

SEISMIC GROUNDNOISE SURVEY IN THE SAN EMIDIO DESERT  
for:  
STANDARD OIL COMPANY OF CALIFORNIA

**SENTURION SCIENCES, INC.**  
TULSA, U.S.A.

2-9-NOV 58



***SENTURION SCIENCES, INC.***

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*IMAGINEERING for EXPLORATION, ENGINEERING and ENVIRONMENT*

SEISMIC GROUNDNOISE SURVEY IN THE SAN EMIDIO DESERT  
FOR STANDARD OIL COMPANY OF CALIFORNIA

I. INTRODUCTION

Location: San Emidio Desert, Washoe County, Nevada.  
T28,29 30N; R22,23E.

Dates: May 4-9, 1974.

Seismic groundnoise is due to a combination of cultural, atmospheric, and geological disturbances. The resultant microseisms propagate primarily as surface waves with a log normal type of distribution in their power versus frequency plot (Figure A).

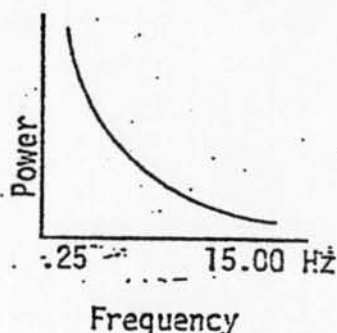


FIGURE A

Microseism power may vary from region to region, but for a given locale it can be considered as originating at a distant source. If the impedance sequence, coupling, and response of seismometers in an array are the same, then the measured power spectrum of the groundnoise would be identical from seismometer station to seismometer station. Since instrument response is identical and ground coupling is good, measured variation of power and frequency may be associated with varying impedance sequences beneath each station.

A local noise generator may also be responsible for power and frequency anomalies. Such an energy source is caused by a circulating steam/water system; deep volcanic activity, fluid flow in a fault system, pres-

sure fluctuations, and other associated expressions of tectonic activity.

The recorded time series (24 hrs.) at each groundnoise station is searched for a "quiet" interval (3 hrs. or more); and this is spectrally analyzed for the true ground beat at that station.

The data from all stations is statistically evaluated for each specified parameter (Integrated Power, Mean Frequency, etc.) and the parameter(s) tabulated and contoured. Based on the statistical analysis, parameters exhibiting more than 1 standard deviation above the mean can be considered anomalous. In groundnoise surveys an anomaly is defined as an area in which two or more parameters exhibit values greater than 1 standard deviation, Figure 3, Anomalous Areas Map.

## II. OVERVIEW

The purpose of the survey was to investigate the possibilities of areas of geothermal interest. A complementary objective included delineation of structural features due to faulting.

## III. RESULTS

The San Emidio survey consists of 36 stations on a 1+ mile grid. It is contained in an area of approximately 5 mi (E-W) by 16 mi (N-S).

Statistical data is contained in Table 1.

Parameter	Average	Standard Deviation	% Std. Dev.
Integrated Power (db)	31.87	9.37	29.41
Mean Frequency (Hz)	6.34	0.86	13.62
36 Stations			

Table 1.

A major groundnoise anomaly occurs at the intersection of Sec. 17, 18, 19, 20 of T29NR23E, Figure 3, Anomalous Areas. The fault pattern lends itself to two possible interpretations. If the existence of a strike-slip NNW trending fault is feasible, the horst structure of faults T-U and T'-U' indicates this displacement. T and U are expressed to the west by Rodeo Creek and Rattlesnake Canyon. There is also an indication of this possibility through the structural displacement of the northern



portion of Lake Range separated by the Three Mile Canyon showing NW/SE slip. This interpretation is indicated on the Anomalous Areas Map, Figure 3.

The alternate possibility is faulting normal to the NNE structural trend with Fault T-T' and U-U' striking WNW-ESE. Fault X is then expressed out of Stage Canyon trending NE through the southern portion of the survey. This interpretation establishes the groundnoise anomaly in a downthrown fault block. Fault V on cross sections A-A' and C-C' is topographically indicated by the Three Mile Canyon to the south.

#### IV. COMMENTS - RECOMMENDATIONS

Interpretation of faulting was aided by correlation of topography and power/frequency cross-sections. The major anomaly is also expressed via SP measurements made by Senturion Sciences. See Self Potential Survey, San Emidio, Nevada, dated June 1, 1974. Further work is in progress utilizing stations 1.1 through 6.1 as control stations for microearthquake investigations. Heat flow test holes are recommended to provide complementary information on this prospective area.

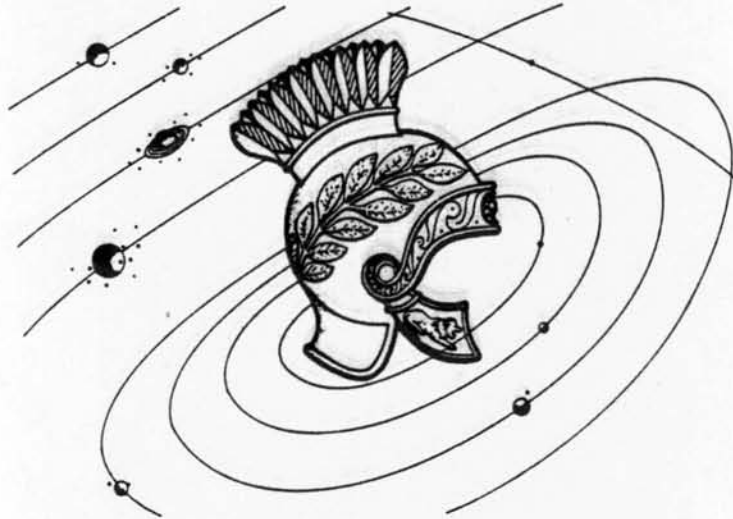
The computer generated grids for contouring were developed on  $\frac{1}{2}$  mi grid intervals. Data is stored for additional processing if required.

## V. LIST OF FIGURES AND APPENDIX

2	CONTOUR MAP OF INTEGRATED POWER	Figure 1.
2	CONTOUR MAP OF MEAN FREQUENCY	Figure 2.
2	ANOMALOUS AREAS AND STRUCTURE	Figure 3.
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	CONTOUR MAP OF FREQUENCY OF PREDOMINANT POWER	Figure
	CONTOUR MAP OF FREQUENCY ANALYZED DATA	Figure
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3	CROSS SECTIONS    2 ea.	
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	B-B'	Figure 5.
	C-C'	Figure 6.
		Figure

### APPENDIX

36	POWER SPECTRAL DENSITY PLOTS
	STATISTICS AND DEVIATIONS
	GROUNDNOISE SUMMARY
1	COMPUTER LISTING
	ADDITIONAL DATA



APPENDIX

SEISMIC GROUNDNOISE SURVEY IN THE SAN EMIDIO DESERT

for:

STANDARD OIL COMPANY OF CALIFORNIA

2-9-NV9SE3

**SENTURION SCIENCES, INC.**

TULSA, U.S.A.



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P.O. BOX 15447, TULSA, OKLAHOMA 74115  
PHONE (918) 836-6746

***IMAGINEERING for EXPLORATION, ENGINEERING and ENVIRONMENT***

APPENDIX

SAN EMIDIO DESERT GROUNDNOISE



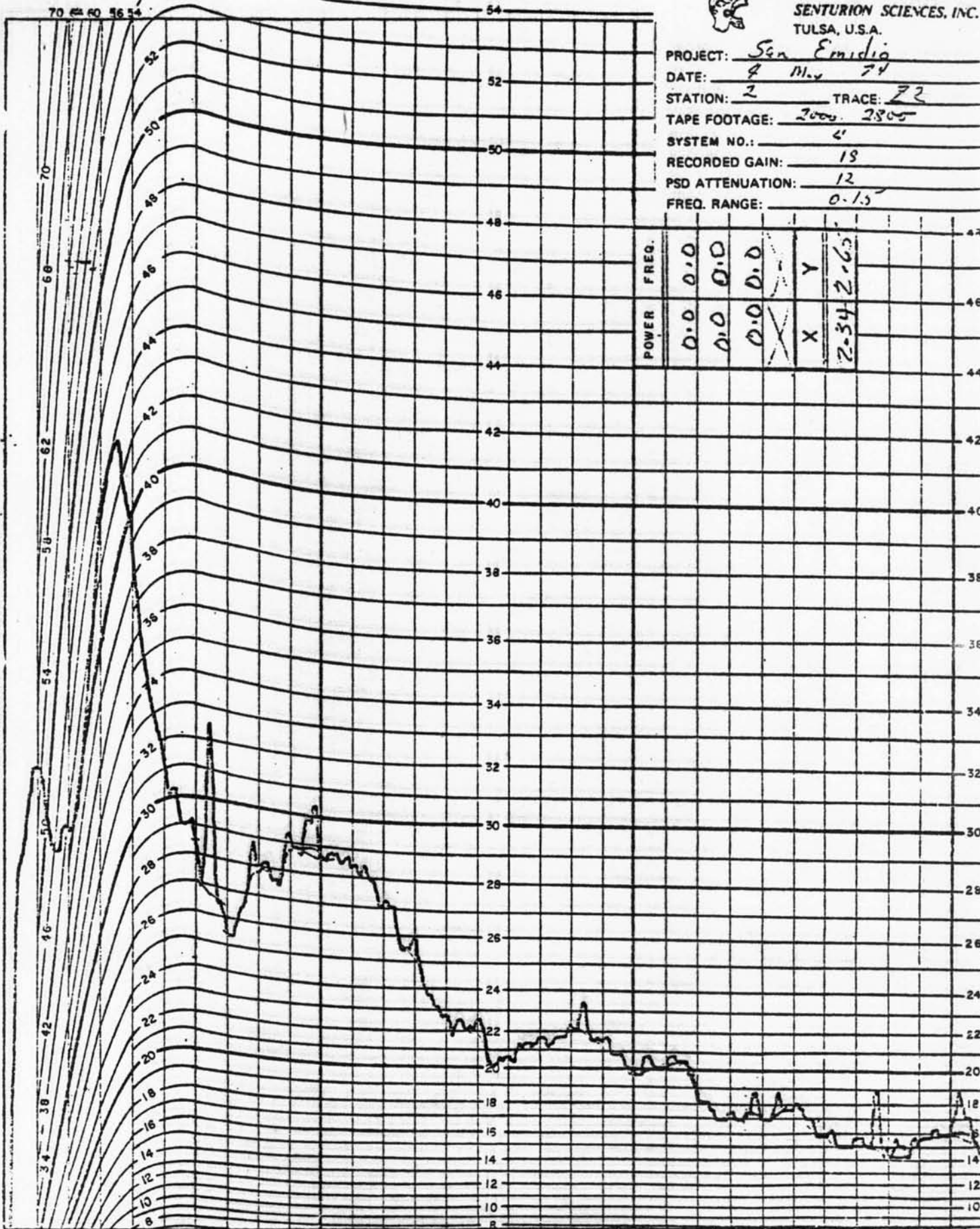




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PROJECT: Sen Emidio  
 DATE: 4 Nov 74  
 STATION: 2 TRACE: 22  
 TAPE FOOTAGE: 2000 2800  
 SYSTEM NO.: 4  
 RECORDED GAIN: 18  
 PSD ATTENUATION: 12  
 FREQ. RANGE: 0-1.5

RELATIVE POWER IN db



POWER	FREQ.
0.0	0.0
0.0	0.0
0.0	0.0
X	Y
2.34	2.65

59.0  
42.0  
41.0  
39.0  
31.1  
28.5  
33.4  
28.0  
28.8  
38.6  
38.4  
37.0  
35.2  
32.8  
22.0  
20.5  
19.6  
22.0  
21.7  
19.8  
20.2  
18.5  
17.0  
17.0  
17.9  
16.0  
15.0  
14.1  
15.5  
15.0

HS-10 2000 Ω Absolute

FREQUENCY

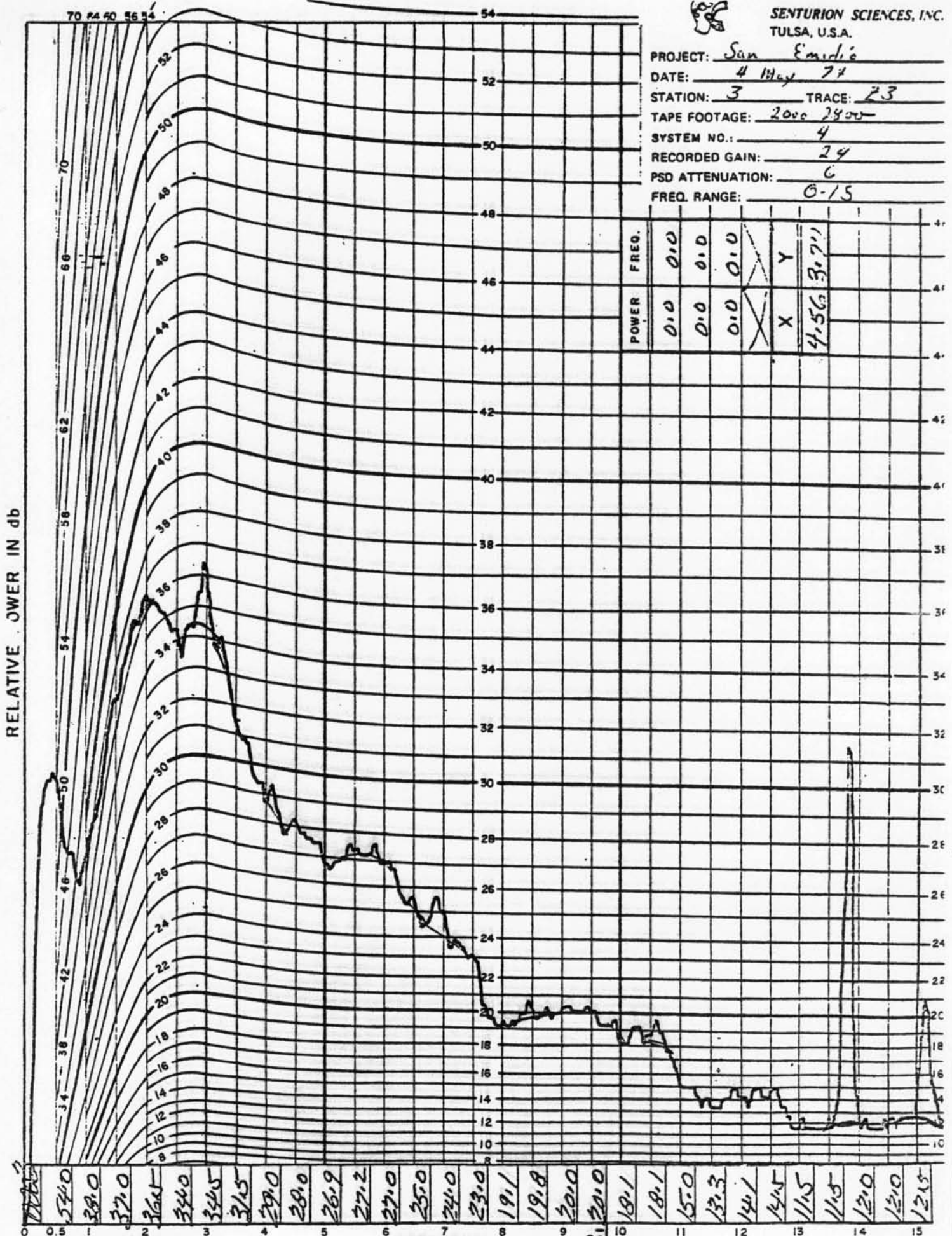
END CARD 1





PROJECT: San Emedic  
 DATE: 4 May 71  
 STATION: 3 TRACE: 23  
 TAPE FOOTAGE: 2000 2400  
 SYSTEM NO.: 4  
 RECORDED GAIN: 24  
 PSD ATTENUATION: 6  
 FREQ. RANGE: 0-15

