formation. 1989 was reported to be one of the wettest on record in nine States with numerous areas receiving above average rainfall. 1990 summertime temperatures however, averaged above the national mean with drier conditions over most of

the county. While summer 1990 was reported to be cooler than 1988 though warmer and drier than 1989, preliminary ozone concentrations were reported as averaging slightly lower than those recorded in 1989.

CONCLUSIONS

The analyses of the preliminary 1990 ozone concentrations have resulted in the following assumptions:

1. For the approximately 550 sites that reported ozone data in both 1989 and 1990 the daily peak measured ozone concentrations through October 31 are, on a national average, 2 percent lower than those reported in 1989.
2. The 1990 daily second maximum peak ozone concentrations through October 31 were 1 percent lower than the corresponding values as reported in 1989.
3. As was the case from 1988 to 1989, average decreases from 1989 to 1990, while somewhat less, were once again evident throughout the country, although there are again mixed trends at some of the monitoring sites.
4. The data as summarized in this report represent ozone measurements from 600 sites, (78 percent) of the approximately 770 (proposed in December 1989 for 1990 operation) operating nationally.

CONCLUSIONS - continued:

5. An analysis indicates that while 369 sites (62 percent) report having no violations of the ozone standard and 84 sites had but one exceedance (14 percent); 38 sites had two (6 percent), 15 sites had three (<3 percent), 22 sites had four (<4 percent), 14 sites had five (2 percent), with 18 sites being reported as having between six and nine (3 percent), while 40 sites (<7 percent): one in New York, (at the World Trade Center, which is not used for design values), nine in Texas and 30 in California reported ten or more.

ACKNOWLEDGEMENTS

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Table 1. Preliminary 1990 O3 Concentrations (ppm) Compared to 1988 and 1989

AIRS Number	Region	State	Location	Represents CMSA/MSA	1988			1989			1990			Data Collected (1990)	Percent Change Through 1st Max 188 to 90	Percent Change 2nd Max 88 to 90	Percent Change 1st Max 89 to 90	Percent Change 2nd Max 89 to 90
					1st Max 1-Hour	2nd Max 1-Hour	Estimated Exceed.	1st Max 1-Hour	2nd Max 1-Hour	Estimated Exceed.	1st Max 1-Hour	2nd Max 1-Hour	Measured Exceed.					
09-001-0017	I	CT	Greenwich	New York	0.237	0.216	17.7	0.187	0.162	7.3	0.144	0.143	5	Oct 31	-39.2	-33.8	-23.0	-11.7
09-001-0113			Bridgeport	New York	0.232	0.217	18.0	0.156	0.147	4.0	0.183	0.161	3	Oct 31	-21.1	-25.8	17.3	9.5
09-001-1123			Danbury	New York	0.222	0.203	21.0	0.134	0.127	2.0	0.167	0.149	5	Oct 31	-24.8	-26.6	24.6	17.3
09-001-3007			Stratford	New York	0.221	0.197	22.6	0.202	0.175	10.4	0.176	0.129	4	Oct 31	-20.4	-34.5	-12.9	-26.3
09-003-1003			East Hartford	Hartford	0.210	0.185	10.0	0.166	0.140	5.2	0.151	0.146	4	Oct 31	-28.1	-21.1	-9.0	4.3
09-007-0007			Middletown	Hartford	0.239	0.181	13.6	0.172	0.167	5.1	0.168	0.160	5	Oct 31	-29.7	-11.6	-2.3	-4.2
09-009-1123			New Haven	New York	0.216	0.174	10.0	0.156	0.149	4.3	0.104	0.101	0	Oct 31	-51.9	-42.0	-33.3	-32.2
09-009-3002			Madison	New York	0.204	0.161	12.4	0.149	0.148	4.3	0.197	0.157	7	Oct 31	-3.4	-2.5	32.2	6.1
09-011-0008			Groton	Hartford	0.181	0.151	9.0	0.145	0.142	6.4	0.172	0.158	6	Oct 31	-5.0	4.6	18.6	11.3
09-013-1001			Stafford	Hartford	0.238	0.153	13.6	0.139	0.128	3.4	0.153	0.143	5	Oct 31	-35.7	-6.5	-3.8	11.7
23-005-2003	ME	Cape Elizabeth	Portland	0.178	0.168	11.2	0.146	0.130	3.2	0.148	0.125	2	Oct 31	-16.9	-25.6	1.4	-3.8	
23-009-0003		Acadia (Mt Pk)	Hancock Co.	0.179	0.153	7.6	0.130	0.103	1.0	0.123	0.118	0	Oct 31	-31.3	-22.9	-5.4	14.6	
23-009-2003		Dedham	Hancock Co.	0.129	0.116	1.2	0.108	0.099	0.0	0.122	0.119	0	Oct 31	-5.4	2.6	13.0	20.2	
23-011-2001		Gardiner	Lewiston	0.159	0.134	3.1	0.126	0.108	1.0	0.108	0.107	0	Oct 31	-32.1	-20.1	-14.3	-0.9	
23-013-0003		Isle Au Haut NP	Knox Co.	0.202	0.158	15.6	0.118	0.108	0.0	0.132	0.102	1	Oct 31	-34.7	-35.4	11.9	-5.6	
23-013-0004		Port Clyde	Knox Co.	0.185	0.149	10.7	0.134	0.120	1.2	0.153	0.121	1	Oct 31	-17.3	-18.8	14.2	0.8	
23-019-4006		Costigan	Penobscot Co.	-	-	-	-	-	-	0.097	0.079	0	Oct 31	-	-	-	-	
23-025-1003		Skowhegan	Somerset Co.	-	-	-	-	-	-	0.088	0.083	0	Oct 31	-	-	-	-	
23-029-0019		Jonesport	Washington Co.	-	-	-	0.100	0.093	0.0	0.108	0.106	0	Oct 31	-	-	6.0	14.0	
23-031-2002		Kennebunkport	Portland	0.177	0.154	17.1	0.134	0.147	4.0	0.162	0.152	5	Oct 31	-8.5	-1.3	5.2	3.4	
25-001-0002	MA	Truro	Boston	0.182	0.158	12.5	0.144	0.128	4.4	0.131	0.119	1	Oct 31	-28.0	-24.7	-9.0	-7.0	
25-003-4002		Adams	Springfield	-	-	-	0.102	0.086	0.0	0.155	0.105	1	Oct 31	-	-	52.0	22.1	
25-005-1001		Easton	Boston	0.153	0.129	2.2	0.136	0.132	2.0	0.117	0.115	0	Oct 31	-23.5	-10.9	-14.0	-12.9	
25-005-1002		Fairhaven	Boston	0.180	0.161	6.6	0.150	0.122	1.2	0.132	0.124	1	Oct 31	-26.7	-23.0	-12.0	1.6	
25-009-0005		Lawrence	Boston	0.144	0.128	4.0	0.118	0.106	0.0	0.104	0.092	0	Oct 31	-27.8	-28.1	-11.9	-13.2	
25-009-4003		Newburyport	Boston	0.180	0.159	7.2	0.123	0.123	0.0	0.101	0.092	0	Oct 31	-43.9	-42.1	-17.9	-25.2	
25-013-0003		Agawam	Springfield	0.182	0.151	9.1	0.148	0.125	2.2	0.139	0.121	1	Oct 31	-23.6	-19.9	-6.1	-3.2	
25-013-0008		Chicopee	Springfield	0.192	0.167	13.4	0.117	0.115	0.0	0.124	0.115	0	Oct 31	-35.4	-31.1	6.0	0.0	
25-015-0103		Ashurst	Springfield	0.165	0.162	7.3	0.112	0.107	0.0	0.120	0.115	0	Oct 31	-27.3	-29.0	7.1	7.5	
25-015-4002		Ware	Springfield	0.213	0.176	17.1	0.168	0.133	3.0	0.139	0.131	3	Oct 31	-34.7	-25.6	-17.3	-1.5	
25-017-1801		Sudbury	Worcester	0.170	0.169	11.4	0.122	0.120	0.0	0.137	0.097	1	Oct 31	-19.4	-42.6	12.3	-19.2	
25-017-4003		Waltham	Boston	-	-	-	0.122	0.113	0.0	0.143	0.109	1	Oct 31	-	-	17.2	-3.5	
25-017-6001		Lexington	Boston	0.139	0.138	4.4	0.107	0.106	0.0	0.113	0.109	0	Oct 31	-18.7	-21.0	5.6	2.8	
25-023-2001		Scituate	Boston	0.152	0.151	6.5	0.131	0.118	1.1	0.090	0.081	0	Oct 31	-40.8	-46.4	-31.3	-31.4	
25-025-1003		Chelsea	Boston	0.150	0.150	6.4	0.123	0.114	0.0	0.137	0.107	1	Oct 31	-8.7	-28.7	11.4	-6.1	
25-027-0019		Worcester	Worcester	0.171	0.139	2.0	0.127	0.103	1.0	0.135	0.115	1	Oct 31	-21.1	-17.3	6.3	11.7	
33-005-0007	NH	Keene	Cheshire Co.	-	-	-	-	-	-	0.104	0.083	0	Oct 31	-	-	-	-	
33-011-0016		Manchester	Manchester	0.146	0.143	2.0	0.117	0.089	0.0	0.111	0.087	0	Oct 31	-24.0	-39.2	-5.1	-2.2	
33-011-1010		Nashua	Boston	0.142	0.128	2.0	0.121	0.093	0.0	0.115	0.104	0	Oct 31	-19.0	-18.8	-5.0	11.8	

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Table 1. Preliminary 1990 O3 Concentrations (ppm) Compared to 1988 and 1989

AIRS Number	Region	State	Location	Represents CMSA/MSA	1988			1989			1990			Data (1990)	Percent Collected	Percent Change 88 to 90	Percent Change 89 to 90	
					1st Max 1-Hour	2nd Max 1-Hour	Estimated Exceed.	1st Max 1-Hour	2nd Max 1-Hour	Estimated Exceed.	1st Max 1-Hour	2nd Max 1-Hour	Measured Exceed.					
33-013-0006	NH	South Bow	Manchester		0.146	0.139	4.1	0.122	0.103	0.0	0.126	0.095	1	Oct 31	-13.7	-31.7	3.3	-7.8
33-015-0009		Portsmouth	Portsmouth		0.165	0.150	5.0	0.114	0.107	0.0	0.121	0.103	0	Oct 31	-26.7	-31.3	6.1	-3.7
33-015-0012		Rye Harbor	Portsmouth		0.184	0.179	9.4	0.165	0.140	2.0	0.134	0.118	1	Oct 31	-27.2	-34.1	-18.8	-15.7
33-019-0003		Claremont	Sullivan Co.		-	-	-	-	-	-	0.098	0.090	0	Oct 31	-	-	-	-
													1					
44-003-0002	RI	Alton Jones	Providence		0.195	0.168	8.5	0.160	0.132	2.6	0.141	0.141	6	Oct 31	-27.7	-16.1	-11.9	6.8
44-007-0012		Brown	Providence		0.171	0.138	4.0	0.107	0.105	0.0	0.123	0.120	0	Oct 31	-28.1	-13.0	15.0	14.3
													1					
50-003-0004	VT	Bennington	Bennington Co.		0.125	0.125	2.2	0.106	0.091	0.0	0.114	0.099	0	Oct 31	-8.8	-20.8	7.5	8.8
50-007-0007		Underhill	Chittenden Co.		-	-	-	0.091	0.088	0.0	0.086	0.082	0	Oct 31	-	-	-5.5	-6.8
													1					
34-001-0005	II	NJ	Nacote Creek	Atlantic City	0.166	0.145	6.0	0.148	0.124	1.1	0.165	0.137	4	Oct 31	-0.6	-5.5	11.5	10.5
34-003-0001		Cliffside	New York		0.203	0.187	16.0	0.122	0.121	0.0	0.132	0.129	2	Oct 31	-35.0	-31.0	8.2	6.6
34-005-3001		McGuire	Philadelphia		0.197	0.182	13.2	0.136	0.135	4.0	0.139	0.137	4	Oct 31	-29.4	-24.7	2.2	1.5
34-007-0003		Camden	Philadelphia		0.195	0.187	21.6	0.129	0.127	2.0	0.140	0.136	2	Oct 31	-28.2	-27.3	8.5	7.1
34-007-1001		Ancora	Philadelphia		0.179	0.172	23.0	0.163	0.143	5.2	0.158	0.142	3	Oct 31	-11.7	-17.4	-3.1	-0.7
34-011-0007		Millville	Philadelphia		0.158	0.152	11.1	0.135	0.134	3.2	0.145	0.125	2	Oct 31	-8.2	-17.8	7.4	-6.7
34-013-0011		Newark	New York		0.218	0.177	10.2	0.122	0.114	0.0	0.146	0.125	2	Oct 31	-33.0	-29.4	19.7	9.6
34-015-0002		Clarksboro	Philadelphia		0.196	0.182	20.6	0.164	0.156	3.1	0.145	0.142	4	Oct 31	-26.0	-22.0	-11.6	-9.0
34-017-0006		Bayonne	New York		0.218	0.199	14.9	0.147	0.122	1.1	0.185	0.175	3	Oct 31	-15.1	-12.1	25.9	43.4
34-019-0001		Flemington	New York		0.170	0.161	16.4	0.132	0.130	3.0	0.142	0.136	6	Oct 31	-16.5	-15.5	7.6	4.6
34-021-0005		Mercer County	Philadelphia		0.204	0.197	18.2	0.151	0.143	3.0	0.163	0.141	5	Oct 31	-20.1	-28.4	7.9	-1.4
34-023-0006		New Brunswick	New York		0.216	0.212	16.4	0.127	0.123	1.0	0.153	0.149	7	Oct 31	-29.2	-29.7	20.5	21.1
34-025-0005		Monmouth College	New York		-	-	-	0.139	0.139	12.5	0.197	0.138	6	Oct 31	-	-	41.7	-0.7
34-027-3001		Chester	New York		0.186	0.182	18.8	0.158	0.132	2.1	0.138	0.128	3	Oct 31	-25.8	-29.7	-12.7	-3.0
34-035-1001		Plainfield	New York		0.200	0.181	15.1	0.132	0.124	1.0	0.126	0.116	1	Oct 31	-37.0	-35.9	-4.5	-6.5
													1					
36-001-0012	NY	Loudonville	Albany		0.148	0.128	2.0	0.112	0.097	0.0	0.117	0.112	0	Oct 31	-20.9	-12.5	4.5	15.5
36-005-0080		Bronx Co.	New York		-	-	-	-	-	-	0.118	0.103	0	Oct 31	-	-	-	-
36-013-1005		Westfield	Elmira		-	-	-	-	-	-	0.107	0.105	0	Oct 31	-	-	-	-
36-015-0003		Elmira	Elmira		0.123	0.122	0.0	0.101	0.087	0.0	0.099	0.096	0	Oct 31	-19.5	-21.3	-2.0	10.3
36-027-0005		Millbrook	Dutchess Co.		-	-	-	-	-	-	0.129	0.123	1	Oct 31	-	-	-	-
36-027-1003		Poughkeepsie	Poughkeepsie		0.141	0.140	4.0	0.095	0.080	0.0	0.119	0.117	0	Oct 31	-15.6	-16.4	25.3	46.3
36-029-0002		Austerst	Buffalo		0.164	0.152	8.3	0.128	0.106	1.0	0.122	0.111	0	Oct 31	-25.6	-27.0	-4.7	4.7
36-031-0002		White Face Mt	Essex Co.		0.135	0.133	5.4	0.106	0.100	0.0	0.104	0.102	0	Oct 31	-23.0	-23.3	-1.9	2.0
36-031-0005		Newcomb	Essex Co.		0.128	0.108	1.1	0.097	0.090	0.0	0.047	0.043	0	Oct 31	-63.3	-60.2	-51.5	-52.2
36-045-0002		Perch River	Jefferson Co.		0.146	0.143	6.1	0.122	0.112	0.0	0.095	0.094	0	Oct 31	-34.9	-34.3	-22.1	-16.1
36-053-0005		Camp Gorgeotown	Syracuse		-	-	-	-	-	-	0.095	0.094	0	Oct 31	-	-	-	-
36-055-1004		Rochester	Rochester		0.142	0.139	2.1	0.111	0.107	0.0	0.108	0.106	0	Oct 31	-23.9	-23.7	-2.7	-0.9
36-061-0010		Mable Dean	New York		0.158	0.146	3.1	0.102	0.099	0.0	0.106	0.084	0	Oct 31	-32.9	-42.5	3.9	-15.2
36-061-0063		World Trade Ctr	New York		0.278	0.227	19.4	0.134	0.131	4.2	0.175	0.155	10	Oct 31	-37.1	-31.7	30.6	18.3
36-063-1006		Middleport	Buffalo		0.142	0.135	7.2	0.098	0.098	0.0	0.108	0.101	0	Oct 31	-23.9	-25.2	9.1	3.1

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Table 1. Preliminary 1990 O3 Concentrations (ppb) Compared to 1988 and 1989

