DACW33-85-D-0010

GEOTECHNICAL ENGINEERS INC.

SLOPE INCLINOMETER MONITORING
and
DATA MANIPULATION
at
BALL MOUNTAIN DAM
JAMAICA, VERMONT

U.S. Army Corps of Engineers
New England Division

September 18, 1986

Prepared for

U.S. Army Corps of Engineers
New England Division
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by

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Project 86934

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1. INTRODUCTION

1.1 Purpose

This report presents the interim results obtained from reading six slope inclinometers installed to monitor embankment slope movements at Ball Mountain Dam in Jamaica, Vermont.

1.2 Scope

The scope of work performed for this study was as follows:

a. Provide an engineer and a technician to furnish monthly on-site readings of six slope inclinometers at Ball Mountain Dam. A total of six readings including an initial set of readings have been taken to date. Six additional monthly readings will be performed in the future.

b. Reduce the field data and present results in graphical and tabular form. Submit the results monthly to the New England Division, Corps of Engineers (NED-CE).

c. Provide an interim engineering report containing the scope of the investigation, field data, results in graphical and tabular form, summary of daily activities, safety reports, and survey drawings. A final report will be prepared after the twelfth monthly reading.

1.3 Authorization

This study was authorized by Lt. Col. Edward D. Hammond of the NED-CE in the contract for Delivery Order No. 7 for Contract No. DACW33-85-D-0010 dated March 10, 1986.

1.4 Project Personnel

The following personnel at Geotechnical Engineers Inc. were involved with the monthly on-site visits, reducing field data, and preparation of this report.

Principal-in-Charge	Ronald C. Hirschfeld, P.E.
Project Manager	Stephen L. Whiteside, P.E.
Engineer	Stephen J. Sarandis

2. SITE AND PROJECT DESCRIPTION

Ball Mountain Dam is located on the West River in Jamaica, Vermont (see Fig. 1). It is a unit of the Connecticut River Basin flood control plan. The dam is located about 29 miles upstream of the confluence of the Connecticut and West Rivers at Brattleboro, Vermont. It is 9.5 miles upstream of the Townshend Flood Control Dam. Construction of the dam was completed in 1961.

A plan and cross section of the dam are shown in Figs. 2 and 3. The dam is a rockfill and earthfill embankment with a concrete spillway and a low-level outlet tunnel in the right abutment. The embankment is 915 ft long and has a maximum height of 265 ft. The dam crest elevation is 1052 ft Mean Sea Level (MSL) and the crest width is 20 ft. The downstream and upstream embankment slopes are 1.75H:1V and 2H:1V, respectively. The core of the dam is constructed of silty gravelly sand, and the shell is constructed of rockfill.

There is an apparent bulge on the downstream slope about 175 ft downslope of the crest extending between the abutments at approximately constant elevation and profile. A trough in the embankment is located at the toe of the bulge paralleling the bulge and extending between the abutments. Several sections along the downstream side of the crest have settled relative to the upstream side. We understand that differential crest settlements of up to 2 ft have occurred since the dam was completed in 1961. The settled crest areas have been periodically regraded with backfill.

Six slope inclinometers were installed at Ball Mountain Dam between October 1985 and January 1986 to monitor embankment slope movements in the downstream slope. An initial set of readings of the six slope inclinometers was taken on January 23 and January 24, 1986. Monthly readings of the six slope inclinometers began on March 31, 1986. This report contains the results of five monthly readings obtained from March 1986 to August 1986.

3. METHODS OF OBTAINING AND REDUCING FIELD DATA

3.1 General

The SINCO Digitilt Inclinometer system is used to monitor embankment slope movements at Ball Mountain Dam. This system consists of four separate units: the borehole sensor, the digital indicator, the interconnecting electrical cable, and the PVC guide casing. Field data obtained using the SINCO Digitilt Inclinometer System are then reduced and plotted using the computer program GEOSIN developed by Geocomp Corp. of Sudbury, Massachusetts.

3.2 Field Measurements

The following equipment and procedures are used to read the slope inclinometers at Ball Mountain Dam:

a. Equipment

(1) Borehole Sensor - SINCO Digital Sensor, Model No. 50325

(2) Digital Indicator - SINCO Digital Indicator, Model No. 50309

(3) Electrical Cable - The cable is 0.42-in.-O.D. with six multiple-strand copper conductors insulated with neoprene coating.

(4) Guide Casing - 2.75-in.-I.D. ABS telescoping slope inclinometer casing

b. Procedure

The slope inclinometer guide casing was installed in six boreholes in the downstream slope of Ball Mountain Dam between October 1985 and January 1986. (See Fig. 2 for slope inclinometer locations). The guide casing was installed from the embankment surface to about El. 910 ft (MSL) in each borehole. (See Fig. 3 for cross section of dam.) The slope inclinometer guide casing was installed to about El. 910 ft at which we estimated the bottom of each guide casing would be below the zone of potential movement. Deflection measurements are referenced to the bottom of the slope inclinometer guide casing which is assumed to be stationary.

To read each slope inclinometer, the borehole sensor is connected to the digital indicator with the electrical

cable and lowered to the bottom of the casing. The sensor is kept at the bottom of the casing for about 10 minutes to allow the temperature of the probe to stabilize. The borehole sensor is then raised to the nearest even foot mark and the first reading is taken. Readings are then taken at 2-ft intervals as the sensor is raised up the casing until the top of the slope inclinometer guide casing is reached. After the completion of one set of readings, the borehole sensor is rotated 180° and lowered back to the bottom of the casing, and the procedure is repeated. Rotating the sensor 180° and taking another set of readings are done to reduce errors contributed by casing irregularities, depth measurements, and the borehole sensor. With a two-man team it takes approximately 1.5 hrs to read each slope inclinometer at Ball Mountain Dam.

3.3 Data Reduction

The computer program GEOSIN is used to reduce and plot field data obtained from reading the slope inclinometers at Ball Mountain Dam. The program runs on an IBM PC/XT computer, and the plots are generated on a Hewlett Packard 7475A plotter. The program subtracts the initial set of readings from subsequent readings to obtain horizontal movements of the guide casing. The computer program provides output in both graphical and tabular form. Two sets of field readings have been reduced and plotted by hand to check the results obtained from the computer program.

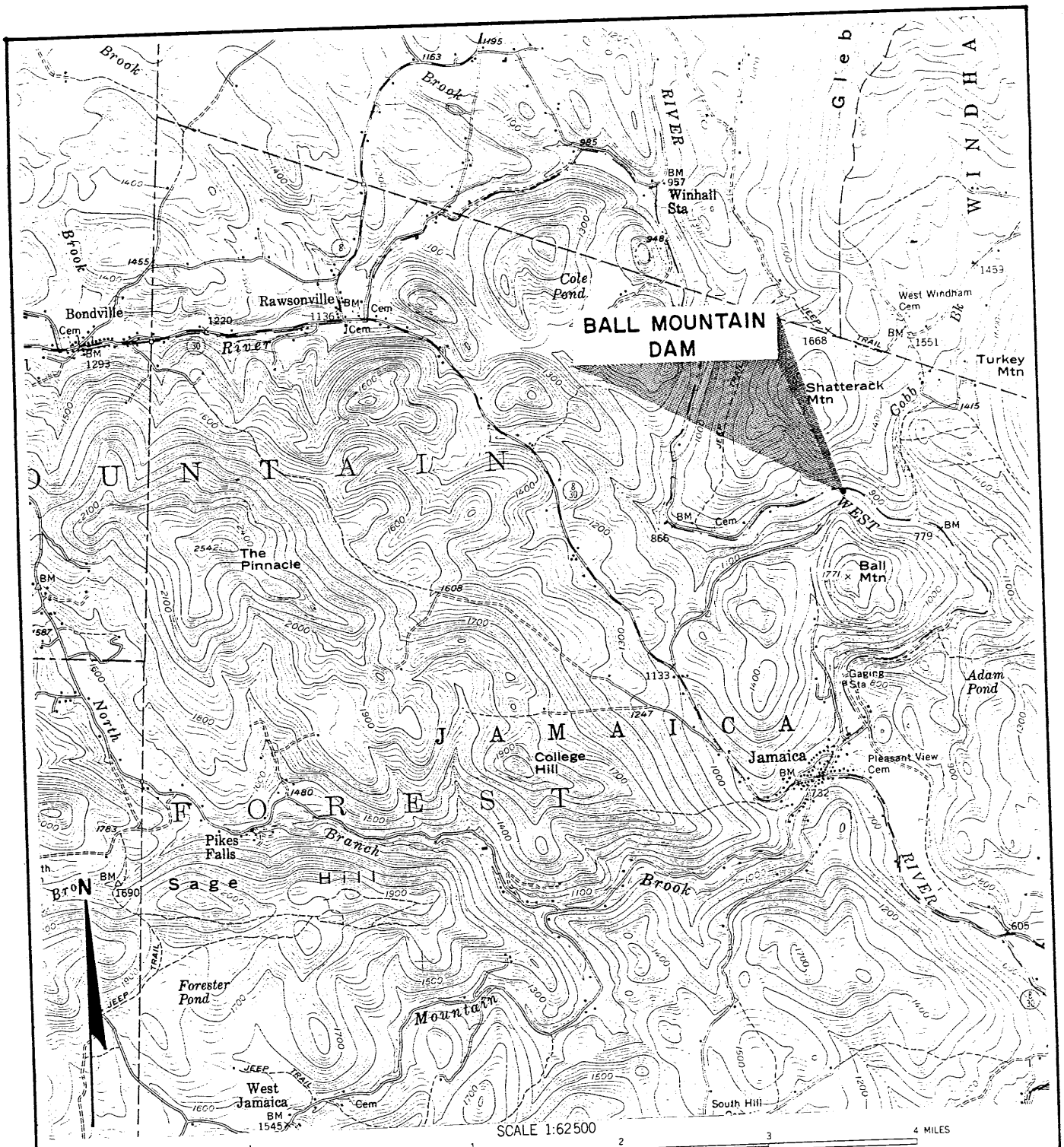
4. DISCUSSION OF RESULTS

The results obtained from reading six slope inclinometers at Ball Mountain Dam have not indicated any conclusive trends in embankment movement to date. The amount of movement recorded by the six slope inclinometers in the direction perpendicular to the axis of the dam falls in the range of -0.1 to +0.9 in. at the top of the inclinometer casing, with all but one slope inclinometer showing less than 0.3 in. of movement. The amount of movement recorded by the six slope inclinometers in the direction parallel to the axis of the dam falls in the range of 0.1 to 0.6 in. at the top of the inclinometer casing, with all but two slope inclinometers showing less than 0.3 in. movement.

According to the Slope Indicator Company (SINCO), the overall accuracy of the SINCO Digitilt Inclinometer System to measure deflection at the top of a 100-ft hole is $\pm$ 0.3 in., allowing for accumulative errors in the sensor, Digitilt indicator, and slope inclinometer guide casing. In the direction perpendicular to the axis of the dam, five of the six slope inclinometers showed movements smaller than the overall accuracy of the SINCO Digitilt Inclinometer System. In the direction parallel to the axis of the dam, four of the six slope inclinometers showed movements smaller than the overall accuracy of the SINCO Digitilt inclinometer system.

Included in the figures section of this report are two sets of summary plots. Figures 4 through 15 use the readings taken on January 23, 1986 as the initial set of readings to calculate deflections. Figures 16 through 27 use the readings taken on April 1, 1986 as the initial set of readings to calculate deflections. Two sets of summary plots are included because we feel that some of the deflection that occurred between January and April can be attributed to the slope inclinometer guide casing stabilizing in the borehole. Eliminating this deflection on the summary plots will provide a clearer picture of subsequent deflections as they occur.

The deflection values described above are based on the plots using the January 23, 1986 readings as the initial readings. The amount of deflection since April 1, 1986 is less than the total since January 23, as shown on the attached plots.

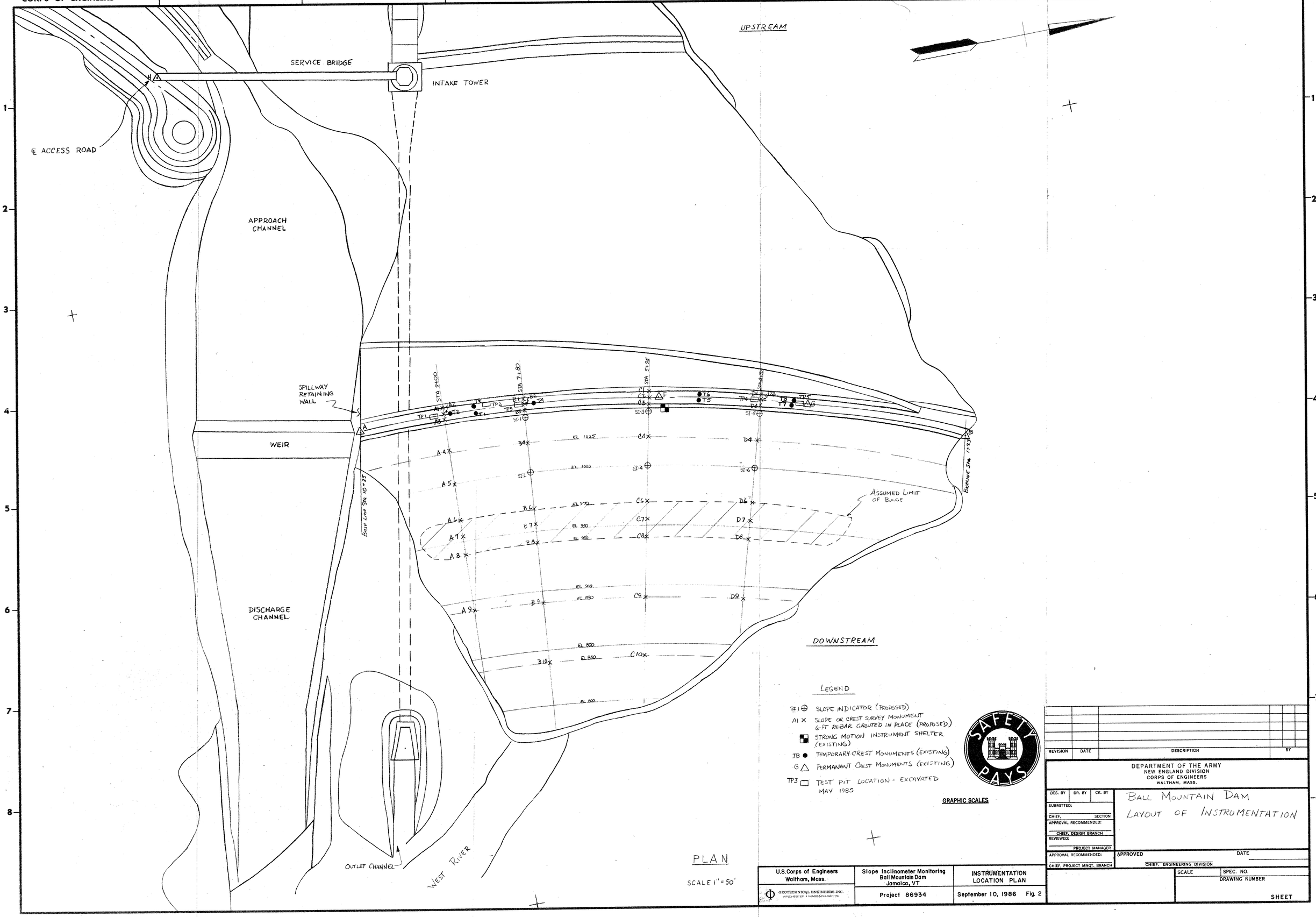


Reproduced from US Geological Survey topographic map for the Londonderry, VT 15 minute quadrangle.

U. S. Corps of Engineers Waltham, MA	Slope Inclinometer Monitoring Ball Mountain Dam Jamaica, VT	PROJECT SITE LOCATION PLAN
GEOTECHNICAL ENGINEERS INC. WINCHESTER • MASSACHUSETTS	Project 86934	Sept. 18, 1986 Fig. 1

CORPS OF ENGINEERS

U. S. ARMY



PLAN

SCALE 1" = 50'

LEGEND

- SI ⊕ SLOPE INDICATOR (PROPOSED)
- A1 × SLOPE OR CREST SURVEY MONUMENT 6-FT REBAR GROUTED IN PLACE (PROPOSED)
- STRONG MOTION INSTRUMENT SHELTER (EXISTING)
- TB ● TEMPORARY CREST MONUMENTS (EXISTING)
- G △ PERMANANT CREST MONUMENTS (EXISTING)
- TP3 ▭ TEST PIT LOCATION - EXCAVATED MAY 1985

GRAPHIC SCALES

SAFETY PAYS

REVISION	DATE	DESCRIPTION	BY

DEPARTMENT OF THE ARMY
NEW ENGLAND DIVISION
CORPS OF ENGINEERS
WALTHAM, MASS.

DES. BY	DR. BY	CK. BY

SUBMITTED:
CHIEF, SECTION
APPROVAL RECOMMENDED:
CHIEF, DESIGN BRANCH
REVIEWED:
PROJECT MANAGER
APPROVAL RECOMMENDED:
CHIEF, PROJECT MNGT. BRANCH

BALL MOUNTAIN DAM
LAYOUT OF INSTRUMENTATION

APPROVED DATE
CHIEF, ENGINEERING DIVISION

SCALE | SPEC. NO.
DRAWING NUMBER
SHEET

U.S. Corps of Engineers
Waltham, Mass.

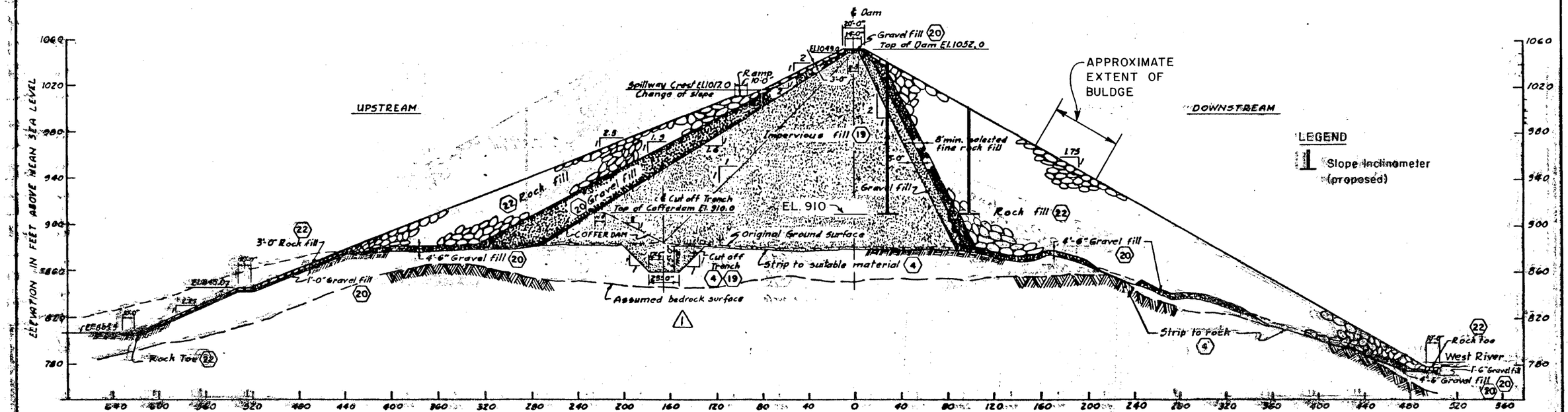
GEOTECHNICAL ENGINEERS INC.
WINCHESTER • MASSACHUSETTS

Slope Inclinometer Monitoring
Ball Mountain Dam
Jamaica, VT

Project 86934

INSTRUMENTATION LOCATION PLAN

September 10, 1986 Fig. 2

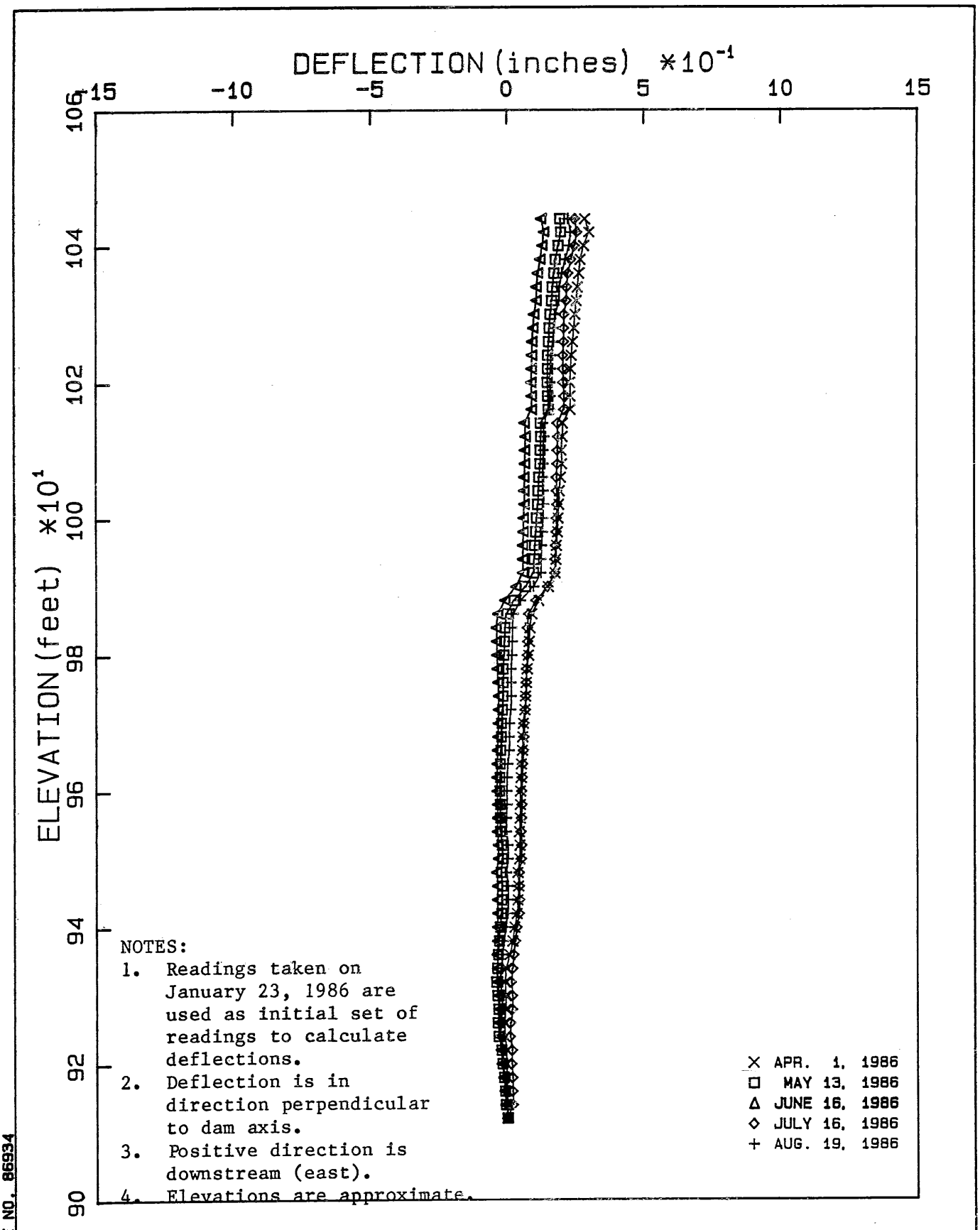


SECTION AT STA. 8+50

DISTANCES FROM CENTERLINE IN FEET

Base drawing taken from NED-CCE drawing CT-1-4174, Feb. 1957
Ball Mountain Dam, Embankment Sections and Profiles

U.S. Corps of Engineers Waltham, MA	Slope Inclinometer Monitoring Ball Mountain Dam Jamaica, VT	SLOPE INCLINOMETER LOCATION SECTION
GEOTECHNICAL ENGINEERS INC. WINCHESTER • MASSACHUSETTS	Project 86934	Sept. 18, 1986 Fig. 3



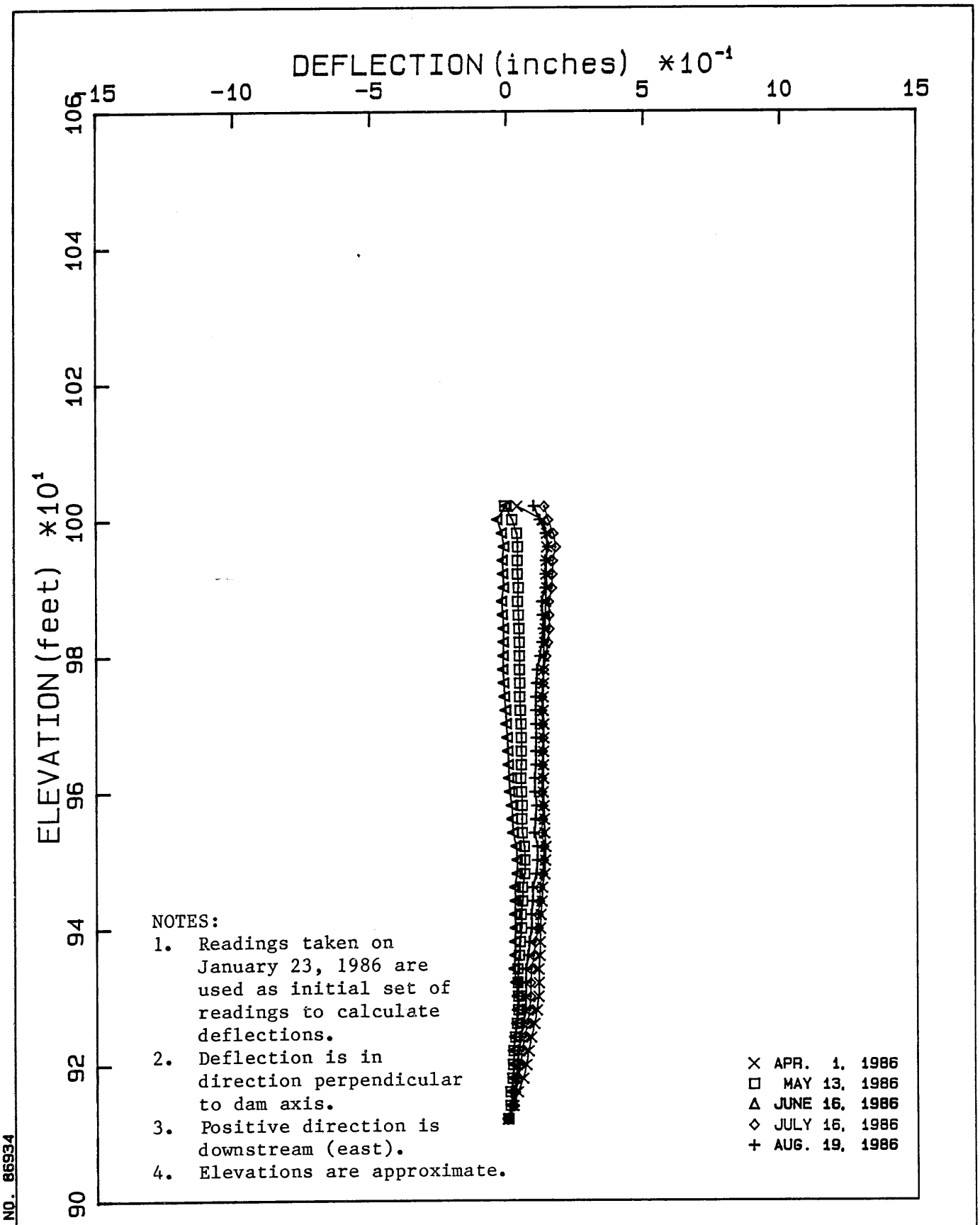
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-1 (A-A')
DEFL. vs. ELEV.

09-18-86

FIGURE No. 4



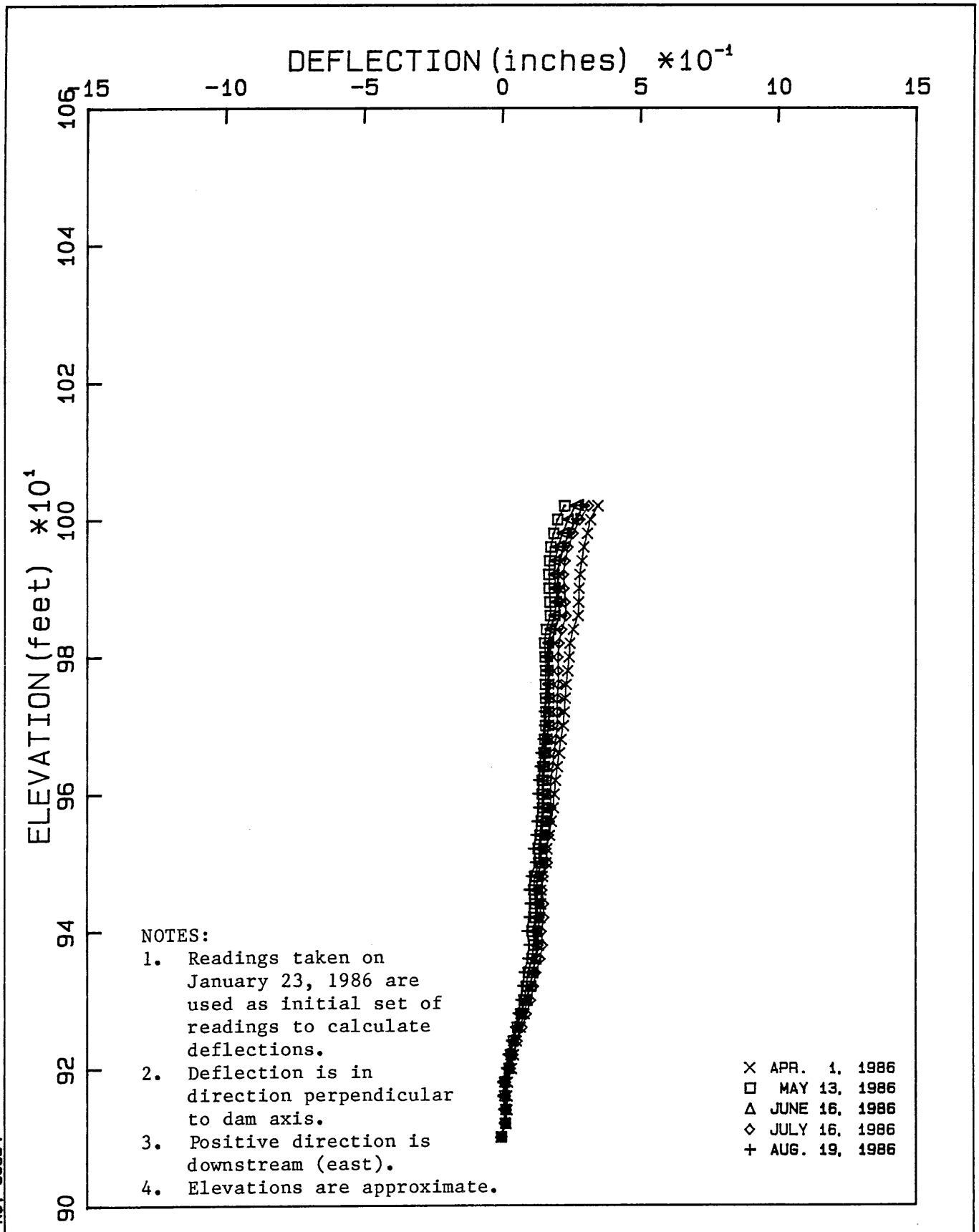
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-2 (A-A')
DEFL. vs. ELEV.

09-18-86

FIGURE No. 5



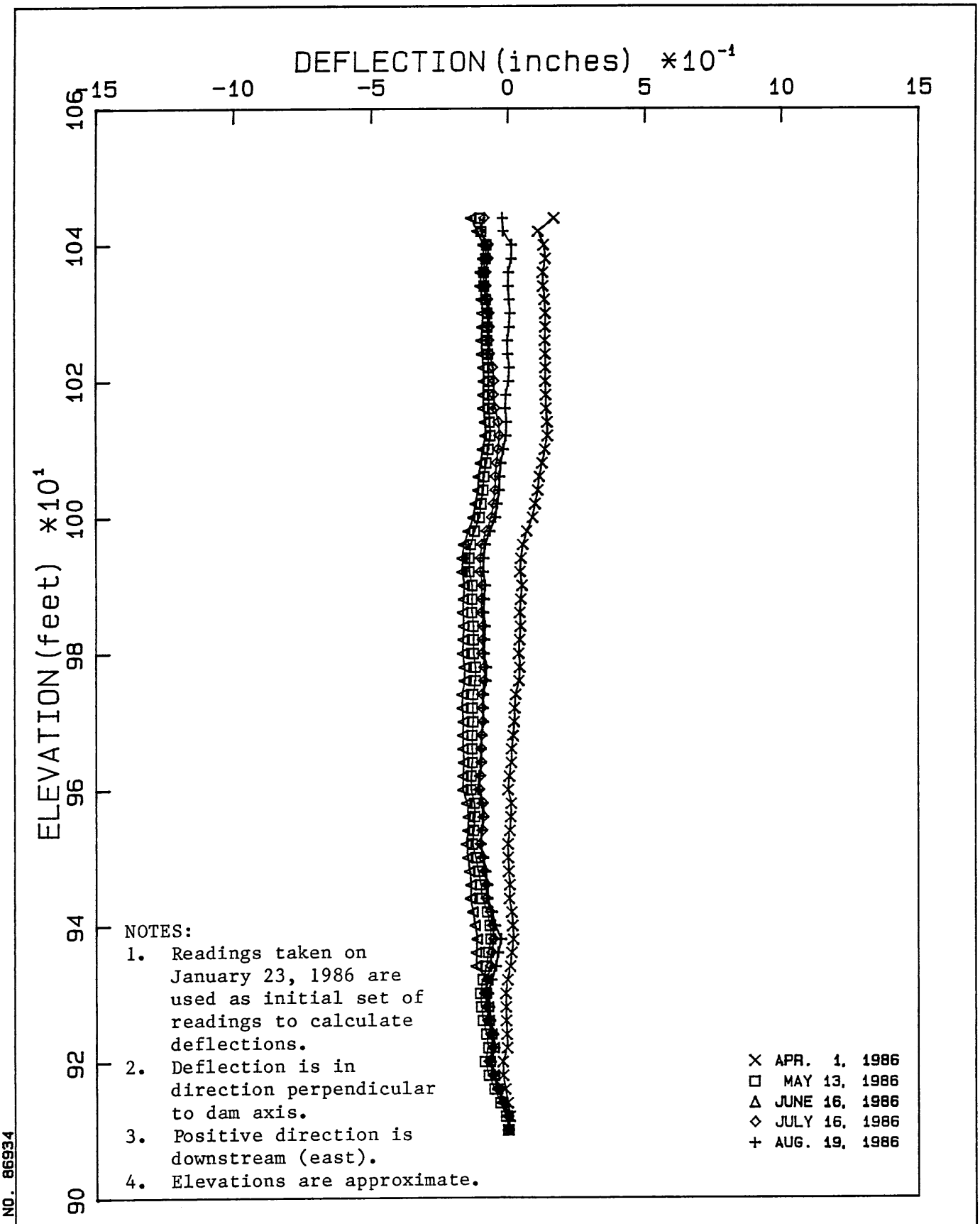
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-4 (A-A')
DEFL. vs. ELEV.

09-18-86

FIGURE No. 7



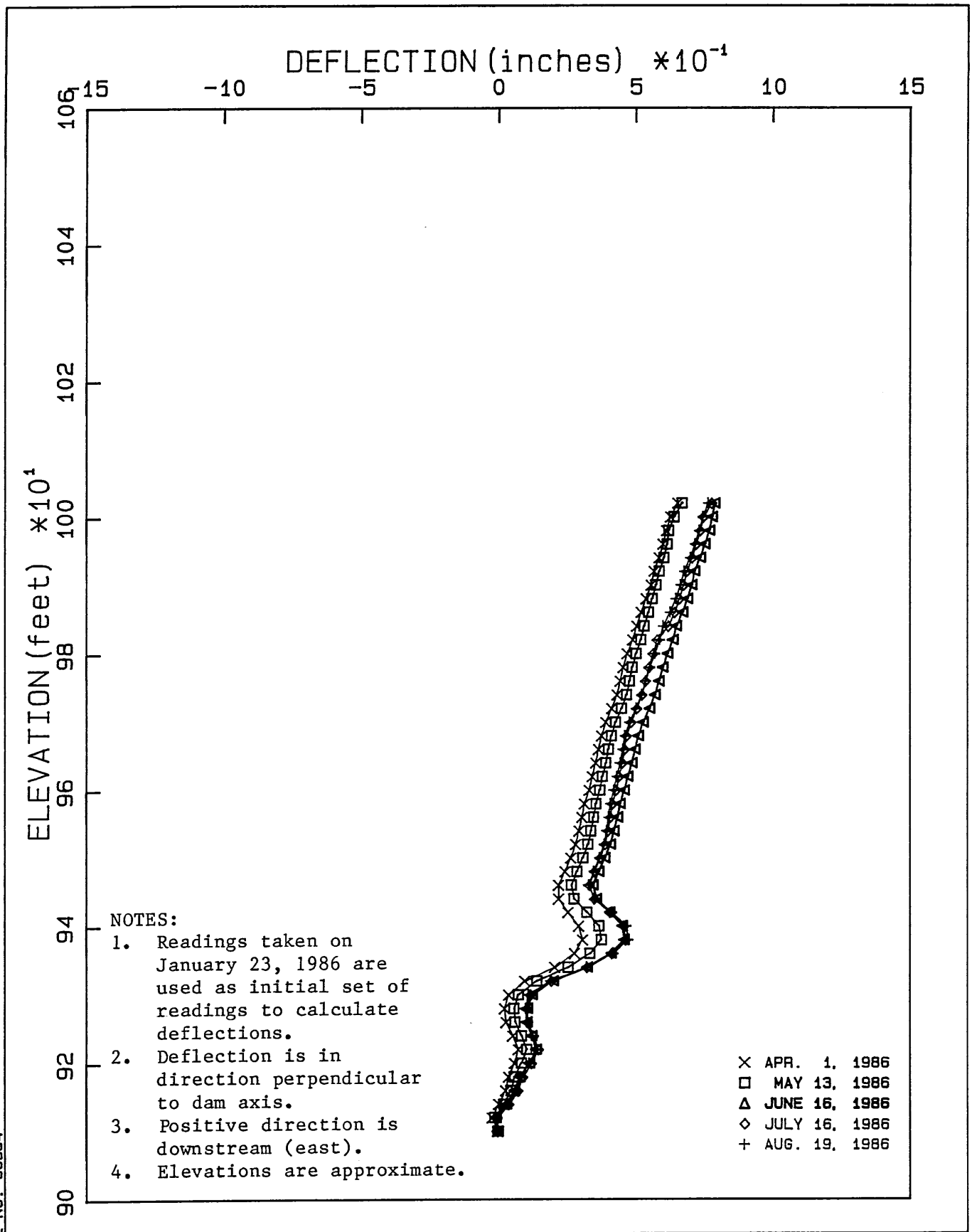
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-5 (A-A')
DEFL. vs. ELEV.

09-18-86

FIGURE No. 8



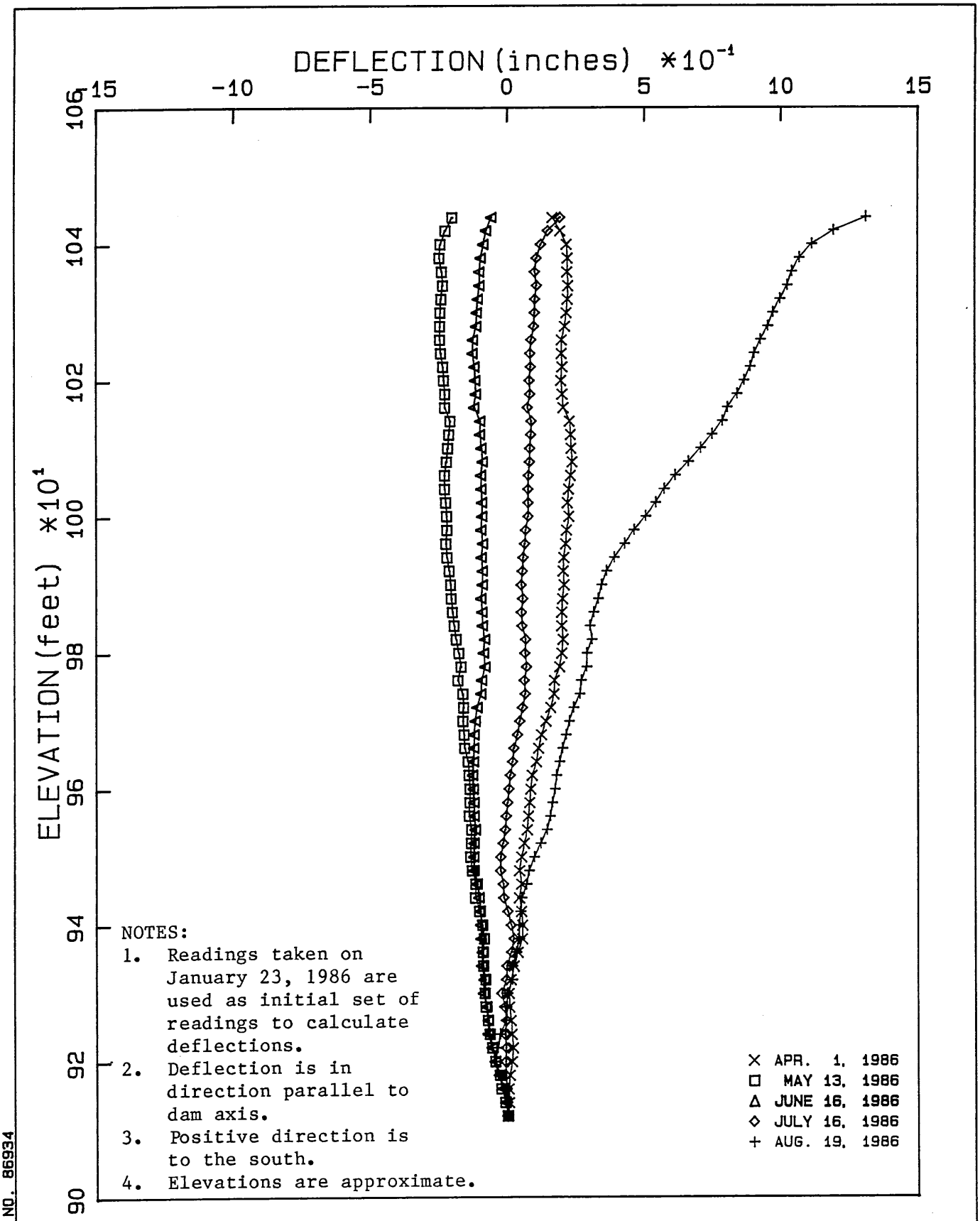
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-6 (A-A')
DEFL. vs. ELEV.

09-18-86

FIGURE No. 9

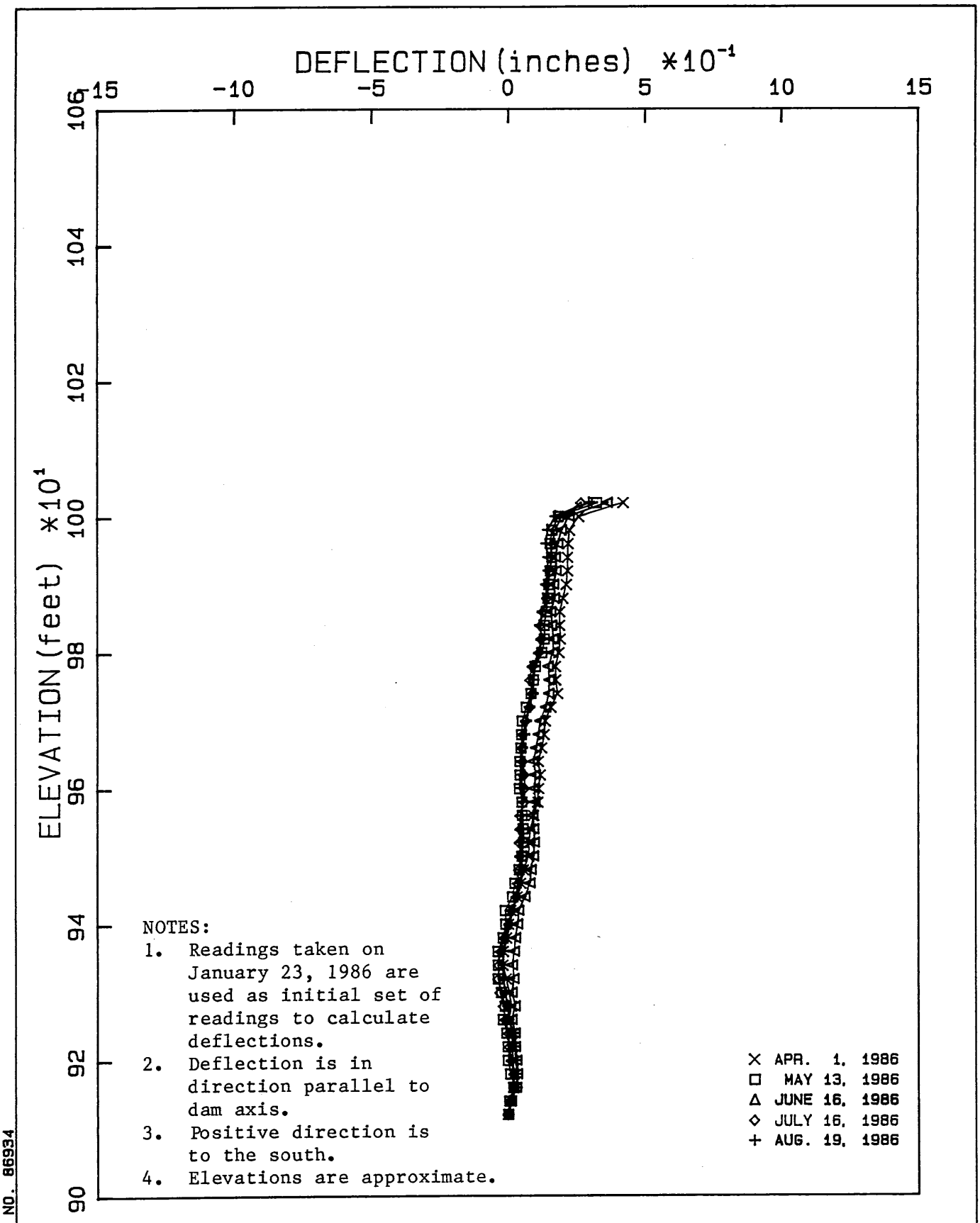


FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-1 (B-B')
DEFL. vs. ELEV.

09-18-86 FIGURE No. 10



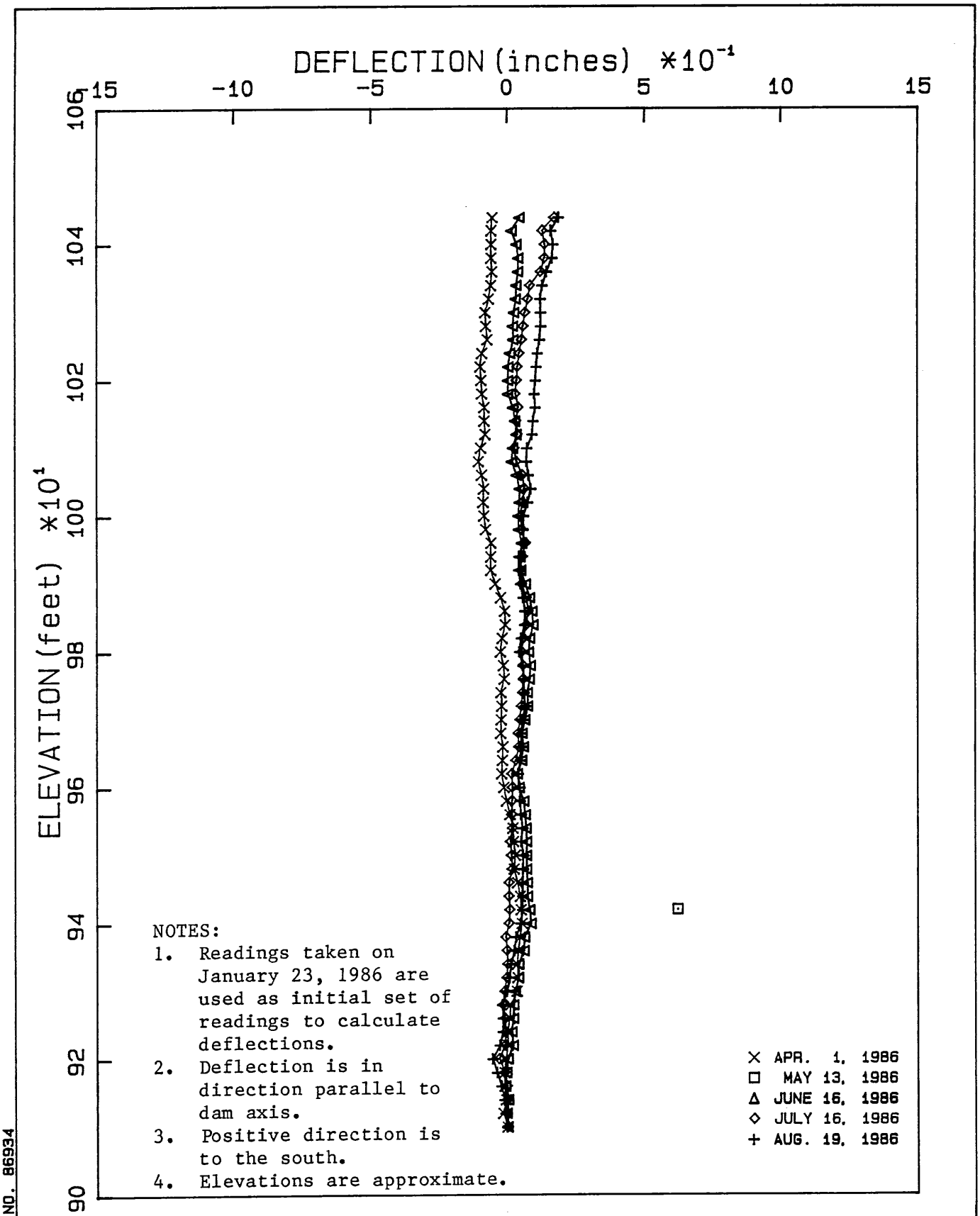
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-2 (B-B')
DEFL. vs. ELEV.

09-18-86

FIGURE No. 11



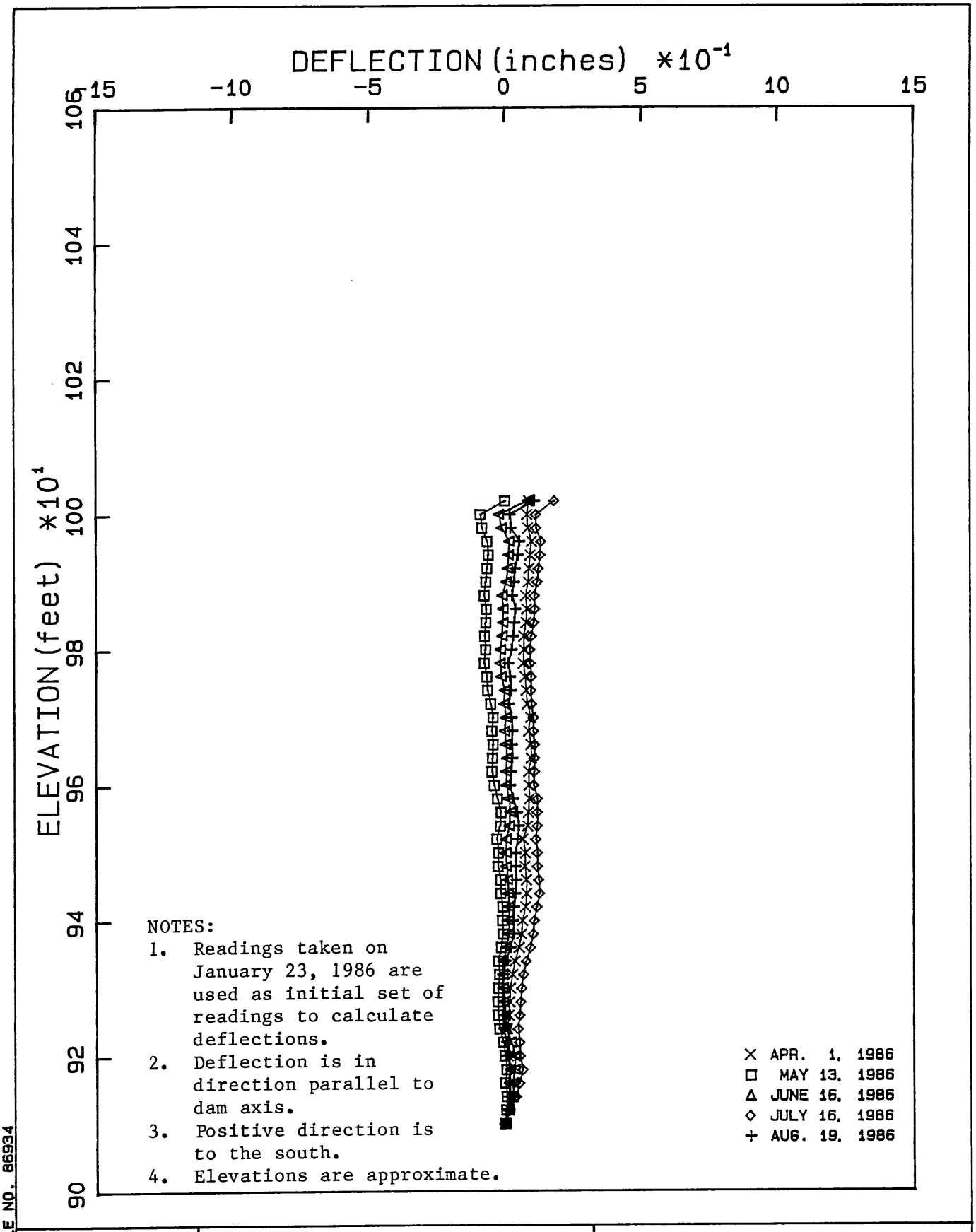
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-3 (B-B')
DEFL. vs. ELEV.

09-18-86

FIGURE No. 12



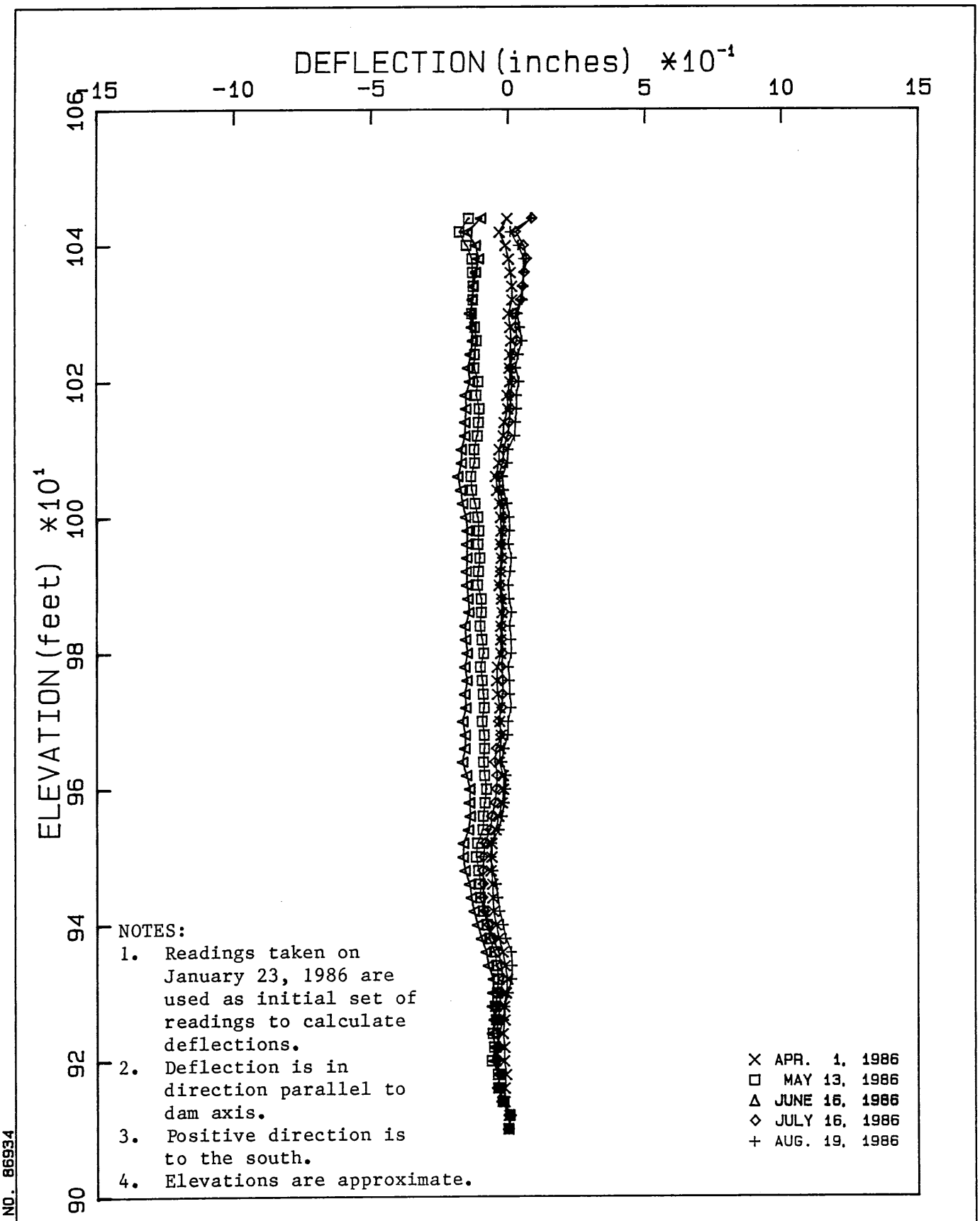
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-4 (B-B')
DEFL. vs. ELEV.

09-18-86

FIGURE No. 13

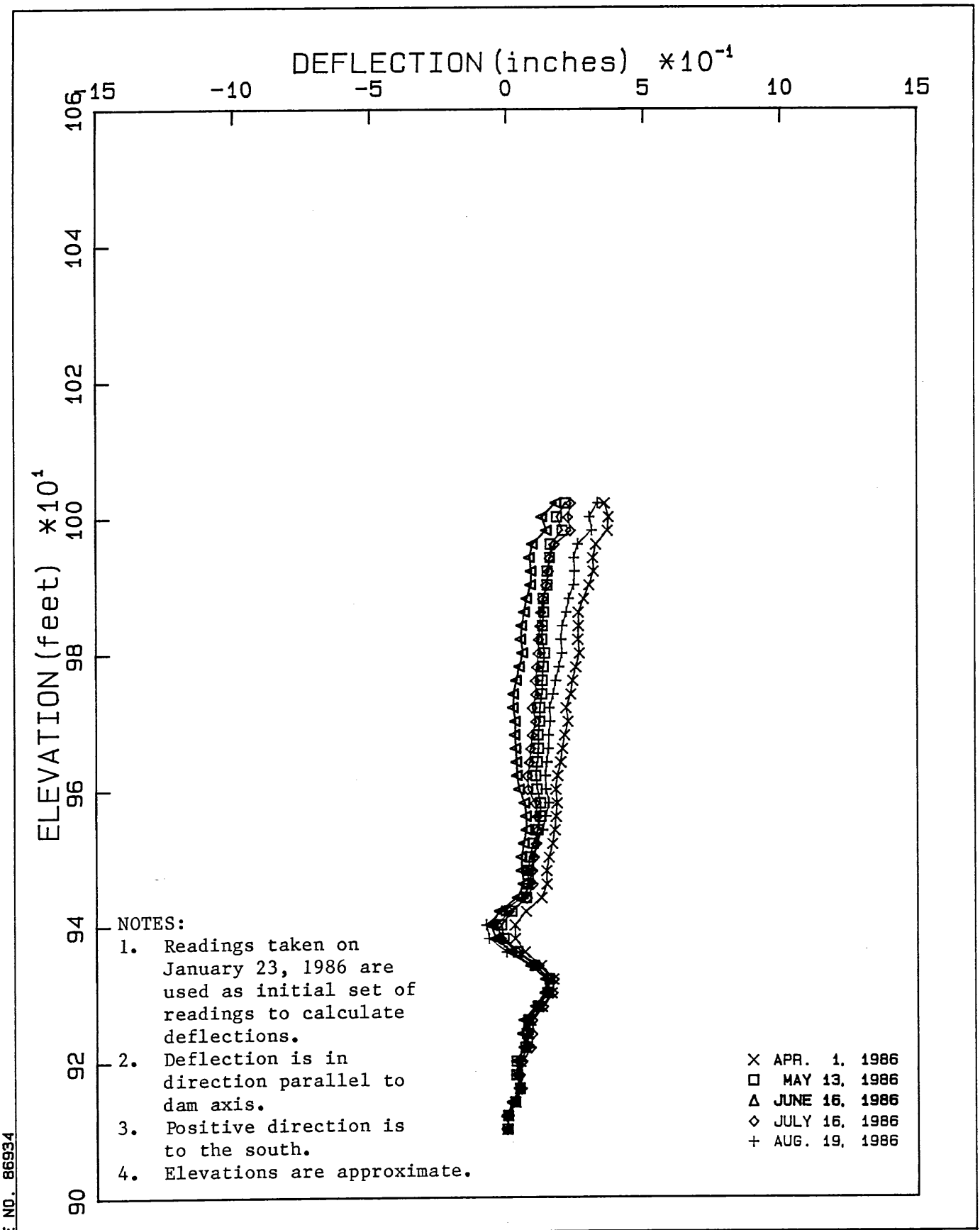


FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-5 (B-B')
DEFL. vs. ELEV.

09-18-86 FIGURE No. 14

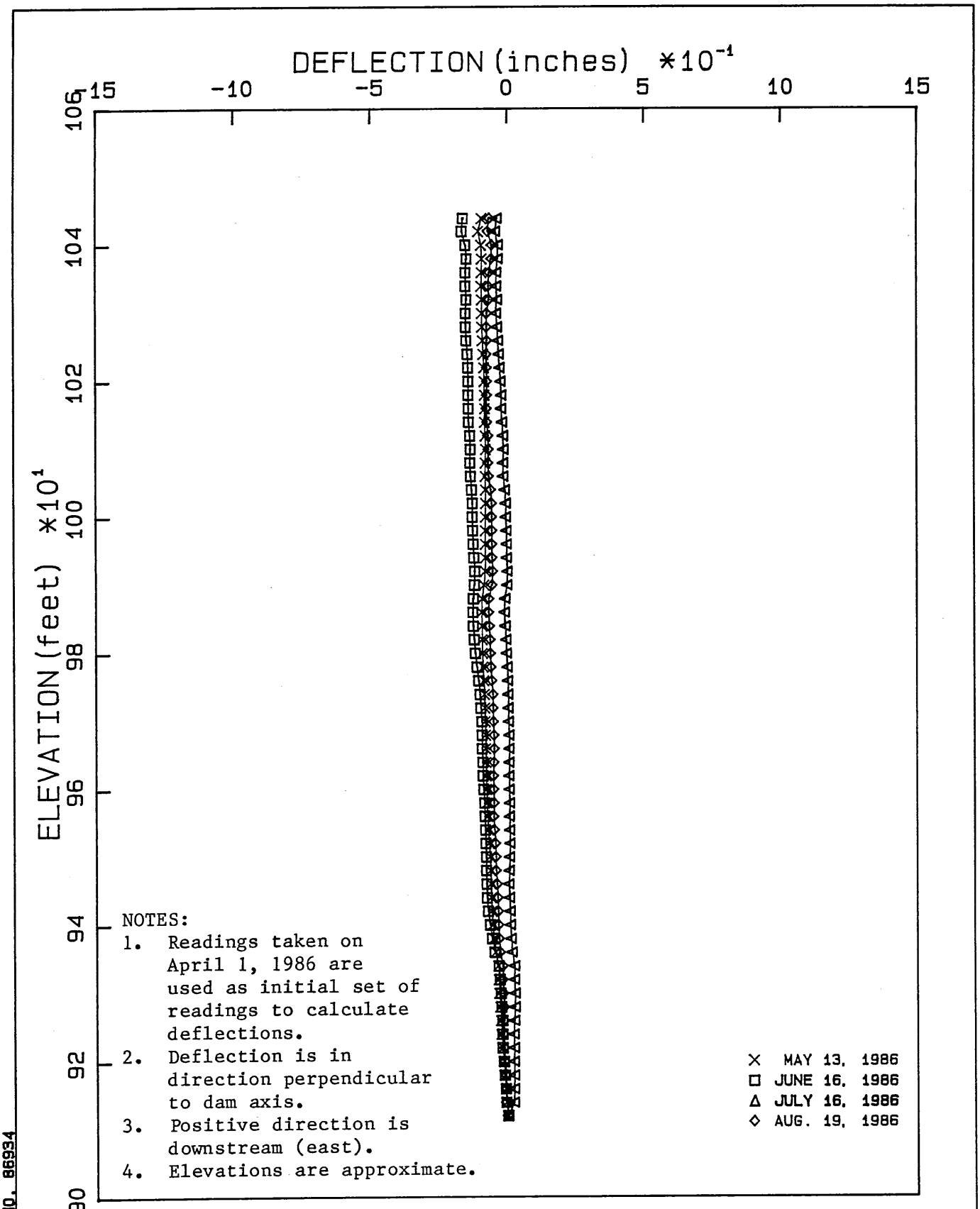


FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-6 (B-B')
DEFL. vs. ELEV.

09-18-86 FIGURE No. 15

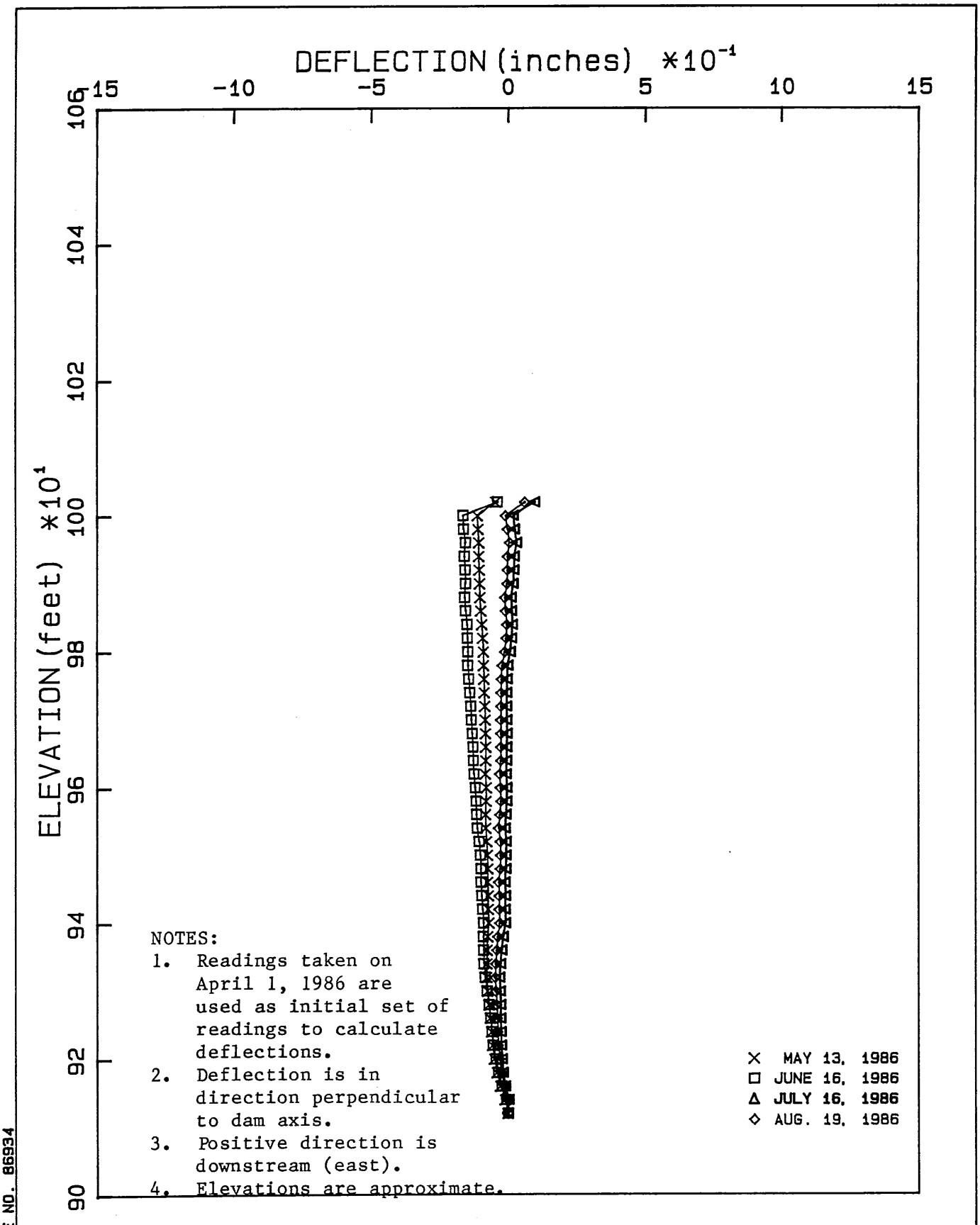


FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-1 (A-A')
DEFL. vs. ELEV.

09-18-86 FIGURE No. 16



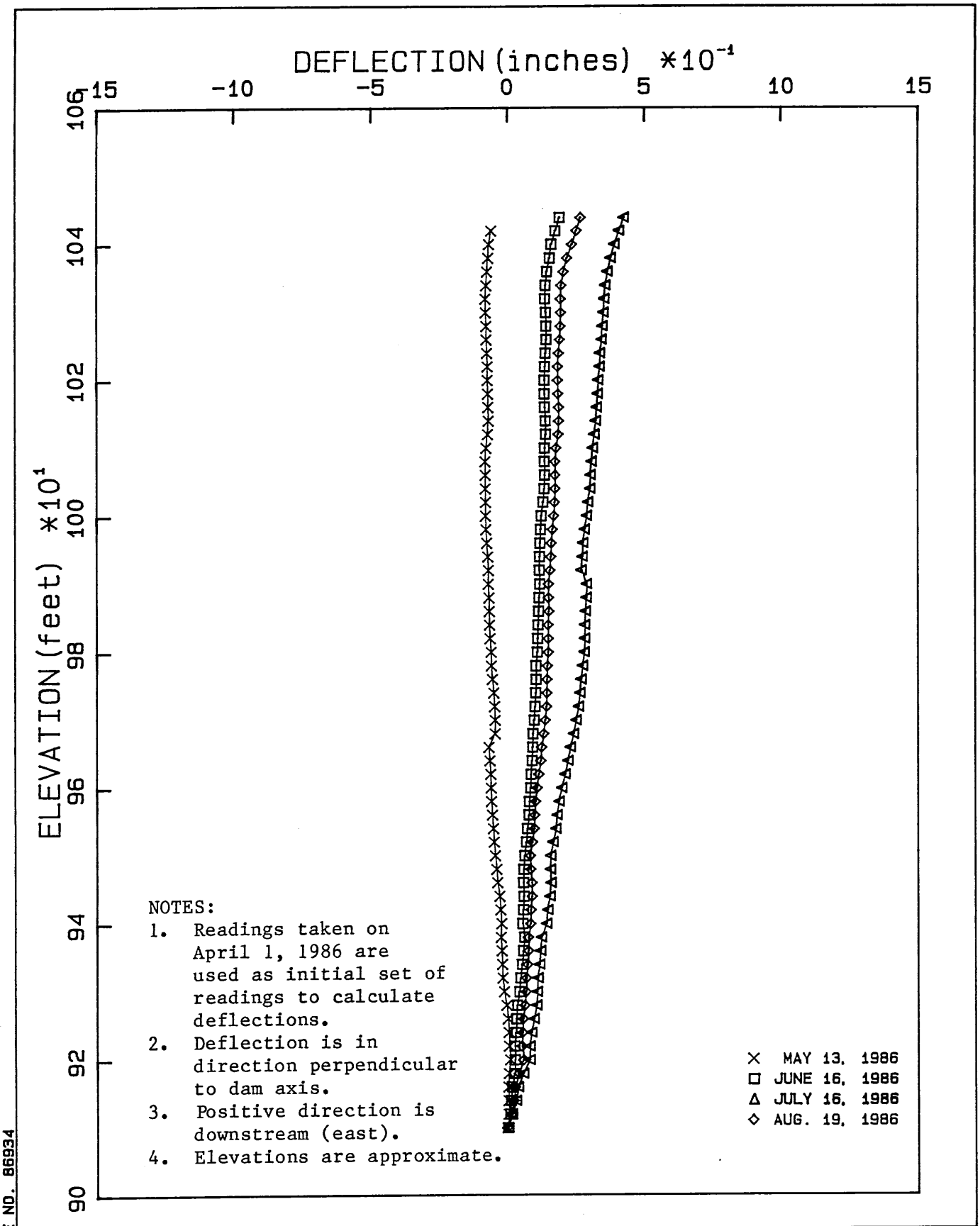
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-2 (A-A')
DEFL. vs. ELEV.

