ANCO

REPORT

1084.05
May 1988

Final Report

SIMON RODIA TOWERS ENVIRONMENTAL MEASUREMENTS - PHASE I

Prepared for

City of Los Angeles
Los Angeles, California

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CITY OF LOS ANGELES
Los Angeles, California

Approval Signatures

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1.0 INTRODUCTION

This report summarizes the Phase I effort at developing a working data acquisition package that will aid in the design and application of materials to restore the Simon Rodia Towers located in Watts, California. The goals, data acquisition system and the measured data, are presented in detail.

2.0 PHASE I GOALS

The goal of this Phase I study was to attempt to measure four parameters that were predicted to have some effect on the degradation of the towers over time. These four parameters are explained in Table 2.1.

Success of this Phase I study would be used to define further investigations into either refining the package or applying it to other locations within the tower complex.

3.0 DATA ACQUISITION PACKAGE

Figure 3.1 illustrates the east tower, which was chosen for the initial measurements. Detailed in this figure are the locations of the various transducers used to measure the parameters described in Table 2.1. Table 3.1 describes each transducer-type used, including the associated performance characteristics of each. Figure 3.2 contains photographs of the transducers in place.

To obtain measurements from the transducers, ANCO's VIPAC data acquisition computer system was utilized. Software was developed that triggered the computer at the user's predetermined times to sample the transducer signals. For this phase, the option selected was to sample the signals for 20 seconds each one-half hour for a 24-hour period, starting at 1230 hours on March 29, 1988. The half-hour sample time is consistent with other established weather studies.

4.0 DATA ACQUISITION RESULTS

As stated, data was sampled each one-half hour 48 times. This data was then postprocessed in order to obtain minimum and maximum values for each channel during each sampling. From this information, it was determined which acceleration data to plot, since some measurements had no significant

TABLE 2.1: MEASUREMENTS

Phenomena	Result
Wind	Loads the tower, resulting in moments and shears in the support legs.
Temperature	Causes thermal contraction and expansion of the tower. Since the tower is restrained to ground, thermal changes can induce loads.
Strain	Deformations in the tower's main structural components will result in strains in the steel embedded in the support legs.
Crack Gap Motion	Cracks can continue to grow as a result of vibration, thermal, or static tower loads.

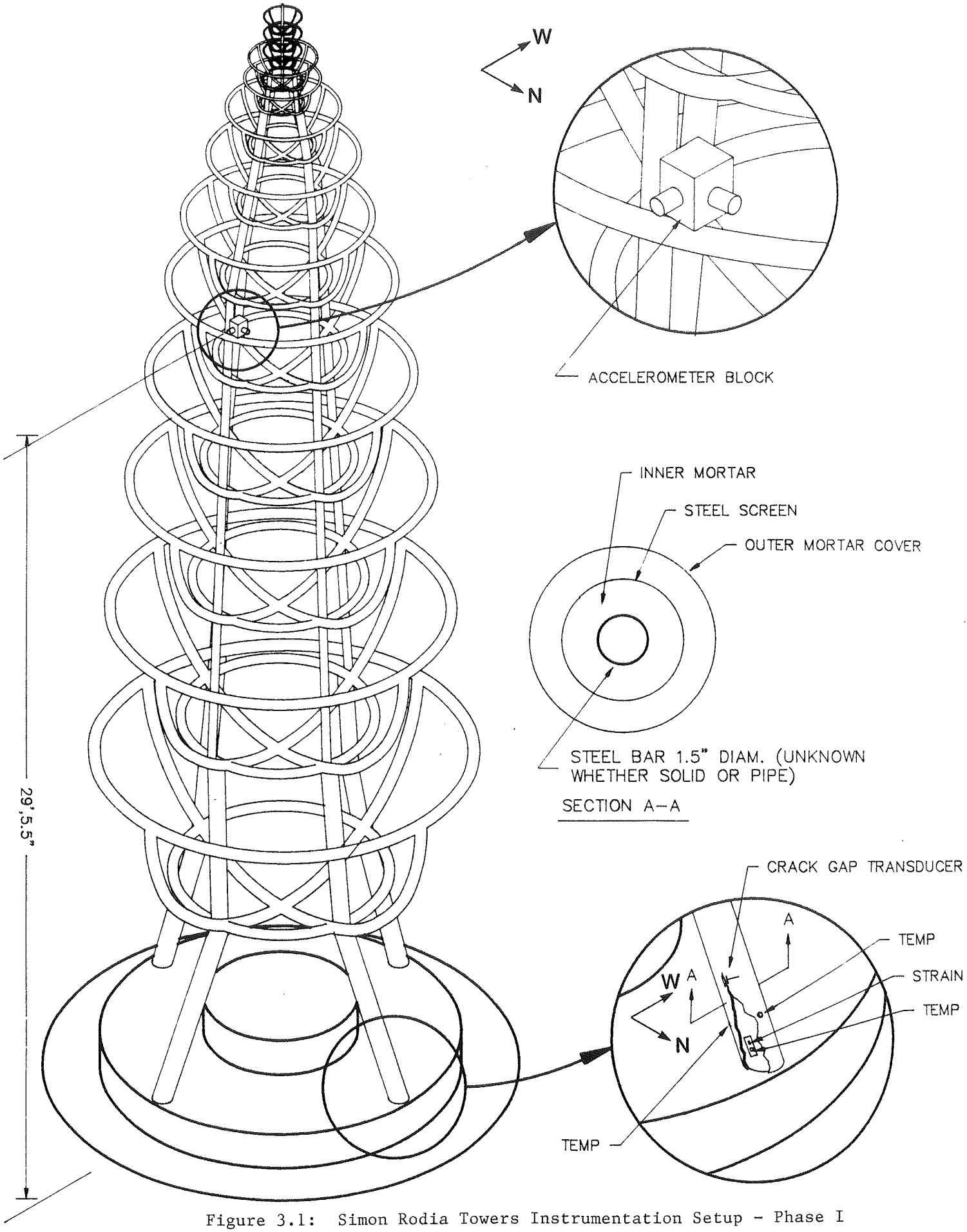


Figure 3.1: Simon Rodia Towers Instrumentation Setup - Phase I

TABLE 3.1: TRANSDUCER SPECIFICATIONS

Type	Model	Range	Sensitivity
Accelerometer	Statham	0-1.5 g	.1 g/volt
Thermal	Vishay	0-110°F	10°/volt
Bondable Strain Gage (foil type)	CEA-06-062010	$\pm$2,000 $\mu\epsilon$	200 $\mu\epsilon$/volt
Non-Contact Displacement Transducer	Bentley Nevada 100 mil Unit	0-.060 in.	.0036 in./volt

a) Simon Rodia Towers

b) Selected Column for Transducer Placement

Figure 3.2: Photographs of the Simon Rodia Towers and Transducer Placements

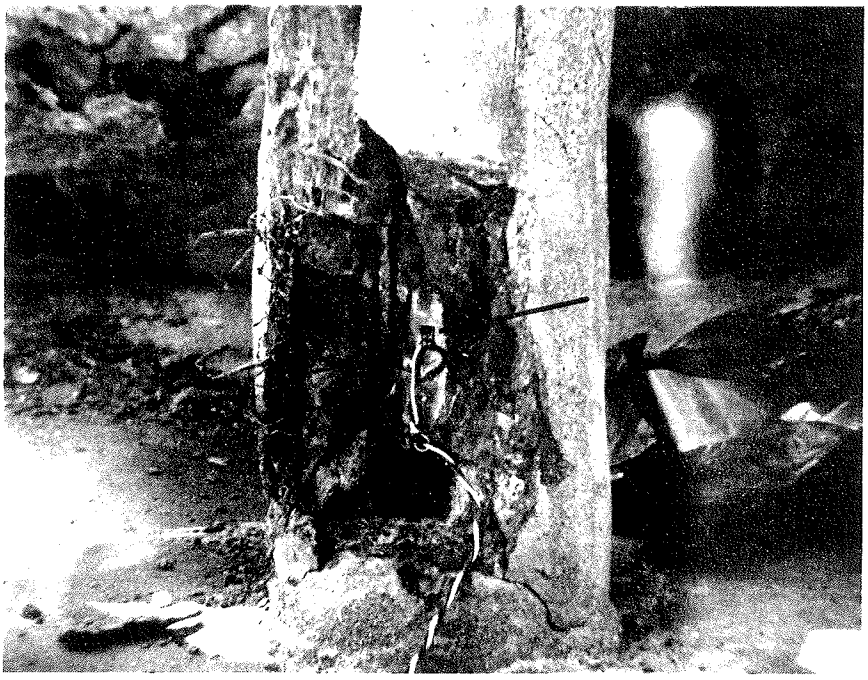
c) Indication of Existing Crack Gap

d) Measurement Locations

① Outer Mortar Cover
② Embedded Steel Mesh
③ Inner Mortar
④ Embedded Steel

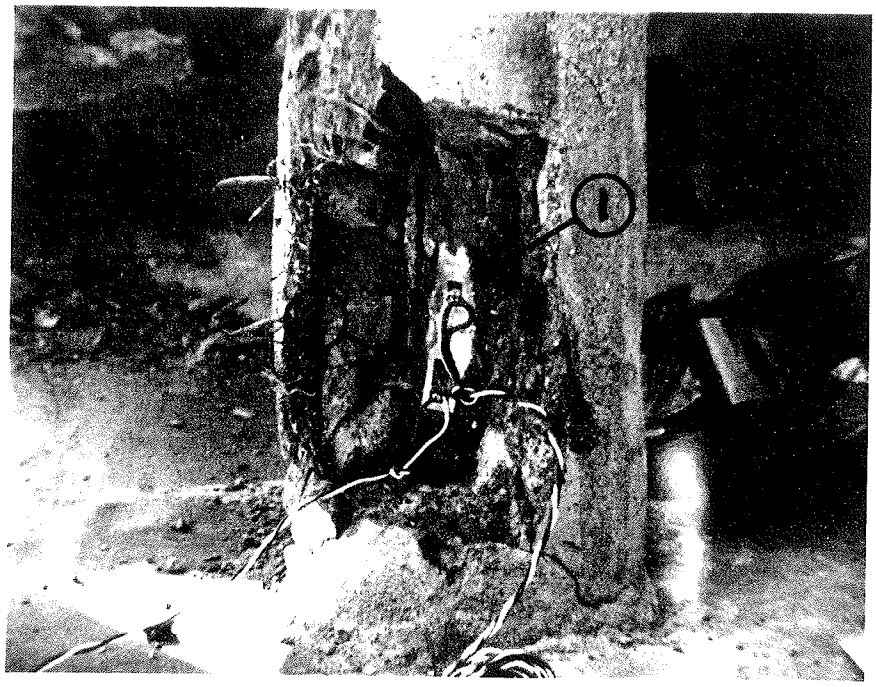
Figure 3.2 (continued)

e) Embedded Steel Surface Prepared for Strain Gage



f) Strain Gage - East/West Bending on Embedded Steel

Figure 3.2 (continued)

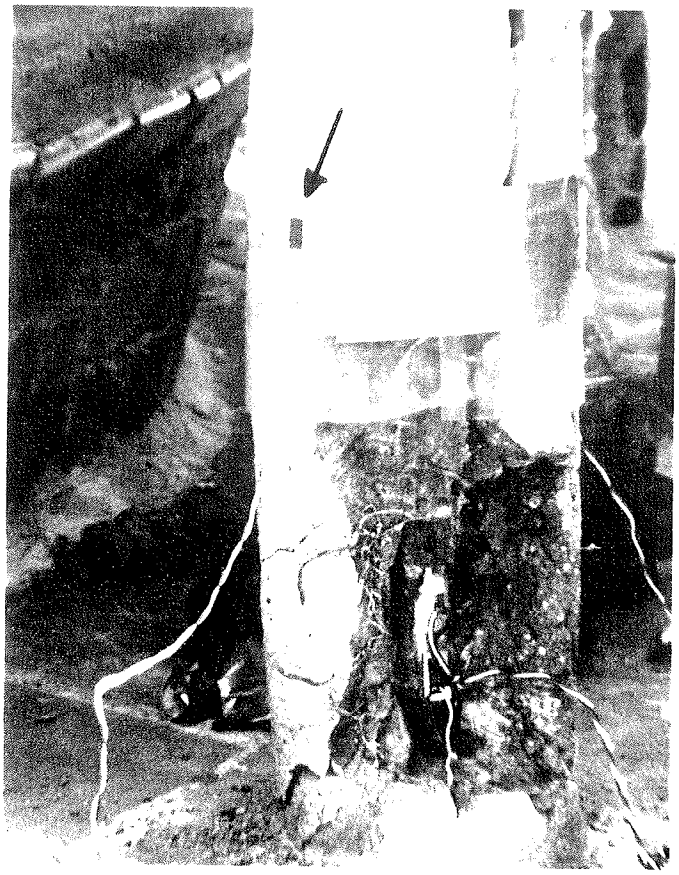


g) Strain Gage and Thermal Sensor

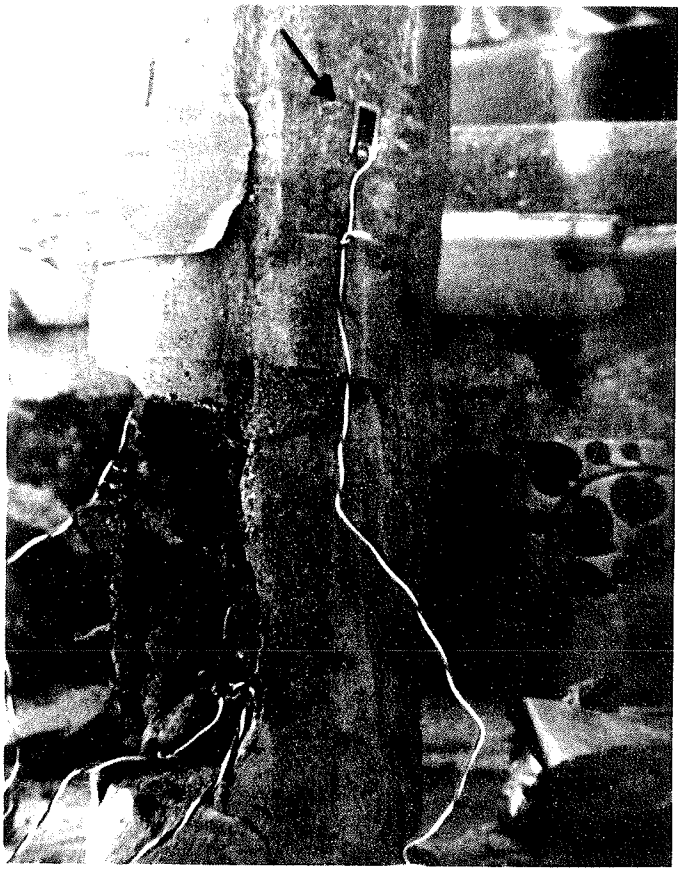
① Strain Gage - East/West Bending Sensing

② Thermal Sensor - Embedded Steel

Figure 3.2 (continued)

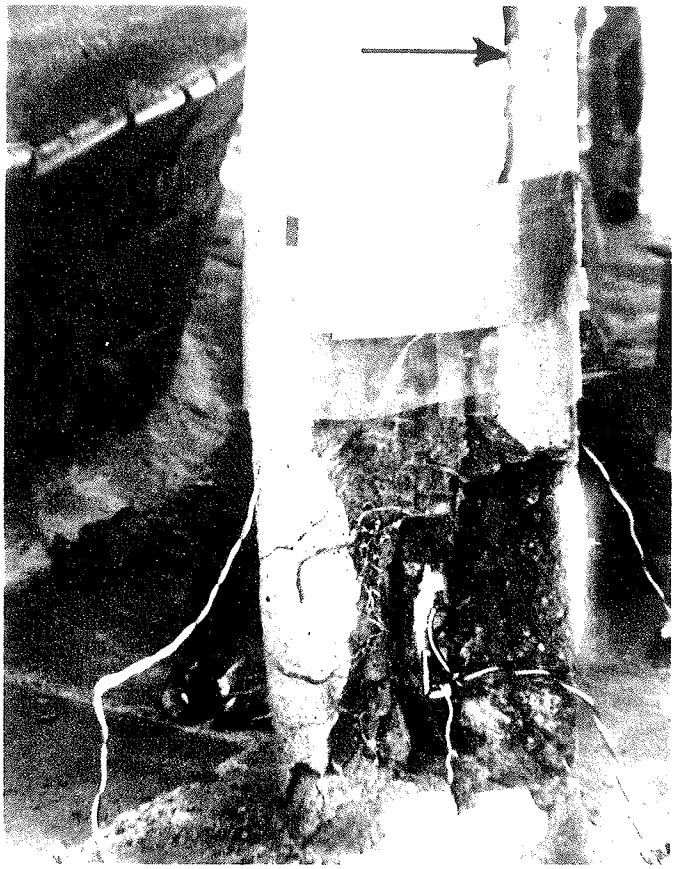


h) Thermal Sensor - North Face of Column



i) Thermal Sensor - South Face of Column

Figure 3.2 (continued)



j) Crack Gap Movement Transducer Location

Figure 3.2 (concluded)

accelerations. Fast Fourier Transforms (FFTs) of selected acceleration traces were obtained to observe the modes of response of the tower.

