



GE Nuclear Energy

R1167

GERIS 2000 Examination Summary Sheet

Project: TVA, Browns Ferry Nuclear Plant, Unit 3

System: Reactor Pressure Vessel

Weld ID: V-4-B

ASME Code Category: B-A

Calibration Sheets: C-001

Supporting Data: Examination Data Sheets E-14-00 and E-14-01, Indication Data Sheets 14-001 thru 14-005 and G-100 thru G-108, Indication Evaluation Sheets, Screen Prints, Exam Patch Location Map, Exam Coverage Plots and GERIS 2000 Setup Records.

Examination Summary

The ultrasonic examination of weld V-4-B resulted in one (1) recorded indication that exceeds the allowable standards of IWB-3500, ASME Section XI, 1986 Edition, No Addenda.

The ASME Section XI required examination volume was examined with the GERIS 2000 System from the RPV inside surface utilizing Procedure No. GE-UT-700, Rev. 2. This examination was limited due to the N11-A Nozzle at 40°. The total examination coverage was calculated to be 83%.

The GERIS 2000 utilizes an array of search units arranged to effectively examine the weld and adjacent base material parallel and perpendicular to the weld axis in two directions. The transducer package consisted of 0° longitudinal, 45° and 60° shear wave, and 70° refracted longitudinal (RL) wave search units.

The one indication evaluated as being reportable to IWB-3500, ASME Section XI, 1986 Edition, No Addenda was recorded and sized in accordance with GE-UT-700, Rev. 2 and GE-UT-701, Rev. 2. This indication was recorded during the examination of both welds V-4-B as 14-002 and C-3-4 as 12-015. The flaw dimensions were determined from weld C-3-4 Indication Data Sheet 12-015 with the results tabulated below:

Ind. No.	Oriented	Type	X Pos	Y Pos	Z Pos	"S"	T wall	Length	T Meas	a/l	% a/t Calculated	% a/t Allowed
12-015	circ.	subsurface	94.35"	525.43"	1.13"	0.94"	.44"	1.75"	6.53"	0.13	3.4	2.71

This indication was sized with the 70°RL utilizing the PATT technique. It was also recorded with the 45° and 60° shear waves.

The GERIS 2000 also recorded an indication with the 0° weld metal scan that was evaluated and found to be acceptable per the referencing Code section. Geometric indications from the stabilizer bracket at 45° were recorded with the 0° weld metal, 45° and 60° shear wave scans.

No manual supplemental examination was performed from the RPV outside surface due to access restrictions.

Fabrication records and previous examination results were reviewed prior to the completion of this examination summary.

GERIS Analyst: *AUSA Kimball*

GE Reviewer: *R.D. Forman*

LEVEL: *III* DATE: *12-21-93*

LEVEL: *I* DATE: *12-21-93*

UTILITY Review: *J.M. Woody*

ANII Review:

TITLE: *W* DATE: *1/26/94*

TITLE: *Weld* DATE: *7/13/94*

2 OF 39

69100 * 00169

C-4-5

⊕
524.5"

70° RL

WELD

Nominal Clad T = 3/16"
Nominal Base Metal T = 6 3/8"

Indication 12-015	
Flaw "X" location	94.35"
Flaw "Y" location	525.43"
Flaw Thruwall	.444"
Flaw Length	1.75"
"T" Measured	6.53"

PROVIDED FOR THE

R1167

R1167



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: V-4-B
Patch: BF-048

Exam Data Sheet No.: E-14-01
Ind. Data Sheet No.: 14-002
Indication: 14-002

Flaw Thruwall Dimension = 0.44
Flaw Length "l" = 1.75
Seperation with clad "S" = 1.13
Surface Separation "S" = 0.94

T measured = 6.53
Clad T nominal = 0.19

Flaw is unacceptable by Table IWB-3510-1

ASME Section XI, 1986 Edition TABLE IWB-3510-1 for 4" to 12"

a/l	Surface %	ubsurface	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	~	~
0.10	2.20	2.5	2.36	2.71 Y
0.15	2.50	2.9	~	~
0.20	2.80	3.3	~	~
0.25	3.30	3.8	~	~
0.30	3.80	4.4	~	~
0.35	4.40	5.1	~	~
0.40	5.00	5.8	~	~
0.45	5.10	6.7	~	~
0.50	5.20	7.6	~	~
			Allowed	Allowed
			2.36	2.71

a = 0.222
a/l value = 0.127
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.71%
a/t = 3.40%

Comments: The size of this indication was determined with information from Examination Data Sheet No. E-12-02: Indication Data Sheet No. 12-015.

C-3-4

⊕

524.5"

525.51"

60°

45°

70°RL

60°

WELD

Nominal Clad T = 3/16"
Nominal Base Metal T = 6 3/8"
1 Degree = 2.19"

Plots from information obtained during the examination of weld V-4-B.
This indication is recorded as #12-015 from C-3-4. The size of
this indication was determined from information obtained from C-3-4.

0000 0000 0000

R1167

8 OF 39 # 00175

R1167



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: V-4-B
Patch: BF-048

Exam Data Sheet No.: E-14-01
Ind. Data Sheet No.: 14-004
Indication: 14-004

Flaw Thruwall Dimension = 0.44
Flaw Length "I" = 1.75
Seperation with clad "S" = 1.13
Surface Separation "S" = 0.94

T measured = 6.53
Clad T nominal = 0.19

Flaw is unacceptable by Table IWB-3510-1

ASME Section XI, 1986 Edition TABLE IWB-3510-1 for 4" to 12"

a/l	Surface %	ubsurface	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	~	~
0.10	2.20	2.5	2.36	2.71 Y
0.15	2.50	2.9	~	~
0.20	2.80	3.3	~	~
0.25	3.30	3.8	~	~
0.30	3.80	4.4	~	~
0.35	4.40	5.1	~	~
0.40	5.00	5.8	~	~
0.45	5.10	6.7	~	~
0.50	5.20	7.6	~	~
			Allowed	Allowed
			2.36	2.71

a = 0.222
a/l value = 0.127
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.71%
a/t = 3.40%

Comments: The size of this indication was determined with information from Examination Data Sheet No. E-12-02: Indication Data Sheet No. 12-015.

R1167



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: V-4-B
Patch: BF-048

Exam Data Sheet No.: E-14-01
Ind. Data Sheet No.: 14-005
Indication: 14-005

Flaw Thruwall Dimension = 0.44
Flaw Length "l" = 1.75
Seperation with clad "S" = 1.13
Surface Separation "S" = 0.94

T measured = 6.53
Clad T nominal = 0.19

Flaw is unacceptable by Table IWB-3510-1

ASME Section XI, 1986 Edition TABLE IWB-3510-1 for 4" to 12"

a/l	Surface %	ubsurface	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	~	~
0.10	2.20	2.5	2.36	2.71 Y
0.15	2.50	2.9	~	~
0.20	2.80	3.3	~	~
0.25	3.30	3.8	~	~
0.30	3.80	4.4	~	~
0.35	4.40	5.1	~	~
0.40	5.00	5.8	~	~
0.45	5.10	6.7	~	~
0.50	5.20	7.6	~	~
			Allowed 2.36	Allowed 2.71

a = 0.222
a/l value = 0.127
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.71%
a/t = 3.40%

Comments: The size of this indication was determined with information from Examination Data Sheet No. E-12-02: Indication Data Sheet No. 12-015.



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: V-4-B
Cal. ID: C-001

Exam Data Sheet No.: E-14-01
Patch ID: BF-048
Ind. Data Sheet No.: G-102

Indication: G-102 Channel: 8 Angle: 45 Direction: 90

Amp.	Y	20% Min X	MP	50% Min X	MP	@ Max X	MP	50% Max X	MP	20% Max X	MP	Remarks
330.8%	564.80	~	~	~	~	97.04	9.63	~	~	~	~	GEOMETRY
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~

Comments: OD geometry due to stabilizer bracket at 45°

Analyst: Deresa Kimball
Level: III Date: 12-16-93

Reviewed By: R.O. Forman
Level: II Date: 12-16-93

R1167



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: V-4-B
Cal. ID: C-001

Exam Data Sheet No.: E-14-01
Patch ID: BF-048
Ind. Data Sheet No.: G-103

Indication: G-103 Channel: 9 Angle: 45 Direction: 180

Amp.	X	20% Min Y	MP	50% Min Y	MP	@ Max Y	MP	50% Max Y	MP	20% Max Y	MP	Remarks
187.1%	98.65	~	~	~	~	565.75	9.34	~	~	~	~	GEOMETRY
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~

Comments: OD geometry due to stabilizer bracket at 45°.

Analyst: Heusa Kimball
Level: III Date: 12-16-93

Reviewed By: R.O. Forman
Level: II Date: 12-16-93

R1167



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: V-4-B
Cal. ID: C-001

Exam Data Sheet No.: E-14-01
Patch ID: BF-048
Ind. Data Sheet No.: G-104

Indication: G-104 Channel: 10 Angle: 45 Direction: 270

Amp.	Y	20% Min X	MP	50% Min X	MP	@ Max X	MP	50% Max X	MP	20% Max X	MP	Remarks
225.7%	565.75	~	~	~	~	100.64	9.90	~	~	~	~	GEOMETRY
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~

Comments: OD geometry due to stabilizer bracket at 45°

Analyst: Jeressa Kimball
Level: III Date: 12-16-93

Reviewed By: R.O. Forman
Level: II Date: 12-16-93

R1167



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: V-4-B
Cal. ID: C-001

Exam Data Sheet No.: E-14-01
Patch ID: BF-048
Ind. Data Sheet No.: G-105

Indication: G-105

Channel: 11

Angle: 60

Direction: 0

Amp.	X	20% Min Y	MP	50% Min Y	MP	@ Max Y	MP	50% Max Y	MP	20% Max Y	MP	Remarks
225.7%	98.35	~	~	~	~	561.55	13.12	~	~	~	~	GEOMETRY
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~

Comments: OD geometry due to stabilizer bracket at 45°.

Analyst: AUSA Kimball
Level: III Date: 12-16-93

Reviewed By: R.O. Forman
Level: II Date: 12-16-93



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3

Weld ID: V-4-B

Cal. ID: C-001

Exam Data Sheet No.: E-14-01

Patch ID: BF-048

Ind. Data Sheet No.: G-106

Indication: G-106

Channel: 12

Angle: 60

Direction: 90

Amp.	Y	20% Min X	MP	50% Min X	MP	@ Max X	MP	50% Max X	MP	20% Max X	MP	Remarks
225.7%	565.25	~	~	~	~	93.29	12.63	~	~	~	~	GEOMETRY
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~

Comments: OD geometry due to stabilizer bracket at 45°.

Analyst: Jessica Kimball
Level: III Date: 12-16-93

Reviewed By: R.O. Foorman
Level: II Date: 12-16-93

R1167



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3

Exam Data Sheet No.: E-14-01

Weld ID: V-4-B

Patch ID: BF-048

Cal. ID: C-001

Ind. Data Sheet No.: G-107

Indication: G-107

Channel: 13

Angle: 60

Direction: 180

Amp.	X	20% Min Y	MP	50% Min Y	MP	@ Max Y	MP	50% Max Y	MP	20% Max Y	MP	Remarks
349.5%	98.04	~	~	~	~	570.70	13.42	~	~	~	~	GEOMETRY
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~

Comments: OD geometry due to stabilizer bracket at 45°.

Analyst: Alesia Kimball

Reviewed By: R.O. Forman

Level: III Date: 12-16-93

Level: II Date: 12-16-93

R1167



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: V-4-B
Cal. ID: C-001

Exam Data Sheet No.: E-14-01
Patch ID: BF-048
Ind. Data Sheet No.: G-108

Indication: G-108

Channel: 14

Angle: 60

Direction: 270

Amp.	Y	20% Min X	MP	50% Min X	MP	@ Max X	MP	50% Max X	MP	20% Max X	MP	Remarks
272.3%	565.75	~	~	~	~	103.85	12.66	~	~	~	~	GEOMETRY
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~

Comments: OD geometry due to stabilizer bracket at 45°.