AIRS Number	Region	State	Location	Represents CMSA/MSA	1988			1989			1990			Data (1990)	Percent Collected	Percent Change	Percent Change	Percent Change
					1st Max	2nd Max	Estimated Exceed.	1st Max	2nd Max	Estimated Exceed.	1st Max	2nd Max	Measured Exceed.	Through (1990)				
					1-Hour	1-Hour		1-Hour	1-Hour		1-Hour	1-Hour		188 to 90	88 to 90	89 to 90	88 to 90	89 to 90
36-065-0004		NY	Oneida County	Syracuse	0.117	0.116	0.0	0.092	0.090	0.0	0.104	0.102	1	Oct 31	-11.1	-12.1	13.0	13.3
36-067-0014			Ondonaga County	Syracuse	0.123	0.116	0.0	0.112	0.099	0.0	0.107	0.106	0	Oct 31	-13.0	-8.6	-4.5	7.1
36-081-0004			Queens College	New York	0.206	0.168	10.7	0.110	0.106	0.0	0.148	0.133	4	Oct 31	-28.2	-20.8	34.5	25.5
36-085-0067			Susan Wagner	New York	0.170	0.163	16.8	0.137	0.124	1.1	0.142	0.141	3	Oct 31	-16.5	-13.5	3.6	13.7
36-091-0004			Saratoga	Albany	0.137	0.128	7.6	0.105	0.097	0.0	0.117	0.111	0	Oct 31	-14.6	-13.5	11.4	14.4
36-093-0003			Schenectady	Albany	0.129	0.117	1.0	0.097	0.095	0.0	0.100	0.099	0	Oct 31	-22.5	-15.4	3.1	4.2
36-103-0002			Babylon	New York	0.172	0.163	7.7	0.156	0.151	6.9	0.146	0.144	5	Oct 31	-15.1	-11.7	-6.4	-4.6
36-117-3001			Wayne County	Rochester	0.124	0.123	0.0	0.106	0.102	0.0	0.123	0.110	0	Oct 31	-0.8	-10.6	16.0	7.8
36-119-2004			White Plains	New York	0.179	0.178	20.3	0.123	0.120	0.0	0.136	0.118	1	Oct 31	-24.0	-33.7	10.6	-1.7
10-001-0001	III	DE	Dover	Philadelphia	0.170	0.170	10.7	0.120	0.120	0.0	0.117	0.098	0	Oct 31	-31.2	-42.4	-2.5	-18.3
10-003-0018			Luas Pond	Philadelphia	0.200	0.190	23.0	0.180	0.130	2.2	0.155	0.135	4	Oct 31	-22.5	-28.9	-13.9	3.8
10-003-1003			Lindamere	Philadelphia	0.210	0.190	18.4	0.150	0.120	1.1	0.145	0.140	4	Oct 31	-31.0	-26.3	-3.3	16.7
10-003-3001			Claymont	Philadelphia	0.210	0.190	17.3	0.150	0.130	2.3	0.129	0.125	2	Oct 31	-38.6	-34.2	-14.0	-3.8
10-005-1002			Shiply State	Sussex Co.	-	-	-	-	-	-	0.148	0.118	1	Oct 31	-	-	-	-
11-001-0017		DC	Washington	Washington	0.167	0.126	2.6	0.079	0.078	0.0	0.100	0.086	0	Oct 31	-40.1	-31.7	26.6	10.3
11-001-0025			Washington	Washington	0.178	0.173	0.6	0.143	0.120	1.2	0.117	0.115	0	Oct 31	-34.3	-33.5	-18.2	-4.2
24-003-0014	MD	Davidsonville	Baltimore	0.186	0.178	19.5	0.120	0.103	0.0	0.132	0.129	2	Oct 31	-29.0	-27.5	10.0	25.2	
24-003-0019		Ft. Meade	Baltimore	0.181	0.169	18.1	0.127	0.124	1.0	0.137	0.121	1	Oct 31	-24.3	-28.4	7.9	-2.4	
24-005-0003		Garrison	Baltimore	0.161	0.158	13.0	0.129	0.105	1.0	0.139	0.117	1	Oct 31	-13.7	-25.9	7.8	11.4	
24-005-1007		Padonia	Baltimore	0.196	0.164	11.2	0.138	0.126	2.1	0.136	0.130	3	Oct 31	-30.6	-20.7	-1.4	3.2	
24-005-3001		Essex	Baltimore	0.165	0.161	16.5	0.121	0.104	0.0	0.137	0.108	1	Oct 31	-17.0	-32.9	13.2	3.8	
24-013-0001		South Carroll	Baltimore	0.159	0.158	13.6	0.123	0.116	0.0	0.131	0.127	2	Oct 31	-17.6	-19.6	6.5	9.5	
24-017-0010		Southern MD	Washington	0.155	0.154	11.0	0.107	0.100	0.0	0.136	0.106	1	Oct 31	-12.3	-31.2	27.1	6.0	
24-025-1001		Edgewood	Baltimore	0.218	0.194	19.3	0.160	0.128	2.7	0.145	0.131	4	Oct 31	-33.5	-32.5	-9.4	2.3	
24-025-9001		Aldino	Baltimore	-	-	-	-	-	-	0.140	0.137	4	Oct 31	-	-	-	-	
24-029-0002		Millington	Washington	-	-	-	0.140	0.117	2.2	0.131	0.124	1	Oct 31	-	-	-6.4	6.0	
24-031-3001		Rockville	Washington	0.153	0.153	12.3	0.127	0.109	1.0	0.110	0.101	0	Oct 31	-28.1	-34.0	-13.4	-7.3	
24-033-0002		Greenbelt	Washington	0.166	0.163	11.9	0.130	0.124	1.1	0.168	0.145	3	Oct 31	1.2	-11.0	29.2	16.9	
24-033-8001		Suitland	Washington	0.183	0.179	13.8	0.106	0.101	0.0	0.134	0.116	1	Oct 31	-26.8	-35.2	26.4	14.9	
24-510-0018		Baltimore	Baltimore	0.177	0.165	10.0	0.108	0.106	0.0	0.108	0.107	0	Oct 31	-39.0	-35.2	0.0	0.9	
24-510-0036		Ft. Holabird	Baltimore	-	-	-	-	-	-	0.150	0.130	2	Oct 31	-	-	-	-	
42-003-0003	PA	Lawrenceville	Pittsburgh	0.170	0.146	6.0	0.129	0.120	1.0	0.111	0.097	0	Oct 31	-34.7	-33.6	-14.0	-19.2	
42-003-0067		South Fayette	Pittsburgh	0.159	0.145	4.0	0.131	0.125	2.2	0.091	0.083	0	Oct 31	-42.8	-42.8	-30.5	-33.6	
42-003-0088		Penn Hills	Pittsburgh	0.153	0.118	1.1	0.114	0.109	0.0	0.115	0.109	0	Oct 31	-24.8	-7.6	0.9	0.0	
42-003-1001		Brackenridge	Pittsburgh	0.165	0.157	14.8	0.143	0.132	2.0	0.092	0.081	0	Jun 14	-44.2	-48.4	-35.7	-38.6	
42-003-1005		Harrison Township	Pittsburgh	-	-	-	-	-	-	0.106	0.099	0	Oct 31	-	-	-	-	
42-007-0003		New Brighton	Pittsburgh	0.141	0.136	4.3	0.102	0.101	0.0	0.104	0.095	0	Oct 31	-26.2	-30.1	2.0	-5.9	
42-007-0014		Beaver Falls	Pittsburgh	0.132	0.128	3.1	0.106	0.104	0.0	0.111	0.104	0	Oct 31	-15.9	-18.8	4.7	0.0	

The above data have not gone through the normal validation procedures and as such are not suitable for regulatory purposes.

Table 1. Preliminary 1990 O3 Concentrations (ppb) Compared to 1988 and 1989

AIRS Number	Region	State	Location	Represents CMSA/MSA	1988			1989			1990			Data Collected (1990)	Percent Change 1st Max 88 to 90	Percent Change 2nd Max 88 to 90	Percent Change 1st Max 89 to 90	Percent Change 2nd Max 89 to 90
					1st Max 1-Hour	2nd Max 1-Hour	Estimated Exceed.	1st Max 1-Hour	2nd Max 1-Hour	Estimated Exceed.	1st Max 1-Hour	2nd Max 1-Hour	Measured Exceed.					
42-011-0001	PA	Kutztown	Reading		0.180	0.143	7.4	0.107	0.105	0.0	0.110	0.108	0	Oct 31	-31.3	-24.5	2.8	2.9
42-011-0009		Reading	Reading		0.152	0.148	9.2	0.106	0.106	0.0	0.118	0.113	0	Oct 31	-22.4	-23.6	11.3	6.6
42-013-0801		Altoona	Altoona		0.146	0.136	4.0	0.099	0.099	0.0	0.109	0.097	0	Oct 31	-25.3	-28.7	10.1	-2.0
42-017-0012		Bristol	Philadelphia		0.203	0.183	13.3	0.152	0.153	5.0	0.153	0.132	4	Oct 31	-25.4	-27.9	0.7	-2.2
42-021-0011		Johnstown	Johnstown		0.154	0.144	7.4	0.115	0.098	0.0	0.108	0.103	0	Oct 31	-29.9	-28.5	-6.1	5.1
42-043-0401		Harrisburg	Harrisburg		0.137	0.129	2.1	0.114	0.102	0.0	0.126	0.106	1	Oct 31	-8.0	-17.8	10.5	3.9
42-043-1100		Hershey	Harrisburg		0.143	0.138	4.4	0.118	0.113	0.0	0.128	0.122	1	Oct 31	-10.5	-11.6	8.5	8.0
42-045-0002		Chester	Philadelphia		0.208	0.193	17.0	0.187	0.126	2.0	0.149	0.138	2	Oct 31	-28.4	-28.5	-20.3	9.5
42-049-0003		Erie	Erie		0.169	0.148	7.9	0.122	0.116	0.0	0.102	0.100	0	Oct 31	-39.6	-32.4	-16.4	-13.8
42-069-0100		Carbonville	Scranton		0.133	0.124	1.0	0.112	0.102	0.0	0.099	0.099	0	Oct 31	-25.6	-20.2	-11.6	-2.9
42-069-2006		Scranton	Scranton		0.147	0.146	8.1	0.122	0.105	0.0	0.110	0.100	0	Oct 31	-25.2	-31.5	-9.8	-4.8
42-071-0007		Lancaster	Lancaster		0.133	0.127	3.0	0.103	0.101	0.0	0.105	0.101	0	Oct 31	-21.1	-20.5	1.9	0.0
42-073-0015		New Castle	Pittsburgh		0.138	0.137	3.1	0.112	0.101	0.0	0.103	0.097	0	Oct 31	-25.4	-29.2	-8.0	-4.0
42-077-0004		Allentown	Allentown		0.154	0.138	6.1	0.102	0.102	0.0	0.117	0.109	0	Oct 31	-24.0	-21.0	14.7	6.9
42-079-1100		Nanticoke	Scranton		0.129	0.128	3.3	0.090	0.085	0.0	0.095	0.088	0	Oct 31	-26.4	-31.3	5.6	3.5
42-079-1101		Wilkes-Barre	Scranton		0.120	0.119	0.0	0.099	0.097	0.0	0.117	0.114	0	Oct 31	-2.5	-4.2	18.2	17.5
42-081-0403		Williamsport	Williamsport		0.122	0.116	0.0	0.084	0.080	0.0	0.093	0.088	0	Oct 31	-23.8	-24.1	10.7	10.0
42-085-0100		Farrell	Youngstown/Sharon		0.150	0.143	5.4	0.116	0.105	0.0	0.105	0.103	0	Oct 31	-30.0	-28.0	-9.5	-1.9
42-091-0013		Norristown	Philadelphia		0.204	0.159	15.9	0.123	0.121	0.0	0.141	0.116	1	Oct 31	-30.9	-27.0	14.6	-4.1
42-095-0017		Bethlehem	Allentown		0.158	0.145	7.2	0.102	0.099	0.0	0.101	0.098	0	Oct 31	-36.1	-32.4	-1.0	-1.0
42-095-0100		Easton	Allentown		0.177	0.163	10.1	0.103	0.098	0.0	0.114	0.111	0	Oct 31	-35.6	-31.9	10.7	13.3
42-099-0301		Perry County	Harrisburg		0.145	0.139	6.9	0.097	0.096	0.0	0.104	0.100	0	Oct 31	-28.3	-28.1	7.2	4.2
42-101-0014		Philadelphia	Philadelphia		0.210	0.200	18.2	0.130	0.130	3.9	0.140	0.130	2	Oct 31	-33.3	-35.0	7.7	0.0
42-101-0023		SE Philadelphia	Philadelphia		0.150	0.130	8.1	0.140	0.140	2.4	0.140	0.130	2	Oct 31	-6.7	0.0	0.0	-7.1
42-101-0024		NE Philadelphia	Philadelphia		0.150	0.150	15.6	0.120	0.110	0.0	0.150	0.120	1	Oct 31	0.0	-20.0	25.0	9.1
42-125-0005		Charleroi	Pittsburgh		0.164	0.128	6.4	0.105	0.102	0.0	0.108	0.102	0	Oct 31	-34.1	-20.3	2.9	0.0
42-125-0200		Washington County	Pittsburgh		0.153	0.140	4.1	0.113	0.104	0.0	0.106	0.104	0	Oct 31	-30.7	-25.7	-6.2	0.0
42-129-0006		Murrysville	Pittsburgh		-	-	-	-	-	-	0.106	0.102	0	Oct 31	-	-	-	-
42-133-0008		York	York		0.155	0.142	4.6	0.105	0.102	0.0	0.128	0.121	1	Oct 31	-17.4	-14.8	21.9	18.6
51-009-0006	VA	Ashherst County	Lynchburg		-	-	-	-	-	-	0.111	0.101	0	Oct 31	-	-	-	-
51-013-0020		Arlington	Washington		0.190	0.170	11.0	0.116	0.104	0.0	0.125	0.119	1	Oct 31	-34.2	-30.0	7.8	14.4
51-015-0004		Saw Mill Run	Augusta Co.		0.143	0.129	2.1	0.088	0.088	0.0	0.101	0.095	0	Oct 31	-29.4	-26.4	14.8	8.0
51-036-0002		SE Richmond	Richeond		0.145	0.144	5.0	0.098	0.097	0.0	0.126	0.120	1	Oct 31	-13.1	-16.7	28.6	23.7
51-041-0004		Chesterfield	Richeond		0.153	0.145	4.2	0.120	0.111	0.0	0.114	0.101	0	Oct 31	-25.5	-30.3	-5.0	-9.0
51-059-0018		Mt. Vernon	Washington		0.169	0.162	11.2	0.135	0.121	1.0	0.145	0.130	3	Oct 31	-14.2	-19.8	7.4	7.4
51-059-1004		Seven Corners	Washington		0.173	0.167	18.9	0.119	0.118	0.0	0.134	0.110	1	Oct 31	-22.5	-34.1	12.6	-6.8
51-059-5001		McLean	Washington		0.156	0.155	14.1	0.127	0.126	2.0	0.127	0.120	1	Oct 31	-18.6	-22.6	0.0	-4.8
51-061-0002		Fredericksburg	Fredericksburg		0.165	0.123	1.0	0.122	0.104	0.0	0.108	0.099	0	Oct 31	-34.5	-19.5	-11.5	-4.8
51-085-0001		Hanover County	Richeond		0.165	0.154	9.2	0.117	0.109	0.0	0.113	0.103	0	Oct 31	-31.5	-33.1	-3.4	-5.5
51-087-0014		Henrico County	Richeond		0.139	0.131	3.2	0.110	0.105	0.0	0.124	0.113	0	Oct 31	-10.8	-13.7	12.7	7.6
51-113-0003		Big Meadows	Madison Co.		0.137	0.129	2.1	0.097	0.084	0.0	0.100	0.097	0	Oct 31	-27.0	-24.8	3.1	15.5
51-131-0001		Cheriton	Northhampton Co.		0.128	0.126	2.0	0.121	0.115	0.0	0.140	0.120	1	Oct 31	9.4	-4.8	15.7	4.3
51-161-1004		Vinton	Roanoke		0.133	0.132	2.0	0.106	0.096	0.0	0.088	0.086	0	Oct 31	-33.8	-34.8	-17.0	-10.4
51-187-0002		Dickey Ridge	Warren Co.		0.151	0.142	2.6	0.100	0.095	0.0	0.094	0.089	0	Oct 31	-37.7	-37.3	-6.0	-6.3

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Table 1. Preliminary 1990 O3 Concentrations (ppm) Compared to 1988 and 1989