09-18-86

FIGURE No. 17



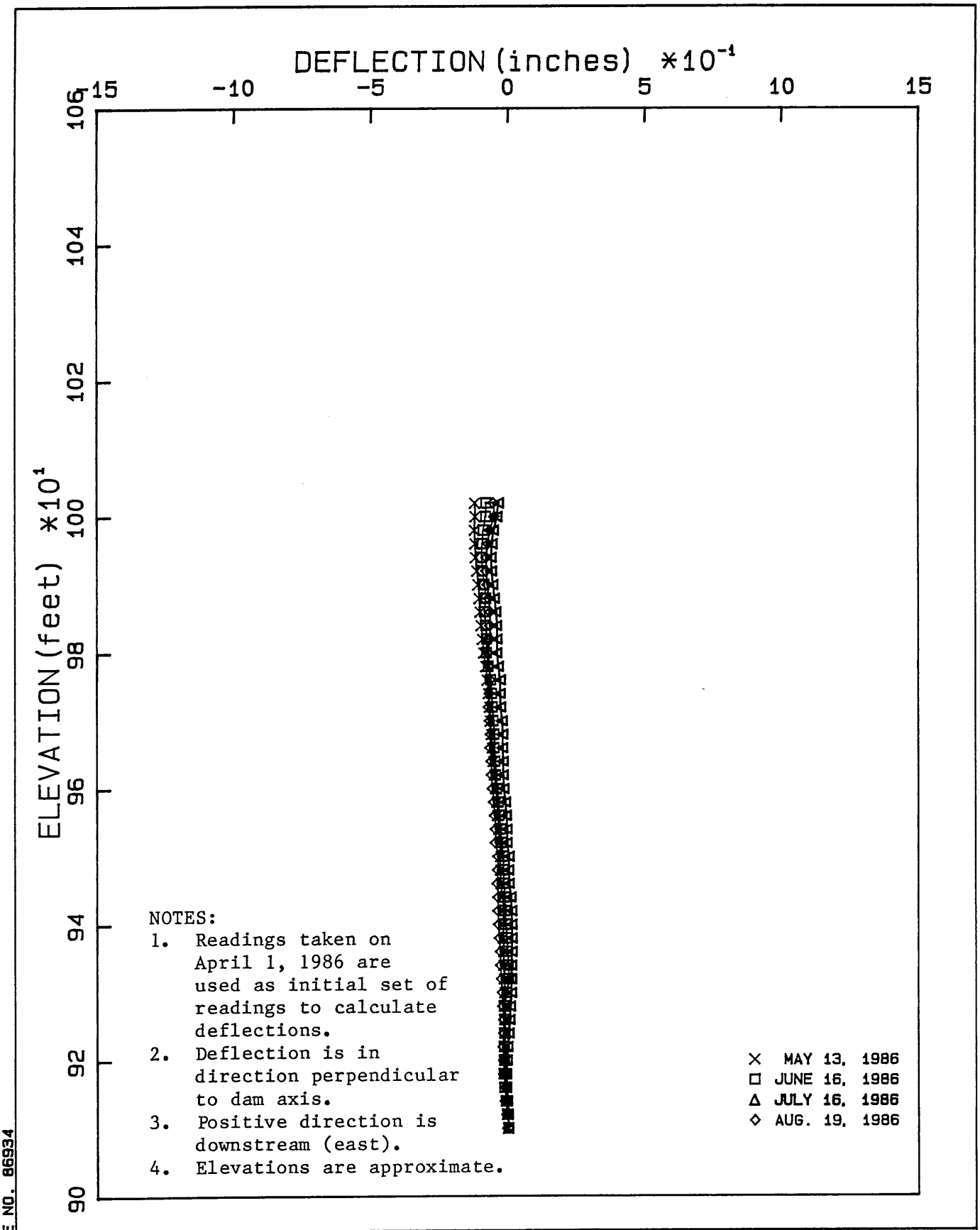
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-3 (A-A')
DEFL. vs. ELEV.

09-18-86

FIGURE No. 18



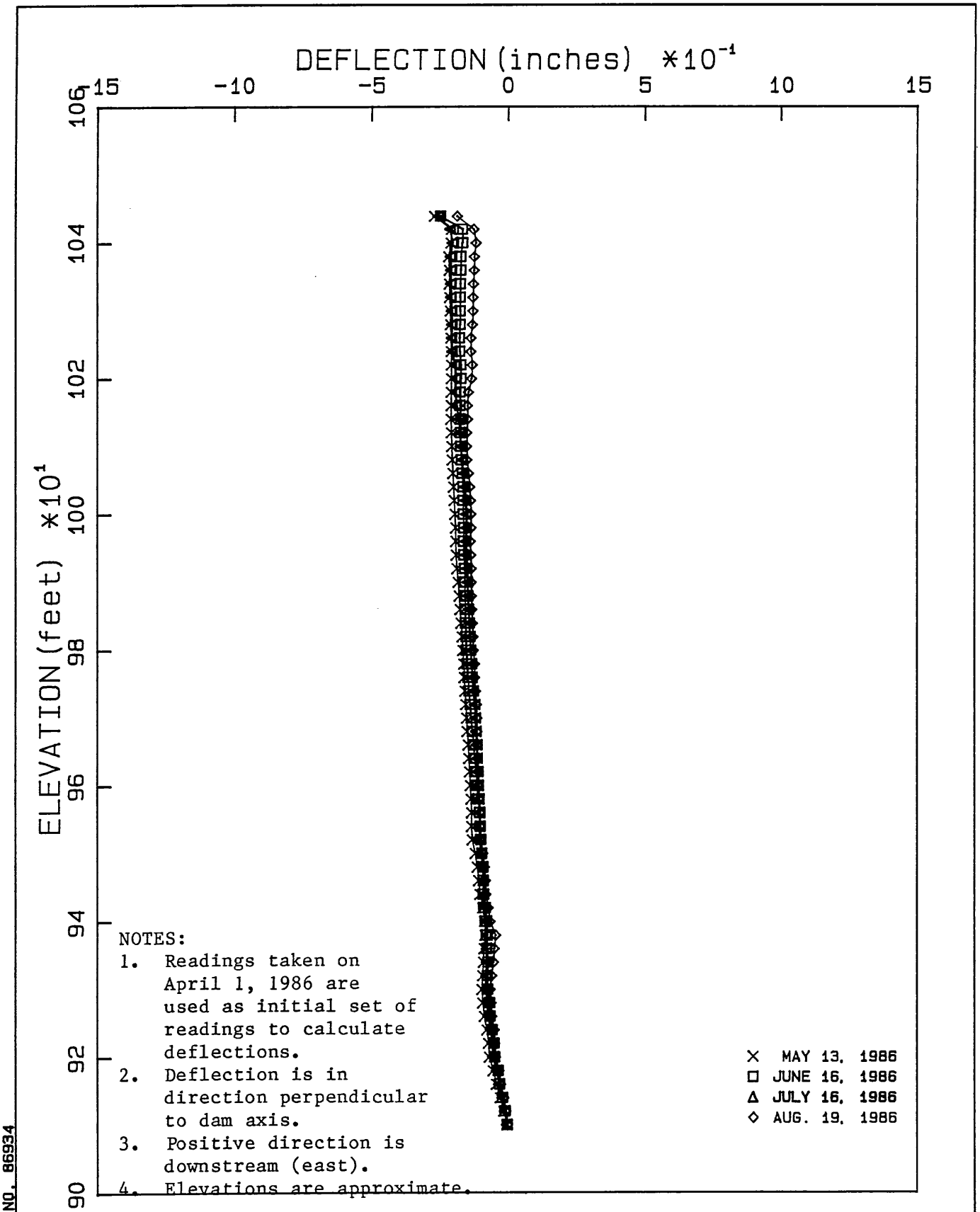
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-4 (A-A')
DEFL. vs. ELEV.

09-18-86

FIGURE No. 19



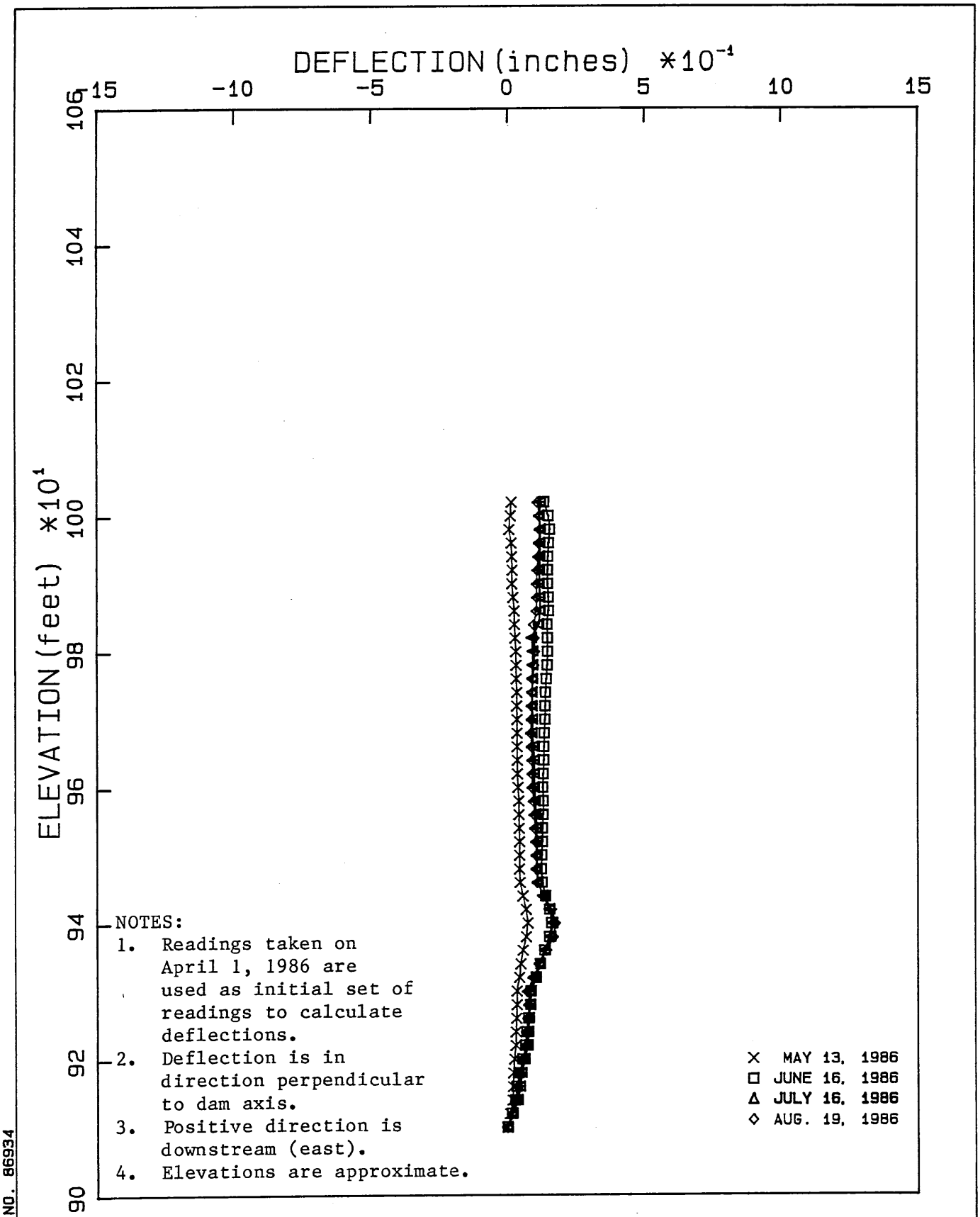
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-5 (A-A')
DEFL. vs. ELEV.

09-18-86

FIGURE No. 20

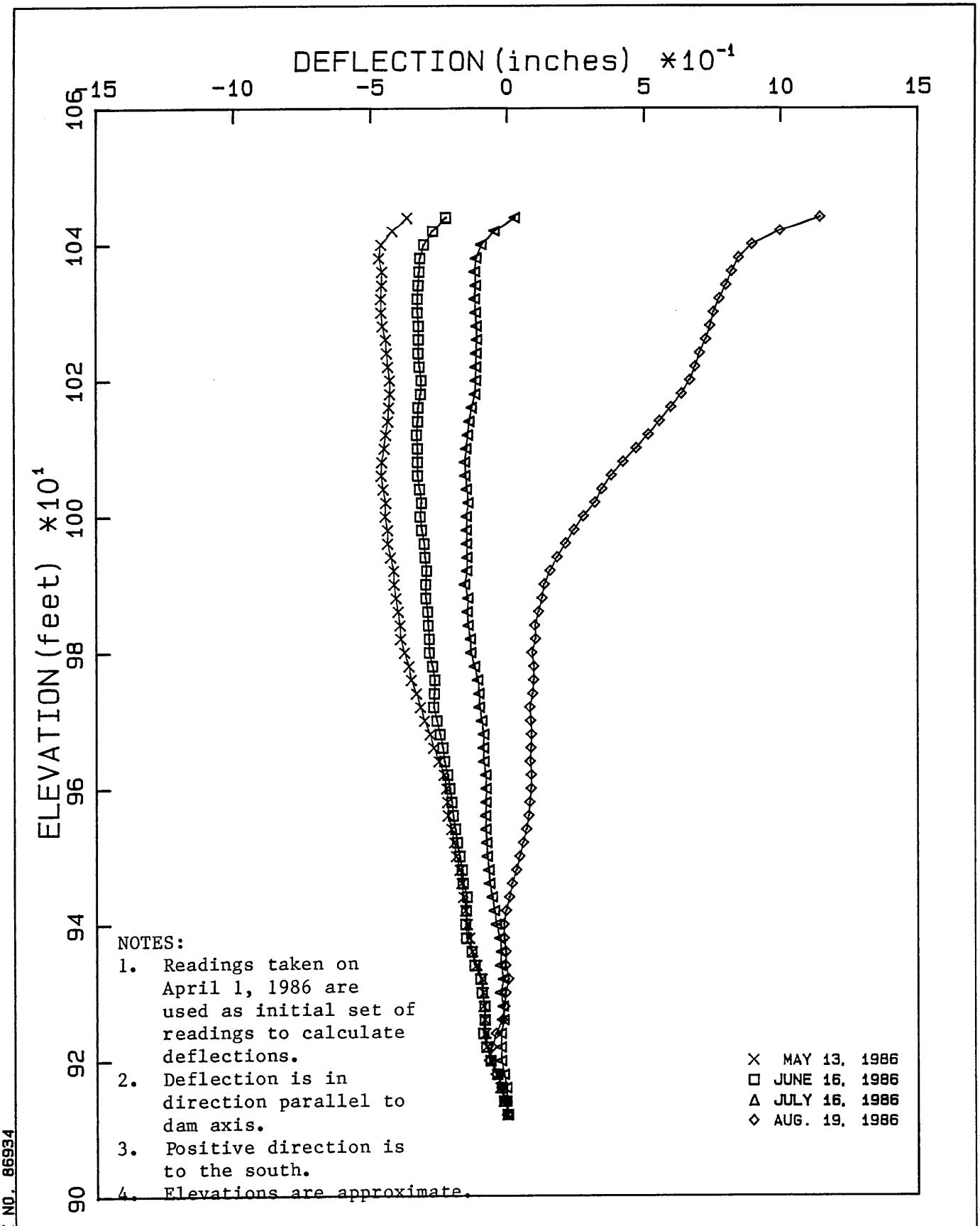


FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-6 (A-A')
DEFL. vs. ELEV.

09-18-86 FIGURE No. 21



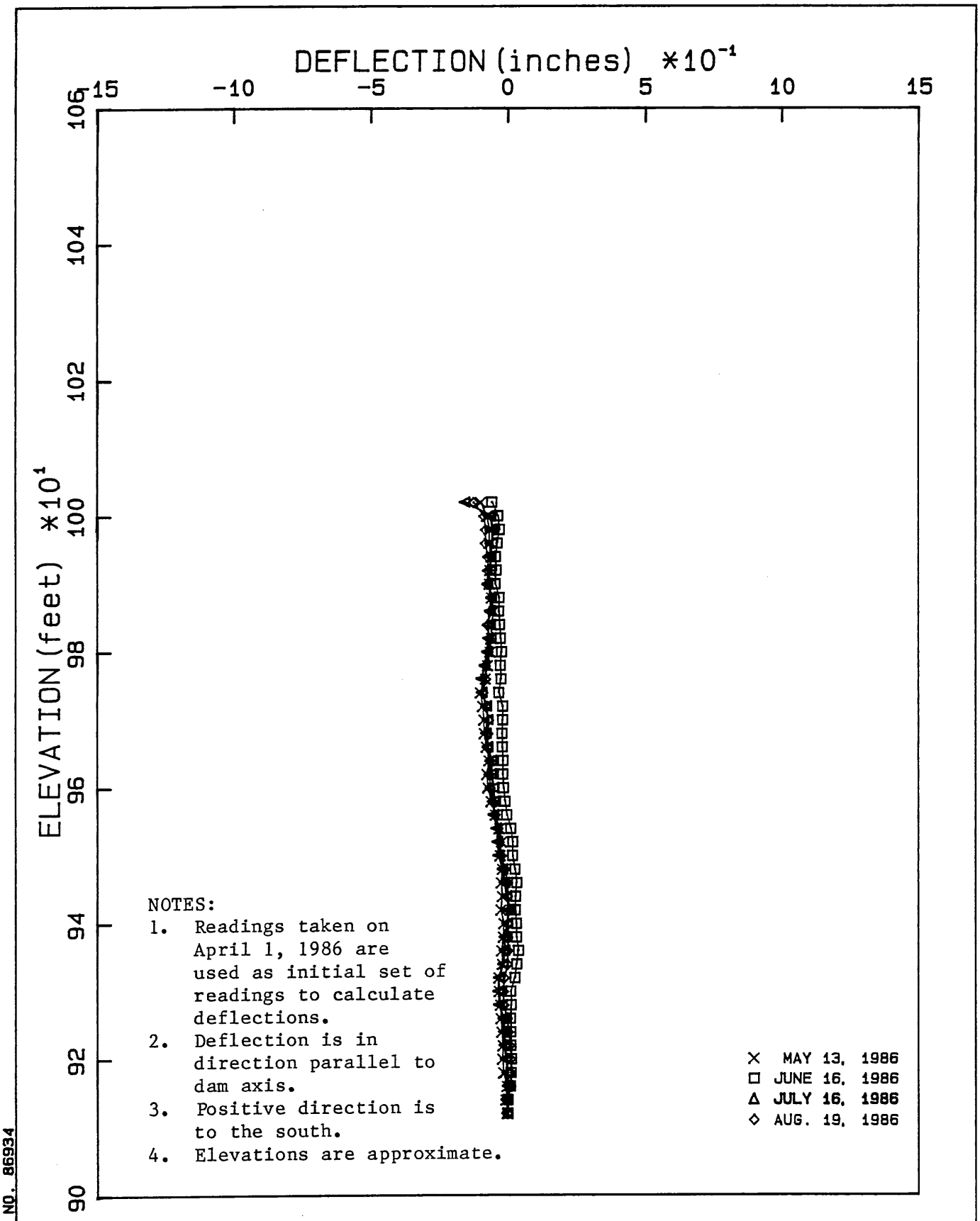
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-1 (B-B')
DEFL. vs. ELEV.

09-18-86

FIGURE No. 22



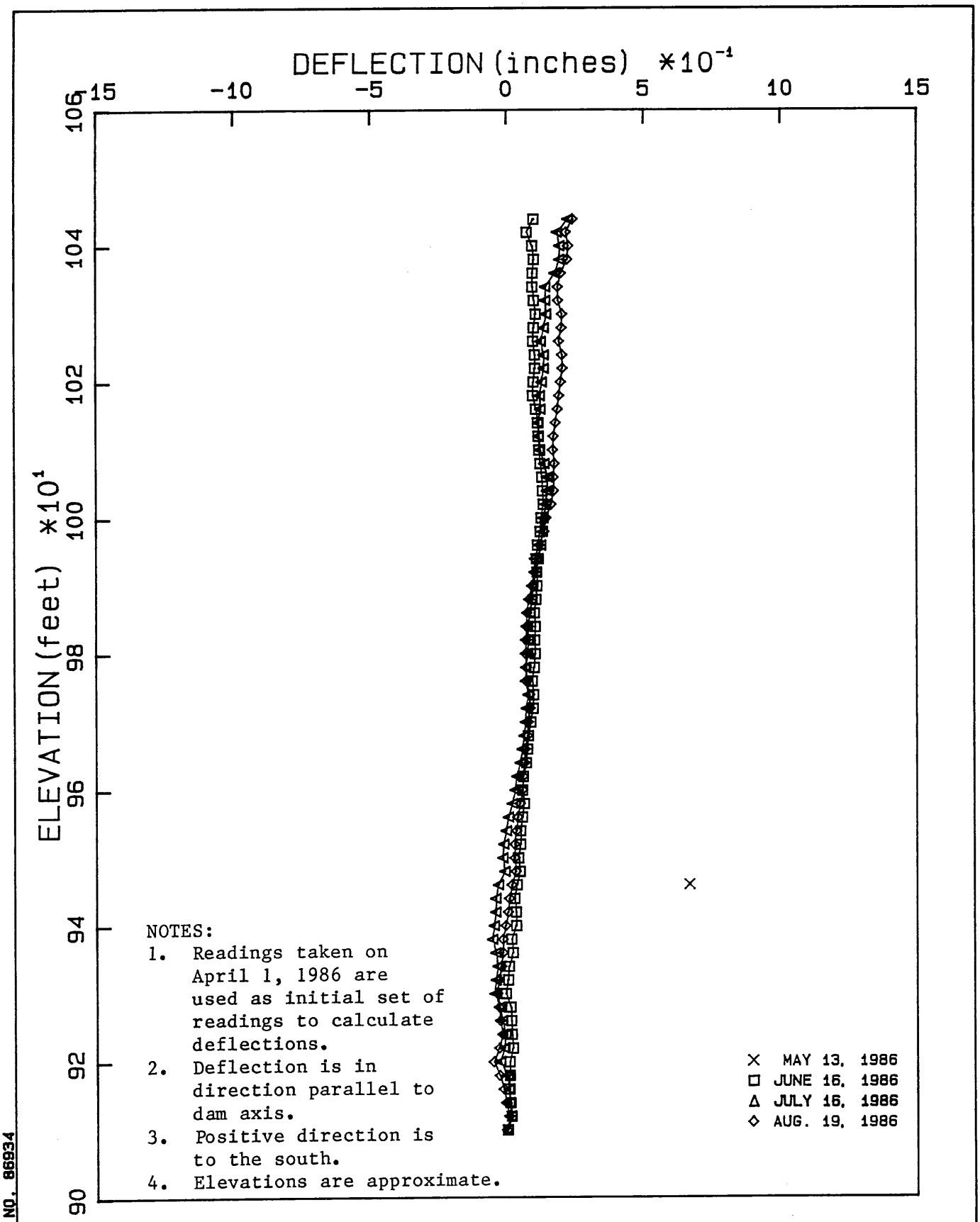
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-2 (B-B')
DEFL. vs. ELEV.

09-18-86

FIGURE No. 23



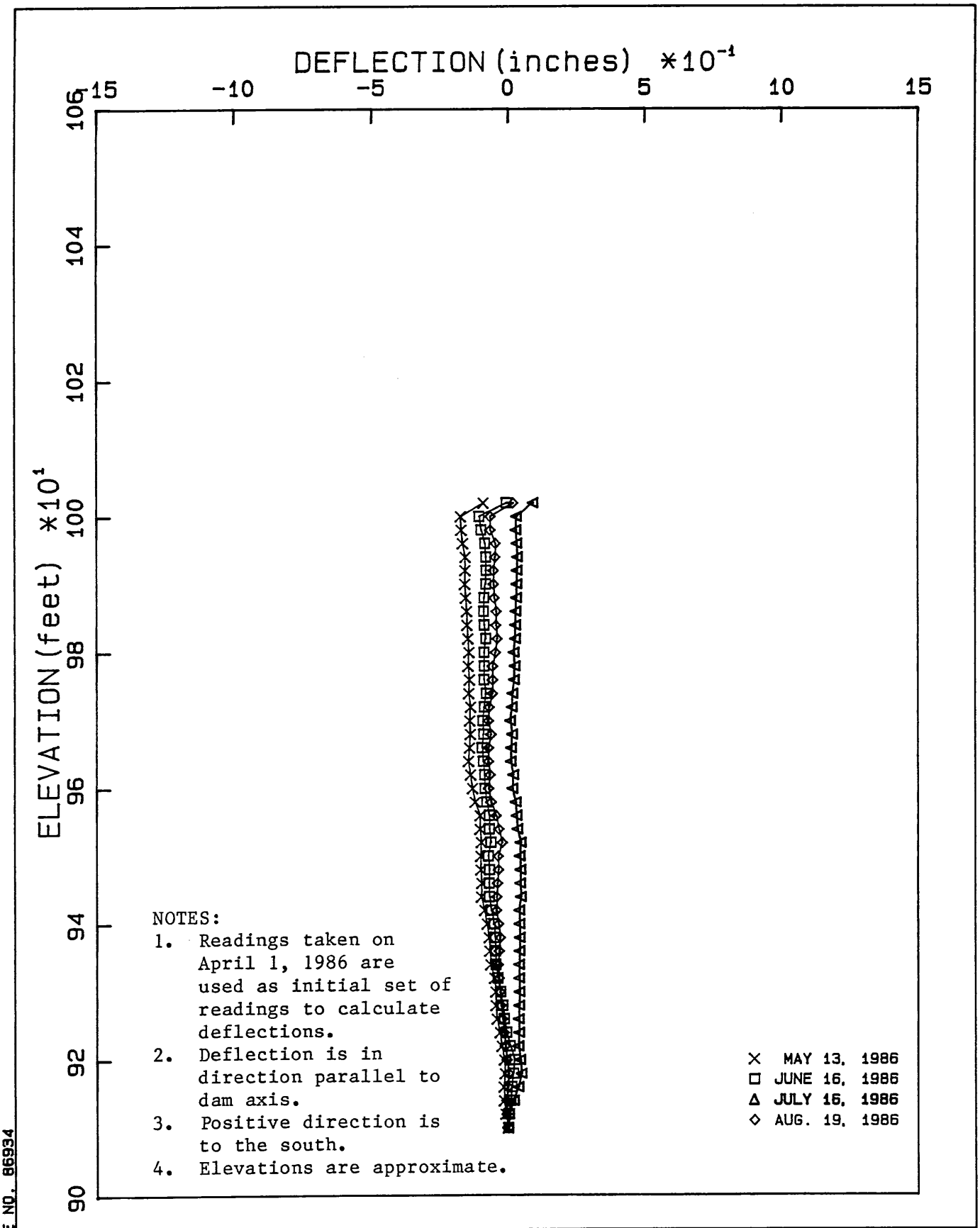
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-3 (B-B')
DEFL. vs. ELEV.

09-18-86

FIGURE No. 24



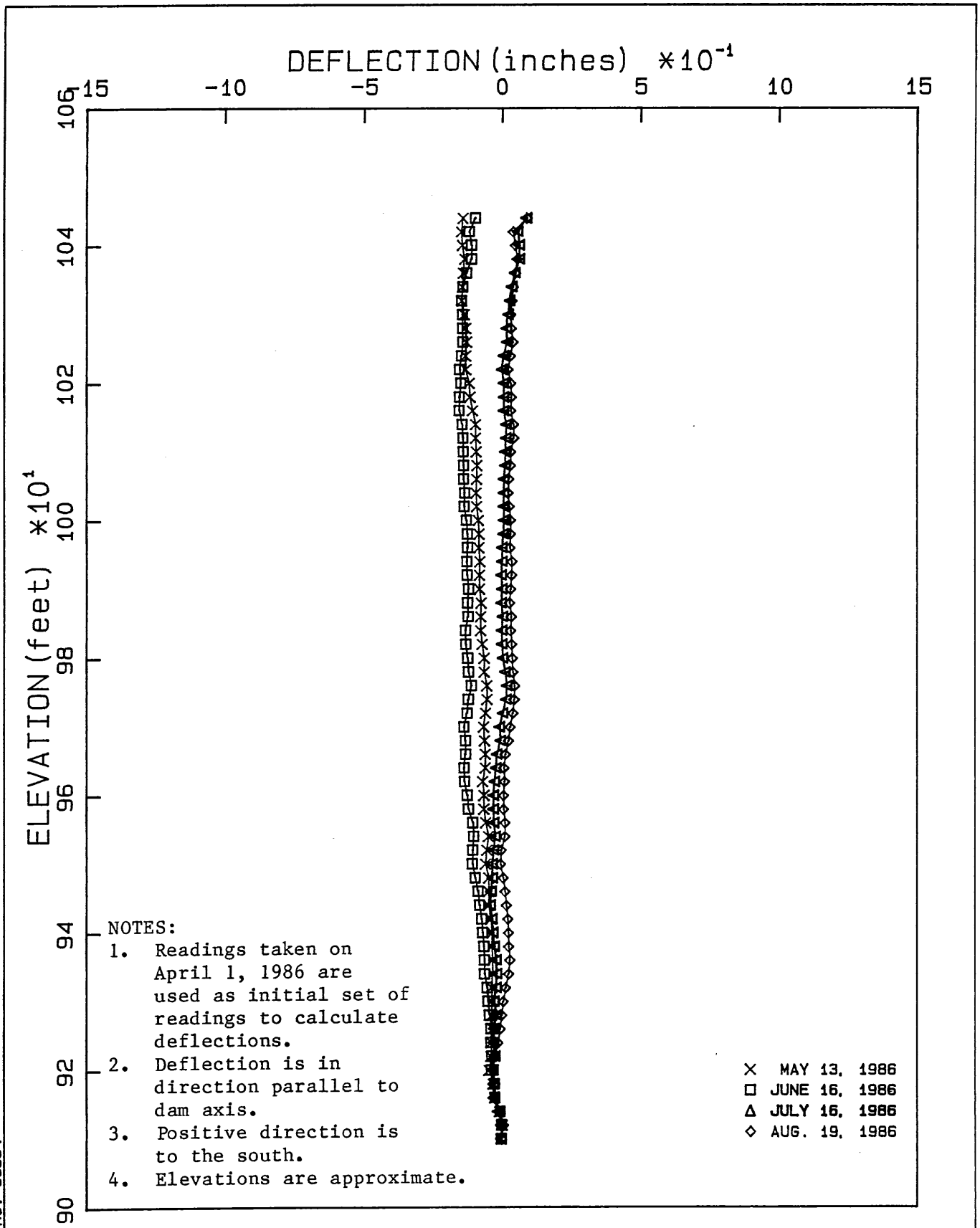
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-4 (B-B')
DEFL. vs. ELEV.

09-18-86

FIGURE No. 25



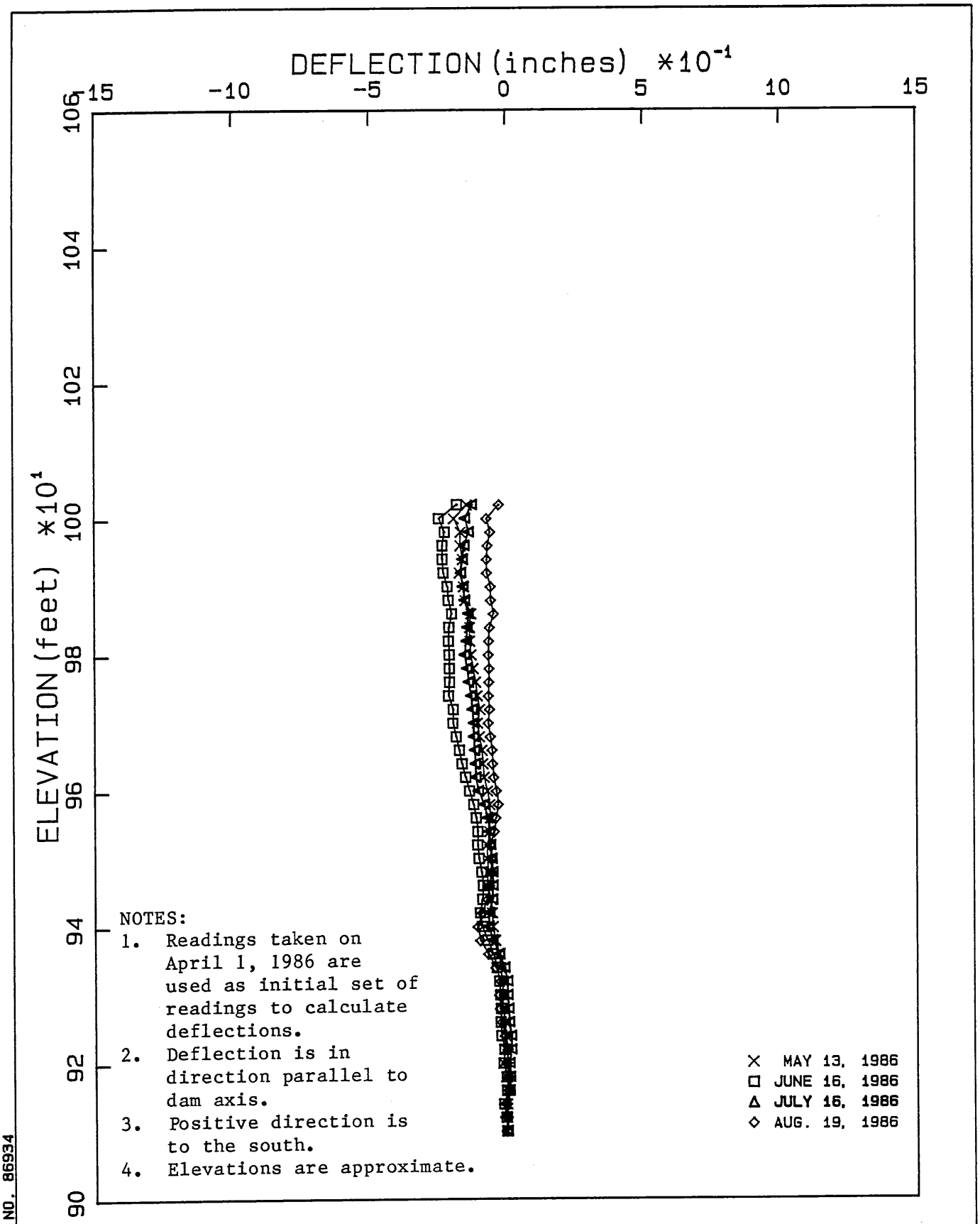
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-5 (B-B')
DEFL. vs. ELEV.

09-18-86

FIGURE No. 26



FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-6 (B-B')
DEFL. vs. ELEV.

09-18-86

FIGURE No. 27

GEOTECHNICAL ENGINEERS INC.
1017 MAIN STREET WINCHESTER MASSACHUSETTS 01890 (617) 729-1625

PRINCIPALS
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GONZALO CASTRO, P.E.
ASSOCIATES
JOHN W. FRANCE, P.E.
FRANCIS D. LEATHERS, P.E.

October 6, 1986
Project 86934

Mr. Paul L'Heureux
Chief of Engineering
U.S. Department of the Army
New England Division
Corps of Engineers
Building 117S
424 Trapelo Road
Waltham, MA 02254-9149

Subject: Draft Engineering Report entitled "Slope Inclinometer Monitoring and Data Manipulation at Ball Mountain Dam, Jamaica, Vermont"

Dear Mr. L'Heureux:

Enclosed are two copies of our draft report for the subject project.

Our report has been subjected to our internal review and coordination procedures to evaluate the completeness of the submission, check for conflicts, errors and omissions, and evaluate the overall professional and technical accuracy of the submission.

Please let us know if you have any questions.

Sincerely yours,

GEOTECHNICAL ENGINEERS INC.

Stephen L. Whiteside

Stephen L. Whiteside, P.E.
Project Manager

SLW:ms

Enclosures

APPENDIX A

SUMMARY OF DAILY ACTIVITIES

APPENDIX A

SUMMARY OF DAILY ACTIVITIES

Date	Activity
January 23, 1986	S. Sarandis and R. Barry (GEI) arrived on site at 9:00 a.m. Met with R. Snow (NED-CE). Read slope inclinometer nos. 1-3. Left the site at 4:30 p.m.
January 24, 1986	S. Sarandis and R. Barry (GEI) arrived on site at 7:30 a.m. Read slope inclinometer nos. 4-6. Left the site at 4:30 p.m.
March 31, 1986	S. Sarandis and M. McCaffrey (GEI) arrived on site at 11:30 a.m. Met with R. Snow (NED-CE). Read slope inclinometer nos. 4-6. Left the site at 6:00 p.m.
April 1, 1986	S. Sarandis and M. McCaffrey (GEI) arrived on site at 7:30 a.m. Read slope inclinometer nos. 1-3. Left the site at 2:30 p.m.
May 13, 1986	S. Sarandis (GEI) arrived on site at 11:00 a.m. Met with R. Snow (NED-CE) and P. Deterling (GEI). Read slope inclinometer nos. 3, 5, and 6. Left the site at 5:30 p.m.
May 14, 1986	S. Sarandis (GEI) arrived on site at 9:00 a.m. Met with P. Deterling (GEI). Read slope inclinometer nos. 1, 2, and 4. Left the site at 2:00 p.m.
June 15, 1986	S. Sarandis and M. Mahoney (GEI) arrived on site at 12:00 noon. Met with R. Snow (NED-CE). Read slope inclinometer nos. 1-2. Left the site at 5:00 p.m.
June 16, 1986	S. Sarandis and M. Mahoney (GEI) arrived on site at 8:30 a.m. Read slope inclinometer nos. 3-6. Left the site at 2:00 p.m.

APPENDIX A

SUMMARY OF DAILY ACTIVITIES

Date	Activity
July 15, 1986	S. Sarandis and S. Reich (GEI) arrived on site at 11:30 a.m. Read slope inclinometer nos. 3-6. Visitors on site were Paul L'Heureux (NED-CE) and Survey Crew (BSC). Left the site at 6:00 p.m.
July 16, 1986	S. Sarandis and S. Reich (GEI) arrived on site at 8:00 a.m. Read slope inclinometer nos. 1-2. Visitors on site were Paul L'Heureux (NED-CE) and Survey Crew (BSC). Left the site at 12:30 p.m.
August 18, 1986	S. Sarandis and R. Barry (GEI) arrived on site at 11:30 a.m. Met with R. Snow (NED-CE). Read slope inclinometer nos. 1-4. Left the site at 6:00 p.m.
August 19, 1986	S. Sarandis and R. Barry (GEI) arrived on site at 9:00 a.m. Read slope inclinometer nos. 5-6. Left the site at 2:00 p.m.

APPENDIX B

SAFETY REPORTS

GEOTECHNICAL ENGINEERS INC.

WEEKLY SAFETY MEETING
BALL MOUNTAIN DAM

TO: Safety Office, NED

FROM: Field Engineer

THRU: Project Manager

Contract No. DACW 33-85-D-0010

1. Exposure: Total on-site exposure hours for April 1, 1986 to June 28, 1986.

GEI	Steve Sarandis	48.0 manhours
	Mark Mahoney	16.0 manhours
	Mick McCaffrey	16.0

2. Forwarded: NED, Waltham, MA

Signature: Stephen L. Whiteside
GEI Project Manager

GEOTECHNICAL ENGINEERS INC.

WEEKLY SAFETY MEETING
BALL MOUNTAIN DAM

TO: Safety Office, NED

FROM: Field Engineer

THRU: Project Manager

Contract No. DACW 33-85-D-0010

1. Exposure: Total on-site exposure hours for June 28, 1986 to September 10, 1986.

GEI	Steve Sarandis	32.0 manhours
	Steve Reich	16.0 manhours
	Ray Barry	16.0 manhours

2. Forwarded: NED, Waltham, MA

Signature: Stephen L. Whiteside
GEI Project Manager

APPENDIX C

SCOPE OF WORK

SCOPE OF WORK

FOR

INCLINOMETER

MONITORING, DATA MANIPULATION & REPORTS AND PRE-SURVEY ANALYSIS

AT BALL MOUNTAIN DAM, JAMAICA, VERMONT

14 February 1986

1. PROJECT IDENTIFICATION.

a. Authority: The authority for this work is set forth in Corps of Engineers Regulation ER 1130-2-417, Project Operation Major Rehabilitation Program and Dam Safety Assurance Program, 30 November 1980.

2. PROJECT DESCRIPTION.

a. The project site consists of a dam and reservoir constructed on the West River, two miles north of the village of Jamaica, VT, 9.5 miles upstream of the Townshend Flood Control Dam and 29 miles upstream of the confluence of the Connecticut and West Rivers in Brattleboro, VT. Construction of the project was started in 1957 and completed in November 1961. Ball Mountain Dam is a rolled earth and rockfill structure, 915 feet in length with a maximum height of 265 feet above the river bed. The crest elevation is 1,052 feet NGVD which provides a thirty foot spillway surcharge and five feet of freeboard. The top width of the dam is twenty feet and the slopes vary between 1V on 2H and 1V on 2.5H on the upstream face and 1V on 1.75H on the downstream face. The normal pool stage maintained is 65 feet (el. 870.). The winter pool stage is maintained at 25 feet (el. 830) and the stage at which the flood in June 1984 crested was 193.1 feet (el. 998.6).

There is a bulge in the downstream slope and settlement of the crest of the dam. These irregularities have been noted in inspection reports for the past twenty years (1963, 1975, 1978, and 1982). However, no definite conclusions as to embankment movement has been made due to the lack of standardization in the measurement and survey techniques used to date. Six inclinometers were installed between October 1985 and January 1986 for this reason.

b. Services required under this delivery order includes Inclinometer Monitoring, Data Manipulation & Reports, and a Pre-Survey Analysis of survey monuments.

3. A/E SERVICES.

a. Inclinometer Monitoring.

Furnish a Geotechnical Engineer and a Geotechnical Technician to provide monthly on-site readings of six inclinometer located on the downstream slope of Ball Mountain Dam. Readings shall be performed utilizing a SINCO series 200B Slope Indicator or similar. This instrument shall be used and maintained (calibrated) in accordance with the manufacturer's instructions for proper operation. In the event that a monthly reading cannot be performed due to weather conditions, readings shall recommence at the earliest possible date. Subsequent readings shall be spaced one month apart. A total of twelve (12) readings are required.

5. COMPLETION SCHEDULE.

Services under this delivery order shall start on or about 10 March 1986. Duration of delivery order is estimated to be 18 months. Copies of instrumentation readings should be submitted within fourteen days after completion of each field trip. Two copies of the geotechnical report shall be submitted in draft format for both the interim and final reports for review by the Government no later than twenty-one calendar days after completion of sixth and twelfth monthly reading. The Pre-Survey Analysis results shall be submitted within one month from the commencement date. Review will take approximately ten calendar days from receipt of draft report. Three copies of the final geotechnical report shall be submitted no later than seven calendar days after receipt of draft report including the action taken on possible comments.

6. QUALITY CONTROL.

Your attention is invited to the Contract General Provisions, "Responsibility of the Architect-Engineer" and "Design Within Funding Limitations". You will be held responsible for the quality of the maps submitted and for all damages caused the Government as a result of your negligence in the performance of any services furnished under the contract.

Although submissions required by your contract are technically reviewed by the Government, it is emphasized that your work must be prosecuted using proper internal controls and review procedures. The letter of transmittal for each submission which you make shall include a certification that the submission has been subjected to your own review and coordination procedures to insure (a) completeness for each discipline commensurate with the level of effort required for that submission, (b) elimination of conflicts, errors and omissions, and (c) the overall professional and technical accuracy of the submission. Documents which are significantly deficient in any of these areas will be returned to you for correction and/or upgrading prior to our completing our review. Contract submission dates will not be extended if a resubmission of draft material is required for this reason. It is requested that you indicate in writing in your fee proposal letter your cognizance of this requirement and that your firm and your associates, if any, have the professional competency and technical expertise necessary to accomplish this project in a satisfactory manner.

b. Data Submission.

Data submission of field data shall be submitted after each monthly field trip. Data shall include but not be limited to inclinometer readings.

c. Data Manipulation.

Data from monthly readings shall be manipulated in such a manner that any lateral movement of the embankment that may occur during the duration of this delivery order can be detected. The existence of any possible shear planes shall also be located. Results shall be given in both graphical and tabulated form.

d. Presurvey Analysis.

An analysis to determine the network accuracy of the survey monuments and control points located on the crest downstream slope and abutments of Ball MountainDam shall be performed. This analysis will determine the highest degree of accuracy possible in an upcoming monitoring program. The results of this analysis shall include a plan showing horizontal angles from pillars to monuments.

e. Geotechnical Reports.

Two geotechnical reports shall be prepared and submitted which presents the results of the inclinometer monitoring and data manipulation phases of this delivery report.

(1) Interim Report. This report shall include all information to date. The data and results shall be presented in graphical and tabular form and include a discussion of the results. The methodology used to obtain and reduce field data shall be presented in an independent portion of the report. In addition to the technical portion of the report, the scope of investigation, summary of daily field activities and safety reports shall be included in the report.

(2) Final Report. This report shall include all information from the Interim Report and subsequent data. The format shall be the same as for the Interim Report.

4. COORDINATION.

Each monthly field trip must be coordinated with the Project Manager at the site: Mr Ralph Snow at 802-874-4881 prior to departure.

Liaison will be maintained for the duration of the delivery order through telephone contacts and meetings held at the request of the point of contact, Mr. Paul L'Heureux.

APPENDIX D

DATA INPUT FILES

```
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 +622 -511  -28  +60  0.0
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 +217 -108 +141 -128  0.0
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```

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  375 -306  357 -351
  412 -342  341 -334
  442 -372  349 -345
  504 -432  340 -334
  558 -483  247 -254
  545 -472  156 -145
  523 -454  124 -104
  594 -517   59  -59
  605 -536  -27   41
  522 -462  -95  103
  452 -390 -192  203
  367 -300 -199  206
  273 -204  -99  111
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  200 -128  147 -136
  254 -182  178 -173
  313 -239  296 -274
  345 -271  285 -264
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  509 -434  247 -237
  537 -460  236 -224
  551 -475  230 -215
  561 -487  209 -187
  565 -492  178 -163
  556 -482  121 -124
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  535 -458   57  -48
  525 -449   35  -35
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  445 -373  -77   93
  420 -351  -87   94
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  383 -310  -66   72
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  374 -304  359 -333
  409 -340  325 -309
  436 -370  344 -325
  501 -428  343 -324
  555 -482  258 -239
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  592 -517   65  -45
  604 -535  -41   60
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  388 -292 -207  210
  272 -200 -102  120
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  548 -475  230 -209
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  565 -492  168 -141
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  533 -458   41  -30
  523 -448   32  -13
  466 -397  -31   47
  445 -370  -90  111
  419 -347  -85  110
  391 -318  -73  101
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  388 -316   64  -47
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  384 -312  110  -98
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```
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  417 -332  328 -307
  445 -362  339 -328
  510 -425  340 -317
  564 -477  269 -240
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  530 -443  115  -97
  596 -510   60  -50
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  522 -438 -103  114
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  205 -121  142 -116
  259 -174  186 -159
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  471 -389   -9   40
  447 -362  -79   88
  421 -340  -82  112
  394 -309  -71   97
  386 -301  -57   81
  391 -308  -26   53
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  429 -349  105  -86
  388 -304  129  -91
  307 -223  122  -96
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```
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  454 -361  353 -339
  515 -419  358 -316
  571 -474  269 -248
  558 -463  160 -138
  535 -442  117  -95
  602 -505   83  -54
  619 -523  -29   57
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  532 -440   41  -15
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  396 -303  -32   55
  398 -304   69  -48
  435 -343  117  -90
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  615 -527  -22   65
  528 -440  -84  112
  461 -375 -185  221
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  282 -193  -65  129
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  430 -347  132  -93
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  308 -223  151  -97
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  120  -37  310 -213
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  183 -103  192 -110
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  299 -187 -688  703
  245 -133 -617  638
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  409 -296 -111  118
  406 -293  -13   40
  377 -265   54  -28
  311 -199  106  -76
  245 -132  146 -125
  225 -110  203 -176
  175  -65  212 -190
   55   52  133  -94
  -80  193   -3   42
 -193  306  -24   49
 -208  320  161 -125
 -100  211  292 -248
   29  178  296 -265
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```
86-0401 BALL MOUNTAIN DAM, JAMAICA VT;  SI-85-2
860401 2 010000    0    -912.0    1002.0   .000050   .000050      24.
  271 -231 -611  615
  343 -298 -734  726
  287 -243 -810  821
  261 -209 -794  805
  276 -216 -744  757
  282 -220 -697  695
  228 -170 -630  643
  200 -139 -550  552
  210 -149 -455  466
  249 -185 -350  374
  261 -196 -274  287
  255 -185 -232  260
  236 -173 -230  250
  185 -122 -282  301
  158  -91 -413  426
  156  -93 -487  492
  140  -73 -572  575
   90  -24 -594  612
   45   20 -610  617
   35   29 -632  640
   39   27 -635  654
   82  -11 -642  650
   98  -29 -572  590
  119  -47 -546  568
  113  -48 -491  497
   96  -27 -420  438
   89  -18 -357  356
   54   16 -244  266
   27   39 -149  166
  127  -59 -106  131
  308 -240  -87  135
  373 -305 -105  113
  386 -319 -105  126
  384 -316   -3   27
  357 -289   53  -37
  291 -223  101  -77
  224 -156  148 -124
  203 -133  207 -191
  158  -89  219 -203
   34   34  123 -112
 -101  170  -15   30
 -214  282  -30   39
 -231  299  154 -141
 -133  202  310 -286
 -112  192  433 -398
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86-0513 BALL MOUNTAIN DAM, JAMAICA VT.  61-85-2
860513 2 010000    0    -912.0    1002.0   .000050   .000050      24.
  277 -205 -618  618
  345 -269 -719  733
  292 -217 -824  828
  267 -188 -792  814
  282 -199 -734  764
  287 -209 -682  717
  235 -155 -618  659
  206 -126 -537  569
  213 -136 -444  484
  254 -175 -347  380
  267 -191 -256  283
  261 -180 -229  267
  245 -168 -220  250
  195 -119 -268  312
  161  -84 -420  436
  163  -87 -471  501
  143  -66 -564  589
   96  -19 -586  613
   51   29 -602  639
   38   37 -615  649
   40   34 -638  664
   85   -7 -641  675
  103  -27 -580  607
  123  -45 -552  582
  114  -40 -484  511
  102  -24 -403  442
   93  -14 -344  385
   57   20 -242  281
   31   45 -140  177
  131  -53 -111  134
  311 -234  -99  136
  376 -300  -83  107
  390 -313  -94  123
  389 -310   -1   13
  360 -281   63  -35
  294 -215  112  -70
  225 -148  155 -127
  205 -126  212 -174
  162  -83  228 -180
   36   39  137 -101
  -98  175    3   39
 -210  286  -27   55
 -229  306  166 -132
 -130  209  301 -277
  -50  143  400 -393
99999999999999999999999.
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```
86-0616 BALL MOUNTAIN DAM, JAMAICA VT.  BI-85-2
860616 2 010000    0    -912.0    1002.0   .000050   .000050      24.
  284 -205 -599  625
  350 -265 -712  734
  296 -212 -799  828
  270 -184 -784  812
  285 -192 -735  770
  290 -204 -682  711
  240 -149 -614  660
  210 -120 -535  562
  217 -130 -442  483
  254 -169 -318  379
  267 -183 -254  296
  262 -176 -231  250
  245 -162 -233  260
  197 -111 -268  316
  163  -80 -412  434
  163  -81 -471  506
  144  -64 -557  582
  100  -15 -593  625
   52   31 -609  633
   40   42 -615  655
   40   40 -629  673
   88   -2 -638  678
  103  -20 -565  608
  123  -38 -541  582
  119  -34 -480  512
  102  -18 -407  449
   95   -9 -343  375
   59   26 -241  271
   32   50 -148  163
  135  -49  -99  138
  312 -230 -111  134
  377 -294  -83  121
  391 -309 -100  135
  392 -309    7   30
  364 -279   61  -23
  298 -213  107  -66
  228 -143  151 -115
  207 -123  211 -189
  168  -85  216 -181
   41   43  136 -106
  -96  180   -5   44
 -202  287  -18   40
 -230  313  170 -139
 -129  209  309 -277
   50  143  400 -393
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86-0716 BALL MOUNTAIN DAM, JAMAICA VT,  SI-85-2
860716 2 010000    0    -912.0    1002.0   .000050   .000050      24.
  286 -220 -610  621
  347 -274 -717  735
  291 -225 -810  823
  268 -196 -799  810
  281 -207 -742  767
  285 -215 -685  710
  234 -162 -619  658
  205 -134 -549  578
  211 -145 -455  470
  250 -181 -348  372
  265 -198 -257  280
  260 -187 -230  253
  244 -174 -227  252
  196 -126 -266  300
  159  -87 -407  425
  160  -91 -479  512
  139  -71 -566  594
   95  -25 -593  625
   48   22 -615  637
   38   32 -624  655
   37   31 -632  662
   85  -14 -640  670
  100  -31 -570  590
  118  -48 -544  573
  112  -45 -488  513
   99  -27 -410  445
   91  -17 -356  382
   56   16 -249  271
   28   42 -145  159
  128  -57 -115  131
  311 -238 -104  145
  377 -304  -88  132
  391 -318  -97  116
  394 -320    7   21
  363 -291   59  -37
  295 -224  104  -73
  222 -153  148 -137
  203 -131  215 -190
  165  -94  214 -186
   38   33  134 -118
  -99  170  -10   36
 -206  275  -20   37
 -237  307  161 -136
 -137  205  306 -278
  -52  122  355 -319
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66-0819 BALL MOUNTAIN DAM. JAMAICA VT.  SI-85-2
860819 2 010000    0    -912.0    1002.0   .000050   .000050      24.
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  301 -211 -800  831
  274 -183 -784  814
  288 -195 -737  768
  295 -204 -681  721
  244 -152 -625  655
  213 -122 -544  580
  221 -132 -450  473
  261 -170 -345  374
  274 -186 -258  283
  270 -176 -226  264
  253 -163 -220  260
  204 -115 -270  312
  167  -77 -402  430
  169  -81 -475  512
  149  -61 -560  588
  107  -17 -598  626
   58   32 -603  644
   47   42 -626  660
   44   43 -628  667
   96   -5 -640  672
  112  -22 -570  606
  126  -36 -545  583
  121  -36 -484  510
  109  -21 -412  441
   97   -9 -346  382
   63   24 -241  267
   37   50 -139  172
  139  -49 -110  143
  319 -230 -101  140
  384 -295  -84  117
  400 -310  -96  137
  403 -313   10   23
  372 -283   63  -33
  304 -214  103  -65
  231 -140  152 -137
  212 -120  221 -185
  176  -85  217 -178
   46   43  135 -105
  -91  180   -6   40
 -197  286  -30   54
 -228  316  164 -132
 -130  217  311 -275
  -47  138  398 -370
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66-0123 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-3  INITIAL READINGS
860123 1 110000    0    -910.0    1044.0   .000050   .000050      24.
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   55   50 -828  846  0.0
  -18  120 -750  759  0.0
 -107  212 -671  699  0.0
 -113  224 -658  680  0.0
 -134  244 -635  653  0.0
 -178  293 -596  601  0.0
 -211  236 -577  602  0.0
 -145  244 -559  570  0.0
 -110  221 -523  560  0.0
  -64  177 -506  540  0.0
  -29  138 -489  500  0.0
   22  176 -462  481  0.0
   -1  109 -535  550  0.0
   27   81 -605  627  0.0
   37   72 -616  639  0.0
   74   35 -660  677  0.0
  155  -44 -691  705  0.0
  222 -116 -719  734  0.0
  214 -103 -729  747  0.0
  287 -178 -706  728  0.0
  299 -188 -659  677  0.0
  301 -191 -608  619  0.0
  246 -138 -582  601  0.0
  182  -74 -582  602  0.0
  134  -20 -634  643  0.0
   85   32 -664  684  0.0
    6  105 -672  697  0.0
  -23  131 -675  687  0.0
  -54  164 -612  627  0.0
  -63  172 -621  642  0.0
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  -92  202 -514  528  0.0
  -33  143 -467  481  0.0
   26   79 -415  430  0.0
   42   65 -437  460  0.0
   73   33 -477  496  0.0
  181  -23 -485  500  0.0
  145  -35 -471  507  0.0
  160  -49 -515  533  0.0
  137  -26 -514  534  0.0
  116   -7 -515  546  0.0
  168  -60 -575  601  0.0
  204  -88 -496  522  0.0
  239 -128 -399  423  0.0
  177  -64 -185  193  0.0
   75   37   22    1  0.0
   26   83   99  -69  0.0
   13   96  -74   96  0.0
  -48  157 -309  332  0.0
 -106  216 -404  436  0.0
  -48  158 -464  496  0.0
  -31  144 -484  503  0.0
    8  104 -365  407  0.0
  111   -1 -298  327  0.0
   63   47 -242  271  0.0
   47   63 -254  270  0.0
 -105  216 -143  172  0.0
 -157  269  -85  125  0.0
 -100  210 -115  162  0.0
   10  100 -175  197  0.0
  123  -14 -185  200  0.0
  217 -106 -167  210  0.0
  344 -253 -264  307  0.0
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86-0401 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-3
860401 2 010000    0    -910.0    1044.0   .000050   .000050      24.
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   19   48 -873  876
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  -40  107 -748  751
 -131  199 -673  686
 -139  210 -662  678
 -161  227 -629  645
 -207  276 -594  599
 -238  218 -564  575
 -154  225 -552  572
 -131  203 -534  553
  -90  160 -506  532
  -56  125 -471  507
    1  157 -452  480
  -23   89 -540  551
    5   63 -610  627
   15   51 -621  650
   44   19 -674  684
  128  -65 -688  700
  196 -131 -724  741
  186 -118 -734  746
  264 -193 -712  739
  274 -202 -673  684
  279 -206 -609  634
  223 -150 -586  611
  153  -86 -576  603
  104  -34 -627  647
   51   19 -674  687
  -20   88 -670  696
  -52  125 -670  689
  -87  156 -608  635
  -96  165 -613  630
 -115  190 -577  594
 -138  209 -531  549
 -116  187 -514  518
  -54  124 -460  469
    5   61 -421  427
   23   46 -450  471
   54   16 -489  518
  122  -42 -486  526
  124  -54 -483  495
  139  -68 -513  533
  124  -52 -535  547
  109  -36 -525  546
  165  -95 -578  603
  201 -121 -497  516
  227 -157 -407  429
  157  -84 -186  211
   46   23   26   -9
    8   61  109  -86
  -17   88  -78   98
  -81  150 -314  327
 -132  200 -414  440
  -76  149 -474  490
  -58  134 -484  509
  -12   83 -367  394
   88  -18 -298  295
   40   31 -258  264
   21   49 -256  272
 -133  204 -144  149
 -183  255  -91  105
 -123  192 -125  145
  -10   82 -182  196
  106  -35 -181  204
  201 -128 -178  198
  330 -176 -271  293
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860513 2 010000    0    -910.0    1044.0   .000050   .000050      24.
  -19   84 -881  940
  -13   91 -824  897
   24   53 -821  895
   32   38 -784  857
  -36  104 -692  758
 -133  203 -595  692
 -139  212 -596  686
 -161  232 -561  662
 -212  279 -523  622
 -247  224 -476  595
 -159  229 -483  573
 -134  203 -447  561
  -92  161 -420  524
  -60  125 -421  511
   -2  151 -387  461
  -27   91 -462  548
    0   63 -543  628
    8   57 -546  632
   43   24 -594  680
  125  -60 -633  711
  191 -128 -678  733
  185 -115 -687  752
  260 -192 -677  718
  270 -200 -626  686
  275 -208 -568  623
  219 -151 -542  611
  149  -86 -535  601
  100  -31 -580  651
   50  -21 -615  697
  -21   87 -610  689
  -56  125 -597  696
  -90  158 -534  637
 -100  168 -535  641
 -119  193 -491  583
 -141  207 -440  551
 -121  188 -428  530
  -57  125 -385  474
    4   61 -352  424
   20   45 -378  470
   50   16 -422  515
  161   -4 -436  516
  120  -54 -427  499
  133  -68 -470  512
  119  -52 -471  549
  106  -38 -471  547
  162  -99 -529  593
  196 -124 -449  532
  224 -160 -364  410
  153  -87 -141  225
   46   17   88   10
   11   54  177  -69
  -17   83    8  103
  -82  151 -228  321
 -133  201 -326  441
  -78  149 -402  495
  -60  132 -407  510
  -16   83 -296  407
   84  -19 -247  298
   38   30 -185  271
   19   51 -190  276
 -134  205  -63  166
 -181  251   -8   61
 -121  189  -41  144
   -8   77 -109  175
  107  -39 -132  210
  206 -137 -148  213
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```

```
86-0616 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-3
860616 2 010000    0    -910.0    1044.0   .000050    .000050      24.
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   43   37 -826  841
  -35  109 -737  763
 -127  205 -653  686
 -129  211 -656  690
 -153  233 -628  650
 -196  281 -590  606
 -226  217 -555  613
 -144  228 -540  569
 -122  202 -530  551
  -80  162 -494  521
  -47  127 -470  516
  -13  155 -432  470
  -13   95 -539  554
   12   66 -613  633
   18   57 -620  636
   54   27 -657  683
  139  -61 -689  708
  207 -130 -715  737
  196 -114 -725  755
  275 -191 -709  730
  280 -198 -658  687
  288 -206 -626  629
  229 -146 -584  608
  161  -85 -565  594
  111  -30 -622  645
   57   23 -661  695
  -12   88 -659  693
  -46  125 -661  683
  -78  162 -600  640
  -88  170 -609  642
 -110  196 -564  595
 -129  209 -529  545
 -109  192 -502  532
  -45  131 -451  476
   16   68 -412  440
   30   50 -440  472
   61   19 -481  518
  124  -38 -483  530
  130  -49 -475  507
  146  -64 -504  534
  129  -50 -511  555
  116  -36 -513  552
  175  -96 -567  601
  208 -121 -483  534
  234 -153 -390  450
  157  -82 -175  233
   49   25   34    6
   16   61  120  -71
  -15   92  -68  111
  -79  157 -312  341
 -128  206 -420  452
  -71  134 -458  501
  -53  136 -469  516
   -5   86 -357  405
   96  -16 -287  317
   43   36 -240  277
   25   55 -247  269
 -133  209 -139  165
 -176  259  -90  116
 -112  194 -118  150
    3   79 -170  200
  115  -37 -179  217
  219 -134 -190  219
  330 -201 -249  273
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```

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86-0716 BALL MOUNTAIN DAM, JAMAICA, VT  S1-85-3
860716 2 010000    0    -910.0    1044.0   .000050   .000050      24.
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   12   90 -866  899
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   59   39 -835  853
   -5  101 -756  786
 -117  213 -651  682
 -119  219 -654  681
 -138  235 -634  659
 -182  284 -592  617
 -181  272 -562  606
 -139  236 -543  573
 -113  210 -521  556
  -72  171 -507  543
  -40  136 -481  516
   -4  121 -448  474
   -5  100 -527  554
   25   70 -603  634
   35   64 -611  643
   57   35 -643  675
  144  -50 -687  714
  218 -124 -715  744
  207 -115 -714  750
  279 -185 -699  739
  292 -196 -652  681
  298 -203 -600  626
  245 -149 -577  609
  173  -83 -563  595
  125  -27 -613  648
   75   23 -651  699
    0   92 -658  700
  -34  129 -659  694
  -70  164 -599  633
  -80  174 -612  647
  -98  198 -567  601
 -122  214 -516  553
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  -43  135 -453  477
   20   71 -403  431
   36   54 -433  475
   65   26 -486  517
  122   -9 -480  511
  138  -47 -462  503
  152  -59 -492  538
  141  -45 -516  556
  127  -33 -518  548
  179  -88 -561  603
  216 -119 -488  519
  240 -147 -392  443
  170  -77 -185  230
   61   30   25   17
   24   67  117  -71
   -2   95  -78  100
  -65  159 -296  332
 -116  210 -415  443
  -63  159 -456  495
  -44  140 -472  510
    1   93 -356  405
  104  -12 -291  319
   53   39 -239  265
   36   57 -246  267
 -120  213 -147  151
 -169  263  -83  114
 -104  197 -110  101
   11   84 -164  186
  126  -35 -174  210
  226 -132 -177  214
  381 -153 -232  267
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```

```
86-0819 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-3
860819 2 010000    0    -910.0    1044.0   .000050   .000050      24.
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   39   60 -881  881
   57   43 -852  848
  -10  108 -764  772
 -122  218 -660  665
 -124  222 -654  666
 -143  241 -642  645
 -186  286 -597  604
 -220  228 -559  590
 -140  237 -552  561
 -115  212 -533  540
  -73  171 -512  516
  -43  139 -485  493
   18  160 -463  450
   -9  101 -539  537
   19   70 -612  619
   29   66 -626  629
   55   37 -664  670
  141  -49 -694  700
  218 -123 -727  738
  206 -109 -721  748
  281 -180 -714  729
  290 -190 -665  678
  296 -199 -606  622
  241 -143 -388  605
  171  -80 -575  594
  118  -25 -632  639
   69   25 -668  678
   -3   95 -676  687
  -37  132 -671  676
  -72  169 -622  625
  -83  177 -627  637
 -102  201 -582  588
 -125  216 -539  545
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  -43  136 -462  464
   22   73 -417  427
   33   58 -448  461
   65   27 -488  500
  179    6 -490  507
  139  -44 -483  493
  153  -57 -500  517
  138  -44 -518  536
  124  -31 -523  535
  177  -88 -575  575
  213 -113 -492  506
  238 -146 -408  430
  166  -75 -194  196
   60   31   21   -4
   26   65  104  -96
   -5   97  -81   83
  -70  162 -307  321
 -122  214 -419  426
  -67  160 -470  484
  -48  144 -489  493
    1   90 -376  388
  102  -11 -299  313
   52   40 -246  260
   35   60 -257  268
 -124  215 -153  164
 -171  263 -102   96
 -106  195 -122  129
   10   81 -166  173
  131  -40 -184  195
  225 -132 -189  202
  361 -169 -259  264
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```
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  707 -597 -409  437
  704 -595 -338  369
  663 -554 -245  272
  709 -601 -193  220
  692 -581 -179  210
  669 -561 -112  125
  601 -491  -44   68
  523 -414  -13   44
  461 -352  -25   41
  405 -297  -44   71
  298 -189 -110  123
  207 -122 -188  206
  132  -23 -257  271
  115   -6 -325  343
  202  -93 -316  347
  341 -226 -324  355
  362 -251 -403  420
  317 -203 -340  362
  330 -222 -301  326
  337 -222 -268  286
  315 -204 -215  233
  355 -244 -179  203
  394 -279 -110  140
  343 -227 -142  158
  356 -241 -166  187
  382 -266 -140  157
  379 -261 -150  183
  358 -243 -179  185
  375 -263  -66   79
  413 -298  -63   85
  346 -229  -59   75
  387 -271  -10   45
  561 -449  138 -114
  557 -444  164 -121
  391 -275   48  -19
  218 -106  -49   80
  122   -9 -133  161
  118   -7 -162  198
  138  -27 -157  192
  154  -41 -117  150
  151  -38 -191  219
  166  -53 -323  369
  190  -72 -419  460
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  699 -608 -413  431
  707 -617 -354  361
  658 -571 -253  258
  708 -619 -212  213
  694 -602 -185  193
  672 -582 -112  120
  601 -509  -51   57
  523 -431  -17   26
  459 -368  -20   31
  408 -316  -32   58
  297 -205 -103  115
  207 -115 -186  201
  130  -40 -243  267
  110  -16 -326  335
  192 -103 -321  344
  335 -241 -331  357
  364 -272 -394  425
  311 -213 -343  374
  330 -237 -294  304
  332 -239 -260  289
  311 -220 -214  227
  348 -257 -176  209
  388 -293 -112  139
  336 -245 -127  157
  350 -259 -162  194
  374 -284 -141  169
  373 -280 -141  180
  350 -257 -174  211
  365 -278  -66   86
  404 -313  -70   85
  338 -247  -70   74
  379 -287   -9   42
  553 -462  140 -112
  555 -465  165 -134
  394 -302   45  -26
  210 -117  -57   79
  113  -20 -125  153
  111  -20 -164  190
  134  -43 -159  183
  148  -58 -116  142
  151  -60 -205  229
  162  -75 -335  362
  192 -115 -424  444
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  595 -511 -432  449
  694 -610 -413  423
  703 -622 -353  366
  654 -573 -253  273
  704 -623 -209  228
  689 -608 -187  210
  664 -587 -108  131
  594 -517  -48   61
  513 -438  -16   33
  450 -374  -28   46
  400 -324  -31   65
  287 -212  -99  123
  199 -123 -192  207
  123  -48 -258  267
   99  -21 -341  340
  182 -104 -325  338
  328 -245 -340  354
  356 -281 -397  422
  301 -218 -348  365
  322 -239 -298  308
  322 -243 -272  277
  303 -224 -230  240
  339 -257 -190  212
  377 -297 -125  138
  327 -248 -142  155
  340 -262 -164  185
  366 -287 -142  163
  363 -283 -149  176
  341 -262 -183  196
  356 -279  -78   86
  395 -315  -73   78
  328 -248  -73   78
  369 -286  -10   36
  544 -463  138 -108
  544 -468  161 -132
  383 -307   44  -25
  198 -123  -63   79
  101  -25 -136  147
  101  -22 -164  189
  125  -45 -158  182
  140  -63 -134  141
  142  -64 -214  229
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  653 -575 -256  282
  706 -624 -204  244
  689 -608 -184  207
  666 -586 -108  134
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  532 -434  -12   47
  451 -373  -15   49
  401 -318  -28   64
  289 -207 -100  121
  199 -117 -179  214
  124  -42 -241  285
  103  -21 -322  351
  185 -104 -310  357
  328 -247 -324  361
  356 -279 -400  427
  299 -216 -330  370
  323 -237 -283  325
  323 -241 -252  296
  304 -222 -209  250
  339 -257 -179  216
  378 -295 -104  148
  329 -248 -126  167
  343 -261 -159  204
  370 -287 -128  172
  365 -283 -142  184
  341 -260 -176  200
  364 -275  -51   89
  400 -311  -70   99
  329 -241  -53   89
  373 -283   -5   47
  551 -465  150 -112
  548 -467  164 -126
  385 -303   50  -18
  199 -138  -49   85
  101  -21 -115  153
  100  -19 -161  191
  127  -44 -158  185
  147  -65 -115  149
  150  -67 -216  241
  168  -84 -340  369
  198 -110 -331  369
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  700 -606 -399  426
  712 -617 -338  386
  662 -571 -242  278
  713 -622 -191  231
  697 -605 -168  211
  673 -584  -99  131
  603 -513  -35   71
  522 -433   -5   40
  458 -369  -12   39
  408 -319  -24   63
  295 -207  -95  122
  204 -117 -177  211
  128  -42 -236  275
  103  -17 -314  337
  185 -100 -313  356
  331 -242 -319  368
  361 -278 -393  430
  300 -212 -333  378
  329 -238 -286  332
  326 -239 -253  301
  306 -221 -207  240
  341 -254 -183  221
  383 -294 -104  142
  334 -247 -134  165
  346 -259 -154  200
  373 -286 -132  172
  368 -282 -147  185
  342 -256 -171  204
  364 -276  -51   97
  404 -314  -53   93
  331 -242  -51   89
  373 -284   -9   48
  553 -464  141 -120
  552 -465  167 -133
  389 -303   54  -19
  201 -116  -52   80
  106  -19 -119  156
  104  -18 -163  190
  130  -44 -154  165
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  153  -66 -199  241
  173  -87 -332  361
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  695 -604 -411  428
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  658 -568 -254  268
  711 -621 -207  226
  694 -602 -184  203
  669 -578 -108  133
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  456 -366   -7   48
  407 -316  -23   61
  293 -202  -91  120
  203 -114 -183  215
  128  -39 -247  276
  110  -16 -323  336
  190 -100 -312  348
  335 -244 -321  360
  362 -277 -394  428
  299 -208 -332  360
  331 -237 -292  326
  328 -237 -265  301
  309 -218 -215  256
  344 -253 -180  221
  383 -293 -108  134
  334 -245 -127  166
  347 -255 -156  200
  376 -285 -131  163
  369 -278 -150  188
  345 -255 -175  205
  369 -281  -50   82
  406 -317  -59   94
  332 -244  -55   90
  376 -285  -11   23
  558 -468  142 -121
  554 -467  158 -133
  391 -304   52  -21
  202 -115  -66   83
  106  -20 -129  152
  105  -19 -165  189
  133  -46 -156  176
  152  -65 -111  146
  154  -67 -222  243
  175  -90 -345  352
  192 -108 -356  372
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 616 -500  524 -523  0.0
 687 -569  419 -410  0.0
 777 -660  314 -312  0.0
 816 -706  285 -260  0.0
 649 -532  111  -96  0.0
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 339 -225   39  -23  0.0
 204  -91  103  -89  0.0
  87   24  227 -202  0.0
  79   34  364 -343  0.0
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 385 -272  610 -603  0.0
 487 -369  686 -686  0.0
 571 -452  714 -690  0.0
 719 -602  719 -684  0.0
 818 -701  602 -589  0.0
 839 -720  543 -542  0.0
 816 -700  449 -445  0.0
 778 -685  410 -397  0.0
 742 -628  357 -334  0.0
 722 -603  300 -276  0.0
 663 -547  230 -199  0.0
 601 -485  167 -143  0.0
 521 -403  110  -85  0.0
 455 -341   80  -46  0.0
 432 -314   90  -59  0.0
 366 -250   72  -44  0.0
 326 -209   97  -92  0.0
 305 -189  118  -88  0.0
 331 -216  151 -131  0.0
 377 -264  245 -220  0.0
 412 -301  319 -308  0.0
 435 -322  344 -324  0.0
 460 -349  340 -321  0.0
 505 -383  303 -302  0.0
 424 -311  261 -236  0.0
 365 -246  264 -242  0.0
 330 -219  277 -270  0.0
 307 -193  279 -258  0.0
 296 -178  249 -220  0.0
 340 -228  202 -187  0.0
 395 -282  123 -110  0.0
 430 -313   60  -62  0.0
 381 -264   53  -35  0.0
 316 -202   -4    2  0.0
 319 -207 -106  135  0.0
 305 -188 -264  273  0.0
 250 -133 -195  202  0.0
 178  -67 -119  136  0.0
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  19   97  127 -102  0.0
 -14  130   93  -80  0.0
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 -90  208   85  -62  0.0
 -92  207   77  -61  0.0
 -68  181  159 -147  0.0
  21   90  305 -301  0.0
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 413 -297  606 -580  0.0
 463 -357  626 -605  0.0
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  400 -300  484 -476
  536 -440  563 -563
  607 -506  527 -511
  676 -577  423 -417
  767 -669  313 -311
  807 -713  285 -272
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  480 -384   23  -19
  333 -239   28  -21
  200 -105   86  -81
   74   16  214 -200
   67   27  352 -339
  206 -106  481 -475
  376 -283  612 -599
  472 -378  666 -676
  559 -460  712 -697
  709 -611  709 -694
  815 -716  611 -605
  832 -733  558 -544
  809 -709  464 -452
  772 -672  411 -404
  735 -643  353 -336
  720 -617  282 -271
  656 -556  228 -207
  596 -497  164 -150
  517 -416  102  -85
  447 -350   67  -60
  428 -326   78  -56
  368 -268   71  -41
  320 -219  109  -84
  294 -194  124 -103
  325 -227  151 -132
  373 -274  244 -220
  404 -304  323 -311
  433 -331  343 -322
  458 -358  332 -316
  490 -386  317 -295
  420 -321  263 -240
  363 -260  257 -243
  338 -236  283 -269
  317 -217  275 -259
  296 -193  241 -222
  342 -242  199 -174
  393 -294  116 -108
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  318 -215   17   -1
  312 -212 -103  132
  297 -189 -246  268
  244 -137 -190  211
  172  -71 -112  126
  118   -9  -25   47
   51   52   74  -50
   12   92  132 -103
  -18  124   95  -73
  -76  179   90  -76
  -99  204   99  -71
 -102  206   80  -56
  -75  176  163 -134
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  209 -107  470 -455
  385 -289  581 -568
  508 -409  645 -633
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  192 -118   90  -73
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  361 -290  612 -600
  457 -384  686 -677
  542 -466  702 -688
  688 -613  722 -688
  803 -724  625 -600
  823 -742  546 -541
  797 -717  464 -440
  758 -682  414 -402
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  706 -626  299 -271
  644 -565  217 -218
  582 -504  160 -149
  504 -427  100  -81
  432 -360   85  -55
  414 -335   89  -53
  354 -277   57  -53
  308 -228  105  -73
  280 -202  124 -103
  312 -235  148 -123
  358 -282  241 -213
  390 -313  328 -307
  418 -340  344 -323
  443 -367  335 -303
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  407 -329  266 -241
  350 -270  263 -230
  326 -247  292 -261
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  281 -203  239 -214
  329 -252  196 -173
  379 -304  125 -103
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  300 -221 -102  133
  286 -202 -254  278
  233 -148 -197  220
  161  -83 -118  124
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 796 -713  295 -253
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 192 -108   93  -71
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  57   25  354 -332
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 808 -720  628 -594
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 585 -499  169 -144
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 437 -354   87  -60
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 303 -221 -100  141
 285 -198 -247  284
 234 -148 -180  220
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-106  195  100  -64
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 377 -295  583 -552
 438 -344  665 -649
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86-0716 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-5
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  676 -561  428 -413
  774 -656  328 -309
  812 -699  272 -272
  655 -541  121 -106
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   71   39  355 -330
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  480 -365  693 -676
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  324 -208  281 -256
  301 -185  239 -222
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  320 -207   22   -1
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  291 -181 -255  274
  242 -133 -190  210
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  666 -572  434 -420
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  696 -608  704 -703
  812 -717  626 -612
  830 -734  559 -544
  804 -707  463 -444
  767 -672  414 -401
  734 -644  353 -341
  716 -618  272 -279
  653 -557  226 -217
  593 -498  173 -160
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  313 -220  274 -261
  290 -196  230 -225
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  242 -145 -191  207
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  -80  172   89  -75
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 -367  467 -149  173  0.0
 -307  408  -97  129  0.0
 -211  312   41  -24  0.0
 -160  258  154 -144  0.0
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  -76  173  210 -180  0.0
   -1   97  225 -193  0.0
   45   52  268 -232  0.0
   57   39  279 -237  0.0
   38   59  249 -221  0.0
  -19  115  250 -219  0.0
  -68  167  221 -184  0.0
 -167  263  124 -103  0.0
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 -148  247    0   37  0.0
 -167  265   63  -33  0.0
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  -67  167  194 -166  0.0
  -22  122  238 -215  0.0
    3   92  278 -255  0.0
  -18  117  274 -231  0.0
 -124  223  279 -244  0.0
 -176  275  307 -268  0.0
 -132  228  366 -328  0.0
  -45  140  432 -388  0.0
  -12  109  365 -340  0.0
  -51  155  275 -256  0.0
  -97  196  193 -173  0.0
 -204  304  240 -226  0.0
 -342  440  278 -254  0.0
 -340  438  156 -137  0.0
 -336  434   32   -6  0.0
 -318  416  -19   42  0.0
 -216  314   50   -9  0.0
 -181  279   90  -78  0.0
 -193  315   41    2  0.0
99999999999999999999999.
```

```
86-0401 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-6
860401 2 010000    0    -910.0    1002.0   .000050   .000050       24.
  125  -45  348 -334
 -101  196  457 -449
 -352  448  336 -317
 -476  578  116  -92
 -451  546  -39   73
 -375  479 -144  158
 -383  484 -144  168
 -326  430 -102  112
 -214  319   73  -62
 -146  246  190 -170
  -99  199  161 -144
  -64  164  143 -124
  -15  114  154 -138
   23   72  192 -166
   32   63  262 -237
   24   70  310 -274
    9   87  293 -272
  -17  117  264 -237
  -44  152  213 -190
 -146  249  136 -106
 -246  350   82  -51
 -263  370   42  -34
 -195  302   26  -20
 -136  244   -5   26
 -148  256   50  -38
 -111  217  183 -159
  -92  199  187 -163
  -54  162  194 -178
   -8  118  242 -224
   20   84  285 -270
    6  103  260 -231
 -101  215  291 -262
 -160  271  304 -283
 -115  227  362 -351
  -24  136  429 -413
   12  100  349 -347
  -34  147  280 -255
  -76  190  186 -179
 -181  297  252 -247
 -319  432  290 -275
 -323  437  170 -150
 -314  426   26   -8
 -299  413  -17   25
 -198  311   73  -56
 -159  275  103  -72
 -182  284   26   12
99999999999999999999999999.
```

```
86-0513 BALL MOUNTAIN OAK, JAMAICA, VT  SI-85-6
860513 2 010000    0    -910.0    1002.0   .000050   .000050       24.
  125  -60  352 -329
 -107  175  462 -444
 -364  433  335 -322
 -490  562  105  -95
 -460  530  -55   75
 -384  461 -131  158
 -396  470 -146  167
 -336  417 -105  111
 -227  303   72  -52
 -159  233  195 -161
 -102  181  170 -138
  -74  145  136 -116
  -24   92  150 -138
   21   50  177 -156
   23   45  253 -232
    8   64  305 -274
   -9   89  284 -276
  -38  113  245 -232
  -59  141  213 -196
 -158  236  128 -109
 -259  337   81  -52
 -277  358   52  -38
 -210  288   43   -8
 -151  230    2   36
 -165  244   52  -23
 -127  204  177 -144
 -108  183  182 -161
  -69  149  192 -175
  -24  102  242 -208
    5   69  288 -256
  -10   89  266 -240
 -118  197  286 -250
 -178  256  310 -268
 -132  211  369 -330
  -42  119  437 -392
   -8   85  361 -327
  -53  132  279 -256
  -94  173  194 -179
 -203  282  247 -217
 -340  419  296 -260
 -344  413  159 -135
 -332  411   52   -2
 -317  398  -31   26
 -221  301   73  -58
 -174  252   75  -59
 -182  278   62  -31
99999999999999999999999999.
```

```
86-0616 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-6
860616 2 010000    0    -910.0    1002.0   .000050   .000050       24.
  137  -57  359 -318
  -99  175  461 -432
 -255  436  346 -324
 -478  564  124  -83
 -446  527  -56   76
 -374  463 -137  159
 -388  472 -150  181
 -328  417 -101  116
 -217  303   78  -58
 -152  237  192 -164
  -93  174  160 -140
  -63  140  140 -112
  -14   88  143 -126
   28   48  177 -148
   28   46  246 -222
   10   68  298 -274
  -10   93  300 -279
  -36  118  264 -241
  -57  143  201 -193
 -154  239  123 -103
 -252  340   75  -50
 -272  360   41  -37
 -205  288   34   -2
 -146  233   -3   43
 -160  247   49  -14
 -121  204  171 -147
 -101  186  179 -150
  -64  152  184 -171
  -20  104  234 -214
   10   69  277 -258
   -7   89  257 -236
 -115  199  278 -247
 -172  254  316 -277
 -126  210  375 -337
  -38  119  439 -402
   -5   84  368 -325
  -49  135  280 -257
  -85  171  207 -176
 -197  282  256 -223
 -335  421  280 -278
 -338  422  159 -136
 -325  412   30    2
 -311  397  -10   32
 -208  294   88  -56
 -179  264   89  -50
 -211  282   69  -56
99999999999999999999999999.
```

```
86-0716 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-6
860716 2 010000    0    -910.0    1002.0   .000050   .000050      24.
  152  -48  345 -327
  -81  185  455 -444
 -341  445  358 -326
 -469  575  128  -83
 -437  542  -36   79
 -362  473 -132  158
 -377  486 -146  167
 -320  432 -105  121
 -210  318   71  -60
 -144  251  192 -163
  -77  191  169 -135
  -43  152  142 -108
    4  100  141 -120
   45   59  178 -139
   41   59  256 -221
   17   83  305 -263
   -6  111  297 -285
  -30  135  267 -238
  -48  156  208 -194
 -143  251  126 -110
 -244  353   76  -48
 -263  372   49  -21
 -196  304   31   -5
 -137  246  -12   39
 -149  260   42  -11
 -111  218  172 -154
  -91  201  189 -158
  -54  167  199 -168
  -10  122  243 -218
   22   84  292 -264
    5  104  262 -221
 -102  214  283 -262
 -159  270  305 -267
 -114  226  363 -341
  -25  134  429 -400
    6  102  372 -335
  -39   98  280 -260
  -73  183  194 -177
 -184  295  253 -225
 -323  433  291 -263
 -324  435  168 -139
 -313  424   37   -7
 -299  412    1   32
 -198  309   95  -62
 -165  276   95  -57
 -166  291   46  -10
9999999999999999999999999.
```

```
86-0819 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-6
860819 2 010000    0    -910.0    1002.0   .000050   .000050       24.
  141  -56  348 -337
  -94  178  463 -439
 -351  437  337 -333
 -477  566  112  -90
 -448  533  -44   78
 -372  463 -140  155
 -387  475 -157  173
 -328  420 -107  127
 -219  308   70  -57
 -159  241  188 -168
  -88  174  166 -145
  -54  136  130 -109
   -2   84  127 -120
   38   45  165 -145
   31   49  245 -239
    6   77  314 -295
  -20  106  303 -296
  -43  128  264 -248
  -55  147  216 -201
 -153  242  128 -112
 -256  343   76  -52
 -275  364   62  -38
 -207  294   45  -12
 -148  236    5   22
 -162  250   52  -25
 -121  207  174 -152
 -101  190  184 -158
  -64  156  201 -169
  -19  111  242 -214
   12   73  285 -257
   -3   91  257 -243
 -113  200  292 -254
 -171  256  311 -279
 -124  211  374 -341
  -35  119  436 -402
   -2   89  357 -341
  -49  136  279 -261
  -81  169  204 -186
 -193  282  255 -227
 -333  420  297 -267
 -334  422  158 -139
 -323  410   36    2
 -311  397   -7   30
 -209  295   84  -61
 -176  261   90  -62
 -189  288   62  -29
99999999999999999999999.
```