Analyst: Deena Kimball
Level: III Date: 12-16-93

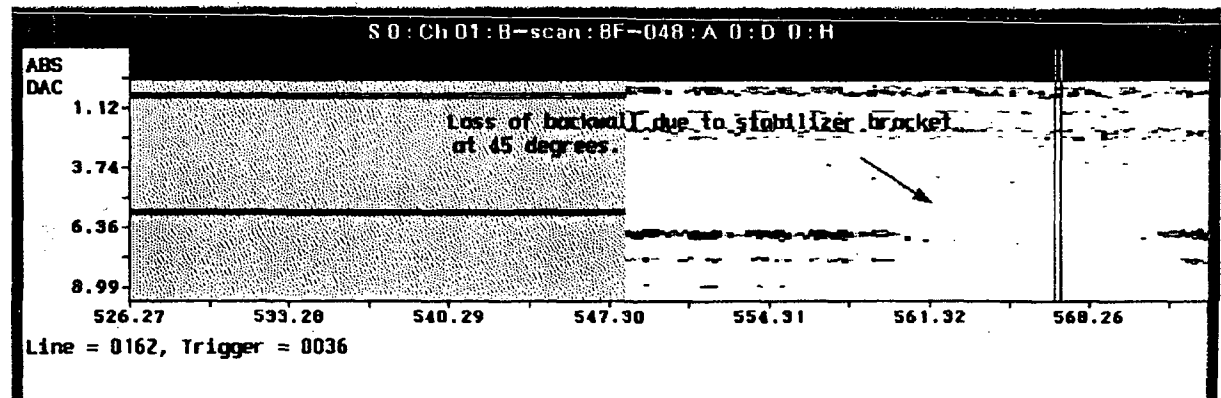
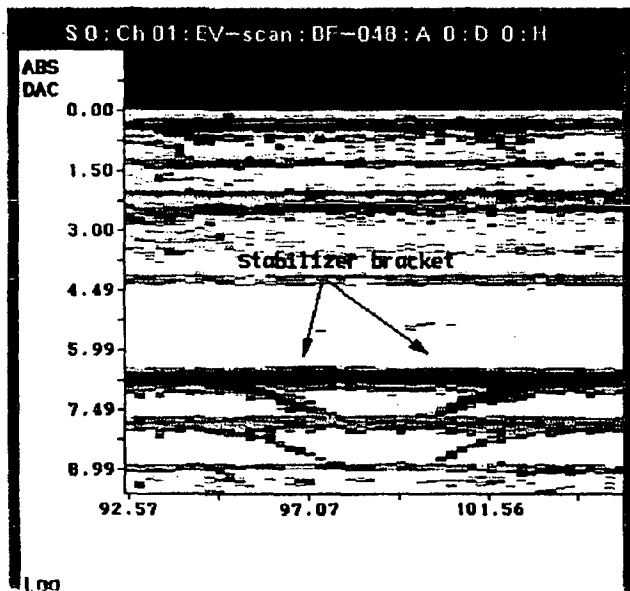
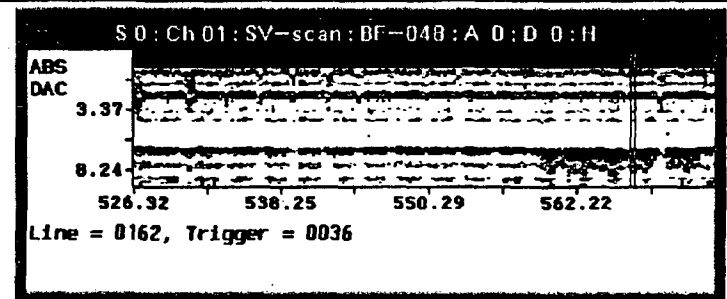
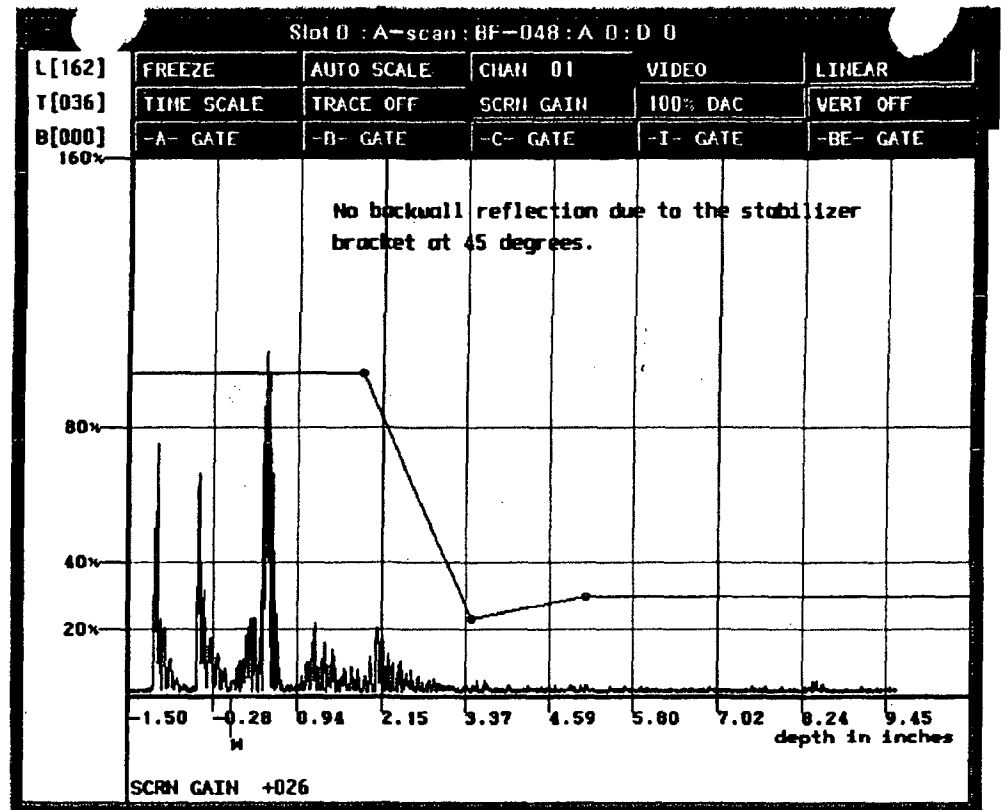
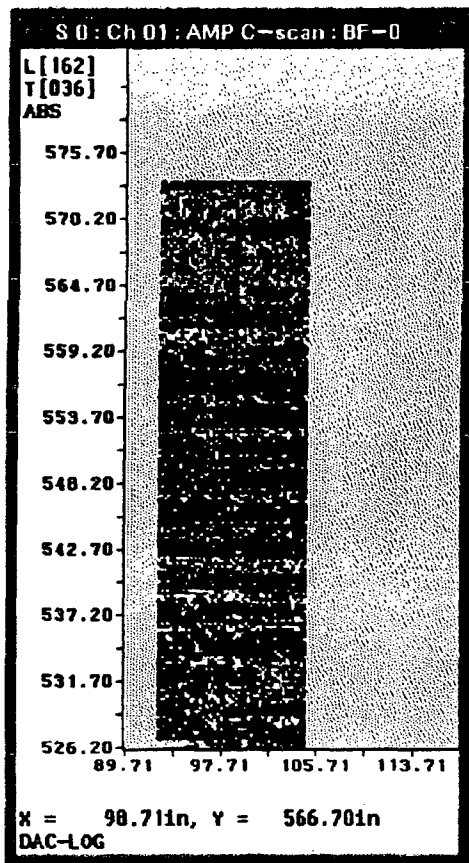
Reviewed By: R.O. Forman
Level: II Date: 12-16-93

S 0 : Scale

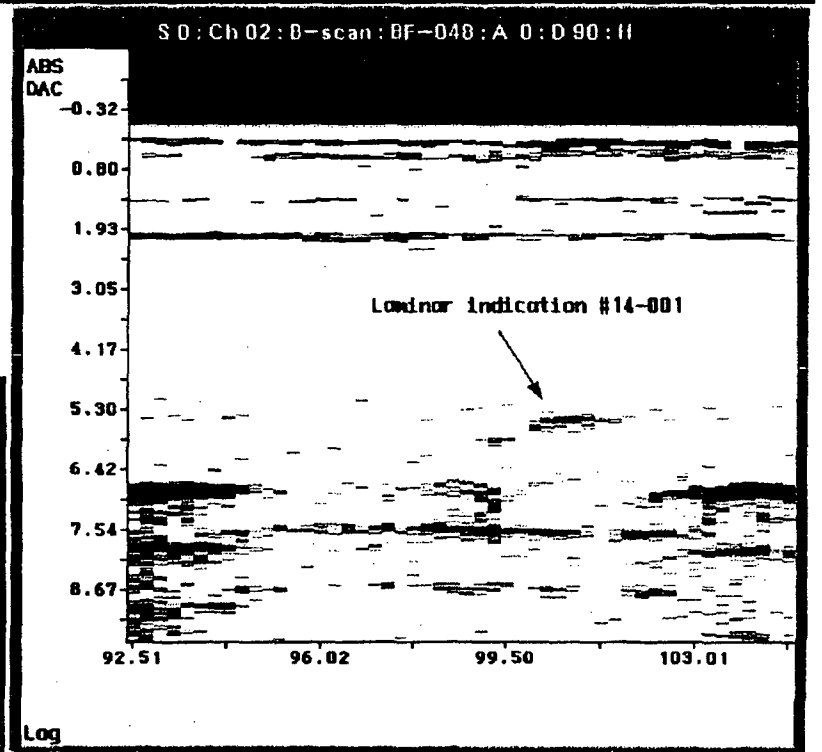
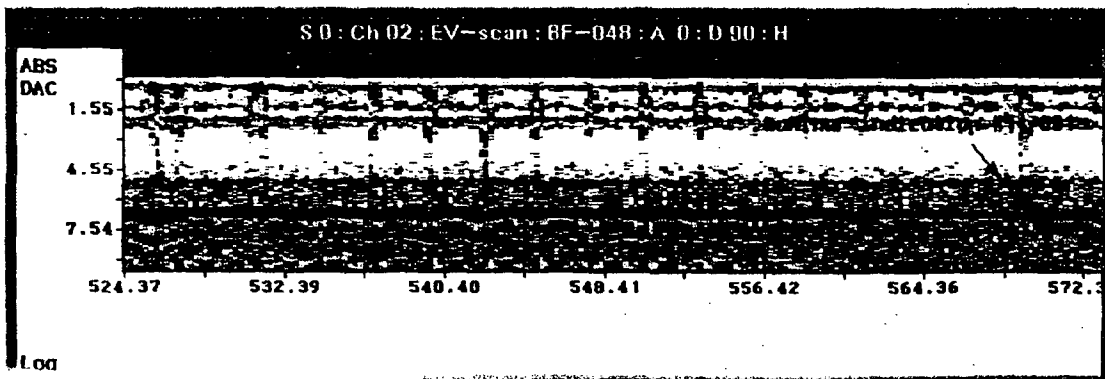
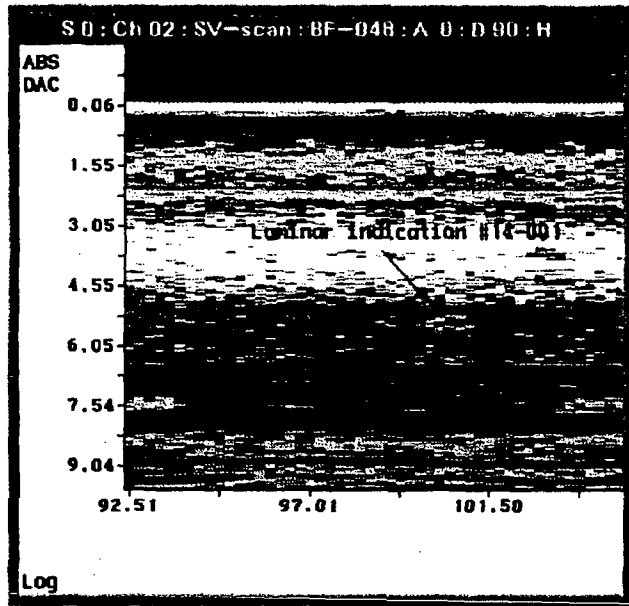
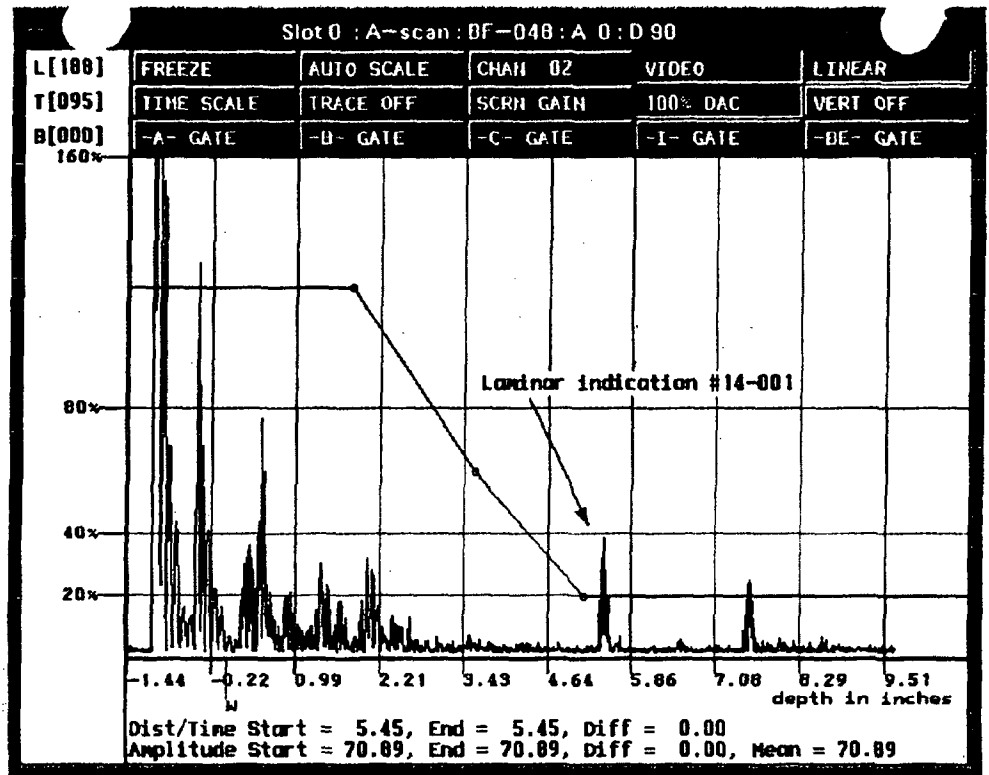
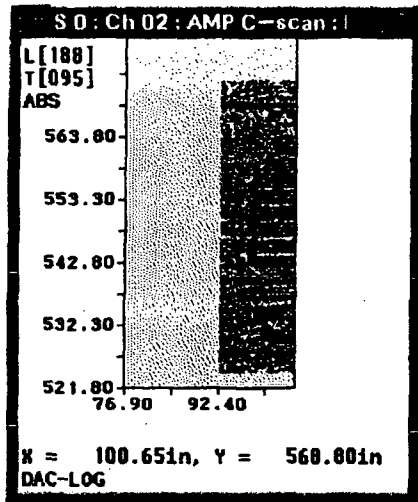
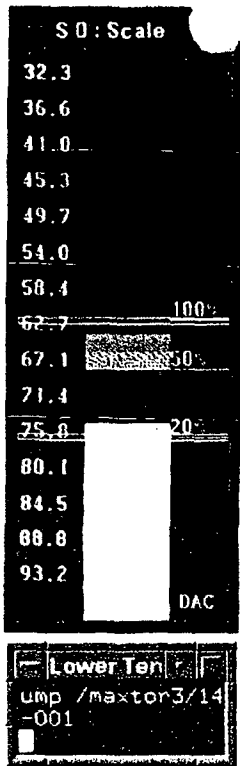
32.3
36.6
41.0
45.3
49.7
54.0
58.4 100%
62.7 50%
67.1
71.4 20%
75.8
80.1
84.5
88.8
93.2