RELATIVE POWER IN db

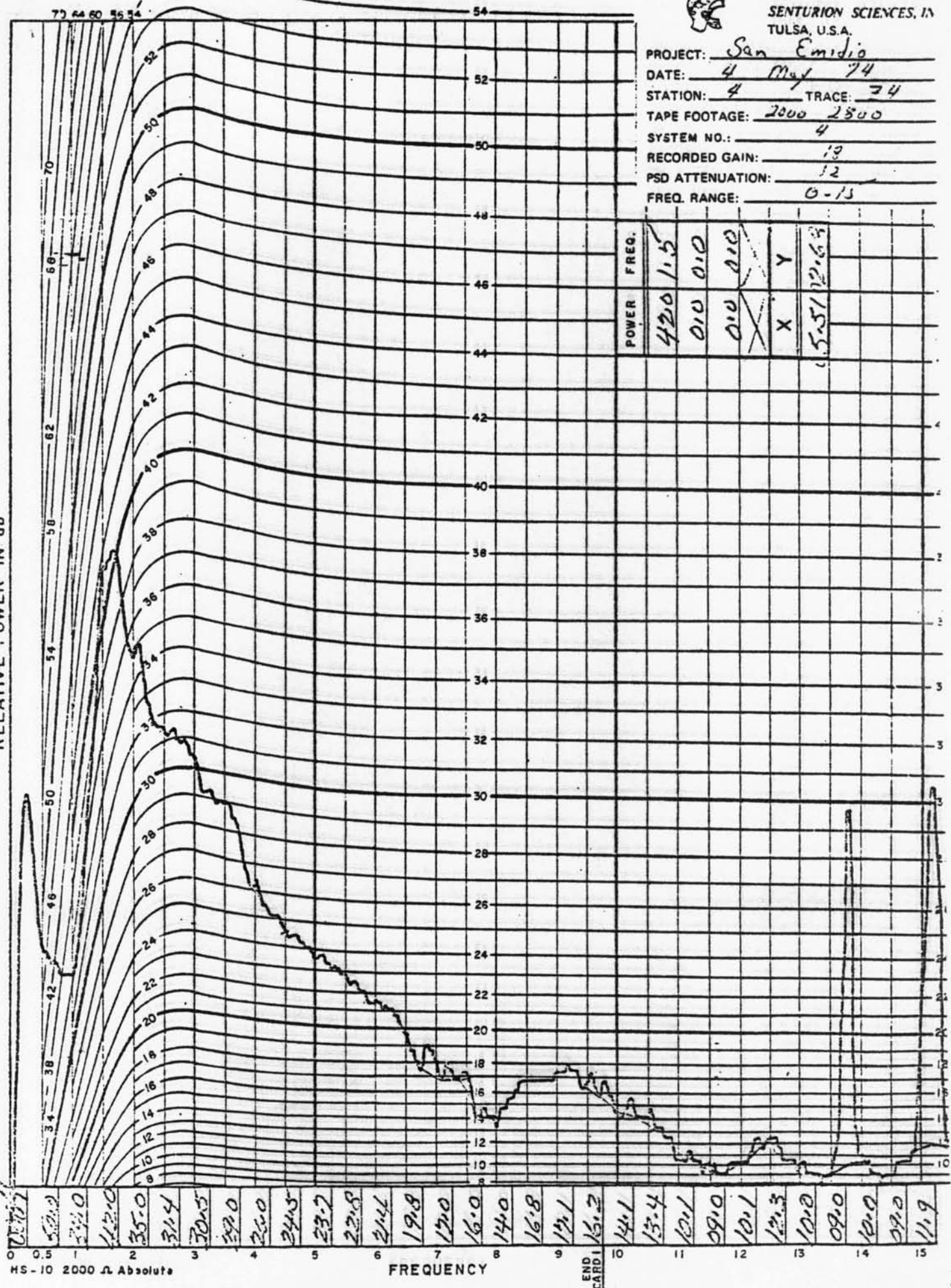


POWER	FREQ.
0.0	0.0
0.0	0.0
0.0	0.0
X	Y
4.56	3.71

54.0  
 38.0  
 37.0  
 36.5  
 34.0  
 34.5  
 31.5  
 29.0  
 28.0  
 26.9  
 27.2  
 27.0  
 25.0  
 24.0  
 23.0  
 19.1  
 19.8  
 20.0  
 20.0  
 18.1  
 18.1  
 15.0  
 13.3  
 14.1  
 14.5  
 11.5  
 11.5  
 12.0  
 12.0  
 12.5

PROJECT: San Emidio  
 DATE: 4 May 74  
 STATION: 4 TRACE: 74  
 TAPE FOOTAGE: 2000 2500  
 SYSTEM NO.: 4  
 RECORDED GAIN: 18  
 PSD ATTENUATION: 12  
 FREQ. RANGE: 0-15

RELATIVE POWER IN db



POWER	FREQ.
420	1.5
0.0	0.0
0.0	0.0
X	Y
5.5	12.63

0.5 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

34 38 42 46 50 54 58 62 66 70 74

8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54

0.5 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

34.0 35.0 31.4 30.5 29.0 26.0 24.5 23.7 22.8 21.1 19.8 17.0 14.0 16.8 17.1 16.2 14.1 13.4 10.1 09.0 10.1 12.3 10.0 09.0 10.0 09.0 11.9

HS-10 2000 Ω Absolute

FREQUENCY

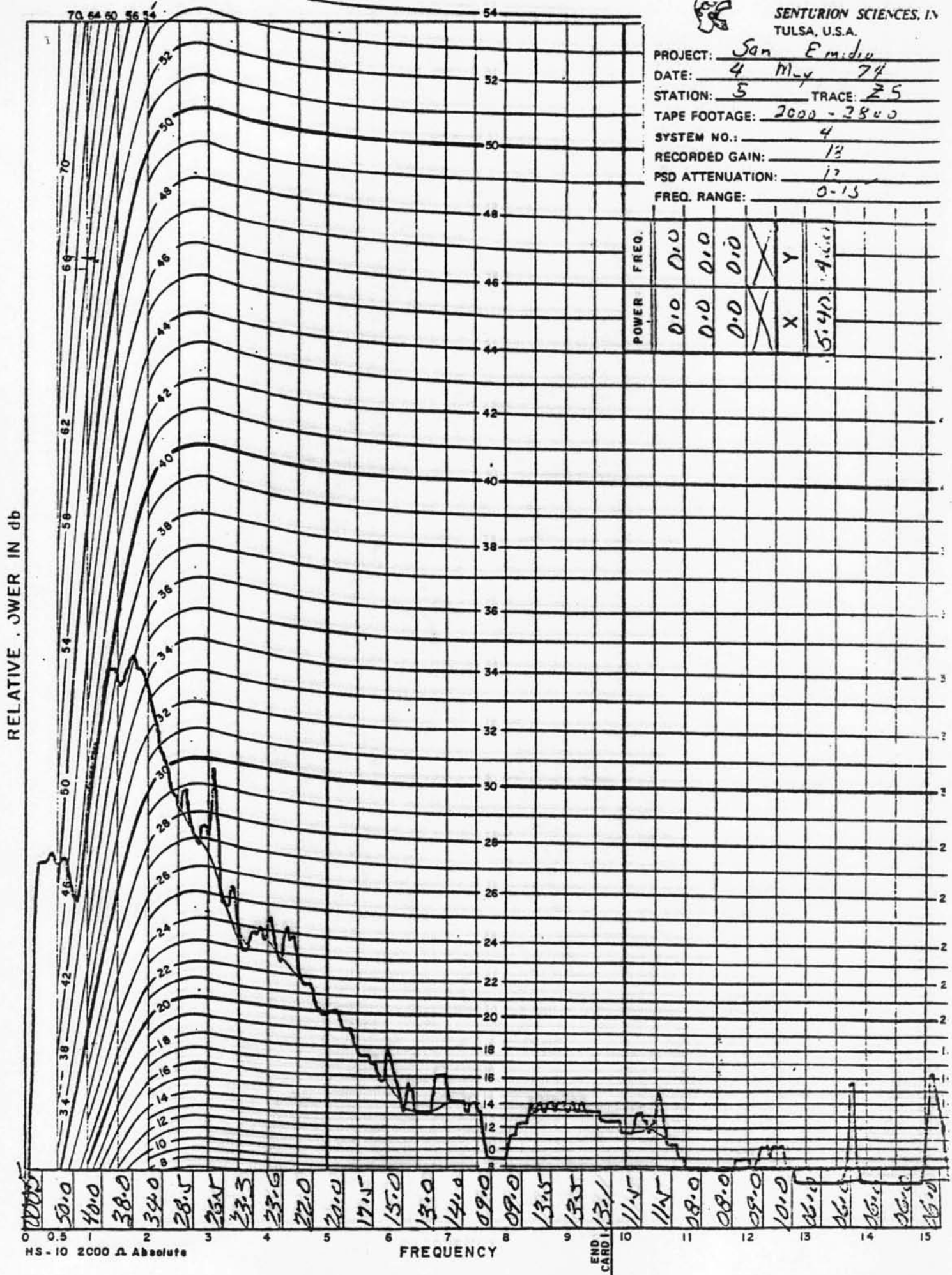
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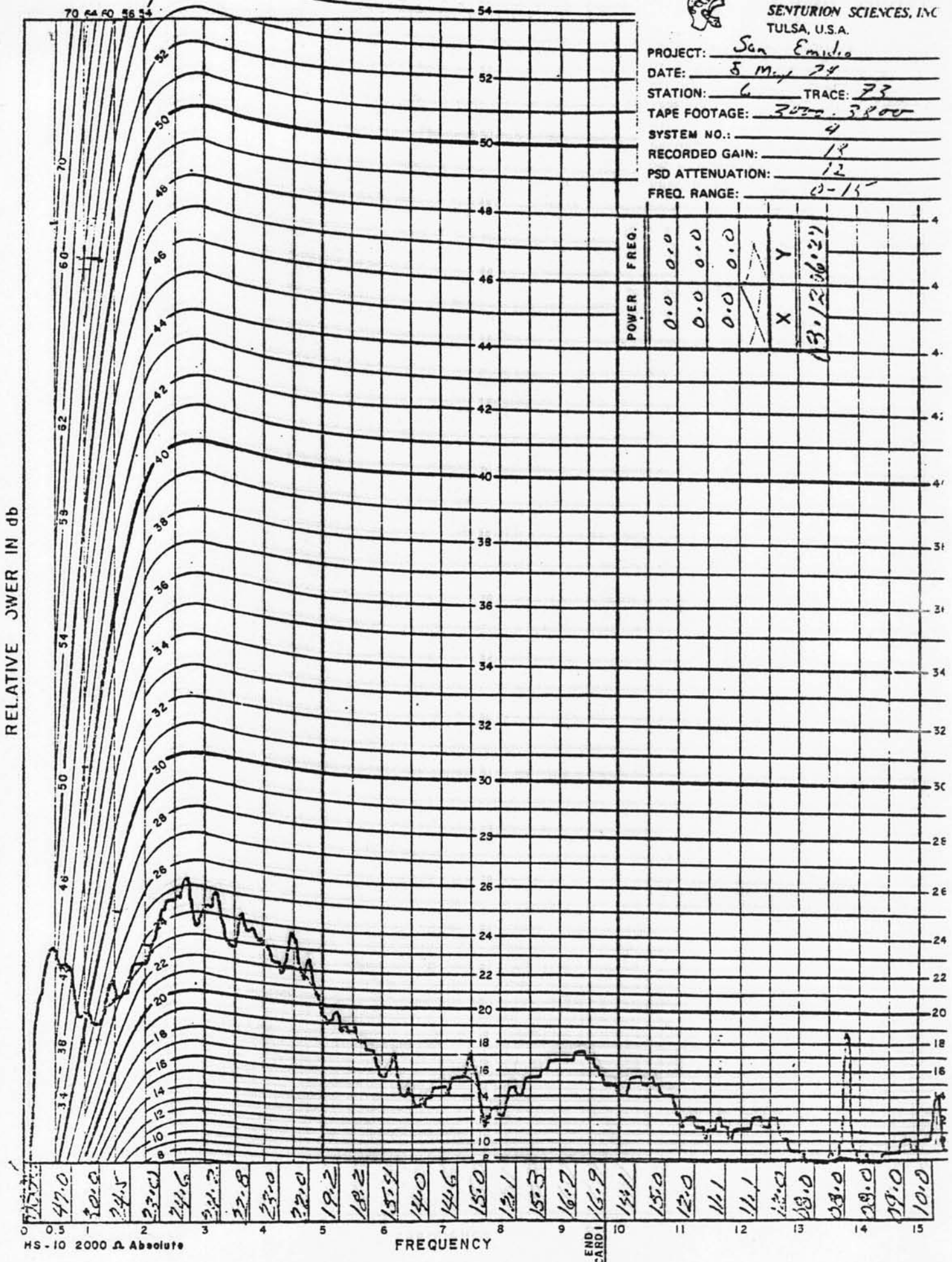
PROJECT: San E. midio  
 DATE: 4 May 74  
 STATION: 5 TRACE: 25  
 TAPE FOOTAGE: 2000 - 2800  
 SYSTEM NO.: 4  
 RECORDED GAIN: 12  
 PSD ATTENUATION: 12  
 FREQ. RANGE: 0-15



POWER	FREQ.
0.0	0.0
0.0	0.0
0.0	0.0
X	X
X	Y
	5.40

END CARD 13

PROJECT: San Emilio  
 DATE: 5 May 74  
 STATION: 6 TRACE: 73  
 TAPE FOOTAGE: 2000-3800  
 SYSTEM NO.: 4  
 RECORDED GAIN: 18  
 PSD ATTENUATION: 12  
 FREQ. RANGE: 0-15

