

**ENVIRONMENTAL PROTECTION AGENCY  
OFFICE OF ENFORCEMENT**

EPA-330/3-80-001

**OMEGA-1 LIDAR: DATA ANALYSIS REPORT  
ASARCO, EL PASO SMELTING WORKS  
EL PASO, TEXAS**

**NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
DENVER, COLORADO**

February 1980



Environmental Protection Agency  
Office of Enforcement  
EPA-330/3-80-001

OMEGA-1 LIDAR  
DATA ANALYSIS REPORT  
ASARCO, EL PASO SMELTING WORKS  
El Paso, Texas

March 1980

National Enforcement Investigations Center  
Denver, Colorado

## **CONTENTS**

**I. INTRODUCTION**

**II. SUMMARY AND CONCLUSIONS**

**III. METHODS**

**IV. DATA ANALYSIS PRESENTATION**

## I. INTRODUCTION

The National Enforcement Investigations Center (NEIC) conducted an investigation of visible (particulate) emissions from various stationary sources at the El Paso Smelting Works operated by ASARCO, Inc. in El Paso, Texas, during the period from December 3 to 6, 1979. Opacities of observed visible emissions were measured remotely with a new instrumentation method using the NEIC Omega-1 Lidar. EPA Region VI representatives collected in-plant data during the last two days of this investigations.

The El Paso Smelting Works is a copper smelter and associated facilities for recovery of lead, zinc and by-product sulfuric acid. Visible emissions from this facility are alleged to be in violation of the applicable opacity limits of Texas Regulation Rule 103 and the State Implementation Plan (SIP). The excessive emissions are alleged to occur more frequently at night.

On October 25, 1979 the Enforcement Division of EPA Region VI, Dallas, Texas, requested assistance from NEIC in documenting the opacity of emissions from the ASARCO facility during both day- and night-time hours. Specifically the Enforcement Director requested that the Omega-1 Lidar be available in El Paso during the week of December 3 to assist a Region VI inspection team.

To provide the requested assistance to Region VI, NEIC conducted the investigation with the following objectives:

1. Document the opacity of visible emissions from specific sources designated by Region VI inspection team.
2. Evaluate the compliance of the observed emissions with the applicable regulation.
3. Evaluate if emissions from the ASARCO facility do increase at night above levels observed during the day.

## II. SUMMARY AND CONCLUSIONS

### SUMMARY OF THE INVESTIGATION

The opacity of visible emissions from six stationary sources within the ASARCO, El Paso Smelting Works, El Paso, Texas, were measured during the period from December 3 through December 6, 1979. The sources investigated were the copper, No. 2 acid, lead and zinc stacks, the blast furnace bag house, and the converter building roof monitor.

Opacities were measured remotely with the NEIC Omega-1 Lidar which is a new instrumentation method. This method is in the EPA review process and will be proposed soon as Alternate Method 1 to Reference Method 9.

Nineteen sets of opacity measurements were made, the total of which was about ten hours of observation and about 4,200 individual measurements. The sets of measurements ranged in length from 10 to 61 minutes. Measurements were made at a temporal frequency range from once every four seconds to once every ten seconds.

Opacity measurements were made at night on December 3 and 4, and during the day on December 4, 5 and 6. The copper, lead and zinc stacks were observed during both day- and nighttime hours. The No. 2 acid stack, the blast furnace bag house and the converter building roof monitor were observed only during the day. All measurements were conducted remotely from off the plant site.

The Region VI inspection team conducted an in-plant inspection on December 5 and 6, 1979. The plant data collected are not included in this data analysis report.

All opacity measurements were subsequently analyzed and reduced with the NEIC laboratory computer using the methods prescribed in Alternate Method 1.

The results of each lidar observation are summarized in Table II-1 according to the official designation of each stationary source.

### CONCLUSIONS

The visible emissions from the copper stack exceeded the maximum allowable limit of Texas Regulation Rule 103 and the State Implementation Plan (30% for a 5-minute average) each time the stack was observed. For the nine observation periods ranging in length from 15 to 61 minutes, totaling 341 minutes, the emissions exceeded the limit for 317 minutes or 93% of the observation time.

The emissions from the No. 2 acid stack exceeded the 20% limit of the SIP 99% of the observation time (three observation periods, 111 minutes out of a total of 112).

The emissions from the lead stack were observed through three observation periods extending from 15 to 31 minutes. The emissions exceeded the 20% limit of the SIP during the first observation (Table II-1). The total observation time was 61 minutes and the source emissions exceeded the limit 29 minutes, 48% of the test time.

The emissions from the zinc stack exceeded the 30% limit of the SIP for 30 out of 45 minutes or 67% of the observation time (two observation periods).

The converter building roof monitor emissions were observed for a 10-minute period with the peak opacity (5 minute average) being 24%. The limit of the emissions have not been established in the SIP and no

Table II-1  
 DATA ANALYSIS SUMMARY  
 ASARCO, EL PASO SmELTING WORKS  
 El Paso, Texas

Source Designation	Applicable Opacity Limit (%)	Date Dec 1979	Time Interval (hr min sec)	Approx length of Observation (min)	Approx Time Exceeding Limit (min)	% of Time in Excess of Limit	Peak Opacity (5 Min Avg.)	Max Lidar Calibration Error Mag (%) [From 0% to 80%]
Copper Stack	30	3	17 24 00 17 54 31	31	31	100	57	-0 3, +1 3
Copper Stack	30	3	18 07 00 18 37 20	30	30	100	82	-0 3, +1.3
Copper Stack	30	3	18 44 00 19 45 00	61	60	98	80	-0 3, +1 3
Copper Stack	30	3	19 53 00 20 53 50	61	61	100	81	-0 3, +1 3
Copper Stack	30	4	20 30 29 21 30 20	60	60	100	75	-0 3, +0 5
Copper Stack	30	4	21 40 10 22 03 20	24	24	100	74	-0 3, +0 5
Copper Stack	30	6	09 55 00 10 23 49	29	6	21	35	-0 6, +0 7
Copper Stack	30	6	10 38 00 11 07 50	30	30	100	50	-0 6, +0 7
Copper Stack	30	6	13 30 00 13 44 49	15	15	100	72	-0 2, +1 0
#2 Acid Stack	20	4	15 13 30 15 35 40	22	22	100	77	-0 1, +0 5
#2 Acid Stack	20	4	15 46 00 16 15 40	30	30	100	73	-0 1, +0 5
#2 Acid Stack	20	5	14 22 29 15 22 31	60	59	99	78	-0 2, +0 5
Lead Stack	20	4	22 22 09 22 53 05	31	29	94	67	-0 3, +0 5
Lead Stack	20	6	11 21 10 11 35 49	15	0	0	10	-0 6, +0 7
Lead Stack	20	6	13 58 00 14 13 00	15	0	0	11	-0 5, +0 8
Zinc Stack	30	4	22 59 28 23 30 07	30	30	100	67	-0 5, +0 5
Zinc Stack	30	6	11 45 00 11 59 50	15	0	0	1	-0 6, +0 7
Blast Furnace Bag House	30	4	16 35 00 17 05 11	30	7	23	36	-0 2, +0 6
Converter Bldg Roof Monitor	*	4	14 22 00 14 31 50	10	*	*	24	-0 1, +0 5

\* Not determined

determination was made for excess times during lidar data processing/reduction.

From the data analysis summary presented in Table II-1, it appears that the opacity of the copper stack's visible emissions were greater at night than during the day based on six observations at night as opposed to three during daylight hours. The emissions from the No. 2 acid stack were observed only during the day. The opacity of the lead stack's emissions were much greater at night than for the daytime observations. The same conclusions holds true for the zinc stack's emissions. The emissions from the blast furnace bag house and the converter building roof monitor were observed only during daylight hours.

### III. METHODS

#### LIDAR OPACITY MEASUREMENTS

Alternate Method 1 (to be proposed) employs a lidar (lasar radar) which is an optical system installed in a truck-mounted van enclosure. This mobile lidar is specifically designed and fabricated for measuring the opacity of visible emissions from a given stationary source during both day- and night-time ambient lighting conditions. The laser transmitter within the lidar emits a short pulse of light. The lidar receiver collects the laser light backscattered from the atmospheric aerosols before and beyond the visible plume as well as that from the aerosols (particulates) within the plume. The lidar receiver converts the backscattered optical signals to electronic signals or data. From the data (just before and beyond the plume) the plume opacity is subsequently calculated and printed in hard copy format along with the date and time to the nearest second. The nominal data gathering rate of the lidar is an opacity measurement or determination once every ten seconds.

This rate can be maintained in continuous operation for minutes or even hours. The lidar has an inherent data processing capability that calculates the opacity values, subsequently records these opacity values in hard copy form, and also records the original lidar receiver data (signal amplitude vs range) on magnetic tape for future reference or use. This method is intended for use during night-time hours as it is during the day. This is a most important capability in the measurement of stationary source emissions opacity.

#### Data Analysis, Reduction and Presentation

The lidar data were analyzed in accordance with Alternate Method 1 (to be proposed), and reduced according to NEIC's standard methods.

The opacity values are presented in two separate formats in Section IV of this data analysis report. For each data run the values are given in tabular form followed by graphic plots. The tabular form provides the following information:

- . EPA-NEIC Omega control number (evidentiary parameter).
- . Official designation for the stationary source.
- . Facility name.
- . Facility location.
- . Location of the lidar during tests.
- . Length of the running average interval.
- . Date of data run.
- . Time of the opacity measurement (nearest second).
- . Opacity value as calculated in %.
- . Standard deviation  $S_0$  (in Alternate Method 1) in %.
- . Individual violation flags not applicable in Texas.
- . Average opacity (%) calculated over the 5-minute interval.
- . Average standard deviation (%) calculated over the 5-minute interval.
- . Average opacity violation flag, applicable in Texas.
- . Number of opacity values discarded due to the Opacity Data Acceptance/Rejection Criterion (§ 2.5.3 of the Alternate Method 1).

Although the lidar computer calculates plume opacity for each measurement at the time it was made, the lidar data (recorded on magnetic tape) was subjected to the data analysis/reduction at EPA-NEIC on the laboratory computer. In addition, this computer calculates the running or sliding average of the individual opacity values over the 5-minute interval, in the case of Texas Regulation Rule 103 and the State Implementation Plan (SIP), and flags any violations that occurred over and above the respective 20 or 30% average opacity limits.

The number of opacity values included in the running average are nominally 30 (six measurement per minute for five minutes according to

the SIP. The 5-minute interval remains constant although the number of opacity values may vary above or below the nominal. In accordance with the Opacity Data Acceptance/Rejection Criterion mentioned above, if the standard deviation,  $S_o$ , for a given opacity value is greater than 8% (full scale) then that value is discarded from the running average set decreasing the total number by one. The number of opacity values in the 5-minute interval may be greater than 30 which is caused by the lidar data rate being set faster than six opacity measurements per minute (one opacity measurement every ten seconds).

Referring to the first sheet of the tabular data output, Section IV, for the first data run, (Omega-0023), the average opacity violation flag (column 8 in the tabular format) does not show up until five minutes of data has been averaged. If the average opacity is greater than 30% (or 20% whichever is applicable) then the first violation flag occurs at the end of the first 5-minute interval and continues until the average opacity drops below the regulation limit or the data run is completed. This data run began at 17:24:00 and the individual opacity values were all above 30% (column three). The average opacity (column six) reads zero until five minutes of data has been recorded. At the end of the first 5-minute interval (17:24:00 to 17:28:50) the average opacity was calculated to be 51% and the first average opacity violation flag is indicated.

The running average permits one to easily locate the 5-minute interval(s) which has the highest average opacity. In the examples of the first data run (Omega-0023), the highest average occurred for the 5-minute interval ending at 17:32:20 (sheet two) and again at 17:54:09 (sheet four). However, the first violation occurred for the 5-minute time interval ending at 17:28:50. The next violation does not occur until five minutes after 17:28:50 or 17:33:50 which had an average opacity of 52%. The third consecutive violation occurred at 17:38:51 with an average opacity of 51%, and so forth.

A note of explanation is provided for an occasional zero that may occur in the "Average Opacity" and the "Average SO" columns (columns six

and seven in the tabular form) after the initial five minutes worth of data required for the running average has been recorded. The computer data analysis software is programmed so that the 5-minute interval must be maintained to within  $\pm 10$  seconds or the running average is not calculated for that particular interval. An example is provided in the third data run for the Copper Stack (12-3-79, run beginning at 18:44:00). The running average violation flag (column eight) is missing from 18:49:51, and the Average Opacity = 0 and Average SO = 0. This occurred because the temporal spacing between 18:44:50 and 18:45:05 was 15 seconds rather than ten. The latest opacity measurement should have occurred at 18:45:00, five seconds earlier. During this particular run the lidar's laser was being manually fired (laser usually is fired automatically) and the operator missed activating the laser at the proper time. This can also occur when, in accordance with § 2.2.3 of Alternate Method 1, lidar operation is temporarily suspended to obtain another reference measurement. An example of this effect is seen on page three of the above mentioned data run. Five consecutive values of "Average Opacity" and "Average SO" were zero. During the applicable 5-minute time interval the lidar operation was suspended from 19:02:30 to 19:03:41, i.e., one minute, 11 seconds. The computer software places zero for the two average parameters rather than performing the running average with opacity values of zero for the missing data.

The computer graphical plots, located in Section IV immediately after each respective tabular data set, show the individual opacity values (column three of the tabular data set) along with their respective standard deviations as error bars (column four of the tabular data set). The standard deviation gives an indication of the magnitude of the error associated with each opacity value due to atmospheric noise along the lidar line-of-sight. The magnitude of the average opacity established in the SIP is indicated on each plot by the dashed line at the 20 or 30% value. Each graphical plot is fixed in time along the horizontal axis, being ten minutes in length.

The Omega-1 Lidar is internally calibrated in the field periodically over the opacity values of 0, 10, 20, 40, 60, and 80%. These calibration

data are presented in Table II-1 for each respective observation period as the extreme values that occurred throughout the opacity range given above. A negative value indicates that the lidar was determining opacity low or below the respective standard while a positive value indicates a high value with respect to the standard

IV. DATA ANALYSIS PRESENTATION

COPPER STACK

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0023, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES

DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
12/ 3/79	17 24 0	38	6	0	0	0 OF 0
12/ 3/79	17 24 10	47	7	0	0	0 OF 0
12/ 3/79	17 24 20	49	8	0	0	0 OF 0
12/ 3/79	17 24 30	47	7	0	0	0 OF 0
12/ 3/79	17 24 40	45	8	0	0	0 OF 0
12/ 3/79	17 24 50	46	5	0	0	0 OF 0
12/ 3/79	17 25 0	57	6	0	0	0 OF 0
12/ 3/79	17 25 11	51	8	0	0	0 OF 0
12/ 3/79	17 25 20	42	8	0	0	0 OF 0
12/ 3/79	17 25 30	51	5	0	0	0 OF 0
12/ 3/79	17 25 40	45	8	0	0	0 OF 0
12/ 3/79	17 25 50	53	8	0	0	0 OF 0
12/ 3/79	17 26 0	47	8	0	0	0 OF 0
12/ 3/79	17 26 10	54	6	0	0	0 OF 0
12/ 3/79	17 26 20	55	8	0	0	0 OF 0
12/ 3/79	17 26 30	57	6	0	0	0 OF 0
12/ 3/79	17 26 40	56	8	0	0	0 OF 0
12/ 3/79	17 26 51	40	6	0	0	0 OF 0
12/ 3/79	17 27 0	61	7	0	0	0 OF 0
12/ 3/79	17 27 10	39	8	0	0	0 OF 0
12/ 3/79	17 27 20	69	6	0	0	0 OF 0
12/ 3/79	17 27 30	69	5	0	0	0 OF 0
12/ 3/79	17 27 40	49	6	0	0	0 OF 0
12/ 3/79	17 27 50	51	6	0	0	0 OF 0
12/ 3/79	17 27 59	39	8	0	0	0 OF 0
12/ 3/79	17 28 10	45	5	0	0	0 OF 0
12/ 3/79	17 28 20	50	8	0	0	0 OF 0
12/ 3/79	17 28 30	54	8	0	0	0 OF 0
12/ 3/79	17 28 40	56	6	0	0	0 OF 0
12/ 3/79	17 28 50	56	5	51	7	**** 0 OF 30
12/ 3/79	17 29 0	58	6	51	7	**** 0 OF 31
12/ 3/79	17 29 11	58	4	52	7	**** 0 OF 30
12/ 3/79	17 29 20	57	7	52	7	**** 0 OF 31
12/ 3/79	17 29 31	49	7	52	7	**** 0 OF 30
12/ 3/79	17 29 40	57	8	52	7	**** 0 OF 31
12/ 3/79	17 29 51	48	6	52	7	**** 0 OF 30
12/ 3/79	17 30 2	60	7	52	7	**** 0 OF 30
12/ 3/79	17 30 10	59	7	53	7	**** 0 OF 31
12/ 3/79	17 30 20	61	5	53	7	**** 0 OF 31
12/ 3/79	17 30 30	48	6	53	7	**** 0 OF 31
12/ 3/79	17 30 40	50	6	53	7	**** 0 OF 31
12/ 3/79	17 30 50	48	7	53	7	**** 0 OF 31
12/ 3/79	17 30 59	51	5	53	7	**** 0 OF 31
12/ 3/79	17 31 10	52	6	53	6	**** 0 OF 31
12/ 3/79	17 31 20	51	6	53	6	**** 0 OF 31
12/ 3/79	17 31 31	58	8	53	6	**** 0 OF 30
12/ 3/79	17 31 40	57	6	53	6	**** 0 OF 31
12/ 3/79	17 31 50	61	7	54	6	**** 0 OF 31
12/ 3/79	17 32 1	59	5	54	6	**** 0 OF 30
12/ 3/79	17 32 10	55	6	54	6	**** 0 OF 31

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0023, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES									
DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER	DISCARDED		
12/ 3/79	17 32 20	56	7	55	6	****	0 OF	31	
12/ 3/79	17 32 30	45	7	54	6	****	0 OF	31	
12/ 3/79	17 32 40	43	7	53	6	****	0 OF	31	
12/ 3/79	17 32 50	36	7	52	6	****	0 OF	31	
12/ 3/79	17 33 2	57	6	53	6	****	0 OF	30	
12/ 3/79	17 33 11	51	6	53	6	****	0 OF	30	
12/ 3/79	17 33 20	50	7	53	6	****	0 OF	31	
12/ 3/79	17 33 30	49	6	53	6	****	0 OF	31	
12/ 3/79	17 33 41	39	7	53	6	****	0 OF	30	
12/ 3/79	17 33 50	48	8	52	6	****	0 OF	31	
12/ 3/79	17 34 0	52	6	52	6	****	0 OF	31	
12/ 3/79	17 34 11	53	5	52	6	****	0 OF	31	
12/ 3/79	17 34 20	56	4	52	6	****	0 OF	31	
12/ 3/79	17 34 30	51	6	52	6	****	0 OF	31	
12/ 3/79	17 34 40	52	5	52	6	****	0 OF	31	
12/ 3/79	17 34 50	58	8	52	6	****	0 OF	31	
12/ 3/79	17 35 0	58	5	52	6	****	0 OF	31	
12/ 3/79	17 35 10	53	7	52	6	****	0 OF	31	
12/ 3/79	17 35 20	44	6	52	6	****	0 OF	31	
12/ 3/79	17 35 30	61	6	52	6	****	0 OF	31	
12/ 3/79	17 35 40	45	7	52	6	****	0 OF	31	
12/ 3/79	17 35 50	47	8	52	6	****	0 OF	31	
12/ 3/79	17 36 0	49	6	52	6	****	0 OF	30	
12/ 3/79	17 36 10	51	7	52	6	****	0 OF	31	
12/ 3/79	17 36 20	51	7	52	6	****	0 OF	31	
12/ 3/79	17 36 30	56	6	52	6	****	0 OF	31	
12/ 3/79	17 36 40	63	6	52	6	****	0 OF	31	
12/ 3/79	17 36 50	57	5	52	6	****	0 OF	31	
12/ 3/79	17 37 0	52	6	52	6	****	0 OF	31	
12/ 3/79	17 37 10	32	8	51	6	****	0 OF	31	
12/ 3/79	17 37 20	47	8	50	6	****	0 OF	31	
12/ 3/79	17 37 30	52	7	50	6	****	0 OF	31	
12/ 3/79	17 37 41	48	5	51	6	****	0 OF	30	
12/ 3/79	17 37 50	51	8	51	6	****	0 OF	31	
12/ 3/79	17 38 0	54	6	51	6	****	0 OF	31	
12/ 3/79	17 38 10	38	8	51	6	****	0 OF	31	
12/ 3/79	17 38 20	52	7	51	6	****	0 OF	31	
12/ 3/79	17 38 30	45	8	51	6	****	0 OF	31	
12/ 3/79	17 38 40	62	4	51	6	****	0 OF	31	
12/ 3/79	17 38 51	41	6	51	6	****	0 OF	30	
12/ 3/79	17 39 0	54	7	51	6	****	0 OF	31	
12/ 3/79	17 39 10	65	4	52	6	****	0 OF	31	
12/ 3/79	17 39 20	58	8	52	6	****	0 OF	31	
12/ 3/79	17 39 40	48	7	51	6	****	0 OF	30	
12/ 3/79	17 39 50	45	5	51	6	****	0 OF	30	
12/ 3/79	17 40 0	57	5	51	6	****	0 OF	30	
12/ 3/79	17 40 10	62	6	51	6	****	0 OF	30	
12/ 3/79	17 40 20	54	8	51	6	****	0 OF	30	
12/ 3/79	17 40 30	64	8	52	7	****	0 OF	30	
12/ 3/79	17 40 40	53	4	52	6	****	0 OF	30	

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0023, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES

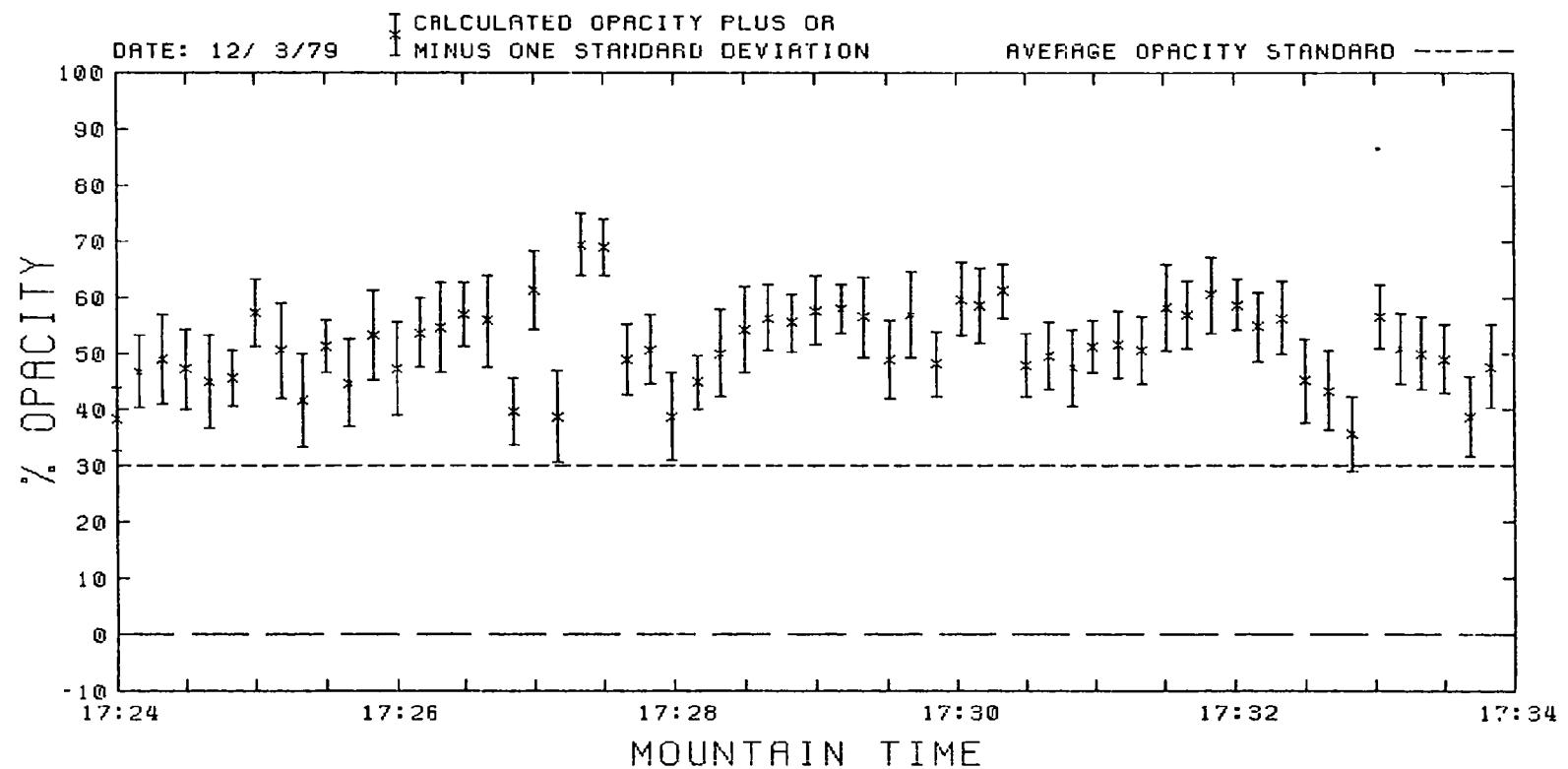
DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
------	------	---------	--------------	-----------------	----------------------	------------------

12/ 3/79	17 40 50	57	6	52	6	****	0 OF 30
12/ 3/79	17 41 0	56	8	52	6	****	0 OF 30
12/ 3/79	17 41 10	41	4	52	6	****	0 OF 30
12/ 3/79	17 41 20	58	6	52	6	****	0 OF 30
12/ 3/79	17 41 30	39	7	52	6	****	0 OF 30
12/ 3/79	17 41 41	53	6	52	6	****	0 OF 29
12/ 3/79	17 42 0	50	4	51	6	****	0 OF 29
12/ 3/79	17 42 10	52	8	51	6	****	0 OF 29
12/ 3/79	17 42 20	56	8	52	6	****	0 OF 29
12/ 3/79	17 42 30	54	5	52	6	****	0 OF 29
12/ 3/79	17 42 40	50	6	52	6	****	0 OF 29
12/ 3/79	17 42 51	58	6	53	6	****	0 OF 28
12/ 3/79	17 43 1	40	6	52	6	****	0 OF 28
12/ 3/79	17 43 11	45	5	52	6	****	0 OF 28
12/ 3/79	17 43 20	47	6	52	6	****	0 OF 29
12/ 3/79	17 43 30	47	4	52	6	****	0 OF 29
12/ 3/79	17 43 41	48	7	52	6	****	0 OF 28
12/ 3/79	17 43 50	53	5	52	6	****	0 OF 29
12/ 3/79	17 44 0	58	4	52	6	****	0 OF 29
12/ 3/79	17 44 10	49	6	52	6	****	0 OF 29
12/ 3/79	17 44 20	43	5	51	6	****	0 OF 29
12/ 3/79	17 44 30	51	5	51	6	****	0 OF 29
12/ 3/79	17 44 42	48	7	51	6	****	0 OF 29
12/ 3/79	17 44 51	47	5	51	6	****	0 OF 29
12/ 3/79	17 45 0	52	5	51	6	****	0 OF 30
12/ 3/79	17 45 10	43	7	51	6	****	0 OF 30
12/ 3/79	17 45 20	52	7	51	6	****	0 OF 30
12/ 3/79	17 45 30	41	6	50	6	****	0 OF 30
12/ 3/79	17 45 40	45	6	49	6	****	0 OF 30
12/ 3/79	17 45 54	45	6	49	6	****	0 OF 29
12/ 3/79	17 46 1	54	6	49	6	****	0 OF 29
12/ 3/79	17 46 10	55	6	49	6	****	0 OF 30
12/ 3/79	17 46 20	45	6	49	6	****	0 OF 30
12/ 3/79	17 46 30	50	6	49	6	****	0 OF 30
12/ 3/79	17 46 40	46	4	49	6	****	0 OF 30
12/ 3/79	17 46 51	46	8	49	6	****	0 OF 30
12/ 3/79	17 47 0	49	7	49	6	****	0 OF 31
12/ 3/79	17 47 10	57	5	49	6	****	0 OF 31
12/ 3/79	17 47 20	43	6	49	6	****	0 OF 31
12/ 3/79	17 47 31	57	7	49	6	****	0 OF 30
12/ 3/79	17 47 50	41	7	48	6	****	0 OF 30
12/ 3/79	17 48 0	51	7	48	6	****	0 OF 30
12/ 3/79	17 48 11	48	7	48	6	****	0 OF 30
12/ 3/79	17 48 30	51	8	49	6	****	0 OF 29
12/ 3/79	17 48 40	41	7	49	6	****	0 OF 29
12/ 3/79	17 48 51	57	6	49	6	****	0 OF 28
12/ 3/79	17 49 0	56	6	49	6	****	0 OF 29
12/ 3/79	17 49 11	55	6	49	6	****	0 OF 28
12/ 3/79	17 49 20	51	5	49	6	****	0 OF 29
12/ 3/79	17 49 30	50	5	49	6	****	0 OF 29

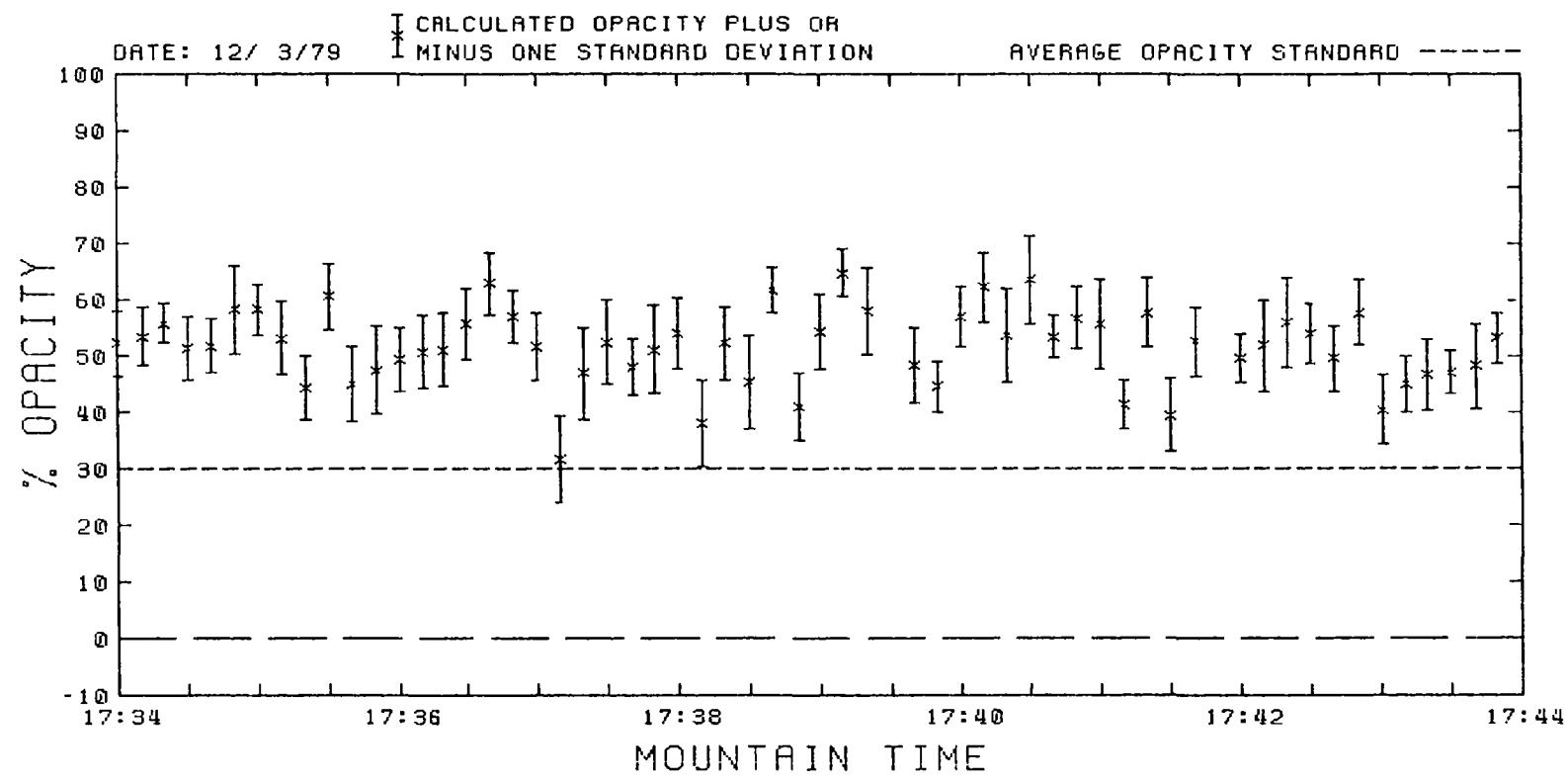
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0023, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES

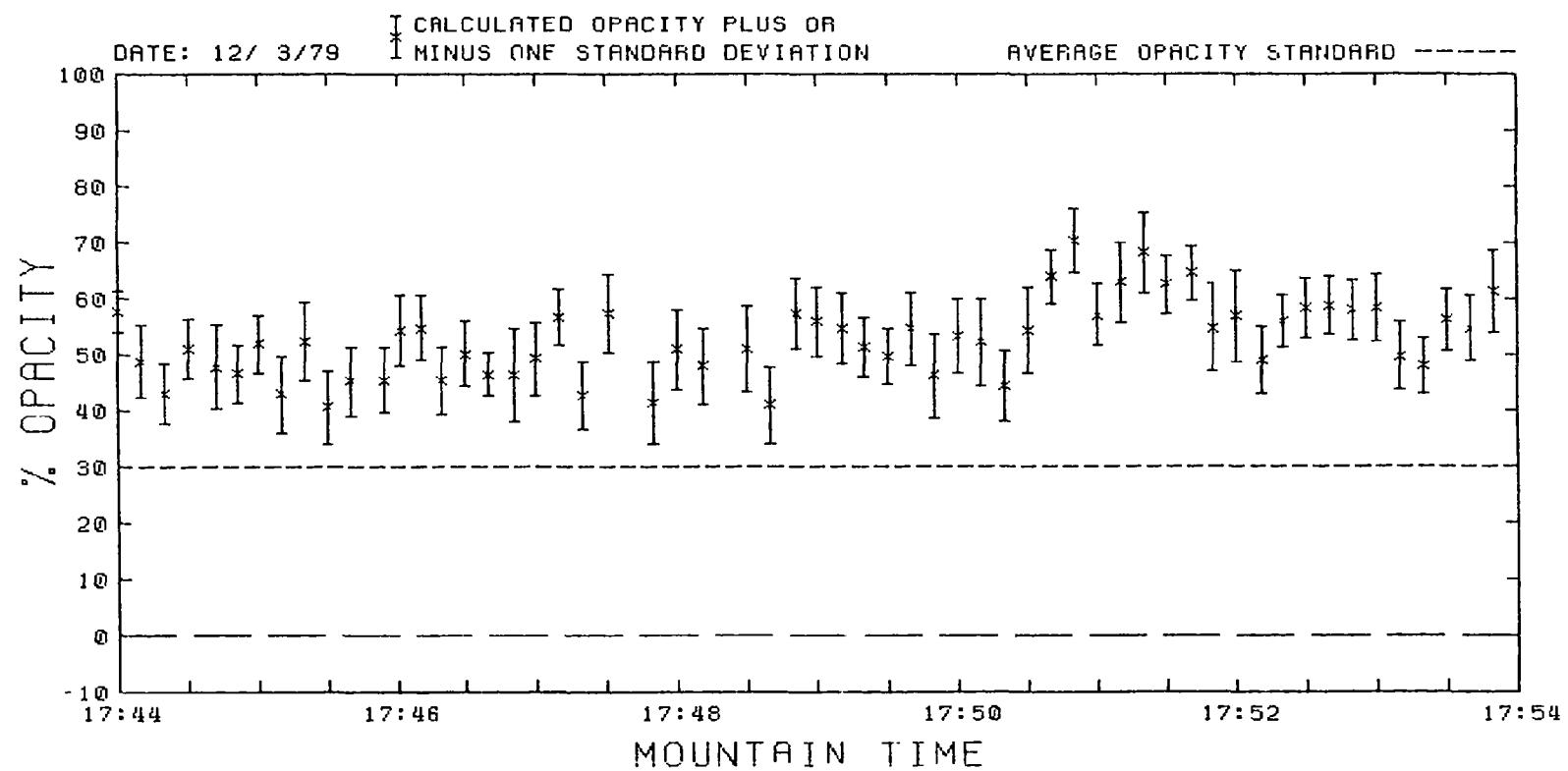
DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
12/ 3/79	17 49 40	55	6	49	6	**** 0 OF 29
12/ 3/79	17 49 50	46	7	49	6	**** 0 OF 29
12/ 3/79	17 50 0	53	7	49	6	**** 0 OF 29
12/ 3/79	17 50 10	52	8	49	6	**** 0 OF 29
12/ 3/79	17 50 20	44	6	49	6	**** 0 OF 29
12/ 3/79	17 50 30	54	8	50	6	**** 0 OF 29
12/ 3/79	17 50 40	64	5	50	6	**** 0 OF 29
12/ 3/79	17 50 50	70	6	51	6	**** 0 OF 29
12/ 3/79	17 51 0	57	6	52	6	**** 0 OF 29
12/ 3/79	17 51 10	63	7	52	6	**** 0 OF 29
12/ 3/79	17 51 20	68	7	52	6	**** 0 OF 29
12/ 3/79	17 51 30	62	5	53	6	**** 0 OF 29
12/ 3/79	17 51 41	65	5	54	6	**** 0 OF 28
12/ 3/79	17 51 50	55	8	54	6	**** 0 OF 29
12/ 3/79	17 52 0	57	8	54	6	**** 0 OF 29
12/ 3/79	17 52 11	49	6	54	6	**** 0 OF 28
12/ 3/79	17 52 20	56	5	54	6	**** 0 OF 29
12/ 3/79	17 52 30	58	5	55	6	**** 0 OF 29
12/ 3/79	17 52 40	59	5	55	6	**** 0 OF 29
12/ 3/79	17 52 50	58	5	55	6	**** 0 OF 30
12/ 3/79	17 53 0	58	6	55	6	**** 0 OF 30
12/ 3/79	17 53 10	50	6	55	6	**** 0 OF 30
12/ 3/79	17 53 20	48	5	55	6	**** 0 OF 30
12/ 3/79	17 53 30	56	5	55	6	**** 0 OF 31
12/ 3/79	17 53 40	55	6	55	6	**** 0 OF 31
12/ 3/79	17 53 50	61	7	56	6	**** 0 OF 31
12/ 3/79	17 54 0	62	7	56	6	**** 0 OF 31
12/ 3/79	17 54 9	65	2	57	6	**** 0 OF 31
12/ 3/79	17 54 20	65	4	57	6	**** 0 OF 31
12/ 3/79	17 54 31	60	7	57	6	**** 0 OF 30



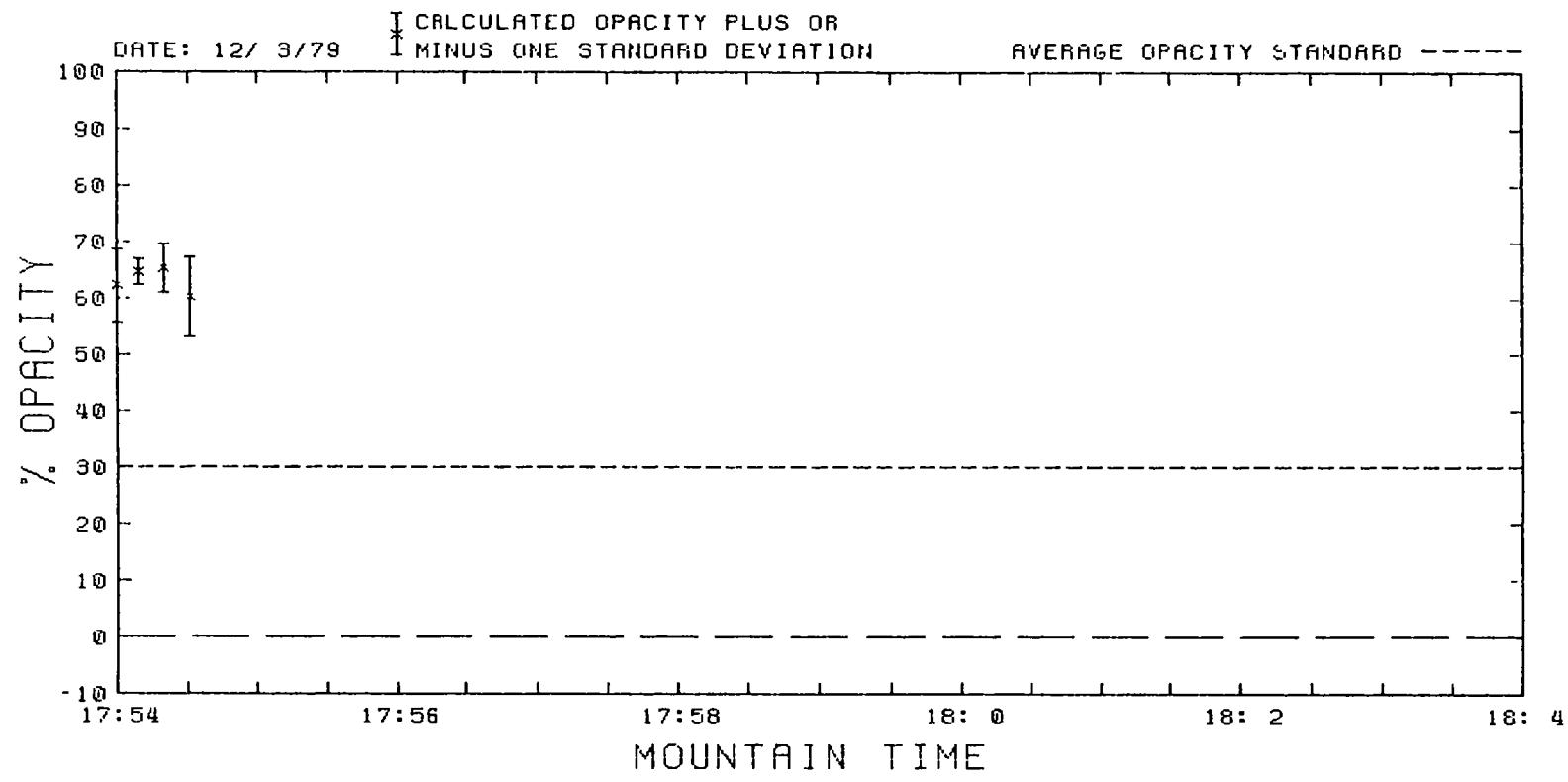
COPPER STACK, ASARCO SMELTER, EL PASO TEXAS



COPPER STACK, ASARCO SMELTER, EL PASO TEXAS



COPPER STACK, ASARCO SMELTER, EL PASO TEXAS



COPPER STACK, ASARCO SMELTER, EL PASO TEXAS

COPPER STACK

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0023, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES

DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
------	------	---------	--------------	-----------------	----------------------	------------------

12/ 3/79	18 7 0	39	5		0	0 OF 0
12/ 3/79	18 7 10	23	4		0	0 OF 0
12/ 3/79	18 7 20	31	4		0	0 OF 0
12/ 3/79	18 7 30	40	4		0	0 OF 0
12/ 3/79	18 7 40	32	4		0	0 OF 0
12/ 3/79	18 7 51	38	4		0	0 OF 0
12/ 3/79	18 8 1	37	4		0	0 OF 0
12/ 3/79	18 8 10	27	4		0	0 OF 0
12/ 3/79	18 8 20	34	4		0	0 OF 0
12/ 3/79	18 8 30	41	3		0	0 OF 0
12/ 3/79	18 8 41	49	4		0	0 OF 0
12/ 3/79	18 8 50	34	4		0	0 OF 0
12/ 3/79	18 9 0	30	4		0	0 OF 0
12/ 3/79	18 9 10	37	5		0	0 OF 0
12/ 3/79	18 9 20	32	4		0	0 OF 0
12/ 3/79	18 9 31	44	3		0	0 OF 0
12/ 3/79	18 9 40	40	4		0	0 OF 0
12/ 3/79	18 9 50	42	4		0	0 OF 0
12/ 3/79	18 10 0	65	5		0	0 OF 0
12/ 3/79	18 10 10	70	2		0	0 OF 0
12/ 3/79	18 10 20	74	3		0	0 OF 0
12/ 3/79	18 10 30	70	2		0	0 OF 0
12/ 3/79	18 10 40	80	3		0	0 OF 0
12/ 3/79	18 10 50	77	3		0	0 OF 0
12/ 3/79	18 11 0	73	3		0	0 OF 0
12/ 3/79	18 11 10	79	5		0	0 OF 0
12/ 3/79	18 11 20	68	3		0	0 OF 0
12/ 3/79	18 11 30	75	2		0	0 OF 0
12/ 3/79	18 11 40	73	2		0	0 OF 0
12/ 3/79	18 11 50	74	2	51	4	**** 0 OF 30
12/ 3/79	18 12 0	76	1	52	4	**** 0 OF 31
12/ 3/79	18 12 14	72	2	54	3	**** 0 OF 30
12/ 3/79	18 12 30	74	2	55	3	**** 0 OF 30
12/ 3/79	18 12 42	69	2	57	3	**** 0 OF 29
12/ 3/79	18 12 51	68	2	57	3	**** 0 OF 30
12/ 3/79	18 13 0	71	3	58	3	**** 0 OF 30
12/ 3/79	18 13 10	70	4	60	3	**** 0 OF 30
12/ 3/79	18 13 20	67	3	61	3	**** 0 OF 30
12/ 3/79	18 13 30	64	5	62	3	**** 0 OF 30
12/ 3/79	18 13 40	60	5	62	3	**** 0 OF 30
12/ 3/79	18 13 50	69	4	63	3	**** 0 OF 30
12/ 3/79	18 14 0	76	3	65	3	**** 0 OF 30
12/ 3/79	18 14 10	80	3	66	3	**** 0 OF 30
12/ 3/79	18 14 21	76	3	69	3	**** 0 OF 29
12/ 3/79	18 14 30	78	2	69	3	**** 0 OF 30
12/ 3/79	18 14 40	75	2	70	3	**** 0 OF 30
12/ 3/79	18 14 50	77	3	71	3	**** 0 OF 30
12/ 3/79	18 15 0	77	2	73	3	**** 0 OF 30
12/ 3/79	18 15 10	78	2	73	3	**** 0 OF 30
12/ 3/79	18 15 20	79	2	73	3	**** 0 OF 30

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0023, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES									
DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION				NUMBER DISCARDED
12/ 3/79	18 15 30	80	2	74	3	****	0	OF	30
12/ 3/79	18 15 40	79	2	74	3	****	0	OF	30
12/ 3/79	18 15 50	80	2	74	3	****	0	OF	30
12/ 3/79	18 16 0	80	2	74	3	****	0	OF	30
12/ 3/79	18 16 11	78	2	74	3	****	0	OF	29
12/ 3/79	18 16 20	81	4	74	3	****	0	OF	30
12/ 3/79	18 16 31	77	3	74	3	****	0	OF	29
12/ 3/79	18 16 40	77	4	74	3	****	0	OF	30
12/ 3/79	18 16 50	80	1	75	3	****	0	OF	30
12/ 3/79	18 17 0	79	2	75	3	****	0	OF	30
12/ 3/79	18 17 10	80	3	75	3	****	0	OF	30
12/ 3/79	18 17 20	83	3	75	3	****	0	OF	30
12/ 3/79	18 17 30	83	2	76	3	****	0	OF	31
12/ 3/79	18 17 40	82	2	76	3	****	0	OF	31
12/ 3/79	18 17 50	86	2	76	3	****	0	OF	31
12/ 3/79	18 18 0	80	2	77	3	****	0	OF	31
12/ 3/79	18 18 10	76	2	77	3	****	0	OF	31
12/ 3/79	18 18 20	79	3	77	3	****	0	OF	31
12/ 3/79	18 18 30	78	2	78	3	****	0	OF	31
12/ 3/79	18 18 40	80	2	78	3	****	0	OF	31
12/ 3/79	18 18 50	84	3	79	2	****	0	OF	31
12/ 3/79	18 19 0	78	2	79	2	****	0	OF	31
12/ 3/79	18 19 10	81	2	79	2	****	0	OF	31
12/ 3/79	18 19 20	78	2	79	2	****	0	OF	31
12/ 3/79	18 19 30	77	1	79	2	****	0	OF	31
12/ 3/79	18 19 40	78	2	79	2	****	0	OF	31
12/ 3/79	18 19 50	79	2	79	2	****	0	OF	31
12/ 3/79	18 20 0	81	2	80	2	****	0	OF	31
12/ 3/79	18 20 20	81	5	80	2	****	0	OF	30
12/ 3/79	18 20 31	86	3	80	2	****	0	OF	29
12/ 3/79	18 20 40	78	2	80	2	****	0	OF	30
12/ 3/79	18 20 50	82	2	80	2	****	0	OF	30
12/ 3/79	18 21 1	81	2	80	2	****	0	OF	29
12/ 3/79	18 21 10	73	2	80	2	****	0	OF	30
12/ 3/79	18 21 20	75	3	80	2	****	0	OF	30
12/ 3/79	18 21 30	75	4	80	2	****	0	OF	30
12/ 3/79	18 21 39	77	3	80	2	****	0	OF	30
12/ 3/79	18 21 50	77	3	79	2	****	0	OF	30
12/ 3/79	18 22 0	77	1	79	2	****	0	OF	30
12/ 3/79	18 22 10	77	1	79	2	****	0	OF	30
12/ 3/79	18 22 20	81	4	79	2	****	0	OF	30
12/ 3/79	18 22 30	83	1	79	2	****	0	OF	30
12/ 3/79	18 22 40	78	3	79	2	****	0	OF	30
12/ 3/79	18 22 50	79	2	79	2	****	0	OF	30
12/ 3/79	18 23 0	80	3	79	2	****	0	OF	30
12/ 3/79	18 23 10	78	3	79	2	****	0	OF	30
12/ 3/79	18 23 20	80	2	79	2	****	0	OF	30
12/ 3/79	18 23 30	73	3	79	2	****	0	OF	30
12/ 3/79	18 23 40	76	3	79	2	****	0	OF	30
12/ 3/79	18 23 50	78	1	79	2	****	0	OF	30

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

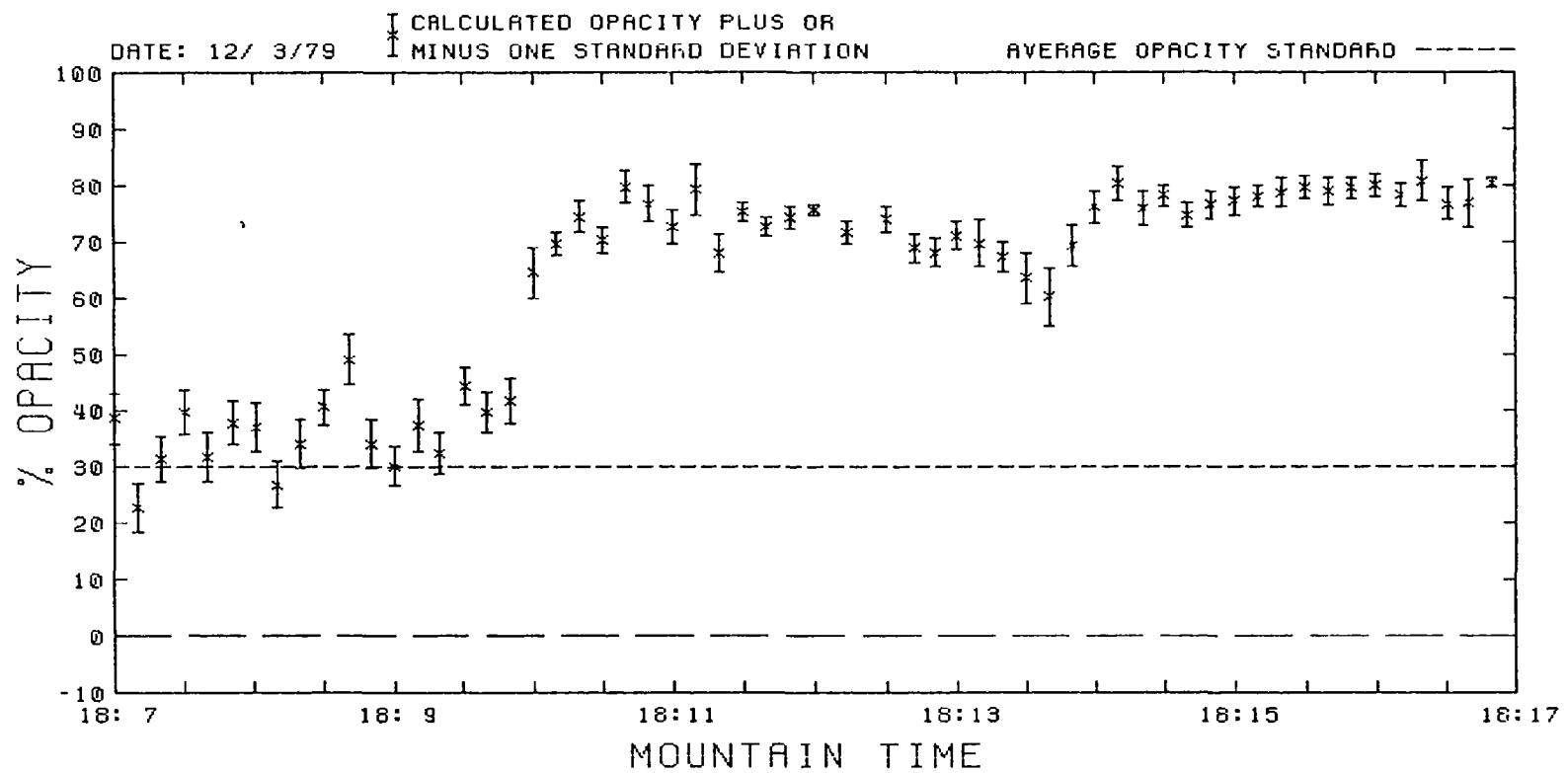
OMEGA-0023, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES

DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
12/ 3/79	18 24 0	80	2	78	2	**** 0 OF 30
12/ 3/79	18 24 10	78	2	78	2	**** 0 OF 30
12/ 3/79	18 24 30	78	1	78	2	**** 0 OF 29
12/ 3/79	18 24 40	77	1	78	2	**** 0 OF 29
12/ 3/79	18 24 50	76	3	78	2	**** 0 OF 29
12/ 3/79	18 25 0	80	3	78	2	**** 0 OF 29
12/ 3/79	18 25 10	78	3	78	2	**** 0 OF 29
12/ 3/79	18 25 20	81	2	78	2	**** 0 OF 30
12/ 3/79	18 25 30	78	2	78	2	**** 0 OF 30
12/ 3/79	18 25 40	79	2	78	2	**** 0 OF 30
12/ 3/79	18 25 50	78	2	78	2	**** 0 OF 30
12/ 3/79	18 26 0	78	1	78	2	**** 0 OF 30
12/ 3/79	18 26 10	79	2	78	2	**** 0 OF 30
12/ 3/79	18 26 20	76	2	78	2	**** 0 OF 30
12/ 3/79	18 26 30	75	3	78	2	**** 0 OF 30
12/ 3/79	18 26 40	75	5	78	2	**** 0 OF 29
12/ 3/79	18 26 50	77	2	78	2	**** 0 OF 30
12/ 3/79	18 27 0	81	3	78	2	**** 0 OF 30
12/ 3/79	18 27 10	79	2	78	2	**** 0 OF 30
12/ 3/79	18 27 20	78	2	78	2	**** 0 OF 30
12/ 3/79	18 27 30	81	3	78	2	**** 0 OF 30
12/ 3/79	18 27 40	80	2	78	2	**** 0 OF 30
12/ 3/79	18 27 50	79	3	78	2	**** 0 OF 30
12/ 3/79	18 28 0	79	2	78	2	**** 0 OF 30
12/ 3/79	18 28 10	79	1	78	2	**** 0 OF 30
12/ 3/79	18 28 21	78	3	78	2	**** 0 OF 29
12/ 3/79	18 28 30	79	2	78	2	**** 0 OF 30
12/ 3/79	18 28 40	78	2	78	2	**** 0 OF 30
12/ 3/79	18 28 50	79	5	78	2	**** 0 OF 30
12/ 3/79	18 28 59	80	2	78	2	**** 0 OF 30
12/ 3/79	18 29 10	80	2	78	2	**** 0 OF 30
12/ 3/79	18 29 20	80	2	79	2	**** 0 OF 30
12/ 3/79	18 29 30	79	3	79	2	**** 0 OF 31
12/ 3/79	18 29 41	80	4	79	3	**** 0 OF 30
12/ 3/79	18 29 50	80	1	79	2	**** 0 OF 31
12/ 3/79	18 30 0	81	0	79	2	**** 0 OF 31
12/ 3/79	18 30 10	81	4	79	3	**** 0 OF 31
12/ 3/79	18 30 20	82	2	79	3	**** 0 OF 31
12/ 3/79	18 30 30	82	2	79	3	**** 0 OF 31
12/ 3/79	18 30 40	81	2	80	3	**** 0 OF 31
12/ 3/79	18 30 50	80	4	80	3	**** 0 OF 31
12/ 3/79	18 31 0	79	2	80	3	**** 0 OF 31
12/ 3/79	18 31 10	80	2	79	3	**** 0 OF 31
12/ 3/79	18 31 20	81	1	79	3	**** 0 OF 31
12/ 3/79	18 31 30	81	2	79	3	**** 0 OF 31
12/ 3/79	18 31 40	81	1	80	3	**** 0 OF 31
12/ 3/79	18 31 50	81	1	80	3	**** 0 OF 31
12/ 3/79	18 32 0	80	1	80	2	**** 0 OF 31
12/ 3/79	18 32 10	81	3	80	3	**** 0 OF 31
12/ 3/79	18 32 20	82	4	80	3	**** 0 OF 31

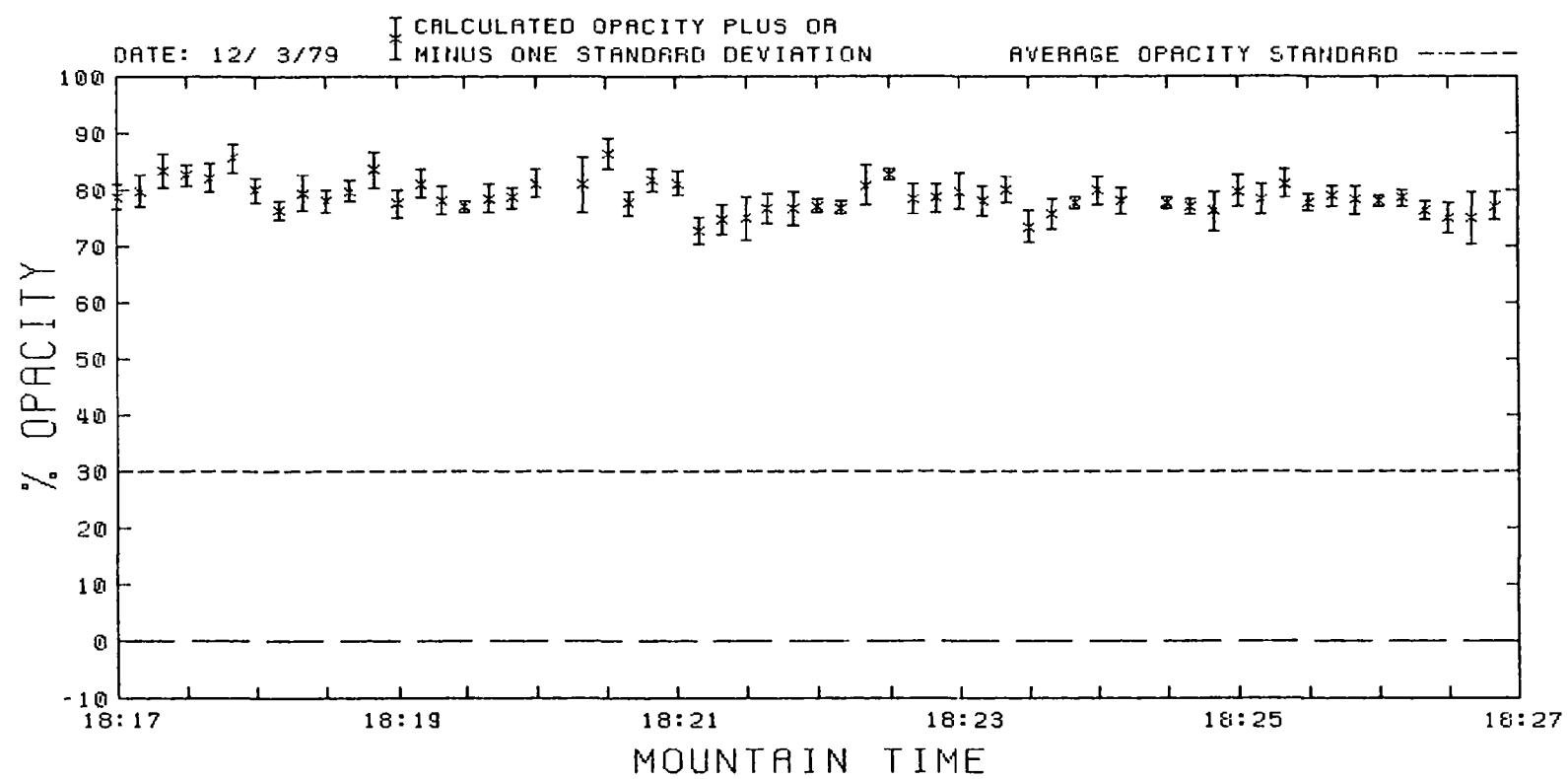
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0023, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES

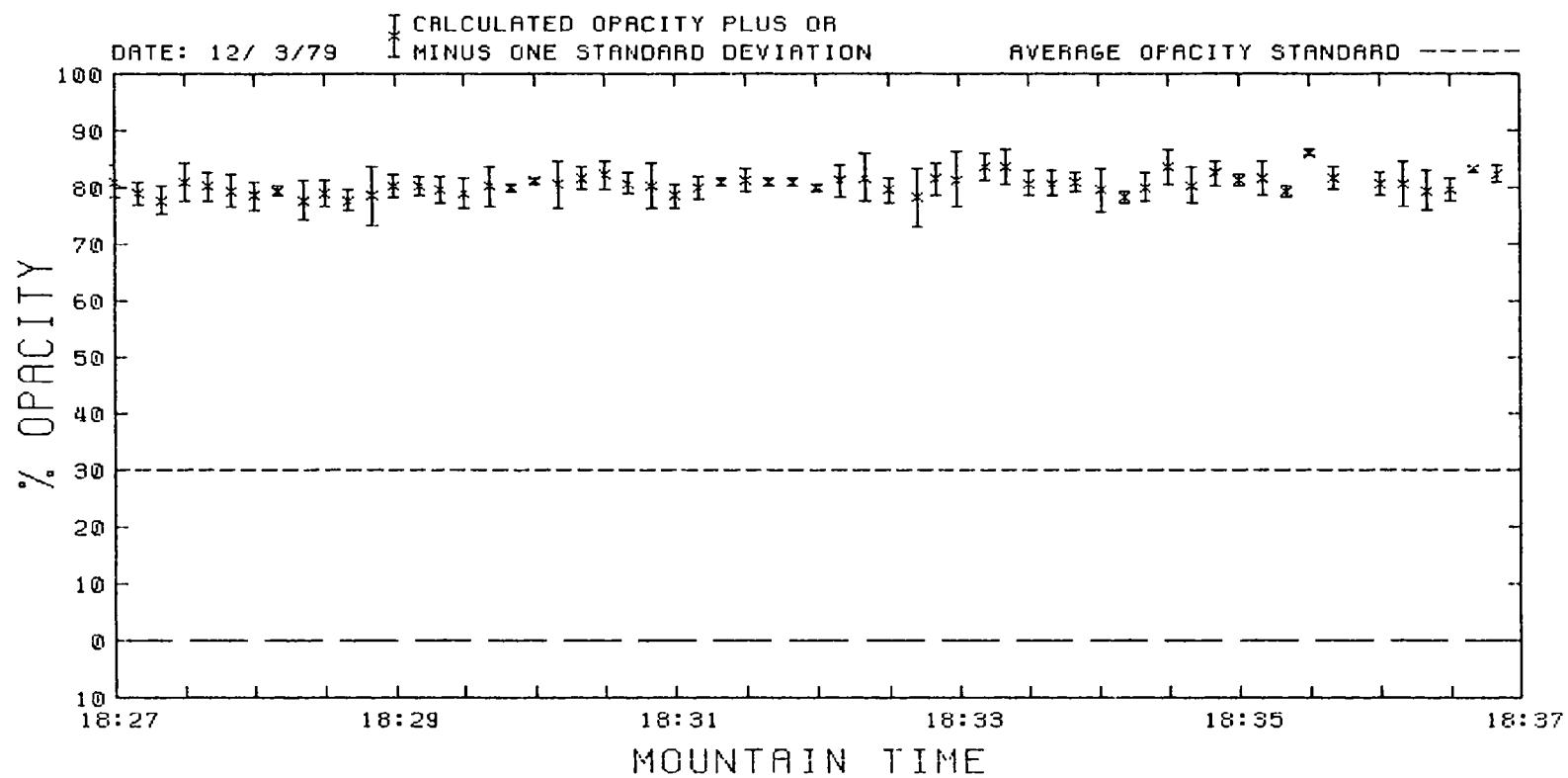
DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
12/ 3/79	18 32 30	80	2	80	3	**** 0 OF 31
12/ 3/79	18 32 42	78	5	80	3	**** 0 OF 30
12/ 3/79	18 32 50	82	3	80	3	**** 0 OF 31
12/ 3/79	18 32 59	81	5	80	3	**** 0 OF 31
12/ 3/79	18 33 11	84	2	80	3	**** 0 OF 30
12/ 3/79	18 33 20	84	3	80	3	**** 0 OF 31
12/ 3/79	18 33 30	81	2	80	3	**** 0 OF 31
12/ 3/79	18 33 40	81	2	81	3	**** 0 OF 31
12/ 3/79	18 33 50	81	2	81	3	**** 0 OF 31
12/ 3/79	18 34  1	80	4	81	3	**** 0 OF 30
12/ 3/79	18 34 11	78	1	81	2	**** 0 OF 30
12/ 3/79	18 34 20	80	2	81	2	**** 0 OF 31
12/ 3/79	18 34 30	84	3	81	3	**** 0 OF 31
12/ 3/79	18 34 40	80	3	81	3	**** 0 OF 31
12/ 3/79	18 34 50	83	2	81	2	**** 0 OF 31
12/ 3/79	18 35  0	81	1	81	2	**** 0 OF 31
12/ 3/79	18 35 10	82	3	81	2	**** 0 OF 31
12/ 3/79	18 35 20	79	1	81	2	**** 0 OF 31
12/ 3/79	18 35 30	86	1	81	2	**** 0 OF 31
12/ 3/79	18 35 40	82	2	81	2	**** 0 OF 31
12/ 3/79	18 36  0	81	2	81	2	**** 0 OF 30
12/ 3/79	18 36 10	81	4	81	2	**** 0 OF 30
12/ 3/79	18 36 20	79	4	81	2	**** 0 OF 30
12/ 3/79	18 36 30	80	2	81	2	**** 0 OF 30
12/ 3/79	18 36 40	83	1	81	2	**** 0 OF 30
12/ 3/79	18 36 50	82	2	81	2	**** 0 OF 30
12/ 3/79	18 37  0	84	0	81	2	**** 0 OF 30
12/ 3/79	18 37 10	87	0	82	2	**** 0 OF 30
12/ 3/79	18 37 20	86	1	82	2	**** 0 OF 30



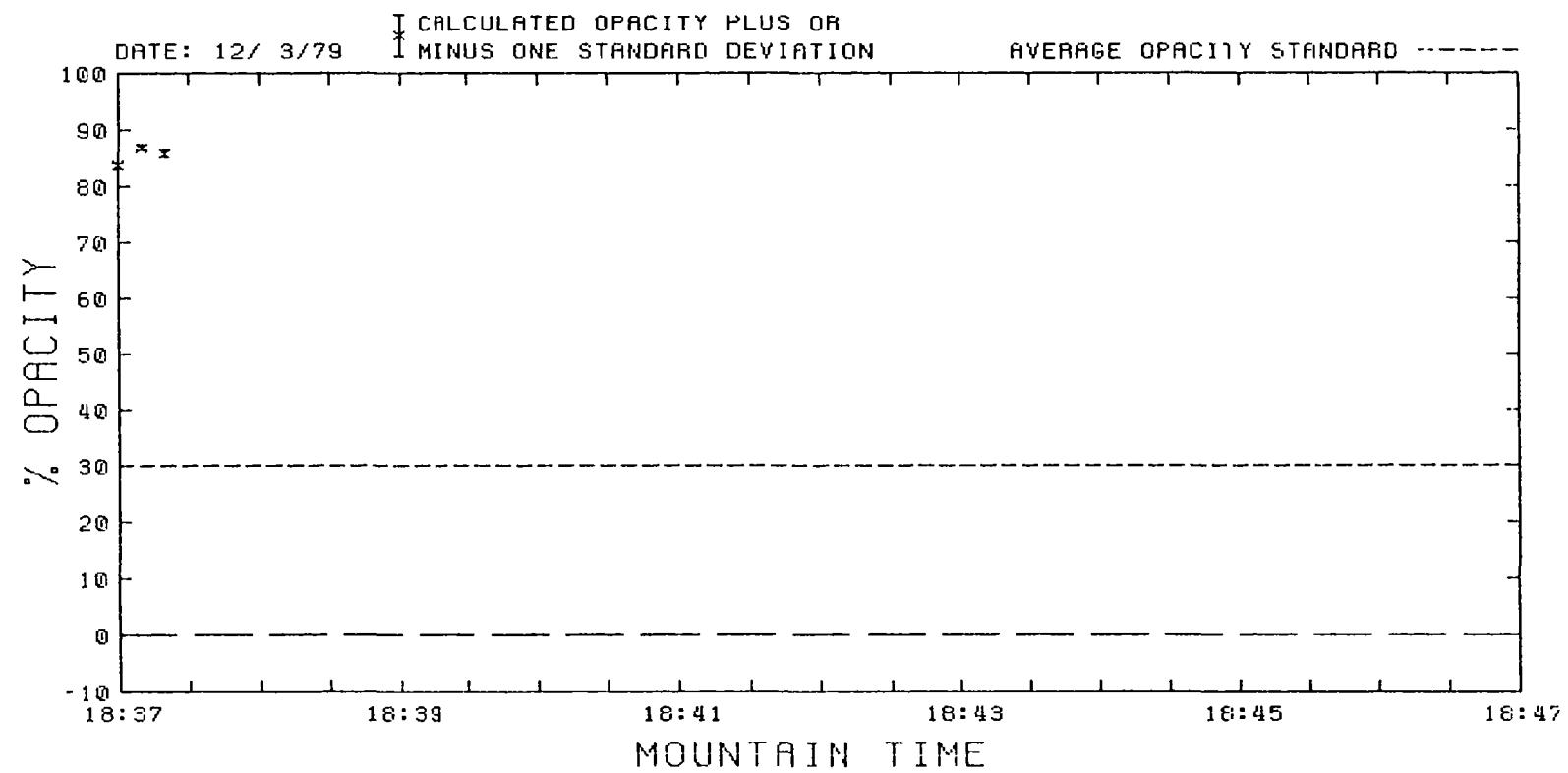
COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS



COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS



COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS



COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS

COPPER STACK

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0023, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES  
 DATE TIME OPACITY SO VIOLATION AVERAGE OPACITY AVERAGE SO VIOLATION NUMBER DISCARDED

12/ 3/79	18 44 0	81	2		0	0		0 OF 0
12/ 3/79	18 44:10	76	2		0	0		0 OF 0
12/ 3/79	18 44 20	76	2		0	0		0 OF 0
12/ 3/79	18 44 30	79	2		0	0		0 OF 0
12/ 3/79	18 44:40	78	1		0	0		0 OF 0
12/ 3/79	18 44 50	79	3		0	0		0 OF 0
12/ 3/79	18 45 5	82	3		0	0		0 OF 0
12/ 3/79	18 45 11	76	2		0	0		0 OF 0
12/ 3/79	18 45 20	79	1		0	0		0 OF 0
12/ 3/79	18 45 30	78	2		0	0		0 OF 0
12/ 3/79	18 45:40	76	2		0	0		0 OF 0
12/ 3/79	18 45 50	79	2		0	0		0 OF 0
12/ 3/79	18 46 0	70	3		0	0		0 OF 0
12/ 3/79	18 46 10	73	2		0	0		0 OF 0
12/ 3/79	18 46 20	71	3		0	0		0 OF 0
12/ 3/79	18 46 31	77	3		0	0		0 OF 0
12/ 3/79	18 46 46	76	3		0	0		0 OF 0
12/ 3/79	18 46 52	82	2		0	0		0 OF 0
12/ 3/79	18 47 0	78	2		0	0		0 OF 0
12/ 3/79	18 47:10	79	2		0	0		0 OF 0
12/ 3/79	18 47 20	78	1		0	0		0 OF 0
12/ 3/79	18 47 31	79	1		0	0		0 OF 0
12/ 3/79	18 47 41	73	2		0	0		0 OF 0
12/ 3/79	18 47 51	75	3		0	0		0 OF 0
12/ 3/79	18 48 0	74	1		0	0		0 OF 0
12/ 3/79	18 48 11	67	4		0	0		0 OF 0
12/ 3/79	18 48 20	70	1		0	0		0 OF 0
12/ 3/79	18 48 31	65	3		0	0		0 OF 0
12/ 3/79	18 48 41	67	2		0	0		0 OF 0
12/ 3/79	18 48 51	66	3		75	2	****	0 OF 30
12/ 3/79	18 49 0	69	1		75	2	****	0 OF 31
12/ 3/79	18 49:10	69	2		75	2	****	0 OF 31
12/ 3/79	18 49 20	70	2		75	2	****	0 OF 31
12/ 3/79	18 49 30	70	2		74	2	****	0 OF 31
12/ 3/79	18 49 40	74	2		74	2	****	0 OF 31
12/ 3/79	18 49 51	66	3		0	0		0 OF 0
12/ 3/79	18 50 0	69	4		73	2	****	0 OF 31
12/ 3/79	18 50:10	66	3		73	2	****	0 OF 31
12/ 3/79	18 50:20	65	3		73	2	****	0 OF 31
12/ 3/79	18 50 30	65	4		72	2	****	0 OF 31
12/ 3/79	18 50:40	65	3		72	2	****	0 OF 31
12/ 3/79	18 50:51	70	3		71	2	****	0 OF 30
12/ 3/79	18 51 1	75	3		71	2	****	0 OF 30
12/ 3/79	18 51:10	77	2		72	2	****	0 OF 31
12/ 3/79	18 51 20	71	1		72	2	****	0 OF 31
12/ 3/79	18 51 30	71	3		72	2	****	0 OF 31
12/ 3/79	18 51 40	69	3		71	2	****	0 OF 31
12/ 3/79	18 51 50	76	3		71	2	****	0 OF 31
12/ 3/79	18 52 0	74	3		71	2	****	0 OF 31
12/ 3/79	18 52 10	63	2		71	2	****	0 OF 31