Appendix A contains the data. Figure 4.1 summarizes the strain, temperature, and crack gap growth measurements in a form that allows comparison.

5.0 DISCUSSION OF RESULTS

Acceleration data shows that the tower motion was mainly north/south. Also, motion was very limited, in that only Runs 1, 4, 5, 6, 7, 10, and 22 showed meaningful signals. The maximum acceleration noted was .01 g. The response frequency was 3.3 Hz.

Reviewing the thermal, strain, and crack data, it appears that a correlation exists between temperature and both embedded steel strain and exterior crack gap change. As the temperature decreased, the steel strain increased and the crack gap initially decreased and then increased. The measurements, initiated at 1230 hours, were near their peaks for the day and gradually dropped off until early morning (approximately 0600 hours) when they again climbed up.

6.0 RECOMMENDATIONS

It is clear that if wind loading effect on embedded steel strains is to be studied, it will be necessary to add a strain gage that is located 90° from the existing one. In this location, the gage will be excited by the predominately north/south accelerations. Also, it would be advantageous to record wind direction and speed. These measurements can be made using PC-based weather station hardware/software packages available off-the-shelf locally.

It does not appear that finer sampling is necessary. The environmental conditions vary gradually, so half-hour sample times produce a resolution of measurements that characterized the environment and its effect on the tower.

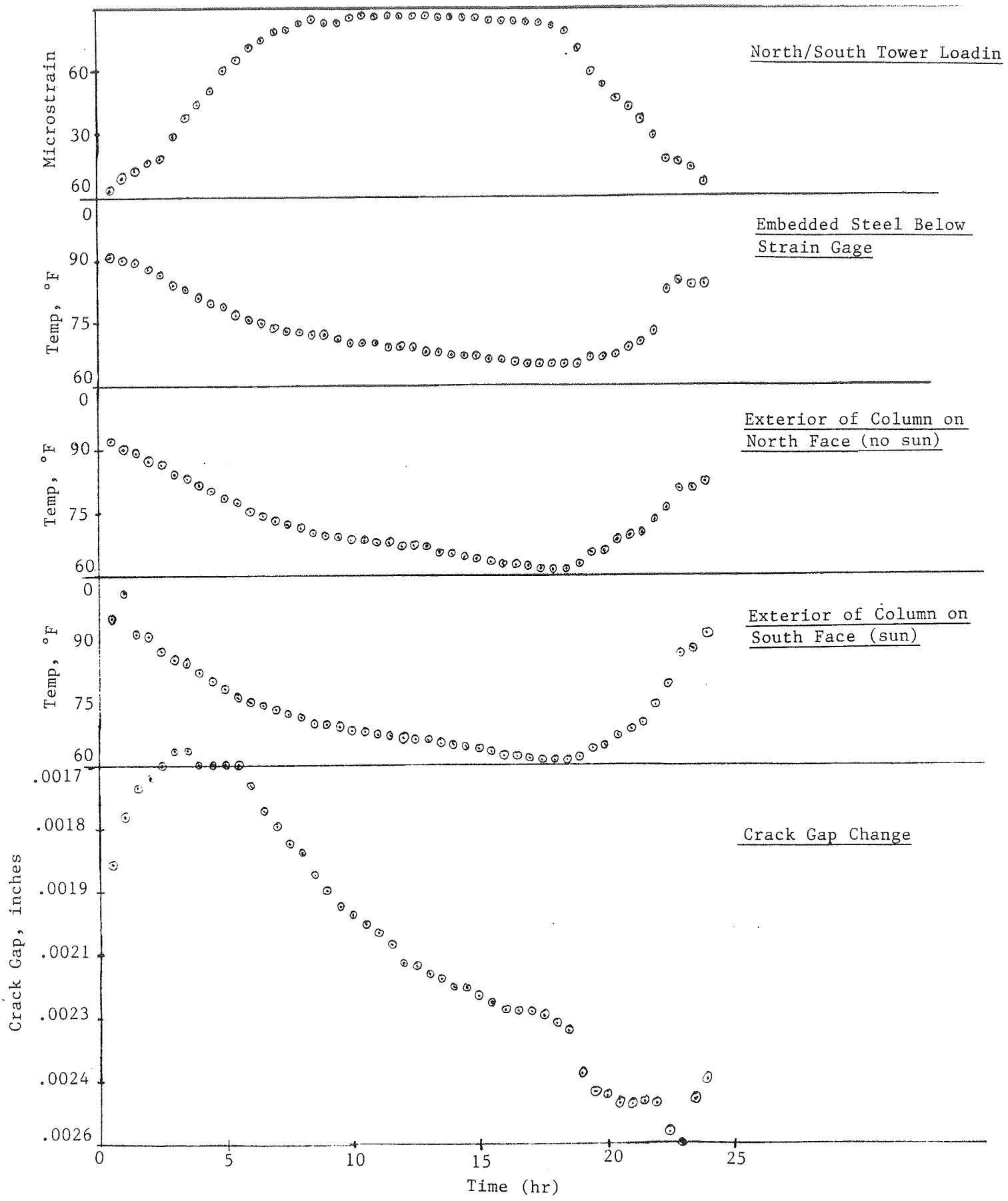


Figure 4.1: Summary of Phase I Towers Project - Strain, Temperature and Crack Growth (Gap) Correlation