DAC

Top Terminals
ly[eris]/locad
ump /maxtor3/G-
100



R1167
24 OF 39 - 00191



00192 25 of 39

R1167

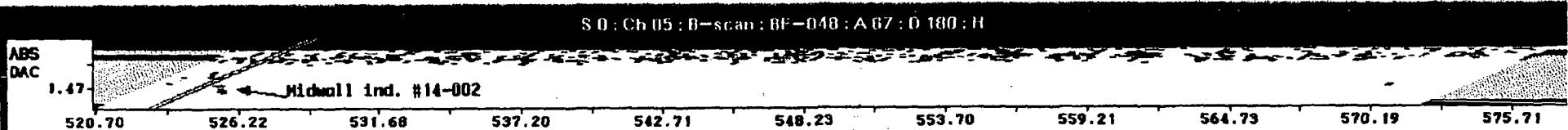
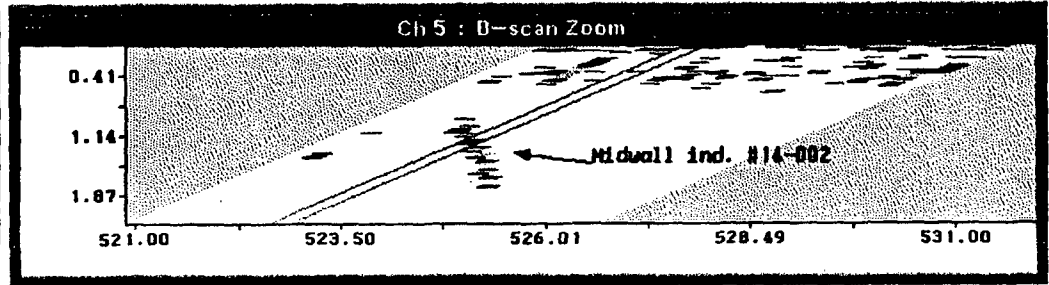
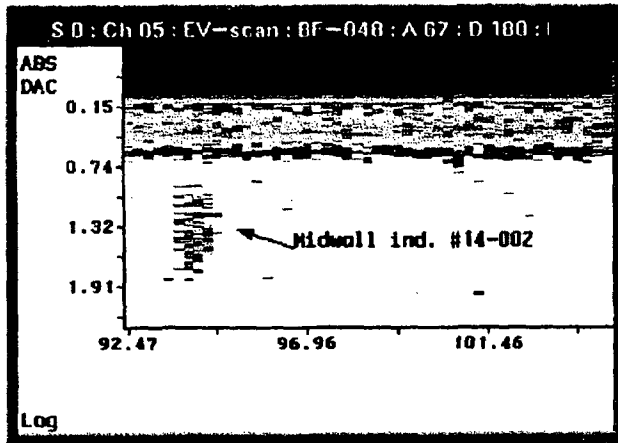
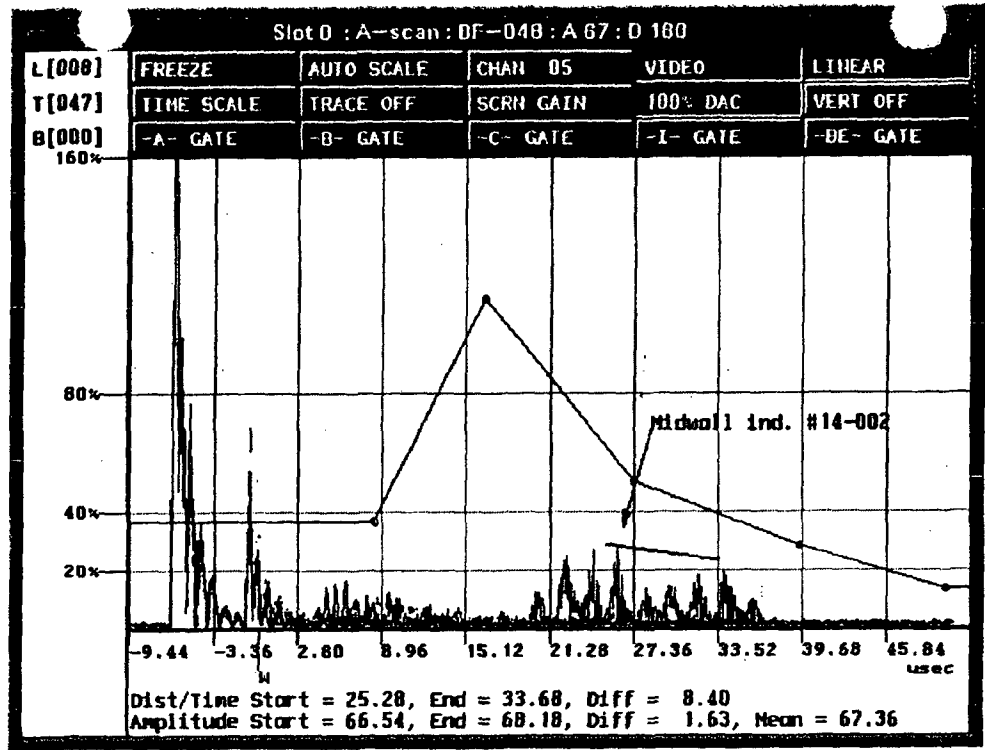
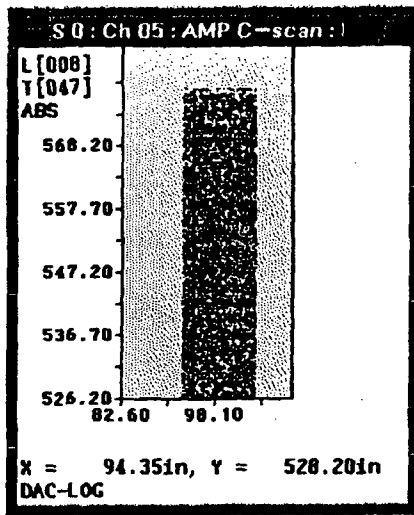
S 0 : Scale

32.3
36.6
41.0
45.3
49.7
54.0
58.4
62.7
67.1
71.4
75.0
80.1
84.5
88.8
93.2

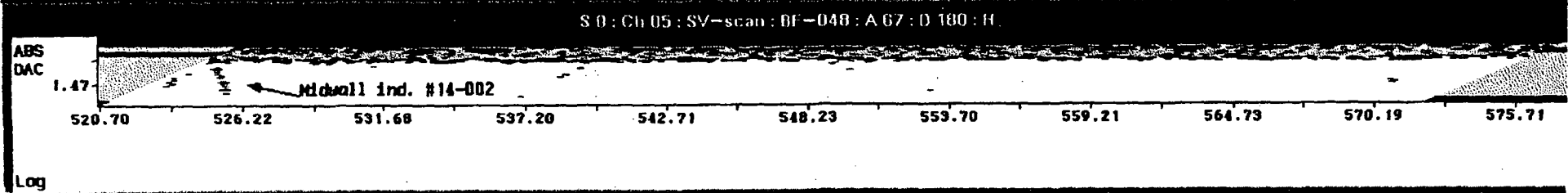
100%
50%
20%

DAC

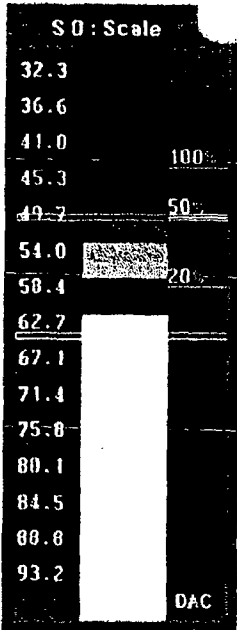
Lower Ten
-002



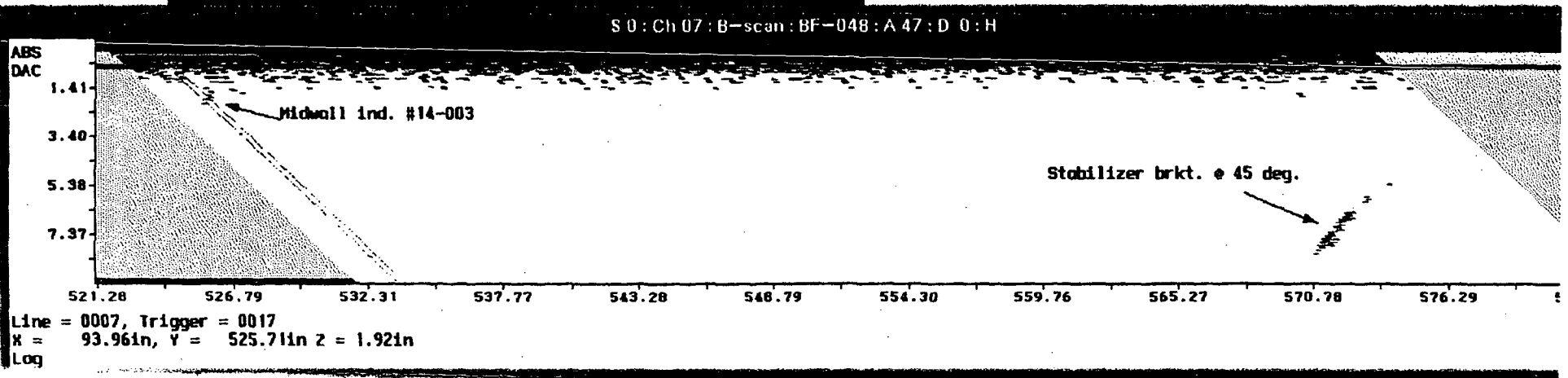
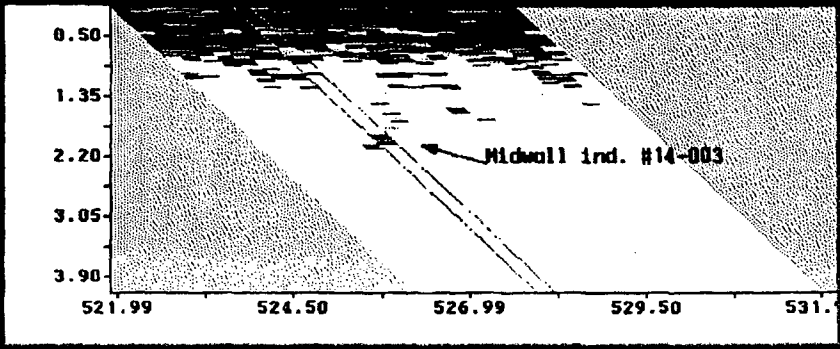
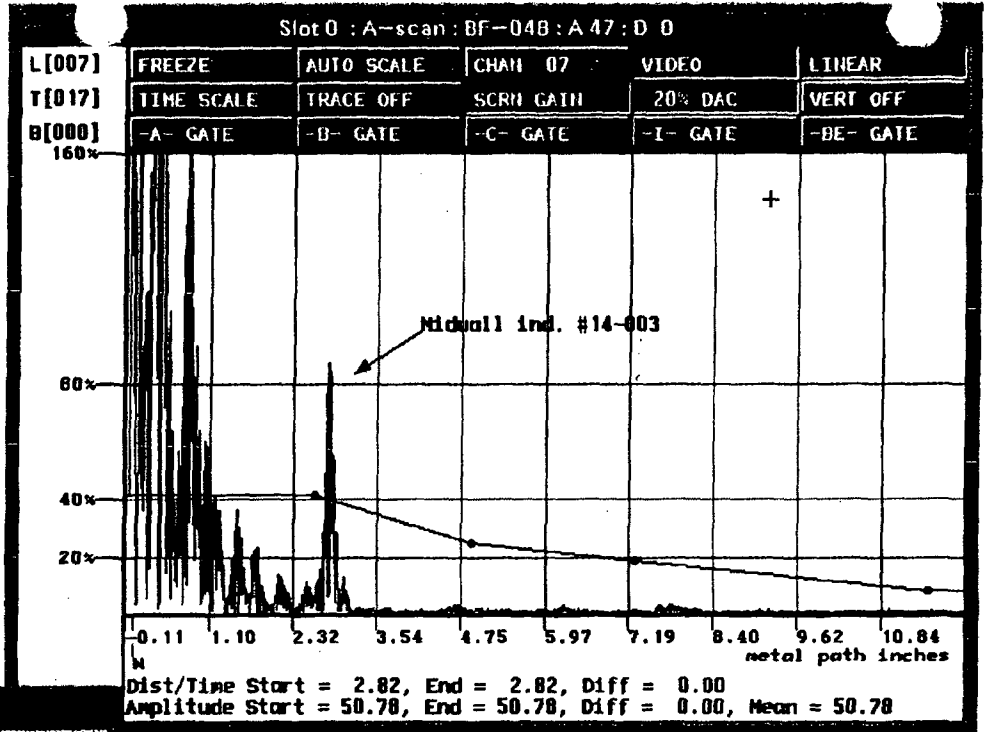
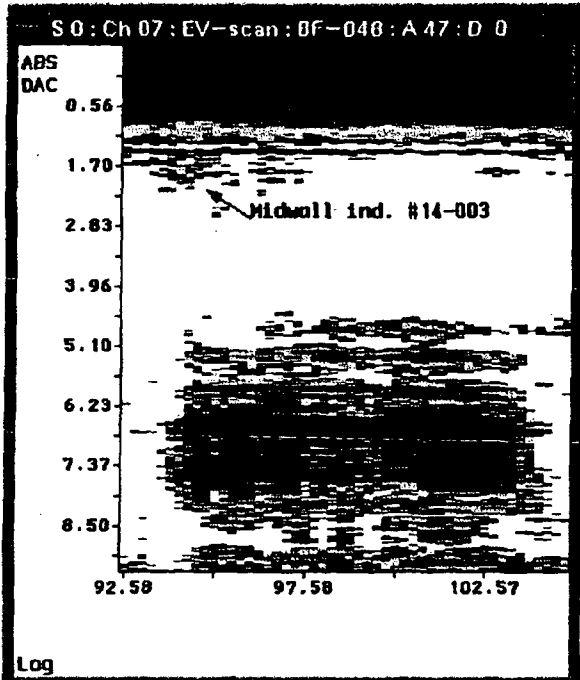
Line = 0008, Trigger = 0047
X = 94.35in, Y = 525.11in Z = 1.21in