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0023, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES						
DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
12/ 3/79	18 52 21	67	2	70	2	**** 0 OF 30
12/ 3/79	18 52.30	66	4	70	2	**** 0 OF 31
12/ 3/79	18 52 40	69	2	70	2	**** 0 OF 31
12/ 3/79	18 52 50	68	3	69	3	**** 0 OF 31
12/ 3/79	18 53 0	63	2	69	2	**** 0 OF 31
12/ 3/79	18 53 10	62	2	69	3	**** 0 OF 31
12/ 3/79	18 53 20	66	3	69	2	**** 0 OF 31
12/ 3/79	18 53 30	66	3	68	3	**** 0 OF 31
12/ 3/79	18 53:40	65	2	68	3	**** 0 OF 31
12/ 3/79	18 53 50	64	3	68	3	**** 0 OF 31
12/ 3/79	18 54 0	63	2	68	3	**** 0 OF 31
12/ 3/79	18 54:10	67	3	68	3	**** 0 OF 31
12/ 3/79	18 54 21	60	4	68	3	**** 0 OF 30
12/ 3/79	18 54:30	72	3	68	3	**** 0 OF 31
12/ 3/79	18 54:40	72	3	68	3	**** 0 OF 31
12/ 3/79	18 54 50	68	3	68	3	**** 0 OF 31
12/ 3/79	18 55 0	72	4	68	3	**** 0 OF 31
12/ 3/79	18 55 10	70	2	68	3	**** 0 OF 31
12/ 3/79	18 55 20	66	5	68	3	**** 0 OF 31
12/ 3/79	18 55 30	70	2	68	3	**** 0 OF 31
12/ 3/79	18 55 40	75	3	69	3	**** 0 OF 31
12/ 3/79	18 55 50	70	2	69	3	**** 0 OF 31
12/ 3/79	18 56 0	69	3	69	3	**** 0 OF 31
12/ 3/79	18 56 10	70	2	69	3	**** 0 OF 31
12/ 3/79	18 56 20	66	2	68	3	**** 0 OF 31
12/ 3/79	18 56 30	60	3	68	3	**** 0 OF 31
12/ 3/79	18 56 40	64	2	68	3	**** 0 OF 31
12/ 3/79	18 56 50	66	3	67	3	**** 0 OF 31
12/ 3/79	18 57 0	65	4	67	3	**** 0 OF 31
12/ 3/79	18 57: 8	63	3	67	3	**** 0 OF 31
12/ 3/79	18 57 20	61	3	67	3	**** 0 OF 31
12/ 3/79	18 57 30	59	3	66	3	**** 0 OF 31
12/ 3/79	18 57:40	60	4	66	3	**** 0 OF 31
12/ 3/79	18 57 50	63	4	66	3	**** 0 OF 31
12/ 3/79	18 58: 0	61	3	66	3	**** 0 OF 31
12/ 3/79	18 58:10	59	5	66	3	**** 0 OF 31
12/ 3/79	18. 58:20	72	2	66	3	**** 0 OF 31
12/ 3/79	18 58 30	70	3	66	3	**** 0 OF 31
12/ 3/79	18 58:40	61	4	66	3	**** 0 OF 31
12/ 3/79	18 58 50	65	3	66	3	**** 0 OF 31
12/ 3/79	18 59 0	68	3	66	3	**** 0 OF 31
12/ 3/79	18 59 10	67	4	66	3	**** 0 OF 31
12/ 3/79	18 59 20	64	3	66	3	**** 0 OF 31
12/ 3/79	18 59 29	67	3	66	3	**** 0 OF 31
12/ 3/79	18 59:41	69	2	66	3	**** 0 OF 30
12/ 3/79	18 59:51	73	2	66	3	**** 0 OF 30
12/ 3/79	19 0 0	77	3	67	3	**** 0 OF 31
12/ 3/79	19 0 10	76	3	67	3	**** 0 OF 31
12/ 3/79	19 0 20	79	2	67	3	**** 0 OF 31
12/ 3/79	19 0 30	82	1	67	3	**** 0 OF 31

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0023, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO						FIVE MINUTE AVERAGES		
DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER	DISCARDED	
12/ 3/79	19 0 40	80	3	68	3	****	0 OF 31	
12/ 3/79	19 0 50	80	5	68	3	****	0 OF 31	
12/ 3/79	19 1 0	76	2	68	3	****	0 OF 31	
12/ 3/79	19 1 10	81	2	68	3	****	0 OF 31	
12/ 3/79	19 1 20	80	3	69	3	****	0 OF 31	
12/ 3/79	19 1 30	81	3	69	3	****	0 OF 31	
12/ 3/79	19 1 40	76	3	70	3	****	0 OF 31	
12/ 3/79	19 1 50	77	1	70	3	****	0 OF 31	
12/ 3/79	19 2 0	77	2	70	3	****	0 OF 31	
12/ 3/79	19 2 10	78	2	71	3	****	0 OF 31	
12/ 3/79	19 2 20	82	3	71	3	****	0 OF 32	
12/ 3/79	19 2 30	80	1	72	3	****	0 OF 32	
12/ 3/79	19 3 41	76	1	75	3	****	0 OF 24	
12/ 3/79	19 3:51	83	1	76	3	****	0 OF 24	
12/ 3/79	19 4 0	83	1	76	2	****	0 OF 25	
12/ 3/79	19 4 10	79	1	77	2	****	0 OF 25	
12/ 3/79	19 4 20	83	3	77	2	****	0 OF 25	
12/ 3/79	19 4 30	81	2	79	2	****	0 OF 24	
12/ 3/79	19 4 41	81	3	79	2	****	0 OF 25	
12/ 3/79	19 4 51	81	4	79	2	****	0 OF 25	
12/ 3/79	19 5 0	77	2	79	2	****	0 OF 25	
12/ 3/79	19 5 11	82	1	80	2	****	0 OF 24	
12/ 3/79	19 5 20	81	5	80	2	****	0 OF 25	
12/ 3/79	19 5:30	72	3	79	2	****	0 OF 25	
12/ 3/79	19 5 40	81	3	79	2	****	0 OF 25	
12/ 3/79	19 5 51	83	1	80	2	****	0 OF 24	
12/ 3/79	19 6 1	80	1	80	2	****	0 OF 24	
12/ 3/79	19 6 21	75	2	79	2	****	0 OF 23	
12/ 3/79	19 6 31	77	3	79	2	****	0 OF 23	
12/ 3/79	19 6 40	81	3	79	2	****	0 OF 24	
12/ 3/79	19 6 50	73	4	79	2	****	0 OF 24	
12/ 3/79	19 7 1	80	1	79	2	****	0 OF 23	
12/ 3/79	19 7:11	82	1	80	2	****	0 OF 23	
12/ 3/79	19 7 21	76	4	79	2	****	0 OF 23	
12/ 3/79	19 7 30	75	2	79	2	****	0 OF 24	
12/ 3/79	19 7 40	79	1	0	0	0	0 OF 0	
12/ 3/79	19 7 50	83	1	0	0	0	0 OF 0	
12/ 3/79	19 8 0	83	1	0	0	0	0 OF 0	
12/ 3/79	19 8 11	75	1	0	0	0	0 OF 0	
12/ 3/79	19 8 20	82	3	0	0	0	0 OF 0	
12/ 3/79	19 8 30	77	3	79	2	****	0 OF 29	
12/ 3/79	19 8 41	82	1	79	2	****	0 OF 30	
12/ 3/79	19 8 50	79	4	80	2	****	0 OF 30	
12/ 3/79	19 9 0	84	1	80	2	****	0 OF 30	
12/ 3/79	19 9 10	77	2	79	2	****	0 OF 30	
12/ 3/79	19 9 20	84	1	80	2	****	0 OF 30	
12/ 3/79	19 9 30	84	1	80	2	****	0 OF 30	
12/ 3/79	19 9 40	80	1	80	2	****	0 OF 30	
12/ 3/79	19 9 50	79	3	79	2	****	0 OF 30	
12/ 3/79	19 10 1	82	3	80	2	****	0 OF 29	

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0023, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO			FIVE MINUTE AVERAGES		
DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION
12/ 3/79	19 10 10	77	2	79	2
12/ 3/79	19 10 20	85	1	80	0 DF 30
12/ 3/79	19 10 30	85	1	80	0 OF 30
12/ 3/79	19 10 40	84	1	80	0 OF 30
12/ 3/79	19 10 51	79	1	80	0 OF 30
12/ 3/79	19 10 59	83	3	80	0 OF 30
12/ 3/79	19 11 10	77	4	80	0 OF 30
12/ 3/79	19 11 20	77	2	80	0 OF 30
12/ 3/79	19 11 30	71	2	80	0 OF 30
12/ 3/79	19 11 40	74	3	80	0 OF 30
12/ 3/79	19 11 50	75	3	79	0 OF 31
12/ 3/79	19 12 0	74	3	79	0 OF 31
12/ 3/79	19 12 10	70	3	79	0 OF 31
12/ 3/79	19 12 20	72	3	79	0 OF 31
12/ 3/79	19 12 31	75	1	79	0 OF 31
12/ 3/79	19 12 40	71	2	79	0 OF 31
12/ 3/79	19 12 50	75	2	79	0 OF 31
12/ 3/79	19 13 1	77	1	78	0 OF 30
12/ 3/79	19 13 10	77	3	78	0 OF 31
12/ 3/79	19 13 20	77	3	78	0 OF 31
12/ 3/79	19 13 30	72	3	78	0 OF 31
12/ 3/79	19 13 40	75	4	79	0 OF 31
12/ 3/79	19 13 50	68	2	78	0 OF 30
12/ 3/79	19 14 1	77	3	78	0 OF 31
12/ 3/79	19 14 11	69	3	78	0 OF 31
12/ 3/79	19 14 20	69	4	78	0 OF 31
12/ 3/79	19 14 30	71	4	78	0 OF 30
12/ 3/79	19 14 40	66	2	77	0 OF 31
12/ 3/79	19 15 30	66	3	77	0 OF 30
12/ 3/79	19 15 40	65	5	77	0 OF 31
12/ 3/79	19 15 50	67	7	77	0 OF 30
12/ 3/79	19 15 59	73	2	76	0 OF 31
12/ 3/79	19 16 10	60	3	76	0 OF 31
12/ 3/79	19 16 20	64	2	76	0 OF 31
12/ 3/79	19 16 30	76	1	73	0 OF 31
12/ 3/79	19 16 40	74	1	73	0 OF 31
12/ 3/79	19 16 50	73	1	74	0 OF 31
12/ 3/79	19 16 59	75	1	74	0 OF 31
12/ 3/79	19 17 0	77	1	72	0 OF 31
12/ 3/79	19 17 10	72	1	72	0 OF 31
12/ 3/79	19 17 20	78	1	72	0 OF 31
12/ 3/79	19 17 30	76	1	72	0 OF 31
12/ 3/79	19 17 40	80	1	72	0 OF 31
12/ 3/79	19 17 50	82	4	72	0 OF 31
12/ 3/79	19 17 59	81	3	73	0 OF 31
12/ 3/79	19 18 0	80	4	73	0 OF 31
12/ 3/79	19 18 10	79	1	73	0 OF 31
12/ 3/79	19 18 21	83	3	73	0 OF 31
12/ 3/79	19 17 40	77	3	73	0 OF 31
12/ 3/79	19 17 50	81	4	74	0 OF 31
12/ 3/79	19 17 59	79	1	74	0 OF 31
12/ 3/79	19 18 0	78	2	74	0 OF 31
12/ 3/79	19 18 10	80	3	74	0 OF 30

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0023, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS		FROM 4100 RIO BRAVO		FIVE MINUTE AVERAGES	NUMBER DISCARDED
DATE	TIME	SO VIOLATION	AVERAGE OPACITY	SO VIOLATION	
12/ 3/79	19 18:31	77	1	74	2 **** 0 OF 30
12/ 3/79	19 18 40	81	4	74	2 **** 0 OF 31
12/ 3/79	19 18 50	76	2	74	2 **** 0 OF 31
12/ 3/79	19 19 0	78	2	75	2 **** 0 OF 31
12/ 3/79	19 19 10	83	1	75	2 **** 0 OF 31
12/ 3/79	19 19 20	77	1	75	2 **** 0 OF 31
12/ 3/79	19 19 30	80	4	76	2 **** 0 OF 31
12/ 3/79	19 19 40	74	1	76	2 **** 0 OF 31
12/ 3/79	19 19 50	77	1	76	2 **** 0 OF 31
12/ 3/79	19 20 0	76	2	76	2 **** 0 OF 31
12/ 3/79	19 20:10	78	1	77	2 **** 0 OF 31
12/ 3/79	19 20 20	80	1	77	2 **** 0 OF 31
12/ 3/79	19 20 30	82	3	78	2 **** 0 OF 31
12/ 3/79	19 20 40	78	1	78	2 **** 0 OF 31
12/ 3/79	19 20 50	78	1	78	2 **** 0 OF 31
12/ 3/79	19 21 0	78	1	78	2 **** 0 OF 31
12/ 3/79	19 21 10	81	1	79	2 **** 0 OF 31
12/ 3/79	19 21 20	75	2	79	2 **** 0 OF 31
12/ 3/79	19 21 30	74	1	78	2 **** 0 OF 31
12/ 3/79	19 21 40	84	1	79	2 **** 0 OF 31
12/ 3/79	19 21 50	73	1	78	2 **** 0 OF 31
12/ 3/79	19 22 0	77	1	79	2 **** 0 OF 31
12/ 3/79	19 22 10	83	1	79	2 **** 0 OF 31
12/ 3/79	19 22 20	79	6	79	2 **** 0 OF 31
12/ 3/79	19 22 30	82	1	79	2 **** 0 OF 31
12/ 3/79	19 22 40	83	1	79	2 **** 0 OF 31
12/ 3/79	19 22 50	85	1	79	2 **** 0 OF 31
12/ 3/79	19 23 0	84	3	79	2 **** 0 OF 31
12/ 3/79	19 23 10	78	1	79	2 **** 0 OF 31
12/ 3/79	19 23 20	79	1	79	2 **** 0 OF 31
12/ 3/79	19 23 30	79	1	79	2 **** 0 OF 31
12/ 3/79	19 24 0	78	1	79	2 **** 0 OF 31
12/ 3/79	19 24 10	78	1	79	2 **** 0 OF 31
12/ 3/79	19 24 20	80	3	79	2 **** 0 OF 31
12/ 3/79	19 24 30	83	3	79	2 **** 0 OF 31
12/ 3/79	19 25 0	82	1	79	2 **** 0 OF 31
12/ 3/79	19 25 10	80	4	79	2 **** 0 OF 31
12/ 3/79	19 25 20	81	3	79	2 **** 0 OF 31
12/ 3/79	19 25 30	77	1	79	2 **** 0 OF 31
12/ 3/79	19 25 40	83	1	79	2 **** 0 OF 31
12/ 3/79	19 25 51	85	1	79	2 **** 0 OF 31
12/ 3/79	19 26 0	74	2	80	0 OF 31
12/ 3/79	19 26 10	76	1	80	0 OF 31
12/ 3/79	19 26 20	77	1	80	0 OF 31
12/ 3/79	19 26 30	83	1	80	0 OF 31
12/ 3/79	19 26 40	83	0	80	0 OF 31

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0023, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES						
DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
12/ 3/79	19 26 51	77	2	80	2	**** 0 OF 30
12/ 3/79	19 27 0	78	1	80	2	**** 0 OF 31
12/ 3/79	19 27 10	76	1	80	2	**** 0 OF 31
12/ 3/79	19 27 20	76	1	80	2	**** 0 OF 31
12/ 3/79	19 27 30	74	1	80	2	**** 0 OF 31
12/ 3/79	19 27 40	78	3	80	2	**** 0 OF 31
12/ 3/79	19 27.50	79	4	80	2	**** 0 OF 31
12/ 3/79	19 28 0	81	3	80	2	**** 0 OF 31
12/ 3/79	19 28 10	80	1	79	2	**** 0 OF 31
12/ 3/79	19 28 21	81	1	80	2	**** 0 OF 30
12/ 3/79	19 28 31	77	2	79	2	**** 0 OF 30
12/ 3/79	19 28 40	78	1	79	2	**** 0 OF 31
12/ 3/79	19 28.50	78	1	79	2	**** 0 OF 31
12/ 3/79	19 29 0	77	1	79	2	**** 0 OF 31
12/ 3/79	19 29 10	80	3	79	2	**** 0 OF 31
12/ 3/79	19 29 20	78	1	79	2	**** 0 OF 31
12/ 3/79	19 29 30	80	4	79	2	**** 0 OF 31
12/ 3/79	19 29 40	72	4	79	2	**** 0 OF 31
12/ 3/79	19 29.50	82	3	79	2	**** 0 OF 31
12/ 3/79	19 30 0	79	1	79	2	**** 0 OF 31
12/ 3/79	19 30 10	76	1	78	2	**** 0 OF 31
12/ 3/79	19 30.20	75	1	78	2	**** 0 OF 31
12/ 3/79	19 30 30	77	2	78	2	**** 0 OF 31
12/ 3/79	19 30 40	75	1	78	2	**** 0 OF 31
12/ 3/79	19 30 50	79	1	78	2	**** 0 OF 31
12/ 3/79	19 31 0	82	4	78	2	**** 0 OF 31
12/ 3/79	19 31 11	78	3	78	2	**** 0 OF 30
12/ 3/79	19 31 20	78	3	78	2	**** 0 OF 31
12/ 3/79	19 31.30	79	1	78	2	**** 0 OF 31
12/ 3/79	19 31 40	80	3	78	2	**** 0 OF 31
12/ 3/79	19 31 50	75	3	78	2	**** 0 OF 31
12/ 3/79	19 32 0	79	3	78	2	**** 0 OF 31
12/ 3/79	19 32:10	82	1	78	2	**** 0 OF 31
12/ 3/79	19 32:20	79	3	78	2	**** 0 OF 31
12/ 3/79	19 32 30	78	3	78	2	**** 0 OF 31
12/ 3/79	19 32 40	78	2	78	2	**** 0 OF 31
12/ 3/79	19 32 50	77	4	78	2	**** 0 OF 31
12/ 3/79	19 33 0	81	1	78	2	**** 0 OF 31
12/ 3/79	19 33:10	79	1	78	2	**** 0 OF 31
12/ 3/79	19 33:21	76	1	78	2	**** 0 OF 31
12/ 3/79	19 33:31	78	4	78	2	**** 0 OF 31
12/ 3/79	19 33:40	79	4	78	2	**** 0 OF 31
12/ 3/79	19 33 50	79	3	78	2	**** 0 OF 31
12/ 3/79	19 34 0	77	3	78	2	**** 0 OF 31
12/ 3/79	19 34 11	78	1	78	2	**** 0 OF 30
12/ 3/79	19 34 20	75	1	78	2	**** 0 OF 31
12/ 3/79	19 34 30	77	1	78	2	**** 0 OF 31
12/ 3/79	19 34 41	76	1	78	2	**** 0 OF 30
12/ 3/79	19 34 50	75	3	78	2	**** 0 OF 31
12/ 3/79	19 35 0	77	1	78	2	**** 0 OF 31

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

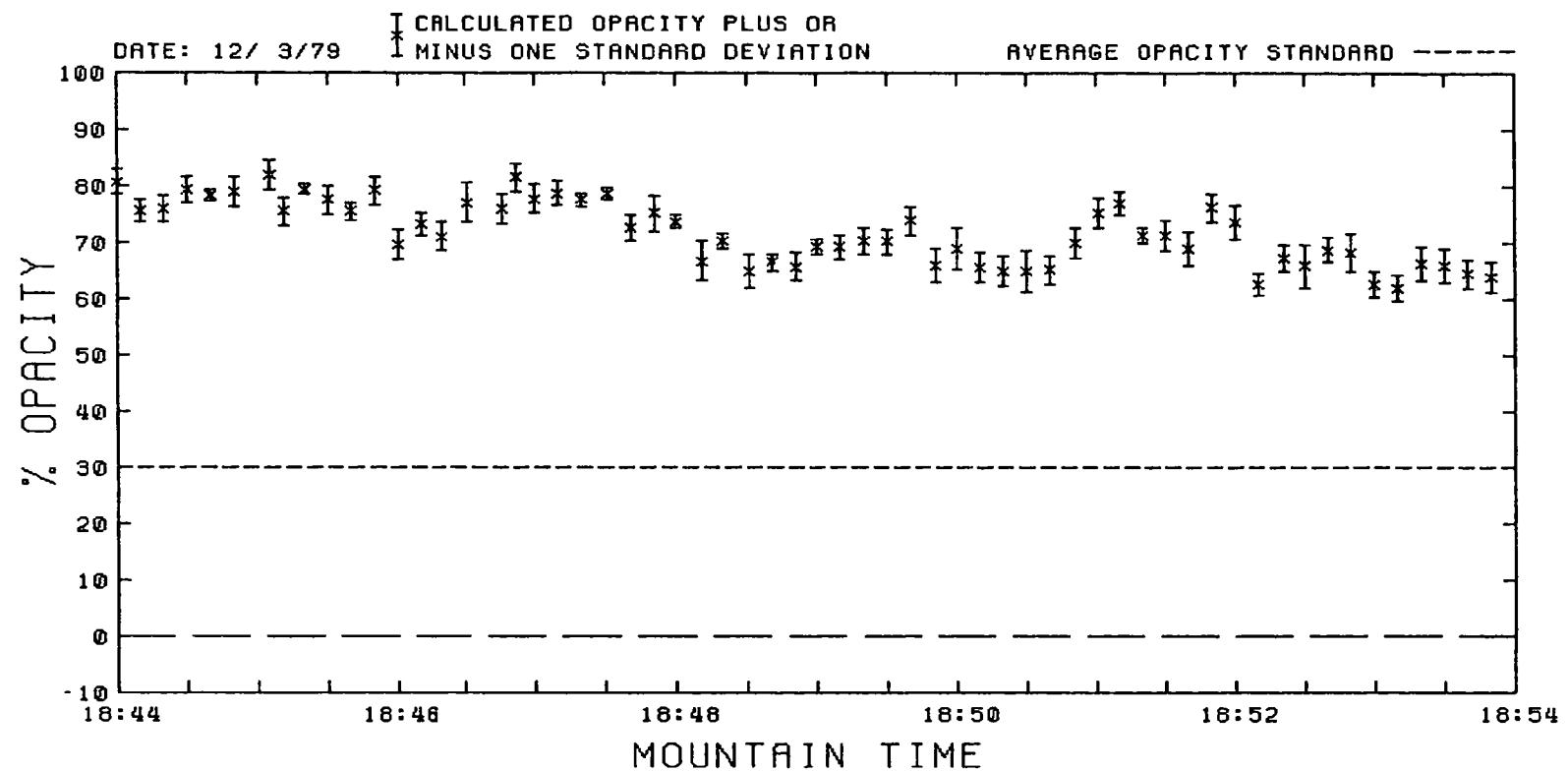
OMEGA-0023, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES  
 DATE TIME OPACITY SO VIOLATION AVERAGE OPACITY AVERAGE SO VIOLATION NUMBER DISCARDED

12/ 3/79	19 35 10	74	1	78	2	****	0 OF	31
12/ 3/79	19 35 20	79	1	78	2	****	0 OF	31
12/ 3/79	19 35 31	80	4	78	2	****	0 OF	30
12/ 3/79	19 35 40	77	2	78	2	****	0 OF	31
12/ 3/79	19 35 50	77	1	78	2	****	0 OF	31
12/ 3/79	19 36 0	84	1	78	2	****	0 OF	31
12/ 3/79	19 36 10	77	2	78	2	****	0 OF	31
12/ 3/79	19 36 20	76	1	78	2	****	0 OF	31
12/ 3/79	19 36 32	82	1	78	2	****	0 OF	30
12/ 3/79	19 36 40	81	1	78	2	****	0 OF	31
12/ 3/79	19 36 50	78	1	78	2	****	0 OF	31
12/ 3/79	19 37 0	80	3	78	2	****	0 OF	31
12/ 3/79	19 37 10	77	1	78	2	****	0 OF	31
12/ 3/79	19 37 21	82	1	78	2	****	0 OF	30
12/ 3/79	19 37 31	83	1	78	2	****	0 OF	30
12/ 3/79	19 37 40	81	4	78	2	****	0 OF	31
12/ 3/79	19 37 50	78	1	78	2	****	0 OF	31
12/ 3/79	19 38 0	74	4	78	2	****	0 OF	31
12/ 3/79	19 38 10	73	3	78	2	****	0 OF	31
12/ 3/79	19 38 20	80	1	78	2	****	0 OF	31
12/ 3/79	19 38 30	77	2	78	2	****	0 OF	31
12/ 3/79	19 38 40	82	3	78	2	****	0 OF	31
12/ 3/79	19 38 50	81	4	78	2	****	0 OF	31
12/ 3/79	19 39 0	83	2	78	2	****	0 OF	31
12/ 3/79	19 39 10	78	1	78	2	****	0 OF	31
12/ 3/79	19 39 20	79	2	78	2	****	0 OF	31
12/ 3/79	19 39 30	78	1	79	2	****	0 OF	31
12/ 3/79	19 39 41	83	1	79	2	****	0 OF	31
12/ 3/79	19 39 52	77	1	79	2	****	0 OF	30
12/ 3/79	19 40 0	84	1	79	2	****	0 OF	31
12/ 3/79	19 40 11	79	2	79	2	****	0 OF	30
12/ 3/79	19 40 20	79	1	79	2	****	0 OF	31
12/ 3/79	19 40 30	85	1	79	2	****	0 OF	31
12/ 3/79	19 40 40	75	1	79	2	****	0 OF	31
12/ 3/79	19 40 50	80	4	79	2	****	0 OF	31
12/ 3/79	19 41 0	81	1	80	2	****	0 OF	31
12/ 3/79	19 41 10	78	1	79	2	****	0 OF	31
12/ 3/79	19 41 21	78	1	80	2	****	0 OF	30
12/ 3/79	19 41 30	78	1	79	2	****	0 OF	31
12/ 3/79	19 41 40	81	1	79	2	****	0 OF	31
12/ 3/79	19 41 50	84	1	80	2	****	0 OF	31
12/ 3/79	19 42 2	84	1	80	2	****	0 OF	30
12/ 3/79	19 42 12	84	1	80	2	****	0 OF	30
12/ 3/79	19 42 20	82	1	80	2	****	0 OF	31
12/ 3/79	19 42 30	80	3	80	2	****	0 OF	31
12/ 3/79	19 42 41	78	3	80	2	****	0 OF	30
12/ 3/79	19 42 51	83	1	80	2	****	0 OF	30
12/ 3/79	19 43 0	83	1	80	1	****	0 OF	31
12/ 3/79	19 43 10	79	1	80	1	****	0 OF	31
12/ 3/79	19 43 20	76	1	80	1	****	0 OF	31

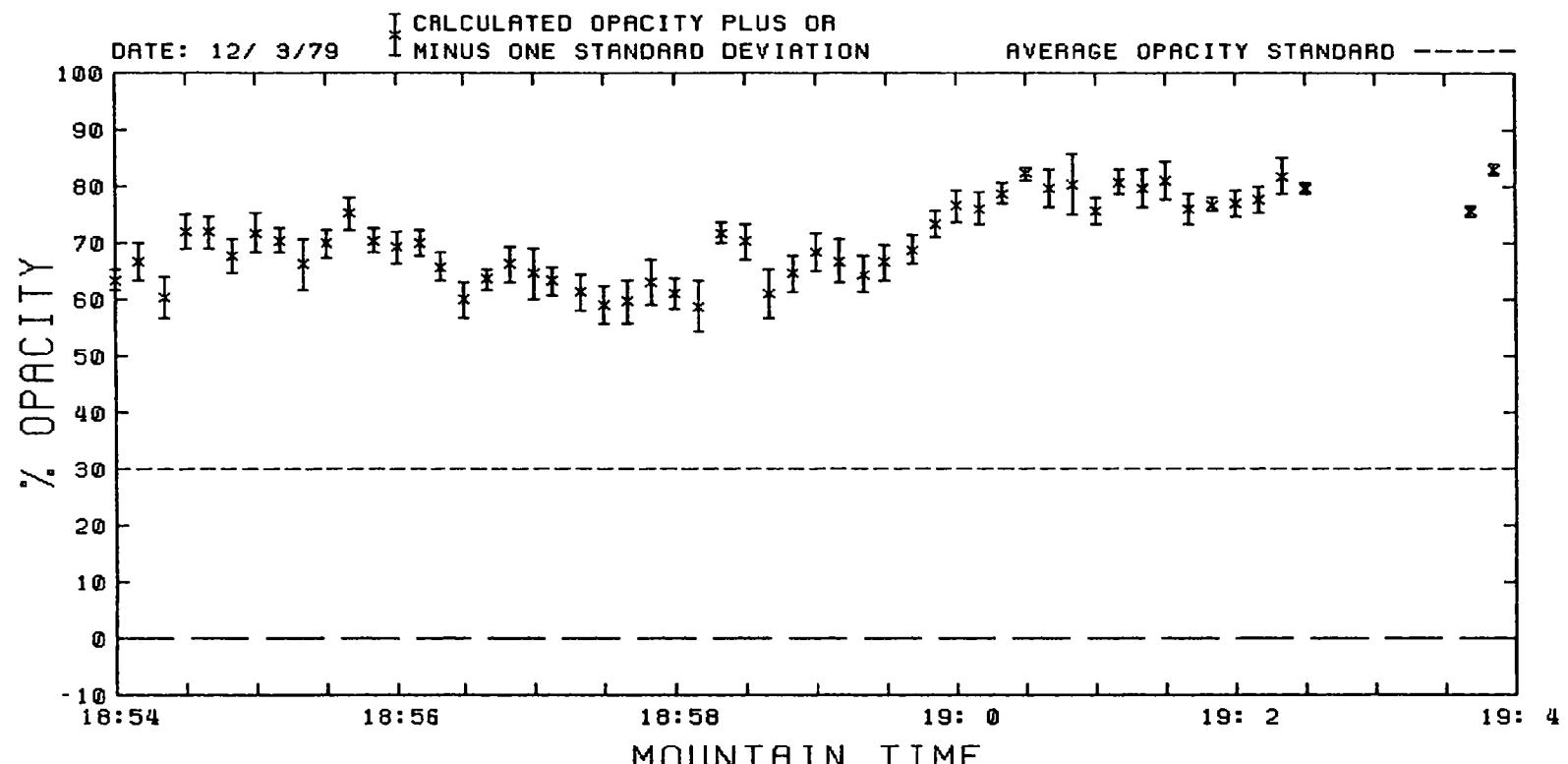
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
DENVER, COLORADO 80225

OMEGA-0023, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES  
DATE TIME OPACITY SO VIOLATION AVERAGE OPACITY AVERAGE SO VIOLATION NUMBER DISCARDED

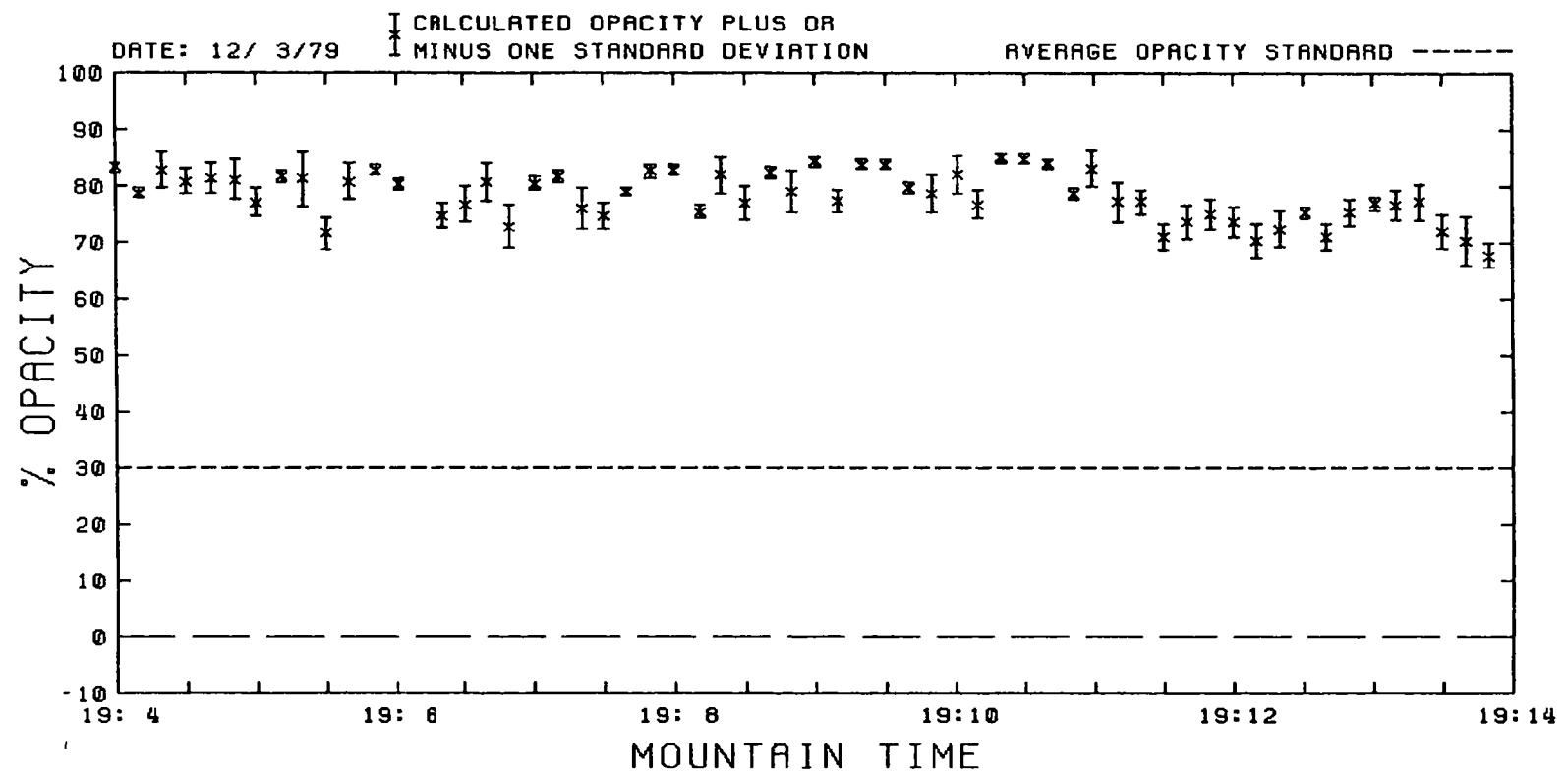
12/ 3/79	19 43 30	78	1		80	1	****	0 OF 31
12/ 3/79	19 43 40	81	1		80	1	****	0 OF 31
12/ 3/79	19 43 50	78	1		80	1	****	0 OF 31
12/ 3/79	19 44 0	78	1		80	1	****	0 OF 31
12/ 3/79	19 44 11	79	1		80	1	****	0 OF 30
12/ 3/79	19 44 20	81	1		80	1	****	0 OF 31
12/ 3/79	19 44 30	82	1		80	1	****	0 OF 31
12/ 3/79	19 44 40	76	1		80	1	****	0 OF 31
12/ 3/79	19 44 51	79	1		80	1	****	0 OF 31
12/ 3/79	19 45 0	78	1		80	1	****	0 OF 31



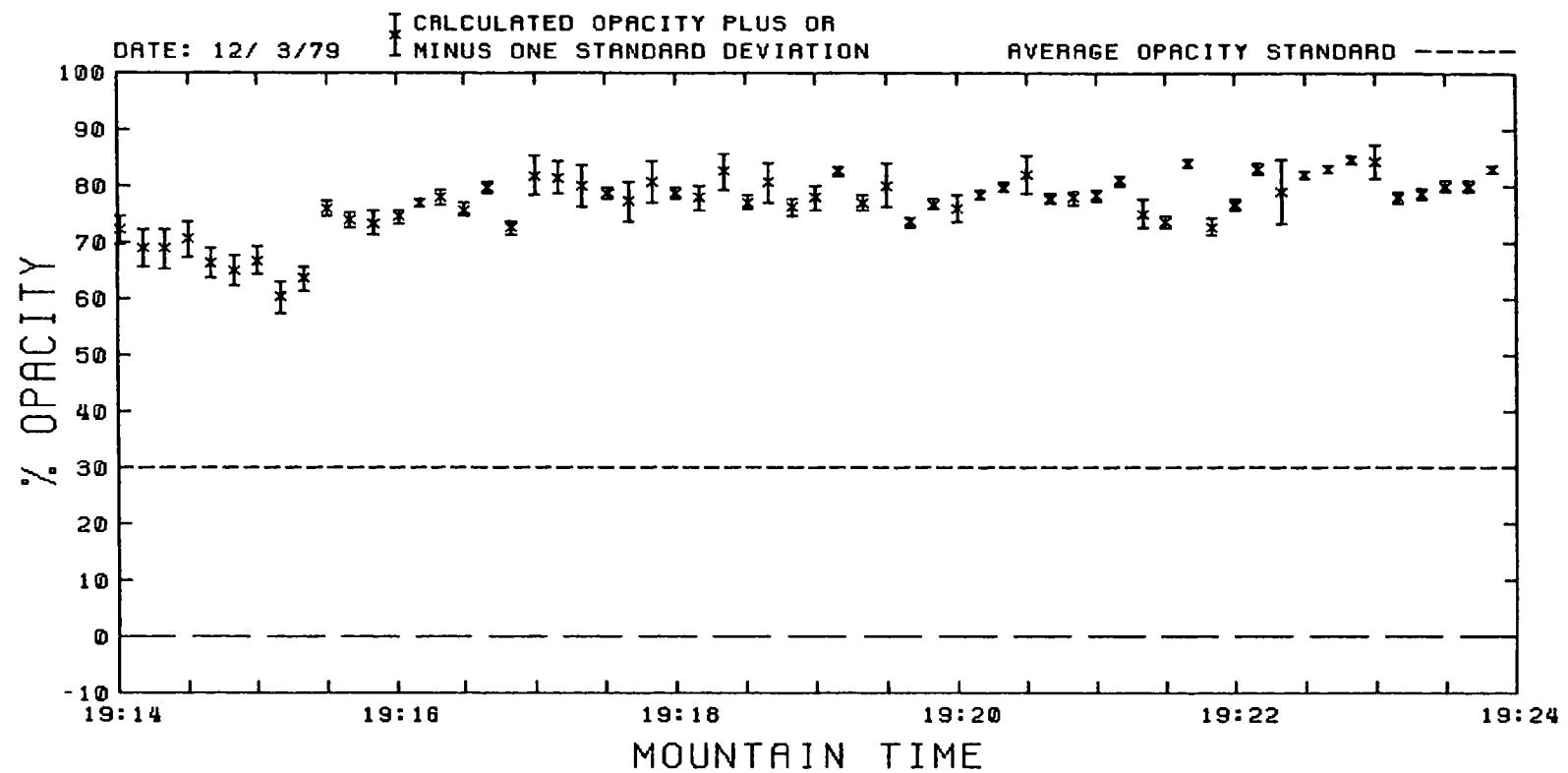
COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS



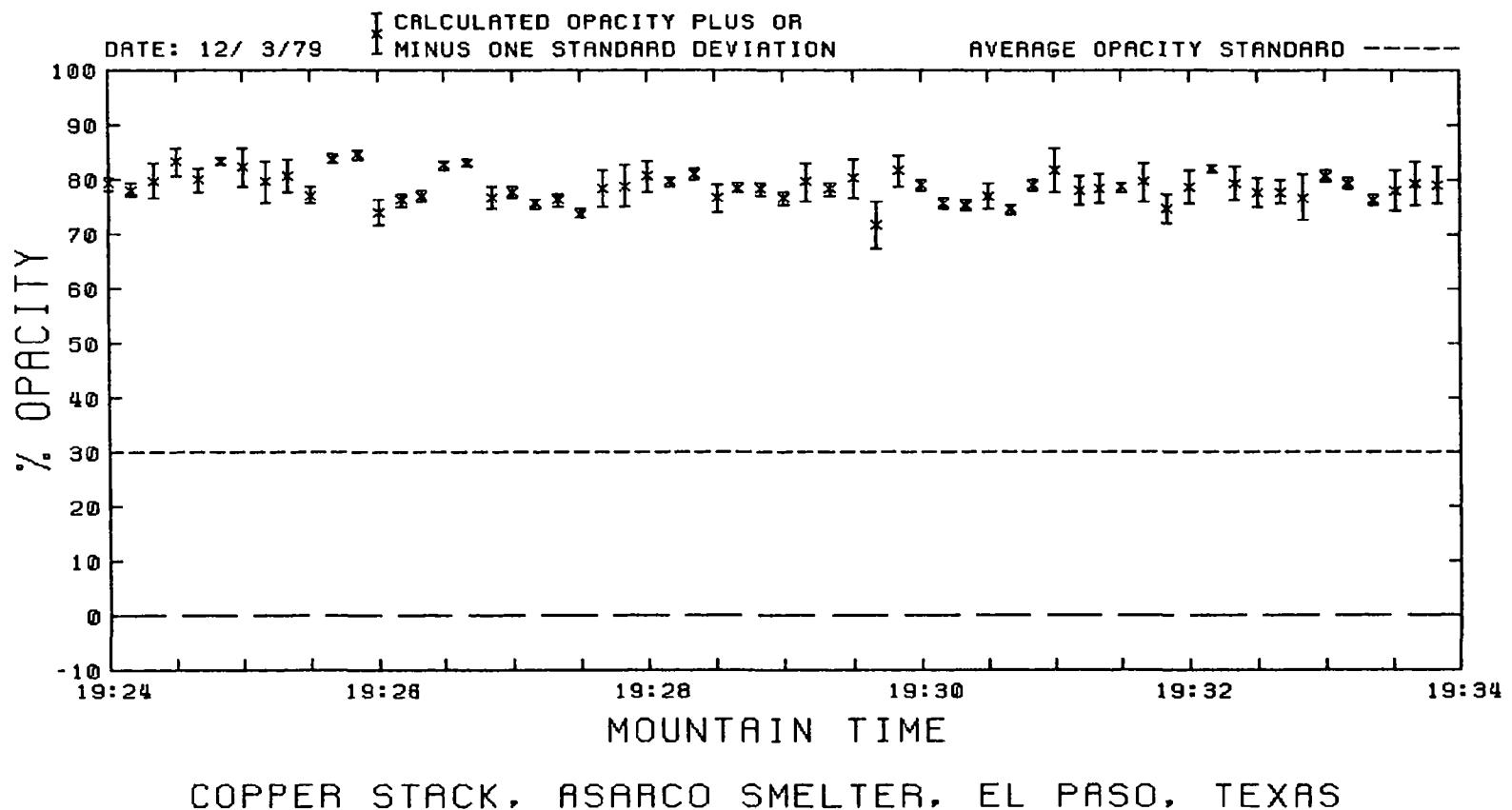
COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS

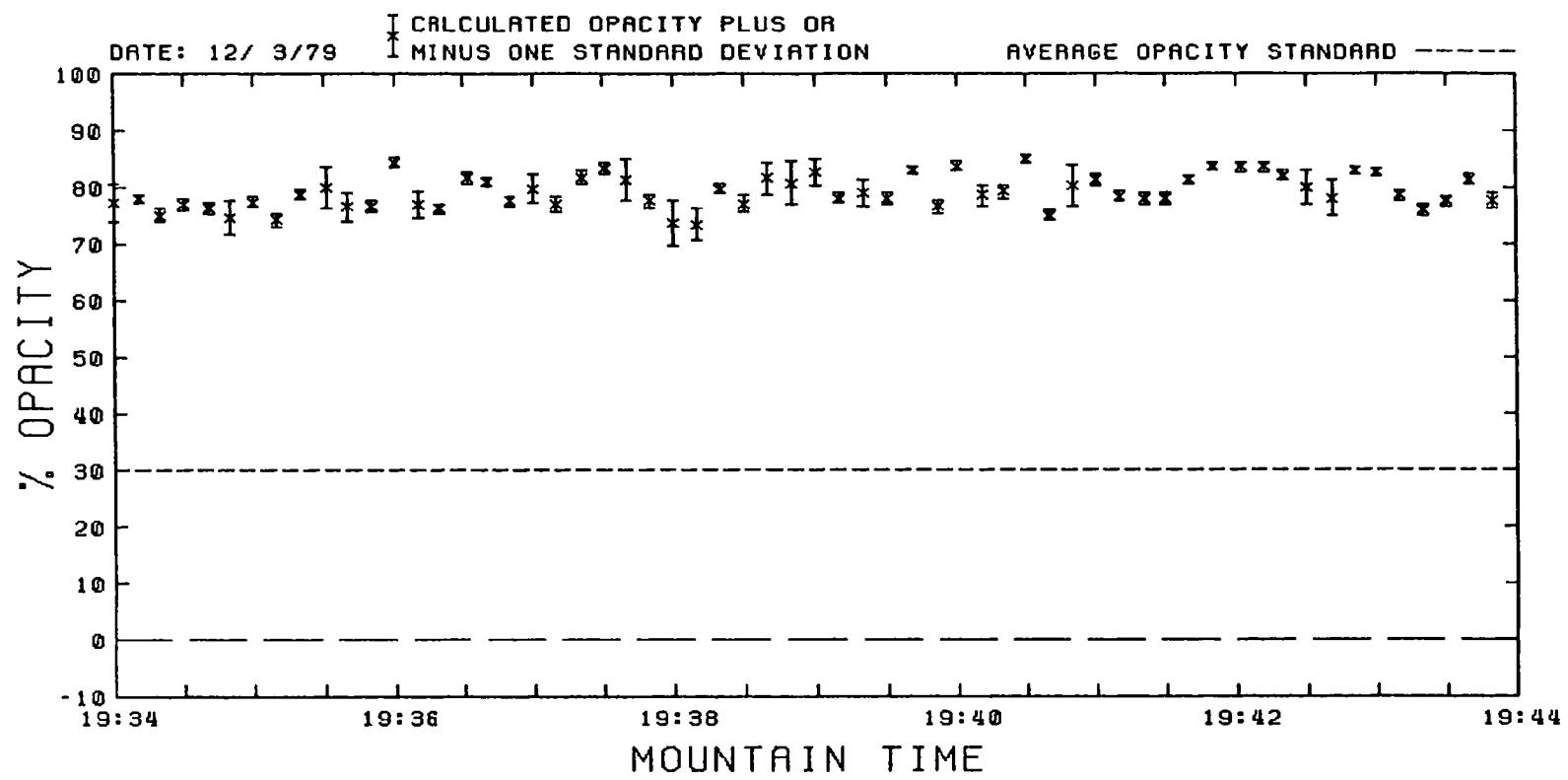


COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS

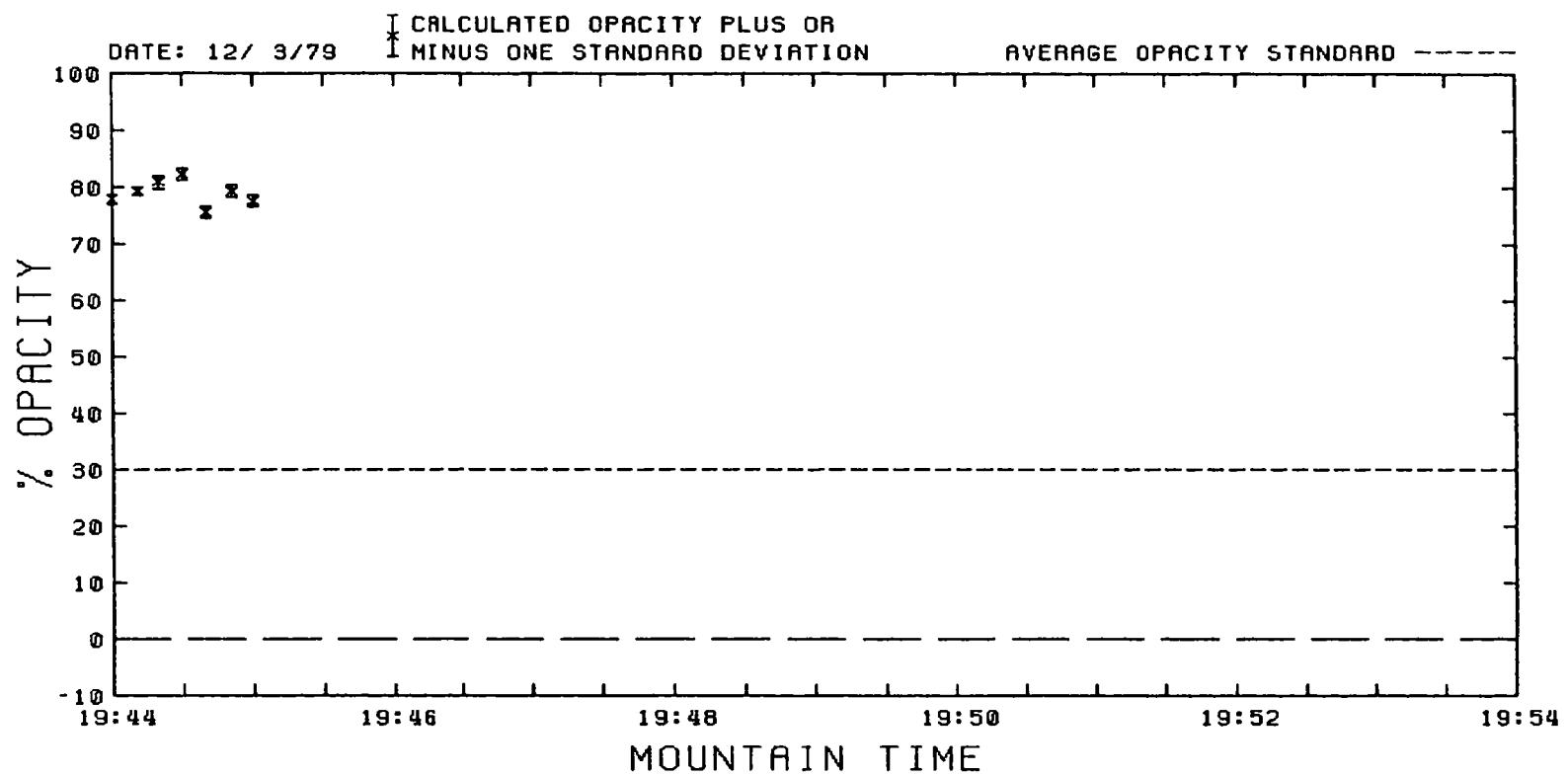


COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS





COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS



COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS

COPPER STACK

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0023, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES

DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
------	------	---------	--------------	-----------------	----------------------	------------------

12/ 3/79	19 53 0	74	2		0	0 OF 0
12/ 3/79	19 53 11	80	4		0	0 OF 0
12/ 3/79	19 53 20	83	1		0	0 OF 0
12/ 3/79	19 53 30	82	1		0	0 OF 0
12/ 3/79	19 53 40	81	1		0	0 OF 0
12/ 3/79	19 53 51	82	1		0	0 OF 0
12/ 3/79	19 54 0	77	1		0	0 OF 0
12/ 3/79	19 54 10	84	3		0	0 OF 0
12/ 3/79	19 54 20	78	1		0	0 OF 0
12/ 3/79	19 54 30	79	1		0	0 OF 0
12/ 3/79	19 54 40	78	1		0	0 OF 0
12/ 3/79	19 54 50	76	2		0	0 OF 0
12/ 3/79	19 55 0	82	1		0	0 OF 0
12/ 3/79	19 55 10	80	3		0	0 OF 0
12/ 3/79	19 55 20	74	3		0	0 OF 0
12/ 3/79	19 55 30	80	3		0	0 OF 0
12/ 3/79	19 55 40	79	1		0	0 OF 0
12/ 3/79	19 55 50	77	2		0	0 OF 0
12/ 3/79	19 56 0	79	4		0	0 OF 0
12/ 3/79	19 56 10	83	1		0	0 OF 0
12/ 3/79	19 56 20	82	1		0	0 OF 0
12/ 3/79	19 56 30	82	1		0	0 OF 0
12/ 3/79	19 56 40	84	2		0	0 OF 0
12/ 3/79	19 56 50	80	1		0	0 OF 0
12/ 3/79	19 57 0	80	1		0	0 OF 0
12/ 3/79	19 57 10	81	1		0	0 OF 0
12/ 3/79	19 57 20	82	1		0	0 OF 0
12/ 3/79	19 57 30	79	1		0	0 OF 0
12/ 3/79	19 57 40	76	4		0	0 OF 0
12/ 3/79	19 57 51	78	2	80	2	**** 0 OF 30
12/ 3/79	19 58 0	81	2	80	2	**** 0 OF 31
12/ 3/79	19 58 10	82	1	80	2	**** 0 OF 31
12/ 3/79	19 58 20	78	1	80	2	**** 0 OF 31
12/ 3/79	19 58 30	76	1	80	2	**** 0 OF 31
12/ 3/79	19 58 40	79	1	80	2	**** 0 OF 31
12/ 3/79	19 58 50	82	1	80	2	**** 0 OF 31
12/ 3/79	19 59 0	77	1	79	2	**** 0 OF 31
12/ 3/79	19 59 10	79	1	80	2	**** 0 OF 31
12/ 3/79	19 59 20	82	3	79	2	**** 0 OF 31
12/ 3/79	19 59 30	79	4	80	2	**** 0 OF 31
12/ 3/79	19 59 40	84	1	80	2	**** 0 OF 31
12/ 3/79	19 59 50	82	1	80	2	**** 0 OF 31
12/ 3/79	20 0 0	82	1	80	2	**** 0 OF 31
12/ 3/79	20 0 10	84	1	80	2	**** 0 OF 31
12/ 3/79	20 0 20	82	3	80	2	**** 0 OF 31
12/ 3/79	20 0 30	81	1	80	2	**** 0 OF 31
12/ 3/79	20 0 40	82	3	80	2	**** 0 OF 31
12/ 3/79	20 0 50	80	4	80	2	**** 0 OF 31
12/ 3/79	20 1 0	83	2	81	2	**** 0 OF 31
12/ 3/79	20 1 10	80	3	81	2	**** 0 OF 31

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0023, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES

DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
------	------	---------	--------------	-----------------	----------------------	------------------

12/ 3/79	20 1 20	80	1	81	2	****	0 OF 31
12/ 3/79	20 1 30	77	3	80	2	****	0 OF 31
12/ 3/79	20 1 40	83	3	80	2	****	0 OF 31
12/ 3/79	20 1 50	77	2	80	2	****	0 OF 31
12/ 3/79	20 2 0	83	1	80	2	****	0 OF 31
12/ 3/79	20 2 10	80	4	80	2	****	0 OF 31
12/ 3/79	20 2 20	77	1	80	2	****	0 OF 31
12/ 3/79	20 2 30	79	4	80	2	****	0 OF 31
12/ 3/79	20 2 40	78	1	80	2	****	0 OF 31
12/ 3/79	20 2 51	76	1	80	2	****	0 OF 31
12/ 3/79	20 3 0	83	3	80	2	****	0 OF 31
12/ 3/79	20 3 10	78	2	80	2	****	0 OF 31
12/ 3/79	20 3 20	85	1	80	2	****	0 OF 31
12/ 3/79	20 3 30	82	1	80	2	****	0 OF 31
12/ 3/79	20 3 40	77	1	80	2	****	0 OF 31
12/ 3/79	20 3 50	79	1	80	2	****	0 OF 31
12/ 3/79	20 4 0	84	0	80	2	****	0 OF 31
12/ 3/79	20 4 10	78	2	81	2	****	0 OF 31
12/ 3/79	20 4 20	80	0	81	2	****	0 OF 31
12/ 3/79	20 4 30	78	2	80	2	****	0 OF 31
12/ 3/79	20 4 40	78	2	80	2	****	0 OF 31
12/ 3/79	20 4 50	79	1	80	2	****	0 OF 31
12/ 3/79	20 5 0	82	2	80	2	****	0 OF 31
12/ 3/79	20 5 10	83	3	80	2	****	0 OF 31
12/ 3/79	20 5 20	80	3	80	2	****	0 OF 31
12/ 3/79	20 5 30	85	2	80	2	****	0 OF 31
12/ 3/79	20 5 40	82	1	80	2	****	0 OF 31
12/ 3/79	20 5 50	78	4	80	2	****	0 OF 31
12/ 3/79	20 6 0	82	1	80	2	****	0 OF 31
12/ 3/79	20 6 10	75	2	80	2	****	0 OF 31
12/ 3/79	20 6 20	77	1	80	2	****	0 OF 31
12/ 3/79	20 6 30	78	4	80	2	****	0 OF 31
12/ 3/79	20 6 40	77	3	80	2	****	0 OF 31
12/ 3/79	20 6 50	81	2	80	2	****	0 OF 31
12/ 3/79	20 6 59	80	2	80	2	****	0 OF 31
12/ 3/79	20 7 10	76	3	80	2	****	0 OF 31
12/ 3/79	20 7 20	80	1	80	2	****	0 OF 31
12/ 3/79	20 7 31	81	2	80	2	****	0 OF 30
12/ 3/79	20 7 40	84	1	80	2	****	0 OF 31
12/ 3/79	20 7 50	78	1	80	2	****	0 OF 31
12/ 3/79	20 8 0	81	1	80	2	****	0 OF 31
12/ 3/79	20 8 10	80	1	80	2	****	0 OF 31
12/ 3/79	20 8 20	84	1	80	2	****	0 OF 31
12/ 3/79	20 8 30	78	1	80	2	****	0 OF 31
12/ 3/79	20 8 40	80	2	80	2	****	0 OF 31
12/ 3/79	20 9 0	80	1	80	2	****	0 OF 30
12/ 3/79	20 9 10	80	4	80	2	****	0 OF 30
12/ 3/79	20 9 20	77	1	80	2	****	0 OF 30
12/ 3/79	20 9 29	82	4	80	2	****	0 OF 30
12/ 3/79	20 9 40	80	1	80	2	****	0 OF 30

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0023, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES									
DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED			
12/ 3/79	20 10 10	82	4	80	2	****	0	OF	28
12/ 3/79	20 10 20	82	2	80	2	****	0	OF	28
12/ 3/79	20 10 30	81	3	80	2	****	0	OF	28
12/ 3/79	20 10 40	78	2	80	2	****	0	OF	28
12/ 3/79	20 10 51	74	2	79	2	****	0	OF	27
12/ 3/79	20 11 0	77	1	79	2	****	0	OF	28
12/ 3/79	20 11 10	79	1	79	2	****	0	OF	28
12/ 3/79	20 11 20	79	1	79	2	****	0	OF	28
12/ 3/79	20 11 30	81	2	80	2	****	0	OF	28
12/ 3/79	20 11 40	79	3	80	2	****	0	OF	28
12/ 3/79	20 11 50	77	1	80	2	****	0	OF	28
12/ 3/79	20 12 0	85	1	80	2	****	0	OF	27
12/ 3/79	20 12 10	79	1	80	2	****	0	OF	28
12/ 3/79	20 12 20	77	2	80	2	****	0	OF	28
12/ 3/79	20 12 30	78	2	80	2	****	0	OF	20
12/ 3/79	20 12 40	79	4	80	2	****	0	OF	28
12/ 3/79	20 12 50	77	2	79	2	****	0	OF	28
12/ 3/79	20 13 0	78	2	79	2	****	0	OF	28
12/ 3/79	20 13 10	78	4	79	2	****	0	OF	28
12/ 3/79	20 13 20	81	3	79	2	****	0	OF	28
12/ 3/79	20 13 30	75	1	79	2	****	0	OF	28
12/ 3/79	20 13 40	76	2	79	2	****	0	OF	28
12/ 3/79	20 13 50	79	2	79	2	****	0	OF	28
12/ 3/79	20 14 0	75	2	79	2	****	0	OF	29
12/ 3/79	20 14 10	77	2	79	2	****	0	OF	29
12/ 3/79	20 14 20	76	2	79	2	****	0	OF	29
12/ 3/79	20 14 30	76	2	78	2	****	0	OF	28
12/ 3/79	20 14 30	76	2	78	2	****	0	OF	29
12/ 3/79	20 14 40	76	2	78	2	****	0	OF	30
12/ 3/79	20 14 50	72	2	0	0	****	0	OF	0
12/ 3/79	20 15 0	76	3	78	2	****	0	OF	31
12/ 3/79	20 15 11	77	3	78	2	****	0	OF	31
12/ 3/79	20 15 20	73	1	78	2	****	0	OF	32
12/ 3/79	20 15 30	74	2	77	2	****	0	OF	32
12/ 3/79	20 15 40	74	3	77	2	****	0	OF	32
12/ 3/79	20 15 50	76	2	77	2	****	0	OF	32
12/ 3/79	20 16 0	73	3	77	2	****	0	OF	32
12/ 3/79	20 16 10	79	2	77	2	****	0	OF	32
12/ 3/79	20 16 22	78	1	77	2	****	0	OF	31
12/ 3/79	20 16 30	78	3	77	2	****	0	OF	32
12/ 3/79	20 16 40	76	4	77	2	****	0	OF	32
12/ 3/79	20 16 50	78	4	77	2	****	0	OF	32
12/ 3/79	20 17 0	74	2	77	2	****	0	OF	32
12/ 3/79	20 17 10	77	3	77	2	****	0	OF	32
12/ 3/79	20 17 20	74	2	76	2	****	0	OF	32
12/ 3/79	20 17 30	78	1	76	2	****	0	OF	32
12/ 3/79	20 17 40	81	1	77	2	****	0	OF	32
12/ 3/79	20 17 50	79	2	77	2	****	0	OF	32
12/ 3/79	20 18 0	79	2	77	2	****	0	OF	32
12/ 3/79	20 18 10	80	3	77	2	****	0	OF	32

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0023, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS			FROM 4100 RIO BRAVO			FIVE MINUTE AVERAGES		
DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED		
12/ 3/79	20 18 20	79	1	77	2	*****	0 OF	32
12/ 3/79	20 18 30	83	1	77	2	*****	0 OF	32
12/ 3/79	20 18 40	79	4	77	2	*****	0 OF	32
12/ 3/79	20 18 50	82	1	77	2	*****	0 OF	32
12/ 3/79	20 19 0	75	2	77	2	*****	0 OF	32
12/ 3/79	20 19 10	70	4	77	2	*****	0 OF	32
12/ 3/79	20 19 20	61	4	76	2	*****	0 OF	32
12/ 3/79	20 19 30	65	4	76	2	*****	0 OF	32
12/ 3/79	20 19 40	60	4	75	2	*****	0 OF	31
12/ 3/79	20 19 51	64	4	75	2	*****	0 OF	30
12/ 3/79	20 20 0	60	3	75	2	*****	0 OF	31
12/ 3/79	20 20 10	57	3	74	2	*****	0 OF	31
12/ 3/79	20 20 20	56	4	73	2	*****	0 OF	31
12/ 3/79	20 20 32	60	2	73	2	*****	0 OF	30
12/ 3/79	20 20 40	69	2	73	2	*****	0 OF	31
12/ 3/79	20 20 50	72	2	73	2	*****	0 OF	31
12/ 3/79	20 21 1	73	2	73	2	*****	0 OF	31
12/ 3/79	20 21 10	77	3	73	2	*****	0 OF	31
12/ 3/79	20 21 20	75	1	73	2	*****	0 OF	31
12/ 3/79	20 21 30	72	2	72	2	*****	0 OF	31
12/ 3/79	20 21 40	76	1	72	2	*****	0 OF	31
12/ 3/79	20 21 50	77	1	72	2	*****	0 OF	30
12/ 3/79	20 22 10	82	3	73	2	*****	0 OF	31
12/ 3/79	20 22 20	83	1	73	2	*****	0 OF	31
12/ 3/79	20 22 30	79	3	73	2	*****	0 OF	31
12/ 3/79	20 22 40	78	1	73	2	*****	0 OF	31
12/ 3/79	20 22 50	79	1	72	2	*****	0 OF	31
12/ 3/79	20 23 0	83	1	73	2	*****	0 OF	30
12/ 3/79	20 23 10	82	3	73	2	*****	0 OF	30
12/ 3/79	20 23 20	84	1	73	2	*****	0 OF	30
12/ 3/79	20 23 30	83	1	73	2	*****	0 OF	30
12/ 3/79	20 23 40	84	3	73	2	*****	0 OF	30
12/ 3/79	20 23 50	79	1	73	2	*****	0 OF	30
12/ 3/79	20 24 0	84	7	73	2	*****	0 OF	30
12/ 3/79	20 24 10	80	3	73	2	*****	0 OF	30
12/ 3/79	20 24 20	80	2	73	2	*****	0 OF	30
12/ 3/79	20 24 30	83	2	73	2	*****	0 OF	30
12/ 3/79	20 24 40	81	3	75	2	*****	0 OF	30
12/ 3/79	20 25 0	78	1	76	2	*****	0 OF	30
12/ 3/79	20 25 0	79	1	76	2	*****	0 OF	30
12/ 3/79	20 25 14	80	3	78	2	*****	0 OF	29
12/ 3/79	20 25 30	84	1	79	2	*****	0 OF	29
12/ 3/79	20 25 40	79	4	79	2	*****	0 OF	29
12/ 3/79	20 25 50	78	2	75	2	*****	0 OF	29
12/ 3/79	20 26 0	76	2	76	2	*****	0 OF	29
12/ 3/79	20 26 10	78	2	78	2	*****	0 OF	29
12/ 3/79	20 26 20	81	1	79	2	*****	0 OF	29
12/ 3/79	20 26 30	80	1	79	2	*****	0 OF	29
12/ 3/79	20 26 40	75	2	80	2	*****	0 OF	29
12/ 3/79	20 26 50	80	1	80	2	*****	0 OF	29

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0023, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES  
 DATE TIME OPACITY SO VIOLATION AVERAGE OPACITY AVERAGE SO VIOLATION NUMBER DISCARDED

DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
12/ 3/79	20 27 0	79	1	80	2	**** O OF 29
12/ 3/79	20 27 10	80	1	80	2	**** O OF 30
12/ 3/79	20 27 25	78	2	80	2	**** O OF 29
12/ 3/79	20 27 40	80	2	80	2	**** O OF 29
12/ 3/79	20 27 50	80	1	80	2	**** O OF 29
12/ 3/79	20 28 0	84	3	81	2	**** O OF 29
12/ 3/79	20 28 10	78	2	80	2	**** O OF 29
12/ 3/79	20 28 20	79	2	80	2	**** O OF 29
12/ 3/79	20 28 31	78	2	80	2	**** O OF 28
12/ 3/79	20 28 40	79	2	80	2	**** O OF 29
12/ 3/79	20 28 50	76	2	80	2	**** O OF 29
12/ 3/79	20 29 0	80	2	80	2	**** O OF 29
12/ 3/79	20 29 11	74	2	79	2	**** O OF 28
12/ 3/79	20 29 20	77	1	79	2	**** O OF 29
12/ 3/79	20 29 30	73	2	79	2	**** O OF 29
12/ 3/79	20 29 40	72	4	79	2	**** O OF 29
12/ 3/79	20 29 50	74	2	78	2	**** O OF 29
12/ 3/79	20 29 58	75	2	78	2	**** O OF 29
12/ 3/79	20 30 10	74	3	78	2	**** O OF 29
12/ 3/79	20 30 20	73	2	78	2	**** O OF 29
12/ 3/79	20 30 30	77	2	78	2	**** O OF 30
12/ 3/79	20 30 40	75	2	78	2	**** O OF 30
12/ 3/79	20 30 50	77	2	77	2	**** O OF 30
12/ 3/79	20 31 0	76	1	77	2	**** O OF 30
12/ 3/79	20 31 10	76	3	77	2	**** O OF 30
12/ 3/79	20 31 20	76	4	77	2	**** O OF 30
12/ 3/79	20 31 30	76	3	77	2	**** O OF 30
12/ 3/79	20 31 40	78	2	77	2	**** O OF 30
12/ 3/79	20 31 50	74	2	77	2	**** O OF 30
12/ 3/79	20 32 0	76	2	77	2	**** O OF 30
12/ 3/79	20 32 10	78	4	77	2	**** O OF 30
12/ 3/79	20 32 20	75	4	77	2	**** O OF 30
12/ 3/79	20 32 31	79	3	77	2	**** O OF 30
12/ 3/79	20 32 40	79	2	77	2	**** O OF 31
12/ 3/79	20 32 50	77	3	77	2	**** O OF 31
12/ 3/79	20 33 0	75	2	77	2	**** O OF 31
12/ 3/79	20 33 10	77	2	76	2	**** O OF 31
12/ 3/79	20 33 20	78	1	76	2	**** O OF 31
12/ 3/79	20 33 30	79	1	76	2	**** O OF 31
12/ 3/79	20 33 40	78	1	76	2	**** O OF 31
12/ 3/79	20 33 50	75	2	76	2	**** O OF 31
12/ 3/79	20 34 0	79	2	76	2	**** O OF 31
12/ 3/79	20 34 10	75	3	76	2	**** O OF 31
12/ 3/79	20 34 20	75	2	76	2	**** O OF 31
12/ 3/79	20 34 30	80	2	76	2	**** O OF 31
12/ 3/79	20 34 40	76	2	76	2	**** O OF 31
12/ 3/79	20 34 50	78	2	77	2	**** O OF 31
12/ 3/79	20 35 0	78	1	77	2	**** O OF 30
12/ 3/79	20 35 10	78	2	77	2	**** O OF 31
12/ 3/79	20 35 20	79	1	77	2	**** O OF 31

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0023, DATE	COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS	TIME	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	RIO BRAVO	FIVE MINUTE AVERAGES	NUMBER DISCARDED
12/ 3/79	20 35 30		78	3	77	77	0 OF	31
12/ 3/79	20 35 40		76	2	77	77	0 OF	31
12/ 3/79	20 35 50		79	1	77	77	0 OF	31
12/ 3/79	20 36 0		78	2	77	77	0 OF	31
12/ 3/79	20 36 10		77	2	77	77	0 OF	31
12/ 3/79	20 36 20		79	2	77	77	0 OF	31
12/ 3/79	20 36 30		75	2	77	77	0 OF	31
12/ 3/79	20 36 40		75	2	77	77	0 OF	31
12/ 3/79	20 36 50		75	2	77	77	0 OF	31
12/ 3/79	20 37 0		78	0	77	77	0 OF	31
12/ 3/79	20 37 10		75	2	77	77	0 OF	31
12/ 3/79	20 37 20		77	3	77	77	0 OF	31
12/ 3/79	20 37 30		73	3	77	77	0 OF	31
12/ 3/79	20 37 40		79	1	77	77	0 OF	31
12/ 3/79	20 37 50		77	2	77	77	0 OF	31
12/ 3/79	20 38 0		79	3	77	77	0 OF	31
12/ 3/79	20 38 10		79	2	77	77	0 OF	31
12/ 3/79	20 38 20		79	2	77	77	0 OF	31
12/ 3/79	20 38 30		79	2	77	77	0 OF	31
12/ 3/79	20 38 40		77	2	77	77	0 OF	31
12/ 3/79	20 38 53		77	0	77	77	0 OF	30
12/ 3/79	20 39 0		77	3	77	77	0 OF	31
12/ 3/79	20 39 10		76	2	77	77	0 OF	31
12/ 3/79	20 39 20		77	1	77	77	0 OF	31
12/ 3/79	20 39 30		75	2	77	77	0 OF	31
12/ 3/79	20 39 40		82	1	77	77	0 OF	31
12/ 3/79	20 39 50		80	2	78	78	0 OF	31
12/ 3/79	20 40 0		79	3	77	77	0 OF	31
12/ 3/79	20 40 10		78	1	78	78	0 OF	31
12/ 3/79	20 40 20		78	2	78	78	0 OF	31
12/ 3/79	20 40 30		76	4	77	77	0 OF	31
12/ 3/79	20 40 40		76	3	78	78	0 OF	31
12/ 3/79	20 40 50		76	3	77	78	0 OF	31
12/ 3/79	20 41 0		81	2	77	78	0 OF	31
12/ 3/79	20 41 10		81	2	78	78	0 OF	31
12/ 3/79	20 41 20		81	1	78	78	0 OF	31
12/ 3/79	20 41 30		83	2	78	78	0 OF	31
12/ 3/79	20 41 40		81	1	78	78	0 OF	31
12/ 3/79	20 41 50		81	2	78	78	0 OF	31
12/ 3/79	20 42 0		77	2	78	78	0 OF	31
12/ 3/79	20 42 10		79	2	78	78	0 OF	31
12/ 3/79	20 42 20		73	2	78	78	0 OF	31
12/ 3/79	20 42 30		79	2	78	78	0 OF	31
12/ 3/79	20 42 40		76	2	79	79	0 OF	31
12/ 3/79	20 42 50		79	3	79	79	0 OF	31
12/ 3/79	20 43 0		81	0	79	79	0 OF	31
12/ 3/79	20 43 10		76	2	79	79	0 OF	31
12/ 3/79	20 43 20		80	2	79	79	0 OF	31
12/ 3/79	20 43 30		81	2	79	79	0 OF	31
12/ 3/79	20 43 40		80	2	79	79	0 OF	31