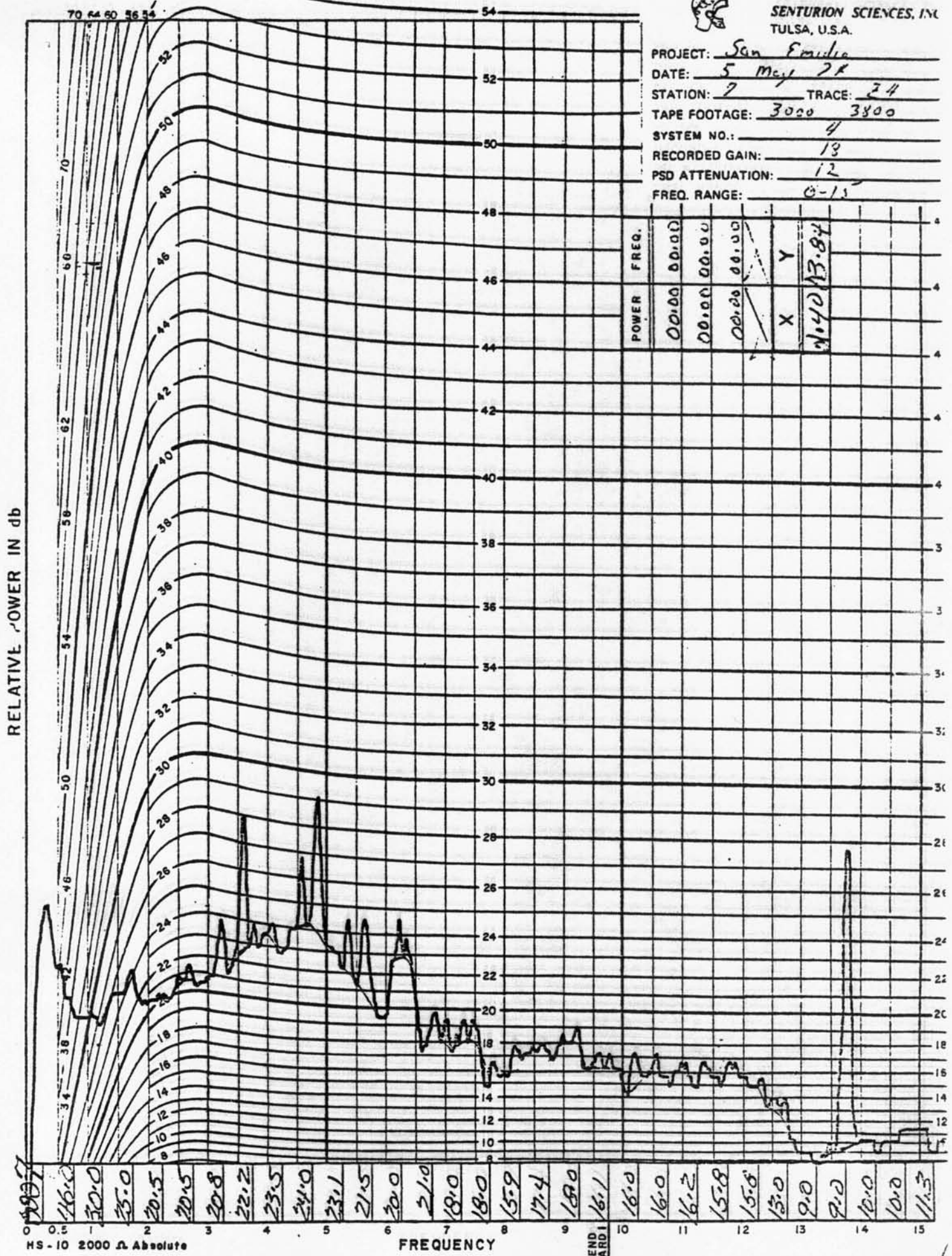






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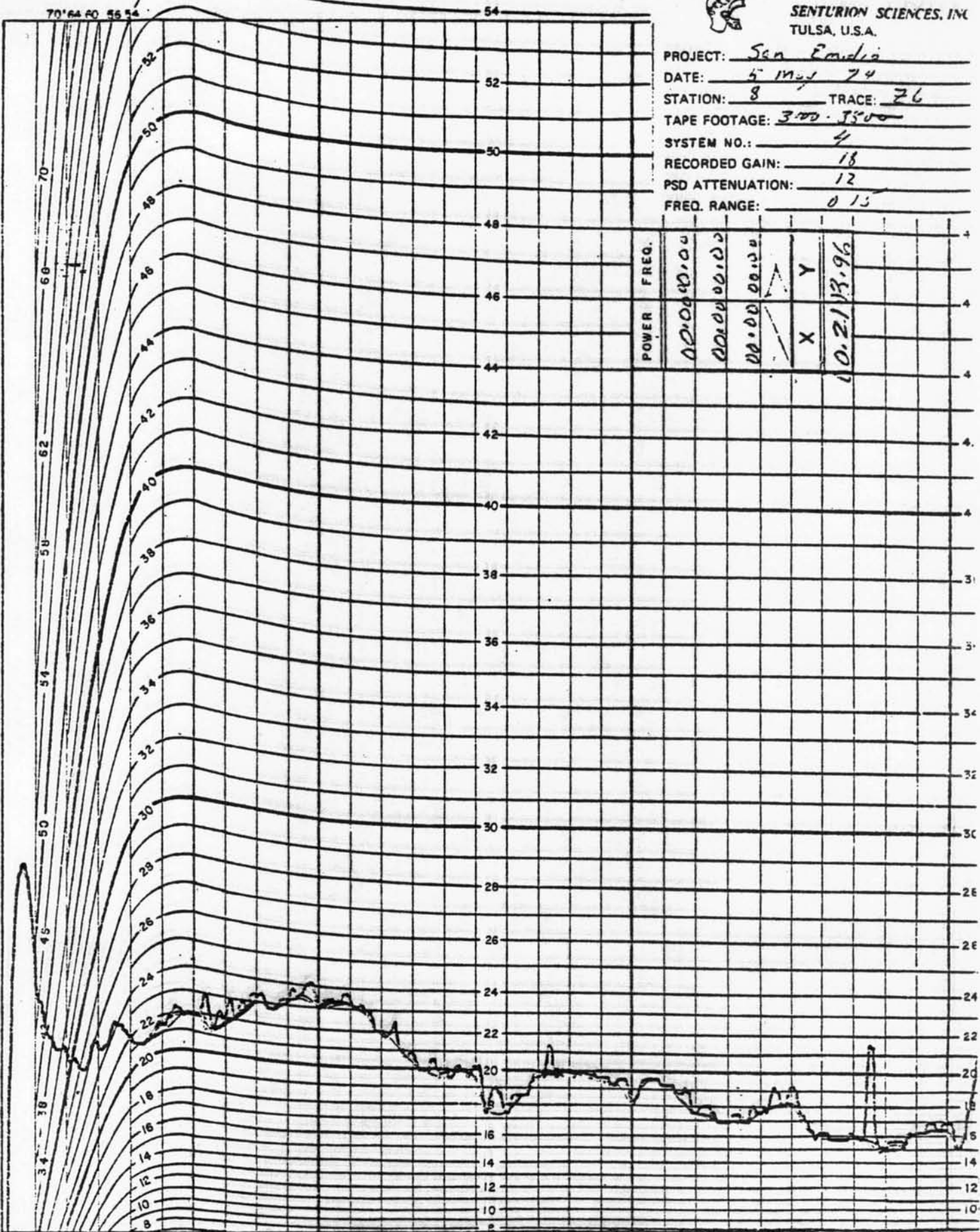
PROJECT: San Emilio  
 DATE: 5 May 78  
 STATION: 7 TRACE: 24  
 TAPE FOOTAGE: 3000 3800  
 SYSTEM NO.: 4  
 RECORDED GAIN: 18  
 PSD ATTENUATION: 12  
 FREQ. RANGE: 0-13



007  
 16.0  
 20.0  
 25.0  
 20.5  
 20.5  
 20.8  
 22.2  
 23.5  
 24.0  
 23.1  
 21.5  
 20.0  
 21.0  
 18.0  
 18.0  
 15.9  
 17.4  
 18.0  
 16.1  
 16.0  
 16.0  
 16.2  
 15.8  
 15.8  
 13.0  
 9.0  
 9.0  
 10.0  
 10.0  
 11.3  
 HS-10 2000  $\Omega$  Absolute  
 FREQUENCY  
 END CARD 1

PROJECT: Sea Emilia  
 DATE: 5 May 74  
 STATION: 8 TRACE: 26  
 TAPE FOOTAGE: 300-3500  
 SYSTEM NO.: 4  
 RECORDED GAIN: 18  
 PSD ATTENUATION: 12  
 FREQ. RANGE: 0.15

RELATIVE JWVER IN db



POWER	FREQ.
00.00	00.00
00.00	00.00
00.00	00.00
X	Y
10.2/13.9%	

FREQUENCY	RELATIVE JWVER IN db
0.5	47.0
1.0	32.0
2.0	25.0
3.0	22.0
4.0	22.0
5.0	23.0
6.0	22.0
7.0	20.3
8.0	19.5
9.0	17.4
10.0	19.9
11.0	19.0
12.0	17.5
13.0	17.0
14.0	17.8
15.0	18.0
16.0	16.0
17.0	15.0
18.0	16.0
19.0	16.1









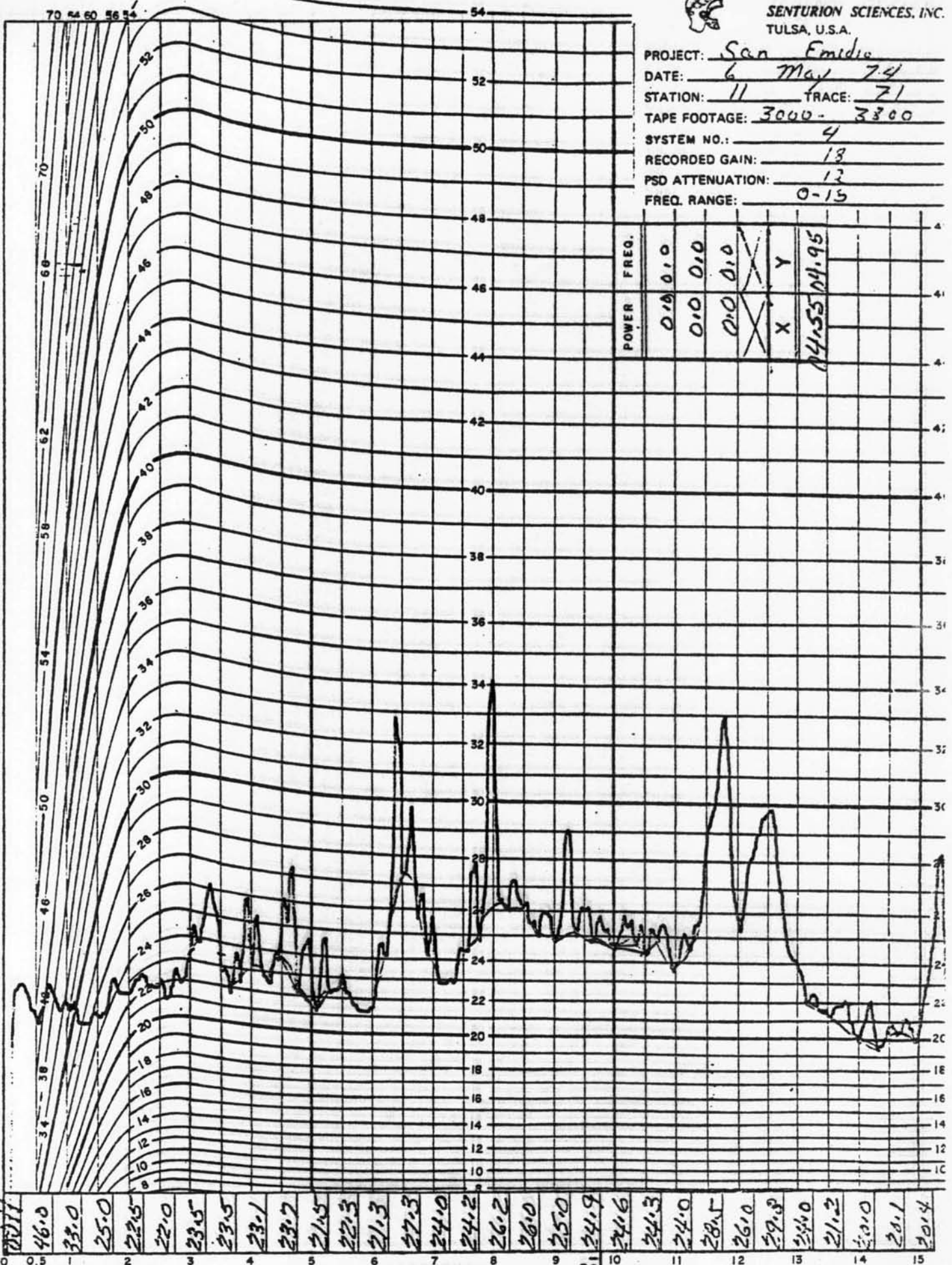


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PROJECT: San Emedio  
 DATE: 6 May 74  
 STATION: 11 TRACE: 71  
 TAPE FOOTAGE: 3000-3300  
 SYSTEM NO.: 4  
 RECORDED GAIN: 13  
 PSD ATTENUATION: 13  
 FREQ. RANGE: 0-15

POWER	FREQ.
0.10	0.0
0.10	0.0
0.10	0.0
X	X
X	Y
14.55 14.95	

RELATIVE POWER IN db



46.0	33.0	25.0	22.5	22.0	23.5	23.1	23.7	21.5	22.3	21.3	27.3	24.0	24.2	26.2	26.0	25.0	24.9	24.6	24.3	24.0	28.5	26.0	29.8	24.0	21.2	20.0	20.1	20.4
------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------

HS-10 2000 Ω Absolute

FREQUENCY

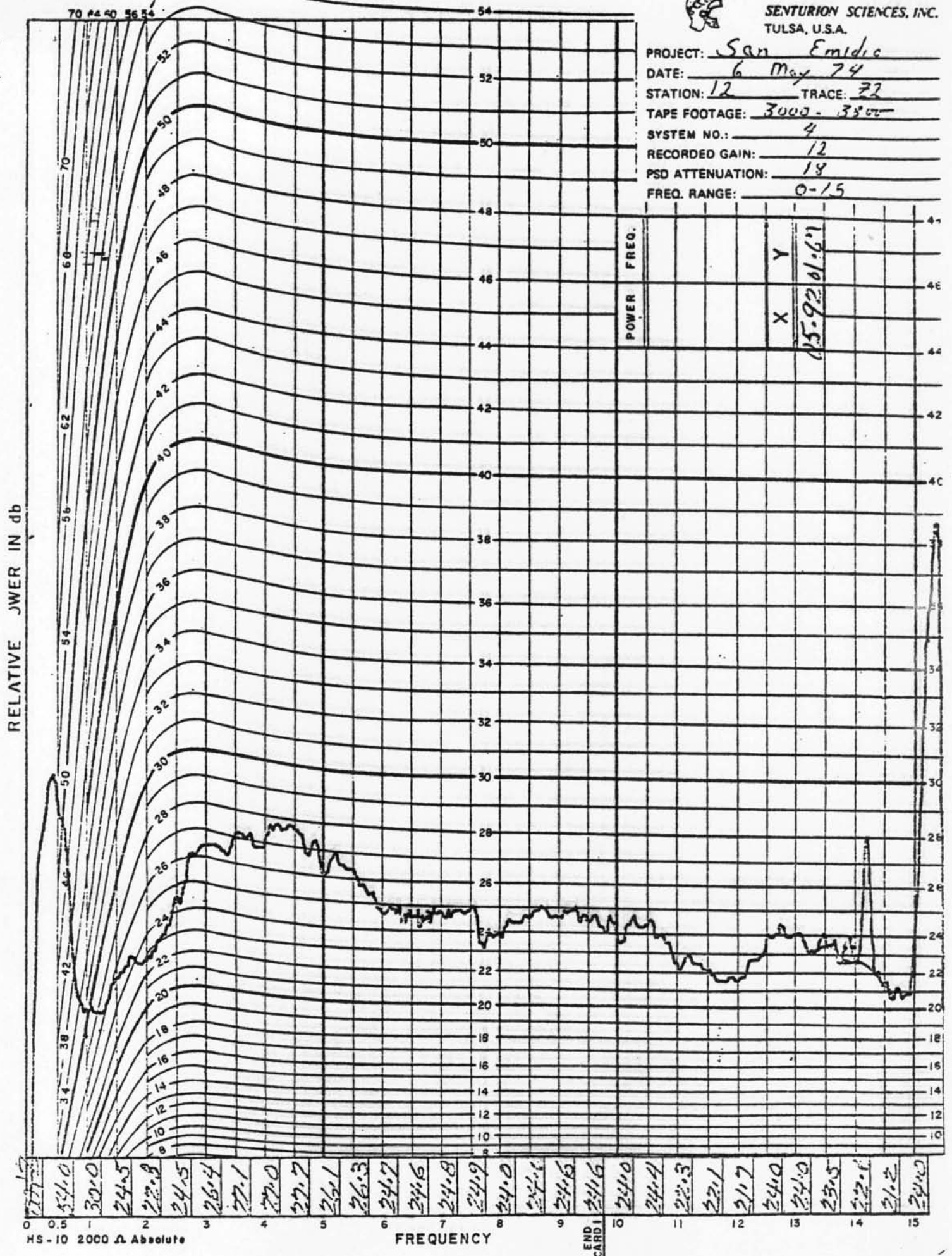
END CARD





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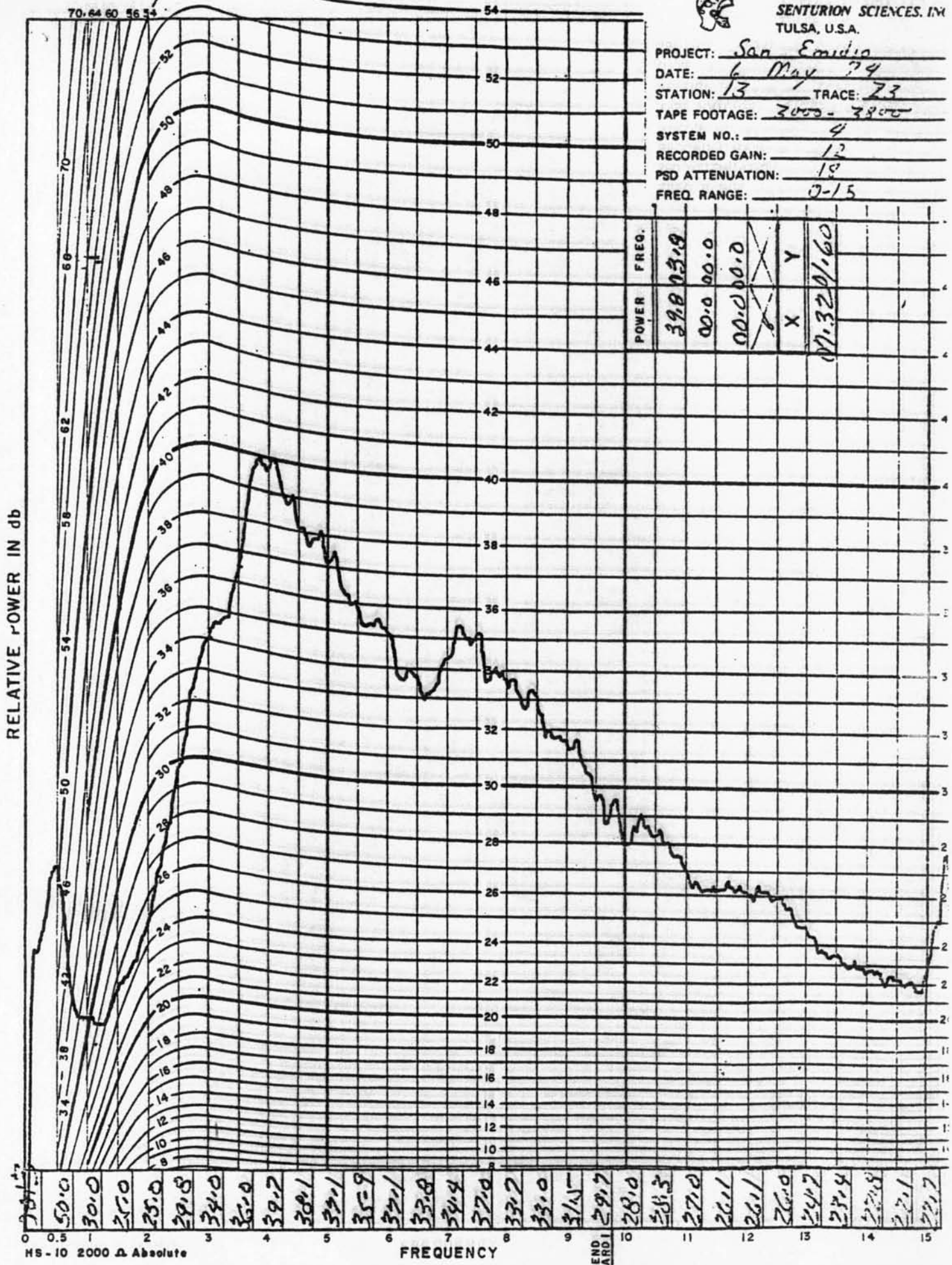
PROJECT: San Emidio  
 DATE: 6 May 74  
 STATION: 12 TRACE: 72  
 TAPE FOOTAGE: 3000 - 3500  
 SYSTEM NO.: 4  
 RECORDED GAIN: 12  
 PSD ATTENUATION: 18  
 FREQ. RANGE: 0-15