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APPENDIX A

PROCESSED DATA

RECORDED DATA PEAKS

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 2
DATE : 3/29/88 TIME : 13: 5:20
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	10.0350	-4.885E-03	14118 G'S
- 1	1.6100	-6.839E-03	30 FT LEVEL, E/W
+ 2	8.3500	-1.954E-03	14315 G'S
- 2	9.4950	-4.885E-03	30 FT LEVEL, N/S
+ 3	3.2250	2.931E+00	CEA350 MICROSTRAIN
- 3	8.3300	.000E+00	NE INTERIOR LEG ON STEEL
+ 4	11.4950	9.135E+01	THERMAL DEGREES F
- 4	17.1800	9.111E+01	COLUMN METAL
+ 5	11.3200	9.209E+01	THERMAL DEGREES F
- 5	1.9000	9.184E+01	NORTH FACE OF COLUMN
+ 6	14.1450	9.508E+01	THERMAL DEGREES F
- 6	2.7450	9.477E+01	SOUTH FACE OF COLUMN
+ 7	.0050	-2.313E-02	CRACK INCHES
- 7	.0000	-2.314E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 3
DATE : 3/29/88 TIME : 13:35:19
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	3.1800	-4.885E-03	14118 G'S
- 1	1.9150	-6.839E-03	30 FT LEVEL, E/W
+ 2	10.8400	-2.443E-03	14315 G'S
- 2	.0000	-4.885E-03	30 FT LEVEL, N/S
+ 3	19.1500	8.793E+00	CEA350 MICROSTRAIN
- 3	.0850	5.862E+00	NE INTERIOR LEG ON STEEL
+ 4	.0000	8.969E+01	THERMAL DEGREES F
- 4	2.7800	8.959E+01	COLUMN METAL
+ 5	.2150	8.984E+01	THERMAL DEGREES F
- 5	2.0750	8.969E+01	NORTH FACE OF COLUMN
+ 6	18.4400	1.013E+02	THERMAL DEGREES F
- 6	10.8450	1.009E+02	SOUTH FACE OF COLUMN
+ 7	.0050	-2.323E-02	CRACK INCHES
- 7	.0000	-2.325E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 4
DATE : 3/29/88 TIME : 14: 5:20
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	.3250	-3.420E-03	14118 G'S
- 1	.1800	-6.351E-03	30 FT LEVEL, E/W
+ 2	.9200	-2.443E-03	14315 G'S
- 2	8.3050	-7.816E-03	30 FT LEVEL, N/S
+ 3	14.7900	1.270E+01	CEA350 MICROSTRAIN
- 3	.2800	8.793E+00	NE INTERIOR LEG ON STEEL
+ 4	13.7900	8.901E+01	THERMAL DEGREES F
- 4	.0100	8.872E+01	COLUMN METAL
+ 5	17.8900	8.867E+01	THERMAL DEGREES F
- 5	10.6300	8.847E+01	NORTH FACE OF COLUMN
+ 6	19.5800	9.172E+01	THERMAL DEGREES F
- 6	2.3400	9.099E+01	SOUTH FACE OF COLUMN
+ 7	.0100	-2.330E-02	CRACK INCHES
- 7	.0000	-2.334E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 5
DATE : 3/29/88 TIME : 14:35:20
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	4.1200	-3.908E-03	14118 G'S
- 1	9.5400	-6.839E-03	30 FT LEVEL, E/W
+ 2	.7100	-9.770E-04	14315 G'S
- 2	2.0600	-5.862E-03	30 FT LEVEL, N/S
+ 3	17.2400	1.563E+01	CEA350 MICROSTRAIN
- 3	4.8800	9.770E+00	NE INTERIOR LEG ON STEEL
+ 4	.7700	8.823E+01	THERMAL DEGREES F
- 4	13.4000	8.764E+01	COLUMN METAL
+ 5	1.8100	8.769E+01	THERMAL DEGREES F
- 5	17.2600	8.730E+01	NORTH FACE OF COLUMN
+ 6	1.3800	9.086E+01	THERMAL DEGREES F
- 6	14.0400	8.995E+01	SOUTH FACE OF COLUMN
+ 7	.0100	-2.332E-02	CRACK INCHES
- 7	.0000	-2.336E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 6
DATE : 3/29/88 TIME : 15: 5:19
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	1.2950	-4.885E-03	14118 G'S
- 1	2.0250	-8.793E-03	30 FT LEVEL, E/W
+ 2	.2950	-2.931E-03	14315 G'S
- 2	2.2750	-9.770E-03	30 FT LEVEL, N/S
+ 3	11.3250	1.759E+01	CEA350 MICROSTRAIN
- 3	2.1150	1.368E+01	NE INTERIOR LEG ON STEEL
+ 4	.0000	8.598E+01	THERMAL DEGREES F
- 4	14.0150	8.578E+01	COLUMN METAL
+ 5	19.4500	8.588E+01	THERMAL DEGREES F
- 5	2.4250	8.554E+01	NORTH FACE OF COLUMN
+ 6	.0000	8.745E+01	THERMAL DEGREES F
- 6	4.4650	8.708E+01	SOUTH FACE OF COLUMN
+ 7	.0100	-2.337E-02	CRACK INCHES
- 7	.0000	-2.341E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 7
DATE : 3/29/88 TIME : 15:35:20
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	4.5250	-5.374E-03	14118 G'S
- 1	7.4800	-1.075E-02	30 FT LEVEL, E/W
+ 2	7.1900	-4.397E-03	14315 G'S
- 2	2.1850	-1.172E-02	30 FT LEVEL, N/S
+ 3	16.0750	2.833E+01	CEA350 MICROSTRAIN
- 3	5.4150	2.149E+01	NE INTERIOR LEG ON STEEL
+ 4	2.7750	8.417E+01	THERMAL DEGREES F
- 4	14.8900	8.363E+01	COLUMN METAL
+ 5	4.3400	8.412E+01	THERMAL DEGREES F
- 5	19.0400	8.393E+01	NORTH FACE OF COLUMN
+ 6	3.1700	8.537E+01	THERMAL DEGREES F
- 6	16.5550	8.476E+01	SOUTH FACE OF COLUMN
+ 7	.0050	-2.339E-02	CRACK INCHES
- 7	.0000	-2.341E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 8
DATE : 3/29/88 TIME : 16: 5:20
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	5.2450	-6.351E-03	14118 G'S
- 1	4.9550	-8.793E-03	30 FT LEVEL, E/W
+ 2	17.4350	-4.397E-03	14315 G'S
- 2	17.5400	-1.172E-02	30 FT LEVEL, N/S
+ 3	5.4550	3.810E+01	CEA350 MICROSTRAIN
- 3	14.8800	3.322E+01	NE INTERIOR LEG ON STEEL
+ 4	.0000	8.285E+01	THERMAL DEGREES F
- 4	17.9900	8.271E+01	COLUMN METAL
+ 5	13.3250	8.329E+01	THERMAL DEGREES F
- 5	.0350	8.315E+01	NORTH FACE OF COLUMN
+ 6	.0000	8.372E+01	THERMAL DEGREES F
- 6	19.1900	8.360E+01	SOUTH FACE OF COLUMN
+ 7	.0050	-2.337E-02	CRACK INCHES
- 7	.0000	-2.339E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 9
DATE : 3/29/88 TIME : 16:35:19
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	.0900	-7.816E-03	14118 G'S
- 1	.2900	-9.770E-03	30 FT LEVEL, E/W
+ 2	.0800	-7.816E-03	14315 G'S
- 2	5.2600	-1.124E-02	30 FT LEVEL, N/S
+ 3	14.5050	4.494E+01	CEA350 MICROSTRAIN
- 3	.0350	4.104E+01	NE INTERIOR LEG ON STEEL
+ 4	14.0100	8.149E+01	THERMAL DEGREES F
- 4	.0350	8.129E+01	COLUMN METAL
+ 5	14.6750	8.139E+01	THERMAL DEGREES F
- 5	3.7750	8.114E+01	NORTH FACE OF COLUMN
+ 6	11.7450	8.195E+01	THERMAL DEGREES F
- 6	.0000	8.177E+01	SOUTH FACE OF COLUMN
+ 7	.0100	-2.334E-02	CRACK INCHES
- 7	.0000	-2.337E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 10
DATE : 3/29/88 TIME : 17: 5:20
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	4.8950	-7.816E-03	14118 G'S
- 1	18.0750	-1.172E-02	30 FT LEVEL, E/W
+ 2	14.0000	-8.305E-03	14315 G'S
- 2	13.6050	-1.417E-02	30 FT LEVEL, N/S
+ 3	11.2500	5.081E+01	CEA350 MICROSTRAIN
- 3	.1050	4.690E+01	NE INTERIOR LEG ON STEEL
+ 4	17.9350	8.002E+01	THERMAL DEGREES F
- 4	1.5700	7.958E+01	COLUMN METAL
+ 5	17.7250	7.968E+01	THERMAL DEGREES F
- 5	3.3450	7.953E+01	NORTH FACE OF COLUMN
+ 6	8.5750	7.987E+01	THERMAL DEGREES F
- 6	2.8500	7.969E+01	SOUTH FACE OF COLUMN
+ 7	.0100	-2.334E-02	CRACK INCHES
- 7	.0000	-2.337E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 11
DATE : 3/29/88 TIME : 17:35:20
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	.2800	-1.026E-02	14118 G'S
- 1	2.4650	-1.172E-02	30 FT LEVEL, E/W
+ 2	.4000	-1.124E-02	14315 G'S
- 2	.0450	-1.319E-02	30 FT LEVEL, N/S
+ 3	5.6800	5.960E+01	CEA350 MICROSTRAIN
- 3	.0300	5.667E+01	NE INTERIOR LEG ON STEEL
+ 4	.0000	7.890E+01	THERMAL DEGREES F
- 4	8.2250	7.855E+01	COLUMN METAL
+ 5	13.3950	7.846E+01	THERMAL DEGREES F
- 5	.0000	7.821E+01	NORTH FACE OF COLUMN
+ 6	19.0300	7.841E+01	THERMAL DEGREES F
- 6	.0000	7.822E+01	SOUTH FACE OF COLUMN
+ 7	.0050	-2.334E-02	CRACK INCHES
- 7	.0000	-2.336E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 12
DATE : 3/29/88 TIME : 18: 5:19
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	4.7000	-1.124E-02	14118 G'S
- 1	5.3900	-1.368E-02	30 FT LEVEL, E/W
+ 2	2.2650	-1.319E-02	14315 G'S
- 2	4.4750	-1.661E-02	30 FT LEVEL, N/S
+ 3	16.8200	6.546E+01	CEA350 MICROSTRAIN
- 3	6.0100	6.058E+01	NE INTERIOR LEG ON STEEL
+ 4	17.2450	7.723E+01	THERMAL DEGREES F
- 4	5.4450	7.680E+01	COLUMN METAL
+ 5	.0250	7.650E+01	THERMAL DEGREES F
- 5	11.0550	7.636E+01	NORTH FACE OF COLUMN
+ 6	16.2650	7.627E+01	THERMAL DEGREES F
- 6	5.4600	7.603E+01	SOUTH FACE OF COLUMN
+ 7	.0050	-2.334E-02	CRACK INCHES
- 7	.0000	-2.336E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 13
DATE : 3/29/88 TIME : 18:35:20
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	.0000	-1.270E-02	14118 G'S
- 1	.2500	-1.368E-02	30 FT LEVEL, E/W
+ 2	1.0650	-1.417E-02	14315 G'S
- 2	.0000	-1.563E-02	30 FT LEVEL, N/S
+ 3	3.8550	7.132E+01	CEA350 MICROSTRAIN
- 3	9.3700	6.448E+01	NE INTERIOR LEG ON STEEL
+ 4	16.0300	7.611E+01	THERMAL DEGREES F
- 4	.6700	7.582E+01	COLUMN METAL
+ 5	19.9550	7.504E+01	THERMAL DEGREES F
- 5	3.8350	7.489E+01	NORTH FACE OF COLUMN
+ 6	12.9950	7.480E+01	THERMAL DEGREES F
- 6	.0350	7.468E+01	SOUTH FACE OF COLUMN
+ 7	.0100	-2.328E-02	CRACK INCHES
- 7	.0000	-2.330E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 14
DATE : 3/29/88 TIME : 19: 5:20
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	2.9500	-1.368E-02	14118 G'S
- 1	.0050	-1.466E-02	30 FT LEVEL, E/W
+ 2	.0900	-1.563E-02	14315 G'S
- 2	.0050	-1.661E-02	30 FT LEVEL, N/S
+ 3	3.4900	7.523E+01	CEA350 MICROSTRAIN
- 3	15.0950	7.132E+01	NE INTERIOR LEG ON STEEL
+ 4	18.3700	7.518E+01	THERMAL DEGREES F
- 4	.0000	7.479E+01	COLUMN METAL
+ 5	.0000	7.391E+01	THERMAL DEGREES F
- 5	11.4200	7.377E+01	NORTH FACE OF COLUMN
+ 6	14.9500	7.352E+01	THERMAL DEGREES F
- 6	.0100	7.334E+01	SOUTH FACE OF COLUMN
+ 7	.0050	-2.323E-02	CRACK INCHES
- 7	.0000	-2.325E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 15
DATE : 3/29/88 TIME : 19:35:20
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	6.8650	-1.221E-02	14118 G'S
- 1	6.8200	-1.661E-02	30 FT LEVEL, E/W
+ 2	7.0800	-1.466E-02	14315 G'S
- 2	7.0450	-1.856E-02	30 FT LEVEL, N/S
+ 3	8.0900	7.816E+01	CEA350 MICROSTRAIN
- 3	.0450	7.426E+01	NE INTERIOR LEG ON STEEL
+ 4	.0050	7.445E+01	THERMAL DEGREES F
- 4	14.1450	7.426E+01	COLUMN METAL
+ 5	13.8350	7.294E+01	THERMAL DEGREES F
- 5	2.8050	7.279E+01	NORTH FACE OF COLUMN
+ 6	.0000	7.273E+01	THERMAL DEGREES F
- 6	16.6900	7.255E+01	SOUTH FACE OF COLUMN
+ 7	.0050	-2.320E-02	CRACK INCHES
- 7	.0000	-2.321E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 16
DATE : 3/29/88 TIME : 20: 5:20
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	.0950	-1.466E-02	14118 G'S
- 1	16.3550	-1.563E-02	30 FT LEVEL, E/W
+ 2	.1200	-1.661E-02	14315 G'S
- 2	.0900	-1.759E-02	30 FT LEVEL, N/S
+ 3	.0000	7.914E+01	CEA350 MICROSTRAIN
- 3	1.8450	7.621E+01	NE INTERIOR LEG ON STEEL
+ 4	.0100	7.382E+01	THERMAL DEGREES F
- 4	8.7750	7.357E+01	COLUMN METAL
+ 5	.0000	7.225E+01	THERMAL DEGREES F
- 5	9.9500	7.215E+01	NORTH FACE OF COLUMN
+ 6	.0000	7.187E+01	THERMAL DEGREES F
- 6	8.2800	7.169E+01	SOUTH FACE OF COLUMN
+ 7	.0100	-2.314E-02	CRACK INCHES
- 7	.0000	-2.316E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 17
DATE : 3/29/88 TIME : 20:35:20
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	3.5950	-1.514E-02	14118 G'S
- 1	15.8400	-1.612E-02	30 FT LEVEL, E/W
+ 2	12.1500	-1.710E-02	14315 G'S
- 2	.2050	-1.856E-02	30 FT LEVEL, N/S
+ 3	.0000	8.207E+01	CEA350 MICROSTRAIN
- 3	8.9150	7.816E+01	NE INTERIOR LEG ON STEEL
+ 4	12.6850	7.308E+01	THERMAL DEGREES F
- 4	.0200	7.284E+01	COLUMN METAL
+ 5	15.5850	7.132E+01	THERMAL DEGREES F
- 5	.0100	7.118E+01	NORTH FACE OF COLUMN
+ 6	11.4950	7.084E+01	THERMAL DEGREES F
- 6	.0000	7.065E+01	SOUTH FACE OF COLUMN
+ 7	.0050	-2.313E-02	CRACK INCHES
- 7	.0000	-2.314E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 18
DATE : 3/29/88 TIME : 21: 5:19
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	14.2900	-1.514E-02	14118 G'S
- 1	14.4250	-1.710E-02	30 FT LEVEL, E/W
+ 2	4.4000	-1.759E-02	14315 G'S
- 2	14.3800	-1.905E-02	30 FT LEVEL, N/S
+ 3	9.8900	8.403E+01	CEA350 MICROSTRAIN
- 3	6.5000	8.012E+01	NE INTERIOR LEG ON STEEL
+ 4	16.0200	7.225E+01	THERMAL DEGREES F
- 4	.0150	7.206E+01	COLUMN METAL
+ 5	11.6700	7.035E+01	THERMAL DEGREES F
- 5	.0000	7.025E+01	NORTH FACE OF COLUMN
+ 6	.0000	7.022E+01	THERMAL DEGREES F
- 6	.2450	7.016E+01	SOUTH FACE OF COLUMN
+ 7	.0100	-2.307E-02	CRACK INCHES
- 7	.0000	-2.309E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 19
DATE : 3/29/88 TIME : 21:35:20
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	.0000	-1.563E-02	14118 G'S
- 1	.0200	-1.661E-02	30 FT LEVEL, E/W
+ 2	.1800	-1.759E-02	14315 G'S
- 2	.3800	-1.954E-02	30 FT LEVEL, N/S
+ 3	.0000	8.207E+01	CEA350 MICROSTRAIN
- 3	7.9000	7.816E+01	NE INTERIOR LEG ON STEEL
+ 4	.1200	7.191E+01	THERMAL DEGREES F
- 4	5.3300	7.176E+01	COLUMN METAL
+ 5	.7050	6.961E+01	THERMAL DEGREES F
- 5	10.5450	6.952E+01	NORTH FACE OF COLUMN
+ 6	.0000	6.968E+01	THERMAL DEGREES F
- 6	.0050	6.961E+01	SOUTH FACE OF COLUMN
+ 7	.0050	-2.304E-02	CRACK INCHES
- 7	.0000	-2.306E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 20
DATE : 3/29/88 TIME : 22: 5:20
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	.2600	-1.563E-02	14118 G'S
- 1	.2950	-1.710E-02	30 FT LEVEL, E/W
+ 2	1.5850	-1.808E-02	14315 G'S
- 2	5.4500	-1.954E-02	30 FT LEVEL, N/S
+ 3	1.8300	8.305E+01	CEA350 MICROSTRAIN
- 3	7.5350	7.816E+01	NE INTERIOR LEG ON STEEL
+ 4	16.9850	7.132E+01	THERMAL DEGREES F
- 4	3.6000	7.118E+01	COLUMN METAL
+ 5	.0000	6.888E+01	THERMAL DEGREES F
- 5	12.0450	6.878E+01	NORTH FACE OF COLUMN
+ 6	.0000	6.906E+01	THERMAL DEGREES F
- 6	.0300	6.900E+01	SOUTH FACE OF COLUMN
+ 7	.0100	-2.300E-02	CRACK INCHES
- 7	.0000	-2.302E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 21
DATE : 3/29/88 TIME : 22:35:19
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	.0650	-1.661E-02	14118 G'S
- 1	.0000	-1.710E-02	30 FT LEVEL, E/W
+ 2	3.6100	-1.856E-02	14315 G'S
- 2	.0550	-1.954E-02	30 FT LEVEL, N/S
+ 3	.0000	8.500E+01	CEA350 MICROSTRAIN
- 3	.0350	8.305E+01	NE INTERIOR LEG ON STEEL
+ 4	17.5450	7.079E+01	THERMAL DEGREES F
- 4	.0000	7.064E+01	COLUMN METAL
+ 5	.0000	6.830E+01	THERMAL DEGREES F
- 5	19.5200	6.815E+01	NORTH FACE OF COLUMN
+ 6	13.9550	6.833E+01	THERMAL DEGREES F
- 6	.0100	6.821E+01	SOUTH FACE OF COLUMN
+ 7	.0050	-2.299E-02	CRACK INCHES
- 7	.0000	-2.300E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 22
DATE : 3/29/88 TIME : 23: 5:20
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	17.2250	-1.221E-02	14118 G'S
- 1	17.6750	-2.149E-02	30 FT LEVEL, E/W
+ 2	11.6900	-8.793E-03	14315 G'S
- 2	6.0350	-2.980E-02	30 FT LEVEL, N/S
+ 3	13.6050	8.696E+01	CEA350 MICROSTRAIN
- 3	.5450	8.403E+01	NE INTERIOR LEG ON STEEL
+ 4	6.7400	7.025E+01	THERMAL DEGREES F
- 4	.3750	7.010E+01	COLUMN METAL
+ 5	13.0700	6.766E+01	THERMAL DEGREES F
- 5	2.1900	6.756E+01	NORTH FACE OF COLUMN
+ 6	18.1050	6.778E+01	THERMAL DEGREES F
- 6	.0250	6.766E+01	SOUTH FACE OF COLUMN
+ 7	.0150	-2.295E-02	CRACK INCHES
- 7	.0000	-2.297E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 23
DATE : 3/29/88 TIME : 23:35:20
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	15.8850	-1.661E-02	14118 G'S
- 1	13.8600	-1.808E-02	30 FT LEVEL, E/W
+ 2	14.3700	-1.905E-02	14315 G'S
- 2	15.1500	-2.052E-02	30 FT LEVEL, N/S
+ 3	.0000	8.598E+01	CEA350 MICROSTRAIN
- 3	.0400	8.403E+01	NE INTERIOR LEG ON STEEL
+ 4	19.7100	7.010E+01	THERMAL DEGREES F
- 4	2.4350	7.000E+01	COLUMN METAL
+ 5	.0000	6.702E+01	THERMAL DEGREES F
- 5	5.4550	6.693E+01	NORTH FACE OF COLUMN
+ 6	.0000	6.729E+01	THERMAL DEGREES F
- 6	1.7850	6.723E+01	SOUTH FACE OF COLUMN
+ 7	.0000	-2.295E-02	CRACK INCHES
- 7	.0000	-2.295E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 24
DATE : 3/30/88 TIME : 0: 5:19
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	.0000	-1.759E-02	14118 G'S
- 1	.0900	-1.808E-02	30 FT LEVEL, E/W
+ 2	.0200	-1.954E-02	14315 G'S
- 2	.0000	-2.003E-02	30 FT LEVEL, N/S
+ 3	.0000	8.598E+01	CEA350 MICROSTRAIN
- 3	.0350	8.403E+01	NE INTERIOR LEG ON STEEL
+ 4	5.4400	6.932E+01	THERMAL DEGREES F
- 4	.2200	6.922E+01	COLUMN METAL
+ 5	7.1350	6.683E+01	THERMAL DEGREES F
- 5	4.8050	6.673E+01	NORTH FACE OF COLUMN
+ 6	7.4550	6.644E+01	THERMAL DEGREES F
