R1160

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GE Nuclear Energy

GERIS 2000 Examination Summary Sheet

Project: TVA, Browns Ferry Nuclear Plant, Unit 3
System: Reactor Pressure Vessel
Weld ID: V-2-A **ASME Code Category:** B-A
Calibration Sheets: C-003
Supporting Data: Examination Data Sheets E-05-00 thru E-05-05, Indication Data Sheets 05-001 thur 05-008 and G-001 thru G-008, Screen Prints, Exam Patch Location Map, Exam Coverage Plots and GERIS 2000 Setup Records.

Examination Summary

The ultrasonic examination of weld V-2-A resulted in no recorded indications that exceed 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 N16-A Nozzle at 40° and the Jet Pump brackets at 30° and 60°. The total examination coverage was calculated to be 85%.

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 GERIS 2000 recorded indications with the 0° weld metal scan, 70°RL, 45° and 60° shear wave scans that were evaluated and found to be acceptable per the referencing Code section. Geometric indications from the N16-A Nozzle and OD surface were recorded with the 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: C J Mo LEVEL: III DATE: 12/15/93	GE Reviewer: Teresa Kimball LEVEL: III DATE: 12-15-93
UTILITY Review: R Hewood TITLE: III DATE: 1/26/94	ANII Review: TITLE: Albert Sold DATE: 9/8/94

WPA 7-6-95

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GERIS 2000 Examination Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: V-2-A
Exam Data Sheet: E-05-00

Procedure No.: GE-UT-700
Revision No.: 2
FRR No.: N/A

Patch	Data Sh.	Date	Start	Stop	Min X	Max X	Min Y	Max Y	Disk No.	Examiner
BF-087R	E-05-01	10/1/93	0343	0454	87.50	108.25	251.50	311.00	15A	JCG
BF-088	E-05-02	9/30/93	1858	2007	84.75	112.50	311.25	357.00	14B	JCG
BF-089R	E-05-03	10/1/93	0928	0945	100.25	112.50	357.25	378.50	15B	ROF
BF-090	E-05-04	9/30/93	2202	2220	84.75	112.50	378.50	390.00	14B	JCG
BF-135	E-05-05	10/28/93	0418	0435	101.00	112.50	357.25	378.50	107A	JCG
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Comments: N/A

Limitations: BF-087R limited due to Jet Pump Brackets @ 30 and 60 deg.
BF-089R limited due to nozzle N16-A @ 40 deg.

Analyst: [signature]
Level: III Date: 12/9/93

Reviewed By: [signature]
Level: II Date: 12/13/93

EXAM-DS1 V.1 9/28/93

DS-05.XLS

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GE Nuclear Energy

GERIS 2000 Examination Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: V-2-A
Cal. ID: C-003

Exam Data Sheet No.: E-05-01
Patch ID: BF-087R
Ind. Data Sheet Series: 05-XXX

Channel	Angle	Direction	Ind.	Ind. Data Sh.	Ind. Data Sh.	Ind. Data Sh.	Ind. Data Sh.	Ind. Data Sheet
1	0 WM	N/A	NRI	~	~	~	~	~
2	0 WM	N/A	NRI	~	~	~	~	~
3	70 RL	0 UP	NRI	~	~	~	~	~
4	70 RL	90 CW	NRI	~	~	~	~	~
5	70 RL	180 DN	NRI	~	~	~	~	~
6	70 RL	270 CCW	NRI	~	~	~	~	~
7	45 RS	0 UP	1,2	G-001	5-001	~	~	~
8	45 RS	90 CW	2	G-002	~	~	~	~
9	45 RS	180 DN	1,2	G-003	5-002	5-003	5-004	~
10	45 RS	270 CCW	2	G-004	~	~	~	~
11	60 RS	0 UP	1	5-005	~	~	~	~
12	60 RS	90 CW	NRI	~	~	~	~	~
13	60 RS	180 DN	NRI	~	~	~	~	~
14	60 RS	270 CCW	NRI	~	~	~	~	~
15	0 BM	N/A	NRI	~	~	~	~	~
16	0 BM	N/A	NRI	~	~	~	~	~
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Comments: Geometric indications recorded as typical reflectors.