AIRS Number	Region	State	Location	Represents CMSA/MSA	1988			1989			1990			Data Collected (1990)	Percent Through 1st Max 88 to 90	Percent Change 88 to 90	Percent Change 1st Max 89 to 90	Percent Change 2nd Max 89 to 90
					1st Max	2nd Max	Estimated Exceed.	1st Max	2nd Max	Estimated Exceed.	1st Max	2nd Max	Measured Exceed.					
					1-Hour	1-Hour	1-Hour	1-Hour	1-Hour	1-Hour	1-Hour	1-Hour	1-Hour					
51-197-0002	VA	Wythe County	Wythe Co.		-	-	-	-	-	-	0.107	0.097	0	Oct 31	-	-	-	
51-510-0009		Alexandria	Washington		0.159	0.133	4.0	0.105	0.103	0.0	0.121	0.119	0	Oct 31	-23.9	-11.9	15.2	15.5
51-600-0005		Fairfax	Washington		0.165	0.159	14.8	0.141	0.109	1.0	0.128	0.116	1	Oct 31	-22.4	-27.0	-9.2	6.4
51-650-0004		Hampton	Norfolk		0.133	0.130	2.1	0.119	0.101	0.0	0.105	0.103	0	Oct 31	-21.1	-20.8	-11.8	2.0
51-800-0004		Suffolk	Norfolk		0.135	0.133	4.0	0.109	0.092	0.0	0.109	0.109	0	Oct 31	-19.3	-18.0	0.0	18.5
54-011-0006	WV	Huntington	Huntington		0.154	0.153	5.1	0.153	0.113	1.1	0.137	0.131	2	Oct 31	-11.0	-14.4	-10.5	15.9
54-025-0001		Greenbrier	Greenbrier Co.		0.135	0.132	4.1	0.121	0.112	0.0	0.089	0.088	0	Oct 31	-34.1	-33.3	-26.4	-21.4
54-029-1004		Weirton	Steubenville		0.130	0.119	1.1	0.099	0.095	0.0	0.093	0.089	0	Oct 31	-28.5	-25.2	-6.1	-6.3
54-039-0004		Charleston	Charleston		0.174	0.157	7.0	0.119	0.101	0.0	0.085	0.084	0	Oct 31	-51.1	-46.5	-28.6	-16.8
54-069-0007		Wheeling	Wheeling		0.124	0.122	0.0	0.110	0.110	0.0	0.111	0.111	0	Oct 31	-10.5	-9.0	0.9	0.9
54-107-1002		Vienna	Parkersburg		0.220	0.169	17.0	0.125	0.123	1.0	0.114	0.093	0	Oct 31	-48.2	-43.8	-8.8	-22.8
01-001-0003	IV	AL	Jones Bluff	Montgomery	-	-	-	-	-	-	0.096	0.096	0	Oct 31	-	-	-	-
01-073-1003		Fairfield	Birmingham		0.146	0.145	2.0	0.111	0.101	0.0	0.120	0.117	0	Oct 31	-17.8	-19.3	8.1	15.8
01-073-1005		McAdory	Birmingham		0.095	0.088	0.0	0.120	0.107	0.0	0.117	0.111	0	Oct 31	23.2	26.1	-2.5	3.7
01-073-2006		Hoover	Birmingham		0.103	0.079	0.0	0.100	0.097	0.0	0.131	0.126	4	Oct 31	27.2	59.5	31.0	29.9
01-073-5002		Pinson	Birmingham		0.129	0.121	1.0	0.119	0.108	0.0	0.126	0.115	1	Oct 31	-2.3	-5.0	5.9	6.5
01-073-6002		Tarrant City	Birmingham		0.147	0.130	3.0	0.116	0.115	0.0	0.127	0.121	1	Oct 31	-13.6	-6.9	9.5	5.2
01-089-0014		Huntsville	Huntsville		0.130	0.127	2.1	0.088	0.087	0.0	0.091	0.087	0	Oct 31	-30.0	-31.5	3.4	0.0
01-097-0003		Chickasaw	Mobile		0.107	0.106	0.0	0.103	0.100	0.0	0.126	0.114	1	Oct 31	17.8	7.5	22.3	14.0
01-097-0028		Mobile	Mobile		0.106	0.101	0.0	0.092	0.086	0.0	0.096	0.095	0	Oct 31	-9.4	-5.9	4.3	10.5
01-101-1001		Briar Hill	Montgomery		0.135	0.109	1.1	0.081	0.079	0.0	0.097	0.090	0	Oct 31	-28.1	-17.4	19.8	13.9
01-117-0004		Helena	Birmingham		0.133	0.130	6.0	0.094	0.094	0.0	0.131	0.126	2	Oct 31	-1.5	-3.1	39.4	34.0
01-051-0001		Elmore County	Montgomery		-	-	-	-	-	-	0.099	0.097	0	Oct 31	-	-	-	-
12-009-4001	FL	Cocoa Beach	Cocoa Beach		0.069	0.056	0.0	0.094	0.092	0.0	0.093	0.086	0	Oct 31	34.8	53.6	-1.1	-6.5
12-009-5001		Palm Bay	Cocoa Beach		0.103	0.069	0.0	0.112	0.098	0.0	0.084	0.082	0	Oct 31	-18.4	18.8	-25.0	-16.3
12-011-0003		Broward County	Miami		0.106	0.101	0.0	0.116	0.109	0.0	0.101	0.095	0	Oct 31	-4.7	-5.9	-12.9	-12.8
12-011-2003		Pompano Beach	Miami		-	-	-	0.080	0.060	0.0	0.089	0.086	0	Oct 31	-	-	11.2	43.3
12-011-8002		Dania	Miami		0.161	0.147	3.0	0.122	0.120	0.0	0.098	0.095	0	Oct 31	-39.1	-35.4	-19.7	-20.8
12-025-0021		Hialeah	Miami		0.120	0.111	0.0	0.121	0.117	0.0	0.127	0.108	1	Oct 31	5.8	-2.7	5.0	-7.7
12-025-0027		Dade County	Miami		0.138	0.129	2.2	0.112	0.111	0.0	0.096	0.096	0	Oct 31	-30.4	-25.6	-14.3	-13.5
12-025-0029		Dade County	Miami		0.140	0.123	1.1	0.124	0.109	0.0	0.112	0.099	0	Oct 31	-20.0	-19.5	-9.7	-9.2
12-031-0070		Jacksonville	Jacksonville		0.135	0.115	1.1	0.119	0.114	0.0	0.113	0.109	0	Oct 31	-16.3	-5.2	-5.0	-4.4
12-031-0077		Jacksonville	Jacksonville		0.121	0.104	0.0	0.107	0.100	0.0	0.111	0.108	0	Oct 31	-8.3	3.8	3.7	8.0
12-033-0004		Cantonment	Pensacola		0.103	0.096	0.0	0.096	0.087	0.0	0.116	0.104	0	Oct 31	12.6	8.3	20.8	19.5
12-033-0018		Pensacola	Pensacola		0.107	0.101	0.0	0.093	0.092	0.0	0.125	0.119	1	Oct 31	16.8	17.8	34.4	29.3
12-057-0081		Ruskin	Tampa		0.117	0.113	0.0	0.115	0.103	0.0	0.118	0.112	0	Oct 31	0.9	-0.9	2.6	8.7
12-057-1035		Tampa	Tampa		0.110	0.107	0.0	0.126	0.099	1.0	0.124	0.095	0	Oct 31	12.7	-11.2	-1.6	-4.0
12-057-1065		Tampa	Tampa		-	-	-	-	-	-	0.137	0.109	1	Oct 31	-	-	-	-
12-071-2001		Cape Coral	Fort Myers		0.061	0.057	0.0	0.104	0.097	0.0	0.097	0.095	0	Oct 31	59.0	66.7	-6.7	-2.1
12-071-3001		Lee County	Fort Myers		-	-	-	-	-	-	0.100	0.096	0	Oct 31	-	-	-	-

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Table 1. Preliminary 1990 O3 Concentrations (ppm) Compared to 1988 and 1989

AIRS Number	Region	State	Location	Represents CMSA/MSA	1988			1989			1990			Data Collected (1990)	Percent Change Through 88 to 90	Percent Change 88 to 90	Percent Change 89 to 90
					1st Max 1-Hour	2nd Max 1-Hour	Estimated Exceed.	1st Max 1-Hour	2nd Max 1-Hour	Estimated Exceed.	1st Max 1-Hour	2nd Max 1-Hour	Measured Exceed.				
12-081-4010	FL	Manatee County	Bradenton	-	-	-	-	-	-	-	0.108	0.100	0	Oct 31	-	-	-
12-095-0008		Orlando	Orlando	0.093	0.086	0.0	0.123	0.114	0.0	0.119	0.113	0	Oct 31	25.3	33.7	-3.3	0.9
12-095-2002		Winter Park	Orlando	0.099	0.095	0.0	0.118	0.110	0.0	0.122	0.116	0	Oct 31	23.2	22.1	3.4	5.5
12-099-0007		Royal Palm Beach	Miami	0.107	0.101	0.0	0.113	0.106	0.0	0.100	0.092	0	Oct 31	-6.3	-8.9	-11.5	-13.2
12-099-2004		Delray Beach	Miami	-	-	-	0.073	0.072	0.0	0.093	0.091	0	Oct 31	-	-	27.4	26.4
12-103-0004		Clearwater	St. Petersburg	0.117	0.115	0.0	0.109	0.103	0.0	0.121	0.109	0	Oct 31	3.4	-5.2	11.0	5.8
12-103-0018		St. Petersburg	St. Petersburg	0.102	0.099	0.0	0.099	0.095	0.0	0.112	0.112	0	Oct 31	9.8	13.1	13.1	17.9
12-103-5002		Tarpon Spring	St. Petersburg	0.107	0.104	0.0	0.111	0.104	0.0	0.128	0.104	1	Oct 31	19.6	0.0	15.3	0.0
12-115-1002		Sarasota	Sarasota	0.104	0.100	0.0	0.107	0.104	0.0	0.109	0.100	0	Oct 31	4.8	0.0	1.9	-3.8
12-115-1005		Sarasota	Sarasota	-	-	-	0.083	0.080	0.0	0.109	0.102	0	Oct 31	-	-	31.3	27.5
12-117-1002		Sanford	Orlando	0.107	0.098	0.0	0.101	0.099	0.0	0.123	0.101	0	Oct 31	15.0	3.1	21.8	2.0
13-089-0002	GA	Decatur	Atlanta	0.186	0.162	12.0	0.130	0.115	1.0	0.163	0.140	4	Oct 31	-12.4	-13.6	25.4	21.7
13-097-0002		Douglas County	Atlanta	0.160	0.160	10.1	0.112	0.111	0.0	0.133	0.124	1	Oct 31	-16.9	-22.5	18.8	11.7
13-121-0053		Fulton County	Atlanta	0.172	0.170	13.2	0.126	0.111	1.0	0.129	0.124	1	Oct 31	-25.0	-27.1	2.4	11.7
13-215-0008		Columbus	Columbus	0.114	0.102	0.0	0.091	0.088	0.0	0.097	0.090	0	Oct 31	-14.9	-11.8	6.6	2.3
13-215-1003		Columbus	Columbus	0.113	0.096	0.0	0.089	0.088	0.0	0.122	0.107	0	Oct 31	8.0	11.5	37.1	21.6
13-245-0091		Augusta	Augusta	-	-	-	0.112	0.100	0.0	0.110	0.109	0	Oct 31	-	-	-1.8	9.0
13-247-0001		Conyers	Atlanta	0.173	0.145	7.6	0.124	0.124	0.0	0.181	0.148	5	Oct 31	4.6	2.1	46.0	19.4
21-015-0003	KY	Union	Cincinnati, OH	0.137	0.130	2.1	0.108	0.107	0.0	0.115	0.110	0	Oct 31	-16.1	-15.4	6.5	2.8
21-019-0010		Ashland	Huntington, WV	0.187	0.169	10.4	0.133	0.122	1.0	0.155	0.143	4	Oct 31	-17.1	-15.4	16.5	17.2
21-029-0004		Shepherdsville	Louisville	0.137	0.137	4.1	0.085	0.082	0.0	0.123	0.104	0	Oct 31	-10.2	-24.1	44.7	26.8
21-037-1001		Dayton	Cincinnati, OH	0.157	0.143	7.0	0.129	0.120	1.1	0.110	0.110	0	Oct 31	-29.9	-23.1	-14.7	-8.3
21-059-0005		Owensboro	Owensboro	0.156	0.138	4.0	0.107	0.099	0.0	0.114	0.110	0	Oct 31	-27.8	-20.3	6.5	11.1
21-067-0001		Fayette County	Lexington	0.117	0.116	0.0	0.118	0.114	0.0	0.118	0.102	0	Oct 31	0.9	-12.1	0.0	-10.5
21-067-0012		Lexington	Lexington	0.138	0.130	3.0	0.107	0.099	0.0	0.142	0.107	1	Oct 31	2.9	-17.7	32.7	8.1
21-089-0007		Greenup County	Huntington, WV	0.151	0.131	5.0	0.120	0.117	0.0	0.121	0.112	0	Oct 31	-19.9	-14.5	0.8	-4.3
21-091-0012		Lewisport	Owensboro	0.154	0.150	10.2	0.112	0.110	0.0	0.128	0.126	3	Oct 31	-16.9	-16.0	14.3	14.5
21-101-0013		Henderson	Evansville	0.157	0.110	1.0	0.082	0.082	0.0	0.097	0.091	0	Oct 31	-38.2	-17.3	18.3	11.0
21-111-0027		Jefferson County	Louisville	0.197	0.183	4.5	0.110	0.089	0.0	0.110	0.097	0	Oct 31	-44.2	-47.0	0.0	9.0
21-111-1021		Louisville	Louisville	0.158	0.150	3.0	0.119	0.113	0.0	0.106	0.102	0	Oct 31	-32.9	-32.0	-10.9	-9.7
21-117-0007		Covington	Cincinnati, OH	0.185	0.169	14.1	0.117	0.109	0.0	0.114	0.104	0	Oct 31	-38.4	-38.5	-2.6	-4.6
21-139-0003		Smithland	Paducah	0.136	0.132	3.3	0.109	0.100	0.0	0.106	0.103	0	Oct 31	-22.1	-22.0	-2.8	3.0
21-139-0004		Livingston County	Paducah	-	-	-	-	-	-	0.110	0.098	0	Oct 31	-	-	-	-
21-145-1024		Paducah	Paducah	0.139	0.122	1.1	0.096	0.093	0.0	0.102	0.101	0	Oct 31	-26.6	-17.2	6.2	8.6
21-185-0004		Oldham County	Louisville	0.143	0.133	9.7	0.106	0.103	0.0	0.127	0.127	2	Oct 31	-11.2	-4.5	19.8	23.3
28-033-0002	MS	Hernando	Memphis, TN	0.135	0.117	1.0	0.108	0.108	0.0	0.131	0.122	1	Oct 31	-3.0	4.3	21.3	13.0
28-049-0010		Jackson	Jackson	0.101	0.097	0.0	0.092	0.080	0.0	0.114	0.103	0	Oct 31	12.9	6.2	23.9	28.7
28-059-0005		Jackson County	Pascagoula	0.118	0.114	0.0	0.097	0.097	0.0	0.115	0.111	0	Oct 31	-2.5	-2.6	18.6	14.4
28-089-0002		Canton	Jackson	0.099	0.092	0.0	0.096	0.086	0.0	0.097	0.096	0	Oct 31	-2.0	4.3	1.0	11.6

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Table 1. Preliminary 1990 O3 Concentrations (ppm) Compared to 1988 and 1989

AIRS Number	Region	State	Location	Represents CMSA/MSA	1988			1989			1990			Data Collected (1990)	Percent Change Through 1988 to 90	Percent Change 1988 to 90	Percent Change 1989 to 90	
					1st Max 1-Hour	2nd Max 1-Hour	Estimated Exceed.	1st Max 1-Hour	2nd Max 1-Hour	Estimated Exceed.	1st Max 1-Hour	2nd Max 1-Hour	Measured Exceed.					
37-003-0003	NC	Alexander County	Hickory		0.117	0.094	0.0	-	-	-	0.094	0.092	0	Oct 31	-19.7	-2.1	-	-
37-021-0030		Brevard	Asheville		-	-	-	0.087	0.079	0.0	0.097	0.091	0	Oct 31	-	-	11.5	15.2
37-029-0099		Bellcross	Caden County		0.119	0.111	0.0	0.095	0.082	0.0	0.102	0.099	0	Oct 31	-14.3	-10.8	7.4	20.7
37-051-0001		Cumberland County	Fayetteville		0.141	0.131	3.1	0.118	0.105	0.0	0.101	0.100	0	Oct 31	-28.4	-23.7	-14.4	-4.8
37-051-0008		Cumberland County	Fayetteville		-	-	-	-	-	-	0.111	0.100	0	Oct 31	-	-	-	-
37-051-1002		Hope Mills	Fayetteville		-	-	-	0.099	0.098	0.0	0.095	0.094	0	Oct 31	-	-	-4.0	-4.1
37-065-0099		Edgecombe County	Edgecombe Co.		-	-	-	-	-	-	0.097	0.097	0	Oct 31	-	-	-	-
37-067-0006		Forsyth County	Greensboro		0.142	0.137	3.0	0.106	0.103	0.0	0.113	0.109	0	Oct 31	-20.4	-20.4	6.6	5.8
37-067-0007		Forsyth County	Greensboro		0.137	0.134	3.0	0.101	0.098	0.0	0.133	0.121	1	Oct 31	-2.9	-9.7	31.7	23.5
37-067-1008		Forsyth County	Greensboro		0.138	0.128	2.1	0.099	0.097	0.0	0.105	0.105	0	Oct 31	-23.9	-18.0	6.1	8.2
37-077-0001		Granville County	Raleigh		0.137	0.132	6.5	0.133	0.129	3.0	0.105	0.103	0	Oct 31	-23.4	-22.0	-21.1	-20.2
37-081-0011		Guilford County	Greensboro		0.150	0.144	8.1	0.113	0.092	0.0	0.127	0.119	1	Oct 31	-15.3	-17.4	12.4	29.3
37-101-0099		Johnson County	Raleigh		-	-	-	-	-	-	0.099	0.096	0	Oct 31	-	-	-	-
37-119-0034		Charlotte	Charlotte		0.169	0.158	7.1	0.162	0.122	1.0	0.120	0.118	0	Oct 31	-29.0	-25.3	-25.9	-3.3
37-119-1005		Mecklenburg County	Charlotte		0.167	0.158	8.0	0.107	0.106	0.0	0.124	0.118	0	Oct 31	-25.7	-25.3	15.9	11.3
37-119-1009		Mecklenburg County	Charlotte		0.169	0.156	9.5	0.147	0.132	2.2	0.152	0.123	1	Oct 31	-10.1	-21.2	3.4	-6.8
37-129-0002		New Hanover County	Wilmington		0.097	0.091	0.0	-	-	-	0.102	0.092	0	Oct 31	5.2	1.1	-	-
37-183-0014		Raleigh	Raleigh		-	-	-	0.114	0.111	0.0	0.124	0.120	0	Oct 31	-	-	8.8	8.1
37-183-2001		Wake Forest	Raleigh		0.159	0.157	10.2	0.103	0.100	0.0	0.120	0.104	0	Oct 31	-24.5	-33.8	16.5	4.0
12	SC	Bushy Park	Charleston		0.106	0.106	0.0	0.108	0.107	0.0	0.107	0.093	0	Oct 31	0.9	-12.3	-0.9	-13.1
45-019-0042		N. Charleston	Charleston		0.109	0.105	0.0	0.096	0.090	0.0	0.115	0.102	0	Oct 31	5.5	-2.9	19.8	13.3
45-021-0002		Cowpens	Greenville		0.147	0.138	4.8	0.111	0.098	0.0	0.095	0.088	0	Oct 31	-35.4	-36.2	-14.4	-10.2
45-023-0002		Chester County	Charlotte		0.157	0.108	1.2	0.120	0.095	0.0	0.112	0.108	0	Oct 31	-28.7	0.0	-6.7	13.7
45-037-0001		Trenton	Augusta, GA		0.133	0.119	1.1	0.090	0.089	0.0	0.100	0.098	0	Oct 31	-24.8	-17.6	11.1	10.1
45-045-0007		Greer	Greenville		0.110	0.110	0.0	0.092	0.087	0.0	0.115	0.108	0	Oct 31	4.5	-1.8	25.0	24.1
45-073-0001		Long Creek	Oconee Co.		-	-	-	0.089	0.089	0.0	0.092	0.086	0	Oct 31	-	-	3.4	-3.4
45-077-0002		Cleason	Greenville		0.131	0.127	3.1	0.101	0.095	0.0	0.092	0.090	0	Oct 31	-29.8	-29.1	-8.9	-5.3
45-079-0007		Columbia	Columbia		0.133	0.128	2.1	0.100	0.099	0.0	0.136	0.111	1	Oct 31	2.3	-13.3	36.0	12.1
45-079-1001		Sandhill	Columbia		0.124	0.118	0.0	0.103	0.100	0.0	0.115	0.104	0	Oct 31	-7.3	-11.9	11.7	4.0
45-079-1002		Sandhill	Columbia		-	-	-	0.100	0.085	0.0	0.128	0.112	1	Oct 31	-	-	28.0	31.8
45-083-0009		Whitney County	Greenville		-	-	-	-	-	-	0.107	0.105	0	Oct 31	-	-	-	-
45-087-0001		Delta	Union Co.		0.107	0.102	0.0	0.092	0.087	0.0	0.111	0.094	0	Oct 31	3.7	-7.8	20.7	8.0
45-091-1004		York	Charlotte		0.167	0.124	1.2	0.095	0.094	0.0	0.110	0.106	0	Oct 31	-34.1	-14.5	15.8	12.8
47-037-0011	TH	Nashville	Nashville		0.145	0.130	3.0	0.100	0.095	0.0	0.110	0.105	0	Oct 31	-24.1	-19.2	10.0	10.5
47-037-0026		Nashville	Nashville		0.130	0.130	3.0	0.085	0.080	0.0	0.100	0.100	0	Oct 31	-23.1	-23.1	17.6	25.0
47-047-0103		Braden	Memphis		0.143	0.142	5.0	0.117	0.088	0.0	0.110	0.100	0	Oct 31	-	-	-	-
47-065-0028		Chattanooga	Chattanooga		0.126	0.126	2.0	0.117	0.107	0.0	0.120	0.118	0	Oct 31	-4.8	-6.3	2.6	10.3
47-065-1011		Hamilton County	Chattanooga		0.124	0.121	0.0	0.112	0.102	0.0	0.119	0.113	0	Oct 31	-4.0	-6.6	6.2	10.8
47-093-0921		Knox County	Knoxville		0.145	0.140	5.4	0.095	0.090	0.0	0.123	0.120	0	Oct 31	-15.2	-14.3	29.5	33.3
47-093-1020		Knoxville	Knoxville		0.150	0.140	3.3	0.095	0.095	0.0	0.135	0.120	1	Oct 31	-10.0	-14.3	42.1	26.3
47-149-0101		Eagleville	Nashville		0.144	0.124	1.2	0.091	0.086	0.0	0.107	0.107	0	Oct 31	-	-	-	-