- 6	.0000	6.638E+01	SOUTH FACE OF COLUMN
+ 7	.0050	-2.292E-02	CRACK INCHES
- 7	.0000	-2.293E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 25
DATE : 3/30/88 TIME : 0:35:20
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	.0000	-1.759E-02	14118 G'S
- 1	.0700	-1.808E-02	30 FT LEVEL, E/W
+ 2	.1350	-1.954E-02	14315 G'S
- 2	.0000	-2.003E-02	30 FT LEVEL, N/S
+ 3	.0000	8.500E+01	CEA350 MICROSTRAIN
- 3	.0350	8.305E+01	NE INTERIOR LEG ON STEEL
+ 4	.0000	6.878E+01	THERMAL DEGREES F
- 4	4.8050	6.869E+01	COLUMN METAL
+ 5	.0000	6.649E+01	THERMAL DEGREES F
- 5	.0100	6.644E+01	NORTH FACE OF COLUMN
+ 6	16.0050	6.595E+01	THERMAL DEGREES F
- 6	.0750	6.583E+01	SOUTH FACE OF COLUMN
+ 7	.0100	-2.286E-02	CRACK INCHES
- 7	.0000	-2.288E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 25
DATE : 3/30/88 TIME : 0:35:20
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	.0000	-1.759E-02	14118 G'S
- 1	.0700	-1.808E-02	30 FT LEVEL, E/W
+ 2	.1350	-1.954E-02	14315 G'S
- 2	.0000	-2.003E-02	30 FT LEVEL, N/S
+ 3	.0000	8.500E+01	CEA350 MICROSTRAIN
- 3	.0350	8.305E+01	NE INTERIOR LEG ON STEEL
+ 4	.0000	6.878E+01	THERMAL DEGREES F
- 4	4.8050	6.869E+01	COLUMN METAL
+ 5	.0000	6.649E+01	THERMAL DEGREES F
- 5	.0100	6.644E+01	NORTH FACE OF COLUMN
+ 6	16.0050	6.595E+01	THERMAL DEGREES F
- 6	.0750	6.583E+01	SOUTH FACE OF COLUMN
+ 7	.0100	-2.286E-02	CRACK INCHES
- 7	.0000	-2.288E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 26
DATE : 3/30/88 TIME : 1: 5:20
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	.0000	-1.808E-02	14118 G'S
- 1	.0100	-1.856E-02	30 FT LEVEL, E/W
+ 2	12.7800	-1.954E-02	14315 G'S
- 2	19.3800	-2.101E-02	30 FT LEVEL, N/S
+ 3	4.1150	8.500E+01	CEA350 MICROSTRAIN
- 3	.0250	8.305E+01	NE INTERIOR LEG ON STEEL
+ 4	19.2700	6.839E+01	THERMAL DEGREES F
- 4	3.3900	6.815E+01	COLUMN METAL
+ 5	.0000	6.571E+01	THERMAL DEGREES F
- 5	.1000	6.566E+01	NORTH FACE OF COLUMN
+ 6	13.4100	6.552E+01	THERMAL DEGREES F
- 6	.0000	6.546E+01	SOUTH FACE OF COLUMN
+ 7	.0100	-2.285E-02	CRACK INCHES
- 7	.0000	-2.286E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 27
DATE : 3/30/88 TIME : 1:35:19
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	6.5150	-1.759E-02	14118 G'S
- 1	.0300	-1.856E-02	30 FT LEVEL, E/W
+ 2	.0050	-2.003E-02	14315 G'S
- 2	4.8950	-2.101E-02	30 FT LEVEL, N/S
+ 3	.0000	8.403E+01	CEA350 MICROSTRAIN
- 3	.0450	8.207E+01	NE INTERIOR LEG ON STEEL
+ 4	2.7650	6.805E+01	THERMAL DEGREES F
- 4	15.3400	6.790E+01	COLUMN METAL
+ 5	.0000	6.512E+01	THERMAL DEGREES F
- 5	6.4800	6.502E+01	NORTH FACE OF COLUMN
+ 6	18.3400	6.516E+01	THERMAL DEGREES F
- 6	.0600	6.503E+01	SOUTH FACE OF COLUMN
+ 7	.0100	-2.283E-02	CRACK INCHES
- 7	.0000	-2.285E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 28
DATE : 3/30/88 TIME : 2: 5:20
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	.1100	-1.808E-02	14118 G'S
- 1	.0000	-1.856E-02	30 FT LEVEL, E/W
+ 2	.0000	-2.052E-02	14315 G'S
- 2	.0500	-2.101E-02	30 FT LEVEL, N/S
+ 3	4.3050	8.500E+01	CEA350 MICROSTRAIN
- 3	4.1450	8.207E+01	NE INTERIOR LEG ON STEEL
+ 4	.5600	6.751E+01	THERMAL DEGREES F
- 4	15.8750	6.737E+01	COLUMN METAL
+ 5	.0000	6.453E+01	THERMAL DEGREES F
- 5	17.0850	6.444E+01	NORTH FACE OF COLUMN
+ 6	.0000	6.467E+01	THERMAL DEGREES F
- 6	.2500	6.461E+01	SOUTH FACE OF COLUMN
+ 7	.0050	-2.281E-02	CRACK INCHES
- 7	.0000	-2.283E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 29
DATE : 3/30/88 TIME : 2:35:20
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	.0700	-1.856E-02	14118 G'S
- 1	.0000	-1.905E-02	30 FT LEVEL, E/W
+ 2	.0000	-2.101E-02	14315 G'S
- 2	.6500	-2.149E-02	30 FT LEVEL, N/S
+ 3	.0000	8.403E+01	CEA350 MICROSTRAIN
- 3	.0400	8.207E+01	NE INTERIOR LEG ON STEEL
+ 4	11.3800	6.727E+01	THERMAL DEGREES F
- 4	.0100	6.712E+01	COLUMN METAL
+ 5	6.7400	6.404E+01	THERMAL DEGREES F
- 5	.0200	6.395E+01	NORTH FACE OF COLUMN
+ 6	11.2350	6.412E+01	THERMAL DEGREES F
- 6	.0750	6.400E+01	SOUTH FACE OF COLUMN
+ 7	.0050	-2.281E-02	CRACK INCHES
- 7	.0000	-2.283E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 30
DATE : 3/30/88 TIME : 3: 5:20
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	.0300	-1.905E-02	14118 G'S
- 1	.0000	-1.954E-02	30 FT LEVEL, E/W
+ 2	.0050	-2.101E-02	14315 G'S
- 2	.0000	-2.149E-02	30 FT LEVEL, N/S
+ 3	.0000	8.403E+01	CEA350 MICROSTRAIN
- 3	.0600	8.207E+01	NE INTERIOR LEG ON STEEL
+ 4	.0050	6.678E+01	THERMAL DEGREES F
- 4	14.5300	6.659E+01	COLUMN METAL
+ 5	12.6850	6.356E+01	THERMAL DEGREES F
- 5	.0150	6.346E+01	NORTH FACE OF COLUMN
+ 6	.0000	6.357E+01	THERMAL DEGREES F
- 6	1.6400	6.351E+01	SOUTH FACE OF COLUMN
+ 7	.0050	-2.279E-02	CRACK INCHES
- 7	.0000	-2.281E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 31
DATE : 3/30/88 TIME : 3:35:20
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	.0050	-1.905E-02	14118 G'S
- 1	.0000	-1.954E-02	30 FT LEVEL, E/W
+ 2	.0350	-2.101E-02	14315 G'S
- 2	.0000	-2.149E-02	30 FT LEVEL, N/S
+ 3	.0000	8.305E+01	CEA350 MICROSTRAIN
- 3	.0350	8.109E+01	NE INTERIOR LEG ON STEEL
+ 4	.0050	6.644E+01	THERMAL DEGREES F
- 4	15.7000	6.624E+01	COLUMN METAL
+ 5	.0200	6.326E+01	THERMAL DEGREES F
- 5	13.4600	6.317E+01	NORTH FACE OF COLUMN
+ 6	1.7350	6.314E+01	THERMAL DEGREES F
- 6	.0000	6.308E+01	SOUTH FACE OF COLUMN
+ 7	.0050	-2.277E-02	CRACK INCHES
- 7	.0000	-2.279E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 32
DATE : 3/30/88 TIME : 4: 5:20
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	.0000	-1.954E-02	14118 G'S
- 1	.0000	-1.954E-02	30 FT LEVEL, E/W
+ 2	.0000	-2.149E-02	14315 G'S
- 2	.0000	-2.149E-02	30 FT LEVEL, N/S
+ 3	18.3450	8.305E+01	CEA350 MICROSTRAIN
- 3	2.8400	8.012E+01	NE INTERIOR LEG ON STEEL
+ 4	13.1700	6.600E+01	THERMAL DEGREES F
- 4	2.3200	6.585E+01	COLUMN METAL
+ 5	.0000	6.258E+01	THERMAL DEGREES F
- 5	.0100	6.253E+01	NORTH FACE OF COLUMN
+ 6	7.0400	6.277E+01	THERMAL DEGREES F
- 6	.0000	6.271E+01	SOUTH FACE OF COLUMN
+ 7	.0050	-2.276E-02	CRACK INCHES
- 7	.0000	-2.277E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 33
DATE : 3/30/88 TIME : 4:35:19
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	.0000	-1.954E-02	14118 G'S
- 1	.0650	-2.003E-02	30 FT LEVEL, E/W
+ 2	.0050	-2.149E-02	14315 G'S
- 2	.0000	-2.198E-02	30 FT LEVEL, N/S
+ 3	.0000	8.305E+01	CEA350 MICROSTRAIN
- 3	.0300	8.109E+01	NE INTERIOR LEG ON STEEL
+ 4	8.8650	6.556E+01	THERMAL DEGREES F
- 4	.6150	6.532E+01	COLUMN METAL
+ 5	.0050	6.219E+01	THERMAL DEGREES F
- 5	.0000	6.214E+01	NORTH FACE OF COLUMN
+ 6	.0000	6.223E+01	THERMAL DEGREES F
- 6	10.1150	6.210E+01	SOUTH FACE OF COLUMN
+ 7	.0100	-2.276E-02	CRACK INCHES
- 7	.0000	-2.277E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 34
DATE : 3/30/88 TIME : 5: 5:20
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	.1000	-1.954E-02	14118 G'S
- 1	.1350	-2.052E-02	30 FT LEVEL, E/W
+ 2	.0000	-2.198E-02	14315 G'S
- 2	.0850	-2.247E-02	30 FT LEVEL, N/S
+ 3	.0000	8.207E+01	CEA350 MICROSTRAIN
- 3	.0350	8.012E+01	NE INTERIOR LEG ON STEEL
+ 4	5.8800	6.517E+01	THERMAL DEGREES F
- 4	.7950	6.502E+01	COLUMN METAL
+ 5	.0000	6.180E+01	THERMAL DEGREES F
- 5	.0100	6.175E+01	NORTH FACE OF COLUMN
+ 6	.0150	6.174E+01	THERMAL DEGREES F
- 6	.0000	6.168E+01	SOUTH FACE OF COLUMN
+ 7	.0050	-2.276E-02	CRACK INCHES
- 7	.0000	-2.277E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 35
DATE : 3/30/88 TIME : 5:35:20
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	.0000	-2.003E-02	14118 G'S
- 1	.0250	-2.052E-02	30 FT LEVEL, E/W
+ 2	.0300	-2.198E-02	14315 G'S
- 2	3.4400	-2.296E-02	30 FT LEVEL, N/S
+ 3	1.7900	8.207E+01	CEA350 MICROSTRAIN
- 3	12.3350	7.914E+01	NE INTERIOR LEG ON STEEL
+ 4	.0650	6.468E+01	THERMAL DEGREES F
- 4	.3550	6.458E+01	COLUMN METAL
+ 5	.0150	6.131E+01	THERMAL DEGREES F
- 5	.0000	6.126E+01	NORTH FACE OF COLUMN
+ 6	.0000	6.131E+01	THERMAL DEGREES F
- 6	.0100	6.125E+01	SOUTH FACE OF COLUMN
+ 7	.0100	-2.274E-02	CRACK INCHES
- 7	.0000	-2.276E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 36
DATE : 3/30/88 TIME : 6: 5:20
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	7.3700	-1.905E-02	14118 G'S
- 1	.6250	-2.052E-02	30 FT LEVEL, E/W
+ 2	6.8400	-2.052E-02	14315 G'S
- 2	6.8700	-2.345E-02	30 FT LEVEL, N/S
+ 3	.0000	8.012E+01	CEA350 MICROSTRAIN
- 3	.0350	7.816E+01	NE INTERIOR LEG ON STEEL
+ 4	9.2200	6.463E+01	THERMAL DEGREES F
- 4	.0000	6.448E+01	COLUMN METAL
+ 5	.0050	6.126E+01	THERMAL DEGREES F
- 5	.0000	6.121E+01	NORTH FACE OF COLUMN
+ 6	.0000	6.106E+01	THERMAL DEGREES F
- 6	.0600	6.100E+01	SOUTH FACE OF COLUMN
+ 7	.0100	-2.272E-02	CRACK INCHES
- 7	.0000	-2.274E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 37
DATE : 3/30/88 TIME : 6:35:20
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	2.5850	-1.808E-02	14118 G'S
- 1	2.6300	-2.052E-02	30 FT LEVEL, E/W
+ 2	2.8500	-1.808E-02	14315 G'S
- 2	2.7950	-2.296E-02	30 FT LEVEL, N/S
+ 3	.0000	7.816E+01	CEA350 MICROSTRAIN
- 3	14.4900	7.523E+01	NE INTERIOR LEG ON STEEL
+ 4	.0050	6.483E+01	THERMAL DEGREES F
- 4	9.2750	6.458E+01	COLUMN METAL
+ 5	10.0150	6.170E+01	THERMAL DEGREES F
- 5	.0100	6.160E+01	NORTH FACE OF COLUMN
+ 6	.0000	6.149E+01	THERMAL DEGREES F
- 6	13.5450	6.131E+01	SOUTH FACE OF COLUMN
+ 7	.0050	-2.270E-02	CRACK INCHES
- 7	.0000	-2.272E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 38
DATE : 3/30/88 TIME : 7: 5:20
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	.0150	-1.759E-02	14118 G'S
- 1	.0000	-1.808E-02	30 FT LEVEL, E/W
+ 2	.1050	-1.759E-02	14315 G'S
- 2	.0000	-1.856E-02	30 FT LEVEL, N/S
+ 3	.0000	6.937E+01	CEA350 MICROSTRAIN
- 3	.0300	6.839E+01	NE INTERIOR LEG ON STEEL
+ 4	2.7550	6.532E+01	THERMAL DEGREES F
- 4	12.3050	6.517E+01	COLUMN METAL
+ 5	.0000	6.273E+01	THERMAL DEGREES F
- 5	3.3650	6.263E+01	NORTH FACE OF COLUMN
+ 6	.0150	6.235E+01	THERMAL DEGREES F
- 6	18.9850	6.223E+01	SOUTH FACE OF COLUMN
+ 7	.0100	-2.263E-02	CRACK INCHES
- 7	.0000	-2.265E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 39
DATE : 3/30/88 TIME : 7:35:19
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	.2100	-1.661E-02	14118 G'S
- 1	.0450	-1.759E-02	30 FT LEVEL, E/W
+ 2	.3200	-1.514E-02	14315 G'S
- 2	.3850	-1.661E-02	30 FT LEVEL, N/S
+ 3	.0000	5.862E+01	CEA350 MICROSTRAIN
- 3	.0350	5.667E+01	NE INTERIOR LEG ON STEEL
+ 4	.1100	6.698E+01	THERMAL DEGREES F
- 4	18.2200	6.659E+01	COLUMN METAL
+ 5	.0250	6.551E+01	THERMAL DEGREES F
- 5	.0000	6.546E+01	NORTH FACE OF COLUMN
+ 6	.3000	6.363E+01	THERMAL DEGREES F
- 6	.0000	6.357E+01	SOUTH FACE OF COLUMN
+ 7	.0050	-2.256E-02	CRACK INCHES
- 7	.0000	-2.258E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 40
DATE : 3/30/88 TIME : 8: 5:20
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	.0000	-1.466E-02	14118 G'S
- 1	.0100	-1.514E-02	30 FT LEVEL, E/W
+ 2	16.6850	-1.221E-02	14315 G'S
- 2	1.6750	-1.368E-02	30 FT LEVEL, N/S
+ 3	.8600	5.374E+01	CEA350 MICROSTRAIN
- 3	.0250	5.178E+01	NE INTERIOR LEG ON STEEL
+ 4	19.3100	6.722E+01	THERMAL DEGREES F
- 4	.0050	6.702E+01	COLUMN METAL
+ 5	.0000	6.556E+01	THERMAL DEGREES F
- 5	5.4950	6.546E+01	NORTH FACE OF COLUMN
+ 6	.0050	6.467E+01	THERMAL DEGREES F
- 6	13.6050	6.455E+01	SOUTH FACE OF COLUMN
+ 7	.0050	-2.255E-02	CRACK INCHES
- 7	.0000	-2.256E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 41
DATE : 3/30/88 TIME : 8:35:20
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	19.7450	-1.221E-02	14118 G'S
- 1	.2400	-1.368E-02	30 FT LEVEL, E/W
+ 2	.1850	-1.026E-02	14315 G'S
- 2	.5700	-1.172E-02	30 FT LEVEL, N/S
+ 3	.0000	4.592E+01	CEA350 MICROSTRAIN
- 3	.0400	4.397E+01	NE INTERIOR LEG ON STEEL
+ 4	.0950	6.830E+01	THERMAL DEGREES F
- 4	.0150	6.820E+01	COLUMN METAL
+ 5	.0150	6.727E+01	THERMAL DEGREES F
- 5	.0000	6.722E+01	NORTH FACE OF COLUMN
+ 6	.0000	6.644E+01	THERMAL DEGREES F
- 6	8.2250	6.638E+01	SOUTH FACE OF COLUMN
+ 7	.0000	-2.253E-02	CRACK INCHES
- 7	.0000	-2.253E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 42
DATE : 3/30/88 TIME : 9: 5:19
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	.0100	-1.270E-02	14118 G'S
- 1	.2850	-1.368E-02	30 FT LEVEL, E/W
+ 2	7.0000	-1.026E-02	14315 G'S
- 2	5.8600	-1.221E-02	30 FT LEVEL, N/S
+ 3	1.9200	4.201E+01	CEA350 MICROSTRAIN
- 3	5.3300	3.908E+01	NE INTERIOR LEG ON STEEL
+ 4	12.3350	6.942E+01	THERMAL DEGREES F
- 4	5.8300	6.927E+01	COLUMN METAL
+ 5	.2700	6.888E+01	THERMAL DEGREES F
- 5	9.2600	6.878E+01	NORTH FACE OF COLUMN
+ 6	15.3450	6.833E+01	THERMAL DEGREES F
- 6	.0050	6.821E+01	SOUTH FACE OF COLUMN
+ 7	.0000	-2.253E-02	CRACK INCHES
- 7	.0000	-2.253E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 43
DATE : 3/30/88 TIME : 9:35:20
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	.2050	-1.172E-02	14118 G'S
- 1	.0400	-1.270E-02	30 FT LEVEL, E/W
+ 2	1.0050	-8.305E-03	14315 G'S
- 2	1.3900	-9.770E-03	30 FT LEVEL, N/S
+ 3	9.2550	3.615E+01	CEA350 MICROSTRAIN
- 3	.0300	3.420E+01	NE INTERIOR LEG ON STEEL
+ 4	8.7350	7.093E+01	THERMAL DEGREES F
- 4	.0000	7.079E+01	COLUMN METAL
+ 5	8.1350	7.074E+01	THERMAL DEGREES F
- 5	.0100	7.064E+01	NORTH FACE OF COLUMN
+ 6	10.2400	7.035E+01	THERMAL DEGREES F
- 6	.0150	7.022E+01	SOUTH FACE OF COLUMN
+ 7	.0050	-2.253E-02	CRACK INCHES
- 7	.0000	-2.255E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 44
DATE : 3/30/88 TIME : 10: 5:20
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	.3000	-9.770E-03	14118 G'S
- 1	.0050	-1.075E-02	30 FT LEVEL, E/W
+ 2	8.6850	-4.397E-03	14315 G'S
- 2	1.2600	-6.351E-03	30 FT LEVEL, N/S
+ 3	.0000	2.833E+01	CEA350 MICROSTRAIN
- 3	.0300	2.638E+01	NE INTERIOR LEG ON STEEL
+ 4	16.7300	7.333E+01	THERMAL DEGREES F
- 4	.0000	7.318E+01	COLUMN METAL
+ 5	.0150	7.294E+01	THERMAL DEGREES F
- 5	5.0850	7.284E+01	NORTH FACE OF COLUMN
+ 6	.0000	7.358E+01	THERMAL DEGREES F
- 6	.0150	7.352E+01	SOUTH FACE OF COLUMN
+ 7	.0000	-2.253E-02	CRACK INCHES
- 7	.0000	-2.253E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 45
DATE : 3/30/88 TIME : 10:35:19
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	.0150	-5.862E-03	14118 G'S
- 1	13.4950	-7.328E-03	30 FT LEVEL, E/W
+ 2	.0800	-2.931E-03	14315 G'S
- 2	12.5200	-4.397E-03	30 FT LEVEL, N/S
+ 3	.0000	1.661E+01	CEA350 MICROSTRAIN
- 3	.1400	1.466E+01	NE INTERIOR LEG ON STEEL
+ 4	7.2200	8.285E+01	THERMAL DEGREES F
- 4	18.6500	8.246E+01	COLUMN METAL
+ 5	7.8050	7.577E+01	THERMAL DEGREES F
- 5	.0050	7.567E+01	NORTH FACE OF COLUMN
+ 6	12.2950	7.938E+01	THERMAL DEGREES F
- 6	.0000	7.902E+01	SOUTH FACE OF COLUMN
+ 7	.0050	-2.246E-02	CRACK INCHES
- 7	.0000	-2.248E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230.JCS
TEST : 1 RUN : 47
DATE : 3/30/88 TIME : 11:35:20
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	17.5450	-7.816E-03	14118 G'S
- 1	.7600	-9.770E-03	30 FT LEVEL, E/W
+ 2	.1900	-4.397E-03	14315 G'S
- 2	2.1000	-9.282E-03	30 FT LEVEL, N/S
+ 3	.0000	6.839E+00	CEA350 MICROSTRAIN
- 3	10.0350	4.885E+00	NE INTERIOR LEG ON STEEL
+ 4	19.6650	8.378E+01	THERMAL DEGREES F
- 4	.7250	8.256E+01	COLUMN METAL
+ 5	17.8550	8.041E+01	THERMAL DEGREES F
- 5	10.3850	8.021E+01	NORTH FACE OF COLUMN
+ 6	19.2800	8.665E+01	THERMAL DEGREES F
- 6	.0000	8.561E+01	SOUTH FACE OF COLUMN
+ 7	.0050	-2.253E-02	CRACK INCHES
- 7	.0000	-2.255E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