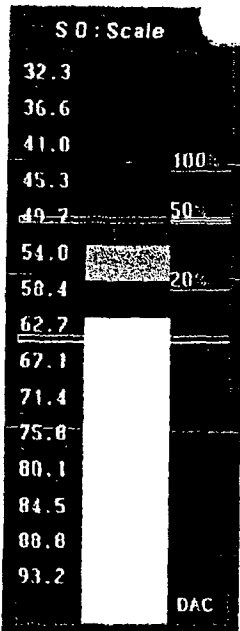
00193
R1167
26DF39



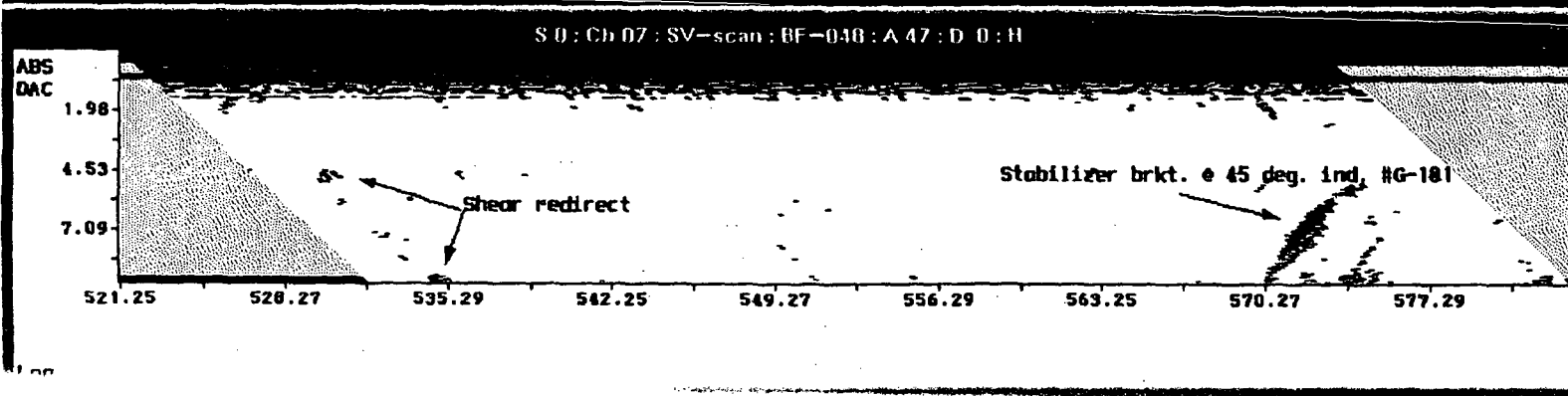
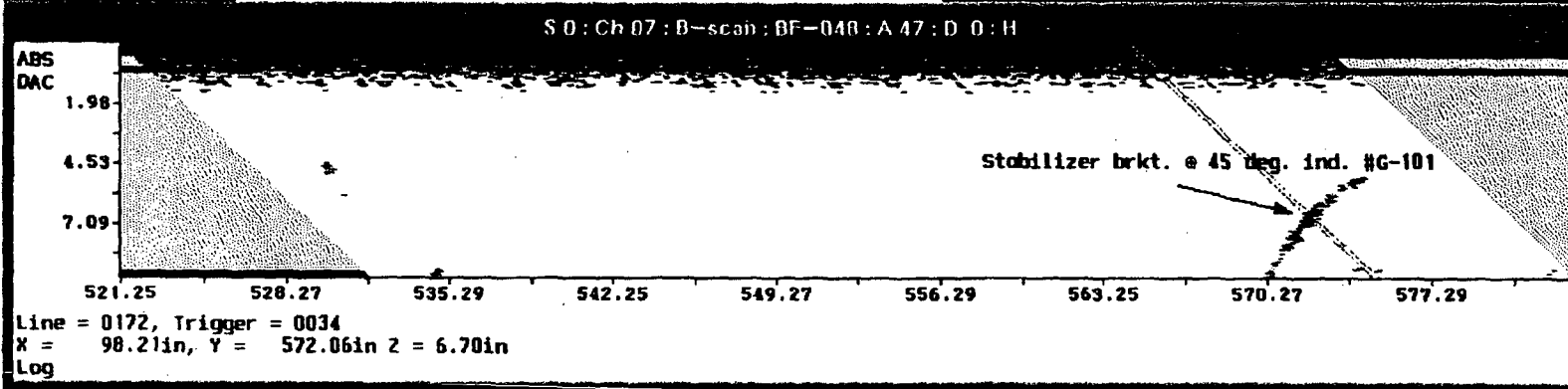
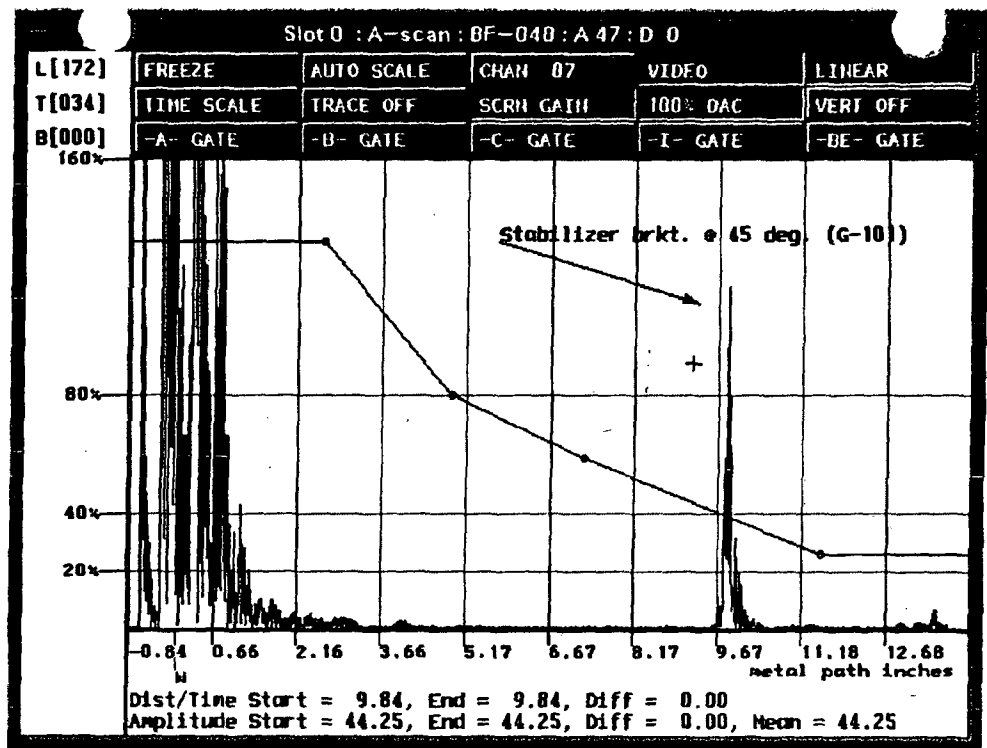
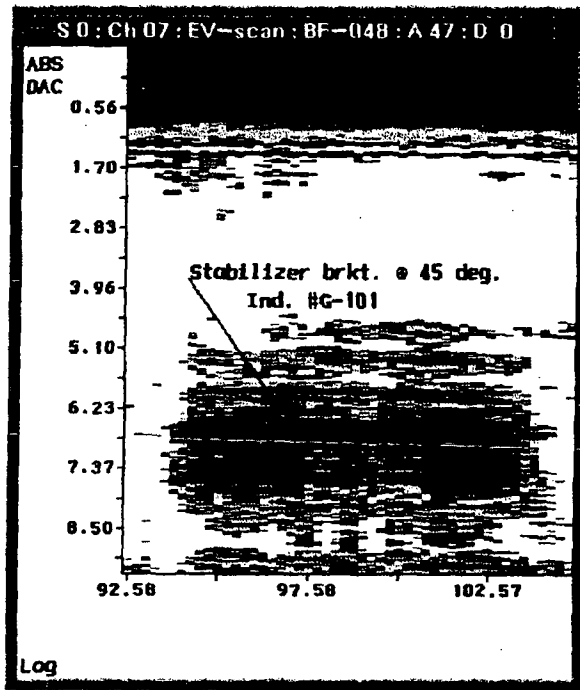
Lower Tar
tar3/14-003



00194
27 OF 39
R1161



Lower Ter
tor3/G-101



R1167
28 OF 39
00195

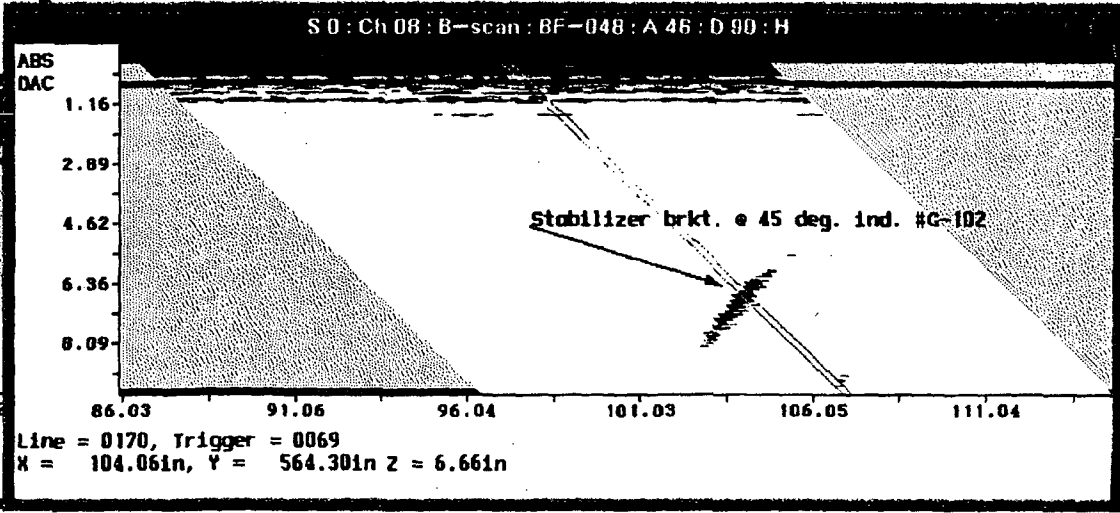
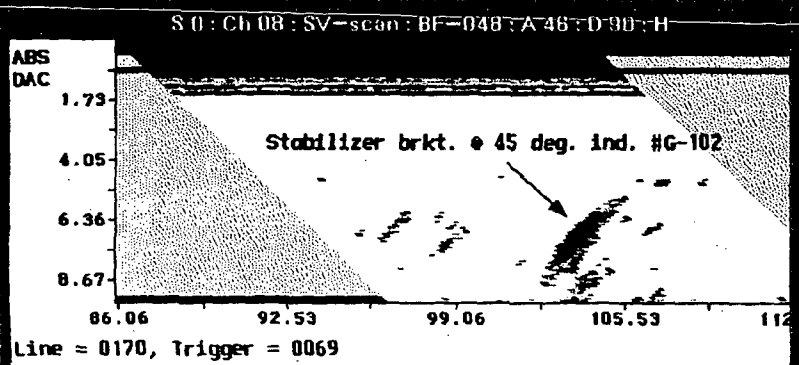
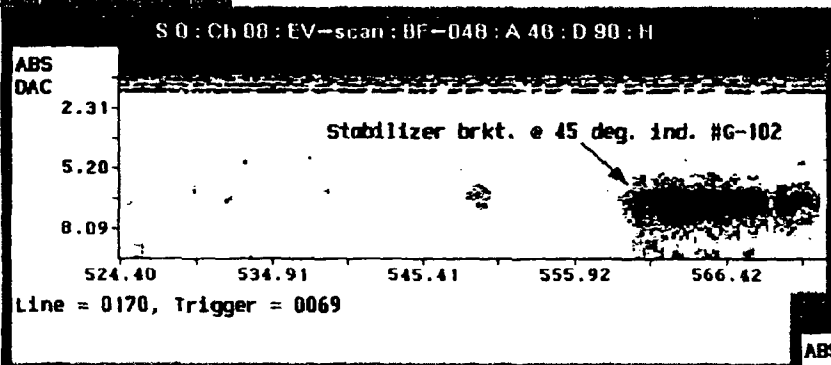
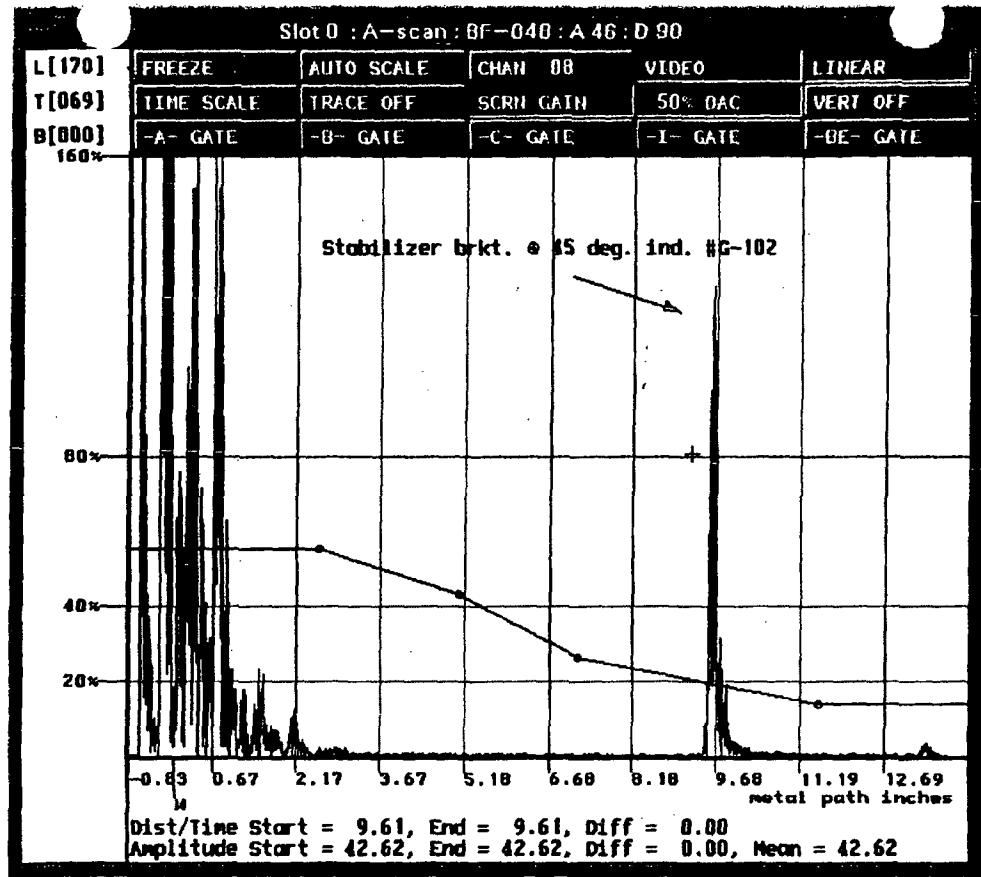
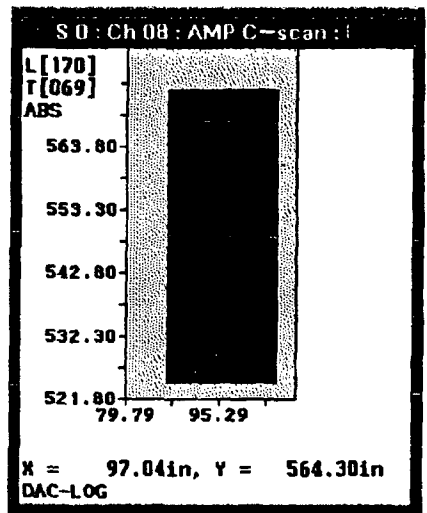
S 0 : Scale