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AIRS Number	Region	State	Location	Represents CMSA/MSA	1988			1989			1990			Data Collected (1990)	Percent Change Through 88 to 90	Percent Change 88 to 90	Percent Change 89 to 90	Percent Change
					1st Max	2nd Max	Estimated Exceed.	1st Max	2nd Max	Estimated Exceed.	1st Max	2nd Max	Measured Exceed.					
					1-Hour	1-Hour	1-Hour	1-Hour	1-Hour	1-Hour	1-Hour	1-Hour	1-Hour					
47-157-0021	TN	Memphis	Memphis		0.144	0.140	4.1	0.104	0.103	0.0	0.108	0.101	0	Oct 31	-25.0	-27.9	3.8	-1.9
47-157-1004		Shelby County	Memphis		0.142	0.139	3.1	0.129	0.122	1.0	0.124	0.121	0	Oct 31	-12.7	-12.9	-3.9	-0.8
47-163-2002		Sullivan County	Kingsport		0.130	0.120	1.2	0.118	0.112	0.0	0.120	0.118	0	Oct 31	-7.7	-1.7	1.7	5.4
47-165-0007		Sanner County	Nashville		0.138	0.138	11.7	0.140	0.137	2.0	0.134	0.130	5	Oct 31	-2.9	-5.8	-4.3	-5.1
47-165-0101		Cottontown	Nashville		0.135	0.124	1.3	0.095	0.095	0.0	0.133	0.124	1	Oct 31	-1.5	0.0	-	-
47-187-0103		Fairview	Nashville		0.129	0.125	2.4	0.106	0.098	0.0	0.103	0.099	0	Oct 31	-	-	-	-
47-189-0103		Wilson County	Nashville		0.111	0.107	0.0	0.084	0.084	0.0	0.139	0.112	1	Oct 31	-	-	-	-
17-001-0006	V	IL	Quincy	Adams Co.	0.096	0.094	0.0	0.086	0.082	0.0	0.086	0.085	0	Oct 31	-10.4	-9.6	0.0	3.7
17-019-0004		Champaign	Champaign-Urbana		0.112	0.100	0.0	0.088	0.087	0.0	0.090	0.085	0	Oct 31	-19.6	-15.0	2.3	-2.3
17-031-0001		Alsip	Chicago		0.127	0.125	3.2	0.122	0.100	0.0	0.086	0.085	0	Oct 31	-32.3	-32.0	-29.5	-15.0
17-031-0032		Chicago	Chicago		0.223	0.192	8.4	0.124	0.101	0.0	0.104	0.086	0	Oct 31	-53.4	-43.4	-16.1	-14.9
17-031-0037		Chicago	Chicago		0.212	0.171	3.3	0.093	0.087	0.0	0.080	0.077	0	Oct 31	-62.3	-55.0	-14.0	-11.5
17-031-0050		Chicago	Chicago		0.156	0.116	1.1	0.100	0.098	0.0	0.092	0.085	0	Oct 31	-41.0	-26.7	-8.0	-13.3
17-031-0064		Chicago	Chicago		-	-	-	0.127	0.116	1.9	0.100	0.087	0	Oct 31	-	-	-21.3	-25.0
17-031-1002		Calumet City	Chicago		0.123	0.115	0.0	0.084	0.081	0.0	0.073	0.067	0	Oct 31	-40.7	-41.7	-13.1	-17.3
17-031-1003		Chicago	Chicago		0.130	0.121	1.0	0.103	0.102	0.0	0.102	0.096	0	Oct 31	-21.5	-20.7	-1.0	-5.9
17-031-1601		Leonard	Chicago		0.127	0.119	1.1	0.092	0.092	0.0	0.090	0.085	0	Oct 31	-29.1	-28.6	-2.2	-7.6
17-031-4002		Cicero	Chicago		0.126	0.125	2.2	0.123	0.099	0.0	0.079	0.077	0	Oct 31	-37.3	-38.4	-35.8	-22.2
17-031-4003		Des Plaines	Chicago		0.123	0.121	0.0	0.122	0.108	0.0	0.093	0.089	0	Oct 31	-24.4	-26.4	-23.8	-17.6
17-031-7002		Evanston	Chicago		0.215	0.215	16.2	0.121	0.107	0.0	0.107	0.106	0	Oct 31	-50.2	-50.7	-11.6	-0.9
17-043-6001		Lisle	Chicago		0.128	0.104	1.1	0.120	0.099	0.0	0.093	0.083	0	Oct 31	-27.3	-20.2	-22.5	-16.2
17-049-1001		Effingham	Effington Co.		0.119	0.116	0.0	0.104	0.095	0.0	0.093	0.086	0	Oct 31	-21.8	-25.9	-10.6	-9.5
17-083-1001		Jerseyville	St. Louis, MO		0.146	0.142	7.4	0.116	0.113	0.0	0.127	0.125	2	Oct 31	-13.0	-12.0	9.5	10.6
17-089-0005		Elgin	Chicago		0.127	0.112	1.2	0.115	0.113	0.0	0.097	0.093	0	Oct 31	-23.6	-17.0	-15.7	-17.7
17-097-0001		Deerfield	Chicago		0.157	0.147	2.3	0.122	0.107	0.0	0.104	0.098	0	Oct 31	-33.8	-33.3	-14.8	-8.4
17-097-1002		Waukegan	Chicago		0.173	0.164	11.6	0.139	0.130	2.0	0.115	0.099	0	Oct 31	-33.5	-39.6	-17.3	-23.8
17-097-3001		Libertyville	Chicago		0.144	0.141	2.0	0.115	0.114	0.0	0.097	0.092	0	Oct 31	-32.6	-34.8	-15.7	-19.3
17-105-0001		Gridley	Livingston Co.		0.109	0.098	0.0	0.096	0.094	0.0	0.083	0.082	0	Oct 31	-23.9	-16.3	-13.5	-12.8
17-105-0002		Streator	Livingston Co.		-	-	-	-	-	-	0.086	0.083	0	Oct 31	-	-	-	-
17-107-0001		Atlanta	Logan Co.		-	-	-	-	-	-	0.096	0.089	0	Oct 31	-	-	-	-
17-111-0001		Cary	Chicago		0.117	0.114	0.0	0.112	0.111	0.0	0.096	0.093	0	Oct 31	-17.9	-18.4	-14.3	-16.2
17-115-0013		Decatur	Decatur		0.120	0.109	0.0	0.102	0.094	0.0	0.092	0.088	0	Oct 31	-23.3	-19.3	-9.8	-6.4
17-117-0002		Nilwood	St. Louis, MO		0.150	0.128	3.0	0.113	0.102	0.0	0.128	0.110	1	Oct 31	-14.7	-14.1	13.3	7.8
17-119-0006		Alton	St. Louis, MO		0.145	0.133	5.0	0.119	0.118	0.0	0.109	0.106	0	Oct 31	-24.8	-20.3	-8.4	-10.2
17-119-1009		Maryville	St. Louis, MO		0.149	0.137	4.0	0.138	0.115	1.0	0.124	0.121	0	Oct 31	-16.8	-11.7	-10.1	5.2
17-119-2007		Edwardsville	St. Louis, MO		0.148	0.134	6.1	0.110	0.110	0.0	0.118	0.108	0	Oct 31	-20.3	-19.4	7.3	-1.8
17-119-3007		Koon River	St. Louis, MO		0.152	0.138	7.1	0.120	0.114	0.0	0.118	0.111	0	Oct 31	-22.4	-19.6	-1.7	-2.6
17-143-0024		Peoria	Peoria		0.123	0.109	0.0	0.096	0.093	0.0	0.084	0.075	0	Oct 31	-31.7	-31.2	-12.5	-19.4
17-143-1001		Peoria Heights	Peoria		0.108	0.103	0.0	0.102	0.097	0.0	0.094	0.091	0	Oct 31	-13.0	-11.7	-7.8	-6.2
17-157-0001		Houston	Randolph Co.		-	-	-	-	-	-	0.105	0.099	0	Oct 31	-	-	-	-
17-161-0003		Moline	Davenport-Moline		0.108	0.106	0.0	0.113	0.100	0.0	0.074	0.072	0	Oct 31	-31.5	-32.1	-34.5	-28.0
17-163-0010		East St. Louis	St. Louis, MO		0.126	0.115	1.0	0.090	0.087	0.0	0.124	0.116	0	Oct 31	-1.6	0.9	37.8	33.3
17-167-0010		Springfield	Springfield		0.126	0.114	1.1	0.111	0.106	0.0	0.107	0.098	0	Oct 31	-15.1	-14.0	-3.6	-7.5
17-197-1002		South Lockport	Chicago		0.126	0.123	1.0	0.103	0.097	0.0	0.110	0.092	0	Oct 31	-12.7	-25.2	6.8	-5.2

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Table 1. Preliminary 1990 O3 Concentrations (ppb) Compared to 1988 and 1989

AIRS Number	Region	State	Location	Represents CMSA/MSA	1988			1989			1990			Data Collected (1990)	Percent Change		Percent Change	
					1st Max 1-Hour	2nd Max 1-Hour	Estimated Exceed.	1st Max 1-Hour	2nd Max 1-Hour	Estimated Exceed.	1st Max 1-Hour	2nd Max 1-Hour	Measured Exceed.		1st Max 88 to 90	2nd Max 88 to 90	1st Max 89 to 90	2nd Max 89 to 90
					-	-	-	-	-	-	-	-	-		-	-	-	-
17-201-0009	IL	Rockford	Rockford	Rockford	0.108	0.100	0.0	0.094	0.085	0.0	0.088	0.081	0	Oct 31	-18.5	-19.0	-6.4	-4.7
17-201-2001		Rockford	Rockford	Rockford	0.113	0.111	0.0	0.110	0.100	0.0	0.090	0.087	0	Oct 31	-20.4	-21.6	-18.2	-13.0
18-003-0002	IN	Fort Wayne	Fort Wayne	Fort Wayne	0.140	0.126	2.3	0.105	0.105	0.0	0.107	0.090	0	Oct 31	-23.6	-28.6	1.9	-14.3
18-003-0004		Fort Wayne	Fort Wayne	Fort Wayne	0.124	0.119	0.0	0.121	0.120	0.0	0.114	0.092	0	Oct 31	-8.1	-22.7	-5.8	-23.3
18-019-0003		Charlestown	Louisville, Ky	Louisville, Ky	0.172	0.171	7.3	0.143	0.114	1.0	0.148	0.125	2	Oct 31	-14.0	-26.9	3.5	9.6
18-057-1001		Noblesville	Indianapolis	Indianapolis	0.124	0.119	0.0	0.130	0.116	1.0	0.106	0.104	0	Jul 31	-14.5	-12.6	-18.5	-10.3
18-059-0003		Fortville	Indianapolis	Indianapolis	0.138	0.120	1.0	0.103	0.100	0.0	0.106	0.104	0	Oct 31	-23.2	-13.3	2.9	4.0
18-083-0003		Knox County	Knox Co.	Knox Co.	0.105	0.105	0.0	-	-	-	0.115	0.088	0	Oct 31	-	-	-	-
18-089-1016		Gary	Chicago, IL	Chicago, IL	0.145	0.124	1.0	0.091	0.089	0.0	0.089	0.086	0	Oct 31	-38.6	-30.6	-2.2	-3.4
18-089-2008		Hammond	Chicago, IL	Chicago, IL	0.186	0.143	5.2	0.114	0.109	0.0	0.112	0.101	0	Oct 31	-39.8	-29.4	-1.8	-7.3
18-091-0005		Michigan City	LaPorte Co.	LaPorte Co.	-	-	-	-	-	-	0.130	0.088	1	Oct 31	-	-	-	-
18-097-0042		Indianapolis	Indianapolis	Indianapolis	0.133	0.125	2.1	0.103	0.095	0.0	0.103	0.097	0	Oct 31	-22.6	-22.4	0.0	2.1
18-097-0050		Indianapolis	Indianapolis	Indianapolis	0.125	0.123	1.0	0.131	0.117	1.0	0.125	0.112	1	Oct 31	0.0	-8.9	-4.6	-4.3
18-097-0057		Indianapolis	Indianapolis	Indianapolis	0.147	0.137	2.1	0.121	0.111	2.1	0.097	0.093	0	Oct 31	-34.0	-32.1	-19.8	-16.2
18-097-0070		Indianapolis	Indianapolis	Indianapolis	0.129	0.127	2.2	0.108	0.106	0.0	0.124	0.106	0	Oct 31	-3.9	-16.5	14.8	0.0
18-109-0003		Paragon City	Indianapolis	Indianapolis	0.130	0.128	2.0	0.102	0.100	0.0	0.103	0.102	0	Oct 31	-20.8	-20.3	1.0	2.0
18-127-0024		Ogden Dunes	Chicago, IL	Chicago, IL	0.192	0.170	10.6	0.113	0.112	0.0	0.126	0.099	1	Oct 31	-34.4	-41.8	11.5	-11.6
18-141-1007		Granger	South Bend	South Bend	0.116	0.108	0.0	0.065	0.065	0.0	0.115	0.110	0	Oct 31	-0.9	1.9	76.9	69.2
18-141-1008		South Bend	South Bend	South Bend	0.137	0.135	3.2	0.099	0.097	0.0	0.105	0.097	0	Oct 31	-23.4	-28.1	6.1	0.0
18-157-1001		Lafayette	Lafayette	Lafayette	0.126	0.126	2.1	0.097	0.090	0.0	0.100	0.096	0	Oct 31	-20.6	-23.8	3.1	6.7
18-163-0012		Evansville	Evansville	Evansville	0.131	0.122	1.0	0.117	0.104	0.0	0.104	0.102	0	Oct 31	-20.6	-16.4	-11.1	-1.9
18-163-0013		Evansville	Evansville	Evansville	0.146	0.127	2.1	0.146	0.116	1.1	0.115	0.100	0	Oct 31	-21.2	-21.3	-21.2	-13.8
18-167-0918		Terre Haute	Terre Haute	Terre Haute	0.091	0.083	0.0	0.111	0.106	0.0	0.110	0.108	0	Oct 31	20.9	30.1	-0.9	1.9
26-037-0001	MI	Rose Lake	Lansing	Lansing	0.120	0.117	0.0	0.110	0.092	0.0	0.102	0.099	0	Oct 31	-15.0	-15.4	-7.3	7.6
26-049-0011		Flint	Flint	Flint	0.127	0.116	1.1	0.116	0.083	0.0	0.094	0.090	0	Oct 31	-26.0	-22.4	-19.0	8.4
26-049-2001		Forest Township	Flint	Flint	0.134	0.125	2.1	0.107	0.102	0.0	0.113	0.097	0	Oct 31	-15.7	-22.4	5.6	-4.9
26-065-0012		Lansing	Lansing	Lansing	0.120	0.118	0.0	0.110	0.100	0.0	0.108	0.088	0	Oct 31	-10.0	-25.4	-1.8	-12.0
26-081-0020		Grand Rapids	Grand Rapids	Grand Rapids	0.154	0.145	7.0	0.144	0.131	3.1	0.125	0.114	1	Oct 31	-18.8	-21.4	-13.2	-13.0
26-081-2001		Grand Rapids	Grand Rapids	Grand Rapids	0.138	0.138	4.1	0.132	0.117	1.0	0.112	0.111	0	Oct 31	-18.8	-19.6	-15.2	-5.1
26-099-0009		New Haven	Detroit	Detroit	0.204	0.146	8.0	0.171	0.126	2.0	0.134	0.113	1	Oct 31	-34.3	-22.6	-21.6	-10.3
26-099-1003		Warren	Detroit	Detroit	0.172	0.131	2.0	0.115	0.113	0.0	0.128	0.099	1	Oct 31	-25.6	-24.4	11.3	-12.4
26-121-0006		Muskegon	Muskegon	Muskegon	0.203	0.153	12.1	0.191	0.138	5.1	0.140	0.130	3	Oct 31	-31.0	-15.0	-26.7	-5.8
26-125-0001		Oak Park	Detroit	Detroit	0.155	0.147	4.1	0.125	0.124	1.0	0.109	0.093	0	Oct 31	-29.7	-36.7	-12.8	-25.0
26-139-0005		Jenison	Grand Rapids	Grand Rapids	-	-	-	0.151	0.134	2.0	0.138	0.136	2	Oct 31	-	-	-8.6	1.5
26-147-0005		Port Huron	Detroit	Detroit	0.145	0.140	8.1	0.147	0.135	4.0	0.123	0.115	0	Oct 31	-15.2	-17.9	-16.3	-14.8
26-161-0005		Ann Arbor	Detroit	Detroit	0.135	0.128	4.4	0.099	0.099	0.0	0.094	0.093	0	Oct 31	-30.4	-27.3	-5.1	-6.1
26-161-1001		Saline	Detroit	Detroit	0.125	0.123	1.0	0.107	0.104	0.0	0.105	0.089	0	Oct 31	-16.0	-27.6	-1.9	-14.4
26-163-0001		Allen Park	Detroit	Detroit	0.138	0.128	3.1	0.110	0.108	0.0	0.092	0.089	0	Oct 31	-33.3	-30.5	-16.4	-17.6
26-163-0016		Detroit	Detroit	Detroit	0.168	0.163	3.7	0.112	0.103	0.0	0.095	0.092	0	Oct 31	-43.5	-43.6	-15.2	-10.7
26-163-0019		Osborn	Detroit	Detroit	0.145	0.137	6.3	0.144	0.112	1.0	0.113	0.101	0	Oct 31	-22.1	-26.3	-21.5	-9.8
26-163-2092		Livonia	Detroit	Detroit	0.141	0.136	3.2	0.106	0.101	0.0	0.093	0.086	0	Oct 31	-34.0	-36.8	-12.3	-14.9