TIME DATA SUMMARY

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST : 1 RUN : 48
DATE : 3/30/88 TIME : 12: 5:19
TIME STEP = 5.0000E-03 SECONDS 4000 POINTS IN TIME DATA SET

MAXIMUM AT CHANNEL	TIME SEC	VALUE	TRANSDUCER INFORMATION
+ 1	7.0050	-6.351E-03	14118 G'S
- 1	.0100	-7.816E-03	30 FT LEVEL, E/W
+ 2	.5200	-7.816E-03	14315 G'S
- 2	6.9600	-9.770E-03	30 FT LEVEL, N/S
+ 3	.0000	5.862E+00	CEA350 MICROSTRAIN
- 3	.0100	4.885E+00	NE INTERIOR LEG ON STEEL
+ 4	.0000	8.403E+01	THERMAL DEGREES F
- 4	19.2400	8.329E+01	COLUMN METAL
+ 5	.0000	8.168E+01	THERMAL DEGREES F
- 5	7.2550	8.144E+01	NORTH FACE OF COLUMN
+ 6	.0050	9.068E+01	THERMAL DEGREES F
- 6	18.6200	8.958E+01	SOUTH FACE OF COLUMN
+ 7	.0150	-2.258E-02	CRACK INCHES
- 7	.0000	-2.262E-02	VERTICAL CRACK ON LEG, 16" FROM BASE