Data Sheet Codes: G-XXX; "G" = Geometry (may be typical), 6-XXX; "6" = Weld Sequence, XXX = Sheet Number
Indication Codes: 1 = Flaw, 2 = OD Surface, 3 = OD Attachment, 4 = Nozzle, 5 = Other

Analyst: [signature]
Level: III Date: 12/9/93

Reviewed By: [signature]
Level: II Date: 12/13/93

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GE Nuclear Energy

GERIS 2000 Examination Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: V-2-A
Cal. ID: C-003

Exam Data Sheet No.: E-05-02
Patch ID: BF-088
Ind. Data Sheet Series: 05-XXX

Channel	Angle	Direction	Ind.	Ind. Data Sh.	Ind. Data Sh.	Ind. Data Sh.	Ind. Data Sh.	Ind. Data Sheet
1	0 WM	N/A	NRI	~	~	~	~	~
2	0 WM	N/A	NRI	~	~	~	~	~
3	70 RL	0 UP	5	G-006	~	~	~	~
4	70 RL	90 CW	NRI	~	~	~	~	~
5	70 RL	180 DN	NRI	~	~	~	~	~
6	70 RL	270 CCW	NRI	~	~	~	~	~
7	45 RS	0 UP	NRI	~	~	~	~	~
8	45 RS	90 CW	2	G-005	~	~	~	~
9	45 RS	180 DN	2	G-007	~	~	~	~
10	45 RS	270 CCW	2	G-008	~	~	~	~
11	60 RS	0 UP	NRI	~	~	~	~	~
12	60 RS	90 CW	NRI	~	~	~	~	~
13	60 RS	180 DN	NRI	~	~	~	~	~
14	60 RS	270 CCW	NRI	~	~	~	~	~
15	0 BM	N/A	NRI	~	~	~	~	~
16	0 BM	N/A	NRI	~	~	~	~	~
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Comments: G-006 is a typical non relevant clad / base material indication recorded for reference only.
G-005, G-007 and G-008 are geometric OD surface indications.

Data Sheet Codes: G-XXX; "G" = Geometry (may be typical), 6-XXX; "6" = Weld Sequence, XXX = Sheet Number
Indication Codes: 1 = Flaw, 2 = OD Surface, 3 = OD Attachment, 4 = Nozzle, 5 = Other

Analyst: CL Mc
Level: III Date: 12/15/93

Reviewed By: Teresa Kimball
Level: III Date: 12-15-93

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GE Nuclear Energy

GERIS 2000 Examination Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: V-2-A
Cal. ID: C-003

Exam Data Sheet No.: E-05-03
Patch ID: BF-089R
Ind. Data Sheet Series: 05-XXX

Channel	Angle	Direction	Ind.	Ind. Data Sh.	Ind. Data Sh.	Ind. Data Sh.	Ind. Data Sh.	Ind. Data Sheet
1	0 WM	N/A	No Exam	~	~	~	~	~
2	0 WM	N/A	NRI	~	~	~	~	~
3	70 RL	0 UP	NRI	~	~	~	~	~
4	70 RL	90 CW	NRI	~	~	~	~	~
5	70 RL	180 DN	NRI	~	~	~	~	~
6	70 RL	270 CCW	NRI	~	~	~	~	~
7	45 RS	0 UP	No Exam	~	~	~	~	~
8	45 RS	90 CW	NRI	~	~	~	~	~
9	45 RS	180 DN	NRI	~	~	~	~	~
10	45 RS	270 CCW	NRI	~	~	~	~	~
11	60 RS	0 UP	No Exam	~	~	~	~	~
12	60 RS	90 CW	NRI	~	~	~	~	~
13	60 RS	180 DN	NRI	~	~	~	~	~
14	60 RS	270 CCW	NRI	~	~	~	~	~
15	0 BM	N/A	NRI	~	~	~	~	~
16	0 BM	N/A	NRI	~	~	~	~	~
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Comments: N/A