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Table 1. Preliminary 1990 O3 Concentrations (ppm) Compared to 1988 and 1989

AIRS Number	Region	State	Location	Represents CMSA/MSA	1988			1989			1990			Data Collected (1990)	Percent Change Through Oct 31	Percent Change 1st Max 88 to 90	Percent Change 2nd Max 88 to 90	Percent Change 1st Max 89 to 90	Percent Change 2nd Max 89 to 90
					1st Max 1-Hour	2nd Max 1-Hour	Estimated Exceed.	1st Max 1-Hour	2nd Max 1-Hour	Estimated Exceed.	1st Max 1-Hour	2nd Max 1-Hour	Measured Exceed.						
27-003-0002	MN	Anoka	Minneapolis		0.110	0.104	0.0	0.126	0.102	1.2	0.106	0.095	0	Oct 31	-3.6	-8.7	-15.9	-6.9	
27-003-1002		Blaine	Minneapolis		0.132	0.102	1.0	0.112	0.097	0.0	0.085	0.083	0	Oct 31	-35.6	-18.6	-24.1	-14.4	
27-037-1007		Hastings	Minneapolis		0.114	0.104	0.0	0.100	0.086	0.0	0.063	0.063	0	May 31	-44.7	-39.4	-37.0	-26.7	
27-037-6018		Hastings	Minneapolis		-	-	-	-	-	-	0.139	0.098	1	Oct 31	-	-	-	-	
27-163-0027		Withrow	Minneapolis		0.127	0.109	1.4	0.085	0.083	0.0	0.099	0.085	0	Oct 31	-22.0	-22.0	16.5	2.4	
39-017-0004	OH	Middletown	Cincinnati		0.133	0.133	4.1	0.115	0.113	0.0	0.114	0.114	0	Aug 31	-14.3	-14.3	-0.9	0.9	
39-017-1004		Hook Field	Cincinnati		0.148	0.135	6.5	0.110	0.110	0.0	0.133	0.130	2	Aug 31	-10.1	-3.7	20.9	18.2	
39-023-0001		Clark County	Dayton		0.147	0.132	5.3	0.129	0.125	2.0	0.124	0.117	0	Aug 31	-15.6	-11.4	-3.9	-6.4	
39-023-0003		Dayton	Dayton		0.157	0.143	6.2	0.133	0.148	2.0	0.110	0.110	0	Aug 31	-29.9	-23.1	-28.1	-25.7	
39-025-0002		Batavia	Cincinnati		0.178	0.159	10.4	0.121	0.112	0.0	0.109	0.101	0	Aug 31	-38.8	-36.5	-9.9	-9.8	
39-033-0002		Berea	Cleveland		0.150	0.138	4.0	0.123	0.113	0.0	0.085	0.078	0	Aug 31	-43.3	-43.5	-30.9	-31.0	
39-035-0034		Cuyahoga	Cleveland		0.138	0.130	3.0	0.075	0.073	0.0	0.113	0.110	0	Aug 31	-16.7	-15.4	53.3	50.7	
39-035-5002		Mayfield	Cleveland		0.150	0.133	2.7	0.115	0.105	0.0	0.103	0.098	0	Aug 31	-31.3	-26.3	-10.4	-6.7	
39-061-0006		Hamilton County	Cincinnati		0.146	0.145	5.0	0.126	0.109	1.0	0.132	0.116	1	Aug 31	-9.6	-20.0	4.8	6.4	
39-061-0010		Hamilton County	Cincinnati		0.118	0.118	0.0	0.115	0.106	0.0	0.138	0.132	2	Aug 31	16.9	11.9	20.0	24.5	
39-061-0019		Cincinnati	Cincinnati		0.140	0.135	5.0	0.138	0.110	1.2	0.073	0.070	0	May 31	-47.9	-48.1	-47.1	-36.4	
39-081-1012		Steubenville	Steubenville		0.127	0.121	1.0	0.111	0.111	0.0	0.096	0.094	0	Aug 31	-24.4	-22.3	-13.5	-15.3	
39-085-0003		East Lake	Cleveland		0.162	0.159	13.4	0.113	0.111	0.0	0.138	0.120	1	Aug 31	-14.8	-24.5	22.1	8.1	
39-085-3002		Painesville	Cleveland		0.137	0.121	1.0	0.110	0.099	0.0	0.118	0.105	0	Aug 31	-13.9	-13.2	7.3	6.1	
39-095-0006		Toledo	Toledo		0.131	0.112	1.0	0.102	0.097	0.0	0.098	0.095	0	Aug 31	-25.2	-15.2	-3.9	-2.1	
39-095-0081		Toledo	Toledo		0.164	0.155	6.2	0.151	0.106	1.0	0.113	0.095	0	Aug 31	-31.1	-38.7	-25.2	-10.4	
39-099-0009		Youngstown	Youngstown		0.128	0.123	1.0	0.120	0.110	0.0	0.100	0.095	0	Aug 31	-21.9	-22.8	-16.7	-13.6	
39-133-1001		Portage	Cleveland		0.172	0.167	13.3	0.117	0.117	0.0	0.120	0.109	0	Aug 31	-30.2	-34.7	2.6	-6.8	
39-135-1001		Freble County	Cincinnati		0.135	0.121	1.0	0.121	0.109	0.0	0.094	0.089	0	Aug 31	-30.4	-26.4	-22.3	-18.3	
39-151-0016		Canton	Canton		0.169	0.134	5.0	0.110	0.102	0.0	0.111	0.109	0	Aug 31	-34.3	-19.7	0.9	6.9	
39-151-1009		Canton	Canton		0.159	0.152	5.2	0.120	0.116	0.0	0.109	0.100	0	Aug 31	-31.4	-34.2	-9.2	-13.8	
39-153-0020		Akron	Cleveland		0.171	0.160	8.1	0.141	0.135	4.0	0.121	0.113	0	Aug 31	-29.2	-29.4	-14.2	-16.3	
39-165-1002		Lebanon	Cincinnati		0.155	0.142	8.2	0.123	0.119	0.0	0.155	0.148	4	Aug 31	0.0	4.2	26.0	24.4	
55-009-0024	WI	Green Bay	Green Bay		-	-	-	0.120	0.092	0.0	0.095	0.087	0	Oct 31	-	-	-20.8	-5.4	
55-021-0015		Colubus	Colubus Co.		0.110	0.098	0.0	0.119	0.105	0.0	0.088	0.086	0	Oct 31	-20.0	-12.2	-21.4	-16.5	
55-025-0026		Madison	Madison		0.109	0.102	0.0	0.112	0.103	0.0	0.094	0.079	0	Oct 31	-13.8	-22.5	-16.1	-23.3	
55-027-0001		Horicon	Dodge Co.		0.104	0.101	0.0	0.105	0.103	0.0	0.090	0.083	0	Oct 31	-13.5	-17.8	-14.3	-19.4	
55-029-0004		Newport Beach	Door Co.		-	-	-	0.124	0.108	0.0	0.134	0.132	2	Oct 31	-	-	8.1	22.2	
55-037-0001		Florence	Florence Co.		0.099	0.099	0.0	0.104	0.084	0.0	0.081	0.080	0	Oct 31	-18.2	-19.2	-22.1	-4.8	
55-039-0005		Fond Du Lac	Fond Du Lac		0.111	0.104	0.0	0.125	0.097	1.2	0.089	0.082	0	Oct 31	-19.8	-21.2	-28.8	-15.5	
55-055-0002		Jefferson	Jefferson Co.		0.137	0.125	2.4	0.118	0.118	0.0	0.101	0.098	0	Oct 31	-26.3	-21.6	-14.4	-16.9	
55-059-0002		Kenosha	Chicago, IL		0.192	0.181	20.0	0.170	0.130	3.5	0.106	0.098	0	Oct 31	-44.8	-45.9	-37.6	-24.6	
55-059-0019		Pleasant Prairie	Chicago, IL		0.222	0.193	21.2	0.176	0.129	4.7	0.120	0.113	0	Oct 31	-45.9	-41.5	-31.8	-12.4	
55-061-0001		Kewaunee	Kewaunee		0.156	0.152	10.6	0.123	0.107	0.0	0.120	0.109	0	Oct 31	-23.1	-28.3	-2.4	1.9	
55-071-0002		Manitowoc	Sheboygan		0.183	0.167	15.5	0.130	0.124	1.2	0.139	0.133	2	Oct 31	-24.0	-20.4	6.9	7.3	
55-079-0041		Milwaukee	Milwaukee		0.211	0.186	14.2	0.151	0.150	7.1	0.119	0.117	0	Oct 31	-43.6	-37.8	-21.2	-22.0	

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Table 1. Preliminary 1990 O3 Concentrations (ppm) Compared to 1988 and 1989

AIRS Number	Region	State	Location	Represents CMSA/MSA	1988			1989			1990			Data Collected	Percent Change	Percent Change	Percent Change	
					1st Max 1-Hour	2nd Max 1-Hour	Estimated Exceed.	1st Max 1-Hour	2nd Max 1-Hour	Estimated Exceed.	1st Max 1-Hour	2nd Max 1-Hour	Measured Exceed.					
					1st Max 88 to 90	2nd Max 88 to 90	89 to 90	1st Max 88 to 90	2nd Max 88 to 90	89 to 90	1st Max 89 to 90	2nd Max 89 to 90	90					
55-079-0044		WI	Milwaukee	Milwaukee	0.181	0.134	2.3	0.101	0.098	0.0	0.124	0.099	0	Oct 31	-31.5	-26.1	22.8	1.0
55-079-0048			Alverno	Milwaukee	0.146	0.120	1.2	0.141	0.118	1.2	0.124	0.101	0	Oct 31	-15.1	-15.8	-12.1	-14.4
55-079-0085			Bayside	Milwaukee	0.190	0.182	16.5	0.151	0.148	3.8	0.130	0.128	2	Oct 31	-31.6	-29.7	-13.9	-13.5
55-079-1025			South Milwaukee	Milwaukee	0.177	0.165	10.5	0.141	0.133	2.3	0.124	0.110	0	Oct 31	-29.9	-33.3	-12.1	-17.3
55-087-0010			Appleton	Appleton-Oshkosh	0.113	0.112	0.0	0.087	0.086	0.0	0.080	0.076	0	Oct 31	-29.2	-32.1	-8.0	-11.6
55-089-0005			Grafton	Milwaukee	0.198	0.174	11.0	0.156	0.131	4.0	0.133	0.117	1	Oct 31	-32.8	-32.8	-14.7	-10.7
55-101-0017			Racine	Chicago, IL	0.200	0.178	18.8	0.174	0.137	4.7	0.113	0.110	0	Oct 31	-43.5	-38.2	-35.1	-19.7
55-105-0017			Beloit	Janesville/Beloit	0.116	0.111	0.0	0.122	0.116	0.0	0.092	0.086	0	Oct 31	-20.7	-22.5	-24.6	-25.9
55-105-0018			Milton	Janesville-Beloit	0.121	0.109	0.0	0.112	0.106	0.0	0.092	0.090	0	Oct 31	-24.0	-17.4	-17.9	-15.1
55-109-1002			Somerset	Minneapolis	0.138	0.105	1.3	0.086	0.086	0.0	0.090	0.086	0	Oct 31	-34.8	-18.1	4.7	0.0
55-117-1002			Sheboygan	Sheboygan	0.188	0.171	15.1	0.131	0.110	1.0	0.118	0.106	0	Oct 31	-37.2	-38.0	-9.9	-3.6
55-127-0005			Lake Geneva	Milwaukee	0.130	0.129	3.0	0.131	0.114	1.0	0.111	0.088	0	Oct 31	-14.6	-31.8	-15.3	-22.8
55-131-0007			Slinger	Milwaukee	0.121	0.116	0.0	0.141	0.116	1.2	0.106	0.102	0	Oct 31	-12.4	-12.1	-24.8	-12.1
55-133-0017			Waukesha	Milwaukee	0.132	0.117	1.2	0.136	0.126	2.4	0.104	0.102	0	Oct 31	-21.2	-12.8	-23.5	-19.0
05-119-0007	VI	AR	Little Rock	Little Rock	0.109	0.104	0.0	0.099	0.093	0.0	0.114	0.096	0	Oct 31	4.6	-7.7	15.2	3.2
05-119-1002			N. Little Rock	Little Rock	0.112	0.111	0.0	0.109	0.090	0.0	0.141	0.101	1	Oct 31	25.9	-9.0	29.4	12.2
22-011-0002		LA	DeRidder	Lake Charles	-	-	-	0.121	0.099	0.0	0.114	0.113	0	Oct 31	-	-	-5.8	14.1
22-015-0008			Shreveport	Shreveport	0.107	0.104	0.0	0.112	0.112	0.0	0.127	0.122	1	Oct 31	18.7	17.3	13.4	8.9
22-017-0001			Dixie	Shreveport	0.117	0.114	0.0	0.125	0.118	1.0	0.119	0.102	0	Oct 31	1.7	-10.5	-4.8	-13.6
22-019-0002			Carlyss	Lake Charles	0.132	0.131	3.0	0.125	0.120	1.0	0.120	0.117	0	Oct 31	-9.1	-10.7	-4.0	-2.5
22-019-1003			Westlake	Lake Charles	0.134	0.126	2.0	0.137	0.131	2.0	0.147	0.132	2	Oct 31	9.7	4.8	7.3	0.8
22-033-0003			Baton Rouge	Baton Rouge	0.167	0.158	6.2	0.168	0.137	5.2	0.187	0.176	6	Oct 31	12.0	11.4	11.3	28.5
22-033-0006			Baton Rouge	Baton Rouge	-	-	-	-	-	-	0.202	0.157	7	Oct 31	-	-	-	-
22-033-1001			Baton Rouge	Baton Rouge	0.137	0.133	3.0	0.171	0.157	3.0	0.141	0.138	4	Oct 31	2.9	3.8	-17.5	-12.1
22-043-0001			Grant Parish	Alexandria	-	-	-	0.098	0.091	0.0	0.092	0.090	0	Oct 31	-	-	-6.1	-1.1
22-047-0002			Carville	Baton Rouge	0.148	0.135	3.1	0.149	0.131	5.0	0.157	0.144	5	Oct 31	6.1	6.7	5.4	9.9
22-051-1001			Kenner	New Orleans	0.122	0.118	0.0	0.136	0.108	1.0	0.110	0.107	0	Oct 31	-9.8	-9.3	-19.1	-0.9
22-055-0003			Lafayette	Lafayette	0.118	0.105	0.0	0.097	0.096	0.0	0.114	0.109	0	Oct 31	-3.4	3.8	17.5	13.5
22-057-0002			Thibodaux	New Orleans	-	-	-	0.114	0.107	0.0	0.118	0.115	0	Oct 31	-	-	3.5	7.5
22-071-0012			New Orleans	New Orleans	0.110	0.108	0.0	0.116	0.095	0.0	0.101	0.094	0	Oct 31	-8.2	-13.0	-12.9	-1.1
22-077-0001			New Roads	Baton Rouge	-	-	-	0.141	0.127	2.0	0.152	0.146	2	Oct 31	-	-	7.8	15.0
22-087-0002			Arabi	New Orleans	0.110	0.104	0.0	0.095	0.091	0.0	0.118	0.107	0	Oct 31	7.3	2.9	24.2	17.6
22-093-0002			St. James Parish	New Orleans	0.089	0.079	0.0	0.119	0.109	0.0	0.119	0.108	0	Oct 31	33.7	36.7	0.0	-0.9
22-095-0002			Garyville	New Orleans	0.125	0.117	1.1	0.108	0.102	0.0	0.114	0.103	0	Oct 31	-8.8	-12.0	5.6	1.0
22-101-0003			Morgan City	Morgan City	0.076	0.069	0.0	0.109	0.101	0.0	0.119	0.099	0	Oct 31	56.6	45.6	9.2	-2.0
22-121-0001			Port Allen	Baton Rouge	0.163	0.153	3.1	0.148	0.122	1.0	0.158	0.146	9	Oct 31	-3.1	-4.6	6.8	19.7
35-001-0019		NN	Albuquerque	Albuquerque	0.107	0.103	0.0	0.099	0.091	0.0	0.098	0.098	0	Oct 31	-8.4	-4.9	-1.0	7.7
35-001-0023			Albuquerque	Albuquerque	0.109	0.106	0.0	0.096	0.091	0.0	0.105	0.101	0	Oct 31	-3.7	-4.7	9.4	11.0
35-001-1003			Albuquerque	Albuquerque	0.088	0.086	0.0	0.079	0.079	0.0	0.070	0.068	0	Oct 31	-20.5	-20.9	-11.4	-13.9
35-001-1012			Albuquerque	Albuquerque	0.095	0.093	0.0	0.102	0.100	0.0	0.100	0.085	0	Oct 31	5.3	-8.6	-2.0	-15.0