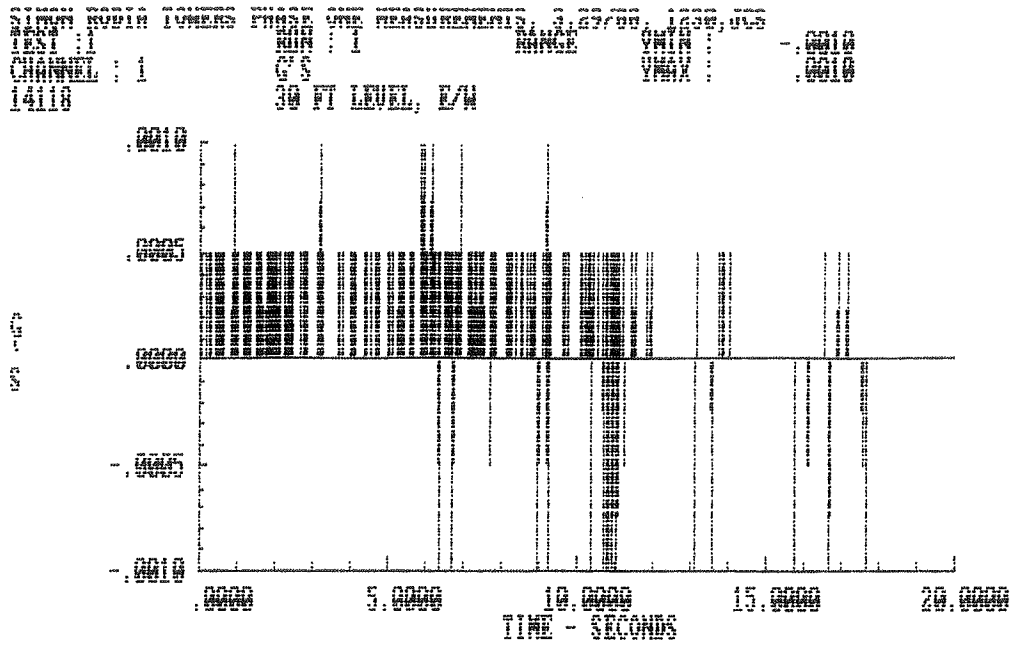
ACCELERATION TIME HISTORY PLOTS

Test Runs* 1, 2, 3, 4, 5, 6, 7,
8, 9, 10, 12, 15, 22

ACCELERATION FREQUENCY PLOT

Test Run 22

*These were the test runs during which measurable accelerations were present. Test Run 1 corresponds to the first sampling at 1230 hours on 3/29/88.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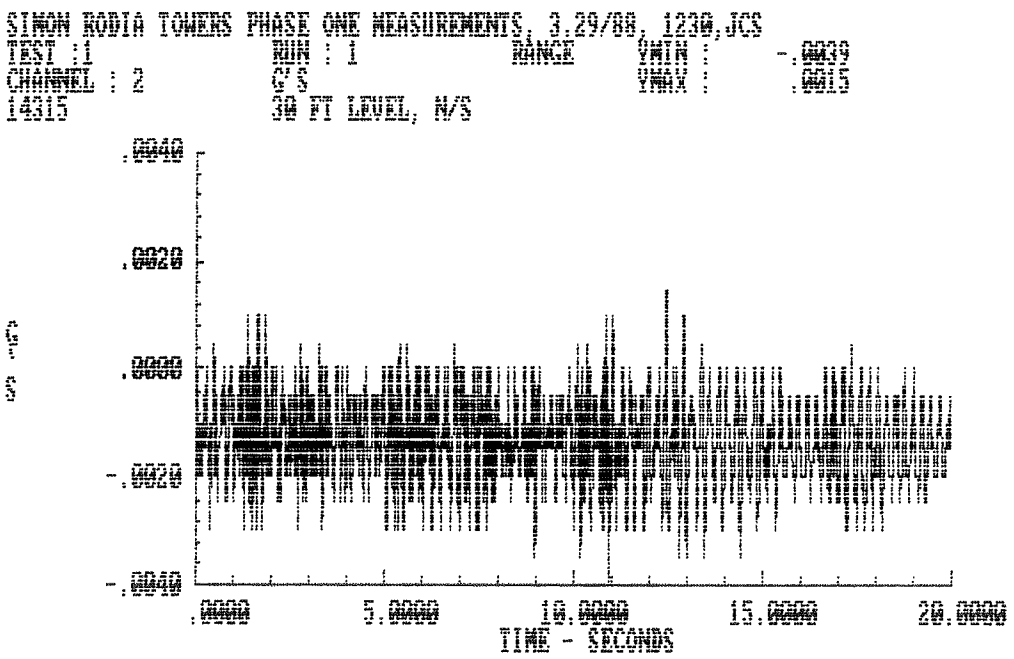
TEST :1
RUN : 1
RANGE
YMIN : -.0010
CHANNEL : 1
G'S
YMAX : .0010
14118
30 FT LEVEL, E/W
.0010
.0005
.0000
-.0005
-.0010
G
'
S
.0000
5.0000
10.0000
15.0000
20.0000
TIME - SECONDS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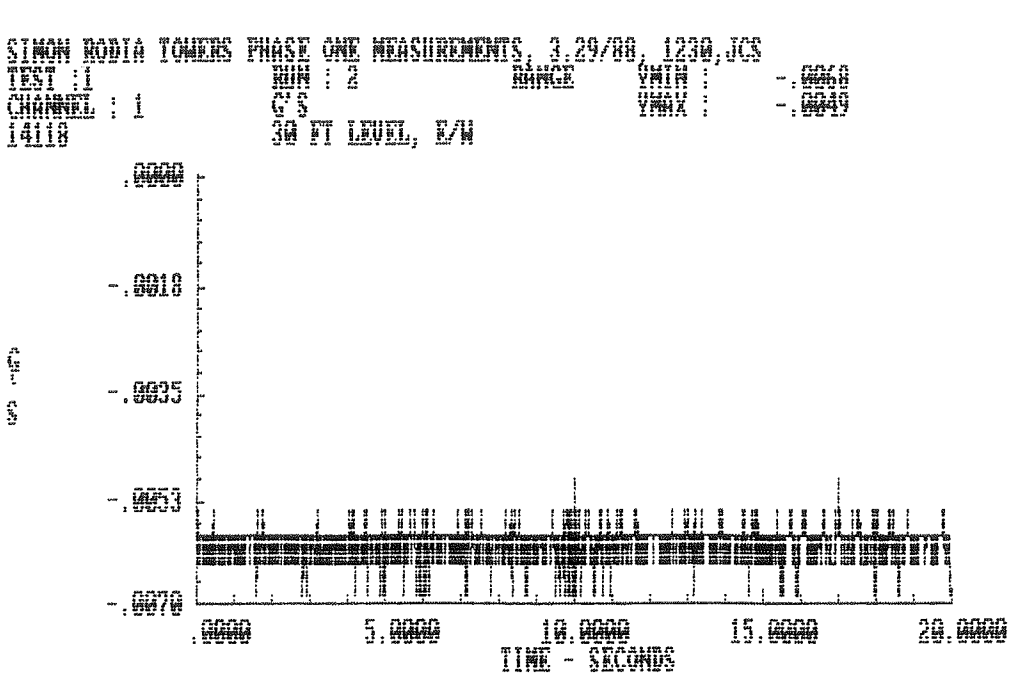
TEST :1
RUN : 1
RANGE
YMIN : -.0039
CHANNEL : 2
G'S
YMAX : .0015
14315
30 FT LEVEL, N/S
.0040
.0020
.0000
-.0020
-.0040
G
'
S
.0000
5.0000
10.0000
15.0000
20.0000
TIME - SECONDS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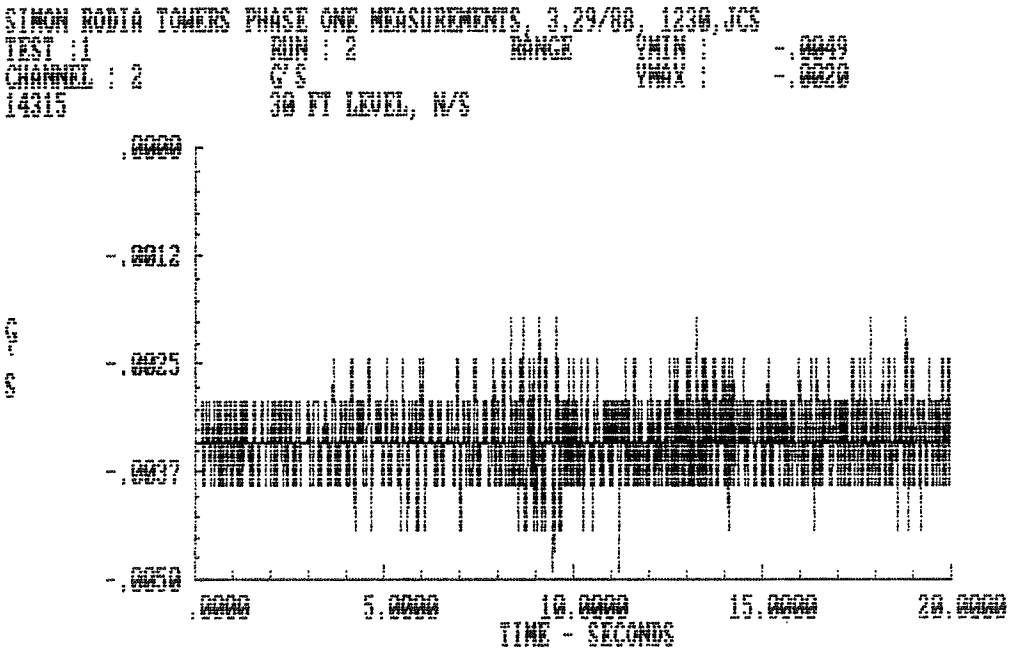
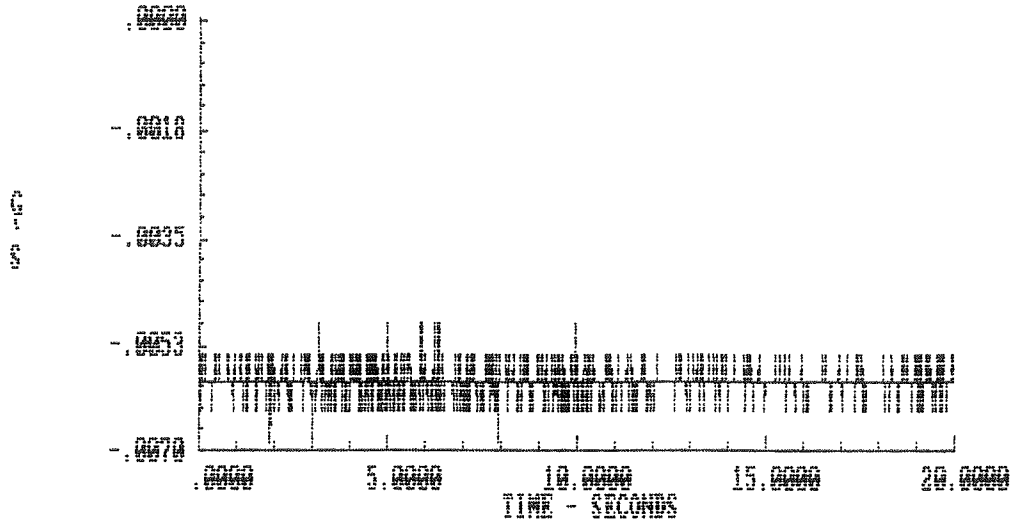
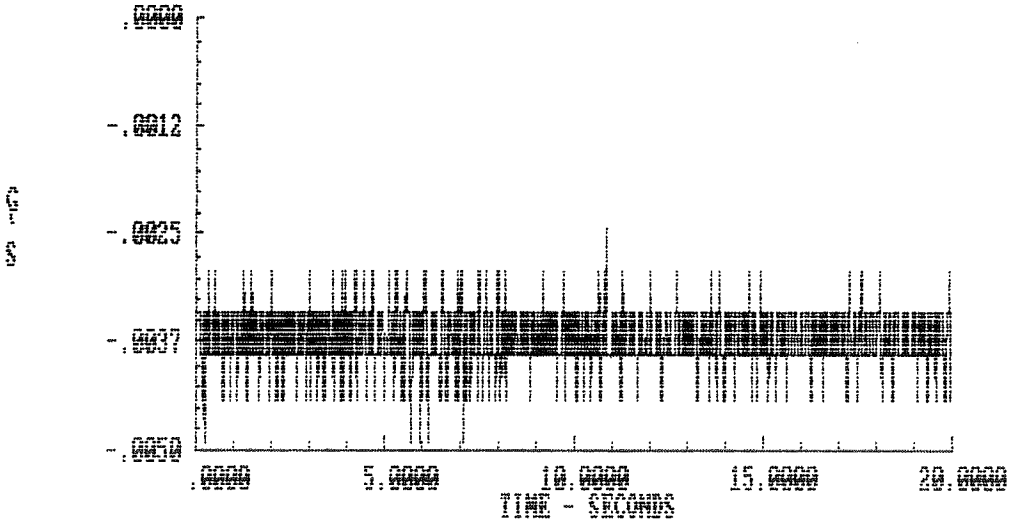
TEST :1
RUN : 2
RANGE
YMIN : -.0066
CHANNEL : 1
G'S
YMAX : -.0049
14118
30 FT LEVEL, E/W
.0000
-.0018
-.0035
-.0053
-.0070
G
'
S
.0000
5.0000
10.0000
15.0000
20.0000
TIME - SECONDS


SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST :1
RUN : 2
RANGE
YMIN : -.0049
CHANNEL : 2
G'S
YMAX : -.0020
14315
30 FT LEVEL, N/S
.0000
-.0012
-.0025
-.0037
-.0050
G
'
S
.0000
5.0000
10.0000
15.0000
20.0000
TIME - SECONDS

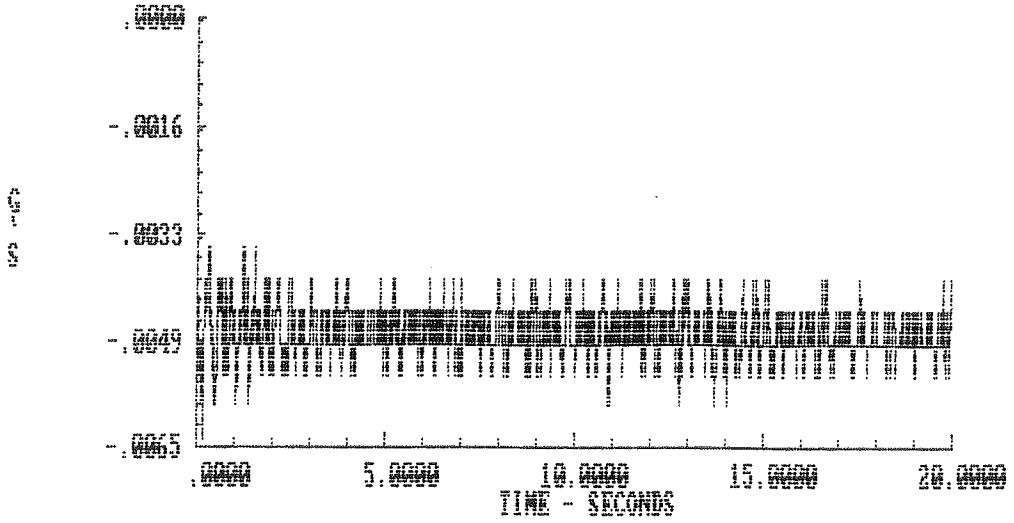
SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST :1 RUN : 3 RANGE YMIN : -.0068
CHANNEL : 1 G'S YMAX : -.0049
14110 30 FT LEVEL, E/W



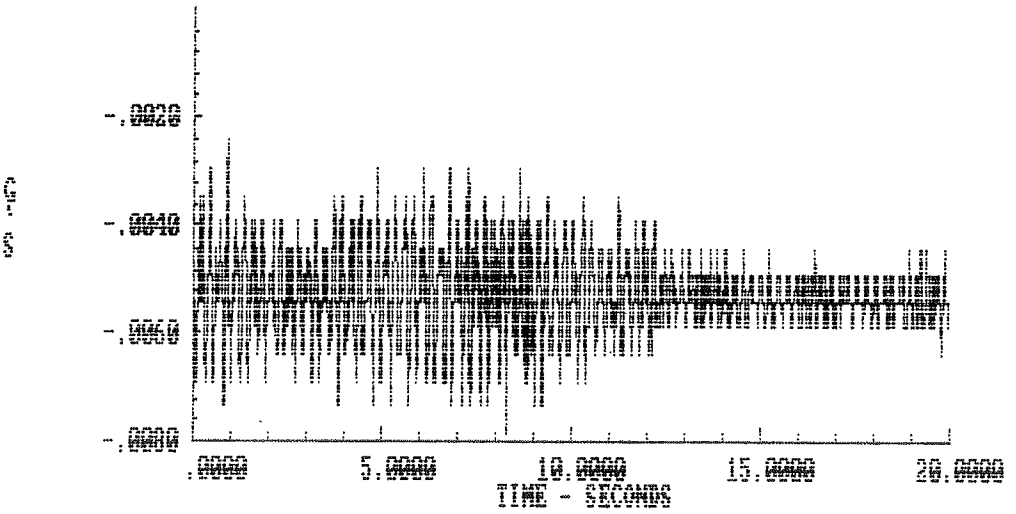
SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST :1 RUN : 3 RANGE YMIN : -.0049
CHANNEL : 2 G'S YMAX : -.0024
14315 30 FT LEVEL, N/S



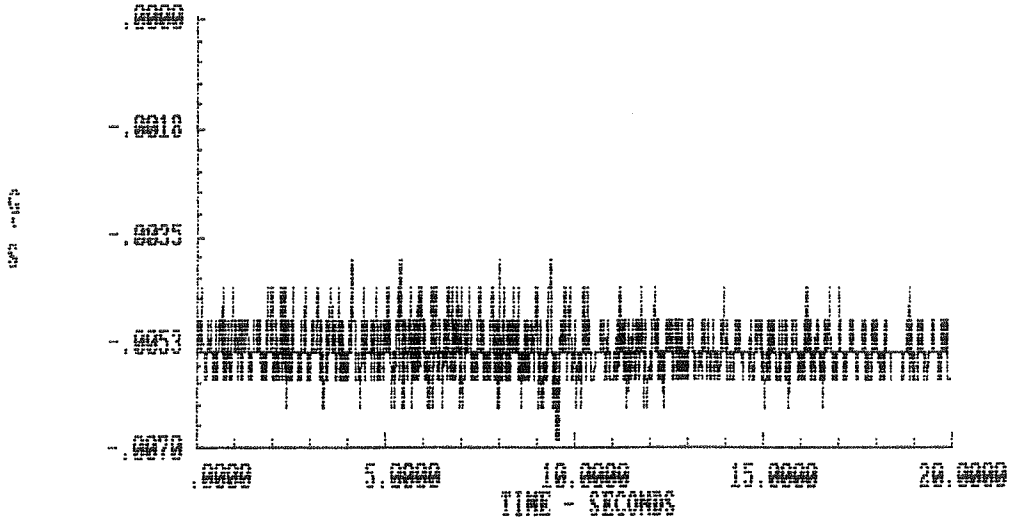
SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST :1 RUN : 4 RANGE YMIN : -.0064
CHANNEL : 1 G'S YMAX : -.0034
14118 30 FT LEVEL, E/W



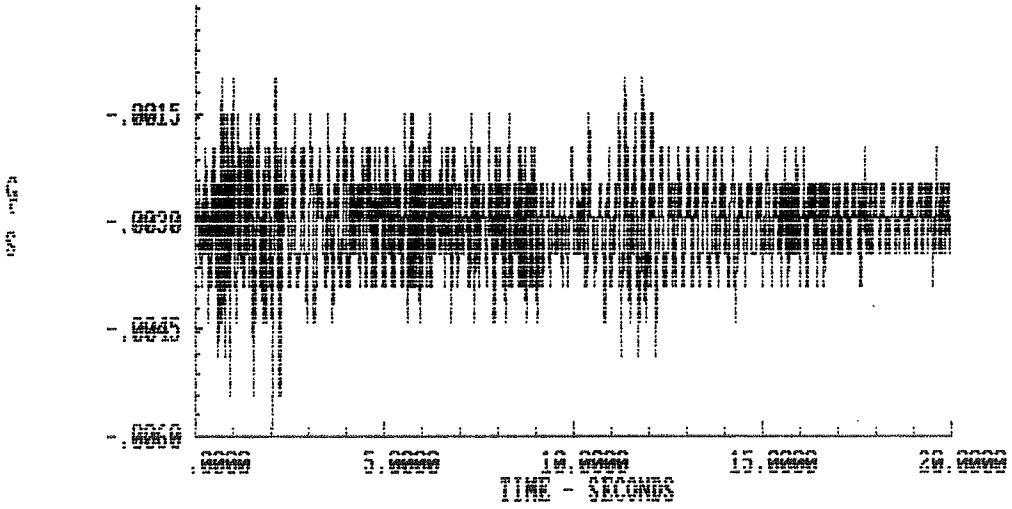
SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST :1 RUN : 4 RANGE YMIN : -.0078
CHANNEL : 2 G'S YMAX : -.0024
14315 30 FT LEVEL, N/S



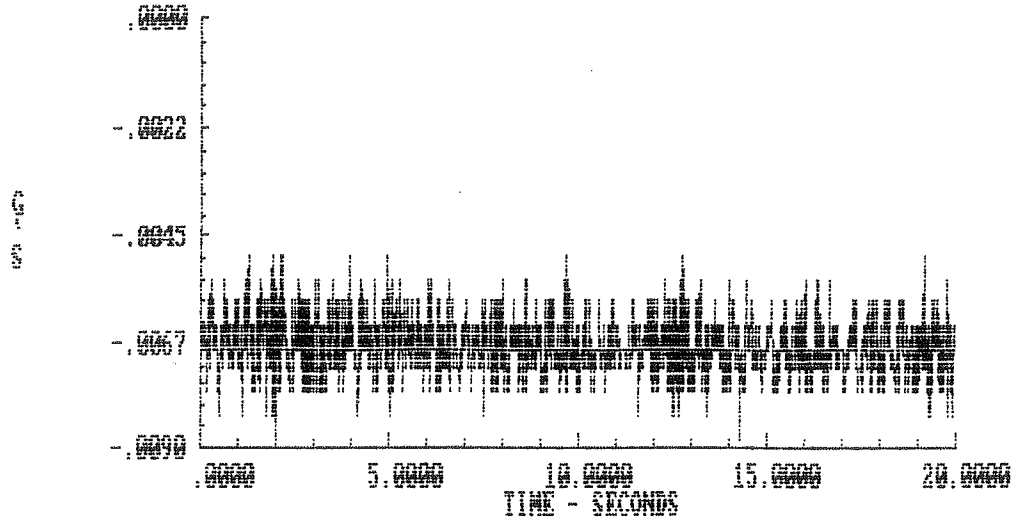
SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST :1 RUN : 5 RANGE YMIN : -.0060
CHANNEL : 1 G'S YMAX : -.0039
14118 30 FT LEVEL, E/W