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

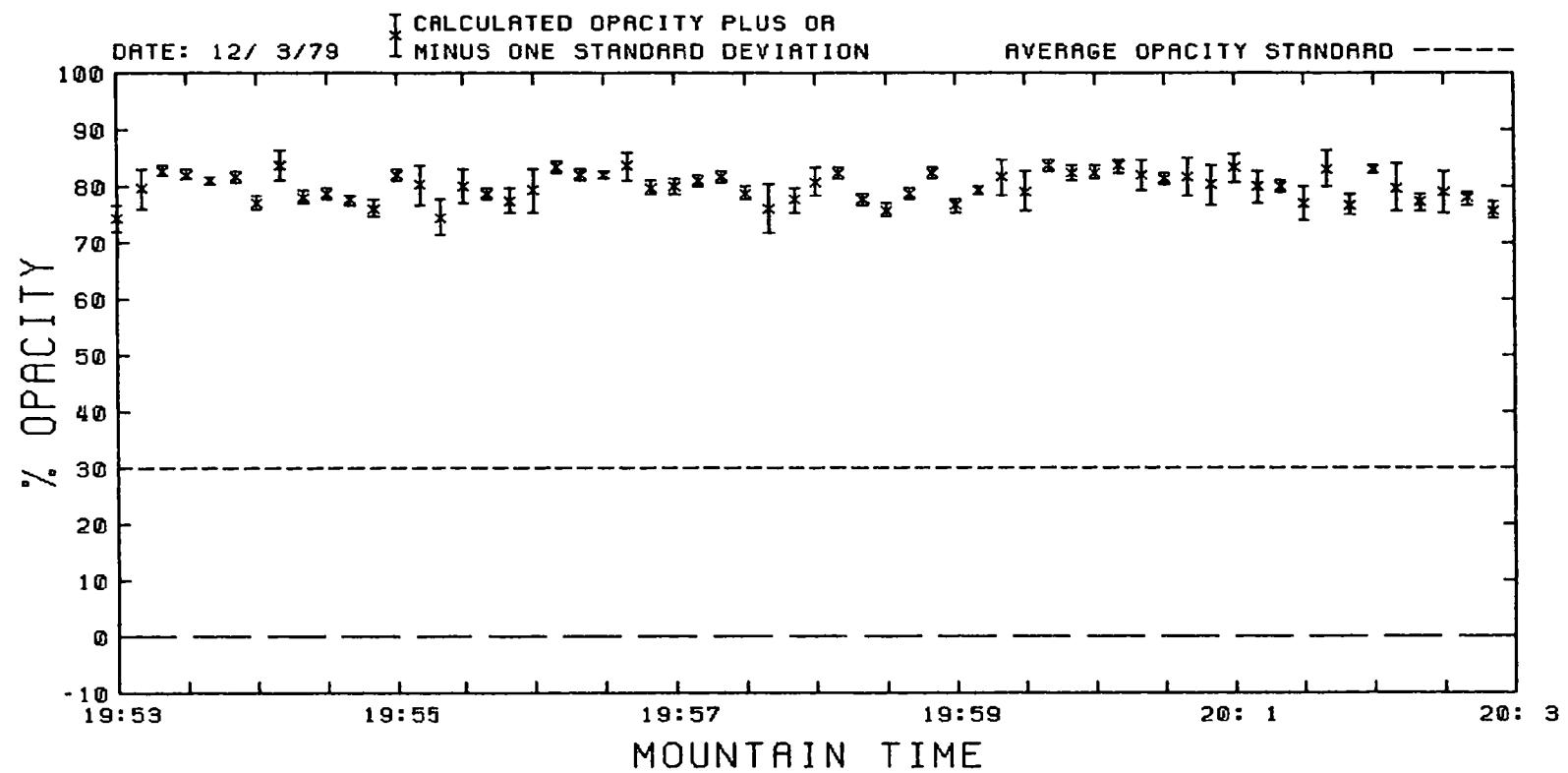
OMEGA-0023, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES

DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
12/ 3/79	20 43 50	80	2	79	2	**** 0 OF 31
12/ 3/79	20 44 0	82	2	79	2	**** 0 OF 31
12/ 3/79	20 44 10	81	3	79	2	**** 0 OF 31
12/ 3/79	20 44 20	81	0	79	2	**** 0 OF 31
12/ 3/79	20 44 32	86	0	80	2	**** 0 OF 30
12/ 3/79	20 44 42	76	2	79	2	**** 0 OF 30
12/ 3/79	20 44 51	80	2	79	2	**** 0 OF 30
12/ 3/79	20 45 0	81	2	79	2	**** 0 OF 31
12/ 3/79	20 45 10	77	2	79	2	**** 0 OF 31
12/ 3/79	20 45 20	77	2	79	2	**** 0 OF 31
12/ 3/79	20 45 30	77	2	79	2	**** 0 OF 31
12/ 3/79	20 45 40	80	2	79	2	**** 0 OF 31
12/ 3/79	20 45 50	78	2	79	2	**** 0 OF 31
12/ 3/79	20 46 0	80	2	80	2	**** 0 OF 31
12/ 3/79	20 46 10	79	2	80	2	**** 0 OF 31
12/ 3/79	20 46 20	84	3	80	2	**** 0 OF 31
12/ 3/79	20 46 30	80	2	80	2	**** 0 OF 31
12/ 3/79	20 46 41	81	2	79	2	**** 0 OF 30
12/ 3/79	20 46 51	81	2	79	2	**** 0 OF 30
12/ 3/79	20 47 0	79	3	79	2	**** 0 OF 31
12/ 3/79	20 47 10	81	2	80	2	**** 0 OF 31
12/ 3/79	20 47 20	81	1	80	2	**** 0 OF 31
12/ 3/79	20 47 30	82	3	80	2	**** 0 OF 31
12/ 3/79	20 47 40	86	2	80	2	**** 0 OF 31
12/ 3/79	20 47 50	80	2	80	2	**** 0 OF 31
12/ 3/79	20 48 0	81	2	80	2	**** 0 OF 31
12/ 3/79	20 48 10	81	2	80	2	**** 0 OF 31
12/ 3/79	20 48 20	82	2	81	2	**** 0 OF 31
12/ 3/79	20 48 30	82	2	81	2	**** 0 OF 31
12/ 3/79	20 48 40	81	2	81	2	**** 0 OF 31
12/ 3/79	20 48 50	82	1	81	2	**** 0 OF 31
12/ 3/79	20 49 0	79	2	81	2	**** 0 OF 31
12/ 3/79	20 49 11	82	2	81	2	**** 0 OF 30
12/ 3/79	20 49 21	79	1	81	2	**** 0 OF 30
12/ 3/79	20 49 30	80	2	81	2	**** 0 OF 31
12/ 3/79	20 49 40	85	0	81	2	**** 0 OF 31
12/ 3/79	20 49 40	85	0	81	2	**** 0 OF 32
12/ 3/79	20 49 50	81	1	81	2	**** 0 OF 32
12/ 3/79	20 50 0	81	2	81	2	**** 0 OF 32
12/ 3/79	20 50 10	82	2	81	2	**** 0 OF 32
12/ 3/79	20 50 20	79	2	81	2	**** 0 OF 32
12/ 3/79	20 50 30	85	1	81	2	**** 0 OF 32
12/ 3/79	20 50 40	78	5	81	2	**** 0 OF 32
12/ 3/79	20 50 50	81	2	81	2	**** 0 OF 32
12/ 3/79	20 51 0	81	2	81	2	**** 0 OF 32
12/ 3/79	20 51 10	83	0	82	2	**** 0 OF 32
12/ 3/79	20 51 20	81	2	82	2	**** 0 OF 32
12/ 3/79	20 51 30	81	2	81	2	**** 0 OF 32
12/ 3/79	20 51 40	77	2	81	2	**** 0 OF 32
12/ 3/79	20 51 50	80	2	81	2	**** 0 OF 32

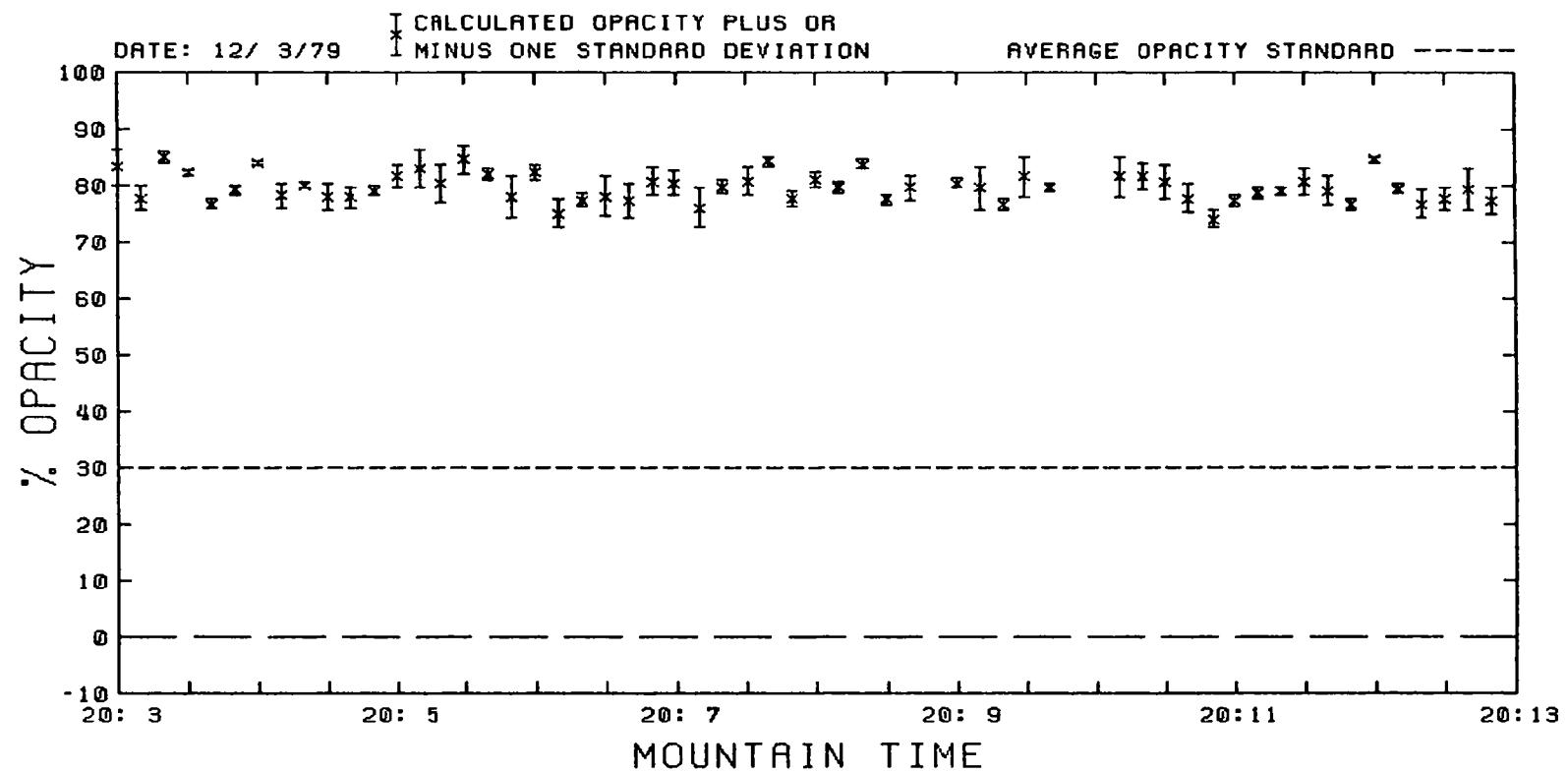
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
DENVER, COLORADO 80225

OMEGA-0023, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES

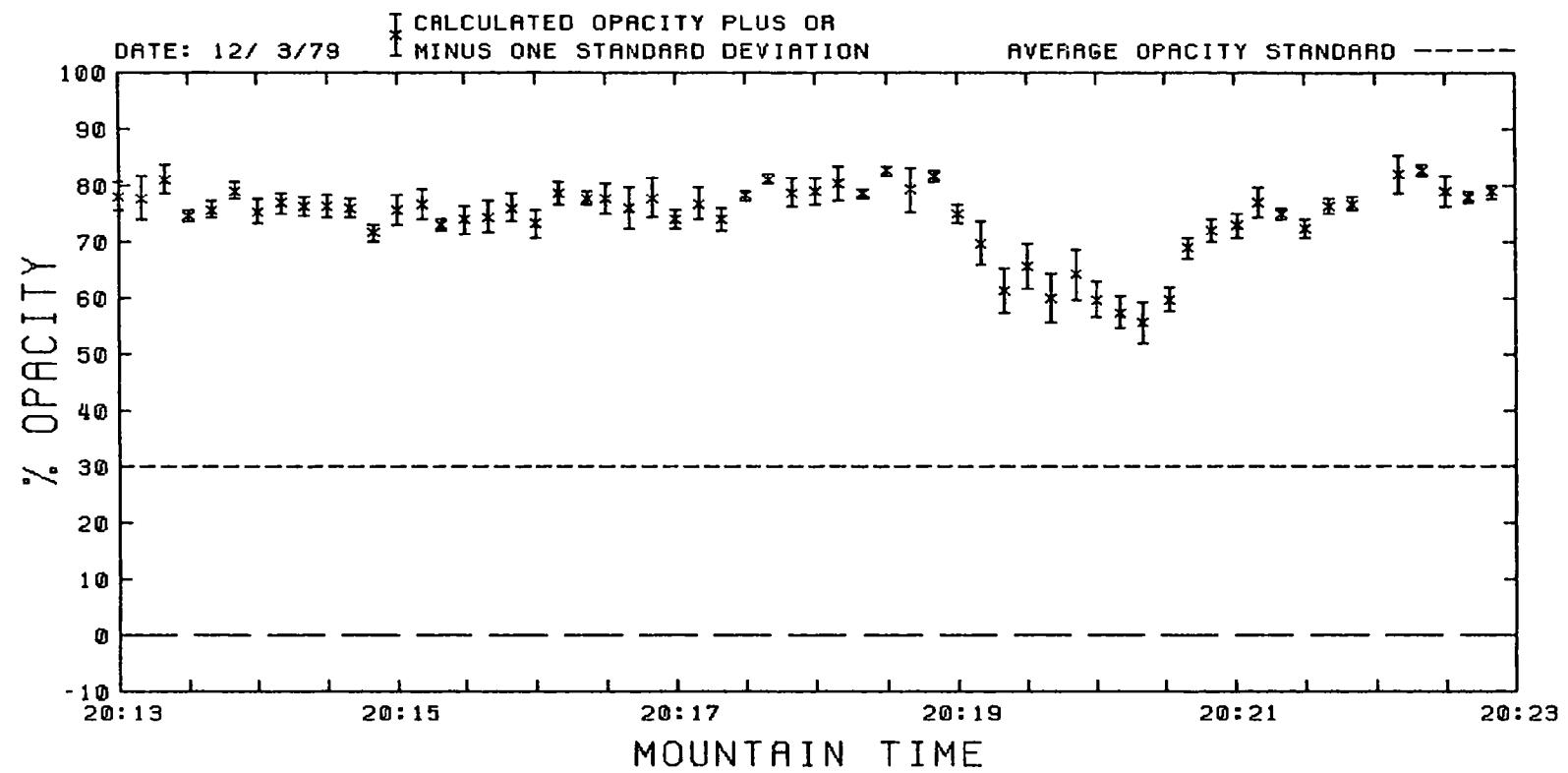
DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
12/ 3/79	20 52 0	81	2	81	2	**** 0 OF 32
12/ 3/79	20 52 9	81	1	81	2	*** 0 OF 32
12/ 3/79	20 52 20	80	2	81	2	*** 0 OF 32
12/ 3/79	20 52 30	78	4	81	2	*** 0 OF 32
12/ 3/79	20 52 40	79	2	81	2	*** 0 OF 32
12/ 3/79	20 52 50	81	2	81	2	*** 0 OF 32
12/ 3/79	20 53 0	80	1	81	2	*** 0 OF 32
12/ 3/79	20 53 10	81	2	81	2	*** 0 OF 32
12/ 3/79	20 53 20	82	2	81	2	*** 0 OF 32
12/ 3/79	20 53 30	83	3	81	2	*** 0 OF 32
12/ 3/79	20 53 40	80	2	81	2	*** 0 OF 32
12/ 3/79	20 53 50	81	2	81	2	*** 0 OF 32



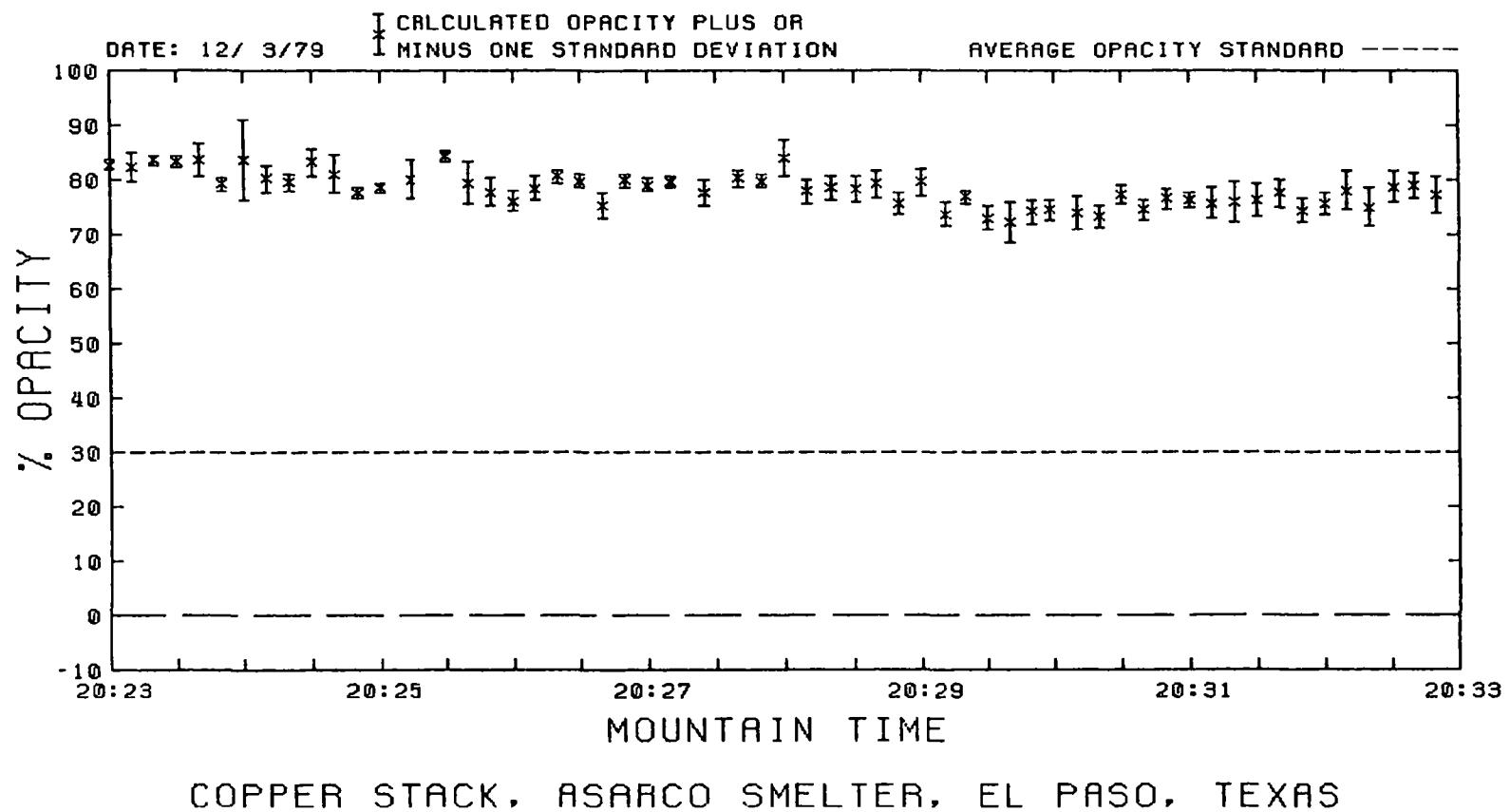
COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS

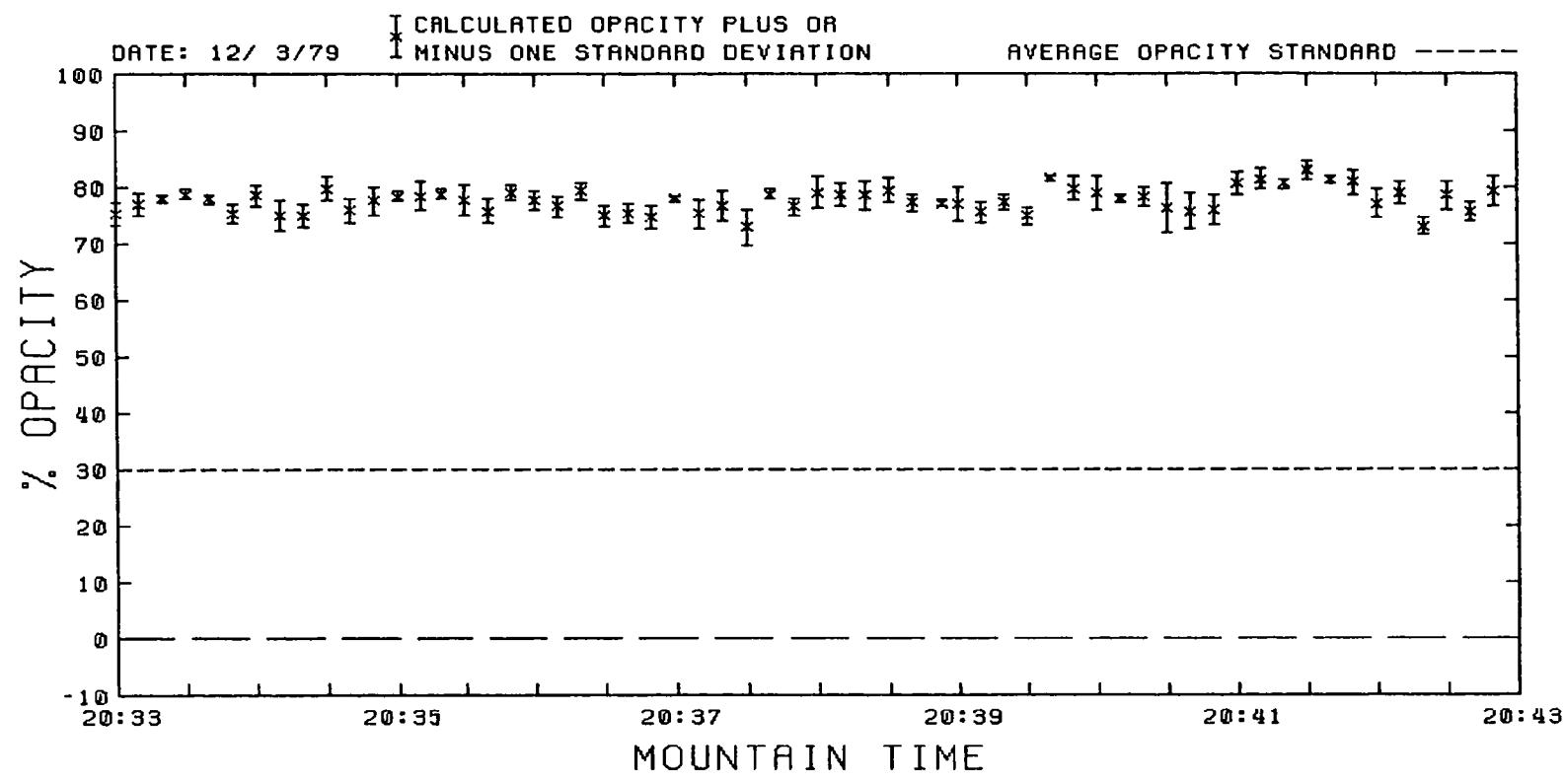


COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS

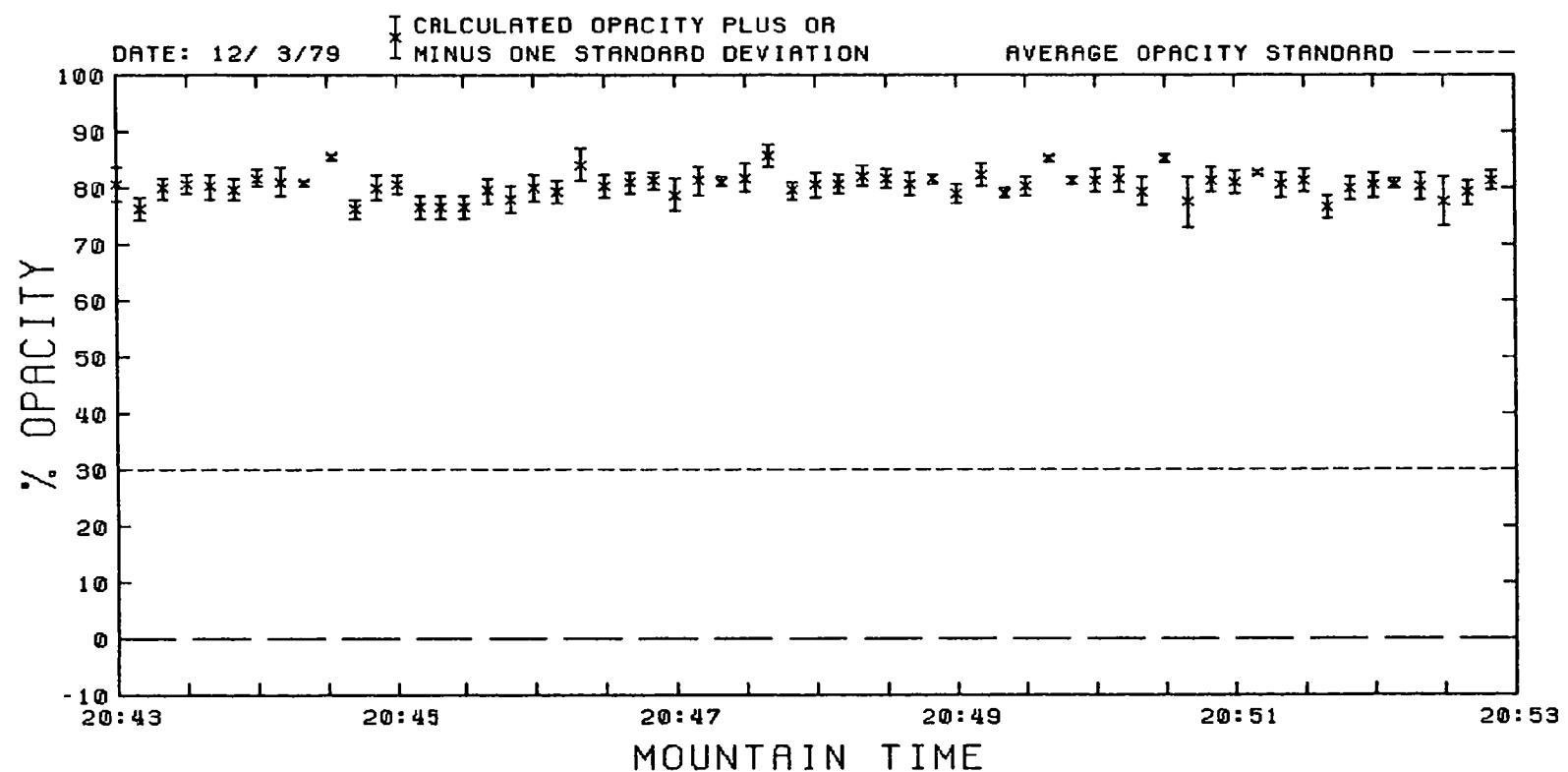


COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS

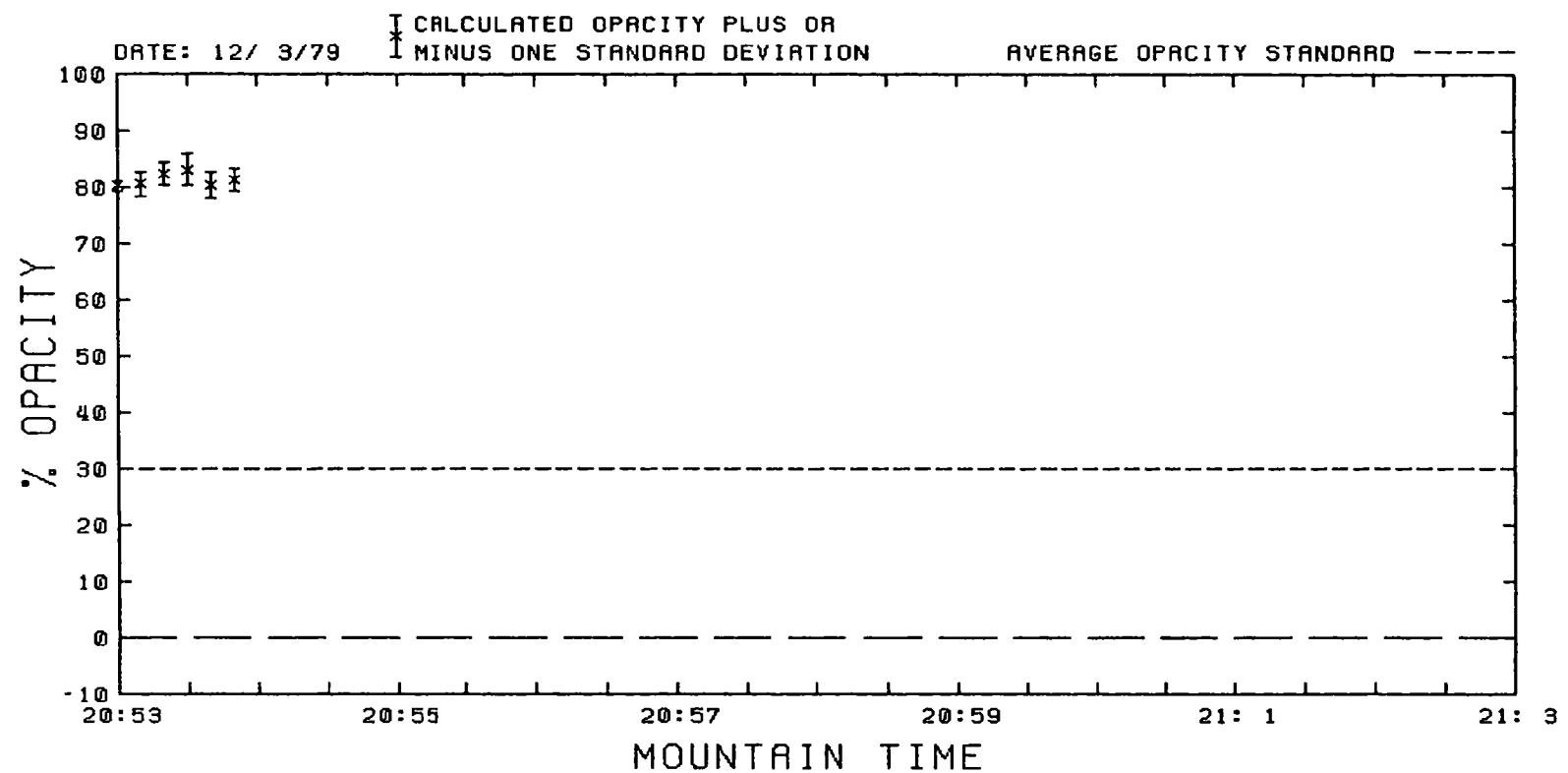




COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS



COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS



COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS

COPPER STACK



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0027, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES									
DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION				NUMBER DISCARDED
12/ 4/79	20 38 50	76	2	75	2	****	0 OF	30	
12/ 4/79	20 39 0	78	1	75	2	****	0 OF	30	
12/ 4/79	20 39 10	73	1	75	1	****	0 OF	30	
12/ 4/79	20 39 20	72	1	75	1	****	0 OF	30	
12/ 4/79	20 39 30	70	1	75	1	****	0 OF	31	
12/ 4/79	20 39 40	69	2	75	1	****	0 OF	31	
12/ 4/79	20 39 50	73	2	75	1	****	0 OF	31	
12/ 4/79	20 40 0	71	1	74	1	****	0 OF	31	
12/ 4/79	20 40 10	73	1	74	1	****	0 OF	31	
12/ 4/79	20 40 20	71	3	74	1	****	0 OF	31	
12/ 4/79	20 40 30	69	1	74	1	****	0 OF	31	
12/ 4/79	20 40 40	76	1	74	1	****	0 OF	31	
12/ 4/79	20 40 50	72	2	74	1	****	0 OF	31	
12/ 4/79	20 41 0	75	1	74	1	****	0 OF	31	
12/ 4/79	20 41 10	72	2	74	1	****	0 OF	31	
12/ 4/79	20 41 20	73	1	74	1	****	0 OF	31	
12/ 4/79	20 41 30	73	1	74	1	****	0 OF	31	
12/ 4/79	20 41 40	63	2	73	2	****	0 OF	31	
12/ 4/79	20 41 50	72	1	73	1	****	0 OF	31	
12/ 4/79	20 42 1	71	2	73	1	****	0 OF	31	
12/ 4/79	20 42 11	67	2	73	1	****	0 OF	31	
12/ 4/79	20 42 21	70	2	73	2	****	0 OF	31	
12/ 4/79	20 42 31	77	1	73	2	****	0 OF	31	
12/ 4/79	20 42 41	76	1	73	2	****	0 OF	31	
12/ 4/79	20 42 51	75	1	73	1	****	0 OF	30	
12/ 4/79	20 43 1	77	4	73	2	****	0 OF	30	
12/ 4/79	20 43 11	72	1	73	2	****	0 OF	30	
12/ 4/79	20 43 21	76	1	73	2	****	0 OF	30	
12/ 4/79	20 43 31	74	1	73	2	****	0 OF	30	
12/ 4/79	20 43 41	75	1	73	2	****	0 OF	30	
12/ 4/79	20 43 51	72	3	73	2	****	0 OF	30	
12/ 4/79	20 44 1	76	1	73	2	****	0 OF	30	
12/ 4/79	20 44 11	76	1	73	2	****	0 OF	30	
12/ 4/79	20 44 21	76	1	73	2	****	0 OF	30	
12/ 4/79	20 44 31	74	3	73	2	****	0 OF	30	
12/ 4/79	20 44 41	72	1	73	2	****	0 OF	30	
12/ 4/79	20 44 51	67	2	73	2	****	0 OF	30	
12/ 4/79	20 45 1	70	2	73	2	****	0 OF	30	
12/ 4/79	20 45 11	69	2	73	2	****	0 OF	30	
12/ 4/79	20 45 21	70	2	73	2	****	0 OF	30	
12/ 4/79	20 45 31	66	2	72	2	****	0 OF	30	
12/ 4/79	20 45 41	65	1	72	2	****	0 OF	30	
12/ 4/79	20 45 50	60	2	72	2	****	0 OF	31	
12/ 4/79	20 46 0	65	1	71	2	****	0 OF	31	
12/ 4/79	20 46 10	67	1	71	2	****	0 OF	31	
12/ 4/79	20 46 20	62	4	71	2	****	0 OF	31	
12/ 4/79	20 46 30	29	3	69	2	****	0 OF	31	
12/ 4/79	20 46 40	57	2	69	2	****	0 OF	31	
12/ 4/79	20 46 50	62	2	69	2	****	0 OF	31	
12/ 4/79	20 47 0	63	3	69	2	****	0 OF	31	

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0027, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES									
DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION				NUMBER DISCARDED
12/ 4/79	20 47 10	60	2	68	2	****	0	OF	31
12/ 4/79	20 47 20	62	2	68	2	****	0	OF	31
12/ 4/79	20 47 30	66	1	68	2	****	0	OF	31
12/ 4/79	20 47 40	59	2	67	2	****	0	OF	31
12/ 4/79	20 47 50	62	2	67	2	****	0	OF	31
12/ 4/79	20 48 0	64	2	67	2	****	0	OF	31
12/ 4/79	20 48 10	66	1	66	2	****	0	OF	31
12/ 4/79	20 48 20	65	2	66	2	****	0	OF	31
12/ 4/79	20 48 30	59	2	65	2	****	0	OF	31
12/ 4/79	20 48 40	60	2	65	2	****	0	OF	31
12/ 4/79	20 48 50	63	2	65	2	****	0	OF	31
12/ 4/79	20 49 0	63	2	64	2	****	0	OF	31
12/ 4/79	20 49 10	66	3	64	2	****	0	OF	31
12/ 4/79	20 49.20	60	3	63	2	****	0	OF	31
12/ 4/79	20 49 30	62	3	63	2	****	0	OF	31
12/ 4/79	20 49 40	60	3	62	2	****	0	OF	31
12/ 4/79	20 49 50	65	2	62	2	****	0	OF	31
12/ 4/79	20 50 0	66	1	62	2	****	0	OF	31
12/ 4/79	20 50 10	63	2	62	2	****	0	OF	31
12/ 4/79	20 50 20	63	2	62	2	****	0	OF	31
12/ 4/79	20 50 30	63	2	62	2	****	0	OF	31
12/ 4/79	20 50 40	63	2	62	2	****	0	OF	31
12/ 4/79	20 50 50	66	2	62	2	****	0	OF	31
12/ 4/79	20 51 0	65	4	62	2	****	0	OF	31
12/ 4/79	20 51 10	66	2	62	2	****	0	OF	31
12/ 4/79	20 51:20	68	2	62	2	****	0	OF	31
12/ 4/79	20 51 30	65	2	62	2	****	0	OF	31
12/ 4/79	20 51 40	63	2	63	2	****	0	OF	31
12/ 4/79	20 51 50	58	2	63	2	****	0	OF	31
12/ 4/79	20 51 59	56	3	63	2	****	0	OF	31
12/ 4/79	20 52. 9	65	2	63	2	****	0	OF	31
12/ 4/79	20 52 19	58	2	63	2	****	0	OF	31
12/ 4/79	20 52 29	58	2	63	2	****	0	OF	31
12/ 4/79	20 52 39	52	2	63	2	****	0	OF	31
12/ 4/79	20 52 49	54	3	62	2	****	0	OF	32
12/ 4/79	20 52. 59	49	3	62	2	****	0	OF	32
12/ 4/79	20 53 9	45	3	61	2	****	0	OF	32
12/ 4/79	20 53 19	46	2	61	2	****	0	OF	32
12/ 4/79	20 53 29	45	3	60	2	****	0	OF	32
12/ 4/79	20 53 39	46	4	60	2	****	0	OF	32
12/ 4/79	20 53 49	42	3	59	2	****	0	OF	32
12/ 4/79	20 53 59	46	2	58	2	****	0	OF	32
12/ 4/79	20 54 9	37	3	58	2	****	0	OF	32
12/ 4/79	20 54 19	45	3	57	2	****	0	OF	32
12/ 4/79	20 54 29	43	2	56	2	****	0	OF	32
12/ 4/79	20 54 39	43	3	56	2	****	0	OF	32
12/ 4/79	20 54. 49	52	2	56	2	****	0	OF	32
12/ 4/79	20 54 59	56	3	55	2	****	0	OF	32
12/ 4/79	20 55 9	56	2	55	2	****	0	OF	32
12/ 4/79	20 55 20	61	2	55	2	****	0	OF	32

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0027. COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES  
 DATE TIME OPACITY SO VIOLATION AVERAGE OPACITY AVERAGE SO VIOLATION NUMBER DISCARDED

12/ 4/79	20 55 30	64	1		55	2	****	0 OF 31
12/ 4/79	20 55 40	59	2		55	2	****	0 OF 31
12/ 4/79	20 55 50	63	3		55	2	****	0 OF 31
12/ 4/79	20 56 0	63	2		54	2	****	0 OF 31
12/ 4/79	20 56 11	61	3		54	2	****	0 OF 30
12/ 4/79	20 56 21	61	3		54	2	****	0 OF 30
12/ 4/79	20 56 31	65	2		54	2	****	0 OF 30
12/ 4/79	20 56 41	70	1		54	2	****	0 OF 30
12/ 4/79	20 56 50	71	1		54	2	****	0 OF 31
12/ 4/79	20 57 0	71	1		55	2	****	0 OF 30
12/ 4/79	20 57 10	70	1		55	2	****	0 OF 30
12/ 4/79	20 57 20	69	2		55	2	****	0 OF 30
12/ 4/79	20 57 30	67	2		56	2	****	0 OF 30
12/ 4/79	20 57 40	69	1		56	2	****	0 OF 30
12/ 4/79	20 57 50	63	2		57	2	****	0 OF 30
12/ 4/79	20 58 0	66	2		57	2	****	0 OF 30
12/ 4/79	20 58 10	65	3		58	2	****	0 OF 30
12/ 4/79	20 58 20	66	2		59	2	****	0 OF 30
12/ 4/79	20 58 30	68	2		59	2	****	0 OF 30
12/ 4/79	20 58 40	70	1		60	2	****	0 OF 30
12/ 4/79	20 58 50	66	1		61	2	****	0 OF 30
12/ 4/79	20 59 0	66	2		61	2	****	0 OF 30
12/ 4/79	20 59 10	70	2		62	2	****	0 OF 30
12/ 4/79	20 59 20	70	1		63	2	****	0 OF 30
12/ 4/79	20 59 30	69	1		64	2	****	0 OF 30
12/ 4/79	20 59 40	68	1		65	2	****	0 OF 30
12/ 4/79	20 59 50	67	2		66	2	****	0 OF 30
12/ 4/79	21 0 0	70	2		66	2	****	0 OF 30
12/ 4/79	21 0 11	70	1		67	2	****	0 OF 30
12/ 4/79	21 0 21	73	1		67	2	****	0 OF 30
12/ 4/79	21 0 31	68	2		67	2	****	0 OF 30
12/ 4/79	21 0 41	69	2		67	2	****	0 OF 30
12/ 4/79	21 0 51	69	1		68	2	****	0 OF 30
12/ 4/79	21 1 1	64	1		68	2	****	0 OF 30
12/ 4/79	21 1 11	70	1		68	2	****	0 OF 31
12/ 4/79	21 1 21	70	2		68	2	****	0 OF 31
12/ 4/79	21 1 31	67	1		68	2	****	0 OF 31
12/ 4/79	21 1 41	68	1		68	2	****	0 OF 31
12/ 4/79	21 1 50	71	1		68	2	****	0 OF 31
12/ 4/79	21 2 0	69	2		68	2	****	0 OF 31
12/ 4/79	21 2 10	64	2		68	2	****	0 OF 31
12/ 4/79	21 2 20	63	3		68	2	****	0 OF 31
12/ 4/79	21 2 30	63	3		68	2	****	0 OF 31
12/ 4/79	21 2 39	59	4		67	2	****	0 OF 31
12/ 4/79	21 2 49	57	2		67	2	****	0 OF 31
12/ 4/79	21 2 59	52	3		67	2	****	0 OF 31
12/ 4/79	21 3 9	52	2		66	2	****	0 OF 31
12/ 4/79	21 3 19	55	2		66	2	****	0 OF 31
12/ 4/79	21 3 29	56	3		66	2	****	0 OF 31
12/ 4/79	21 3 39	54	2		65	2	****	0 OF 31

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0027, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES

DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
------	------	---------	--------------	-----------------	----------------------	------------------

12/ 4/79	21 3 50	53	3	65	2	****	0 OF 31
12/ 4/79	21 4. 0	49	3	64	2	****	0 OF 31
12/ 4/79	21 4 10	52	2	64	2	****	0 OF 31
12/ 4/79	21 4 20	48	2	63	2	****	0 OF 31
12/ 4/79	21 4 30	47	2	62	2	****	0 OF 31
12/ 4/79	21 4 40	48	3	62	2	****	0 OF 31
12/ 4/79	21 4 50	47	2	61	2	****	0 OF 31
12/ 4/79	21 5 1	49	3	60	2	****	0 OF 30
12/ 4/79	21 5 10	53	3	60	2	****	0 OF 31
12/ 4/79	21 5 20	52	2	59	2	****	0 OF 31
12/ 4/79	21 5 30	51	2	58	2	****	0 OF 31
12/ 4/79	21 5 40	55	2	58	2	****	0 OF 31
12/ 4/79	21 5 49	53	3	58	2	****	0 OF 31
12/ 4/79	21 5 59	48	2	57	2	****	0 OF 31
12/ 4/79	21 6 9	46	2	56	2	****	0 OF 31
12/ 4/79	21 6 18	54	2	56	2	****	0 OF 31
12/ 4/79	21 6 28	53	2	55	2	****	0 OF 31
12/ 4/79	21 6 38	52	3	55	2	****	0 OF 31
12/ 4/79	21 6 49	58	2	54	2	****	0 OF 31
12/ 4/79	21 6 59	60	2	54	2	****	0 OF 31
12/ 4/79	21 7 9	65	1	54	2	****	0 OF 31
12/ 4/79	21 7 20	69	1	54	2	****	0 OF 31
12/ 4/79	21 7 30	69	2	54	2	****	0 OF 31
12/ 4/79	21 7 40	69	2	54	2	****	0 OF 30
12/ 4/79	21 7 50	69	2	55	2	****	0 OF 30
12/ 4/79	21 8 0	69	3	55	2	****	0 OF 30
12/ 4/79	21 8 9	68	1	56	2	****	0 OF 31
12/ 4/79	21 8 19	69	2	56	2	****	0 OF 31
12/ 4/79	21 8 28	68	1	57	2	****	0 OF 31
12/ 4/79	21 8 39	67	2	57	2	****	0 OF 31
12/ 4/79	21 8 49	66	1	57	2	****	0 OF 31
12/ 4/79	21 8 59	66	2	58	2	****	0 OF 31
12/ 4/79	21 9 10	66	2	58	2	****	0 OF 31
12/ 4/79	21 9 20	70	1	59	2	****	0 OF 31
12/ 4/79	21 9 30	68	2	60	2	****	0 OF 31
12/ 4/79	21 9 40	67	1	60	2	****	0 OF 31
12/ 4/79	21 9 51	60	2	61	2	****	0 OF 30
12/ 4/79	21 10 1	58	4	61	2	****	0 OF 31
12/ 4/79	21 10 11	62	4	62	2	****	0 OF 30
12/ 4/79	21 10 20	59	3	62	2	****	0 OF 31
12/ 4/79	21 10 30	59	2	62	2	****	0 OF 31
12/ 4/79	21 10 40	58	3	62	2	****	0 OF 31
12/ 4/79	21 10 50	58	2	62	2	****	0 OF 30
12/ 4/79	21 11 0	55	2	63	2	****	0 OF 30
12/ 4/79	21 11 10	56	3	63	2	****	0 OF 30
12/ 4/79	21 11 19	56	2	63	2	****	0 OF 30
12/ 4/79	21 11 29	60	2	63	2	****	0 OF 30
12/ 4/79	21 11 38	57	3	63	2	****	0 OF 31
12/ 4/79	21 11 49	57	2	63	2	****	0 OF 31
12/ 4/79	21 11 59	53	2	63	2	****	0 OF 31

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0027, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES

DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
------	------	---------	--------------	-----------------	----------------------	------------------

12/ 4/79	21 12 10	57	2	63	2	****	0 OF 30
12/ 4/79	21 12 20	58	3	63	2	****	0 OF 31
12/ 4/79	21 12 29	58	2	62	2	****	0 OF 31
12/ 4/79	21 12 39	57	2	62	2	****	0 OF 31
12/ 4/79	21 12 49	57	4	62	2	****	0 OF 31
12/ 4/79	21 12 59	57	2	61	2	****	0 OF 31
12/ 4/79	21 13 10	54	2	60	2	****	0 OF 30
12/ 4/79	21 13 20	60	4	60	2	****	0 OF 30
12/ 4/79	21 13 30	57	3	60	2	****	0 OF 30
12/ 4/79	21 13 40	58	2	59	2	****	0 OF 30
12/ 4/79	21 13 50	55	2	59	2	****	0 OF 30
12/ 4/79	21 14 0	57	3	59	2	****	0 OF 30
12/ 4/79	21 14 10	57	2	59	2	****	0 OF 31
12/ 4/79	21 14 20	58	3	59	2	****	0 OF 31
12/ 4/79	21 14 30	58	3	58	2	****	0 OF 31
12/ 4/79	21 14 40	57	3	58	2	****	0 OF 31
12/ 4/79	21 14 50	57	2	58	3	****	0 OF 31
12/ 4/79	21 15 0	58	2	57	3	****	0 OF 31
12/ 4/79	21 15 10	60	2	57	2	****	0 OF 31
12/ 4/79	21 15 20	58	2	57	2	****	0 OF 31
12/ 4/79	21 15 30	54	2	57	2	****	0 OF 31
12/ 4/79	21 15 40	56	3	57	2	****	0 OF 31
12/ 4/79	21 15 50	54	2	57	2	****	0 OF 31
12/ 4/79	21 16 0	52	2	57	2	****	0 OF 31
12/ 4/79	21 16 11	53	2	57	2	****	0 OF 30
12/ 4/79	21 16 20	51	4	57	2	****	0 OF 30
12/ 4/79	21 16 30	53	2	56	2	****	0 OF 30
12/ 4/79	21 16 40	53	3	56	2	****	0 OF 30
12/ 4/79	21 16 49	50	2	56	2	****	0 OF 31
12/ 4/79	21 16 59	46	3	56	2	****	0 OF 31
12/ 4/79	21 17 9	52	2	56	2	****	0 OF 31
12/ 4/79	21 17 19	52	3	55	2	****	0 OF 31
12/ 4/79	21 17 29	49	2	55	2	****	0 OF 31
12/ 4/79	21 17 39	50	3	55	2	****	0 OF 31
12/ 4/79	21 17 50	52	2	55	2	****	0 OF 30
12/ 4/79	21 18 0	50	4	54	2	****	0 OF 30
12/ 4/79	21 18 10	47	3	54	3	****	0 OF 31
12/ 4/79	21 18 21	53	3	54	3	****	0 OF 30
12/ 4/79	21 18 31	51	4	54	3	****	0 OF 30
12/ 4/79	21 18 41	46	3	53	3	****	0 OF 30
12/ 4/79	21 18 50	50	3	53	3	****	0 OF 31
12/ 4/79	21 19 0	47	2	53	3	****	0 OF 31
12/ 4/79	21 19 10	51	2	53	3	****	0 OF 31
12/ 4/79	21 19 20	54	2	53	3	****	0 OF 31
12/ 4/79	21 19 29	53	3	53	3	****	0 OF 31
12/ 4/79	21 19 39	54	2	52	3	****	0 OF 31
12/ 4/79	21 19 50	50	2	52	3	****	0 OF 31
12/ 4/79	21 20 0	50	2	52	3	****	0 OF 31
12/ 4/79	21 20 10	53	3	52	3	****	0 OF 31
12/ 4/79	21 20 20	61	2	52	3	****	0 OF 31

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

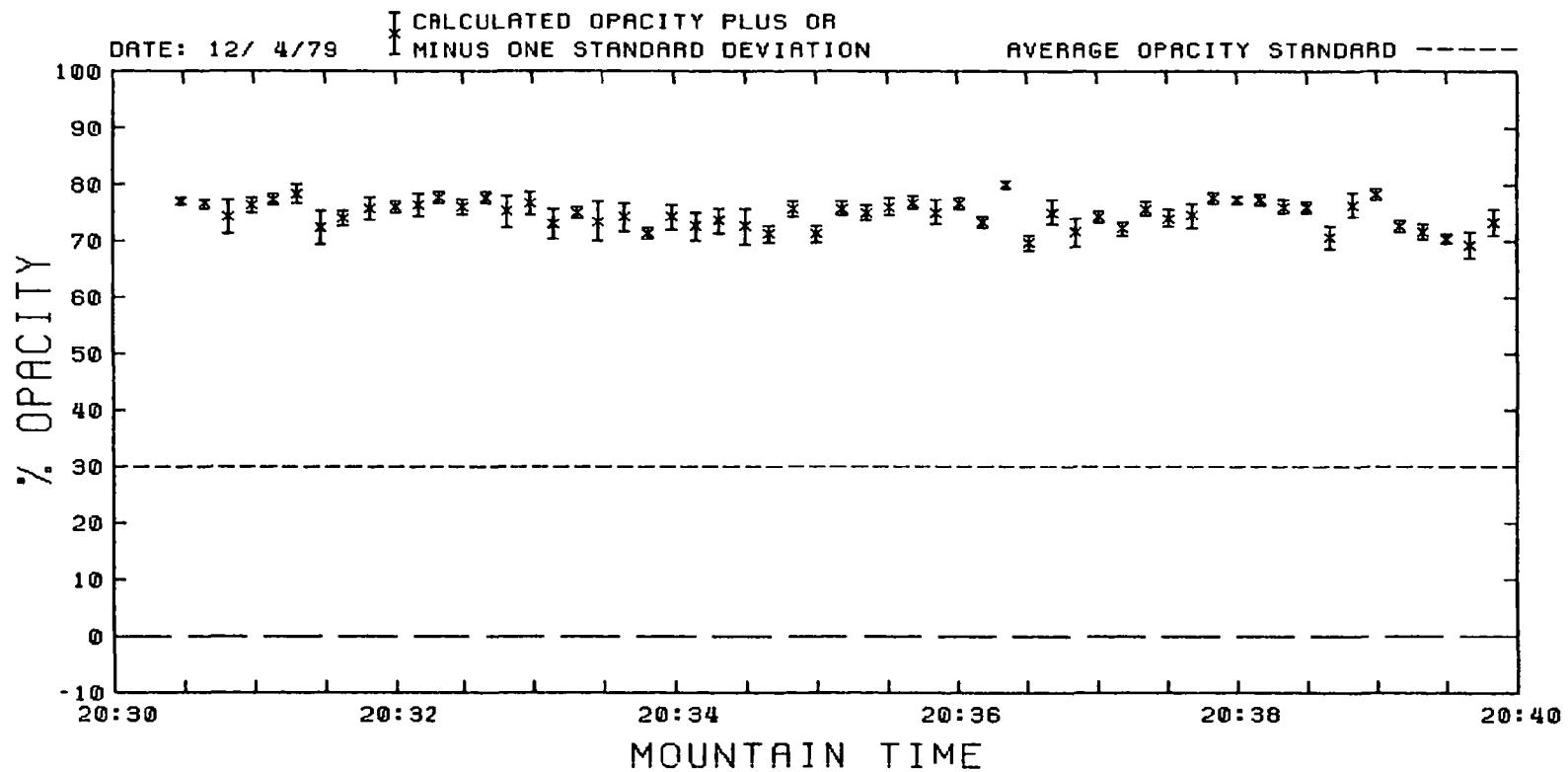
OMEGA-0027, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES

DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
12/ 4/79	21 20 30	61	3	52	3	**** 0 OF 31
12/ 4/79	21 20 40	61	2	52	3	**** 0 OF 31
12/ 4/79	21 20 50	62	2	52	3	**** 0 OF 31
12/ 4/79	21 21 0	59	2	53	3	**** 0 OF 31
12/ 4/79	21 21 10	64	3	53	3	**** 0 OF 31
12/ 4/79	21 21 20	60	2	53	3	**** 0 OF 31
12/ 4/79	21 21 30	61	3	53	3	**** 0 OF 31
12/ 4/79	21 21 39	63	3	54	3	**** 0 OF 31
12/ 4/79	21 21 49	65	2	54	3	**** 0 OF 31
12/ 4/79	21 21 59	63	3	55	3	**** 0 OF 31
12/ 4/79	21 22 9	66	1	55	2	**** 0 OF 31
12/ 4/79	21 22 19	77	1	56	2	**** 0 OF 31
12/ 4/79	21 22 29	71	2	57	2	**** 0 OF 31
12/ 4/79	21 22 39	70	1	57	2	**** 0 OF 31
12/ 4/79	21 22 48	74	1	58	2	**** 0 OF 31
12/ 4/79	21 22 58	71	2	59	2	**** 0 OF 31
12/ 4/79	21 23 8	74	3	60	2	**** 0 OF 31
12/ 4/79	21 23 18	77	1	60	2	**** 0 OF 31
12/ 4/79	21 23 29	70	1	61	2	**** 0 OF 31
12/ 4/79	21 23 39	75	2	62	2	**** 0 OF 31
12/ 4/79	21 23 50	73	3	63	2	**** 0 OF 31
12/ 4/79	21 24 1	71	1	64	2	**** 0 OF 30
12/ 4/79	21 24 20	75	1	65	2	**** 0 OF 30
12/ 4/79	21 24 30	76	2	66	2	**** 0 OF 29
12/ 4/79	21 24 40	72	1	66	2	**** 0 OF 29
12/ 4/79	21 24 49	77	1	67	2	**** 0 OF 30
12/ 4/79	21 24 59	76	1	68	2	**** 0 OF 30
12/ 4/79	21 25 9	75	1	68	2	**** 0 OF 30
12/ 4/79	21 25 19	74	1	69	2	**** 0 OF 30
12/ 4/79	21 25 29	76	1	70	2	**** 0 OF 30
12/ 4/79	21 25 39	70	1	70	2	**** 0 OF 30
12/ 4/79	21 25 49	72	2	70	2	**** 0 OF 30
12/ 4/79	21 25 59	77	1	71	2	**** 0 OF 30
12/ 4/79	21 26 9	75	1	71	2	**** 0 OF 30
12/ 4/79	21 26 19	77	1	72	2	**** 0 OF 30
12/ 4/79	21 26 29	76	1	72	2	**** 0 OF 30
12/ 4/79	21 26 40	76	1	73	1	**** 0 OF 29
12/ 4/79	21 26 50	74	3	73	2	**** 0 OF 29
12/ 4/79	21 27 0	71	1	74	1	**** 0 OF 29
12/ 4/79	21 27 10	74	1	74	1	**** 0 OF 29
12/ 4/79	21 27 20	72	1	74	1	**** 0 OF 29
12/ 4/79	21 27 30	76	3	74	1	**** 0 OF 29
12/ 4/79	21 27 40	75	1	74	1	**** 0 OF 29
12/ 4/79	21 27 50	70	3	74	2	**** 0 OF 29
12/ 4/79	21 28 0	75	2	74	2	**** 0 OF 29
12/ 4/79	21 28 10	71	2	74	2	**** 0 OF 29
12/ 4/79	21 28 20	69	1	74	2	**** 0 OF 29
12/ 4/79	21 28 30	73	3	74	2	**** 0 OF 29
12/ 4/79	21 28 40	74	1	74	2	**** 0 OF 29
12/ 4/79	21 28 50	73	3	74	2	**** 0 OF 30

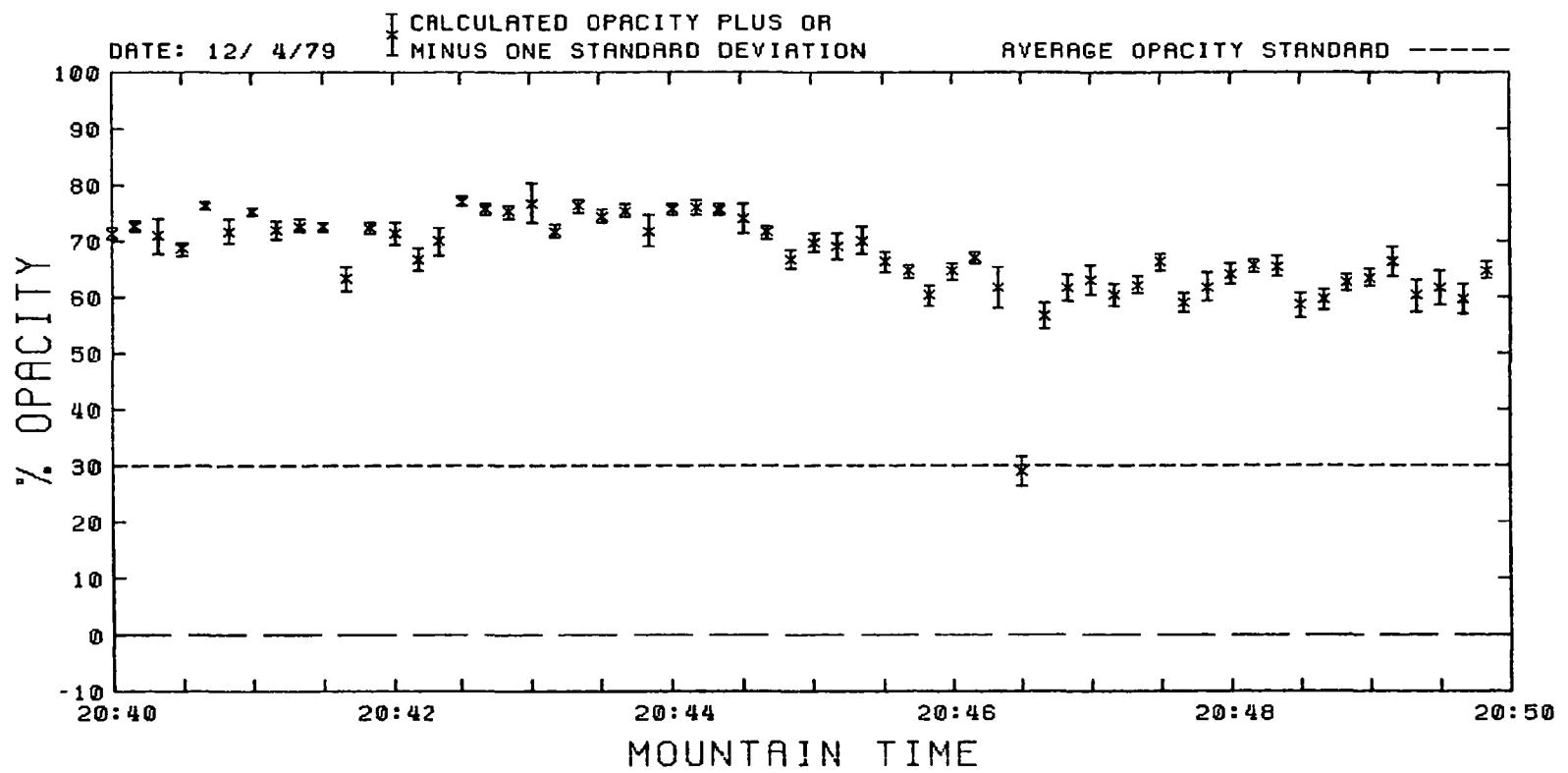
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
DENVER, COLORADO 80225

OMEGA-0027, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES  
DATE TIME OPACITY SO VIOLATION AVERAGE OPACITY AVERAGE SO VIOLATION NUMBER DISCARDED

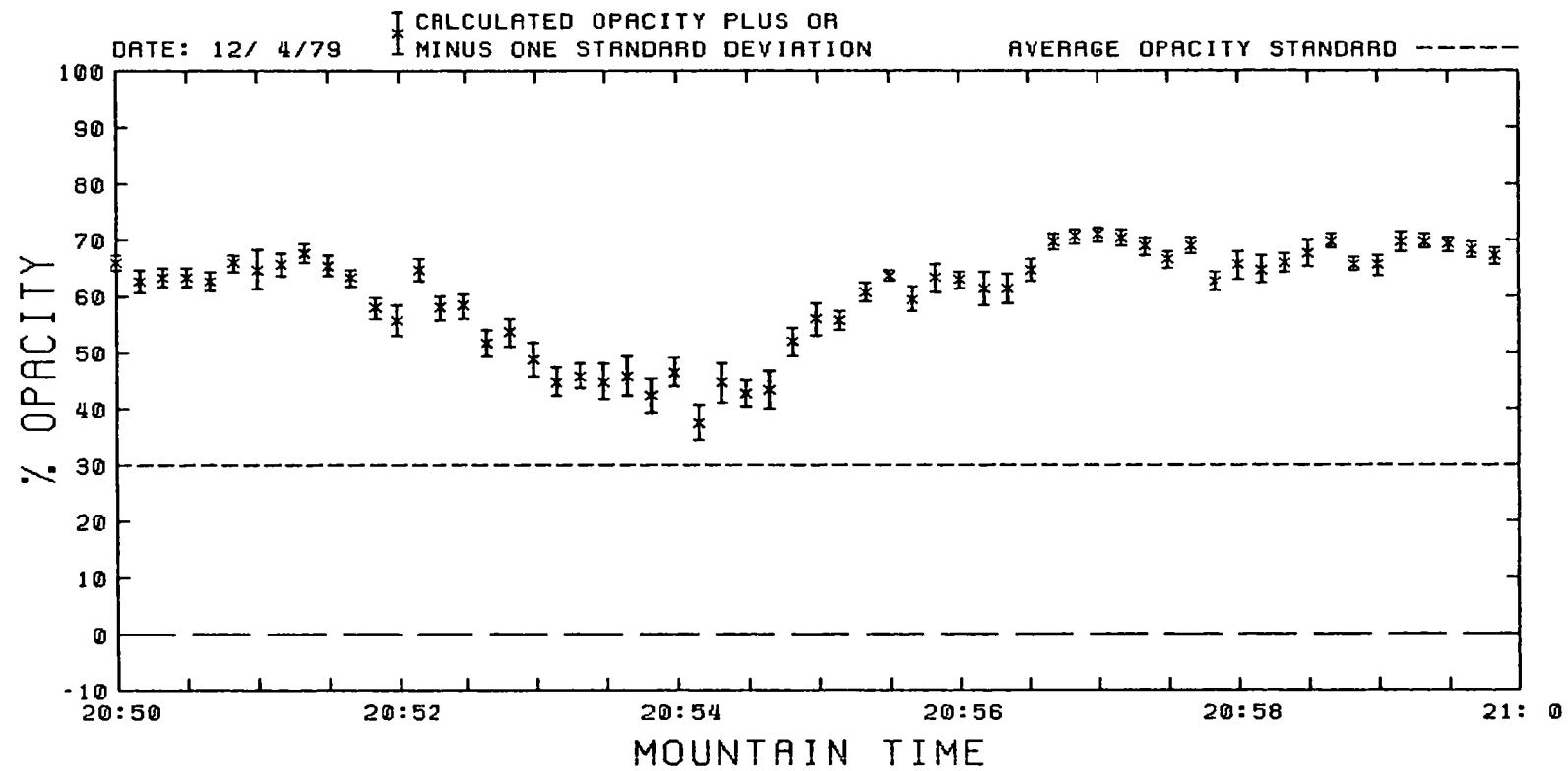
12/ 4/79	21 29 0	73	2	74	2	****	0 OF	30
12/ 4/79	21 29 10	73	3	74	2	****	0 OF	30
12/ 4/79	21 29 20	76	1	74	2	****	0 OF	31
12/ 4/79	21 29 30	73	3	74	2	****	0 OF	31
12/ 4/79	21 29 40	73	2	74	2	****	0 OF	31
12/ 4/79	21 29 50	76	1	74	2	****	0 OF	30
12/ 4/79	21 30 0	72	2	74	2	****	0 OF	30
12/ 4/79	21 30 10	74	3	74	2	****	0 OF	30
12/ 4/79	21 30 20	71	1	74	2	****	0 OF	30



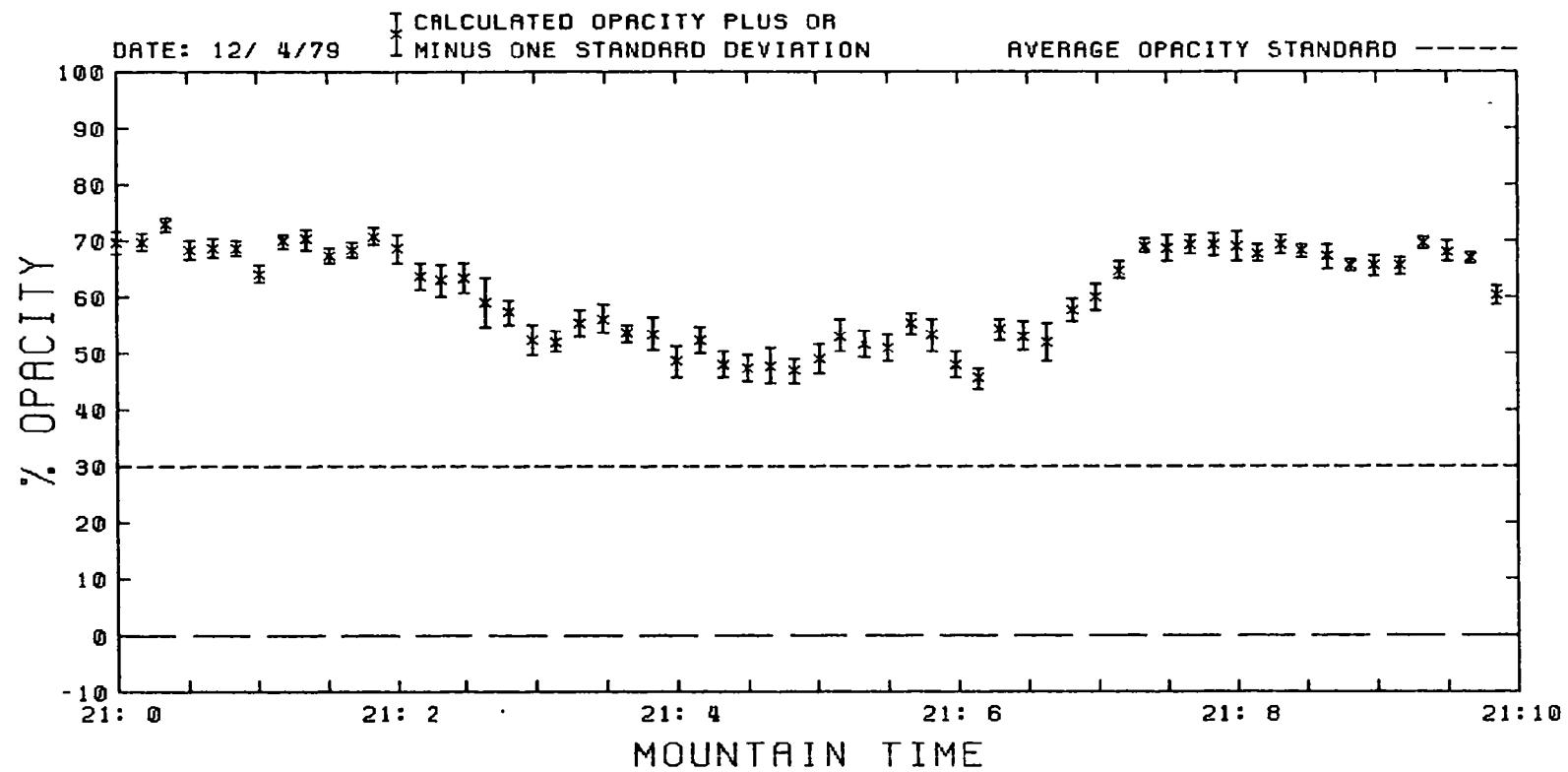
COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS



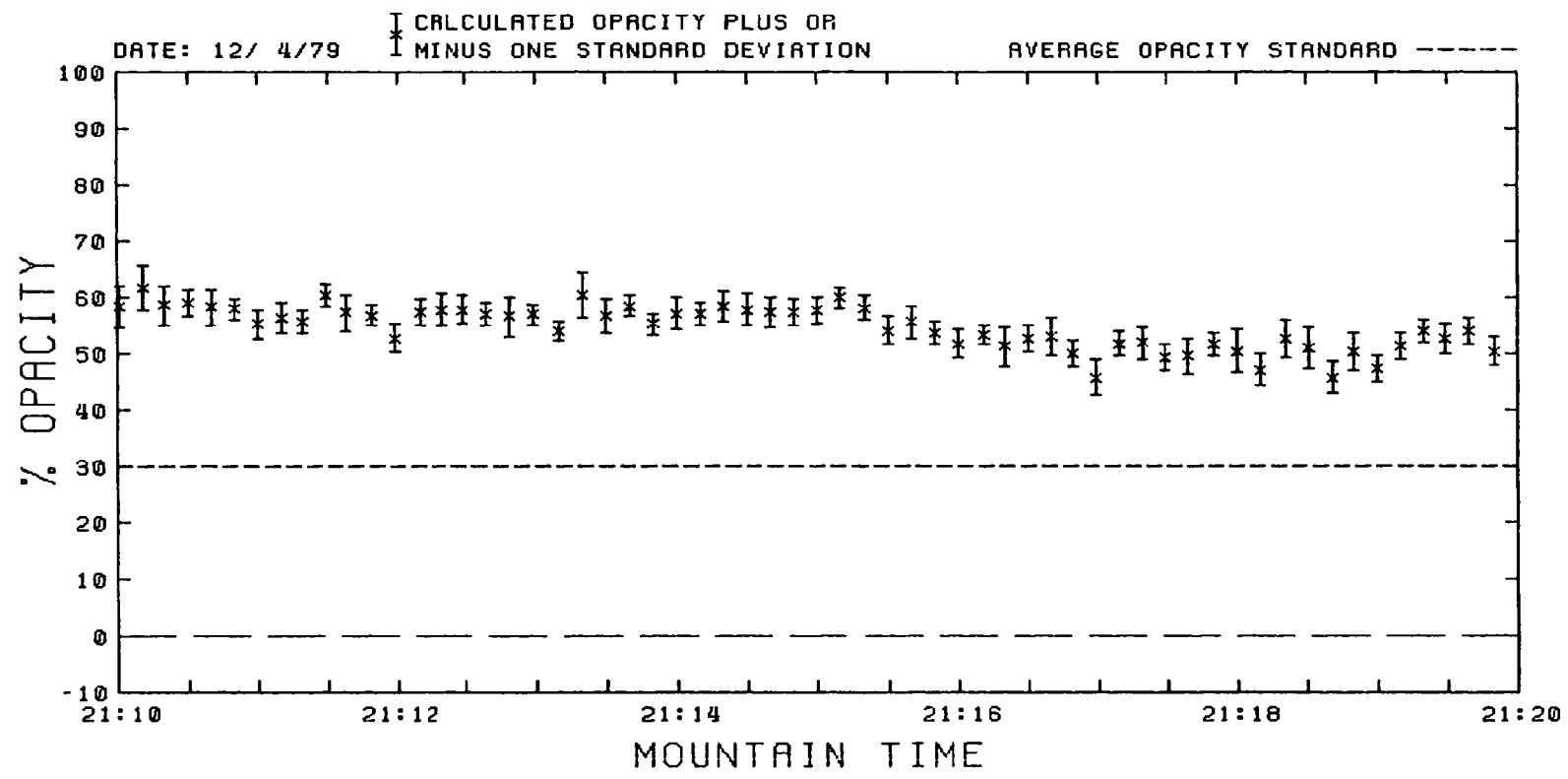
COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS



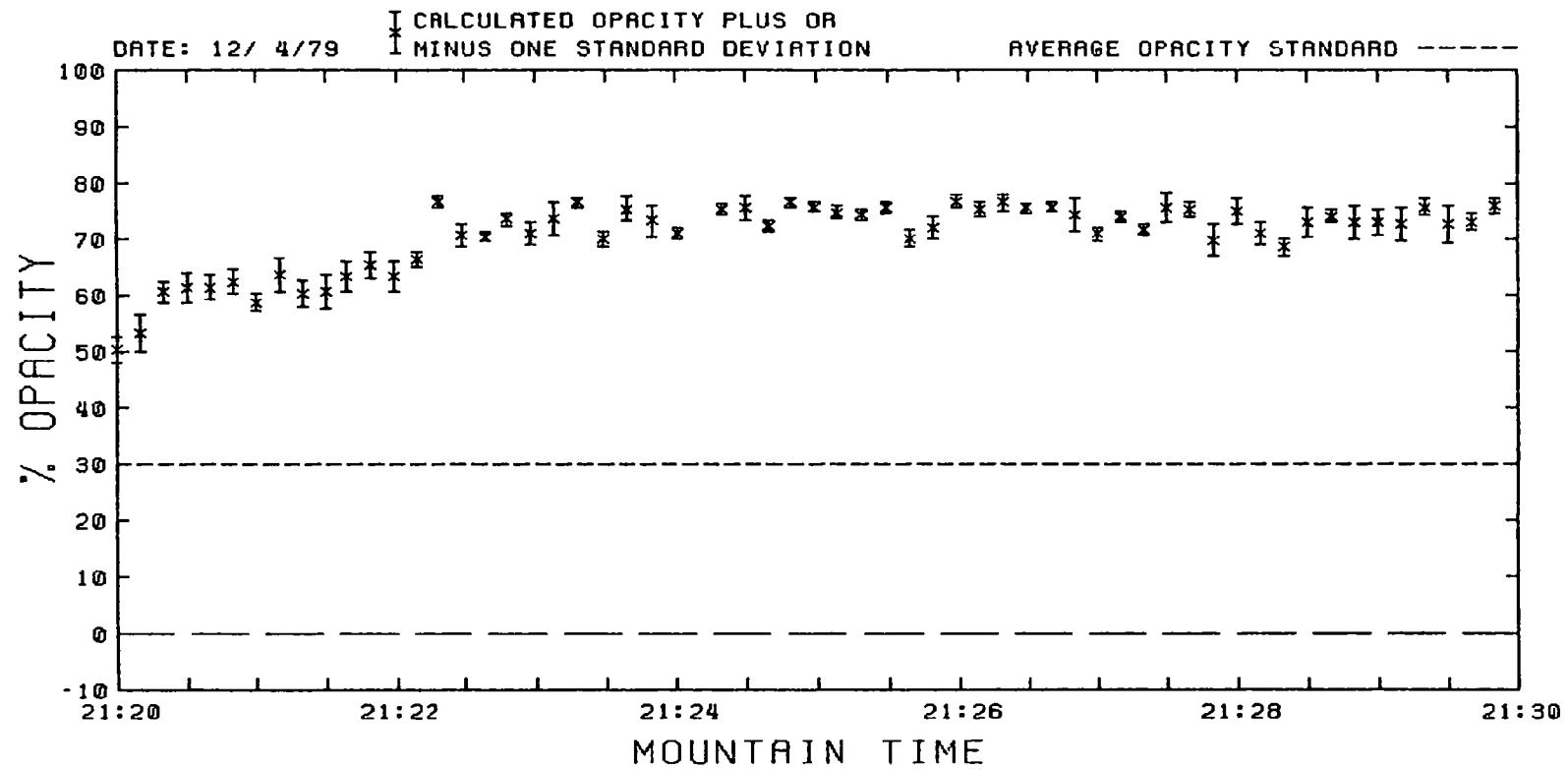
COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS



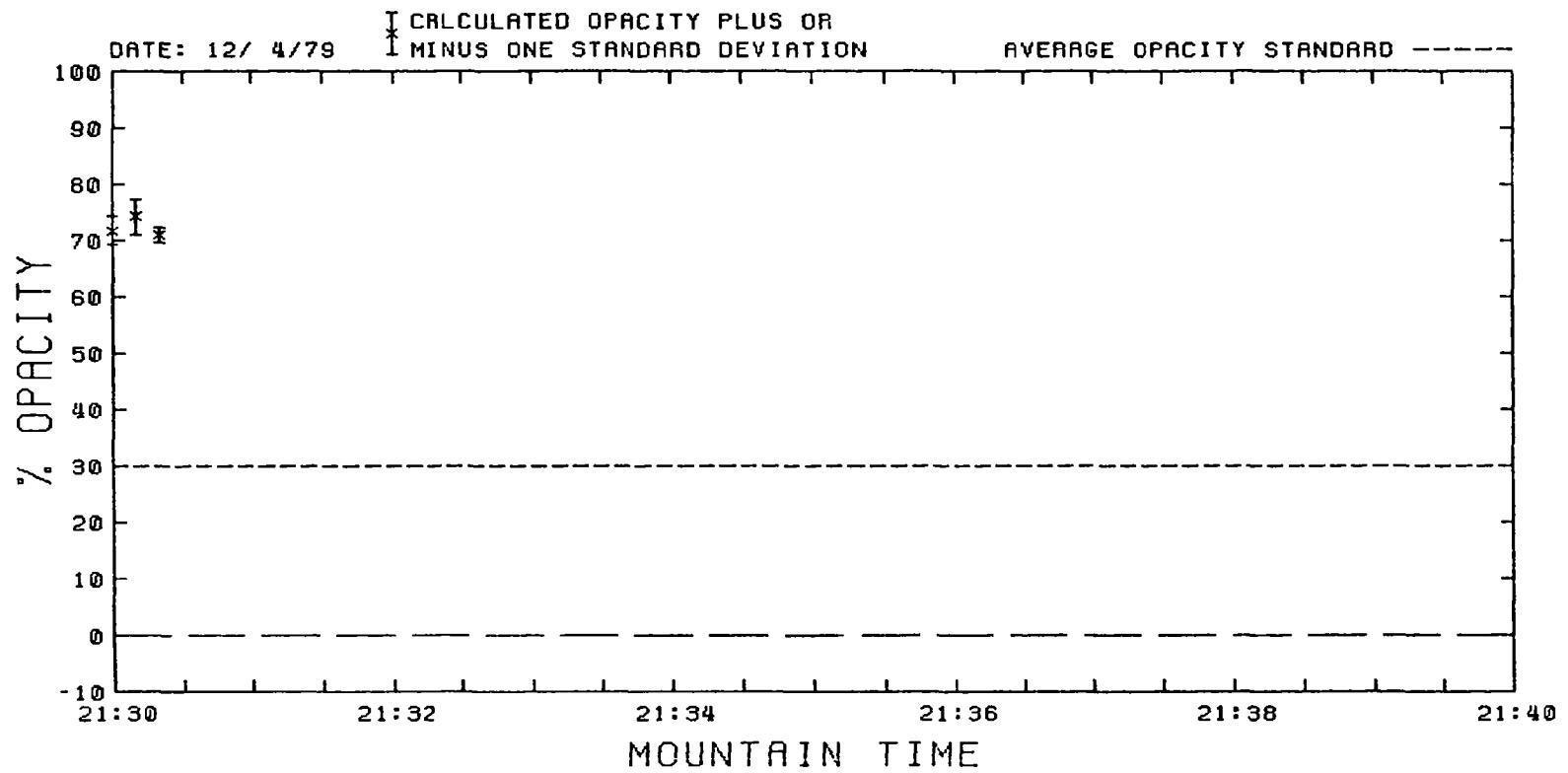
COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS



COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS



COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS



COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS

COPPER STACK

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0027. COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES  
 DATE TIME OPACITY SO VIOLATION AVERAGE OPACITY AVERAGE SO VIOLATION NUMBER DISCARDED

DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
12/ 4/79	21 40 10	74	1	0	0	0 OF 0
12/ 4/79	21 40 20	74	1	0	0	0 OF 0
12/ 4/79	21 40 29	74	1	0	0	0 OF 0
12/ 4/79	21 40 39	74	1	0	0	0 OF 0
12/ 4/79	21 40 49	75	2	0	0	0 OF 0
12/ 4/79	21 40 59	71	1	0	0	0 OF 0
12/ 4/79	21 41 9	69	1	0	0	0 OF 0
12/ 4/79	21 41 19	74	2	0	0	0 OF 0
12/ 4/79	21 41 28	67	2	0	0	0 OF 0
12/ 4/79	21 41 38	71	2	0	0	0 OF 0
12/ 4/79	21 41 48	67	2	0	0	0 OF 0
12/ 4/79	21 41 56	65	2	0	0	0 OF 0
12/ 4/79	21 42 6	70	2	0	0	0 OF 0
12/ 4/79	21 42 16	69	3	0	0	0 OF 0
12/ 4/79	21 42 23	70	2	0	0	0 OF 0
12/ 4/79	21 42 27	75	1	0	0	0 OF 0
12/ 4/79	21 42 31	69	2	0	0	0 OF 0
12/ 4/79	21 42 36	68	2	0	0	0 OF 0
12/ 4/79	21 42 40	58	3	0	0	0 OF 0
12/ 4/79	21 42 45	62	2	0	0	0 OF 0
12/ 4/79	21 42 49	66	2	0	0	0 OF 0
12/ 4/79	21 42 54	68	1	0	0	0 OF 0
12/ 4/79	21 42 59	65	1	0	0	0 OF 0
12/ 4/79	21 43 3	70	2	0	0	0 OF 0
12/ 4/79	21 43 8	68	2	0	0	0 OF 0
12/ 4/79	21 43 12	70	3	0	0	0 OF 0
12/ 4/79	21 43 17	69	3	0	0	0 OF 0
12/ 4/79	21 43 21	70	3	0	0	0 OF 0
12/ 4/79	21 43 26	76	1	0	0	0 OF 0
12/ 4/79	21 43 31	72	2	0	0	0 OF 0
12/ 4/79	21 43 35	69	2	0	0	0 OF 0
12/ 4/79	21 43 40	71	3	0	0	0 OF 0
12/ 4/79	21 43 44	73	1	0	0	0 OF 0
12/ 4/79	21 43 49	73	2	0	0	0 OF 0
12/ 4/79	21 43 54	74	1	0	0	0 OF 0
12/ 4/79	21 43 58	71	3	0	0	0 OF 0
12/ 4/79	21 44 3	73	1	0	0	0 OF 0
12/ 4/79	21 44 7	71	1	0	0	0 OF 0
12/ 4/79	21 44 12	73	1	0	0	0 OF 0
12/ 4/79	21 44 17	71	4	0	0	0 OF 0
12/ 4/79	21 44 21	75	2	0	0	0 OF 0
12/ 4/79	21 44 26	76	1	0	0	0 OF 0
12/ 4/79	21 44 30	75	3	0	0	0 OF 0
12/ 4/79	21 44 35	67	2	0	0	0 OF 0
12/ 4/79	21 44 39	72	1	0	0	0 OF 0
12/ 4/79	21 44 44	70	4	0	0	0 OF 0
12/ 4/79	21 44 49	69	4	0	0	0 OF 0
12/ 4/79	21 44 53	73	3	0	0	0 OF 0
12/ 4/79	21 44 58	74	1	71	2	**** 0 OF 49
12/ 4/79	21 45 2	65	3	71	2	**** 0 OF 50

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0027, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES

DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
------	------	---------	--------------	-----------------	----------------------	------------------

12/ 4/79	21 45 7	72	3	71	2	****	0 OF 51
12/ 4/79	21 45 12	68	2	70	2	****	0 OF 51
12/ 4/79	21 45 16	72	3	70	2	****	0 OF 52
12/ 4/79	21 45 21	75	1	70	2	****	0 OF 52
12/ 4/79	21 45 25	71	3	71	2	****	0 OF 53
12/ 4/79	21 45 30	74	2	71	2	****	0 OF 53
12/ 4/79	21 45 35	75	1	71	2	****	0 OF 54
12/ 4/79	21 45 39	76	1	71	2	****	0 OF 55
12/ 4/79	21 45 44	75	1	71	2	****	0 OF 55
12/ 4/79	21 45 48	73	2	71	2	****	0 OF 56
12/ 4/79	21 45 53	74	1	71	2	****	0 OF 56
12/ 4/79	21 45 58	75	1	71	2	****	0 OF 57
12/ 4/79	21 46 2	76	1	71	2	****	0 OF 57
12/ 4/79	21 46 7	77	1	71	2	****	0 OF 58
12/ 4/79	21 46 11	75	1	71	2	****	0 OF 58
12/ 4/79	21 46 16	74	1	71	2	****	0 OF 59
12/ 4/79	21 46 21	77	2	71	2	****	0 OF 59
12/ 4/79	21 46 25	76	1	71	2	****	0 OF 60
12/ 4/79	21 46 30	74	1	71	2	****	0 OF 60
12/ 4/79	21 46 34	74	1	71	2	****	0 OF 61
12/ 4/79	21 46 39	77	4	72	2	****	0 OF 61
12/ 4/79	21 46 44	72	1	72	2	****	0 OF 62
12/ 4/79	21 46 48	71	2	72	2	****	0 OF 63
12/ 4/79	21 46 53	69	2	72	2	****	0 OF 63
12/ 4/79	21 46 57	68	2	72	2	****	0 OF 63
12/ 4/79	21 47 2	72	2	72	2	****	0 OF 64
12/ 4/79	21 47 6	71	3	72	2	****	0 OF 65
12/ 4/79	21 47 11	75	1	72	2	****	0 OF 65
12/ 4/79	21 47 16	69	2	72	2	****	0 OF 66
12/ 4/79	21 47 20	75	2	72	2	****	0 OF 66
12/ 4/79	21 47 25	70	4	72	2	****	0 OF 66
12/ 4/79	21 47 29	73	3	72	2	****	0 OF 66
12/ 4/79	21 47 34	76	1	72	2	****	0 OF 66
12/ 4/79	21 47 39	75	1	72	2	****	0 OF 66
12/ 4/79	21 47 43	76	1	72	2	****	0 OF 66
12/ 4/79	21 47 48	74	1	72	2	****	0 OF 66
12/ 4/79	21 47 52	70	2	72	2	****	0 OF 66
12/ 4/79	21 47 57	75	1	73	2	****	0 OF 66
12/ 4/79	21 48 2	72	2	73	2	****	0 OF 66
12/ 4/79	21 48 6	75	1	73	2	****	0 OF 66
12/ 4/79	21 48 11	72	2	73	2	****	0 OF 66
12/ 4/79	21 48 15	75	3	73	2	****	0 OF 66
12/ 4/79	21 48 20	74	1	73	2	****	0 OF 66
12/ 4/79	21 48 24	75	1	73	2	****	0 OF 66
12/ 4/79	21 48 29	74	1	73	2	****	0 OF 66
12/ 4/79	21 48 34	81	1	73	2	****	0 OF 66
12/ 4/79	21 48 38	74	1	73	2	****	0 OF 66
12/ 4/79	21 48 43	76	4	73	2	****	0 OF 66
12/ 4/79	21 48 47	74	2	73	2	****	0 OF 66
12/ 4/79	21 48 52	74	1	73	2	****	0 OF 66

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0027, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES  
 DATE TIME OPACITY SO VIOLATION AVERAGE OPACITY AVERAGE SO VIOLATION NUMBER DISCARDED

12/ 4/79	21 48 57	76	1	73	2	****	0 OF	66
12/ 4/79	21 49 1	74	2	73	2	****	0 OF	66
12/ 4/79	21 49 6	80	1	73	2	****	0 OF	66
12/ 4/79	21 49 10	75	2	74	2	****	0 OF	66
12/ 4/79	21 49 15	72	2	73	2	****	0 OF	66
12/ 4/79	21 49 20	81	1	74	2	****	0 OF	66
12/ 4/79	21 49 24	76	1	74	2	****	0 OF	66
12/ 4/79	21 49 29	75	1	74	2	****	0 OF	66
12/ 4/79	21 49 33	74	2	74	2	****	0 OF	66
12/ 4/79	21 49 38	80	4	74	2	****	0 OF	66
12/ 4/79	21 49 43	75	1	74	2	****	0 OF	66
12/ 4/79	21 49 47	73	1	74	2	****	0 OF	66
12/ 4/79	21 49 52	75	4	74	2	****	0 OF	66
12/ 4/79	21 49 56	74	1	74	2	****	0 OF	66
12/ 4/79	21 50 1	75	4	74	2	****	0 OF	66
12/ 4/79	21 50 5	74	1	74	2	****	0 OF	66
12/ 4/79	21 50 10	75	1	74	2	****	0 OF	66
12/ 4/79	21 50 15	72	3	74	2	****	0 OF	66
12/ 4/79	21 50 19	72	1	74	2	****	0 OF	66
12/ 4/79	21 50 24	73	1	74	2	****	0 OF	66
12/ 4/79	21 50 28	74	1	74	2	****	0 OF	66
12/ 4/79	21 50 33	73	1	74	2	****	0 OF	66
12/ 4/79	21 50 38	73	1	74	2	****	0 OF	66
12/ 4/79	21 50 42	74	1	74	2	****	0 OF	66
12/ 4/79	21 50 47	74	1	74	2	****	0 OF	66
12/ 4/79	21 50 51	75	1	74	2	****	0 OF	66
12/ 4/79	21 50 56	76	1	74	2	****	0 OF	66
12/ 4/79	21 51 0	71	1	74	2	****	0 OF	66
12/ 4/79	21 51 5	73	1	74	2	****	0 OF	66
12/ 4/79	21 51:10	67	2	74	2	****	0 OF	66
12/ 4/79	21 51 14	70	1	74	2	****	0 OF	66
12/ 4/79	21 51 19	73	1	74	2	****	0 OF	66
12/ 4/79	21 51 23	73	1	74	2	****	0 OF	66
12/ 4/79	21:51 28	73	1	74	2	****	0 OF	66
12/ 4/79	21 51 33	72	1	74	2	****	0 OF	66
12/ 4/79	21 51 37	77	1	74	2	****	0 OF	66
12/ 4/79	21 51 42	74	1	74	2	****	0 OF	66
12/ 4/79	21 51 46	74	1	74	2	****	0 OF	66
12/ 4/79	21 51 51	71	1	74	2	****	0 OF	66
12/ 4/79	21 51 56	75	1	74	2	****	0 OF	66
12/ 4/79	21 52 0	73	1	74	2	****	0 OF	66
12/ 4/79	21 52 5	73	1	74	2	****	0 OF	66
12/ 4/79	21 52 9	72	2	74	2	****	0 OF	66
12/ 4/79	21 52 14	70	2	74	2	****	0 OF	66
12/ 4/79	21 52 19	74	1	74	2	****	0 OF	66
12/ 4/79	21 52 23	71	2	74	2	****	0 OF	66
12/ 4/79	21 52 28	63	2	74	2	****	0 OF	66
12/ 4/79	21 52 32	69	2	74	2	****	0 OF	66
12/ 4/79	21 52 37	74	1	74	2	****	0 OF	66
12/ 4/79	21 52 42	66	2	74	2	****	0 OF	66

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0027. COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES							
DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED	
12/ 4/79	21 52 46	74	1	74	2	****	0 OF 66
12/ 4/79	21 52 51	70	1	74	2	****	0 OF 66
12/ 4/79	21 52 55	60	2	73	2	****	0 OF 66
12/ 4/79	21 53 0	72	1	73	2	****	0 OF 66
12/ 4/79	21 53 4	66	2	73	2	****	0 OF 66
12/ 4/79	21 53 9	65	2	73	2	****	0 OF 66
12/ 4/79	21 53 14	68	1	73	2	****	0 OF 66
12/ 4/79	21 53 18	69	2	73	2	****	0 OF 66
12/ 4/79	21 53 23	67	2	73	2	****	0 OF 66
12/ 4/79	21 53 27	56	3	73	2	****	0 OF 66
12/ 4/79	21 53 32	63	2	72	2	****	0 OF 66
12/ 4/79	21 53 37	45	2	72	2	****	0 OF 66
12/ 4/79	21 53 41	67	2	72	2	****	0 OF 66
12/ 4/79	21 53 46	65	2	72	2	****	0 OF 66
12/ 4/79	21 53 50	63	2	71	2	****	0 OF 66
12/ 4/79	21 53 55	56	2	71	2	****	0 OF 66
12/ 4/79	21 53 59	64	2	71	2	****	0 OF 66
12/ 4/79	21 54 4	62	2	71	2	****	0 OF 66
12/ 4/79	21 54 9	69	2	71	2	****	0 OF 66
12/ 4/79	21 54 13	63	1	70	2	****	0 OF 66
12/ 4/79	21 54 18	69	2	70	2	****	0 OF 66
12/ 4/79	21 54 22	56	3	70	2	****	0 OF 66
12/ 4/79	21 54 27	63	1	70	2	****	0 OF 66
12/ 4/79	21 54 32	62	4	70	2	****	0 OF 66
12/ 4/79	21 54 36	62	2	69	2	****	0 OF 66
12/ 4/79	21 54 41	64	1	69	2	****	0 OF 66
12/ 4/79	21 54 45	60	4	69	2	****	0 OF 66
12/ 4/79	21 54 50	62	3	69	2	****	0 OF 66
12/ 4/79	21 54 54	50	4	68	2	****	0 OF 66
12/ 4/79	21 54 59	53	3	68	2	****	0 OF 66
12/ 4/79	21 55 4	64	3	68	2	****	0 OF 66
12/ 4/79	21 55 8	60	4	68	2	****	0 OF 66
12/ 4/79	21 55 13	61	2	68	2	****	0 OF 66
12/ 4/79	21 55 17	57	2	67	2	****	0 OF 66
12/ 4/79	21 55 22	56	3	67	2	****	0 OF 66
12/ 4/79	21 55 26	59	3	67	2	****	0 OF 66
12/ 4/79	21 55 31	61	3	67	2	****	0 OF 66
12/ 4/79	21 55 35	59	3	66	2	****	0 OF 66
12/ 4/79	21 55 40	61	2	66	2	****	0 OF 66
12/ 4/79	21 55 45	63	2	66	2	****	0 OF 66
12/ 4/79	21 55 49	60	3	66	2	****	0 OF 66
12/ 4/79	21 55 54	60	2	66	2	****	0 OF 66
12/ 4/79	21 55 58	60	2	65	2	****	0 OF 66
12/ 4/79	21 56 3	60	3	65	2	****	0 OF 66
12/ 4/79	21 56 7	62	4	65	2	****	0 OF 66
12/ 4/79	21 56 12	56	3	65	2	****	0 OF 66
12/ 4/79	21 56 17	63	4	65	2	****	0 OF 66
12/ 4/79	21 56 21	65	2	65	2	****	0 OF 66
12/ 4/79	21 56 26	64	3	65	2	****	0 OF 66
12/ 4/79	21 56 30	65	2	64	2	****	0 OF 66

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

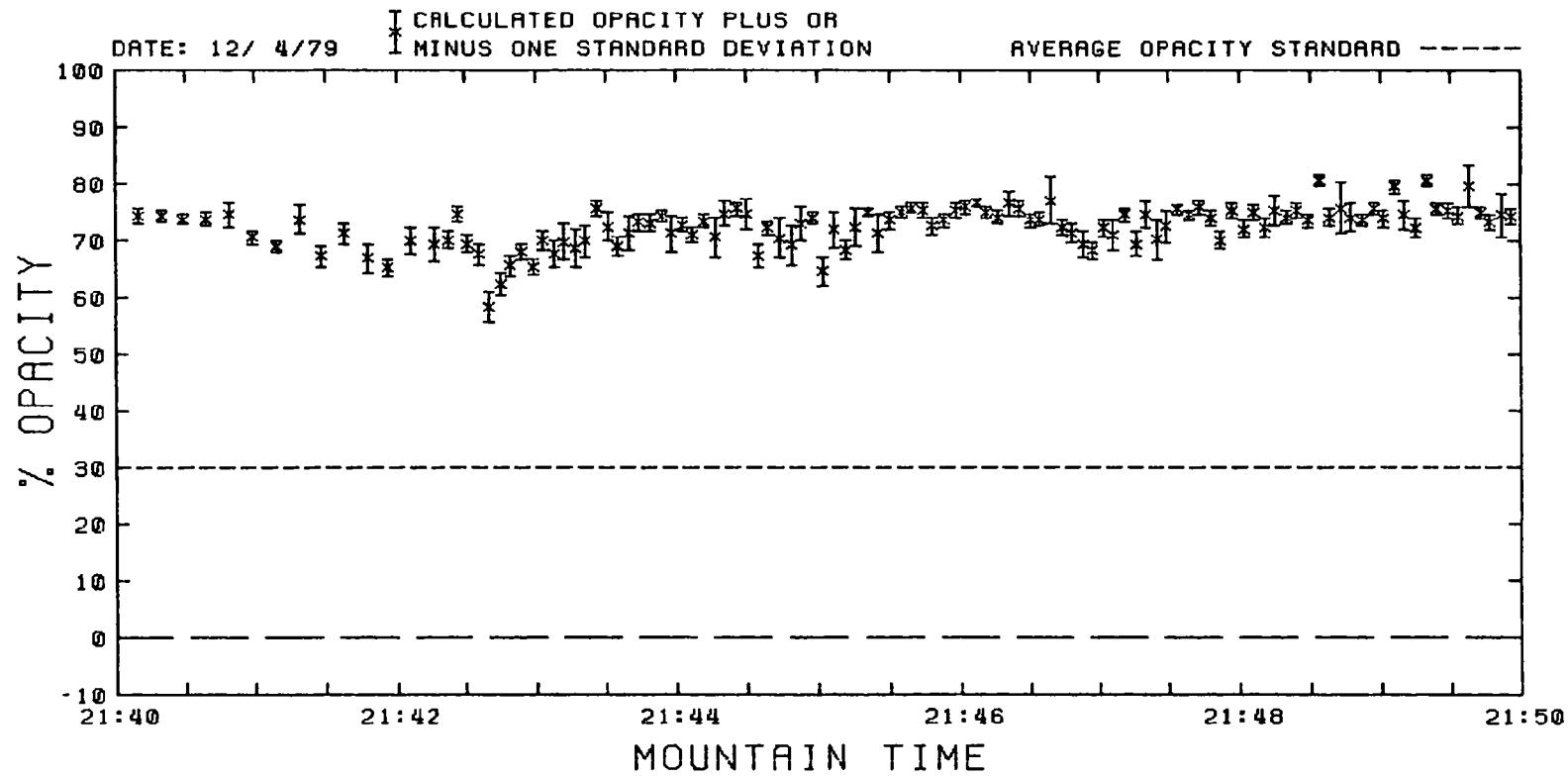
OMEGA-0027, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES

DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
------	------	---------	--------------	-----------------	----------------------	------------------

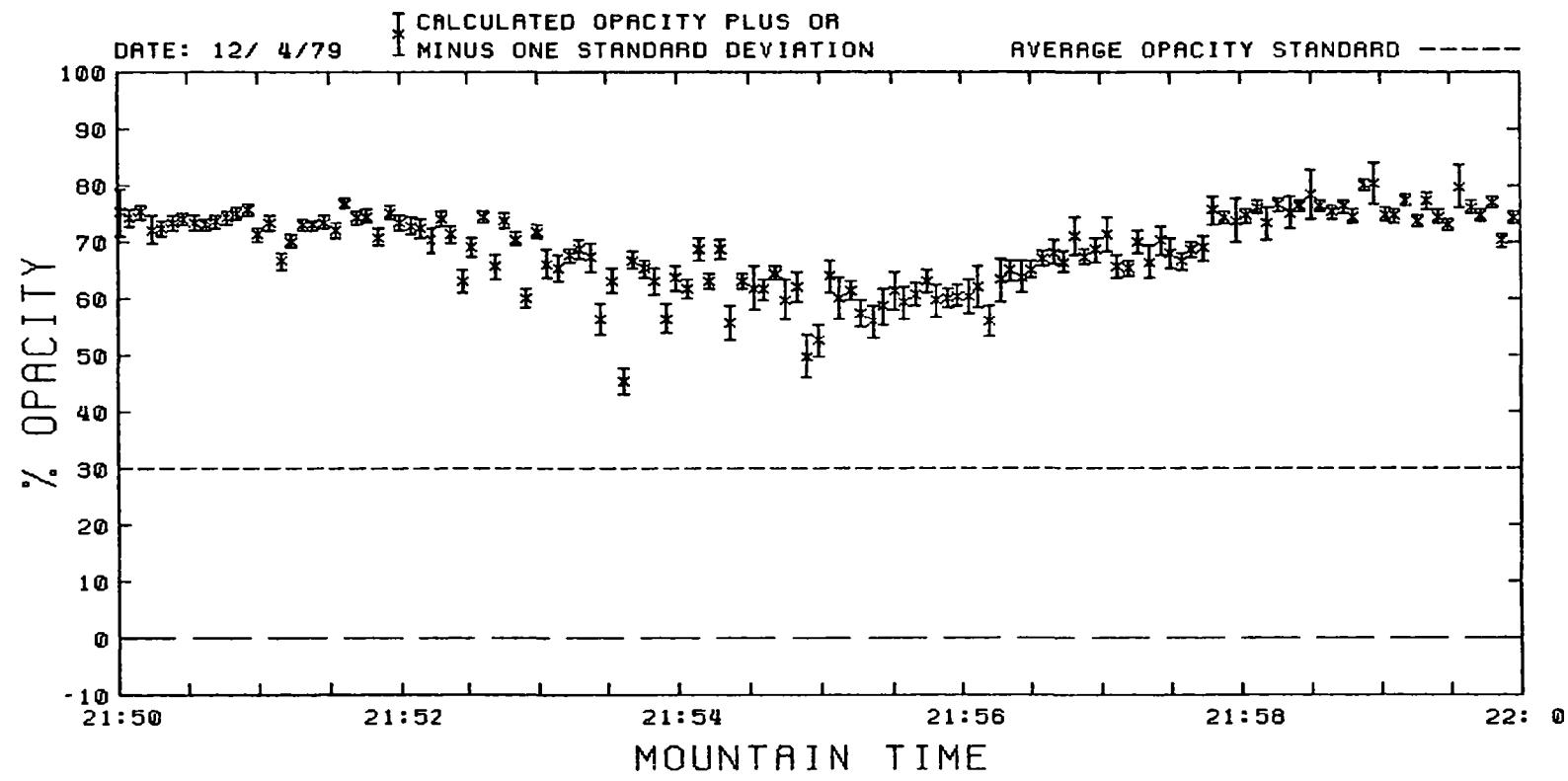
12/ 4/79	21 56 35	67	1	64	2	****	0 OF 66
12/ 4/79	21 56 40	68	2	64	2	****	0 OF 66
12/ 4/79	21 56 44	66	2	64	2	****	0 OF 66
12/ 4/79	21 56 49	71	3	64	2	****	0 OF 66
12/ 4/79	21 56 53	67	1	64	2	****	0 OF 66
12/ 4/79	21 56 58	69	2	64	2	****	0 OF 66
12/ 4/79	21 57 3	71	3	64	2	****	0 OF 66
12/ 4/79	21 57 7	66	2	64	2	****	0 OF 66
12/ 4/79	21 57 12	65	1	64	2	****	0 OF 66
12/ 4/79	21 57 16	70	2	64	2	****	0 OF 66
12/ 4/79	21 57 21	66	3	64	2	****	0 OF 66
12/ 4/79	21 57 26	70	3	64	2	****	0 OF 66
12/ 4/79	21 57 30	68	3	64	2	****	0 OF 66
12/ 4/79	21 57 35	67	1	64	2	****	0 OF 66
12/ 4/79	21 57 39	69	1	63	2	****	0 OF 66
12/ 4/79	21 57 44	69	2	64	2	****	0 OF 66
12/ 4/79	21 57 48	76	3	64	2	****	0 OF 66
12/ 4/79	21 57 53	74	1	64	2	****	0 OF 66
12/ 4/79	21 57 58	74	4	64	2	****	0 OF 66
12/ 4/79	21 58 2	75	1	64	2	****	0 OF 66
12/ 4/79	21 58 7	76	1	64	2	****	0 OF 66
12/ 4/79	21 58 11	73	3	64	2	****	0 OF 66
12/ 4/79	21 58 16	77	1	64	2	****	0 OF 66
12/ 4/79	21 58 21	75	3	64	2	****	0 OF 66
12/ 4/79	21 58 25	76	1	64	2	****	0 OF 66
12/ 4/79	21 58 30	78	4	65	2	****	0 OF 66
12/ 4/79	21 58 34	76	1	65	2	****	0 OF 66
12/ 4/79	21 58 39	75	1	65	2	****	0 OF 66
12/ 4/79	21 58 44	76	1	66	2	****	0 OF 66
12/ 4/79	21 58 48	74	1	66	2	****	0 OF 66
12/ 4/79	21 58 53	80	1	66	2	****	0 OF 66
12/ 4/79	21 58 57	80	4	66	2	****	0 OF 66
12/ 4/79	21 59 2	75	1	67	2	****	0 OF 66
12/ 4/79	21 59 6	75	1	67	2	****	0 OF 66
12/ 4/79	21 59 11	77	1	67	2	****	0 OF 66
12/ 4/79	21 59 16	74	1	67	2	****	0 OF 66
12/ 4/79	21 59 20	77	1	67	2	****	0 OF 66
12/ 4/79	21 59 25	74	1	67	2	****	0 OF 66
12/ 4/79	21 59 29	73	1	68	2	****	0 OF 66
12/ 4/79	21 59 34	80	4	68	2	****	0 OF 66
12/ 4/79	21 59 39	76	1	68	2	****	0 OF 66
12/ 4/79	21 59 43	75	1	68	2	****	0 OF 66
12/ 4/79	21 59 48	77	1	69	2	****	0 OF 66
12/ 4/79	21 59 52	70	1	69	2	****	0 OF 66
12/ 4/79	21 59 57	74	1	69	2	****	0 OF 66
12/ 4/79	22 0 2	75	2	69	2	****	0 OF 66
12/ 4/79	22 0 6	70	3	69	2	****	0 OF 66
12/ 4/79	22 0 11	74	3	70	2	****	0 OF 66
12/ 4/79	22 0 15	74	1	70	2	****	0 OF 66
12/ 4/79	22 0 20	74	1	70	2	****	0 OF 66

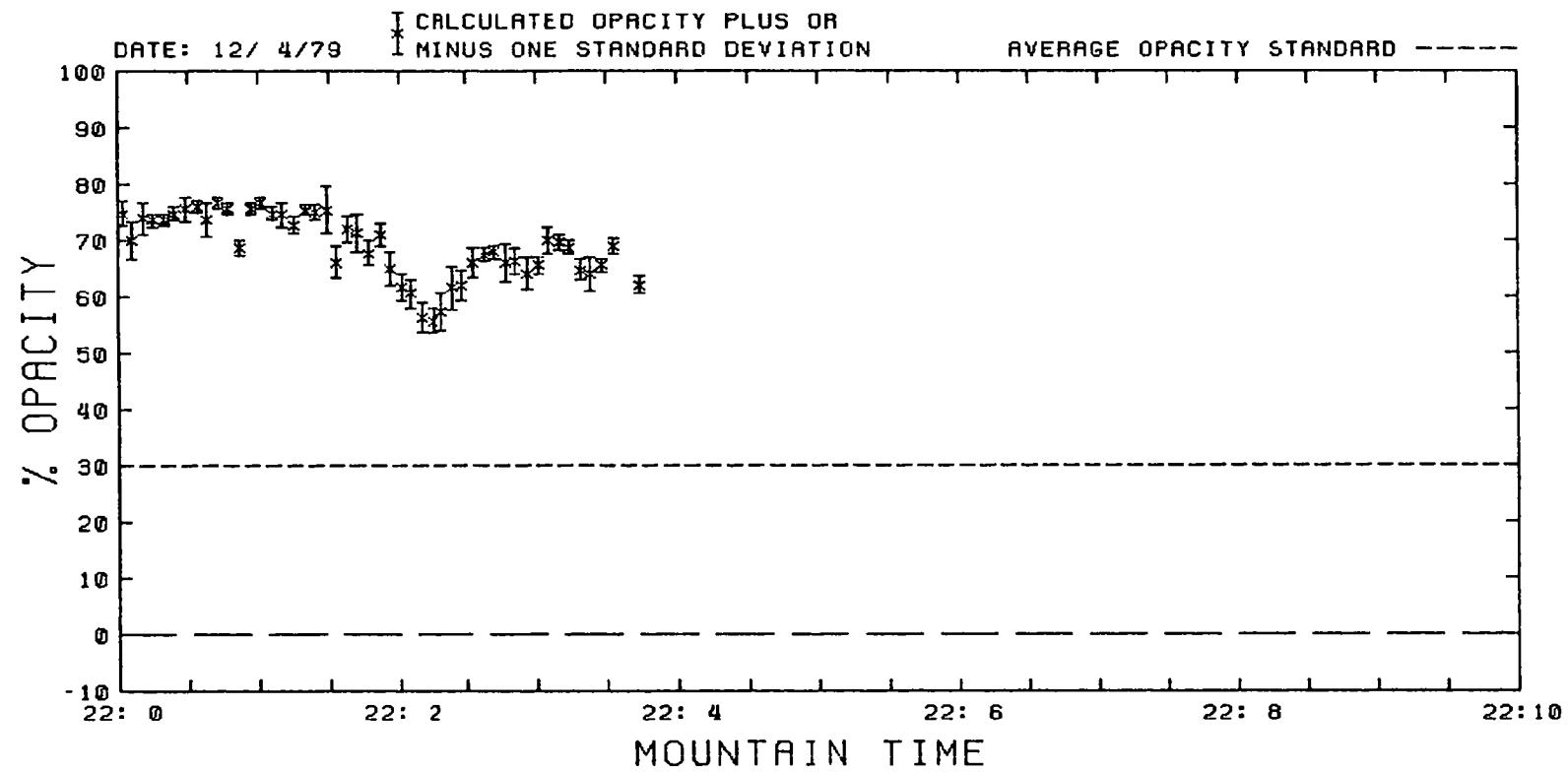
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0027, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES							
DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED	
12/ 4/79	22 0 24	75	1	70	2	****	0 OF 66
12/ 4/79	22 0 29	76	2	71	2	****	0 OF 66
12/ 4/79	22 0 34	76	1	71	2	****	0 OF 66
12/ 4/79	22 0 38	74	3	71	2	****	0 OF 66
12/ 4/79	22 0 43	77	1	71	2	****	0 OF 66
12/ 4/79	22 0 47	76	1	71	2	****	0 OF 66
12/ 4/79	22 0 52	69	1	72	2	****	0 OF 66
12/ 4/79	22 0 57	76	1	72	2	****	0 OF 66
12/ 4/79	22 1 1	77	1	72	2	****	0 OF 66
12/ 4/79	22 1. 6	75	1	72	2	****	0 OF 66
12/ 4/79	22 1 10	75	2	73	2	****	0 OF 66
12/ 4/79	22 1 15	73	1	73	2	****	0 OF 66
12/ 4/79	22 1 20	75	1	73	2	****	0 OF 66
12/ 4/79	22 1 24	75	1	73	2	****	0 OF 66
12/ 4/79	22 1 29	75	4	73	2	****	0 OF 66
12/ 4/79	22 1 33	66	3	73	2	****	0 OF 66
12/ 4/79	22 1 38	72	2	73	2	****	0 OF 66
12/ 4/79	22 1 42	71	3	73	2	****	0 OF 66
12/ 4/79	22 1. 47	68	2	73	2	****	0 OF 66
12/ 4/79	22 1 52	71	2	73	2	****	0 OF 66
12/ 4/79	22 1 56	65	3	73	2	****	0 OF 66
12/ 4/79	22 2 1	62	2	73	2	****	0 OF 66
12/ 4/79	22 2 5	61	2	73	2	****	0 OF 66
12/ 4/79	22 2 10	56	3	73	2	****	0 OF 66
12/ 4/79	22 2 15	56	2	73	2	****	0 OF 66
12/ 4/79	22 2 19	57	3	73	2	****	0 OF 66
12/ 4/79	22 2 24	62	4	73	2	****	0 OF 66
12/ 4/79	22 2 28	62	3	72	2	****	0 OF 66
12/ 4/79	22 2 33	66	3	72	2	****	0 OF 66
12/ 4/79	22 2 38	67	1	72	2	****	0 OF 66
12/ 4/79	22 2 42	68	1	72	2	****	0 OF 66
12/ 4/79	22 2 47	66	3	72	2	****	0 OF 66
12/ 4/79	22 2 51	66	2	72	2	****	0 OF 66
12/ 4/79	22 2 56	64	3	72	2	****	0 OF 66
12/ 4/79	22 3 1	66	2	72	2	****	0 OF 66
12/ 4/79	22 3 5	70	2	72	2	****	0 OF 66
12/ 4/79	22 3 10	70	1	72	2	****	0 OF 66
12/ 4/79	22 3 14	69	1	72	2	****	0 OF 66
12/ 4/79	22 3 19	65	2	72	2	****	0 OF 66
12/ 4/79	22 3 23	64	3	71	2	****	0 OF 66
12/ 4/79	22 3 28	66	1	71	2	****	0 OF 66
12/ 4/79	22 3 33	69	1	71	2	****	0 OF 66
12/ 4/79	22 3 44	62	2	71	2	****	0 OF 65



COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS





COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS

COPPER STACK

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0032, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES

DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
12/ 6/79	9 55 0	34	3		0	0
12/ 6/79	9 55 11	24	3	0	0	0 OF 0
12/ 6/79	9 55 21	22	2	0	0	0 OF 0
12/ 6/79	9 55 31	7	3	0	0	0 OF 0
12/ 6/79	9 55 42	32	2	0	0	0 OF 0
12/ 6/79	9 55 51	29	2	0	0	0 OF 0
12/ 6/79	9 56 1	31	3	0	0	0 OF 0
12/ 6/79	9 56 10	47	3	0	0	0 OF 0
12/ 6/79	9 56 20	46	2	0	0	0 OF 0
12/ 6/79	9 56 30	41	2	0	0	0 OF 0
12/ 6/79	9 56 40	37	2	0	0	0 OF 0
12/ 6/79	9 56 50	22	3	0	0	0 OF 0
12/ 6/79	9 57 11	16	3	0	0	0 OF 0
12/ 6/79	9 57 21	18	2	0	0	0 OF 0
12/ 6/79	9 57 31	18	2	0	0	0 OF 0
12/ 6/79	9 57 42	7	3	0	0	0 OF 0
12/ 6/79	9 57 52	14	4	0	0	0 OF 0
12/ 6/79	9 58 2	10	3	0	0	0 OF 0
12/ 6/79	9 58 12	7	3	0	0	0 OF 0
12/ 6/79	9 58 21	14	3	0	0	0 OF 0
12/ 6/79	9 58 30	10	4	0	0	0 OF 0
12/ 6/79	9 58 40	13	4	0	0	0 OF 0
12/ 6/79	9 58 49	20	3	0	0	0 OF 0
12/ 6/79	9 58 58	18	3	0	0	0 OF 0
12/ 6/79	9 59 8	25	3	0	0	0 OF 0
12/ 6/79	9 59 17	21	3	0	0	0 OF 0
12/ 6/79	9 59 26	25	2	0	0	0 OF 0
12/ 6/79	9 59 36	7	4	0	0	0 OF 0
12/ 6/79	9 59 45	17	4	0	0	0 OF 0
12/ 6/79	9 59 54	22	3	22	3	0 OF 30
12/ 6/79	10 0 4	10	6	21	3	0 OF 30
12/ 6/79	10 0 13	27	5	21	3	0 OF 30
12/ 6/79	10 0 23	29	2	21	3	0 OF 30
12/ 6/79	10 0 32	30	2	22	3	0 OF 30
12/ 6/79	10 0 41	25	2	22	3	0 OF 31
12/ 6/79	10 0 51	30	2	22	3	0 OF 31
12/ 6/79	10 1 0	29	2	22	3	0 OF 31
12/ 6/79	10 1 10	33	2	22	3	0 OF 31
12/ 6/79	10 1 19	30	3	22	3	0 OF 31
12/ 6/79	10 1 28	34	2	21	3	0 OF 31
12/ 6/79	10 1 38	7	2	20	3	0 OF 31
12/ 6/79	10 1 47	29	2	20	3	0 OF 31
12/ 6/79	10 1 56	29	3	0	0	0 OF 0
12/ 6/79	10 2 5	20	5	20	3	0 OF 32
12/ 6/79	10 2 14	12	5	20	3	0 OF 32
12/ 6/79	10 2 23	21	4	20	3	0 OF 32
12/ 6/79	10 2 32	20	3	20	3	0 OF 32
12/ 6/79	10 2 41	24	3	20	3	0 OF 33
12/ 6/79	10 2 50	17	4	21	3	0 OF 33
12/ 6/79	10 2 59	25	2	21	3	0 OF 33

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0032, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES							
DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED	
12/ 6/79	10 3 8	22	3	21	3	0 OF 33	
12/ 6/79	10 3 17	12	4	21	3	0 OF 33	
12/ 6/79	10 3 26	8	2	21	3	0 OF 33	
12/ 6/79	10 3 35	17	4	21	3	0 OF 33	
12/ 6/79	10 3 44	5	4	21	3	0 OF 33	
12/ 6/79	10 3 53	11	2	21	3	0 OF 33	
12/ 6/79	10 4 2	3	2	21	3	0 OF 33	
12/ 6/79	10 4 11	15	2	20	3	0 OF 33	
12/ 6/79	10 4 20	23	3	20	3	0 OF 33	
12/ 6/79	10 4 29	18	5	20	3	0 OF 33	
12/ 6/79	10 4 38	24	3	21	3	0 OF 33	
12/ 6/79	10 4 48	20	4	21	3	0 OF 33	
12/ 6/79	10 4 57	24	2	21	3	0 OF 33	
12/ 6/79	10 5 4	18	3	21	3	0 OF 34	
12/ 6/79	10 5 13	23	2	21	3	0 OF 34	
12/ 6/79	10 5 22	23	2	21	3	0 OF 34	
12/ 6/79	10 5 31	24	3	21	3	0 OF 34	
12/ 6/79	10 5 40	26	2	21	3	0 OF 34	
12/ 6/79	10 5 49	20	2	21	3	0 OF 34	
12/ 6/79	10 5 58	20	3	20	3	0 OF 34	
12/ 6/79	10 6 7	22	3	20	3	0 OF 34	
12/ 6/79	10 6 16	20	2	20	3	0 OF 34	
12/ 6/79	10 6 25	14	2	19	3	0 OF 34	
12/ 6/79	10 6 34	6	3	18	3	0 OF 34	
12/ 6/79	10 6 43	9	2	18	3	0 OF 34	
12/ 6/79	10 6 52	21	3	18	3	0 OF 34	
12/ 6/79	10 7 1	1	5	17	3	0 OF 34	
12/ 6/79	10 7 10	5	3	17	3	0 OF 34	
12/ 6/79	10 7 29	1	2	16	3	0 OF 33	
12/ 6/79	10 7 38	2	3	16	3	0 OF 33	
12/ 6/79	10 7 47	7	2	15	3	0 OF 33	
12/ 6/79	10 7 56	13	2	15	3	0 OF 33	
12/ 6/79	10 8 5	15	4	15	3	0 OF 33	
12/ 6/79	10 8 14	20	2	15	3	0 OF 33	
12/ 6/79	10 8 23	35	3	16	3	0 OF 33	
12/ 6/79	10 8 32	30	2	16	3	0 OF 33	
12/ 6/79	10 8 41	32	3	17	3	0 OF 33	
12/ 6/79	10 8 50	22	2	17	3	0 OF 33	
12/ 6/79	10 8 59	36	3	18	3	0 OF 33	
12/ 6/79	10 9 8	19	4	18	3	0 OF 33	
12/ 6/79	10 9 17	23	3	19	3	0 OF 33	
12/ 6/79	10 9 27	15	3	18	3	0 OF 33	
12/ 6/79	10 9 34	21	3	18	3	0 OF 33	
12/ 6/79	10 9 43	20	4	18	3	0 OF 33	
12/ 6/79	10 9 53	22	4	18	3	0 OF 33	
12/ 6/79	10 10 3	21	3	18	3	0 OF 33	
12/ 6/79	10 10 14	23	3	18	3	0 OF 32	
12/ 6/79	10 10 25	35	2	19	3	0 OF 32	
12/ 6/79	10 10 36	47	2	19	3	0 OF 32	
12/ 6/79	10 10 45	43	2	20	3	0 OF 32	

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0032, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES

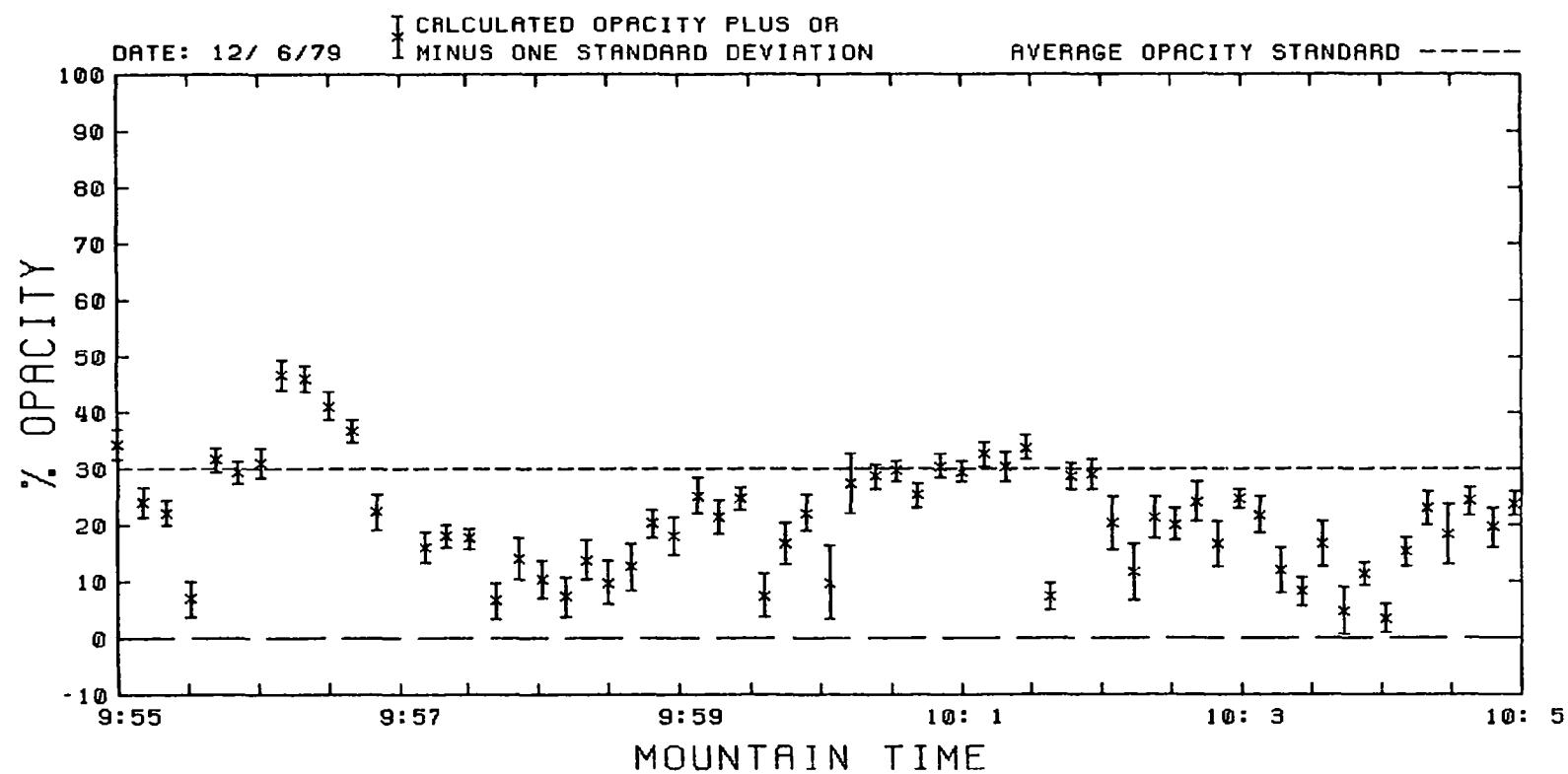
DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
------	------	---------	--------------	-----------------	----------------------	------------------

12/ 6/79	10 10 56	40	2	21	3	0 OF 32
12/ 6/79	10 11. 7	40	2	21	3	0 OF 32
12/ 6/79	10 11 18	37	2	22	3	0 OF 31
12/ 6/79	10 11 29	28	4	22	3	0 OF 31
12/ 6/79	10 11 40	27	2	23	3	0 OF 31
12/ 6/79	10 11 51	31	2	24	3	0 OF 31
12/ 6/79	10 12 1	30	2	24	3	0 OF 31
12/ 6/79	10 12 11	28	2	0	0	0 OF 0
12/ 6/79	10 12 21	27	2	25	3	0 OF 31
12/ 6/79	10 12 30	13	3	26	3	0 OF 31
12/ 6/79	10 12 40	6	5	26	3	0 OF 31
12/ 6/79	10 12 50	14	3	26	3	0 OF 31
12/ 6/79	10 13 0	20	2	26	3	0 OF 31
12/ 6/79	10 13 9	18	3	26	3	0 OF 31
12/ 6/79	10 13 19	20	3	26	3	0 OF 31
12/ 6/79	10 13 29	26	2	26	3	0 OF 31
12/ 6/79	10 13 39	28	2	26	3	0 OF 31
12/ 6/79	10 13 48	7	5	25	3	0 OF 31
12/ 6/79	10 13 58	31	4	26	3	0 OF 31
12/ 6/79	10 14 8	33	2	26	3	0 OF 31
12/ 6/79	10 14 18	46	2	27	3	0 OF 30
12/ 6/79	10 14 28	52	1	28	3	0 OF 30
12/ 6/79	10 14 38	55	1	29	3	0 OF 30
12/ 6/79	10 14 49	59	2	30	3	**** 0 OF 30
12/ 6/79	10 14 59	66	1	32	3	**** 0 OF 30
12/ 6/79	10 15 9	44	4	32	3	**** 0 OF 30
12/ 6/79	10 15 20	38	4	33	3	**** 0 OF 30
12/ 6/79	10 15 30	32	3	33	3	**** 0 OF 30
12/ 6/79	10 15 41	17	4	32	3	**** 0 OF 30
12/ 6/79	10 15 51	0	6	30	3	**** 0 OF 30
12/ 6/79	10 16 1	44	2	30	3	**** 0 OF 30
12/ 6/79	10 16 11	29	3	30	3	**** 0 OF 30
12/ 6/79	10 16 21	40	3	30	3	**** 0 OF 30
12/ 6/79	10 16 30	33	2	30	3	**** 0 OF 30
12/ 6/79	10 16 40	28	4	30	3	**** 0 OF 31
12/ 6/79	10 16 49	28	2	30	3	**** 0 OF 31
12/ 6/79	10 16 59	36	2	31	3	**** 0 OF 31
12/ 6/79	10 17. 9	31	5	31	3	**** 0 OF 31
12/ 6/79	10 17 19	42	2	31	3	**** 0 OF 31
12/ 6/79	10 17 29	34	3	31	3	**** 0 OF 31
12/ 6/79	10 17 39	29	6	32	3	**** 0 OF 31
12/ 6/79	10 17 49	42	2	33	3	**** 0 OF 31
12/ 6/79	10 17 59	40	3	34	3	**** 0 OF 31
12/ 6/79	10 18 9	23	5	34	3	**** 0 OF 31
12/ 6/79	10 18 19	25	4	34	3	**** 0 OF 31
12/ 6/79	10 18 28	26	4	34	3	**** 0 OF 31
12/ 6/79	10 18 38	14	6	34	3	**** 0 OF 31
12/ 6/79	10 18 48	33	4	34	3	**** 0 OF 31
12/ 6/79	10 18 59	31	3	35	3	**** 0 OF 30
12/ 6/79	10 19 9	36	2	35	3	**** 0 OF 30

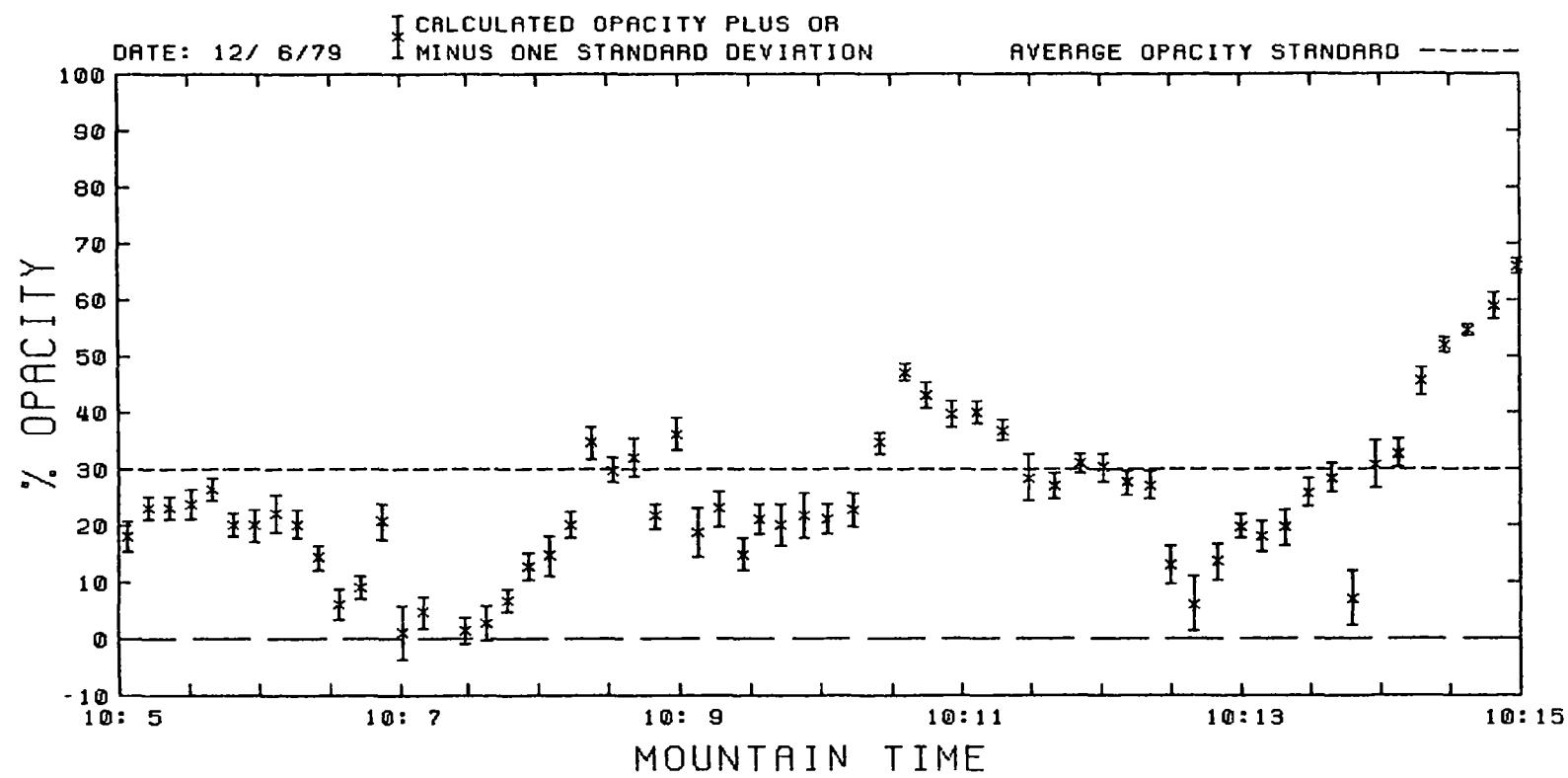
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0032, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES

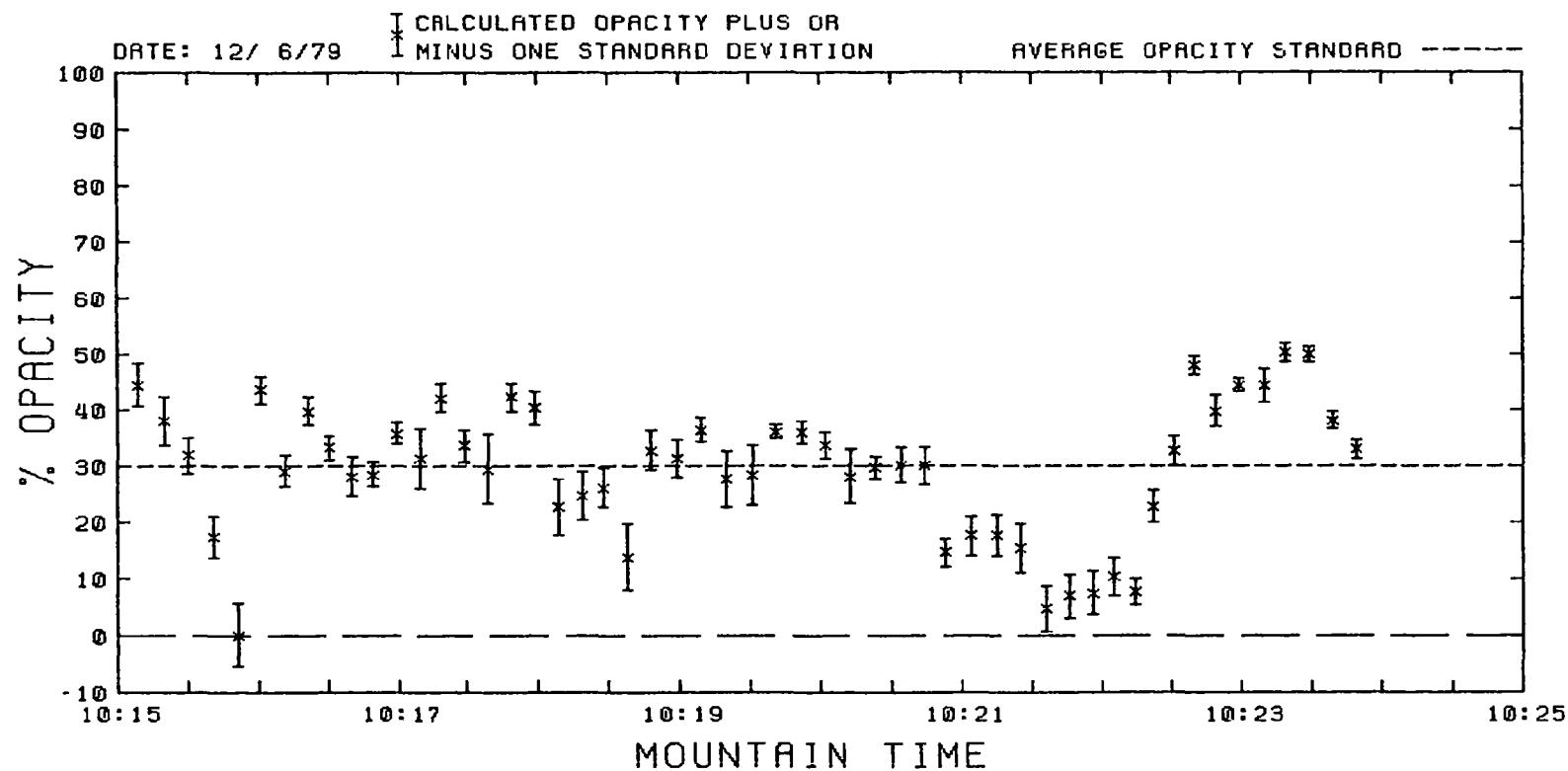
DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
12/ 6/79	10 19 20	28	5	35	3	**** 0 OF 30
12/ 6/79	10 19 31	28	5	34	3	**** 0 OF 30
12/ 6/79	10 19 41	36	1	33	3	**** 0 OF 30
12/ 6/79	10 19 52	36	2	32	3	**** 0 OF 30
12/ 6/79	10 20 2	34	2	31	4	**** 0 OF 30
12/ 6/79	10 20 13	28	5	31	4	**** 0 OF 30
12/ 6/79	10 20 23	30	2	30	3	**** 0 OF 30
12/ 6/79	10 20 34	30	3	30	3	**** 0 OF 30
12/ 6/79	10 20 44	30	3	31	3	**** 0 OF 30
12/ 6/79	10 20 53	15	2	31	3	**** 0 OF 30
12/ 6/79	10 21 4	18	4	30	3	**** 0 OF 30
12/ 6/79	10 21 15	18	4	30	3	**** 0 OF 30
12/ 6/79	10 21 25	15	4	29	3	**** 0 OF 30
12/ 6/79	10 21 36	5	4	28	4	0 OF 30
12/ 6/79	10 21 46	7	4	28	4	0 OF 30
12/ 6/79	10 21 56	7	4	27	4	0 OF 30
12/ 6/79	10 22 5	10	3	26	4	0 OF 30
12/ 6/79	10 22 14	8	2	25	4	0 OF 30
12/ 6/79	10 22 22	23	3	25	4	0 OF 30
12/ 6/79	10 22 31	33	3	25	4	0 OF 30
12/ 6/79	10 22 40	48	2	25	3	0 OF 30
12/ 6/79	10 22 49	40	3	26	3	0 OF 31
12/ 6/79	10 22 59	44	1	26	3	0 OF 31
12/ 6/79	10 23 10	44	3	26	3	0 OF 30
12/ 6/79	10 23 19	50	2	27	3	0 OF 31
12/ 6/79	10 23 29	50	1	28	3	0 OF 30
12/ 6/79	10 23 39	38	1	28	3	0 OF 30
12/ 6/79	10 23 49	33	2	28	3	0 OF 30



COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS



COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS



COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS

COPPER STACK

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0032, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES  
 DATE TIME OPACITY SO VIOLATION AVERAGE OPACITY AVERAGE SO VIOLATION NUMBER DISCARDED

12/ 6/79	10 38 0	38	2		0	0		0 OF 0
12/ 6/79	10 38 10	43	1		0	0		0 OF 0
12/ 6/79	10 38 20	37	3		0	0		0 OF 0
12/ 6/79	10 38 30	36	3		0	0		0 OF 0
12/ 6/79	10 38 40	36	3		0	0		0 OF 0
12/ 6/79	10 38 50	32	2		0	0		0 OF 0
12/ 6/79	10 39 0	35	3		0	0		0 OF 0
12/ 6/79	10 39 10	35	1		0	0		0 OF 0
12/ 6/79	10 39 20	42	2		0	0		0 OF 0
12/ 6/79	10 39 30	44	2		0	0		0 OF 0
12/ 6/79	10 39 40	38	1		0	0		0 OF 0
12/ 6/79	10 39 50	46	2		0	0		0 OF 0
12/ 6/79	10 40 0	52	2		0	0		0 OF 0
12/ 6/79	10 40 10	42	2		0	0		0 OF 0
12/ 6/79	10 40 20	49	2		0	0		0 OF 0
12/ 6/79	10 40 30	50	3		0	0		0 OF 0
12/ 6/79	10 40 40	46	2		0	0		0 OF 0
12/ 6/79	10 40 50	45	3		0	0		0 OF 0
12/ 6/79	10 41 0	43	1		0	0		0 OF 0
12/ 6/79	10 41 10	44	2		0	0		0 OF 0
12/ 6/79	10 41 20	46	2		0	0		0 OF 0
12/ 6/79	10 41 30	50	1		0	0		0 OF 0
12/ 6/79	10 41 40	50	1		0	0		0 OF 0
12/ 6/79	10 41 50	42	2		0	0		0 OF 0
12/ 6/79	10 42 0	48	1		0	0		0 OF 0
12/ 6/79	10 42 10	49	2		0	0		0 OF 0
12/ 6/79	10 42 20	45	2		0	0		0 OF 0
12/ 6/79	10 42 30	48	2		0	0		0 OF 0
12/ 6/79	10 42 40	44	2		0	0		0 OF 0
12/ 6/79	10 42 50	52	3	44	2	2	****	0 OF 30
12/ 6/79	10 43 0	50	2	44	2	2	****	0 OF 31
12/ 6/79	10 43 11	48	2	44	2	2	****	0 OF 30
12/ 6/79	10 43 21	40	2	44	2	2	****	0 OF 30
12/ 6/79	10 43 31	48	2	45	2	2	****	0 OF 30
12/ 6/79	10 43 41	51	1	45	2	2	****	0 OF 30
12/ 6/79	10 43 49	47	2	45	2	2	****	0 OF 31
12/ 6/79	10 43 59	47	1	46	2	2	****	0 OF 31
12/ 6/79	10 44 9	45	3	46	2	2	****	0 OF 31
12/ 6/79	10 44 20	42	2	46	2	2	****	0 OF 31
12/ 6/79	10 44 30	42	2	46	2	2	****	0 OF 31
12/ 6/79	10 44 40	47	3	46	2	2	****	0 OF 31
12/ 6/79	10 44 51	44	1	47	2	2	****	0 OF 30
12/ 6/79	10 45 1	44	1	46	2	2	****	0 OF 30
12/ 6/79	10 45 12	41	2	46	2	2	****	0 OF 30
12/ 6/79	10 45 22	36	2	46	2	2	****	0 OF 30
12/ 6/79	10 45 32	44	2	46	2	2	****	0 OF 30
12/ 6/79	10 45 41	48	1	46	2	2	****	0 OF 30
12/ 6/79	10 45 50	50	1	46	2	2	****	0 OF 31
12/ 6/79	10 45 58	48	2	46	2	2	****	0 OF 31
12/ 6/79	10 46 7	39	2	46	2	2	****	0 OF 31

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0032, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES							
DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED	
12/ 6/79	10 46:15	41	2	46	2	****	0 OF 31
12/ 6/79	10 46:26	37	2	45	2	****	0 OF 31
12/ 6/79	10 46:37	39	2	45	2	****	0 OF 31
12/ 6/79	10 46:48	42	2	45	2	****	0 OF 31
12/ 6/79	10 46:59	43	2	45	2	****	0 OF 31
12/ 6/79	10 47:10	44	2	45	2	****	0 OF 31
12/ 6/79	10 47:21	44	2	44	2	****	0 OF 30
12/ 6/79	10 47:31	49	2	45	2	****	0 OF 30
12/ 6/79	10 47:40	53	1	45	2	****	0 OF 31
12/ 6/79	10 47:50	47	2	45	2	****	0 OF 31
12/ 6/79	10 48: 0	51	1	45	2	****	0 OF 31
12/ 6/79	10 48:10	52	1	45	2	****	0 OF 31
12/ 6/79	10 48:20	43	2	45	2	****	0 OF 31
12/ 6/79	10 48:30	41	1	45	2	****	0 OF 31
12/ 6/79	10 48:40	43	3	45	2	****	0 OF 31
12/ 6/79	10 48:50	41	2	44	2	****	0 OF 30
12/ 6/79	10 49: 0	41	2	44	2	****	0 OF 30
12/ 6/79	10 49:10	45	1	44	2	****	0 OF 30
12/ 6/79	10 49:20	43	2	44	2	****	0 OF 31
12/ 6/79	10 49:30	40	2	44	2	****	0 OF 31
12/ 6/79	10 49:40	43	2	44	2	****	0 OF 31
12/ 6/79	10 49:49	42	3	44	2	****	0 OF 31
12/ 6/79	10 49:59	47	2	44	2	****	0 OF 31
12/ 6/79	10 50: 9	41	2	44	2	****	0 OF 31
12/ 6/79	10 50:19	41	1	44	2	****	0 OF 31
12/ 6/79	10 50:30	43	1	44	2	****	0 OF 31
12/ 6/79	10 50:39	54	2	44	2	****	0 OF 31
12/ 6/79	10 50:49	53	2	44	2	****	0 OF 31
12/ 6/79	10 50:59	48	2	44	2	****	0 OF 30
12/ 6/79	10 51: 9	53	2	45	2	****	0 OF 30
12/ 6/79	10 51:19	56	2	45	2	****	0 OF 30
12/ 6/79	10 51:29	54	2	46	2	****	0 OF 30
12/ 6/79	10 51:39	52	2	46	2	****	0 OF 30
12/ 6/79	10 51:49	49	2	47	2	****	0 OF 30
12/ 6/79	10 52: 0	47	2	47	2	****	0 OF 30
12/ 6/79	10 52:10	43	2	47	2	****	0 OF 31
12/ 6/79	10 52:20	47	2	47	2	****	0 OF 31
12/ 6/79	10 52:30	45	2	47	2	****	0 OF 31
12/ 6/79	10 52:40	39	2	46	2	****	0 OF 31
12/ 6/79	10 52:50	35	3	46	2	****	0 OF 31
12/ 6/79	10 53: 0	38	2	45	2	****	0 OF 31
12/ 6/79	10 53:11	36	2	45	2	****	0 OF 30
12/ 6/79	10 53:21	32	1	44	2	****	0 OF 30
12/ 6/79	10 53:31	31	1	44	2	****	0 OF 30
12/ 6/79	10 53:40	33	2	44	2	****	0 OF 31
12/ 6/79	10 53:50	40	2	44	2	****	0 OF 31
12/ 6/79	10 53:59	42	2	44	2	****	0 OF 31
12/ 6/79	10 54: 9	38	2	44	2	****	0 OF 31
12/ 6/79	10 54:19	30	2	43	2	****	0 OF 31
12/ 6/79	10 54:30	29	3	43	2	****	0 OF 31