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Table 1. Preliminary 1990 O3 Concentrations (ppm) Compared to 1988 and 1989

AIRS Number	Region	State	Location	Represents CMSA/MSA	1988			1989			1990			Data Collected (1990)	Percent Change 88 to 90	Percent Change 89 to 90	Percent Change 89 to 90	
					1st Max 1-Hour	2nd Max 1-Hour	Estimated Exceed.	1st Max 1-Hour	2nd Max 1-Hour	Estimated Exceed.	1st Max 1-Hour	2nd Max 1-Hour	Measured Exceed.					
35-001-1013	NM	Albuquerque	Albuquerque		0.101	0.097	0.0	0.096	0.095	0.0	0.100	0.092	0	Oct 31	-1.0	-5.2	4.2	-3.2
35-013-0008		La Union	El Paso		0.120	0.110	0.0	0.120	0.110	0.0	0.116	0.099	0	Oct 31	-3.3	-10.0	-3.3	-10.0
35-013-1012		Las Cruces	Las Cruces		0.090	0.080	0.0	0.110	0.080	0.0	0.079	0.078	0	Oct 31	-12.2	-2.5	-28.2	-2.5
35-028-1002		Bandelier	Santa Fe		-	-	-	-	-	-	0.074	0.071	0	Oct 31	-	-	-	-
35-043-1001		Bernalillo	Albuquerque		0.100	0.090	0.0	0.090	0.090	0.0	0.094	0.092	0	Oct 31	-6.0	2.2	4.4	2.2
35-061-1001		Valencia County	Albuquerque		0.080	0.080	0.0	0.090	0.080	0.0	0.079	0.075	0	Oct 31	-1.3	-6.3	-12.2	-6.3
40-027-0049	OK	Moore	Oklahoma City		0.099	0.089	0.0	0.095	0.094	0.0	0.097	0.087	0	Oct 31	-2.0	-2.2	2.1	-7.4
40-087-0073		Goldsby	Oklahoma City		0.096	0.093	0.0	0.094	0.082	0.0	0.136	0.080	1	Oct 31	41.7	-14.0	44.7	-2.4
40-109-0033		Oklahoma City	Oklahoma City		0.105	0.103	0.0	0.106	0.101	0.0	0.120	0.109	0	Oct 31	14.3	5.8	13.2	7.9
40-109-1037		Oklahoma City	Oklahoma City		0.109	0.109	0.0	0.114	0.107	0.0	0.109	0.109	0	Oct 31	0.0	0.0	-4.4	1.9
40-143-0127		Tulsa	Tulsa		0.149	0.116	1.1	0.097	0.096	0.0	0.142	0.122	1	Oct 31	-4.7	5.2	46.4	27.1
40-143-0137		Skiatook	Tulsa		0.132	0.118	1.0	0.109	0.107	0.0	0.128	0.120	1	Oct 31	-3.0	1.7	17.4	12.1
40-143-0174		Tulsa	Tulsa		0.115	0.110	0.0	0.132	0.123	1.1	0.109	0.105	0	Oct 31	-5.2	-4.5	-17.4	-14.6
48-029-0032	TX	San Antonio	San Antonio		0.150	0.110	1.1	0.110	0.110	0.0	0.120	0.100	0	Oct 31	-20.0	-9.1	9.1	-9.1
48-029-0036		San Antonio	San Antonio		0.130	0.120	1.0	0.100	0.100	0.0	0.100	0.100	0	Oct 31	-23.1	-16.7	0.0	0.0
48-039-1003		Orange County	Beaumont		0.170	0.140	3.6	-	-	-	0.180	0.150	4	Oct 31	5.9	7.1	-	-
48-113-0045		Dallas	Dallas		0.140	0.120	1.0	0.140	0.130	2.3	0.160	0.130	5	Oct 31	14.3	8.3	14.3	0.0
48-113-0055		Dallas	Dallas		0.110	0.100	0.0	0.110	0.110	0.0	0.100	0.100	0	Oct 31	-9.1	0.0	-9.1	-9.1
48-113-0069		Dallas	Dallas		0.140	0.130	2.0	0.120	0.110	0.0	0.130	0.120	1	Oct 31	-7.1	-7.7	8.3	9.1
48-121-0054		Denton	Dallas		0.140	0.130	3.2	0.140	0.130	2.1	0.150	0.140	3	Oct 31	7.1	7.7	7.1	7.7
48-141-0027		El Paso	El Paso		0.150	0.120	1.2	0.260	0.130	2.1	0.110	0.110	0	Oct 31	-26.7	-8.3	-57.7	-15.4
48-141-0028		El Paso	El Paso		0.210	0.170	5.4	0.150	0.140	7.2	0.120	0.120	0	Oct 31	-42.9	-29.4	-20.0	-14.3
48-141-0037		El Paso	El Paso		0.130	0.130	2.1	0.200	0.130	3.1	0.160	0.140	4	Oct 31	23.1	7.7	-20.0	7.7
48-157-0004		Rosenberg	Houston		-	-	-	-	-	-	0.160	0.150	8	Oct 31	-	-	-	-
48-167-1002		Texas City	Houston		-	-	-	0.160	0.140	5.8	0.170	0.150	4	Oct 31	-	-	6.3	7.1
48-193-0001		Gregg County	Longview/Marshall		0.120	0.120	0.0	0.110	0.100	0.0	0.130	0.130	2	Oct 31	8.3	8.3	18.2	30.0
48-199-0002		Hardin	Beaumont		-	-	-	0.130	0.130	2.1	0.130	0.110	1	Oct 31	-	-	0.0	-15.4
48-201-0024		Aldine	Houston		0.230	0.180	14.6	0.270	0.230	10.0	0.220	0.220	19	Oct 31	-4.3	22.2	-18.5	-4.3
48-201-0029		Harris County	Houston		0.250	0.170	18.8	0.160	0.140	7.7	0.180	0.160	14	Oct 31	-28.0	-5.9	12.5	14.3
48-201-0045		Houston	Houston		0.220	0.220	12.4	0.240	0.230	14.2	0.229	0.194	14	Oct 31	4.1	-11.6	-4.6	-15.7
48-201-0047		Houston	Houston		0.200	0.180	12.6	0.220	0.170	10.9	0.236	0.197	12	Oct 31	18.0	9.4	7.3	15.9
48-201-0051		Houston	Houston		0.190	0.150	11.8	0.180	0.160	12.2	0.217	0.204	14	Oct 31	14.2	36.0	20.6	27.5
48-201-0059		Harris County	Houston		0.210	0.170	12.6	0.190	0.160	11.2	0.190	0.140	3	Oct 31	-9.5	-17.6	0.0	-12.5
48-201-0062		Houston	Houston		0.170	0.160	10.2	0.170	0.150	10.4	0.225	0.170	7	Oct 31	32.4	6.3	32.4	13.3
48-201-1003		Deer Park	Houston		0.180	0.150	9.2	0.180	0.170	13.9	0.230	0.180	11	Oct 31	27.8	6.7	27.8	-5.9
48-201-1034		Houston	Houston		0.220	0.190	9.1	0.220	0.220	12.3	0.200	0.180	14	Oct 31	-9.1	-5.3	-9.1	-18.2
48-201-1035		Houston	Houston		0.210	0.200	9.5	0.250	0.190	14.3	0.227	0.214	16	Oct 31	8.1	7.0	-9.2	12.6
48-201-1037		Houston	Houston		0.230	0.200	9.5	0.250	0.230	13.1	0.221	0.216	13	Oct 31	-3.9	8.0	-11.6	-6.1
48-245-0009		Beaumont	Beaumont		0.180	0.160	6.8	0.160	0.120	1.1	0.120	0.080	0	Oct 31	-33.3	-50.0	-25.0	-33.3
48-245-0011		Port Arthur	Beaumont		0.140	0.130	3.9	0.170	0.150	7.9	0.170	0.150	2	Oct 31	21.4	15.4	0.0	0.0
48-251-0002		Cleburne	Dallas		-	-	-	-	-	-	0.120	0.100	0	Oct 31	-	-	-	-
48-355-0025		Corpus Christi	Corpus Christi		0.110	0.090	0.0	0.110	0.100	0.0	0.130	0.100	1	Oct 31	18.2	11.1	18.2	0.0

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AIRS Number	Region	State	Location	Represents CMSA/MSA	1988			1989			1990			Data Collected (1990)	Percent Change 88 to 90	Percent Change 88 to 90	Percent Change 89 to 90	Percent Change 89 to 90
					1st Max 1-Hour	2nd Max 1-Hour	Estimated Exceed.	1st Max 1-Hour	2nd Max 1-Hour	Estimated Exceed.	1st Max 1-Hour	2nd Max 1-Hour	Measured Exceed.					
48-355-0026		TX	Corpus Christi	Corpus Christi	0.120	0.110	0.0	0.110	0.100	0.0	0.100	0.100	0	Oct 31	-16.7	-9.1	-9.1	0.0
48-361-1001		West Orange	Beaumont		-	-	-	0.110	0.110	0.0	0.140	0.130	2	Oct 31	-	-	27.3	18.2
48-439-1002		Fort Worth	Dallas		0.140	0.130	2.1	0.130	0.120	1.0	0.130	0.130	2	Oct 31	-7.1	0.0	0.0	8.3
48-439-2003		Tarrant County	Dallas		0.150	0.140	4.2	0.130	0.130	2.2	0.160	0.140	4	Oct 31	6.7	0.0	23.1	7.7
48-453-0003		Travis County	Austin		0.110	0.100	0.0	0.110	0.110	0.0	0.100	0.100	0	Oct 31	-9.1	0.0	-9.1	-9.1
48-453-0014		Austin	Austin		0.120	0.120	0.0	0.120	0.110	0.0	0.110	0.110	0	Oct 31	-8.3	-8.3	-8.3	0.0
48-469-0003		Victoria County	Houston		-	-	-	0.110	0.100	0.0	0.070	0.070	0	May 7	-	-	-36.4	-30.0
48-473-0001		Hempstead	Houston		-	-	-	-	-	-	0.120	0.120	0	Oct 31	-	-	-	-
19-163-2011	VII	IA	Scott County	Davenport	0.116	0.113	0.0	0.143	0.109	1.0	0.098	0.098	0	Oct 31	-15.5	-13.3	-31.5	-10.1
20-173-0001		KS	Wichita	Wichita	0.085	0.075	0.0	0.060	0.060	0.0	0.100	0.100	0	Oct 31	17.6	33.3	66.7	66.7
20-209-0001		Kansas City	Kansas City		0.117	0.112	0.0	0.143	0.097	1.0	0.095	0.095	0	Oct 31	-18.8	-15.2	-33.6	-2.1
29-047-0003		MO	Clay County	Kansas City	0.168	0.153	3.0	0.095	0.095	0.0	0.114	0.106	0	Oct 31	-32.1	-30.7	20.0	11.6
29-047-0005		Clay County	Kansas City		0.155	0.147	3.6	0.109	0.105	0.0	0.090	0.090	0	Oct 31	-41.9	-38.8	-17.4	-14.3
29-047-0025		Clay County	Kansas City		0.139	0.131	2.0	0.117	0.109	0.0	0.126	0.116	1	Oct 31	-9.4	-11.5	7.7	6.4
29-189-3001		Clayton	St. Louis		0.158	0.140	4.0	0.139	0.110	1.0	0.127	0.114	1	Oct 31	-19.6	-18.6	-8.6	3.6
29-189-5001		Ferguson	St. Louis		0.150	0.146	8.8	0.185	0.122	1.0	0.080	0.075	0	Oct 31	-46.7	-48.6	-56.8	-38.5
CO	29-189-7001	St. Ann	St. Louis		0.159	0.148	9.4	0.153	0.122	1.1	0.135	0.105	1	Oct 31	-15.1	-29.1	-11.8	-13.9
31-055-0032		NE	Omaha	Omaha	0.102	0.097	0.0	0.098	0.080	0.0	0.101	0.081	0	Oct 31	-1.0	-16.5	3.1	1.3
31-055-0035		Omaha	Omaha		0.090	0.090	0.0	0.098	0.069	0.0	0.065	0.063	0	Oct 31	-27.8	-30.0	-33.7	-8.7
38-053-0002	VIII	ND	TRNP	Mc Kenzie Co.	0.078	0.072	0.0	0.073	0.071	0.0	0.070	0.070	0	Oct 31	-10.3	-2.8	-4.1	-1.4
38-057-0001		Beulah	Mercer Co.		-	-	-	0.072	0.072	0.0	0.070	0.070	0	Oct 31	-	-	-2.8	-2.8
38-085-0002		Hannover	Oliver Co.		0.090	0.082	0.0	0.074	0.071	0.0	0.062	0.058	0	Jun 17	-31.1	-29.3	-16.2	-18.3
49-011-0001		UT	Bountiful	Salt Lake City	0.143	0.143	2.2	0.191	0.145	2.9	0.140	0.120	1	Sep 30	-2.1	-16.1	-26.7	-17.2
49-035-0003		Cottonwood	Salt Lake City		0.140	0.131	3.0	0.125	0.125	2.3	0.110	0.100	0	Sep 30	-21.4	-23.7	-12.0	-20.0
49-035-3001		Salt Lake City	Salt Lake City		0.164	0.121	1.7	0.140	0.131	2.3	0.120	0.110	0	Sep 30	-26.8	-9.1	-14.3	-16.0
49-049-0002		North Provo	Provo		0.115	0.112	0.0	0.129	0.106	1.1	0.100	0.090	0	Sep 30	-13.0	-19.6	-22.5	-15.1
49-057-1001		Roy	Ogden		0.098	0.097	0.0	0.107	0.105	0.0	0.110	0.090	0	Sep 30	12.2	-7.2	2.8	-14.3
04-013-0013	IX	AZ	Phoenix	Phoenix	0.106	0.100	0.0	0.093	0.089	0.0	0.130	0.110	1	Oct 31	22.6	10.0	39.8	23.6
04-013-0019		Phoenix	Phoenix		0.119	0.108	0.0	0.113	0.110	0.0	0.130	0.120	1	Oct 31	9.2	11.1	15.0	9.1
04-013-1003		Mesa	Phoenix		0.120	0.115	0.0	0.099	0.089	0.0	0.100	0.090	0	Oct 31	-16.7	-21.7	1.0	1.1
04-013-1004		Phoenix	Phoenix		0.118	0.104	0.0	0.101	0.100	0.0	0.110	0.110	0	Oct 31	-6.8	5.8	8.9	10.0
04-013-2001		Glendale	Phoenix		0.140	0.120	1.1	0.108	0.107	0.0	0.130	0.110	1	Oct 31	-7.1	-8.3	20.4	2.8

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Table 1. Preliminary 1990 O3 Concentrations (ppm) Compared to 1988 and 1989