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PROJECT: San Emidio  
 DATE: 6 May 74  
 STATION: 13 TRACE: 23  
 TAPE FOOTAGE: 2000 - 2800  
 SYSTEM NO.: 4  
 RECORDED GAIN: 12  
 PSD ATTENUATION: 18  
 FREQ. RANGE: 0-15



HS-10 2000 Δ Absolute

FREQUENCY

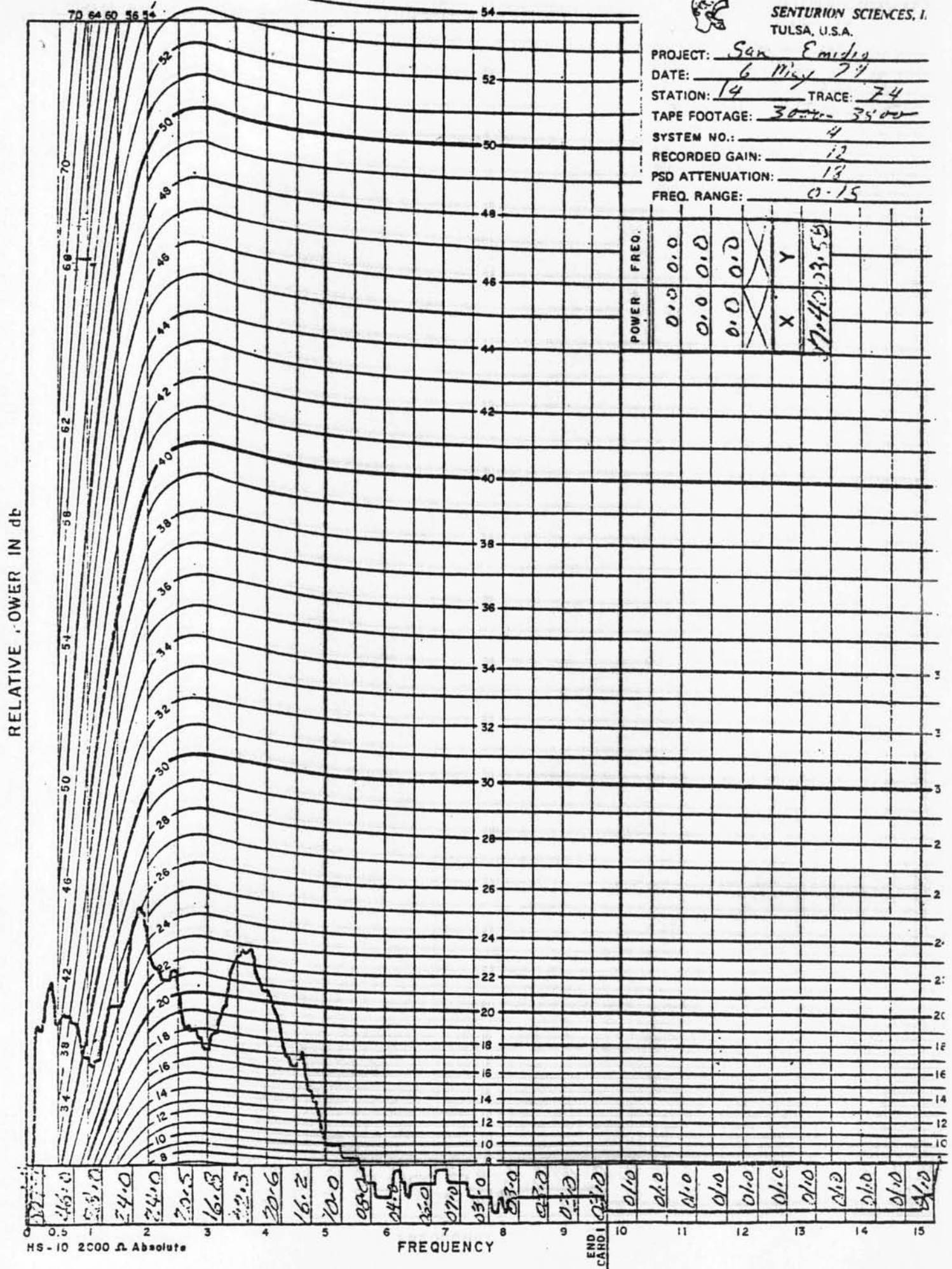
END CARD





SENTURION SCIENCES, I.  
TULSA, U.S.A.

PROJECT: San Emidio  
 DATE: 6 May 77  
 STATION: 14 TRACE: 74  
 TAPE FOOTAGE: 30:00-35:00  
 SYSTEM NO.: 4  
 RECORDED GAIN: 12  
 PSD ATTENUATION: 18  
 FREQ. RANGE: 0-15



RELATIVE POWER IN dB

HS-10 2000  $\Omega$  Absolute

FREQUENCY

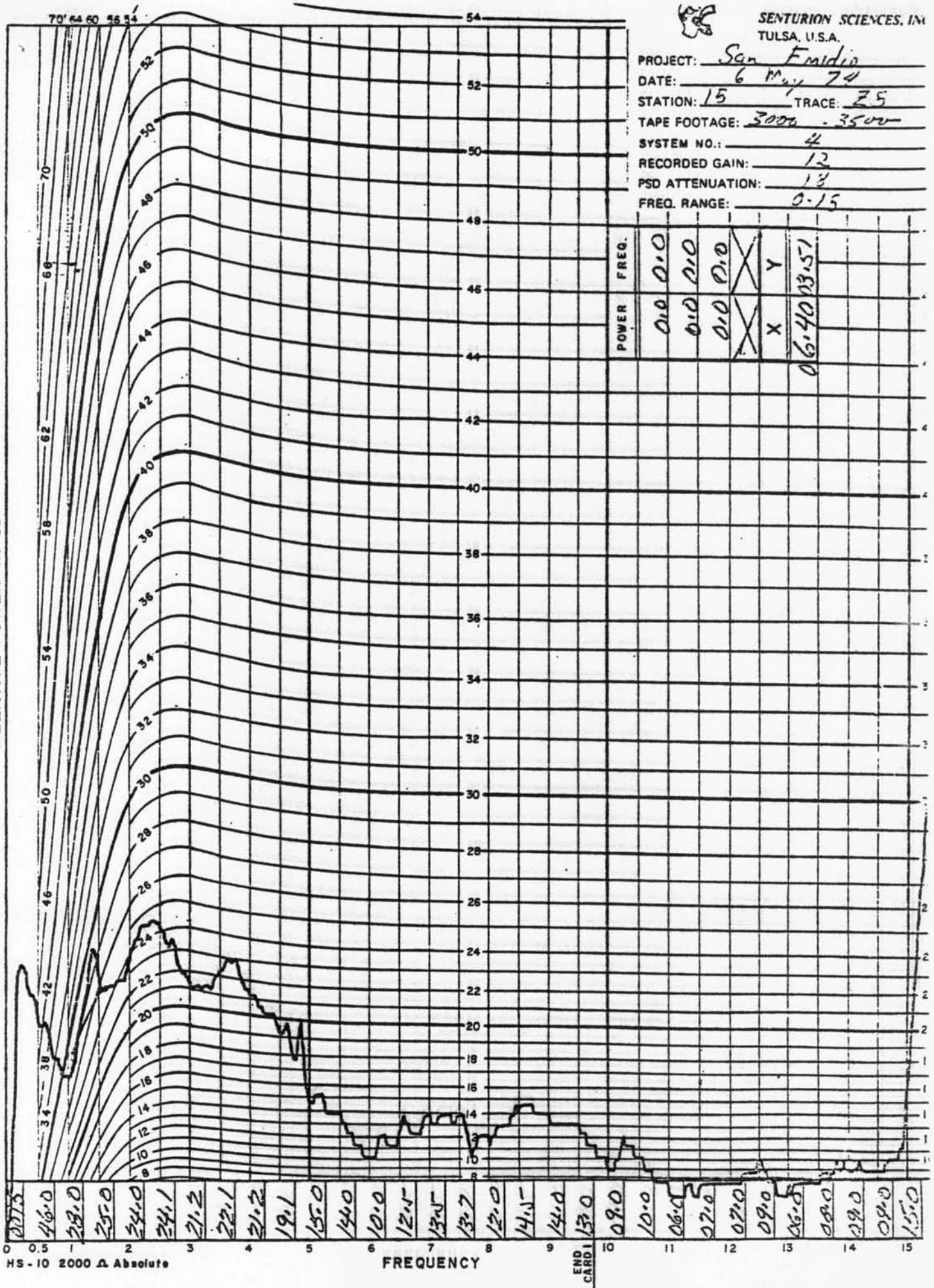
END CARD 1



SENTURION SCIENCES, INC.  
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PROJECT: San Fmidia  
 DATE: 6 May 74  
 STATION: 15 TRACE: Z5  
 TAPE FOOTAGE: 3000 - 3500  
 SYSTEM NO.: 4  
 RECORDED GAIN: 12  
 PSD ATTENUATION: 18  
 FREQ. RANGE: 0-15

RELATIVE POWER IN db



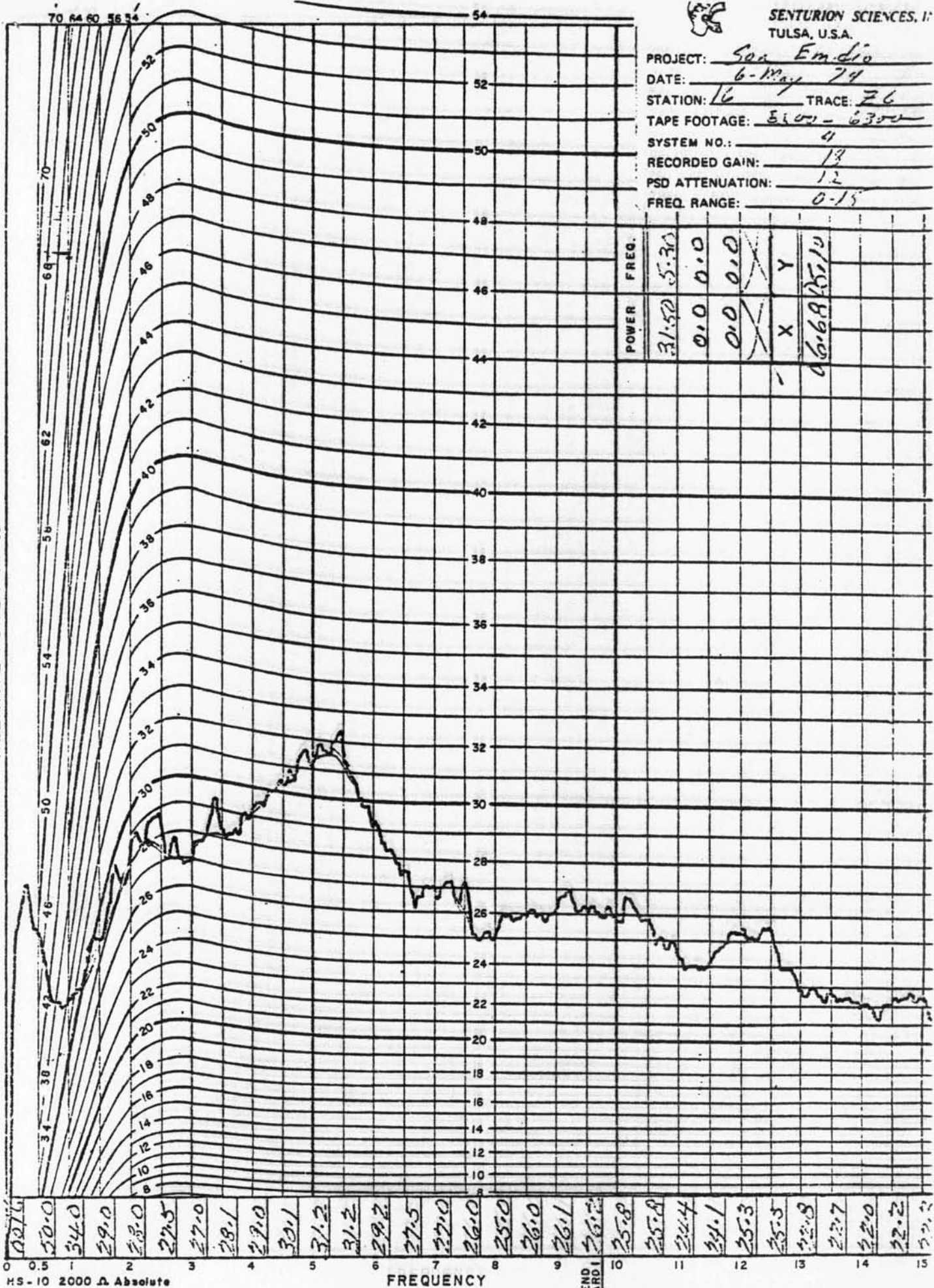
HS-10 2000 Δ Absolute

FREQUENCY

END CARD 1



RELATIVE POWER IN db



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PROJECT: Sea Em-dio  
 DATE: 6-May 74  
 STATION: 16 TRACE: 76  
 TAPE FOOTAGE: 5100-6300  
 SYSTEM NO.: 4  
 RECORDED GAIN: 13  
 PSD ATTENUATION: 12  
 FREQ. RANGE: 0-15

HS-10 2000 A Absolute

FREQUENCY

END CARD

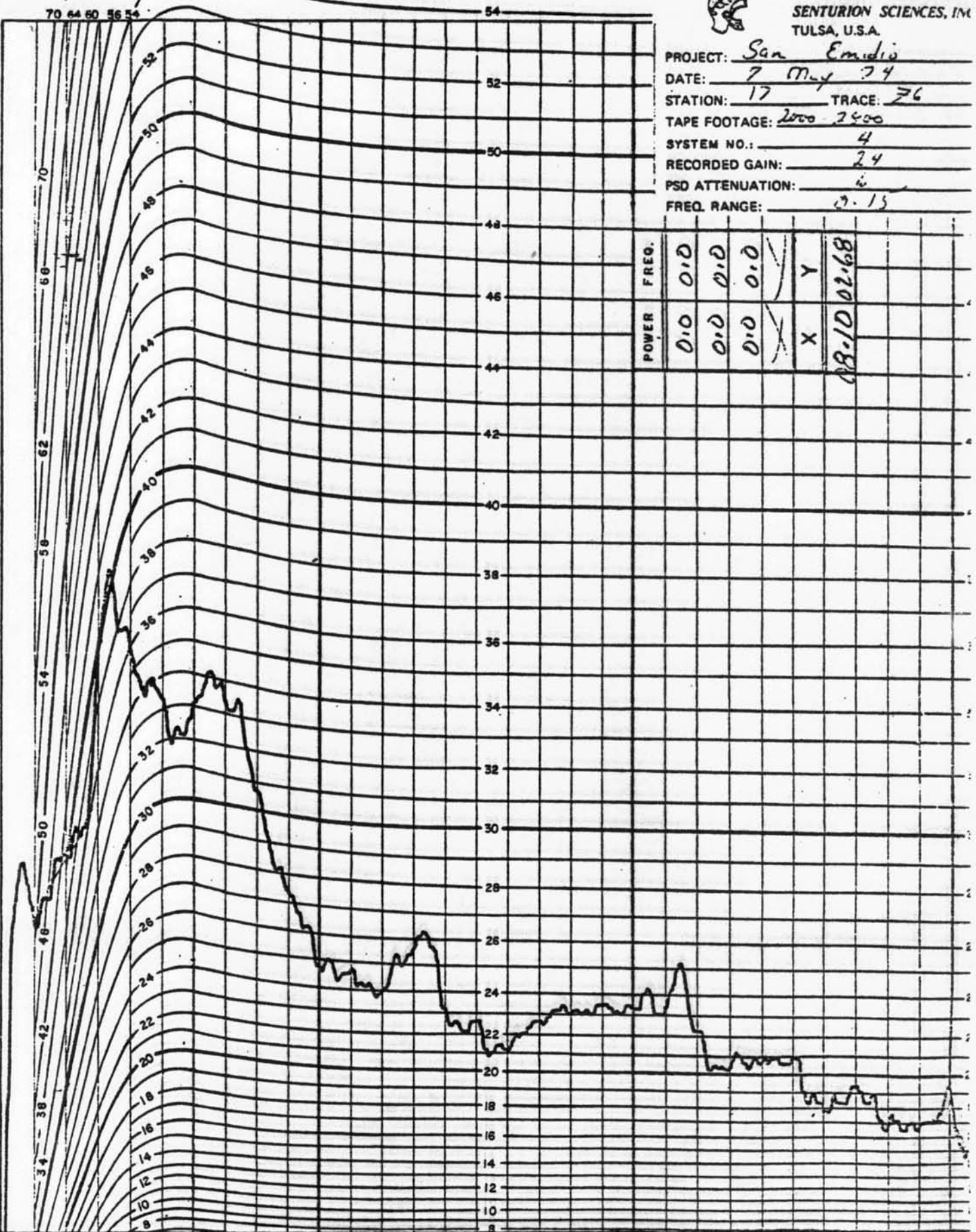




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PROJECT: San Emidio  
 DATE: 7 May 74  
 STATION: 17 TRACE: 76  
 TAPE FOOTAGE: 2000 2400  
 SYSTEM NO.: 4  
 RECORDED GAIN: 24  
 PSD ATTENUATION: 6  
 FREQ. RANGE: 2.15