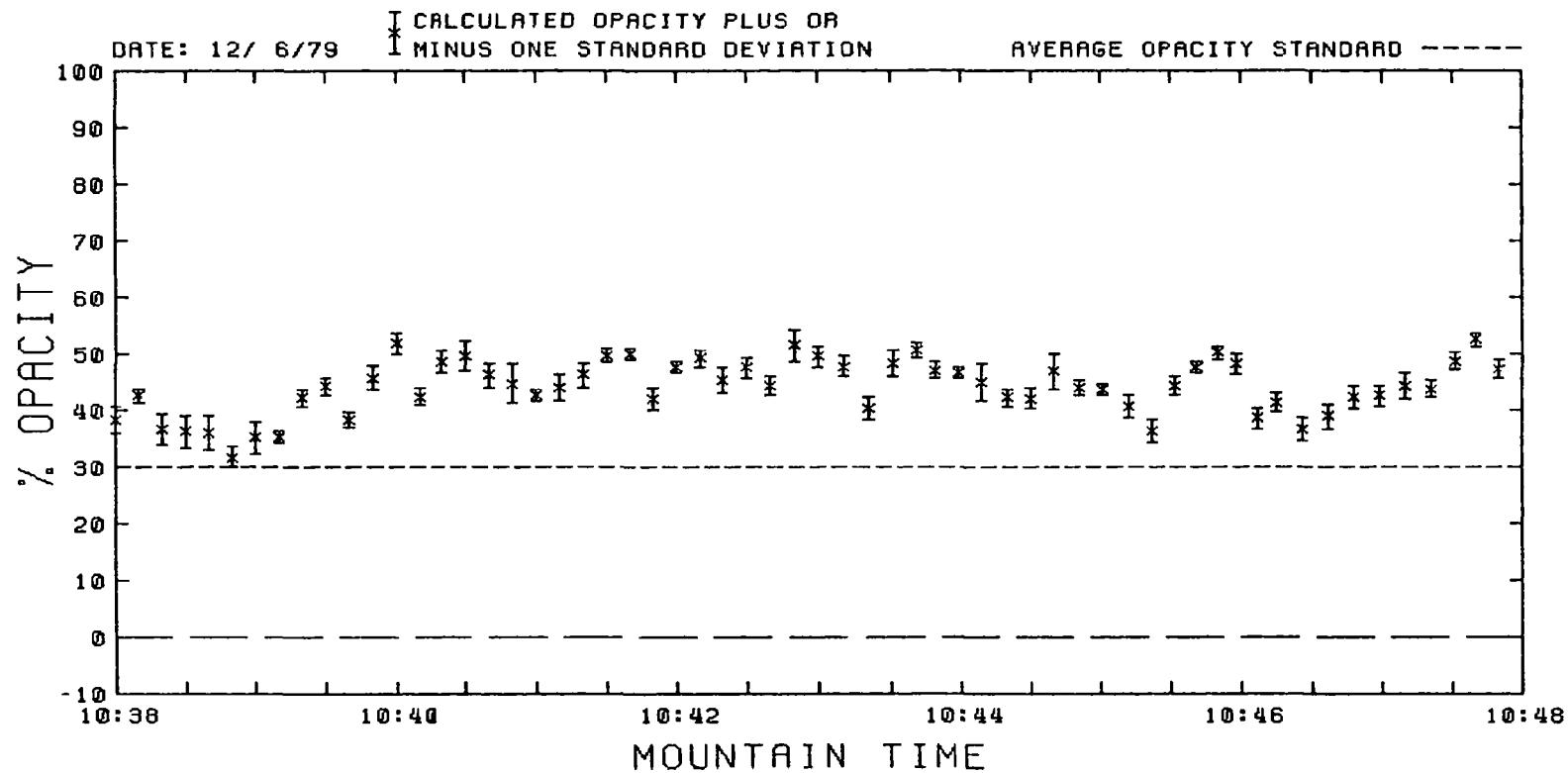
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0032, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES						
DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
12/ 6/79	10 54 40	27	2	42	2	**** 0 OF 31
12/ 6/79	10 54 50	29	1	42	2	**** 0 OF 30
12/ 6/79	10 55 0	30	2	41	2	**** 0 OF 30
12/ 6/79	10 55 10	33	2	41	2	**** 0 OF 30
12/ 6/79	10 55 20	34	2	41	2	**** 0 OF 30
12/ 6/79	10 55 30	36	2	41	2	**** 0 OF 31
12/ 6/79	10 55 40	41	2	40	2	**** 0 OF 30
12/ 6/79	10 55 50	30	3	39	2	**** 0 OF 30
12/ 6/79	10 56 0	37	2	39	2	**** 0 OF 30
12/ 6/79	10 56 10	36	2	38	2	**** 0 OF 30
12/ 6/79	10 56 20	35	4	38	2	**** 0 OF 30
12/ 6/79	10 56 30	33	2	37	2	**** 0 OF 30
12/ 6/79	10 56 40	31	2	36	2	**** 0 OF 30
12/ 6/79	10 56 50	32	3	36	2	**** 0 OF 30
12/ 6/79	10 56 59	34	1	36	2	**** 0 OF 31
12/ 6/79	10 57 9	37	2	35	2	**** 0 OF 31
12/ 6/79	10 57 19	39	2	35	2	**** 0 OF 31
12/ 6/79	10 57 29	44	1	35	2	**** 0 OF 31
12/ 6/79	10 57 39	47	1	35	2	**** 0 OF 31
12/ 6/79	10 57 49	49	1	35	2	**** 0 OF 31
12/ 6/79	10 57 59	50	1	36	2	**** 0 OF 31
12/ 6/79	10 58 9	48	2	36	2	**** 0 OF 31
12/ 6/79	10 58 20	48	1	37	2	**** 0 OF 31
12/ 6/79	10 58 30	46	1	37	2	**** 0 OF 31
12/ 6/79	10 58 40	48	1	38	2	**** 0 OF 31
12/ 6/79	10 58 50	49	1	38	2	**** 0 OF 31
12/ 6/79	10 59 0	50	1	38	2	**** 0 OF 30
12/ 6/79	10 59 10	52	2	39	2	**** 0 OF 30
12/ 6/79	10 59 20	51	2	40	2	**** 0 OF 30
12/ 6/79	10 59 30	49	1	40	2	**** 0 OF 31
12/ 6/79	10 59 40	41	1	40	2	**** 0 OF 31
12/ 6/79	10 59 50	44	2	41	2	**** 0 OF 31
12/ 6/79	11 0 0	46	1	41	2	**** 0 OF 31
12/ 6/79	11 0 10	41	1	42	2	**** 0 OF 31
12/ 6/79	11 0 20	45	1	42	2	**** 0 OF 31
12/ 6/79	11 0 30	45	2	42	2	**** 0 OF 31
12/ 6/79	11 0 40	47	2	43	2	**** 0 OF 31
12/ 6/79	11 0 50	52	2	43	2	**** 0 OF 31
12/ 6/79	11 1 0	51	1	44	2	**** 0 OF 31
12/ 6/79	11 1 10	53	1	44	2	**** 0 OF 31
12/ 6/79	11 1 20	56	2	45	2	**** 0 OF 31
12/ 6/79	11 1 30	52	2	45	2	**** 0 OF 31
12/ 6/79	11 1 40	55	1	46	2	**** 0 OF 31
12/ 6/79	11 1 50	55	1	47	2	**** 0 OF 31
12/ 6/79	11 2 0	54	2	48	2	**** 0 OF 30
12/ 6/79	11 2 10	59	2	49	2	**** 0 OF 30
12/ 6/79	11 2 20	55	1	49	1	**** 0 OF 30
12/ 6/79	11 2 30	52	2	50	2	**** 0 OF 30
12/ 6/79	11 2 40	51	2	50	2	**** 0 OF 30
12/ 6/79	11 2 50	51	2	50	2	**** 0 OF 30

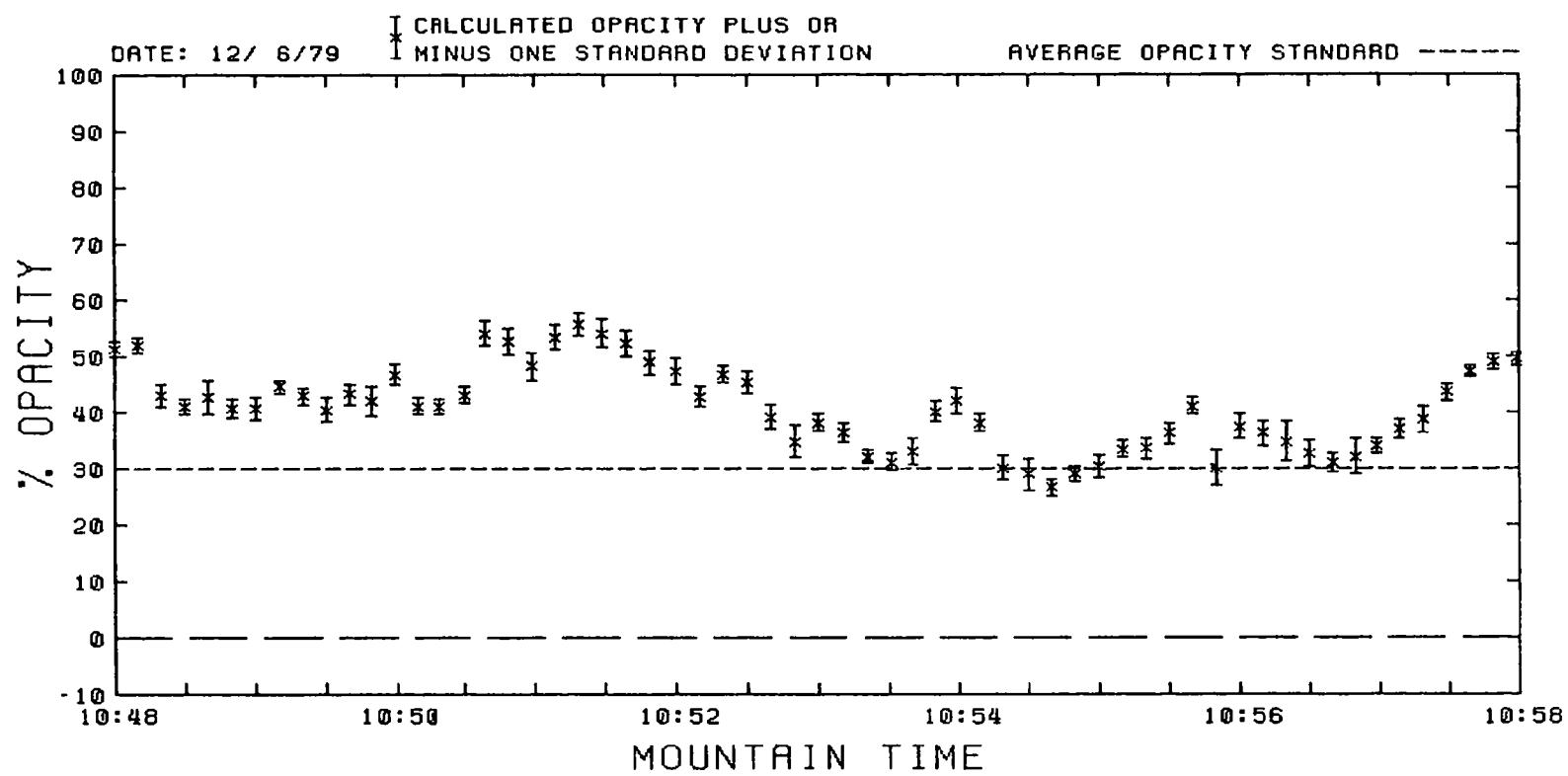
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0032, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES

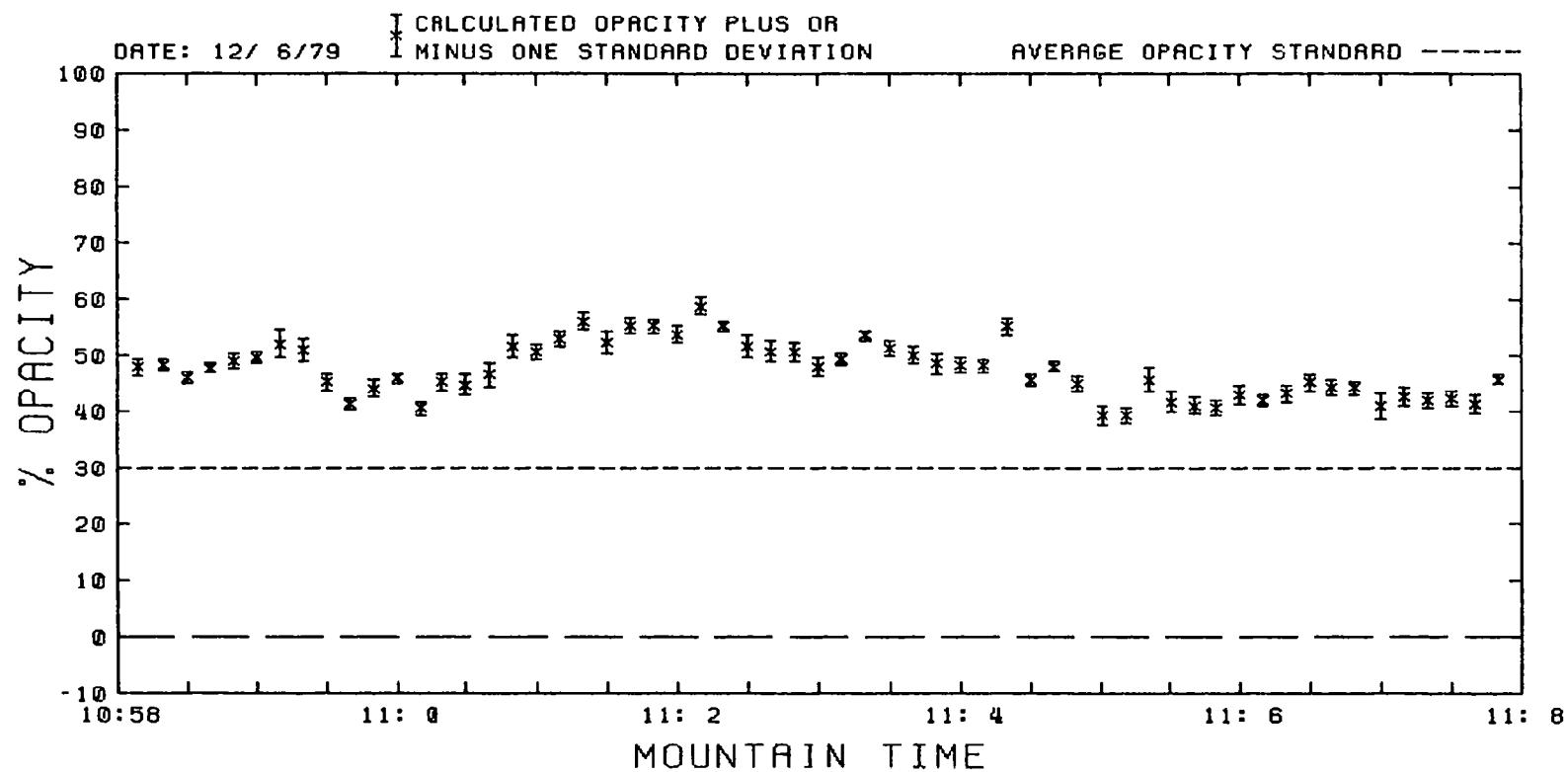
DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
12/ 6/79	11 3 0	48	2	50	2	**** 0 OF 30
12/ 6/79	11 3 10	49	1	50	2	**** 0 OF 30
12/ 6/79	11 3 20	54	1	50	2	**** 0 OF 31
12/ 6/79	11 3 30	51	1	50	2	**** 0 OF 31
12/ 6/79	11 3 40	50	2	50	2	**** 0 OF 31
12/ 6/79	11 3 50	49	2	50	2	**** 0 OF 31
12/ 6/79	11 4 0	48	1	50	2	**** 0 OF 31
12/ 6/79	11 4 10	48	1	50	2	**** 0 OF 31
12/ 6/79	11 4 20	55	2	50	2	**** 0 OF 31
12/ 6/79	11 4 30	46	1	50	2	**** 0 OF 31
12/ 6/79	11 4 40	48	1	50	2	**** 0 OF 31
12/ 6/79	11 4 50	45	1	50	2	**** 0 OF 31
12/ 6/79	11 5 1	39	2	50	2	**** 0 OF 30
12/ 6/79	11 5 11	39	1	50	2	**** 0 OF 30
12/ 6/79	11 5 21	46	2	50	2	**** 0 OF 30
12/ 6/79	11 5 31	42	2	50	2	**** 0 OF 30
12/ 6/79	11 5 41	41	2	50	2	**** 0 OF 30
12/ 6/79	11 5 50	41	1	50	2	**** 0 OF 31
12/ 6/79	11 6 0	43	2	49	2	**** 0 OF 31
12/ 6/79	11 6 10	42	1	49	2	**** 0 OF 31
12/ 6/79	11 6 20	43	1	49	2	**** 0 OF 31
12/ 6/79	11 6 30	45	1	48	2	**** 0 OF 31
12/ 6/79	11 6 39	44	1	48	2	**** 0 OF 31
12/ 6/79	11 6 49	44	1	48	2	**** 0 OF 31
12/ 6/79	11 7 0	41	2	47	2	**** 0 OF 31
12/ 6/79	11 7 10	43	2	47	2	**** 0 OF 31
12/ 6/79	11 7 20	42	1	46	2	**** 0 OF 31
12/ 6/79	11 7 30	42	1	46	2	**** 0 OF 31
12/ 6/79	11 7 40	41	2	46	2	**** 0 OF 31
12/ 6/79	11 7 50	46	1	45	2	**** 0 OF 31



COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS



COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS



COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS

COPPER STACK

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0035, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES

DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
------	------	---------	--------------	-----------------	----------------------	------------------

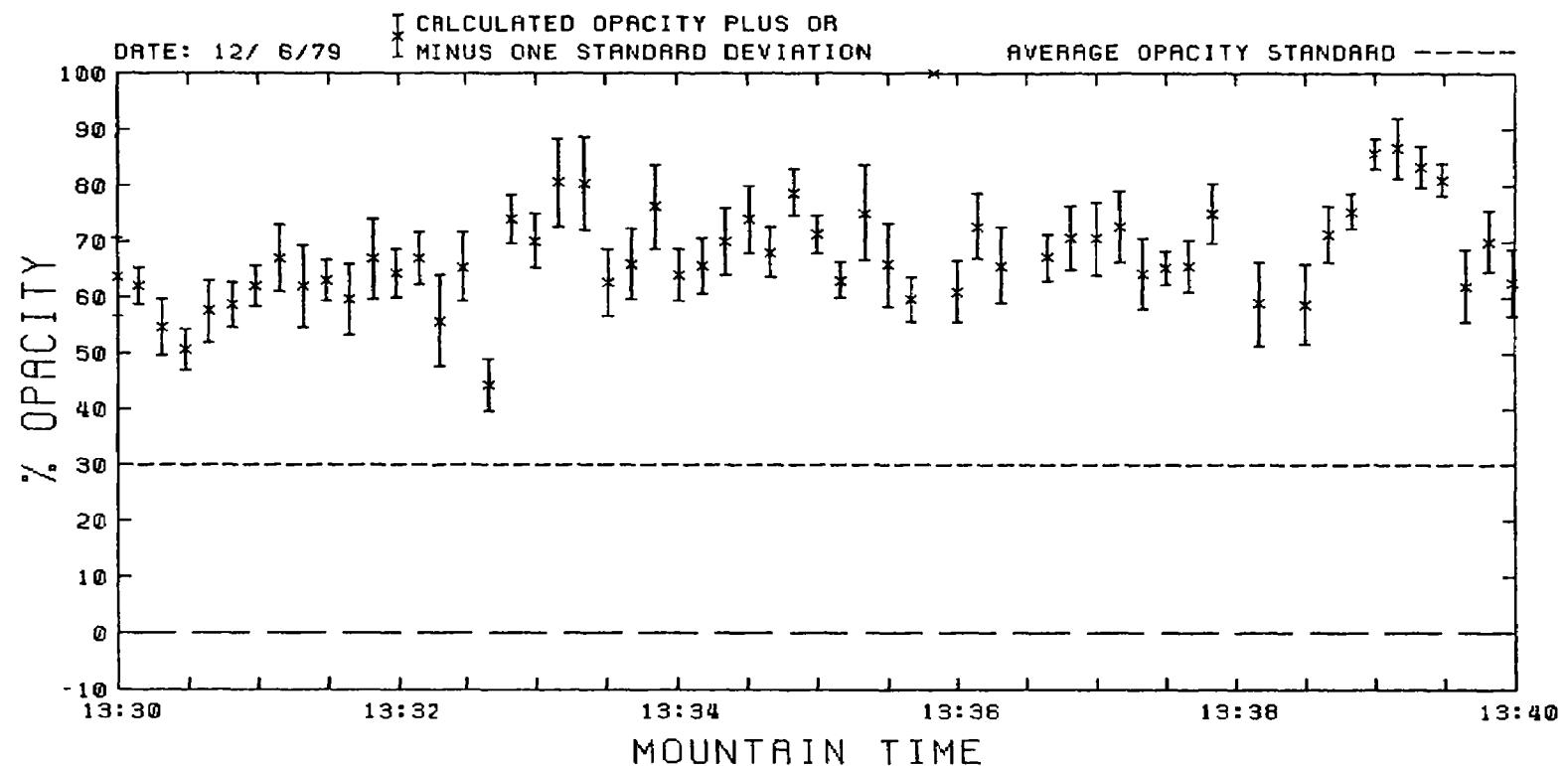
12/ 6/79	13 30 0	64	7		0	0	0 OF 0
12/ 6/79	13 30 9	62	3		0	0	0 OF 0
12/ 6/79	13 30 19	55	5		0	0	0 OF 0
12/ 6/79	13 30 29	51	4		0	0	0 OF 0
12/ 6/79	13 30 39	58	6		0	0	0 OF 0
12/ 6/79	13 30 49	59	4		0	0	0 OF 0
12/ 6/79	13 30 59	62	4		0	0	0 OF 0
12/ 6/79	13 31 9	67	6		0	0	0 OF 0
12/ 6/79	13 31 19	62	7		0	0	0 OF 0
12/ 6/79	13 31 29	63	4		0	0	0 OF 0
12/ 6/79	13 31 39	60	6		0	0	0 OF 0
12/ 6/79	13 31 49	67	7		0	0	0 OF 0
12/ 6/79	13 31 59	64	4		0	0	0 OF 0
12/ 6/79	13 32 9	67	5		0	0	0 OF 0
12/ 6/79	13 32 19	56	8		0	0	0 OF 0
12/ 6/79	13 32 29	65	6		0	0	0 OF 0
12/ 6/79	13 32 40	44	5		0	0	0 OF 0
12/ 6/79	13 32 50	74	4		0	0	0 OF 0
12/ 6/79	13 33 0	70	5		0	0	0 OF 0
12/ 6/79	13 33 10	81	8		0	0	0 OF 0
12/ 6/79	13 33 21	80	8		0	0	0 OF 0
12/ 6/79	13 33 31	63	6		0	0	0 OF 0
12/ 6/79	13 33 41	66	6		0	0	0 OF 0
12/ 6/79	13 33 51	76	7		0	0	0 OF 0
12/ 6/79	13 34 1	64	5		0	0	0 OF 0
12/ 6/79	13 34 11	66	5		0	0	0 OF 0
12/ 6/79	13 34 21	70	6		0	0	0 OF 0
12/ 6/79	13 34 31	74	6		0	0	0 OF 0
12/ 6/79	13 34 40	68	5		0	0	0 OF 0
12/ 6/79	13 34 50	79	4	65	6	****	0 OF 30
12/ 6/79	13 35 0	71	3	65	6	****	0 OF 31
12/ 6/79	13 35 10	63	3	65	5	****	0 OF 30
12/ 6/79	13 35 20	75	8	66	6	****	0 OF 30
12/ 6/79	13 35 30	66	7	67	6	****	0 OF 30
12/ 6/79	13 35 40	60	4	67	6	****	0 OF 30
12/ 6/79	13 35 50	100	0	68	6	****	0 OF 30
12/ 6/79	13 36 0	61	5	68	6	****	0 OF 30
12/ 6/79	13 36 9	73	6	68	6	****	0 OF 31
12/ 6/79	13 36 19	66	7	68	6	****	0 OF 31
12/ 6/79	13 36 39	67	4	69	6	****	1 OF 31
12/ 6/79	13 36 49	71	6	69	6	****	1 OF 31
12/ 6/79	13 37 0	71	6	69	6	****	1 OF 30
12/ 6/79	13 37 10	73	6	69	6	****	1 OF 30
12/ 6/79	13 37 20	64	6	70	6	****	1 OF 30
12/ 6/79	13 37 30	65	3	70	6	****	1 OF 30
12/ 6/79	13 37 40	66	5	70	6	****	1 OF 31
12/ 6/79	13 37 50	75	5	71	6	****	1 OF 31
12/ 6/79	13 38 10	59	7	70	6	****	2 OF 31
12/ 6/79	13 38 30	59	7	69	6	****	3 OF 31
12/ 6/79	13 38 40	71	5	69	6	****	3 OF 31

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

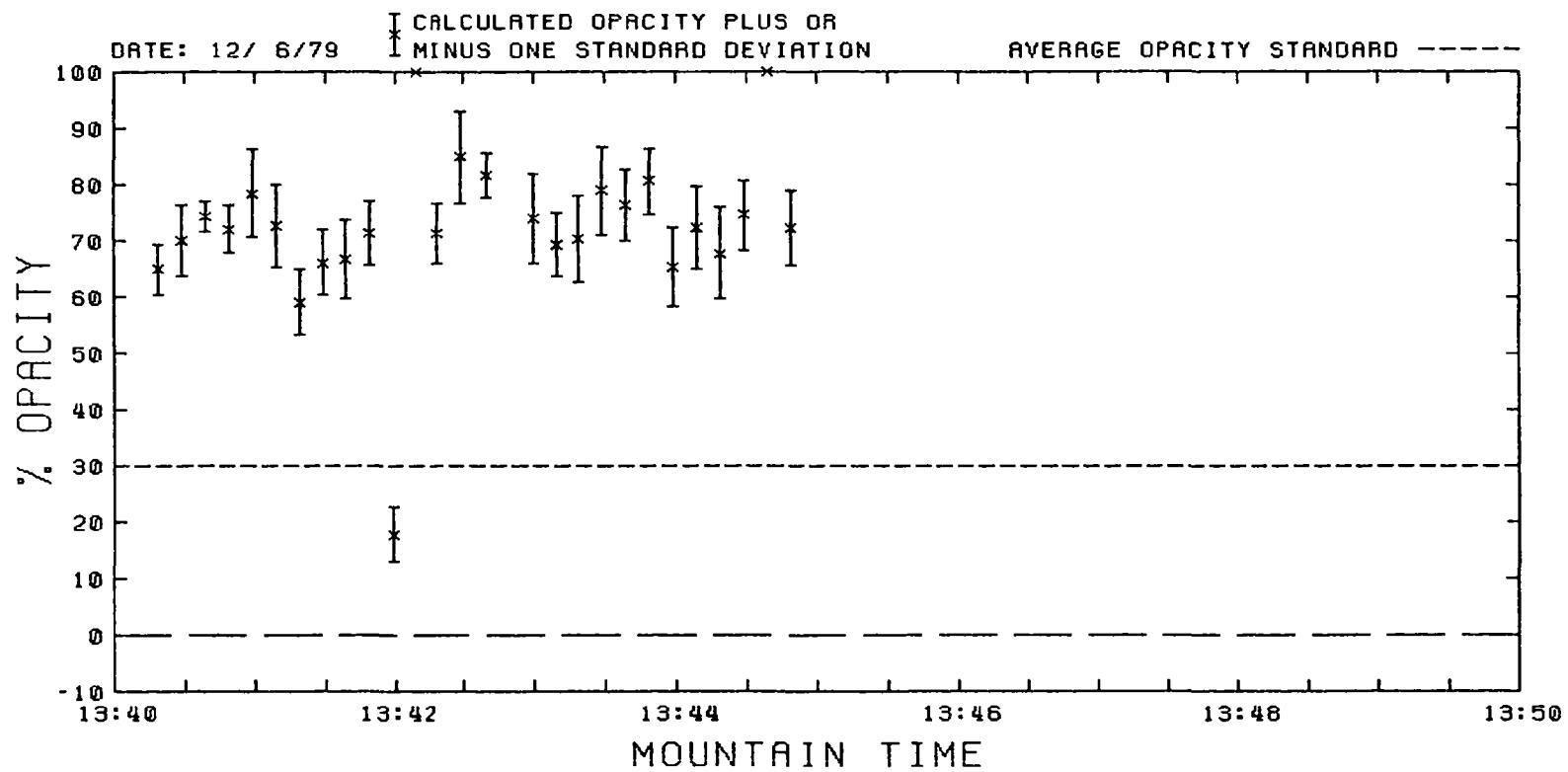
OMEGA-0035, COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES

DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
------	------	---------	--------------	-----------------	----------------------	------------------

12/ 6/79	13 38 50	75	3	70	6	****	3 OF 31
12/ 6/79	13 39 0	86	3	70	6	****	3 OF 31
12/ 6/79	13 39 10	87	5	71	6	****	3 OF 31
12/ 6/79	13 39 20	83	4	71	6	****	3 OF 31
12/ 6/79	13 39 29	81	3	72	5	****	3 OF 31
12/ 6/79	*13 39 39	62	7	71	6	****	3 OF 31
12/ 6/79	13 39 49	70	6	71	6	****	3 OF 31
12/ 6/79	13 39 59	63	6	71	6	****	3 OF 31
12/ 6/79	13 40 19	65	5	71	6	****	4 OF 31
12/ 6/79	13 40 29	70	6	71	6	****	4 OF 31
12/ 6/79	13 40 39	74	3	71	6	****	4 OF 31
12/ 6/79	13 40 49	72	4	71	6	****	4 OF 31
12/ 6/79	13 40 59	78	8	71	6	****	4 OF 31
12/ 6/79	13 41 9	73	7	71	6	****	4 OF 31
12/ 6/79	13 41 19	59	6	71	6	****	4 OF 31
12/ 6/79	13 41 29	66	6	71	6	****	4 OF 31
12/ 6/79	13 41 39	67	7	70	6	****	3 OF 31
12/ 6/79	13 41 49	71	6	71	6	****	3 OF 31
12/ 6/79	13 41 59	18	5	69	6	****	3 OF 31
12/ 6/79	13 42 9	100	0	70	6	****	3 OF 31
12/ 6/79	13 42 19	71	5	70	6	****	3 OF 31
12/ 6/79	13 42 29	85	8	70	6	****	3 OF 31
12/ 6/79	13 42 40	82	4	71	6	****	3 OF 31
12/ 6/79	13 43 0	74	8	71	6	****	4 OF 31
12/ 6/79	13 43 10	69	6	71	6	****	3 OF 31
12/ 6/79	13 43 19	70	8	72	6	****	3 OF 31
12/ 6/79	13 43 29	79	8	72	6	****	2 OF 31
12/ 6/79	13 43 39	76	6	72	6	****	2 OF 31
12/ 6/79	13 43 49	81	6	72	6	****	2 OF 31
12/ 6/79	13 43 59	65	7	73	6	****	2 OF 31
12/ 6/79	13 44 9	72	7	72	6	****	2 OF 31
12/ 6/79	13 44 19	68	8	71	6	****	2 OF 31
12/ 6/79	13 44 29	75	6	71	6	****	2 OF 31
12/ 6/79	13 44 39	100	0	71	6	****	2 OF 31
12/ 6/79	13 44 49	72	7	72	6	****	2 OF 31



COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS



COPPER STACK, ASARCO SMELTER, EL PASO, TEXAS

#2 ACID STACK

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0025, #2 ACID STACK, ASARCO SMELTER, EL PASO, TEX. FROM WEST END WAYMORE FIVE MINUTE AVERAGES

DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
12/ 4/79	15 13 30	59	4	0	0	0 OF 0
12/ 4/79	15 13 41	73	1	0	0	0 OF 0
12/ 4/79	15 13 50	70	1	0	0	0 OF 0
12/ 4/79	15 14 0	72	1	0	0	0 OF 0
12/ 4/79	15 14 10	90	0	0	0	0 OF 0
12/ 4/79	15 14 20	73	1	0	0	0 OF 0
12/ 4/79	15 14 30	72	1	0	0	0 OF 0
12/ 4/79	15 14 40	66	2	0	0	0 OF 0
12/ 4/79	15 14 50	83	1	0	0	0 OF 0
12/ 4/79	15 15 20	77	1	0	0	0 OF 0
12/ 4/79	15 15 30	76	1	0	0	0 OF 0
12/ 4/79	15 15 40	73	1	0	0	0 OF 0
12/ 4/79	15 15 50	60	2	0	0	0 OF 0
12/ 4/79	15 16 0	69	1	0	0	0 OF 0
12/ 4/79	15 16 10	59	2	0	0	0 OF 0
12/ 4/79	15 16 20	64	2	0	0	0 OF 0
12/ 4/79	15 16 30	75	1	0	0	0 OF 0
12/ 4/79	15 16 40	75	2	0	0	0 OF 0
12/ 4/79	15 16 50	71	2	0	0	0 OF 0
12/ 4/79	15 17 0	75	8	0	0	0 OF 0
12/ 4/79	15 17 11	62	5	0	0	0 OF 0
12/ 4/79	15 17 20	83	1	0	0	0 OF 0
12/ 4/79	15 17 30	79	1	0	0	0 OF 0
12/ 4/79	15 17 40	89	1	0	0	0 OF 0
12/ 4/79	15 17 51	77	1	0	0	0 OF 0
12/ 4/79	15 18 0	69	1	0	0	0 OF 0
12/ 4/79	15 18 10	71	2	0	0	0 OF 0
12/ 4/79	15 18 20	76	1	73	2 2 2	**** 0 OF 28
12/ 4/79	15 18 30	69	2	73	2 2 2	**** 0 OF 29
12/ 4/79	15 18 41	75	2	73	2 2 2	**** 0 OF 29
12/ 4/79	15 18 50	71	1	73	2 2 2	**** 0 OF 29
12/ 4/79	15 19 0	76	1	73	2 2 2	**** 0 OF 29
12/ 4/79	15 19 10	74	2	73	2 2 2	**** 0 OF 29
12/ 4/79	15 19 20	72	7	73	2 2 2	**** 0 OF 29
12/ 4/79	15 19 31	64	1	72	2 2 2	**** 0 OF 28
12/ 4/79	15 19 40	70	1	72	2 2 2	**** 0 OF 29
12/ 4/79	15 19 50	70	2	73	2 2 2	**** 0 OF 29
12/ 4/79	15 20 0	64	2	0	0 0	0 OF 0
12/ 4/79	15 20 20	64	2	72	2 2 2	**** 1 OF 31
12/ 4/79	15 20 30	62	2	71	2 2 2	**** 1 OF 31
12/ 4/79	15 20 40	70	2	71	2 2 2	**** 1 OF 31
12/ 4/79	15 20 50	64	2	71	2 2 2	**** 1 OF 31
12/ 4/79	15 21 0	63	2	71	2 2 2	**** 1 OF 31
12/ 4/79	15 21 10	100	0	72	2 2 2	**** 1 OF 31
12/ 4/79	15 21 20	82	1	73	2 2 2	**** 1 OF 31
12/ 4/79	15 21 30	85	0	73	2 2 2	**** 1 OF 31
12/ 4/79	15 21 40	76	2	73	2 2 2	**** 1 OF 31
12/ 4/79	15 21 50	73	2	73	2 2 2	**** 1 OF 31
12/ 4/79	15 22 0	79	2	74	2 2 2	**** 1 OF 31
12/ 4/79	15 22 10	75	2	74	2 2 2	**** 1 OF 31

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0025, #2 ACID STACK, ASARCO SMELTER, EL PASO, TEX FROM WEST END WAYMORE FIVE MINUTE AVERAGES

DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
------	------	---------	--------------	-----------------	----------------------	------------------

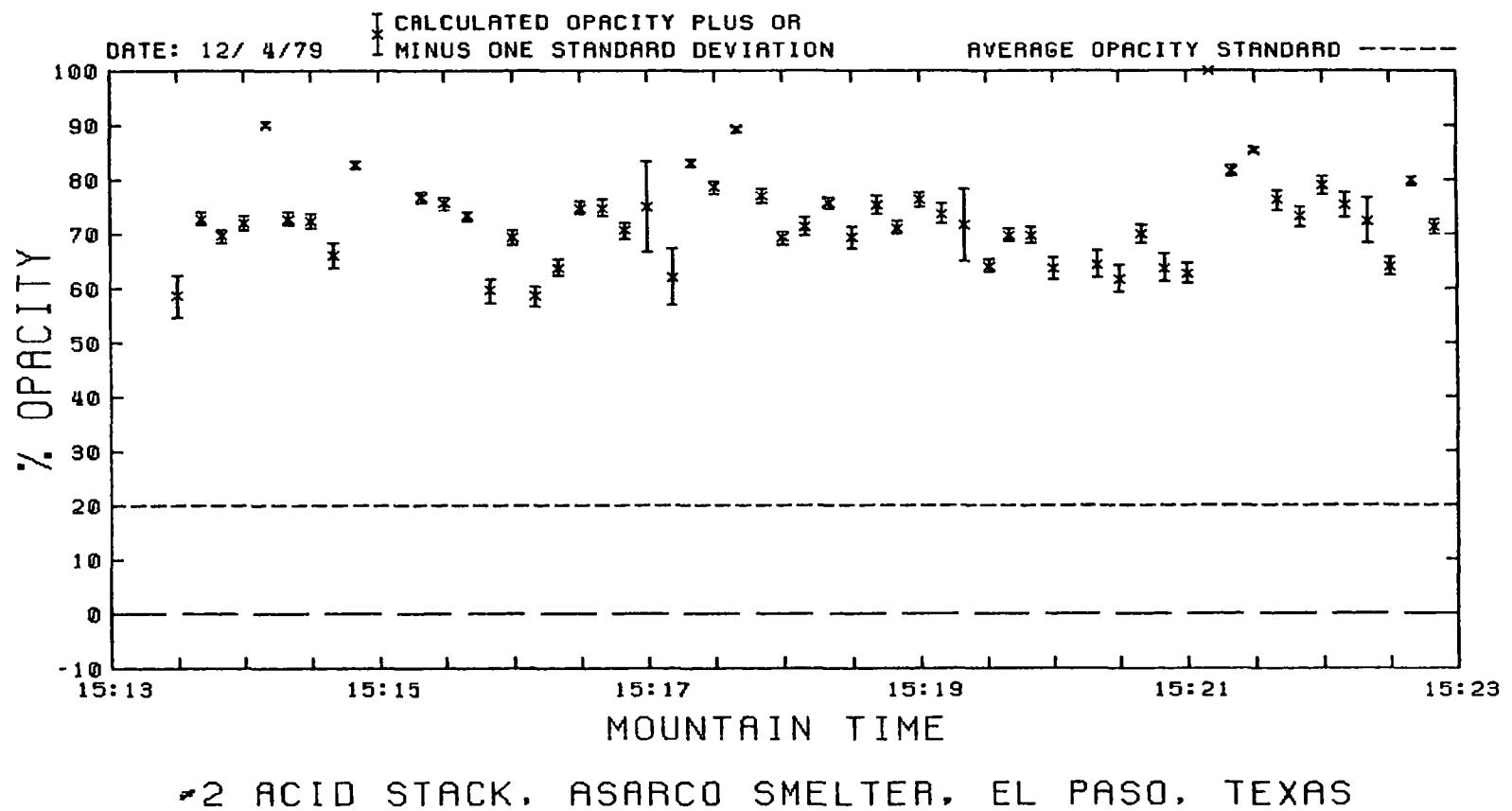
12/ 4/79	15 22 20	72	4	74	2	****	1 OF 31
12/ 4/79	15 22 30	64	2	73	2	****	1 OF 31
12/ 4/79	15 22 40	80	1	73	2	****	1 OF 31
12/ 4/79	15 22 50	71	1	73	2	****	1 OF 31
12/ 4/79	15 23 0	71	7	73	2	****	1 OF 31
12/ 4/79	15 23 10	72	2	73	2	****	1 OF 31
12/ 4/79	15 23 20	74	2	73	2	****	1 OF 31
12/ 4/79	15 23 30	77	6	73	2	****	1 OF 31
12/ 4/79	15 23 40	75	2	73	2	****	1 OF 31
12/ 4/79	15 23 50	72	2	73	2	****	1 OF 31
12/ 4/79	15 24 0	75	2	73	2	****	1 OF 31
12/ 4/79	15 24 10	72	2	73	2	****	1 OF 31
12/ 4/79	15 24 20	71	2	73	2	****	1 OF 31
12/ 4/79	15 24 30	64	2	73	2	****	1 OF 31
12/ 4/79	15 24 40	59	3	72	2	****	1 OF 31
12/ 4/79	15 24 50	68	2	72	2	****	1 OF 31
12/ 4/79	15 25 0	85	1	73	2	****	1 OF 31
12/ 4/79	15 25 10	69	1	73	2	****	1 OF 31
12/ 4/79	15 25 20	70	1	73	2	****	0 OF 31
12/ 4/79	15 25 30	65	2	73	2	****	0 OF 31
12/ 4/79	15 25 40	72	1	73	2	****	0 OF 31
12/ 4/79	15 25 50	69	1	73	2	****	0 OF 31
12/ 4/79	15 26 0	61	2	73	2	****	0 OF 31
12/ 4/79	15 26:11	69	2	72	2	****	0 OF 30
12/ 4/79	15 26:20	74	2	72	2	****	0 OF 31
12/ 4/79	15 26:31	78	1	72	2	****	0 OF 30
12/ 4/79	15 26:42	83	1	72	2	****	0 OF 30
12/ 4/79	15 26 50	77	1	72	2	****	0 OF 31
12/ 4/79	15 27: 0	81	1	73	2	****	0 OF 31
12/ 4/79	15 27:10	75	1	72	2	****	0 OF 31
12/ 4/79	15 27:21	67	1	72	2	****	0 OF 30
12/ 4/79	15 27:30	73	2	72	2	****	0 OF 31
12/ 4/79	15 27:40	66	1	72	2	****	0 OF 31
12/ 4/79	15 27:51	64	2	72	2	****	0 OF 30
12/ 4/79	15 28 0	74	1	72	2	****	0 OF 31
12/ 4/79	15 28:11	68	2	72	2	****	0 OF 30
12/ 4/79	15 28:21	76	1	72	2	****	0 OF 30
12/ 4/79	15 28:30	68	2	72	2	****	0 OF 31
12/ 4/79	15 28:40	76	1	72	2	****	0 OF 31
12/ 4/79	15 28:50	74	3	71	2	****	0 OF 31
12/ 4/79	15 29: 0	74	2	72	2	****	0 OF 31
12/ 4/79	15 29:10	73	1	71	2	****	0 OF 31
12/ 4/79	15 29:20	67	6	71	2	****	0 OF 31
12/ 4/79	15 29:30	69	2	71	2	****	0 OF 31
12/ 4/79	15 29:41	68	1	72	2	****	0 OF 30
12/ 4/79	15 29:50	100	0	73	2	****	0 OF 31
12/ 4/79	15 30 0	68	5	73	2	****	0 OF 31
12/ 4/79	15 30 10	77	1	72	2	****	0 OF 31
12/ 4/79	15 30 20	69	1	72	2	****	0 OF 31
12/ 4/79	15 30 30	72	1	72	2	****	0 OF 31

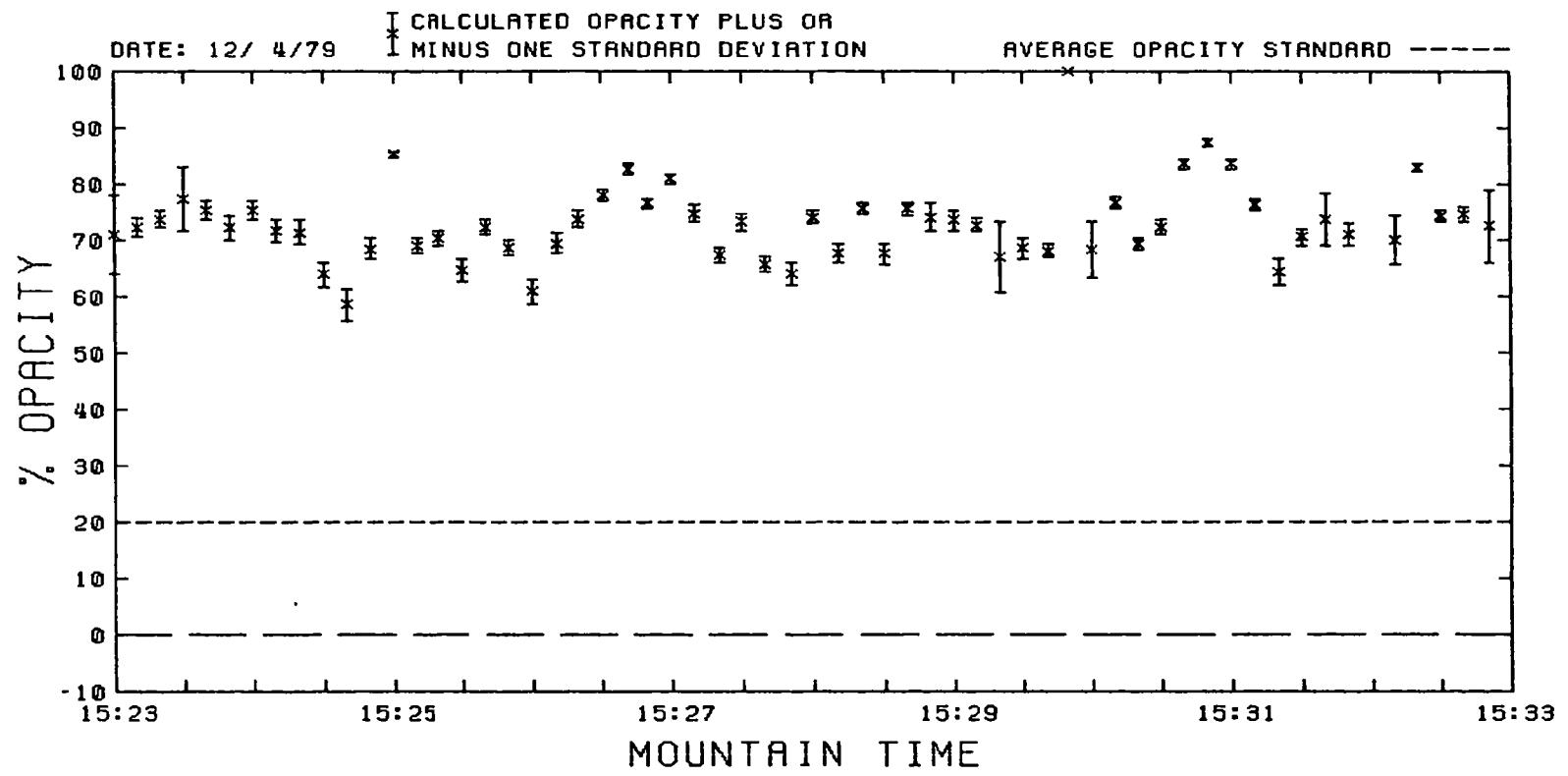
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0025, #2 ACID STACK, ASARCO SMELTER, EL PASO, TEX FROM WEST END WAYMORE FIVE MINUTE AVERAGES

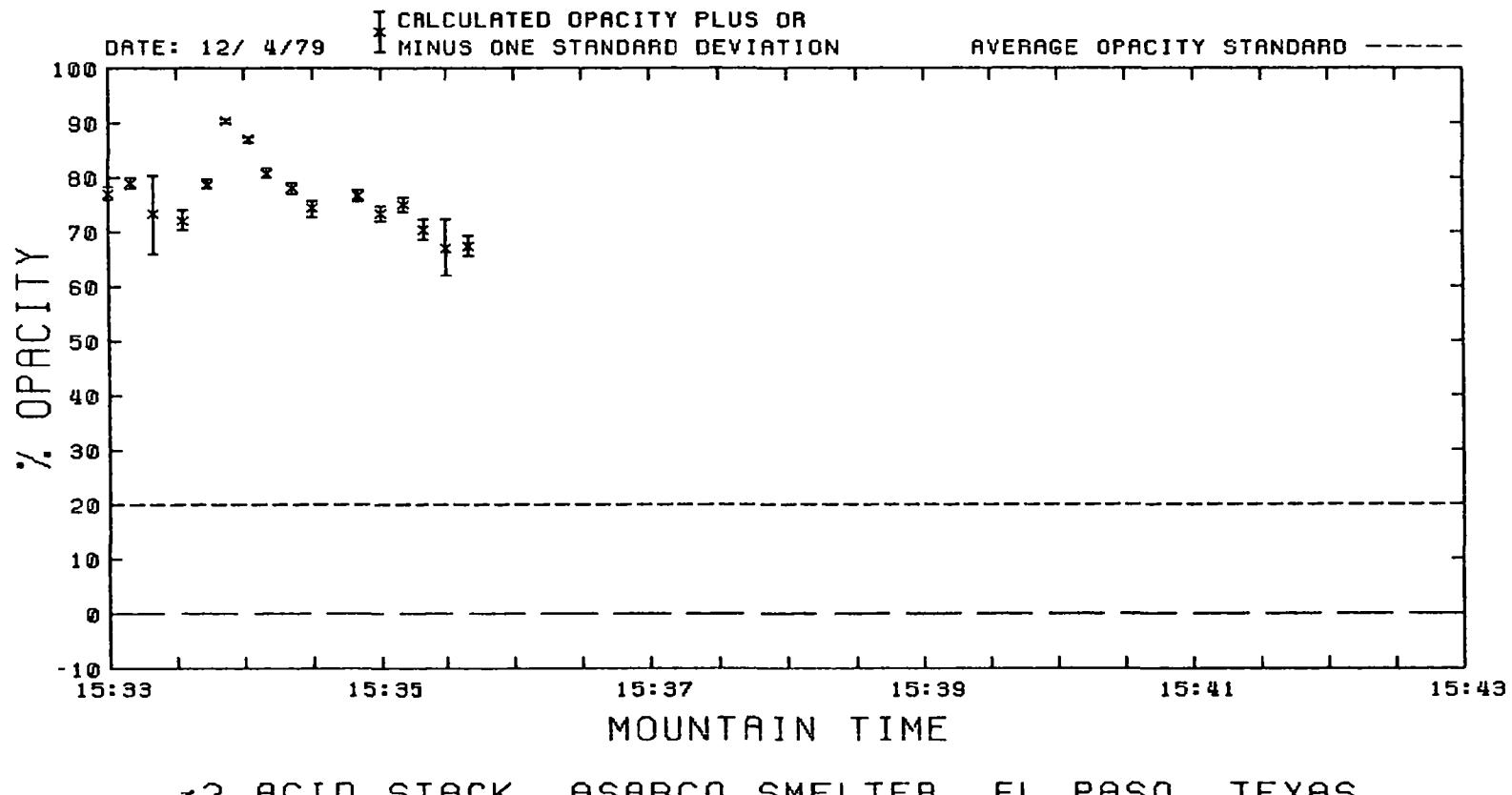
DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
------	------	---------	--------------	-----------------	----------------------	------------------

12/ 4/79	15 30 40	84	1	73	2	****	0 OF 31
12/ 4/79	15 30 50	87	1	74	2	****	0 OF 31
12/ 4/79	15 31 0	84	1	74	2	****	0 OF 31
12/ 4/79	15 31 10	76	1	75	2	****	0 OF 31
12/ 4/79	15 31 20	64	2	74	2	****	0 OF 31
12/ 4/79	15 31 30	71	1	74	2	****	0 OF 31
12/ 4/79	15 31 40	74	5	74	2	****	0 OF 31
12/ 4/79	15 31 50	71	2	74	2	****	0 OF 31
12/ 4/79	15 32 10	70	4	73	2	****	1 OF 31
12/ 4/79	15 32 20	83	1	74	2	****	1 OF 31
12/ 4/79	15 32 30	74	1	74	2	****	1 OF 31
12/ 4/79	15 32 40	75	1	74	2	****	1 OF 31
12/ 4/79	15 32 51	73	7	74	2	****	1 OF 31
12/ 4/79	15 33 0	77	1	75	2	****	1 OF 31
12/ 4/79	15 33 10	79	1	75	2	****	1 OF 31
12/ 4/79	15 33 20	73	7	75	2	****	1 OF 31
12/ 4/79	15 33 33	72	2	75	2	****	1 OF 30
12/ 4/79	15 33 44	79	1	75	2	****	1 OF 30
12/ 4/79	15 33 52	90	0	76	2	****	1 OF 30
12/ 4/79	15 34 2	87	0	76	2	****	1 OF 30
12/ 4/79	15 34 10	81	1	76	2	****	1 OF 31
12/ 4/79	15 34 21	78	1	77	2	****	1 OF 30
12/ 4/79	15 34 30	74	2	77	2	****	1 OF 31
12/ 4/79	15 34 50	77	1	77	2	****	1 OF 30
12/ 4/79	15 35 0	73	1	76	2	****	1 OF 30
12/ 4/79	15 35 10	75	1	77	2	****	1 OF 30
12/ 4/79	15 35 20	70	2	76	2	****	1 OF 30
12/ 4/79	15 35 30	67	5	76	2	****	1 OF 30
12/ 4/79	15 35 40	67	2	76	2	****	1 OF 30





\*2 ACID STACK, ASARCO SMELTER, EL PASO, TEXAS



#2 ACID STACK

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0025, #2 ACID STACK, ASARCO SMELTER, EL PASO, TEX FROM WEST END WAYMORE FIVE MINUTE AVERAGES

DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
------	------	---------	--------------	-----------------	----------------------	------------------

12/ 4/79	15 46 0	71	1	0	0	0 OF 0
12/ 4/79	15 46 10	74	2	0	0	0 OF 0
12/ 4/79	15 46 20	67	2	0	0	0 OF 0
12/ 4/79	15 46 30	71	2	0	0	0 OF 0
12/ 4/79	15 46 40	65	7	0	0	0 OF 0
12/ 4/79	15 46 50	70	2	0	0	0 OF 0
12/ 4/79	15 47 1	71	1	0	0	0 OF 0
12/ 4/79	15 47 10	70	1	0	0	0 OF 0
12/ 4/79	15 47 20	67	3	0	0	0 OF 0
12/ 4/79	15 47 30	69	2	0	0	0 OF 0
12/ 4/79	15 47 40	68	2	0	0	0 OF 0
12/ 4/79	15 47 50	74	2	0	0	0 OF 0
12/ 4/79	15 48 0	68	2	0	0	0 OF 0
12/ 4/79	15 48 10	63	2	0	0	0 OF 0
12/ 4/79	15 48 20	73	1	0	0	0 OF 0
12/ 4/79	15 48 30	77	2	0	0	0 OF 0
12/ 4/79	15 48 40	71	2	0	0	0 OF 0
12/ 4/79	15 48 50	70	2	0	0	0 OF 0
12/ 4/79	15 49 0	70	4	0	0	0 OF 0
12/ 4/79	15 49 10	67	5	0	0	0 OF 0
12/ 4/79	15 49 20	71	2	0	0	0 OF 0
12/ 4/79	15 49 30	72	2	0	0	0 OF 0
12/ 4/79	15 49 40	81	7	0	0	0 OF 0
12/ 4/79	15 49 50	73	1	0	0	0 OF 0
12/ 4/79	15 50 0	67	2	0	0	0 OF 0
12/ 4/79	15 50 10	73	7	0	0	0 OF 0
12/ 4/79	15 50 20	86	0	0	0	0 OF 0
12/ 4/79	15 50 30	69	2	0	0	0 OF 0
12/ 4/79	15 50 40	75	2	0	0	0 OF 0
12/ 4/79	15 50 50	67	6	71	3	**** 0 OF 30
12/ 4/79	15 51 0	77	8	71	3	**** 0 OF 31
12/ 4/79	15 51 11	73	2	71	3	**** 0 OF 30
12/ 4/79	15 51 20	77	1	71	3	**** 0 OF 31
12/ 4/79	15 51 30	74	6	72	3	**** 0 OF 31
12/ 4/79	15 51 40	70	1	72	3	**** 0 OF 31
12/ 4/79	15 51 50	76	6	72	3	**** 0 OF 31
12/ 4/79	15 52 0	77	2	72	3	**** 0 OF 31
12/ 4/79	15 52 10	73	4	72	3	**** 0 OF 31
12/ 4/79	15 52 20	72	2	72	3	**** 0 OF 31
12/ 4/79	15 52 30	74	2	73	3	**** 0 OF 31
12/ 4/79	15 52 40	80	1	73	3	**** 0 OF 31
12/ 4/79	15 52 50	66	4	73	3	**** 0 OF 31
12/ 4/79	15 53 0	68	6	73	3	**** 0 OF 31
12/ 4/79	15 53 10	70	2	73	3	**** 0 OF 31
12/ 4/79	15 53 20	81	1	73	3	**** 0 OF 31
12/ 4/79	15 53 30	72	5	73	3	**** 0 OF 31
12/ 4/79	15 53 40	67	2	73	3	**** 0 OF 31
12/ 4/79	15 53 50	73	7	73	3	**** 0 OF 31
12/ 4/79	15 54 0	63	2	73	3	**** 0 OF 31
12/ 4/79	15 54 10	66	2	73	3	**** 0 OF 31

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0025, #2 ACID STACK, ASARCO SMELTER, EL PASO, TEX FROM WEST END WAYMORE SO VIOLATION					AVERAGE	FIVE MINUTE AVERAGES	NUMBER DISCARDED
DATE	TIME	OPACITY	SO VIOLATION	WEST END WAYMORE			
12/ 4/79	15 54 20	68	2	73	3	***	31
12/ 4/79	15 54 30	69	8	73	3	***	31
12/ 4/79	15 54 40	69	2	72	3	***	31
12/ 4/79	15 54 50	70	2	72	3	***	31
12/ 4/79	15 55 0	67	7	72	3	***	31
12/ 4/79	15 55 10	70	7	72	4	***	31
12/ 4/79	15 55 20	65	2	72	3	***	31
12/ 4/79	15 55 31	71	5	71	4	***	30
12/ 4/79	15 55 41	74	1	71	4	***	30
12/ 4/79	15 55 50	70	2	71	4	***	30
12/ 4/79	15 56 1	84	1	72	3	***	30
12/ 4/79	15 56 12	73	2	72	3	***	30
12/ 4/79	15 56 30	73	2	72	3	***	30
12/ 4/79	15 56 40	75	2	72	3	***	30
12/ 4/79	15 56 50	64	4	71	3	***	30
12/ 4/79	15 57 0	69	5	71	3	***	30
12/ 4/79	15 57 10	69	4	71	3	***	30
12/ 4/79	15 57 20	70	4	71	3	***	30
12/ 4/79	15 57 30	83	7	71	3	***	30
12/ 4/79	15 57 41	68	2	70	4	***	29
12/ 4/79	15 57 50	63	5	70	4	***	30
12/ 4/79	15 58 0	69	2	70	4	***	30
12/ 4/79	15 58 10	73	6	71	4	***	30
12/ 4/79	15 58 20	67	2	71	4	***	30
12/ 4/79	15 58 30	66	6	70	4	***	30
12/ 4/79	15 58 40	65	6	70	4	***	30
12/ 4/79	15 58 50	64	5	70	4	***	30
12/ 4/79	15 59 0	72	7	70	4	***	30
12/ 4/79	15 59 10	65	5	70	4	***	30
12/ 4/79	15 59 20	69	2	70	4	***	30
12/ 4/79	15 59 30	72	2	70	4	***	30
12/ 4/79	15 59 40	65	2	70	4	***	30
12/ 4/79	15 59 51	75	2	70	4	***	29
12/ 4/79	16 0 0	77	2	70	4	***	30
12/ 4/79	16 0 53	75	1	70	4	***	29
12/ 4/79	16 1 0	67	3	70	4	***	30
12/ 4/79	16 1 10	71	5	70	4	***	30
12/ 4/79	16 1 20	71	6	71	4	***	31
12/ 4/79	16 1 30	64	2	70	4	***	31
12/ 4/79	16 1 40	66	1	69	4	***	31
12/ 4/79	16 1 50	70	2	70	4	***	31
12/ 4/79	16 2 0	64	7	69	4	***	31
12/ 4/79	16 2 10	68	5	69	4	***	31
12/ 4/79	16 2 20	64	4	69	4	***	31
12/ 4/79	16 2 30	73	2	69	4	***	31
12/ 4/79	16 2 42	80	1	69	4	***	30

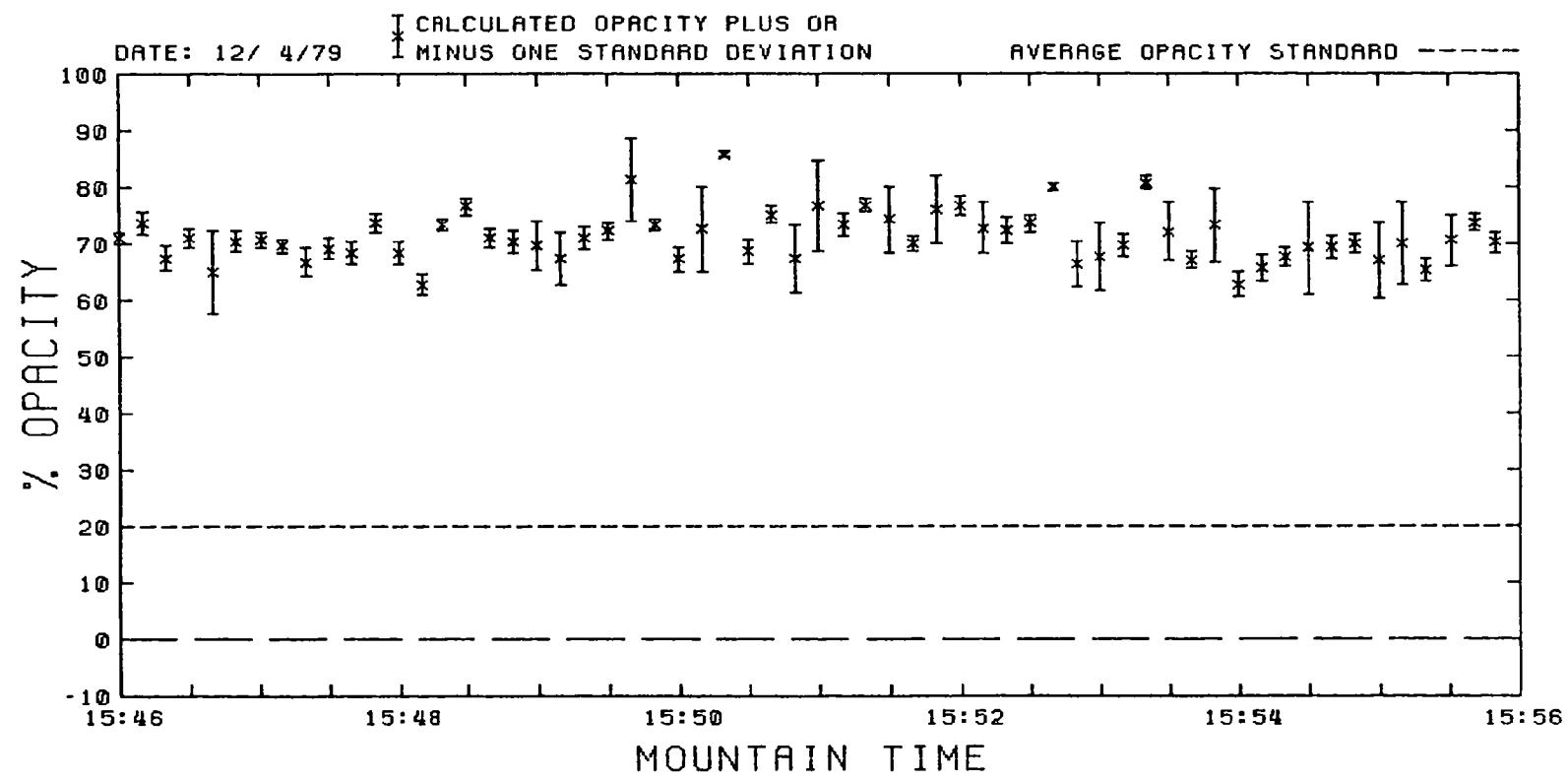
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

DATE	TIME	OPACITY	FROM WEST END WAYMORE			FIVE MINUTE AVERAGES	NUMBER DISCARDED
			SO VIOLATION	AVERAGE	SO VIOLATION		
12/ 4/79	16 2	51	70	6	69	4	**** 0 OF 30
12/ 4/79	16 3	0	67	2	69	4	**** 0 OF 31
12/ 4/79	16 3 10	61	3	3	69	4	**** 0 OF 31
12/ 4/79	16 3 20	76	2	2	69	3	**** 0 OF 31
12/ 4/79	16 3 30	69	2	2	69	3	**** 0 OF 31
12/ 4/79	16 3 40	65	3	3	69	3	**** 0 OF 31
12/ 4/79	16 3 50	64	4	4	69	3	**** 0 OF 31
12/ 4/79	16 4 0	69	2	2	69	3	**** 0 OF 31
12/ 4/79	16 4 10	68	4	4	69	3	**** 0 OF 31
12/ 4/79	16 4 20	77	7	7	70	3	**** 0 OF 31
12/ 4/79	16 4 30	69	5	5	70	3	**** 0 OF 31
12/ 4/79	16 4 40	73	4	4	70	3	**** 0 OF 31
12/ 4/79	16 4 50	65	2	2	70	3	**** 0 OF 31
12/ 4/79	16 5 0	69	6	6	69	3	**** 0 OF 31
12/ 4/79	16 5 10	64	3	3	69	3	**** 0 OF 31
12/ 4/79	16 5 20	64	3	3	69	3	**** 0 OF 31
12/ 4/79	16 5 30	66	2	2	69	3	**** 0 OF 31
12/ 4/79	16 5 41	71	2	2	69	3	**** 0 OF 31
12/ 4/79	16 5 50	74	7	7	69	3	**** 0 OF 31
12/ 4/79	16 6 0	70	6	6	69	3	**** 0 OF 31
12/ 4/79	16 6 10	71	6	6	69	3	**** 0 OF 31
12/ 4/79	16 6 20	67	2	2	69	3	**** 0 OF 31
12/ 4/79	16 6 30	72	2	2	69	3	**** 0 OF 31
12/ 4/79	16 6 40	74	2	2	69	3	**** 0 OF 31
12/ 4/79	16 6 50	72	6	6	69	3	**** 0 OF 31
12/ 4/79	16 6 60	64	3	3	69	3	**** 0 OF 31
12/ 4/79	16 6 70	66	2	2	69	3	**** 0 OF 31
12/ 4/79	16 7 10	65	2	2	69	3	**** 0 OF 31
12/ 4/79	16 7 20	68	3	3	69	3	**** 0 OF 31
12/ 4/79	16 7 31	65	3	3	69	3	**** 0 OF 31
12/ 4/79	16 7 40	67	3	3	69	3	**** 0 OF 31
12/ 4/79	16 8 0	64	3	3	69	3	**** 0 OF 31
12/ 4/79	16 8 10	66	3	3	69	3	**** 0 OF 31
12/ 4/79	16 8 21	66	2	2	68	3	**** 0 OF 31
12/ 4/79	16 8 30	69	5	5	68	3	**** 0 OF 31
12/ 4/79	16 8 40	68	3	3	68	3	**** 0 OF 31
12/ 4/79	16 8 50	63	6	6	64	4	**** 0 OF 31
12/ 4/79	16 9 0	64	2	2	62	4	**** 0 OF 31
12/ 4/79	16 9 11	73	1	1	60	4	**** 0 OF 31
12/ 4/79	16 9 20	67	5	5	58	5	**** 0 OF 31
12/ 4/79	16 9 30	71	1	1	55	5	**** 0 OF 31
12/ 4/79	16 9 39	76	1	1	53	5	**** 0 OF 31
12/ 4/79	16 9 50	80	7	7	51	5	**** 0 OF 31
12/ 4/79	16 9 55	74	2	2	48	4	**** 0 OF 31
12/ 4/79	16 10 0	67	2	2	47	4	**** 0 OF 31
12/ 4/79	16 10 10	74	1	1	45	4	**** 0 OF 31
12/ 4/79	16 10 20	71	2	2	43	4	**** 0 OF 31
12/ 4/79	16 10 29	100	0	0	41	3	**** 0 OF 31
12/ 4/79	16 10 40	76	5	5	39	3	**** 0 OF 31
12/ 4/79	16 10 50	69	2	2	37	3	**** 0 OF 31

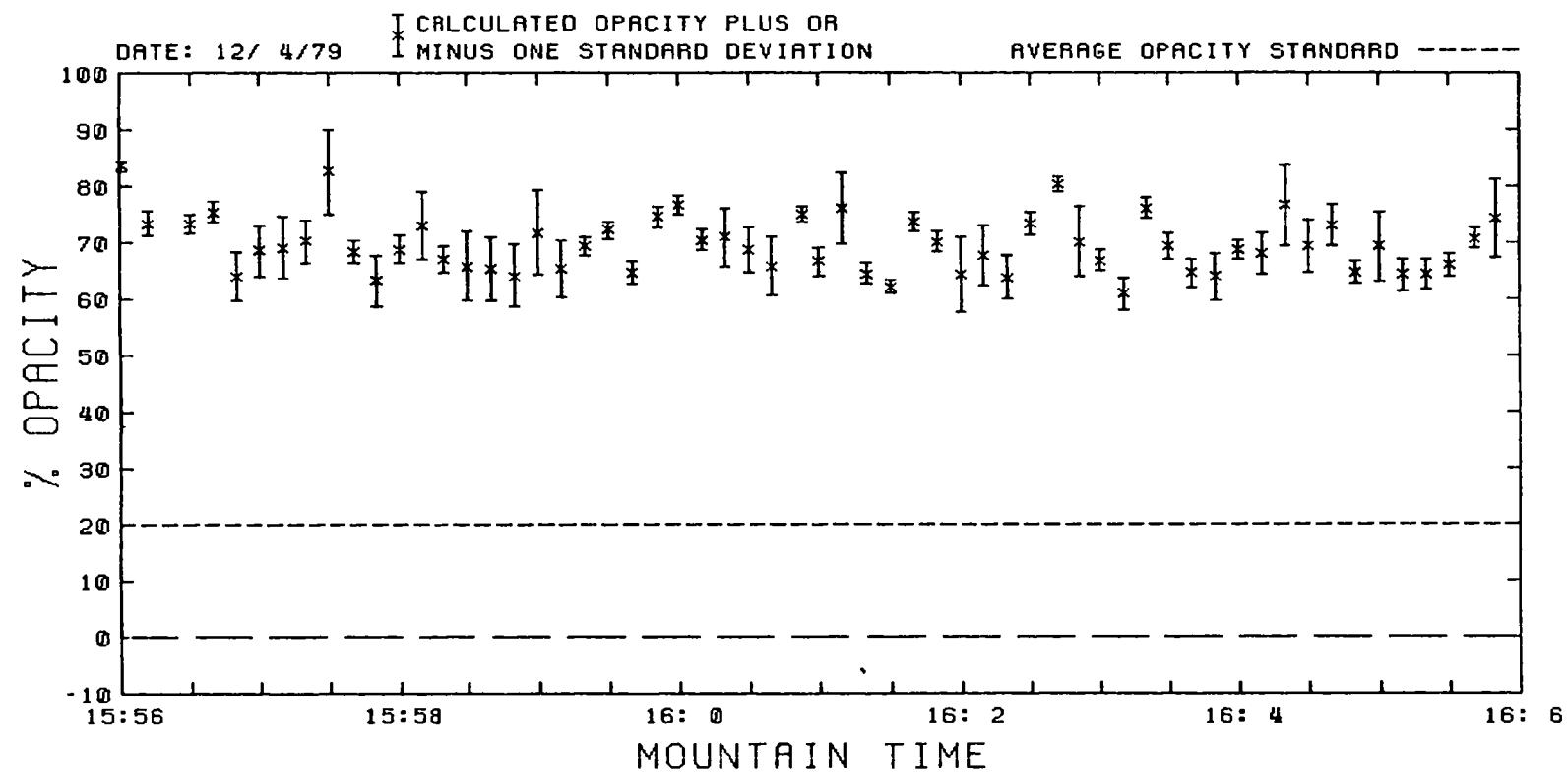
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0025, #2 ACID STACK, ASARCO SMELTER, EL PASO, TEX FROM WEST END WAYMORE FIVE MINUTE AVERAGES