APPENDIX E

COMPUTER OUTPUT FILES

1**** 86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1

DATE APR. 1, 1986

BOTTOM ELEV. 912.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0123 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1 INITIAL READINGS
A-A MEAN BIAS = 73 B-B MEAN BIAS = 11 LIMIT USED =10000

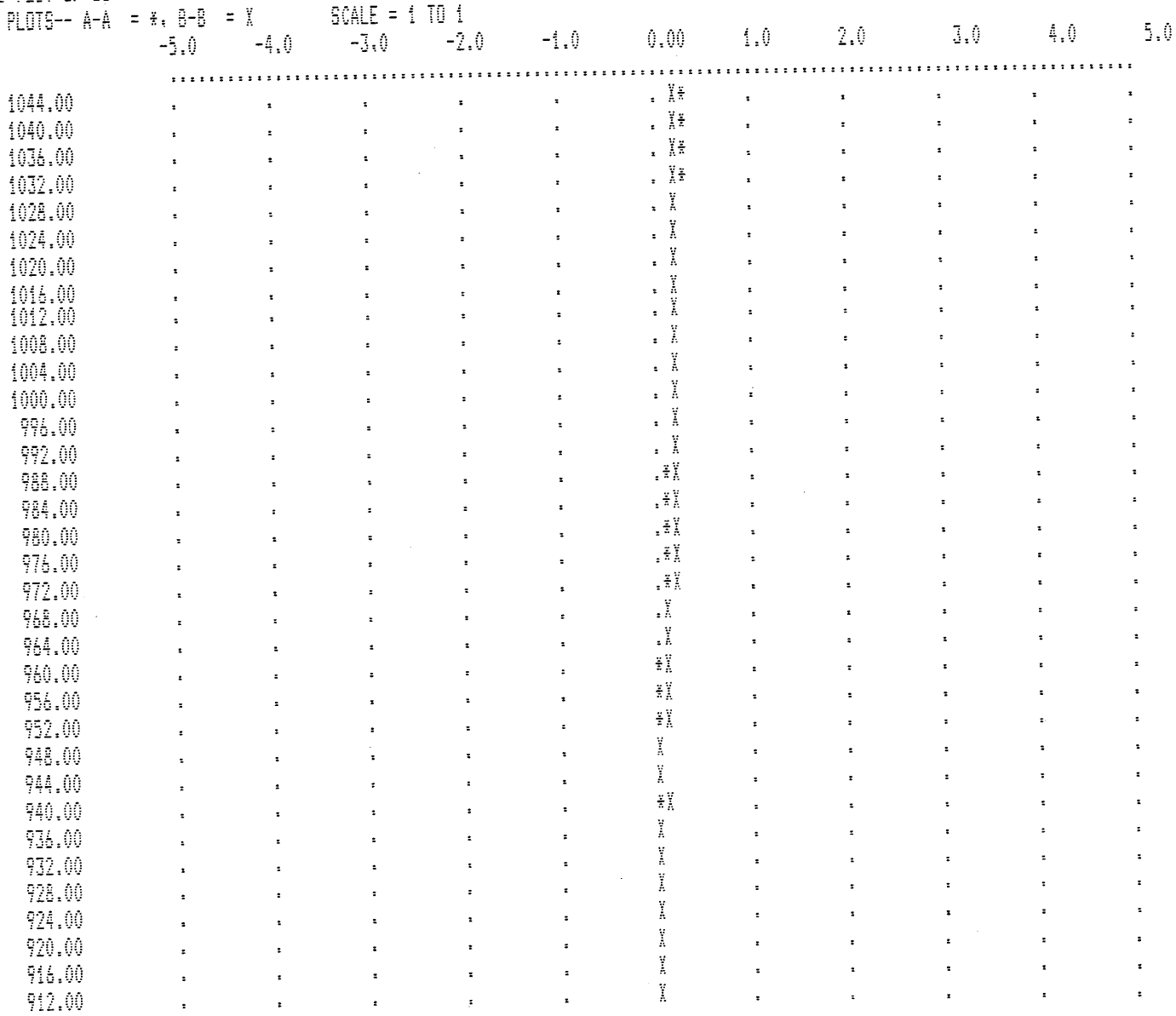
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1044.00	.286	.164
1042.00	.301	.193
1040.00	.281	.216
1038.00	.269	.220
1036.00	.264	.218
1034.00	.259	.223
1032.00	.255	.220
1030.00	.250	.216
1028.00	.246	.210
1026.00	.241	.198
1024.00	.236	.197
1022.00	.233	.200
1020.00	.230	.196
1018.00	.232	.200
1016.00	.232	.204
1014.00	.205	.227
1012.00	.203	.231
1010.00	.199	.233
1008.00	.201	.237
1006.00	.197	.231
1004.00	.193	.224
1002.00	.190	.220
1000.00	.187	.226
998.00	.185	.217
996.00	.181	.213
994.00	.179	.206
992.00	.176	.203
990.00	.151	.207
988.00	.116	.202
986.00	.091	.199
984.00	.084	.198
982.00	.082	.203
980.00	.079	.199
978.00	.074	.191
976.00	.071	.171
974.00	.068	.170
972.00	.065	.158
970.00	.060	.140
968.00	.058	.124
966.00	.056	.113
964.00	.052	.106
962.00	.051	.090
960.00	.049	.085
958.00	.048	.080
956.00	.047	.076
954.00	.044	.072
952.00	.046	.061
950.00	.046	.051
948.00	.039	.043
946.00	.041	.051

944.00	.039	.043
942.00	.036	.050
940.00	.028	.055
938.00	.020	.053
936.00	.010	.038
934.00	-.004	.024
932.00	-.008	.012
930.00	-.006	.005
928.00	-.006	.007
926.00	-.011	.011
924.00	-.010	.015
922.00	-.004	.020
920.00	-.005	.016
918.00	-.002	.008
916.00	-.002	.004
914.00	-.001	.005
912.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .29
B-B DEFLECTION = .16
TOP ELEVATION OF TUBE = 1044.00

1 PLOT OF 86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1****

1**** 86-0401 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2

DATE APR. 1, 1986

BOTTOM ELEV. 912.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

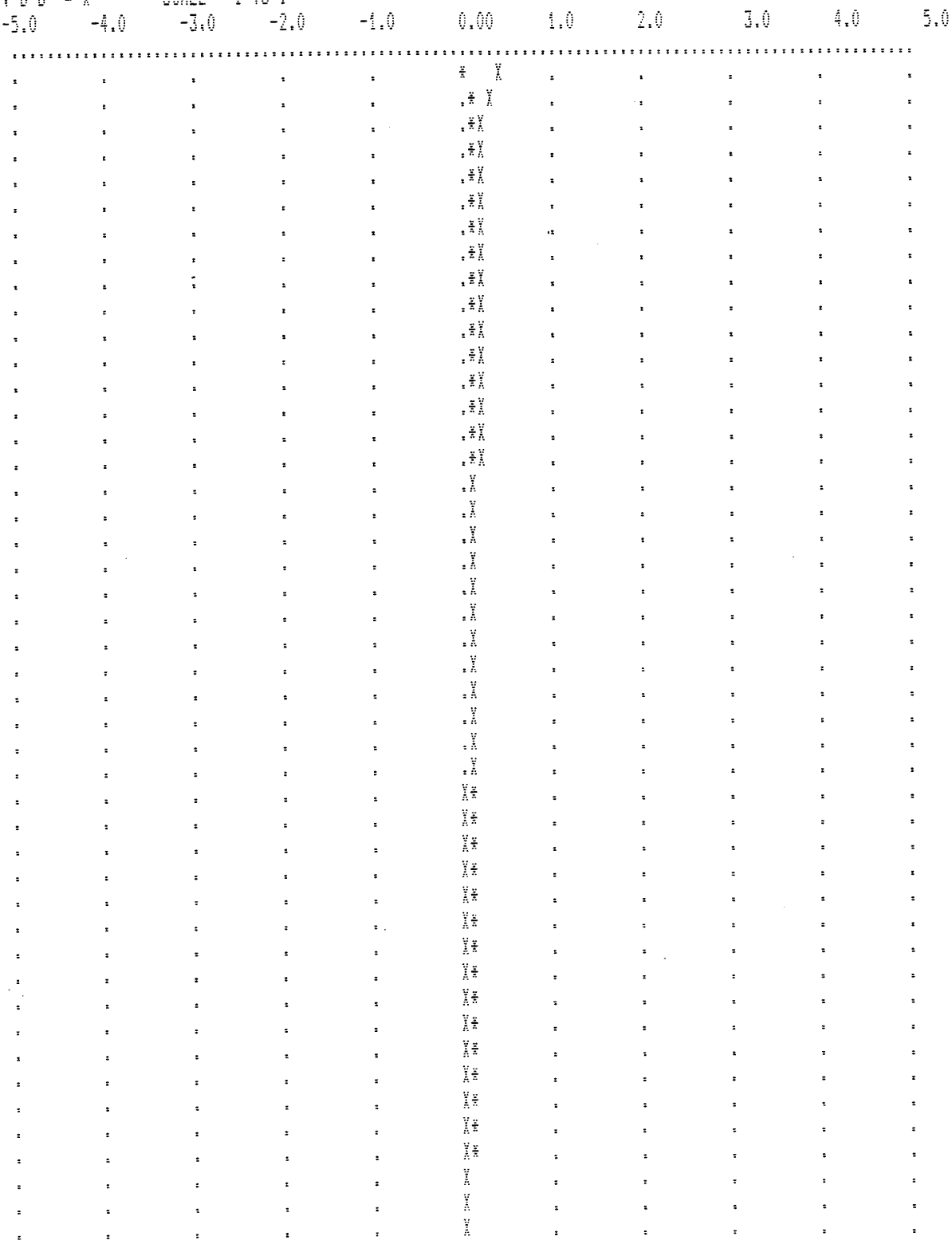
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2
A-A MEAN BIAS = 67 B-B MEAN BIAS = 14 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1002.00	.038	.421
1000.00	.131	.259
998.00	.146	.226
996.00	.147	.220
994.00	.145	.218
992.00	.144	.218
990.00	.146	.213
988.00	.142	.201
986.00	.141	.190
984.00	.139	.189
982.00	.137	.191
980.00	.134	.187
978.00	.134	.173
976.00	.134	.174
974.00	.132	.181
972.00	.132	.157
970.00	.134	.136
968.00	.134	.133
966.00	.133	.123
964.00	.133	.110
962.00	.133	.118
960.00	.131	.111
958.00	.134	.108
956.00	.135	.094
954.00	.136	.083
952.00	.140	.077
950.00	.139	.075
948.00	.136	.057
946.00	.128	.046
944.00	.127	.033
942.00	.122	.010
940.00	.120	.002
938.00	.119	-.006
936.00	.118	-.019
934.00	.113	-.020
932.00	.115	-.007
930.00	.113	.002
928.00	.107	.011
926.00	.098	.002
924.00	.086	.013
922.00	.076	.014
920.00	.068	.016
918.00	.056	.020
916.00	.036	.019
914.00	.020	.009
912.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = .04
B-B DEFLECTION = .42
TOP ELEVATION OF TUBE = 1002.00

1 PLOT OF 86-0401 BALL MOUNTAIN DAM, JAMAICA VT. SI-85-2
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3

DATE   APR. 1, 1986

BOTTOM ELEV.   910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

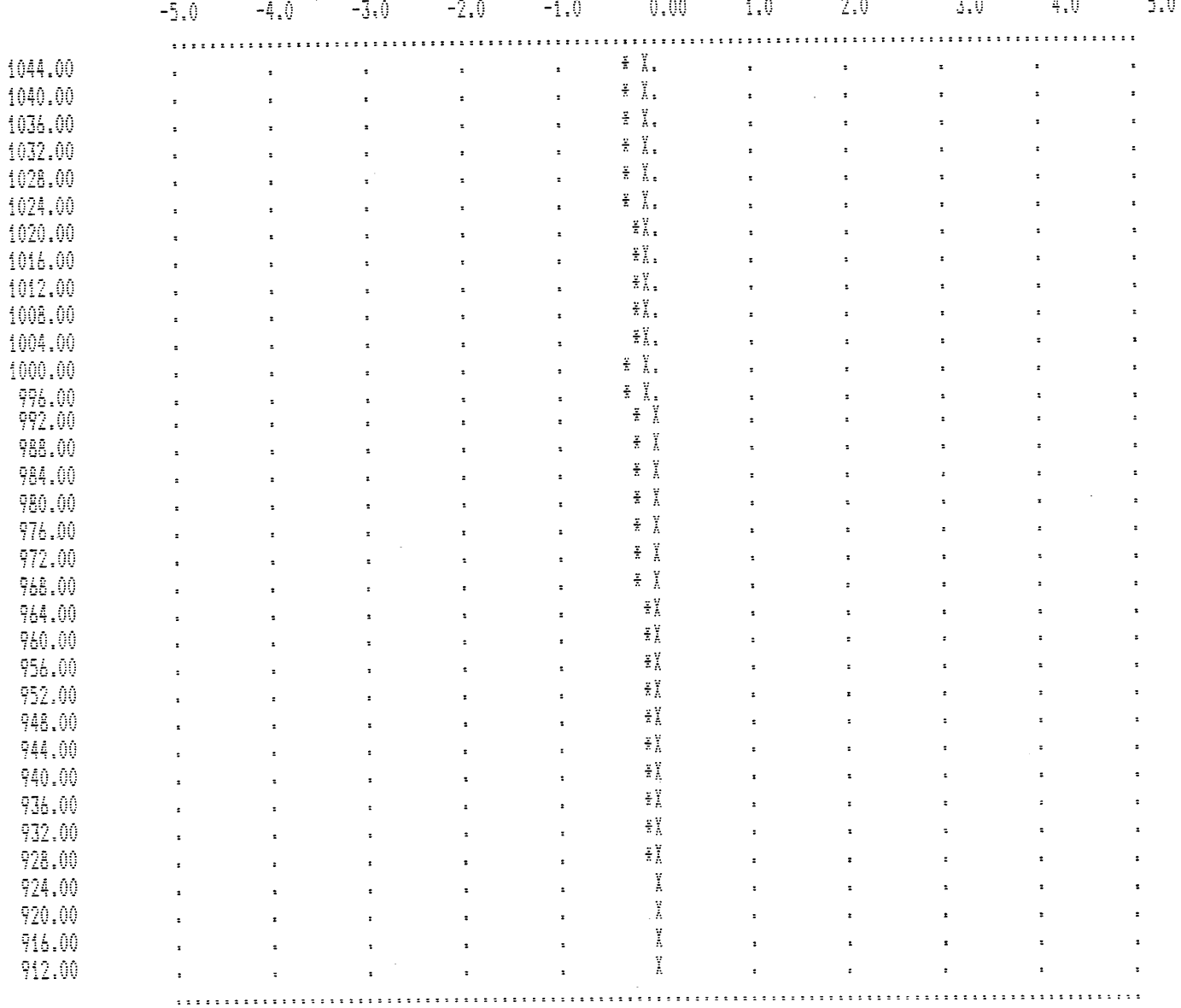
INITIAL READINGS TAKEN AT--86-0123 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3 INITIAL READINGS
A-A MEAN BIAS =   70   B-B MEAN BIAS =   17   LIMIT USED =10000
5   **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1044.00	-.353	-.053
1042.00	-.287	-.058
1040.00	-.290	-.058
1038.00	-.293	-.058
1036.00	-.292	-.055
1034.00	-.289	-.059
1032.00	-.281	-.067
1030.00	-.272	-.080
1028.00	-.265	-.078
1026.00	-.260	-.073
1024.00	-.257	-.092
1022.00	-.257	-.098
1020.00	-.247	-.095
1018.00	-.236	-.092
1016.00	-.230	-.084
1014.00	-.214	-.084
1012.00	-.201	-.080
1010.00	-.203	-.097
1008.00	-.194	-.105
1006.00	-.194	-.094
1004.00	-.205	-.085
1002.00	-.223	-.088
1000.00	-.242	-.085
998.00	-.256	-.079
996.00	-.264	-.059
994.00	-.263	-.060
992.00	-.262	-.060
990.00	-.238	-.044
988.00	-.236	-.023
986.00	-.236	-.009
984.00	-.235	-.007
982.00	-.233	-.019
980.00	-.228	-.025
978.00	-.217	-.014
976.00	-.217	-.011
974.00	-.201	-.023
972.00	-.186	-.020
970.00	-.172	-.022
968.00	-.167	-.024
966.00	-.154	-.016
964.00	-.145	-.018
962.00	-.134	-.021
960.00	-.128	-.013
958.00	-.124	-.003
956.00	-.117	.010
954.00	-.112	.020
952.00	-.104	.022
950.00	-.098	.029
948.00	-.094	.025
946.00	-.086	.037

944.00	-.085	.047
942.00	-.083	.050
940.00	-.082	.053
938.00	-.080	.047
936.00	-.072	.040
934.00	-.067	.035
932.00	-.065	.038
930.00	-.071	.035
928.00	-.065	.011
926.00	-.058	.008
924.00	-.052	.000
922.00	-.045	.001
920.00	-.038	-.005
918.00	-.033	-.011
916.00	-.024	-.011
914.00	-.018	-.007
912.00	-.012	-.016
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.35
B-B DEFLECTION = -.05
TOP ELEVATION OF TUBE = 1044.00

1 PLOT OF 86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4

DATE APR. 1, 1986

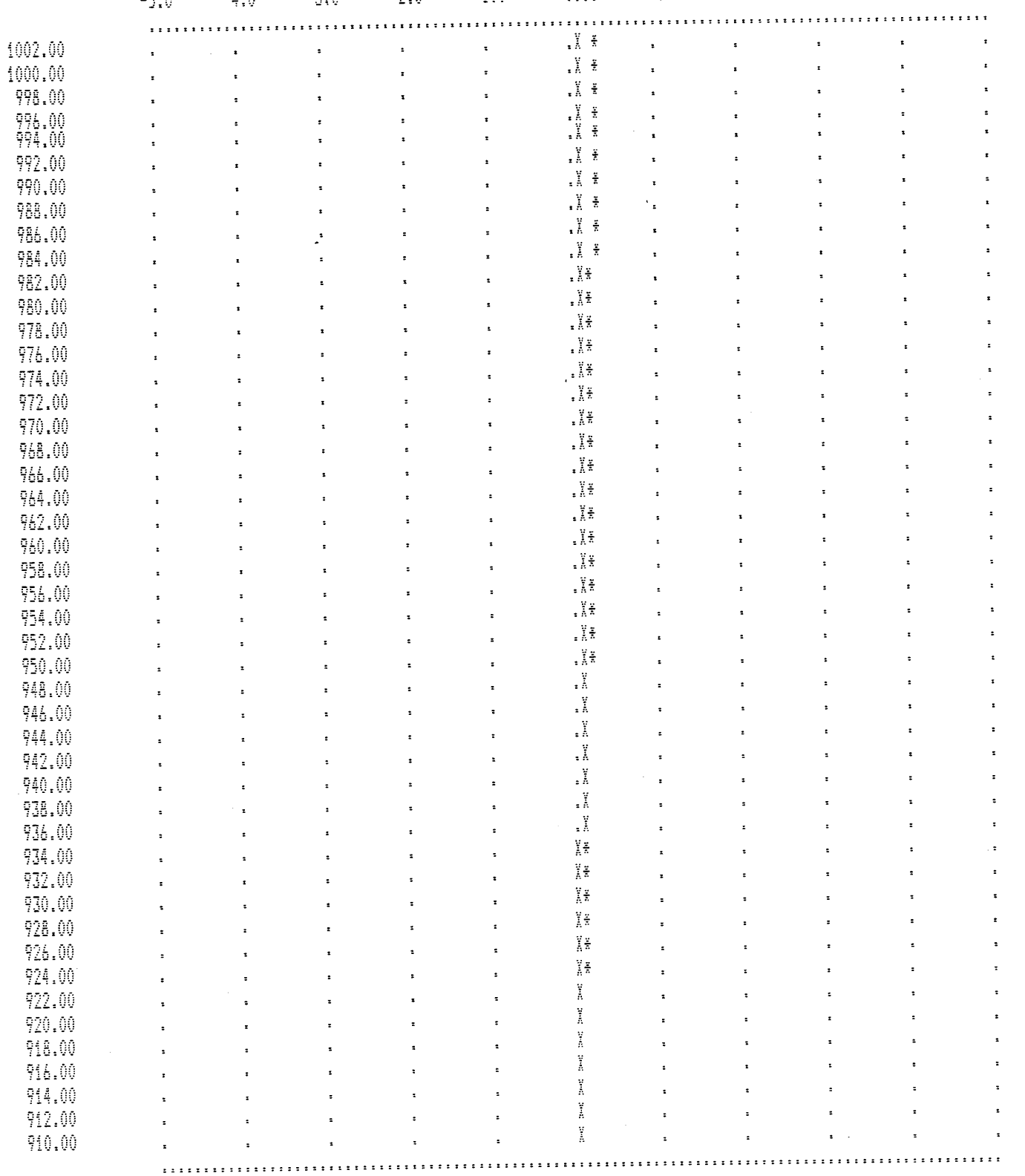
BOTTOM ELEV. 910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0123 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4 INITIAL READINGS
A-A MEAN BIAS = 91 B-B MEAN BIAS = 22 LIMIT USED =10000

5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1002.00	.349	.092
1000.00	.322	.085
998.00	.311	.088
996.00	.298	.103
994.00	.292	.097
992.00	.284	.093
990.00	.281	.089
988.00	.280	.080
986.00	.278	.084
984.00	.260	.082
982.00	.248	.073
980.00	.245	.073
978.00	.241	.071
976.00	.235	.077
974.00	.231	.081
972.00	.228	.085
970.00	.224	.098
968.00	.217	.091
966.00	.211	.098
964.00	.203	.100
962.00	.197	.091
960.00	.192	.091
958.00	.188	.093
956.00	.181	.089
954.00	.174	.086
952.00	.165	.068
950.00	.163	.077
948.00	.149	.075
946.00	.143	.080
944.00	.143	.082
942.00	.140	.077
940.00	.131	.067
938.00	.136	.062
936.00	.127	.053
934.00	.113	.038
932.00	.105	.029
930.00	.095	.021
928.00	.084	.019
926.00	.070	.016
924.00	.056	.009
922.00	.046	.016
920.00	.038	.013
918.00	.023	.017
916.00	.022	.016
914.00	.022	.022
912.00	.017	.014
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .35
B-B DEFLECTION = .09
TOP ELEVATION OF TUBE = 1002.00
1 PLOT OF 86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5

DATE APR. 1, 1986

BOTTOM ELEV. 910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0123 BALL MOUNTAIN DAM, JAMAICA, VT SI-5-85 INITIAL READINGS
A-A MEAN BIAS = 100 B-B MEAN BIAS = 14 LIMIT USED =10000

5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1044.00	.166	-.003
1042.00	.108	-.031
1040.00	.130	-.009
1038.00	.136	.002
1036.00	.126	.010
1034.00	.127	.015
1032.00	.133	.016
1030.00	.136	.002
1028.00	.135	.009
1026.00	.134	.012
1024.00	.135	.008
1022.00	.136	.007
1020.00	.136	.008
1018.00	.137	-.002
1016.00	.138	.001
1014.00	.142	-.013
1012.00	.143	-.017
1010.00	.134	-.031
1008.00	.124	-.032
1006.00	.114	-.045
1004.00	.108	-.040
1002.00	.098	-.030
1000.00	.089	-.026
998.00	.069	-.025
996.00	.054	-.028
994.00	.047	-.024
992.00	.043	-.028
990.00	.050	-.032
988.00	.046	-.024
986.00	.042	-.022
984.00	.045	-.026
982.00	.041	-.026
980.00	.038	-.026
978.00	.042	-.039
976.00	.040	-.041
974.00	.028	-.039
972.00	.023	-.030
970.00	.022	-.031
968.00	.017	-.026
966.00	.013	-.028
964.00	.011	-.032
962.00	.004	-.018
960.00	-.001	-.017
958.00	.011	-.022
956.00	.010	-.035
954.00	.006	-.045
952.00	-.001	-.060
950.00	-.001	-.060
948.00	.002	-.063
946.00	.005	-.057

944.00	.004	-.056
942.00	.013	-.054
940.00	.016	-.044
938.00	.019	-.035
936.00	.013	-.020
934.00	.008	-.013
932.00	-.002	-.003
930.00	-.010	-.008
928.00	-.008	-.015
926.00	-.008	-.014
924.00	-.006	-.020
922.00	-.004	-.015
920.00	-.020	-.016
918.00	-.019	-.008
916.00	-.011	-.014
914.00	-.003	-.015
912.00	.005	.001
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .17
B-B DEFLECTION = .00
TOP ELEVATION OF TUBE = 1044.00

1 PLOT OF 86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1

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          -5.0     -4.0     -3.0     -2.0     -1.0      0.00     1.0      2.0      3.0      4.0      5.0
        ..........................................................................................................
1044.00 .        .        .        .        .        X*       .        .        .        .        .
1040.00 .        .        .        .        .        X*       .        .        .        .        .
1036.00 .        .        .        .        .        X*       .        .        .        .        .
1032.00 .        .        .        .        .        X*       .        .        .        .        .
1028.00 .        .        .        .        .        X*       .        .        .        .        .
1024.00 .        .        .        .        .        X*       .        .        .        .        .
1020.00 .        .        .        .        .        X*       .        .        .        .        .
1016.00 .        .        .        .        .        X*       .        .        .        .        .
1012.00 .        .        .        .        .        X*       .        .        .        .        .
1008.00 .        .        .        .        .        X*       .        .        .        .        .
1004.00 .        .        .        .        .        X*       .        .        .        .        .
1000.00 .        .        .        .        .        X*       .        .        .        .        .
 996.00 .        .        .        .        .        X        .        .        .        .        .
 992.00 .        .        .        .        .        X*       .        .        .        .        .
 988.00 .        .        .        .        .        X        .        .        .        .        .
 984.00 .        .        .        .        .        X        .        .        .        .        .
 980.00 .        .        .        .        .        X        .        .        .        .        .
 976.00 .        .        .        .        .        X        .        .        .        .        .
 972.00 .        .        .        .        .        X        .        .        .        .        .
 968.00 .        .        .        .        .        X        .        .        .        .        .
 964.00 .        .        .        .        .        X        .        .        .        .        .
 960.00 .        .        .        .        .        X        .        .        .        .        .
 956.00 .        .        .        .        .        X        .        .        .        .        .
 952.00 .        .        .        .        .        X*       .        .        .        .        .
 948.00 .        .        .        .        .        X*       .        .        .        .        .
 944.00 .        .        .        .        .        X*       .        .        .        .        .
 940.00 .        .        .        .        .         X       .        .        .        .        .
 936.00 .        .        .        .        .         X       .        .        .        .        .
 932.00 .        .        .        .        .         X       .        .        .        .        .
 928.00 .        .        .        .        .         X       .        .        .        .        .
 924.00 .        .        .        .        .         X       .        .        .        .        .
 920.00 .        .        .        .        .         X       .        .        .        .        .
 916.00 .        .        .        .        .         X       .        .        .        .        .
 912.00 .        .        .        .        .         X       .        .        .        .        .
        ..........................................................................................................
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1***** 86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6

DATE APR. 1, 1986

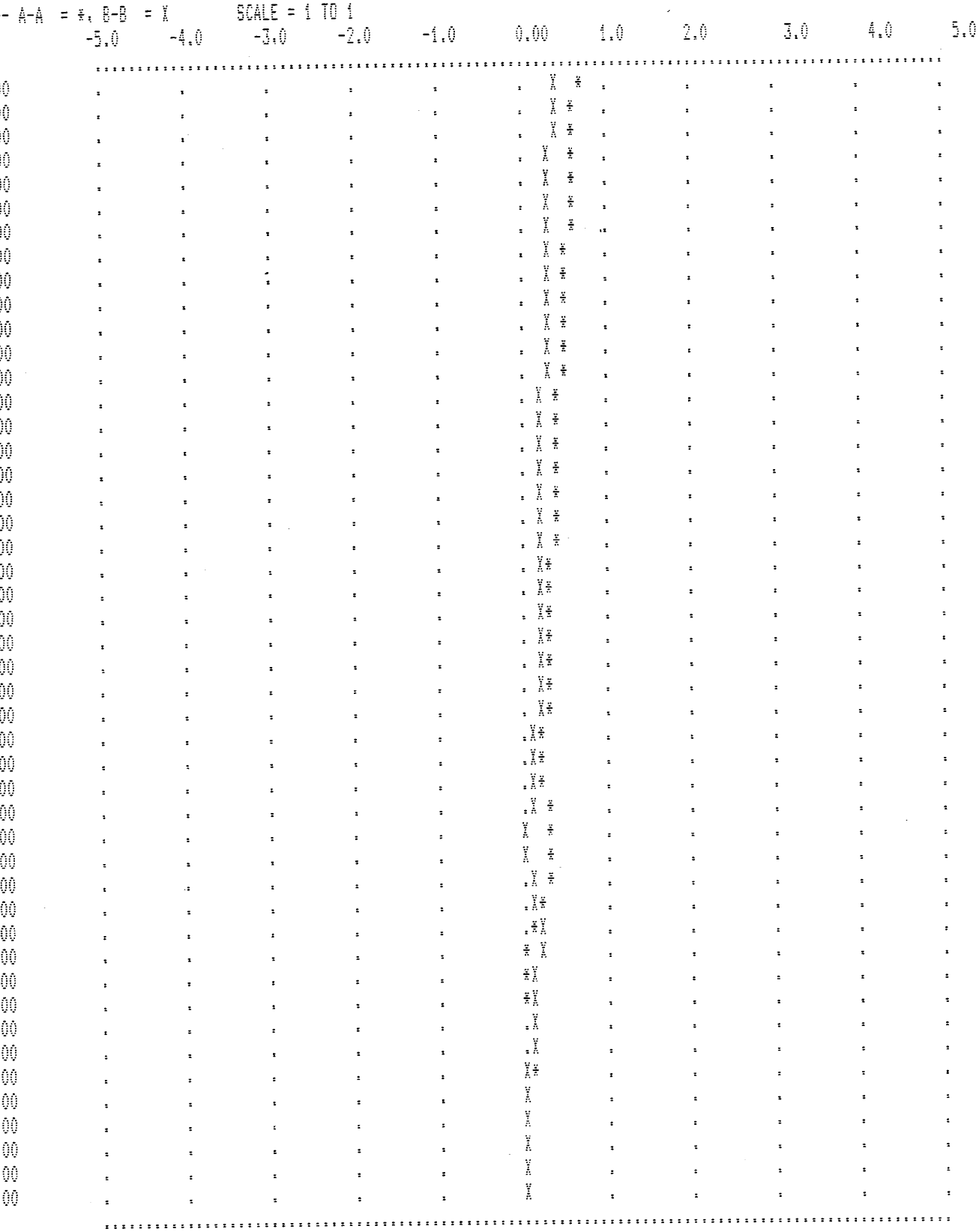
BOTTOM ELEV. 910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0123 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6 INITIAL READINGS
A-A MEAN BIAS = 106 B-B MEAN BIAS = 19 LIMIT USED =10000

5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1002.00	.656	.360
1000.00	.631	.375
998.00	.615	.371
996.00	.602	.329
994.00	.588	.317
992.00	.570	.320
990.00	.559	.304
988.00	.541	.284
986.00	.523	.264
984.00	.506	.265
982.00	.491	.262
980.00	.472	.268
978.00	.457	.254
976.00	.446	.243
974.00	.434	.236
972.00	.415	.218
970.00	.392	.226
968.00	.377	.213
966.00	.367	.205
964.00	.356	.198
962.00	.343	.187
960.00	.332	.180
958.00	.315	.185
956.00	.306	.181
954.00	.295	.176
952.00	.283	.168
950.00	.265	.155
948.00	.244	.146
946.00	.221	.147
944.00	.221	.128
942.00	.255	.071
940.00	.293	.030
938.00	.308	.031
936.00	.278	.067
934.00	.206	.125
932.00	.098	.170
930.00	.040	.165
928.00	.024	.128
926.00	.030	.086
924.00	.055	.079
922.00	.074	.073
920.00	.061	.049
918.00	.040	.037
916.00	.028	.044
914.00	.004	.029
912.00	-.021	.003
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .66
B-B DEFLECTION = .36
TOP ELEVATION OF TUBE = 1002.00
1 PLOT OF 86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1*****

DATE 4) 0, 1900

1**** 86-0513 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1

DATE MAY 13, 1986. INITIAL READINGS TAKEN ON JANUARY 23, 1986.

BOTTOM ELEV. 912.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0123 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1 INITIAL READINGS
A-A MEAN BIAS = 72 B-B MEAN BIAS = 21 LIMIT USED =10000

5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1044.00	.194	-.200
1042.00	.197	-.226
1040.00	.188	-.244
1038.00	.178	-.248
1036.00	.173	-.239
1034.00	.167	-.235
1032.00	.165	-.241
1030.00	.160	-.244
1028.00	.156	-.245
1026.00	.154	-.246
1024.00	.151	-.242
1022.00	.150	-.235
1020.00	.148	-.232
1018.00	.151	-.227
1016.00	.152	-.228
1014.00	.124	-.208
1012.00	.125	-.212
1010.00	.122	-.217
1008.00	.122	-.221
1006.00	.118	-.229
1004.00	.115	-.229
1002.00	.113	-.224
1000.00	.109	-.221
998.00	.106	-.220
996.00	.102	-.224
994.00	.100	-.220
992.00	.097	-.212
990.00	.068	-.207
988.00	.026	-.205
986.00	-.001	-.200
984.00	-.007	-.194
982.00	-.009	-.187
980.00	-.011	-.178
978.00	-.014	-.169
976.00	-.014	-.181
974.00	-.015	-.163
972.00	-.017	-.160
970.00	-.020	-.163
968.00	-.022	-.158
966.00	-.023	-.157
964.00	-.025	-.145
962.00	-.026	-.141
960.00	-.028	-.137
958.00	-.026	-.138
956.00	-.026	-.141
954.00	-.026	-.132
952.00	-.020	-.133
950.00	-.018	-.136
948.00	-.023	-.130
946.00	-.020	-.116

944.00	-.020	-.118
942.00	-.022	-.103
940.00	-.027	-.092
938.00	-.031	-.086
936.00	-.034	-.090
934.00	-.037	-.089
932.00	-.041	-.081
930.00	-.037	-.083
928.00	-.034	-.080
926.00	-.036	-.071
924.00	-.033	-.065
922.00	-.022	-.056
920.00	-.019	-.045
918.00	-.013	-.029
916.00	-.010	-.023
914.00	-.007	-.009
912.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .19
B-B DEFLECTION = -.20
TOP ELEVATION OF TUBE = 1044.00

1 PLOT OF 86-0513 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1

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          -5.0     -4.0     -3.0     -2.0     -1.0      0.00     1.0      2.0      3.0      4.0      5.0
          ..........................................................................................
1044.00   .        .        .        .        .        X . *     .        .        .        .        .
1040.00   .        .        .        .        .        X . *     .        .        .        .        .
1036.00   .        .        .        .        .        X . *     .        .        .        .        .
1032.00   .        .        .        .        .        X . *     .        .        .        .        .
1028.00   .        .        .        .        .        X . *     .        .        .        .        .
1024.00   .        .        .        .        .        X . *     .        .        .        .        .
1020.00   .        .        .        .        .        X .*      .        .        .        .        .
1016.00   .        .        .        .        .        X . *     .        .        .        .        .
1012.00   .        .        .        .        .        X .*      .        .        .        .        .
1008.00   .        .        .        .        .        X .*      .        .        .        .        .
1004.00   .        .        .        .        .        X .*      .        .        .        .        .
1000.00   .        .        .        .        .        X .*      .        .        .        .        .
 996.00   .        .        .        .        .        X .*      .        .        .        .        .
 992.00   .        .        .        .        .        X .*      .        .        .        .        .
 988.00   .        .        .        .        .        X *       .        .        .        .        .
 984.00   .        .        .        .        .        X *       .        .        .        .        .
 980.00   .        .        .        .        .        X *       .        .        .        .        .
 976.00   .        .        .        .        .        X *       .        .        .        .        .
 972.00   .        .        .        .        .        X *       .        .        .        .        .
 968.00   .        .        .        .        .        X *       .        .        .        .        .
 964.00   .        .        .        .        .         X*       .        .        .        .        .
 960.00   .        .        .        .        .         X*       .        .        .        .        .
 956.00   .        .        .        .        .         X*       .        .        .        .        .
 952.00   .        .        .        .        .         X*       .        .        .        .        .
 948.00   .        .        .        .        .         X*       .        .        .        .        .
 944.00   .        .        .        .        .         X*       .        .        .        .        .
 940.00   .        .        .        .        .         X*       .        .        .        .        .
 936.00   .        .        .        .        .         X*       .        .        .        .        .
 932.00   .        .        .        .        .         X*       .        .        .        .        .
 928.00   .        .        .        .        .         X*       .        .        .        .        .
 924.00   .        .        .        .        .         X*       .        .        .        .        .
 920.00   .        .        .        .        .          X       .        .        .        .        .
 916.00   .        .        .        .        .          X       .        .        .        .        .
 912.00   .        .        .        .        .          X       .        .        .        .        .
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1**** 86-0513 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2

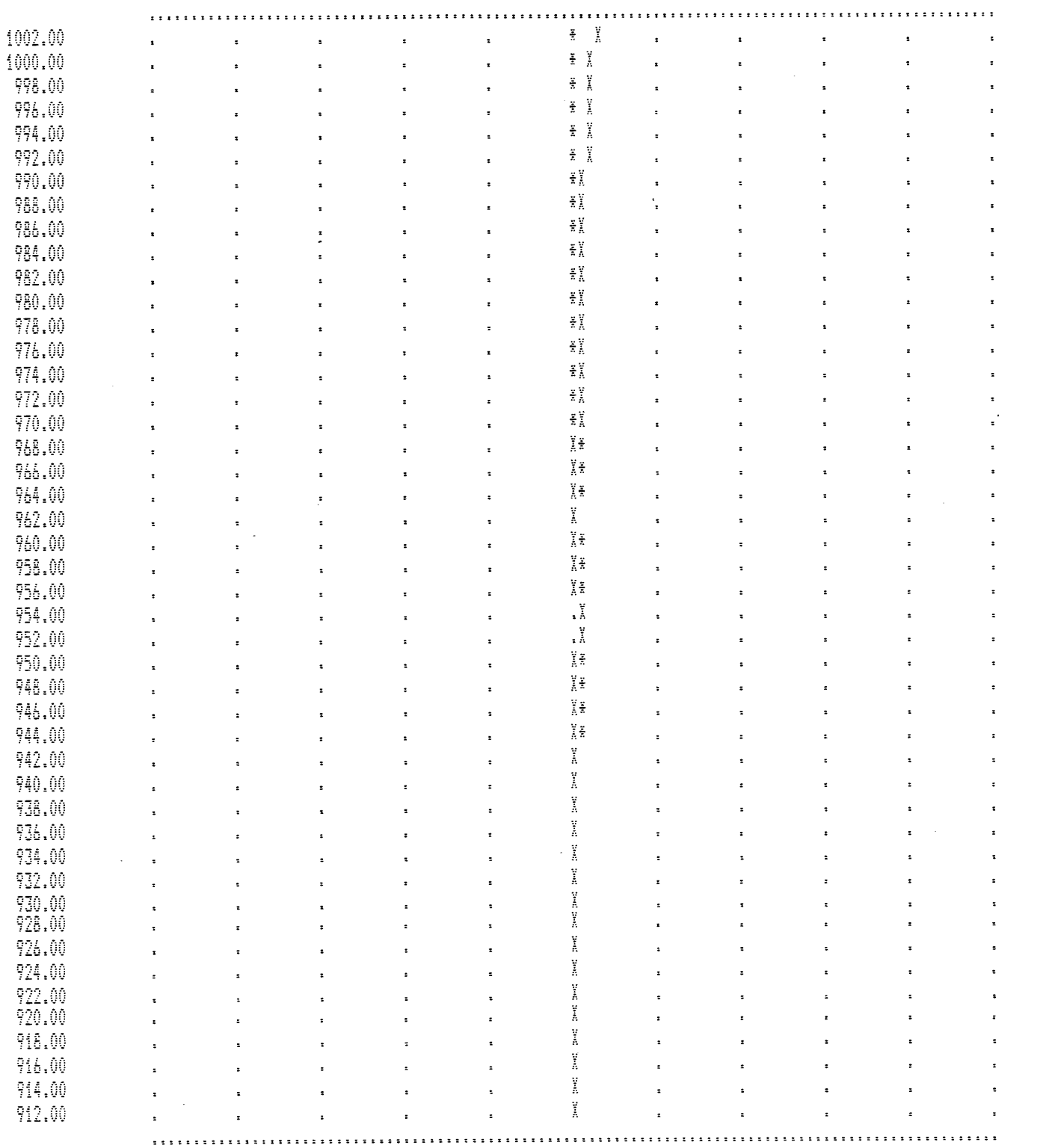
DATE MAY 13, 1986. INITIAL READINGS TAKEN ON JANUARY 23, 1986.

BOTTOM ELEV. 912.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2
A-A MEAN BIAS = 77 B-B MEAN BIAS = 30 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1002.00	-.008	.323
1000.00	.019	.184
998.00	.035	.161
996.00	.040	.154
994.00	.038	.159
992.00	.038	.154
990.00	.041	.147
988.00	.038	.143
986.00	.041	.139
984.00	.043	.133
982.00	.044	.133
980.00	.044	.123
978.00	.044	.100
976.00	.046	.092
974.00	.045	.083
972.00	.047	.066
970.00	.050	.050
968.00	.051	.048
966.00	.051	.046
964.00	.051	.043
962.00	.049	.043
960.00	.051	.040
958.00	.053	.049
956.00	.052	.050
954.00	.053	.053
952.00	.061	.055
950.00	.063	.049
948.00	.062	.039
946.00	.054	.023
944.00	.055	.014
942.00	.049	-.013
940.00	.050	-.010
938.00	.044	-.020
936.00	.041	-.039
934.00	.036	-.038
932.00	.037	-.038
930.00	.038	-.027
928.00	.038	-.014
926.00	.033	-.020
924.00	.026	-.007
922.00	.020	-.002
920.00	.018	-.002
918.00	.016	.007
916.00	.008	.018
914.00	.008	.003
912.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.01
B-B DEFLECTION = .32
TOP ELEVATION OF TUBE = 1002.00
1 PLOT OF 86-0513 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0513 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3

DATE MAY 13, 1986. INITIAL READINGS TAKEN ON JANUARY 23, 1986.

BOTTOM ELEV. 910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

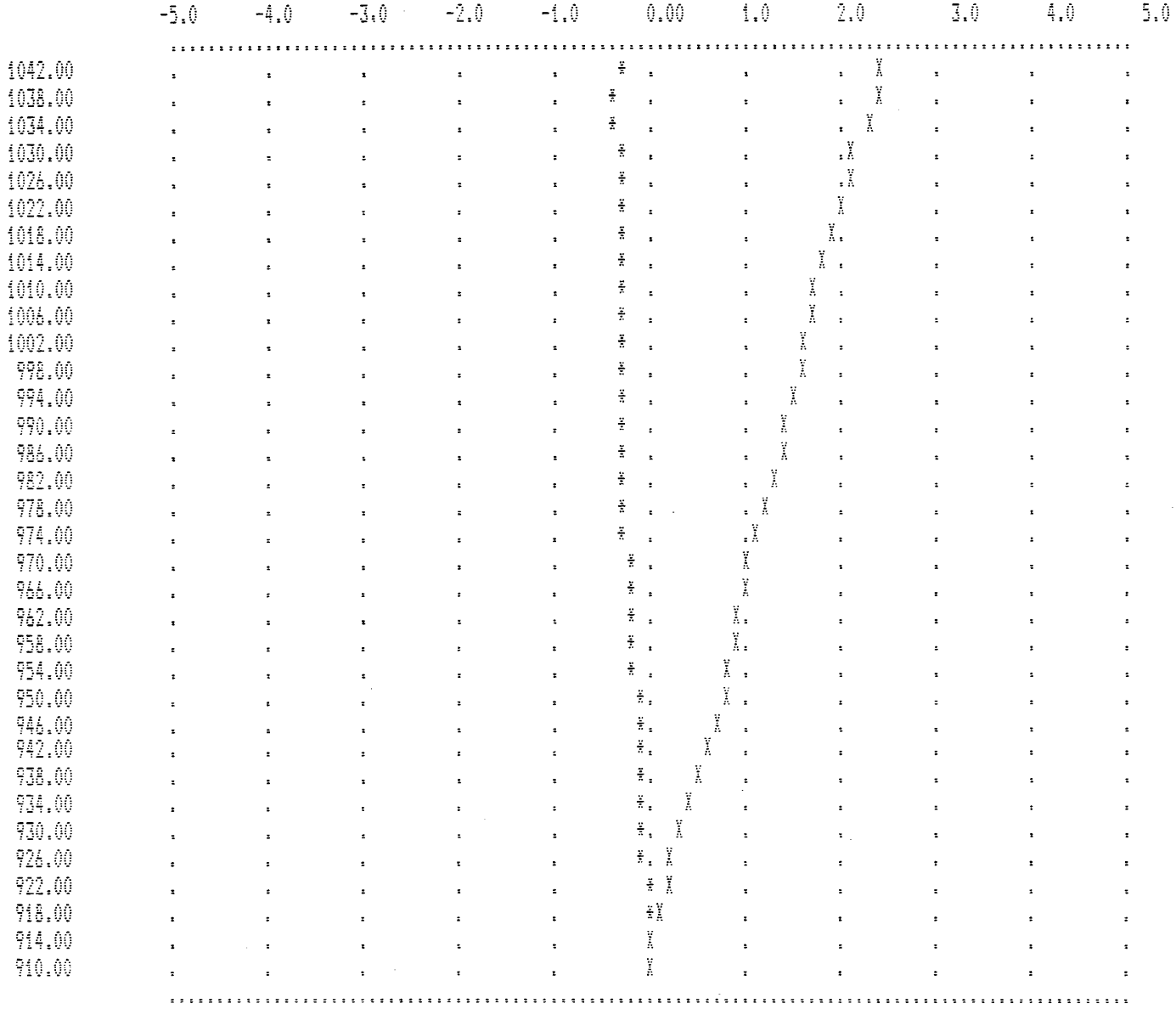
INITIAL READINGS TAKEN AT--86-0123 BALL MOUNTAIN DAM, JAIMACA, VT SI-85-3 INITIAL READINGS
A-A MEAN BIAS = 68 B-B MEAN BIAS = 85 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1042.00	-.344	2.414
1040.00	-.356	2.404
1038.00	-.361	2.378
1036.00	-.364	2.326
1034.00	-.364	2.270
1032.00	-.361	2.186
1030.00	-.350	2.134
1028.00	-.340	2.099
1026.00	-.335	2.065
1024.00	-.330	2.017
1022.00	-.328	1.976
1020.00	-.318	1.934
1018.00	-.305	1.896
1016.00	-.298	1.852
1014.00	-.281	1.797
1012.00	-.271	1.752
1010.00	-.280	1.705
1008.00	-.274	1.671
1006.00	-.274	1.664
1004.00	-.284	1.635
1002.00	-.301	1.613
1000.00	-.320	1.580
998.00	-.333	1.555
996.00	-.338	1.538
994.00	-.333	1.498
992.00	-.329	1.467
990.00	-.306	1.447
988.00	-.302	1.426
986.00	-.301	1.396
984.00	-.299	1.355
982.00	-.295	1.301
980.00	-.286	1.251
978.00	-.275	1.208
976.00	-.270	1.153
974.00	-.250	1.101
972.00	-.232	1.060
970.00	-.216	1.019
968.00	-.211	.977
966.00	-.221	.955
964.00	-.208	.928
962.00	-.195	.899
960.00	-.187	.881
958.00	-.181	.859
956.00	-.171	.845
954.00	-.163	.821
952.00	-.153	.799
950.00	-.142	.774
948.00	-.133	.743
946.00	-.121	.705

944.00	-.113	.659
942.00	-.107	.622
940.00	-.103	.577
938.00	-.103	.520
936.00	-.092	.486
934.00	-.085	.425
932.00	-.082	.380
930.00	-.082	.336
928.00	-.068	.271
926.00	-.056	.240
924.00	-.047	.201
922.00	-.038	.169
920.00	-.028	.119
918.00	-.027	.083
916.00	-.020	.064
914.00	-.014	.047
912.00	-.008	.018
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.33
B-B DEFLECTION = 2.42
TOP ELEVATION OF TUBE = 1044.00

1 PLOT OF 86-0513 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0513 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4

DATE MAY 13, 1986. INITIAL READINGS TAKEN ON JANUARY 23, 1986.

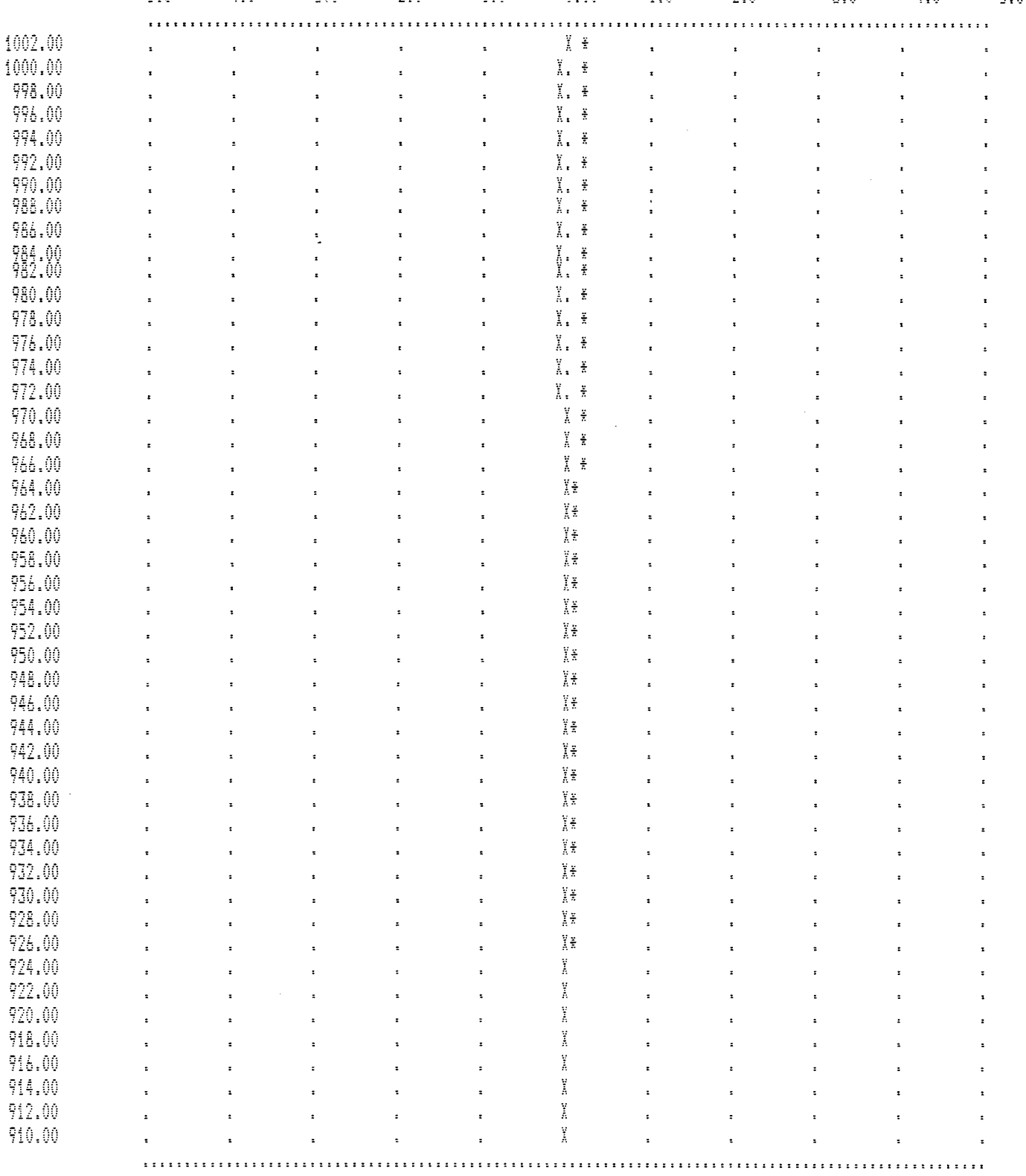
BOTTOM ELEV. 910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0123 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4 INITIAL READINGS
A-A MEAN BIAS = 79 B-B MEAN BIAS = 16 LIMIT USED =10000

5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1002.00	.227	.002
1000.00	.202	-.089
998.00	.188	-.083
996.00	.178	-.064
994.00	.173	-.059
992.00	.170	-.064
990.00	.171	-.068
988.00	.174	-.075
986.00	.176	-.067
984.00	.161	-.068
982.00	.155	-.073
980.00	.157	-.070
978.00	.158	-.075
976.00	.158	-.065
974.00	.158	-.063
972.00	.160	-.052
970.00	.159	-.043
968.00	.155	-.047
966.00	.152	-.043
964.00	.149	-.045
962.00	.146	-.047
960.00	.146	-.039
958.00	.148	-.027
956.00	.143	-.014
954.00	.139	-.017
952.00	.134	-.029
950.00	.134	-.023
948.00	.120	-.025
946.00	.116	-.016
944.00	.122	-.016
942.00	.122	-.008
940.00	.113	-.010
938.00	.117	-.007
936.00	.110	-.014
934.00	.097	-.025
932.00	.090	-.020
930.00	.082	-.025
928.00	.070	-.027
926.00	.058	-.026
924.00	.043	-.021
922.00	.033	-.007
920.00	.027	-.001
918.00	.011	.006
916.00	.011	.000
914.00	.015	.007
912.00	.014	.004
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .23
B-B DEFLECTION = .00
TOP ELEVATION OF TUBE = 1002.00
1 PLOT OF 86-0513 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0513 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5

DATE   MAY 13, 1986. INITIAL READINGS TAKEN ON JANUARY 23, 1986.