Data Sheet Codes: G-XXX; "G" = Geometry (may be typical), 6-XXX; "6" = Weld Sequence, XXX = Sheet Number
Indication Codes: 1 = Flaw, 2 = OD Surface, 3 = OD Attachment, 4 = Nozzle, 5 = Other

Analyst: [signature]
Level: III Date: 12/9/93

Reviewed By: [signature]
Level: II Date: 12/13/93

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GERIS 2000 Examination Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: V-2-A
Cal. ID: C-003

Exam Data Sheet No.: E-05-04
Patch ID: BF-090
Ind. Data Sheet Series: 05-XXX

Channel	Angle	Direction	Ind.	Ind. Data Sh.	Ind. Data Sh.	Ind. Data Sh.	Ind. Data Sh.	Ind. Data Sheet
1	0 WM	N/A	NRI	~	~	~	~	~
2	0 WM	N/A	NRI	~	~	~	~	~
3	70 RL	0 UP	NRI	~	~	~	~	~
4	70 RL	90 CW	NRI	~	~	~	~	~
5	70 RL	180 DN	NRI	~	~	~	~	~
6	70 RL	270 CCW	NRI	~	~	~	~	~
7	45 RS	0 UP	NRI	~	~	~	~	~
8	45 RS	90 CW	NRI	~	~	~	~	~
9	45 RS	180 DN	NRI	~	~	~	~	~
10	45 RS	270 CCW	NRI	~	~	~	~	~
11	60 RS	0 UP	NRI	~	~	~	~	~
12	60 RS	90 CW	NRI	~	~	~	~	~
13	60 RS	180 DN	NRI	~	~	~	~	~
14	60 RS	270 CCW	NRI	~	~	~	~	~
15	0 BM	N/A	NRI	~	~	~	~	~
16	0 BM	N/A	NRI	~	~	~	~	~
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Comments: N/A

Data Sheet Codes: G-XXX; "G" = Geometry (may be typical), 6-XXX; "6" = Weld Sequence, XXX = Sheet Number
Indication Codes: 1 = Flaw, 2 = OD Surface, 3 = OD Attachment, 4 = Nozzle, 5 = Other

Analyst: CA MS
Level: III Date: 12/9/93

Reviewed By: John C. Dial
Level: II Date: 12/13/93

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GE Nuclear Energy

GERIS 2000 Examination Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: V-2-A
Cal. ID: C-003

Exam Data Sheet No.: E-05-05
Patch ID: BF-135
Ind. Data Sheet Series: 05-XXX

Channel	Angle	Direction	Ind.	Ind. Data Sh.	Ind. Data Sh.	Ind. Data Sh.	Ind. Data Sh.	Ind. Data Sheet
1	0 WM	N/A	No Exam	~	~	~	~	~
2	0 WM	N/A	1	05-006	~	~	~	~
3	70 RL	0 UP	NRI	~	~	~	~	~
4	70 RL	90 CW	NRI	~	~	~	~	~
5	70 RL	180 DN	NRI	~	~	~	~	~
6	70 RL	270 CCW	NRI	~	~	~	~	~
7	45 RS	0 UP	NRI	~	~	~	~	~
8	45 RS	90 CW	No Exam	~	~	~	~	~
9	45 RS	180 DN	No Exam	~	~	~	~	~
10	45 RS	270 CCW	4	05-007	~	~	~	~
11	60 RS	0 UP	NRI	~	~	~	~	~
12	60 RS	90 CW	No Exam	~	~	~	~	~
13	60 RS	180 DN	NRI	~	~	~	~	~
14	60 RS	270 CCW	4	05-008	~	~	~	~
15	0 BM	N/A	NRI	~	~	~	~	~
16	0 BM	N/A	NRI	~	~	~	~	~
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Comments: N/A

Data Sheet Codes: G-XXX; "G" = Geometry (may be typical), 6-XXX; "6" = Weld Sequence, XXX = Sheet Number
Indication Codes: 1 = Flaw, 2 = OD Surface, 3 = OD Attachment, 4 = Nozzle, 5 = Other

Analyst: [signature]
Level: III Date: 12/9/93

Reviewed By: [signature]
Level: II Date: 12/13/93

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GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: V-2-A
Cal. ID: C-003

Exam Data Sheet No.: E-05-01
Patch ID: BF-087R
Ind. Data Sheet No.: 05-001

Indication: 05-001 **Channel:** 7 **Angle:** 45 **Direction:** 0

Amp.	X	20% Min Y	MP	50% Min Y	MP	@ Max Y	MP	50% Max Y	MP	20% Max Y	MP	Remarks
35.5%	101.46	~	~	~	~	256.80	3.39	~	~	~	~	~
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Comments: Recorded at less than ASME required recording level for reference only.
Associated with circumferential weld C-1-2.