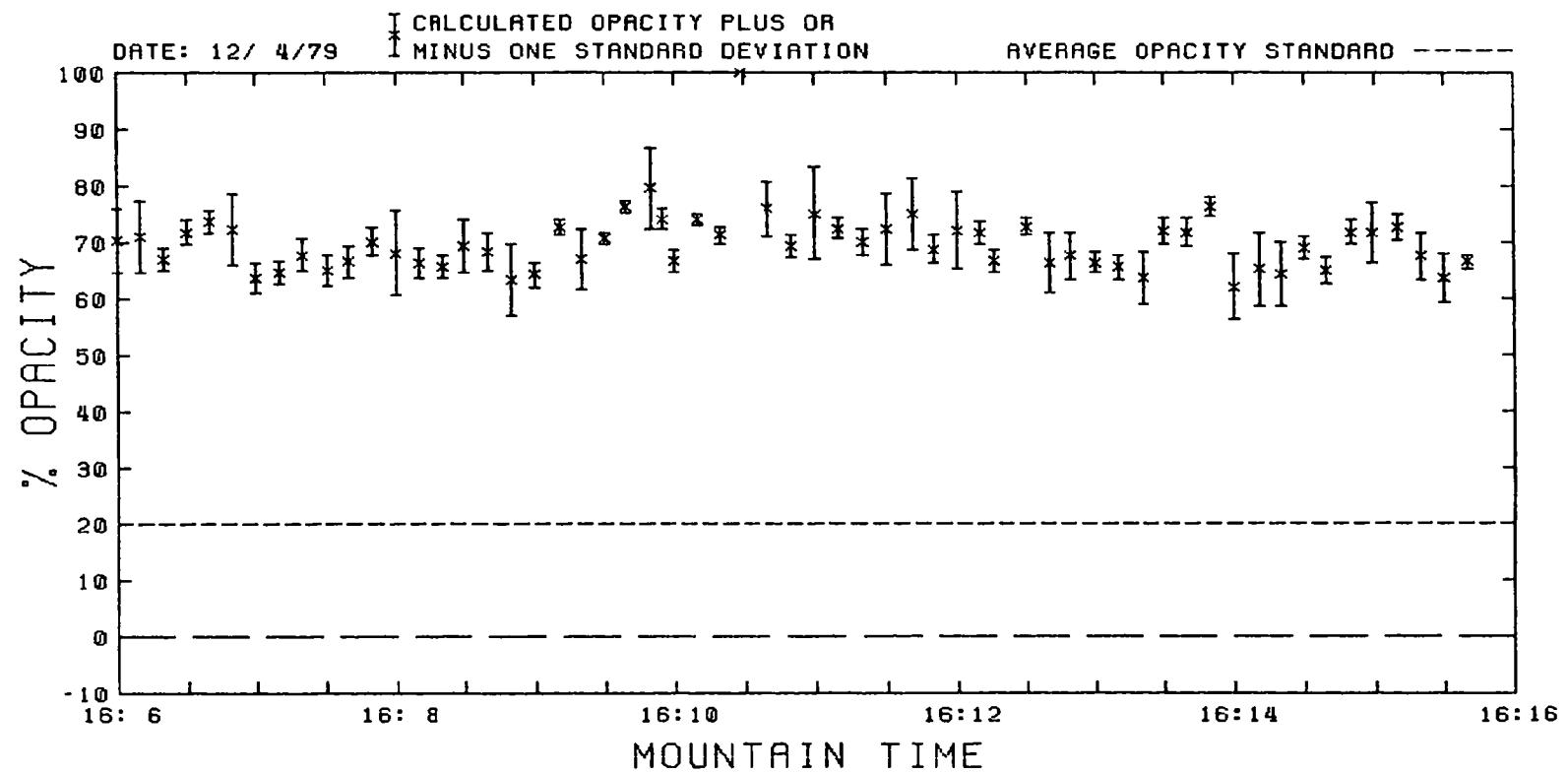
DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
12/ 4/79	16 11 0	75	8	71	3	**** 0 OF 32
12/ 4/79	16 11 10	72	2	71	3	**** 0 OF 32
12/ 4/79	16 11 20	70	2	71	3	**** 0 OF 32
12/ 4/79	16 11 30	72	6	71	3	**** 0 OF 32
12/ 4/79	16 11 41	75	6	71	3	**** 0 OF 31
12/ 4/79	16 11 50	69	2	71	3	**** 0 OF 32
12/ 4/79	16 12 0	72	7	71	3	**** 0 OF 32
12/ 4/79	16 12 10	72	2	71	3	**** 0 OF 32
12/ 4/79	16 12 16	67	2	71	3	**** 0 OF 32
12/ 4/79	16 12 30	73	2	71	3	**** 0 OF 32
12/ 4/79	16 12 40	66	5	71	3	**** 0 OF 32
12/ 4/79	16 12 49	68	4	71	3	**** 0 OF 32
12/ 4/79	16 13 0	66	2	71	3	**** 0 OF 32
12/ 4/79	16 13 10	66	2	71	3	**** 0 OF 32
12/ 4/79	16 13 21	64	5	71	3	**** 0 OF 32
12/ 4/79	16 13 30	72	2	71	3	**** 0 OF 32
12/ 4/79	16 13 40	72	2	71	3	**** 0 OF 32
12/ 4/79	16 13 50	76	2	72	3	**** 0 OF 32
12/ 4/79	16 14 0	62	6	72	3	**** 0 OF 32
12/ 4/79	16 14 11	65	7	72	3	**** 0 OF 32
12/ 4/79	16 14 20	64	6	71	4	**** 0 OF 32
12/ 4/79	16 14 30	69	2	71	3	**** 0 OF 32
12/ 4/79	16 14 39	65	2	71	3	**** 0 OF 32
12/ 4/79	16 14 50	72	2	71	3	**** 0 OF 32
12/ 4/79	16 14 59	72	5	71	3	**** 0 OF 31
12/ 4/79	16 15 10	73	2	71	3	**** 0 OF 31
12/ 4/79	16 15 20	68	4	71	4	**** 0 OF 31
12/ 4/79	16 15 30	64	4	70	4	**** 0 OF 30
12/ 4/79	16 15 40	67	1	69	4	**** 0 OF 31



NUM. 2 ACID STACK, ASARCO SMELTER, EL PASO, TEXAS



NUM. 2 ACID STACK, ASARCO SMELTER, EL PASO, TEXAS



NUM. 2 ACID STACK, ASARCO SMELTER, EL PASO, TEXAS

#2 ACID STACK

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0030, #2 ACID STACK, ASARCO SMELTER, EL PASO, TEX FROM WEST END WAYMORE FIVE MINUTE AVERAGES

DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
12/ 5/79	14 22 29	67	4	0	0	0 OF 0
12/ 5/79	14 22 39	65	3	0	0	0 OF 0
12/ 5/79	14 22 49	66	2	0	0	0 OF 0
12/ 5/79	14 22 59	66	2	0	0	0 OF 0
12/ 5/79	14 23 10	71	4	0	0	0 OF 0
12/ 5/79	14 23 20	76	1	0	0	0 OF 0
12/ 5/79	14 23 30	62	2	0	0	0 OF 0
12/ 5/79	14 23 40	64	6	0	0	0 OF 0
12/ 5/79	14 23 50	68	2	0	0	0 OF 0
12/ 5/79	14 24 0	65	2	0	0	0 OF 0
12/ 5/79	14 24 10	65	2	0	0	0 OF 0
12/ 5/79	14 24 20	71	8	0	0	0 OF 0
12/ 5/79	14 24 31	58	5	0	0	0 OF 0
12/ 5/79	14 24 41	61	2	0	0	0 OF 0
12/ 5/79	14 24 51	62	3	0	0	0 OF 0
12/ 5/79	14 25 0	59	2	0	0	0 OF 0
12/ 5/79	14 25 10	61	2	0	0	0 OF 0
12/ 5/79	14 25 20	60	4	0	0	0 OF 0
12/ 5/79	14 25 29	73	2	0	0	0 OF 0
12/ 5/79	14 25 39	70	5	0	0	0 OF 0
12/ 5/79	14 25 49	69	2	0	0	0 OF 0
12/ 5/79	14 25 58	58	3	66	3	**** 0 OF 23
12/ 5/79	14 26 8	65	2	66	3	**** 0 OF 24
12/ 5/79	14 26 18	66	2	0	0	0 OF 0
12/ 5/79	14 26 28	73	4	0	0	0 OF 0
12/ 5/79	14 26 38	66	8	0	0	0 OF 0
12/ 5/79	14 26 47	68	6	0	0	0 OF 0
12/ 5/79	14 26 57	71	2	0	0	0 OF 0
12/ 5/79	14 27 7	66	7	0	0	0 OF 0
12/ 5/79	14 27 27	51	3	66	4	**** 1 OF 31
12/ 5/79	14 27 37	42	6	65	4	**** 1 OF 31
12/ 5/79	14 27 46	84	1	65	4	**** 1 OF 31
12/ 5/79	14 27 56	77	2	66	4	**** 1 OF 31
12/ 5/79	14 28 16	74	2	66	4	**** 1 OF 30
12/ 5/79	14 28 26	75	2	66	4	**** 1 OF 30
12/ 5/79	14 28 36	59	3	66	4	**** 1 OF 30
12/ 5/79	14 28 46	77	4	66	4	**** 1 OF 30
12/ 5/79	14 28 55	58	4	66	4	**** 1 OF 30
12/ 5/79	14 29 5	69	5	66	4	**** 1 OF 30
12/ 5/79	14 29 15	62	2	66	4	**** 1 OF 30
12/ 5/79	14 29 25	66	3	66	4	**** 1 OF 30
12/ 5/79	14 29 35	68	2	66	4	**** 1 OF 30
12/ 5/79	14 29 45	68	3	66	4	**** 1 OF 30
12/ 5/79	14 29 55	69	2	66	4	**** 1 OF 30
12/ 5/79	14 30 4	81	7	67	4	**** 1 OF 30
12/ 5/79	14 30 14	73	1	67	4	**** 1 OF 30
12/ 5/79	14 30 24	82	1	68	4	**** 1 OF 30
12/ 5/79	14 30 34	67	3	68	4	**** 1 OF 30
12/ 5/79	14 30 44	90	2	69	4	**** 1 OF 30
12/ 5/79	14 30 54	85	4	69	4	**** 1 OF 30

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0030, #2 ACID STACK, ASARCO SMELTER, EL PASO, TEX FROM WEST END WAYMORE FIVE MINUTE AVERAGES									
DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER	DISCARDED		
12/ 5/79	14 31 3	86	4	70	4	****	1	OF	30
12/ 5/79	14 31 13	81	4	71	4	****	1	OF	30
12/ 5/79	14 31 23	74	5	71	4	****	1	OF	30
12/ 5/79	14 31 33	76	3	71	4	****	1	OF	30
12/ 5/79	14 31:42	77	4	71	4	****	1	OF	30
12/ 5/79	14 31 52	70	3	72	3	****	1	OF	30
12/ 5/79	14 32 1	75	2	72	3	****	1	OF	30
12/ 5/79	14 32 11	75	5	72	3	****	1	OF	30
12/ 5/79	14 32 21	67	2	72	3	****	0	OF	30
12/ 5/79	14 32 31	64	3	72	3	****	0	OF	30
12/ 5/79	14 32 40	69	2	73	3	****	0	OF	30
12/ 5/79	14 32 50	63	7	72	3	****	0	OF	30
12/ 5/79	14 33 0	68	2	0	0		0	OF	0
12/ 5/79	14 33 10	74	2	72	3	****	0	OF	31
12/ 5/79	14 33 20	67	3	72	3	****	0	OF	31
12/ 5/79	14 33 30	65	2	72	3	****	0	OF	31
12/ 5/79	14 33 39	64	5	72	3	****	0	OF	31
12/ 5/79	14 33 49	65	3	71	3	****	0	OF	31
12/ 5/79	14 33 59	69	3	72	3	****	0	OF	31
12/ 5/79	14 34 9	71	3	72	3	****	0	OF	31
12/ 5/79	14 34 19	59	3	72	3	****	0	OF	31
12/ 5/79	14 34 28	65	4	72	3	****	0	OF	31
12/ 5/79	14 34 38	63	2	72	3	****	0	OF	31
12/ 5/79	14 34 49	65	2	71	3	****	0	OF	31
12/ 5/79	14 34 59	65	3	71	3	****	0	OF	31
12/ 5/79	14 35 9	58	6	71	3	****	0	OF	31
12/ 5/79	14 35 20	69	2	71	3	****	0	OF	31
12/ 5/79	14 35 30	68	2	70	3	****	0	OF	31
12/ 5/79	14 35 40	65	2	70	3	****	0	OF	31
12/ 5/79	14 35 51	64	3	69	3	****	0	OF	31
12/ 5/79	14 36 1	56	7	68	3	****	0	OF	31
12/ 5/79	14 36:11	72	3	68	3	****	0	OF	31
12/ 5/79	14 36 22	69	3	67	3	****	0	OF	31
12/ 5/79	14 36 31	84	1	68	3	****	0	OF	31
12/ 5/79	14 36 51	88	1	68	3	****	0	OF	30
12/ 5/79	14 37 0	67	2	68	3	****	0	OF	30
12/ 5/79	14 37 10	66	2	67	3	****	0	OF	30
12/ 5/79	14 37 29	44	5	66	3	****	1	OF	30
12/ 5/79	14 37 39	53	5	66	3	****	1	OF	30
12/ 5/79	14 37 48	54	3	66	3	****	1	OF	30
12/ 5/79	14 37 58	75	1	66	3	****	1	OF	30
12/ 5/79	14 38 8	76	5	66	3	****	1	OF	30
12/ 5/79	14 38:17	42	5	65	3	****	1	OF	30
12/ 5/79	14 38 27	25	6	64	4	****	1	OF	30
12/ 5/79	14 38 36	37	3	63	4	****	1	OF	30
12/ 5/79	14 38 46	31	5	62	4	****	1	OF	30
12/ 5/79	14 38 56	63	3	61	4	****	1	OF	30
12/ 5/79	14 39 5	44	5	61	4	****	1	OF	30
12/ 5/79	14 39 15	58	3	60	4	****	1	OF	30
12/ 5/79	14 39 25	46	7	60	4	****	1	OF	30

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0030, #2 ACID STACK, ASARCO SMELTER, EL PASO, TEX FROM WEST END WAYMORE FIVE MINUTE AVERAGES									
DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER	DISCARDED		
12/ 5/79	14 39 35	54	4	59	4	****	1	OF	30
12/ 5/79	14 39 56	44	5	58	4	****	2	OF	30
12/ 5/79	14 40 18	40	6	58	4	****	3	OF	30
12/ 5/79	14 40 28	61	2	57	4	****	3	OF	30
12/ 5/79	14 40 50	45	5	56	5	****	4	OF	30
12/ 5/79	14 41 1	45	6	55	5	****	4	OF	30
12/ 5/79	14 41 10	42	8	55	5	****	4	OF	30
12/ 5/79	14 41 20	54	5	54	5	****	4	OF	30
12/ 5/79	14 41 29	53	6	54	5	****	4	OF	30
12/ 5/79	14 41 39	50	4	52	5	****	4	OF	30
12/ 5/79	14 41 48	39	4	52	5	****	4	OF	31
12/ 5/79	14 41 58	56	3	51	5	****	4	OF	31
12/ 5/79	14 42 7	60	2	50	5	****	4	OF	31
12/ 5/79	14 42 27	25	5	48	5	****	3	OF	31
12/ 5/79	14 42 37	54	7	48	5	****	3	OF	31
12/ 5/79	14 42 47	21	8	47	5	****	3	OF	31
12/ 5/79	14 42 57	46	3	47	5	****	3	OF	31
12/ 5/79	14 43 8	29	8	45	5	****	3	OF	31
12/ 5/79	14 43 18	42	3	44	6	****	3	OF	30
12/ 5/79	14 43 29	30	7	44	6	****	3	OF	30
12/ 5/79	14 43 39	52	2	45	6	****	3	OF	30
12/ 5/79	14 43 50	58	3	46	6	****	3	OF	30
12/ 5/79	14 44 0	65	6	46	6	****	3	OF	30
12/ 5/79	14 44 10	66	6	47	6	****	3	OF	30
12/ 5/79	14 44 21	78	7	47	6	****	3	OF	30
12/ 5/79	14 44 31	69	8	48	6	****	3	OF	30
12/ 5/79	14 44 41	76	2	49	6	****	3	OF	30
12/ 5/79	14 44 51	43	4	49	6	****	3	OF	30
12/ 5/79	14 45 11	76	1	51	5	****	3	OF	30
12/ 5/79	14 45 21	67	3	52	5	****	3	OF	30
12/ 5/79	14 45 30	59	2	52	5	****	3	OF	30
12/ 5/79	14 45 40	65	6	52	5	****	3	OF	30
12/ 5/79	14 45 50	74	2	53	5	****	2	OF	30
12/ 5/79	14 45 59	72	2	54	5	****	2	OF	31
12/ 5/79	14 46 9	73	7	55	5	****	2	OF	31
12/ 5/79	14 46 19	80	1	56	5	****	2	OF	31
12/ 5/79	14 46 29	65	2	57	5	****	2	OF	31
12/ 5/79	14 46 49	62	5	58	5	****	2	OF	30
12/ 5/79	14 47 0	69	7	58	5	****	3	OF	30
12/ 5/79	14 47 10	77	1	59	5	****	3	OF	30
12/ 5/79	14 47 20	74	6	60	6	****	2	OF	30
12/ 5/79	14 47 31	59	6	61	6	****	2	OF	30
12/ 5/79	14 47 41	66	6	63	6	****	3	OF	30
12/ 5/79	14 47 51	56	5	63	6	****	3	OF	30
12/ 5/79	14 48 12	64	5	65	5	****	3	OF	30
12/ 5/79	14 48 22	56	4	66	6	****	3	OF	30
12/ 5/79	14 48 31	61	3	67	6	****	3	OF	30
12/ 5/79	14 48 41	67	4	67	6	****	3	OF	30
12/ 5/79	14 48 51	73	3	67	6	****	3	OF	30
12/ 5/79	14 49 0	76	7	68	6	****	3	OF	31

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0030, #2 ACID STACK, ASARCO SMELTER, EL PASO, TEX FROM WEST END WAYMORE FIVE MINUTE AVERAGES

DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
------	------	---------	--------------	-----------------	----------------------	------------------

12/ 5/79	14 49 19	81	5	68	5	****	4 OF 31
12/ 5/79	14 49 29	86	2	68	5	****	4 OF 31
12/ 5/79	14 49 38	77	2	69	5	****	4 OF 31
12/ 5/79	14 49 58	70	1	69	5	****	5 OF 31
12/ 5/79	14 50 36	38	6	70	5	****	6 OF 30
12/ 5/79	14 50 46	30	7	69	5	****	6 OF 30
12/ 5/79	14 50 56	55	8	67	6	****	6 OF 30
12/ 5/79	14 51 6	59	4	66	6	****	6 OF 30
12/ 5/79	14 51 16	50	6	66	6	****	6 OF 30
12/ 5/79	14 51 26	57	3	65	6	****	6 OF 30
12/ 5/79	14 51 36	46	6	64	6	****	6 OF 30
12/ 5/79	14 51 46	80	2	63	5	****	5 OF 30
12/ 5/79	14 52 16	54	5	61	7	****	7 OF 30
12/ 5/79	14 52 36	64	2	60	7	****	8 OF 30
12/ 5/79	14 52 46	80	2	60	7	****	8 OF 30
12/ 5/79	14 53 7	68	2	61	7	****	8 OF 30
12/ 5/79	14 53 17	67	2	61	7	****	8 OF 30
12/ 5/79	14 53 28	49	6	61	7	****	8 OF 30
12/ 5/79	14 53 38	55	5	61	7	****	8 OF 30
12/ 5/79	14 54 0	64	7	59	8	****	9 OF 30
12/ 5/79	14 54 10	53	6	59	8	****	9 OF 30
12/ 5/79	14 54 21	53	6	57	8	****	8 OF 29
12/ 5/79	14 54 31	92	0	56	7	****	8 OF 29
12/ 5/79	14 54 42	52	2	57	7	****	8 OF 29
12/ 5/79	14 54.52	70	2	56	7	****	7 OF 29
12/ 5/79	14 55 3	84	1	56	7	****	7 OF 29
12/ 5/79	14 55 13	76	6	0	0	****	0 OF 0
12/ 5/79	14 55.24	74	2	58	7	****	6 OF 30
12/ 5/79	14 55 45	69	2	60	7	****	6 OF 30
12/ 5/79	14 55 55	57	6	61	7	****	6 OF 30
12/ 5/79	14 56 6	61	8	62	7	****	6 OF 30
12/ 5/79	14 56 16	77	2	62	7	****	6 OF 30
12/ 5/79	14 56 37	35	8	63	7	****	7 OF 29
12/ 5/79	14 56 59	36	7	61	7	****	7 OF 29
12/ 5/79	14 57 21	60	2	59	6	****	7 OF 29
12/ 5/79	14 57 31	68	2	59	6	****	6 OF 29
12/ 5/79	14 57.41	59	2	59	6	****	6 OF 29
12/ 5/79	14 57 51	54	4	58	6	****	6 OF 29
12/ 5/79	14 58 1	73	2	58	6	****	5 OF 29
12/ 5/79	14 58.11	80	1	58	6	****	5 OF 29
12/ 5/79	14 58.20	64	3	59	6	****	5 OF 29
12/ 5/79	14 58 40	76	2	60	6	****	6 OF 29
12/ 5/79	14 59 9	63	2	60	6	****	7 OF 30
12/ 5/79	14 59 19	69	3	61	6	****	7 OF 30
12/ 5/79	14 59 29	64	2	62	5	****	7 OF 30
12/ 5/79	14 59 39	58	3	60	6	****	7 OF 30
12/ 5/79	14 59 50	79	1	61	6	****	7 OF 30
12/ 5/79	15 0 0	65	2	61	6	****	7 OF 30
12/ 5/79	15 0 10	51	6	60	6	****	7 OF 30
12/ 5/79	15 0 20	71	3	59	6	****	7 OF 30

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0030, #2 ACID STACK, ASARCO SMELTER, EL PASO, TEX FROM WEST END WAYMORE. FIVE MINUTE AVERAGES									
DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED			
12/ 5/79	15 0 30	44	3	59	6	****	7	OF	30
12/ 5/79	15 0 40	65	3	58	5	****	6	OF	30
12/ 5/79	15 0 51	78	1	58	5	****	6	OF	30
12/ 5/79	15 1 1	74	2	59	5	****	6	OF	30
12/ 5/79	15 1 11	77	1	60	5	****	6	OF	30
12/ 5/79	15 1 21	65	2	60	5	****	6	OF	30
12/ 5/79	15 1 41	61	5	61	4	****	5	OF	29
12/ 5/79	15 1 51	66	4	61	4	****	4	OF	29
12/ 5/79	15 2 1	42	7	62	4	****	4	OF	29
12/ 5/79	15 2 11	33	6	61	4	****	3	OF	29
12/ 5/79	15 2 21	48	4	60	4	****	3	OF	30
12/ 5/79	15 2 31	52	4	60	4	****	3	OF	30
12/ 5/79	15 3 2	61	2	61	5	****	3	OF	29
12/ 5/79	15 3 12	60	4	61	5	****	3	OF	29
12/ 5/79	15 3 22	76	8	61	5	****	3	OF	29
12/ 5/79	15 3 32	66	8	61	5	****	2	OF	29
12/ 5/79	15 3 41	58	3	61	5	****	2	OF	29
12/ 5/79	15 3 51	58	7	61	5	****	1	OF	29
12/ 5/79	15 4 1	73	5	61	5	****	0	OF	29
12/ 5/79	15 4 11	74	2	61	5	****	0	OF	29
12/ 5/79	15 4 21	82	7	62	5	****	0	OF	29
12/ 5/79	15 4 31	72	2	62	5	****	0	OF	29
12/ 5/79	15 5 1	66	7	62	6	****	2	OF	29
12/ 5/79	15 5 10	90	1	63	6	****	2	OF	30
12/ 5/79	15 5 20	74	2	64	6	****	2	OF	30
12/ 5/79	15 5 30	69	6	64	6	****	2	OF	30
12/ 5/79	15 5 49	62	3	64	6	****	3	OF	30
12/ 5/79	15 5 59	42	4	63	6	****	3	OF	30
12/ 5/79	15 6 9	38	5	61	6	****	3	OF	30
12/ 5/79	15 6 19	68	2	61	6	****	3	OF	30
12/ 5/79	15 6 30	89	1	62	6	****	3	OF	30
12/ 5/79	15 6 40	72	2	62	6	****	3	OF	31
12/ 5/79	15 6 50	71	2	63	6	****	3	OF	31
12/ 5/79	15 7 1	73	2	63	6	****	3	OF	31
12/ 5/79	15 7 11	56	3	63	6	****	3	OF	31
12/ 5/79	15 7 22	77	2	66	6	****	3	OF	30
12/ 5/79	15 7 32	69	4	66	6	****	3	OF	30
12/ 5/79	15 7 42	81	2	67	5	****	2	OF	30
12/ 5/79	15 7 53	82	1	67	5	****	1	OF	30
12/ 5/79	15 8 3	73	3	68	5	****	1	OF	30
12/ 5/79	15 8 14	80	2	68	5	****	1	OF	30
12/ 5/79	15 8 24	80	8	69	5	****	1	OF	30
12/ 5/79	15 8 34	75	2	69	4	****	1	OF	30
12/ 5/79	15 8 43	74	2	69	4	****	1	OF	30
12/ 5/79	15 8 51	55	6	69	4	****	1	OF	31
12/ 5/79	15 9 1	83	1	70	4	****	1	OF	31
12/ 5/79	15 9 10	67	2	70	4	****	1	OF	31
12/ 5/79	15 9 20	60	3	69	4	****	1	OF	31
12/ 5/79	15 9 30	68	2	69	4	****	1	OF	31
12/ 5/79	15 9 40	46	6	68	4	****	1	OF	31

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0030, #2 ACID STACK, ASARCO SMELTER, EL PASO, TEX FROM WEST END WAYMORE FIVE MINUTE AVERAGES

DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
------	------	---------	--------------	-----------------	----------------------	------------------

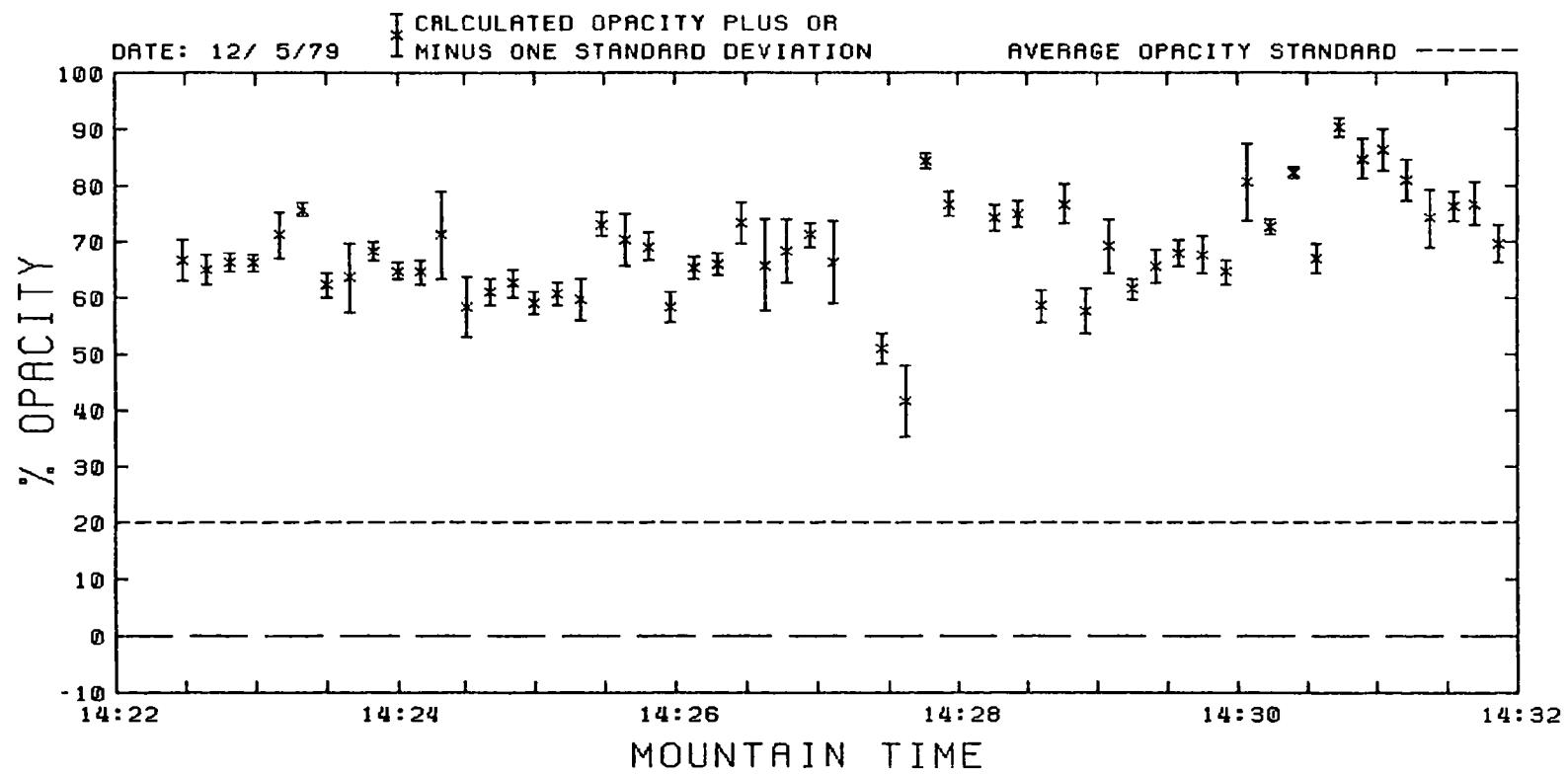
12/ 5/79	15 9 50	69	2	68	4	****	0 OF	31
12/ 5/79	15 10. 0	67	4	68	3	****	1 OF	31
12/ 5/79	15 10:10	67	2	68	3	****	1 OF	31
12/ 5/79	15 10.20	79	1	67	3	****	1 OF	31
12/ 5/79	15 10.30	61	2	67	3	****	1 OF	31
12/ 5/79	15 10 50	83	2	68	3	****	1 OF	30
12/ 5/79	15 11 20	62	2	69	4	****	1 OF	30
12/ 5/79	15 11 30	74	2	70	4	****	1 OF	31
12/ 5/79	15 11 39	83	7	69	4	****	1 OF	31
12/ 5/79	15 11 49	100	0	70	4	****	1 OF	31
12/ 5/79	15 11 59	67	2	70	4	****	1 OF	31
12/ 5/79	15 12  9	72	2	70	4	****	1 OF	31
12/ 5/79	15 12 19	56	3	70	4	****	1 OF	31
12/ 5/79	15 12 29	54	8	69	4	****	1 OF	31
12/ 5/79	15 12 39	64	3	69	4	****	1 OF	31
12/ 5/79	15 12 50	53	4	68	4	****	1 OF	31
12/ 5/79	15 12 59	66	2	68	4	****	1 OF	31
12/ 5/79	15 13 10	62	3	67	4	****	1 OF	31
12/ 5/79	15 13 20	100	0	68	4	****	1 OF	31
12/ 5/79	15 13 30	79	1	68	4	****	1 OF	31
12/ 5/79	15 13 41	82	1	68	4	****	1 OF	31
12/ 5/79	15 13 51	39	7	67	4	****	1 OF	31
12/ 5/79	15 14  1	68	7	67	4	****	1 OF	31
12/ 5/79	15 14 12	83	2	67	4	****	1 OF	30
12/ 5/79	15 14 22	79	2	68	4	****	1 OF	30
12/ 5/79	15 14 33	79	2	68	4	****	1 OF	30
12/ 5/79	15 14 43	78	1	70	4	****	1 OF	30
12/ 5/79	15 15  4	70	2	70	4	****	2 OF	30
12/ 5/79	15 15 14	66	2	70	4	****	2 OF	30
12/ 5/79	15 15 25	100	0	70	4	****	2 OF	30
12/ 5/79	15 15 44	76	2	71	4	****	2 OF	30
12/ 5/79	15 15 54	87	1	71	4	****	2 OF	30
12/ 5/79	15 16  4	79	2	71	4	****	1 OF	30
12/ 5/79	15 16 13	85	1	72	3	****	0 OF	30
12/ 5/79	15 16.23	74	5	72	3	****	0 OF	30
12/ 5/79	15 16 42	73	5	72	4	****	1 OF	30
12/ 5/79	15 17  1	100	0	72	4	****	2 OF	30
12/ 5/79	15 17 30	100	0	74	5	****	4 OF	30
12/ 5/79	15 17 39	74	1	74	5	****	4 OF	31
12/ 5/79	15 17 49	70	2	75	5	****	4 OF	31
12/ 5/79	15 18  9	53	4	75	5	****	5 OF	31
12/ 5/79	15 18 29	86	1	75	6	****	5 OF	30
12/ 5/79	15 18.49	67	6	74	6	****	6 OF	30
12/ 5/79	15 18.59	79	2	76	6	****	6 OF	30
12/ 5/79	15 19  9	100	0	77	6	****	6 OF	30
12/ 5/79	15 19 39	100	0	78	7	****	8 OF	30
12/ 5/79	15 19 59	59	4	77	6	****	7 OF	29
12/ 5/79	15 20 30	74	2	76	8	****	9 OF	29
12/ 5/79	15 20 40	68	2	76	7	****	8 OF	29
12/ 5/79	15 21  0	72	4	75	8	****	9 OF	29

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
DENVER, COLORADO 80225

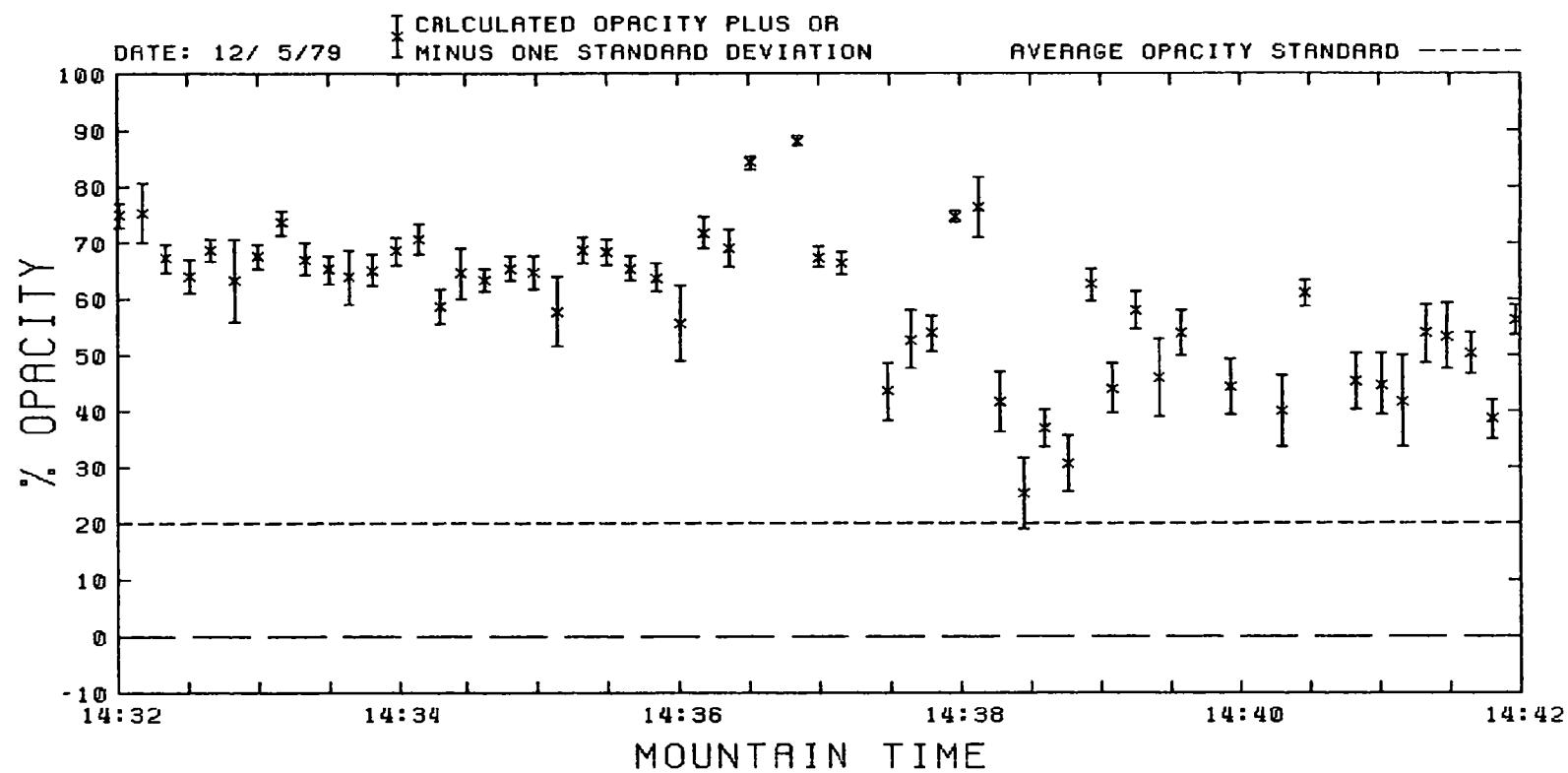
OMEGA-0030, #2 ACID STACK, ASARCO SMELTER, EL PASO, TEX FROM WEST END WAYMORE FIVE MINUTE AVERAGES

DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
------	------	---------	--------------	-----------------	----------------------	------------------

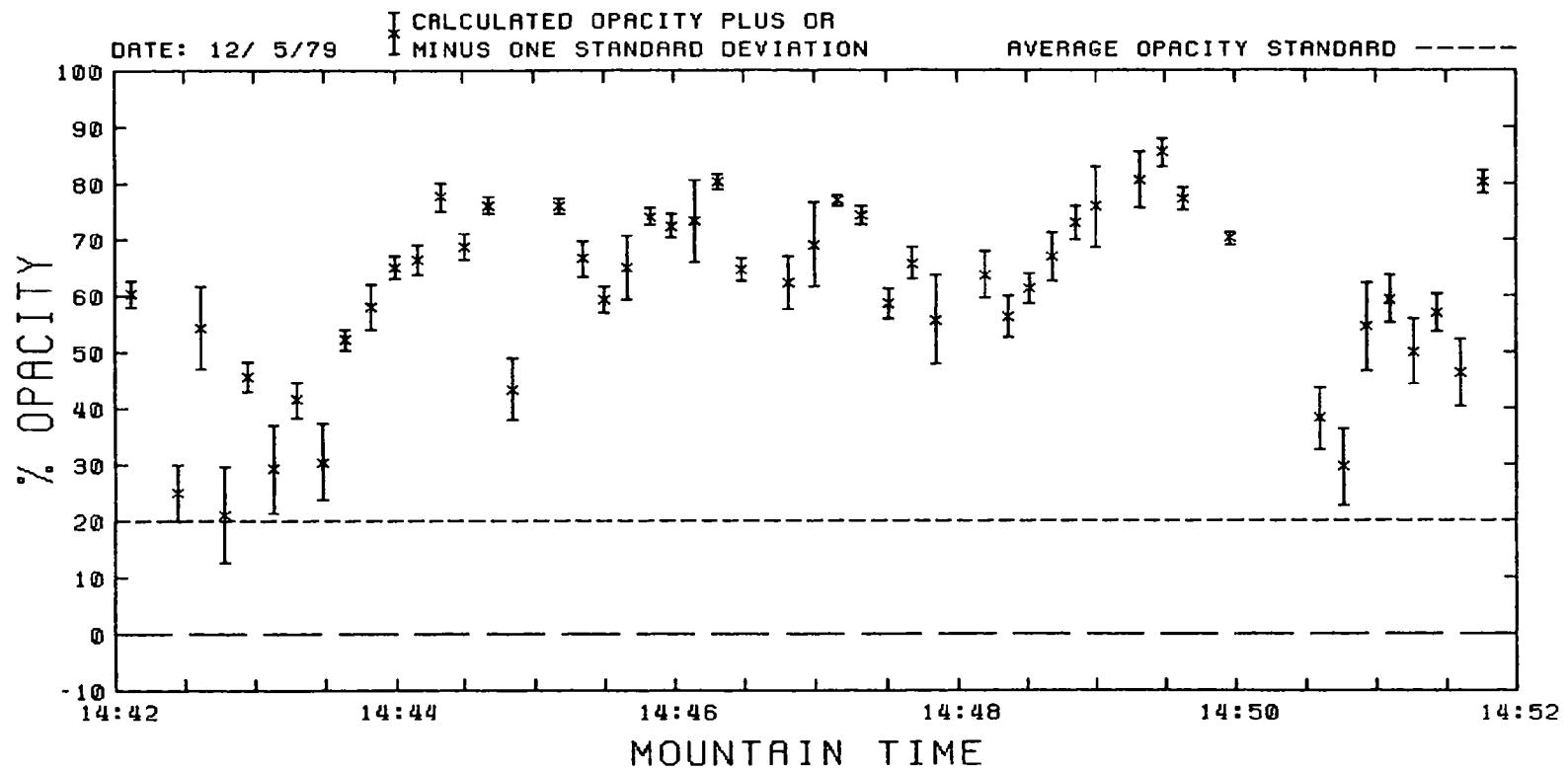
12/ 5/79	15 21 10	100	0	76	8	****	9 OF 29
12/ 5/79	15 21 20	71	1	76	8	****	9 OF 29
12/ 5/79	15 21 30	64	6	75	8	****	9 OF 29
12/ 5/79	15 21 40	46	4	74	8	****	8 OF 29
12/ 5/79	15 21 50	83	1	74	7	****	8 OF 29
12/ 5/79	15 22 0	72	2	74	7	****	7 OF 29
12/ 5/79	15 22 10	82	2	73	7	****	7 OF 29
12/ 5/79	15 22 20	80	1	74	6	****	6 OF 29
12/ 5/79	15 22 31	68	4	72	6	****	5 OF 28



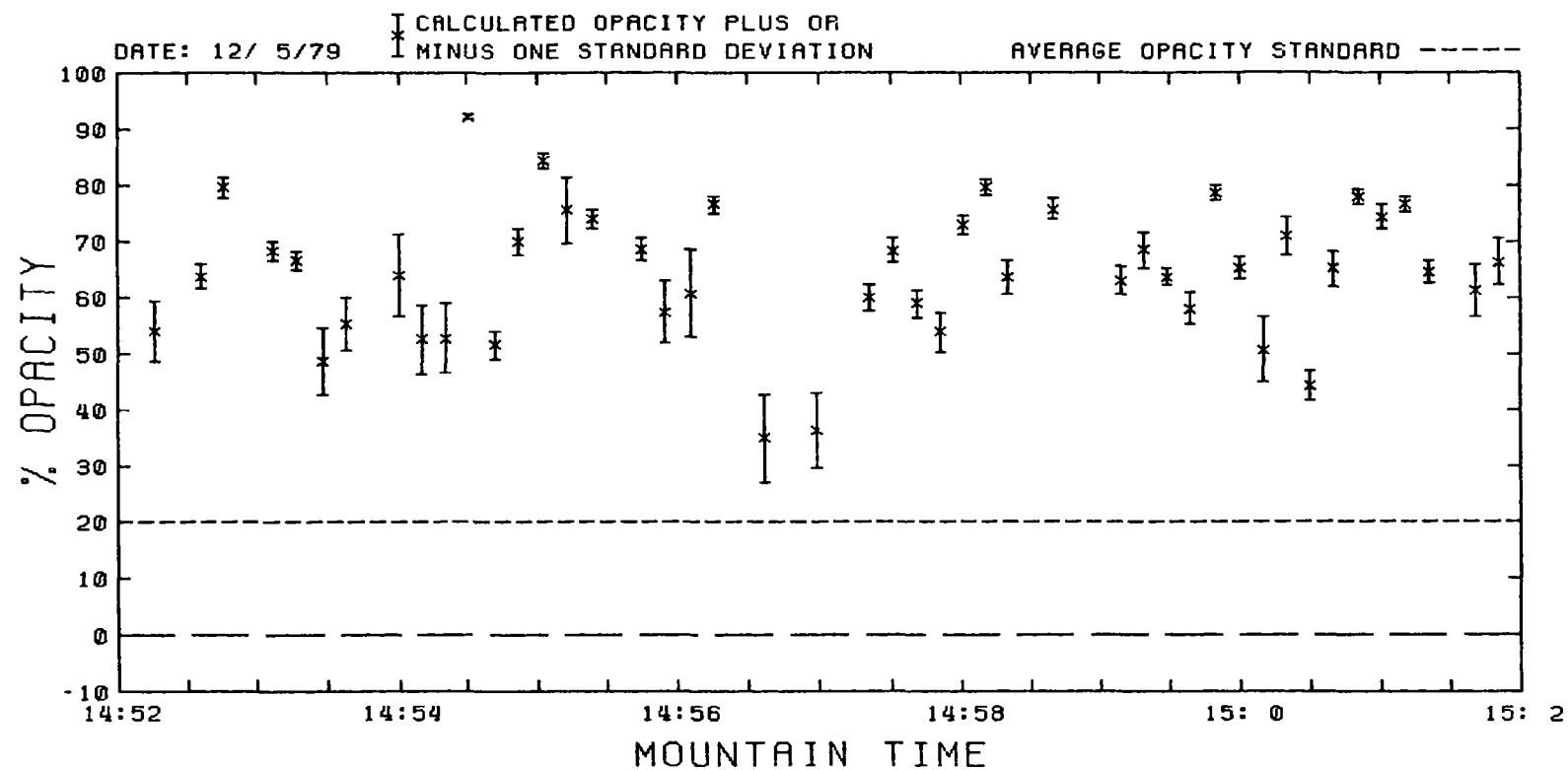
NUM. 2 ACID STACK, ASARCO SMELTER, EL PASO, TEXAS



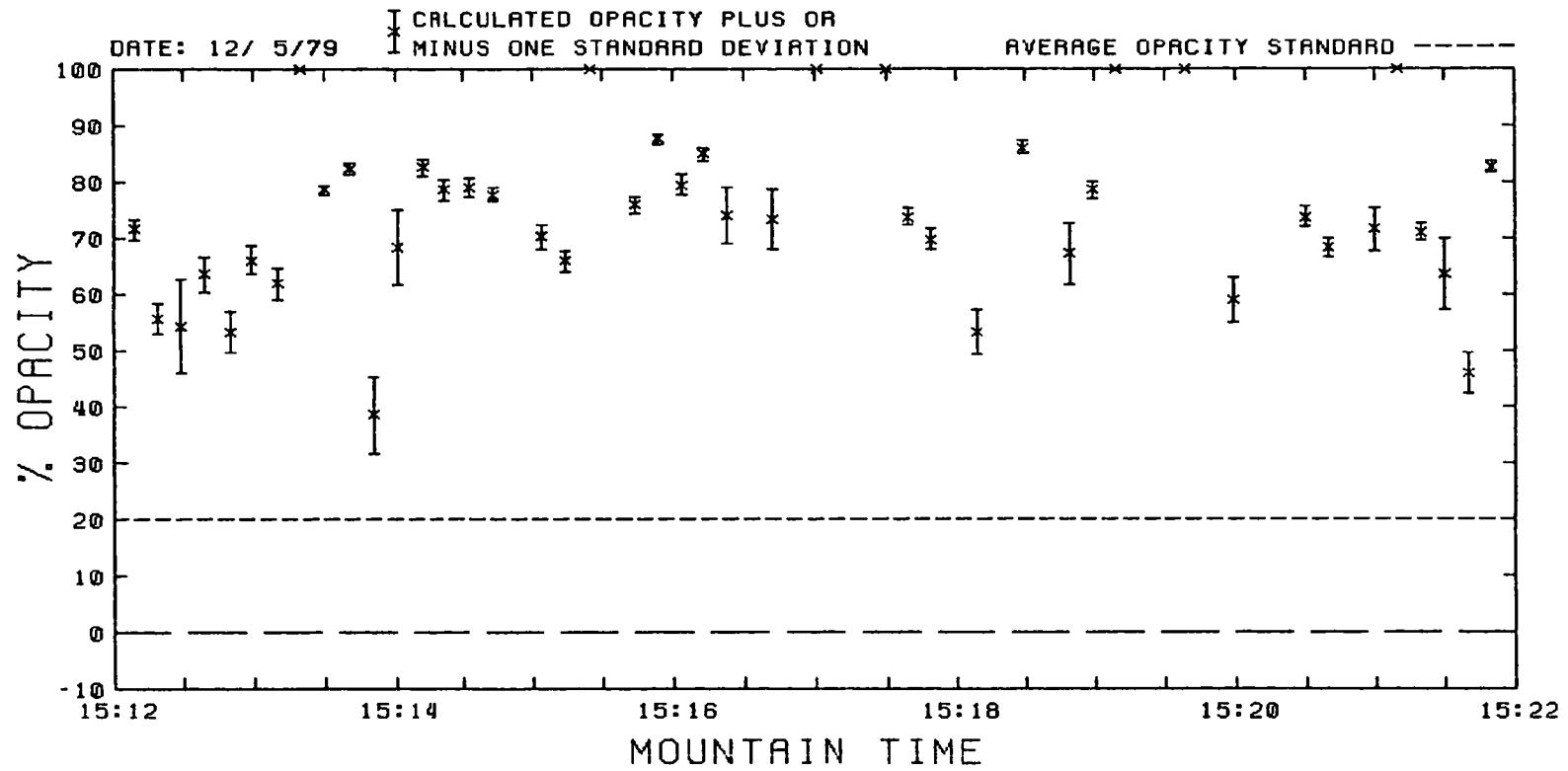
NUM. 2 ACID STACK, ASARCO SMELTER, EL PASO, TEXAS



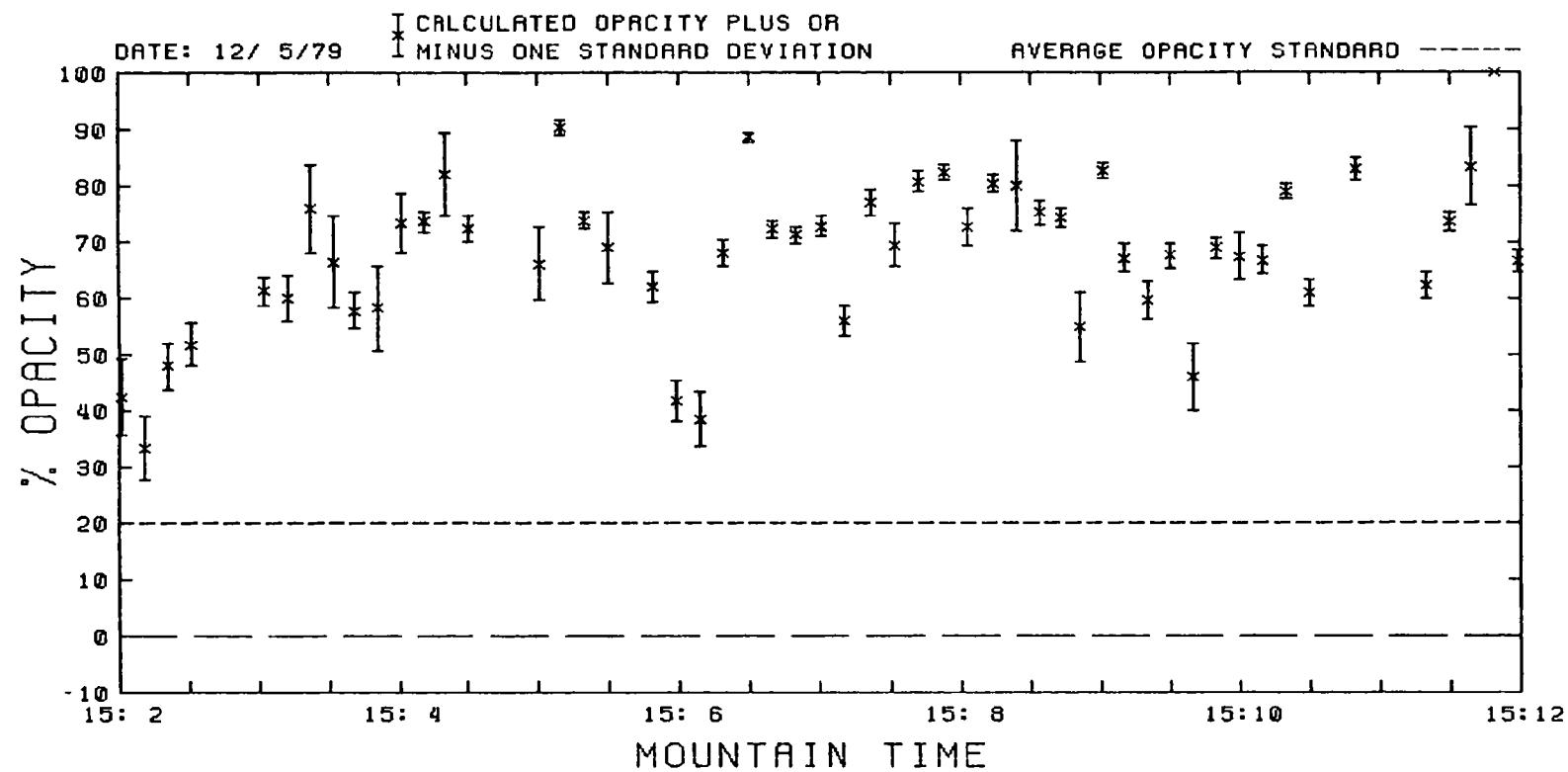
NUM. 2 ACID STACK, ASARCO SMELTER, EL PASO, TEXAS



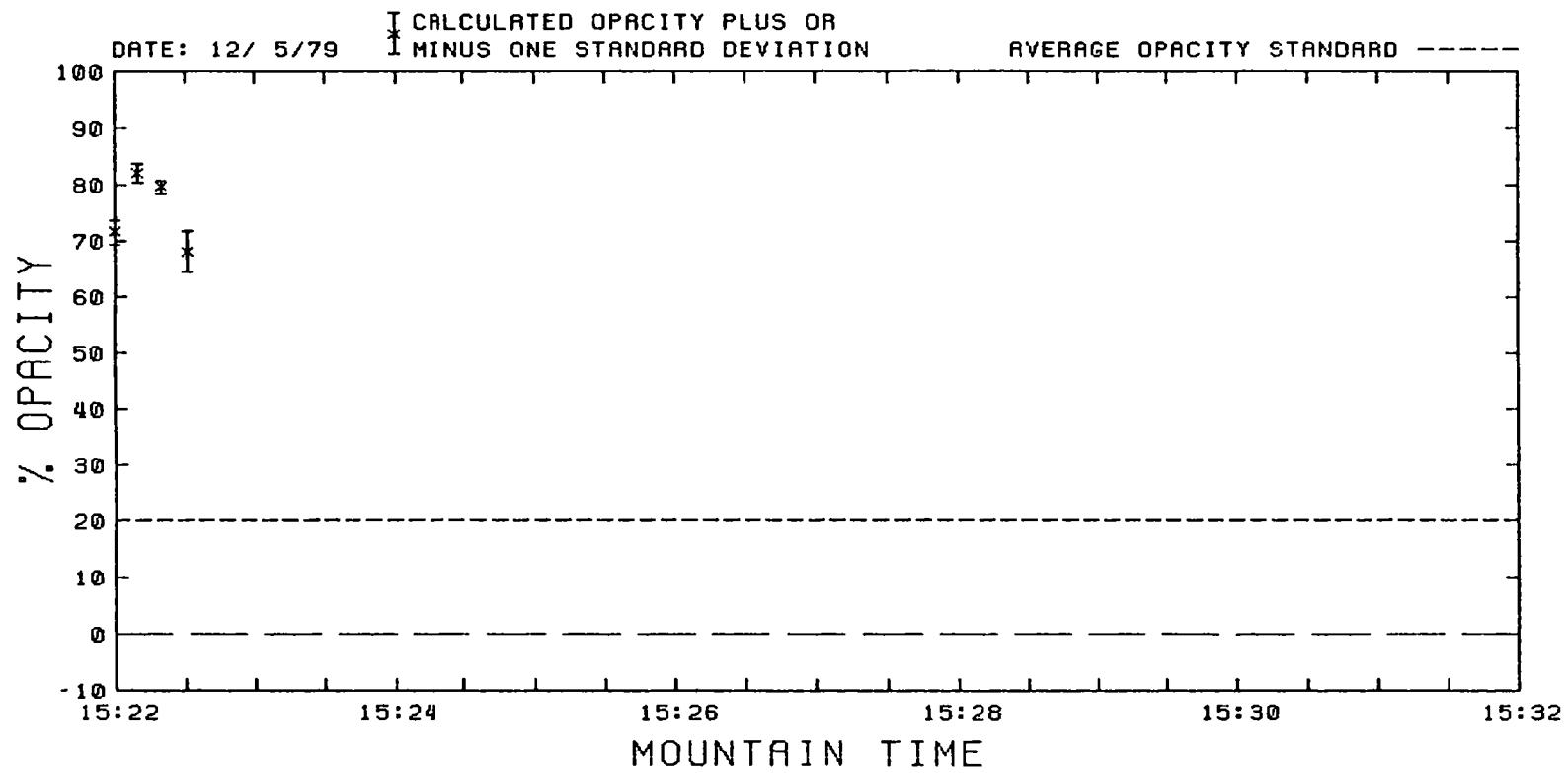
NUM. 2 ACID STACK, ASARCO SMELTER, EL PASO, TEXAS



NUM. 2 ACID STACK, ASARCO SMELTER, EL PASO, TEXAS



NUM. 2 ACID STACK, ASARCO SMELTER, EL PASO, TEXAS



NUM. 2 ACID STACK, ASARCO SMELTER, EL PASO, TEXAS

LEAD STACK

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-002B, LEAD STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES							
DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED	
12/ 4/79	22 22 9	26	4	0	0	0	0 OF 0
12/ 4/79	22 22 33	21	4	0	0	0	0 OF 0
12/ 4/79	22 22 37	22	5	0	0	0	0 OF 0
12/ 4/79	22 22 41	23	5	0	0	0	0 OF 0
12/ 4/79	22 22 45	23	5	0	0	0	0 OF 0
12/ 4/79	22 22 49	18	5	0	0	0	0 OF 0
12/ 4/79	22 22 53	19	5	0	0	0	0 OF 0
12/ 4/79	22 22 58	19	5	0	0	0	0 OF 0
12/ 4/79	22 23 2	20	5	0	0	0	0 OF 0
12/ 4/79	22 23 6	24	5	0	0	0	0 OF 0
12/ 4/79	22 23 10	23	5	0	0	0	0 OF 0
12/ 4/79	22 23 14	19	5	0	0	0	0 OF 0
12/ 4/79	22 23 18	22	5	0	0	0	0 OF 0
12/ 4/79	22 23 22	21	4	0	0	0	0 OF 0
12/ 4/79	22 23 26	21	5	0	0	0	0 OF 0
12/ 4/79	22 23 31	24	4	0	0	0	0 OF 0
12/ 4/79	22 23 35	23	4	0	0	0	0 OF 0
12/ 4/79	22 23 39	18	4	0	0	0	0 OF 0
12/ 4/79	22 23 43	20	4	0	0	0	0 OF 0
12/ 4/79	22 23 47	20	4	0	0	0	0 OF 0
12/ 4/79	22 23 51	23	4	0	0	0	0 OF 0
12/ 4/79	22 23 55	23	5	0	0	0	0 OF 0
12/ 4/79	22 24 0	24	5	0	0	0	0 OF 0
12/ 4/79	22 24 4	17	5	0	0	0	0 OF 0
12/ 4/79	22 24 8	24	5	0	0	0	0 OF 0
12/ 4/79	22 24 12	21	5	0	0	0	0 OF 0
12/ 4/79	22 24 16	15	5	0	0	0	0 OF 0
12/ 4/79	22 24 20	24	5	0	0	0	0 OF 0
12/ 4/79	22 24 25	22	5	0	0	0	0 OF 0
12/ 4/79	22 24 29	19	5	0	0	0	0 OF 0
12/ 4/79	22 24 33	21	5	0	0	0	0 OF 0
12/ 4/79	22 24 37	22	5	0	0	0	0 OF 0
12/ 4/79	22 24 42	27	5	0	0	0	0 OF 0
12/ 4/79	22 24 46	17	5	0	0	0	0 OF 0
12/ 4/79	22 24 50	19	5	0	0	0	0 OF 0
12/ 4/79	22 24 55	25	5	0	0	0	0 OF 0
12/ 4/79	22 24 59	20	5	0	0	0	0 OF 0
12/ 4/79	22 25 3	21	5	0	0	0	0 OF 0
12/ 4/79	22 25 8	16	5	0	0	0	0 OF 0
12/ 4/79	22 25 12	24	4	0	0	0	0 OF 0
12/ 4/79	22 25 16	22	5	0	0	0	0 OF 0
12/ 4/79	22 25 20	22	5	0	0	0	0 OF 0
12/ 4/79	22 25 25	19	5	0	0	0	0 OF 0
12/ 4/79	22 25 30	22	5	0	0	0	0 OF 0
12/ 4/79	22 25 34	19	3	0	0	0	0 OF 0
12/ 4/79	22 25 39	20	4	0	0	0	0 OF 0
12/ 4/79	22 25 44	20	4	0	0	0	0 OF 0
12/ 4/79	22 25 48	20	4	0	0	0	0 OF 0
12/ 4/79	22 25 53	21	4	0	0	0	0 OF 0
12/ 4/79	22 25 57	20	4	0	0	0	0 OF 0

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

DATE	TIME	OPACITY	SO VIOLATION	FROM 4100 RIO BRAVO		FIVE MINUTE AVERAGES	NUMBER DISCARDED
				AVERAGE OPACITY	AVERAGE SO VIOLATION		
12/ 4/79	22 26 2	22	4	0	0	0 OF	0
12/ 4/79	22 26 7	20	5	0	0	0 OF	0
12/ 4/79	22 26 11	20	3	0	0	0 OF	0
12/ 4/79	22 26 16	19	3	0	0	0 OF	0
12/ 4/79	22 26 21	14	5	0	0	0 OF	0
12/ 4/79	22 26 25	18	4	0	0	0 OF	0
12/ 4/79	22 26 30	12	5	0	0	0 OF	0
12/ 4/79	22 26 34	19	4	0	0	0 OF	0
12/ 4/79	22 26 39	22	5	0	0	0 OF	0
12/ 4/79	22 26 44	21	5	0	0	0 OF	0
12/ 4/79	22 26 48	20	4	0	0	0 OF	0
12/ 4/79	22 26 53	21	3	0	0	0 OF	0
12/ 4/79	22 26 58	18	5	0	0	0 OF	63
12/ 4/79	22 27 2	23	5	0	0	0 OF	64
12/ 4/79	22 27 7	21	4	0	0	0 OF	65
12/ 4/79	22 27 11	23	5	0	0	0 OF	0
12/ 4/79	22 27 16	23	4	0	0	0 OF	0
12/ 4/79	22 27 21	18	4	0	0	0 OF	67
12/ 4/79	22 27 30	24	5	0	0	0 OF	68
12/ 4/79	22 27 35	20	4	0	0	0 OF	68
12/ 4/79	22 27 39	20	4	0	0	0 OF	68
12/ 4/79	22 27 44	23	4	0	0	0 OF	68
12/ 4/79	22 27 53	26	5	0	0	0 OF	68
12/ 4/79	22 27 59	21	4	0	0	0 OF	68
12/ 4/79	22 28 2	19	5	0	0	0 OF	68
12/ 4/79	22 28 7	18	5	0	0	0 OF	68
12/ 4/79	22 28 11	20	5	0	0	0 OF	68
12/ 4/79	22 28 16	14	5	0	0	0 OF	68
12/ 4/79	22 28 20	11	5	0	0	0 OF	68
12/ 4/79	22 28 25	19	5	0	0	0 OF	68
12/ 4/79	22 28 30	14	5	0	0	0 OF	68
12/ 4/79	22 28 33	19	5	0	0	0 OF	68
12/ 4/79	22 28 38	20	5	0	0	0 OF	68
12/ 4/79	22 28 43	19	4	0	0	0 OF	68
12/ 4/79	22 28 47	21	4	0	0	0 OF	68
12/ 4/79	22 28 52	21	4	0	0	0 OF	68
12/ 4/79	22 28 57	20	5	0	0	0 OF	67
12/ 4/79	22 29 1	19	4	0	0	0 OF	67
12/ 4/79	22 29 6	21	4	0	0	0 OF	67
12/ 4/79	22 29 10	20	5	0	0	0 OF	67
12/ 4/79	22 29 13	20	5	0	0	0 OF	66
12/ 4/79	22 29 14	21	5	0	0	0 OF	66
12/ 4/79	22 29 19	21	5	0	0	0 OF	66
12/ 4/79	22 29 24	21	5	0	0	0 OF	66
12/ 4/79	22 29 28	21	4	0	0	0 OF	66
12/ 4/79	22 29 33	16	4	0	0	0 OF	66
12/ 4/79	22 29 37	22	4	0	0	0 OF	66
12/ 4/79	22 29 41	15	4	0	0	0 OF	66
12/ 4/79	22 29 46	21	5	0	0	0 OF	66
12/ 4/79	22 29 50	18	5	0	0	0 OF	66

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80229

OMEGA-002B, LEAD STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES  
 DATE TIME OPACITY SO VIOLATION AVERAGE OPACITY AVERAGE SO VIOLATION NUMBER DISCARDED

12/ 4/79	22 29 54	17	5	20	4		0 OF 66
12/ 4/79	22 29 59	19	4	20	4		0 OF 66
12/ 4/79	22 30 4	18	4	20	4		0 OF 65
12/ 4/79	22 30 8	15	4	20	4		0 OF 66
12/ 4/79	22 30 13	24	5	20	4		0 OF 65
12/ 4/79	22 30 17	23	4	19	4		0 OF 65
12/ 4/79	22 30 22	22	5	19	4		0 OF 65
12/ 4/79	22 30 27	22	5	20	4		0 OF 65
12/ 4/79	22 30 31	26	4	20	4		0 OF 65
12/ 4/79	22 30 36	33	4	20	4		0 OF 65
12/ 4/79	22 30 40	38	4	20	4		0 OF 65
12/ 4/79	22 30 45	42	3	20	4		0 OF 65
12/ 4/79	22 30 50	46	3	20	4	****	0 OF 65
12/ 4/79	22 30 54	47	3	20	4	****	0 OF 65
12/ 4/79	22 30 59	51	3	21	4	****	0 OF 65
12/ 4/79	22 31 3	52	3	21	4	****	0 OF 65
12/ 4/79	22 31 8	54	4	22	4	****	0 OF 65
12/ 4/79	22 31 13	59	3	22	4	****	0 OF 65
12/ 4/79	22 31 17	60	2	23	4	****	0 OF 65
12/ 4/79	22 31 22	58	3	23	4	****	0 OF 65
12/ 4/79	22 31 27	57	3	24	4	****	0 OF 65
12/ 4/79	22 31 31	56	2	25	4	****	0 OF 65
12/ 4/79	22 31 36	57	4	25	4	****	0 OF 65
12/ 4/79	22 31 40	56	4	26	4	****	0 OF 65
12/ 4/79	22 31 45	58	4	26	4	****	0 OF 65
12/ 4/79	22 31 50	58	3	27	4	****	0 OF 65
12/ 4/79	22 31 54	58	2	28	4	****	0 OF 65
12/ 4/79	22 31 59	54	4	28	4	****	0 OF 65
12/ 4/79	22 32 3	59	2	29	4	****	0 OF 65
12/ 4/79	22 32 8	63	3	29	4	****	0 OF 65
12/ 4/79	22 32 13	64	2	30	4	****	0 OF 65
12/ 4/79	22 32 17	66	2	30	4	****	0 OF 65
12/ 4/79	22 32 22	70	1	31	4	****	0 OF 65
12/ 4/79	22 32 27	68	2	33	4	****	0 OF 66
12/ 4/79	22 32 31	69	1	34	4	****	0 OF 66
12/ 4/79	22 32 36	69	4	34	4	****	0 OF 66
12/ 4/79	22 32 40	71	3	35	4	****	0 OF 66
12/ 4/79	22 32 45	70	1	36	4	****	0 OF 66
12/ 4/79	22 32 50	72	2	37	4	****	0 OF 66
12/ 4/79	22 32 54	77	5	37	4	****	0 OF 66
12/ 4/79	22 32 59	72	3	38	4	****	0 OF 66
12/ 4/79	22 33 3	71	3	39	4	****	0 OF 66
12/ 4/79	22 33 8	72	3	40	4	****	0 OF 66
12/ 4/79	22 33 13	73	4	41	4	****	0 OF 66
12/ 4/79	22 33 17	72	1	42	4	****	0 OF 66
12/ 4/79	22 33 22	75	5	43	4	****	0 OF 66
12/ 4/79	22 33 26	75	5	43	4	****	0 OF 66
12/ 4/79	22 33 31	71	2	44	4	****	0 OF 66
12/ 4/79	22 33 36	71	2	45	4	****	0 OF 66
12/ 4/79	22 33 40	72	4	46	4	****	0 OF 66

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0028, LEAD STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES  
 DATE TIME OPACITY SO VIOLATION AVERAGE OPACITY AVERAGE SO VIOLATION NUMBER DISCARDED

12/ 4/79	22 33 45	70	3	47	4	****	0 OF 66
12/ 4/79	22 33 49	72	1	47	3	****	0 OF 66
12/ 4/79	22 33 54	74	5	48	3	****	0 OF 66
12/ 4/79	22 33 59	71	1	49	3	****	0 OF 66
12/ 4/79	22 34 3	77	4	50	3	****	0 OF 66
12/ 4/79	22 34 8	70	3	51	3	****	0 OF 66
12/ 4/79	22 34 13	70	3	51	3	****	0 OF 66
12/ 4/79	22 34 17	73	3	52	3	****	0 OF 66
12/ 4/79	22 34 22	70	4	53	3	****	0 OF 66
12/ 4/79	22 34 26	74	5	54	3	****	0 OF 66
12/ 4/79	22 34 31	71	3	55	3	****	0 OF 66
12/ 4/79	22 34 36	71	3	55	3	****	0 OF 66
12/ 4/79	22 34 40	74	5	56	3	****	0 OF 66
12/ 4/79	22 34 45	72	5	57	3	****	0 OF 66
12/ 4/79	22 34 49	71	2	58	3	****	0 OF 66
12/ 4/79	22 34 54	78	1	59	3	****	0 OF 66
12/ 4/79	22 34 59	72	1	59	3	****	0 OF 66
12/ 4/79	22 35 3	72	1	60	3	****	0 OF 66
12/ 4/79	22 35 17	71	2	62	3	****	0 OF 64
12/ 4/79	22 35 22	71	1	63	3	****	0 OF 64
12/ 4/79	22 35 26	70	5	64	3	****	0 OF 64
12/ 4/79	22 35 31	78	3	65	3	****	0 OF 64
12/ 4/79	22 35 35	74	2	66	3	****	0 OF 64
12/ 4/79	22 35 40	72	4	66	3	****	0 OF 64
12/ 4/79	22 35 45	75	5	67	3	****	0 OF 64
12/ 4/79	22 35 49	74	4	67	3	****	0 OF 64
12/ 4/79	22 35 54	71	2	68	3	****	0 OF 64
12/ 4/79	22 35 58	72	1	68	3	****	0 OF 64
12/ 4/79	22 36 3	74	4	68	3	****	0 OF 64
12/ 4/79	22 36 8	74	1	69	3	****	0 OF 64
12/ 4/79	22 36 12	75	5	69	3	****	0 OF 64
12/ 4/79	22 36 17	73	1	69	3	****	0 OF 64
12/ 4/79	22 36 22	73	2	69	3	****	0 OF 64
12/ 4/79	22 36 26	71	2	70	3	****	0 OF 64
12/ 4/79	22 36 31	71	3	70	3	****	0 OF 64
12/ 4/79	22 36 35	70	3	70	3	****	0 OF 64
12/ 4/79	22 36 40	73	3	70	3	****	0 OF 64
12/ 4/79	22 36 45	74	4	71	3	****	0 OF 64
12/ 4/79	22 36 49	71	3	71	3	****	0 OF 64
12/ 4/79	22 36 54	68	3	71	3	****	0 OF 64
12/ 4/79	22 36 58	68	3	71	3	****	0 OF 64
12/ 4/79	22 37 3	73	4	71	3	****	0 OF 64
12/ 4/79	22 37 8	70	3	72	3	****	0 OF 64
12/ 4/79	22 37 12	69	1	72	3	****	0 OF 64
12/ 4/79	22 37 17	75	4	72	3	****	0 OF 64
12/ 4/79	22 37 21	73	5	72	3	****	0 OF 64
12/ 4/79	22 37 26	70	1	72	3	****	0 OF 64
12/ 4/79	22 37 31	76	4	72	3	****	0 OF 64
12/ 4/79	22 37 35	72	3	72	3	****	0 OF 64
12/ 4/79	22 37 40	72	1	72	3	****	0 OF 64

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0028, LEAD STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES  
 DATE TIME OPACITY SO VIOLATION AVERAGE OPACITY AVERAGE SO VIOLATION NUMBER DISCARDED

12/ 4/79	22 37 44	72	2	72	3	****	0 OF	64
12/ 4/79	22 37 49	72	1	72	3	****	0 OF	64
12/ 4/79	22 37 54	75	5	72	3	****	0 OF	64
12/ 4/79	22 37 58	74	3	72	3	****	0 OF	64
12/ 4/79	22 38 3	72	1	72	3	****	0 OF	64
12/ 4/79	22 38 8	73	4	72	3	****	0 OF	64
12/ 4/79	22 38 12	70	1	72	3	****	0 OF	64
12/ 4/79	22 38 17	72	1	72	3	****	0 OF	64
12/ 4/79	22 38 21	74	1	72	3	****	0 OF	64
12/ 4/79	22 38 26	75	1	72	3	****	0 OF	64
12/ 4/79	22 38 31	73	4	72	3	****	0 OF	64
12/ 4/79	22 38 35	72	2	72	3	****	0 OF	64
12/ 4/79	22 38 40	71	4	72	3	****	0 OF	64
12/ 4/79	22 38 44	74	4	72	3	****	0 OF	64
12/ 4/79	22 38 49	74	4	72	3	****	0 OF	64
12/ 4/79	22 38 54	73	4	72	3	****	0 OF	64
12/ 4/79	22 38 58	73	2	72	3	****	0 OF	64
12/ 4/79	22 39 3	72	3	72	3	****	0 OF	64
12/ 4/79	22 39 7	73	1	72	3	****	0 OF	64
12/ 4/79	22 39 12	71	3	72	3	****	0 OF	64
12/ 4/79	22 39 17	72	2	72	3	****	0 OF	64
12/ 4/79	22 39 21	74	4	72	3	****	0 OF	64
12/ 4/79	22 39 26	73	5	73	3	****	0 OF	64
12/ 4/79	22 39 31	74	5	73	3	****	0 OF	64
12/ 4/79	22 39 35	73	4	73	3	****	0 OF	64
12/ 4/79	22 39 40	71	3	73	3	****	0 OF	64
12/ 4/79	22 39 44	73	1	73	3	****	0 OF	64
12/ 4/79	22 39 49	75	4	73	3	****	0 OF	64
12/ 4/79	22 39 54	70	1	73	3	****	0 OF	64
12/ 4/79	22 39 58	70	3	72	3	****	0 OF	64
12/ 4/79	22 40 3	72	1	72	3	****	0 OF	64
12/ 4/79	22 40 7	73	2	72	3	****	0 OF	64
12/ 4/79	22 40 12	71	1	72	3	****	0 OF	65
12/ 4/79	22 40 17	70	2	72	3	****	0 OF	66
12/ 4/79	22 40 21	70	2	72	3	****	0 OF	66
12/ 4/79	22 40 26	72	2	72	3	****	0 OF	66
12/ 4/79	22 40 30	69	1	72	3	****	0 OF	66
12/ 4/79	22 40 35	77	4	72	3	****	0 OF	66
12/ 4/79	22 40 40	73	5	72	3	****	0 OF	66
12/ 4/79	22 40 44	71	1	72	3	****	0 OF	66
12/ 4/79	22 40 49	72	5	72	3	****	0 OF	66
12/ 4/79	22 40 54	73	1	72	3	****	0 OF	66
12/ 4/79	22 40 58	70	1	72	3	****	0 OF	66
12/ 4/79	22 41 3	71	1	72	3	****	0 OF	66
12/ 4/79	22 41 7	72	4	72	3	****	0 OF	66
12/ 4/79	22 41 12	72	1	72	3	****	0 OF	66
12/ 4/79	22 41 17	71	1	72	3	****	0 OF	66
12/ 4/79	22 41 21	70	1	72	3	****	0 OF	66
12/ 4/79	22 41 26	69	1	72	3	****	0 OF	66
12/ 4/79	22 41 30	65	1	72	3	****	0 OF	66