32.3
36.6
41.0
45.3
49.7
54.0
58.4
62.7
67.1
71.4
75.8
80.1
84.5
88.8
93.2

100%
50%
20%

DAC

Lower Tern
ton3/G-102



R1161
290E39
00196

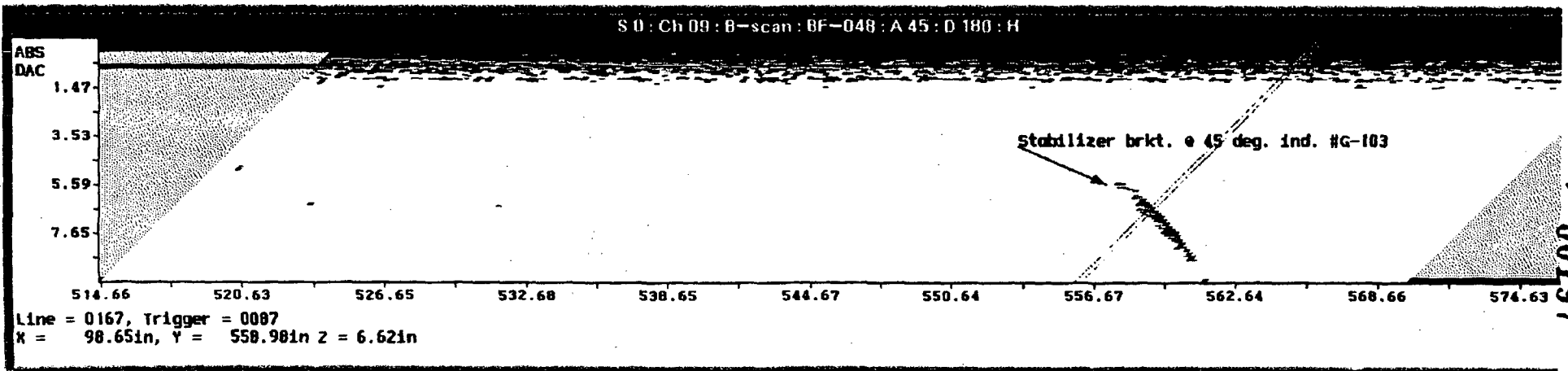
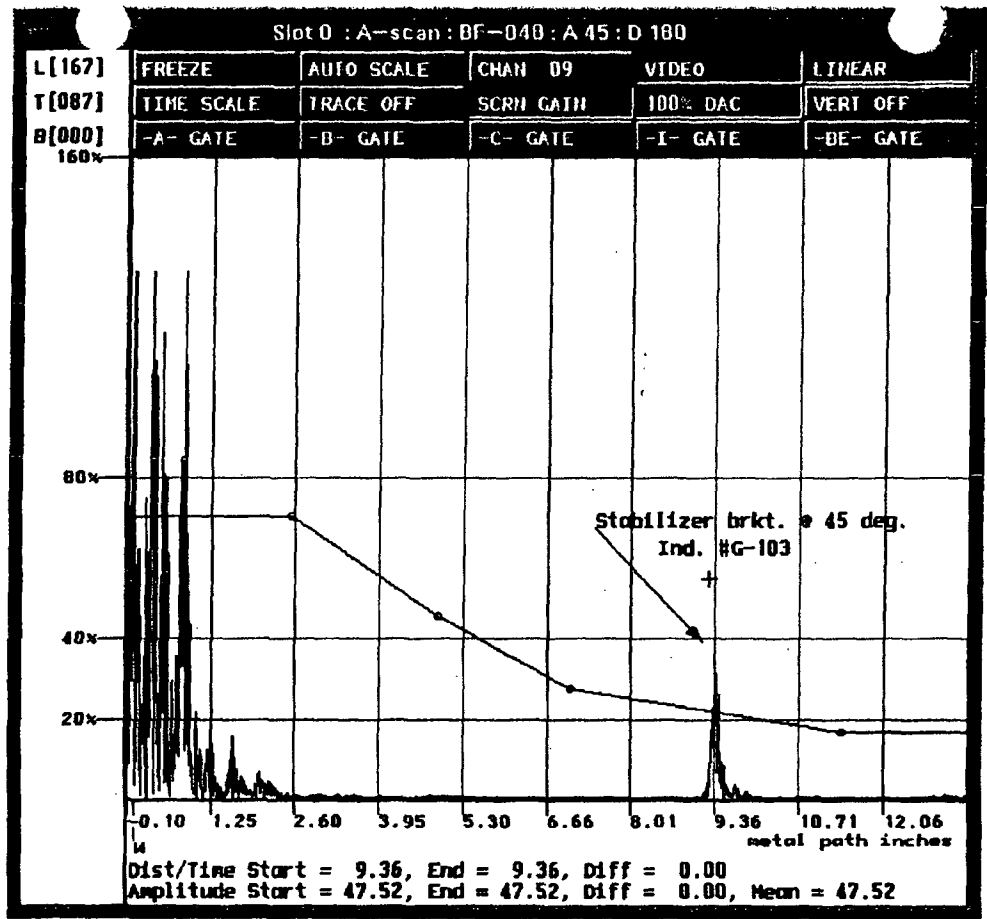
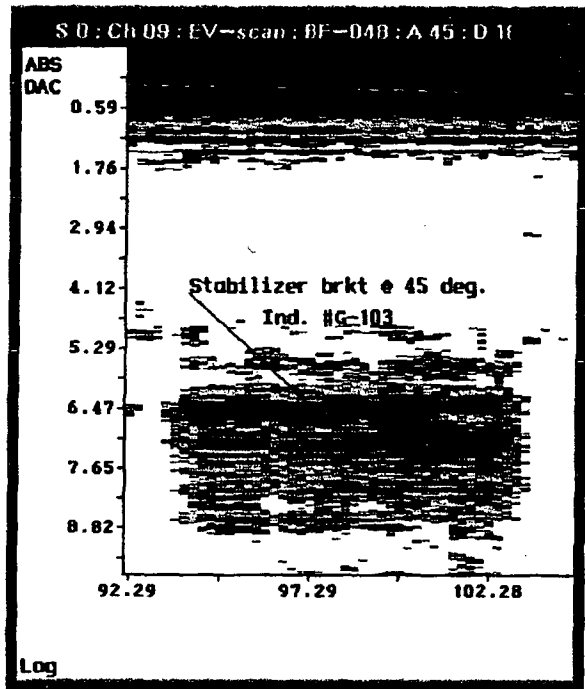
S 0 : Scale

32.3
36.6
41.0
45.3
49.7
54.0
58.4
62.7
67.1
71.4
75.8
80.1
84.5
88.0
93.2

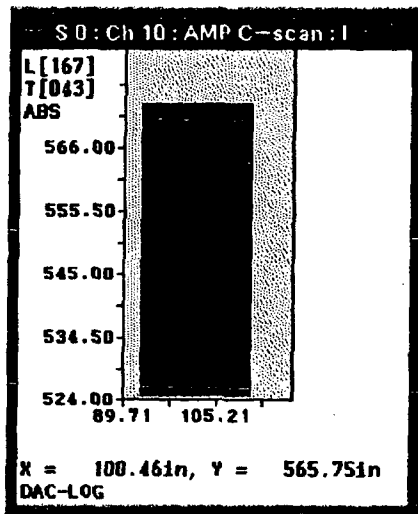
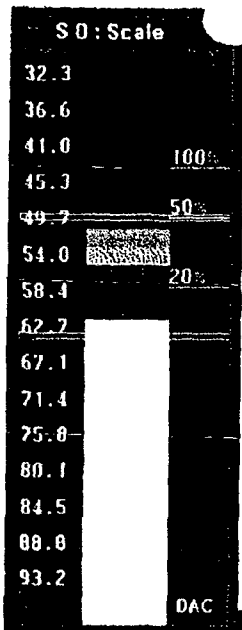
100%
50%
20%

DAC

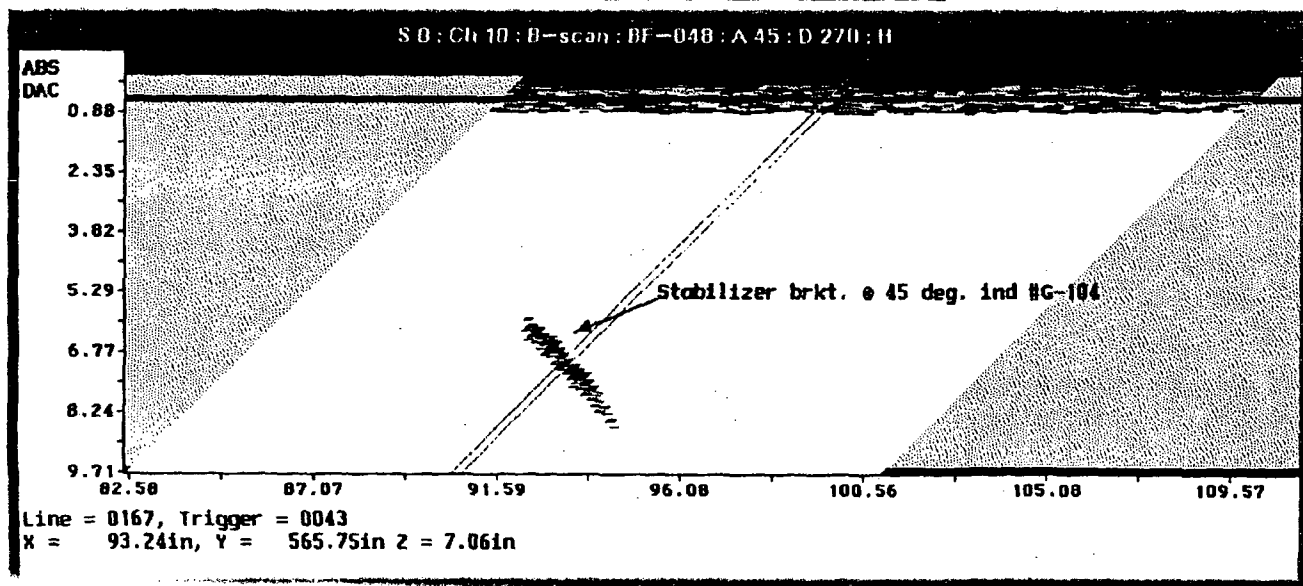
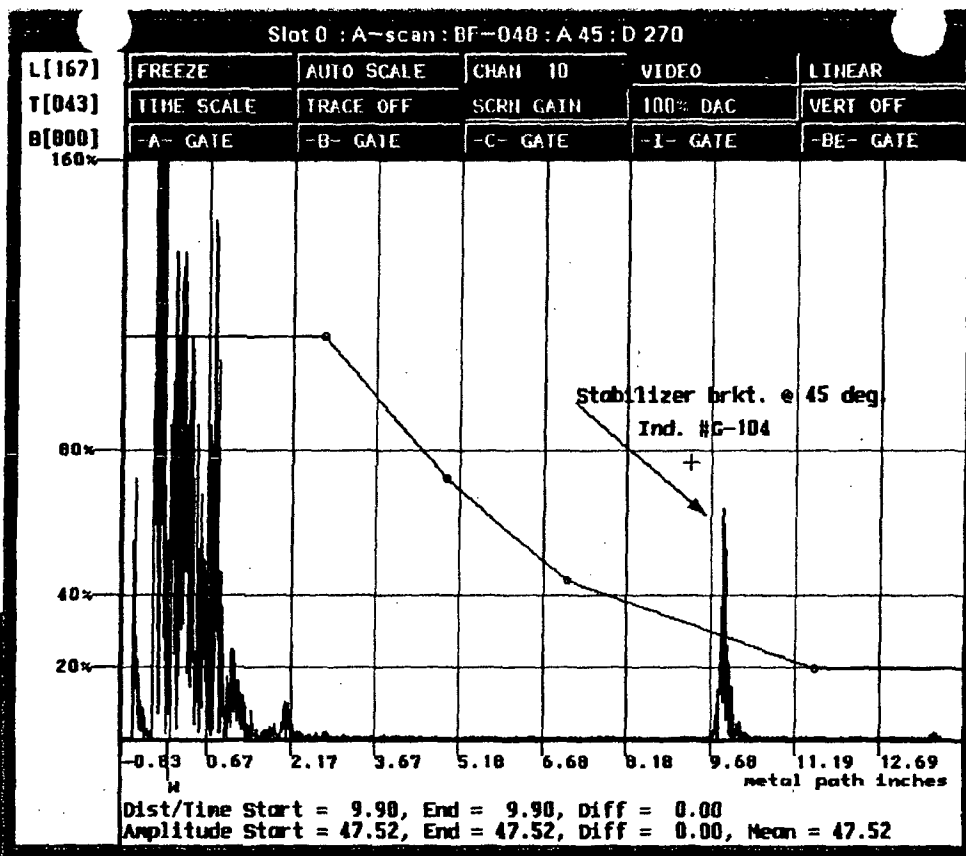
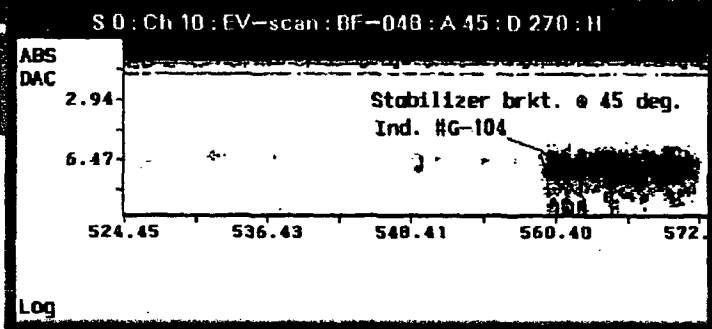
Lower Ten
for 3/6-103



30 of 39
: 00197
K1161



Lower Tern
104



31 OF 39
00198
K1161

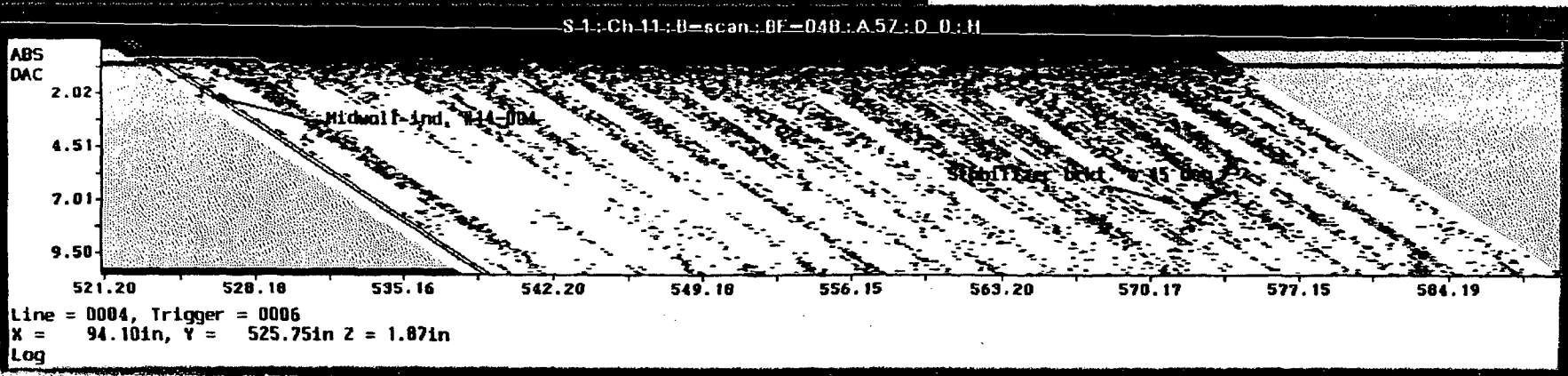
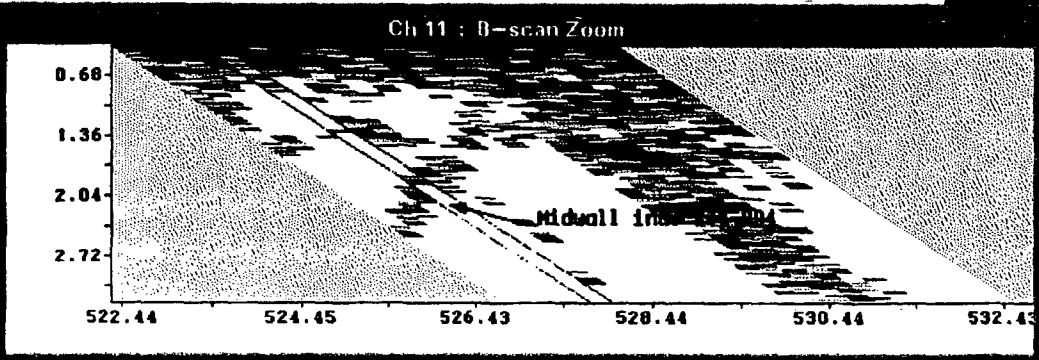
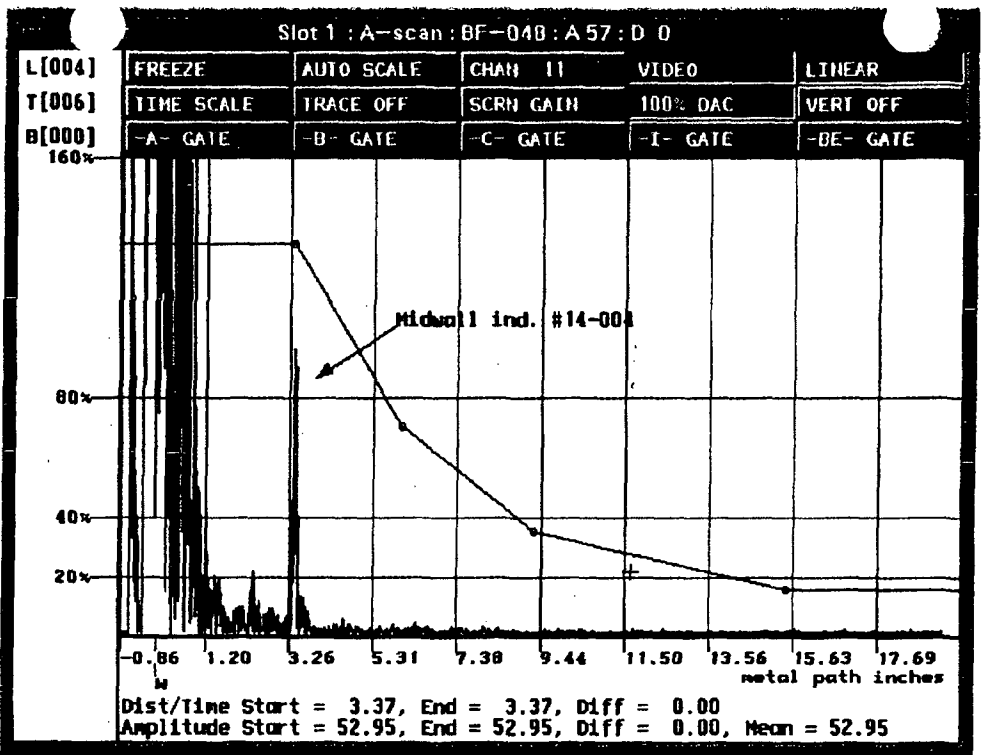
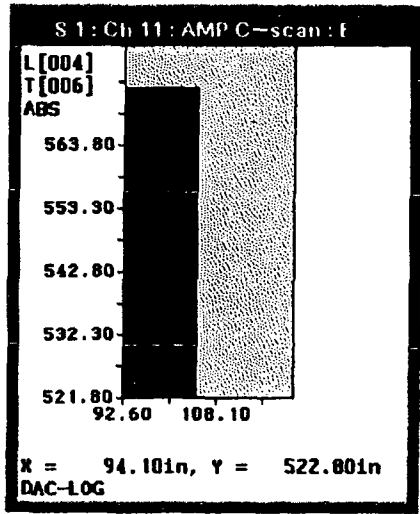
S 1 : Scale