RELATIVE POWER IN db



POWER	FREQ.
0.0	0.0
0.0	0.0
0.0	0.0
X	Y
08-10 02.68	

1997  
 50.0  
 40.0  
 40.0  
 36.0  
 33.2  
 33.0  
 33.4  
 30.8  
 27.2  
 24.8  
 24.6  
 24.0  
 25.7  
 23.1  
 22.6  
 21.1  
 22.6  
 23.1  
 23.1  
 23.1  
 23.2  
 23.2  
 22.1  
 20.2  
 20.9  
 20.9  
 18.0  
 19.2  
 17.0  
 17.0  
 17.0  
 17.0

HS-10 2000 Absolute

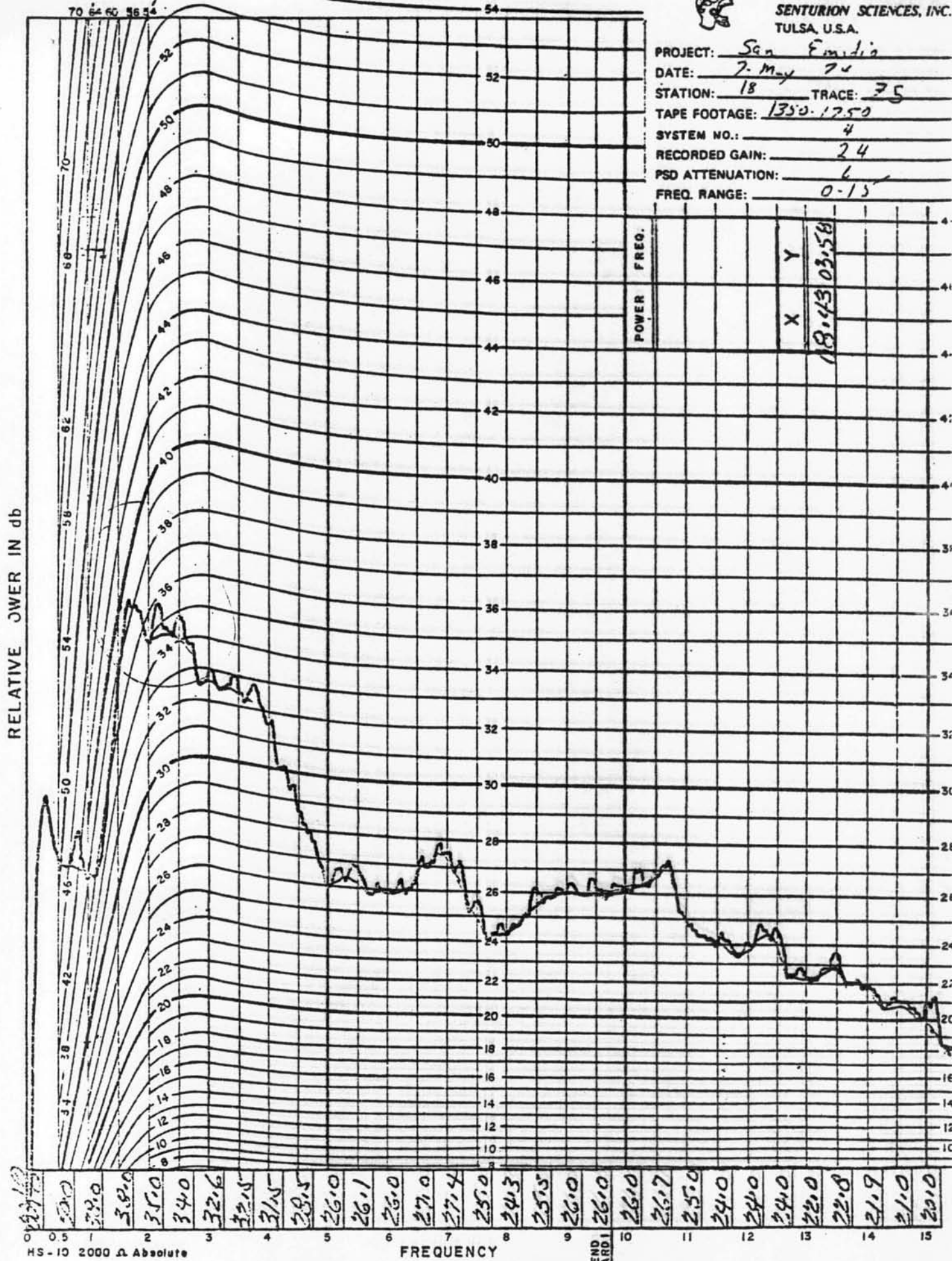
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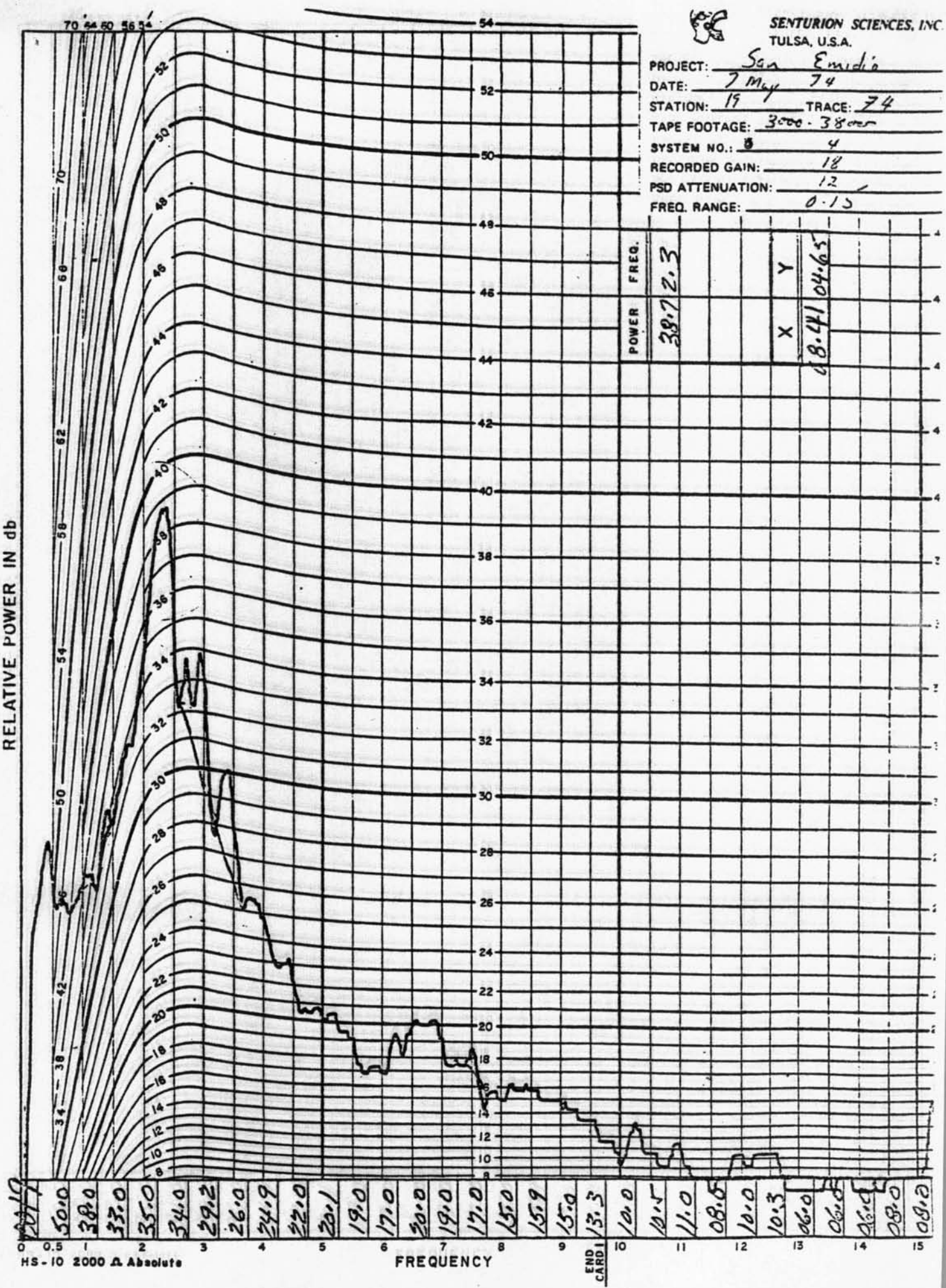
PROJECT: San Emilio  
 DATE: 7 May 74  
 STATION: 18 TRACE: 35  
 TAPE FOOTAGE: 1350-1750  
 SYSTEM NO.: 4  
 RECORDED GAIN: 24  
 PSD ATTENUATION: 6  
 FREQ. RANGE: 0-15





PROJECT: San Emidia  
 DATE: 7 May 74  
 STATION: 19 TRACE: 74  
 TAPE FOOTAGE: 3000 - 3800  
 SYSTEM NO.: 8 4  
 RECORDED GAIN: 18  
 PSD ATTENUATION: 12  
 FREQ. RANGE: 0.15

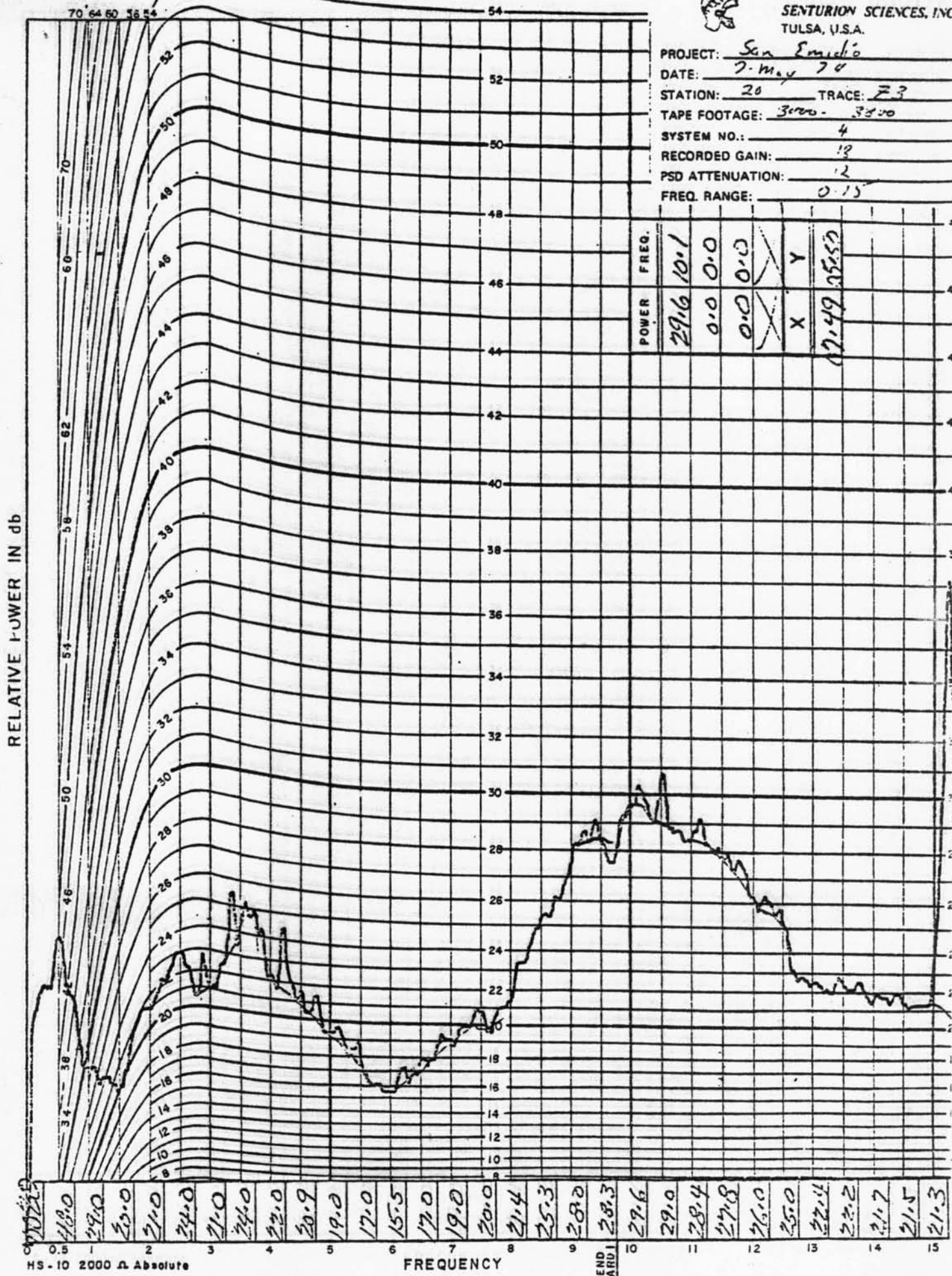
RELATIVE POWER IN db





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PROJECT: San Emilio  
 DATE: 7 May 70  
 STATION: 20 TRACE: F3  
 TAPE FOOTAGE: 3000 - 3500  
 SYSTEM NO.: 4  
 RECORDED GAIN: 12  
 PSD ATTENUATION: 12  
 FREQ. RANGE: 0.15