BOTTOM ELEV. 910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0123 BALL MOUNTAIN DAM, JAMAICA, VT SI-5-85 INITIAL READINGS
A-A MEAN BIAS = 78 B-B MEAN BIAS = 22 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1044.00	-.103	-.142
1042.00	-.098	-.176
1040.00	-.079	-.151
1038.00	-.081	-.130
1036.00	-.088	-.128
1034.00	-.086	-.126
1032.00	-.080	-.127
1030.00	-.074	-.131
1028.00	-.074	-.120
1026.00	-.074	-.114
1024.00	-.071	-.121
1022.00	-.070	-.122
1020.00	-.070	-.107
1018.00	-.070	-.115
1016.00	-.068	-.103
1014.00	-.065	-.106
1012.00	-.062	-.110
1010.00	-.070	-.122
1008.00	-.079	-.120
1006.00	-.086	-.134
1004.00	-.089	-.131
1002.00	-.097	-.119
1000.00	-.103	-.109
998.00	-.121	-.105
996.00	-.136	-.109
994.00	-.141	-.101
992.00	-.142	-.107
990.00	-.130	-.110
988.00	-.131	-.097
986.00	-.131	-.096
984.00	-.125	-.101
982.00	-.125	-.094
980.00	-.125	-.088
978.00	-.118	-.100
976.00	-.118	-.094
974.00	-.127	-.090
972.00	-.129	-.086
970.00	-.127	-.094
968.00	-.131	-.086
966.00	-.131	-.085
964.00	-.130	-.089
962.00	-.134	-.085
960.00	-.136	-.079
958.00	-.122	-.084
956.00	-.121	-.090
954.00	-.125	-.091
952.00	-.130	-.112
950.00	-.118	-.116
948.00	-.109	-.107
946.00	-.100	-.102

944.00	-.096	-.101
942.00	-.076	-.091
940.00	-.067	-.076
938.00	-.063	-.068
936.00	-.072	-.051
934.00	-.079	-.043
932.00	-.092	-.037
930.00	-.102	-.040
928.00	-.098	-.049
926.00	-.092	-.045
924.00	-.080	-.056
922.00	-.073	-.052
920.00	-.085	-.060
918.00	-.071	-.038
916.00	-.051	-.037
914.00	-.029	-.022
912.00	-.008	.005
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.10
B-B DEFLECTION = -.14
TOP ELEVATION OF TUBE = 1044.00

1 PLOT OF 86-0513 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1

```
             -5.0     -4.0     -3.0     -2.0     -1.0      0.00     1.0      2.0      3.0      4.0      5.0
             ..........................................................................................
1044.00      .        .        .        .        .        X*.       .        .        .        .        .
1040.00      .        .        .        .        .        X.        .        .        .        .        .
1036.00      .        .        .        .        .        X.        .        .        .        .        .
1032.00      .        .        .        .        .        X.        .        .        .        .        .
1028.00      .        .        .        .        .        X.        .        .        .        .        .
1024.00      .        .        .        .        .        X.        .        .        .        .        .
1020.00      .        .        .        .        .        X.        .        .        .        .        .
1016.00      .        .        .        .        .        X.        .        .        .        .        .
1012.00      .        .        .        .        .        X.        .        .        .        .        .
1008.00      .        .        .        .        .        X.        .        .        .        .        .
1004.00      .        .        .        .        .        X.        .        .        .        .        .
1000.00      .        .        .        .        .        X.        .        .        .        .        .
 996.00      .        .        .        .        .        X.        .        .        .        .        .
 992.00      .        .        .        .        .        X.        .        .        .        .        .
 988.00      .        .        .        .        .        X.        .        .        .        .        .
 984.00      .        .        .        .        .        X.        .        .        .        .        .
 980.00      .        .        .        .        .        X.        .        .        .        .        .
 976.00      .        .        .        .        .        X.        .        .        .        .        .
 972.00      .        .        .        .        .        X.        .        .        .        .        .
 968.00      .        .        .        .        .        X.        .        .        .        .        .
 964.00      .        .        .        .        .        X.        .        .        .        .        .
 960.00      .        .        .        .        .        X.        .        .        .        .        .
 956.00      .        .        .        .        .        X.        .        .        .        .        .
 952.00      .        .        .        .        .        X.        .        .        .        .        .
 948.00      .        .        .        .        .        X.        .        .        .        .        .
 944.00      .        .        .        .        .        X.        .        .        .        .        .
 940.00      .        .        .        .        .        X.        .        .        .        .        .
 936.00      .        .        .        .        .        *X        .        .        .        .        .
 932.00      .        .        .        .        .        *X        .        .        .        .        .
 928.00      .        .        .        .        .        *X        .        .        .        .        .
 924.00      .        .        .        .        .        X.        .        .        .        .        .
 920.00      .        .        .        .        .        *X        .        .        .        .        .
 916.00      .        .        .        .        .         X        .        .        .        .        .
 912.00      .        .        .        .        .         X        .        .        .        .        .
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1**** 86-0513 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6

DATE   MAY 13, 1986. INITIAL READINGS TAKEN ON JANUARY 23, 1986.

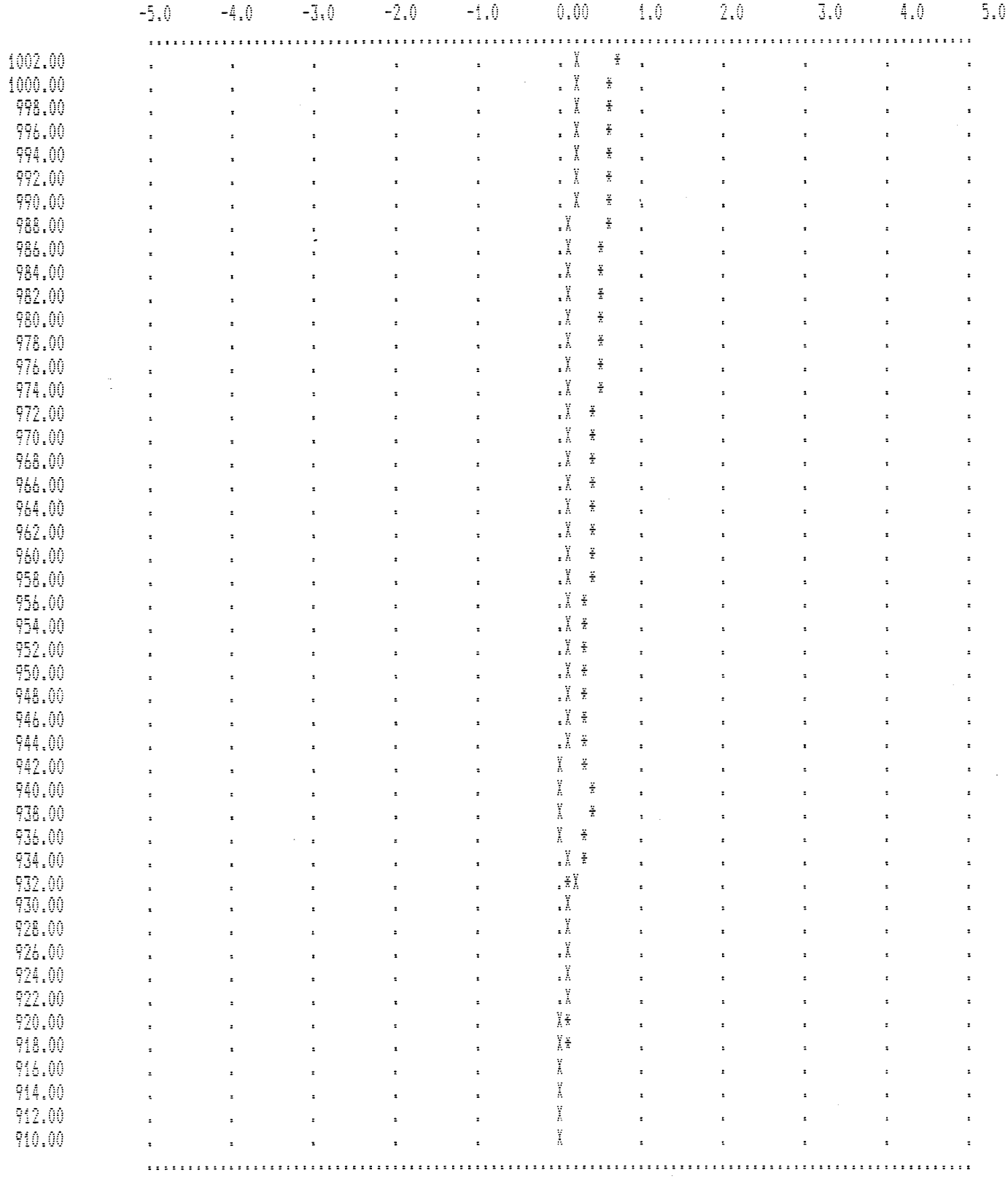
BOTTOM ELEV.   910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0123 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6 INITIAL READINGS
A-A MEAN BIAS =   78   B-B MEAN BIAS =   23   LIMIT USED =10000
5   **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1002.00	.672	.218
1000.00	.643	.186
998.00	.623	.206
996.00	.618	.163
994.00	.605	.161
992.00	.589	.151
990.00	.577	.151
988.00	.563	.136
986.00	.549	.137
984.00	.533	.133
982.00	.521	.131
980.00	.504	.141
978.00	.490	.136
976.00	.479	.133
974.00	.469	.131
972.00	.450	.123
970.00	.428	.122
968.00	.413	.116
966.00	.403	.118
964.00	.393	.113
962.00	.380	.107
960.00	.371	.112
958.00	.357	.125
956.00	.349	.123
954.00	.338	.115
952.00	.328	.098
950.00	.310	.085
948.00	.288	.079
946.00	.267	.077
944.00	.277	.072
942.00	.323	.018
940.00	.368	-.020
938.00	.377	-.011
936.00	.335	.040
934.00	.256	.101
932.00	.142	.155
930.00	.074	.148
928.00	.059	.113
926.00	.063	.078
924.00	.086	.072
922.00	.105	.067
920.00	.086	.035
918.00	.061	.034
916.00	.048	.046
914.00	.022	.029
912.00	-.012	.002
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .67
B-B DEFLECTION = .22
TOP ELEVATION OF TUBE = 1002.00

1 PLOT OF 86-0513 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0513 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1

DATE MAY 13, 1986. INITIAL READINGS TAKEN ON APRIL 1, 1986.

BOTTOM ELEV. 912.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

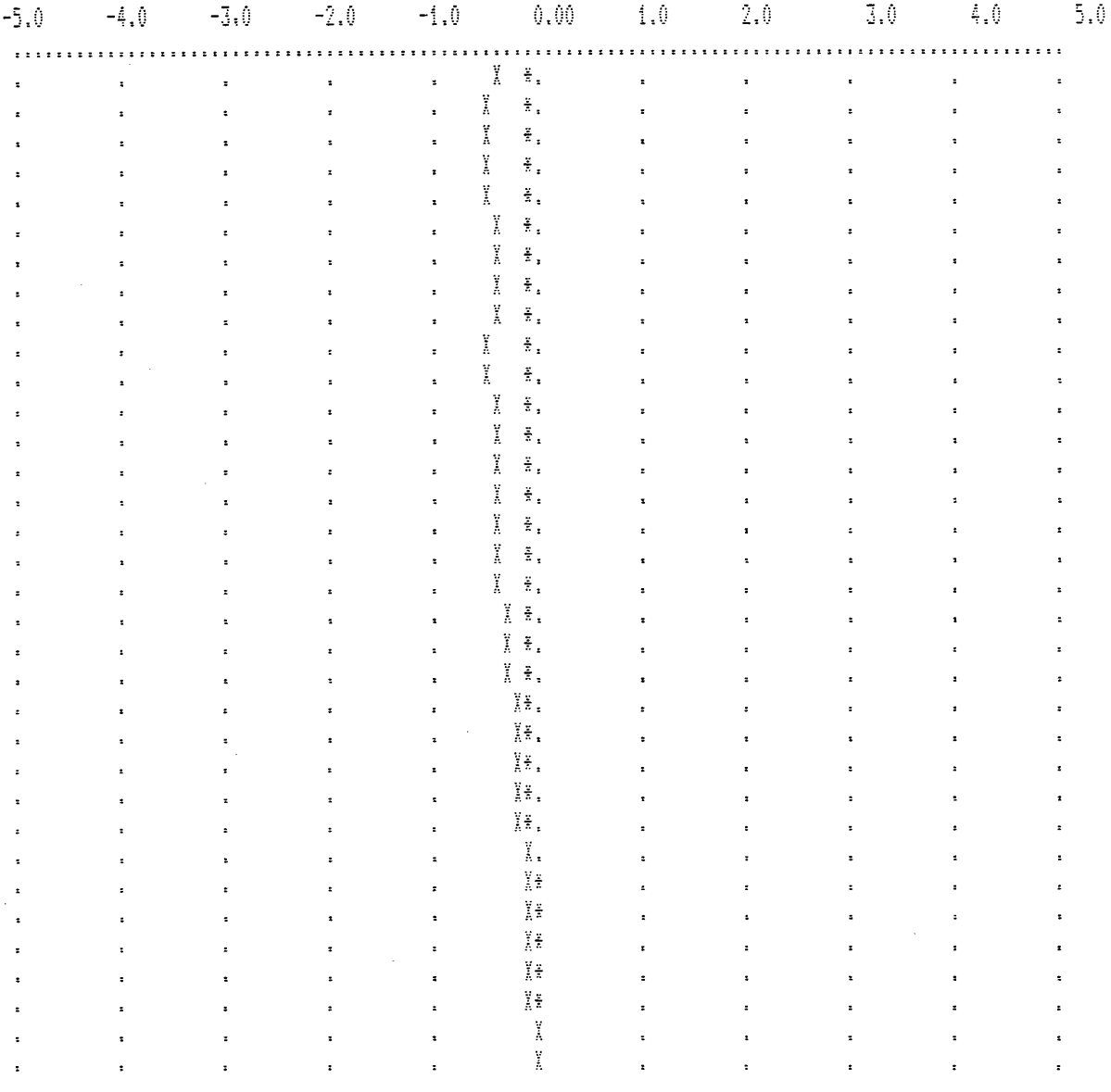
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
A-A MEAN BIAS = 72 B-B MEAN BIAS = 21 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1044.00	-.091	-.365
1042.00	-.104	-.419
1040.00	-.093	-.460
1038.00	-.091	-.468
1036.00	-.091	-.457
1034.00	-.092	-.458
1032.00	-.090	-.461
1030.00	-.091	-.460
1028.00	-.090	-.455
1026.00	-.088	-.444
1024.00	-.085	-.440
1022.00	-.083	-.436
1020.00	-.082	-.428
1018.00	-.081	-.428
1016.00	-.080	-.432
1014.00	-.081	-.436
1012.00	-.079	-.443
1010.00	-.077	-.449
1008.00	-.079	-.458
1006.00	-.079	-.460
1004.00	-.078	-.454
1002.00	-.077	-.444
1000.00	-.079	-.446
998.00	-.079	-.437
996.00	-.079	-.437
994.00	-.079	-.426
992.00	-.079	-.415
990.00	-.083	-.414
988.00	-.090	-.407
986.00	-.092	-.399
984.00	-.091	-.392
982.00	-.091	-.390
980.00	-.089	-.376
978.00	-.088	-.360
976.00	-.085	-.352
974.00	-.083	-.333
972.00	-.082	-.318
970.00	-.080	-.303
968.00	-.079	-.283
966.00	-.079	-.269
964.00	-.077	-.250
962.00	-.077	-.231
960.00	-.076	-.222
958.00	-.074	-.218
956.00	-.073	-.217
954.00	-.070	-.204
952.00	-.067	-.194
950.00	-.064	-.187
948.00	-.062	-.173
946.00	-.061	-.167

944.00	-.059	-.160
942.00	-.058	-.154
940.00	-.055	-.146
938.00	-.050	-.139
936.00	-.044	-.128
934.00	-.034	-.113
932.00	-.032	-.093
930.00	-.031	-.088
928.00	-.028	-.087
926.00	-.025	-.083
924.00	-.023	-.080
922.00	-.019	-.076
920.00	-.014	-.061
918.00	-.011	-.037
916.00	-.008	-.027
914.00	-.006	-.014
912.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.09
B-B DEFLECTION = -.36
TOP ELEVATION OF TUBE = 1044.00

1 PLOT OF 86-0513 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0513 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2

DATE MAY 13, 1986. INITIAL READINGS TAKEN ON APRIL 1, 1986.

BOTTOM ELEV. 912.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2
A-A MEAN BIAS = 77 B-B MEAN BIAS = 30 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1002.00	-.046	-.098
1000.00	-.113	-.076
998.00	-.110	-.065
996.00	-.107	-.067
994.00	-.107	-.059
992.00	-.106	-.064
990.00	-.104	-.066
988.00	-.103	-.058
986.00	-.100	-.050
984.00	-.096	-.056
982.00	-.093	-.059
980.00	-.090	-.064
978.00	-.089	-.073
976.00	-.088	-.082
974.00	-.087	-.098
972.00	-.085	-.091
970.00	-.084	-.086
968.00	-.083	-.085
966.00	-.082	-.077
964.00	-.082	-.067
962.00	-.084	-.075
960.00	-.080	-.071
958.00	-.081	-.059
956.00	-.083	-.044
954.00	-.082	-.029
952.00	-.079	-.022
950.00	-.076	-.026
948.00	-.074	-.018
946.00	-.074	-.022
944.00	-.072	-.019
942.00	-.073	-.023
940.00	-.070	-.013
938.00	-.074	-.014
936.00	-.077	-.020
934.00	-.077	-.018
932.00	-.078	-.031
930.00	-.075	-.029
928.00	-.069	-.025
926.00	-.065	-.023
924.00	-.060	-.020
922.00	-.056	-.016
920.00	-.050	-.018
918.00	-.041	-.014
916.00	-.028	-.001
914.00	-.012	-.006
912.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.05
B-B DEFLECTION = -.10
TOP ELEVATION OF TUBE = 1002.00
1 PLOT OF 86-0513 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1

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             -5.0     -4.0     -3.0     -2.0     -1.0      0.00     1.0      2.0      3.0      4.0      5.0
             ..........................................................................................
1002.00      .        .        .        .        .        X*       .        .        .        .        .
1000.00      .        .        .        .        .        X.       .        .        .        .        .
 998.00      .        .        .        .        .        X.       .        .        .        .        .
 996.00      .        .        .        .        .        X.       .        .        .        .        .
 994.00      .        .        .        .        .        X.       .        .        .        .        .
 992.00      .        .        .        .        .        X.       .        .        .        .        .
 990.00      .        .        .        .        .        X.       .        .        .        .        .
 988.00      .        .        .        .        .        X.       .        .        .        .        .
 986.00      .        .        .        .        .        X.       .        .        .        .        .
 984.00      .        .        .        .        .        X.       .        .        .        .        .
 982.00      .        .        .        .        .        X.       .        .        .        .        .
 980.00      .        .        .        .        .        X.       .        .        .        .        .
 978.00      .        .        .        .        .        X.       .        .        .        .        .
 976.00      .        .        .        .        .        X.       .        .        .        .        .
 974.00      .        .        .        .        .        X.       .        .        .        .        .
 972.00      .        .        .        .        .        X.       .        .        .        .        .
 970.00      .        .        .        .        .        X.       .        .        .        .        .
 968.00      .        .        .        .        .        X.       .        .        .        .        .
 966.00      .        .        .        .        .        X.       .        .        .        .        .
 964.00      .        .        .        .        .        X.       .        .        .        .        .
 962.00      .        .        .        .        .        X.       .        .        .        .        .
 960.00      .        .        .        .        .        X.       .        .        .        .        .
 958.00      .        .        .        .        .        X.       .        .        .        .        .
 956.00      .        .        .        .        .        *X       .        .        .        .        .
 954.00      .        .        .        .        .        *X       .        .        .        .        .
 952.00      .        .        .        .        .        *X       .        .        .        .        .
 950.00      .        .        .        .        .        *X       .        .        .        .        .
 948.00      .        .        .        .        .        *X       .        .        .        .        .
 946.00      .        .        .        .        .        *X       .        .        .        .        .
 944.00      .        .        .        .        .        *X       .        .        .        .        .
 942.00      .        .        .        .        .        *X       .        .        .        .        .
 940.00      .        .        .        .        .        *X       .        .        .        .        .
 938.00      .        .        .        .        .        *X       .        .        .        .        .
 936.00      .        .        .        .        .        *X       .        .        .        .        .
 934.00      .        .        .        .        .        *X       .        .        .        .        .
 932.00      .        .        .        .        .        *X       .        .        .        .        .
 930.00      .        .        .        .        .        *X       .        .        .        .        .
 928.00      .        .        .        .        .        *X       .        .        .        .        .
 926.00      .        .        .        .        .        *X       .        .        .        .        .
 924.00      .        .        .        .        .        *X       .        .        .        .        .
 922.00      .        .        .        .        .        *X       .        .        .        .        .
 920.00      .        .        .        .        .         X       .        .        .        .        .
 918.00      .        .        .        .        .         X       .        .        .        .        .
 916.00      .        .        .        .        .         X       .        .        .        .        .
 914.00      .        .        .        .        .         X       .        .        .        .        .
 912.00      .        .        .        .        .         X       .        .        .        .        .
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1**** 86-0513 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3

DATE MAY 13, 1986. INITIAL READINGS TAKEN ON APRIL 1, 1986.

BOTTOM ELEV. 910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
A-A MEAN BIAS = 68 B-B MEAN BIAS = 85 LIMIT USED =10000

5 **LIST OF DEFLECTIONS**

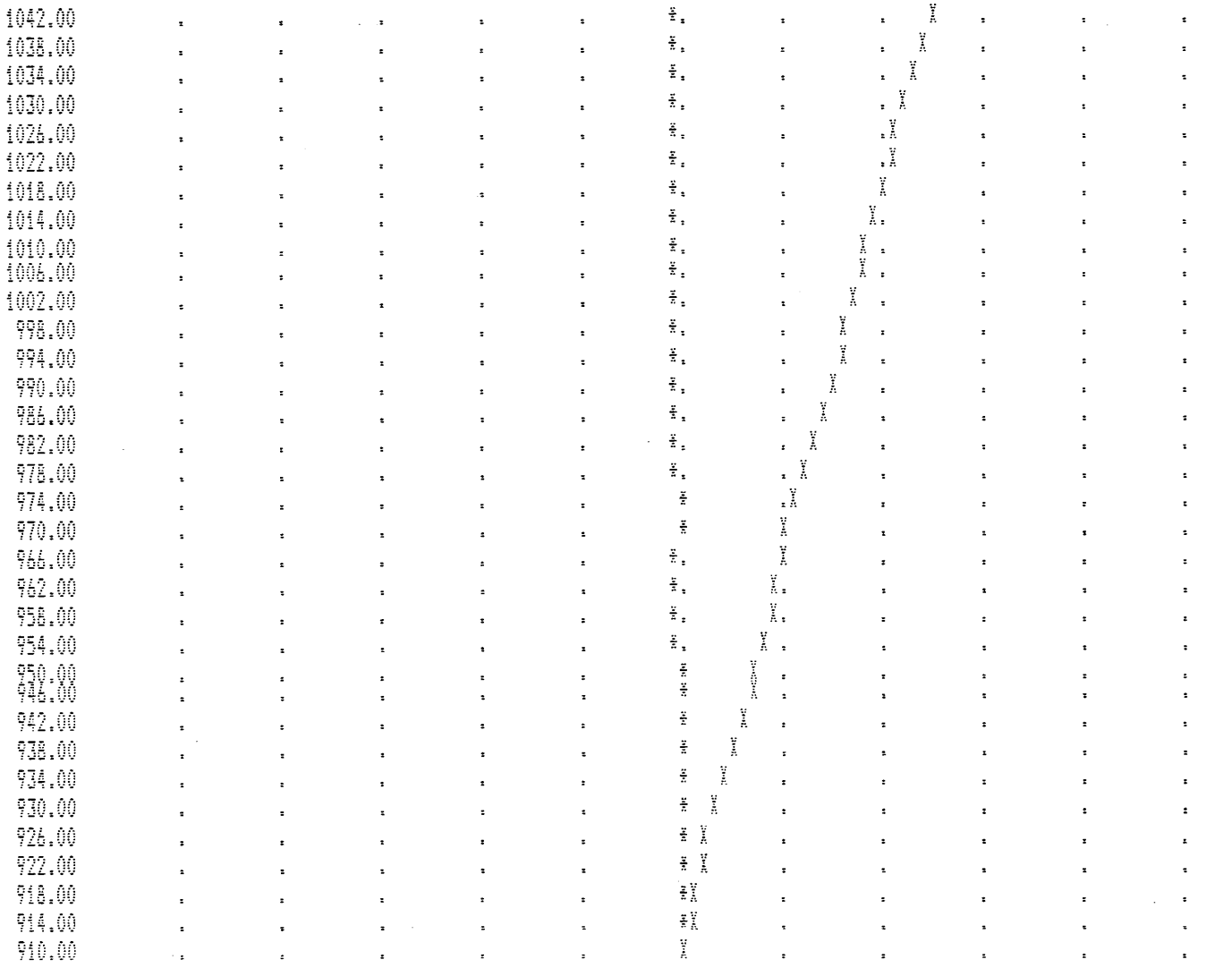
ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1042.00	-.057	2.471
1040.00	-.065	2.462
1038.00	-.068	2.437
1036.00	-.073	2.380
1034.00	-.076	2.329
1032.00	-.079	2.253
1030.00	-.078	2.215
1028.00	-.076	2.177
1026.00	-.075	2.138
1024.00	-.073	2.109
1022.00	-.071	2.074
1020.00	-.071	2.029
1018.00	-.070	1.988
1016.00	-.068	1.936
1014.00	-.067	1.881
1012.00	-.070	1.832
1010.00	-.076	1.802
1008.00	-.080	1.776
1006.00	-.079	1.757
1004.00	-.079	1.720
1002.00	-.078	1.701
1000.00	-.079	1.666
998.00	-.077	1.634
996.00	-.074	1.597
994.00	-.070	1.558
992.00	-.068	1.527
990.00	-.068	1.491
988.00	-.066	1.449
986.00	-.065	1.405
984.00	-.064	1.362
982.00	-.062	1.320
980.00	-.058	1.276
978.00	-.058	1.222
976.00	-.053	1.164
974.00	-.049	1.124
972.00	-.046	1.081
970.00	-.044	1.041
968.00	-.044	1.001
966.00	-.067	.971
964.00	-.063	.946
962.00	-.061	.920
960.00	-.059	.893
958.00	-.058	.862
956.00	-.054	.835
954.00	-.051	.802
952.00	-.049	.777
950.00	-.044	.745
948.00	-.039	.718
946.00	-.035	.668

944.00	-.028	.612
942.00	-.025	.572
940.00	-.021	.524
938.00	-.023	.473
936.00	-.020	.446
934.00	-.019	.389
932.00	-.017	.342
930.00	-.011	.301
928.00	-.002	.260
926.00	.002	.232
924.00	.005	.201
922.00	.007	.167
920.00	.010	.124
918.00	.006	.095
916.00	.004	.074
914.00	.004	.055
912.00	.004	.034
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.05
B-B DEFLECTION = 2.48
TOP ELEVATION OF TUBE = 1044.00

1 PLOT OF 86-0513 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3

PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0513 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4

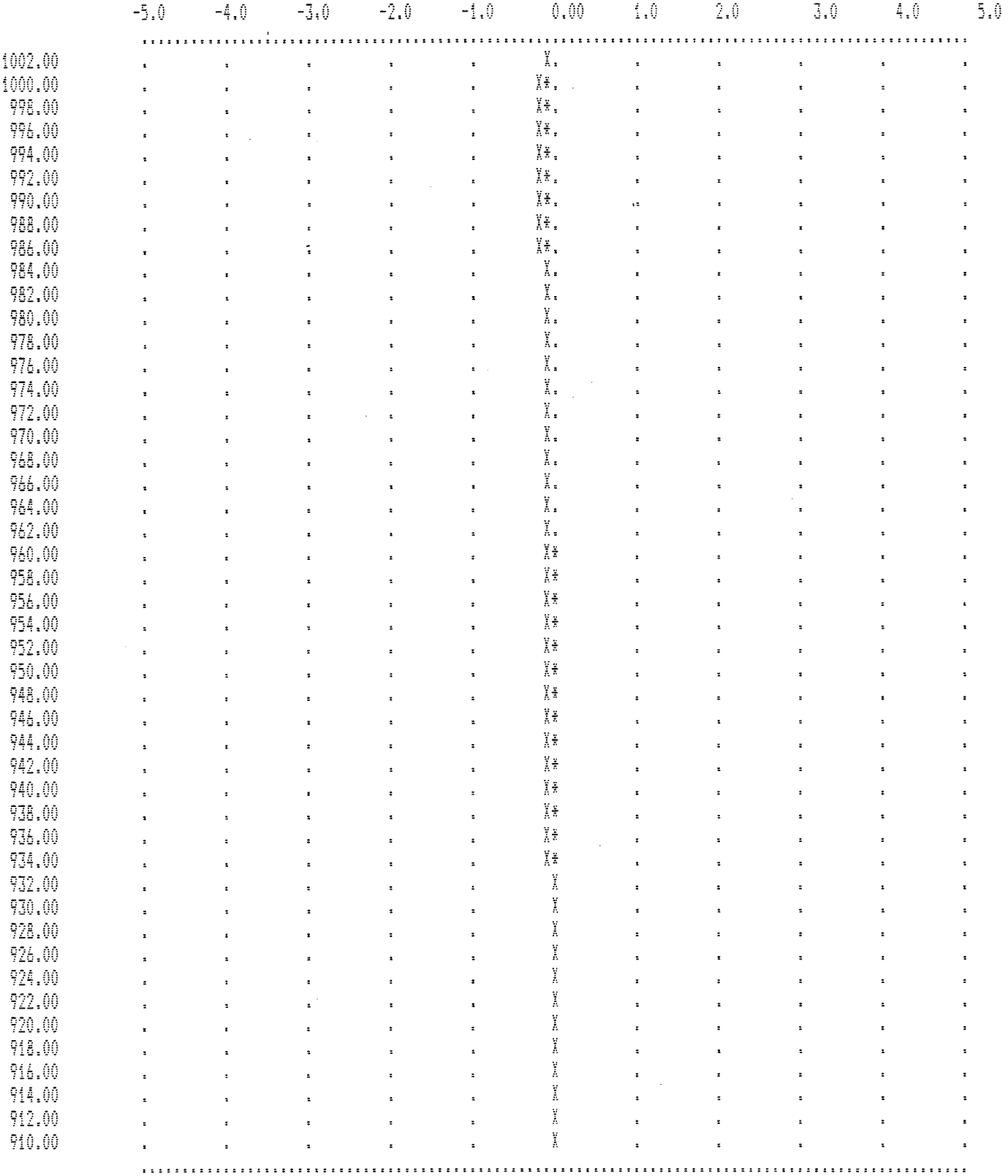
DATE   MAY 13, 1986. INITIAL READINGS TAKEN ON APRIL 1, 1986.

BOTTOM ELEV.   910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
A-A MEAN BIAS =   79   B-B MEAN BIAS =   16   LIMIT USED =10000
5   **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1002.00	-.122	-.089
1000.00	-.120	-.174
998.00	-.124	-.172
996.00	-.121	-.166
994.00	-.119	-.156
992.00	-.115	-.157
990.00	-.110	-.158
988.00	-.106	-.155
986.00	-.102	-.151
984.00	-.098	-.150
982.00	-.094	-.146
980.00	-.089	-.143
978.00	-.082	-.146
976.00	-.077	-.142
974.00	-.073	-.144
972.00	-.068	-.137
970.00	-.065	-.140
968.00	-.061	-.138
966.00	-.058	-.141
964.00	-.054	-.145
962.00	-.050	-.137
960.00	-.046	-.130
958.00	-.041	-.120
956.00	-.038	-.103
954.00	-.035	-.103
952.00	-.031	-.098
950.00	-.028	-.100
948.00	-.029	-.100
946.00	-.027	-.097
944.00	-.022	-.096
942.00	-.018	-.086
940.00	-.019	-.077
938.00	-.019	-.070
936.00	-.017	-.067
934.00	-.017	-.064
932.00	-.015	-.050
930.00	-.013	-.046
928.00	-.014	-.046
926.00	-.012	-.041
924.00	-.013	-.030
922.00	-.013	-.023
920.00	-.011	-.014
918.00	-.012	-.011
916.00	-.010	-.016
914.00	-.007	-.015
912.00	-.003	-.010
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.12
B-B DEFLECTION = -.09
TOP ELEVATION OF TUBE = 1002.00
1 PLOT OF 86-0513 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



**** 86-0513 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5

DATE MAY 13, 1986. INITIAL READINGS TAKEN ON APRIL 1, 1986.

BOTTOM ELEV. 910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
A-A MEAN BIAS = 78 B-B MEAN BIAS = 22 LIMIT USED =10000

LIST OF DEFLECTIONS

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1044.00	-.269	-.139
1042.00	-.206	-.145
1040.00	-.208	-.142
1038.00	-.217	-.133
1036.00	-.214	-.138
1034.00	-.214	-.141
1032.00	-.212	-.143
1030.00	-.210	-.134
1028.00	-.209	-.129
1026.00	-.208	-.126
1024.00	-.206	-.129
1022.00	-.206	-.128
1020.00	-.206	-.116
1018.00	-.206	-.113
1016.00	-.206	-.104
1014.00	-.208	-.093
1012.00	-.206	-.093
1010.00	-.205	-.091
1008.00	-.203	-.088
1006.00	-.200	-.089
1004.00	-.197	-.091
1002.00	-.196	-.089
1000.00	-.193	-.083
998.00	-.190	-.080
996.00	-.190	-.081
994.00	-.188	-.077
992.00	-.185	-.079
990.00	-.181	-.079
988.00	-.177	-.073
986.00	-.173	-.074
984.00	-.170	-.074
982.00	-.166	-.068
980.00	-.163	-.061
978.00	-.160	-.061
976.00	-.158	-.052
974.00	-.155	-.051
972.00	-.152	-.056
970.00	-.149	-.064
968.00	-.146	-.060
966.00	-.143	-.057
964.00	-.142	-.057
962.00	-.139	-.067
960.00	-.136	-.062
958.00	-.133	-.062
956.00	-.131	-.055
954.00	-.131	-.046
952.00	-.128	-.052
950.00	-.117	-.056
948.00	-.110	-.044
946.00	-.105	-.045

944.00	-.100	-.046
942.00	-.089	-.037
940.00	-.082	-.032
938.00	-.082	-.033
936.00	-.085	-.031
934.00	-.086	-.030
932.00	-.089	-.034
930.00	-.092	-.032
928.00	-.089	-.034
926.00	-.084	-.031
924.00	-.074	-.035
922.00	-.068	-.037
920.00	-.065	-.044
918.00	-.052	-.029
916.00	-.040	-.023
914.00	-.026	-.007
912.00	-.013	.004
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.27
B-B DEFLECTION = -.14
TOP ELEVATION OF TUBE = 1044.00

1 PLOT OF 86-0513 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1

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          -5.0     -4.0     -3.0     -2.0     -1.0      0.00     1.0      2.0      3.0      4.0      5.0
          ..........................................................................................
1044.00   .        .        .        .        .       *X.       .        .        .        .        .
1040.00   .        .        .        .        .       *X.       .        .        .        .        .
1036.00   .        .        .        .        .       *X.       .        .        .        .        .
1032.00   .        .        .        .        .       *X.       .        .        .        .        .
1028.00   .        .        .        .        .       *X.       .        .        .        .        .
1024.00   .        .        .        .        .       *X.       .        .        .        .        .
1020.00   .        .        .        .        .       *X.       .        .        .        .        .
1016.00   .        .        .        .        .       *X.       .        .        .        .        .
1012.00   .        .        .        .        .       *X.       .        .        .        .        .
1008.00   .        .        .        .        .       *X.       .        .        .        .        .
1004.00   .        .        .        .        .       *X.       .        .        .        .        .
1000.00   .        .        .        .        .       *X.       .        .        .        .        .
 996.00   .        .        .        .        .       *X.       .        .        .        .        .
 992.00   .        .        .        .        .       *X.       .        .        .        .        .
 988.00   .        .        .        .        .       *X.       .        .        .        .        .
 984.00   .        .        .        .        .       *X.       .        .        .        .        .
 980.00   .        .        .        .        .       *X.       .        .        .        .        .
 976.00   .        .        .        .        .       *X.       .        .        .        .        .
 972.00   .        .        .        .        .        X.       .        .        .        .        .
 968.00   .        .        .        .        .        X.       .        .        .        .        .
 964.00   .        .        .        .        .        X.       .        .        .        .        .
 960.00   .        .        .        .        .        X.       .        .        .        .        .
 956.00   .        .        .        .        .       *X        .        .        .        .        .
 952.00   .        .        .        .        .        X.       .        .        .        .        .
 948.00   .        .        .        .        .       *X        .        .        .        .        .
 944.00   .        .        .        .        .       *X        .        .        .        .        .
 940.00   .        .        .        .        .       *X        .        .        .        .        .
 936.00   .        .        .        .        .       *X        .        .        .        .        .
 932.00   .        .        .        .        .       *X        .        .        .        .        .
 928.00   .        .        .        .        .       *X        .        .        .        .        .
 924.00   .        .        .        .        .       *X        .        .        .        .        .
 920.00   .        .        .        .        .       *X        .        .        .        .        .
 916.00   .        .        .        .        .        X        .        .        .        .        .
 912.00   .        .        .        .        .        X        .        .        .        .        .
          ..........................................................................................
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**** 86-0513 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6

DATE MAY 13, 1986. INITIAL READINGS TAKEN ON APRIL 1, 1986.

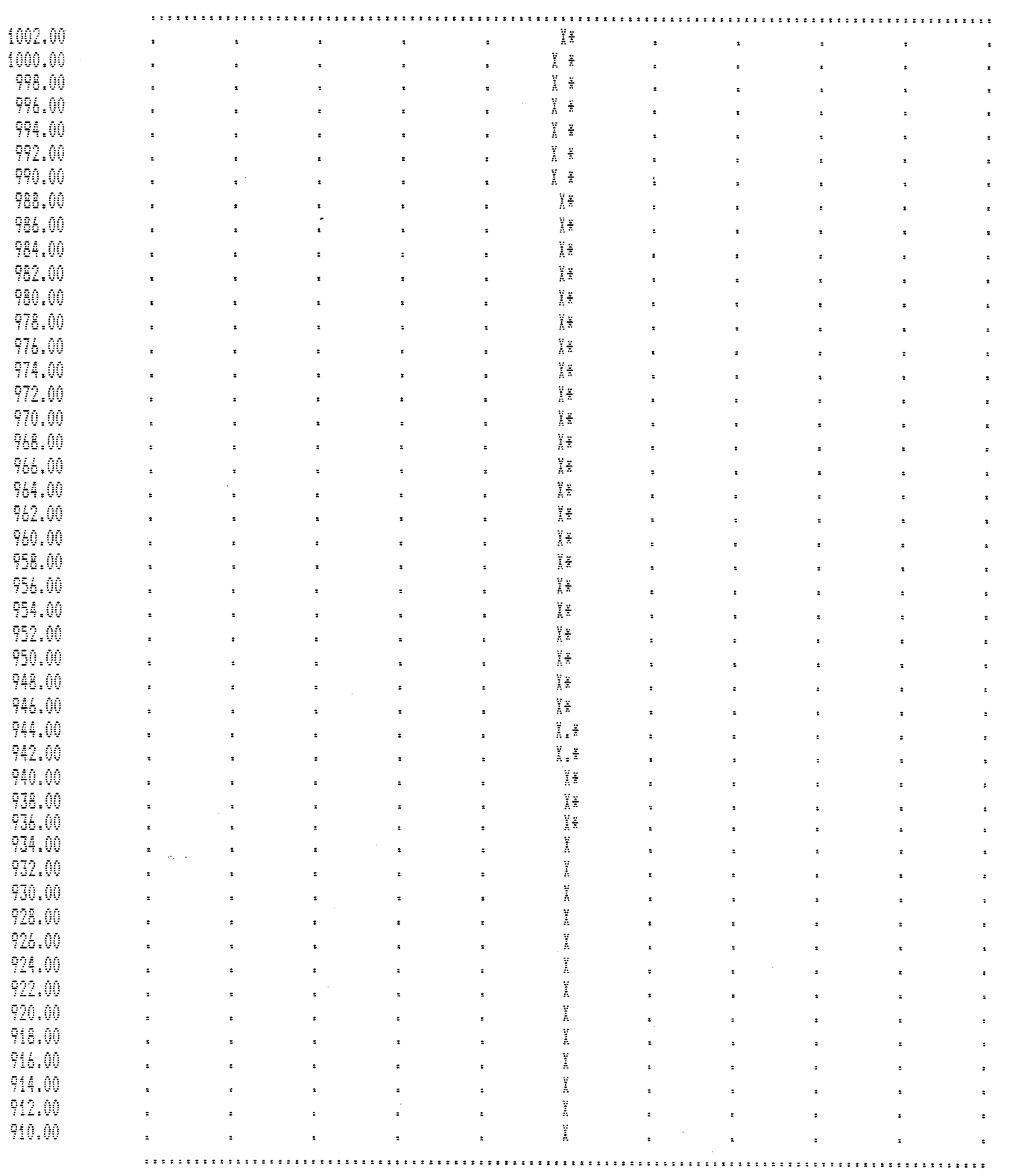
BOTTOM ELEV. 910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
A-A MEAN BIAS = 78 B-B MEAN BIAS = 23 LIMIT USED =10000

LIST OF DEFLECTIONS

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1002.00	.016	-.142
1000.00	.013	-.189
998.00	.008	-.164
996.00	.016	-.166
994.00	.017	-.157
992.00	.019	-.169
990.00	.017	-.153
988.00	.022	-.148
986.00	.026	-.127
984.00	.027	-.131
982.00	.029	-.131
980.00	.032	-.127
978.00	.033	-.119
976.00	.034	-.110
974.00	.035	-.105
972.00	.035	-.095
970.00	.036	-.104
968.00	.036	-.097
966.00	.036	-.088
964.00	.037	-.085
962.00	.037	-.080
960.00	.039	-.068
958.00	.042	-.060
956.00	.043	-.058
954.00	.043	-.061
952.00	.044	-.070
950.00	.044	-.070
948.00	.044	-.067
946.00	.046	-.070
944.00	.056	-.056
942.00	.068	-.053
940.00	.074	-.050
938.00	.069	-.041
936.00	.057	-.026
934.00	.049	-.024
932.00	.044	-.015
930.00	.035	-.017
928.00	.035	-.014
926.00	.033	-.008
924.00	.031	-.007
922.00	.031	-.006
920.00	.025	-.014
918.00	.021	-.003
916.00	.020	.002
914.00	.018	-.001
912.00	.009	-.001
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .02
B-B DEFLECTION = -.14
TOP ELEVATION OF TUBE = 1002.00
1 PLOT OF 86-0513 BALL MOUNTAIN DAM, JAMAICA, VT 91-85-6
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0616 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1

DATE JUNE 16, 1986. INITIAL READINGS TAKEN ON JANUARY 23, 1986.

BOTTOM ELEV. 912.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0123 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1 INITIAL READINGS
A-A MEAN BIAS = 82 B-B MEAN BIAS = 22 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1044.00	.125	-.058
1042.00	.136	-.077
1040.00	.130	-.087
1038.00	.122	-.097
1036.00	.113	-.102
1034.00	.109	-.101
1032.00	.108	-.107
1030.00	.100	-.112
1028.00	.097	-.113
1026.00	.093	-.125
1024.00	.092	-.127
1022.00	.091	-.120
1020.00	.089	-.117
1018.00	.091	-.115
1016.00	.091	-.121
1014.00	.065	-.099
1012.00	.068	-.100
1010.00	.066	-.095
1008.00	.066	-.091
1006.00	.064	-.097
1004.00	.064	-.095
1002.00	.064	-.093
1000.00	.061	-.092
998.00	.060	-.096
996.00	.058	-.090
994.00	.058	-.095
992.00	.058	-.091
990.00	.032	-.091
988.00	-.007	-.097
986.00	-.034	-.092
984.00	-.040	-.091
982.00	-.038	-.083
980.00	-.038	-.087
978.00	-.037	-.082
976.00	-.034	-.094
974.00	-.032	-.097
972.00	-.032	-.112
970.00	-.033	-.118
968.00	-.034	-.122
966.00	-.036	-.123
964.00	-.037	-.124
962.00	-.038	-.128
960.00	-.038	-.125
958.00	-.036	-.123
956.00	-.036	-.122
954.00	-.037	-.118
952.00	-.034	-.122
950.00	-.033	-.124
948.00	-.040	-.123
946.00	-.036	-.112

944.00	-.037	-.105
942.00	-.035	-.100
940.00	-.037	-.098
938.00	-.037	-.097
936.00	-.038	-.093
934.00	-.037	-.095
932.00	-.037	-.086
930.00	-.032	-.089
928.00	-.029	-.077
926.00	-.031	-.072
924.00	-.031	-.073
922.00	-.023	-.058
920.00	-.021	-.046
918.00	-.015	-.030
916.00	-.010	-.017
914.00	-.007	-.008
912.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .13
B-B DEFLECTION = -.06
TOP ELEVATION OF TUBE = 1044.00

1 PLOT OF 86-0616 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1

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            -5.0     -4.0     -3.0     -2.0     -1.0      0.00     1.0      2.0      3.0      4.0      5.0
            ..........................................................................................
1044.00     .        .        .        .        .        X.*       .        .        .        .        .
1040.00     .        .        .        .        .        X.*       .        .        .        .        .
1036.00     .        .        .        .        .        X.*       .        .        .        .        .
1032.00     .        .        .        .        .        X.*       .        .        .        .        .
1028.00     .        .        .        .        .        X.*       .        .        .        .        .
1024.00     .        .        .        .        .        X.*       .        .        .        .        .
1020.00     .        .        .        .        .        X.*       .        .        .        .        .
1016.00     .        .        .        .        .        X.*       .        .        .        .        .
1012.00     .        .        .        .        .        X.*       .        .        .        .        .
1008.00     .        .        .        .        .        X.*       .        .        .        .        .
1004.00     .        .        .        .        .        X.*       .        .        .        .        .
1000.00     .        .        .        .        .        X.*       .        .        .        .        .
 996.00     .        .        .        .        .        X.*       .        .        .        .        .
 992.00     .        .        .        .        .        X.*       .        .        .        .        .
 988.00     .        .        .        .        .        X*        .        .        .        .        .
 984.00     .        .        .        .        .        X*        .        .        .        .        .
 980.00     .        .        .        .        .        X*        .        .        .        .        .
 976.00     .        .        .        .        .        X*        .        .        .        .        .
 972.00     .        .        .        .        .        X*        .        .        .        .        .
 968.00     .        .        .        .        .        X*        .        .        .        .        .
 964.00     .        .        .        .        .        X*        .        .        .        .        .
 960.00     .        .        .        .        .        X*        .        .        .        .        .
 956.00     .        .        .        .        .        X*        .        .        .        .        .
 952.00     .        .        .        .        .        X*        .        .        .        .        .
 948.00     .        .        .        .        .        X*        .        .        .        .        .
 944.00     .        .        .        .        .        X*        .        .        .        .        .
 940.00     .        .        .        .        .        X*        .        .        .        .        .
 936.00     .        .        .        .        .        X*        .        .        .        .        .
 932.00     .        .        .        .        .        X*        .        .        .        .        .
 928.00     .        .        .        .        .        X*        .        .        .        .        .
 924.00     .        .        .        .        .        X*        .        .        .        .        .
 920.00     .        .        .        .        .         X        .        .        .        .        .
 916.00     .        .        .        .        .         X        .        .        .        .        .
 912.00     .        .        .        .        .         X        .        .        .        .        .
            ..........................................................................................
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1**** 86-0616 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2

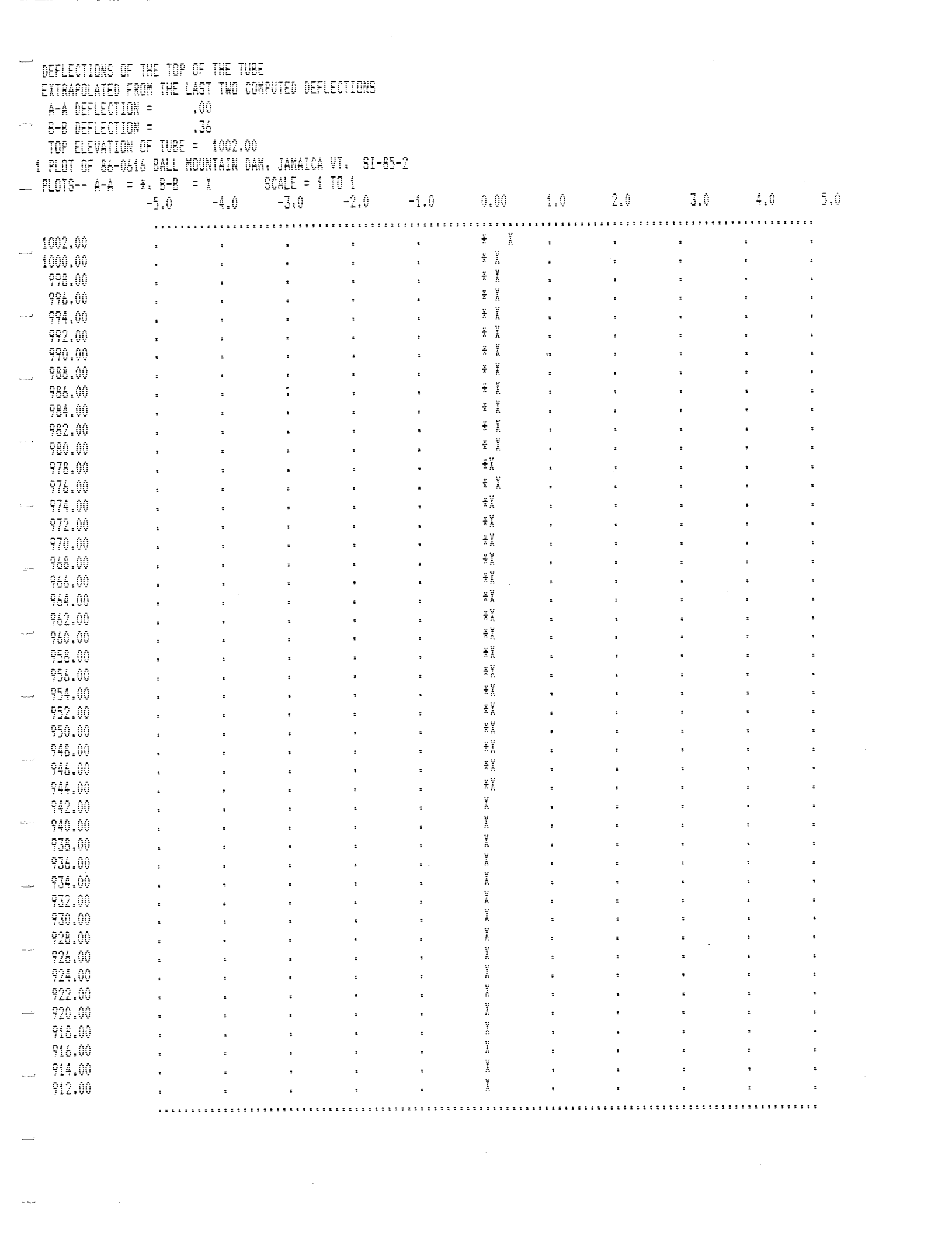
DATE JUNE 16, 1986. INITIAL READINGS TAKEN ON JANUARY 23, 1986.

BOTTOM ELEV. 912.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2
A-A MEAN BIAS = 84 B-B MEAN BIAS = 32 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1002.00	-.001	.363
1000.00	-.035	.224
998.00	-.019	.196
996.00	-.010	.182
994.00	-.016	.173
992.00	-.014	.176
990.00	-.011	.167
988.00	-.019	.170
986.00	-.016	.157
984.00	-.012	.160
982.00	-.013	.166
980.00	-.013	.164
978.00	-.014	.146
976.00	-.011	.150
974.00	-.009	.149
972.00	-.005	.138
970.00	-.002	.118
968.00	.001	.112
966.00	.004	.103
964.00	.005	.093
962.00	.007	.100
960.00	.010	.095
958.00	.016	.098
956.00	.019	.090
954.00	.022	.094
952.00	.033	.095
950.00	.037	.092
948.00	.037	.083
946.00	.028	.079
944.00	.029	.062
942.00	.028	.038
940.00	.029	.034
938.00	.028	.026
936.00	.028	.022
934.00	.025	.014
932.00	.030	.020
930.00	.035	.013
928.00	.036	.025
926.00	.032	.013
924.00	.026	.024
922.00	.021	.025
920.00	.022	.030
918.00	.020	.032
916.00	.013	.029
914.00	.012	.010
912.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .00
B-B DEFLECTION = .36
TOP ELEVATION OF TUBE = 1002.00
1 PLOT OF 86-0616 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0616 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3

DATE JUNE 16, 1986. INITIAL READINGS TAKEN ON JANUARY 23, 1986.

BOTTOM ELEV. 910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0123 BALL MOUNTAIN DAM, JAIMACA, VT SI-85-3 INITIAL READINGS
A-A MEAN BIAS = 80 B-B MEAN BIAS = 30 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1044.00	-.161	.047
1042.00	-.110	.017
1040.00	-.128	.037
1038.00	-.137	.043
1036.00	-.145	.042
1034.00	-.148	.037
1032.00	-.142	.034
1030.00	-.130	.028
1028.00	-.121	.023
1026.00	-.116	.025
1024.00	-.116	.013
1022.00	-.119	.007
1020.00	-.110	.005
1018.00	-.099	.005
1016.00	-.092	.024
1014.00	-.073	.031
1012.00	-.059	.037
1010.00	-.066	.023
1008.00	-.058	.019
1006.00	-.056	.037
1004.00	-.068	.047
1002.00	-.091	.047
1000.00	-.116	.042
998.00	-.134	.044
996.00	-.143	.055
994.00	-.144	.049
992.00	-.143	.052
990.00	-.118	.068
988.00	-.119	.084
986.00	-.121	.093
984.00	-.122	.097
982.00	-.122	.085
980.00	-.118	.080
978.00	-.112	.087
976.00	-.111	.083
974.00	-.097	.076
972.00	-.084	.076
970.00	-.074	.065
968.00	-.073	.055
966.00	-.062	.060
964.00	-.054	.054
962.00	-.048	.039
960.00	-.043	.044
958.00	-.044	.061
956.00	-.038	.067
954.00	-.039	.070
952.00	-.035	.072
950.00	-.034	.071
948.00	-.035	.072
946.00	-.028	.074

944.00	-.025	.074
942.00	-.025	.083
940.00	-.026	.088
938.00	-.018	.063
936.00	-.014	.061
934.00	-.013	.043
932.00	-.017	.041
930.00	-.028	.029
928.00	-.030	.023
926.00	-.026	.022
924.00	-.022	.016
922.00	-.020	.021
920.00	-.012	.002
918.00	-.008	-.003
916.00	-.009	-.007
914.00	-.007	.003
912.00	-.004	-.002
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.16
B-B DEFLECTION = .05
TOP ELEVATION OF TUBE = 1044.00
1 PLOT OF 86-0616 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1

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                -5.0     -4.0     -3.0     -2.0     -1.0      0.00     1.0      2.0       3.0      4.0      5.0
                ..........................................................................................
1044.00         .        .        .        .        .        *X       .        .        .        .        .
1040.00         .        .        .        .        .        *X       .        .        .        .        .
1036.00         .        .        .        .        .        *X       .        .        .        .        .
1032.00         .        .        .        .        .        *X       .        .        .        .        .
1028.00         .        .        .        .        .        *X       .        .        .        .        .
1024.00         .        .        .        .        .        *X       .        .        .        .        .
1020.00         .        .        .        .        .        *X       .        .        .        .        .
1016.00         .        .        .        .        .        *X       .        .        .        .        .
1012.00         .        .        .        .        .        *X       .        .        .        .        .
1008.00         .        .        .        .        .        *X       .        .        .        .        .
1004.00         .        .        .        .        .        *X       .        .        .        .        .
1000.00         .        .        .        .        .        *X       .        .        .        .        .
 996.00         .        .        .        .        .        *X       .        .        .        .        .
 992.00         .        .        .        .        .        *.X      .        .        .        .        .
 988.00         .        .        .        .        .        *.X      .        .        .        .        .
 984.00         .        .        .        .        .        *.X      .        .        .        .        .
 980.00         .        .        .        .        .        *.X      .        .        .        .        .
 976.00         .        .        .        .        .        *.X      .        .        .        .        .
 972.00         .        .        .        .        .        *.X      .        .        .        .        .
 968.00         .        .        .        .        .        *.X      .        .        .        .        .
 964.00         .        .        .        .        .         X       .        .        .        .        .
 960.00         .        .        .        .        .         *X      .        .        .        .        .
 956.00         .        .        .        .        .         *X      .        .        .        .        .
 952.00         .        .        .        .        .         *X      .        .        .        .        .
 948.00         .        .        .        .        .         *X      .        .        .        .        .
 944.00         .        .        .        .        .         *X      .        .        .        .        .
 940.00         .        .        .        .        .         *X      .        .        .        .        .
 936.00         .        .        .        .        .         X       .        .        .        .        .
 932.00         .        .        .        .        .         X       .        .        .        .        .
 928.00         .        .        .        .        .         X       .        .        .        .        .
 924.00         .        .        .        .        .         X       .        .        .        .        .
 920.00         .        .        .        .        .         X       .        .        .        .        .
 916.00         .        .        .        .        .         X       .        .        .        .        .
 912.00         .        .        .        .        .         X       .        .        .        .        .
                ..........................................................................................
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1**** 86-0816 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4

DATE JUNE 16, 1986. INITIAL READINGS TAKEN ON JANUARY 23, 1986.

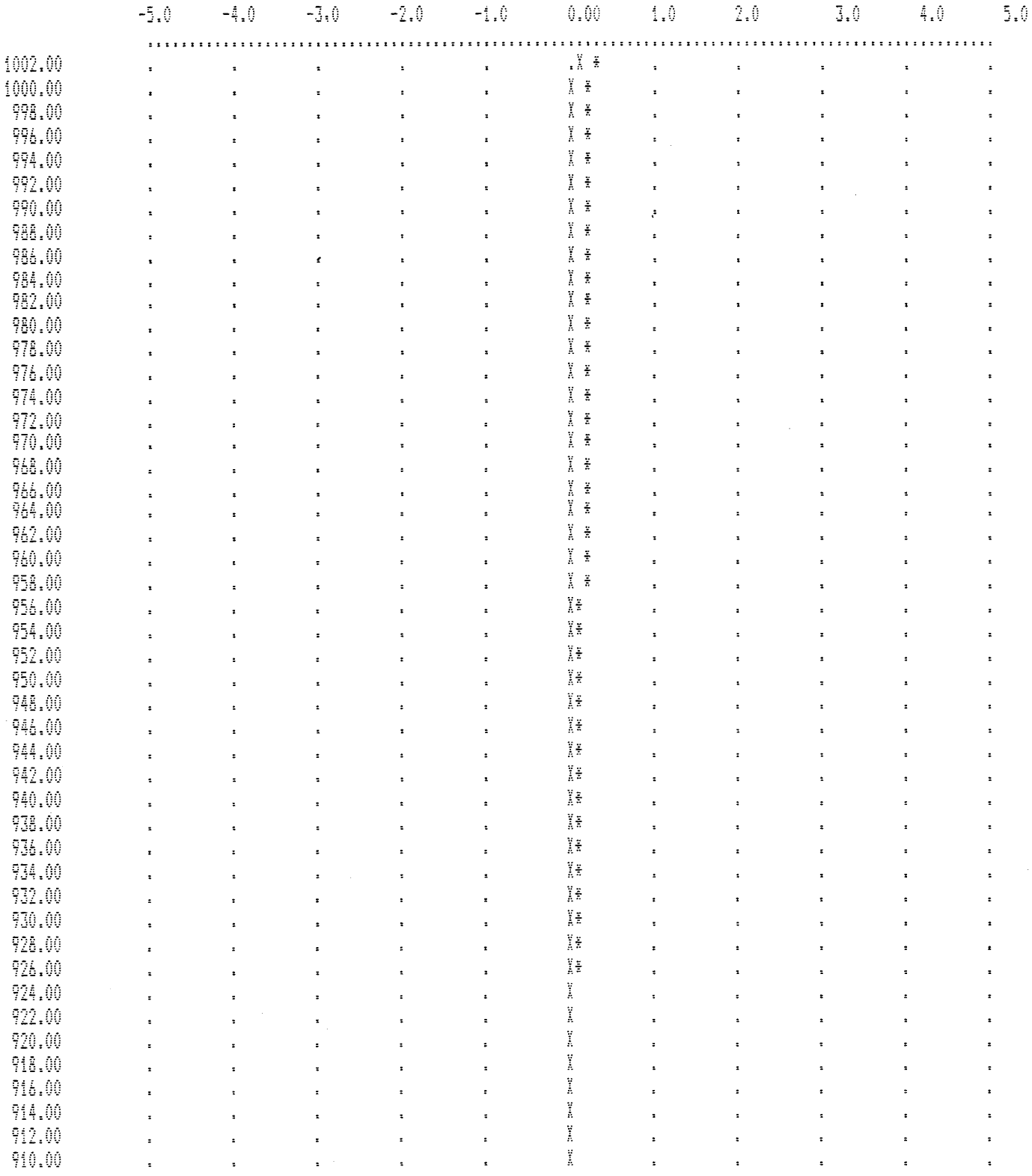
BOTTOM ELEV. 910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0123 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4 INITIAL READINGS
A-A MEAN BIAS = 82 B-B MEAN BIAS = 35 LIMIT USED =10000

5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1002.00	.268	.087
1000.00	.241	-.020
998.00	.221	-.010
996.00	.204	.018
994.00	.194	.016
992.00	.190	.013
990.00	.194	.008
988.00	.199	-.008
986.00	.191	-.005
984.00	.178	-.005
982.00	.170	-.008
980.00	.166	-.014
978.00	.167	-.016
976.00	.170	-.011
974.00	.170	.001
972.00	.170	-.002
970.00	.170	.005
968.00	.165	.001
966.00	.160	.003
964.00	.155	.009
962.00	.151	.005
960.00	.151	.006
958.00	.153	.014
956.00	.149	.020
954.00	.146	.017
952.00	.141	.005
950.00	.144	.004
948.00	.131	.007
946.00	.126	.010
944.00	.130	.013
942.00	.128	.016
940.00	.121	.014
938.00	.129	.014
936.00	.124	.007
934.00	.113	-.007
932.00	.107	-.008
930.00	.089	-.007
928.00	.069	-.002
926.00	.056	.001
924.00	.041	.002
922.00	.029	.023
920.00	.023	.035
918.00	.007	.036
916.00	.007	.029
914.00	.013	.030
912.00	.013	.014
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .27
B-B DEFLECTION = .09
TOP ELEVATION OF TUBE = 1002.00
1 PLOT OF 86-0616 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0616 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5

DATE   JUNE 16, 1986. INITIAL READINGS TAKEN ON JANUARY 23, 1986.

BOTTOM ELEV. 910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

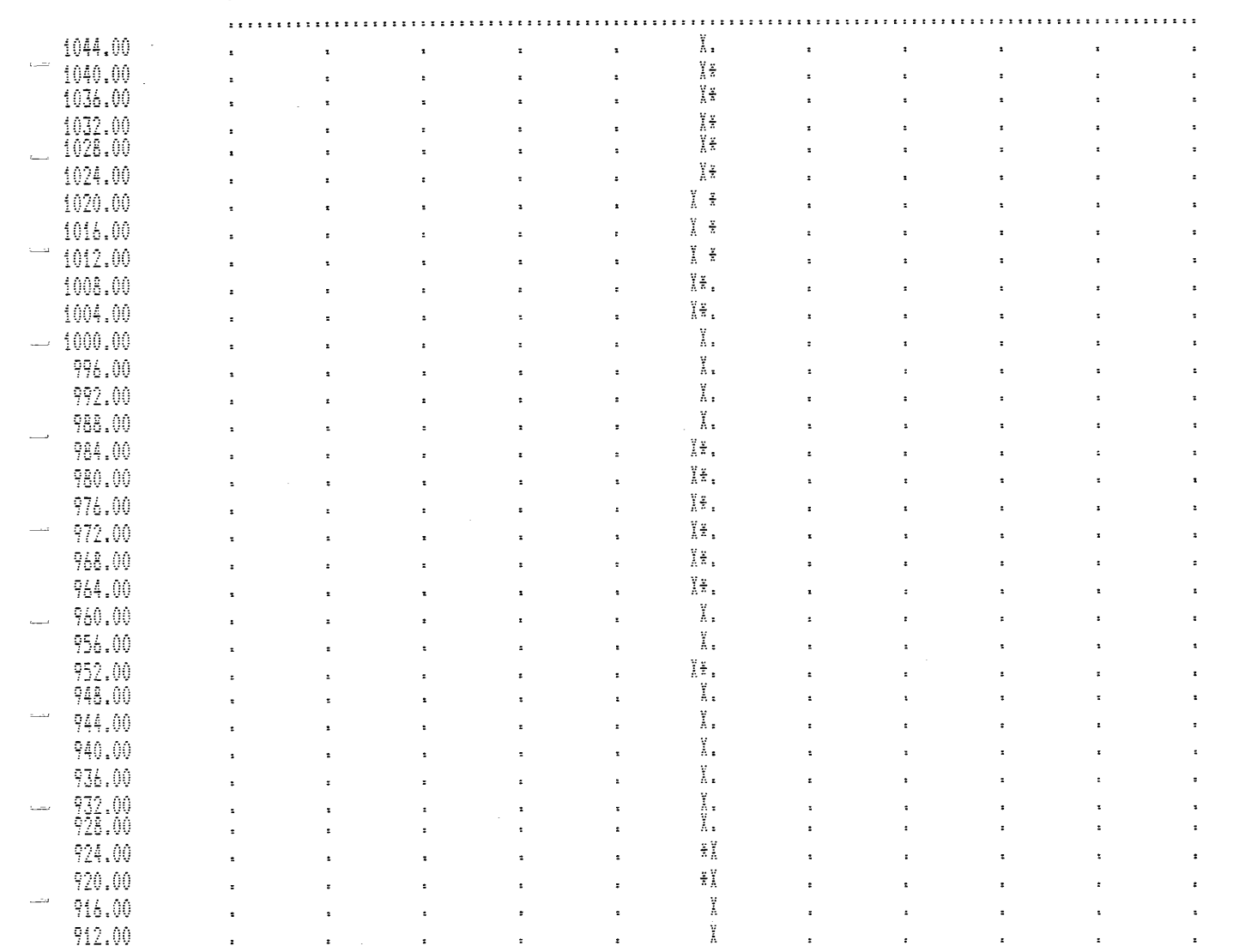
INITIAL READINGS TAKEN AT--86-0123 BALL MOUNTAIN DAM, JAMAICA, VT SI-5-85 INITIAL READINGS
A-A MEAN BIAS = 86 B-B MEAN BIAS = 30 LIMIT USED =10000

5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1044.00	-.080	-.097
1042.00	-.058	-.147
1040.00	-.035	-.116
1038.00	-.035	-.105
1036.00	-.045	-.116
1034.00	-.046	-.124
1032.00	-.041	-.128
1030.00	-.038	-.138
1028.00	-.038	-.131
1026.00	-.042	-.127
1024.00	-.040	-.136
1022.00	-.035	-.145
1020.00	-.034	-.137
1018.00	-.036	-.153
1016.00	-.035	-.151
1014.00	-.029	-.155
1012.00	-.028	-.155
1010.00	-.037	-.169
1008.00	-.045	-.169
1006.00	-.052	-.181
1004.00	-.055	-.172
1002.00	-.064	-.164
1000.00	-.072	-.152
998.00	-.091	-.146
996.00	-.107	-.149
994.00	-.113	-.148
992.00	-.113	-.151
990.00	-.106	-.149
988.00	-.109	-.145
986.00	-.112	-.141
984.00	-.108	-.155
982.00	-.110	-.154
980.00	-.112	-.147
978.00	-.105	-.157
976.00	-.105	-.148
974.00	-.113	-.157
972.00	-.113	-.152
970.00	-.110	-.165
968.00	-.112	-.155
966.00	-.110	-.157
964.00	-.108	-.166
962.00	-.111	-.151
960.00	-.112	-.139
958.00	-.097	-.140
956.00	-.092	-.137
954.00	-.092	-.144
952.00	-.098	-.163
950.00	-.093	-.164
948.00	-.086	-.157
946.00	-.082	-.140

944.00	-.084	-.134
942.00	-.074	-.124
940.00	-.067	-.112
938.00	-.059	-.097
936.00	-.062	-.080
934.00	-.062	-.072
932.00	-.074	-.053
930.00	-.080	-.056
928.00	-.073	-.058
926.00	-.070	-.051
924.00	-.060	-.058
922.00	-.052	-.049
920.00	-.066	-.052
918.00	-.052	-.033
916.00	-.039	-.037
914.00	-.022	-.019
912.00	-.004	.002
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE -
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.08
B-B DEFLECTION = -.10
TOP ELEVATION OF TUBE = 1044.00
1 PLOT OF 86-0616 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0616 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6

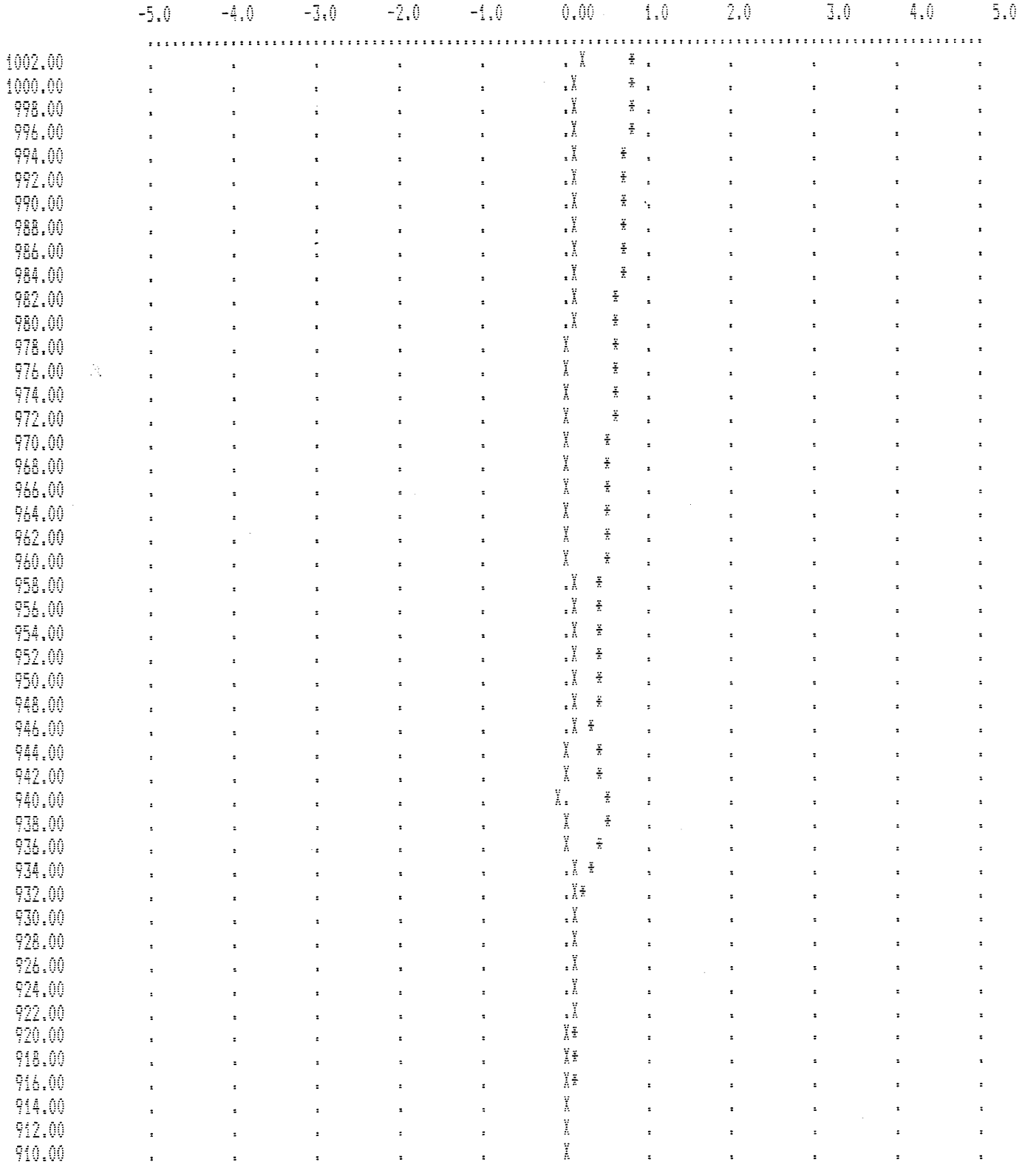
DATE JUNE 16, 1986. INITIAL READINGS TAKEN ON JANUARY 23, 1986.

BOTTOM ELEV. 910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0123 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6 INITIAL READINGS
A-A MEAN BIAS = 84 B-B MEAN BIAS = 24 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1002.00	.791	.182
1000.00	.782	.131
998.00	.772	.148
996.00	.755	.097
994.00	.738	.086
992.00	.718	.092
990.00	.707	.091
988.00	.692	.075
986.00	.674	.067
984.00	.652	.057
982.00	.639	.053
980.00	.620	.061
978.00	.603	.048
976.00	.589	.037
974.00	.574	.026
972.00	.554	.025
970.00	.530	.032
968.00	.512	.031
966.00	.500	.034
964.00	.490	.037
962.00	.475	.039
960.00	.461	.046
958.00	.446	.066
956.00	.437	.071
954.00	.424	.073
952.00	.411	.063
950.00	.391	.055
948.00	.368	.055
946.00	.347	.062
944.00	.359	.040
942.00	.409	-.025
940.00	.454	-.059
938.00	.461	-.040
936.00	.414	.016
934.00	.326	.089
932.00	.202	.143
930.00	.125	.140
928.00	.108	.106
926.00	.106	.063
924.00	.124	.058
922.00	.140	.063
920.00	.116	.035
918.00	.080	.035
916.00	.062	.044
914.00	.032	.019
912.00	-.007	.000
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .79
B-B DEFLECTION = .18
TOP ELEVATION OF TUBE = 1002.00
1 PLOT OF 86-0616 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0616 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1

DATE JUNE 16, 1986. INITIAL READINGS TAKEN ON APRIL 1, 1986.

BOTTOM ELEV. 912.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
A-A MEAN BIAS = 82 B-B MEAN BIAS = 22 LIMIT USED =10000

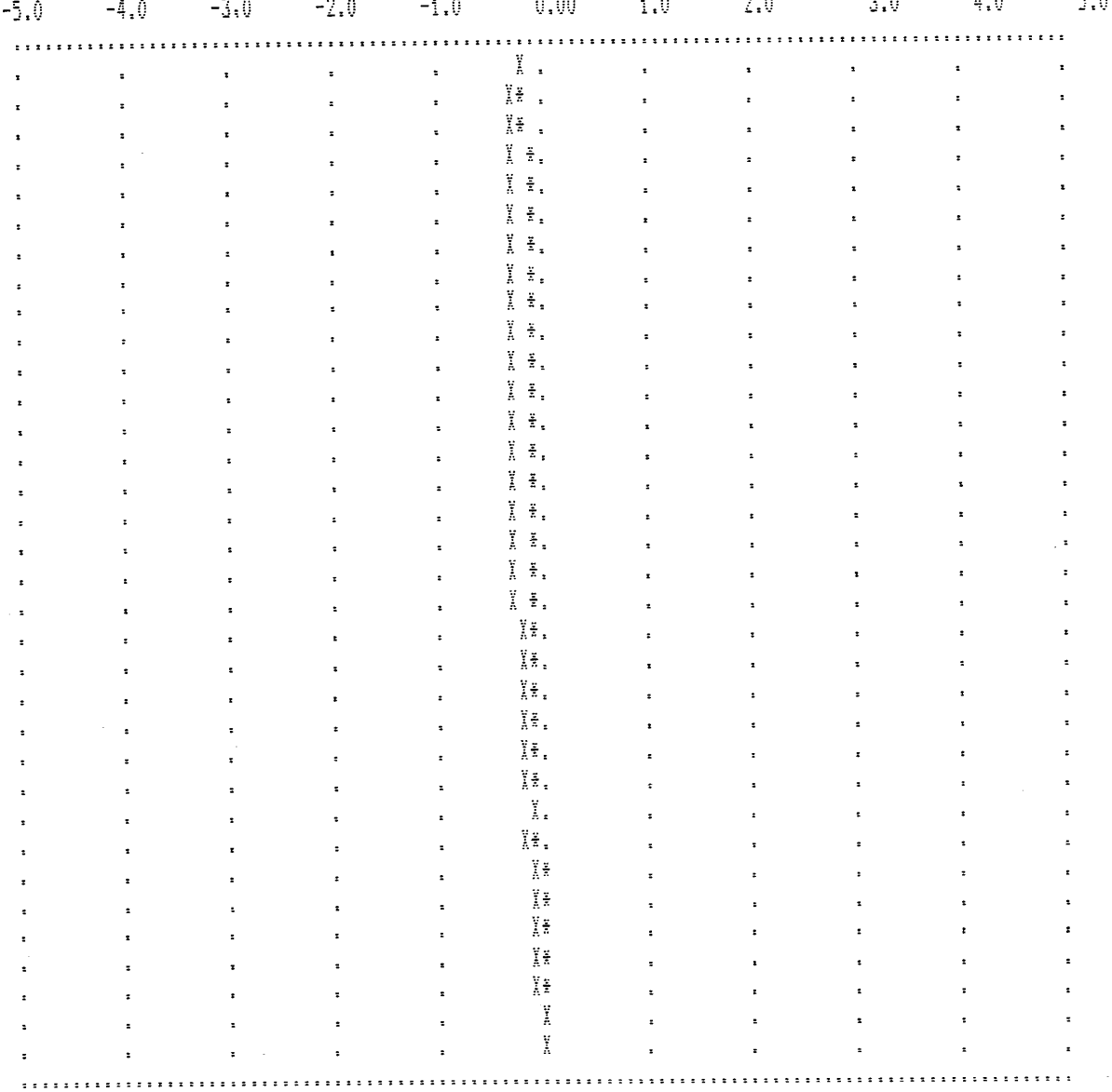
LIST OF DEFLECTIONS

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1044.00	-.160	-.223
1042.00	-.165	-.271
1040.00	-.151	-.303
1038.00	-.146	-.317
1036.00	-.151	-.320
1034.00	-.151	-.324
1032.00	-.147	-.328
1030.00	-.150	-.328
1028.00	-.149	-.323
1026.00	-.148	-.323
1024.00	-.144	-.325
1022.00	-.142	-.320
1020.00	-.141	-.313
1018.00	-.141	-.316
1016.00	-.140	-.325
1014.00	-.140	-.326
1012.00	-.135	-.331
1010.00	-.133	-.328
1008.00	-.135	-.328
1006.00	-.133	-.328
1004.00	-.129	-.320
1002.00	-.126	-.313
1000.00	-.127	-.318
998.00	-.125	-.313
996.00	-.123	-.303
994.00	-.121	-.301
992.00	-.118	-.295
990.00	-.119	-.298
988.00	-.123	-.298
986.00	-.125	-.291
984.00	-.124	-.289
982.00	-.120	-.286
980.00	-.116	-.284
978.00	-.111	-.273
976.00	-.105	-.265
974.00	-.100	-.267
972.00	-.097	-.269
970.00	-.093	-.257
968.00	-.092	-.246
966.00	-.092	-.236
964.00	-.089	-.230
962.00	-.089	-.218
960.00	-.086	-.210
958.00	-.084	-.203
956.00	-.083	-.199
954.00	-.081	-.190
952.00	-.080	-.184
950.00	-.079	-.175
948.00	-.079	-.166
946.00	-.077	-.163

944.00	-.076	-.148
942.00	-.071	-.151
940.00	-.064	-.153
938.00	-.056	-.151
936.00	-.047	-.131
934.00	-.033	-.119
932.00	-.029	-.098
930.00	-.026	-.094
928.00	-.023	-.084
926.00	-.020	-.083
924.00	-.020	-.088
922.00	-.020	-.078
920.00	-.016	-.062
918.00	-.013	-.038
916.00	-.008	-.021
914.00	-.007	-.013
912.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.16
B-B DEFLECTION = -.22
TOP ELEVATION OF TUBE = 1044.00

1 PLOT OF 86-0616 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0616 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2

DATE JUNE 16, 1986. INITIAL READINGS TAKEN ON APRIL 1, 1986.

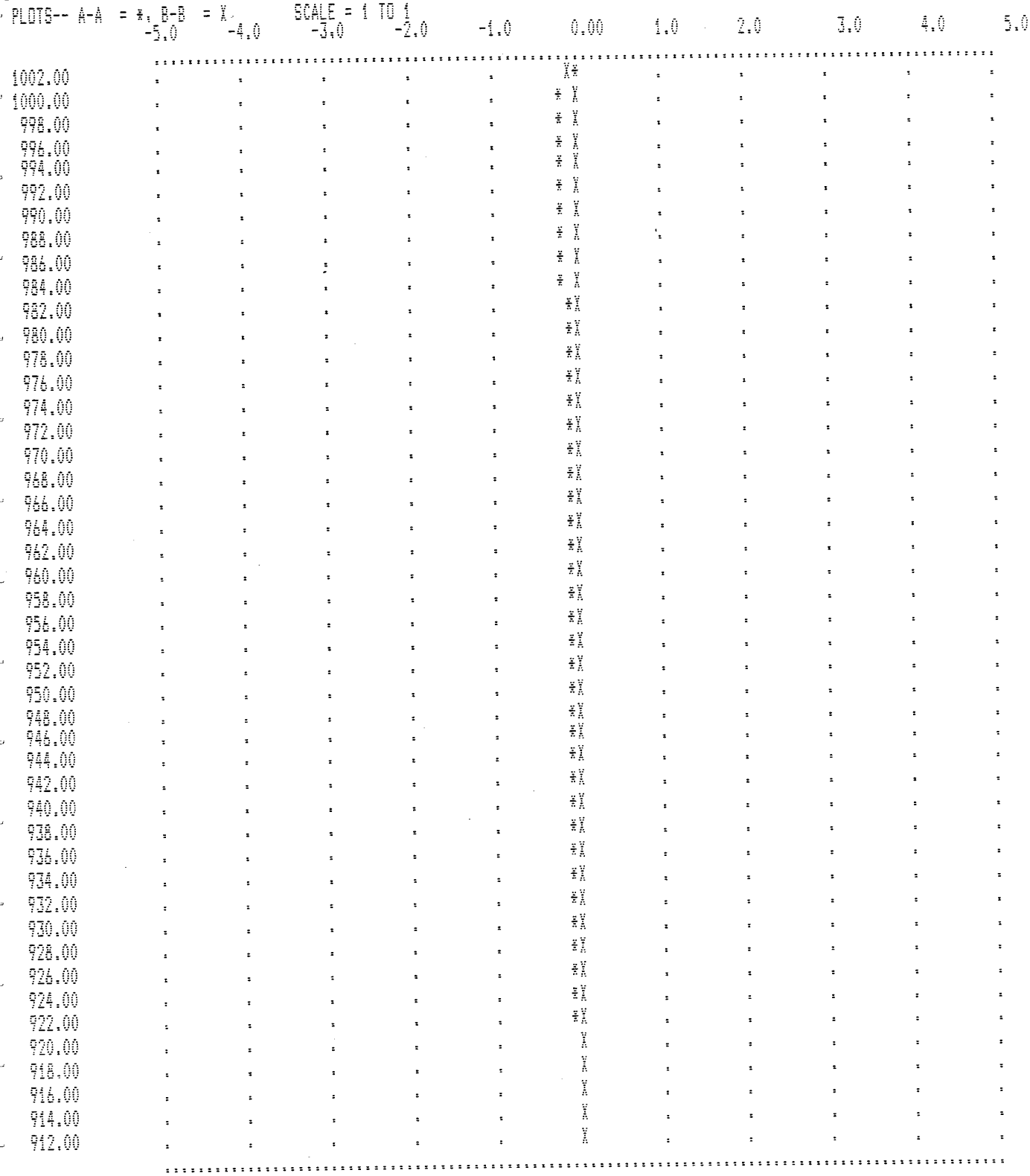
BOTTOM ELEV. 912.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2
A-A MEAN BIAS = 84 B-B MEAN BIAS = 32 LIMIT USED =10000

5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1002.00	-.040	-.058
1000.00	-.166	-.035
998.00	-.164	-.029
996.00	-.157	-.038
994.00	-.161	-.044
992.00	-.158	-.042
990.00	-.157	-.046
988.00	-.160	-.031
986.00	-.157	-.032
984.00	-.151	-.029
982.00	-.149	-.026
980.00	-.148	-.022
978.00	-.148	-.026
976.00	-.145	-.024
974.00	-.141	-.032
972.00	-.137	-.019
970.00	-.136	-.019
968.00	-.133	-.021
966.00	-.130	-.020
964.00	-.128	-.017
962.00	-.126	-.018
960.00	-.121	-.016
958.00	-.118	-.010
956.00	-.116	-.004
954.00	-.114	.011
952.00	-.107	.019
950.00	-.102	.017
948.00	-.100	.026
946.00	-.100	.034
944.00	-.097	.029
942.00	-.094	.028
940.00	-.091	.032
938.00	-.091	.032
936.00	-.090	.040
934.00	-.089	.034
932.00	-.085	.027
930.00	-.078	.011
928.00	-.071	.013
926.00	-.065	.010
924.00	-.060	.011
922.00	-.055	.011
920.00	-.046	.014
918.00	-.037	.012
916.00	-.023	.010
914.00	-.008	.001
912.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.04
B-B DEFLECTION = -.06
TOP ELEVATION OF TUBE = 1002.00
1 PLOT OF 86-0616 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



**** 86-0616 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-J

DATE JUNE 16, 1986. INITIAL READINGS TAKEN ON APRIL 1, 1986.

BOTTOM ELEV. 910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-J
A-A MEAN BIAS = 80 B-B MEAN BIAS = 30 LIMIT USED =10000

LIST OF DEFLECTIONS

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1044.00	.192	.100
1042.00	.177	.075
1040.00	.163	.095
1038.00	.156	.101
1036.00	.146	.097
1034.00	.141	.095
1032.00	.139	.101
1030.00	.142	.108
1028.00	.143	.101
1026.00	.145	.098
1024.00	.141	.104
1022.00	.139	.105
1020.00	.137	.100
1018.00	.137	.097
1016.00	.138	.108
1014.00	.141	.115
1012.00	.142	.117
1010.00	.137	.119
1008.00	.137	.124
1006.00	.138	.130
1004.00	.136	.133
1002.00	.132	.135
1000.00	.125	.127
998.00	.122	.124
996.00	.121	.114
994.00	.119	.109
992.00	.118	.112
990.00	.119	.112
988.00	.117	.107
986.00	.115	.102
984.00	.113	.104
982.00	.112	.103
980.00	.110	.104
978.00	.105	.101
976.00	.106	.094
974.00	.104	.098
972.00	.102	.097
970.00	.098	.088
968.00	.094	.079
966.00	.092	.076
964.00	.091	.072
962.00	.086	.060
960.00	.085	.057
958.00	.080	.064
956.00	.079	.057
954.00	.073	.050
952.00	.070	.050
950.00	.064	.042
948.00	.059	.047
946.00	.058	.037

944.00	.060	.028
942.00	.058	.033
940.00	.055	.034
938.00	.062	.016
936.00	.058	.021
934.00	.053	.007
932.00	.047	.004
930.00	.043	-.005
928.00	.035	.012
926.00	.032	.014
924.00	.031	.016
922.00	.025	.020
920.00	.026	.008
918.00	.025	.008
916.00	.015	.004
914.00	.011	.010
912.00	.008	.014
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .19
B-B DEFLECTION = .10
TOP ELEVATION OF TUBE = 1044.00

PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1

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              -5.0     -4.0     -3.0     -2.0     -1.0      0.00     1.0      2.0      3.0      4.0      5.0
              ..........................................................................................
1044.00       .        .        .        .        .        .X*      .        .        .        .        .
1040.00       .        .        .        .        .        .X*      .        .        .        .        .
1036.00       .        .        .        .        .        .X       .        .        .        .        .
1032.00       .        .        .        .        .        .X       .        .        .        .        .
1028.00       .        .        .        .        .        .X       .        .        .        .        .
1024.00       .        .        .        .        .        .X       .        .        .        .        .
1020.00       .        .        .        .        .        .X       .        .        .        .        .
1016.00       .        .        .        .        .        .X       .        .        .        .        .
1012.00       .        .        .        .        .        .X       .        .        .        .        .
1008.00       .        .        .        .        .        .X       .        .        .        .        .
1004.00       .        .        .        .        .        .X       .        .        .        .        .
1000.00       .        .        .        .        .        .X       .        .        .        .        .
 996.00       .        .        .        .        .        .X       .        .        .        .        .
 992.00       .        .        .        .        .        .X       .        .        .        .        .
 988.00       .        .        .        .        .        .X       .        .        .        .        .
 984.00       .        .        .        .        .        .X       .        .        .        .        .
 980.00       .        .        .        .        .        .X       .        .        .        .        .
 976.00       .        .        .        .        .        .X       .        .        .        .        .
 972.00       .        .        .        .        .        .X       .        .        .        .        .
 968.00       .        .        .        .        .        .X       .        .        .        .        .
 964.00       .        .        .        .        .        .X       .        .        .        .        .
 960.00       .        .        .        .        .        .X       .        .        .        .        .
 956.00       .        .        .        .        .        X*       .        .        .        .        .
 952.00       .        .        .        .        .        X*       .        .        .        .        .
 948.00       .        .        .        .        .        X*       .        .        .        .        .
 944.00       .        .        .        .        .        X*       .        .        .        .        .
 940.00       .        .        .        .        .        X*       .        .        .        .        .
 936.00       .        .        .        .        .        X*       .        .        .        .        .
 932.00       .        .        .        .        .        X        .        .        .        .        .
 928.00       .        .        .        .        .        X        .        .        .        .        .
 924.00       .        .        .        .        .        X        .        .        .        .        .
 920.00       .        .        .        .        .        X        .        .        .        .        .
 916.00       .        .        .        .        .        X        .        .        .        .        .
 912.00       .        .        .        .        .        X        .        .        .        .        .
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**** 86-0616 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4

DATE JUNE 16, 1986. INITIAL READINGS TAKEN ON APRIL 1, 1986.

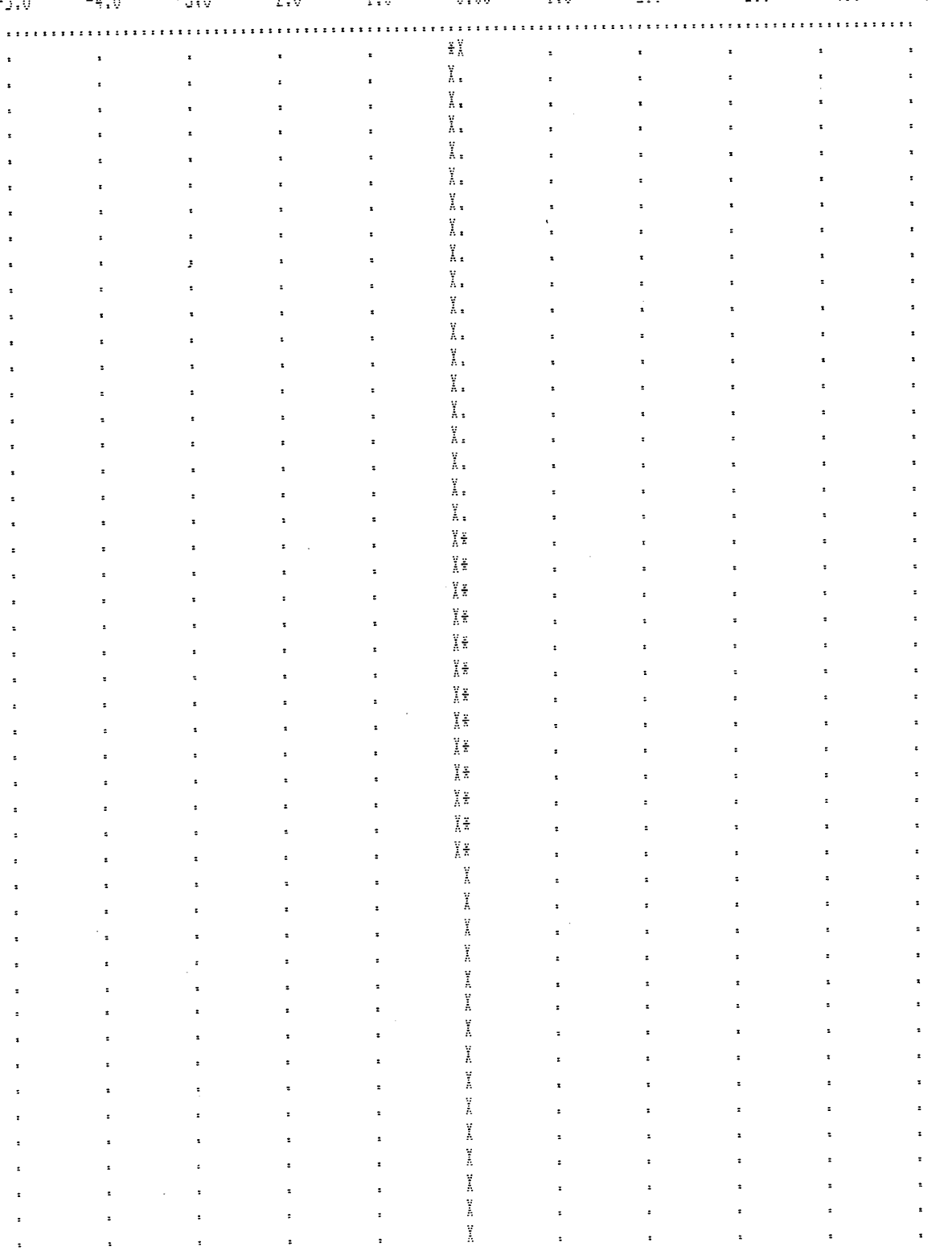
BOTTOM ELEV. 910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
A-A MEAN BIAS = 82 B-B MEAN BIAS = 35 LIMIT USED =10000

LIST OF DEFLECTIONS

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1002.00	-.081	-.005
1000.00	-.082	-.106
998.00	-.091	-.098
996.00	-.094	-.085
994.00	-.098	-.081
992.00	-.094	-.080
990.00	-.087	-.082
988.00	-.080	-.088
986.00	-.086	-.089
984.00	-.082	-.087
982.00	-.079	-.082
980.00	-.079	-.088
978.00	-.073	-.087
976.00	-.064	-.088
974.00	-.061	-.080
972.00	-.058	-.087
970.00	-.055	-.092
968.00	-.052	-.089
966.00	-.051	-.095
964.00	-.048	-.091
962.00	-.046	-.086
960.00	-.041	-.085
958.00	-.035	-.079
956.00	-.032	-.068
954.00	-.028	-.069
952.00	-.024	-.063
950.00	-.019	-.073
948.00	-.018	-.068
946.00	-.017	-.070
944.00	-.014	-.069
942.00	-.013	-.062
940.00	-.010	-.052
938.00	-.007	-.049
936.00	-.003	-.047
934.00	.000	-.046
932.00	.002	-.038
930.00	-.005	-.028
928.00	-.015	-.021
926.00	-.014	-.015
924.00	-.014	-.007
922.00	-.016	.007
920.00	-.016	.023
918.00	-.017	.019
916.00	-.014	.013
914.00	-.009	.008
912.00	-.004	.000
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.08
B-B DEFLECTION = .00
TOP ELEVATION OF TUBE = 1002.00
1 PLOT OF 86-0616 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



***** 86-0816 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5

DATE JUNE 16, 1986. INITIAL READINGS TAKEN ON APRIL 1, 1986.

BOTTOM ELEV. 910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

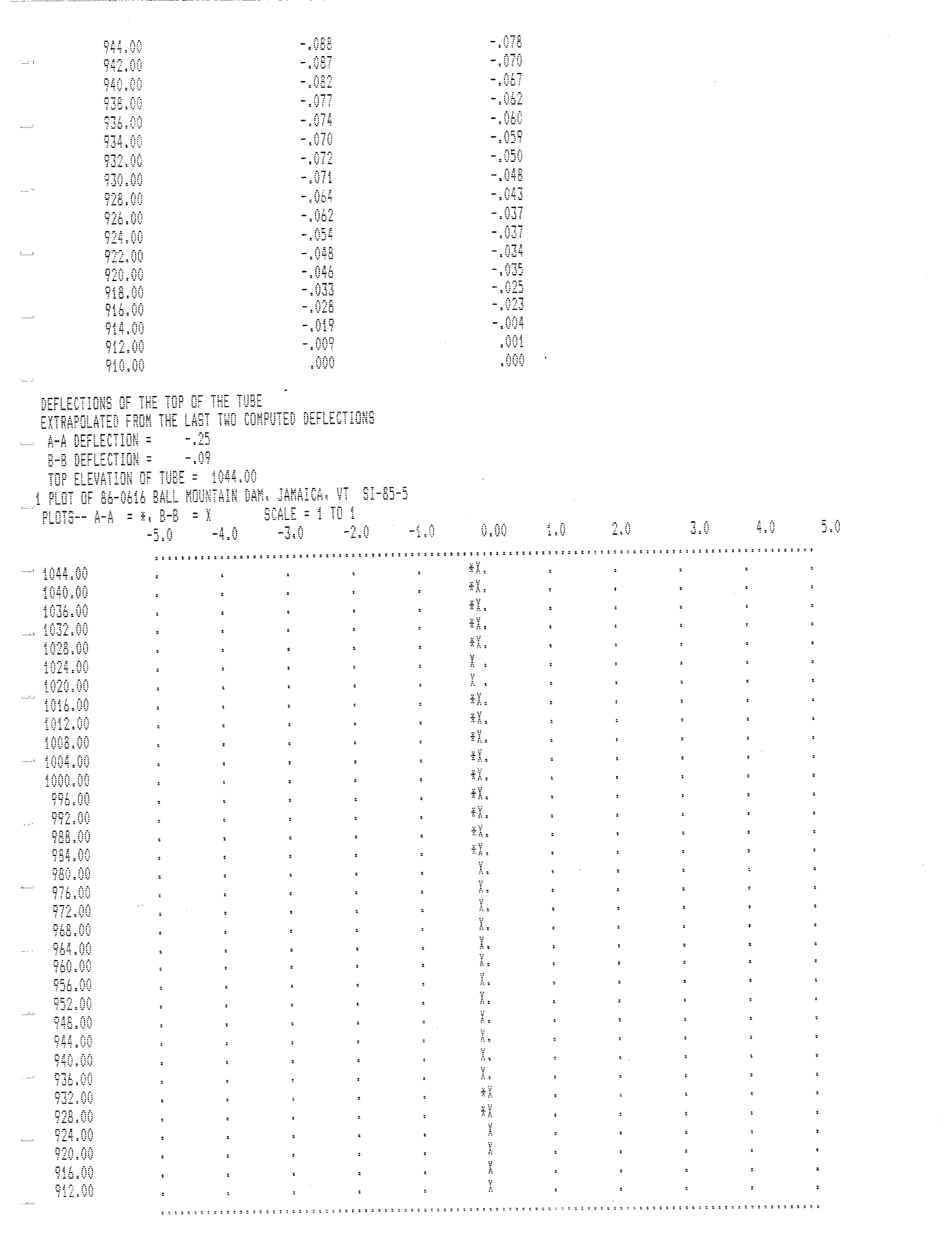
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
A-A MEAN BIAS = 86 B-B MEAN BIAS = 30 LIMIT USED =10000

LIST OF DEFLECTIONS

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1044.00	-.247	-.094
1042.00	-.166	-.116
1040.00	-.164	-.107
1038.00	-.171	-.107
1036.00	-.171	-.125
1034.00	-.173	-.139
1032.00	-.173	-.144
1030.00	-.173	-.140
1028.00	-.173	-.140
1026.00	-.176	-.139
1024.00	-.175	-.144
1022.00	-.171	-.151
1020.00	-.170	-.146
1018.00	-.173	-.151
1016.00	-.173	-.152
1014.00	-.172	-.142
1012.00	-.172	-.138
1010.00	-.172	-.137
1008.00	-.169	-.136
1006.00	-.166	-.136
1004.00	-.163	-.132
1002.00	-.163	-.134
1000.00	-.161	-.126
998.00	-.160	-.122
996.00	-.161	-.121
994.00	-.160	-.124
992.00	-.157	-.123
990.00	-.156	-.118
988.00	-.155	-.121
986.00	-.154	-.119
984.00	-.153	-.129
982.00	-.151	-.128
980.00	-.151	-.121
978.00	-.147	-.118
976.00	-.145	-.107
974.00	-.141	-.118
972.00	-.136	-.122
970.00	-.133	-.134
968.00	-.128	-.129
966.00	-.123	-.128
964.00	-.119	-.134
962.00	-.115	-.133
960.00	-.111	-.122
958.00	-.107	-.118
956.00	-.101	-.103
954.00	-.098	-.099
952.00	-.097	-.103
950.00	-.092	-.104
948.00	-.088	-.094
946.00	-.088	-.083

944.00	-.088	-.078
942.00	-.087	-.070
940.00	-.082	-.067
938.00	-.077	-.062
936.00	-.074	-.060
934.00	-.070	-.059
932.00	-.072	-.050
930.00	-.071	-.048
928.00	-.064	-.043
926.00	-.062	-.037
924.00	-.054	-.037
922.00	-.048	-.034
920.00	-.046	-.035
918.00	-.033	-.025
916.00	-.028	-.023
914.00	-.019	-.004
912.00	-.009	.001
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.25
B-B DEFLECTION = -.09
TOP ELEVATION OF TUBE = 1044.00
1 PLOT OF 86-0616 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



**** 86-0616 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6

DATE JUNE 16, 1986

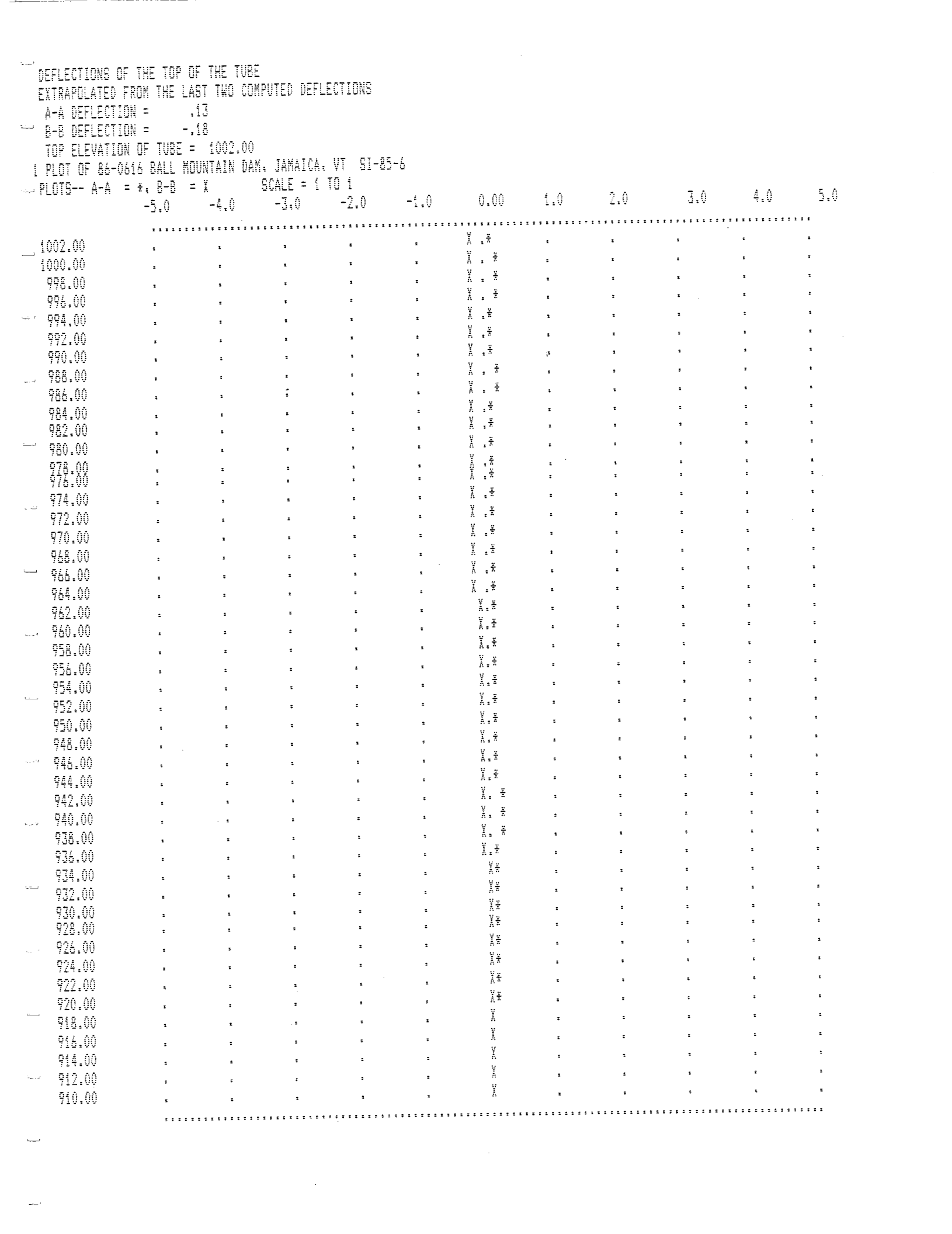
BOTTOM ELEV. 910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
A-A MEAN BIAS = 84 B-B MEAN BIAS = 24 LIMIT USED =10000

LIST OF DEFLECTIONS

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1002.00	.135	-.178
1000.00	.151	-.244
998.00	.157	-.223
996.00	.152	-.232
994.00	.150	-.232
992.00	.148	-.228
990.00	.148	-.213
988.00	.151	-.209
986.00	.152	-.197
984.00	.146	-.208
982.00	.148	-.209
980.00	.148	-.207
978.00	.146	-.206
976.00	.143	-.206
974.00	.140	-.209
972.00	.139	-.193
970.00	.138	-.194
968.00	.135	-.182
966.00	.134	-.171
964.00	.134	-.161
962.00	.131	-.148
960.00	.130	-.134
958.00	.131	-.119
956.00	.131	-.110
954.00	.128	-.104
952.00	.128	-.105
950.00	.125	-.100
948.00	.124	-.091
946.00	.127	-.085
944.00	.139	-.088
942.00	.154	-.096
940.00	.161	-.089
938.00	.153	-.070
936.00	.136	-.050
934.00	.119	-.037
932.00	.104	-.028
930.00	.086	-.025
928.00	.084	-.022
926.00	.076	-.023
924.00	.070	-.021
922.00	.065	-.010
920.00	.055	-.013
918.00	.041	-.001
916.00	.034	-.001
914.00	.028	-.011
912.00	.014	-.003
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .13
B-B DEFLECTION = -.18
TOP ELEVATION OF TUBE = 1002.00
PLOT OF 86-0616 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1

DATE JULY 16, 1986. INITIAL READINGS TAKEN ON JANUARY 23, 1986.

BOTTOM ELEV. 912.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0123 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1 INITIAL READINGS
A-A MEAN BIAS = 93 B-B MEAN BIAS = 25 LIMIT USED =10000

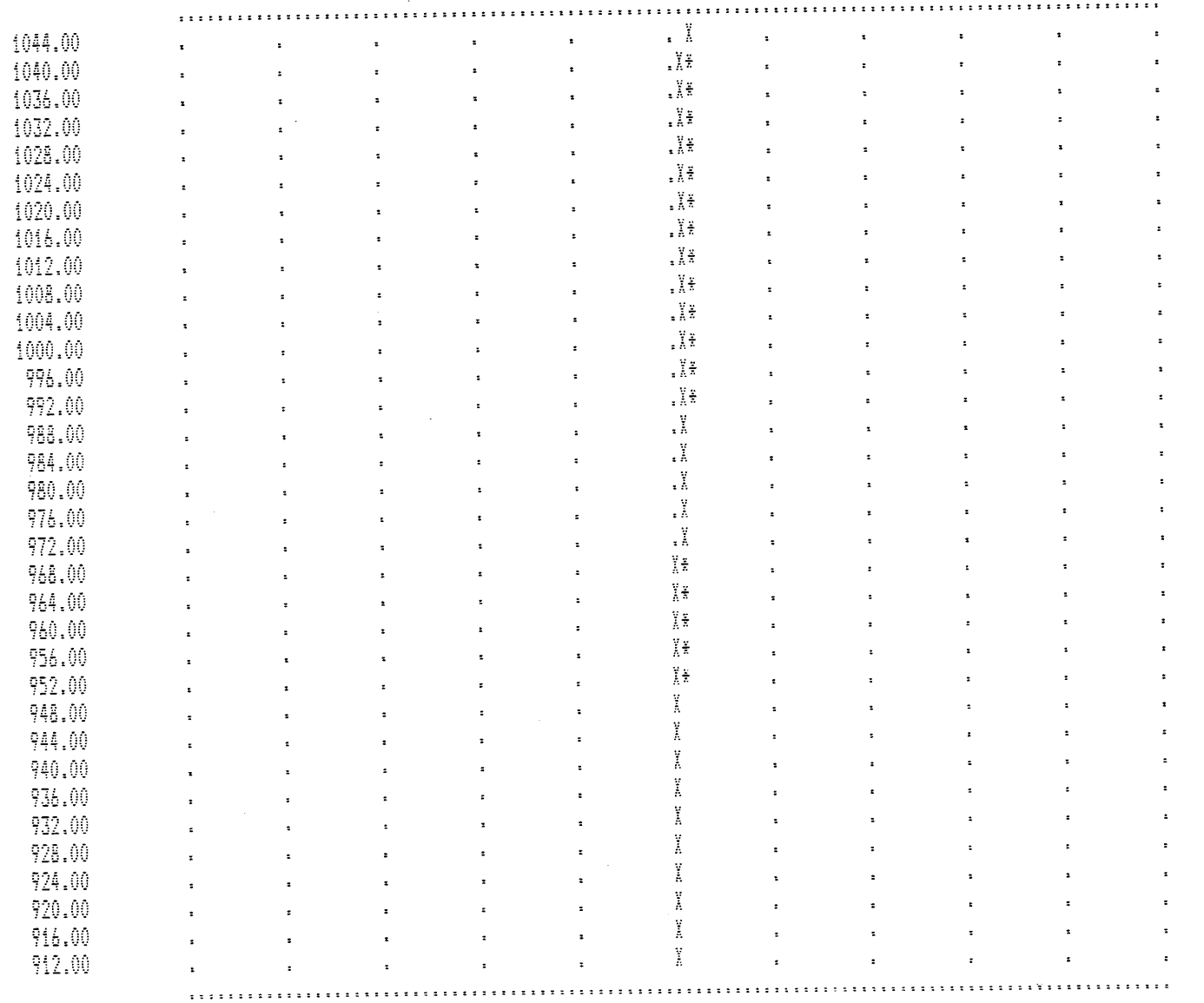
LIST OF DEFLECTIONS

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1044.00	.248	.194
1042.00	.258	.149
1040.00	.248	.124
1038.00	.235	.108
1036.00	.225	.102
1034.00	.220	.109
1032.00	.219	.103
1030.00	.210	.102
1028.00	.209	.099
1026.00	.209	.089
1024.00	.206	.085
1022.00	.206	.087
1020.00	.207	.082
1018.00	.210	.085
1016.00	.209	.075
1014.00	.185	.089
1012.00	.188	.088
1010.00	.185	.084
1008.00	.185	.083
1006.00	.182	.079
1004.00	.183	.077
1002.00	.184	.077
1000.00	.182	.077
998.00	.181	.068
996.00	.179	.065
994.00	.177	.059
992.00	.176	.056
990.00	.150	.052
988.00	.107	.058
986.00	.080	.053
984.00	.076	.055
982.00	.077	.068
980.00	.075	.065
978.00	.073	.071
976.00	.072	.063
974.00	.070	.067
972.00	.068	.056
970.00	.064	.046
968.00	.063	.038
966.00	.061	.025
964.00	.058	.020
962.00	.056	.011
960.00	.054	.007
958.00	.055	.002
956.00	.053	-.004
954.00	.051	-.007
952.00	.054	-.015
950.00	.052	-.023
948.00	.044	-.025
946.00	.044	-.014

944.00	.045	-.013
942.00	.044	.002
940.00	.037	.014
938.00	.031	.025
936.00	.024	.015
934.00	.020	-.002
932.00	.014	-.003
930.00	.019	-.022
928.00	.019	-.010
926.00	.012	-.004
924.00	.010	-.010
922.00	.018	-.005
920.00	.016	-.007
918.00	.019	-.007
916.00	.019	-.002
914.00	.020	-.001
912.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .25
B-B DEFLECTION = .19
TOP ELEVATION OF TUBE = 1044.00

1 PLOT OF 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0716 BALL MOUNTAIN DAM, JAMAICA VT. SI-85-2

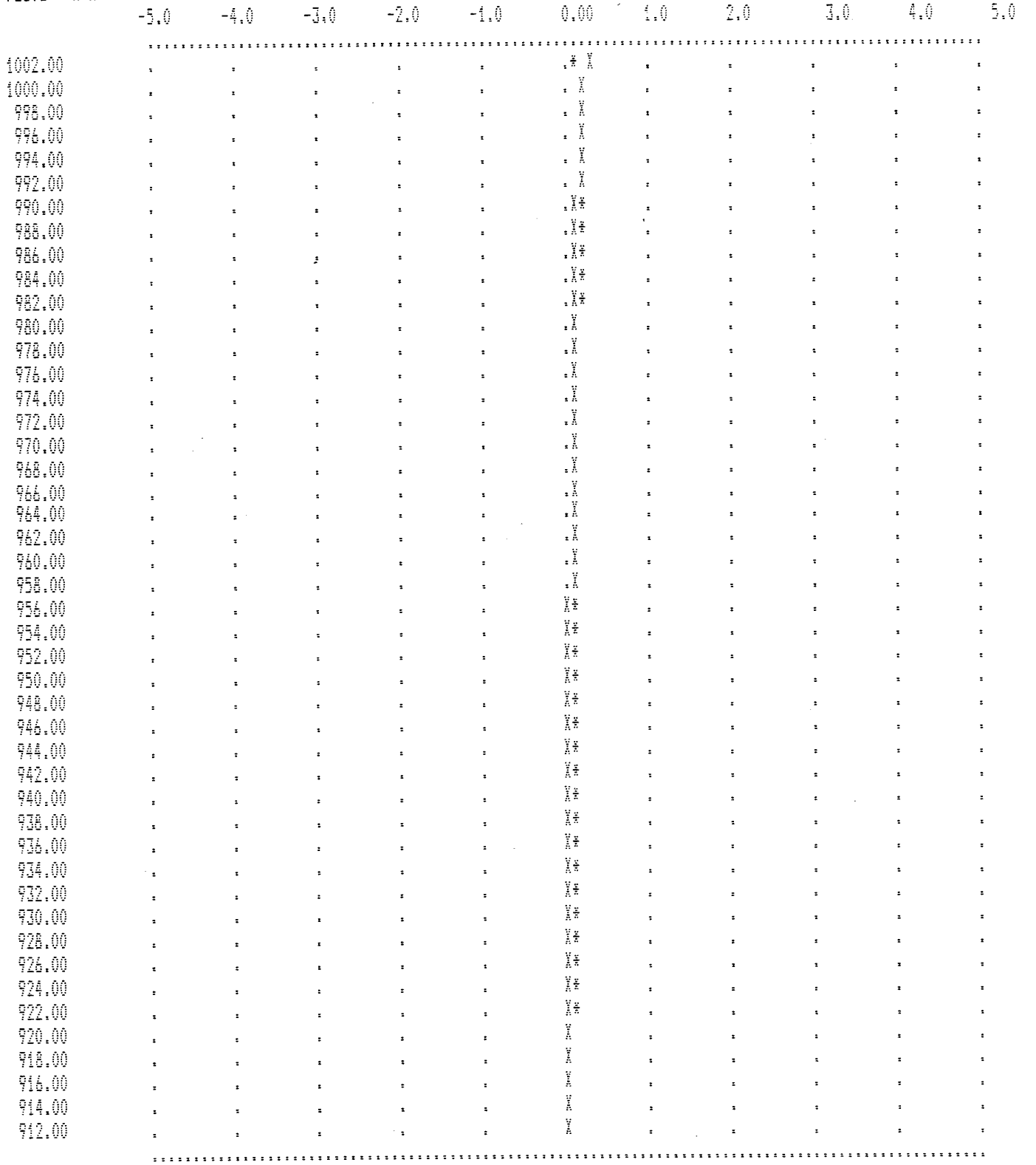
DATE JULY 16, 1986. INITIAL READINGS TAKEN ON JANUARY 23, 1986.

BOTTOM ELEV. 912.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA VT. SI-85-2
A-A MEAN BIAS = 70 B-B MEAN BIAS = 25 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1002.00	.137	.266
1000.00	.152	.199
998.00	.170	.172
996.00	.180	.166
994.00	.169	.156
992.00	.167	.157
990.00	.166	.142
988.00	.154	.143
986.00	.155	.127
984.00	.156	.119
982.00	.151	.122
980.00	.143	.113
978.00	.134	.090
976.00	.132	.080
974.00	.128	.089
972.00	.128	.080
970.00	.130	.065
968.00	.131	.055
966.00	.130	.052
964.00	.129	.053
962.00	.127	.059
960.00	.127	.061
958.00	.131	.059
956.00	.129	.044
954.00	.126	.044
952.00	.134	.041
950.00	.133	.043
948.00	.130	.040
946.00	.118	.036
944.00	.118	.031
942.00	.112	.016
940.00	.112	.004
938.00	.102	-.015
936.00	.096	-.028
934.00	.087	-.035
932.00	.085	-.037
930.00	.085	-.029
928.00	.080	-.018
926.00	.071	-.012
924.00	.061	.001
922.00	.052	.004
920.00	.046	.011
918.00	.038	.021
916.00	.026	.021
914.00	.022	.006
912.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .14
B-B DEFLECTION = .27
TOP ELEVATION OF TUBE = 1002.00
1 PLOT OF 86-0716 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3

DATE JULY 16, 1986. INITIAL READINGS TAKEN ON JANUARY 23, 1986.

BOTTOM ELEV. 910.0
AA CALIBRATION .0000500

INITIAL READINGS :AREA A:--88-0125 BALL MOUNTAIN DAM, JAMAICA, VT SI-65-3 INITIAL READINGS

A-A MEAN BIAS = 94 B-B MEAN BIAS = 32 LIMIT USED =10000

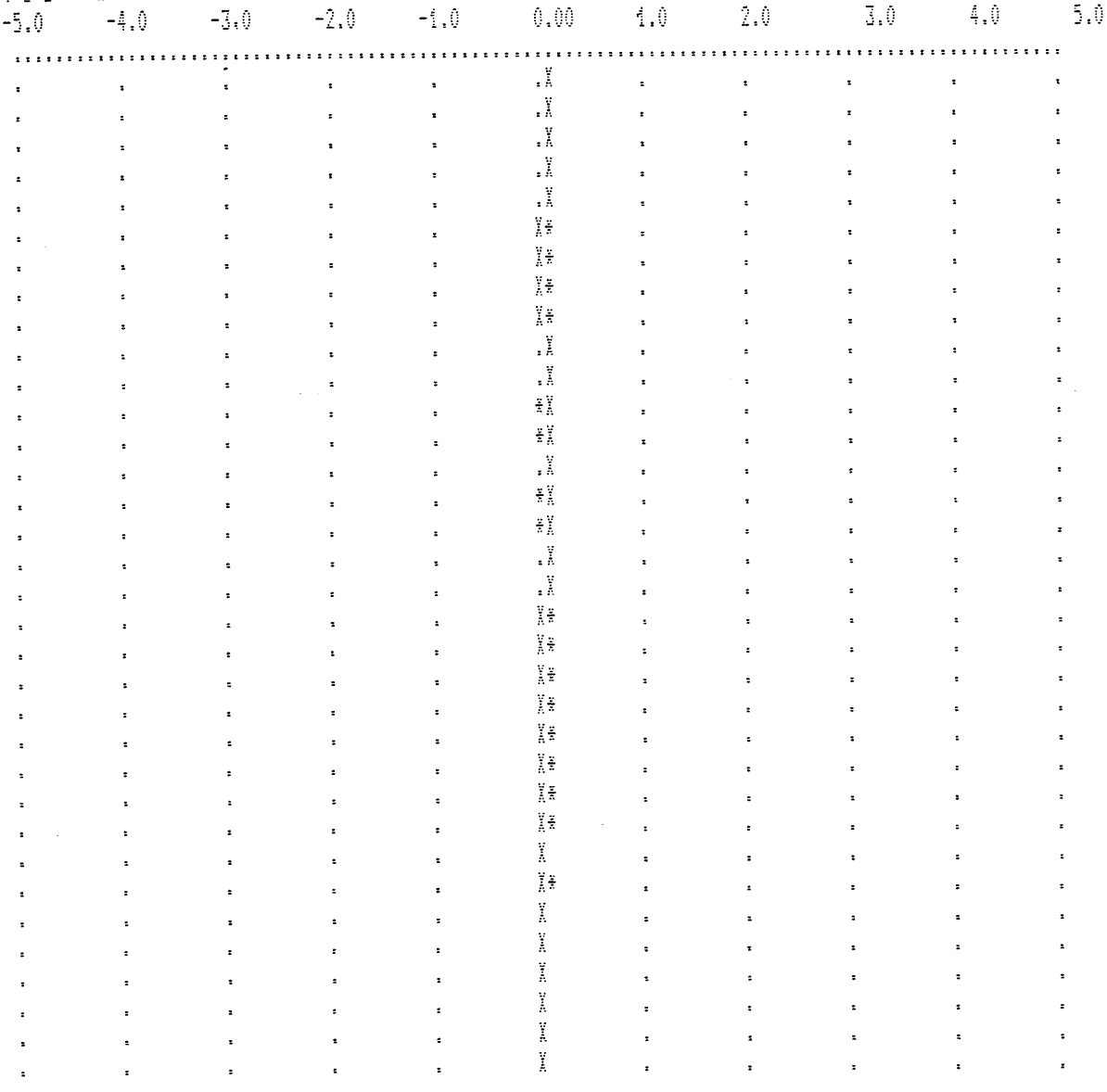
LIST OF DEFLECTIONS

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1044.00	.073	.172
1042.00	.122	.129
1040.00	.101	.137
1038.00	.086	.137
1036.00	.076	.124
1034.00	.070	.084
1032.00	.074	.076
1030.00	.081	.066
1028.00	.084	.059
1026.00	.085	.054
1024.00	.083	.045
1022.00	.080	.038
1020.00	.086	.035
1018.00	.095	.030
1016.00	.098	.041
1014.00	.109	.033
1012.00	.118	.038
1010.00	.109	.026
1008.00	.113	.034
1006.00	.110	.056
1004.00	.098	.064
1002.00	.072	.057
1000.00	.049	.050
998.00	.026	.053
996.00	.013	.067
994.00	.011	.056
992.00	.008	.049
990.00	.052	.052
988.00	.053	.070
986.00	.050	.077
984.00	.049	.070
982.00	.050	.059
980.00	.053	.053
978.00	.058	.057
976.00	.053	.058
974.00	.064	.056
972.00	.074	.052
970.00	.079	.046
968.00	.075	.040
966.00	.076	.041
964.00	.077	.031
962.00	.077	.016
960.00	.071	.017
958.00	.065	.017
956.00	.065	.015
954.00	.065	.017
952.00	.062	.010
950.00	.060	.014
948.00	.063	.017
946.00	.073	.005
944.00	.070	.005
942.00	.064	.008
940.00	.061	.005
938.00	.044	-.007
936.00	.049	-.002
934.00	.050	.000

928.00	.041	-.018
926.00	.038	-.011
924.00	.035	-.008
922.00	.035	-.010
920.00	.042	-.032
918.00	.023	-.012
916.00	.014	-.004
914.00	.012	-.001
912.00	.003	-.004
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .07
B-B DEFLECTION = .17
TOP ELEVATION OF TUBE = 1044.00

1 PLOT OF 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4

DATE JULY 16, 1986. INITIAL READINGS TAKEN ON JANUARY 23, 1986.

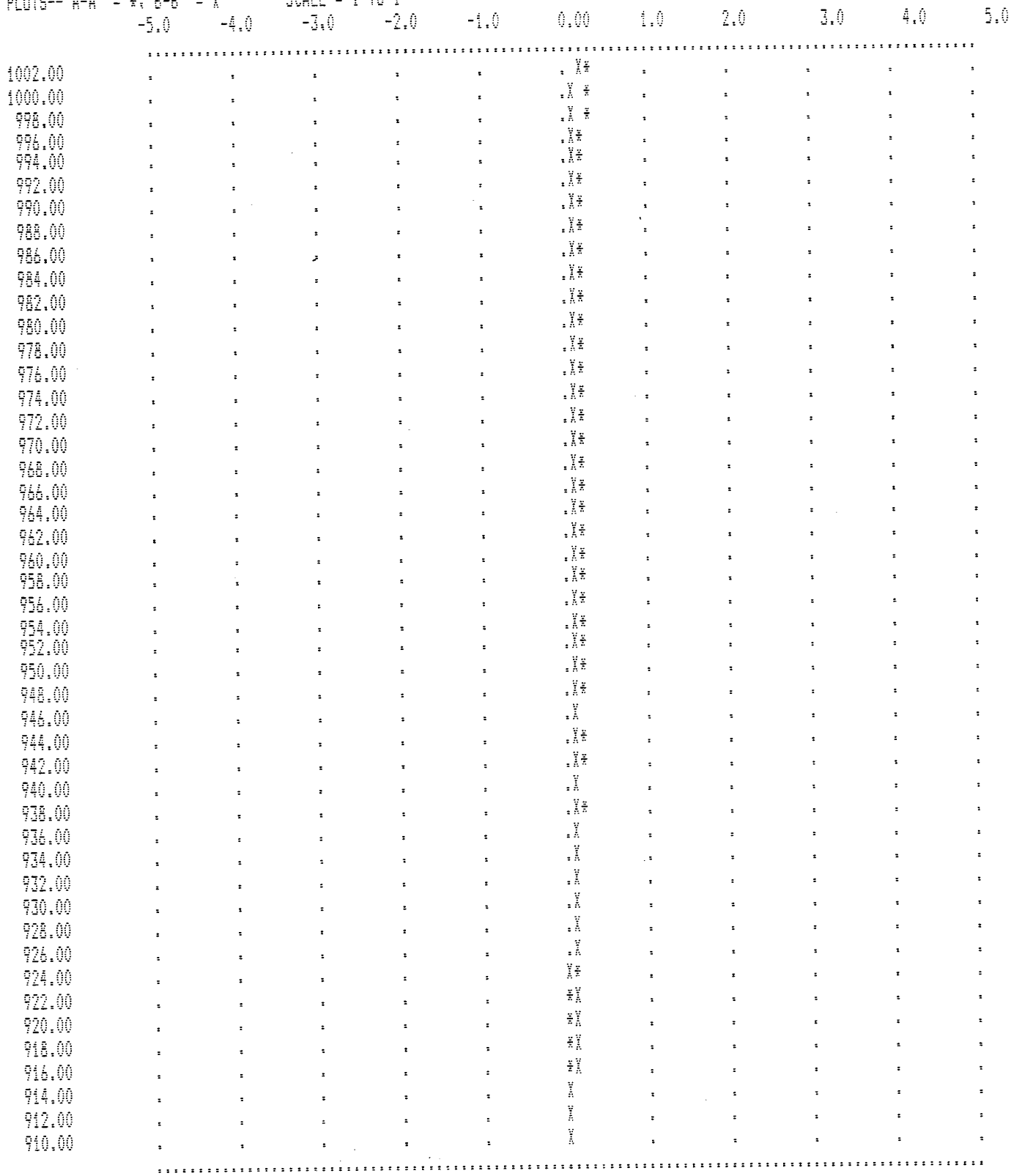
BOTTOM ELEV. 910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0123 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4 INITIAL READINGS
A-A MEAN BIAS = 87 B-B MEAN BIAS = 36 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1002.00	.316	.185
1000.00	.284	.118
998.00	.260	.119
996.00	.242	.137
994.00	.231	.134
992.00	.226	.128
990.00	.227	.124
988.00	.231	.112
986.00	.235	.114
984.00	.220	.110
982.00	.210	.101
980.00	.206	.096
978.00	.206	.097
976.00	.208	.101
974.00	.203	.100
972.00	.202	.101
970.00	.204	.108
968.00	.198	.107
966.00	.191	.112
964.00	.187	.112
962.00	.180	.112
960.00	.178	.109
958.00	.180	.122
956.00	.175	.122
954.00	.172	.122
952.00	.163	.116
950.00	.167	.122
948.00	.152	.122
946.00	.148	.127
944.00	.154	.130
942.00	.155	.120
940.00	.146	.110
938.00	.151	.106
936.00	.142	.097
934.00	.127	.080
932.00	.118	.071
930.00	.107	.064
928.00	.093	.060
926.00	.077	.056
924.00	.059	.050
922.00	.044	.055
920.00	.035	.057
918.00	.017	.067
916.00	.016	.055
914.00	.019	.043
912.00	.017	.018
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .32
B-B DEFLECTION = .19
TOP ELEVATION OF TUBE = 1002.00

1 PLOT OF BA-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5

DATE JULY 16, 1986. INITIAL READINGS TAKEN ON JANUARY 23, 1986.

BOTTOM ELEV. 910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0123 BALL MOUNTAIN DAM, JAMAICA, VT SI-5-85 INITIAL READINGS
A-A MEAN BIAS = 114 B-B MEAN BIAS = 22 LIMIT USED =10000

5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1044.00	-.088	.087
1042.00	-.101	.026
1040.00	-.072	.056
1038.00	-.073	.068
1036.00	-.081	.059
1034.00	-.080	.053
1032.00	-.074	.047
1030.00	-.068	.028
1028.00	-.068	.028
1026.00	-.070	.033
1024.00	-.067	.017
1022.00	-.056	.008
1020.00	-.052	.017
1018.00	-.053	.008
1016.00	-.048	.010
1014.00	-.035	.005
1012.00	-.031	.000
1010.00	-.037	-.017
1008.00	-.042	-.019
1006.00	-.047	-.035
1004.00	-.047	-.030
1002.00	-.053	-.022
1000.00	-.061	-.017
998.00	-.080	-.017
996.00	-.097	-.024
994.00	-.102	-.020
992.00	-.103	-.027
990.00	-.095	-.028
988.00	-.098	-.023
986.00	-.099	-.016
984.00	-.094	-.023
982.00	-.094	-.023
980.00	-.095	-.020
978.00	-.088	-.025
976.00	-.088	-.020
974.00	-.096	-.021
972.00	-.095	-.023
970.00	-.094	-.036
968.00	-.097	-.028
966.00	-.098	-.043
964.00	-.098	-.050
962.00	-.102	-.041
960.00	-.106	-.044
958.00	-.092	-.049
956.00	-.090	-.061
954.00	-.094	-.066
952.00	-.103	-.086
950.00	-.095	-.091
948.00	-.088	-.094
946.00	-.082	-.092

944.00	-.081	-.094
942.00	-.067	-.086
940.00	-.059	-.073
938.00	-.053	-.059
936.00	-.061	-.038
934.00	-.066	-.029
932.00	-.078	-.021
930.00	-.087	-.033
928.00	-.080	-.032
926.00	-.076	-.039
924.00	-.065	-.046
922.00	-.058	-.037
920.00	-.071	-.045
918.00	-.056	-.036
916.00	-.040	-.041
914.00	-.020	-.026
912.00	-.002	.001
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.09
B-B DEFLECTION = .09
TOP ELEVATION OF TUBE = 1044.00

1 PLOT OF 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1