Analyst: [signature]
Level: III Date: 12/9/93

Reviewed By: [signature]
Level: II Date: 12/13/93

EXAM-DS3 V.2 10/22/93

12/9/9305-001.XLS

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GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: V-2-A
Cal. ID: C-003

Exam Data Sheet No.: E-05-01
Patch ID: BF-087R
Ind. Data Sheet No.: 05-002

Indication: 05-002 **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
9.5%	94.40	~	~	~	~	261.50	2.79	~	~	~	~	~
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Comments: Recorded at less than ASME required recording level for reference only.
Associated with circumferential weld C-1-2.

Analyst: [signature] Level: III Date: 12/9/93

Reviewed By: [signature] Level: II Date: 12/13/93

EXAM-DS3 V.2 10/22/93

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GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: V-2-A
Cal. ID: C-003

Exam Data Sheet No.: E-05-01
Patch ID: BF-087R
Ind. Data Sheet No.: 05-003

Indication: 05-003 **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
12.9%	95.15	~	~	~	~	263.50	5.35	~	~	~	~	~
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Comments: Recorded at less than ASME required recording level for reference only.
Associated with circumferential weld C-1-2.

Analyst: CJ MS
Level: III Date: 12/9/93

Reviewed By: Jim C. Dial
Level: II Date: 12/13/93

EXAM-DS3 V.2 10/22/93

12/9/9305-003.XLS

R1160

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: V-2-A
Cal. ID: C-003

Exam Data Sheet No.: E-05-01
Patch ID: BF-087R
Ind. Data Sheet No.: 05-004

Indication: 05-004 **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
20.0%	94.65	~	~	~	~	265.50	7.62	~	~	~	~	~
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Comments: Recorded at less than ASME required recording level for reference only.
Associated with circumferential weld C-1-2.

Analyst: CJ Mas
Level: III Date: 12/8/93

Reviewed By: John C. Dill
Level: II Date: 12/13/93

EXAM-DS3 V.2 10/22/93

12/9/9305-004.XLS

R1160

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: V-2-A
Cal. ID: C-003

Exam Data Sheet No.: E-05-01
Patch ID: BF-087R
Ind. Data Sheet No.: 05-005

Indication: 5-005 **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
38.9%	101.35	~	~	~	~	255.55	4.64	~	~	~	~	~
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Comments: Recorded at less than ASME required recording level for reference only.
Associated with circumferential weld C-1-2.

Analyst: [signature]
Level: III Date: 12/9/93

Reviewed By: [signature]
Level: II Date: 12/13/93

EXAM-DS3 V.2 10/22/93

12/8/9306-005.XLS

R1160

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: V-2-A
Cal. ID: C-003

Exam Data Sheet No.: E-05-05
Patch ID: BF-135
Ind. Data Sheet No.: 05-006

Indication: 05-006 **Channel:** 2 **Angle:** 0 **Direction:** 90

Amp.	Y	20% Min X	MP	50% Min X	MP	@ Max X	MP	50% Max X	MP	20% Max X	MP	Remarks
82.9%	356.50	~	~	100.85	3.94	101.10	3.97	101.35	3.97	~	~	~
50.1%	356.75	~	~	~	~	101.10	3.90	~	~	~	~	~
50.1%	357.00	~	~	~	~	101.10	3.90	~	~	~	~	~
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Comments: This indication evaluated as a laminar reflector and is acceptable in accordance with IWB-3510-2, ASME Section XI, 1986 Edition, No Addenda.