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0028, LEAD STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES  
 DATE TIME OPACITY SO VIOLATION AVERAGE OPACITY AVERAGE SO VIOLATION NUMBER DISCARDED

DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER	DISCARDED
12/ 4/79	22 41 35	71	1	72	2	****	0 DF 66
12/ 4/79	22 41 40	70	3	72	2	****	0 DF 66
12/ 4/79	22 41 44	65	3	72	2	****	0 DF 66
12/ 4/79	22 41 49	70	1	72	2	****	0 DF 66
12/ 4/79	22 41 54	64	4	72	2	****	0 DF 66
12/ 4/79	22 41 58	72	1	72	2	****	0 DF 66
12/ 4/79	22 42 3	71	1	72	2	****	0 DF 66
12/ 4/79	22 42 7	59	4	72	2	****	0 DF 66
12/ 4/79	22 42 12	69	4	72	2	****	0 DF 66
12/ 4/79	22 42 17	67	3	72	2	****	0 DF 66
12/ 4/79	22 42 21	65	1	71	2	****	0 DF 66
12/ 4/79	22 42 26	62	2	71	2	****	0 DF 66
12/ 4/79	22 42 30	66	2	71	2	****	0 DF 66
12/ 4/79	22 42 35	65	3	71	2	****	0 DF 66
12/ 4/79	22 42 40	62	5	71	2	****	0 DF 66
12/ 4/79	22 42 44	61	3	71	2	****	0 DF 66
12/ 4/79	22 42 49	65	2	71	2	****	0 DF 66
12/ 4/79	22 42 54	66	1	71	2	****	0 DF 66
12/ 4/79	22 42 58	63	3	70	2	****	0 DF 66
12/ 4/79	22 43 3	66	3	70	2	****	0 DF 66
12/ 4/79	22 43 7	62	4	70	2	****	0 DF 66
12/ 4/79	22 43 12	66	5	70	2	****	0 DF 66
12/ 4/79	22 43 17	61	2	70	2	****	0 DF 66
12/ 4/79	22 43 21	68	2	70	3	****	0 DF 66
12/ 4/79	22 43 26	61	4	70	3	****	0 DF 66
12/ 4/79	22 43 35	61	4	69	3	****	0 DF 65
12/ 4/79	22 43 40	59	4	69	3	****	0 DF 65
12/ 4/79	22 43 44	59	3	69	3	****	0 DF 65
12/ 4/79	22 43 49	61	3	69	3	****	0 DF 65
12/ 4/79	22 43 53	57	4	69	3	****	0 DF 65
12/ 4/79	22 43 58	54	4	68	3	****	0 DF 65
12/ 4/79	22 44 3	58	2	68	3	****	0 DF 65
12/ 4/79	22 44 7	60	2	68	3	****	0 DF 65
12/ 4/79	22 44 12	62	3	68	3	****	0 DF 65
12/ 4/79	22 44 17	65	2	67	3	****	0 DF 65
12/ 4/79	22 44 21	62	2	67	3	****	0 DF 65
12/ 4/79	22 44 26	58	2	67	3	****	0 DF 65
12/ 4/79	22 44 30	58	4	67	3	****	0 DF 65
12/ 4/79	22 44 35	62	5	67	3	****	0 DF 65
12/ 4/79	22 44 40	59	3	67	3	****	0 DF 65
12/ 4/79	22 44 44	58	4	66	3	****	0 DF 65
12/ 4/79	22 44 49	57	4	66	3	****	0 DF 65
12/ 4/79	22 44:53	58	4	66	3	****	0 DF 65
12/ 4/79	22 44 58	61	4	66	3	****	0 DF 65
12/ 4/79	22 45: 3	61	2	66	3	****	0 DF 65
12/ 4/79	22 45: 7	59	4	65	3	****	0 DF 65
12/ 4/79	22 45:12	61	4	65	3	****	0 DF 65
12/ 4/79	22 45:17	54	3	65	3	****	0 DF 65
12/ 4/79	22 45:21	63	3	65	3	****	0 DF 65
12/ 4/79	22 45:26	57	4	65	3	****	0 DF 65

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

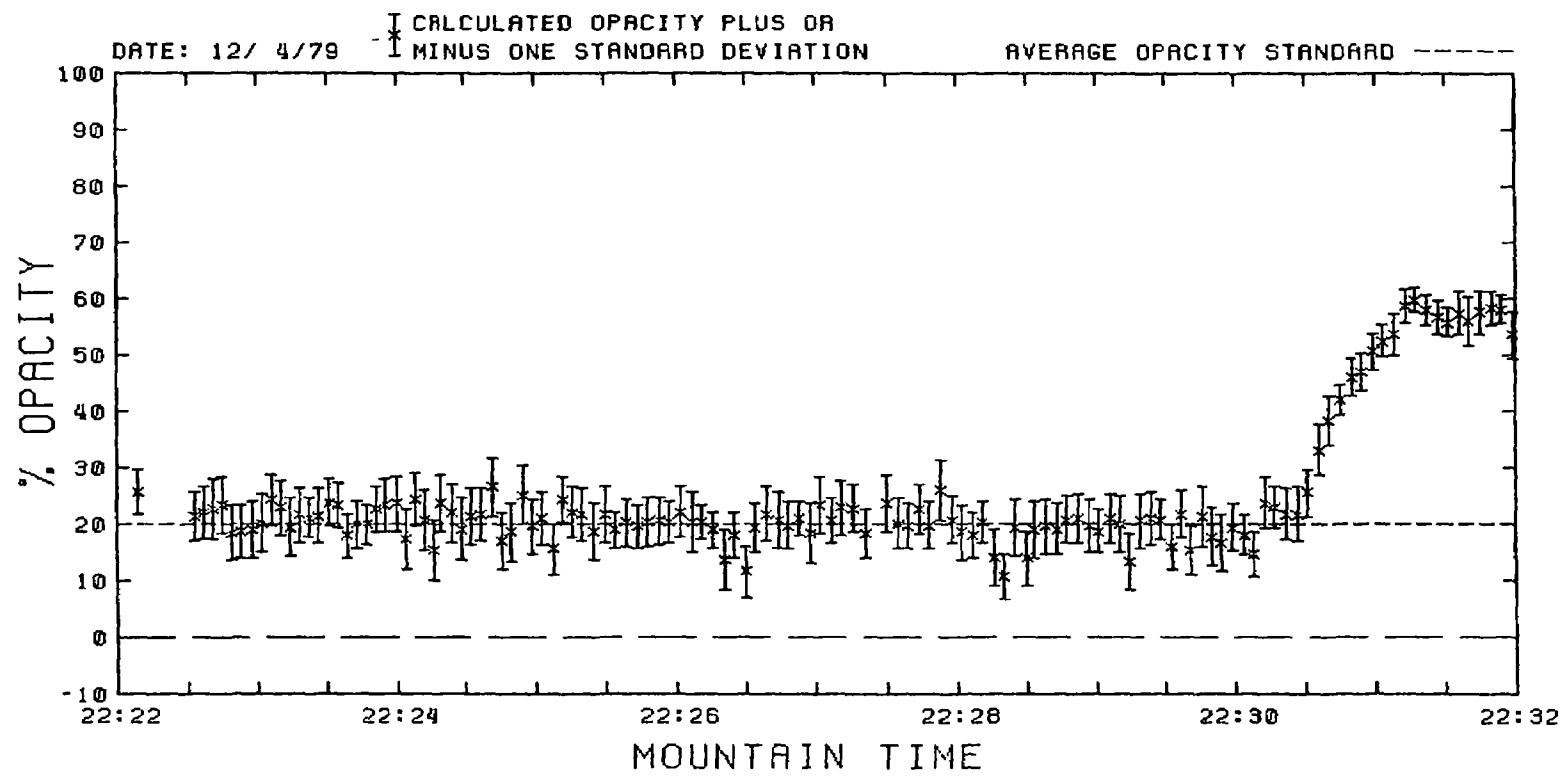
OMEGA-0028, LEAD STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES  
 DATE TIME OPACITY SO VIOLATION AVERAGE OPACITY AVERAGE SO VIOLATION NUMBER DISCARDED

12/ 4/79	22 45 30	59	3	64	3	****	0 OF	65
12/ 4/79	22 45 35	62	3	64	3	****	0 OF	65
12/ 4/79	22 45 40	61	3	64	3	****	0 OF	65
12/ 4/79	22 45 44	57	5	64	3	****	0 OF	65
12/ 4/79	22 45 49	58	3	64	3	****	0 OF	65
12/ 4/79	22 45 53	55	4	63	3	****	0 OF	65
12/ 4/79	22 45 58	54	5	63	3	****	0 OF	65
12/ 4/79	22 46 2	56	3	63	3	****	0 OF	65
12/ 4/79	22 46 7	58	4	63	3	****	0 OF	65
12/ 4/79	22 46 11	60	2	62	3	****	0 OF	65
12/ 4/79	22 46 16	58	4	62	3	****	0 OF	65
12/ 4/79	22 46 20	57	3	62	3	****	0 OF	65
12/ 4/79	22 46 25	55	4	62	3	****	0 OF	65
12/ 4/79	22 46 29	58	3	62	3	****	0 OF	65
12/ 4/79	22 46 34	59	4	62	3	****	0 OF	65
12/ 4/79	22 46 39	57	4	61	3	****	0 OF	65
12/ 4/79	22 46 43	55	3	61	3	****	0 OF	65
12/ 4/79	22 46 48	58	3	61	3	****	0 OF	65
12/ 4/79	22 46 52	58	2	61	3	****	0 OF	65
12/ 4/79	22 46 57	59	3	61	3	****	0 OF	65
12/ 4/79	22 47 2	58	4	60	3	****	0 OF	65
12/ 4/79	22 47 6	57	4	60	3	****	0 OF	65
12/ 4/79	22 47 11	59	3	60	3	****	0 OF	65
12/ 4/79	22 47:15	58	3	60	3	****	0 OF	65
12/ 4/79	22 47 20	57	4	60	3	****	0 OF	65
12/ 4/79	22 47 25	57	5	60	3	****	0 OF	65
12/ 4/79	22 47 29	58	3	60	3	****	0 OF	65
12/ 4/79	22 47 34	56	3	60	3	****	0 OF	65
12/ 4/79	22 47 39	61	2	60	3	****	0 OF	65
12/ 4/79	22 47 43	61	4	59	3	****	0 OF	65
12/ 4/79	22 47 48	58	3	59	3	****	0 OF	65
12/ 4/79	22 47 52	57	3	59	3	****	0 OF	65
12/ 4/79	22 47 57	58	4	59	3	****	0 OF	65
12/ 4/79	22 48 2	57	3	59	3	****	0 OF	65
12/ 4/79	22 48 6	59	3	59	3	****	0 OF	65
12/ 4/79	22 48 11	57	4	59	3	****	0 OF	65
12/ 4/79	22 48 15	55	4	59	3	****	0 OF	65
12/ 4/79	22 48 20	53	4	59	3	****	0 OF	65
12/ 4/79	22 48 24	53	3	59	3	****	0 OF	65
12/ 4/79	22 48 29	55	2	58	3	****	0 OF	65
12/ 4/79	22 48 33	50	4	58	3	****	0 OF	66
12/ 4/79	22 48 38	56	4	58	3	****	0 OF	66
12/ 4/79	22 48 42	53	3	58	3	****	0 OF	66
12/ 4/79	22 48 47	53	5	58	3	****	0 OF	66
12/ 4/79	22 48 52	51	4	58	3	****	0 OF	66
12/ 4/79	22 48 56	55	4	58	3	****	0 OF	66
12/ 4/79	22 49 1	56	4	58	3	****	0 OF	66
12/ 4/79	22 49: 5	58	3	58	4	****	0 OF	66
12/ 4/79	22 49 10	58	2	58	4	****	0 OF	66
12/ 4/79	22 49 19	56	3	57	4	****	0 OF	65

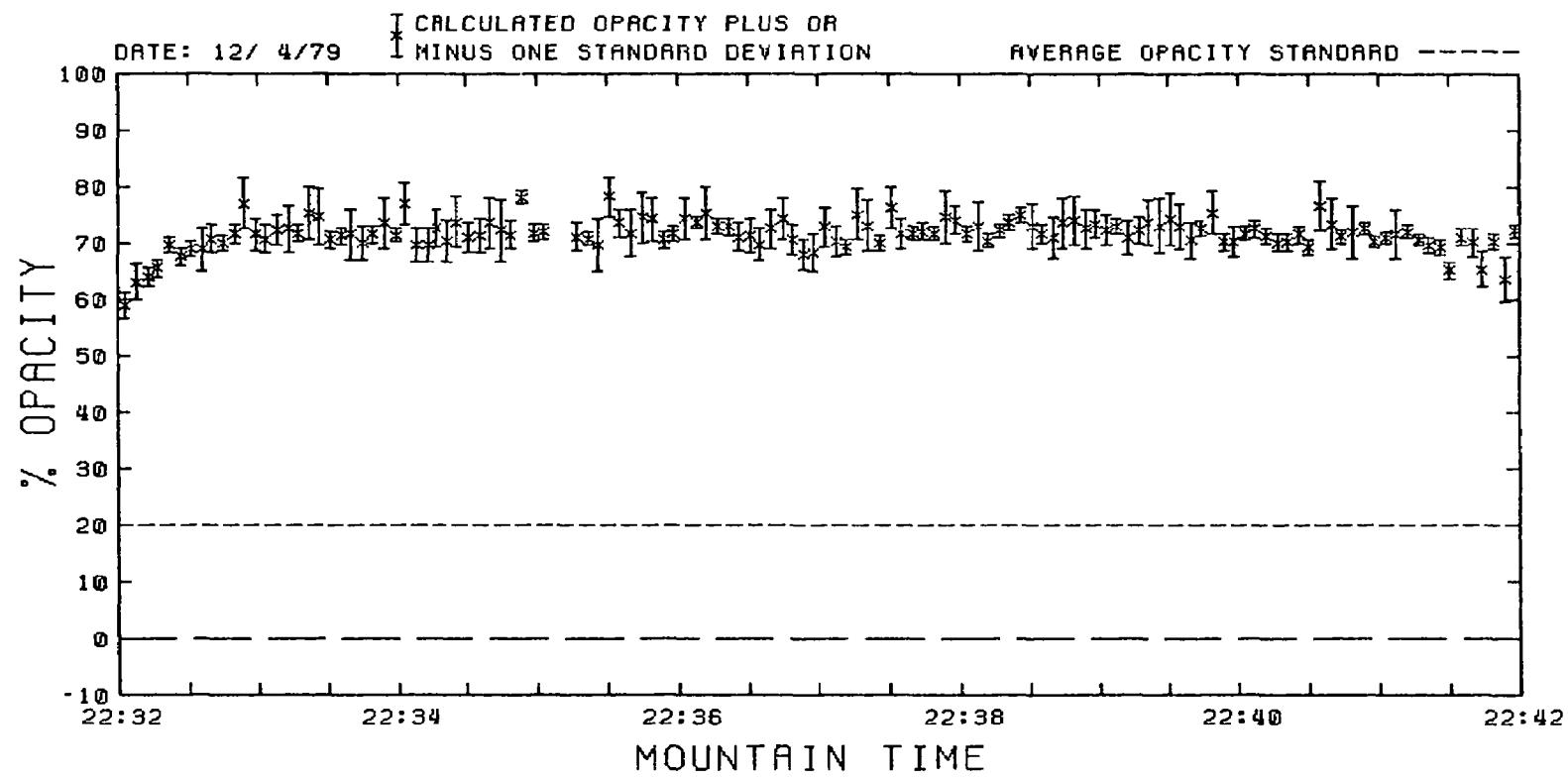
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0028. LEAD STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES  
 DATE TIME OPACITY SO VIOLATION AVERAGE OPACITY AVERAGE SO VIOLATION NUMBER DISCARDED

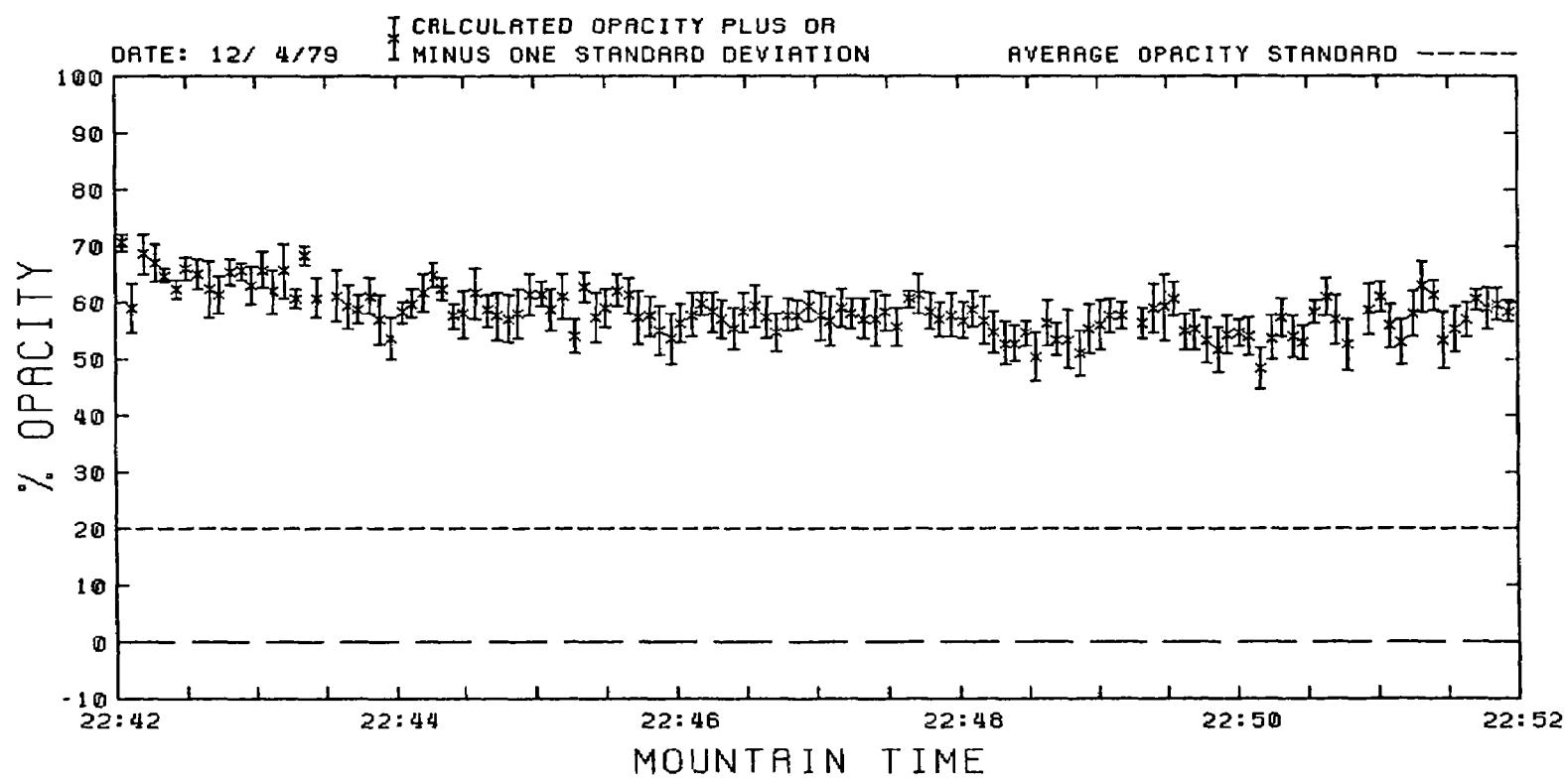
12/ 4/79	22 49 24	59	4	57	4	****	0 OF	65
12/ 4/79	22 49 29	59	6	57	4	****	0 OF	65
12/ 4/79	22 49 33	61	3	57	4	****	0 OF	65
12/ 4/79	22 49 38	55	3	57	4	****	0 OF	65
12/ 4/79	22 49 42	55	4	57	4	****	0 OF	65
12/ 4/79	22 49 47	53	4	57	4	****	0 OF	65
12/ 4/79	22 49 52	52	4	57	4	****	0 OF	65
12/ 4/79	22 49 56	54	3	57	4	****	0 OF	65
12/ 4/79	22 50 1	55	2	57	4	****	0 OF	65
12/ 4/79	22 50 5	54	3	57	4	****	0 OF	65
12/ 4/79	22 50 10	48	4	57	4	****	0 OF	65
12/ 4/79	22 50 15	54	4	57	4	****	0 OF	65
12/ 4/79	22 50 19	57	3	57	4	****	0 OF	65
12/ 4/79	22 50 24	54	4	57	4	****	0 OF	65
12/ 4/79	22 50 28	53	3	56	4	****	0 OF	65
12/ 4/79	22 50 33	58	2	56	4	****	0 OF	65
12/ 4/79	22 50 38	61	3	56	4	****	0 OF	65
12/ 4/79	22 50 42	57	4	56	4	****	0 OF	65
12/ 4/79	22 50 47	53	5	56	4	****	0 OF	65
12/ 4/79	22 50 56	59	5	56	4	****	0 OF	64
12/ 4/79	22 51 1	61	3	56	4	****	0 OF	64
12/ 4/79	22 51 5	56	4	56	4	****	0 OF	64
12/ 4/79	22 51 10	53	4	56	4	****	0 OF	64
12/ 4/79	22 51 15	58	4	56	4	****	0 OF	64
12/ 4/79	22 51 19	63	5	56	4	****	0 OF	64
12/ 4/79	22 51 24	61	3	56	4	****	0 OF	64
12/ 4/79	22 51 28	53	5	56	4	****	0 OF	64
12/ 4/79	22 51 33	55	4	56	4	****	0 OF	64
12/ 4/79	22 51 38	57	3	56	4	****	0 OF	64
12/ 4/79	22 51 42	61	2	56	4	****	0 OF	64
12/ 4/79	22 51 47	59	4	56	4	****	0 OF	64
12/ 4/79	22 51 51	60	3	57	4	****	0 OF	64
12/ 4/79	22 51 56	58	2	57	4	****	0 OF	64
12/ 4/79	22 52 1	59	4	57	4	****	0 OF	64
12/ 4/79	22 52 5	59	3	57	4	****	0 OF	64
12/ 4/79	22 52 10	56	4	57	4	****	0 OF	64
12/ 4/79	22 52 14	61	4	57	4	****	0 OF	64
12/ 4/79	22 52 19	59	3	57	4	****	0 OF	64
12/ 4/79	22 52 24	58	4	57	4	****	0 OF	64
12/ 4/79	22 52 28	60	2	57	4	****	0 OF	64
12/ 4/79	22 52 33	62	4	57	4	****	0 OF	64
12/ 4/79	22 52 38	57	2	57	4	****	0 OF	64
12/ 4/79	22 52 42	54	2	57	4	****	0 OF	64
12/ 4/79	22 52 47	60	4	57	4	****	0 OF	64
12/ 4/79	22 52 51	57	4	57	4	****	0 OF	64
12/ 4/79	22 52 56	57	4	57	4	****	0 OF	64
12/ 4/79	22 53 1	59	3	57	4	****	0 OF	64
12/ 4/79	22 53 5	61	3	57	4	****	0 OF	64



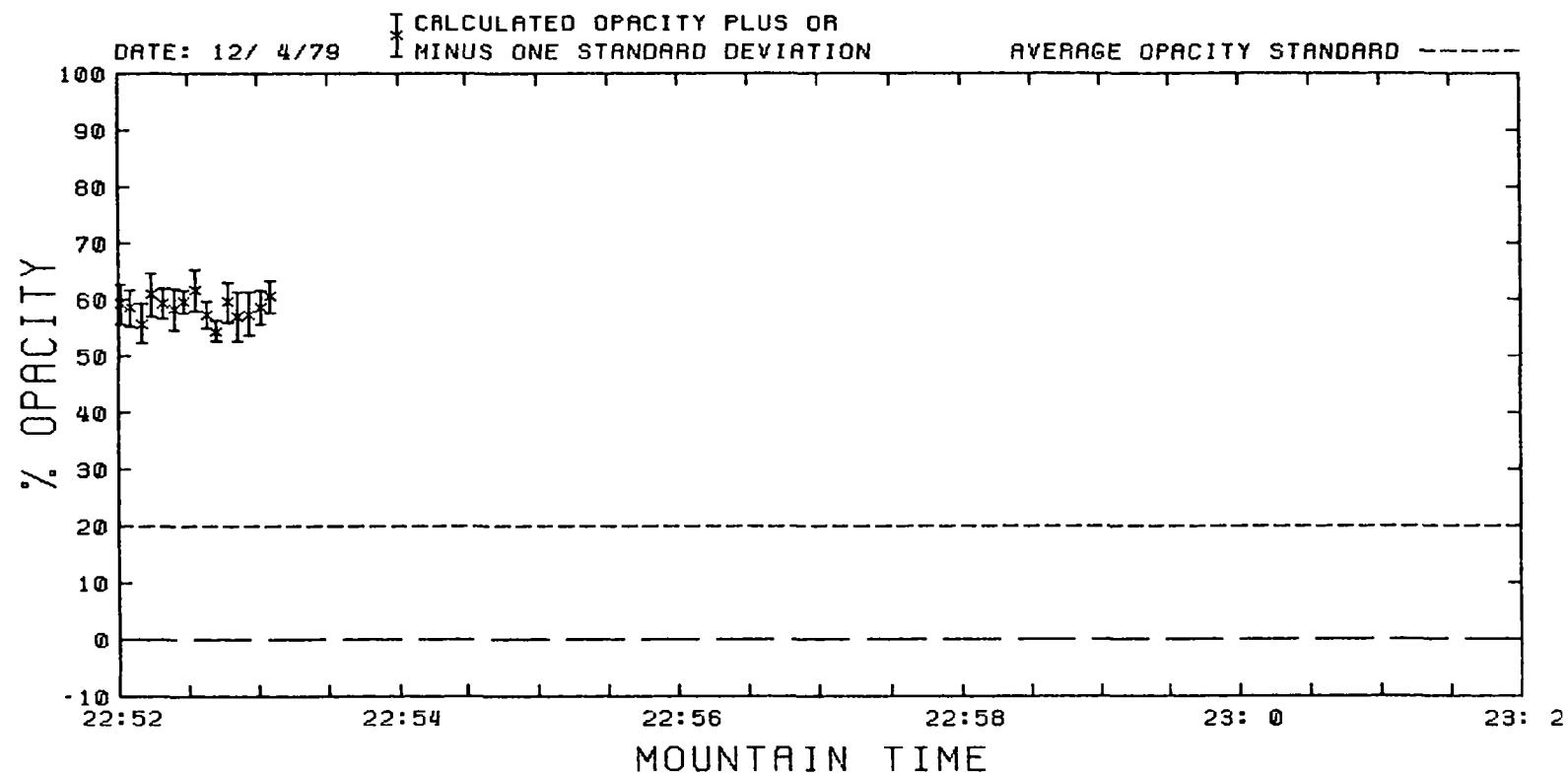
LEAD STACK, ASARCO SMELTER, EL PASO, TEXAS



LEAD STACK, ASARCO SMELTER, EL PASO, TEXAS



LEAD STACK, ASARCO SMELTER, EL PASO, TEXAS



LEAD STACK, ASARCO SMELTER, EL PASO, TEXAS

LEAD STACK

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

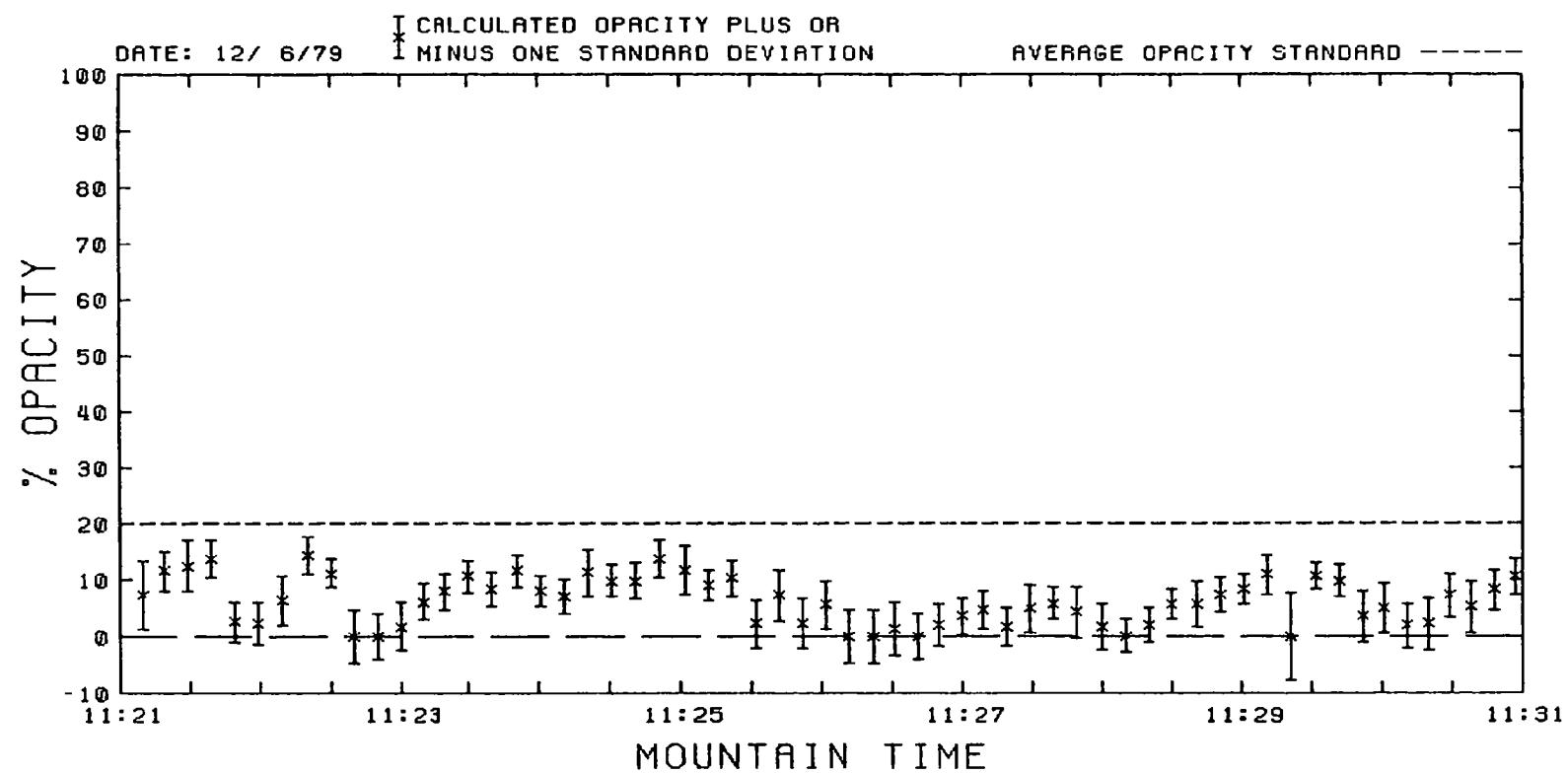
OMEGA-0033, LEAD STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES  
 DATE TIME OPACITY SO VIOLATION AVERAGE OPACITY AVERAGE SO VIOLATION NUMBER DISCARDED

12/ 6/79	11 21 10	7	6		0	0		0 OF 0
12/ 6/79	11 21 19	12	3		0	0		0 OF 0
12/ 6/79	11 21 29	12	5		0	0		0 OF 0
12/ 6/79	11 21 39	14	3		0	0		0 OF 0
12/ 6/79	11 21 49	2	4		0	0		0 OF 0
12/ 6/79	11 21 59	2	4		0	0		0 OF 0
12/ 6/79	11 22 9	6	4		0	0		0 OF 0
12/ 6/79	11 22 20	14	3		0	0		0 OF 0
12/ 6/79	11 22 30	11	2		0	0		0 OF 0
12/ 6/79	11 22 40	0	5		0	0		0 OF 0
12/ 6/79	11 22 50	0	4		0	0		0 OF 0
12/ 6/79	11 23 0	2	4		0	0		0 OF 0
12/ 6/79	11 23 10	6	3		0	0		0 OF 0
12/ 6/79	11 23 20	8	3		0	0		0 OF 0
12/ 6/79	11 23 30	11	3		0	0		0 OF 0
12/ 6/79	11 23 40	8	3		0	0		0 OF 0
12/ 6/79	11 23 51	12	3		0	0		0 OF 0
12/ 6/79	11 24 1	8	3		0	0		0 OF 0
12/ 6/79	11 24 11	7	3		0	0		0 OF 0
12/ 6/79	11 24 21	11	4		0	0		0 OF 0
12/ 6/79	11 24 31	10	3		0	0		0 OF 0
12/ 6/79	11 24 41	10	3		0	0		0 OF 0
12/ 6/79	11 24 51	14	3		0	0		0 OF 0
12/ 6/79	11 25 2	12	4		0	0		0 OF 0
12/ 6/79	11 25 12	9	3		0	0		0 OF 0
12/ 6/79	11 25 22	10	3		0	0		0 OF 0
12/ 6/79	11 25 32	2	4		0	0		0 OF 0
12/ 6/79	11 25 42	7	5		0	0		0 OF 0
12/ 6/79	11 25 52	2	4		0	0		0 OF 0
12/ 6/79	11 26 2	6	4		8	4		0 OF 30
12/ 6/79	11 26 12	0	5		8	4		0 OF 30
12/ 6/79	11 26 22	0	5		7	4		0 OF 30
12/ 6/79	11 26 31	1	5		7	4		0 OF 30
12/ 6/79	11 26 41	0	4		7	4		0 OF 30
12/ 6/79	11 26 50	2	4		7	4		0 OF 30
12/ 6/79	11 27 0	4	3		7	4		0 OF 30
12/ 6/79	11 27. 9	5	3		6	4		0 OF 31
12/ 6/79	11 27 19	2	3		6	4		0 OF 31
12/ 6/79	11 27 29	5	4		6	4		0 OF 31
12/ 6/79	11 27 39	6	3		6	4		0 OF 31
12/ 6/79	11 27 49	4	5		6	4		0 OF 31
12/ 6/79	11 28 0	2	4		6	4		0 OF 31
12/ 6/79	11 28 10	0	3		6	4		0 OF 31
12/ 6/79	11 28 20	2	3		6	4		0 OF 31
12/ 6/79	11 28 30	6	3		6	4		0 OF 31
12/ 6/79	11 28 41	6	4		5	4		0 OF 30
12/ 6/79	11 28 51	7	3		5	4		0 OF 31
12/ 6/79	11 29 1	8	3		5	4		0 OF 31
12/ 6/79	11 29 11	11	4		5	4		0 OF 31
12/ 6/79	11 29 21	0	8		5	4		0 OF 31

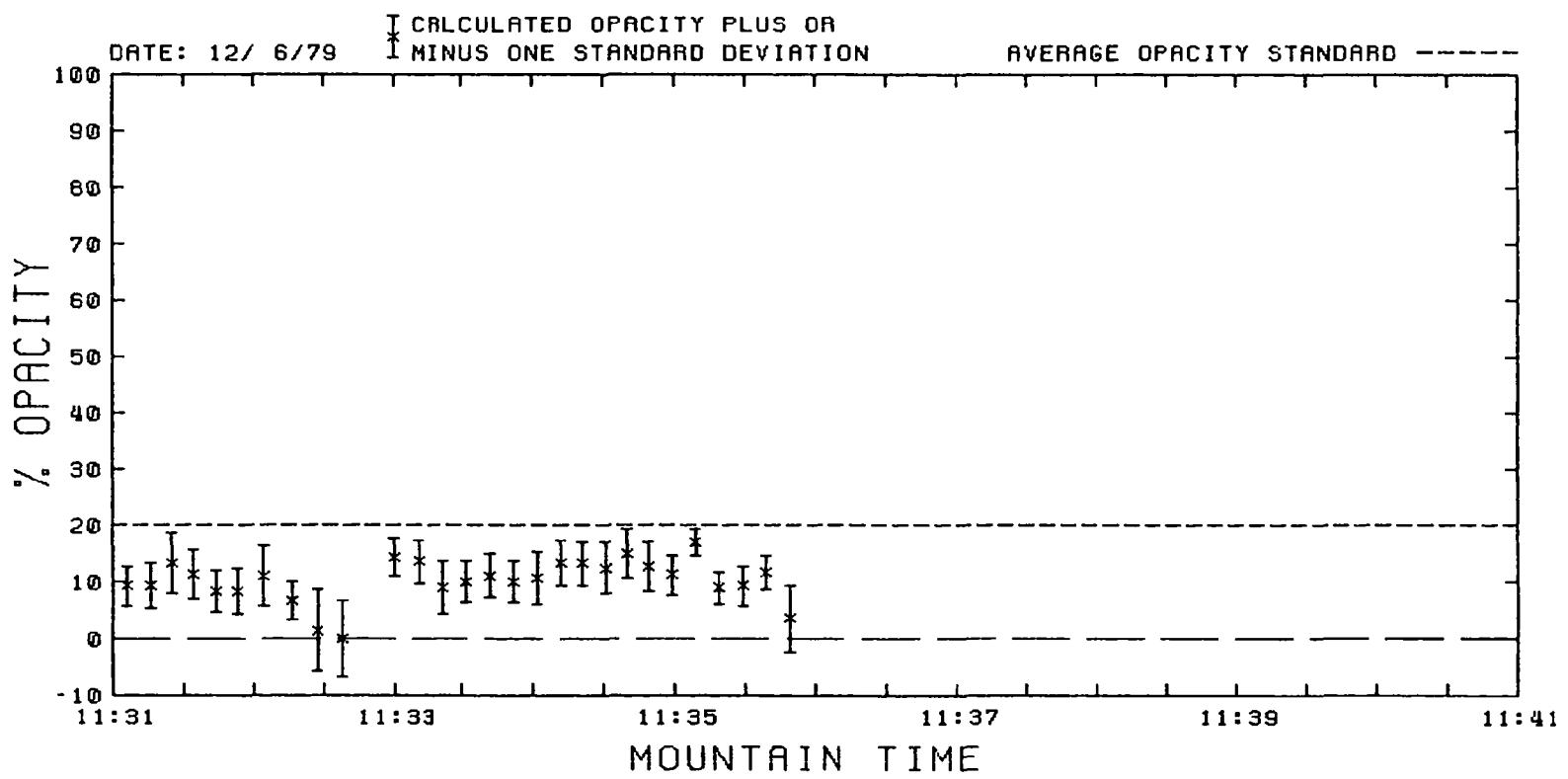
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0033, LEAD STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES  
 DATE TIME OPACITY SO VIOLATION AVERAGE OPACITY AVERAGE SO VIOLATION NUMBER DISCARDED

DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
12/ 6/79	11 29 32	11	2	5	4	0 OF 30
12/ 6/79	11 29 42	10	3	5	4	0 OF 30
12/ 6/79	11 29 52	4	5	5	4	0 OF 30
12/ 6/79	11 30 1	5	4	5	4	0 OF 31
12/ 6/79	11 30 11	2	4	5	4	0 OF 31
12/ 6/79	11 30 20	2	4	4	4	0 OF 31
12/ 6/79	11 30 29	7	4	4	4	0 OF 31
12/ 6/79	11 30 38	5	5	4	4	0 OF 31
12/ 6/79	11 30 48	8	4	4	4	0 OF 31
12/ 6/79	11 30 57	11	3	4	4	0 OF 31
12/ 6/79	11 31 6	9	3	5	4	0 OF 31
12/ 6/79	11 31 16	9	4	5	4	0 OF 31
12/ 6/79	11 31 25	13	5	5	4	0 OF 31
12/ 6/79	11 31 34	11	4	6	4	0 OF 31
12/ 6/79	11 31 44	8	4	6	4	0 OF 31
12/ 6/79	11 31 53	8	4	6	4	0 OF 31
12/ 6/79	11 32 4	11	5	6	4	0 OF 31
12/ 6/79	11 32 16	7	3	7	4	0 OF 31
12/ 6/79	11 32 27	1	7	7	4	0 OF 31
12/ 6/79	11 32 38	0	7	7	4	0 OF 31
12/ 6/79	11 33 0	14	3	6	4	1 OF 31
12/ 6/79	11 33 11	14	4	7	4	1 OF 30
12/ 6/79	11 33 22	9	5	7	4	1 OF 30
12/ 6/79	11 33 32	10	4	7	4	1 OF 30
12/ 6/79	11 33 42	11	4	8	4	1 OF 30
12/ 6/79	11 33 52	10	4	8	4	1 OF 30
12/ 6/79	11 34 2	11	5	8	4	1 OF 30
12/ 6/79	11 34 12	13	4	8	4	1 OF 30
12/ 6/79	11 34 21	13	4	8	4	1 OF 31
12/ 6/79	11 34 31	12	5	8	4	1 OF 31
12/ 6/79	11 34 40	15	4	9	4	1 OF 31
12/ 6/79	11 34 49	13	4	9	4	1 OF 31
12/ 6/79	11 34.59	11	3	9	4	1 OF 31
12/ 6/79	11 35 9	17	2	9	4	1 OF 31
12/ 6/79	11 35 19	9	3	10	4	1 OF 31
12/ 6/79	11 35 29	9	4	10	4	1 OF 31
12/ 6/79	11 35 39	12	3	10	4	1 OF 30
12/ 6/79	11 35 49	4	6	10	4	1 OF 30



LEAD STACK, ASARCO SMELTER, EL PASO, TEXAS



LEAD STACK, ASARCO SMELTER, EL PASO, TEXAS

LEAD STACK

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

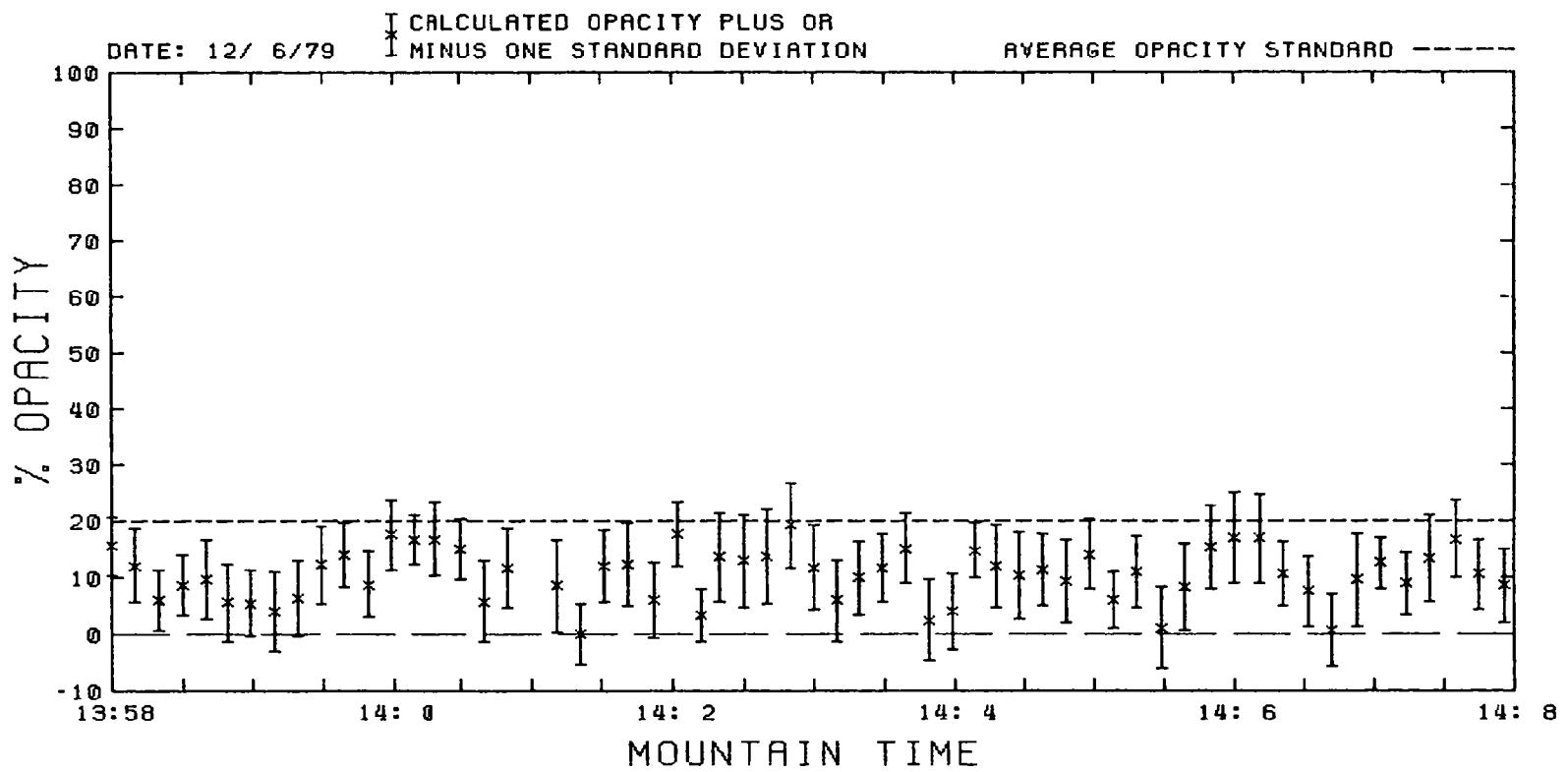
OMEGA-0036, LEAD STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES  
 DATE TIME OPACITY SO VIOLATION AVERAGE OPACITY NUMBER DISCARDED

DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	NUMBER DISCARDED
12/ 6/79	13 58 0	16	5	0	0 OF 0
12/ 6/79	13 58 10	12	7	0	0 OF 0
12/ 6/79	13 58 20	5	5	0	0 OF 0
12/ 6/79	13 58 30	9	5	0	0 OF 0
12/ 6/79	13 58 40	10	7	0	0 OF 0
12/ 6/79	13 58 49	6	7	0	0 OF 0
12/ 6/79	13 58 59	5	6	0	0 OF 0
12/ 6/79	13 59 7	4	7	0	0 OF 0
12/ 6/79	13 59 19	6	7	0	0 OF 0
12/ 6/79	13 59 29	12	7	0	0 OF 0
12/ 6/79	13 59 39	14	6	0	0 OF 0
12/ 6/79	13 59 49	9	6	0	0 OF 0
12/ 6/79	13 59 59	18	6	0	0 OF 0
12/ 6/79	14 0 9	17	4	0	0 OF 0
12/ 6/79	14 0 19	17	7	0	0 OF 0
12/ 6/79	14 0 30	15	5	0	0 OF 0
12/ 6/79	14 0 40	6	7	0	0 OF 0
12/ 6/79	14 0 50	12	7	0	0 OF 0
12/ 6/79	14 1 11	9	8	0	0 OF 0
12/ 6/79	14 1 21	0	5	0	0 OF 0
12/ 6/79	14 1 31	12	6	0	0 OF 0
12/ 6/79	14 1 41	12	7	0	0 OF 0
12/ 6/79	14 1 52	6	7	0	0 OF 0
12/ 6/79	14 2 2	18	6	0	0 OF 0
12/ 6/79	14 2 12	3	5	0	0 OF 0
12/ 6/79	14 2 20	14	8	0	0 OF 0
12/ 6/79	14 2 30	13	8	0	0 OF 0
12/ 6/79	14 2 40	14	8	0	0 OF 0
12/ 6/79	14 2 50	19	7	11	7 0 OF 30
12/ 6/79	14 3 0	12	7	11	7 0 OF 31
12/ 6/79	14 3 10	6	7	10	7 0 OF 31
12/ 6/79	14 3 19	10	7	10	7 0 OF 31
12/ 6/79	14 3 29	12	6	11	7 0 OF 31
12/ 6/79	14 3 39	15	6	11	7 0 OF 31
12/ 6/79	14 3 49	2	7	11	7 0 OF 31
12/ 6/79	14 3 59	4	7	10	7 0 OF 31
12/ 6/79	14 4 9	15	5	11	7 0 OF 31
12/ 6/79	14 4 18	12	7	11	7 0 OF 31
12/ 6/79	14 4 28	10	8	11	7 0 OF 31
12/ 6/79	14 4 38	11	6	11	7 0 OF 31
12/ 6/79	14 4 48	9	7	11	7 0 OF 31
12/ 6/79	14 4 58	14	6	11	7 0 OF 31
12/ 6/79	14 5 8	6	5	11	7 0 OF 31
12/ 6/79	14 5 18	11	6	11	7 0 OF 31
12/ 6/79	14 5 29	1	7	10	7 0 OF 31
12/ 6/79	14 5 39	8	8	10	7 0 OF 31
12/ 6/79	14 5 50	15	7	10	7 0 OF 31
12/ 6/79	14 6 0	17	8	10	7 0 OF 31
12/ 6/79	14 6 11	17	8	11	7 1 OF 31
12/ 6/79	14 6 21	11	6	11	7 1 OF 31

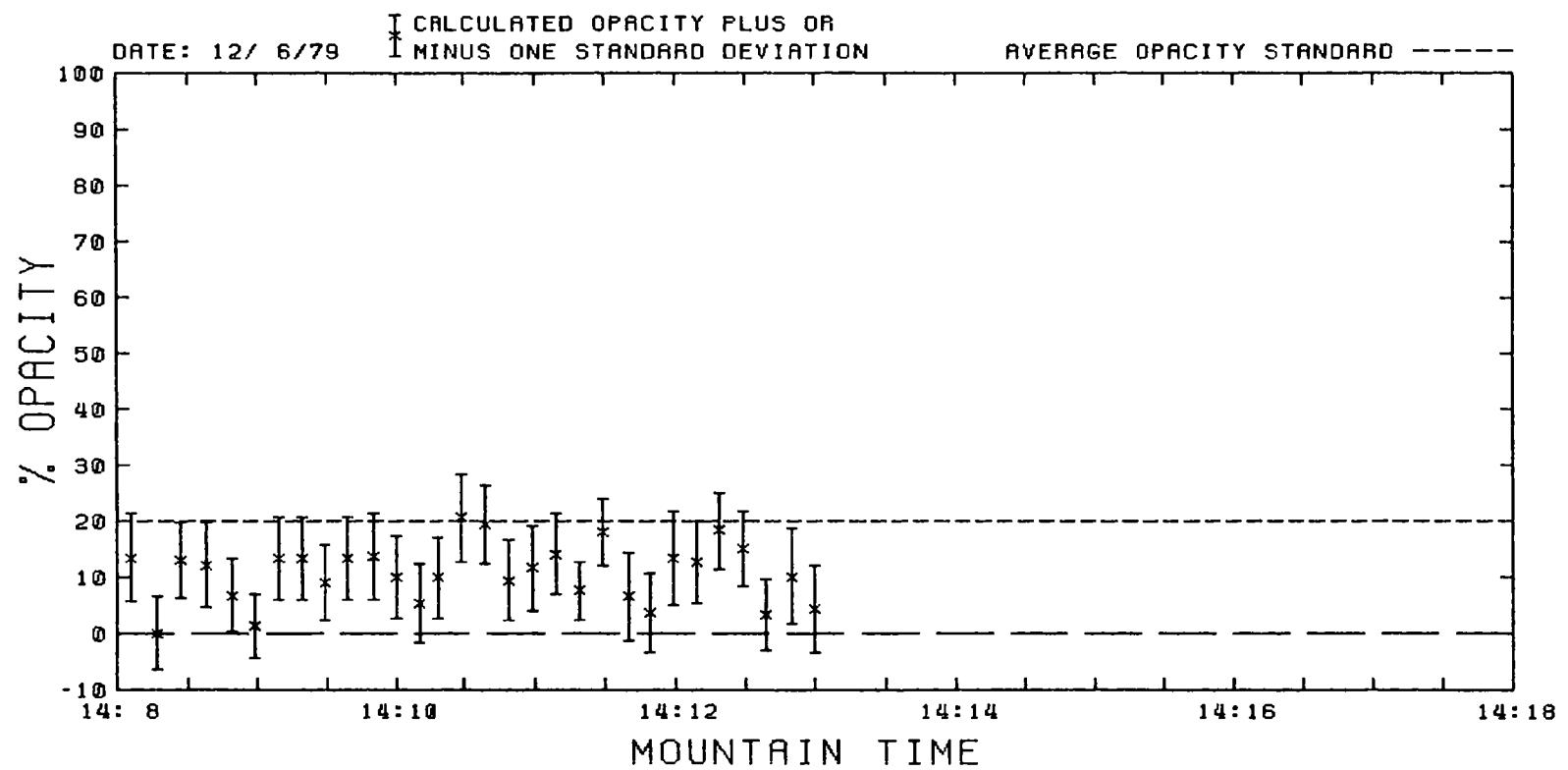
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0036, LEAD STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES  
 DATE TIME OPACITY SO VIOLATION AVERAGE OPACITY AVERAGE SO VIOLATION NUMBER DISCARDED

12/ 6/79	14 6 32	8	6	11	7	1 OF 30
12/ 6/79	14 6 42	1	6	11	7	1 OF 30
12/ 6/79	14 6 53	10	8	11	7	1 OF 30
12/ 6/79	14 7 3	12	5	11	7	1 OF 30
12/ 6/79	14 7 14	9	6	11	7	1 OF 30
12/ 6/79	14 7 24	13	8	11	7	1 OF 30
12/ 6/79	14 7 35	17	7	11	7	1 OF 30
12/ 6/79	14 7 45	11	6	11	7	1 OF 30
12/ 6/79	14 7 56	9	7	10	7	1 OF 30
12/ 6/79	14 8 6	13	8	10	7	1 OF 30
12/ 6/79	14 8 17	0	7	10	7	1 OF 30
12/ 6/79	14 8 27	13	7	10	7	1 OF 30
12/ 6/79	14 8 38	12	7	10	7	1 OF 30
12/ 6/79	14 8 49	7	7	10	7	1 OF 30
12/ 6/79	14 8 59	1	6	10	7	1 OF 30
12/ 6/79	14 9 9	13	7	10	7	1 OF 30
12/ 6/79	14 9 19	13	7	10	7	1 OF 29
12/ 6/79	14 9 29	9	7	10	7	1 OF 29
12/ 6/79	14 9 39	13	7	10	7	1 OF 29
12/ 6/79	14 9 50	14	8	10	7	1 OF 29
12/ 6/79	14 10 0	10	7	10	7	1 OF 29
12/ 6/79	14 10 10	5	7	10	7	1 OF 29
12/ 6/79	14 10 19	10	7	10	7	1 OF 29
12/ 6/79	14 10 29	21	8	10	7	1 OF 30
12/ 6/79	14 10 39	19	7	11	7	1 OF 30
12/ 6/79	14 10 49	9	7	11	7	1 OF 30
12/ 6/79	14 10 59	12	7	11	7	1 OF 30
12/ 6/79	14 11 9	14	7	11	7	1 OF 30
12/ 6/79	14 11 19	7	5	10	7	1 OF 30
12/ 6/79	14 11 29	18	6	11	7	1 OF 30
12/ 6/79	14 11 40	7	8	11	7	1 OF 30
12/ 6/79	14 11 49	4	7	11	7	1 OF 30
12/ 6/79	14 11 59	13	8	11	7	1 OF 30
12/ 6/79	14 12 9	13	7	11	7	1 OF 30
12/ 6/79	14 12 19	18	7	11	7	1 OF 30
12/ 6/79	14 12 29	15	7	11	7	1 OF 30
12/ 6/79	14 12 39	3	6	11	7	1 OF 30
12/ 6/79	14 12 50	10	8	11	7	1 OF 30
12/ 6/79	14 13 0	4	8	11	7	1 OF 30



LEAD STACK, ASARCO SMELTER, EL PASO, TEXAS



LEAD STACK, ASARCO SMELTER, EL PASO, TEXAS

ZINC STACK

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0029, ZINC STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES

DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
12/ 4/79	22 59 28	63	2	0	0	0 QF 0
12/ 4/79	22 59 33	60	4	0	0	0 QF 0
12/ 4/79	22 59 37	67	3	0	0	0 QF 0
12/ 4/79	22 59 42	64	3	0	0	0 QF 0
12/ 4/79	22 59 46	58	3	0	0	0 QF 0
12/ 4/79	22 59 51	65	3	0	0	0 QF 0
12/ 4/79	22 59 56	54	3	0	0	0 QF 0
12/ 4/79	23 0 0	62	4	0	0	0 QF 0
12/ 4/79	23 0 5	64	2	0	0	0 QF 0
12/ 4/79	23 0 9	63	3	0	0	0 QF 0
12/ 4/79	23 0 14	60	3	0	0	0 QF 0
12/ 4/79	23 0 19	53	4	0	0	0 QF 0
12/ 4/79	23 0 23	43	4	0	0	0 QF 0
12/ 4/79	23 0 28	61	4	0	0	0 QF 0
12/ 4/79	23 0 32	67	3	0	0	0 QF 0
12/ 4/79	23 0 37	68	3	0	0	0 QF 0
12/ 4/79	23 0 42	63	3	0	0	0 QF 0
12/ 4/79	23 0 46	77	4	0	0	0 QF 0
12/ 4/79	23 0 51	66	3	0	0	0 QF 0
12/ 4/79	23 0 56	74	1	0	0	0 QF 0
12/ 4/79	23 1 0	68	2	0	0	0 QF 0
12/ 4/79	23 1 5	72	3	0	0	0 QF 0
12/ 4/79	23 1 9	67	3	0	0	0 QF 0
12/ 4/79	23 1 14	73	1	0	0	0 QF 0
12/ 4/79	23 1 19	67	3	0	0	0 QF 0
12/ 4/79	23 1 23	66	3	0	0	0 QF 0
12/ 4/79	23 1 28	67	3	0	0	0 QF 0
12/ 4/79	23 1 33	66	2	0	0	0 QF 0
12/ 4/79	23 1 37	67	2	0	0	0 QF 0
12/ 4/79	23 1 42	64	2	0	0	0 QF 0
12/ 4/79	23 1 46	69	3	0	0	0 QF 0
12/ 4/79	23 1 51	66	3	0	0	0 QF 0
12/ 4/79	23 1 56	65	3	0	0	0 QF 0
12/ 4/79	23 2 0	58	1	0	0	0 QF 0
12/ 4/79	23 2 5	62	3	0	0	0 QF 0
12/ 4/79	23 2 10	74	4	0	0	0 QF 0
12/ 4/79	23 2 14	62	2	0	0	0 QF 0
12/ 4/79	23 2 19	64	3	0	0	0 QF 0
12/ 4/79	23 2 23	67	2	0	0	0 QF 0
12/ 4/79	23 2 28	55	4	0	0	0 QF 0
12/ 4/79	23 2 33	62	2	0	0	0 QF 0
12/ 4/79	23 2 37	65	3	0	0	0 QF 0
12/ 4/79	23 2 42	62	2	0	0	0 QF 0
12/ 4/79	23 2 47	62	4	0	0	0 QF 0
12/ 4/79	23 2 51	64	3	0	0	0 QF 0
12/ 4/79	23 2 56	53	3	0	0	0 QF 0
12/ 4/79	23 3 0	68	3	0	0	0 QF 0
12/ 4/79	23 3 5	69	3	0	0	0 QF 0
12/ 4/79	23 3 10	67	3	0	0	0 QF 0
12/ 4/79	23 3 14	62	4	0	0	0 QF 0

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0029, ZINC STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES							
DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED	
12/ 4/79	23 3 19	58	4	0	0	0	0 DF 0
12/ 4/79	23 3 24	66	3	0	0	0	0 DF 0
12/ 4/79	23 3 28	44	5	0	0	0	0 DF 0
12/ 4/79	23 3 33	50	3	0	0	0	0 DF 0
12/ 4/79	23 3 37	54	3	0	0	0	0 DF 0
12/ 4/79	23 3 42	56	3	0	0	0	0 DF 0
12/ 4/79	23 3 47	58	3	0	0	0	0 DF 0
12/ 4/79	23 3 51	44	4	0	0	0	0 DF 0
12/ 4/79	23 3 56	37	3	0	0	0	0 DF 0
12/ 4/79	23 4 0	24	5	0	0	0	0 DF 0
12/ 4/79	23 4 5	17	4	0	0	0	0 DF 0
12/ 4/79	23 4 10	18	5	0	0	0	0 DF 0
12/ 4/79	23 4 14	11	3	0	0	0	0 DF 0
12/ 4/79	23 4 19	16	4	65	3	****	0 DF 64
12/ 4/79	23 4:23	15	4	65	3	****	0 DF 65
12/ 4/79	23 4 28	13	4	65	3	****	0 DF 66
12/ 4/79	23 4 32	32	4	65	3	****	0 DF 66
12/ 4/79	23 4 37	43	3	65	3	****	0 DF 66
12/ 4/79	23 4 42	47	2	56	3	****	0 DF 66
12/ 4/79	23 4 46	59	1	56	3	****	0 DF 66
12/ 4/79	23 4 51	67	2	56	3	****	0 DF 66
12/ 4/79	23 4 56	67	2	57	3	****	0 DF 66
12/ 4/79	23 5 0	67	3	57	3	****	0 DF 66
12/ 4/79	23 5 5	60	2	57	3	****	0 DF 66
12/ 4/79	23 5 10	64	3	57	3	****	0 DF 65
12/ 4/79	23 5 14	64	3	57	3	****	0 DF 66
12/ 4/79	23 5 19	67	2	57	3	****	0 DF 66
12/ 4/79	23 5 23	69	3	57	3	****	0 DF 66
12/ 4/79	23 5 28	64	3	57	3	****	0 DF 66
12/ 4/79	23 5 33	54	2	57	3	****	0 DF 65
12/ 4/79	23 5 37	64	2	57	3	****	0 DF 66
12/ 4/79	23 5 41	50	2	57	3	****	0 DF 66
12/ 4/79	23 5 46	55	3	57	3	****	0 DF 66
12/ 4/79	23 5 51	66	2	57	3	****	0 DF 66
12/ 4/79	23 5 55	69	2	57	3	****	0 DF 66
12/ 4/79	23 6 0	61	4	56	3	****	0 DF 66
12/ 4/79	23 6 4	52	4	56	3	****	0 DF 66
12/ 4/79	23 6 9	58	3	56	3	****	0 DF 66
12/ 4/79	23 6 14	59	3	56	3	****	0 DF 66
12/ 4/79	23 6 18	59	4	56	3	****	0 DF 66
12/ 4/79	23 6 23	59	3	56	3	****	0 DF 66
12/ 4/79	23 6 27	52	4	55	3	****	0 DF 66
12/ 4/79	23 6 32	67	2	55	3	****	0 DF 66
12/ 4/79	23 6 36	46	3	55	3	****	0 DF 66
12/ 4/79	23 6 41	67	3	55	3	****	0 DF 66
12/ 4/79	23 6 46	67	4	55	3	****	0 DF 66
12/ 4/79	23 6 50	61	2	55	3	****	0 DF 66
12/ 4/79	23 6 55	54	3	55	3	****	0 DF 66
12/ 4/79	23 6 59	64	3	55	3	****	0 DF 66
12/ 4/79	23 7 4	69	1	55	3	****	0 DF 66

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

DMEGA-0029, ZINC STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES

DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
12/ 4/79	23 7 9	62	3	55	3	**** 0 OF 66
12/ 4/79	23 7 13	68	3	55	3	**** 0 OF 66
12/ 4/79	23 7 18	57	3	55	3	**** 0 OF 66
12/ 4/79	23 7 23	58	4	55	3	**** 0 OF 66
12/ 4/79	23 7 27	53	5	54	3	**** 0 OF 66
12/ 4/79	23 7 32	64	3	55	3	**** 0 OF 66
12/ 4/79	23 7 37	65	2	55	3	**** 0 OF 66
12/ 4/79	23 7 41	62	3	55	3	**** 0 OF 66
12/ 4/79	23 7 46	54	3	54	3	**** 0 OF 66
12/ 4/79	23 7 50	67	3	55	3	**** 0 OF 66
12/ 4/79	23 7 55	64	3	55	3	**** 0 OF 66
12/ 4/79	23 8 0	62	3	55	3	**** 0 OF 66
12/ 4/79	23 8 4	54	3	54	3	**** 0 OF 66
12/ 4/79	23 8 9	53	4	54	3	**** 0 OF 66
12/ 4/79	23 8 13	53	3	54	3	**** 0 OF 66
12/ 4/79	23 8 18	53	3	54	3	**** 0 OF 66
12/ 4/79	23 8 23	68	3	54	3	**** 0 OF 66
12/ 4/79	23 8 27	68	2	54	3	**** 0 OF 66
12/ 4/79	23 8 32	56	2	54	3	**** 0 OF 66
12/ 4/79	23 8 37	61	4	54	3	**** 0 OF 66
12/ 4/79	23 8 41	65	3	55	3	**** 0 OF 66
12/ 4/79	23 8 46	67	2	55	3	**** 0 OF 66
12/ 4/79	23 8 50	59	3	55	3	**** 0 OF 66
12/ 4/79	23 8 55	64	3	55	3	**** 0 OF 66
12/ 4/79	23 9 0	66	2	55	3	**** 0 OF 66
12/ 4/79	23 9 4	68	2	56	3	**** 0 OF 66
12/ 4/79	23 9 9	67	2	57	3	**** 0 OF 66
12/ 4/79	23 9 14	59	3	58	3	**** 0 OF 66
12/ 4/79	23 9 18	65	3	58	3	**** 0 OF 66
12/ 4/79	23 9 23	69	1	59	3	**** 0 OF 66
12/ 4/79	23 9 27	63	2	60	3	**** 0 OF 66
12/ 4/79	23 9 32	66	1	61	3	**** 0 OF 66
12/ 4/79	23 9 37	61	2	61	3	**** 0 OF 66
12/ 4/79	23 9 41	56	2	61	3	**** 0 OF 66
12/ 4/79	23 9 46	62	3	62	3	**** 0 OF 66
12/ 4/79	23 9 51	53	3	61	3	**** 0 OF 66
12/ 4/79	23 9 55	67	1	61	3	**** 0 OF 66
12/ 4/79	23 10 0	69	3	61	3	**** 0 OF 66
12/ 4/79	23 10 5	67	3	61	3	**** 0 OF 66
12/ 4/79	23 10 9	54	2	61	3	**** 0 OF 66
12/ 4/79	23 10 14	60	3	61	3	**** 0 OF 66
12/ 4/79	23 10 18	64	3	61	3	**** 0 OF 66
12/ 4/79	23 10 23	63	3	61	3	**** 0 OF 66
12/ 4/79	23 10 28	50	3	61	3	**** 0 OF 66
12/ 4/79	23 10 32	59	3	61	3	**** 0 OF 66
12/ 4/79	23 10 37	60	3	61	3	**** 0 OF 66
12/ 4/79	23 10 46	58	2	61	3	**** 0 OF 65
12/ 4/79	23 10 51	59	2	61	3	**** 0 OF 65
12/ 4/79	23 10 55	54	2	61	3	**** 0 OF 65
12/ 4/79	23 11 0	60	4	61	3	**** 0 OF 65

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0029, ZINC STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES

DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
12/ 4/79	23 11 5	63	3	61	3	**** 0 OF 64
12/ 4/79	23 11 9	59	2	61	3	**** 0 OF 65
12/ 4/79	23 11 14	52	4	61	3	**** 0 OF 65
12/ 4/79	23 11 18	58	5	61	3	**** 0 OF 65
12/ 4/79	23 11 23	47	3	61	3	**** 0 OF 65
12/ 4/79	23 11 28	48	4	61	3	**** 0 OF 64
12/ 4/79	23 11 32	54	3	60	3	**** 0 OF 65
12/ 4/79	23 11 37	57	2	61	3	**** 0 OF 64
12/ 4/79	23 11 42	58	3	60	3	**** 0 OF 64
12/ 4/79	23 11 46	66	2	61	3	**** 0 OF 65
12/ 4/79	23 11 51	56	2	60	3	**** 0 OF 64
12/ 4/79	23 11 56	65	1	61	3	**** 0 OF 64
12/ 4/79	23 12 0	56	5	60	3	**** 0 OF 64
12/ 4/79	23 12 5	53	3	60	3	**** 0 OF 64
12/ 4/79	23 12 9	59	3	60	3	**** 0 OF 65
12/ 4/79	23 12 14	61	4	60	3	**** 0 OF 64
12/ 4/79	23 12 19	61	3	60	3	**** 0 OF 64
12/ 4/79	23 12 23	55	4	60	3	**** 0 OF 65
12/ 4/79	23 12 28	58	4	60	3	**** 0 OF 64
12/ 4/79	23 12 33	61	4	60	3	**** 0 OF 64
12/ 4/79	23 12 37	59	3	60	3	**** 0 OF 65
12/ 4/79	23 12 42	65	3	60	3	**** 0 OF 64
12/ 4/79	23 12 46	65	3	60	3	**** 0 OF 65
12/ 4/79	23 12 51	59	4	60	3	**** 0 OF 64
12/ 4/79	23 12 56	65	3	60	3	**** 0 OF 64
12/ 4/79	23 13 0	68	3	60	3	**** 0 OF 65
12/ 4/79	23 13 5	67	3	60	3	**** 0 OF 64
12/ 4/79	23 13 10	66	2	61	3	**** 0 OF 64
12/ 4/79	23 13 14	64	3	61	3	**** 0 OF 64
12/ 4/79	23 13 19	65	1	61	3	**** 0 OF 64
12/ 4/79	23 13 23	53	4	61	3	**** 0 OF 65
12/ 4/79	23 13 28	56	3	60	3	**** 0 OF 64
12/ 4/79	23 13 33	46	3	60	3	**** 0 OF 64
12/ 4/79	23 13 37	56	3	60	3	**** 0 OF 65
12/ 4/79	23 13 42	52	4	60	3	**** 0 OF 64
12/ 4/79	23 13 47	59	4	60	3	**** 0 OF 64
12/ 4/79	23 13 51	58	4	60	3	**** 0 OF 64
12/ 4/79	23 13 56	66	4	60	3	**** 0 OF 64
12/ 4/79	23 14 0	60	4	60	3	**** 0 OF 65
12/ 4/79	23 14 5	65	2	60	3	**** 0 OF 64
12/ 4/79	23 14 10	55	3	60	3	**** 0 OF 64
12/ 4/79	23 14 14	52	3	60	3	**** 0 OF 65
12/ 4/79	23 14 19	46	4	60	3	**** 0 OF 64
12/ 4/79	23 14 24	58	3	59	3	**** 0 OF 64
12/ 4/79	23 14 28	58	3	59	3	**** 0 OF 64
12/ 4/79	23 14 33	59	3	59	3	**** 0 OF 64
12/ 4/79	23 14 37	51	3	59	3	**** 0 OF 65
12/ 4/79	23 14 42	57	3	59	3	**** 0 OF 64
12/ 4/79	23 14 47	52	5	59	3	**** 0 OF 64
12/ 4/79	23 14 51	46	4	59	3	**** 0 OF 65

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0029, ZINC STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES  
 DATE TIME OPACITY SO VIOLATION AVERAGE OPACITY AVERAGE SO VIOLATION NUMBER DISCARDED

DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
12/ 4/79	23 14 56	62	3	58	3	**** 0 OF 64
12/ 4/79	23 15 1	59	4	58	3	**** 0 OF 64
12/ 4/79	23 15 5	60	3	58	3	**** 0 OF 65
12/ 4/79	23 15 10	46	3	58	3	**** 0 OF 64
12/ 4/79	23 15 14	56	2	58	3	**** 0 OF 65
12/ 4/79	23 15 19	54	3	58	3	**** 0 OF 64
12/ 4/79	23 15 24	65	3	58	3	**** 0 OF 64
12/ 4/79	23 15 28	73	1	58	3	**** 0 OF 65
12/ 4/79	23 15 33	69	4	58	3	**** 0 OF 64
12/ 4/79	23 15 38	70	3	58	3	**** 0 OF 64
12/ 4/79	23 15 42	71	1	59	3	**** 0 OF 65
12/ 4/79	23 15 47	69	2	59	3	**** 0 OF 65
12/ 4/79	23 15 51	75	1	59	3	**** 0 OF 66
12/ 4/79	23 15 56	77	3	59	3	**** 0 OF 65
12/ 4/79	23 16 1	72	3	60	3	**** 0 OF 65
12/ 4/79	23 16 5	72	2	60	3	**** 0 OF 66
12/ 4/79	23 16 10	73	1	60	3	**** 0 OF 65
12/ 4/79	23 16 15	67	1	60	3	**** 0 OF 65
12/ 4/79	23 16 19	65	4	60	3	**** 0 OF 65
12/ 4/79	23 16 24	73	1	61	3	**** 0 OF 65
12/ 4/79	23 16 29	66	2	61	3	**** 0 OF 65
12/ 4/79	23 16 33	68	2	61	3	**** 0 OF 65
12/ 4/79	23 16 38	68	3	61	3	**** 0 OF 65
12/ 4/79	23 16 42	70	3	61	3	**** 0 OF 66
12/ 4/79	23 16 47	65	3	62	3	**** 0 OF 65
12/ 4/79	23 16 52	66	3	62	3	**** 0 OF 65
12/ 4/79	23 16 56	66	3	62	3	**** 0 OF 66
12/ 4/79	23 17 1	63	2	62	3	**** 0 OF 65
12/ 4/79	23 17 5	71	1	62	3	**** 0 OF 66
12/ 4/79	23 17 10	63	3	62	3	**** 0 OF 65
12/ 4/79	23 17 15	66	2	62	3	**** 0 OF 65
12/ 4/79	23 17 19	65	2	62	3	**** 0 OF 66
12/ 4/79	23 17 24	67	3	62	3	**** 0 OF 65
12/ 4/79	23 17 29	68	2	62	3	**** 0 OF 65
12/ 4/79	23 17 33	71	3	63	3	**** 0 OF 66
12/ 4/79	23 17 38	71	3	63	3	**** 0 OF 65
12/ 4/79	23 17 43	65	3	63	3	**** 0 OF 65
12/ 4/79	23 17 47	67	3	63	3	**** 0 OF 65
12/ 4/79	23 17 52	63	3	63	3	**** 0 OF 65
12/ 4/79	23 17 56	67	4	63	3	**** 0 OF 66
12/ 4/79	23 18 1	64	2	63	3	**** 0 OF 65
12/ 4/79	23 18 6	59	3	63	3	**** 0 OF 65
12/ 4/79	23 18 10	65	1	63	3	**** 0 OF 66
12/ 4/79	23 18 15	64	3	63	3	**** 0 OF 65
12/ 4/79	23 18 20	65	1	63	3	**** 0 OF 65
12/ 4/79	23 18 24	65	4	63	3	**** 0 OF 65
12/ 4/79	23 18 28	63	2	63	3	**** 0 OF 66
12/ 4/79	23 18 32	65	3	63	3	**** 0 OF 66
12/ 4/79	23 18 37	71	3	64	3	**** 0 OF 66
12/ 4/79	23 18 42	64	2	64	3	**** 0 OF 66