RELATIVE POWER IN db

HS-10 2000  $\Omega$  Absolute

FREQUENCY

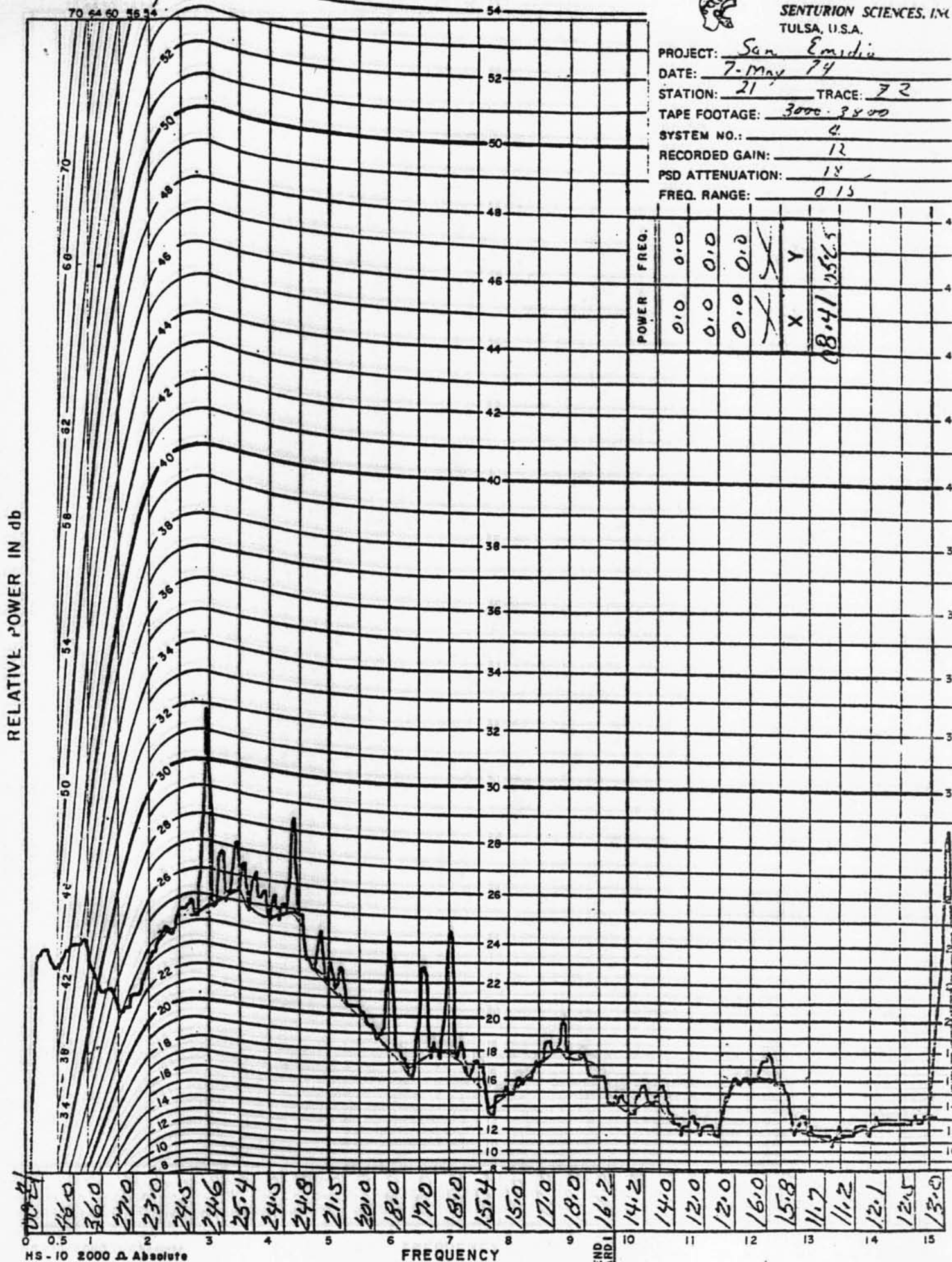
END CARD





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PROJECT: San Emedin  
 DATE: 7-May 74  
 STATION: 21 TRACE: 72  
 TAPE FOOTAGE: 3000-3800  
 SYSTEM NO.: 1  
 RECORDED GAIN: 12  
 PSD ATTENUATION: 18  
 FREQ. RANGE: 0.15



POWER	FREQ.
0.0	0.0
0.0	0.0
0.0	0.0
X	Y
X	18.41 25%

0024  
 48.0  
 36.0  
 27.0  
 23.0  
 24.5  
 24.6  
 25.4  
 24.5  
 24.8  
 21.5  
 20.0  
 18.0  
 17.0  
 18.0  
 15.4  
 15.0  
 17.0  
 18.0  
 16.2  
 14.2  
 14.0  
 12.0  
 12.0  
 16.0  
 15.8  
 11.7  
 11.2  
 12.1  
 12.5  
 13.0

END  
CARD 1

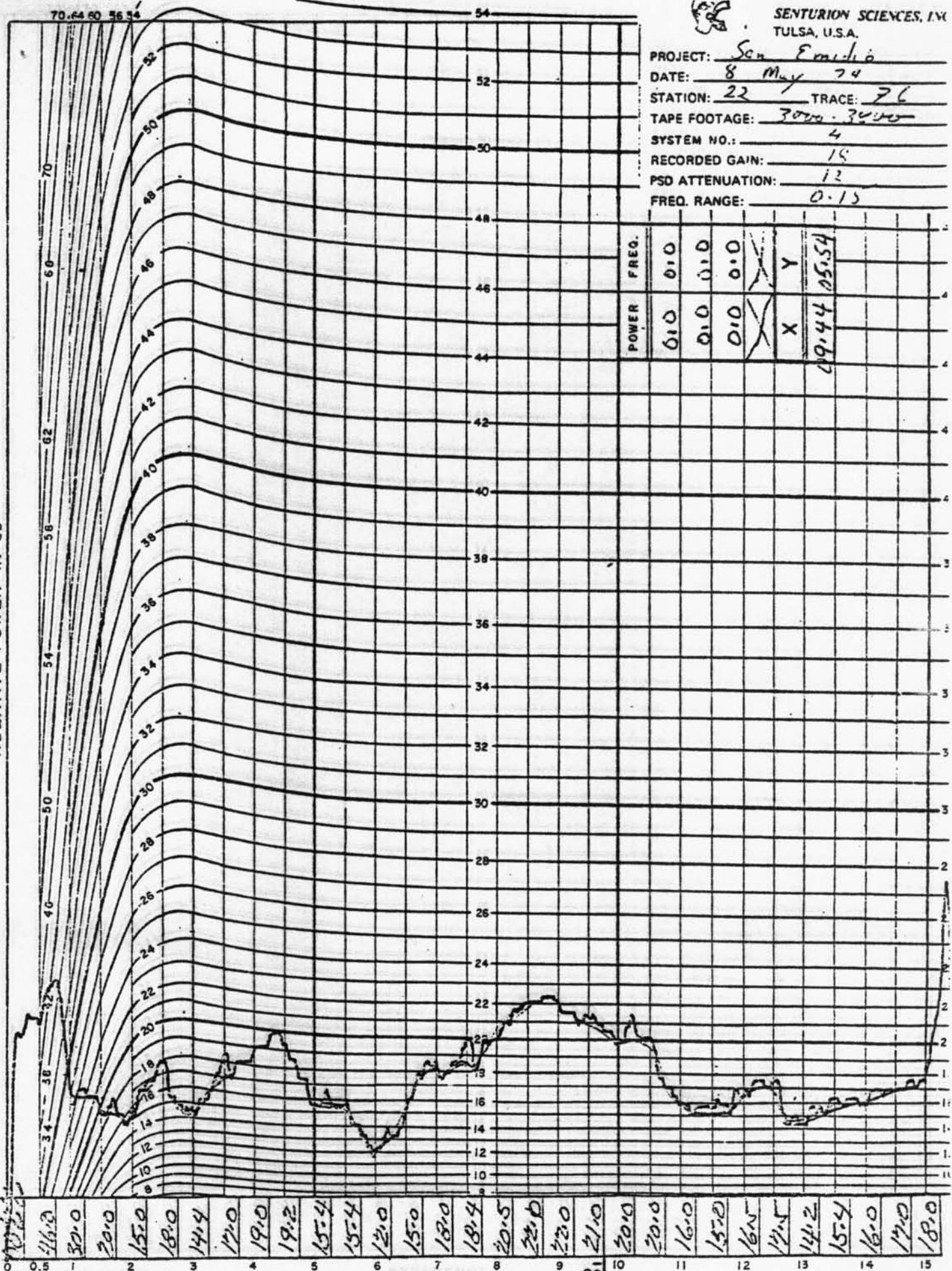


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PROJECT: Sen Emilio  
 DATE: 8 May 74  
 STATION: 22 TRACE: 76  
 TAPE FOOTAGE: 3000-3400  
 SYSTEM NO.: 4  
 RECORDED GAIN: 15  
 PSD ATTENUATION: 12  
 FREQ. RANGE: 0-15

POWER	FREQ.
0.0	0.0
0.0	0.0
0.0	0.0
X	Y
09.44	05.54

RELATIVE POWER IN db



0.5 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15  
 4.6.0 30.0 20.0 15.0 18.0 14.4 17.0 19.0 19.2 15.4 15.4 12.0 15.0 18.0 18.4 20.5 22.0 22.0 21.0 20.0 20.0 16.0 15.0 16.5 17.5 14.2 15.4 16.0 17.0 18.0

HS-10 2000 Δ Absolute

FREQUENCY

END CARD 1

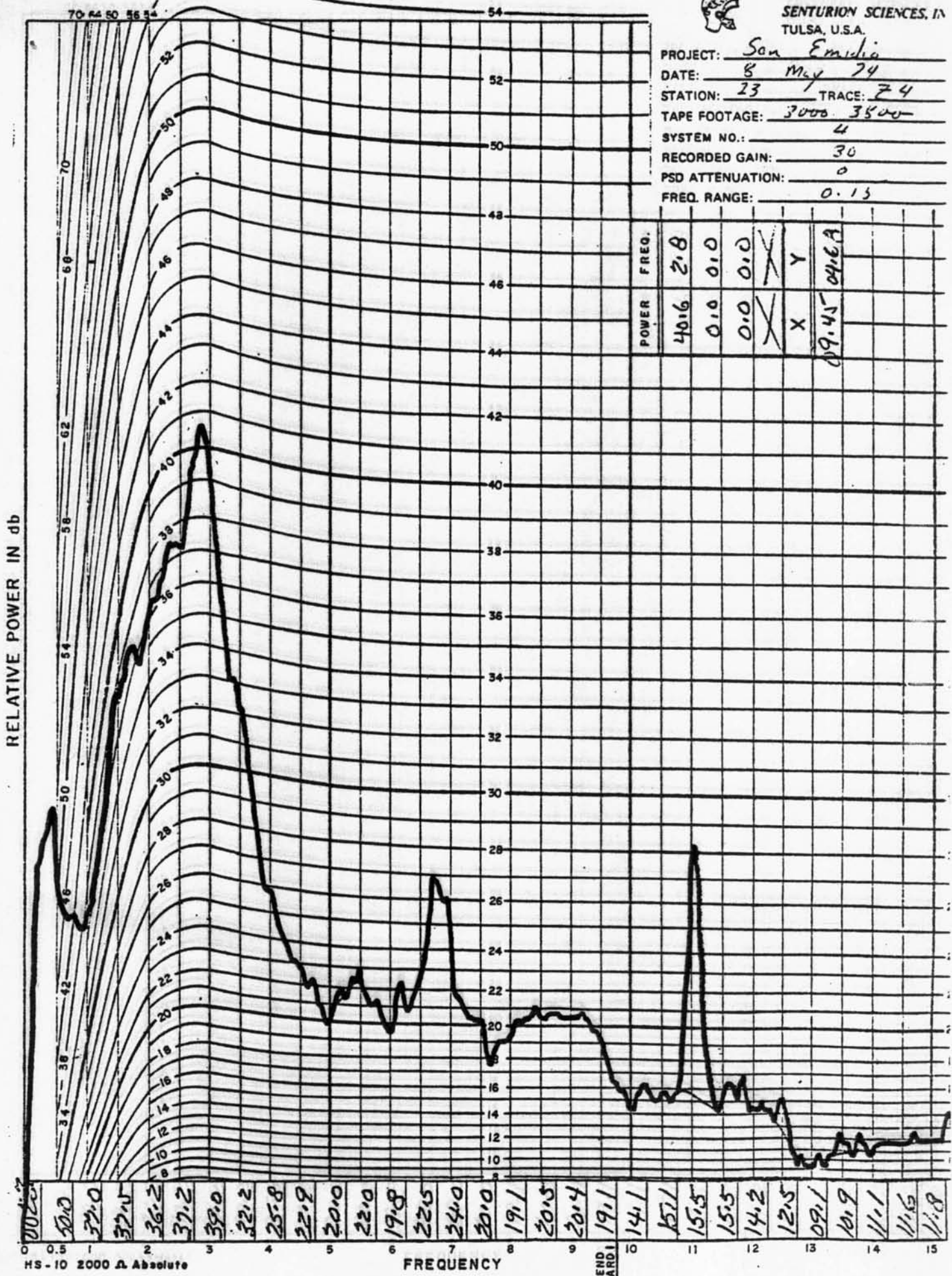




SENTURION SCIENCES, INC.  
TULSA, U.S.A.

PROJECT: San Emidia  
 DATE: 8 May 74  
 STATION: 23 TRACE: 74  
 TAPE FOOTAGE: 3000 3500  
 SYSTEM NO.: 4  
 RECORDED GAIN: 30  
 PSD ATTENUATION: 0  
 FREQ. RANGE: 0.13

POWER	FREQ.
40.6	2.8
0.0	0.0
0.0	0.0
X	X
X	Y
09.45	04.6A



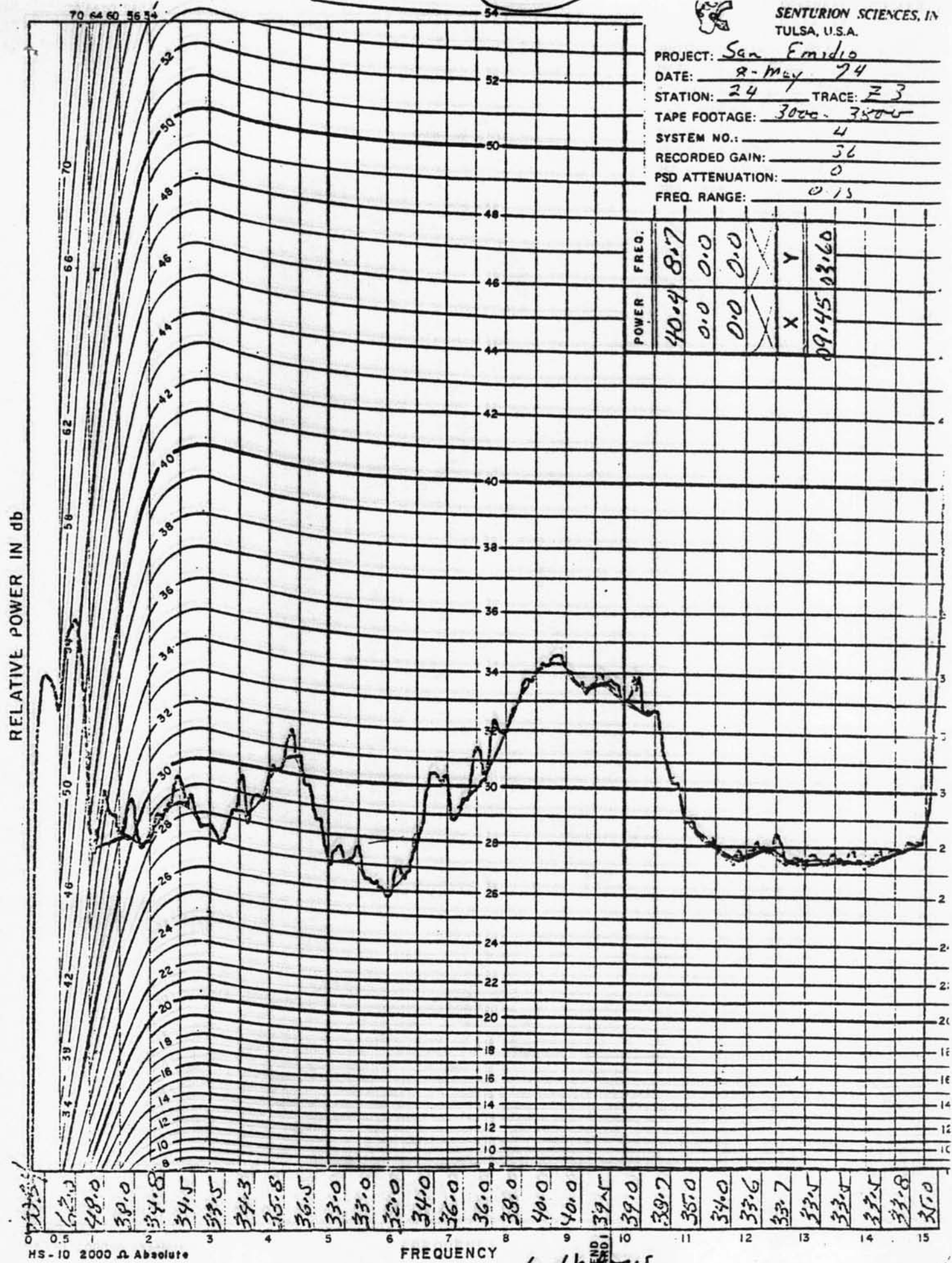


600 new



SENTURION SCIENCES, INC.  
TULSA, U.S.A.