```
              -5.0     -4.0     -3.0     -2.0     -1.0      0.00     1.0      2.0      3.0      4.0      5.0
              ..........................................................................................
1044.00       .        .        .        .        .        *X       .        .        .        .        .
1040.00       .        .        .        .        .        *.X      .        .        .        .        .
1036.00       .        .        .        .        .        *.X      .        .        .        .        .
1032.00       .        .        .        .        .        *X       .        .        .        .        .
1028.00       .        .        .        .        .        *X       .        .        .        .        .
1024.00       .        .        .        .        .        *X       .        .        .        .        .
1020.00       .        .        .        .        .        *X       .        .        .        .        .
1016.00       .        .        .        .        .         X       .        .        .        .        .
1012.00       .        .        .        .        .         X       .        .        .        .        .
1008.00       .        .        .        .        .         X       .        .        .        .        .
1004.00       .        .        .        .        .        *X       .        .        .        .        .
1000.00       .        .        .        .        .        *X       .        .        .        .        .
 996.00       .        .        .        .        .        *X       .        .        .        .        .
 992.00       .        .        .        .        .        *X       .        .        .        .        .
 988.00       .        .        .        .        .        *X       .        .        .        .        .
 984.00       .        .        .        .        .        *X       .        .        .        .        .
 980.00       .        .        .        .        .        *X       .        .        .        .        .
 976.00       .        .        .        .        .        *X       .        .        .        .        .
 972.00       .        .        .        .        .        *X       .        .        .        .        .
 968.00       .        .        .        .        .        *X       .        .        .        .        .
 964.00       .        .        .        .        .        *X       .        .        .        .        .
 960.00       .        .        .        .        .        *X       .        .        .        .        .
 956.00       .        .        .        .        .        X.       .        .        .        .        .
 952.00       .        .        .        .        .        X.       .        .        .        .        .
 948.00       .        .        .        .        .        X.       .        .        .        .        .
 944.00       .        .        .        .        .        X.       .        .        .        .        .
 940.00       .        .        .        .        .        X.       .        .        .        .        .
 936.00       .        .        .        .        .        *X       .        .        .        .        .
 932.00       .        .        .        .        .        *X       .        .        .        .        .
 928.00       .        .        .        .        .        *X       .        .        .        .        .
 924.00       .        .        .        .        .        *X       .        .        .        .        .
 920.00       .        .        .        .        .        *X       .        .        .        .        .
 916.00       .        .        .        .        .         X       .        .        .        .        .
 912.00
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**** 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6

DATE JULY 16, 1986. INITIAL READINGS TAKEN ON JANUARY 23, 1986.

BOTTOM ELEV. 910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

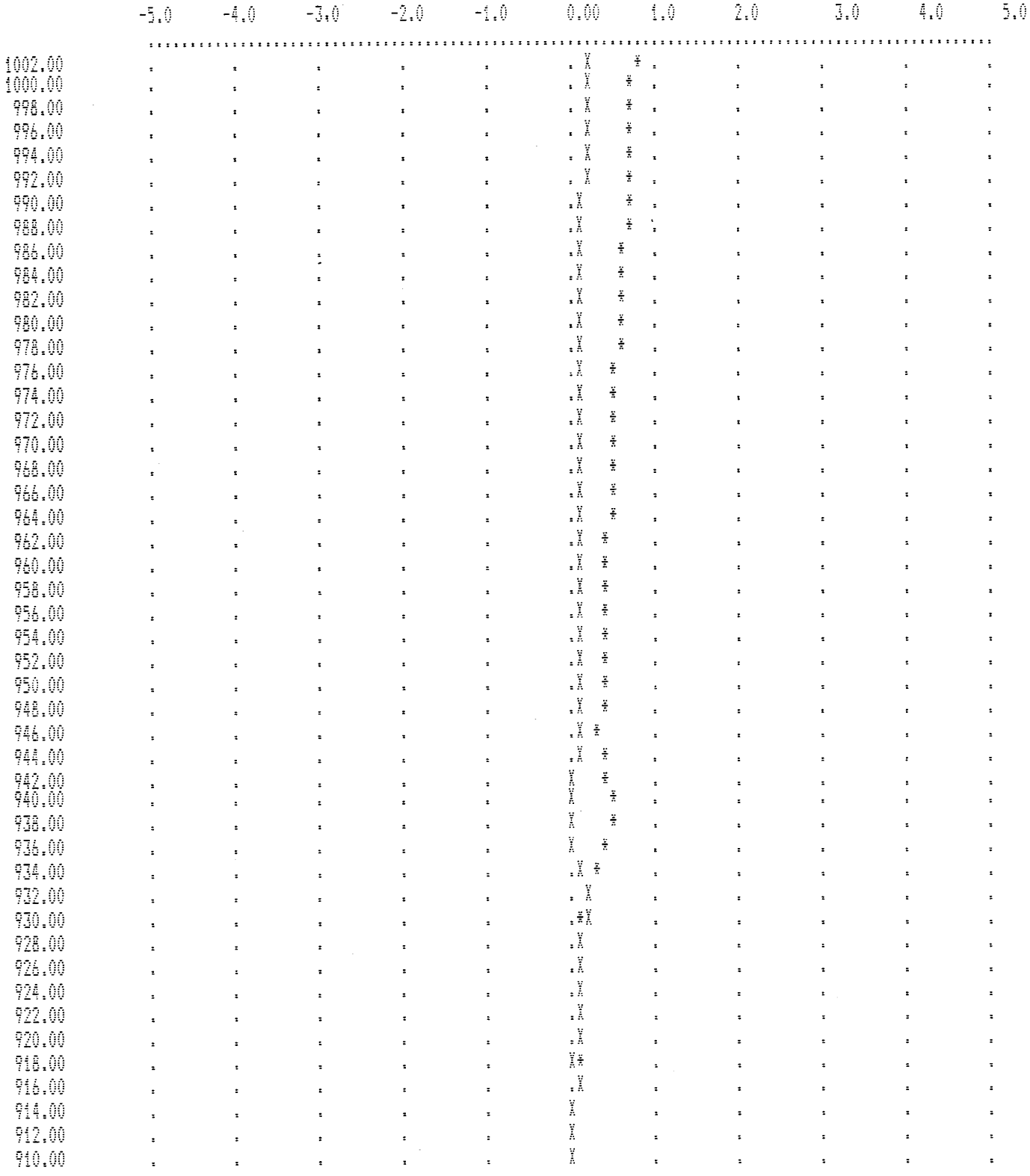
INITIAL READINGS TAKEN AT--86-0123 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6 INITIAL READINGS
A-A MEAN BIAS = 109 B-B MEAN BIAS = 28 LIMIT USED =10000

LIST OF DEFLECTIONS

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1002.00	.779	.238
1000.00	.749	.227
998.00	.737	.237
996.00	.724	.178
994.00	.709	.160
992.00	.689	.157
990.00	.677	.148
988.00	.662	.135
986.00	.644	.128
984.00	.622	.125
982.00	.581	.119
980.00	.566	.118
978.00	.550	.113
976.00	.538	.107
974.00	.525	.109
972.00	.506	.095
970.00	.485	.109
968.00	.469	.095
966.00	.461	.090
964.00	.454	.086
962.00	.442	.077
960.00	.431	.079
958.00	.417	.105
956.00	.410	.113
954.00	.401	.115
952.00	.390	.110
950.00	.373	.102
948.00	.351	.095
946.00	.332	.097
944.00	.351	.076
942.00	.409	.008
940.00	.459	-.035
938.00	.466	-.021
936.00	.415	.040
934.00	.323	.117
932.00	.195	.172
930.00	.119	.167
928.00	.105	.133
926.00	.108	.094
924.00	.130	.094
922.00	.148	.088
920.00	.122	.057
918.00	.091	.047
916.00	.073	.053
914.00	.040	.019
912.00	-.003	-.003
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .78
B-B DEFLECTION = .24
TOP ELEVATION OF TUBE = 1002.00

1 PLOT OF 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1

DATE JULY 16, 1986. INITIAL READINGS TAKEN ON APRIL 1, 1986.

BOTTOM ELEV. 912.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

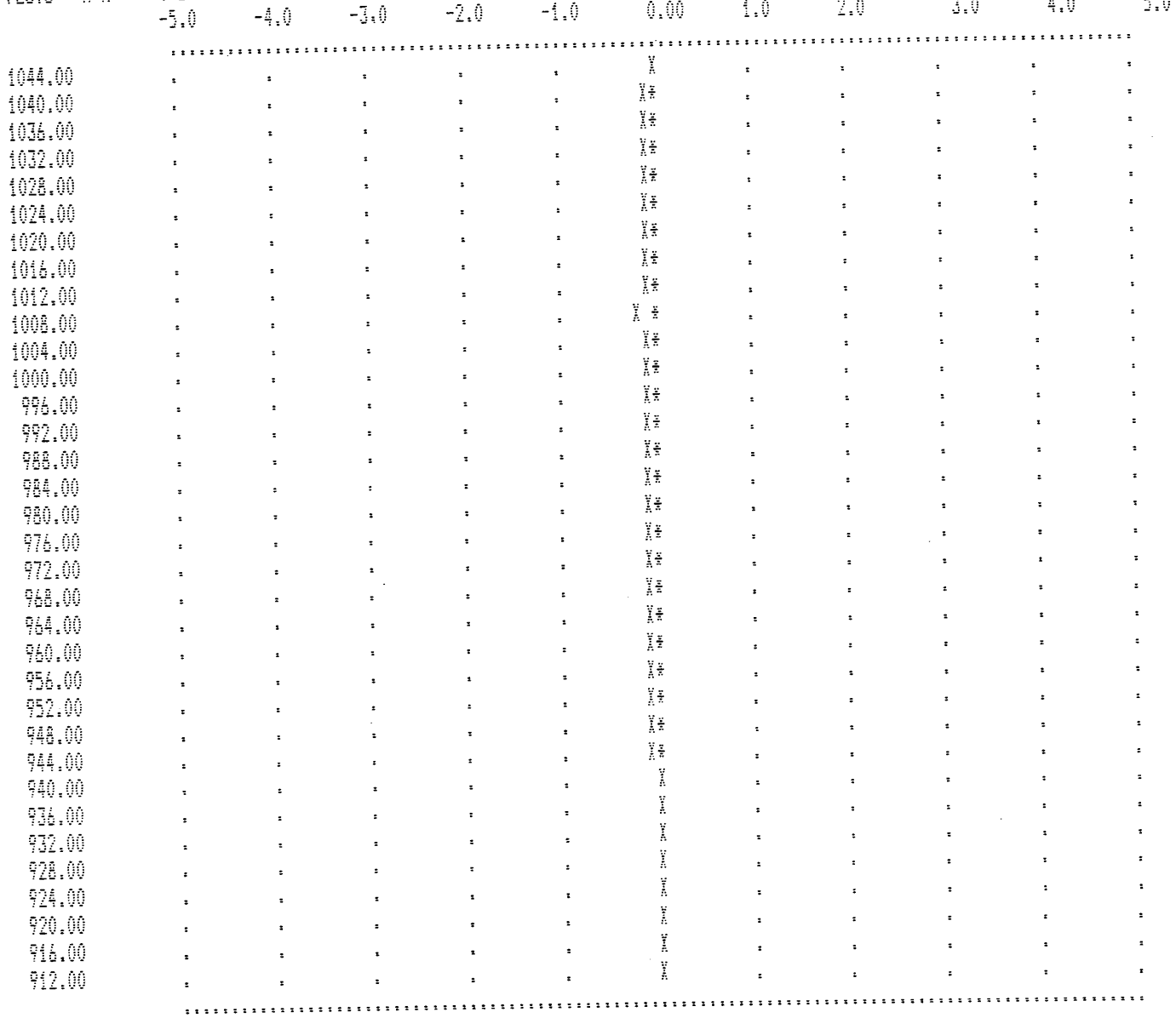
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
A-A MEAN BIAS = 93 B-B MEAN BIAS = 25 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1044.00	-.037	.029
1042.00	-.043	-.044
1040.00	-.033	-.092
1038.00	-.034	-.112
1036.00	-.039	-.116
1034.00	-.039	-.113
1032.00	-.036	-.117
1030.00	-.040	-.114
1028.00	-.037	-.111
1026.00	-.032	-.109
1024.00	-.030	-.112
1022.00	-.027	-.113
1020.00	-.023	-.114
1018.00	-.022	-.116
1016.00	-.022	-.129
1014.00	-.019	-.138
1012.00	-.016	-.143
1010.00	-.014	-.149
1008.00	-.016	-.154
1006.00	-.015	-.152
1004.00	-.010	-.148
1002.00	-.006	-.142
1000.00	-.005	-.148
998.00	-.004	-.148
996.00	-.002	-.148
994.00	-.002	-.146
992.00	.000	-.147
990.00	-.001	-.155
988.00	-.009	-.143
986.00	-.011	-.146
984.00	-.008	-.143
982.00	-.005	-.134
980.00	-.004	-.133
978.00	-.001	-.119
976.00	.001	-.108
974.00	.002	-.103
972.00	.002	-.102
970.00	.004	-.094
968.00	.005	-.086
966.00	.005	-.088
964.00	.005	-.086
962.00	.005	-.079
960.00	.005	-.078
958.00	.007	-.079
956.00	.006	-.080
954.00	.007	-.079
952.00	.008	-.076
950.00	.007	-.074
948.00	.005	-.068
946.00	.004	-.065

944.00	.006	-.056
942.00	.008	-.049
940.00	.009	-.041
938.00	.011	-.029
936.00	.014	-.023
934.00	.023	-.026
932.00	.023	-.015
930.00	.025	-.026
928.00	.025	-.017
926.00	.023	-.015
924.00	.020	-.025
922.00	.022	-.025
920.00	.021	-.023
918.00	.022	-.015
916.00	.021	-.005
914.00	.020	-.005
912.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.04
B-B DEFLECTION = .03
TOP ELEVATION OF TUBE = 1044.00

1 PLOT OF 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



**** 86-0716 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2

DATE JULY 16, 1986. INITIAL READINGS TAKEN ON APRIL 1, 1986.

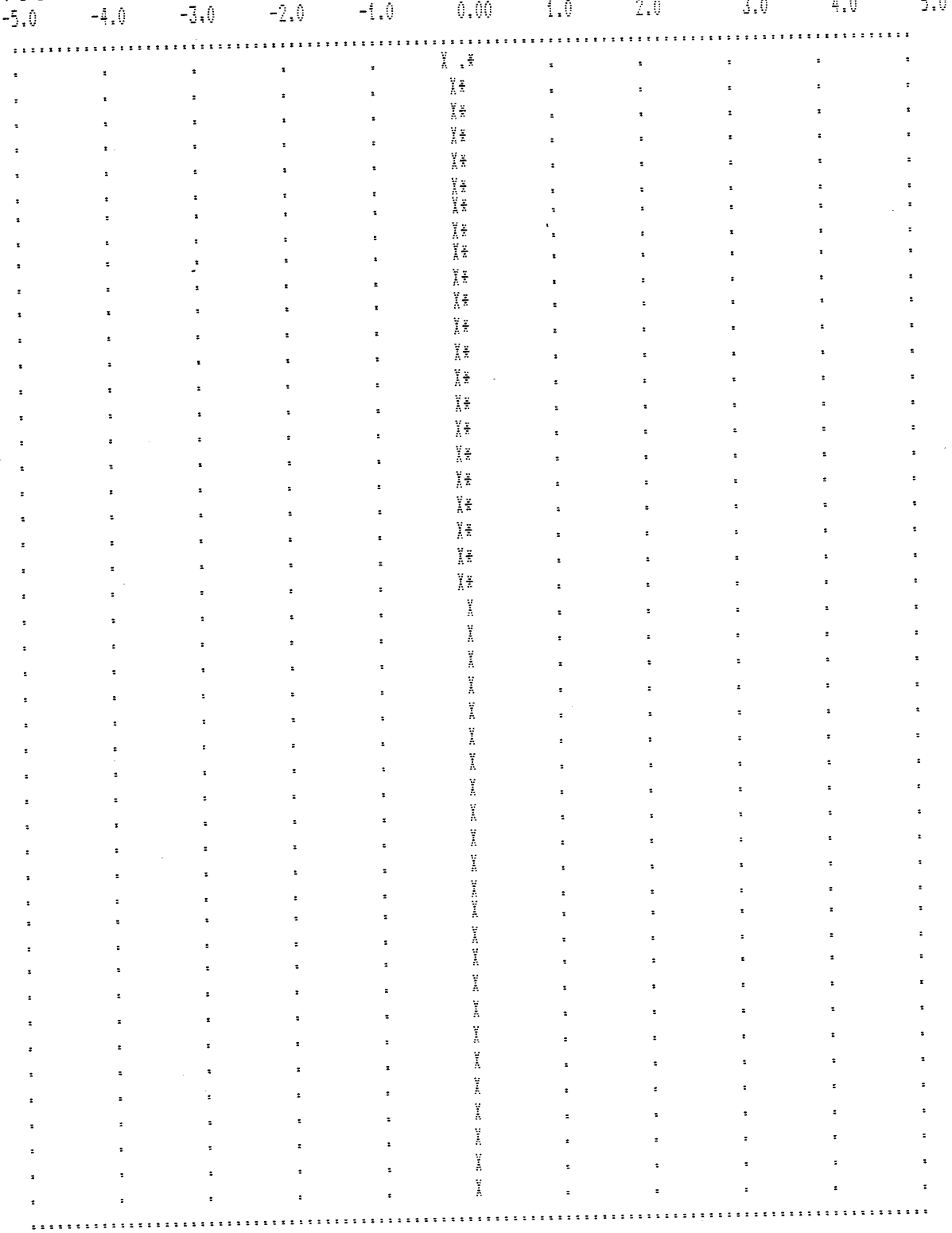
BOTTOM ELEV. 912.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2
A-A MEAN BIAS = 70 B-B MEAN BIAS = 25 LIMIT USED =10000

LIST OF DEFLECTIONS

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1002.00	.098	-.155
1000.00	.020	-.061
998.00	.025	-.053
996.00	.033	-.055
994.00	.024	-.062
992.00	.023	-.061
990.00	.020	-.071
988.00	.013	-.058
986.00	.014	-.062
984.00	.017	-.070
982.00	.014	-.070
980.00	.009	-.073
978.00	.001	-.083
976.00	-.002	-.094
974.00	-.004	-.092
972.00	-.004	-.076
970.00	-.004	-.071
968.00	-.002	-.077
966.00	-.004	-.071
964.00	-.004	-.056
962.00	-.006	-.058
960.00	-.004	-.050
958.00	-.004	-.049
956.00	-.006	-.050
954.00	-.010	-.039
952.00	-.006	-.036
950.00	-.006	-.032
948.00	-.007	-.017
946.00	-.010	-.010
944.00	-.008	-.002
942.00	-.010	.005
940.00	-.008	.001
938.00	-.017	-.009
936.00	-.022	-.010
934.00	-.026	-.015
932.00	-.030	-.029
930.00	-.028	-.032
928.00	-.026	-.029
926.00	-.026	-.014
924.00	-.025	-.012
922.00	-.024	-.010
920.00	-.022	-.005
918.00	-.018	.001
916.00	-.010	.002
914.00	.002	-.003
912.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .10
B-B DEFLECTION = -.15
TOP ELEVATION OF TUBE = 1002.00
1 PLOT OF 86-0716 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



***** 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3

DATE JULY 16, 1986. INITIAL READINGS TAKEN ON APRIL 1, 1986.

BOTTOM ELEV. 910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

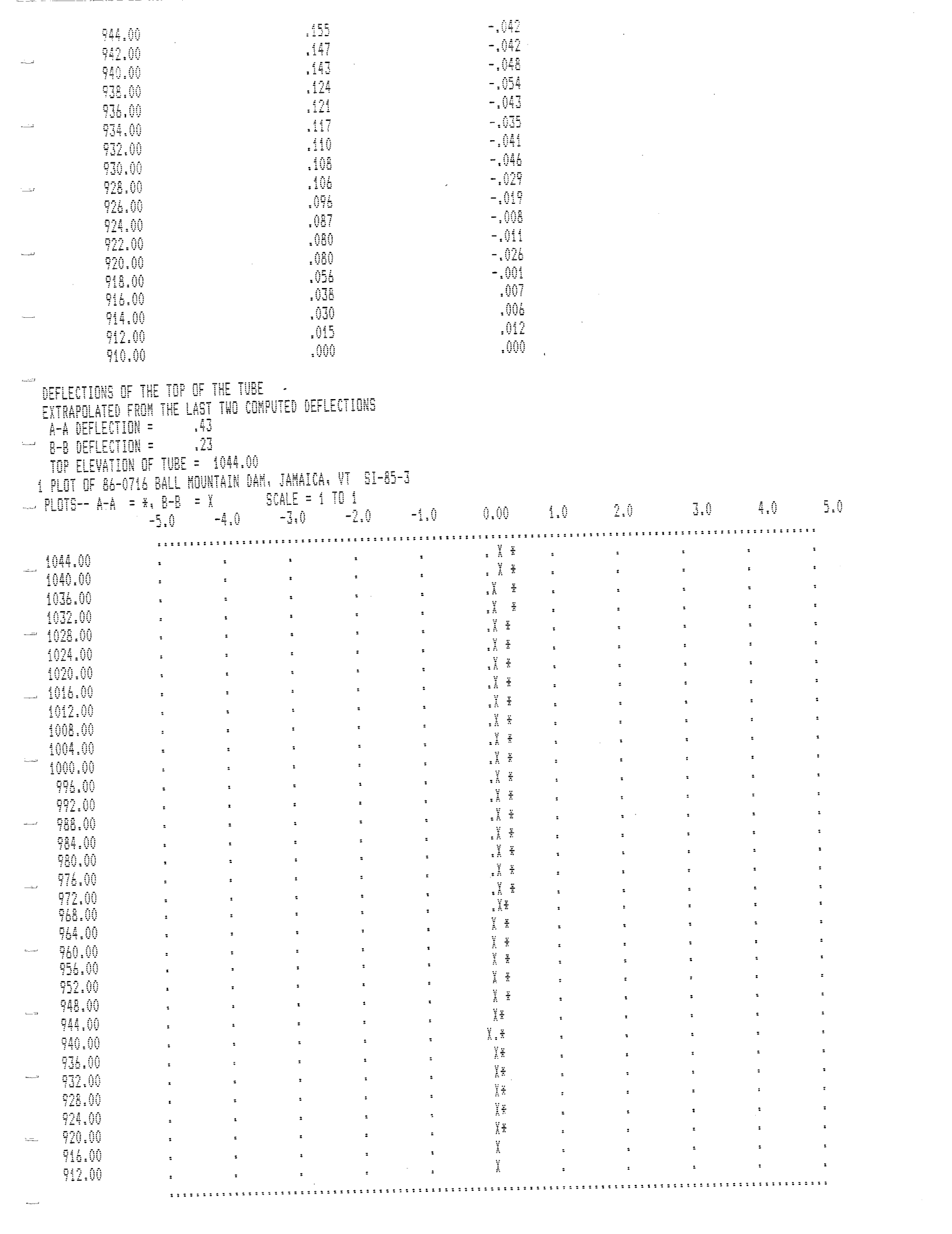
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
A-A MEAN BIAS = 94 B-B MEAN BIAS = 32 LIMIT USED =10000

5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1044.00	.426	.226
1042.00	.409	.187
1040.00	.392	.196
1038.00	.379	.195
1036.00	.367	.178
1034.00	.359	.143
1032.00	.355	.143
1030.00	.353	.146
1028.00	.349	.137
1026.00	.346	.127
1024.00	.340	.137
1022.00	.338	.137
1020.00	.333	.130
1018.00	.331	.122
1016.00	.328	.125
1014.00	.323	.117
1012.00	.319	.118
1010.00	.313	.122
1008.00	.308	.139
1006.00	.304	.149
1004.00	.302	.149
1002.00	.295	.145
1000.00	.290	.135
998.00	.283	.132
996.00	.277	.126
994.00	.274	.116
992.00	.270	.109
990.00	.290	.096
988.00	.289	.094
986.00	.286	.086
984.00	.283	.077
982.00	.283	.078
980.00	.281	.077
978.00	.275	.071
976.00	.269	.069
974.00	.265	.079
972.00	.260	.072
970.00	.251	.068
968.00	.242	.064
966.00	.230	.057
964.00	.221	.049
962.00	.211	.037
960.00	.199	.030
958.00	.189	.020
956.00	.182	.005
954.00	.178	-.002
952.00	.167	-.012
950.00	.158	-.016
948.00	.157	-.008
946.00	.159	-.032

944.00	.155	-.042
942.00	.147	-.042
940.00	.143	-.048
938.00	.124	-.054
936.00	.121	-.043
934.00	.117	-.035
932.00	.110	-.041
930.00	.108	-.046
928.00	.106	-.029
926.00	.096	-.019
924.00	.087	-.008
922.00	.080	-.011
920.00	.080	-.026
918.00	.056	-.001
916.00	.038	.007
914.00	.030	.006
912.00	.015	.012
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE -
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .43
B-B DEFLECTION = .23
TOP ELEVATION OF TUBE = 1044.00
1 PLOT OF 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4

DATE JULY 16, 1986. INITIAL READINGS TAKEN ON APRIL 1, 1986.