32.3
36.6
41.0
45.3
49.7
54.0
50.1
62.7
67.1
71.4
75.8
80.1
84.5
88.8
93.2

100%
50%
20%

DAC

Lower Ten
for 3/14-004



R1167
 32 OF 39
 00199

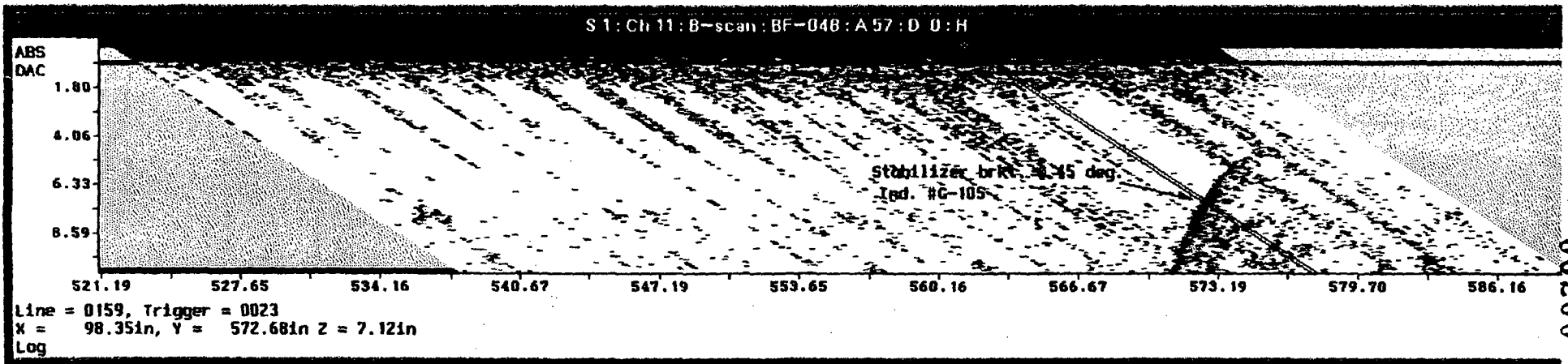
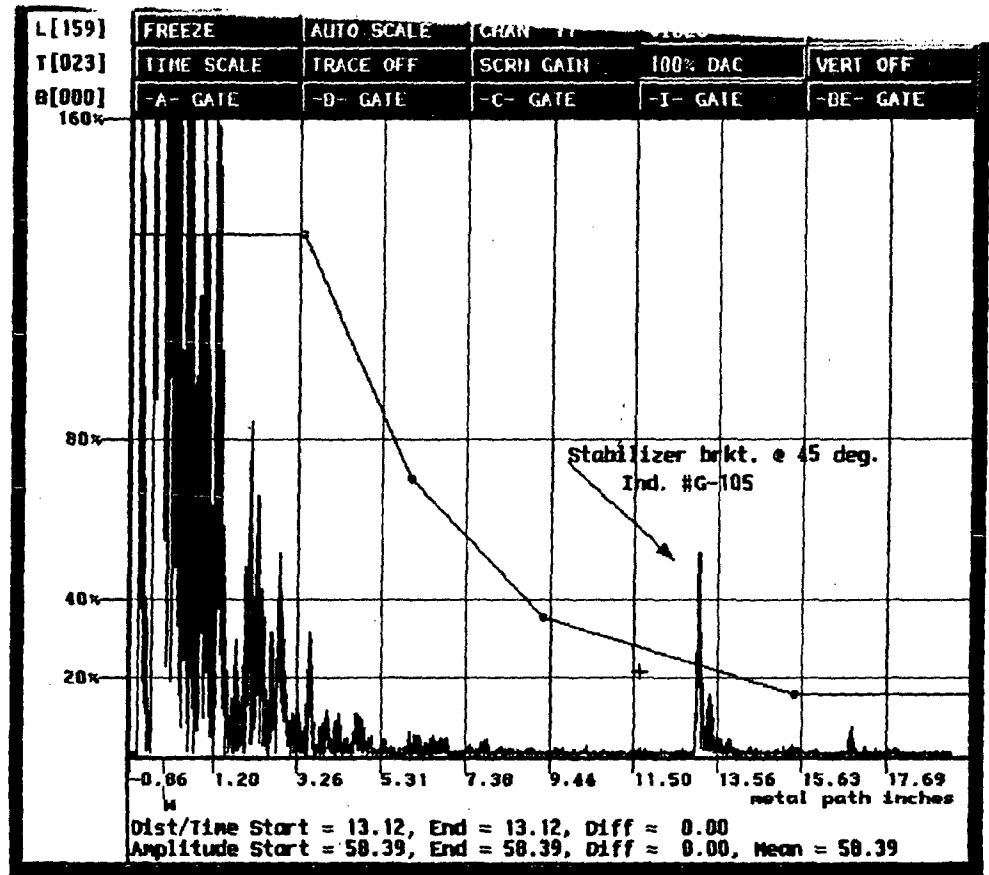
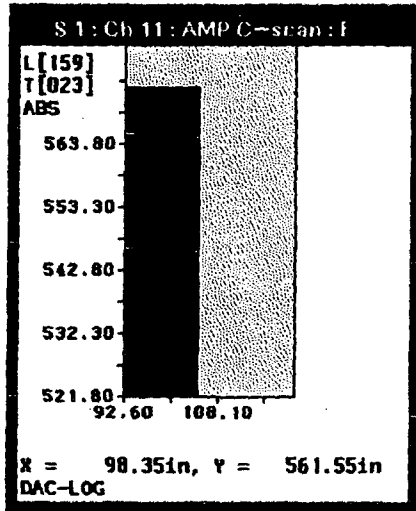
S 1: Scale

32.3
36.6
41.0
45.3
49.7
54.0
58.4
62.7
67.1
71.4
75.8
80.1
84.5
88.8
93.2

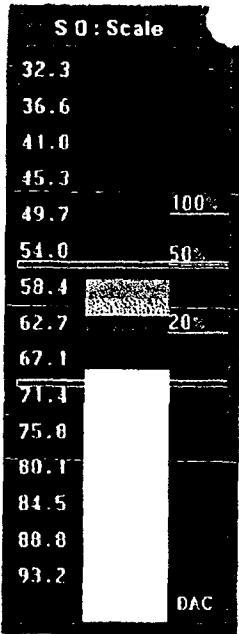
100%
50%
20%

DAC

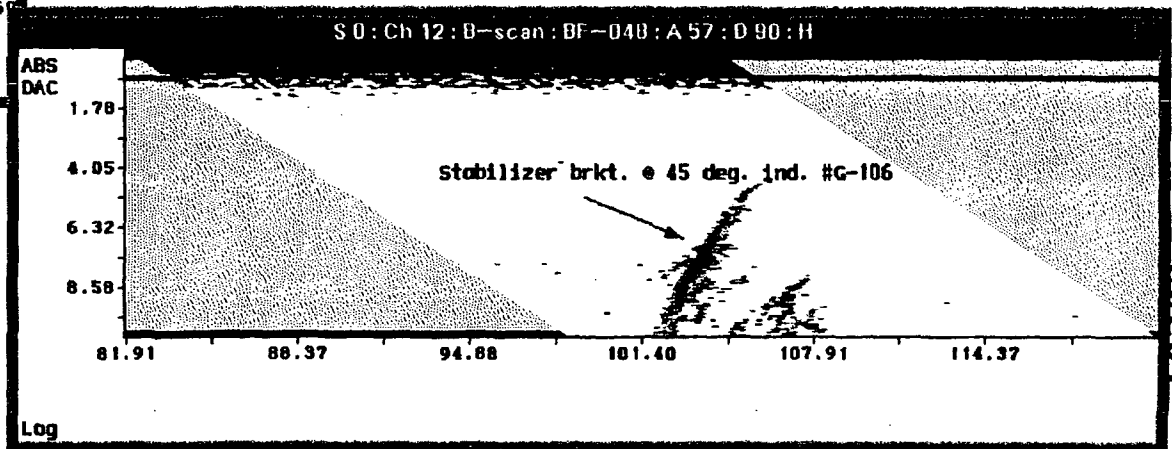
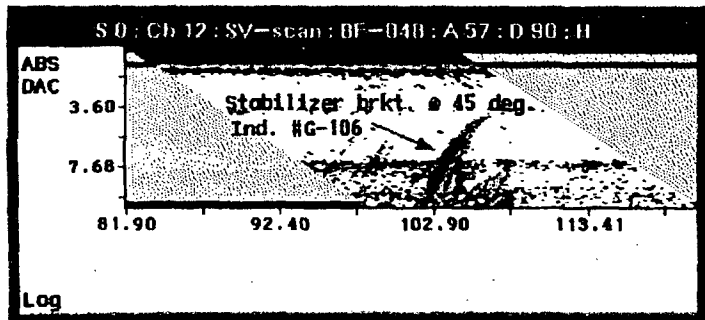
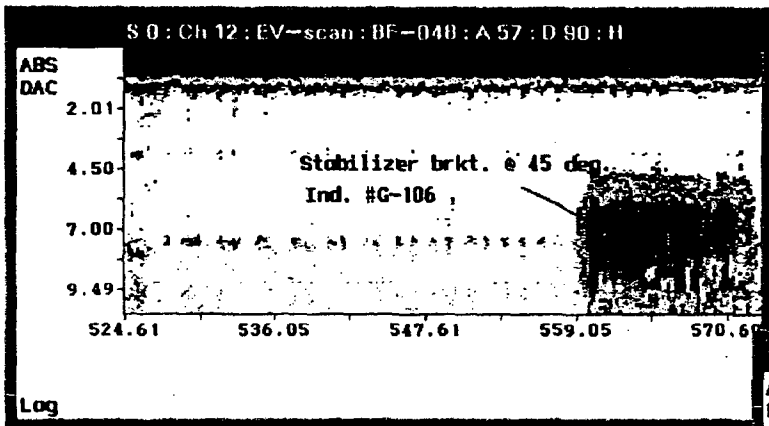
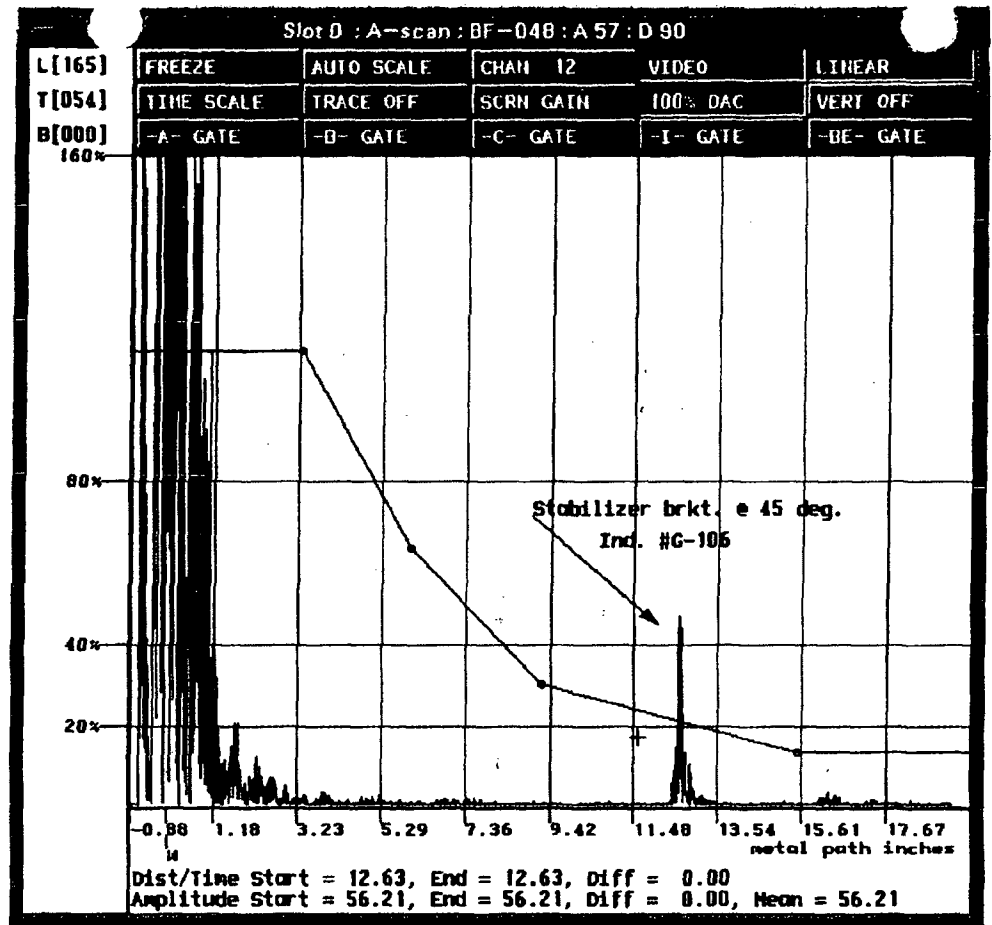
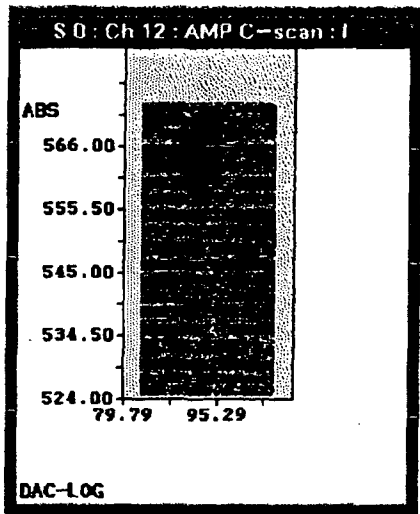
Lower Tern
tor 3/6-105