AIRS Number	Region	State	Location	Represents CMSA/MSA	1988			1989			1990			Data Collected (1990)	Percent Change Through 88 to 90	Percent Change 88 to 90	Percent Change 89 to 90	
					1st Max 1-Hour	2nd Max 1-Hour	Estimated Exceed.	1st Max 1-Hour	2nd Max 1-Hour	Estimated Exceed.	1st Max 1-Hour	2nd Max 1-Hour	Measured Exceed.					
04-013-2004	AZ	Scottsdale	Phoenix		0.100	0.099	0.0	0.107	0.104	0.0	0.110	0.110	0	Oct 31	10.0	11.1	2.8	5.8
04-013-2005		Scottsdale	Phoenix		0.146	0.109	1.4	0.103	0.100	0.0	0.100	0.110	0	Oct 31	-31.5	0.9	-2.9	10.0
04-013-3002		Phoenix	Phoenix		0.125	0.120	1.0	0.096	0.084	0.0	0.110	0.110	0	Oct 31	-12.0	-8.3	14.6	31.0
04-013-3003		Scottsdale	Phoenix		0.100	0.099	0.0	0.099	0.096	0.0	0.110	0.110	0	Oct 31	10.0	11.1	11.1	14.6
04-019-0002		Tucson	Tucson		0.091	0.083	0.0	0.087	0.086	0.0	0.087	0.085	0	Oct 31	-4.4	2.4	0.0	-1.2
04-019-1011		Tucson	Tucson		0.093	0.091	0.0	0.096	0.095	0.0	0.089	0.088	0	Oct 31	-4.3	-3.3	-7.3	-7.4
06-001-1001	CA	Fremont	San Francisco		0.130	0.120	1.0	0.120	0.120	0.0	0.130	0.110	1	Oct 31	0.0	-8.3	8.3	-8.3
06-019-0007		Fresno	Fresno		0.190	0.170	11.7	0.150	0.140	5.2	0.150	0.150	7	Oct 31	-21.1	-11.8	0.0	7.1
06-019-0242		Fresno	Fresno		0.150	0.140	9.3	0.130	0.130	2.2	0.140	0.120	1	Oct 31	-6.7	-14.3	7.7	-7.7
06-019-4001		Parlier	Fresno		0.150	0.150	26.0	0.150	0.150	21.4	0.140	0.140	5	Oct 31	-6.7	-6.7	-6.7	-6.7
06-037-0002		Azusa	Los Angeles		0.300	0.290	125.3	0.330	0.310	112.0	0.230	0.210	84	Oct 31	-23.3	-27.6	-30.3	-32.3
06-037-0016		Glendora	Los Angeles		0.340	0.330	149.6	0.340	0.330	121.7	0.290	0.270	103	Oct 31	-14.7	-18.2	-18.2	-18.2
06-037-0113		Los Angeles	Los Angeles		0.240	0.210	16.0	0.190	0.180	15.0	0.160	0.150	8	Oct 31	-33.3	-28.6	-15.8	-16.7
06-037-1002		Burbank	Los Angeles		0.240	0.230	64.2	0.200	0.200	40.7	0.210	0.190	40	Oct 31	-12.5	-17.4	5.0	-5.0
06-037-1103		Los Angeles	Los Angeles		0.210	0.210	24.1	0.250	0.190	34.0	0.200	0.200	32	Oct 31	-4.8	-4.8	-20.0	5.3
06-037-1201		Reseda	Los Angeles		0.250	0.210	71.2	0.230	0.220	54.6	0.190	0.190	41	Oct 31	-24.0	-9.5	-17.4	-13.6
06-037-1301		Lynwood	Los Angeles		0.210	0.190	12.0	0.140	0.140	7.1	0.150	0.140	2	Oct 31	-28.6	-26.3	7.1	0.0
06-037-1601		Pico Rivera	Los Angeles		0.300	0.280	67.0	0.260	0.240	61.2	0.190	0.190	43	Oct 31	-36.7	-32.1	-26.9	-20.8
06-037-1701		Pomona	Los Angeles		0.290	0.250	91.0	0.250	0.230	61.0	0.240	0.240	60	Oct 31	-17.2	-4.0	-4.0	4.3
06-037-2005		Pasadena	Los Angeles		0.290	0.280	130.8	0.270	0.260	80.2	0.260	0.230	69	Oct 31	-10.3	-17.9	-3.7	-11.5
06-037-2401		Whittier	Los Angeles		0.290	0.230	29.3	0.260	0.220	37.0	0.190	0.180	21	Oct 31	-34.5	-21.7	-26.9	-18.2
06-037-4002		Long Beach	Los Angeles		0.160	0.160	7.0	0.160	0.150	3.0	0.120	0.110	0	Oct 31	-25.0	-31.3	-25.0	-26.7
06-037-5001		Hawthorne	Los Angeles		0.220	0.140	5.0	0.190	0.160	3.0	0.100	0.100	0	Oct 31	-54.5	-28.6	-47.4	-37.5
06-037-6002		Newhall	Los Angeles		0.300	0.290	107.3	0.250	0.250	71.6	0.230	0.210	62	Oct 31	-23.3	-27.6	-8.0	-16.0
06-037-7001		Lancaster	Los Angeles		0.180	0.170	44.1	0.210	0.170	27.8	0.150	0.140	7	Oct 31	-16.7	-17.6	-28.6	-17.6
06-059-0001		Anaheim	Los Angeles		0.270	0.210	19.1	0.240	0.240	13.0	0.180	0.180	11	Oct 31	-33.3	-14.3	-25.0	-25.0
06-059-1002		Costa Mesa	Los Angeles		0.150	0.130	2.3	0.110	0.100	0.0	0.130	0.130	2	Oct 31	-13.3	0.0	18.2	30.0
06-059-2001		El Toro	Los Angeles		0.210	0.200	18.1	0.230	0.210	7.0	0.190	0.170	12	Oct 31	-9.5	-15.0	-17.4	-19.0
06-059-3002		Los Alamitos	Los Angeles		0.230	0.190	17.7	0.160	0.160	11.0	0.170	0.170	7	Oct 31	-26.1	-10.5	6.3	6.3
06-059-5001		La Habra	Los Angeles		0.290	0.240	33.0	0.260	0.240	36.0	0.210	0.210	35	Oct 31	-27.6	-12.5	-19.2	-12.5
06-065-0002		Banning	Los Angeles		0.260	0.240	64.9	0.230	0.230	60.8	0.220	0.200	43	Oct 31	-15.4	-16.7	-4.3	-13.0
06-065-0003		Norco	Los Angeles		0.250	0.250	62.0	0.230	0.200	56.9	0.170	0.160	13	Oct 31	-32.0	-36.0	-26.1	-20.0
06-065-1002		Hemet	Los Angeles		0.190	0.180	28.0	0.190	0.170	21.3	0.220	0.180	20	Oct 31	22.2	0.0	15.8	5.9
06-065-2002		Indio	Los Angeles		-	-	-	0.160	0.150	16.0	0.160	0.160	11	Oct 31	-	-	0.0	6.7
06-065-2003		Lake Elsinore	Los Angeles		-	-	-	-	-	-	0.180	0.170	13	Jun 30	-	-	-	-
06-065-5001		Palm Springs	Los Angeles		0.200	0.190	35.0	0.190	0.180	37.0	0.170	0.170	27	Oct 31	-15.0	-10.5	-10.5	-5.6
06-065-6001		Perris	Los Angeles		0.230	0.190	82.0	0.210	0.210	78.9	0.190	0.190	62	Oct 31	-17.4	0.0	-9.5	-9.5
06-065-B001		Rubidoux	Los Angeles		0.280	0.250	125.7	0.270	0.270	113.3	0.290	0.270	89	Oct 31	3.6	8.0	7.4	0.0
06-065-9001		Lake Elsinore	Los Angeles		-	-	-	0.240	0.240	67.6	0.190	0.180	36	Oct 31	-	-	-20.8	-25.0
06-067-0002		North Highland	Sacramento		0.150	0.150	5.0	0.110	0.100	0.0	0.120	0.110	0	Oct 31	-20.0	-26.7	9.1	10.0
06-067-0005		Sacramento	Sacramento		0.130	0.120	1.0	0.130	0.120	1.0	0.140	0.130	2	Oct 31	7.7	8.3	7.7	8.3
06-067-0006		Sacramento	Sacramento		0.150	0.150	19.4	0.120	0.110	0.0	0.150	0.130	4	Oct 31	0.0	-13.3	25.0	18.2
06-067-1001		Folsom	Sacramento		0.170	0.160	20.0	0.170	0.140	9.8	0.110	0.100	0	Oct 31	-35.3	-37.5	-35.3	-28.6
06-067-1002		Sacramento	Sacramento		-	-	-	0.090	0.080	0.0	0.150	0.110	1	Oct 31	-	-	66.7	37.5

The above data have not gone through the normal validation procedures and as such are not suitable for regulatory purposes.

Table 1. Preliminary 1990 O3 Concentrations (ppb) Compared to 1988 and 1989

AIRS Number	Region	State	Location	Represents CMSA/MSA	1988			1989			1990			Data Collected (1990)	Percent Change 88 to 90	Percent Change 89 to 90	Percent Change 88 to 90	Percent Change 89 to 90
					1st Max 1-Hour	2nd Max 1-Hour	Estimated Exceed.	1st Max 1-Hour	2nd Max 1-Hour	Estimated Exceed.	1st Max 1-Hour	2nd Max 1-Hour	Measured Exceed.					
06-071-0003	CA	San Bernardino	Los Angeles		-	-	-	-	-	-	0.290	0.230	76	Oct 31	-	-	-	
06-071-0005		Crestline	Los Angeles		0.290	0.250	128.7	0.270	0.250	127.3	0.330	0.300	103	Oct 31	13.8	20.0	22.2	20.0
06-071-1004		Upland	Los Angeles		0.350	0.270	123.1	0.320	0.280	97.0	0.290	0.240	64	Oct 31	-17.1	-11.1	-9.4	-14.3
06-071-2002		Fontana	Los Angeles		0.290	0.260	124.3	0.320	0.280	113.3	0.270	0.270	92	Oct 31	-6.9	3.8	-15.6	-3.6
06-071-4003		Redlands	Los Angeles		0.290	0.280	131.1	0.270	0.260	116.3	0.300	0.240	81	Oct 31	3.4	-14.3	11.1	-7.7
06-073-0001		Chula Vista	San Diego		0.220	0.170	4.2	0.160	0.140	7.0	0.150	0.130	3	Oct 31	-31.8	-23.5	-6.3	-7.1
06-073-0003		El Cajon	San Diego		0.190	0.160	8.2	0.210	0.150	5.0	0.160	0.160	8	Oct 31	-15.8	0.0	-23.8	6.7
06-073-0005		Oceanside	San Diego		0.250	0.150	7.6	0.190	0.150	8.4	0.170	0.130	3	Oct 31	-32.0	-13.3	-10.5	-13.3
06-073-0006		San Diego	San Diego		0.220	0.190	7.1	0.230	0.160	9.1	0.200	0.160	12	Oct 31	-9.1	-15.8	-13.0	0.0
06-073-1001		Del Mar	San Diego		0.180	0.180	9.3	0.250	0.190	16.3	0.170	0.150	8	Oct 31	-5.6	-16.7	-32.0	-21.1
06-073-1002		Escondido	San Diego		0.180	0.160	7.2	0.190	0.170	9.0	0.170	0.140	8	Oct 31	-5.6	-12.5	-10.5	-17.6
06-073-1006		Alpine	San Diego		0.190	0.180	34.1	0.200	0.170	38.6	0.170	0.170	24	Oct 31	-10.5	-5.6	-15.0	0.0
06-085-0002		Bilroy	San Francisco		0.140	0.120	1.5	0.130	0.130	2.4	0.120	0.120	0	Oct 31	-14.3	0.0	-7.7	-7.7
06-085-0386		San Jose	San Francisco		0.120	0.120	0.0	0.120	0.120	0.0	0.110	0.090	0	Oct 31	-8.3	-25.0	-8.3	-25.0
06-085-1001		Los Gatos	San Francisco		0.140	0.120	1.1	0.110	0.090	0.0	0.120	0.110	0	Oct 31	-14.3	-8.3	9.1	22.2
06-085-1002		Mountain View	San Francisco		0.120	0.120	0.0	0.110	0.110	0.0	0.100	0.090	0	Oct 31	-16.7	-25.0	-9.1	-18.2
06-111-0004		Piru	Los Angeles		0.150	0.140	9.6	0.140	0.130	4.0	0.140	0.130	3	Oct 31	-6.7	-7.1	0.0	0.0
06-111-1003		Ojai	Los Angeles		0.140	0.130	3.6	0.180	0.170	3.1	0.140	0.130	2	Oct 31	0.0	0.0	-22.2	-23.5
06-111-2002		Simi Valley	Los Angeles		0.180	0.180	53.0	0.200	0.170	40.3	0.160	0.150	14	Oct 31	-11.1	-16.7	-20.0	-11.8
06-111-2003		Ventura	Los Angeles		0.140	0.120	1.0	0.230	0.140	2.1	0.110	0.110	0	Oct 31	-21.4	-8.3	-52.2	-21.4
06-111-3001		Oxnard	Los Angeles		0.160	0.130	3.0	0.190	0.130	2.1	0.110	0.110	0	Oct 31	-31.3	-15.4	-42.1	-15.4
06-111-8001		Thousand Oaks	Los Angeles		0.160	0.150	10.8	0.180	0.160	10.1	0.170	0.140	3	Oct 31	6.3	-6.7	-5.6	-12.5
15-003-1004	HI	Honolulu	Honolulu		0.047	0.025	0.0	0.089	0.048	0.0	0.059	0.053	0	Oct 31	25.5	112.0	-33.7	10.4
32-003-0538	NV	Las Vegas	Las Vegas		0.099	0.096	0.0	0.115	0.099	0.0	0.216	0.207	2	Jun 11	118.2	115.6	87.8	109.1
32-031-0016		Reno	Reno		0.104	0.102	0.0	0.094	0.089	0.0	0.089	0.082	0	Oct 31	-14.4	-19.6	-5.3	-7.9
32-031-0020		South Reno	Reno		-	-	-	-	-	-	0.138	0.131	2	Oct 31	-	-	-	-
32-031-1005		Sparks	Reno		0.148	0.121	1.4	0.111	0.103	0.0	0.166	0.144	4	Oct 31	12.2	19.0	49.5	39.8
32-031-2009		Lemmon Valley	Reno		-	-	-	-	-	-	0.079	0.072	0	Oct 31	-	-	-	-
41-005-0004	X	Carus	Portland		0.183	0.128	2.4	0.090	0.089	0.0	0.165	0.146	2	Oct 31	-9.8	14.1	83.3	64.0
41-005-2001		Milwaukie	Portland		0.216	0.109	1.1	0.078	0.075	0.0	0.120	0.109	0	Oct 31	-44.4	0.0	53.8	45.3
41-009-0094		Sauvie Island	Portland		0.110	0.088	0.0	0.101	0.089	0.0	0.103	0.102	0	Oct 31	-6.4	15.9	2.0	14.6
41-029-2129		Phoenix	Medford		-	-	-	-	-	-	0.097	0.094	0	Aug 31	-	-	-	-
41-039-1007		Delight	Eugene		0.118	0.110	0.0	0.089	0.075	0.0	0.092	0.091	0	Aug 31	-22.0	-17.3	3.4	21.3
53-011-0011	WA	Mt. View	Portland, OR		0.120	0.100	0.0	0.098	0.090	0.0	0.124	0.107	0	Oct 31	-	-	26.5	18.9
53-033-0010		Lake Sammamish	Seattle/Tacoma		0.140	0.110	1.0	0.090	0.080	0.0	0.126	0.123	1	Oct 31	-10.0	11.8	40.0	53.7
53-033-7001		Enumclaw	Seattle/Tacoma		-	-	-	-	-	-	0.149	0.131	2	Oct 31	-	-	-	-
53-053-1008		Tacoma	Seattle/Tacoma		0.110	0.110	0.0	0.103	0.093	0.0	0.130	0.127	2	Oct 31	18.2	15.5	26.2	36.6

The above data have not gone through the normal validation procedures and as such are not suitable for regulatory purposes.