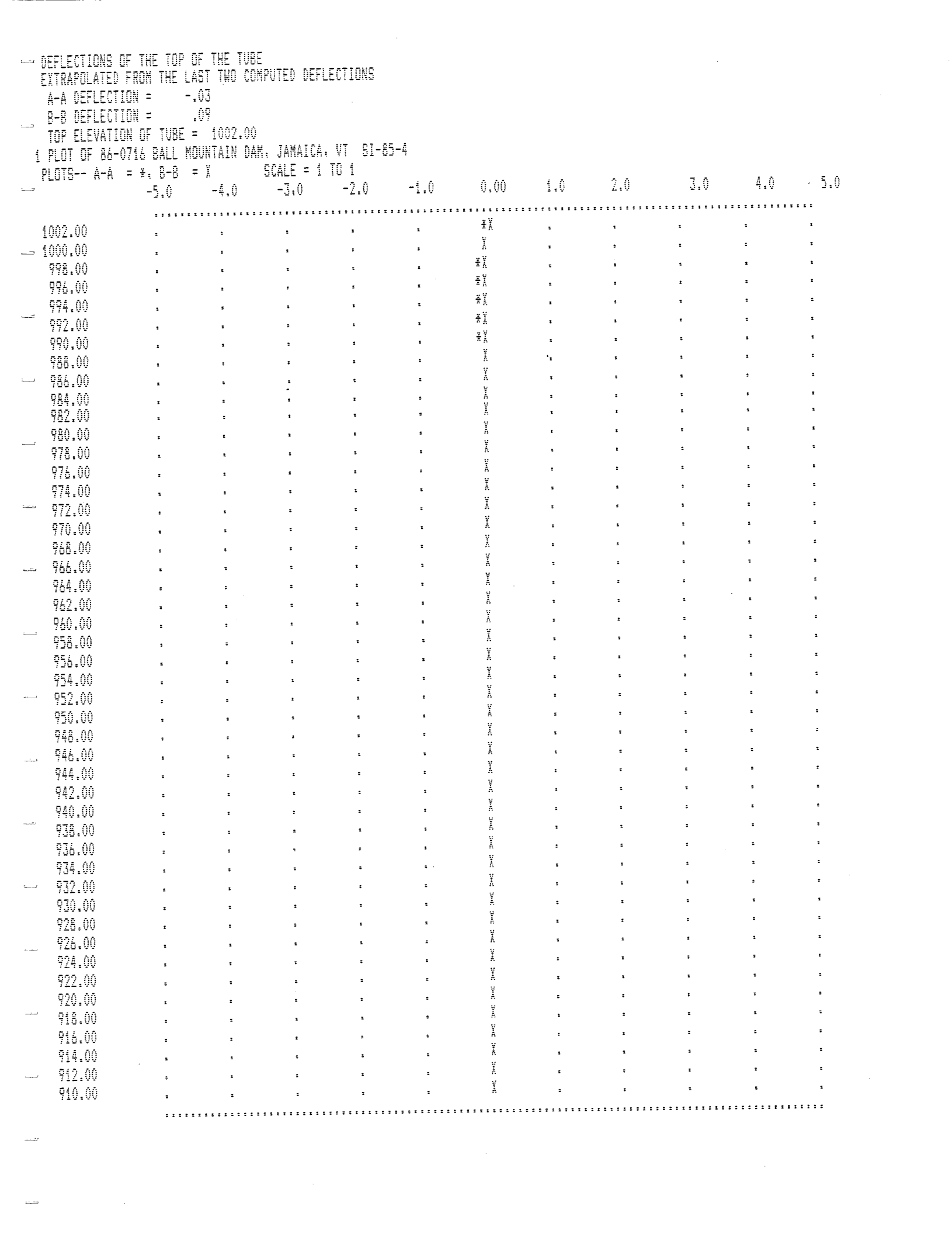
BOTTOM ELEV. 910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
A-A MEAN BIAS = 87 B-B MEAN BIAS = 36 LIMIT USED =10000

5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1002.00	-.033	.094
1000.00	-.038	.033
998.00	-.052	.031
996.00	-.056	.034
994.00	-.061	.037
992.00	-.059	.035
990.00	-.053	.034
988.00	-.049	.032
986.00	-.043	.030
984.00	-.040	.029
982.00	-.038	.028
980.00	-.040	.023
978.00	-.034	.026
976.00	-.027	.024
974.00	-.028	.019
972.00	-.026	.016
970.00	-.020	.010
968.00	-.019	.017
966.00	-.019	.013
964.00	-.017	.012
962.00	-.017	.021
960.00	-.014	.018
958.00	-.008	.029
956.00	-.006	.033
954.00	-.002	.036
952.00	-.002	.048
950.00	.005	.044
948.00	.003	.047
946.00	.005	.046
944.00	.011	.049
942.00	.014	.043
940.00	.014	.043
938.00	.015	.044
936.00	.015	.043
934.00	.013	.041
932.00	.013	.041
930.00	.013	.043
928.00	.009	.041
926.00	.007	.040
924.00	.004	.041
922.00	-.001	.039
920.00	-.004	.044
918.00	-.007	.050
916.00	-.006	.038
914.00	-.003	.021
912.00	.000	.004
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.03
B-B DEFLECTION = .09
TOP ELEVATION OF TUBE = 1002.00
1 PLOT OF 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



**** 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5

DATE JULY 16, 1986. INITIAL READINGS TAKEN ON APRIL 1, 1986.

BOTTOM ELEV. 910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
A-A MEAN BIAS = 114 B-B MEAN BIAS = 22 LIMIT USED =10000

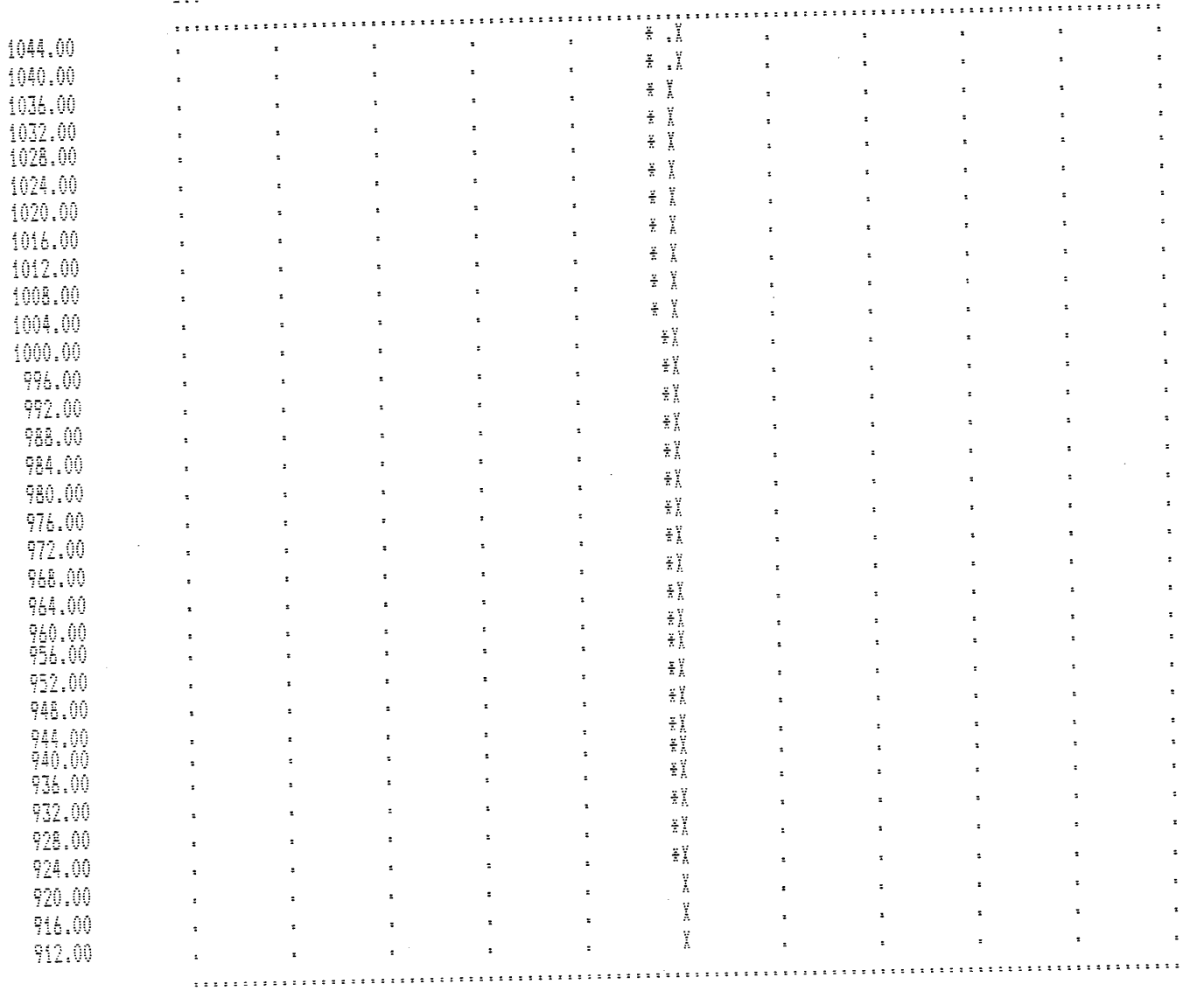
LIST OF DEFLECTIONS

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1044.00	-.254	.090
1042.00	-.209	.059
1040.00	-.202	.065
1038.00	-.209	.065
1036.00	-.207	.049
1034.00	-.208	.038
1032.00	-.206	.031
1030.00	-.204	.025
1028.00	-.203	.019
1026.00	-.204	.021
1024.00	-.202	.009
1022.00	-.191	.002
1020.00	-.188	.008
1018.00	-.190	.010
1016.00	-.186	.009
1014.00	-.178	.018
1012.00	-.175	.017
1010.00	-.171	.014
1008.00	-.166	.014
1006.00	-.161	.010
1004.00	-.155	.010
1002.00	-.152	.008
1000.00	-.150	.010
998.00	-.149	.008
996.00	-.151	.004
994.00	-.149	.004
992.00	-.146	.001
990.00	-.145	.004
988.00	-.144	.001
986.00	-.141	.006
984.00	-.139	.003
982.00	-.136	.003
980.00	-.133	.007
978.00	-.130	.014
976.00	-.128	.021
974.00	-.124	.018
972.00	-.118	.007
970.00	-.116	-.005
968.00	-.114	-.002
966.00	-.111	-.015
964.00	-.109	-.019
962.00	-.106	-.023
960.00	-.105	-.028
958.00	-.103	-.028
956.00	-.100	-.026
954.00	-.100	-.021
952.00	-.101	-.026
950.00	-.095	-.031
948.00	-.090	-.031
946.00	-.087	-.035

944.00	-.085	-.038
942.00	-.079	-.032
940.00	-.074	-.029
938.00	-.072	-.024
936.00	-.074	-.018
934.00	-.074	-.016
932.00	-.076	-.018
930.00	-.077	-.025
928.00	-.072	-.017
926.00	-.068	-.025
924.00	-.059	-.026
922.00	-.053	-.022
920.00	-.051	-.029
918.00	-.037	-.028
916.00	-.029	-.027
914.00	-.017	-.011
912.00	-.007	.000
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.25
B-B DEFLECTION = .09
TOP ELEVATION OF TUBE = 1044.00

1 PLOT OF 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



**** 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6

DATE JULY 16, 1986. INITIAL READINGS TAKEN ON APRIL 1, 1986.

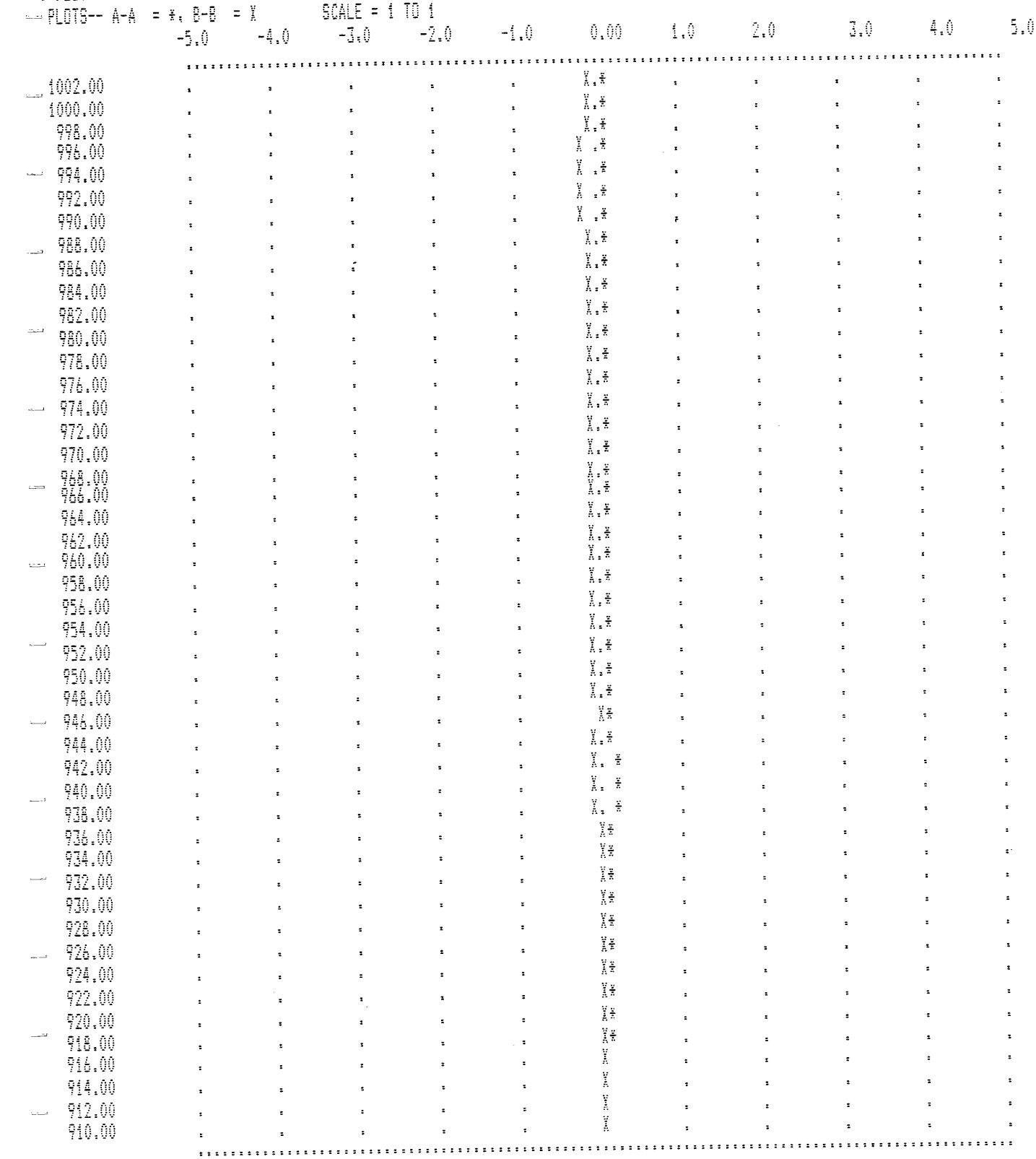
BOTTOM ELEV. 910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
A-A MEAN BIAS = 109 B-B MEAN BIAS = 28 LIMIT USED =10000

LIST OF DEFLECTIONS

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1002.00	.124	-.122
1000.00	.118	-.148
998.00	.122	-.134
996.00	.121	-.151
994.00	.121	-.157
992.00	.119	-.163
990.00	.118	-.155
988.00	.121	-.149
986.00	.122	-.136
984.00	.116	-.140
982.00	.089	-.143
980.00	.094	-.149
978.00	.094	-.142
976.00	.092	-.136
974.00	.091	-.127
972.00	.091	-.122
970.00	.092	-.118
968.00	.091	-.118
966.00	.095	-.115
964.00	.098	-.112
962.00	.098	-.110
960.00	.099	-.101
958.00	.102	-.080
956.00	.104	-.068
954.00	.106	-.062
952.00	.107	-.058
950.00	.107	-.053
948.00	.107	-.050
946.00	.112	-.050
944.00	.130	-.052
942.00	.154	-.062
940.00	.166	-.065
938.00	.158	-.052
936.00	.137	-.027
934.00	.117	-.008
932.00	.097	.002
930.00	.079	.002
928.00	.081	.005
926.00	.078	.008
924.00	.076	.015
922.00	.073	.016
920.00	.062	.008
918.00	.051	.010
916.00	.045	.008
914.00	.037	-.010
912.00	.018	-.006
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .12
B-B DEFLECTION = -.12
TOP ELEVATION OF TUBE = 1002.00
PLOT OF 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0819 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1

DATE AUG. 19, 1986. INITIAL READINGS TAKEN ON JANUARY 23, 1986.

BOTTOM ELEV. 912.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

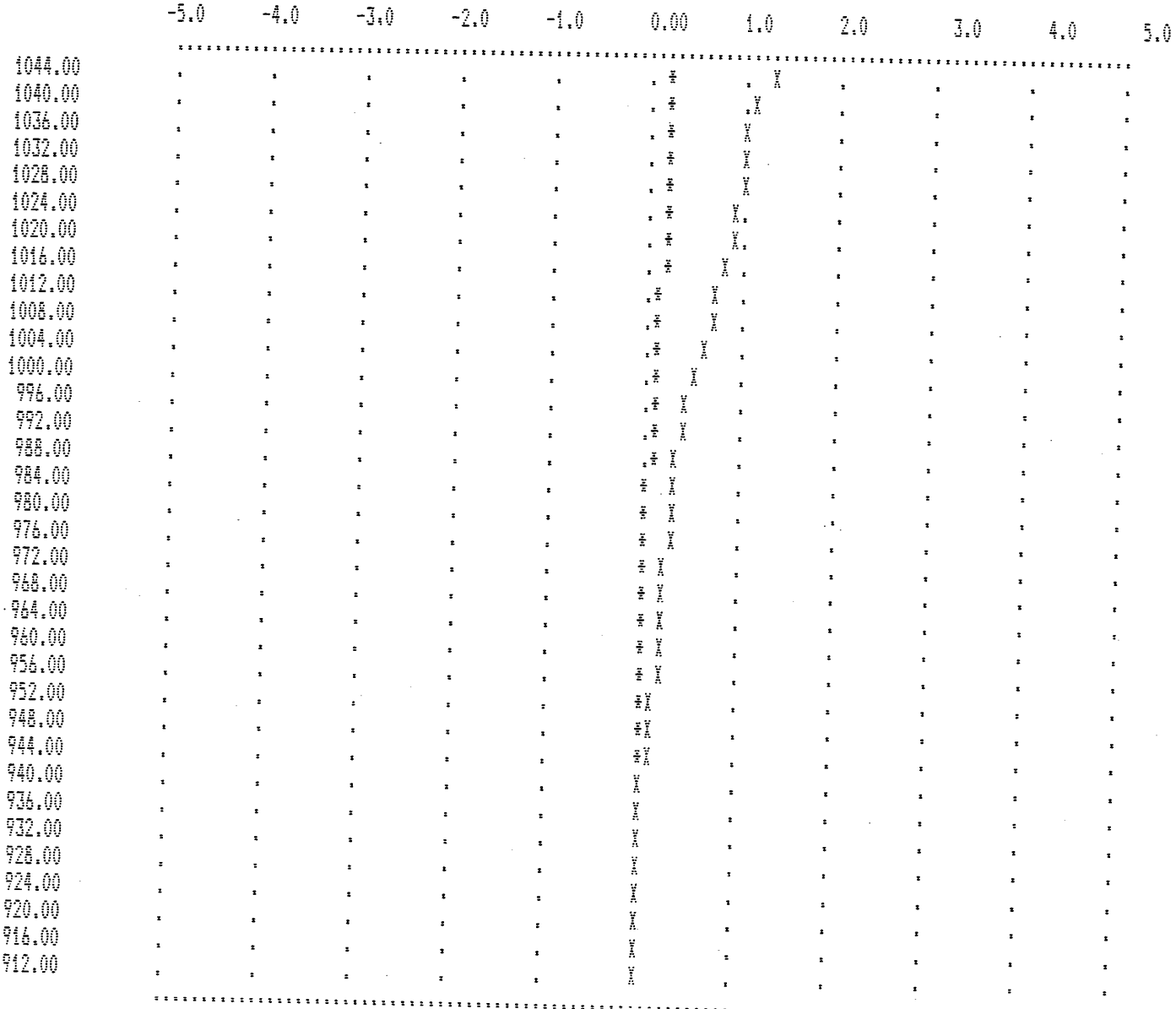
INITIAL READINGS TAKEN AT--86-0123 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1 INITIAL READINGS
A-A MEAN BIAS = 85 B-B MEAN BIAS = 60 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1044.00	.224	1.312
1042.00	.233	1.194
1040.00	.229	1.114
1038.00	.215	1.069
1036.00	.202	1.041
1034.00	.194	1.025
1032.00	.192	.998
1030.00	.179	.972
1028.00	.174	.953
1026.00	.170	.926
1024.00	.163	.903
1022.00	.161	.889
1020.00	.159	.866
1018.00	.160	.840
1016.00	.158	.805
1014.00	.133	.787
1012.00	.137	.749
1010.00	.134	.707
1008.00	.134	.663
1006.00	.131	.614
1004.00	.134	.574
1002.00	.136	.542
1000.00	.133	.506
998.00	.131	.463
996.00	.128	.428
994.00	.126	.391
992.00	.125	.362
990.00	.098	.344
988.00	.051	.332
986.00	.025	.316
984.00	.020	.301
982.00	.020	.308
980.00	.019	.290
978.00	.016	.290
976.00	.016	.269
974.00	.016	.265
972.00	.014	.242
970.00	.010	.226
968.00	.010	.214
966.00	.009	.201
964.00	.004	.191
962.00	.001	.179
960.00	-.001	.173
958.00	.000	.164
956.00	-.002	.156
954.00	-.003	.144
952.00	.003	.121
950.00	.004	.098
948.00	-.002	.079
946.00	.004	.070

944.00	.004	.052
942.00	.003	.047
940.00	-.004	.042
938.00	-.011	.042
936.00	-.017	.033
934.00	-.021	.018
932.00	-.026	.017
930.00	-.021	-.001
928.00	-.019	-.004
926.00	-.024	-.006
924.00	-.026	-.026
922.00	-.016	-.036
920.00	-.017	-.049
918.00	-.010	-.034
916.00	-.008	-.017
914.00	-.007	-.003
912.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE-
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .22
B-B DEFLECTION = 1.31
TOP ELEVATION OF TUBE = 1044.00

1 PLOT OF 86-0819 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



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1**** 86-0819 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1

DATE AUG. 19, 1986. INITIAL READINGS TAKEN ON APRIL 1, 1986.

BOTTOM ELEV. 912.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

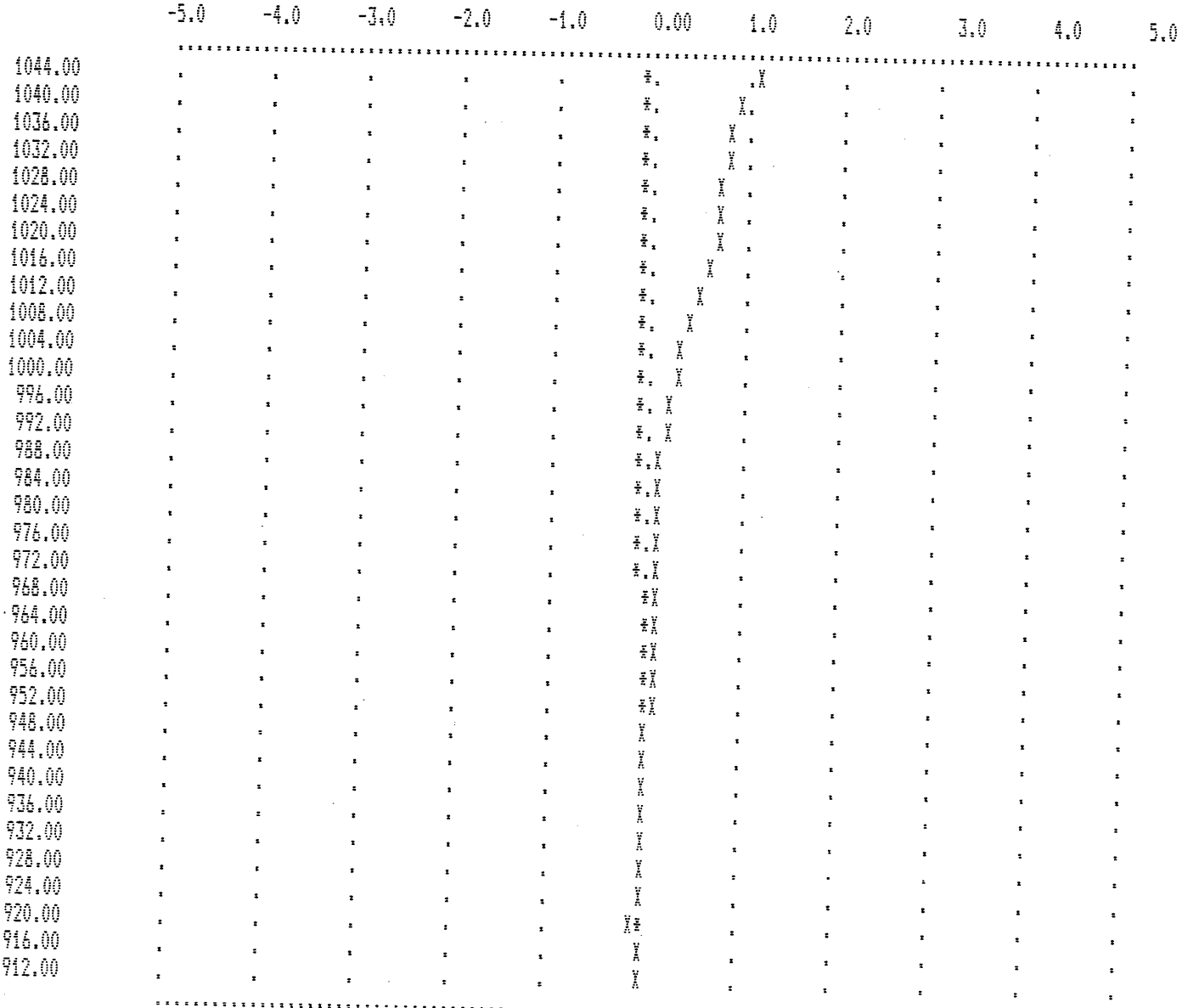
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
A-A MEAN BIAS = 85 B-B MEAN BIAS = 60 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1044.00	-.062	1.147
1042.00	-.068	1.001
1040.00	-.053	.898
1038.00	-.054	.848
1036.00	-.062	.823
1034.00	-.065	.802
1032.00	-.063	.778
1030.00	-.071	.756
1028.00	-.072	.743
1026.00	-.071	.728
1024.00	-.073	.706
1022.00	-.072	.689
1020.00	-.071	.670
1018.00	-.071	.640
1016.00	-.073	.601
1014.00	-.071	.559
1012.00	-.067	.518
1010.00	-.065	.474
1008.00	-.067	.426
1006.00	-.065	.383
1004.00	-.058	.349
1002.00	-.055	.323
1000.00	-.054	.281
998.00	-.053	.247
996.00	-.053	.215
994.00	-.053	.185
992.00	-.051	.159
990.00	-.053	.137
988.00	-.065	.130
986.00	-.066	.117
984.00	-.064	.103
982.00	-.061	.106
980.00	-.060	.092
978.00	-.058	.099
976.00	-.055	.098
974.00	-.052	.095
972.00	-.051	.084
970.00	-.050	.086
968.00	-.048	.090
966.00	-.047	.088
964.00	-.048	.085
962.00	-.050	.089
960.00	-.049	.089
958.00	-.048	.083
956.00	-.049	.080
954.00	-.047	.072
952.00	-.043	.060
950.00	-.041	.047
948.00	-.041	.035
946.00	-.037	.019

944.00	-.035	.010
942.00	-.033	-.003
940.00	-.032	-.013
938.00	-.031	-.011
936.00	-.027	-.005
934.00	-.017	-.006
932.00	-.018	.005
930.00	-.015	-.005
928.00	-.013	-.010
926.00	-.013	-.017
924.00	-.016	-.041
922.00	-.013	-.056
920.00	-.012	-.065
918.00	-.008	-.042
916.00	-.006	-.020
914.00	-.006	-.008
912.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE -
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.06
B-B DEFLECTION = 1.15
TOP ELEVATION OF TUBE = 1044.00

1 PLOT OF 86-0819 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



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1**** 86-0819 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2

DATE AUG. 19, 1986. INITIAL READINGS TAKEN ON JANUARY 23,1986.

BOTTOM ELEV. 912.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

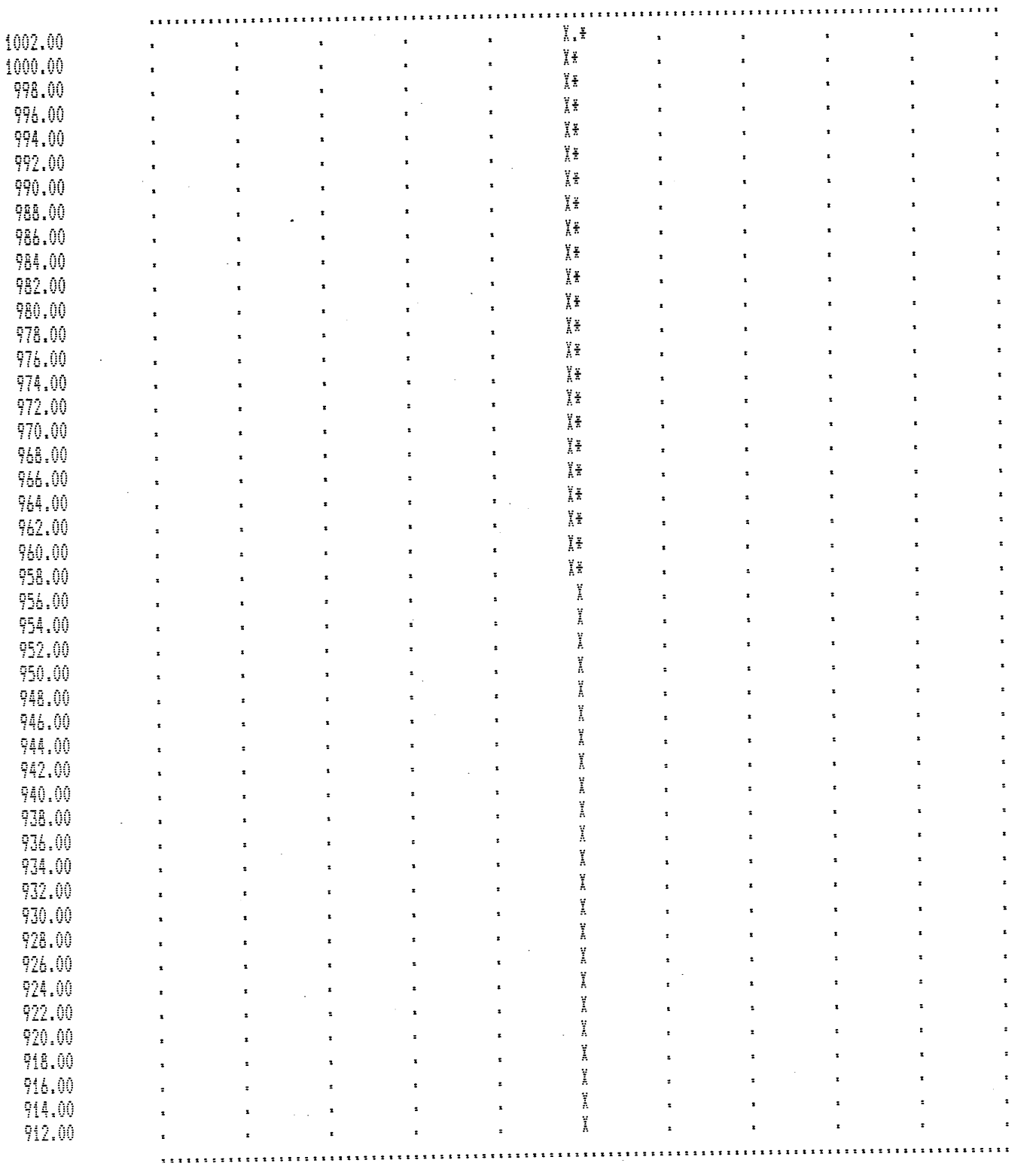
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2
A-A MEAN BIAS = 89 B-B MEAN BIAS = 32 LIMIT USED =10000

5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1002.00	.100	.297
1000.00	.121	.173
998.00	.143	.145
996.00	.152	.139
994.00	.143	.146
992.00	.142	.146
990.00	.142	.139
988.00	.129	.143
986.00	.131	.127
984.00	.134	.116
982.00	.130	.124
980.00	.122	.116
978.00	.112	.092
976.00	.109	.094
974.00	.106	.091
972.00	.106	.078
970.00	.106	.067
968.00	.107	.061
966.00	.106	.050
964.00	.106	.046
962.00	.101	.051
960.00	.102	.048
958.00	.108	.053
956.00	.104	.047
954.00	.100	.049
952.00	.111	.046
950.00	.110	.053
948.00	.107	.047
946.00	.094	.046
944.00	.094	.034
942.00	.088	.016
940.00	.089	.004
938.00	.081	-.005
936.00	.076	-.017
934.00	.068	-.020
932.00	.067	-.019
930.00	.067	-.013
928.00	.065	-.002
926.00	.058	.002
924.00	.047	.017
922.00	.040	.023
920.00	.037	.028
918.00	.033	.032
916.00	.023	.031
914.00	.019	.006
912.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = .06
B-B DEFLECTION = -.12
TOP ELEVATION OF TUBE = 1002.00
1 PLOT OF 86-0819 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1****

DATE 4) 0, 1900

1**** 86-0819 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2

DATE AUG. 19, 1986. INITIAL READINGS TAKEN ON APRIL 1,1986.

BOTTOM ELEV. 912.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

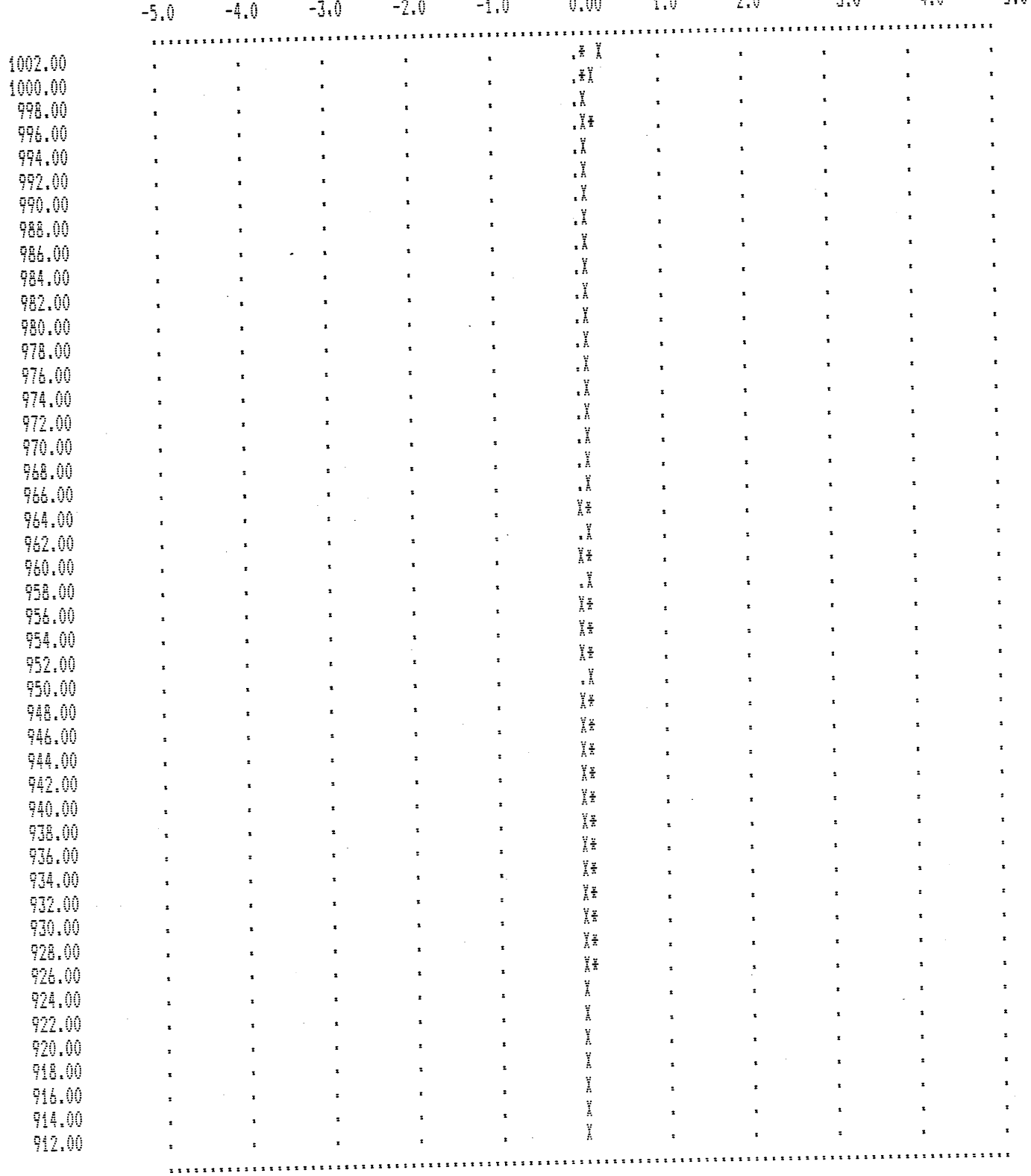
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2
A-A MEAN BIAS = 89 B-B MEAN BIAS = 32 LIMIT USED =10000

5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1002.00	.061	-.124
1000.00	-.010	-.086
998.00	-.003	-.080
996.00	.005	-.081
994.00	-.002	-.072
992.00	-.002	-.071
990.00	-.004	-.074
988.00	-.013	-.058
986.00	-.010	-.063
984.00	-.005	-.073
982.00	-.007	-.067
980.00	-.013	-.071
978.00	-.022	-.081
976.00	-.025	-.080
974.00	-.026	-.090
972.00	-.026	-.079
970.00	-.028	-.069
968.00	-.027	-.071
966.00	-.028	-.073
964.00	-.027	-.064
962.00	-.031	-.067
960.00	-.029	-.063
958.00	-.026	-.055
956.00	-.031	-.046
954.00	-.035	-.034
952.00	-.029	-.031
950.00	-.028	-.022
948.00	-.029	-.010
946.00	-.035	.001
944.00	-.033	.001
942.00	-.034	.006
940.00	-.031	.002
938.00	-.038	.001
936.00	-.042	.001
934.00	-.046	.000
932.00	-.047	-.012
930.00	-.046	-.015
928.00	-.042	-.014
926.00	-.040	-.001
924.00	-.038	.004
922.00	-.037	.010
920.00	-.031	.012
918.00	-.023	.011
916.00	-.013	.011
914.00	-.001	-.003
912.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = .10
B-B DEFLECTION = .30
TOP ELEVATION OF TUBE = 1002.00
1 PLOT OF 86-0819 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1*****

DATE 4) 0. 1900

BOTTOM ELEV 0

1**** 86-0819 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3

DATE AUG. 19, 1986. INITIAL READINGS TAKEN ON APRIL 1, 1986.

BOTTOM ELEV. 910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
A-A MEAN BIAS = 93 B-B MEAN BIAS = 8 LIMIT USED =10000

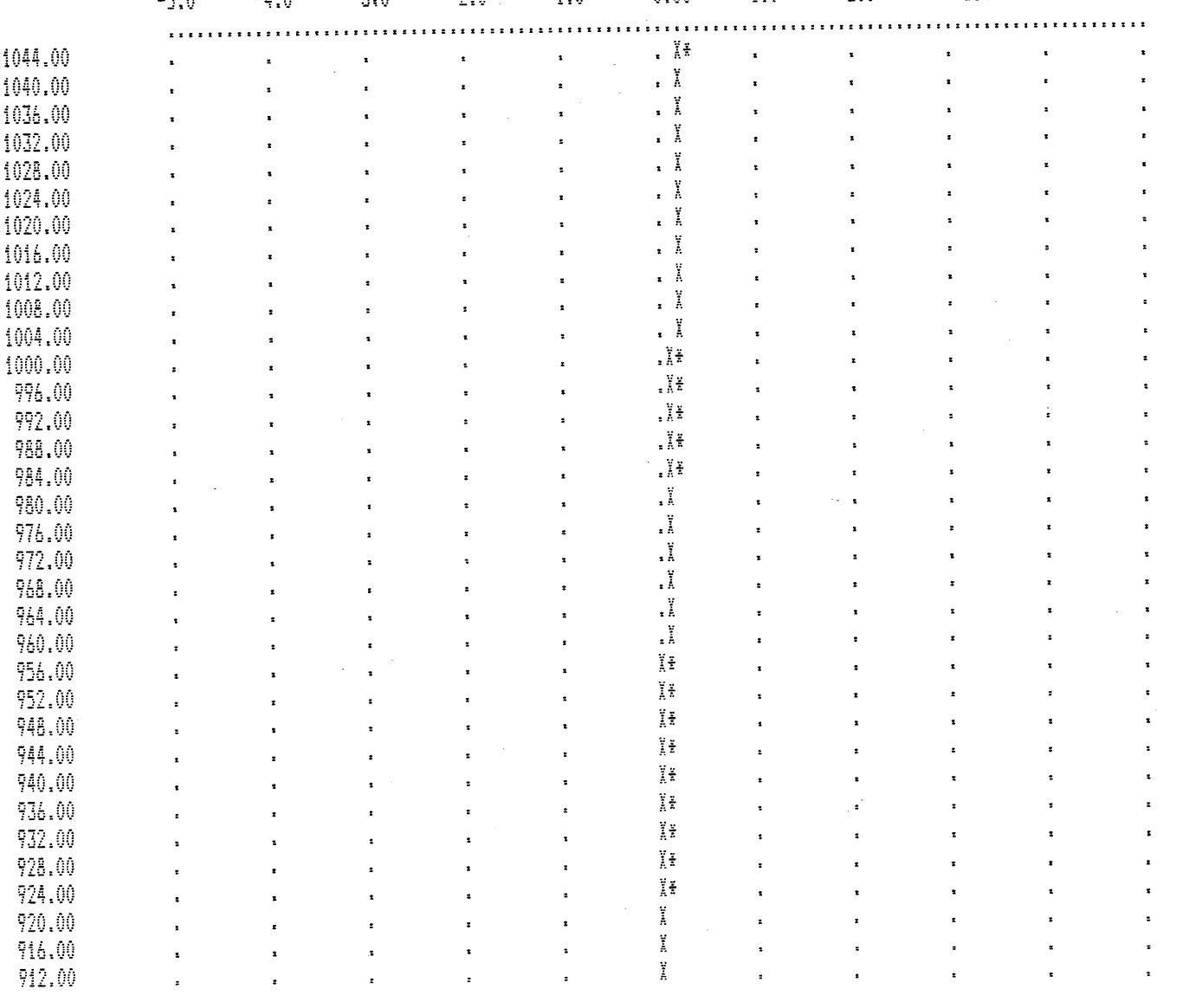
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1044.00	.271	.245
1042.00	.256	.220
1040.00	.239	.229
1038.00	.221	.226
1036.00	.209	.202
1034.00	.200	.191
1032.00	.198	.192
1030.00	.199	.206
1028.00	.197	.205
1026.00	.196	.195
1024.00	.191	.206
1022.00	.188	.208
1020.00	.188	.202
1018.00	.189	.196
1016.00	.191	.190
1014.00	.192	.182
1012.00	.190	.175
1010.00	.182	.172
1008.00	.178	.178
1006.00	.178	.174
1004.00	.178	.175
1002.00	.176	.166
1000.00	.173	.148
998.00	.168	.140
996.00	.164	.123
994.00	.163	.106
992.00	.160	.104
990.00	.154	.095
988.00	.154	.084
986.00	.155	.077
984.00	.152	.074
982.00	.153	.073
980.00	.153	.071
978.00	.149	.074
976.00	.148	.073
974.00	.148	.086
972.00	.146	.088
970.00	.142	.081
968.00	.136	.079
966.00	.128	.070
964.00	.125	.068
962.00	.118	.062
960.00	.112	.060
958.00	.106	.051
956.00	.103	.043
954.00	.101	.038
952.00	.094	.031
950.00	.086	.031
948.00	.088	.035
946.00	.092	.020

944.00	.092	.011
942.00	.088	.007
940.00	.087	-.002
938.00	.079	-.013
936.00	.079	-.013
934.00	.076	-.019
932.00	.071	-.028
930.00	.070	-.034
928.00	.065	-.028
926.00	.059	-.023
924.00	.056	-.016
922.00	.055	-.028
920.00	.061	-.048
918.00	.043	-.026
916.00	.029	-.011
914.00	.024	-.003
912.00	.015	.009
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .27
B-B DEFLECTION = .24
TOP ELEVATION OF TUBE = 1044.00

1 PLOT OF 86-0819 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0819 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3

DATE AUG. 19, 1986. INITIAL READINGS TAKEN ON JANUARY 23, 1986.

BOTTOM ELEV. 910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0123 BALL MOUNTAIN DAM, JAIMACA, VT SI-85-3 INITIAL READINGS
A-A MEAN BIAS = 93 B-B MEAN BIAS = 8 LIMIT USED =10000

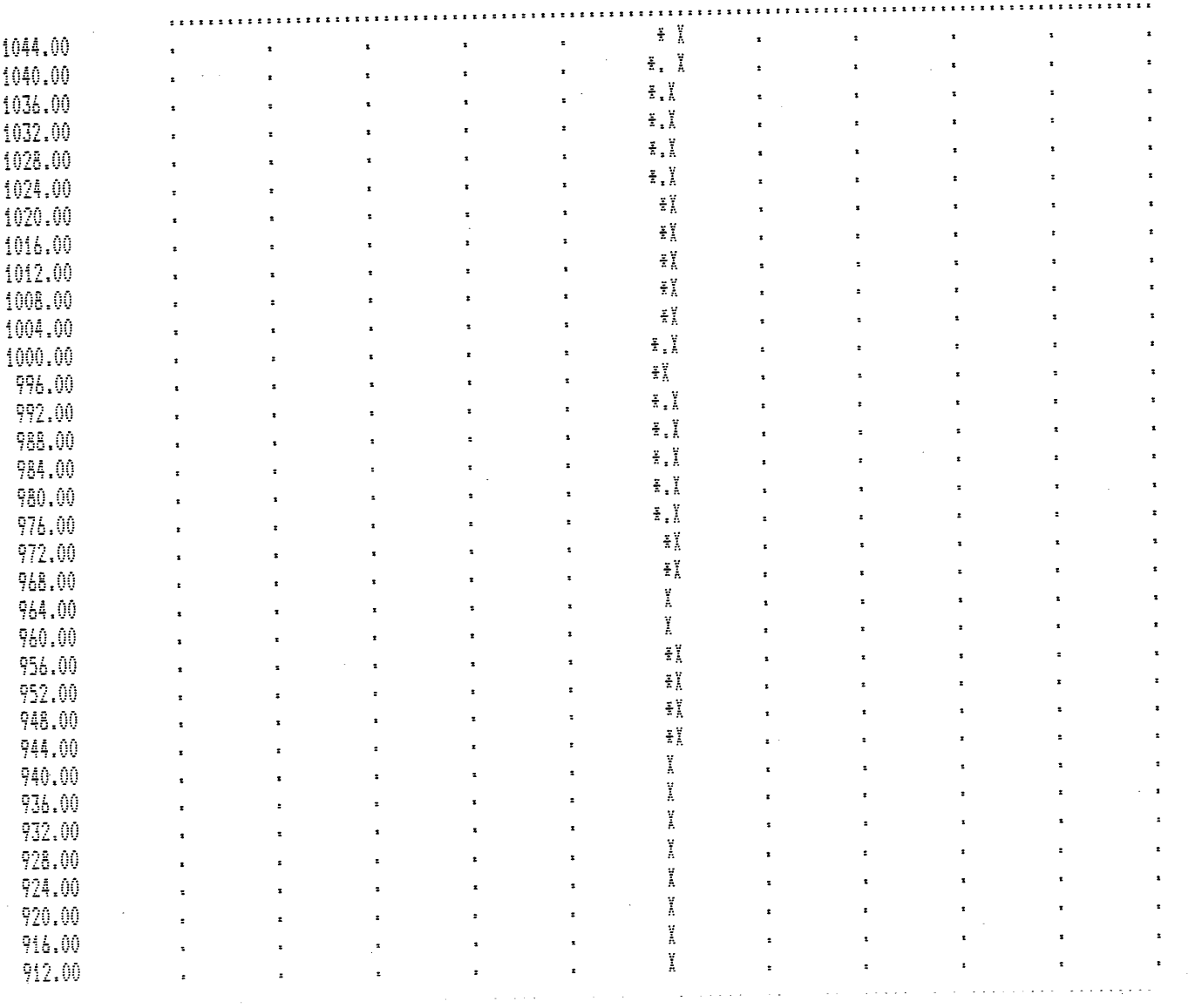
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1044.00	-.083	.191
1042.00	-.031	.163
1040.00	-.051	.171
1038.00	-.071	.167
1036.00	-.083	.148
1034.00	-.088	.132
1032.00	-.083	.125
1030.00	-.073	.126
1028.00	-.067	.127
1026.00	-.065	.122
1024.00	-.065	.115
1022.00	-.070	.110
1020.00	-.059	.107
1018.00	-.047	.103
1016.00	-.038	.106
1014.00	-.022	.098
1012.00	-.011	.095
1010.00	-.022	.076
1008.00	-.016	.073
1006.00	-.016	.080
1004.00	-.026	.090
1002.00	-.047	.078
1000.00	-.069	.062
998.00	-.088	.061
996.00	-.100	.064
994.00	-.100	.046
992.00	-.102	.044
990.00	-.083	.052
988.00	-.082	.061
986.00	-.081	.068
984.00	-.082	.067
982.00	-.080	.054
980.00	-.075	.047
978.00	-.068	.060
976.00	-.068	.062
974.00	-.053	.063
972.00	-.040	.068
970.00	-.031	.059
968.00	-.031	.055
966.00	-.026	.054
964.00	-.019	.050
962.00	-.016	.041
960.00	-.016	.047
958.00	-.018	.048
956.00	-.014	.052
954.00	-.011	.058
952.00	-.010	.053
950.00	-.012	.061
948.00	-.007	.059
946.00	.006	.058

944.00	.007	.058
942.00	.005	.057
940.00	.005	.052
938.00	-.002	.034
936.00	.007	.027
934.00	.009	.016
932.00	.007	.010
930.00	-.001	.001
928.00	.000	-.017
926.00	.001	-.015
924.00	.004	-.016
922.00	.010	-.026
920.00	.022	-.053
918.00	.010	-.037
916.00	.005	-.022
914.00	.006	-.010
912.00	.003	-.007
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.08
B-B DEFLECTION = .19
TOP ELEVATION OF TUBE = 1044.00

1 PLOT OF 86-0819 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0819 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4

DATE AUG. 19, 1986. INITIAL READINGS TAKEN ON JANUARY 23, 1986.

BOTTOM ELEV. 910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0123 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4 INITIAL READINGS
A-A MEAN BIAS = 90 B-B MEAN BIAS = 28 LIMIT USED =10000

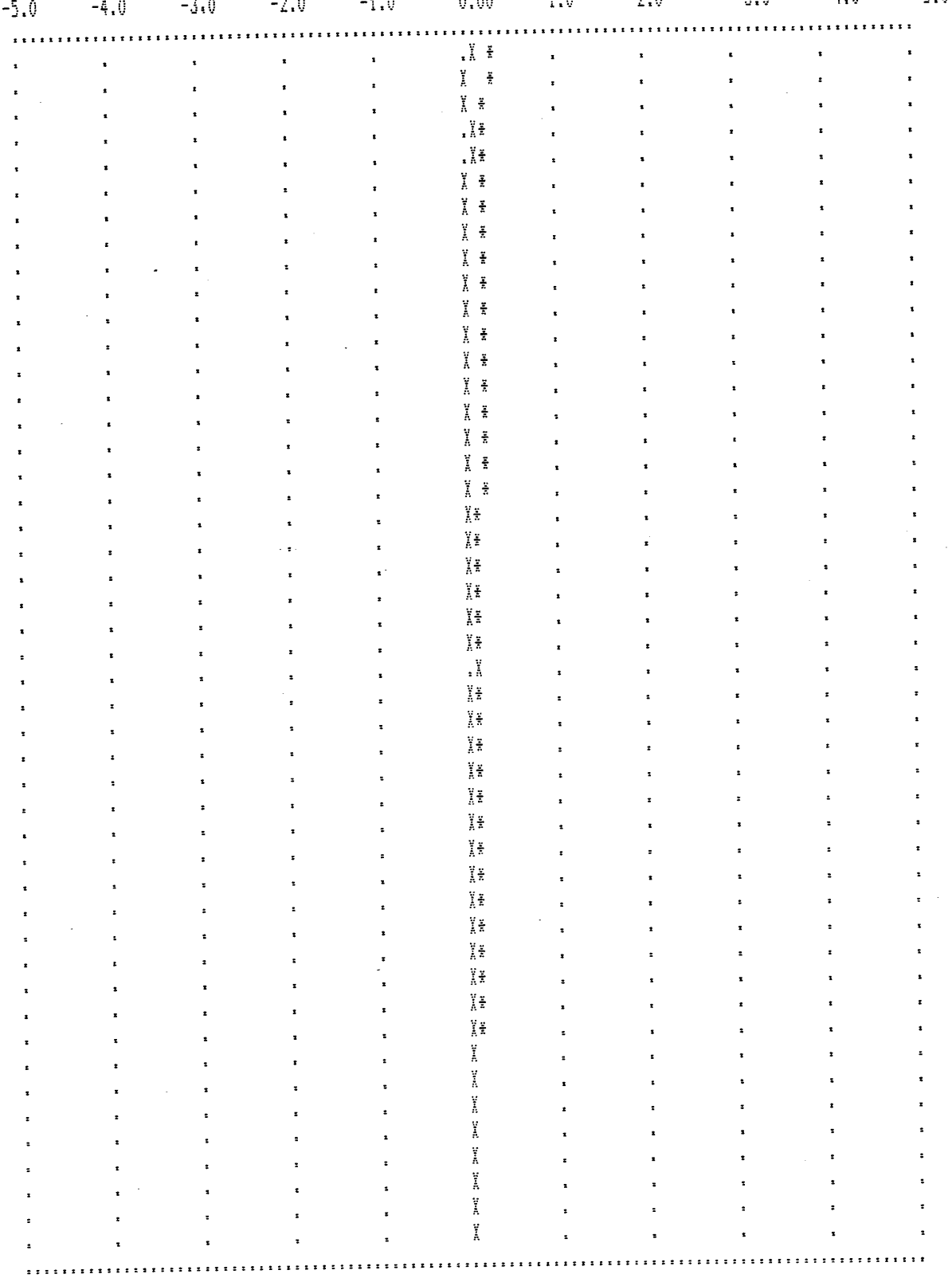
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1002.00	.294	.111
1000.00	.271	.020
998.00	.244	.023
996.00	.224	.056
994.00	.211	.050
992.00	.203	.040
990.00	.203	.037
988.00	.206	.029
986.00	.211	.041
984.00	.193	.037
982.00	.181	.034
980.00	.172	.027
978.00	.170	.014
976.00	.169	.021
974.00	.162	.024
972.00	.155	.016
970.00	.155	.026
968.00	.151	.029
966.00	.143	.027
964.00	.140	.029
962.00	.135	.025
960.00	.133	.020
958.00	.134	.031
956.00	.130	.045
954.00	.126	.052
952.00	.116	.047
950.00	.124	.041
948.00	.109	.040
946.00	.101	.041
944.00	.104	.040
942.00	.101	.034
940.00	.094	.031
938.00	.101	.034
936.00	.097	.020
934.00	.084	.002
932.00	.079	-.005
930.00	.071	-.009
928.00	.062	-.008
926.00	.052	-.006
924.00	.038	-.007
922.00	.025	.005
920.00	.019	.008
918.00	.005	.019
916.00	.008	.014
914.00	.010	.015
912.00	.011	.008
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = .29
B-B DEFLECTION = .11
TOP ELEVATION OF TUBE = 1002.00

1 PLOT OF 86-0819 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0819 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4

DATE AUG. 19, 1986. INITIAL READINGS TAKEN ON APRIL 1, 1986.

BOTTOM ELEV. 910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

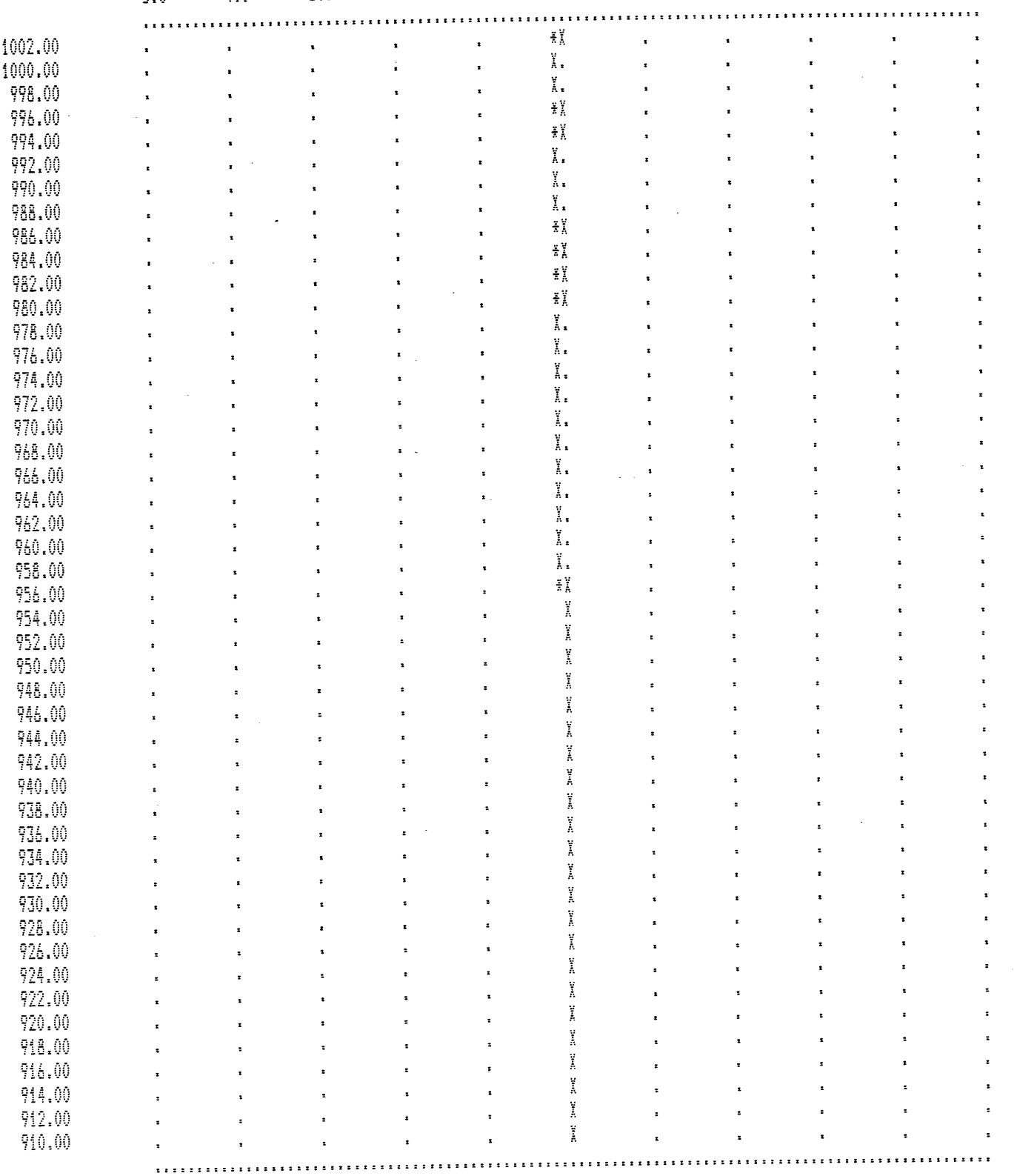
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
A-A MEAN BIAS = 90 B-B MEAN BIAS = 28 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1002.00	-.055	.019
1000.00	-.051	-.065
998.00	-.068	-.065
996.00	-.074	-.046
994.00	-.080	-.047
992.00	-.082	-.053
990.00	-.077	-.053
988.00	-.073	-.051
986.00	-.067	-.043
984.00	-.067	-.044
982.00	-.067	-.040
980.00	-.074	-.046
978.00	-.071	-.056
976.00	-.065	-.056
974.00	-.069	-.057
972.00	-.073	-.069
970.00	-.069	-.072
968.00	-.065	-.062
966.00	-.067	-.071
964.00	-.063	-.071
962.00	-.062	-.066
960.00	-.059	-.071
958.00	-.054	-.062
956.00	-.052	-.044
954.00	-.048	-.034
952.00	-.049	-.022
950.00	-.038	-.037
948.00	-.040	-.035
946.00	-.042	-.039
944.00	-.039	-.042
942.00	-.039	-.043
940.00	-.037	-.035
938.00	-.034	-.029
936.00	-.030	-.033
934.00	-.029	-.037
932.00	-.026	-.034
930.00	-.023	-.030
928.00	-.022	-.027
926.00	-.018	-.022
924.00	-.018	-.016
922.00	-.021	-.011
920.00	-.019	-.005
918.00	-.018	.001
916.00	-.013	-.002
914.00	-.012	-.007
912.00	-.006	-.006
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = -.06
B-B DEFLECTION = .02
TOP ELEVATION OF TUBE = 1002.00

1 PLOT OF 86-0819 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0819 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5

DATE AUG. 19, 1986. INITIAL READINGS TAKEN ON JANUARY 23, 1986.

BOTTOM ELEV. 910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
A-A MEAN BIAS = 93 B-B MEAN BIAS = 12 LIMIT USED =10000

5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1044.00	-.186	.091
1042.00	-.125	.041
1040.00	-.116	.049
1038.00	-.122	.056
1036.00	-.123	.050
1034.00	-.125	.041
1032.00	-.127	.037
1030.00	-.127	.034
1028.00	-.129	.035
1026.00	-.134	.041
1024.00	-.135	.032
1022.00	-.130	.023
1020.00	-.132	.034
1018.00	-.143	.035
1016.00	-.147	.034
1014.00	-.146	.043
1012.00	-.149	.044
1010.00	-.150	.034
1008.00	-.149	.032
1006.00	-.143	.026
1004.00	-.139	.024
1002.00	-.136	.028
1000.00	-.134	.033
998.00	-.134	.032
996.00	-.137	.031
994.00	-.135	.038
992.00	-.133	.037
990.00	-.133	.034
988.00	-.133	.029
986.00	-.131	.036
984.00	-.129	.034
982.00	-.127	.037
980.00	-.125	.040
978.00	-.121	.041
976.00	-.121	.047
974.00	-.118	.046
972.00	-.114	.041
970.00	-.113	.032
968.00	-.113	.026
966.00	-.112	.014
964.00	-.110	.010
962.00	-.109	.011
960.00	-.109	.008
958.00	-.106	.008
956.00	-.101	.013
954.00	-.101	.013
952.00	-.100	-.001
950.00	-.090	-.003
948.00	-.085	.007
946.00	-.081	.013

944.00	-.079	.018
942.00	-.071	.023
940.00	-.064	.026
938.00	-.043	.026
936.00	-.049	.031
934.00	-.052	.026
932.00	-.058	.016
930.00	-.064	.007
928.00	-.060	.002
926.00	-.058	-.004
924.00	-.049	-.013
922.00	-.047	-.024
920.00	-.044	-.030
918.00	-.031	-.023
916.00	-.025	-.023
914.00	-.014	-.004
912.00	-.006	.008
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.19
B-B DEFLECTION = .09
TOP ELEVATION OF TUBE = 1044.00