Analyst: [signature]
Level: III Date: 12/9/93

Reviewed By: [signature]
Level: II Date: 12/13/93

EXAM-DS3 V.2 10/22/93

12/9/9305-006.XLS

R1160

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: V-2-A
Cal. ID: C-003

Exam Data Sheet No.: E-05-05
Patch ID: BF-135
Ind. Data Sheet No.: 05-007

Indication: 05-007 **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
136.8%	366.50	~	~	~	~	93.90	9.00	~	~	~	~	~
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Comments: Geometric indication from nozzle N16-A @ 40°

Analyst: CG MS
Level: III Date: 12/9/93

Reviewed By: Jim C. Dial
Level: II Date: 12/13/93

EXAM-DS3 V.2 10/22/93

R1160

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: V-2-A
Cal. ID: C-003

Exam Data Sheet No.: E-05-05
Patch ID: BF-135
Ind. Data Sheet No.: 05-008

Indication: 05-008 **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
187.1%	366.50	~	~	~	~	97.54	11.95	~	~	~	~	~
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Comments: Geometric indication from nozzle N16-A @ 40°.

Analyst: [signature]
Level: III Date: 12/9/93

Reviewed By: [signature]
Level: II Date: 12/13/93

EXAM-DS3 V.2 10/22/93

B1160

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: V-2-A
Cal. ID: C-003

Exam Data Sheet No.: E-05-01
Patch ID: BF-087R
Ind. Data Sheet No.: G-001

Indication: G-001 **Channel:** 7 **Angle:** 45 **Direction:** 0

Amp.	X	20% Min Y	MP	50% Min Y	MP	@ Max Y	MP	50% Max Y	MP	20% Max Y	MP	Remarks
32.3%	104.46	~	~	~	~	267.55	8.88	~	~	~	~	~
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Comments: Geometric indication from OD surface. 17.4 dB below notch response.

Analyst: CJ MS
Level: III Date: 12/9/93

Reviewed By: Jan C. Diel
Level: II Date: 12/13/93

EXAM-DS3 V.2 10/22/93

R1160

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: V-2-A
Cal. ID: C-003

Exam Data Sheet No.: E-05-01
Patch ID: BF-087R
Ind. Data Sheet No.: G-002

Indication: G-002 **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
22.4%	273.05	~	~	~	~	99.04	8.99	~	~	~	~	~
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Comments: Geometric indication from OD surface. 13 dB below notch response.

Analyst: [signature] Level: III Date: 12/9/93

Reviewed By: [signature] Level: II Date: 12/13/93

EXAM-DS3 V.2 10/22/93

R1160

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: V-2-A
Cal. ID: C-003

Exam Data Sheet No.: E-05-01
Patch ID: BF-087R
Ind. Data Sheet No.: G-003

Indication: G-003 **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
10.0%	98.40	~	~	~	~	263.75	9.10	~	~	~	~	~
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Comments: Geometric indication from the weld fusion line of C-1-2. 19.4 dB below notch response.

Analyst: CR Mar
Level: III Date: 12/9/93

Reviewed By: [illegible]
Level: II Date: 12/13/93

EXAM-DS3 V.2 10/22/93

R1160

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: V-2-A
Cal. ID: C-003

Exam Data Sheet No.: E-05-01
Patch ID: BF-087R
Ind. Data Sheet No.: G-004

Indication: G-004 **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
34.7%	296.75	~	~	~	~	110.46	9.34	~	~	~	~	~
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Comments: Geometric indication from OD surface. 17 dB below notch response.

Analyst: CL MS
Level: III Date: 12/9/93

Reviewed By: Jen C. Dill
Level: II Date: 12/13/93

EXAM-DS3 V.2 10/22/93

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GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: V-2-A
Cal. ID: C-003

Exam Data Sheet No.: E-05-02
Patch ID: BF-088
Ind. Data Sheet No.: G-005

Indication: G-005 **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
25.0%	333.05	~	~	~	~	98.79	9.20	~	~	~	~	~
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Comments: Geometric indication from OD surface. 17 dB below notch response.