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

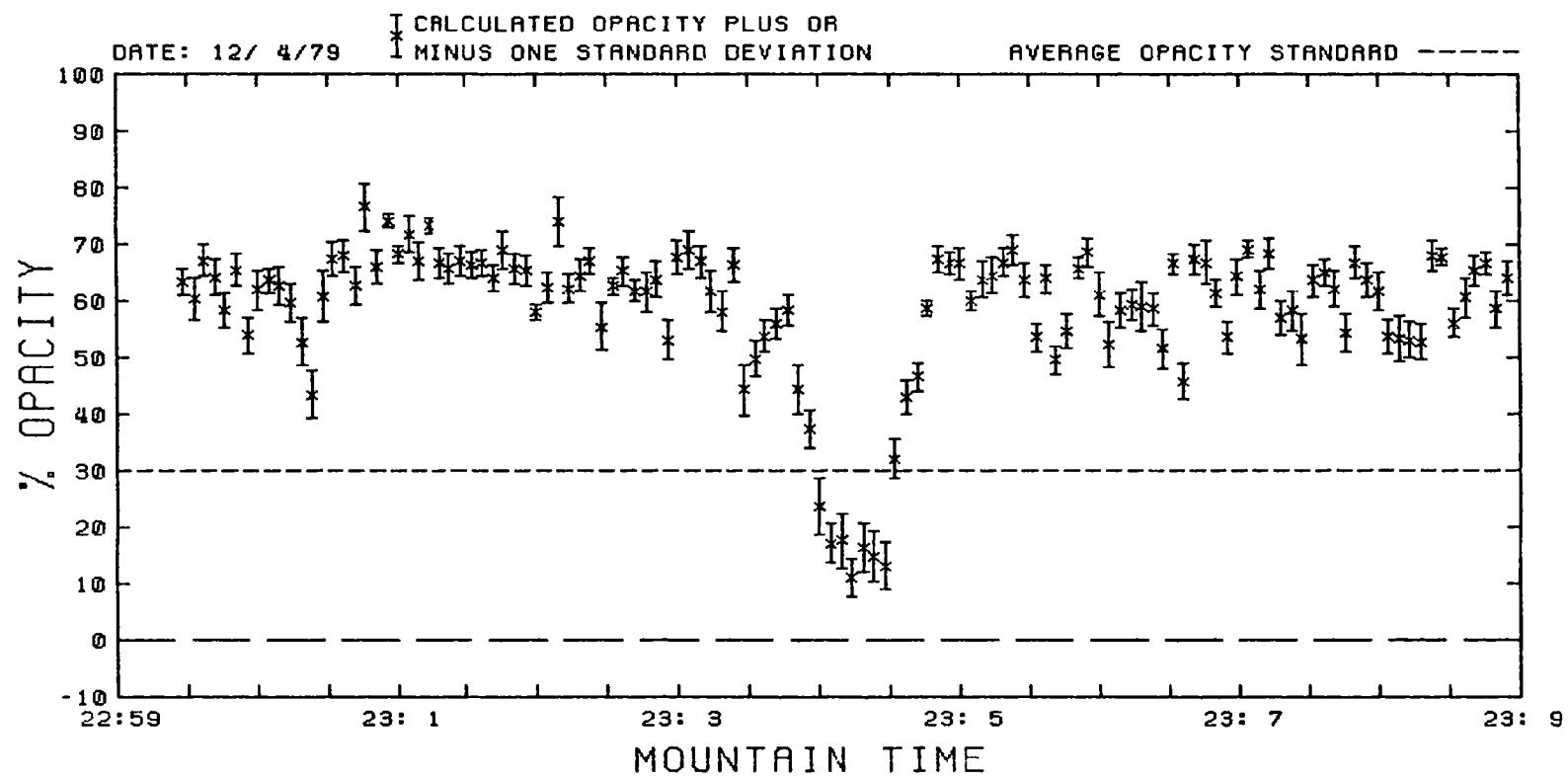
OMEGA-0029, ZINC STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO. FIVE MINUTE AVERAGES  
 DATE TIME OPACITY SO VIOLATION AVERAGE OPACITY AVERAGE SO VIOLATION NUMBER DISCARDED

DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
12/ 4/79	23 18 46	70	2	64	3	**** 0 OF 66
12/ 4/79	23 18 51	71	3	64	3	**** 0 OF 66
12/ 4/79	23 18 56	67	1	64	3	**** 0 OF 66
12/ 4/79	23 19 0	72	5	64	3	**** 0 OF 66
12/ 4/79	23 19 5	70	3	64	3	**** 0 OF 66
12/ 4/79	23 19 9	64	3	65	3	**** 0 OF 66
12/ 4/79	23 19 14	68	2	65	3	**** 0 OF 66
12/ 4/79	23 19 19	63	3	65	3	**** 0 OF 66
12/ 4/79	23 19 23	68	2	65	3	**** 0 OF 66
12/ 4/79	23 19 28	66	5	65	3	**** 0 OF 66
12/ 4/79	23 19 33	64	4	65	3	**** 0 OF 66
12/ 4/79	23 19 37	57	5	66	3	**** 0 OF 66
12/ 4/79	23 19 42	66	3	66	3	**** 0 OF 66
12/ 4/79	23 19 46	59	3	66	3	**** 0 OF 66
12/ 4/79	23 19 51	60	3	66	3	**** 0 OF 66
12/ 4/79	23 19 56	55	3	66	3	**** 0 OF 66
12/ 4/79	23 20 0	67	4	66	3	**** 0 OF 66
12/ 4/79	23 20 5	59	2	66	3	**** 0 OF 66
12/ 4/79	23 20 10	66	2	66	3	**** 0 OF 66
12/ 4/79	23 20 14	68	1	66	3	**** 0 OF 66
12/ 4/79	23 20 19	64	2	67	3	**** 0 OF 66
12/ 4/79	23 20 23	62	2	67	3	**** 0 OF 66
12/ 4/79	23 20 28	68	2	67	3	**** 0 OF 66
12/ 4/79	23 20 33	63	3	67	3	**** 0 OF 66
12/ 4/79	23 20 37	69	1	67	3	**** 0 OF 66
12/ 4/79	23 20 42	67	3	67	3	**** 0 OF 66
12/ 4/79	23 20 47	65	3	66	3	**** 0 OF 66
12/ 4/79	23 20 51	62	3	66	3	**** 0 OF 66
12/ 4/79	23 20 55	58	2	66	3	**** 0 OF 66
12/ 4/79	23 21 0	62	4	66	3	**** 0 OF 66
12/ 4/79	23 21 4	66	3	66	3	**** 0 OF 66
12/ 4/79	23 21 9	62	2	66	3	**** 0 OF 66
12/ 4/79	23 21 13	64	4	65	3	**** 0 OF 66
12/ 4/79	23 21 18	65	2	65	3	**** 0 OF 66
12/ 4/79	23 21 23	63	4	65	3	**** 0 OF 66
12/ 4/79	23 21 27	62	2	65	3	**** 0 OF 66
12/ 4/79	23 21 32	69	2	65	3	**** 0 OF 66
12/ 4/79	23 21 37	58	4	65	3	**** 0 OF 66
12/ 4/79	23 21 41	51	4	65	3	**** 0 OF 66
12/ 4/79	23 21 46	36	4	64	3	**** 0 OF 66
12/ 4/79	23 21:51	31	4	64	3	**** 0 OF 66
12/ 4/79	23 21:55	28	4	63	3	**** 0 OF 66
12/ 4/79	23 21:59	20	5	62	3	**** 0 OF 66
12/ 4/79	23 22 4	15	6	62	3	**** 0 OF 66
12/ 4/79	23 22 9	15	5	61	3	**** 0 OF 66
12/ 4/79	23 22 13	9	6	60	3	**** 0 OF 66
12/ 4/79	23 22 18	20	4	60	3	**** 0 OF 66
12/ 4/79	23 22 22	38	3	59	3	**** 0 OF 66
12/ 4/79	23 22 27	57	4	59	3	**** 0 OF 66
12/ 4/79	23 22 32	62	3	59	3	**** 0 OF 66

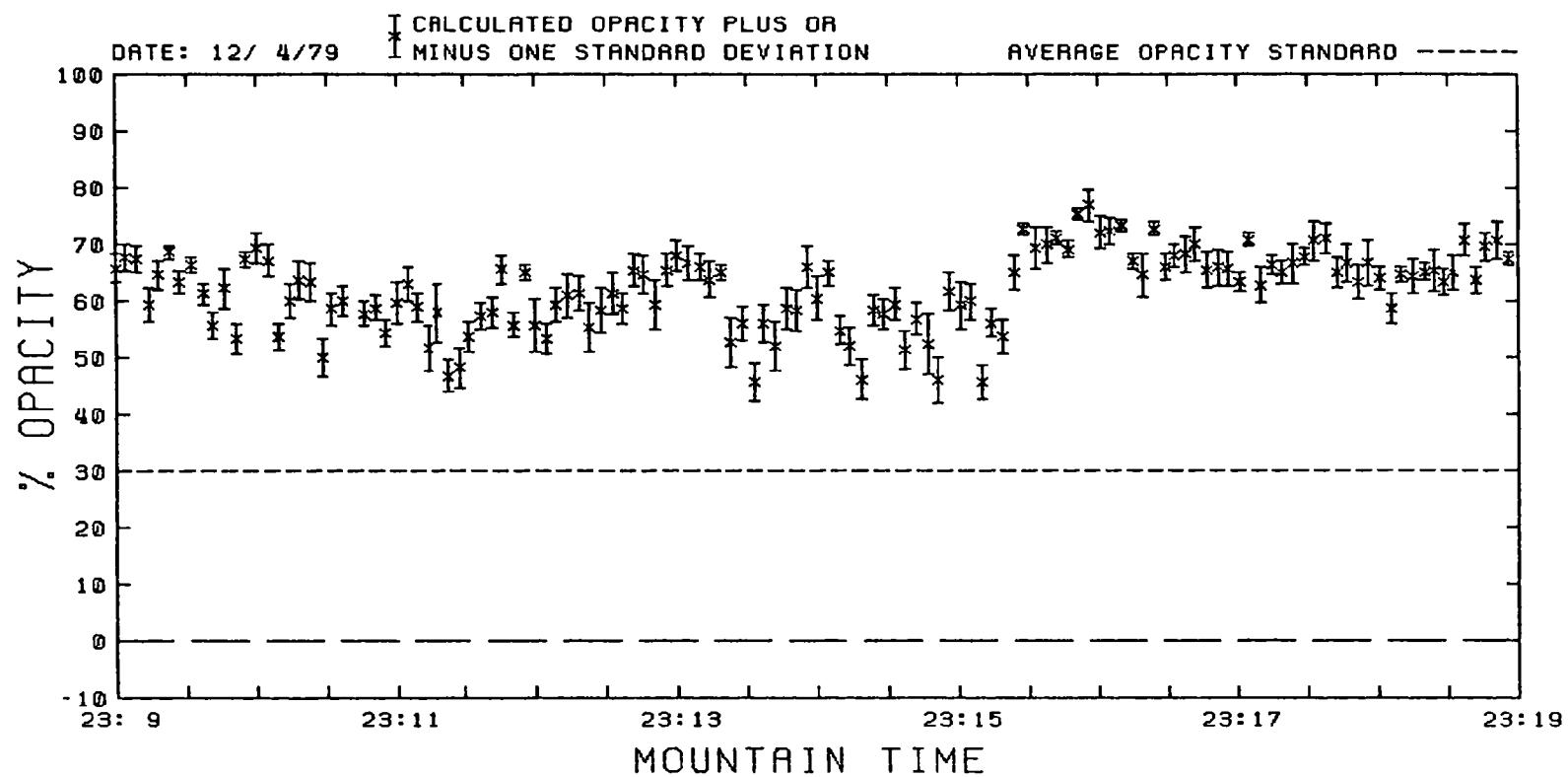
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

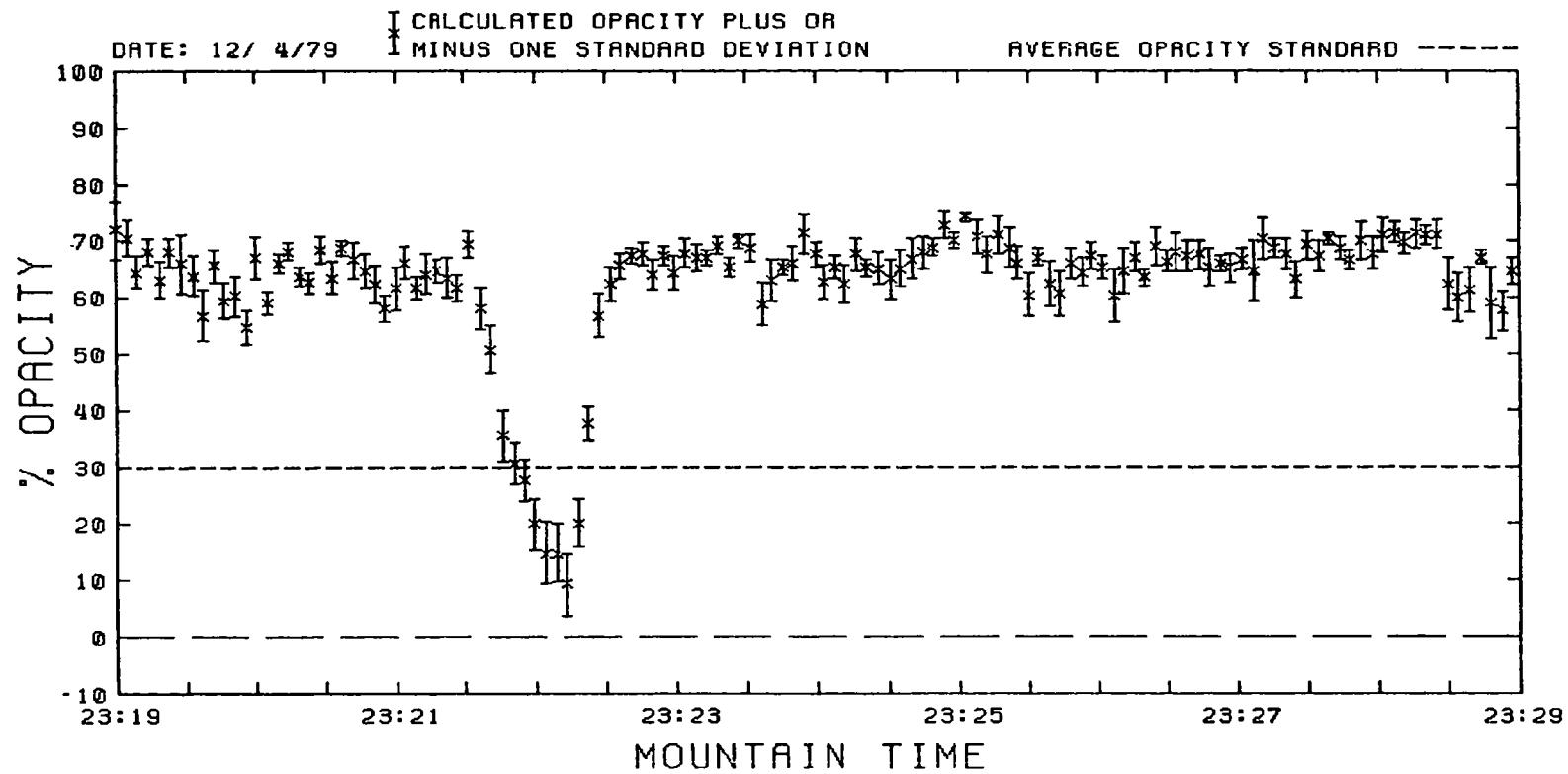
OMEGA-0029, ZINC STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RID BRAVO FIVE MINUTE AVERAGES					
DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION NUMBER DISCARDED
12/ 4/79	23 22 36	66	2	59	3 **** 0 OF 66
12/ 4/79	23 22 41	67	1	59	3 **** 0 OF 66
12/ 4/79	23 22 46	68	2	59	3 **** 0 OF 66
12/ 4/79	23 22 50	64	3	59	3 **** 0 OF 66
12/ 4/79	23 22 55	67	2	59	3 **** 0 OF 66
12/ 4/79	23 22 59	64	3	59	3 **** 0 OF 66
12/ 4/79	23 23 4	68	3	59	3 **** 0 OF 66
12/ 4/79	23 23 9	67	2	59	3 **** 0 OF 66
12/ 4/79	23 23 13	67	1	59	3 **** 0 OF 66
12/ 4/79	23 23 18	69	1	59	3 **** 0 OF 66
12/ 4/79	23 23 23	65	2	59	3 **** 0 OF 66
12/ 4/79	23 23 27	70	1	59	3 **** 0 OF 66
12/ 4/79	23 23 32	69	2	59	3 **** 0 OF 66
12/ 4/79	23 23 37	59	4	59	3 **** 0 OF 66
12/ 4/79	23 23 41	63	4	59	3 **** 0 OF 66
12/ 4/79	23 23 46	65	1	59	3 **** 0 OF 66
12/ 4/79	23 23 50	66	3	59	3 **** 0 OF 66
12/ 4/79	23 23 55	71	4	59	3 **** 0 OF 66
12/ 4/79	23 24 0	68	2	59	3 **** 0 OF 66
12/ 4/79	23 24 3	63	3	59	3 **** 0 OF 66
12/ 4/79	23 24 8	65	2	59	3 **** 0 OF 66
12/ 4/79	23 24 12	62	3	59	3 **** 0 OF 66
12/ 4/79	23 24 17	68	3	59	3 **** 0 OF 66
12/ 4/79	23 24 21	65	2	59	3 **** 0 OF 66
12/ 4/79	23 24 26	65	3	59	3 **** 0 OF 66
12/ 4/79	23 24 31	63	4	59	3 **** 0 OF 66
12/ 4/79	23 24 35	65	3	59	3 **** 0 OF 66
12/ 4/79	23 24 40	67	3	59	3 **** 0 OF 66
12/ 4/79	23 24 45	68	3	59	3 **** 0 OF 66
12/ 4/79	23 24 49	69	1	59	3 **** 0 OF 66
12/ 4/79	23 24 54	73	2	59	3 **** 0 OF 66
12/ 4/79	23 24 58	70	1	59	3 **** 0 OF 66
12/ 4/79	23 25 3	74	1	60	3 **** 0 OF 66
12/ 4/79	23 25 8	71	3	60	3 **** 0 OF 66
12/ 4/79	23 25 12	68	3	60	3 **** 0 OF 66
12/ 4/79	23 25 17	71	3	60	3 **** 0 OF 66
12/ 4/79	23 25 22	69	4	60	3 **** 0 OF 66
12/ 4/79	23 25 25	66	3	60	3 **** 0 OF 66
12/ 4/79	23 25 30	60	4	60	3 **** 0 OF 66
12/ 4/79	23 25 34	67	2	60	3 **** 0 OF 66
12/ 4/79	23 25 39	62	4	60	3 **** 0 OF 66
12/ 4/79	23 25 43	61	4	60	3 **** 0 OF 66
12/ 4/79	23 25 48	66	3	60	3 **** 0 OF 66
12/ 4/79	23 25 53	64	2	60	3 **** 0 OF 66
12/ 4/79	23 25 57	67	2	60	3 **** 0 OF 66
12/ 4/79	23 26 2	65	2	60	3 **** 0 OF 66
12/ 4/79	23 26 7	60	5	60	3 **** 0 OF 66
12/ 4/79	23 26 11	65	4	60	3 **** 0 OF 66
12/ 4/79	23 26 16	67	2	60	3 **** 0 OF 66
12/ 4/79	23 26 20	64	2	60	3 **** 0 OF 66

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
DENVER, COLORADO 80225

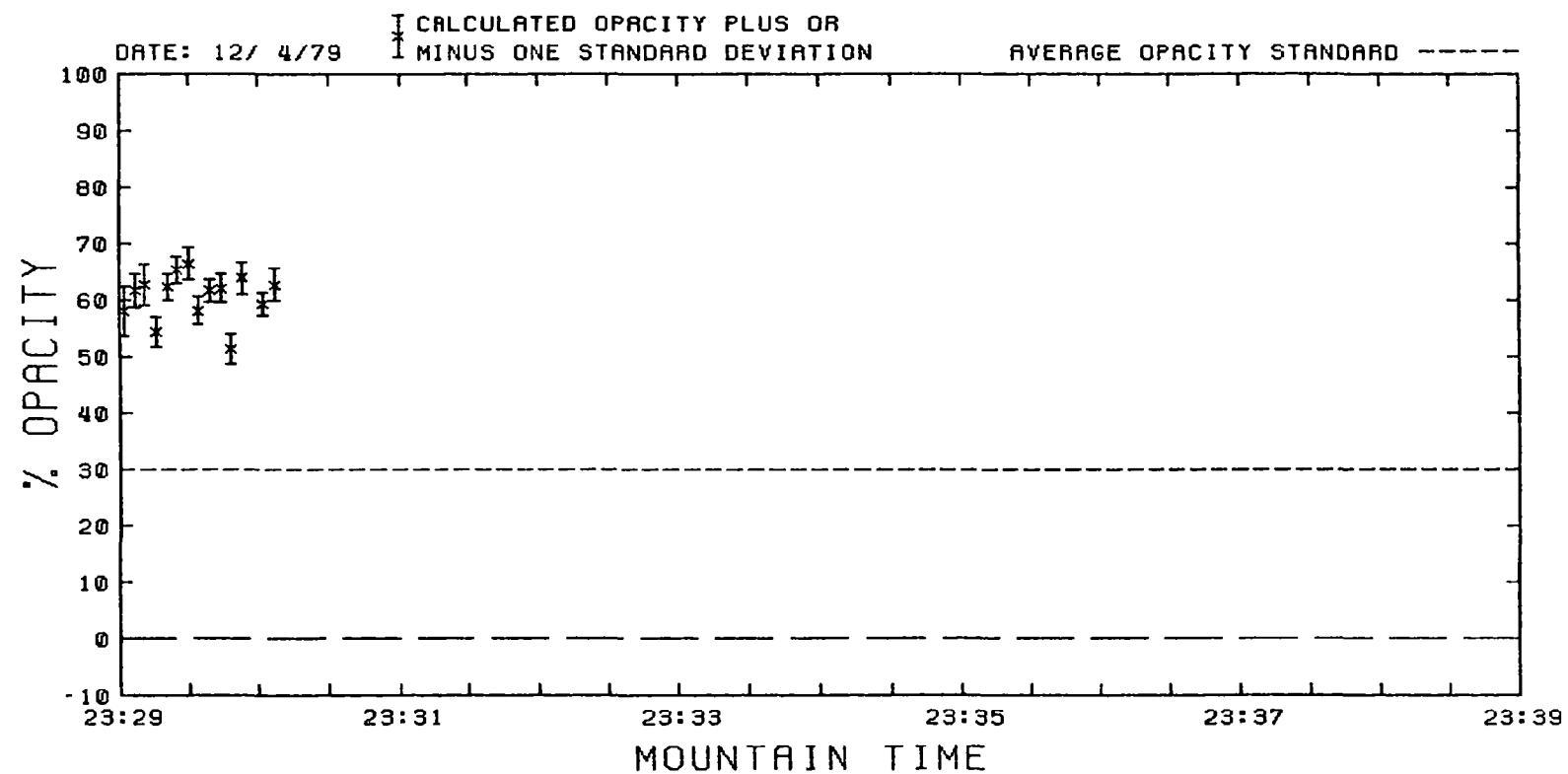


ZINC STACK, ASARCO SMELTER, EL PASO, TEXAS





ZINC STACK, ASARCO SMELTER, EL PASO, TEXAS



ZINC STACK, ASARCO SMELTER, EL PASO, TEXAS

ZINC STACK

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

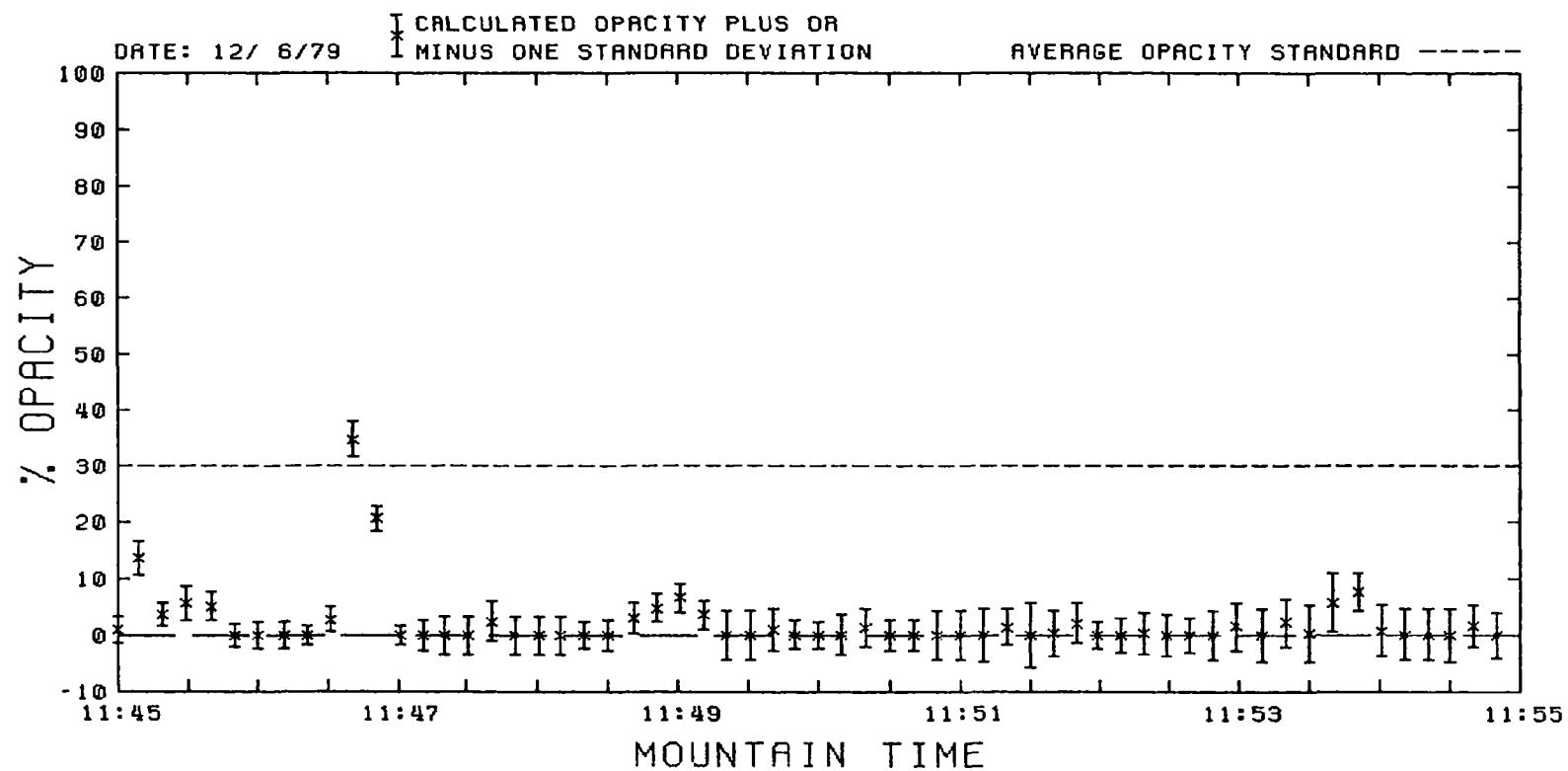
OMEGA-0034, ZINC STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES  
 DATE TIME OPACITY SO VIOLATION AVERAGE OPACITY AVERAGE SO VIOLATION NUMBER DISCARDED

12/ 6/79	11 45 0	1	2		0	0	0 OF 0
12/ 6/79	11 45 9	14	3		0	0	0 OF 0
12/ 6/79	11 45 19	4	2		0	0	0 OF 0
12/ 6/79	11 45 29	6	3		0	0	0 OF 0
12/ 6/79	11 45 40	5	3		0	0	0 OF 0
12/ 6/79	11 45 50	0	2		0	0	0 OF 0
12/ 6/79	11 46 0	0	2		0	0	0 OF 0
12/ 6/79	11 46 11	0	2		0	0	0 OF 0
12/ 6/79	11 46 21	0	2		0	0	0 OF 0
12/ 6/79	11 46 31	3	2		0	0	0 OF 0
12/ 6/79	11 46 41	35	3		0	0	0 OF 0
12/ 6/79	11 46 51	21	2		0	0	0 OF 0
12/ 6/79	11 47 1	0	2		0	0	0 OF 0
12/ 6/79	11 47 11	0	3		0	0	0 OF 0
12/ 6/79	11 47 21	0	3		0	0	0 OF 0
12/ 6/79	11 47 31	0	3		0	0	0 OF 0
12/ 6/79	11 47 41	2	4		0	0	0 OF 0
12/ 6/79	11 47 51	0	3		0	0	0 OF 0
12/ 6/79	11 48 1	0	3		0	0	0 OF 0
12/ 6/79	11 48 10	0	3		0	0	0 OF 0
12/ 6/79	11 48 20	0	2		0	0	0 OF 0
12/ 6/79	11 48 30	0	3		0	0	0 OF 0
12/ 6/79	11 48 41	3	3		0	0	0 OF 0
12/ 6/79	11 48 51	5	2		0	0	0 OF 0
12/ 6/79	11 49. 1	7	2		0	0	0 OF 0
12/ 6/79	11 49. 11	4	2		0	0	0 OF 0
12/ 6/79	11 49 21	0	4		0	0	0 OF 0
12/ 6/79	11 49 31	0	4		0	0	0 OF 0
12/ 6/79	11 49 41	1	4		0	0	0 OF 0
12/ 6/79	11 49 50	0	2		1	3	0 OF 30
12/ 6/79	11 50 0	0	2		0	3	0 OF 31
12/ 6/79	11 50 10	0	4		0	3	0 OF 30
12/ 6/79	11 50 20	1	3		0	3	0 OF 30
12/ 6/79	11 50 30	0	3		0	3	0 OF 30
12/ 6/79	11 50 40	0	3		0	3	0 OF 31
12/ 6/79	11 50 50	0	4		0	3	0 OF 31
12/ 6/79	11 51 0	0	4		0	3	0 OF 31
12/ 6/79	11 51:10	0	5		0	3	0 OF 31
12/ 6/79	11 51:20	1	3		0	3	0 OF 31
12/ 6/79	11 51:30	0	6		0	3	0 OF 31
12/ 6/79	11 51:40	0	4		0	3	0 OF 31
12/ 6/79	11 51 50	2	4		0	3	0 OF 31
12/ 6/79	11 51.59	0	2		0	3	0 OF 31
12/ 6/79	11 52 9	0	3		0	3	0 OF 31
12/ 6/79	11 52 19	0	4		0	3	0 OF 31
12/ 6/79	11 52 29	0	4		0	3	0 OF 31
12/ 6/79	11 52.39	0	3		0	3	0 OF 31
12/ 6/79	11 52 49	0	4		0	3	0 OF 31
12/ 6/79	11 52.59	2	4		0	3	0 OF 31
12/ 6/79	11 53.10	0	5		0	3	0 OF 31

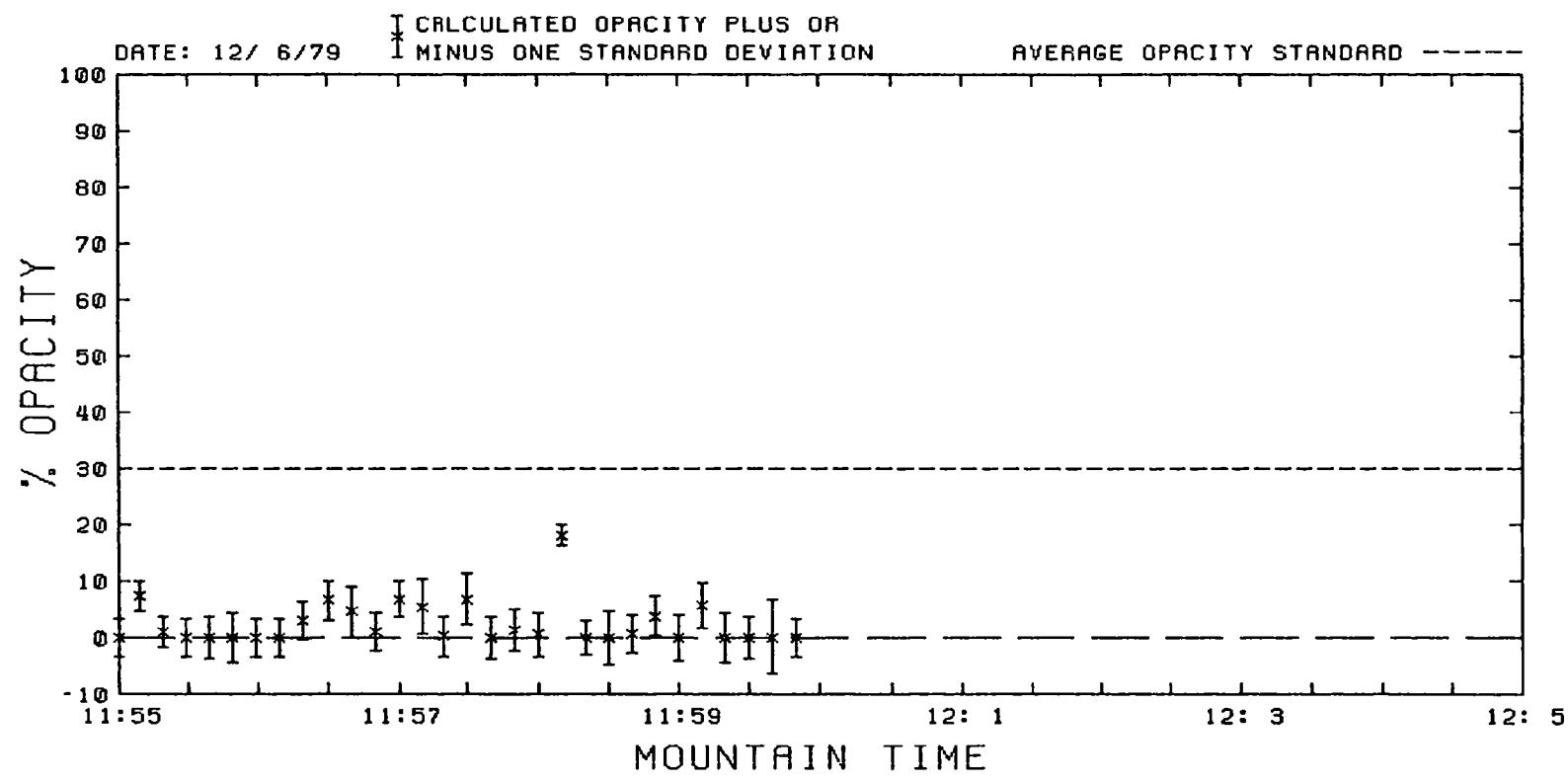
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0034, ZINC STACK, ASARCO SMELTER, EL PASO, TEXAS FROM 4100 RIO BRAVO FIVE MINUTE AVERAGES

DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
12/ 6/79	11 53 20	2	4	0	4	0 OF 31
12/ 6/79	11 53 30	0	5	0	4	0 OF 31
12/ 6/79	11 53 40	6	5	0	4	0 OF 31
12/ 6/79	11 53 51	8	3	0	4	0 OF 31
12/ 6/79	11 54 1	1	4	0	4	0 OF 31
12/ 6/79	11 54 11	0	5	0	4	0 OF 31
12/ 6/79	11 54 21	0	5	0	4	0 OF 31
12/ 6/79	11 54 30	0	5	0	4	0 OF 31
12/ 6/79	11 54 40	2	4	0	4	0 OF 31
12/ 6/79	11 54 50	0	4	0	4	0 OF 31
12/ 6/79	11 55 0	0	3	0	4	0 OF 31
12/ 6/79	11 55 9	7	3	0	4	0 OF 31
12/ 6/79	11 55 19	1	3	0	4	0 OF 31
12/ 6/79	11 55 29	0	3	0	4	0 OF 31
12/ 6/79	11 55 39	0	4	0	4	0 OF 31
12/ 6/79	11 55 49	0	4	0	4	0 OF 31
12/ 6/79	11 55 59	0	3	0	4	0 OF 31
12/ 6/79	11 56 9	0	3	0	4	0 OF 31
12/ 6/79	11 56 19	3	3	0	4	0 OF 31
12/ 6/79	11 56 30	7	4	0	4	0 OF 31
12/ 6/79	11 56 40	5	5	0	4	0 OF 31
12/ 6/79	11 56 50	1	3	0	4	0 OF 31
12/ 6/79	11 57 0	7	3	0	4	0 OF 30
12/ 6/79	11 57 10	5	5	0	4	0 OF 30
12/ 6/79	11 57 20	0	4	0	4	0 OF 30
12/ 6/79	11 57 30	7	5	0	4	0 OF 30
12/ 6/79	11 57 40	0	4	0	4	0 OF 30
12/ 6/79	11 57 50	1	4	1	4	0 OF 30
12/ 6/79	11 58 0	0	4	1	4	0 OF 30
12/ 6/79	11 58 10	18	2	1	4	0 OF 31
12/ 6/79	11 58 20	0	3	1	4	0 OF 31
12/ 6/79	11 58 30	0	5	1	4	0 OF 31
12/ 6/79	11 58 40	1	3	1	4	0 OF 31
12/ 6/79	11 58 50	4	4	1	4	0 OF 31
12/ 6/79	11 59 0	0	4	0	4	0 OF 31
12/ 6/79	11 59 10	6	4	1	4	0 OF 31
12/ 6/79	11 59 20	0	4	1	4	0 OF 31
12/ 6/79	11 59 30	0	4	0	4	0 OF 31
12/ 6/79	11 59 40	0	7	0	4	0 OF 31
12/ 6/79	11 59 50	0	3	0	4	0 OF 31



ZINC STACK, ASARCO SMELTER, EL PASO, TEXAS



ZINC STACK, ASARCO SMELTER, EL PASO, TEXAS

BLAST FURNACE BAG HOUSE

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0026, BLAST FURNACE BAG HOUSE, ASARCO SMELTER, EL PASO, TEX FROM WEST END WAYMORE STREET									
DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED			
12/ 4/79	16 35 0	10	6		0	0			
12/ 4/79	16 35 10	37	7		0	0			
12/ 4/79	16 35 20	16	5		0	0			
12/ 4/79	16 35 30	35	7		0	0			
12/ 4/79	16 35 40	23	4		0	0			
12/ 4/79	16 36 0	22	5		0	0			
12/ 4/79	16 36 11	27	5		0	0			
12/ 4/79	16 36 21	25	5		0	0			
12/ 4/79	16 36 32	17	5		0	0			
12/ 4/79	16 36 40	8	4		0	0			
12/ 4/79	16 36 50	9	6		0	0			
12/ 4/79	16 37 0	10	7		0	0			
12/ 4/79	16 37 10	7	6		0	0			
12/ 4/79	16 37 20	10	6		0	0			
12/ 4/79	16 37 30	10	5		0	0			
12/ 4/79	16 37 40	11	4		0	0			
12/ 4/79	16 37 50	32	4		0	0			
12/ 4/79	16 38 0	73	2		0	0			
12/ 4/79	16 38 10	17	6		0	0			
12/ 4/79	16 38 30	26	5		0	0			
12/ 4/79	16 38 40	29	6		0	0			
12/ 4/79	16 38 50	27	5		0	0			
12/ 4/79	16 39 0	25	5		0	0			
12/ 4/79	16 39 10	39	6		0	0			
12/ 4/79	16 39 20	35	7		0	0			
12/ 4/79	16 39 30	34	4		0	0			
12/ 4/79	16 39 40	28	4		0	0			
12/ 4/79	16 39 50	24	5	24	5		0 OF	29	
12/ 4/79	16 40 0	29	7	24	5		0 OF	30	
12/ 4/79	16 40 10	19	5	24	5		0 OF	30	
12/ 4/79	16 40 20	26	5	24	5		0 OF	30	
12/ 4/79	16 40 30	31	8	25	5		0 OF	30	
12/ 4/79	16 40 40	26	6	24	5		0 OF	30	
12/ 4/79	16 40 50	32	5	25	5		0 OF	30	
12/ 4/79	16 41 0	35	7	25	5		0 OF	30	
12/ 4/79	16 41 10	28	8	25	5		0 OF	30	
12/ 4/79	16 41 20	43	6	25	5		0 OF	30	
12/ 4/79	16 41 30	53	4	26	5		0 OF	30	
12/ 4/79	16 41 40	52	4	28	5		0 OF	30	
12/ 4/79	16 41 50	56	4	29	5		0 OF	30	
12/ 4/79	16 42 10	48	6	31	6	****	1 OF	30	
12/ 4/79	16 42 59	58	5	36	6	****	4 OF	29	
12/ 4/79	16 43 20	15	7	34	7	****	5 OF	29	
12/ 4/79	16 43 30	8	7	33	7	****	5 OF	30	
12/ 4/79	16 44 0	0	7	32	7	****	7 OF	30	
12/ 4/79	16 44 10	2	6	31	7	****	7 OF	30	
12/ 4/79	16 44 20	0	6	30	7		7 OF	30	
12/ 4/79	16 44 40	0	6	28	7		8 OF	30	
12/ 4/79	16 44 50	30	8	28	7		8 OF	30	
12/ 4/79	16 45 0	30	7	28	7		8 OF	30	

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0026, BLAST FURNACE BAG HOUSE, ASARCO SMELTER, EL PASO, TEX FROM WEST END WAYMORE STREET									
DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED			
12/ 4/79	16 45 10	46	7	29	7	8	OF	30	
12/ 4/79	16 45 20	19	4	29	7	8	OF	30	
12/ 4/79	16 45 30	36	4	29	7	8	OF	30	
12/ 4/79	16 45 40	38	5	30	7	8	OF	30	
12/ 4/79	16 46 0	21	8	29	7	9	OF	30	
12/ 4/79	16 46 19	33	7	29	7	10	OF	30	
12/ 4/79	16 46 29	0	6	27	7	10	OF	30	
12/ 4/79	16 46 39	10	7	25	7	10	OF	30	
12/ 4/79	16 46 49	4	4	22	7	10	OF	30	
12/ 4/79	16 46 59	12	5	20	7	10	OF	30	
12/ 4/79	16 47 19	12	6	18	8	10	OF	30	
12/ 4/79	16 47 40	12	7	18	7	9	OF	30	
12/ 4/79	16 48 0	7	8	16	7	9	OF	30	
12/ 4/79	16 48 10	10	5	15	7	9	OF	31	
12/ 4/79	16 48 20	2	6	15	7	8	OF	31	
12/ 4/79	16 48 30	3	5	14	7	8	OF	31	
12/ 4/79	16 48 40	0	6	14	7	8	OF	31	
12/ 4/79	16 48 50	10	6	14	7	7	OF	31	
12/ 4/79	16 49 0	2	7	13	7	6	OF	31	
12/ 4/79	16 49 10	0	4	13	7	6	OF	31	
12/ 4/79	16 49 30	4	5	14	7	6	OF	31	
12/ 4/79	16 49 39	3	5	14	7	5	OF	31	
12/ 4/79	16 49 49	7	5	14	7	5	OF	31	
12/ 4/79	16 49 59	5	5	13	7	5	OF	31	
12/ 4/79	16 50 29	2	6	10	7	7	OF	31	
12/ 4/79	16 50 39	1	5	9	7	7	OF	31	
12/ 4/79	16 50 50	5	7	8	7	7	OF	31	
12/ 4/79	16 51 10	0	7	7	7	7	OF	31	
12/ 4/79	16 51 20	0	6	5	7	6	OF	30	
12/ 4/79	16 51 30	2	6	6	7	6	OF	30	
12/ 4/79	16 51 40	2	7	5	7	6	OF	30	
12/ 4/79	16 51 50	7	5	5	7	6	OF	30	
12/ 4/79	16 52 1	36	5	6	7	6	OF	30	
12/ 4/79	16 52 11	5	5	6	7	5	OF	30	
12/ 4/79	16 52 21	10	5	6	6	5	OF	30	
12/ 4/79	16 52 31	0	6	6	6	4	OF	30	
12/ 4/79	16 52 40	0	6	6	6	4	OF	31	
12/ 4/79	16 52 50	0	5	5	6	4	OF	31	
12/ 4/79	16 53 0	4	4	5	6	3	OF	31	
12/ 4/79	16 53 10	3	5	5	6	3	OF	31	
12/ 4/79	16 53 31	8	8	5	6	4	OF	30	
12/ 4/79	16 53 41	15	4	6	6	4	OF	30	
12/ 4/79	16 53 51	13	5	6	6	4	OF	30	
12/ 4/79	16 54: 1	20	6	7	6	4	OF	30	
12/ 4/79	16 54 11	7	7	7	6	4	OF	30	
12/ 4/79	16 54 22	14	7	7	6	4	OF	30	
12/ 4/79	16 54 31	15	7	7	6	4	OF	30	
12/ 4/79	16 54 41	18	5	8	6	4	OF	30	
12/ 4/79	16 54 51	14	5	8	6	4	OF	30	
12/ 4/79	16 55 1	13	7	8	6	4	OF	30	

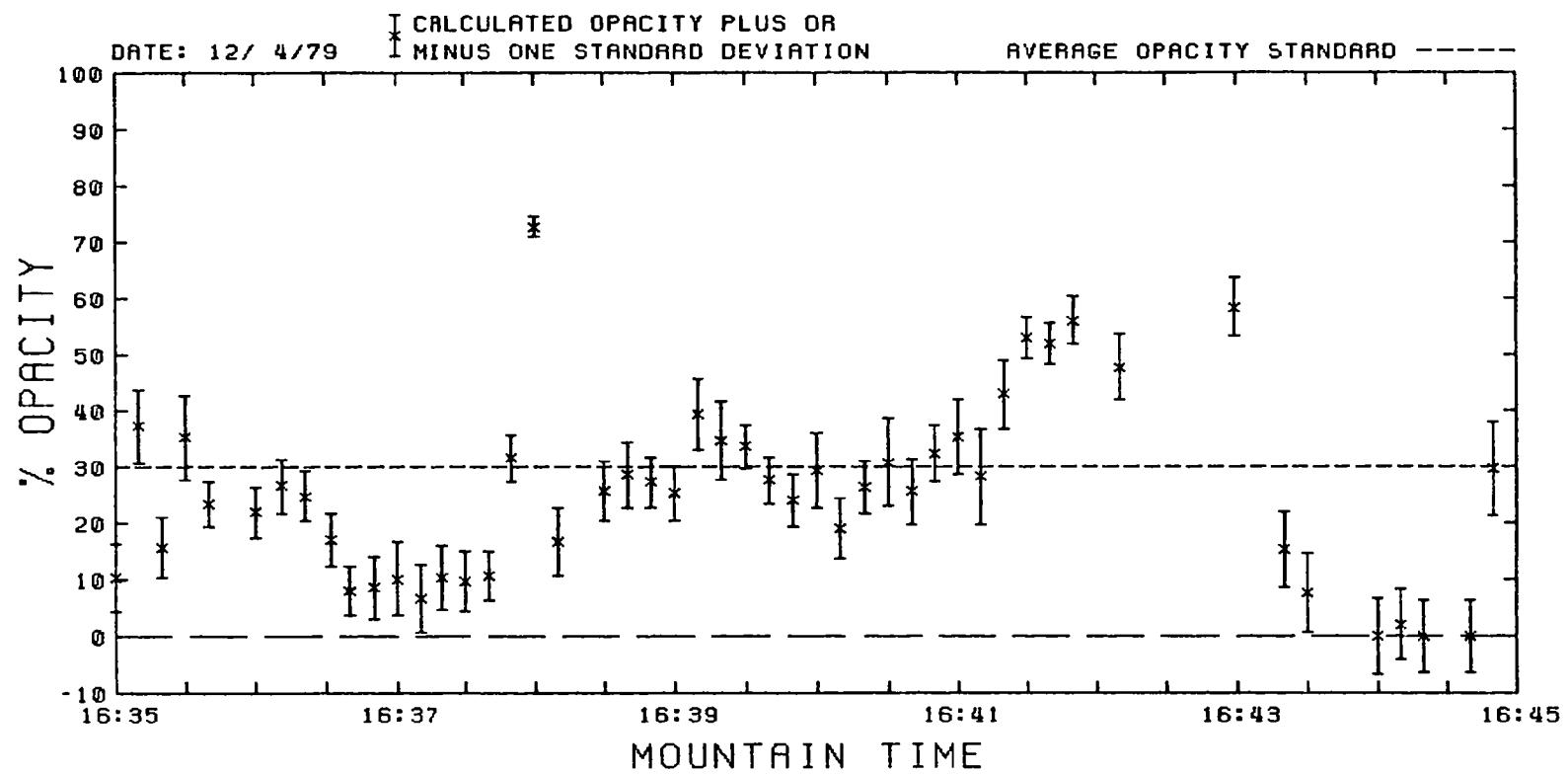
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

OMEGA-0026, BLAST FURNACE BAG HOUSE, ASARCO SMELTER, EL PASO, TEX FROM WEST END WAYMORE STREET						
DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
12/ 4/79	16 55 11	13	4	8	6	3 OF 30
12/ 4/79	16 55 21	11	4	9	6	2 OF 30
12/ 4/79	16 55 31	18	4	9	6	2 OF 30
12/ 4/79	16 55 41	11	5	9	6	2 OF 30
12/ 4/79	16 55 51	9	6	10	6	2 OF 30
12/ 4/79	16 56 0	7	4	10	6	2 OF 31
12/ 4/79	16 56 10	8	4	9	6	1 OF 31
12/ 4/79	16 56 20	6	5	10	6	1 OF 31
12/ 4/79	16 56 30	6	5	10	5	1 OF 31
12/ 4/79	16 56 39	6	6	10	5	1 OF 31
12/ 4/79	16 56 49	4	4	10	5	1 OF 31
12/ 4/79	16 56 59	1	4	10	5	1 OF 31
12/ 4/79	16 57 .9	6	5	9	5	1 OF 31
12/ 4/79	16 57 19	5	5	9	5	1 OF 31
12/ 4/79	16 57 29	7	6	9	5	1 OF 31
12/ 4/79	16 57 39	6	6	9	5	1 OF 31
12/ 4/79	16 57 49	4	5	9	5	1 OF 31
12/ 4/79	16 58 0	6	5	9	5	1 OF 31
12/ 4/79	16 58 10	6	4	9	5	1 OF 31
12/ 4/79	16 58 20	4	5	9	5	1 OF 31
12/ 4/79	16 58 30	0	5	9	5	0 OF 31
12/ 4/79	16 58 39	7	4	9	5	0 OF 31
12/ 4/79	16 58 48	4	4	9	5	0 OF 31
12/ 4/79	16 58 58	8	5	9	5	0 OF 31
12/ 4/79	16 59 8	11	5	8	5	0 OF 31
12/ 4/79	16 59 18	6	5	8	5	0 OF 31
12/ 4/79	16 59 28	4	5	8	5	0 OF 31
12/ 4/79	16 59 39	8	4	8	5	0 OF 31
12/ 4/79	16 59 49	9	4	7	5	0 OF 31
12/ 4/79	16 59 59	7	4	7	5	0 OF 31
12/ 4/79	17 0 10	8	7	7	5	0 OF 31
12/ 4/79	17 0 20	4	4	7	5	0 OF 31
12/ 4/79	17 0 30	3	4	6	5	0 OF 31
12/ 4/79	17 0 40	4	5	6	5	0 OF 31
12/ 4/79	17 0 50	4	5	6	5	0 OF 31
12/ 4/79	17 1 0	0	6	5	5	0 OF 31
12/ 4/79	17 1 10	7	3	5	5	0 OF 31
12/ 4/79	17 1 20	0	5	5	5	0 OF 31
12/ 4/79	17 1 30	1	4	5	5	0 OF 31
12/ 4/79	17 1 .51	0	5	5	5	1 OF 30
12/ 4/79	17 2 1	1	5	5	5	1 OF 30
12/ 4/79	17 2 11	8	5	5	5	1 OF 30
12/ 4/79	17 2 21	2	5	5	5	1 OF 30
12/ 4/79	17 2 .31	4	6	5	5	1 OF 30
12/ 4/79	17 2 41	3	6	5	5	1 OF 30
12/ 4/79	17 2 51	8	5	5	5	1 OF 30
12/ 4/79	17 3 1	7	3	5	5	1 OF 30
12/ 4/79	17 3 11	8	4	5	5	1 OF 30
12/ 4/79	17 3 21	9	4	5	5	1 OF 30
12/ 4/79	17 3 .31	7	5	5	5	1 OF 30

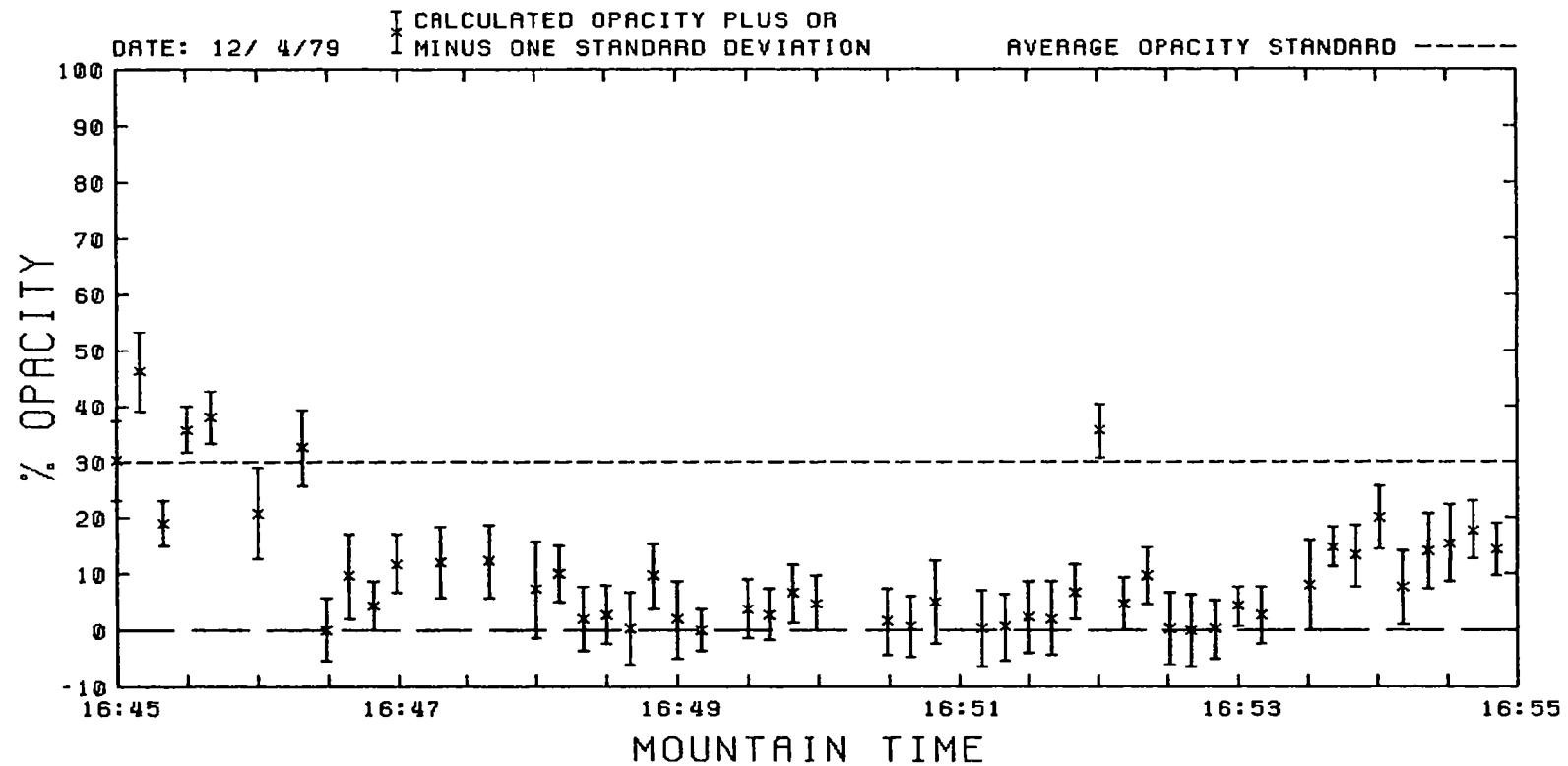
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
DENVER, COLORADO 80225

OMEGA-0026. BLAST FURNACE BAG HOUSE, ASARCO SMELTER, EL PASO, TEX FROM WEST END WAYMORE STREET  
DATE TIME OPACITY SO VIOLATION AVERAGE OPACITY AVERAGE SO VIOLATION NUMBER DISCARDED

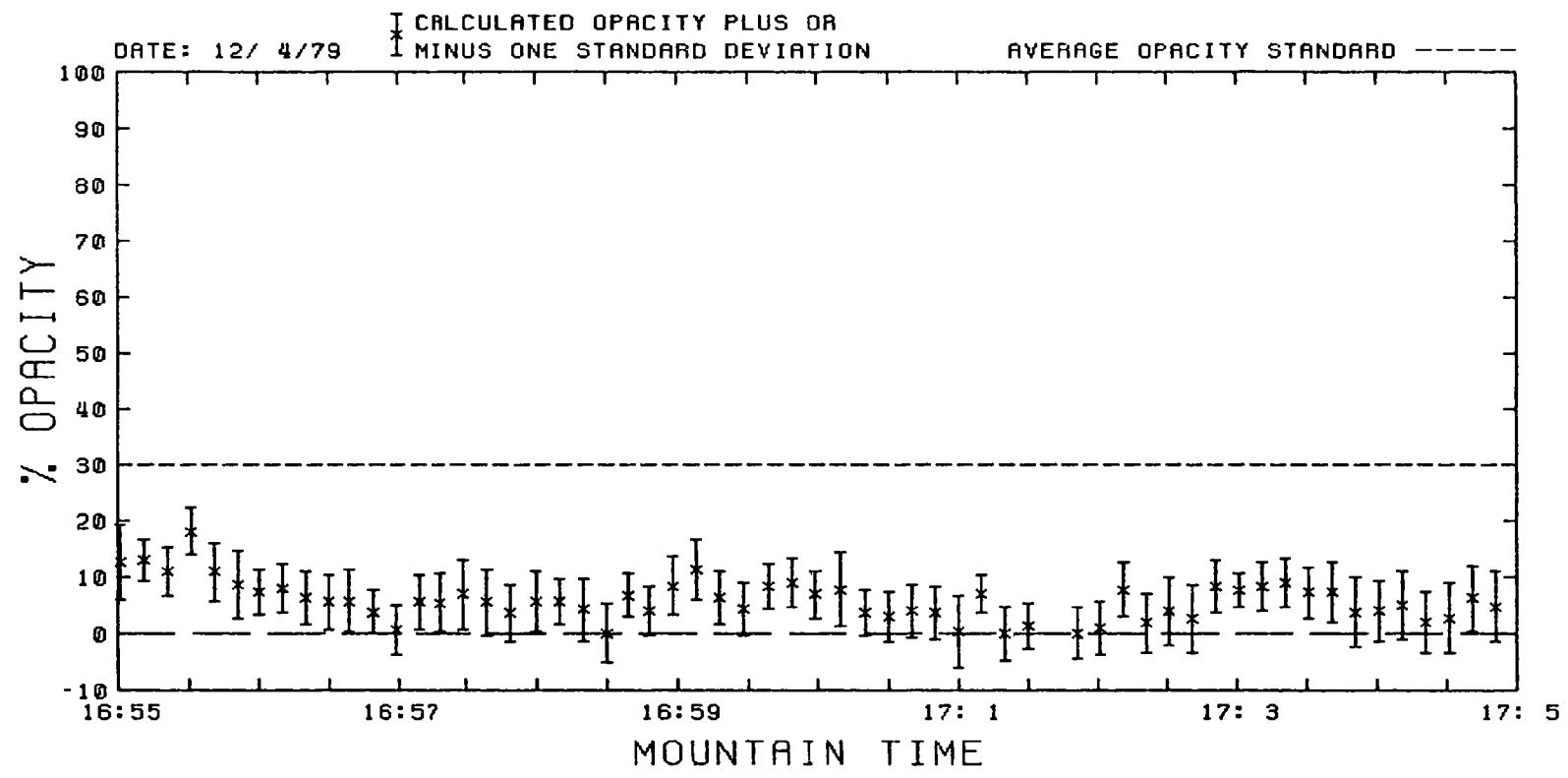
12/ 4/79	17 3 41	7	5	5	5	1	DF	30
12/ 4/79	17 3 51	4	6	5	5	1	DF	30
12/ 4/79	17 4 1	4	5	5	5	1	DF	30
12/ 4/79	17 4 11	5	6	5	5	1	DF	30
12/ 4/79	17 4 21	2	5	5	5	1	DF	30
12/ 4/79	17 4 31	3	6	5	5	1	DF	30
12/ 4/79	17 4 41	6	6	5	5	1	DF	30
12/ 4/79	17 4 51	5	6	5	5	1	DF	30
12/ 4/79	17 5 1	6	6	5	5	1	DF	30
12/ 4/79	17 5 11	8	5	5	5	1	DF	30



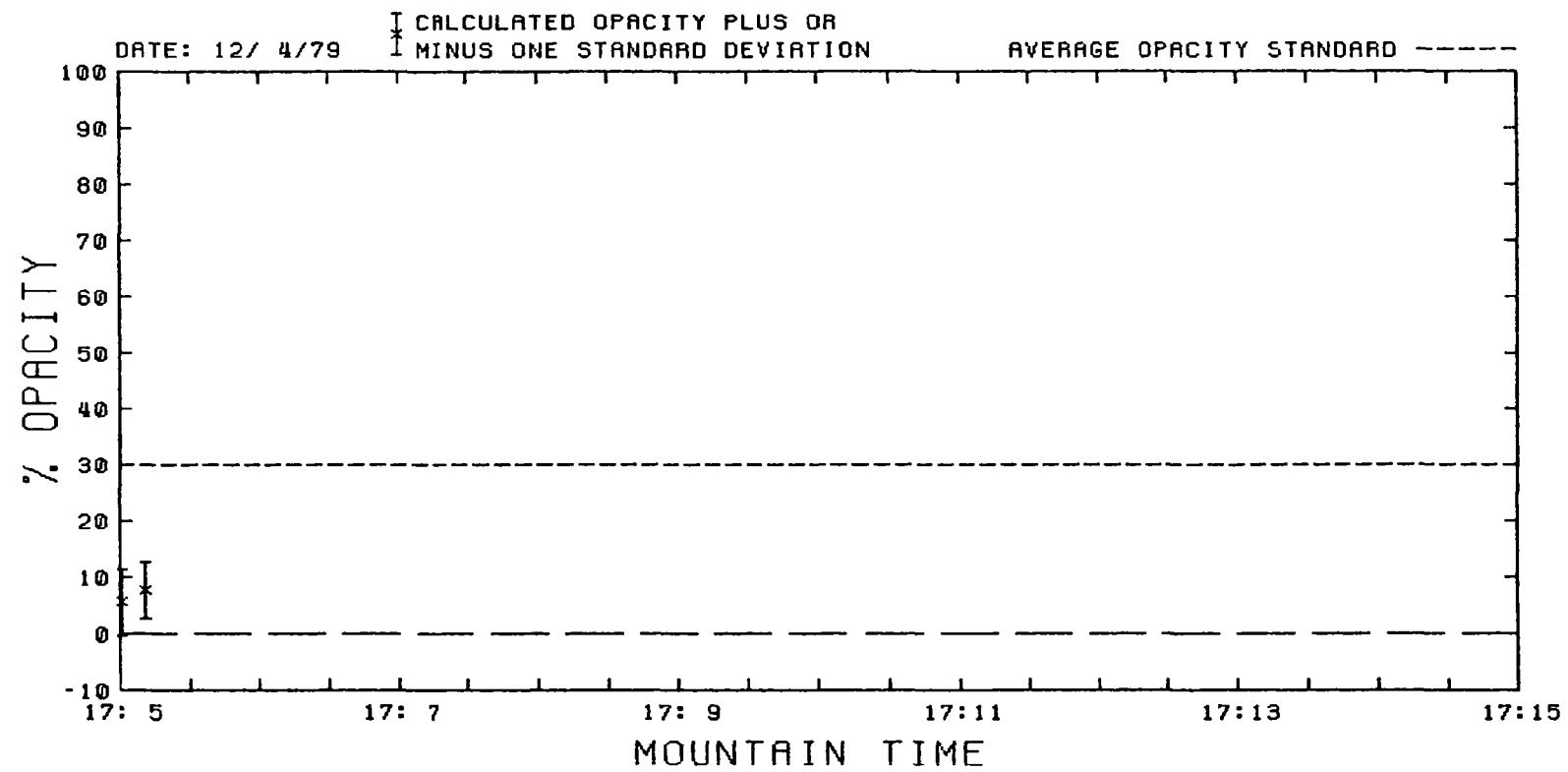
BLAST FURNACE BAG HOUSE, ASARCO SMELTER, EL PASO



BLAST FURNACE BAG HOUSE, ASARCO SMELTER, EL PASO



BLAST FURNACE BAG HOUSE, ASARCO SMELTER, EL PASO



CONVERTER BUILDING ROOF MONITOR

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
 DENVER, COLORADO 80225

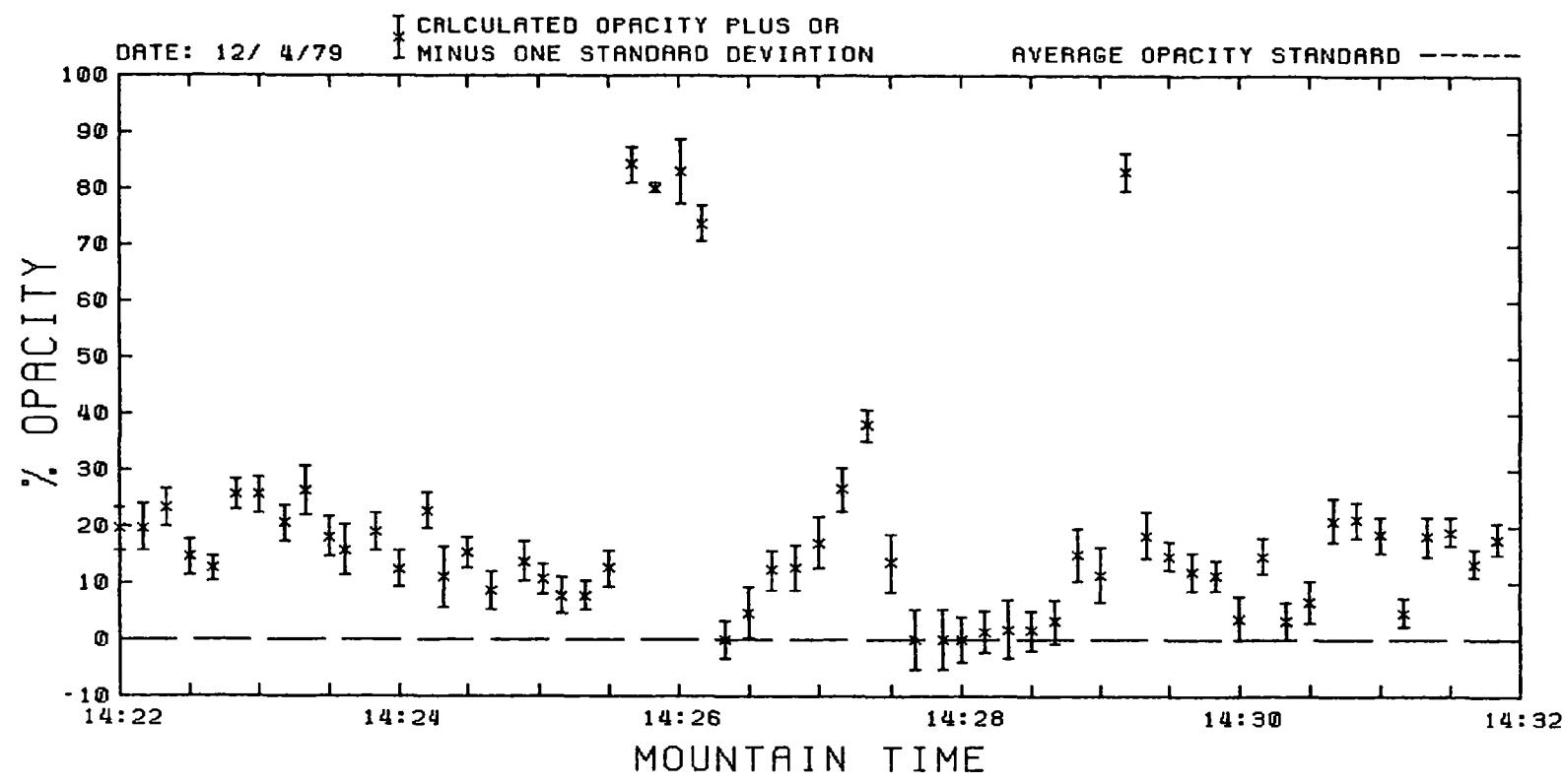
OMEGA-0024, CONVERTER BUILDING, ASARCO SMELTER, EL PASO, TEXAS FROM WEST END OF WAYMORE STREET

DATE	TIME	OPACITY	SO VIOLATION	AVERAGE OPACITY	AVERAGE SO VIOLATION	NUMBER DISCARDED
12/ 4/79	14 22 0	20	4		0	0 OF 0
12/ 4/79	14 22 10	20	4	0	0	0 OF 0
12/ 4/79	14 22 20	23	3	0	0	0 OF 0
12/ 4/79	14 22 30	15	3	0	0	0 OF 0
12/ 4/79	14 22 40	12	2	0	0	0 OF 0
12/ 4/79	14 22 50	26	3	0	0	0 OF 0
12/ 4/79	14 23 0	26	3	0	0	0 OF 0
12/ 4/79	14 23 11	21	3	0	0	0 OF 0
12/ 4/79	14 23 20	26	4	0	0	0 OF 0
12/ 4/79	14 23 30	18	4	0	0	0 OF 0
12/ 4/79	14 23 37	16	5	0	0	0 OF 0
12/ 4/79	14 23 50	19	3	0	0	0 OF 0
12/ 4/79	14 24 0	12	3	0	0	0 OF 0
12/ 4/79	14 24 12	23	3	0	0	0 OF 0
12/ 4/79	14 24 20	11	5	0	0	0 OF 0
12/ 4/79	14 24 30	15	3	0	0	0 OF 0
12/ 4/79	14 24 40	9	3	0	0	0 OF 0
12/ 4/79	14 24 54	14	4	0	0	0 OF 0
12/ 4/79	14 25 2	11	3	0	0	0 OF 0
12/ 4/79	14 25 10	8	3	0	0	0 OF 0
12/ 4/79	14 25 20	8	2	0	0	0 OF 0
12/ 4/79	14 25 30	12	3	0	0	0 OF 0
12/ 4/79	14 25 40	84	3	0	0	0 OF 0
12/ 4/79	14 25 50	80	1	0	0	0 OF 0
12/ 4/79	14 26 1	83	6	0	0	0 OF 0
12/ 4/79	14 26 10	74	3	0	0	0 OF 0
12/ 4/79	14 26 20	0	3	0	0	0 OF 0
12/ 4/79	14 26 30	5	4	0	0	0 OF 0
12/ 4/79	14 26 40	12	4	0	0	0 OF 0
12/ 4/79	14 26 50	13	4	24	3	0 OF 30
12/ 4/79	14 27 0	17	4	24	3	0 OF 31
12/ 4/79	14 27 10	27	4	24	3	0 OF 31
12/ 4/79	14 27 20	38	3	24	3	0 OF 31
12/ 4/79	14 27 30	14	5	24	4	0 OF 31
12/ 4/79	14 27 40	0	5	23	4	0 OF 31
12/ 4/79	14 27 52	0	5	23	4	0 OF 30
12/ 4/79	14 28 0	0	4	22	4	0 OF 31
12/ 4/79	14 28 10	1	4	21	4	0 OF 31
12/ 4/79	14 28 20	2	5	21	4	0 OF 31
12/ 4/79	14 28 30	2	4	20	4	0 OF 31
12/ 4/79	14 28 40	3	4	19	4	0 OF 30
12/ 4/79	14 28 50	15	5	19	4	0 OF 31
12/ 4/79	14 29 0	11	5	19	4	0 OF 31
12/ 4/79	14 29 11	83	3	21	4	0 OF 31
12/ 4/79	14 29 20	18	4	21	4	0 OF 31
12/ 4/79	14 29 30	15	2	21	4	0 OF 31
12/ 4/79	14 29 40	12	3	21	4	0 OF 31
12/ 4/79	14 29 50	11	3	21	4	0 OF 31
12/ 4/79	14 30 0	4	4	21	4	0 OF 31
12/ 4/79	14 30 10	15	3	21	4	0 OF 31

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
NATIONAL ENFORCEMENT INVESTIGATIONS CENTER  
DENVER, COLORADO 80225

OMEGA-0024, CONVERTER BUILDING, ASARCO SMELTER, EL PASO, TEXAS FROM WEST END OF WAYMORE STREET  
DATE TIME OPACITY SO VIOLATION AVERAGE OPACITY AVERAGE SO VIOLATION NUMBER DISCARDED

12/ 4/79	14 30 20	3	3	21	4	0 OF 31
12/ 4/79	14 30 30	7	4	21	4	0 OF 31
12/ 4/79	14 30 40	21	4	21	4	0 OF 31
12/ 4/79	14 30 50	21	3	19	4	0 OF 31
12/ 4/79	14 31 0	19	3	17	4	0 OF 31
12/ 4/79	14 31 10	5	2	15	4	0 OF 31
12/ 4/79	14 31 20	18	4	13	4	0 OF 31
12/ 4/79	14 31 30	19	2	14	4	0 OF 31
12/ 4/79	14 31 40	13	2	14	4	0 OF 31
12/ 4/79	14 31 50	18	3	14	4	0 OF 31



CONVERTER BUILDING, ASARCO SMOELTER, EL PASO, TEXAS