33 of 39
00200



Lower Tern
for 3/5-106



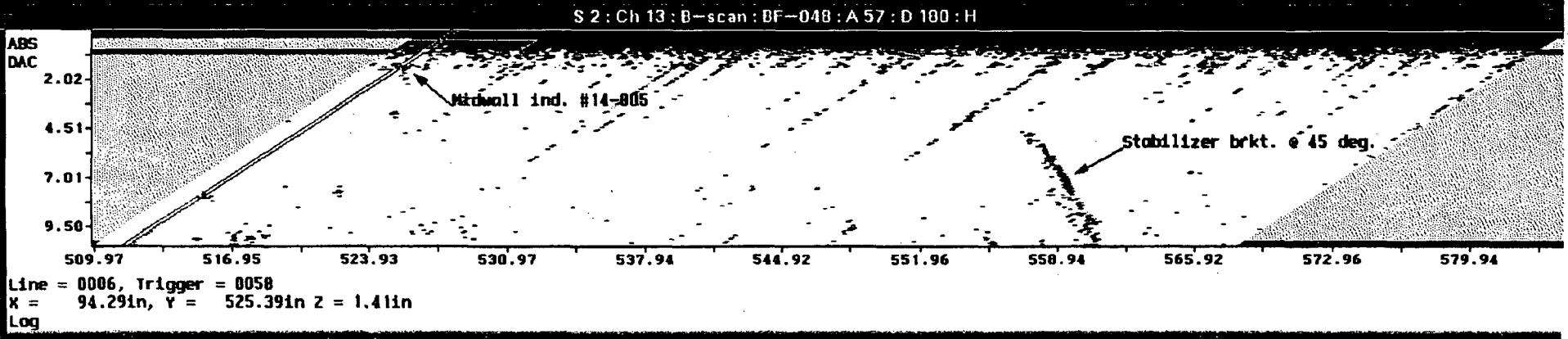
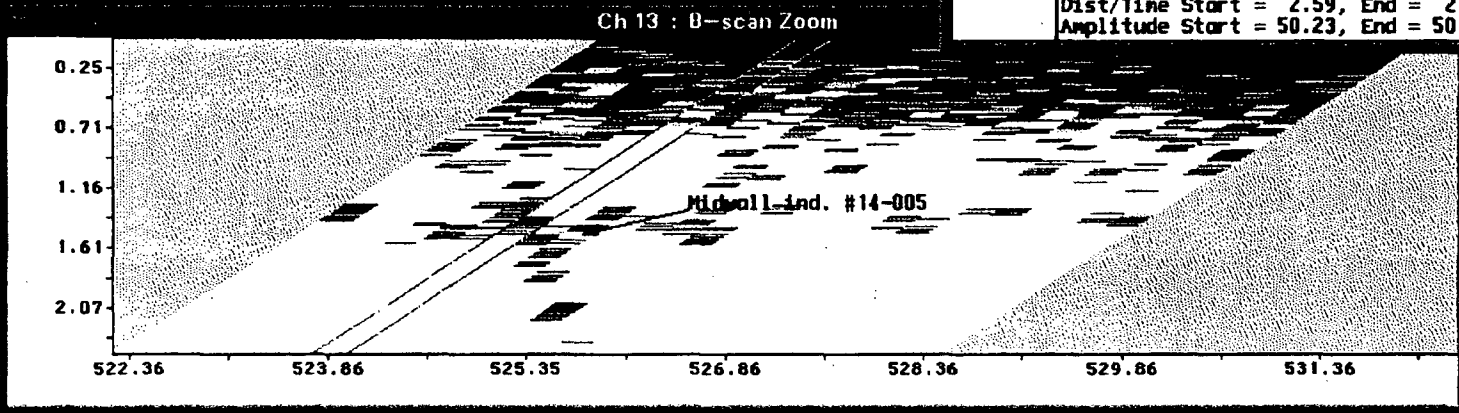
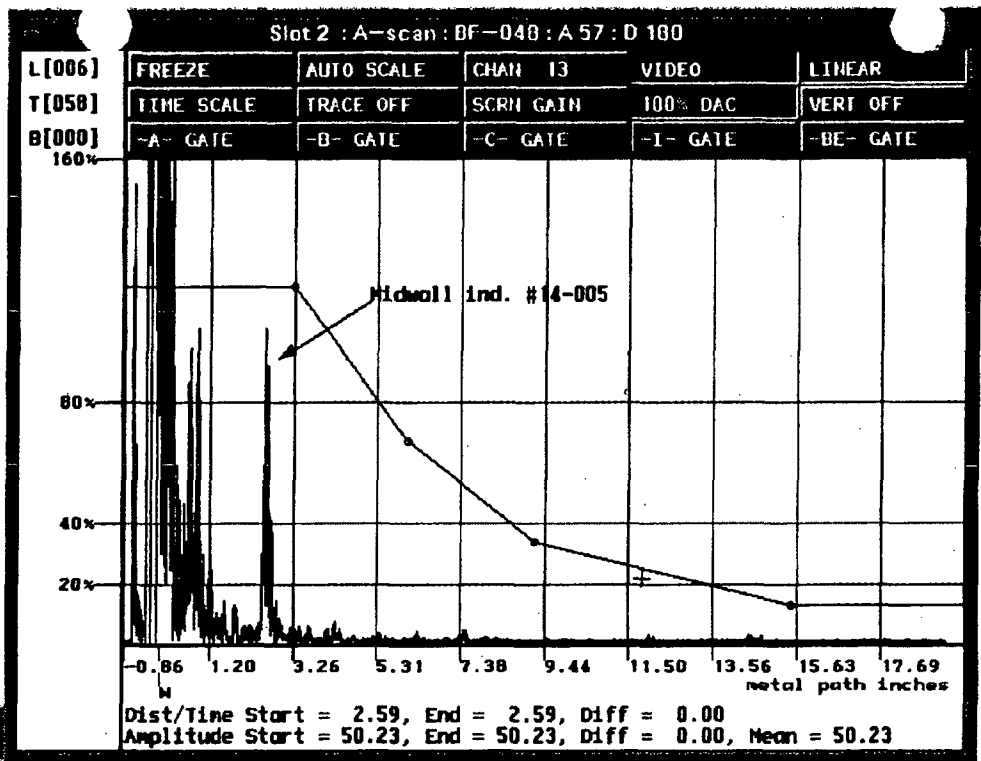
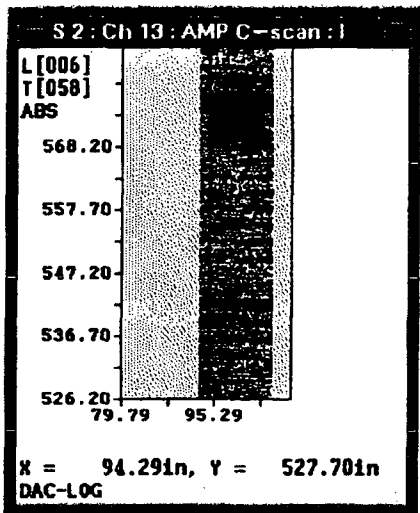
34 of 39
K1161
00201

S 2 : Scale

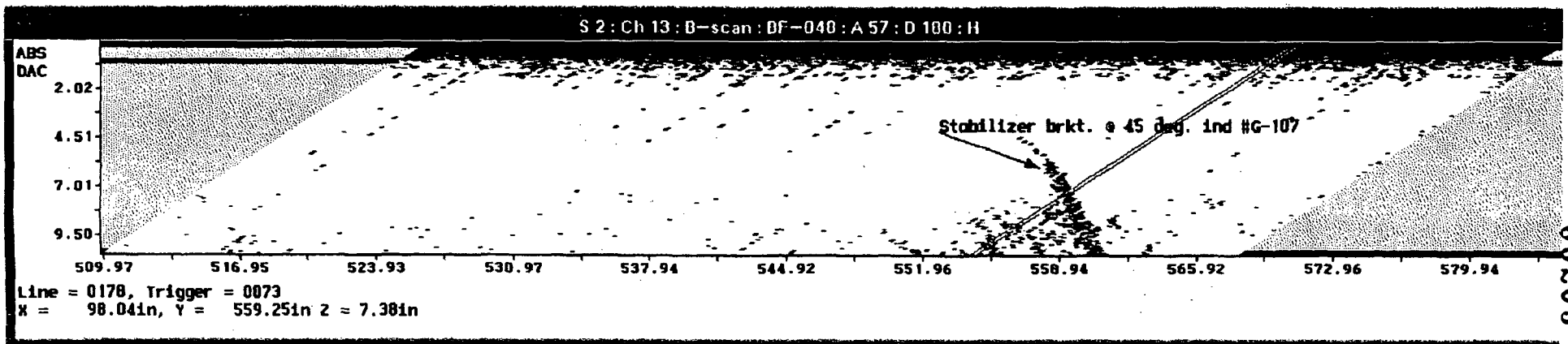
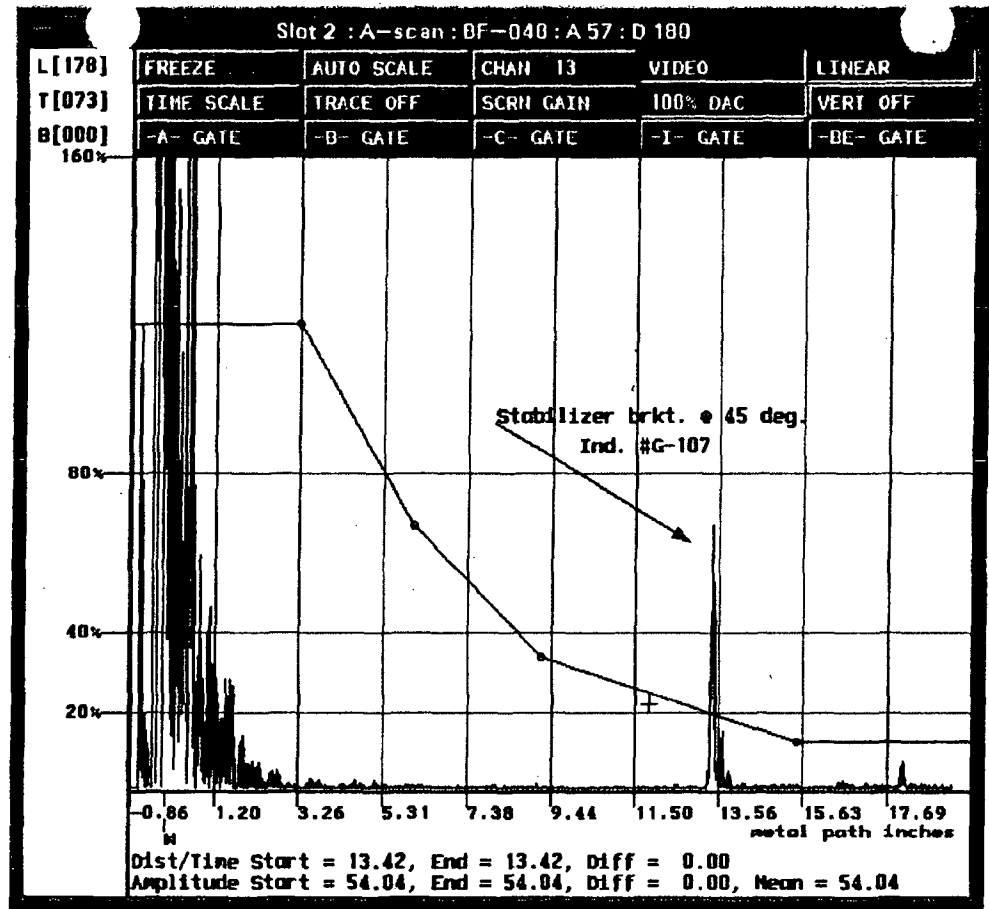
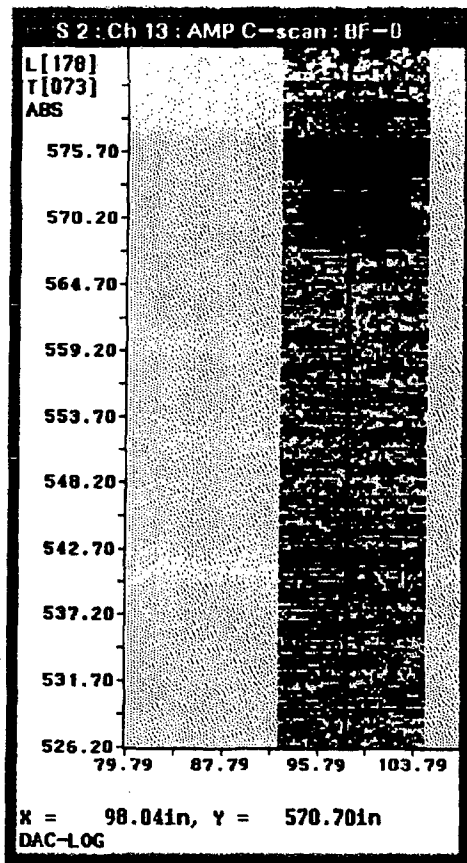
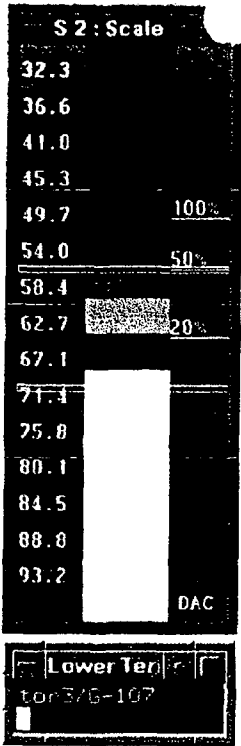
32.3
36.6
41.0
45.3
49.7 100%
54.0 50%
58.4
62.7 20%
67.1
71.4
75.8
80.1
84.5
88.8
93.2