1 PLOT OF 86-0819 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1

```
              -5.0     -4.0     -3.0     -2.0     -1.0      0.00     1.0      2.0      3.0      4.0      5.0
             ..........................................................................................
1044.00      .        .        .        .        .        *X       .        .        .        .        .
1040.00      .        .        .        .        .        *.X      .        .        .        .        .
1036.00      .        .        .        .        .        *X       .        .        .        .        .
1032.00      .        .        .        .        .        *X       .        .        .        .        .
1028.00      .        .        .        .        .        *X       .        .        .        .        .
1024.00      .        .        .        .        .        *X       .        .        .        .        .
1020.00      .        .        .        .        .        *X       .        .        .        .        .
1016.00      .        .        .        .        .        *X       .        .        .        .        .
1012.00      .        .        .        .        .        * X      .        .        .        .        .
1008.00      .        .        .        .        .        *X       .        .        .        .        .
1004.00      .        .        .        .        .        *X       .        .        .        .        .
1000.00      .        .        .        .        .        *X       .        .        .        .        .
 996.00      .        .        .        .        .        *X       .        .        .        .        .
 992.00      .        .        .        .        .        *X       .        .        .        .        .
 988.00      .        .        .        .        .        *X       .        .        .        .        .
 984.00      .        .        .        .        .        *X       .        .        .        .        .
 980.00      .        .        .        .        .        *X       .        .        .        .        .
 976.00      .        .        .        .        .        *X       .        .        .        .        .
 972.00      .        .        .        .        .        *X       .        .        .        .        .
 968.00      .        .        .        .        .        *X       .        .        .        .        .
 964.00      .        .        .        .        .        *X       .        .        .        .        .
 960.00      .        .        .        .        .        *X       .        .        .        .        .
 956.00      .        .        .        .        .        *X       .        .        .        .        .
 952.00      .        .        .        .        .        *X       .        .        .        .        .
 948.00      .        .        .        .        .        *X       .        .        .        .        .
 944.00      .        .        .        .        .        *X       .        .        .        .        .
 940.00      .        .        .        .        .         X       .        .        .        .        .
 936.00      .        .        .        .        .        *X       .        .        .        .        .
 932.00      .        .        .        .        .        *X       .        .        .        .        .
 928.00      .        .        .        .        .        *X       .        .        .        .        .
 924.00      .        .        .        .        .         X       .        .        .        .        .
 920.00      .        .        .        .        .         X       .        .        .        .        .
 916.00      .        .        .        .        .         X       .        .        .        .        .
 912.00      .        .        .        .        .         X       .        .        .        .        .
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1**** 86-0819 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5

DATE AUG. 19, 1986. INITIAL READINGS TAKEN ON APRIL 1, 1986.

BOTTOM ELEV. 910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
A-A MEAN BIAS = 93 B-B MEAN BIAS = 12 LIMIT USED =10000

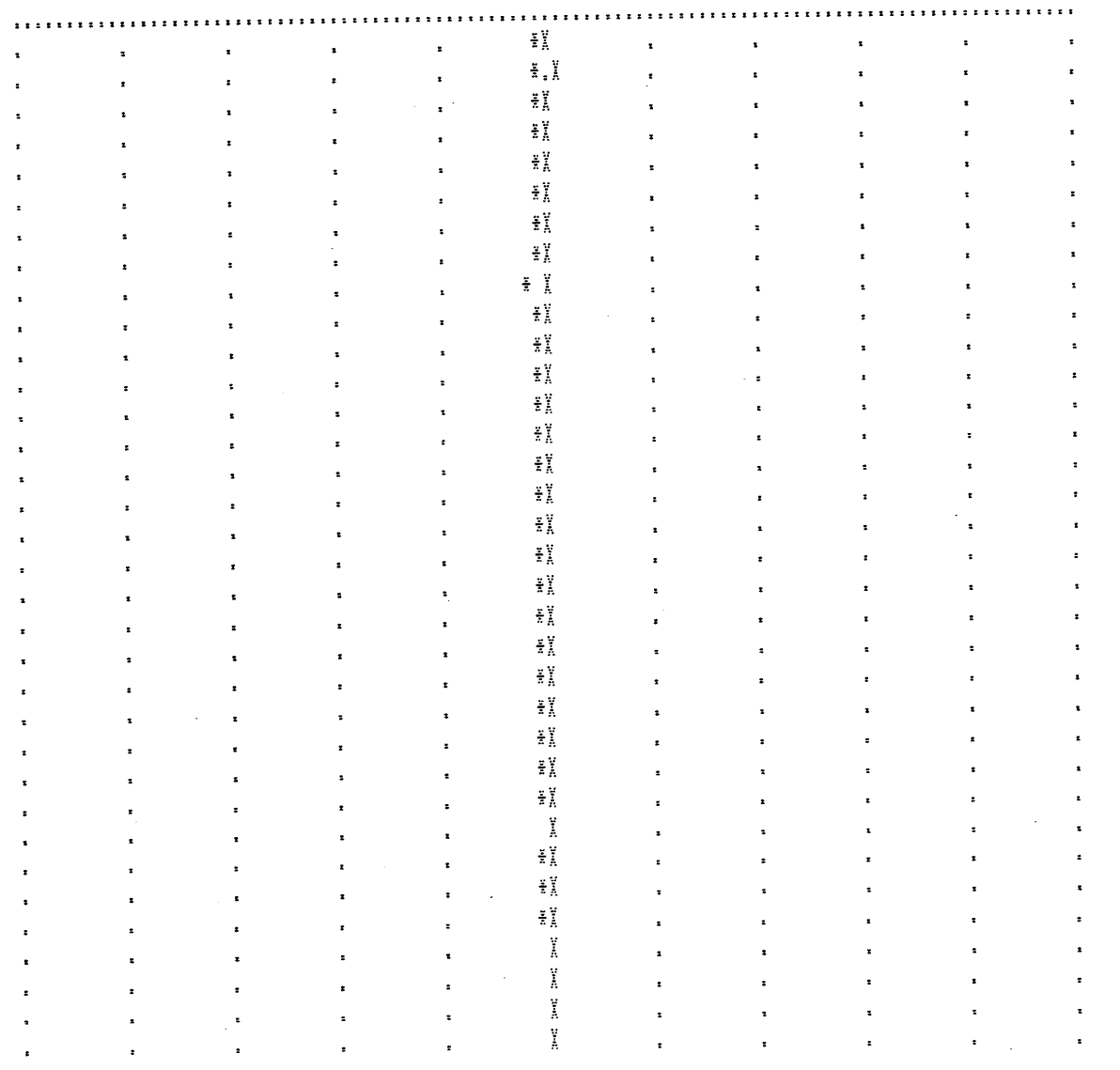
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1044.00	-.186	.091
1042.00	-.125	.041
1040.00	-.116	.049
1038.00	-.122	.056
1036.00	-.123	.050
1034.00	-.125	.041
1032.00	-.127	.037
1030.00	-.127	.034
1028.00	-.129	.035
1026.00	-.134	.041
1024.00	-.135	.032
1022.00	-.130	.023
1020.00	-.132	.034
1018.00	-.143	.035
1016.00	-.147	.034
1014.00	-.146	.043
1012.00	-.149	.044
1010.00	-.150	.034
1008.00	-.149	.032
1006.00	-.143	.026
1004.00	-.139	.024
1002.00	-.136	.028
1000.00	-.134	.033
998.00	-.134	.032
996.00	-.137	.031
994.00	-.135	.038
992.00	-.133	.037
990.00	-.133	.034
988.00	-.133	.029
986.00	-.131	.036
984.00	-.129	.034
982.00	-.127	.037
980.00	-.125	.040
978.00	-.121	.041
976.00	-.121	.047
974.00	-.118	.046
972.00	-.114	.041
970.00	-.113	.032
968.00	-.113	.026
966.00	-.112	.014
964.00	-.110	.010
962.00	-.109	.011
960.00	-.109	.008
958.00	-.106	.008
956.00	-.101	.013
954.00	-.101	.013
952.00	-.100	-.001
950.00	-.090	-.003
948.00	-.085	.007
946.00	-.081	.013

944.00	-.079	.018
942.00	-.071	.023
940.00	-.064	.026
938.00	-.043	.026
936.00	-.049	.031
934.00	-.052	.026
932.00	-.058	.016
930.00	-.064	.007
928.00	-.060	.002
926.00	-.058	-.004
924.00	-.049	-.013
922.00	-.047	-.024
920.00	-.044	-.030
918.00	-.031	-.023
916.00	-.025	-.023
914.00	-.014	-.004
912.00	-.006	.008
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.19
B-B DEFLECTION = .09
TOP ELEVATION OF TUBE = 1044.00

1 PLOT OF 86-0819 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0819 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6

DATE AUG. 19, 1986. INITIAL READINGS TAKEN ON JANUARY 23, 1986.

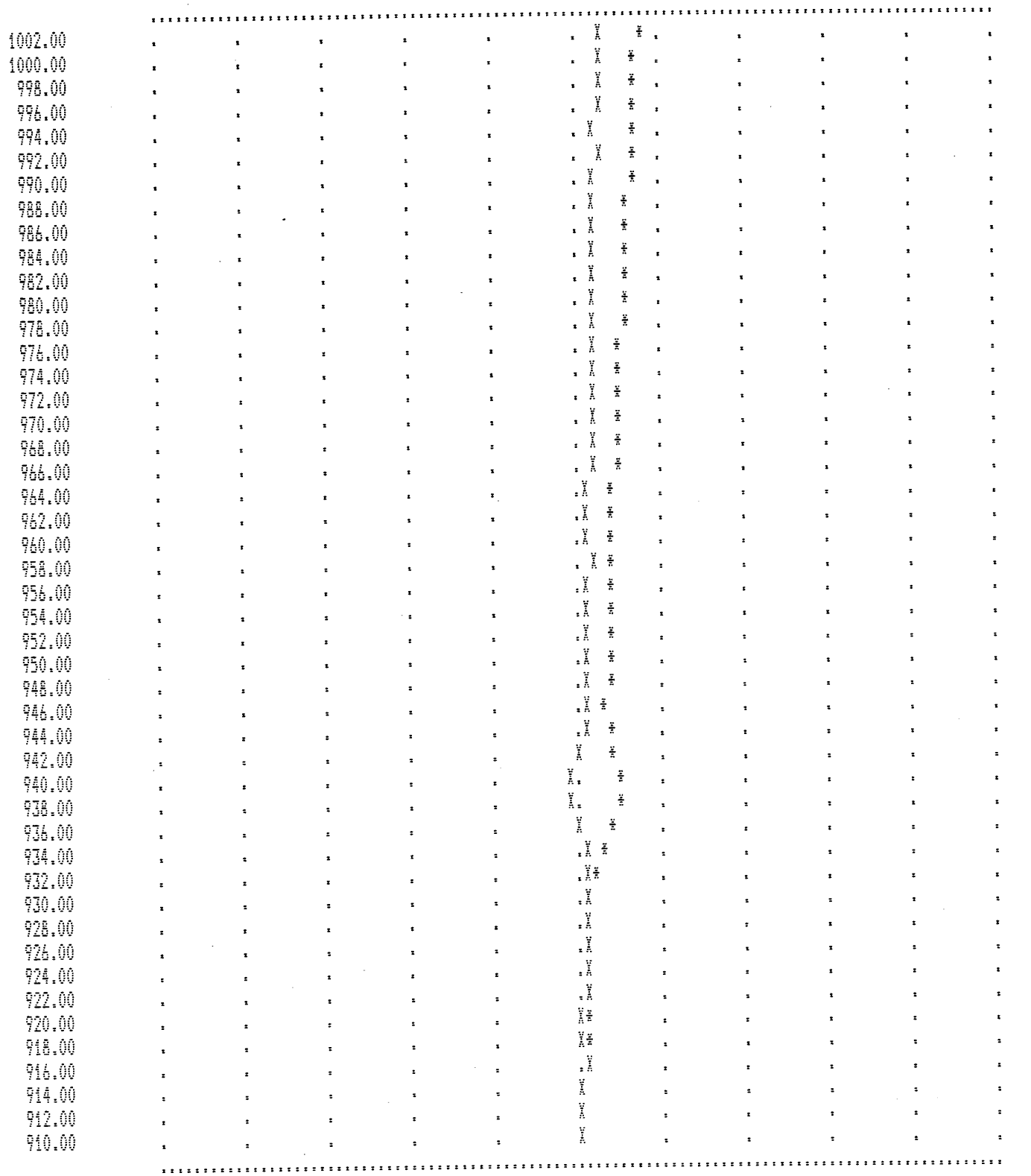
BOTTOM ELEV. 910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0123 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6 INITIAL READINGS
A-A MEAN BIAS = 87 B-B MEAN BIAS = 22 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1002.00	.767	.337
1000.00	.749	.306
998.00	.735	.316
996.00	.719	.264
994.00	.703	.250
992.00	.680	.252
990.00	.667	.250
988.00	.650	.230
986.00	.630	.221
984.00	.604	.206
982.00	.592	.201
980.00	.574	.205
978.00	.555	.194
976.00	.540	.182
974.00	.526	.173
972.00	.505	.159
970.00	.481	.162
968.00	.464	.157
966.00	.455	.155
964.00	.447	.149
962.00	.434	.143
960.00	.423	.145
958.00	.411	.157
956.00	.404	.145
954.00	.396	.133
952.00	.388	.110
950.00	.371	.100
948.00	.350	.092
946.00	.331	.085
944.00	.353	.059
942.00	.416	-.018
940.00	.469	-.074
938.00	.476	-.064
936.00	.421	.001
934.00	.323	.086
932.00	.192	.148
930.00	.112	.139
928.00	.101	.104
926.00	.104	.067
924.00	.124	.072
922.00	.140	.077
920.00	.115	.049
918.00	.085	.043
916.00	.067	.054
914.00	.035	.029
912.00	-.005	.005
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = .77
B-B DEFLECTION = .34
TOP ELEVATION OF TUBE = 1002.00
1 PLOT OF 86-0819 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1****

DATE 4) 0, 1900

1**** 86-0819 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6

DATE AUG. 19, 1986. INITIAL READINGS TAKEN ON APRIL 1, 1986.

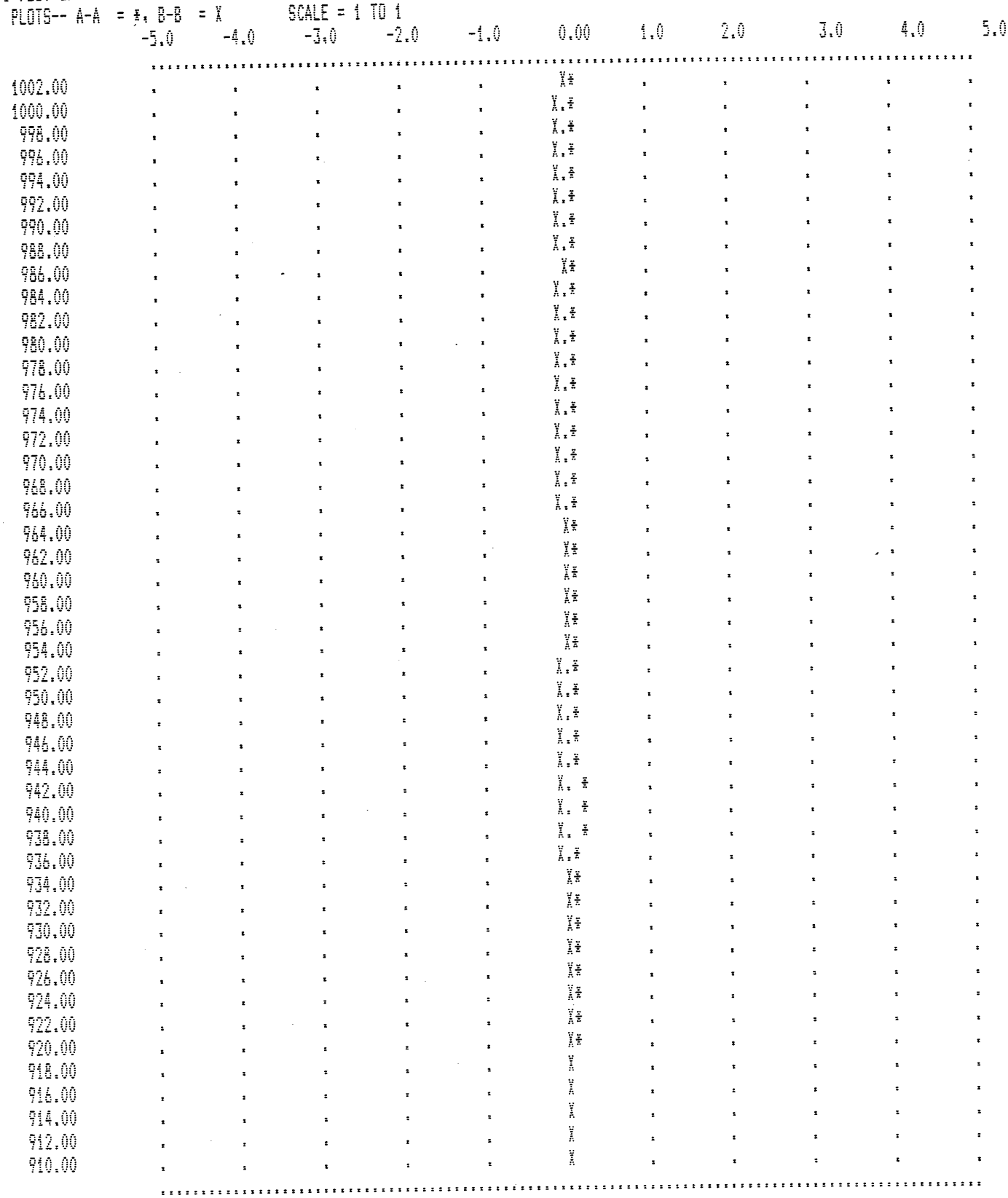
BOTTOM ELEV. 910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
A-A MEAN BIAS = 87 B-B MEAN BIAS = 22 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1002.00	.112	-.023
1000.00	.118	-.069
998.00	.120	-.055
996.00	.117	-.065
994.00	.115	-.068
992.00	.110	-.068
990.00	.108	-.054
988.00	.109	-.053
986.00	.107	-.043
984.00	.098	-.058
982.00	.100	-.061
980.00	.102	-.062
978.00	.098	-.060
976.00	.094	-.061
974.00	.092	-.063
972.00	.090	-.059
970.00	.088	-.064
968.00	.086	-.056
966.00	.089	-.050
964.00	.091	-.049
962.00	.091	-.044
960.00	.091	-.035
958.00	.096	-.028
956.00	.098	-.037
954.00	.101	-.043
952.00	.104	-.058
950.00	.106	-.055
948.00	.106	-.053
946.00	.110	-.062
944.00	.132	-.068
942.00	.161	-.089
940.00	.176	-.104
938.00	.168	-.095
936.00	.143	-.066
934.00	.117	-.039
932.00	.094	-.022
930.00	.073	-.026
928.00	.077	-.023
926.00	.074	-.019
924.00	.069	-.007
922.00	.066	.004
920.00	.055	.000
918.00	.045	.006
916.00	.038	.010
914.00	.031	-.001
912.00	.016	.002
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = .11
B-B DEFLECTION = -.02
TOP ELEVATION OF TUBE = 1002.00
1 PLOT OF 86-0819 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1****

DATE 4) 0, 1900

1**** 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1

DATE   JULY 16, 1986. INITIAL READINGS TAKEN ON APRIL 1, 1986.

BOTTOM ELEV. 912.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

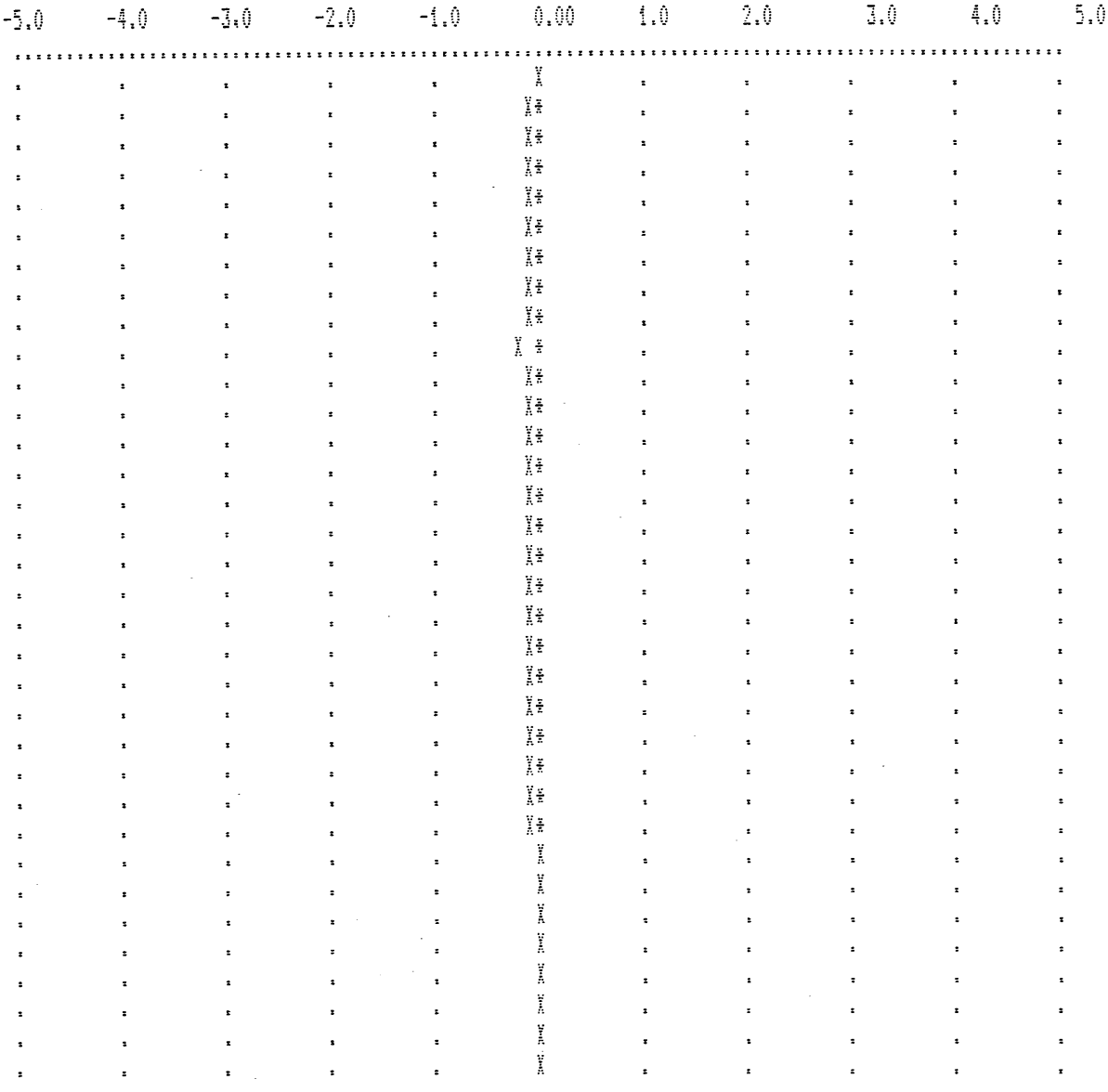
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
A-A MEAN BIAS = 93 B-B MEAN BIAS = 25 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1044.00	-.037	.029
1042.00	-.043	-.044
1040.00	-.033	-.092
1038.00	-.034	-.112
1036.00	-.039	-.116
1034.00	-.039	-.113
1032.00	-.036	-.117
1030.00	-.040	-.114
1028.00	-.037	-.111
1026.00	-.032	-.109
1024.00	-.030	-.112
1022.00	-.027	-.113
1020.00	-.023	-.114
1018.00	-.022	-.116
1016.00	-.022	-.129
1014.00	-.019	-.138
1012.00	-.016	-.143
1010.00	-.014	-.149
1008.00	-.016	-.154
1006.00	-.015	-.152
1004.00	-.010	-.148
1002.00	-.006	-.142
1000.00	-.005	-.148
998.00	-.004	-.148
996.00	-.002	-.148
994.00	-.002	-.146
992.00	.000	-.147
990.00	-.001	-.155
988.00	-.009	-.143
986.00	-.011	-.146
984.00	-.008	-.143
982.00	-.005	-.134
980.00	-.004	-.133
978.00	-.001	-.119
976.00	.001	-.108
974.00	.002	-.103
972.00	.002	-.102
970.00	.004	-.094
968.00	.005	-.086
966.00	.005	-.088
964.00	.005	-.086
962.00	.005	-.079
960.00	.005	-.078
958.00	.007	-.079
956.00	.006	-.080
954.00	.007	-.079
952.00	.008	-.076
950.00	.007	-.074
948.00	.005	-.068
946.00	.004	-.065

944.00	.006	-.056
942.00	.008	-.049
940.00	.009	-.041
938.00	.011	-.029
936.00	.014	-.023
934.00	.023	-.026
932.00	.023	-.015
930.00	.025	-.026
928.00	.025	-.017
926.00	.023	-.015
924.00	.020	-.025
922.00	.022	-.025
920.00	.021	-.023
918.00	.022	-.015
916.00	.021	-.005
914.00	.020	-.005
912.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.04
B-B DEFLECTION = .03
TOP ELEVATION OF TUBE = 1044.00

1 PLOT OF 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0716 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2

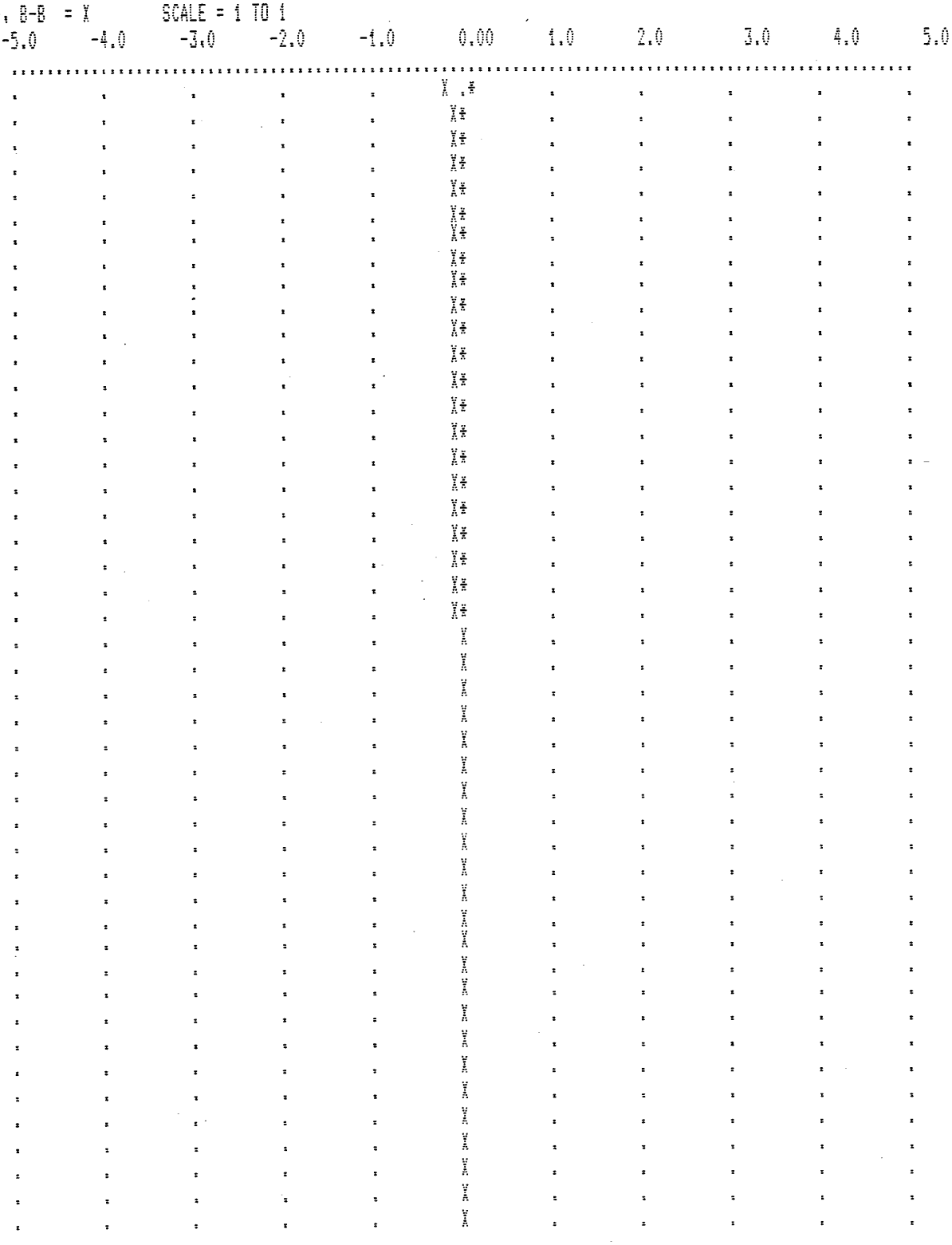
DATE JULY 16, 1986. INITIAL READINGS TAKEN ON APRIL 1, 1986.

BOTTOM ELEV. 912.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2
A-A MEAN BIAS = 70 B-B MEAN BIAS = 25 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1002.00	.098	-.155
1000.00	.020	-.061
998.00	.025	-.053
996.00	.033	-.055
994.00	.024	-.062
992.00	.023	-.061
990.00	.020	-.071
988.00	.013	-.058
986.00	.014	-.062
984.00	.017	-.070
982.00	.014	-.070
980.00	.009	-.073
978.00	.001	-.083
976.00	-.002	-.094
974.00	-.004	-.092
972.00	-.004	-.076
970.00	-.004	-.071
968.00	-.002	-.077
966.00	-.004	-.071
964.00	-.004	-.056
962.00	-.006	-.058
960.00	-.004	-.050
958.00	-.004	-.049
956.00	-.006	-.050
954.00	-.010	-.039
952.00	-.006	-.036
950.00	-.006	-.032
948.00	-.007	-.017
946.00	-.010	-.010
944.00	-.008	-.002
942.00	-.010	.005
940.00	-.008	.001
938.00	-.017	-.009
936.00	-.022	-.010
934.00	-.026	-.015
932.00	-.030	-.029
930.00	-.028	-.032
928.00	-.026	-.029
926.00	-.026	-.014
924.00	-.025	-.012
922.00	-.024	-.010
920.00	-.022	-.005
918.00	-.018	.001
916.00	-.010	.002
914.00	.002	-.003
912.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .10
B-B DEFLECTION = -.15
TOP ELEVATION OF TUBE = 1002.00
1 PLOT OF 86-0716 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3

DATE JULY 16, 1986. INITIAL READINGS TAKEN ON APRIL 1, 1986.

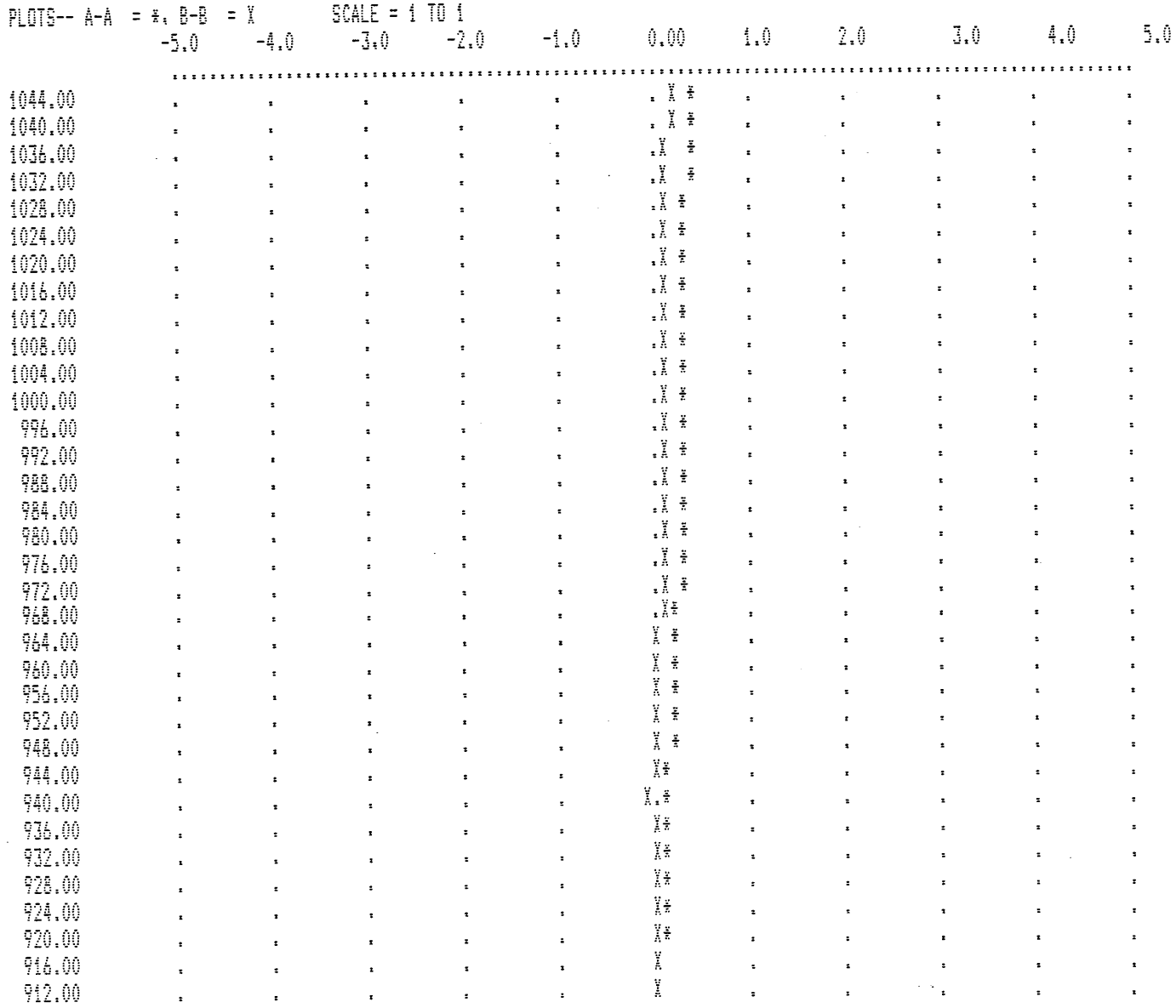
BOTTOM ELEV. 910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
A-A MEAN BIAS = 94 B-B MEAN BIAS = 32 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1044.00	.426	.226
1042.00	.409	.187
1040.00	.392	.196
1038.00	.379	.195
1036.00	.367	.178
1034.00	.359	.143
1032.00	.355	.143
1030.00	.353	.146
1028.00	.349	.137
1026.00	.346	.127
1024.00	.340	.137
1022.00	.338	.137
1020.00	.333	.130
1018.00	.331	.122
1016.00	.328	.125
1014.00	.323	.117
1012.00	.319	.118
1010.00	.313	.122
1008.00	.308	.139
1006.00	.304	.149
1004.00	.302	.149
1002.00	.295	.145
1000.00	.290	.135
998.00	.283	.132
996.00	.277	.126
994.00	.274	.116
992.00	.270	.109
990.00	.290	.096
988.00	.289	.094
986.00	.286	.086
984.00	.283	.077
982.00	.283	.078
980.00	.281	.077
978.00	.275	.071
976.00	.269	.069
974.00	.265	.079
972.00	.260	.072
970.00	.251	.068
968.00	.242	.064
966.00	.230	.057
964.00	.221	.049
962.00	.211	.037
960.00	.199	.030
958.00	.189	.020
956.00	.182	.005
954.00	.178	-.002
952.00	.167	-.012
950.00	.158	-.016
948.00	.157	-.008
946.00	.159	-.032

944.00	.155	-.042
942.00	.147	-.042
940.00	.143	-.048
938.00	.124	-.054
936.00	.121	-.043
934.00	.117	-.035
932.00	.110	-.041
930.00	.108	-.046
928.00	.106	-.029
926.00	.096	-.019
924.00	.087	-.008
922.00	.080	-.011
920.00	.080	-.026
918.00	.056	-.001
916.00	.038	.007
914.00	.030	.006
912.00	.015	.012
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE -
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .43
B-B DEFLECTION = .23
TOP ELEVATION OF TUBE = 1044.00
1 PLOT OF 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4

DATE JULY 16, 1986. INITIAL READINGS TAKEN ON APRIL 1, 1986.

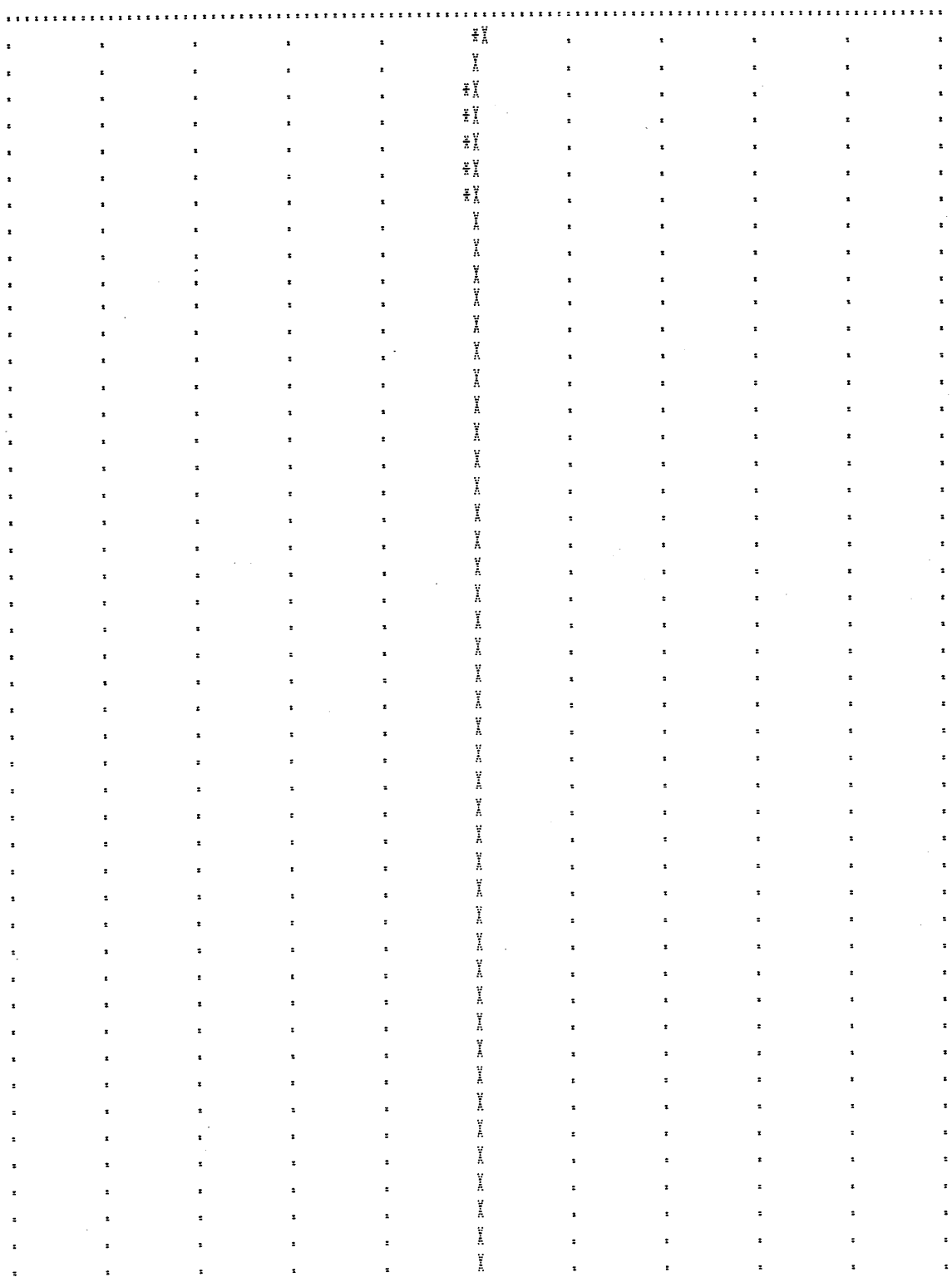
BOTTOM ELEV. 910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
A-A MEAN BIAS = 87 B-B MEAN BIAS = 36 LIMIT USED =10000

5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1002.00	-.033	.094
1000.00	-.038	.033
998.00	-.052	.031
996.00	-.056	.034
994.00	-.061	.037
992.00	-.059	.035
990.00	-.053	.034
988.00	-.049	.032
986.00	-.043	.030
984.00	-.040	.029
982.00	-.038	.028
980.00	-.040	.023
978.00	-.034	.026
976.00	-.027	.024
974.00	-.028	.019
972.00	-.026	.016
970.00	-.020	.010
968.00	-.019	.017
966.00	-.019	.013
964.00	-.017	.012
962.00	-.017	.021
960.00	-.014	.018
958.00	-.008	.029
956.00	-.006	.033
954.00	-.002	.036
952.00	-.002	.048
950.00	.005	.044
948.00	.003	.047
946.00	.005	.046
944.00	.011	.049
942.00	.014	.043
940.00	.014	.043
938.00	.015	.044
936.00	.015	.043
934.00	.013	.041
932.00	.013	.041
930.00	.013	.043
928.00	.009	.041
926.00	.007	.040
924.00	.004	.041
922.00	-.001	.039
920.00	-.004	.044
918.00	-.007	.050
916.00	-.006	.038
914.00	-.003	.021
912.00	.000	.004
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.03
B-B DEFLECTION = .09
TOP ELEVATION OF TUBE = 1002.00
1 PLOT OF 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5

DATE JULY 16, 1986. INITIAL READINGS TAKEN ON APRIL 1, 1986.

BOTTOM ELEV. 910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

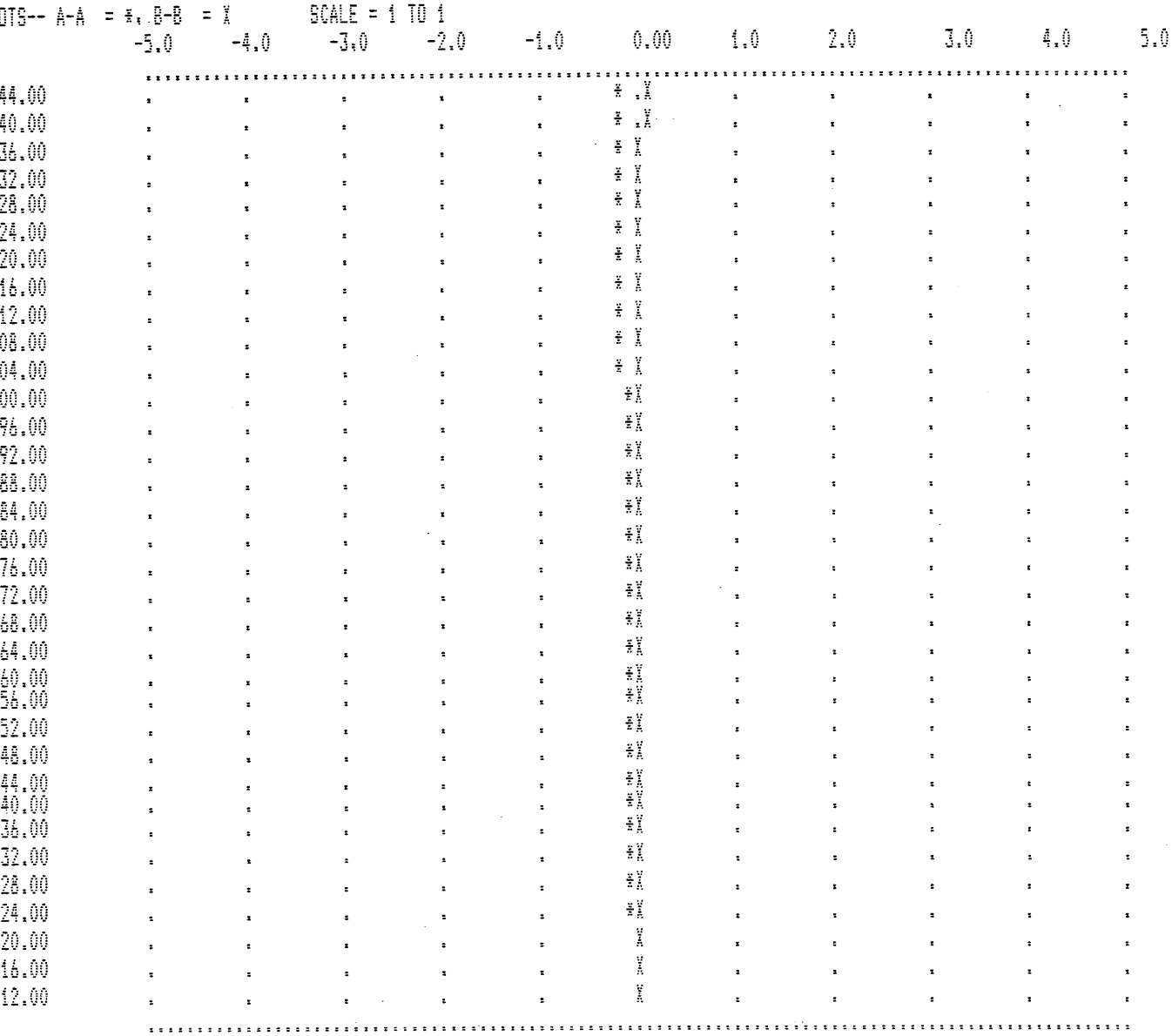
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
A-A MEAN BIAS = 114 B-B MEAN BIAS = 22 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1044.00	-.254	.090
1042.00	-.209	.059
1040.00	-.202	.065
1038.00	-.209	.065
1036.00	-.207	.049
1034.00	-.208	.038
1032.00	-.206	.031
1030.00	-.204	.025
1028.00	-.203	.019
1026.00	-.204	.021
1024.00	-.202	.009
1022.00	-.191	.002
1020.00	-.188	.008
1018.00	-.190	.010
1016.00	-.186	.009
1014.00	-.178	.018
1012.00	-.175	.017
1010.00	-.171	.014
1008.00	-.166	.014
1006.00	-.161	.010
1004.00	-.155	.010
1002.00	-.152	.008
1000.00	-.150	.010
998.00	-.149	.008
996.00	-.151	.004
994.00	-.149	.004
992.00	-.146	.001
990.00	-.145	.004
988.00	-.144	.001
986.00	-.141	.006
984.00	-.139	.003
982.00	-.136	.003
980.00	-.133	.007
978.00	-.130	.014
976.00	-.128	.021
974.00	-.124	.018
972.00	-.116	.007
970.00	-.116	-.005
968.00	-.114	-.002
966.00	-.111	-.015
964.00	-.109	-.019
962.00	-.106	-.023
960.00	-.105	-.028
958.00	-.103	-.028
956.00	-.100	-.026
954.00	-.100	-.021
952.00	-.101	-.026
950.00	-.095	-.031
948.00	-.090	-.031
946.00	-.087	-.035

944.00	-.085	-.038
942.00	-.079	-.032
940.00	-.074	-.029
938.00	-.072	-.024
936.00	-.074	-.018
934.00	-.074	-.016
932.00	-.076	-.018
930.00	-.077	-.025
928.00	-.072	-.017
926.00	-.068	-.025
924.00	-.059	-.026
922.00	-.053	-.022
920.00	-.051	-.029
918.00	-.037	-.028
916.00	-.029	-.027
914.00	-.017	-.011
912.00	-.007	.000
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.25
B-B DEFLECTION = .09
TOP ELEVATION OF TUBE = 1044.00

1 PLOT OF 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6

DATE JULY 16, 1986. INITIAL READINGS TAKEN ON APRIL 1, 1986.

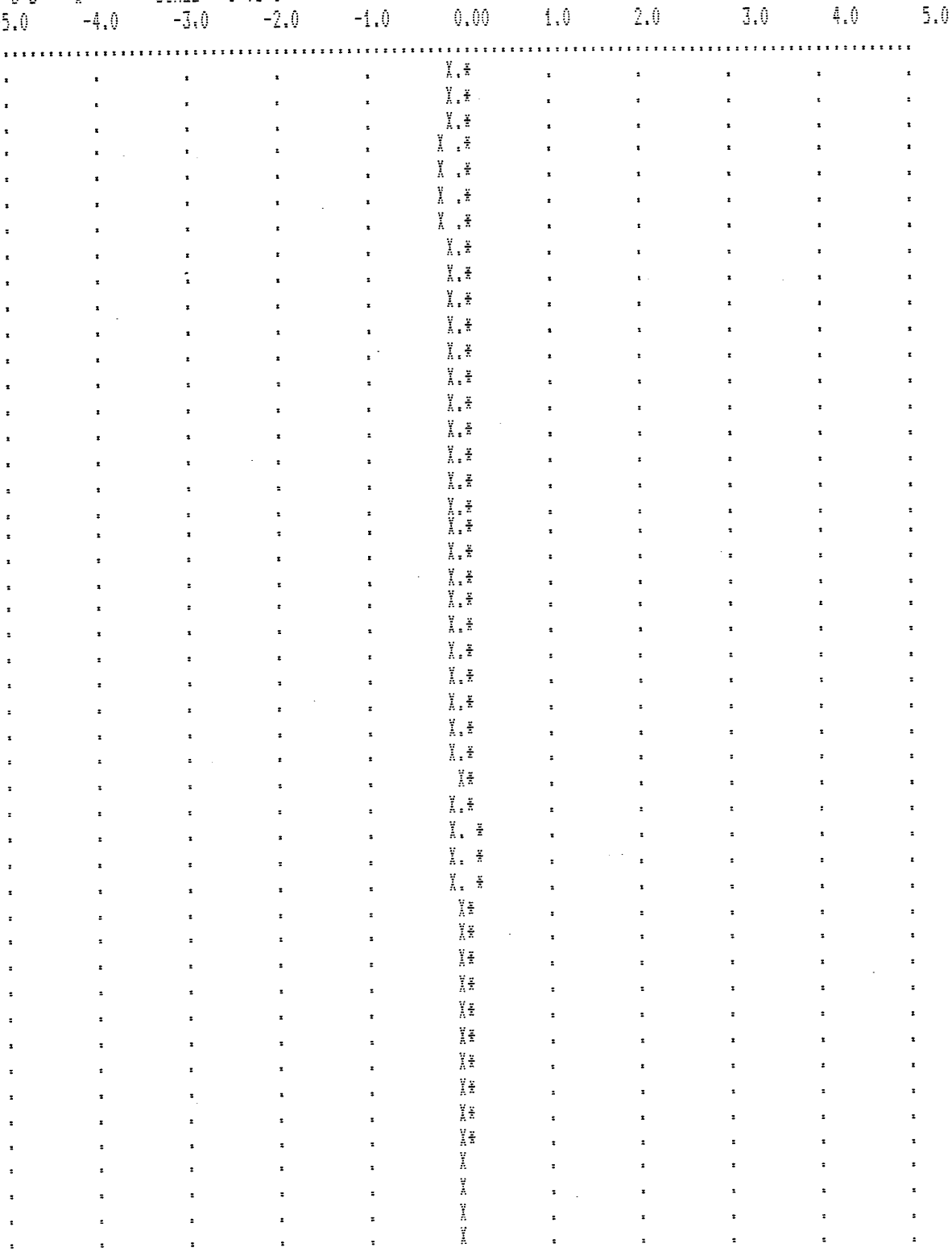
BOTTOM ELEV. 910.0
AA CALIBRATION .0000500
BB CALIBRATION .0000500

INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
A-A MEAN BIAS = 109 B-B MEAN BIAS = 28 LIMIT USED =10000

5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1002.00	.124	-.122
1000.00	.118	-.148
998.00	.122	-.134
996.00	.121	-.151
994.00	.121	-.157
992.00	.119	-.163
990.00	.118	-.155
988.00	.121	-.149
986.00	.122	-.136
984.00	.116	-.140
982.00	.089	-.143
980.00	.094	-.149
978.00	.094	-.142
976.00	.092	-.136
974.00	.091	-.127
972.00	.091	-.122
970.00	.092	-.118
968.00	.091	-.118
966.00	.095	-.115
964.00	.098	-.112
962.00	.098	-.110
960.00	.099	-.101
958.00	.102	-.080
956.00	.104	-.068
954.00	.106	-.062
952.00	.107	-.058
950.00	.107	-.053
948.00	.107	-.050
946.00	.112	-.050
944.00	.130	-.052
942.00	.154	-.062
940.00	.166	-.065
938.00	.158	-.052
936.00	.137	-.027
934.00	.117	-.008
932.00	.097	.002
930.00	.079	.002
928.00	.081	.005
926.00	.078	.008
924.00	.076	.015
922.00	.073	.016
920.00	.062	.008
918.00	.051	.010
916.00	.045	.008
914.00	.037	-.010
912.00	.018	-.006
910.00	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .12
B-B DEFLECTION = -.12
TOP ELEVATION OF TUBE = 1002.00
1 PLOT OF 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



APPENDIX F

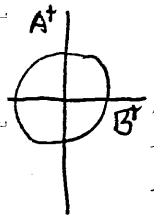
FIELD DATA SHEETS

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-1 PAGE 1 OF 2

PROJECT NO. B5769 PROJECT NAME Ball Mountain Dam
DATE January 23, 1986 CALCULATED BY _____ ON _____
READ BY S. Sarkinds / R. Barry CHECKED BY _____ ON _____
INSTRUMENT NO. _____

D.S.



DEPTH	ORIG. DIFF.	AZ=DOWNSTREAM A+	AZ=DOWNSTREAM A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	AZ=Spillway B-	NEW DIFF.	CHANGE
~~133'~~		+570					+494			
132		+375	-277				+400	-393		
130		+395	-292				+536	-367		
128		+394	-290				+358	-343		
126		+433	-320				+340	-321		
124		+458	-353				+352	-336		
122		+527	-420				+355	-327		
120		+577	-465				+258	-249		
118		+560	-449				+164	-145		
116		+542	-435				+121	-110		
114		+612	-503				+63	-43		
112		+622	-511				-28	+60		
110		+535	-427				-105	+116		
108		+460	-359				-205	+216		
106		+385	-269				-198	+209		
* 105		+325	-213				-158	+178		
* 103		+250	-141				-29	+40		
* 101		+204	-94				+102	-90		
100		+217	-103				+141	-128		
98		+275	-164				+187	-177		
96		+328	-217				+283	-269		
* 95		+333	-224				+297	-279		
* 93		+333	-279				+259	-228		
* 91		+489	-380				+247	-232		
90		+505	-413				+247	-230		
88		+554	-421				+236	-217		
86		+569	-456				+231	-207		
* 85		+531	-470				+225	-201		
* 83		+574	-461				+133	-159		
* 81		+591	-482				+145	-134		
80		+574	-458				+122	-111		
78		+530	-424				+83	-65		
76		+551	-438				+31	-28		
74		+540	-425				+32	-8		
72		+485	-375				-28	+45		
70		+462	-351				-77	+95		
68		+437	-329				-97	+117		
66		+408	-296				-70	+90		
64		+400	-288				-63	+82		
62		+405	-246				-23	+42		
60		+404	-290				+71	-50		
58		+422	-312				+104	-94		
56		+349	-257				+112	-99		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-1 PAGE 2 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam

DATE January 23, 1986 CALCULATED BY _____ ON _____

READ BY S. Sarandis/R. Barry

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spill Way B+	B-	NEW DIFF.	CHANGE
54'		+300	-187				+120	-98		
* 53'		+300	-186				+138	-110		
* 51		+240	-129				+195	-172		
* 49		+198	-89				+240	-222		
48		+178	-67				+250	-230		
46		+133	-21				+234	-217		
44		+79	+29				+192	-170		
* 43		+61	+54				+191	-167		
* 41		-16	+126				+206	-180		
* 39		-38	+151				+235	-214		
38		-14	+128				+241	-215		
36		0	+110				+237	-217		
34		+33	+83				+244	-222		
32		+40	+76				+247	-225		
* 31		+75	+35				+242	-219		
careful * 29		+174	-60				+274	-244		
28		+177	-69				+283	-253		
26		+214	-99				+297	-259		
24		+291	-178				+321	-296		
22		+344	-234				+367	-340		
20		+392	-274				+383	-364		
18		+375	-262				+320	-314		
16		+372	-257				+221	-200		
14		+346	-233				+164	-153		
12		+345	-231				+115	-97		
10		+287	-170				+145	-115		
8		+189	-76				+149	-107		
6		+64	+48				+61	-41		
4		-385	+493				-56	+106		
2		-645	+753				-149	+217		

1 GPM ABOVE SAND

4.96'

5'

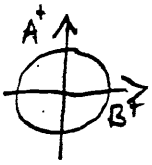
GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-1 PAGE 1 OF 2

PROJECT NO. 85769 - PROJECT NAME Ball Mountain Dam
DATE April 1, 1986 CALCULATED BY _____ ON _____
READ BY MAM, SJS CHECKED BY _____ ON _____
INSTRUMENT NO. _____

Stick up = 0

D.S.



Depth to Sand 4.97

Stick up above surface casing = 0

DEPTH	ORIG. DIFF.	AZ=Down Stream A+	AZ=Down Stream A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	AZ=Spillway B-	NEW DIFF.	CHANGE
132		+355	-294				+401	-402		
130		+376	-309				+376	-375		
128		+375	-308				+357	-351		
126		+412	-342				+341	-334		
124		+442	-372				+349	-345		
122		+504	-432				+340	-334		
120		+558	-483				+247	-254		
118		+545	-472				+156	-145		
116		+523	-454				+124	-104		
114		+594	-517				+59	-59		
112		+605	-536				-27	+41		
110		+522	-462				-95	+103		
108		+452	-390				-192	+203		
106		+367	-300				-199	+206		
105		+310	-242				-162	+165		
103		+236	-166				-35	+57		
101		+186	-112				+99	-90		
100		+200	-128				+147	-136		
98		+254	-182				+178	-173		
96		+313	-239				+296	-274		
95		+322	-248				+294	-289		
93		+368	-294				+275	-288		
91		+470	-398				+253	-236		
90		+509	-434				+247	-237		
88		+537	-460				+236	-224		
86		+551	-475				+230	-215		
85		+564	-490				+225	-205		
83		+558	-484				+192	-169		
81		+572	-499				+163	-156		
80		+556	-482				+121	-124		
78		+519	-444				+80	-87		
76		+535	-458				+57	-48		
74		+525	-449				+35	-35		
72		+468	-396				-22	+31		
70		+445	-373				-77	+93		
68		+420	-351				-87	+94		
66		+392	-320				-66	+81		
64		+383	-310				-66	+72		
62		+388	-317				-25	+48		
60		+391	-315				+58	-64		
58		+425	-350				+112	-91		
56		+379	-306				+115	-105		
54		+301	-227				+108	-104		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-1 PAGE 2 OF 2

PROJECT NO. 85769 - PROJECT NAME Ball Mountain Dam

DATE ~~Apr~~ April 1, 1986 CALCULATED BY _____ ON _____

READ BY MAM, GJS

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
53		+287	-210				+131	-120		
~~52~~										
51		+223	-146				+190	-181		
49		+185	-109				+246	-236		
48		+163	-88				+245	-241		
46		+116	-42				+242	-224		
44		+64	+9				+183	-169		
43		+44	+31				+189	-172		
41		-33	+104				+208	-192		
39		-53	+128				+238	-217		
38		-30	+105				+240	-226		
36		-23	+90				+234	-213		
34		+15	+58				+240	-223		
32		+22	+56				+239	-227		
30		+128	-55				+234	-217		
~~24~~		~~+158~~					~~+272~~			
28		+158	-88				+272	-258		
26		+192	-119				+286	-263		
24		+274	-199				+317	-307		
22		+327	-256				+354	-348		
20		+377	-298				+381	-372		
18		+360	-285				+336	-318		
16		+356	-280				+221	-210		
14		+332	-255				+171	-153		
12		+329	-254				+116	-100		
10		+271	-194				+138	-115		
8		+170	-103				+140	-119		
6		+57	+20				+50	-45		
4		-385	+460				-100	+100		
2		-658	+739				-219	+195		
	Water	Encountered		At	110 ft	Depth				

30

20 @

3' on cable

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-1 PAGE 1 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam
DATE May 14, 1986 CALCULATED BY _____ ON _____
READ BY SJS/FAD
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ=Downstream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B−	NEW DIFF.	CHANGE
132		354	-285				409	-369		
130		375	-307				375	-354		
128		374	-304				359	-333		
126		409	-340				325	-309		
124		436	-370				344	-325		
122		501	-428				343	-324		
120		555	-482				258	-239		
118		543	-476				161	-133		
116		520	-451				122	-104		
114		592	-517				65	-45		
112		604	-535				-41	60		
110		520	-447				-105	118		
108		450	-381				-192	222		
106		368	-292				-207	210		
105		309	-236				-169	176		
103		235	-164				-34	63		
101		185	-109				100	-72		
100		199	-127				145	-127		
98		253	-181				184	-156		
96		309	-240				279	-268		
95		322	-246				304	-278		
93		362	-292				260	-232		
91		470	-395				250	-228		
90		505	-432				245	-217		
88		534	-461				241	-217		
86		548	-475				230	-209		
85		561	-489				218	-202		
83		557	-484				189	-154		
81		572	-500				146	-128		
80		554	-482				112	-101		
78		518	-444				77	-68		
76		533	-458				41	-30		
74		523	-448				32	-13		
72		466	-397				-31	47		
70		445	-370				-90	111		
68		419	-347				-85	110		
66		391	-318				-73	101		
64		382	-309				-69	92		
62		387	-317				-32	45		
60		388	-316				64	-47		
58		425	-354				104	-86		
56		384	-312				110	-98		
54		304	-232				110	-100		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-1 PAGE 2 OF 2

PROJECT NO. 85769
DATE May 14 1986
READ BY SJS/PAD
INSTRUMENT NO.

PROJECT NAME Ball Mountain Dam
CALCULATED BY ON
CHECKED BY ON

DEPTH	ORIG. DIFF.	AZ= Downstream A+	AZ= Downstream A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ= Spillway B+	AZ= Spillway B-	NEW DIFF.	CHANGE
53		285	-214				126	-104		
51		218	-147				190	-167		
49		185	-110				240	-220		
48		162	-89				255	-231		
46		115	-44				237	-213		
44		63	6				195	-161		
43		44	31				192	-157		
41		-35	104				203	-176		
39		-55	128				240	-213		
38		-31	104				246	-223		
36		-19	90				246	-216		
34		12	58				251	-222		
32		18	56				255	-224		
30		127	-58				240	-217		
28		157	-87				276	-261		
26		191	-118				281	-267		
24		272	-200				318	-294		
22		323	-256				361	-334		
20		371	-300				380	-366		
18		358	-283				323	-312		
16		354	-281				220	-203		
14		330	-258				169	-154		
12		327	-252				116	-105		
10		270	-197				144	-110		
8		172	-102				137	-104		
6		54	21				68	-40		
4		-393	470				-48	83		
2		-664	739				-153	171		
			Water at 113 ft							

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-1 PAGE 1 OF 2

PROJECT NO. ~~85769~~ 86934 - PROJECT NAME Ball Mountain Dam

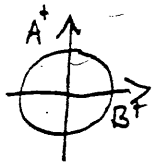
DATE June 16, 1986 CALCULATED BY _____ ON _____

READ BY SJS, MTM CHECKED BY _____ ON _____

INSTRUMENT NO. _____

Stick up = 0

D.S.



Depth to Sand 4.96

Stick up above surface casing = 0

DEPTH	ORIG. DIFF.	AZ=Down Stream A+	AZ=Down Stream A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	AZ=Spillway B-	NEW DIFF.	CHANGE
132		361	-277				394	-385		
130		382	-300				377	-361		
128		381	-295				352	-328		
126		417	-332				328	-307		
124		445	-362				339	-328		
122		510	-425				340	-317		
120		564	-477				269	-240		
118		550	-462				160	-140		
116		530	-443				115	-97		
114		596	-510				060	-50		
112		608	-526				-042	+61		
110		522	-438				-103	+114		
108		454	-373				-210	+218		
106		370	-284				-204	+205		
105		311	-228				-165	+178		
103		237	-154				-025	+44		
101		191	-103				099	-79		
100		205	-121				142	-116		
98		259	-174				186	-159		
96		316	-236				289	-266		
95		326	-242				291	-276		
93		369	-290				271	-232		
91		475	-392				250	-225		
90		511	-429				242	-228		
88		538	-457				240	-212		
86		552	-470				227	-207		
85		564	-484				217	-201		
83		561	-478				186	-160		
81		577	-496				155	-140		
80		558	-476				123	-112		
78		523	-440				082	-68		
76		537	-454				051	-35		
74		526	-441				028	-22		
72		471	-389				-009	+40		
70		447	-362				-079	+88		
68		421	-340				-082	+112		
66		394	-309				-071	+97		
64		386	-301				-057	+81		
62		391	-308				-026	+53		
60		394	-310				075	-44		
58		429	-349				105	-86		
56		388	-304				129	-91		
54		307	-223				122	-94		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-1 PAGE 2 OF 2

PROJECT NO. 85769 - PROJECT NAME Ball Mountain Dam
DATE June 16 1986 CALCULATED BY _____ ON _____
READ BY SJS, MTM CHECKED BY _____ ON _____
INSTRUMENT NO. _____

DEPTH	ORIG. DIFF.	AZ = Downstream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
53		289	-206				125	-105		
~~53~~		~~220~~	~~-140~~				~~199~~			
51		220	-140				199	-174		
49		189	-105				251	-221		
48		165	-83				246	-224		
46		120	-35				247	-210		
44		068	+12				195	-166		
43		047	+34				179	-180		
41		-035	+114				196	-182		
39		-051	+131				236	-215		
38		-027	+111				244	-222		
36		-015	+95				235	-212		
34		018	+64				241	-216		
32		020	+62				253	-221		
30		130	+52				236	-217		
[illegible]		—					—			
28		161	-84				284	-262		
26		196	-115				287	-266		
24		275	-196				319	-293		
22		327	-253				355	-340		
20		375	-293				384	-371		
18		361	-282				339	-315		
16		358	-277				221	-203		
14		336	-256				173	-151		
12		329	-248				123	-99		
10		274	-191				145	-114		
8		179	-101				147	-117		
6		058	+29				074	-45		
4		-394	+474				-050	+96		
2		-666	750				-139	+195		

@ 109'

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-1 PAGE 1 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam
DATE July 16, 1986 CALCULATED BY _____ ON _____
READ BY Steve Kench, Steve Secondis
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

Stick up = 0

D.S. A+ B+

Depth to Sand

Stick up above surface casing = 0

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
132		386	-297				403	-384		
130		385	-301				379	-372		
128		388	-296				352	-340		
126		423	-330				337	-324		
124		454	-361				353	-339		
122		515	-419				358	-316		
120		571	-474				269	-248		
118		558	-463				160	-138		
116		535	-442				117	-95		
114		602	-505				83	-54		
112		619	-523				-29	57		
110		532	-437				-87	106		
108		464	-372				-194	211		
106		380	-284				-200	225		
105		322	-227				-164	182		
103		248	-153				-38	62		
101		194	-99				103	-71		
100		209	-115				151	-116		
98		263	-175				188	-159		
96		319	-236				293	-266		
95		332	-243				308	-272		
93		374	-286				269	-242		
91		480	-388				251	-230		
90		516	-425				254	-229		
88		546	-453				243	-219		
86		558	-465				234	-212		
85		572	-479				228	-203		
83		567	-476				191	-165		
81		583	-490				163	-140		
80		565	-473				130	-112		
78		529	-434				93	-76		
76		542	-448				58	-35		
74		532	-440				41	-15		
72		477	-386				-15	40		
70		455	-362				-72	106		
68		429	-338				-85	115		
66		400	-308				-68	102		
64		391	-300				-53	87		
62		396	-303				-32	55		
60		398	-304				69	-48		
58		435	-343				117	-90		
56		395	-303				107	-94		
54		312	-218				121	-86		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-1 PAGE 2 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam
DATE July 16, 1986 CALCULATED BY _____ ON _____
READ BY SSS, SR
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ = Downstream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
53		294	-202				134	-110		
52		~~405~~	~~-316~~				~~175~~	~~-143~~		
51		227	-137				206	-176		
49		196	-100				246	-222		
48		172	-77				257	-228		
46		125	-30				248	-218		
44		74	20				195	-167		
43		53	42				190	-163		
41		-29	120				207	-183		
39		-46	141				237	-213		
38		-20	116				246	-217		
36		-9	101				241	-215		
34		24	70				248	-224		
32		27	67				250	-225		
30		136	-42				245	-221		
[illegible]										
28		168	-79				293	-259		
26		200	-108				291	-261		
24		280	-187				327	-294		
22		334	-244				364	-340		
20		383	-288				390	-368		
18		365	-273				343	-308		
16		362	-268				227	-199		
14		342	-252				167	-152		
12		334	-244				117	-105		
10		279	-186				140	-104		
8		186	-96				150	-116		
6		66	28				75	-54		
4		-386	476				-51	70		
2		-662	752				-135	156		

Water encountered @ 113'

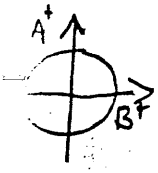
GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-1 PAGE 1 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam
DATE AUGUST 19, 1986 CALCULATED BY _____ ON _____
READ BY R. BARRY
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

ick up

D.S.



DEPTH	ORIG. DIFF.	AZ=Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-	NEW DIFF.	CHANGE
132		364	-275				400	-388		
130		384	-301				372	-353		
128		384	-296				350	-322		
126		419	-328				331	-305		
124		450	-363				377	-333		
122		510	-421				372	-327		
120		568	-477				292	-248		
118		554	-464				177	-136		
116		531	-442				141	-95		
114		599	-507				83	-53		
112		615	-527				-22	+65		
110		528	-440				-84	112		
108		461	-375				-185	221		
106		378	-287				-178	229		
105		319	-228				-135	186		
103		244	-157				+5	72		
101		189	-103				147	-61		
100		204	-120				191	-108		
98		257	-173				225	-153		
96		316	-235				329	-260		
95		329	-244				338	-273		
93		367	-286				294	-238		
91		474	-389				280	-225		
90		512	-427				266	-231		
88		542	-457				250	-216		
86		555	-469				243	-211		
85		567	-482				233	-202		
83		564	-479				199	-160		
81		581	-494				170	-138		
80		563	-477				142	-108		
78		525	-436				101	-69		
76		538	-452				69	-30		
74		530	-442				52	-14		
72		475	-388				4	+39		
70		450	-362				-50	114		
68		427	-339				-58	122		
66		399	-310				-47	112		
64		389	-302				-27	88		
62		394	-307				-10	67		
60		395	-307				+98	-47		
58		430	-347				132	-93		
56		394	-311				140	-92		
54		303	-223				151	-97		

Depth to and 4.98'

ick up ve face casing o

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-1 PAGE 2 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam
DATE AUGUST 19 1986 CALCULATED BY ON
READ BY R. BARRY
INSTRUMENT NO. CHECKED BY ON

DEPTH	ORIG. DIFF.	AZ= Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ= Spillway B+	B-	NEW DIFF.	CHANGE
53		290	-205				165	-116		
~~52~~		~~223~~	~~-141~~				207	-138		
51		223	-141				250	-177		
49		191	-107				303	-224		
48		168	-83				314	-224		
46		120	-37				310	-213		
44		69	+15				257	-165		
43		49	36				248	-156		
41		-34	118				271	-174		
39		-52	137				311	-214		
38		-26	112				319	-218		
36		-14	96				312	-215		
34		+19	64				315	-221		
32		21	63				314	-221		
30		132	-48				300	-221		
[illegible]										
28		164	-85				339	-255		
26		197	-114				341	-258		
24		278	-194				386	-283		
22		330	-251				396	-334		
20		382	-297				419	-372		
18		363	-280				371	-308		
16		362	-275				256	-196		
14		342	-259				207	-153		
12		331	-248				161	-96		
10		278	-193				181	-106		
8		183	-103				192	-110		
6		62	+23				131	-47		
4		-395	475				53	+82		
2		-604	750				-6	1641		

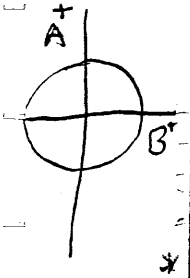
WATER 1061

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-2 PAGE 1 OF 1

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam
DATE January 23, 1986 CALCULATED BY _____ ON _____
READ BY S. Sanford / D. Bailey CHECKED BY _____ ON _____
INSTRUMENT NO. _____

D.S.



~91' STICK-UP OF PVC CASTON ABOVE COUPLING

DEPTH	ORIG. DIFF.	AZ = DOWN STREAM A+	AZ = DOWN STREAM A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = SIDEWAYS B+	AZ = SIDEWAYS B-	NEW DIFF.	CHANGE
91		+256	-146				-532	+537		
90		+289	-180				-614	+627		
88		+301	-253				-737	+740		
86		+300	-196				-508	+525		
~~84~~		~~+276~~	~~-~~				-300			
* 85		+282	-170				-815	+829		
* 83		+250	-170				-762	+779		
* 81		+310	-196				-711	+741		
80		+299	-187				-688	+703		
78		+245	-133				-617	+638		
76		+218	-106				-547	+570		
* 75		+205	-95				-492	+510		
* 73		+255	-103				-395	+412		
* 71		+226	-176				-297	+305		
70		+285	-141				-262	+278		
68		+272	-160				-228	+266		
66		+259	~~-149~~				-240	+261		
64		+208	-97				-293	+304		
62		+177	-109				-408	+444		
60		+175	-[illegible]				-497	+520		
58		+161	-49				-563	+605		
56		-105	+4				-595	+630		
54		+67	+116				-613	+644		
52		+57	+53				-624	+651		
50		+65	+40				-653	+666		
48		+104	+10				-640	+670		
46		+120	-5				-573	+608		
44		+142	-30				-545	+574		
42		+133	-25				-488	+511		
40		+117	-5				-413	+432		
38		+110	+3				-350	+385		
36		+77	+40				-250	+276		
34		+50	+62				-144	+171		
32		+150	-39				-119	+152		
30		+330	-218				-112	+151		
28		+393	-282				-95	+111		
26		+409	-296				-111	+119		
24		+406	-293				-13	+40		
* 23		+404	-291				+26	-3		
* ~~26~~ 22		~~+349~~ +349	-237				+32	-53		
* 19		+273	-159				+89	-93		
18		+245	-116	-132			+46	-145	-125	
16		+225	-110				+203	-17..		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-2 PAGE 2 OF 2

PROJECT NO. 85769 PROJECT NAME BALL MOUNTAIN DAM
DATE JANUARY 23 1986 CALCULATED BY _____ ON _____
READ BY S. SARANDIS/R. BARRY
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ= A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ= B+	B−	NEW DIFF.	CHANGE
14		+175	-65				+212	-190		
* 13		+125	-13				+203	-167		
* 11		-16	+127				+63	-20		
* 9		-143	+258				-68	+104		
8		-193	+306				-24	+49		
6		-208	+320				+161	-125		
4		-100	+211				+292	-248		
2		+29	+178				+296	-265		

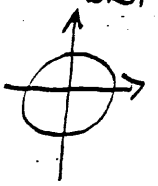
2.63 - MT. OF SAND
2.49 -
2.51 -

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-2 PAGE 1 OF 2

PROJECT NO. 85769 - PROJECT NAME Ball Mountain Dam
DATE April 1, 1986 CALCULATED BY _____ ON _____
READ BY MAM, SJS
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

A+ D.S.



Depth to SAND 2.56

STICK UP above PVC Surface Casing = .91'

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	AZ = Down Stream A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	AZ = Spillway B-	NEW DIFF.	CHANGE
91		+242	-202				-523	+524		
90		+271	-231				-611	+615		
88		+343	-298				-734	+726		
86		+287	-243				-810	+821		
85		+260	-214				-819	+826		
83		+262	-204				-769	+784		
81		+290	-227				-719	+730		
80		+282	-220				-697	+695		
78		+228	-170				-630	+643		
76		+200	-139				-550	+552		
75		+187	-126				-501	+503		
73		+232	-171				-408	+428		
71		+266	-198				-292	+320		
70		+261	-196				-274	+287		
68		+255	-185				-232	+260		
66		+236	-173				-230	+250		
64		+185	-122				-282	+301		
62		+158	-91				-413	+426		
60		+156	-93				-487	+492		
58		+140	-73				-572	+575		
56		+90	-24				-594	+662		
54		+45	+20				-610	+617		
52		+35	+29				-632	+640		
50		+39	+27				-635	+654		
48		+82	-11				-642	+650		
46		+98	-29				-572	+590		
44		+119	-47				-546	+568		
42		+113	-48				-491	+497		
40		+96	-27				-420	+438		
38		+89	-18				-357	+356		
36		+54	+16				-244	+266		
34		+27	+39				-149	+186		
32		+127	-59				-106	+131		
30		+308	-240				-106	+135		
28		+373	-305				-87	+113		
26		+386	-319				-105	+126		
24		+384	-316				-3	+27		
23		+384	-315				+25	-10		
21		+329	-263				+80	-64		
19		+253	-182				+122	-96		
18		+224	-156				+148	-124		
16		+203	-133				+207	-191		
14		+158	-89				+219	-202		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-2 PAGE 2 OF 2

PROJECT NO. 85769 - PROJECT NAME Ball Mountain Dam
DATE April 1, 1986 CALCULATED BY _____ ON _____
READ BY MAM, SJS
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ = Down Stream		NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway		NEW DIFF.	CHANGE
		A+	A-				B+	B-		
13		+106	-36				+206	-191		
11		-37	+105				+39	-33		
9		-164	+234				-69	+94		
8		-214	+282				-30	+39		
6		-231	+299				+154	-141		
4		-133	+202				+310	-286		
2		-112	+192				+433	-398		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-2 PAGE 1 OF 2

Page 2 is on page 2 of SI-4

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam

DATE May 14, 1986 CALCULATED BY ON

READ BY SJS/PAD

INSTRUMENT NO. CHECKED BY ON

DEPTH	ORIG. DIFF.	AZ=Downstream A+	AZ=Downstream A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	AZ=Spillway B−	NEW DIFF.	CHANGE
91		251	-174				-530	532		
90		277	-205				-618	618		
88		345	-269				-719	733		
86		292	-217				-824	828		
85		267	-190				-825	839		
83		266	-185				-758	789		
81		297	-213				-709	738		
80		287	-209				-682	717		
78		235	-155				-618	659		
76		206	-126				-537	569		
75		191	-112				-485	529		
73		234	-159				-402	439		
71		273	-191				-292	321		
70		267	-191				-256	283		
68		261	-180				-229	267		
66		245	-168				-220	250		
64		195	-119				-268	312		
62		161	-84				-420	436		
60		163	-87				-471	501		
58		143	-66				-564	589		
56		96	-19				-586	613		
54		51	29				-602	639		
52		38	37				-615	649		
50		40	34				-638	664		
48		85	-7				-641	675		
46		103	-27				-580	607		
44		123	-45				-552	582		
42		114	-40				-484	511		
40		102	-24				-403	442		
38		93	-14				-344	385		
36		57	20				-242	281		
34		31	45				-140	177		
32		131	-53				-111	134		
30		311	-234				-99	136		
28		376	-300				-83	107		
26		390	-313				-94	123		
24		389	-310				-1	13		
23		387	-307				+34	-12		
21		332	-255				91	-59		
19		255	-175				132	-82		
18		225	-148				155	-127		
16		205	-126				212	-174		
14		162	-83				228	-180		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-2 PAGE 1 OF 2

page 2 is on page 3 of SI-4

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam

DATE May 14, 1986 CALCULATED BY ON

READ BY ST/DAD

INSTRUMENT NO. CHECKED BY ON

DEPTH	ORIG. DIFF.	AZ=Downstream A+	AZ=Downstream A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	AZ=Spillway B−	NEW DIFF.	CHANGE
91		251	-174				-530	532		
90		277	-205				-618	618		
88		345	-269				-719	733		
86		292	-217				-824	828		
85		267	-190				-825	839		
83		266	-185				-758	789		
81		297	-213				-709	738		
80		287	-209				-682	717		
78		235	-155				-618	659		
76		206	-126				-537	569		
75		191	-112				-485	529		
73		234	-159				-402	439		
71		273	-191				-292	321		
70		267	-191				-256	283		
68		261	-180				-229	267		
66		245	-168				-220	250		
64		195	-119				-268	312		
62		161	-84				-420	436		
60		163	-87				-471	501		
58		143	-66				-564	589		
56		96	-19				-586	613		
54		51	29				-602	639		
52		38	37				-615	649		
50		40	34				-638	664		
48		85	-7				-641	675		
46		103	-27				-580	607		
44		123	-45				-552	582		
42		114	-40				-484	511		
40		102	-24				-403	442		
38		93	-14				-344	385		
36		57	20				-242	281		
34		31	45				-140	177		
32		131	-53				-111	134		
30		311	-234				-99	136		
28		376	-300				-83	107		
26		390	-313				-94	123		
24		389	-310				-1	13		
23		387	-307				+34	-12		
21		332	-255				91	-59		
19		255	-175				132	-82		
18		225	-148				155	-127		
16		205	-126				212	-174		
14		162	-83				228	-180		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-2 PAGE 1 OF 2

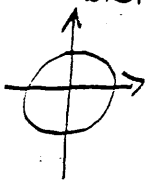
PROJECT NO. ~~86769~~ 86934 PROJECT NAME Ball Mountain Dam

DATE JUNE 16, 1986 CALCULATED BY _____ ON _____

READ BY SJS MTM

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

A+ D.S.



Depth to SAND _____

STICK up above PVC casing = .91'

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	AZ = Down Stream A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	AZ = Spillway B-	NEW DIFF.	CHANGE
91		—	—				—	—		
90		284	-205				-599	625		
88		350	-265				-712	734		
86		296	-212				-799	828		
85		271	-188				-810	829		
83		268	-179				-758	794		
81		302	-205				-712	745		
80		290	-204				-682	711		
78		240	-149				-614	660		
76		210	-120				-535	562		
75		197	-106				-487	529		
73		236	-154				-397	437		
71		272	-184				-238	320		
70		267	-183				-254	296		
68		262	-176				-231	250		
66		245	-162				-233	260		
64		197	-111				-268	316		
62		163	-80				-412	434		
60		163	-81				-471	506		
58		144	-64				-557	582		
56		100	-15				-593	625		
54		052	31				-609	633		
52		040	42				-615	655		
50		040	40				-629	673		
48		088	-2				-638	678		
46		103	-20				-565	608		
44		123	-38				-541	582		
42		119	-34				-480	512		
40		102	-18				-407	449		
38		095	-9				-343	375		
36		059	26				-241	271		
34		032	50				-148	163		
32		135	-49				-099	138		
30		312	-230				-111	134		
28		377	-294				-083	121		
26		391	-309				-100	135		
24		392	-309				007	30		
23		391	-306				033	2		
21		336	-252				088	-48		
19		259	-173				125	-83		
18		228	-143				151	-115		
16		207	-123				211	-189		
14		168	-85				216	-181		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-2 PAGE 2 OF 2

PROJECT NO. 85769 - PROJECT NAME Ball Mountain Dam

DATE June 16, 1986 CALCULATED BY _____ ON _____

READ BY SJS MTM

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

10:42.84

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	AZ = Down Stream A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	AZ = Spillway B-	NEW DIFF.	CHANGE
13		119	-33				223	-196		
11		-037	119				049	-15		
9		-155	240				-060	103		
8		-202	287				-018	40		
6		-230	313				170	-139		
4		-129	209				309	-277		
2		~~-50~~	143				400	-393		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-2 PAGE 1 OF 2

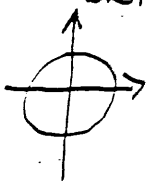
PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam

DATE July 16, 1986 CALCULATED BY _____ ON _____

READ BY Steve Reich, Steve Seraudis

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

A+ D.S.



Depth to SAND _____

TICK UP above Surface casing = .34'

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	AZ = Down Stream A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	AZ = Spillway B-	NEW DIFF.	CHANGE
91										
90		286	-220				-610	621		
88		347	-274				-717	735		
86		291	-225				-810	823		
85		268	-199				-826	834		
83		267	-192				-771	786		
81		294	-222				-712	746		
80		285	-215				-645	710		
78		234	-162				-619	658		
76		205	-134				-549	578		
75		191	-124				-500	511		
73		231	-165				-409	429		
71		269	-197				-286	314		
70		265	-198				-257	280		
68		260	-187				-230	253		
66		244	-174				-227	252		
64		196	-126				-266	300		
62		159	-87				-407	425		
60		160	-91				-479	512		
58		139	-71				-566	594		
56		95	-25				-593	625		
54		48	22				-615	637		
52		38	32				-624	655		
50		37	31				-632	662		
48		85	-14				-640	670		
46		100	-31				-570	590		
44		118	-48				-544	573		
42		112	-45				-488	513		
40		99	-27				-410	445		
38		91	-17				-356	382		
36		56	16				-249	271		
34		28	42				-145	159		
32		128	-57				-115	131		
30		311	-238				-104	145		
28		377	-304				-88	132		
26		391	-318				-97	116		
24		394	-320				7	21		
23		391	-316				33	-19		
21		334	-266				85	-55		
19		255	-181				122	-90		
18		222	-153				148	-137		
16		203	-131				215	-190		
14		165	-94				214	-186		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-2 PAGE 2 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam

DATE July 16, 1986 CALCULATED BY _____ ON _____

READ BY SS, SR

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	AZ = Down Stream A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	AZ = Spillway B−	NEW DIFF.	CHANGE
13		115	-44				219	-207		
11		-40	110				49	-29		
9		-158	229				-66	101		
8		-206	275				-20	37		
6		-237	307				161	-136		
4		-137	205				306	-278		
2		-52	122				355	-319		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-2 PAGE 1 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam

DATE AUGUST 19 1986 CALCULATED BY _____ ON _____

READ BY E. BAREY

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

A+ D.S.

epth to SAND 1.17'

ck up ive. iface casing 34'

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	AZ = Down Stream A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	AZ = Spillway B-	NEW DIFF.	CHANGE
91		—	—			—	—	—		
90		293	-207				-603	625		
88		354	-268				-703	725		
86		301	-211				-800	831		
85		275	-186				-803	836		
83		273	-180				-759	791		
81		303	-209				-715	744		
80		295	-204				-681	721		
78		244	-152				-625	655		
76		213	-122				-544	580		
75		198	-109				-495	516		
73		244	-155				-405	430		
71		278	-185				-285	318		
70		274	-186				-258	283		
68		270	-176				-226	264		
66		253	-163				-220	260		
64		204	-115				-270	312		
62		167	-77				-402	430		
60		169	-81				-475	512		
58		149	-61				-360	388		
56		107	-17				-598	626		
54		58	+32				-603	1041		
52		47	42				-626	669		
50		44	43				-625	667		
48		96	-5				-640	672		
46		112	-22				-570	606		
44		126	-30				-545	583		
42		121	-36				-484	510		
40		109	-21				-412	441		
38		97	-9				-346	382		
36		69	+24				-241	207		
34		37	50				-139	172		
32		139	(+49)				-116	143		
30		319	-230				-101	140		
28		334	-295				-84	117		
26		400	-310				-96	137		
24		403	-313				+10	23		
23		399	-307				42	-16		
21		344	-258				84	-49		
19		263	-169				121	-80		
18		231	-140				152	-137		
16		212	-120				221	-135		
14		176	-55				217	-178		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-2 PAGE 2 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam

DATE AUGUST 10 1985 CALCULATED BY _____ ON _____

READ BY E. BARRY

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ= Down Stream		NEW DIFF.	CHANGE	ORIG. DIFF.	AZ= Spillway		NEW DIFF.	CHANGE
		A+	A-				B+	B-		
13		125	-35				212	-186		
11		-33	+120				57	-23		
9		-149	239				-68	+103		
8		-197	286				-30	54		
6		-228	316				+164	-132		
4		-130	217				311	-275		
2		-47	138				398	-370		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-3 PAGE 1 OF 2

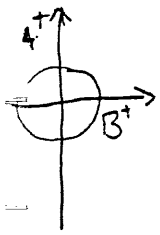
PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam

DATE January 23, 1986 CALCULATED BY _____ ON _____

READ BY S. Sartorelli & P. Bailey CHECKED BY _____ ON _____

INSTRUMENT NO. _____

D.S.



-103 STICK-UP 1' ABOVE PVC

DEPTH	ORIG. DIFF.	AZ=Down Stream A+	AZ=Down Stream A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	AZ=Spillway B-	NEW DIFF.	CHANGE
134'		-10	+90				-923	+923		
132'		+4	+97				-882	+883		
130'		+43	+62				-867	+876		
128'		+55	+50				-828	+846		
126'		-18	+120				-750	+759		
124'		-107	+212				-671	+699		
122'		-113	+224				-653	+680		
120		-134	+244				-635	+653		
118		-173	+293				-596	+601		
116		-211	+326				-577	+607		
115		-167	+281				-540	+585		
113		-122	+232				-535	+554		
112		-110	+221				-523	+560		
110		-64	+177				-506	+540		
108		-29	+139				-479	+500		
106		+22	+176				-462	+481		
105		-19	+125				-427	+507		
103		+17	+90				-582	+515		
102		+27	+81				-605	+627		
100		+37	+72				-616	+639		
98		+74	+35				-660	+677		
96		+155	-44				-691	+705		
94		+202	-116				-719	+734		
92		+214	-103				-730	+747		
90		+257	-178				-706	+725		
88		+299	-183				-687	+675		
86		+301	-191				-603	+619		
84		+248	-138				-582	+601		
82		+182	-74				-552	+602		
80		+134	-20				-634	+648		
78		+95	+32				-609	+654		
76		+6	+105				-672	+697		
74		-23	+131				-675	+657		
72		-54	+164				-618	+647		
70		-65	+172				-621	+645		
68		-96	+208				-577	+594		
66		-110	+219				-522	+540		
65		-110	+220				-529	+545		
63		-74	+195				-501	+512		
61		+7	+103				-382	+450		
60		+26	+79				-415	+452		
58		+42	+65				-457	+460		
56		+19	+33				-477	+440		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-3 PAGE 2 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam

DATE January 23, 1986 CALCULATED BY _____ ON _____

READ BY S. Hawkins/D. Bailey

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ = Down Stream		NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway		NEW DIFF.	CHANGE
		A+	A-				B+	B-		
54		+181	+15	-23			-485	+519	+500	
53		+137	+72	-28			-472	+486	+504	
51		+153	-41				-474	+509		
50		+160	-49				-515	+533		
48		+137	-26				-514	+534		
46		+116	-7				-515	+546		
44		+103	-60				-575	+601		
42		+204	-82				-496	+522		
40		+239	-128				-399	+423		
38		+177	-64				-135	+193		
36		+75	+37				+22	+1		
34		+26	+53				+99	-69		
32		+13	+96				-72	+96		
30		-48	+157				-309	+332		
28		-106	+216				-404	+436		
26		-48	+155				-464	+496		
24		-31	+144				-434	+503		
22		+13	+109				-365	+407		
20		+111	+1				-298	+327		
18		+63	+41				-242	+271		
16		+47	+63				-254	+270		
14		-105	+210				-143	+178		
13		-168	+250				-31	+164		
12 11		-146	+257				-32	+101		
9		-54	+102				-141	+159		
7		+10	+100				-175	+197		
6		+123	-12				-135	+200		
4		+217	-106				-167	+210		
2		+364					-200			

GEI FIELD SHEET
INCLINOMETER DATA

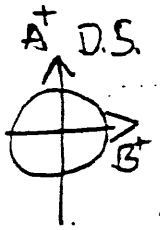
BORING SI-85-3 PAGE 1 OF 2

PROJECT NO. 85769 - PROJECT NAME Ball Mountain Dam

DATE April 1, 1996 CALCULATED BY _____ ON _____

READ BY SJS MATM

INSTRUMENT NO. _____ CHECKED BY _____ ON _____



Depth to Sand? _____

Stick up above ~~Surface~~ ~~Casing~~ PVC Casing = 1.03

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	AZ = Down Stream A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	AZ = Spillway B-	NEW DIFF.	CHANGE
134		-24	+86				-940	+938		
132		-17	+86				-874	+881		
130		+19	+48				-873	+876		
128		+29	+39				-830	+845		
126		-40	+107				-748	+751		
124		-131	+199				-673	+686		
122		-139	+210				-662	+678		
120		-161	+227				-629	+645		
118		-207	+276				-594	+599		
116		-238	+218				-564	+575		
115		-163	+234				-567	+584		
113		-144	+215				-537	+560		
112		-131	+203				-534	+553		
110		-90	+160				-506	+532		
108		-56	+125				-471	+507		
106		+1	+157				-452	+480		
105		-40	+106				-485	+502		
103		-5	+72				-594	+599		
102		+5	+63				-610	+627		
100		+15	+51				-621	+650		
98		+44	+19				-674	+684		
96		+128	-65				-688	+700		
94		+196	-131				-724	+741		
92		+186	-118				-734	+746		
90		+264	-183				-712	+739		
88		+274	-202				-673	+684		
86		+279	-206				-609	+634		
84		+223	-150				-586	+611		
82		+153	-86				-576	+603		
80		+104	-34				-627	+647		
78		+51	+19				-674	+687		
76		-20	+88				-670	+696		
74		-52	+125				-670	+689		
72		-87	+156				-608	+635		
70		-96	+165				-613	+630		
68		-115	+190				-577	+594		
66		-138	+209				-531	+549		
65		-137	+209				-529	+534		
63		-94	+164				-498	+501		
61		-13	+84				-422	+436		
60		+5	+61				-421	+427		
58		+23	+46				-450	+471		
56		+54	+16				-489	+518		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-3 PAGE 2 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam

DATE April 1, 1986 CALCULATED BY _____ ON _____

READ BY MAM, SJS

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
54		+122	-42				-486	+526		
53.		+116	-48				-485	+492		
51		+131	-59				-481	+498		
50		+139	-68				-513	+533		
48		+124	-52				-535	+547		
46		+109	-38				-525	+546		
44		+165	-95				-578	+603		
42		+201	-121				-497	+516		
40		+227	-157				-407	+429		
38		+157	-84				-186	+211		
36		+46	+23				+26	-9		
34.		+8	+61				+109	-86		
32.		-17	+88				-78	+98		
30		-81	+150				-314	+327		
28		-132	+200				-414	+440		
26		-76	+149				-474	+490		
24		-58	+134				-484	+509		
22		-12	+83				-367	+394		
20		+88	-18				-298	+295		
18		+40	+31				-258	+264		
16		+21	+49				-256	+272		
14		-133	+204				-144	+149		
13		-194	+269				-88	+93		
11		-171	+241				-94	+116		
9		-74	+143				-156	+174		
8		-10	+82				-182	+196		
6		+106	-35				-181	+204		
4		+201	-128				-178	+198		
2		+330	-176				-271	+293		
	Water	Encountered		At	116	Ft	Depth			

l_{20} @ 19' on cable