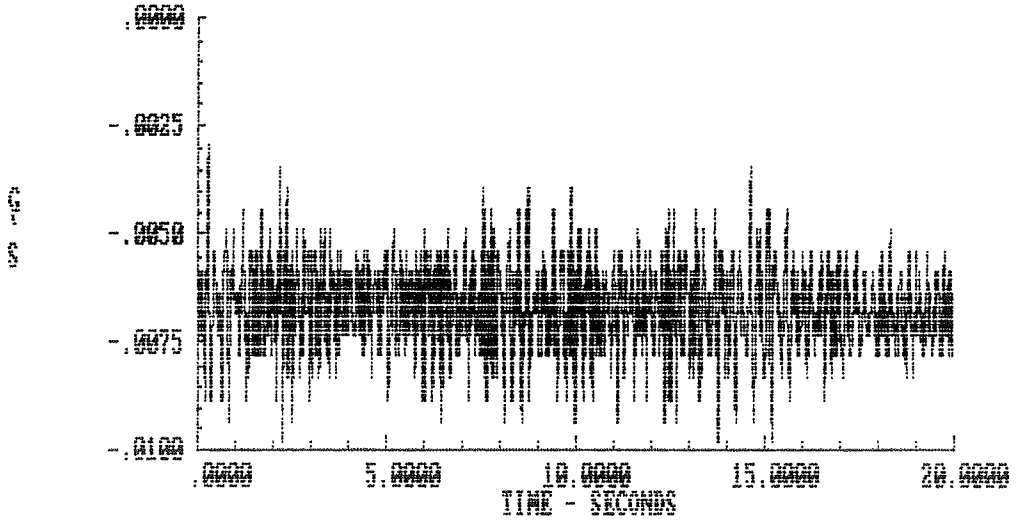
SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST :1 RUN : 5 RANGE YMIN : -.0059
CHANNEL : 2 G'S YMAX : -.0010
14315 30 FT LEVEL, N/S



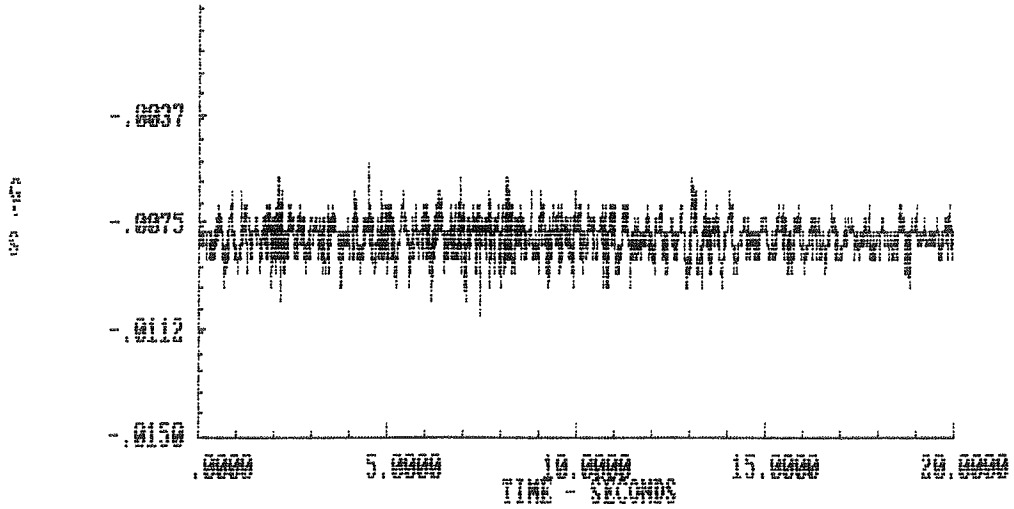
SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST :1 RUN : 6 RANGE YMIN : -.0088
CHANNEL : 1 G'S YMAX : -.0049
14118 30 FT LEVEL, E/W



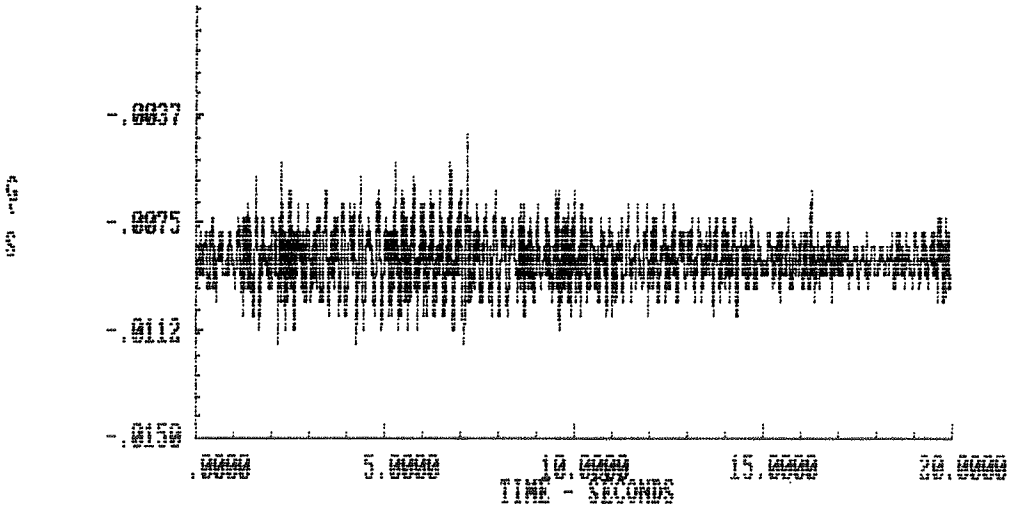
SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST :1 RUN : 6 RANGE YMIN : -.0098
CHANNEL : 2 G'S YMAX : -.0029
14315 30 FT LEVEL, N/S



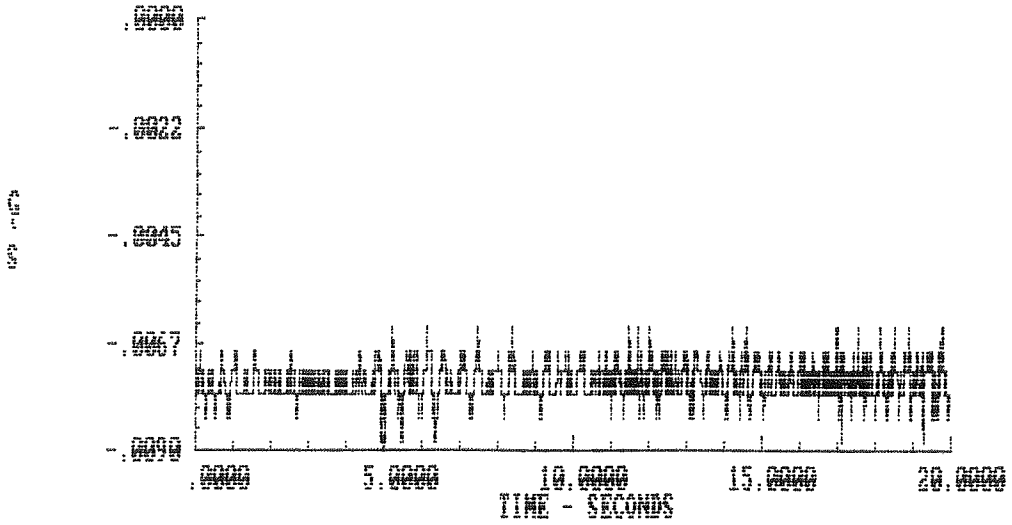
SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST :1 RUN : 7 RANGE YMIN : -.0107
CHANNEL : 1 G'S YMAX : -.0054
14118 30 FT LEVEL, E/W



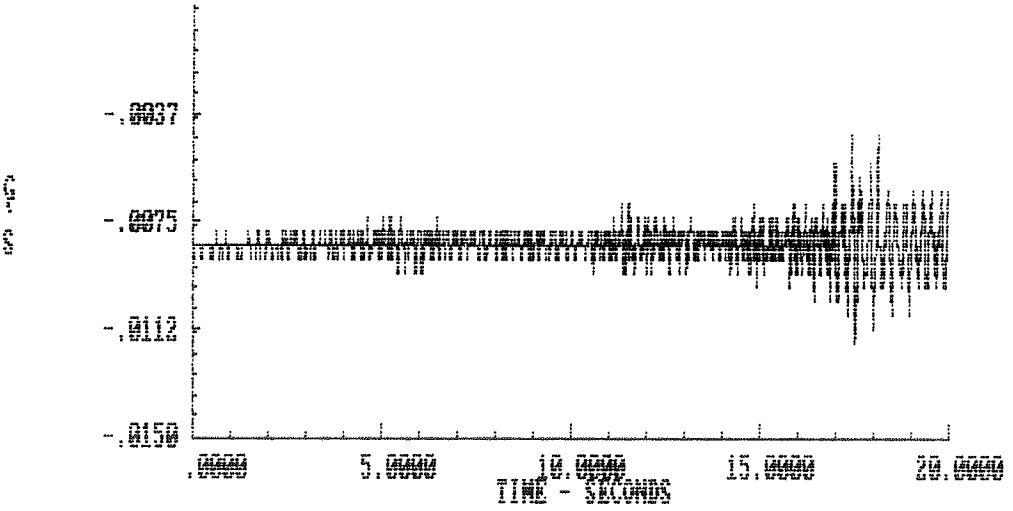
SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST :1 RUN : 7 RANGE YMIN : -.0117
CHANNEL : 2 G'S YMAX : -.0044
14315 30 FT LEVEL, N/S

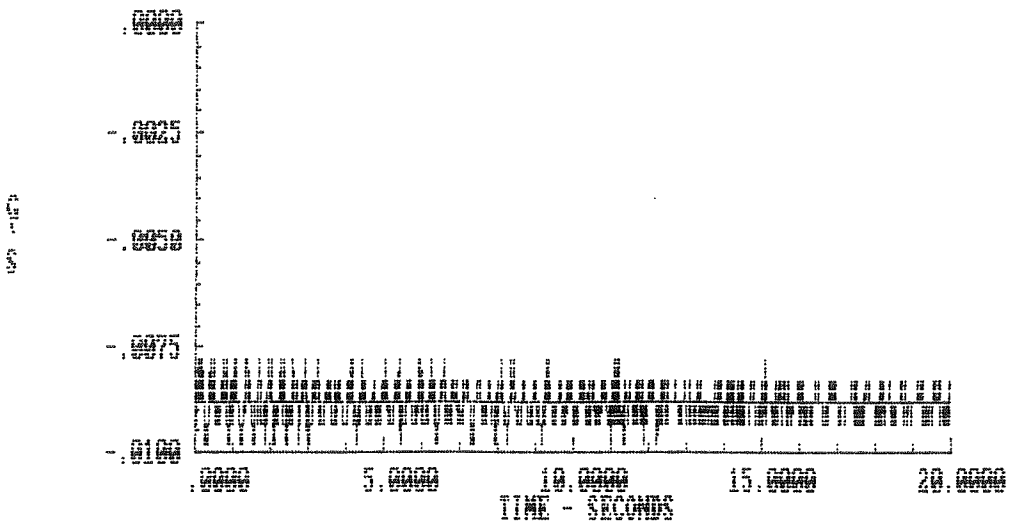


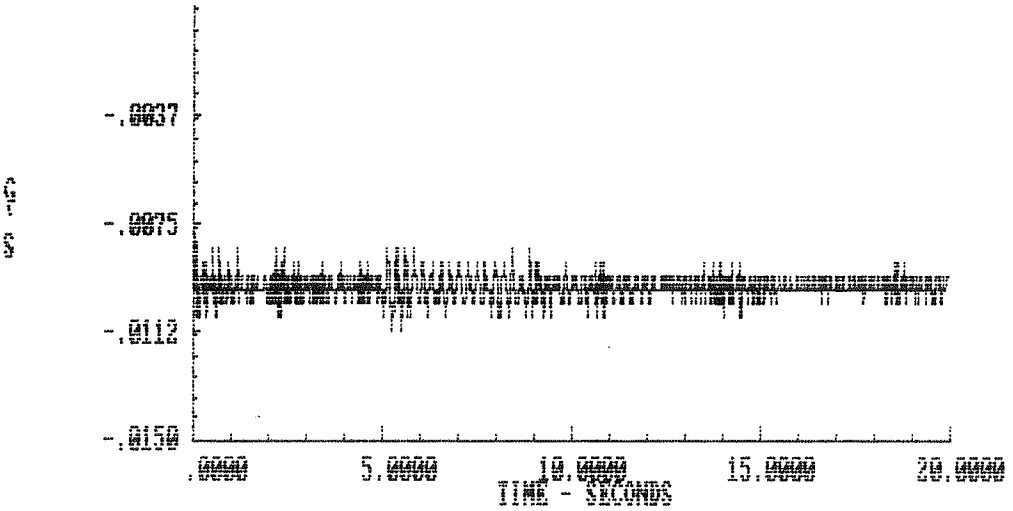
SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST :1 RUN : 8 RANGE YMIN : -.0088
CHANNEL : 1 G'S YMAX : -.0064
14118 30 FT LEVEL, E/W



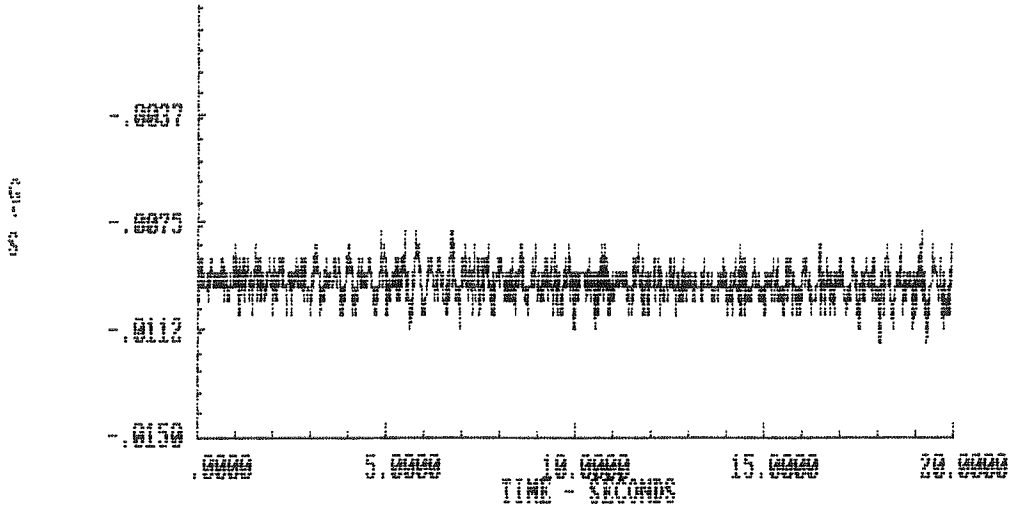
SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST :1 RUN : 8 RANGE YMIN : -.0117
CHANNEL : 2 G'S YMAX : -.0044
14315 30 FT LEVEL, N/S