DAC

Lower Ten
tor3/14-005



00000
 00000
 35039
 # 00202
 K1101



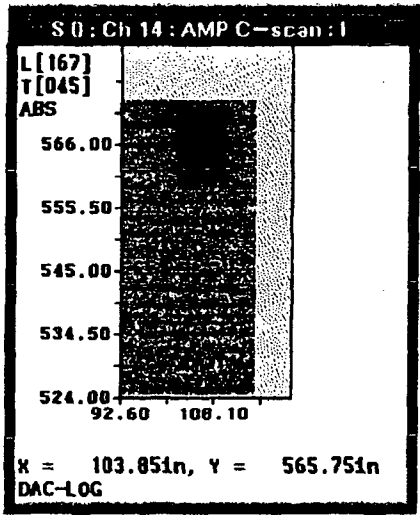
R1107
36 of 39
00203

S 0 : Scale

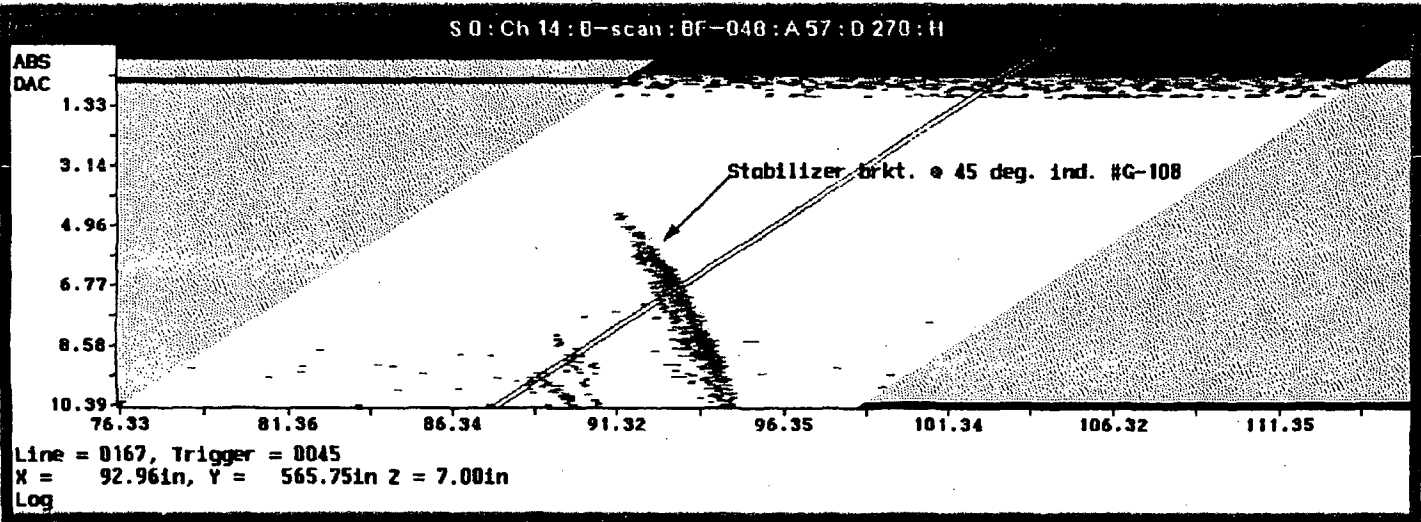
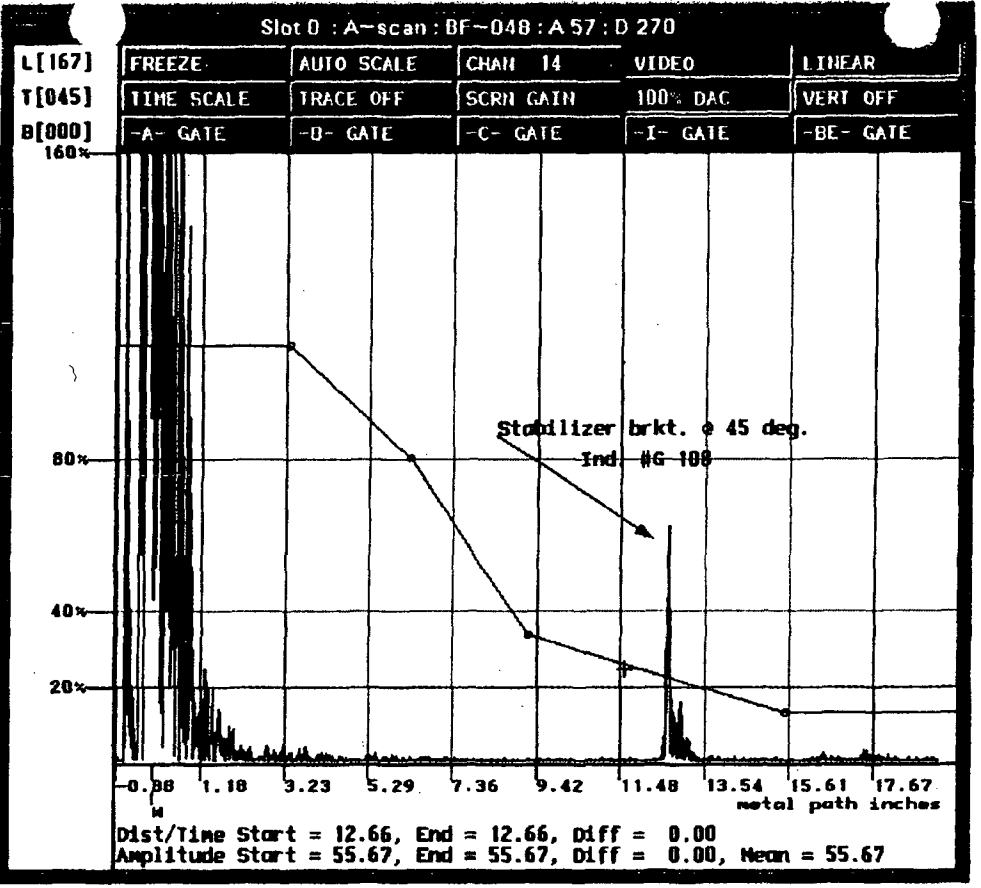
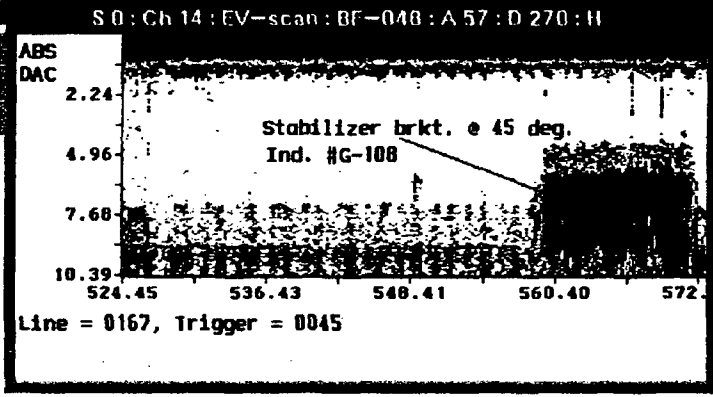
32.3
36.6
41.0
45.3
49.7
54.0
58.4
62.7
67.1
71.4
75.8
80.1
84.5
88.8
93.2

100%
50%
20%

DAC

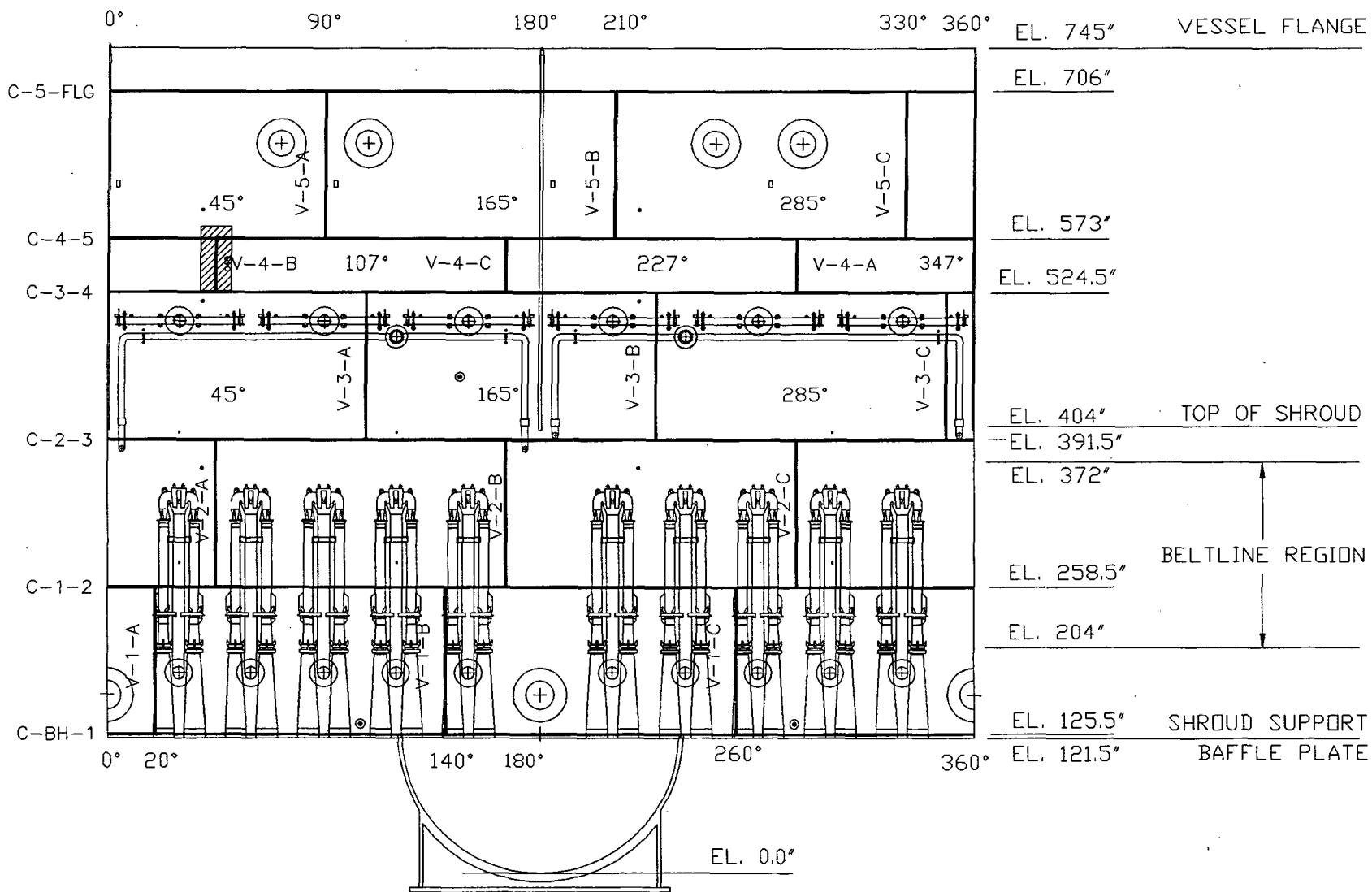


Lower Ten
tor 3/6-108



R1167
37 of 39
00204

BROWNS FERRY UNIT-3 WELD LOCATIONS

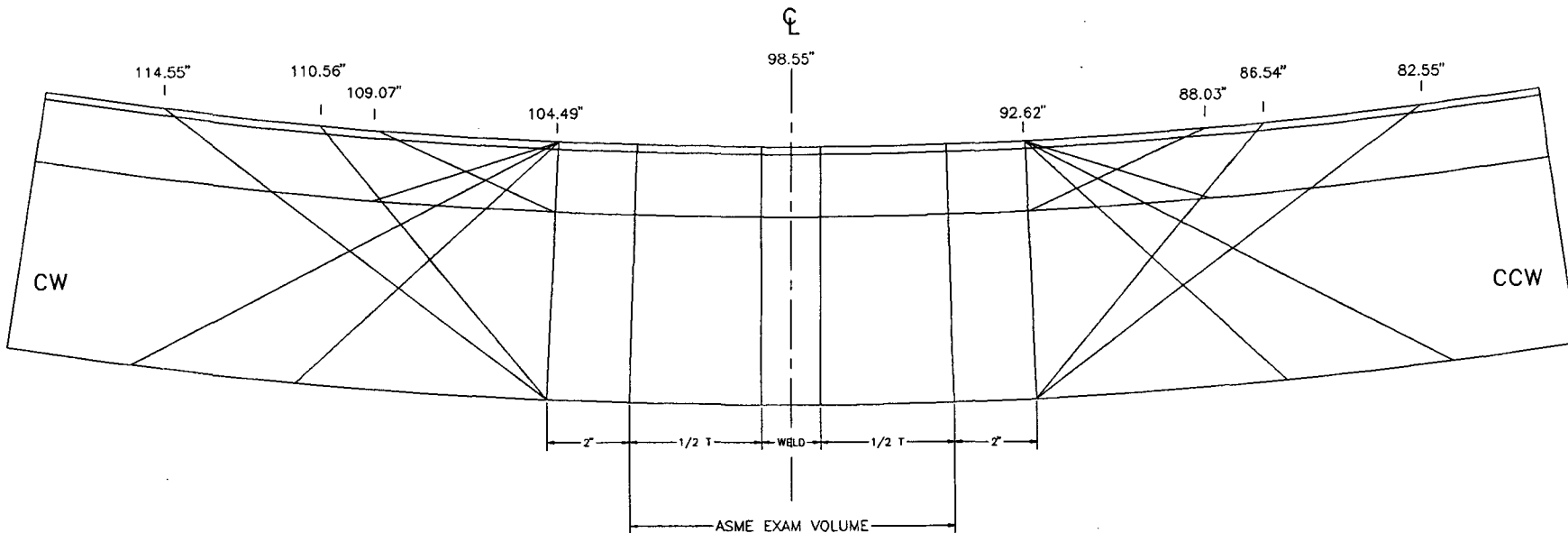


00205

0000 0599

R1167
38 OF 39

GE NUCLEAR ENERGY	BROWNS FERRY UNIT 3	VESSEL ROLLOUT & AS SCANNED PATCH LOCATIONS	BF-3-VMA	REV 0
-------------------	---------------------	---	----------	-------



Nominal Clad T = 3/16"
 Nominal Base Metal T = 6 3/8"
 1 Degree = 2.19"

CH.	ANGLE	DIR.	MIN X	MAX X
1	0 W	0	92.62	104.49
2	0 W	90	92.62	104.49
3	70 UP	0	92.62	104.49
4	70 CW	90	88.03	104.49
5	70 DN	180	92.62	104.49
6	70 CCW	270	92.62	109.07
7	45 UP	0	92.62	104.49
8	45 CW	90	86.54	104.49
9	45 DN	180	92.62	104.49
10	45 CCW	270	92.62	110.56
11	60 UP	0	92.62	104.49
12	60 CW	90	82.55	104.49
13	60 DN	180	92.62	104.49
14	60 CCW	270	92.62	114.55
15	0 BM	0	92.62	114.55
16	0 BM	90	82.55	104.49

00206

R1167
390F39