PROJECT: San Emidio  
 DATE: 2-May-74  
 STATION: 24 TRACE: F3  
 TAPE FOOTAGE: 3020-3500  
 SYSTEM NO.: 4  
 RECORDED GAIN: 36  
 PSD ATTENUATION: 0  
 FREQ. RANGE: 0.15



RELATIVE POWER IN db

HS-10 2000  $\Omega$  Absolute

FREQUENCY

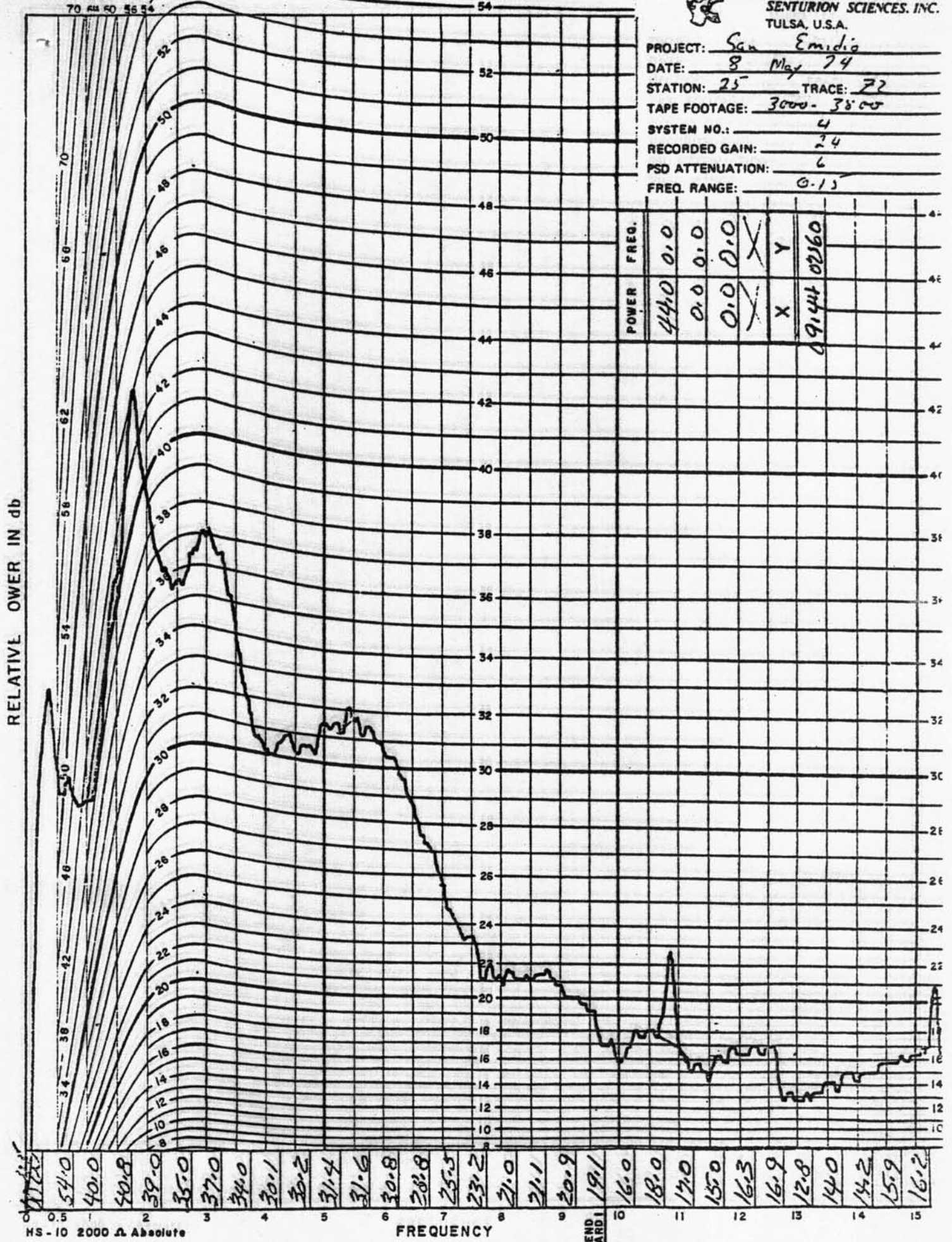
6 db ~~END~~ END

70.5  
 62.0  
 48.0  
 38.0  
 34.8  
 34.5  
 33.5  
 34.3  
 35.8  
 36.5  
 33.0  
 33.0  
 32.0  
 34.0  
 36.0  
 36.0  
 38.0  
 40.0  
 40.0  
 39.5  
 39.0  
 39.7  
 38.0  
 34.0  
 33.6  
 33.7  
 33.5  
 33.4  
 33.5  
 33.8  
 32.0



SENTURION SCIENCES, INC.  
TULSA, U.S.A.

PROJECT: San Emidio  
 DATE: 8 May 74  
 STATION: 25 TRACE: 72  
 TAPE FOOTAGE: 3000 - 3800  
 SYSTEM NO.: 4  
 RECORDED GAIN: 24  
 PSD ATTENUATION: 6  
 FREQ. RANGE: 0.15



POWER	FREQ.
44.0	0.0
0.0	0.0
0.0	0.0
X	X
X	Y
09144 02560	

HS - 10 2000  $\Omega$  Absolute

FREQUENCY

END CARD 1

54.0  
 40.0  
 40.8  
 39.0  
 35.0  
 37.0  
 34.0  
 30.1  
 30.2  
 31.4  
 31.6  
 30.8  
 28.8  
 25.5  
 23.2  
 21.0  
 21.1  
 20.9  
 19.1  
 16.0  
 18.0  
 17.0  
 15.0  
 16.3  
 16.9  
 12.8  
 14.0  
 14.2  
 15.9  
 16.2

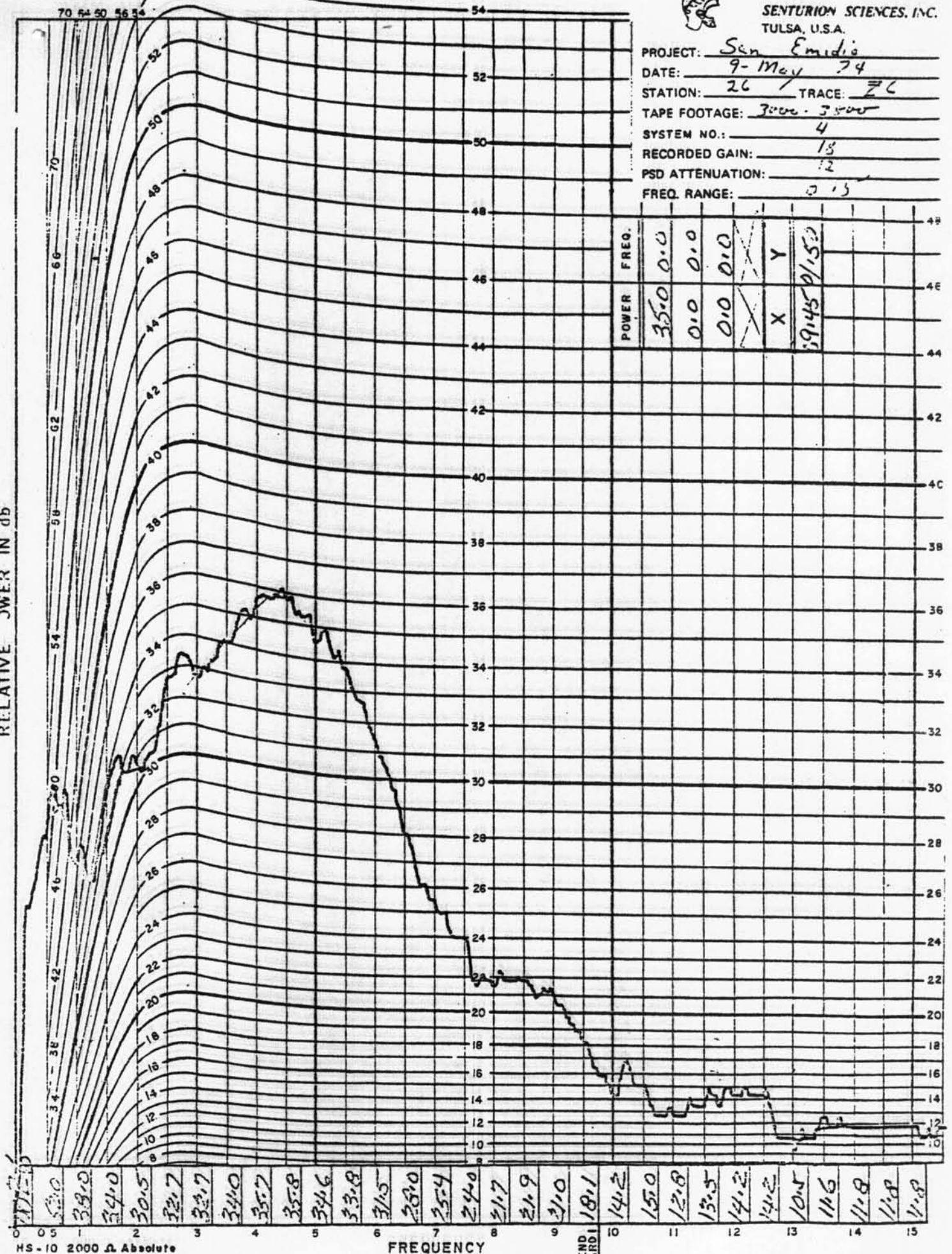




SENTURION SCIENCES, INC.  
TULSA, U.S.A.

PROJECT: San Emidio  
 DATE: 9-May 74  
 STATION: 26 TRACE: ZC  
 TAPE FOOTAGE: From 3500  
 SYSTEM NO.: 4  
 RECORDED GAIN: 18  
 PSD ATTENUATION: 12  
 FREQ. RANGE: 0.15

RELATIVE JWER IN db



HS-10 2000  $\Omega$  Absolute

FREQUENCY

END CARD

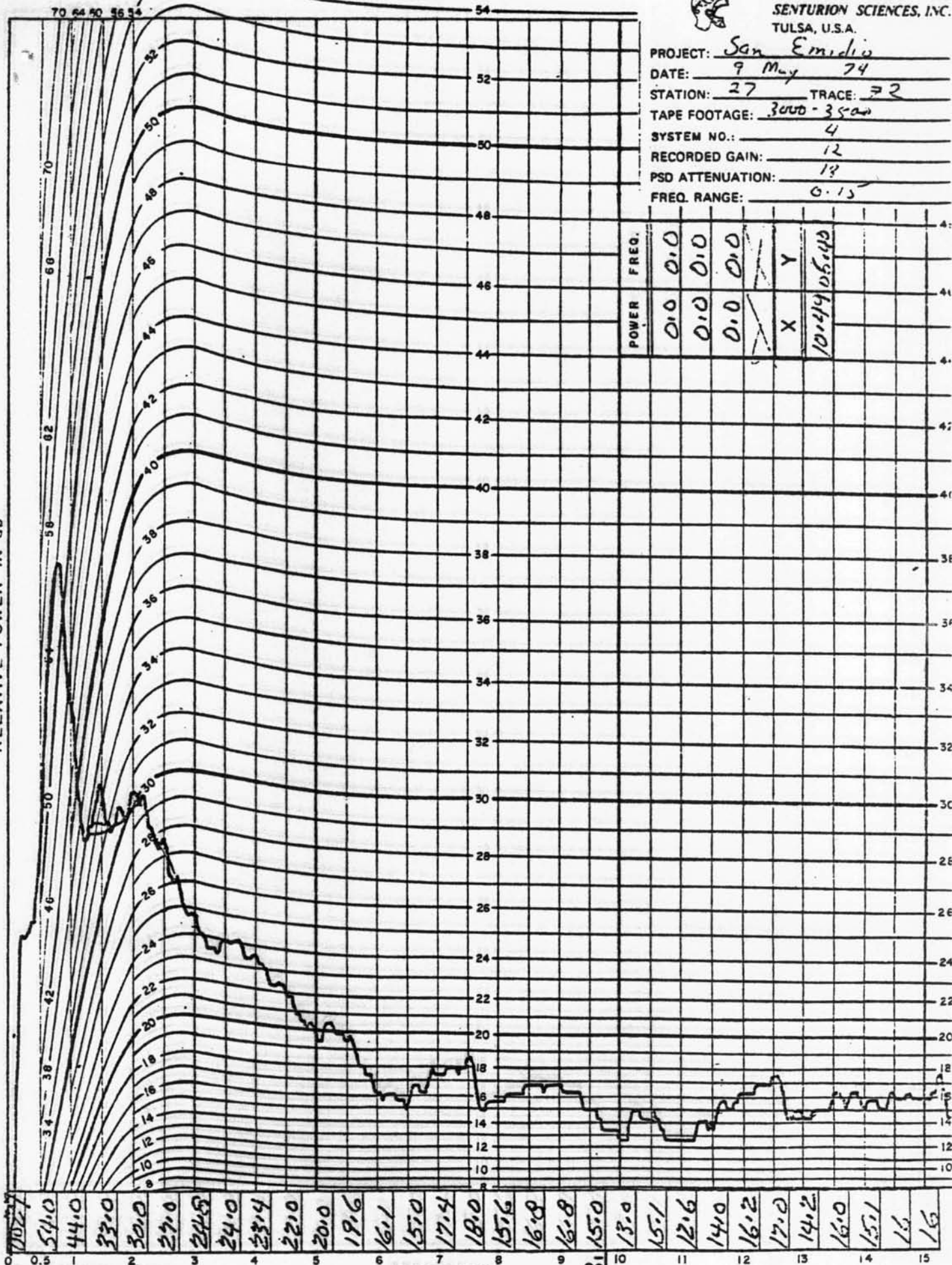
0 0.5 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

34.0 38.0 34.0 30.5 32.7 32.7 34.0 35.7 35.8 34.6 33.8 31.5 28.0 25.4 24.0 21.7 21.9 21.0 18.1 14.2 15.0 12.8 13.5 14.2 14.2 10.5 11.6 11.8 11.8 11.8



PROJECT: San Emidio  
 DATE: 9 May 74  
 STATION: 27 TRACE: 72  
 TAPE FOOTAGE: 3000-3500  
 SYSTEM NO.: 4  
 RECORDED GAIN: 12  
 PSD ATTENUATION: 13  
 FREQ. RANGE: 0-15

RELATIV. POWER IN db



POWER	FREQ.
0.0	0.0
0.0	0.0
0.0	0.0
X	Y
10/14/05/40	

10227  
 511.0  
 44.0  
 33.0  
 30.0  
 27.0  
 24.8  
 24.0  
 23.4  
 22.0  
 20.0  
 19.6  
 16.1  
 15.0  
 17.4  
 18.0  
 15.6  
 16.8  
 16.8  
 15.0  
 13.0  
 15.1  
 12.6  
 14.0  
 16.2  
 17.0  
 14.2  
 16.0  
 15.1  
 16  
 16

HS - 10 2000  $\Omega$  Absolute

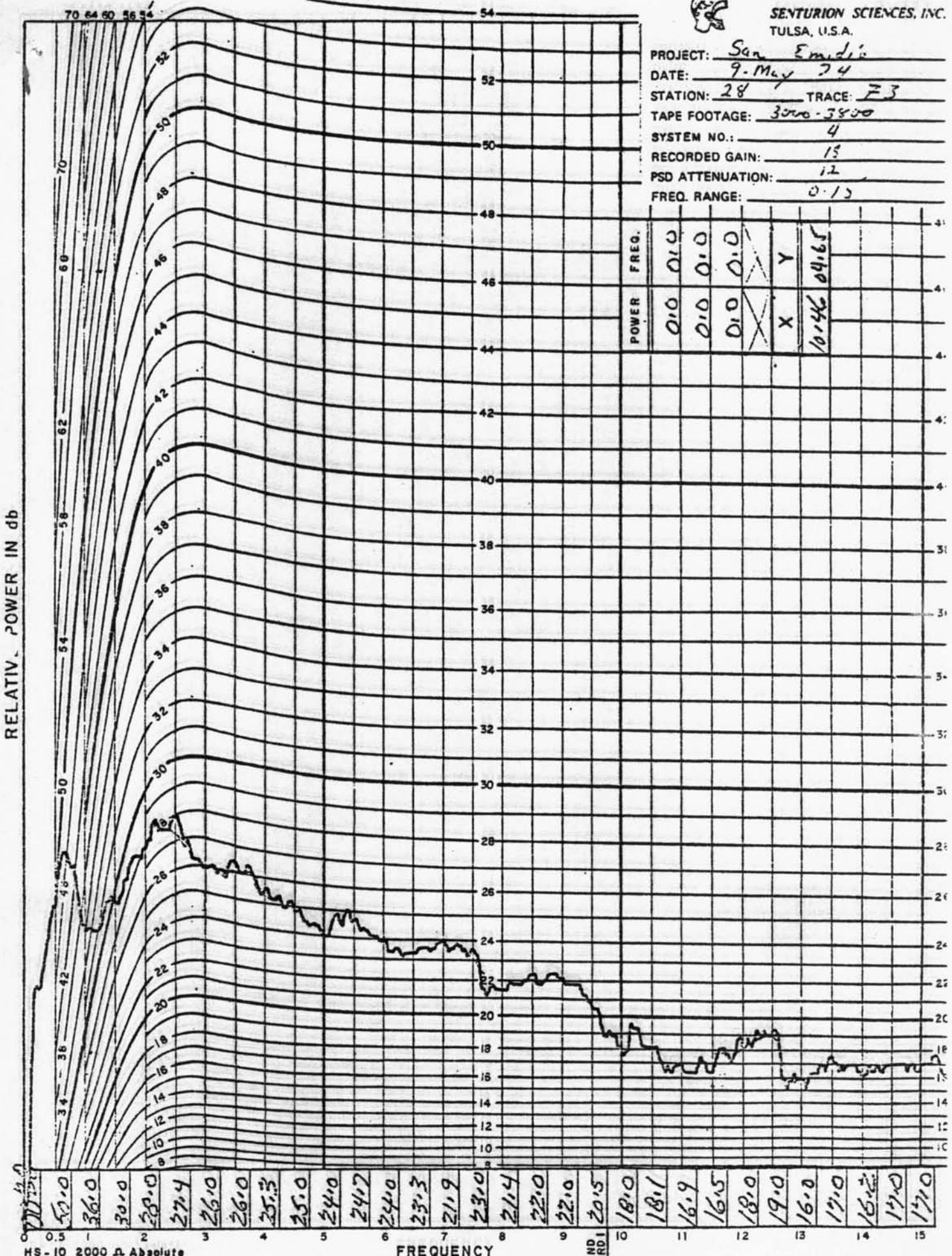
FREQUENCY

END CARD



SENTURION SCIENCES, INC.  
TULSA, U.S.A.