Analyst: CJ MS
Level: III Date: 12/9/93

Reviewed By: Jon C. Daniel
Level: II Date: 12/13/93

EXAM-DS3 V.2 10/22/93

12/9/93G-005.XLS

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GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: V-2-A
Cal. ID: C-003

Exam Data Sheet No.: E-05-02
Patch ID: BF-088
Ind. Data Sheet No.: G-006

Indication: G-006 **Channel:** 3 **Angle:** 70 **Direction:** 0

Amp.	X	20% Min Y	TOF	50% Min Y	TOF	@ Max Y	TOF	50% Max Y	TOF	20% Max Y	TOF	Remarks
80.0%	96.15	~	~	~	~	345.75	9.28	~	~	~	~	~
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Comments: Non relevant indication at the clad / base material interface. No apparent tip signals.
Recorded for reference only.

Analyst: CJ MS
Level: III Date: 12/9/93

Reviewed By: Jon C. Dill
Level: II Date: 12/13/93

EXAM-DS3 V.2 10/22/93

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GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: V-2-A
Cal. ID: C-003

Exam Data Sheet No.: E-05-02
Patch ID: BF-088
Ind. Data Sheet No.: G-007

Indication: G-007 **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
98.7%	103.40	~	~	~	~	334.50	8.83	~	~	~	~	~
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Comments: Geometric indication from the OD surface. 9.8 dB below notch response.

Analyst: CB Mc
Level: III Date: 12/14/93

Reviewed By: John C. Daniel
Level: II Date: 12/14/93

EXAM-DS3 V.2 10/22/93

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GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: V-2-A
Cal. ID: C-003

Exam Data Sheet No.: E-05-02
Patch ID: BF-088
Ind. Data Sheet No.: G-008

Indication: G-008 **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
36.7%	329.00	~	~	~	~	109.20	9.34	~	~	~	~	~
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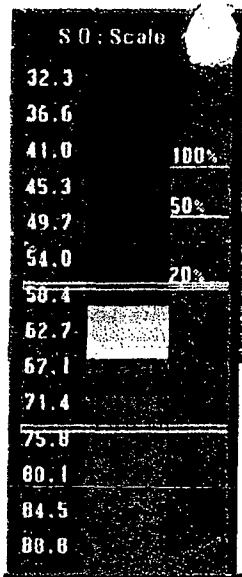
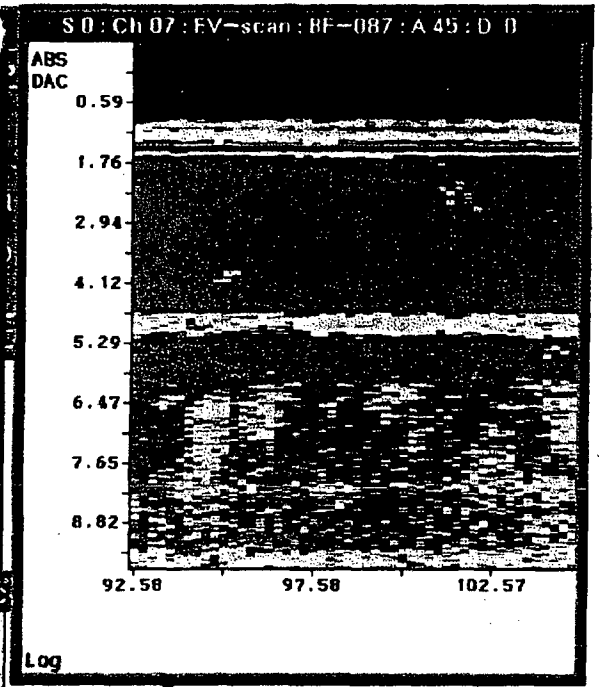
Comments: Geometric indication from the OD surface. 16.3 dB below notch response.