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI 85-3 PAGE 1 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam

DATE May 13, 1986 CALCULATED BY _____ ON _____

READ BY SJS/PAD

INSTRUMENT NO. ~~SJS/PAD~~ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B−	NEW DIFF.	CHANGE
134		-19	+84				-881	940		
132		-13	91				-824	897		
130		+24	53				-821	895		
128		+32	38				-784	857		
126		-36	104				-692	758		
124		-133	203				-595	692		
122		-139	212				-596	688		
120		-161	232				-561	662		
118		-212	279				-522	622		
116		-247	224				-476	595		
~~114~~ 115		-170	237				-491	576		
~~112~~ 113		-147	220				-474	569		
11~~0~~		-134	203				-447	561		
110		-92	161				-420	524		
108		-60	125				-421	511		
106		-2	151				-387	461		
105		-43	106				-410	500		
103		-11	75				-514	595		
102		0	63				-543	628		
100		+8	57				-546	632		
98		+43	24				-594	680		
96		+125	-60				-633	711		
94		+191	-128				-678	733		
92		+185	-115				-687	752		
90		+260	-192				-677	718		
88		+270	-200				-626	686		
86		275	-208				-568	623		
84		219	-151				-542	611		
82		149	-86				-535	601		
80		100	-31				-580	651		
78		50	-21				-615	697		
76		-21	+87				-610	689		
74		-56	125				-597	696		
72		-90	158				-534	637		
70		-100	168				-535	641		
68		-119	193				-491	583		
66		-141	207				-440	551		
65		-140	211				-441	543		
63		-99	165				-414	517		
61		-15	85				-355	430		
60		+4	61				-352	424		
58		20	45				-378	470		
56		50	16				-422	515		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-3 PAGE 2 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam

DATE May 13 1986 CALCULATED BY _____ ON _____

READ BY SJS / PAD

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ=Downstream A+	AZ=Downstream A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	AZ=Spillway B−	NEW DIFF.	CHANGE
54		161	-4				-436	516		
53		113	-49				-429	493		
51		127	-59				-425	505		
50		133	-68				-470	512		
48		119	-52				-471	549		
46		106	-38				-471	547		
44		162	-99				-529	595		
42		196	-124				-449	532		
40		224	-160				-364	410		
38		153	-87				-141	225		
36		46	+17				+88	10		
34		11	54				+177	-69		
32		-17	83				+8	+103		
30		-82	151				-228	321		
28		-133	201				-326	441		
26		-78	149				-402	495		
24		-60	132				-407	510		
22		-16	83				-296	407		
20		+84	-19				-247	298		
18		38	+30				-185	271		
16		19	51				-190	276		
14		-134	205				-63	166		
13		-194	265				-8	89		
11		-168	236				-7	114		
9		-74	141				-75	173		
8		-8	77				-109	175		
6		+107	-39				-132	210		
4		+206	-137				-148	213		
2		+—					—			
			Water at 118 ft							

GEI FIELD SHEET
INCLINOMETER DATA

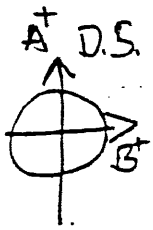
BORING SI-85-3 PAGE 1 OF 2

PROJECT NO. ~~85769~~ 86693 PROJECT NAME Ball Mountain Dam

DATE June 16, 1986 CALCULATED BY _____ ON _____

READ BY MTM/KSS

INSTRUMENT NO. _____ CHECKED BY _____ ON _____



Depth to Sand? _____

Stick up above PVC casing = 1.03'

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	AZ = Down Stream A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	AZ = Spillway B-	NEW DIFF.	CHANGE
134		-12	085				-913	942		
132		-8	090				-863	898		
130		+30	052				-860	900		
128		+43	037				-826	841		
126		-35	109				-737	763		
124		-127	205				-653	686		
122		-129	211				-656	690		
120		-153	233				-628	656		
118		-196	281				-590	606		
116		-226	217				-555	613		
115		-154	238				-549	582		
113		-134	217				-531	555		
112		-122	202				-530	551		
110		-80	162				-494	521		
108		-47	127				-470	516		
106		-13	155				-432	470		
105		-29	112				-489	506		
103		+2	078				-589	601		
102		+12	066				-613	633		
100		+18	057				-620	636		
98		+54	027				-657	683		
96		+139	-061				-699	708		
94		+207	-130				-715	737		
92		+196	-114				-725	755		
90		+275	-191				-709	730		
88		+280	-198				-658	687		
86		+288	-206				-626	629		
84		+229	-146				-584	608		
82		+161	-085				-565	594		
80		+111	-030				-622	645		
78		+57	023				-661	695		
76		-12	088				-659	693		
74		-96	125				-661	683		
72		-78	162				-600	640		
70		-88	170				-609	642		
68		-110	196				-564	595		
66		-129	209				-529	545		
65		-131	215				-511	551		
63		-86	169				-492	512		
61		-4	092				-410	440		
60		+16	068				-412	440		
58		+30	050				-440	472		
56		+41	018				-491	518		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-3 PAGE 2 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam

DATE June 16 1986 CALCULATED BY _____ ON _____

READ BY MTM / SJS

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
54		+124	-038				-483	530		
53.		+124	-043				-475	498		
51		+136	-054				-474	515		
50		+146	-064				-504	534		
48		+129	-050				-511	555		
46		+116	-036				-513	552		
44		+175	-096				-567	601		
42		+208	-121				-483	534		
40		+234	-153				-390	450		
38		+157	-082				-175	233		
36		+49	025				+34	006		
34.		+16	061				+120	-071		
32.		-15	092				-68	111		
30		-79	157				-312	341		
28		-128	206				-420	452		
26		-71	154				-458	501		
24		-53	136				-469	516		
22		-5	086				-357	405		
20		+96	-016				-287	317		
18		+43	036				-240	277		
16		+25	055				-247	269		
14		-133	209				-139	165		
13		-192	274				-86	108		
11		-159	243				-93	123		
9		-65	144				-142	177		
8		+3	079				-170	200		
6		+115	-037				-179	217		
4		+219	-134				-190	219		
2		+336	-201				-249	273		
			Water encountered at 109'							

GEI FIELD SHEET
INCLINOMETER DATA

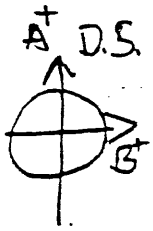
BORING SI-85-3 PAGE 1 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam

DATE July 15, 1986 CALCULATED BY _____ ON _____

READ BY Steve Kerch, Steve Serandis

INSTRUMENT NO. F-79-2 CHECKED BY _____ ON _____



Depth to Sand?

STILK up above ~~PVC~~ Surface ~~[illegible]~~ = .65

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B−	NEW DIFF.	CHANGE
134		3	88				-912	946		
132		12	90				-866	899		
130		41	57				-857	890		
128		59	39				-835	853		
126		-5	101				-756	786		
124		-117	213				-651	682		
122		-119	219				-654	681		
120		-138	235				-634	659		
118		-182	284				-592	617		
116		-181	272				-562	606		
115		-149	245				-554	578		
113		-128	227				-532	568		
112		-113	210				-521	556		
110		-72	171				-507	543		
108		-40	136				-481	516		
106		-4	121				-448	474		
105		-21	115				-478	501		
103		12	84				-575	606		
102		25	70				-603	634		
100		35	64				-611	643		
98		57	35				-643	675		
96		144	-50				-687	714		
94		218	-124				-715	744		
92		207	-115				-714	750		
90		279	-185				-699	739		
88		292	-196				-652	681		
86		298	-203				-600	626		
84		245	-149				-577	609		
82		173	-83				-563	595		
80		125	-27				-613	648		
78		75	23				-651	699		
76		0	92				-658	700		
74		-34	129				-659	694		
72		-70	164				-599	633		
70		-80	174				-612	647		
68		-98	198				-567	601		
66		-122	214				-516	553		
65		-121	219				-519	542		
63		-84	174				-489	511		
61		-1	96				-417	442		
60		20	71				-403	431		
58		36	54				-433	475		
56		65	26				-441	517		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-3 PAGE 2 OF 2

PROJECT NO. 86932 PROJECT NAME Ball Mountain Dam

DATE July 15, 1982 CALCULATED BY _____ ON _____

READ BY SS, GR

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
54		178	3				-480	511		
53.		132	-43				-457	494		
51		145	-50				-466	512		
50		152	-59				-492	538		
48		141	-45				-516	556		
46		127	-33				-518	548		
44		179	-88				-561	603		
42		216	-119				-488	519		
40		240	-147				-392	443		
38		170	-77				-185	230		
36		61	30				25	17		
34.		24	67				117	-71		
32.		-2	95				-78	100		
30		-65	159				-296	332		
28		-116	210				-415	443		
26		-63	159				-456	495		
24		-44	140				-472	510		
22		1	93				-356	405		
20		104	-12				-291	319		
18		53	39				-239	265		
16		36	57				-246	267		
14		-120	213				-147	154		
13		-184	279				-82	105		
11		-154	247				-83	122		
9		-54	147				-137	180		
8		11	84				-164	186		
6		128	-35				-174	210		
4		226	-132				-177	214		
2		381	-153				-232	267		

Encountered Water at 115 ft

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-3 PAGE 1 OF 2

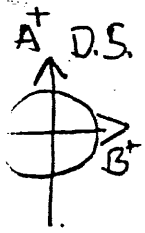
PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam

DATE [illegible]

CALCULATED BY _____ ON _____

READ BY [illegible]

INSTRUMENT NO. _____ CHECKED BY _____ ON _____



Depth to Sand? 0.57'

Pick up above surface casing - 1.65'

DEPTH	ORIG. DIFF.	AZ= Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ= Spillway B+	B−	NEW DIFF.	CHANGE
134		2	87				-937	926		
132		5	93				-886	889		
130		39	60				-881	881		
128		57	43				-852	843		
126		-10	105				-764	772		
124		-122	218				-660	665		
122		-124	222				-654	666		
120		-143	241				-642	645		
118		-186	286				-597	604		
116		-220	228				-559	590		
115		-150	246				-560	563		
113		-130	228				-538	558		
112		-115	212				-533	540		
110		-73	171				-512	516		
108		-43	139				-485	493		
106		+18	160				-463	450		
105		-25	116				-485	405		
103		+8	86				-593	589		
102		19	70				-612	619		
100		29	66				-626	629		
98		55	37				-664	670		
96		141	-49				-694	700		
94		218	-123				-727	738		
92		206	-109				-721	748		
90		281	-180				-714	729		
88		290	-190				-665	678		
86		296	-199				-606	622		
84		241	-143				-588	605		
82		171	-80				-575	594		
80		118	-25				-632	639		
78		69	25				-668	678		
76		-3	95				-676	687		
74		-37	132				-671	676		
72		-72	169				-622	625		
70		-83	177				-627	637		
68		-102	201				-582	585		
66		-125	216				-539	545		
65		-124	221				-530	537		
63		-85	174				-504	488		
61		0	97				-420	439		
60		22	73				-417	427		
58		33	58				-448	461		
56		65	27				-488	500		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-3 PAGE 2 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam
DATE AUGUST 19 1986 CALCULATED BY ON
READ BY R. BARRY
INSTRUMENT NO. CHECKED BY ON

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
54		179	6				-490	507		
53.		133	-38				-470	490		
51		144	-49				-481	495		
50		153	-57				-500	517		
48		138	-44				-518	536		
46		124	-31				-523	535		
44		177	-88				-575	575		
42		213	-113				-492	506		
40		238	-146.				-408	430		
38		166	-75				-194	196		
36		60	31				721	-4		
34.		26	105				104	-96		
32.		-5	97				-81	83		
30		-70	162				-307	321		
28		-122	214				-419	426		
26		-67	160				-470	484		
24		-48	144				-489	493		
22		1	90				-376	388		
20		+102	-11				-299	313		
18		52	40				-246	260		
16		35	60				-257	268		
14		-124	215				-153	104		
13		-187	230				-104	87		
11		-155	246				-100	105		
9		-56	142				-144	153		
8		+10	81				-166	173		
6		131	-40				-134	195		
4		225	-132				-189	202		
2		301	-169				-251	264		

WATER ENCOUNTERED @ 115'

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-4 PAGE 1 OF 2

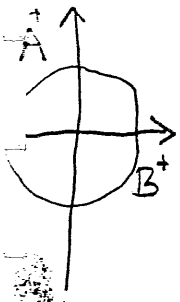
PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam

DATE January 24, 1985 CALCULATED BY _____ ON _____

READ BY S. Sarandis / R. Barry

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

D.S.



62 STICK-UP ABOVE PVC COUPLINGS

18
1.51
.54
TO SAND FROM PROJ. INSTR

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B−	NEW DIFF.	CHANGE
92'		+452	-346				-389	+401		
90'		+455	-345				-392	+417		
88'		+610	-502				-423	+447		
86'		+707	-597				-409	+437		
84'		+704	-595				-338	+369		
82'		+663	-554				-245	+272		
80'		+709	-601				-193	+220		
78		+692	-581				-179	+210		
76		+669	-561				-112	+125		
* 75		+638	-529				-73	+94		
* 73		+563	-453				-14	+42		
* 71		+483	-374				-12	+45		
70		+461	-352				-25	+41		
68		+405	-297				-44	+71		
66		+298	-189				-110	+123		
* 65		+250	-140				-147	+171		
* 63		+163	-54				-229	+240		
* 61		-79	+8'				-285	+302		
60		+115	-6				-325	+343		
58		+202	-93				-316	+347		
56		+341	-226				-324	+355		
54		+362	-251				-403	+420		
52		+317	-203				-340	+362		
50		+330	-222				-301	+326		
48		+337	-222				-263	+286		
46		+315	-204				-215	+233		
44		+355	-244				-179	+203		
42		+394	-279				-110	+190		
40		+343	-227				-142	+158		
38		+356	-241				-166	+187		
36		+382	-269				-140	+157		
34		+379	-261				-150	+183		
32		+358	-243				-144	+185		
30		+375	-263				-64	+79		
[illegible]		+413	-298				-63	+85		
[illegible]		+346	-229				-59	+75		
31 24		+387	-271				-10	+43		
* 23		+489	-376				+62	-53		
* 20		+632	-521				+214	-170		
* 18 19		+481	-367				+113	-71		
18		+391	-275				+43	-19		
16		+218	-106				-49	+80		
14		+122	-0				-133	+161		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-41 PAGE 2 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam

DATE January 24, 1986 CALCULATED BY _____ ON _____

READ BY S. Sarandis / R. Berry CHECKED BY _____ ON _____

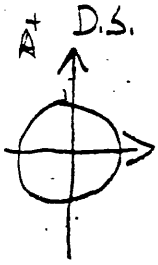
INSTRUMENT NO. _____

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	AZ = Down Stream A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway A+	AZ = Spillway B−	NEW DIFF.	CHANGE
* 13		+105	+7				-157	+185		
* 11		+130	-20				-167	+211		
* 9		+146	-34				-146	+173		
7		+154	-41				-117	+150		
5		+151	* -39				-141	+219		
3		+166	-53				-323	+369		
1		+190	-72				-414	+460		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-4 PAGE 1 OF 2

PROJECT NO. 85769 - PROJECT NAME Ball Mountain Dam
DATE MARCH 31 1986 CALCULATED BY _____ ON _____
READ BY SJS, MAM
INSTRUMENT NO. _____ CHECKED BY _____ ON _____



Depth to Sand? 1.54

Stick up above surface casing = .6'

DEPTH	ORIG. DIFF.	AZ=Down Stream A+	AZ=Down Stream A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	AZ=Spillway B-	NEW DIFF.	CHANGE
92		+455	-371				-375	+391		
90.		+449	-359				-391	+406		
88		+601	-511				-436	+443		
86		+699	-608				-413	+431		
84		+707	-617				-354	+361		
82		+658	-571				-253	+258		
80		+708	-619				-212	+213		
78		+694	-602				-185	+193		
76		+672	-582				-112	+120		
75		+639	-545				-81	+87		
73		+563	-472				-20	+26		
71.		+482	-389				-13	+26		
70.		+459	-368				-20	+31		
68		+408	-316				-32	+58		
66		+297	-205				-103	+115		
65		+250	-158				-153	+158		
63		+164	-72				-218	+247		
61		+96	-7				-268	+289		
60		+110	-16				-326	+365		
58		+192	-103				-321	+344		
56		+335	-241				-331	+357		
54		+364	-272				-394	+425		
52		+311	-213				-343	+374		
50		+330	-237				-294	+304		
48		+332	-239				-260	+229		
46		+311	-220				-214	+227		
44		+348	-257				-176	+209		
42		+388	-293				-112	+139		
40		+336	-245				-127	+157		
38		+350	-259				-162	+194		
36		+374	-284				-141	+169		
34		+373	-280				-141	+180		
32		+350	-257				-174	+211		
30		+365	-278				-66	+86		
28		+404	-313				-70	+85		
26		+338	-247				-70	+74		
24		+379	-287				-9	+42		
23		+479	-387				+65	-42		
21		+627	-536				+214	-181		
19		+482	-395				+116	-87		
18		+394	-302				+45	-26		
16		+210	-117				-57	+79		
14		+113	-21				-175	+153		

GEI FIELD SHEET
INCLINOMETER DATA

BORING ST-85-41 PAGE 2 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam

DATE March 31 1986 CALCULATED BY _____ ON _____

READ BY MHM, SJS CHECKED BY _____ ON _____

INSTRUMENT NO. _____

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
13		+97	-4				-145	+174		
11		+125	-36				-182	+206		
9		+142	-49				-135	+160		
8		+148	-58				-116	+142		
6		+151	-60				-205	+229		
4		+162	-75				-335	+362		
2		+192	-115				-424	+444		
	Dry	Hole								

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-4 PAGE 1 OF 2

PROJECT NO. 85769
DATE May 14, 1986
READ BY PAD/SJS
INSTRUMENT NO.

PROJECT NAME Ball Mountain Dam
CALCULATED BY ON
CHECKED BY ON

DEPTH	ORIG. DIFF.	AZ=Downstream A+	AZ=Downstream A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	AZ=Spillway B−	NEW DIFF.	CHANGE
92		451	-370				-389	394		
90		443	-359				-401	404		
88		595	-511				-432	449		
86		694	-610				-413	423		
84		703	-622				-353	366		
82		654	-573				-253	273		
80		704	-623				-209	228		
78		689	-608				-187	210		
76		664	-587				-108	131		
75		633	-553				-79	92		
73		555	-480				-17	29		
71		470	-396				-14	36		
70		450	-374				-28	46		
68		400	-324				-31	65		
66		287	-212				-99	123		
65		241	-165				-154	168		
63		156	-81				-229	246		
61		90	-14				-287	287		
60		99	-21				-341	340		
58		182	-104				-325	338		
56		328	-245				-340	354		
54		356	-281				-347	422		
52		301	-218				-348	365		
50		322	-239				-298	308		
48		322	-243				-272	277		
46		303	-224				-230	240		
44		339	-257				-190	212		
42		377	-297				-125	138		
40		327	-248				-142	155		
38		340	-262				-164	185		
36		366	-287				-142	163		
34		363	-283				-149	176		
32		341	-262				-183	196		
30		356	-279				-78	86		
28		395	-315				-73	78		
26		328	-248				-73	78		
24		369	-286				-10	36		
23		472	-387				67	-31		
21		616	-538				210	-184		
19		472	-398				111	-79		
18		383	-307				44	-25		
16		198	-123				-63	79		
14		101	-25				-136	147		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-4 PAGE 2 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam

DATE May 13, 1986 CALCULATED BY _____ ON _____

READ BY SJS/PAD

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ=Downstream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B−	NEW DIFF.	CHANGE
13		86	-7				-150	177		
11		115	-37				-178	201		
9		134	-53				-138	162		
8		140	-63				-134	141		
6		142	-64				-214	229		
4		160	-83				-337	364		
2		190	-114				-337	390		
			Dry Hole							
	SI-85-2		May 14, 1986			SJS/PAD				
13		107	-32				208	-177		
11		-36	111				66	-24		
9		-161	239				-61	103		
8		-210	286				-27	55		
6		-229	306				+166	-132		
4		-130	209				301	-277		
2		-50	+3143				400	-393		

GEI FIELD SHEET
INCLINOMETER DATA

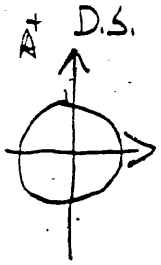
BORING SI-85-4 PAGE 1 OF 2

PROJECT NO. 85769 - PROJECT NAME Ball Mountain Dam

DATE June 16, 1986 CALCULATED BY _____ ON _____

READ BY SSS / MTM

INSTRUMENT NO. _____ CHECKED BY _____ ON _____



Depth to Sand?

Stick up above surface casing = .62'

DEPTH	ORIG. DIFF.	AZ=Down Stream A+	AZ=Down Stream A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	AZ=Spillway B-	NEW DIFF.	CHANGE
92		449	-370				-370	396		
90.		440	-360				-380	403		
88		591	-512				-421	451		
86		692	-611				-406	428		
84		705	-621				-342	366		
82		653	-575				-256	282		
80		706	-624				-204	244		
78		689	-608				-184	207		
76		666	-586				-108	134		
75		634	-551				-76	106		
73		589	-477				-11	047		
71.		474	-391				-13	046		
70.		451	-373				-15	049		
68		401	-318				-28	064		
66		289	-207				-100	121		
65		241	-160				-141	172		
63		156	-075				-216	256		
61		91	-009				-267	313		
60		103	-021				-322	351		
58		185	-104				-310	357		
56		328	-247				-324	361		
54		356	-279				-400	427		
52		299	-216				-330	370		
50		323	-237				-283	325		
48		323	-241				-252	296		
46		304	-222				-209	250		
44		339	-257				-179	216		
42		378	-295				-104	148		
40		329	-248				-126	167		
38		343	-261				-159	204		
36		370	-287				-128	172		
34		365	-283				-142	184		
32		341	-260				-176	200		
30		364	-275				-51	089		
28		400	-311				-70	099		
26		329	-241				-53	089		
24		373	-283				-5	047		
23		480	-389				+73	-042		
21		621	-540				+226	-182		
19		475	-394				+102	-070		
18		385	-303				+50	-018		
16		199	-138				-49	085		
14		101	-021				-115	153		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-41 PAGE 2 OF 2

PROJECT NO. 85769 - PROJECT NAME Ball Mountain Dam

DATE June 16 1986 CALCULATED BY _____ ON _____

READ BY SJS/MTM

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

10:35.77
9:49:48

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	AZ = Down Stream A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	AZ = Spillway B-	NEW DIFF.	CHANGE
13		85	-004				-143	181		
11		115	-034				-179	200		
9		139	-054				-136	170		
8		147	-065				-115	149		
6		150	-067				-216	241		
4		168	-084				-340	369		
2		198	-110				-331	369		

GEI FIELD SHEET
INCLINOMETER DATA

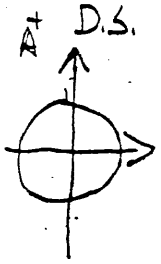
BORING SI-85-4 PAGE 1 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam

DATE July 15, 1986 CALCULATED BY _____ ON _____

READ BY Steve Perchy, Steve Serandis

INSTRUMENT NO. F-79-2 CHECKED BY _____ ON _____



Depth to sand? _____

Tick up above surface casing = .67'

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	AZ = Down Stream A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	AZ = Spillway B-	NEW DIFF.	CHANGE
92		459	-367				-371	389		
90.		449	-354				-377	391		
88		600	-507				-409	441		
86		700	-606				-399	426		
84		712	-617				-338	386		
82		662	-571				-242	278		
80		713	-622				-191	231		
78		697	-605				-168	211		
76		673	-584				-99	131		
75		641	-551				-64	102		
73		564	-475				-5	40		
71.		480	-391				2	46		
70.		458	-369				-12	34		
68		408	-319				-24	63		
66		295	-207				-95	122		
65		247	-159				-142	173		
63		161	-75				-212	248		
61		94	-8				-260	302		
60		103	-17				-314	337		
58		185	-100				-313	356		
56		331	-242				-319	368		
54		361	-278				-393	430		
52		306	-212				-333	378		
50		329	-234				-286	332		
48		326	-239				-253	301		
46		306	-221				-207	240		
44		341	-254				-193	221		
42		383	-294				-104	142		
40		334	-247				-134	165		
38		346	-259				-154	200		
36		373	-286				-132	172		
34		368	-282				-147	185		
32		342	-256				-171	204		
30		364	-276				-51	97		
28		404	-314				-53	93		
26		331	-242				-51	89		
24		373	-284				-9	48		
23		479	-390				65	-47		
21		626	-538				220	-193		
19		477	-391				113	-73		
18		389	-303				54	-19		
16		201	-116				-52	80		
14		106	-18				-118	151		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-41 PAGE 2 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam

DATE July 15, 1986 CALCULATED BY _____ ON _____

READ BY SJS, SR

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	AZ = Down Stream A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	AZ = Spillway B−	NEW DIFF.	CHANGE
13		88	−1				−145	176		
11		120	−34				−180	204		
9		140	−53				−127	165		
8		150	−63				−114	148		
6		153	−66				−199	241		
4		173	−87				−332	361		
2		201	−114				−367	400		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-4 PAGE 1 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam
DATE AUGUST 19, 1986 CALCULATED BY _____ ON _____
READ BY R. BARRY
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

D.S.

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	AZ = Down Stream A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	AZ = Spillway B-	NEW DIFF.	CHANGE
92		452	-364				-380	396		
90.		442	-354				-394	404		
88		600	-510				-426	445		
86		695	-604				-411	428		
84		705	-617				-351	374		
82		658	-568				-254	268		
80		711	-621				-207	226		
78		694	-602				-184	203		
76		669	-578				-108	133		
75		637	-545				-82	93		
73		561	-473				-13	37		
71.		477	-386				-5	44		
70.		456	-366				-7	48		
68		407	-316				-23	61		
66		293	-202				-91	120		
65		246	-155				-140	178		
63		160	-72				-225	251		
61		96	-6				-268	301		
60		110	-16				-323	336		
58		190	-100				-312	348		
56		335	-244				-321	360		
54		362	-277				-390	428		
52		299	-208				-332	360		
50		331	-237				-292	376		
48		378	-237				-205	201		
46		309	-218				-215	256		
44		344	-253				-180	221		
42		383	-293				-108	134		
40		334	-245				-127	166		
38		347	-255				-156	200		
36		376	-285				-131	163		
34		369	-278				-150	188		
32		345	-255				-173	205		
30		369	-281				-50	82		
28		406	-317				-59	94		
26		332	-244				-55	90		
24		376	-285				-11	73		
23		435	-394				107	-50		
21		630	-541				216	-192		
19		477	-392				100	-73		
18		391	-304				52	-21		
16		202	-115				-66	133		
14		106	-20				-129	152		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-4 PAGE 2 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam

DATE AUGUST 19 1986 CALCULATED BY _____ ON _____

READ BY R. BARRY CHECKED BY _____ ON _____

INSTRUMENT NO. _____

DEPTH	ORIG. DIFF.	AZ=Down Stream A+	AZ=Down Stream A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	AZ=Spillway B-	NEW DIFF.	CHANGE
13		99	-1				-150	176		
11		121	-36				-180	202		
9		145	-56				-131	150		
8		152	-65				-111	146		
6		154	-67				-222	243		
4		175	-90				-345	352		
2		192	-108				-356	372		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-5 PAGE 1 OF 2

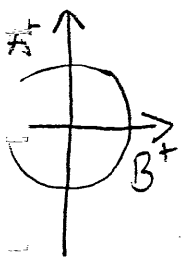
PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam

DATE January 24, 1986 CALCULATED BY _____ ON _____

READ BY S. Sarandis / D. Barry

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

D.S.



	DEPTH	ORIG. DIFF.	AZ = DOWN STREAM A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
	134		+100	+13				+142	-135		
	132		+123	-12				+195	-186		
	130		+184	-68				+339	-326		
	128		+295	-186				+459	-443		
	126		+411	-291				+498	-475		
	124		+528	-421				+574	-550		
	122		+616	-500				+524	-523		
	120		+687	-569				+419	-410		
	118		+777	-660				+314	-312		
(12)	116		+816	-706				+285	-260		
*	115		+743	-624				+167	-167		
*	113		+554	-439				+54	-24		
	112		+480	-367				+39	-19		
	110		+339	-225				+39	-23		
(16)	108		+204	-91				+103	-89		
*	107		+128	-18				+163	-132		
*	105		+45	+67				+291	-272		
*	103		+113	+1				+436	-414		
	102		+222	-104				+487	-472		
	100		+385	-272				+610	-603		
	98		+487	-369				+686	-686		
	96		+571	-452				+714	-690		
	94		+719	-602				+719	-684		
	92		+818	-701				+602	-589		
	90		+[illegible]	-720				+543	-542		
	88		+816	-700				+449	-445		
	86		+178	-656				+410	-397		
	84		+742	-628				+357	-334		
	82		+722	-603				+[illegible]	-276		
	80		+663	-547				+[illegible]	-199		
	78		+601	-485				+167	-143		
	76		+521	-403				+110	-85		
13	74		+455	-341				+80	-46		
*	73		+464	-345				+104	-47		
*	71		+400	-283				+76	-51		
	70		+366	-250				+12	-44		
	68		+326	-209				+97	-92		
37	66		+305	-189				+[illegible]	-88		
*	65		+309	-193				+112	-91		
*	63		+353	-239				+190	-171		
*	[illegible]		+400	-283				+299	-269		
	60		+412	-301				+319	-308		
	58		+435	-322				+[illegible]	[illegible]		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-5 PAGE 2 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam

DATE January 24, 1986 CALCULATED BY _____ ON _____

READ BY S. Strands/D Barry

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

	DEPTH	ORIG. DIFF.	AZ=Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-	NEW DIFF.	CHANGE
63	56		+460	-349				+340	-321		
	54		+505	-383				+303	-302		
*	53		+471	-356				+277	-256		
*	51		+377	-265				+244	-215		
	50		+365	-246				+264	-242		
	48		+330	-219				+277	-270		
	46		+307	-193				+279	-258		
	44		+296	-178				+249	-220		
	42		+340	-228				+202	-187		
	40		+395	-252				+123	-110		
	38		+430	-313				+62	-62		
	36		+381	-264				+53	-35		
	34		+316	-202				-4	+2		
	32		+319	-207				-106	+135		
	30		+305	-188				-246	+273		
	28		+250	-133				-195	+202		
	26		+178	-67				-119	+136		
58	24		+122	-5				-25	+44		
*	23		+77	+51				+5	+4		
*	21		+34	+81				+135	-106		
*	19		+2	+113				+118	-91		
	18		-14	+130				+93	-80		
	16		-71	+185				+100	-77		
63	14		-90	+203				+85	-62		
*	13		-93	+208				+69	-56		
*	11		-91	+206				+85	-66		
*	9		-45	+155				+232	-227		
	8		+21	+90				+305	-301		
	6		+220	-106				+482	-462		
	4		+413	-247				+606	-580		
	2		+463	-357				+626	-605		

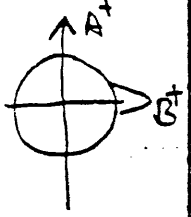
Depth to Sand
from protective casing
.54', .56', .45'

Stickup of bell reducer
~~Depth~~ to PVC casing
.77 ft

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-5 PAGE 1 OF 2

PROJECT NO. 85769 - PROJECT NAME Ball Mountain Dam
DATE March 31 1986 CALCULATED BY _____ ON _____
READ BY SJS, MAM
INSTRUMENT NO. 1 CHECKED BY _____ ON _____



Depth to Sand? .67'

Stick up above surface casing = 0.71'

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	AZ = Down Stream A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	AZ = Spillway B−	NEW DIFF.	CHANGE
134		+95	0				+141	−138		
132		+109	−13				+174	−180		
130		+167	−71				+328	−339		
128		+280	−188				+455	−456		
126		+400	−300				+484	−476		
124		+536	−440				+563	−563		
122		+607	−506				+527	−511		
120		+676	−577				+423	−417		
118		+767	−669				+313	−311		
116		+807	−713				+285	−272		
115		+741	−642				+180	−177		
113.		+549	−454				+42	−31		
112.		+480	−384				+23	−19		
110		+333	−239				+28	−21		
108		+200	−105				+86	−81		
107		+121	−30				+147	−137		
105		+33	+62				+280	−263		
103		+100	−7				+424	−415		
102		+206	−106				+481	−475		
100		+376	−283				+612	−599		
98		+472	−378				+686	−676		
96		+559	−460				+712	−697		
94		+709	−611				+709	−694		
92		+815	−716				+611	−605		
90		+832	−733				+558	−544		
88		+809	−709				+464	−452		
86		+772	−672				+411	−404		
84		+735	−643				+353	−336		
82		+720	−617				+282	−271		
80		+656	−556				+228	−207		
78		+596	−497				+164	−150		
76		+517	−416				+102	−85		
74		+447	−350				+67	−60		
73		+455	−353				+86	−74		
71		+400	−298				+70	−37		
70		+368	−268				+71	−41		
68		+320	−219				+109	−84		
66		+294	−194				+124	−102		
65		+299	−199				+115	−102		
63		+351	−254				+187	−162		
61		+395	−293				+300	−277		
60		+404	−304				+323	−311		
58		+377	−321							

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-5 PAGE 2 OF 2

PROJECT NO. 85769 PROJECT NAME Bell Mountain Dam

DATE MARCH 31, 1986 CALCULATED BY _____ ON _____

READ BY SJS, MAM

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ=DOWN STREAM A+	AZ=DOWN STREAM A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=SPILLWAY B+	AZ=SPILLWAY B−	NEW DIFF.	CHANGE
56		+458	-358				+332	-316		
54		+490	-386				+317	-295		
53		+464	-362				+282	-258		
51		+376	-280				+243	-222		
50		+363	-260				+257	-243		
48		+338	-236				+283	-269		
46		+317	-217				+275	-259		
44		+296	-193				+241	-222		
42		+342	-242				+199	-174		
40		+393	-294				+116	-108		
38		+431	-329				+83	-60		
36		+382	-280				+52	-38		
34		+318	-215				+17	-1		
32		+312	-212				-103	+132		
30		+297	-189				-246	+268		
28		+244	-137				-190	+211		
26		+172	-71				-112	+126		
24		+118	-9				-25	+47		
23		+76	+27				+10	+10		
21		+26	+77				+137	-109		
19		-2	+107				+126	-96		
18		-18	+124				+75	-73		
16		-76	+179				+90	-76		
14		-99	+204				+99	-71		
13		-103	+207				+71	-55		
11		-101	+204				+89	-57		
9		-48	+147				+237	-215		
8		+23	+26				+309	-285		
6		+209	+107	-101			+470	-455		
4		+385	-289				+581	-568		
2		+508	-409				+645	-635		

Ground Water Encountered At 128'

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-S PAGE 1 OF 2

PROJECT NO. 86934
PROJECT NAME Ball MT. Dam
DATE MAY 13, 1986
CALCULATED BY ON
READ BY SJS / PAD
INSTRUMENT NO. #
CHECKED BY ON

DEPTH	ORIG. DIFF.	AZ= DOWNSTREAM A+	AZ= DOWNSTREAM A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ= SPILLWAY B+	AZ= SPILLWAY B-	NEW DIFF.	CHANGE
134		69	-4				151	-135		
132		85	-16				178	-157		
130		143	-72				330	-310		
128		258	-190				463	-438		
126		378	-300				485	-451		
124		522	-448				579	-559		
122		590	-514				531	-509		
120		656	-580				433	-414		
118		752	-675				314	-306		
116		795	-720				294	-265		
115		736	-656				184	-177		
113		540	-464				39	-21		
112		473	-396				30	-19		
110		325	-250				36	-12		
108		192	-118				90	-73		
107		112	-39				151	-145		
105		18	56				281	-254		
103		82	-14				423	-405		
102		185	-108				478	-464		
100		361	-290				612	-600		
98		457	-384				686	-677		
96		542	-466				702	-688		
94		688	-613				722	-688		
92		803	-724				625	-600		
90		823	-742				546	-541		
88		797	-717				464	-440		
86		758	-682				414	-402		
84		723	-650				353	-327		
82		706	-626				299	-271		
80		644	-565				217	-218		
78		582	-504				160	-149		
76		504	-81				100	-427		
74		432	-360				85	-55		
73		440	-363				109	-67		
71		388	-306				68	-38		
70		354	-277				57	-53		
68		308	-228				105	-73		
66		280	-202				124	-103		
65		287	-208				109	-91		
63		336	-261				186	-155		
61		380	-302				295	-271		
60		390	-313				328	-307		
58		418	-340				344	-323		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-5 PAGE 2 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam

DATE MAY 13, 1986 CALCULATED BY ON

READ BY SJS/PAD

INSTRUMENT NO. CHECKED BY ON

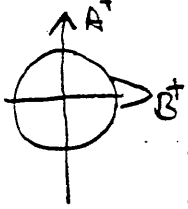
DEPTH	ORIG. DIFF.	AZ = Spillway A+	AZ = Spillway A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	AZ = Spillway B-	NEW DIFF.	CHANGE
56		443	-367				335	-303		
54		475	-394				319	-292		
53		450	-369				286	-261		
51		364	-289				248	-221		
50		350	-270				263	-230		
48		326	-247				292	-261		
46		305	-225				281	-249		
44		281	-203				239	-214		
42		329	-252				196	-173		
40		379	-304				125	-103		
38		418	-337				84	-61		
36		369	-290				54	-31		
34		305	-226				12	-2		
32		300	-221				-102	+133		
30		286	-202				-254	+278		
28		233	-148				-197	220		
26		161	-83				-118	124		
24		107	-20				-36	57		
23		63	+15				4	9		
21		14	66				134	-117		
19		-18	95				128	-100		
18		-32	111				91	-72		
16		-90	167				96	-62		
14		-113	194				88	-67		
13		-118	195				76	-51		
11		-114	192				86	-65		
9		-57	139				238	-215		
8		12	69				311	-292		
6		204	-126				470	-440		
4		378	-300				587	-556		
2		450	-361				647	-641		
		Water at 127 ft								

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-5 PAGE 1 OF 2

PROJECT NO. 85769 - PROJECT NAME Ball Mountain Dam
DATE June 17, 1986 CALCULATED BY _____ ON _____
READ BY SJS / MTM
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

D.S.



Depth to Sand?

Stick up above surface casing = 0.71'

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	AZ = Down Stream A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	AZ = Spillway B−	NEW DIFF.	CHANGE
134		081	+ 1				150	-131		
132		094	- 12				183	-162		
130		153	- 70				334	-302		
128		268	-191				470	-438		
126		388	-299				490	-452		
124		528	-444				579	-549		
122		595	-508				526	-507		
120		662	-578				432	-408		
118		760	-672				318	-297		
116		796	-713				295	-253		
115		733	-647				193	-169		
113.	12	542	-458				045	- 15		
112.		471	-386				030	+ 3		
110		324	-241				039	- 9		
108		192	-108				093	- 71		
107		111	- 30				152	-121		
105		020	+ 61				278	-258		
103		093	- 11				430	-407		
102		198	-112				483	-460		
100		371	-289				616	-586		
98		467	-382				690	-655		
96		550	-462				713	-679		
94		698	-615				716	-689		
92		808	-720				628	-594		
90		825	-735				561	-535		
88		797	-711				459	-431		
86		762	-676				422	-386		
84		725	-646				348	-324		
82		710	-620				282	-269		
80		647	-559				236	-208		
78		585	-499				169	-144		
76		506	-420				103	- 75		
74		437	-354				087	- 60		
73		443	-358				093	- 68		
71		390	-300				075	- 46		
70		358	-272				081	- 50		
68		311	-224				107	- 68		
66		284	-198				133	- 89		
65		292	-205				116	- 84		
63		343	-260				196	-146		
61		385	-300				305	-277		
60		397	-310				338	-313		
58		421	-330							

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-5 PAGE 2 OF 2

PROJECT NO. 85769 PROJECT NAME Bell Mountain Dam

DATE June 17 1986 CALCULATED BY ON

READ BY SJS/MTM

INSTRUMENT NO. CHECKED BY ON

22:29:76
20:47:92

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	AZ = Down Stream A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Sp. Hwy B+	AZ = Sp. Hwy B−	NEW DIFF.	CHANGE
56		449	-365				344	-310		
54.		483	-392				323	-280		
53		453	-365				285	-251		
51		369	-284				250	-215		
50		355	-266				265	-240		
48		332	-244				295	-256		
46		308	-223				278	-249		
44		287	-200				245	-205		
42		334	-249				201	-175		
40		383	-299				123	-94		
38		421	-334				089	-54		
36.		372	-286				062	-26		
34.		310	-223				029	+12		
32		303	-221				-100	+141		
30		285	-198				-247	+284		
28		234	-148				-180	+220		
26		165	-83				-103	+126		
24		107	-18				-026	+55		
→ 23		061	+21				010	+10		
21		015	+71				151	-120		
19		-009	+97				127	-89		
18		-025	+113				100	-67		
16		-085	+170				104	-61		
14		-108	+195				100	-64		
13		-112	+198				080	-47		
11		-109	+194				095	-65		
9		-054	+139				251	-228		
8		015	+68				316	-308		
6		205	-122				475	-450		
4		377	-295				583	-552		
2		438	-344				665	-649		

▽ @ 125'

GEI FIELD SHEET
INCLINOMETER DATA

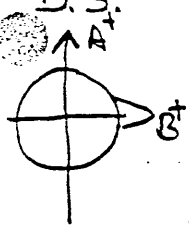
BORING SI-85-5 PAGE 1 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam

DATE Jul. 15, 1986 CALCULATED BY _____ ON _____

READ BY Steve Roach, Steve Sacandis

INSTRUMENT NO. F-79-2 CHECKED BY _____ ON _____



Depth to sand? ____

Stick up above surface casing = 0.71'

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	AZ = Down Stream A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	AZ = Spillway B-	NEW DIFF.	CHANGE
134		97	14				144	-135		
132		109	3				180	-155		
130		165	-53				328	-313		
128		282	-172				468	-442		
126		397	-280				493	-465		
124		543	-429				582	-555		
122		611	-493				516	-516		
120		676	-561				428	-413		
118		774	-656				328	-309		
116		812	-699				272	-272		
115		751	-637				205	-185		
113.		559	-445				36	-26		
112.		491	-376				30	-15		
110		342	-230				37	-9		
108		210	-98				86	-71		
107		124	-18				152	-136		
105		36	73				276	-251		
103		106	5				434	-409		
102		210	-92				483	-463		
100		385	-271				620	-596		
98		440	-365				693	-676		
96		567	-444				704	-701		
94		714	-595				721	-691		
92		829	-704				625	-599		
90		845	-721				552	-542		
88		818	-695				469	-444		
86		740	-660				425	-390		
84		745	-631				358	-338		
82		727	-605				286	-275		
80		664	-545				231	-210		
78		603	-485				183	-153		
76		523	-407				103	-78		
74		452	-341				89	-58		
73		459	-343				106	-78		
71		403	-285				78	-44		
70		371	-258				69	-49		
68		326	-210				101	-81		
66		298	-184				121	-93		
65		305	-189				115	-90		
63		357	-244				187	-162		
61		401	-283				300	-278		
60		410	-294				328	-311		
58		420	-320							

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-B5-5 PAGE 2 OF 2

PROJECT NO. 86934 PROJECT NAME Bell Mountain Dam
DATE July 15, 1986 CALCULATED BY ON
READ BY SS, SR CHECKED BY ON
INSTRUMENT NO.

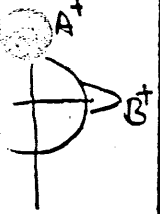
DEPTH	ORIG. DIFF.	AZ = DOWN STREAM A+	AZ = DOWN STREAM A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = SPILLWAY B+	AZ = SPILLWAY B−	NEW DIFF.	CHANGE
56		466	-348				344	-309		
54		498	-376				320	-287		
53		470	-352				284	-262		
51		382	-270				246	-224		
50		369	-251				256	-244		
48		347	-230				290	-269		
46		324	-208				281	-256		
44		301	-185				239	-222		
42		346	-232				200	-175		
40		395	-283				123	-101		
38		433	-318				90	-60		
36		364	-270				58	-32		
34		320	-207				22	-1		
32		313	-206				-105	128		
30		291	-181				-255	274		
28		242	-133				-190	210		
26		175	-71				-110	130		
24		118	-3				-34	49		
23		70	38				0	10		
21		25	86				147	-133		
19		2	108				131	-100		
18		-14	126				93	-71		
16		-74	183				104	-73		
14		-98	209				103	-76		
13		-103	211				80	-56		
11		-106	207				94	-66		
9		-40	152				242	-231		
8		28	84				316	-305		
6		222	-106				473	-451		
4		389	-272				576	-563		
2		482	-361				677	-653		

Encountered Water at 124 Ft

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-5 PAGE 1 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam
DATE AUGUST 20 1986 CALCULATED BY ON
READ BY R. BABB CHECKED BY ON
INSTRUMENT NO.



epth to
and?
0.72'

ck up
ove
face
casing
0.71'

DEPTH	ORIG. DIFF.	AZ=Down Stream A+	AZ=Down Stream A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	AZ=Spillway B−	NEW DIFF.	CHANGE
134		86	1				140	-152		
132		98	-11				171	-163		
130		154	-106				323	-313		
128		271	-186				463	-448		
126		385	-294				480	-468		
124		530	-441				571	-565		
122		602	-503				533	-524		
120		6066	-572				434	-420		
118		763	-669				319	-315		
116		802	-712				295	-273		
115		745	-650				787	-190		
113.		551	-459				50	-30		
112.		484	-390				34	-26		
110		334	-243				39	-18		
108		202	-112				89	-70		
107		119	-31				152	-134		
105		24	606				273	-2606		
103		91	-7				422	-412		
102		195	-103				473	-474		
100		372	-284				6009	-594		
98		466	-378				6093	-669		
96		551	-459				703	-684		
94		696	-608				704	-703		
92		812	-717				6026	-612		
90		880	-734				559	-540		
88		804	-707				465	-444		
86		767	-672				414	-401		
84		734	-644				353	-341		
82		716	-618				272	-279		
80		653	-557				226	-217		
78		593	-498				173	-160		
76		514	-419				103	-94		
74		443	-352				81	-62		
73		450	-355				85	-88		
71		394	-297				57	-54		
70		362	-269				63	-51		
68		316	-222				98	-84		
66		237	-194				122	-103		
65		295	-202				110	-105		
63		347	-255				181	-161		
61		389	-295				295	-279		
60		399	-306				365	-313		
58		428	-333				[illegible]	[illegible]		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-5 PAGE 2 OF 2

PROJECT NO. 86934 - PROJECT NAME Bell Mountain Dam
DATE AUGUST 20 1986 CALCULATED BY ON
READ BY E. BAGBY
INSTRUMENT NO. CHECKED BY ON

DEPTH	ORIG. DIFF.	AZ=DOWN STREAM A+	AZ=DOWN STREAM A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=SPILLWAY B+	AZ=SPILLWAY B−	NEW DIFF.	CHANGE
56		455	-360				338	-317		
54.		486	-390				317	-301		
53		461	-364				275	-269		
51		371	-280				237	-226		
50		357	-263				245	-243		
48		337	-242				285	-270		
46		313	-220				274	-261		
44		290	-196				230	-225		
42		336	-243.				184	-182		
40		337	-293				121	-107		
38		424	-327				85	-68		
36.		377	-283				55	-37		
34.		314	-220				23	-12		
32		310	-219				-107	129		
30		290	-195				-256	274		
28		242	-145				-191	207		
26		176	-86				-113	128		
24		114	-17				-40	49		
23		65	28				1	10		
21		19	76				145	-139		
19		-4	97				115	-100		
18		-19	114				82	-76		
16		-80	172				89	-75		
14		-104	199				95	-81		
13		-103	202				75	-58		
11		-104	196				79	-74		
9		-51	141				240	-222		
8		19	71				306	-289		
6		209	-118				464	-449		
4		376	-283				575	-561		
2		459	-356				685	-675		

WATER ENCOUNTERED @ 123'

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-6 PAGE 1 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam

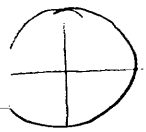
DATE January 24, 1986 CALCULATED BY _____ ON _____

READ BY S. Sarandis

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DOWNSTREAM

A+



	DEPTH	ORIG. DIFF.	AZ=DOWN STREAM A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=SPILLWAY B+	B-	NEW DIFF.	CHANGE
	92'		+150	-55				+352	-325		
	90'		-121	+217				+446	-416		
	88		-373	+468				+315	-313		
	86		-486	+587				+128	-93		
	84		-468	+564				-62	+70		
	82		-388	+489				-162	+180		
	80		-367	+467				-149	+173		
	78		-307	+408				-97	+129		
	76		-211	+312				+41	-24		
	74		-160	+258				+154	-144		
	72		-149	+246				+156	-140		
	70		-125	+224				+154	-158		
	68		-76	+173				+210	-180		
16	66		-1	+97				+225	-193		
+	65		+30	+65				+240	-220		
+	63		+57	+36				+295	-244		
+	61		+55	+42				+263	-230		
	60		+38	+59				+249	-221		
	58		-19	+115				+250	-219		
21	56		-68	+167				+221	-184		
*	55		-107	+203				+162	-145		
*	53		[illegible]	+323				+86	-60		
*	51		-302	+400				+55	-20		
	50		-277	+376				+39	-23		
	48		-208	+307				+36	-2		
	46		-148	+247				0	+37		
	44		-167	+265				+63	-33		
	42		-125	+222				+187	-143		
	40		-108	+204				+177	-155		
	38		-67	+167				+194	-166		
	36		-22	+122				+238	-215		
	34		+3	+92				+278	-255		
	32		-18	+117				+274	-231		
	30		-124	+223				+279	-244		
	28		-176	+275				+307	-268		
	26		-132	+228				+366	-328		
	24		-45	+140				+432	-388		
38	22		-12	+109				+365	-340		
*	21		-42	+140				+349	-321		
*	19		-69	+170				+200	-190		
	18		-97	+196				+193	-173		
	16		-204	+304				+240	-226		
42	14		-342	+440				+278	-254		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-6 PAGE 2 OF 2

PROJECT NO. 85769 - PROJECT NAME Ball Mountain Dam
DATE January 24, 1986 CALCULATED BY _____ ON _____
READ BY S. Sarandis, R. Barry
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ = DOWN STREAM A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = SPILLWAY B+	B-	NEW DIFF.	CHANGE
* 13		-347	+445				+227	-217		
* 11		-333	+431				+94	-57		
* 9		-338	+437				-30	+44		
8		-318	+418				-19	+42		
6		-216	+314				+50	-9		
4		-181	+279				+90	-78		
2		-193	-315				+41	+2		

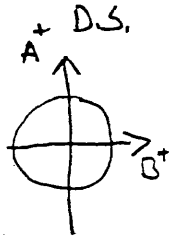
DEPTH FROM PROTECTIVE
CASING to SAND
.77', .81', .76'

STICK UP bell reducer
over PVC casing
.77'

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-6 PAGE 1 OF 2

PROJECT NO. 85769 - PROJECT NAME Ball Mountain Dam
DATE MARCH 31, 1986 CALCULATED BY _____ ON _____
READ BY SJS, MAM
INSTRUMENT NO. _____ CHECKED BY _____ ON _____



Depth to Sand? 0.87'

Stick up above surface casing = .71'

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	AZ = Down Stream A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	AZ = Spillway B-	NEW DIFF.	CHANGE
92		+125	-45				+348	-334		
90.		-101	+196				+457	-449		
88		-352	+448				+336	-317		
86		-476	+578				+116	-92		
84		-451	+546				-39	+73		
82		-375	+479				-144	+158		
80		-383	+484				-144	+168		
78		-326	+430				-102	+112		
76		-214	+319				+73	-62		
74		-146	+246				+190	-170		
72		-99	+199				+161	-144		
70.		-64	+164				+143	-124		
68.		-15	+114				+154	-138		
66		+23	+72				+192	-166		
65		+34	+62				+214	-201		
63		+29	+63				+309	-272		
61		+18	+76				+310	-282		
60		+9	+87				+293	-272		
58		-17	+117				+264	-227		
56		-44	+152				+213	-190		
55		-87	+187				+171	-146		
53		-205	+311				+101	-65		
51		-287	+389				+63	-37		
50		-263	+370				+42	-34		
48		-195	+302				+26	-20		
46		-136	+244				-5	+26		
44		-148	+256				+50	-38		
42		-111	+217				+183	-159		
40		-92	+199				+187	-163		
38		-54	+162				+194	-178		
36		-8	+118				+242	-224		
34		+20	+84				+285	-270		
32		+6	+103				+260	-231		
30		-101	+215				+291	-262		
28		-160	+271				+304	-283		
26		-115	+227				+362	-351		
24		-24	+136				+429	-413		
22		+12	+100				+349	-347		
21		-18	+131				+340	-313		
19		-50	+163				+220	-197		
18		-76	+190				+186	-179		
16		-181	+297				+252	-247		
14		-319	+433				+290	-275		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-6 PAGE 2 OF 2

PROJECT NO. 85764 - PROJECT NAME Ball Mountain Dam
DATE March 31 1986 CALCULATED BY _____ ON _____
READ BY MAM, SJS CHECKED BY _____ ON _____
INSTRUMENT NO. _____

DEPTH	ORIG. DIFF.	AZ=Downstream A+	AZ=Downstream A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	AZ=Spillway B-	NEW DIFF.	CHANGE
13		-330	+447				+255	-235		
11		-316	+427				+ 84	- 65		
9		-311	+424				- 33	+ 48		
8		-299	+413				- 17	+25		
6		-198	+311				+ 73	-56		
4		-159	+275				+103	- 72		
2		-182	+284				+ 26	+12		
	Dry	Hole								
	0.87	ft to	Top of Sand							

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI 85-6 PAGE 1 OF 2

PROJECT NO. 85769
PROJECT NAME Ball Mountain Dam
DATE May 13, 1986
CALCULATED BY ON
READ BY SJS/PAD
INSTRUMENT NO.
CHECKED BY ON

DEPTH	ORIG. DIFF.	AZ=Downstream A+	AZ=Downstream A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	AZ=Spillway B-	NEW DIFF.	CHANGE
92		125	-60				352	-329		
90		-107	175				462	-444		
88		-364	433				335	-322		
86		-490	562				105	-95		
84		-460	530				-55	75		
82		-384	461				-131	158		
80		-396	470				-146	167		
78		-336	417				-105	111		
76		-227	303				72	-52		
74		-159	233				195	-161		
72		-102	181				170	-138		
70		-74	145				136	-116		
68		-24	92				150	-138		
66		21	50				177	-156		
65		30	37				204	-198		
63		15	52				301	-265		
61		-1	76				309	-283		
60		-9	89				284	-276		
58		-38	113				245	-232		
56		-59	141				213	-196		
55		-98	174				157	-150		
53		-218	298				99	-67		
51		-300	376				63	-37		
50		-277	358				52	-38		
48		-210	288				43	-8		
46		-151	230				2	36		
44		-165	244				52	-23		
42		-127	204				177	-144		
40		-108	183				182	-161		
38		-69	149				192	-175		
36		-24	102				242	-208		
34		5	69				288	-256		
32		-10	89				266	-240		
30		-118	197				286	-250		
28		-178	256				310	-268		
26		-132	211				369	-350		
24		-42	119				437	-392		
22		-8	85				361	-327		
21		-40	115				336	-328		
19		-67	149				222	-184		
18		-94	173				194	-199		
16		-203	282				247	-217		
14		-340	419				296	-260		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI 85-6 PAGE 2 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam

DATE May 13, 1986 CALCULATED BY _____ ON _____

READ BY STS/PAD

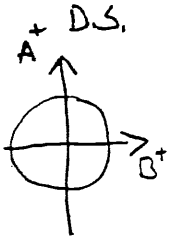
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ= Downstream A+	AZ= Downstream A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ= Spillway A+	AZ= Spillway B-	NEW DIFF.	CHANGE
13		-353	413				244	-216		
11		-334	412				73	-53		
9		-329	409				31	+49		
8		-317	398				-31	26		
6		-221	301				73	-58		
4		-174	252				75	-59		
2		-182	278				62	-31		
			Dry Hole							

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-6 PAGE 1 OF 2

PROJECT NO. 85769 - PROJECT NAME Ball Mountain Dam
DATE June 16, 1986 CALCULATED BY _____ ON _____
READ BY SJS/MTM
INSTRUMENT NO. _____ CHECKED BY _____ ON _____



Depth to Sand?

Stick up above surface casing = .71'

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	AZ = Down Stream A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	AZ = Spillway B-	NEW DIFF.	CHANGE
92		137	-57				359	-318		
90.		-099	+175				461	-432		
88		-355	+436				346	-324		
86		-478	+564				124	-83		
84		-446	+527				-056	+76		
82		-374	+463				-137	+159		
80		-388	+472				-150	+181		
78		-328	+417				-101	+116		
76		-217	+303				078	-53		
74		-152	+237				192	-164		
72		-093	+174				160	-140		
70.		-063	+140				140	-112		
68.		-014	+88				143	-126		
66		028	+48				177	-148		
65		037	+37				202	-178		
63		019	+55				290	-266		
61		000	+81				306	-282		
60		-010	+93				300	-279		
58		-036	+118				264	-241		
56		-057	+143				201	-193		
55		-092	+177				157	-137		
53		-216	+301				089	-69		
51		-288	+374				061	-31		
50		-272	+360				041	-37		
48		-205	+288				034	-2		
46		-146	+233				-003	+43		
44		-160	+247				049	-14		
42		-121	+204				171	-147		
40		-101	+186				179	-158		
38		-064	+152				184	-171		
36		-020	+104				234	-214		
34		010	+69				277	-258		
32		-007	+89				257	-236		
30		-115	+199				278	-247		
28		-172	+254				316	-277		
26		-126	+210				375	-337		
24		-038	+119				439	-402		
22		-005	+84				368	-325		
21		-036	+120				346	-323		
19		-062	+149				214	-191		
18		-085	+171				207	-176		
16		-197	+282				256	-223		
14		-335	+471				286	-278		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-6 PAGE 2 OF 2

PROJECT NO. 85769 - PROJECT NAME Ball Mountain Dam

DATE June 16, 1986 CALCULATED BY _____ ON _____

READ BY SJS/MTM

14:07.06

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

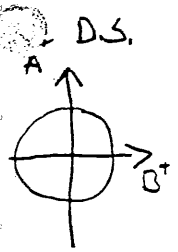
13! 19:81

DEPTH	ORIG. DIFF.	AZ=Down Stream A+	AZ=Down Stream A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	AZ=Spillway B-	NEW DIFF.	CHANGE
13		-349	+431				237	-225		
11		-326	+412				081	-48		
9		-325	+411				-022	+52		
8		-311	+397				-010	+32		
6		-208	+294				088	-56		
4		-179	+264				089	-50		
2		-211	+282				069	-56		
				DRY	HOLE					

GEI FIELD SHEET
INCLINOMETER- DATA

BORING SI-85-6 PAGE 1 OF 2

PROJECT NO. 85934 - PROJECT NAME Ball Mountain Dam
DATE July 15, 1986 CALCULATED BY _____ ON _____
READ BY SSs, SR
INSTRUMENT NO. _____ CHECKED BY _____ ON _____



Depth to Sand?

Stick up above surface casing = .71'

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	AZ = Down Stream A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	AZ = Spillway B-	NEW DIFF.	CHANGE
92		152	-48				345	-327		
90.		-81	185				455	-444		
88		-341	445				358	-326		
86		-469	575				128	-83		
84		-437	542				-36	79		
82		-362	473				-132	158		
80		-377	486				-146	167		
78		-320	432				-105	121		
76		-210	318				71	-60		
74		-144	251				192	-163		
72		-77	191				169	-135		
70.		-43	152				142	-108		
68.		4	100				141	-120		
66		45	59				178	-139		
65		52	50				202	-172		
63		29	68				309	-269		
61		5	97				319	-297		
60		-6	111				297	-285		
58		-30	135				267	-238		
56		-48	156				208	-194		
55		-83	189				155	-149		
53		-202	313				101	-70		
51		-285	392				51	-26		
50		-263	372				49	-21		
48		-196	304				31	-5		
46		-137	246				-12	39		
44		-149	260				42	-11		
42		-111	218				172	-154		
40		-91	201				189	-158		
38		-54	167				199	-168		
36		-10	122				243	-218		
34		22	84				292	-264		
32		5	104				262	-221		
30		-102	214				283	-262		
28		-159	270				305	-267		
26		-114	226				363	-341		
24		-25	134				429	-400		
22		6	102				372	-335		
21		-27	132				340	-328		
19		-50	163				219	-192		
18		-73	141				194	-177		
16		-184	295				253	-225		
14		-272	432				291	-263		

GEI FIELD SHEET
INCLINOMETER- DATA

BORING SI-85-6 PAGE 2 OF 2

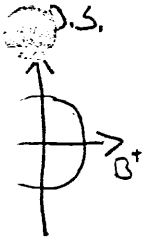
PROJECT NO. 86931 - PROJECT NAME Ball Mountain Dam
DATE July 15, 1986 CALCULATED BY ON
READ BY SJS, SR CHECKED BY ON
INSTRUMENT NO.

DEPTH	ORIG. DIFF.	AZ=Downstream A+	AZ=Downstream A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	AZ=Spillway B-	NEW DIFF.	CHANGE
13		-334	445				249	-225		
11		-314	425				87	-52		
9		-311	422				-14	39		
8		-299	412				1	32		
6		-198	309				95	-62		
4		-165	276				95	-57		
2		-166	291				46	-10		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-6 PAGE 1 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam
DATE AUGUST 20 1986 CALCULATED BY ON
READ BY R. BERRY
INSTRUMENT NO. CHECKED BY ON



pth to
wd?
0.96'

k up
none
face
using
.71'

DEPTH	ORIG. DIFF.	AZ=Down Stream A+	AZ=Down Stream A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	AZ=Spillway B-	NEW DIFF.	CHANGE
92		141	-56				348	-337		
90.		-94	178				463	-439		
88		-351	437				337	-333		
86		-477	5006				112	-90		
84		-448	533				-44	78		
82		-372	463				-140	155		
80		-357	475				-157	173		
78		-325	420				-107	127		
76		-219	308				170	-57		
74		-159	241				188	-168		
72		-88	174				166	-145		
70.		-54	136				130	-109		
68.		-2	94				127	-120		
66		38	45				165	-145		
65		44	36				187	-190		
63		18	61				303	-257		
61		-7	93				325	-302		
60		-20	106				303	-296		
58		-43	128				264	-248		
56		-55	147				216	-201		
55		-92	180				162	-152		
53		-214	303				93	-72		
51		-297	383				59	-32		
50		-275	3641				62	-39		
48		-207	294				45	-12		
46		-148	256				5	22		
44		-162	250				52	-25		
42		-121	207				174	-152		
40		-101	190				194	-158		
38		-64	156				201	-169		
36		-19	111				242	-214		
34		12	73				285	-257		
32		-3	91				257	-243		
30		-113	200				292	-254		
28		-171	256				311	-279		
26		-124	211				374	-341		
24		-35	119				436	-402		
22		-2	89				357	-341		
21		-37	120				335	-329		
19		-60	151				222	-192		
18		-81	169				204	-186		
16		-193	282				255	-227		
14		-333	420				297	-267		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-6 PAGE 2 OF 2

PROJECT NO. 86937 - PROJECT NAME Ball Mountain Dam

DATE AUGUST 20, 1986 CALCULATED BY _____ ON _____

READ BY R. BARRY

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ = Down Stream		NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway		NEW DIFF.	CHANGE
		A+	A-				B+	B-		
13		-345	434				230	-226		
11		-323	410				86	-51		
9		-322	409				-15	55		
8		-311	397				-7	30		
6		-209	295				84	-61		
4		-176	261				90	-62		
2		-189	288				62	-89		