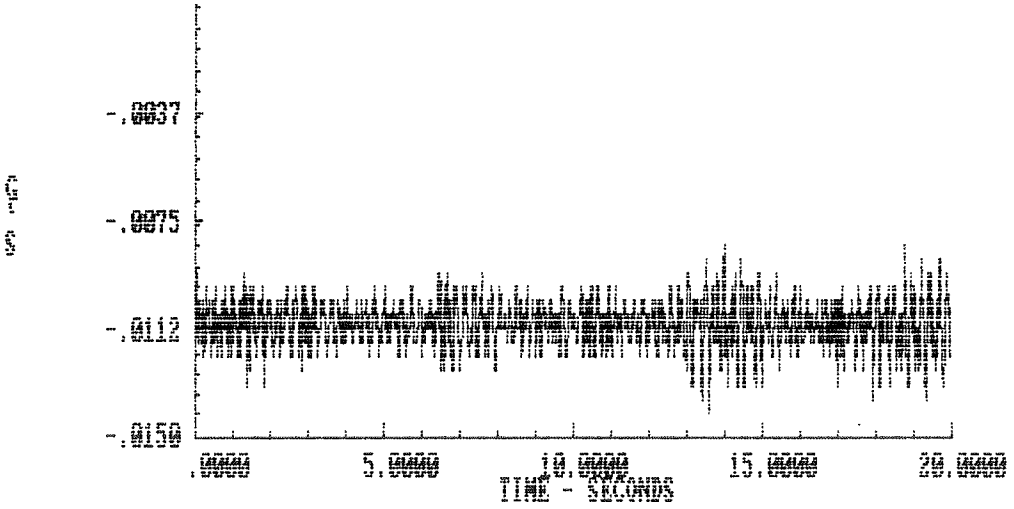

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST :1
RUN : 9
RANGE
YMIN : -.0098
CHANNEL : 1
G'S
YMAX : -.0078
14118
30 FT LEVEL, E/W
.0000
-.0025
-.0050
-.0075
-.0100
G
'
S
.0000
5.0000
10.0000
15.0000
20.0000
TIME - SECONDS

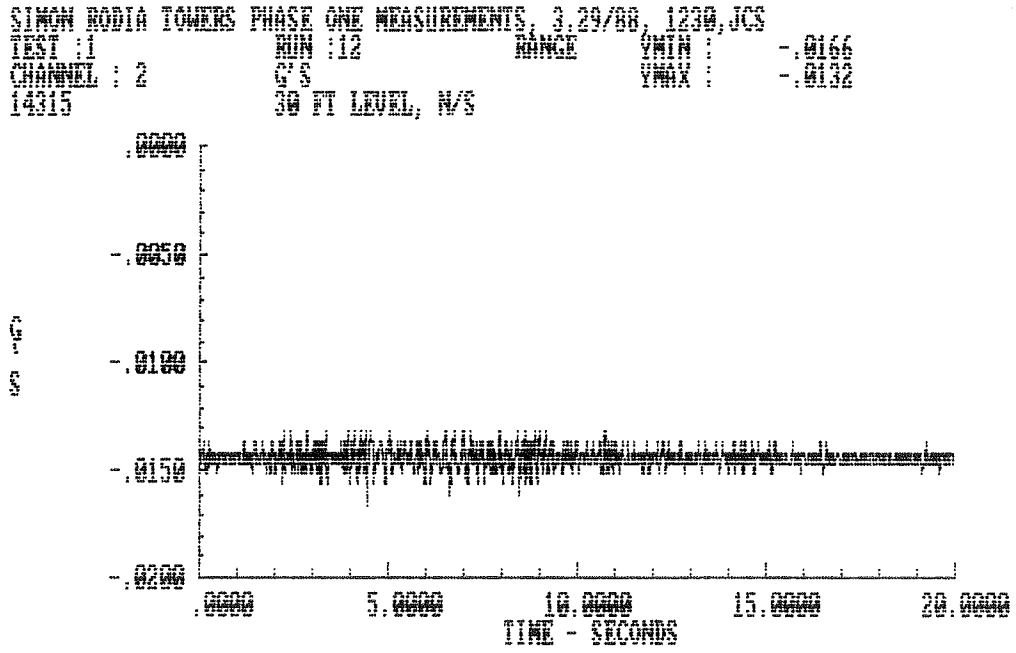

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST :1
RUN : 9
RANGE
YMIN : -.0112
CHANNEL : 2
G'S
YMAX : -.0078
14315
30 FT LEVEL, N/S
-.0037
-.0075
-.0112
-.0150
G
'
S
.0000
5.0000
10.0000
15.0000
20.0000
TIME - SECONDS

SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST :1 RUN :10 RANGE YMIN : -.0117
CHANNEL : 1 G'S YMAX : -.0078
14118 30 FT LEVEL, E/W

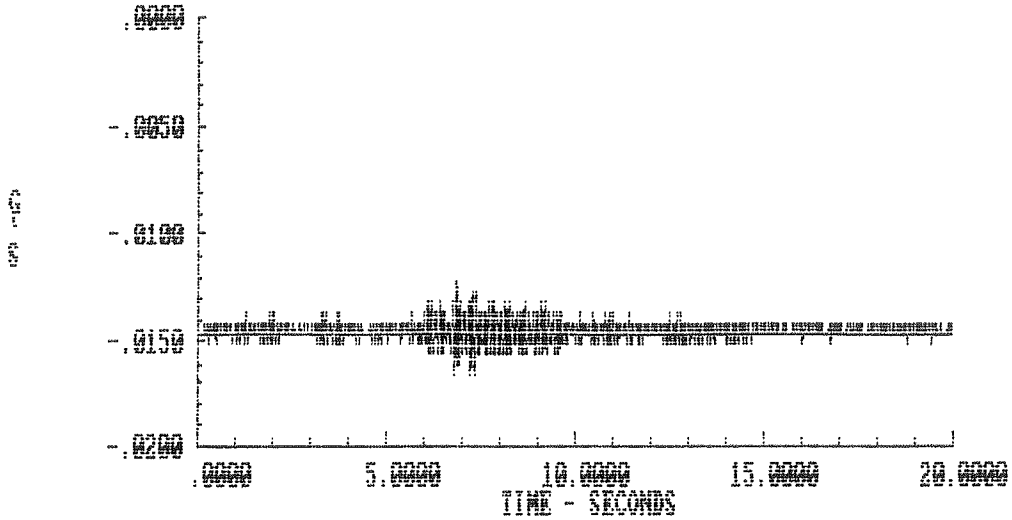


SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST :1 RUN :10 RANGE YMIN : -.0142
CHANNEL : 2 G'S YMAX : -.0083
14315 30 FT LEVEL, N/S

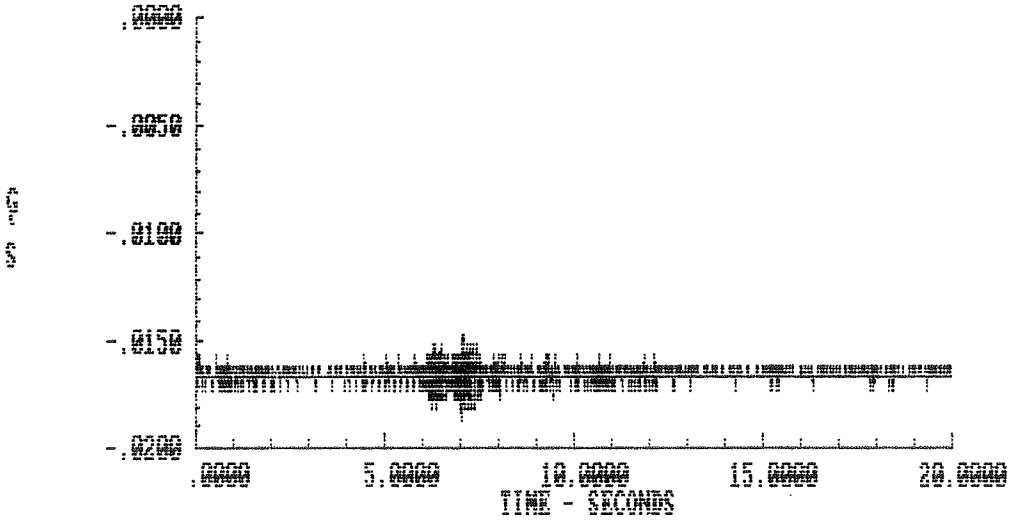



SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST :1
RUN :12
RANGE
YMIN : -.0166
CHANNEL : 2
G'S
YMAX : -.0132
14315
30 FT LEVEL, N/S
.0000
-.0050
-.0100
-.0150
-.0200
G
'
S
.0000
5.0000
10.0000
15.0000
20.0000
TIME - SECONDS

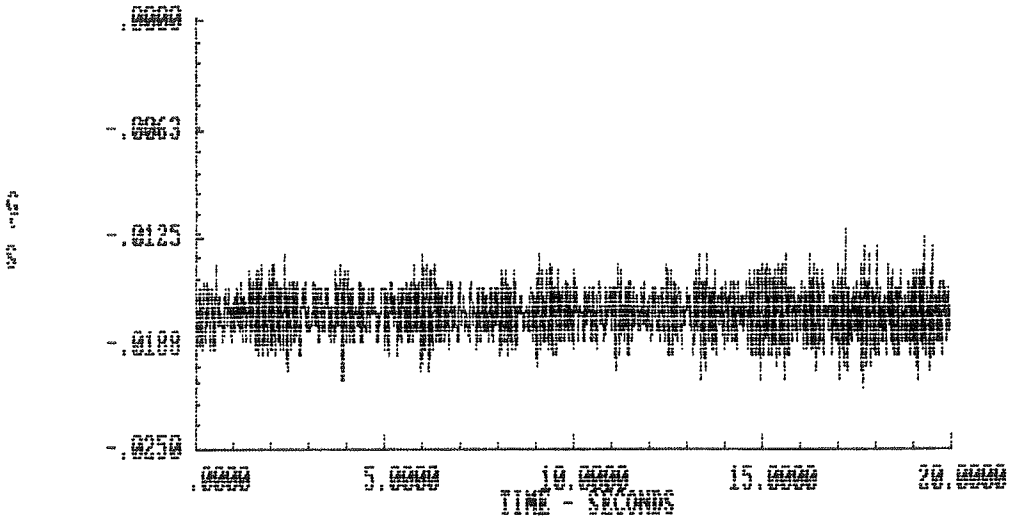
SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST :1 RUN :15 RANGE YMIN : -.0166
CHANNEL : 1 G'S YMAX : -.0122
14118 30 FT LEVEL, E/W



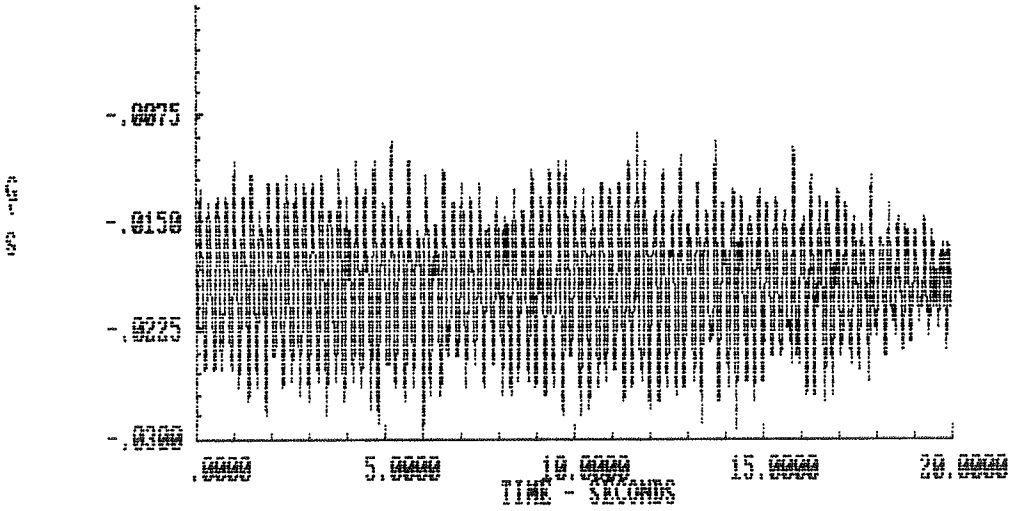
SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST :1 RUN :15 RANGE YMIN : -.0186
CHANNEL : 2 G'S YMAX : -.0147
14315 30 FT LEVEL, N/S

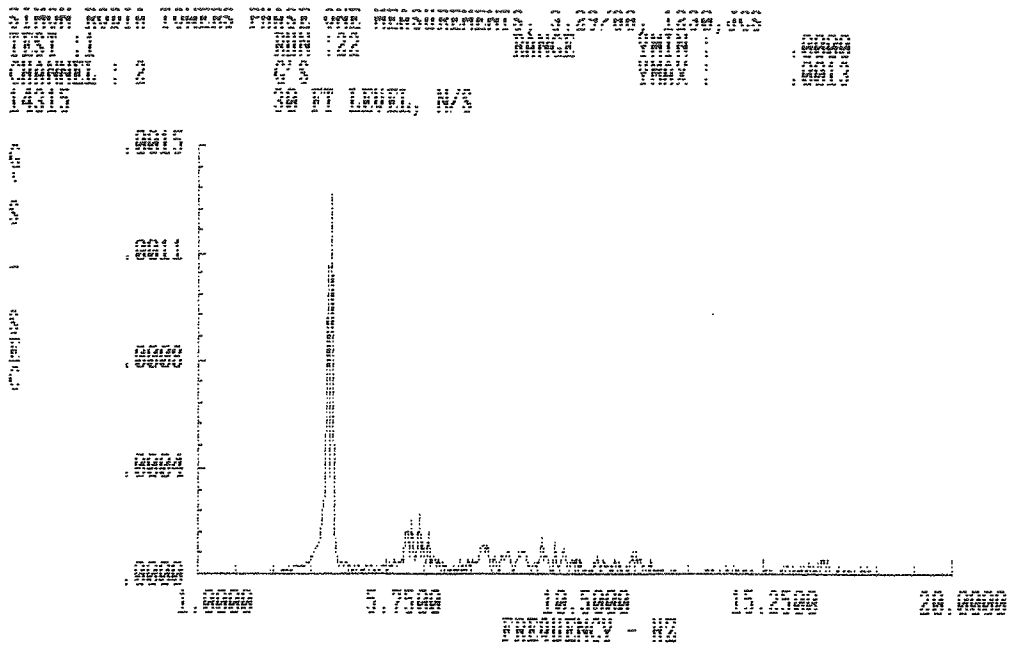


SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST :1 MUN :22 RANGE YMIN : -.0215
CHANNEL : 1 G'S YMAX : -.0122
14118 30 FT LEVEL, E/W



SIMON RODIA TOWERS PHASE ONE MEASUREMENTS, 3.29/88, 1230,JCS
TEST :1 MUN :22 RANGE YMIN : -.0298
CHANNEL : 2 G'S YMAX : -.0088
14315 30 FT LEVEL, N/S




SIMON KENTA THEATRE FORCE VME MEASUREMENTS, 3/27/00, 1230,JCS
TEST :1
RUN :22
RANGE
YMIN : .0000
CHANNEL : 2
G'S
YMAX : .0013
14315
30 FT LEVEL, N/S
G's - SPEC
.0015
.0011
.0008
.0004
.0000
1.0000
5.7500
10.5000
15.2500
20.0000
FREQUENCY - HZ