PROJECT: San Emedic  
DATE: 9-May 74  
STATION: 28 TRACE: F3  
TAPE FOOTAGE: 3000-3500  
SYSTEM NO.: 4  
RECORDED GAIN: 15  
PSD ATTENUATION: 12  
FREQ. RANGE: 0.15



RELATIV. POWER IN db

HS - 10 2000 Ω Absolute

FREQUENCY

END CARD

Power (dB)	Frequency (Hz)
57.0	0.5
36.0	1.0
30.0	2.0
28.0	3.0
27.4	4.0
26.0	5.0
26.0	6.0
25.3	7.0
25.0	8.0
24.0	9.0
24.2	10.0
24.0	11.0
23.3	12.0
21.9	13.0
23.0	14.0
21.4	15.0
22.0	16.0
22.0	17.0
20.5	18.0
18.0	19.0
18.1	20.0
16.9	21.0
16.5	22.0
18.0	23.0
19.0	24.0
16.0	25.0
17.0	26.0
16.2	27.0
17.0	28.0
17.0	29.0

POWER	FREQ.
0.0	0.0
0.0	0.0
0.0	0.0
X	Y
10.46	04.65

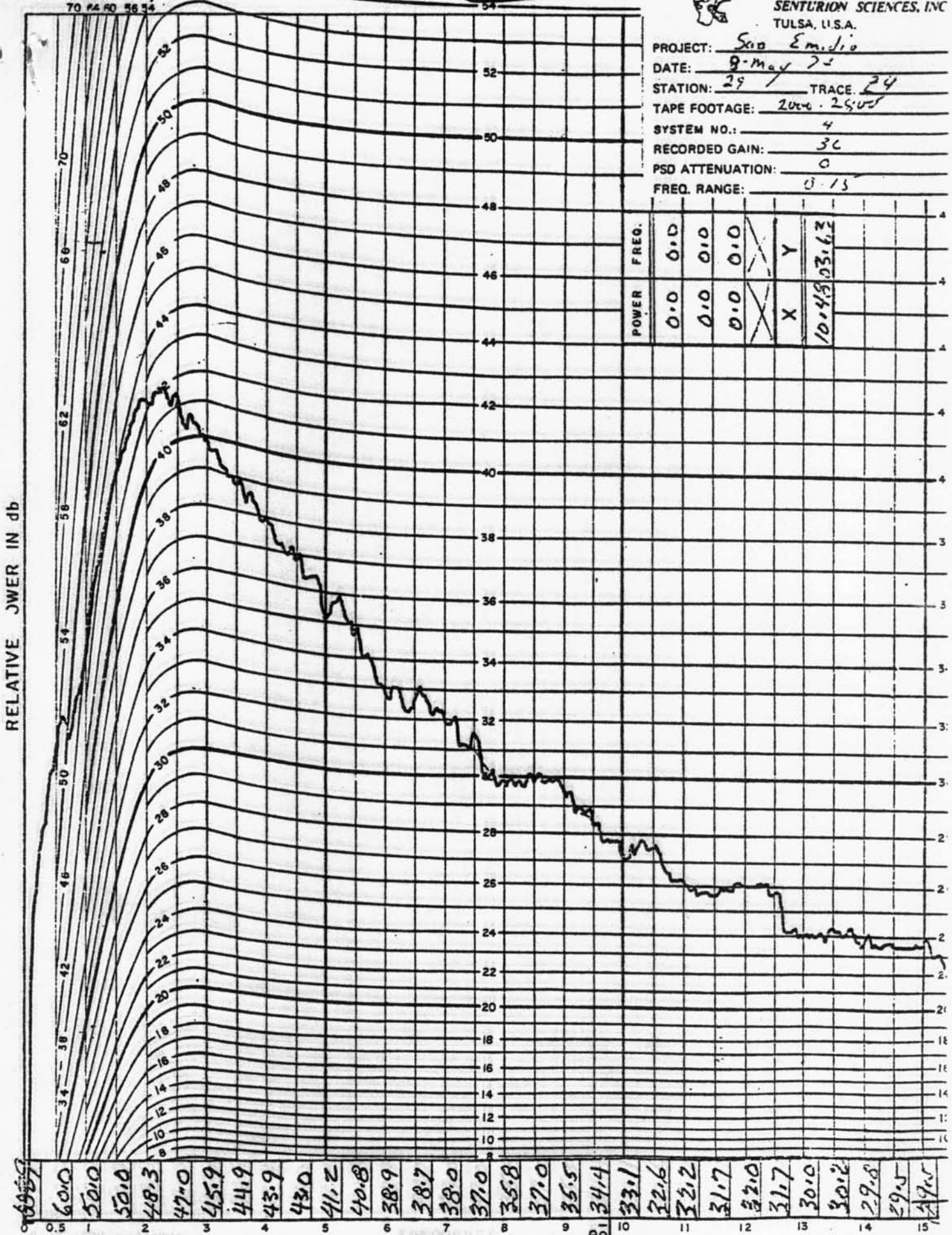


(6 db Low)



SENTURION SCIENCES, INC  
TULSA, U.S.A.

PROJECT: Sno Emilio  
 DATE: 9-May 75  
 STATION: 29 TRACE 24  
 TAPE FOOTAGE: 2000 - 2500  
 SYSTEM NO.: 4  
 RECORDED GAIN: 36  
 PSD ATTENUATION: 0  
 FREQ. RANGE: 0-15



POWER	FREQ.
0.0	0.0
0.0	0.0
0.0	0.0
X	Y
10.41903.63	

60.0  
50.0  
50.0  
48.3  
47.0  
45.9  
44.9  
43.9  
43.0  
41.2  
40.8  
38.9  
38.7  
38.0  
37.0  
35.8  
37.0  
35.5  
34.4  
33.1  
32.6  
32.2  
31.7  
32.0  
31.7  
30.0  
30.2  
29.8  
29.5  
29.5

HS-10 2000 Ω Absolute

6 db low as plotted

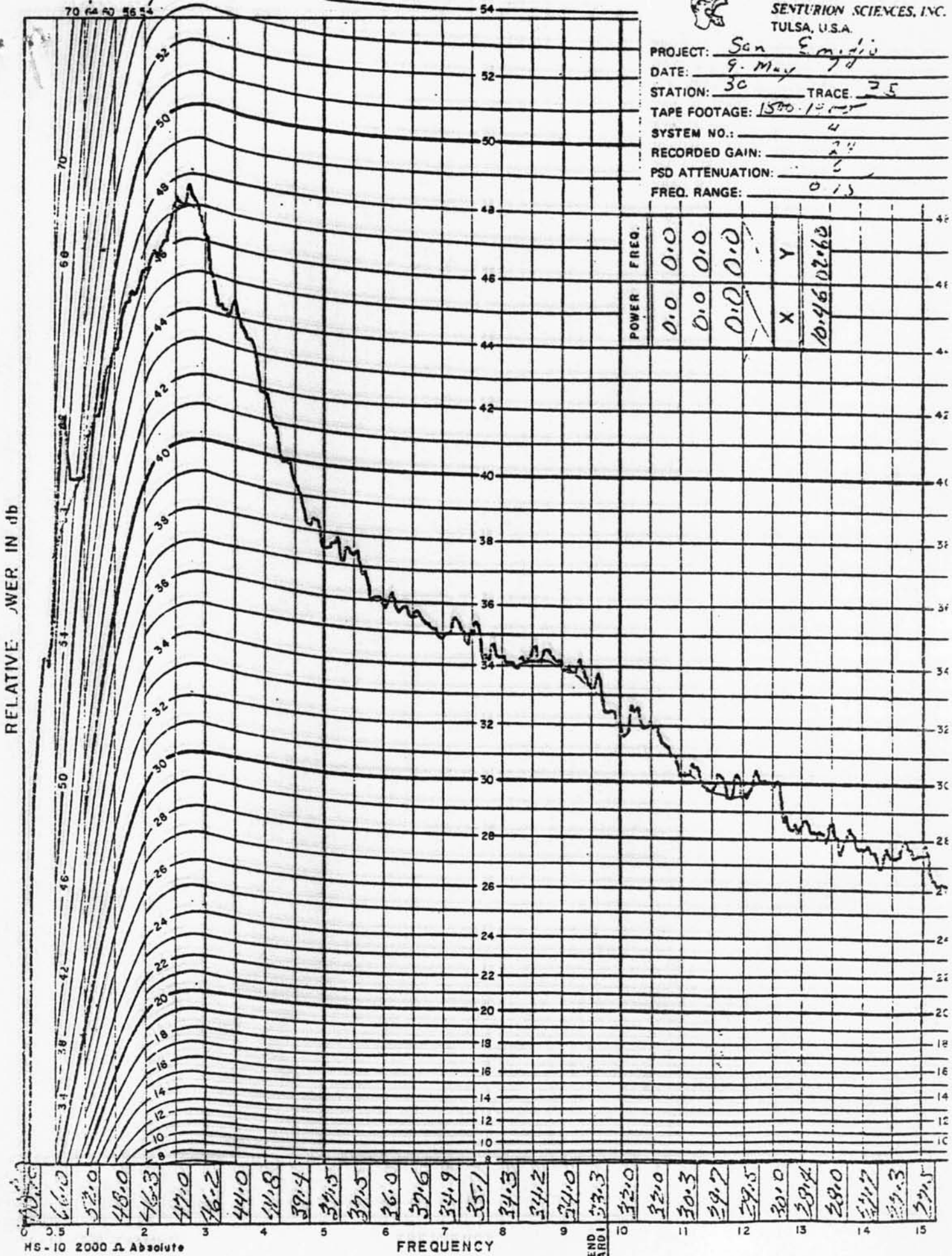
END CARD





SENTURION SCIENCES, INC.  
TULSA, U.S.A.

PROJECT: San Emigdio  
 DATE: 9 May 74  
 STATION: 30 TRACE 25  
 TAPE FOOTAGE: 1570-1585  
 SYSTEM NO.: 4  
 RECORDED GAIN: 24  
 PSD ATTENUATION: 2  
 FREQ. RANGE: 0.15



POWER	FREQ.
0.0	0.0
0.0	0.0
0.0	0.0
X	Y
10.46	02.60

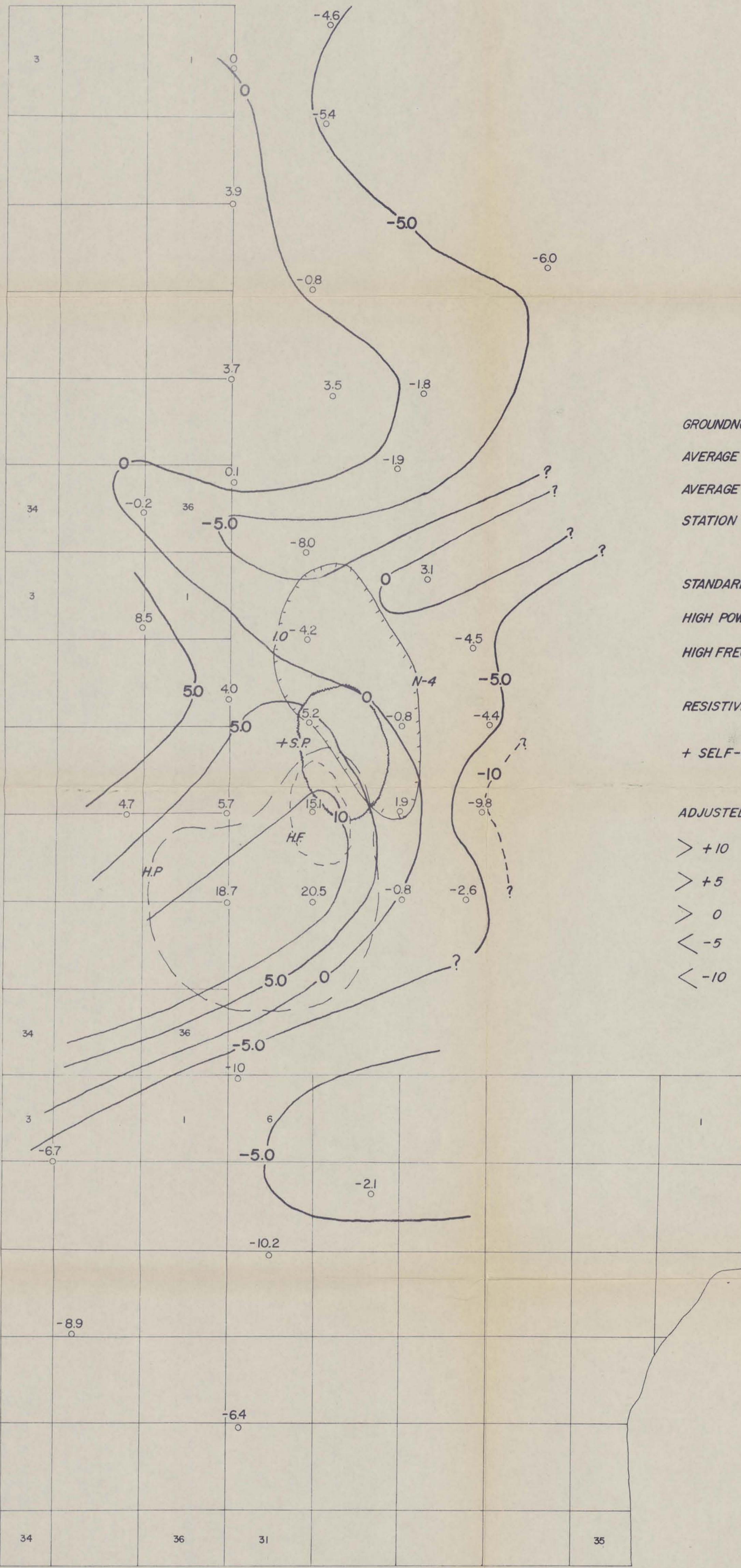
- 66.0
- 52.0
- 48.0
- 46.3
- 47.0
- 46.2
- 44.0
- 41.8
- 39.4
- 37.5
- 37.5
- 36.0
- 37.6
- 34.9
- 35.1
- 34.3
- 34.2
- 34.0
- 33.3
- 32.0
- 32.0
- 30.3
- 29.7
- 29.5
- 30.0
- 29.4
- 28.0
- 27.7
- 27.3
- 27.5



T  
30  
N

T  
29  
N

T  
28  
N



**GROUNDNOISE: STATISTICAL INTERPRETATION**

AVERAGE POWER = 35.60

AVERAGE FREQUENCY = 6.68

STATION VALUE = POWER - ( FREQ.  $\frac{AVG. POWER}{AVG. FREQ.}$  )

**STANDARD GROUNDNOISE ANOMALIES**

HIGH POWER

HIGH FREQUENCY

RESISTIVITY ANOMALY (1 OHM FOOT)

+ SELF-POTENTIAL

**ADJUSTED GROUNDNOISE ANOMALIES**

- > +10
- > +5
- > 0
- < -5
- < -10

**SEISMIC GROUNDNOISE SURVEY  
STATISTICAL INTERPRETATION**

**SAN EMIDIO  
GEOTHERMAL AREA**

WASHOE Co., NEVADA

SCALE 1: 48,000

R-23-E