Table 2

*REGIONAL SUMMARY OF EXCEEDANCES OF PRELIMINARY 1990
OZONE CONCENTRATIONS AS REPORTED THROUGH OCTOBER 31*

<i>Region</i>	<i>State</i>	# of Sites Reporting 90 Data	<i>Measured Exceedances (if any)</i>									
			0	1	2	3	4	5	6	7	8	9
<i>I</i>	CT	10	1	-	-	1	2	4	1	1	-	-
	ME	10	6	2	1	-	-	1	-	-	-	-
	MA	16	7	8	-	1	-	-	-	-	-	-
	NH	7	5	2	-	-	-	-	-	-	-	-
	RI	2	1	-	-	-	-	-	1	-	-	-
	VT	2	2	-	-	-	-	-	-	-	-	-
<i>II</i>	NJ	15	-	1	4	1	3	3	2	1	-	-
	NY	24	17	3	-	1	1	1	-	-	-	1
<i>III</i>	DE	5	1	1	1	-	2	-	-	-	-	-
	DC	2	2	-	-	-	-	-	-	-	-	-
	MD	15	2	6	3	2	2	-	-	-	-	-
	PA	36	27	5	3	-	1	-	-	-	-	-
	VA	20	13	6	-	1	-	-	-	-	-	-
	NV	6	5	-	1	-	-	-	-	-	-	-
<i>IV</i>	AL	12	7	3	1	-	1	-	-	-	-	-
	FL	28	24	4	-	-	-	-	-	-	-	-
	GA	7	3	2	-	-	1	1	-	-	-	-
	KY	17	13	1	1	1	1	-	-	-	-	-
	MS	4	3	1	-	-	-	-	-	-	-	-
	NC	19	16	3	-	-	-	-	-	-	-	-
	SC	14	12	2	-	-	-	-	-	-	-	-
	TN	15	11	3	-	-	-	1	-	-	-	-

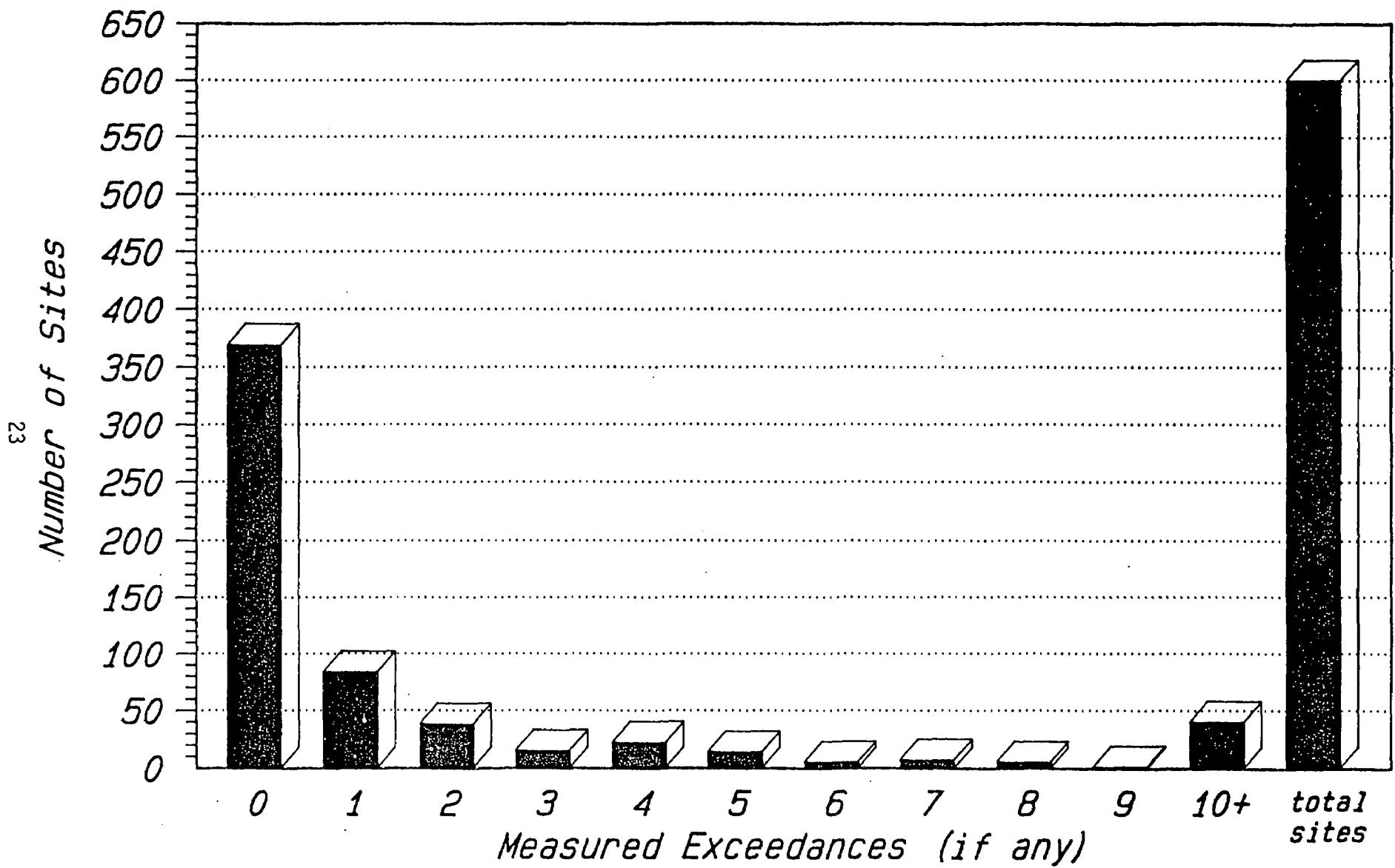
Table 2 - continued

REGIONAL SUMMARY OF EXCEEDANCES OF PRELIMINARY 1990
OZONE CONCENTRATIONS AS REPORTED THROUGH OCTOBER 31*

Region	State	# of Sites Reporting 90 Data	Measured Exceedances (if any)										
			0	1	2	3	4	5	6	7	8	9	10+
V	IL	39	37	1	1	-	-	-	-	-	-	-	-
	IN	21	17	3	1	-	-	-	-	-	-	-	-
	MI	18	13	3	1	1	-	-	-	-	-	-	-
	MN	5	4	1	-	-	-	-	-	-	-	-	-
	OH	23	18	2	2	-	1	-	-	-	-	-	-
	WI	27	23	1	3	-	-	-	-	-	-	-	-
VI	AR	2	1	1	-	-	-	-	-	-	-	-	-
	LA	20	12	1	2	-	1	1	1	1	-	1	-
	NM	10	10	-	-	-	-	-	-	-	-	-	-
	OK	7	4	3	-	-	-	-	-	-	-	-	-
	TX	37	12	3	4	2	4	1	-	1	1	-	9
VII	IA	1	1	-	-	-	-	-	-	-	-	-	-
	KS	2	2	-	-	-	-	-	-	-	-	-	-
	MD	6	3	3	-	-	-	-	-	-	-	-	-
	NE	2	2	-	-	-	-	-	-	-	-	-	-
VIII	ND	3	3	-	-	-	-	-	-	-	-	-	-
	UT	5	4	1	-	-	-	-	-	-	-	-	-
IX	AZ	11	8	3	-	-	-	-	-	-	-	-	-
	CA	60	10	3	4	4	1	1	-	3	4	-	30
	HI	1	1	-	-	-	-	-	-	-	-	-	-
	NV	5	2	-	2	-	1	-	-	-	-	-	-
X	OR	5	4	-	1	-	-	-	-	-	-	-	-
	WA	4	-	2	2	-	-	-	-	-	-	-	-
	Total	600	369	84	38	15	22	14	5	7	5	1	40

*Through August 31 for Ohio, and September 30 for Utah.

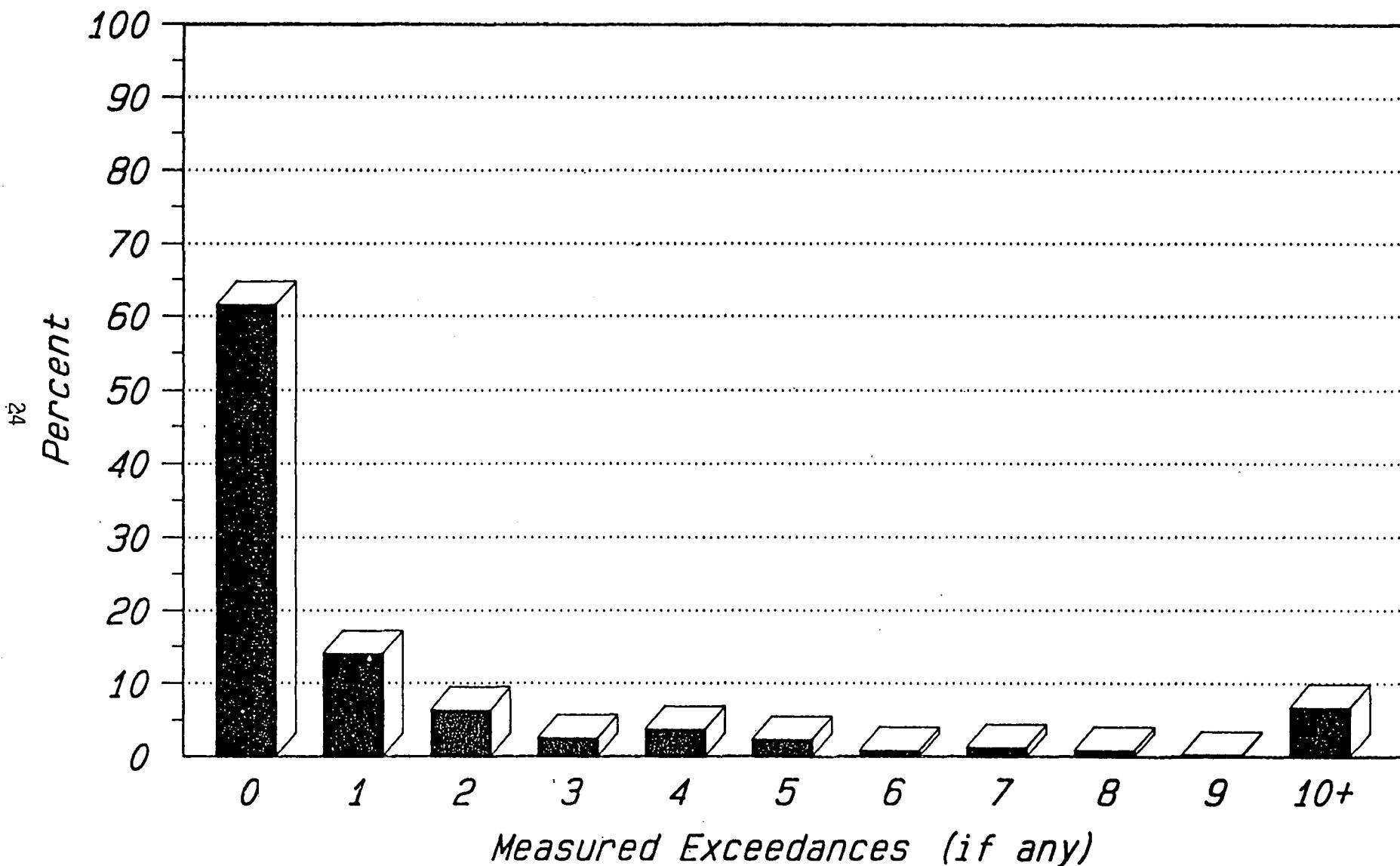
Figure 1.
*Number of Reported Sites with Ozone Standard (0.12 ppm)
Exceedances as Reported Through October 31, 1990**



*Through August 31 for Ohio, and September 30 for Utah.

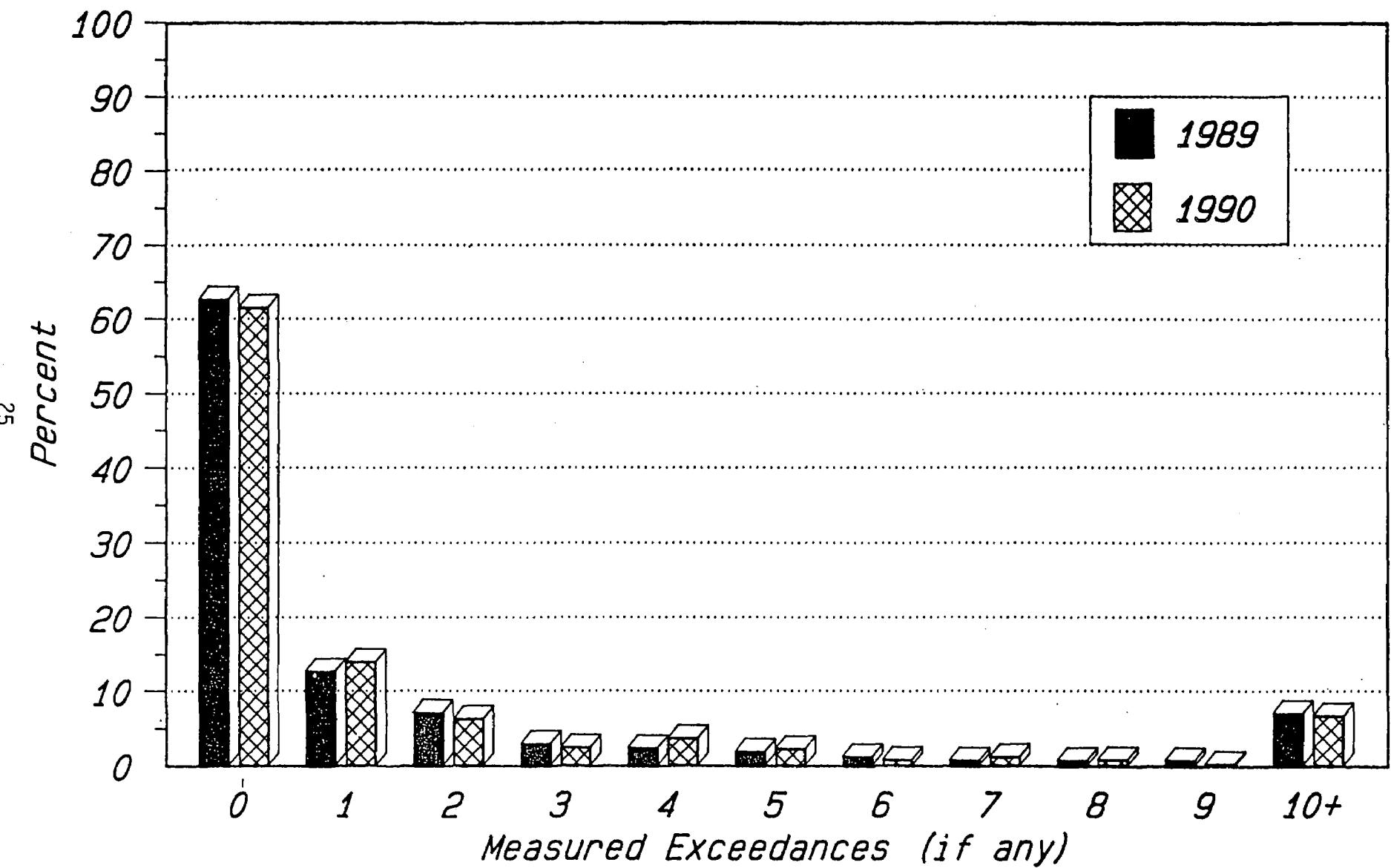
Figure 2.

*Percent of Reported Sites with Ozone Standard (0.12ppm)
Exceedances as Reported Through October 31. 1990**



*Through August 31 for Ohio, and September 30 for Utah.

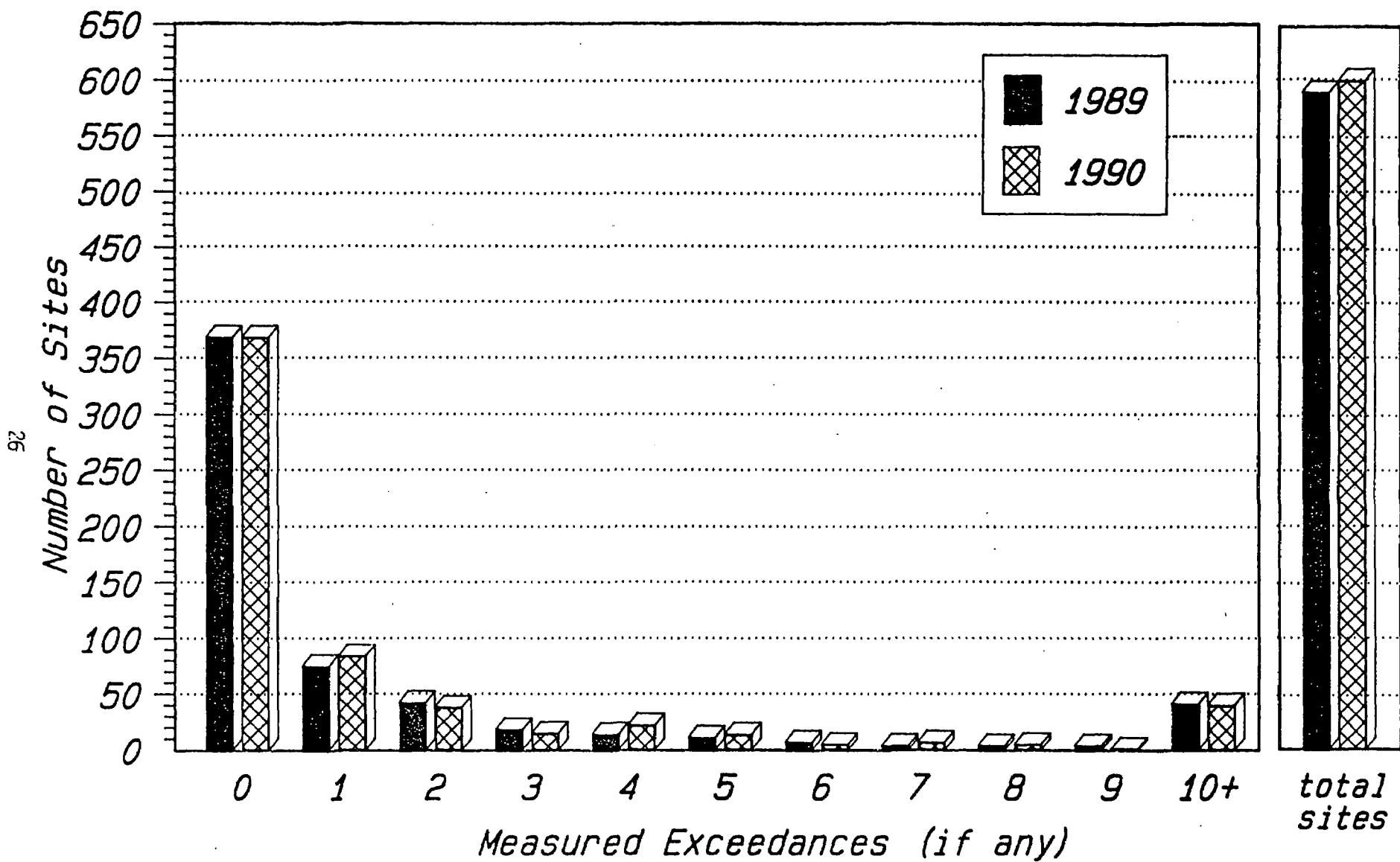
Figure 3.
*Comparison of Percent of Sites with Measured Ozone Standard
(0.12 ppm) Exceedances, Through October 31 for 1989, 1990**



*Through August 31 for Ohio, and September 30 for Utah.

Figure 4.

*Comparison of the Number of Sites with Measured Ozone Standard (0.12 ppm) Exceedances Through October 31 for 1989, 1990**



*Through August 31 for Ohio, and September 30 for Utah.