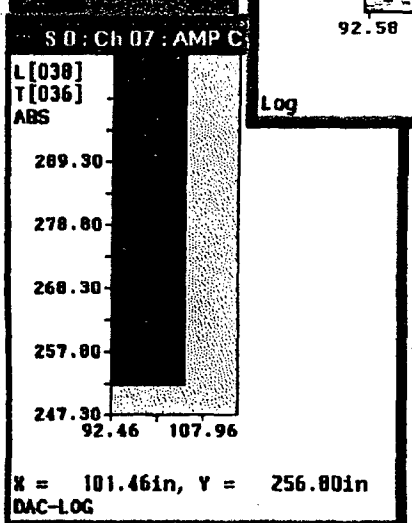
Analyst: CL Ms
Level: III Date: 12/9/93

Reviewed By: John P. Dial
Level: II Date: 12/14/93

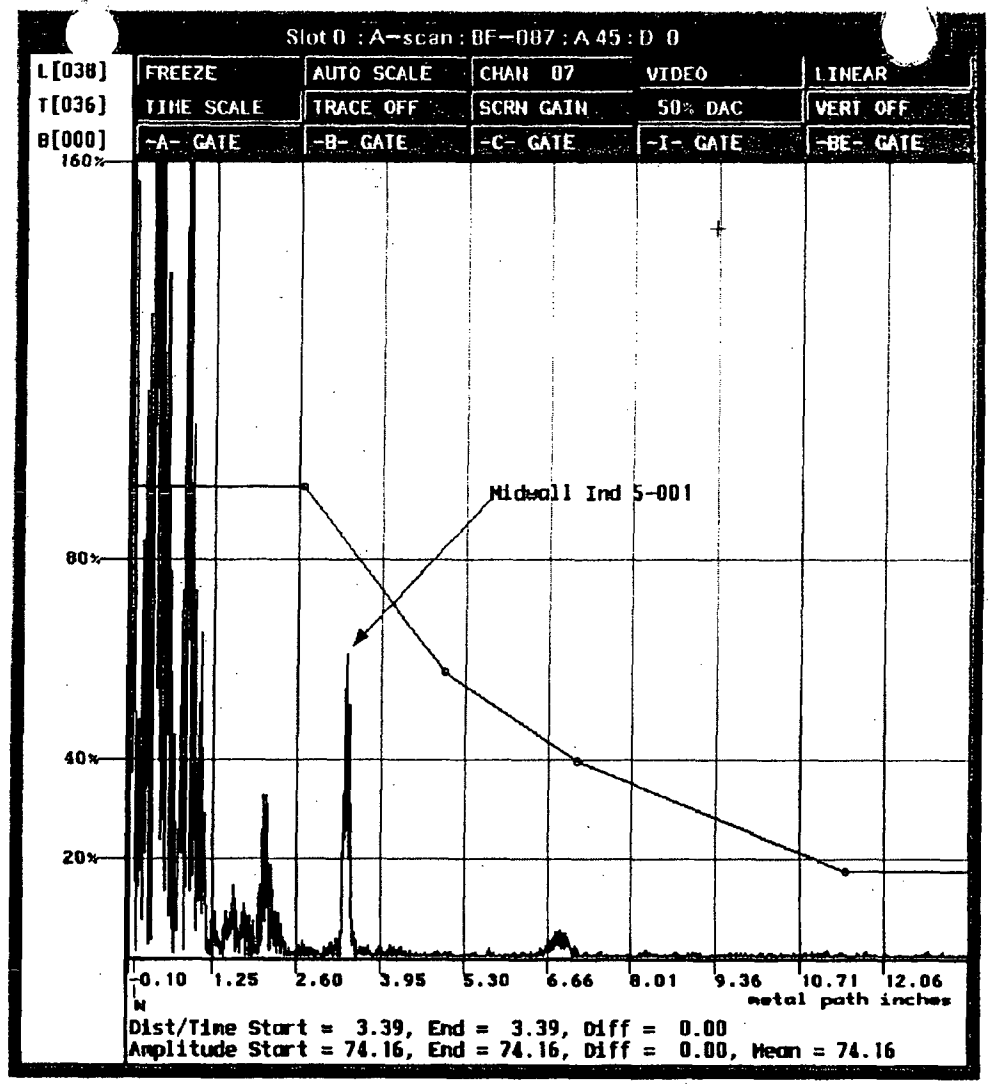
EXAM-DS3 V.2 10/22/93

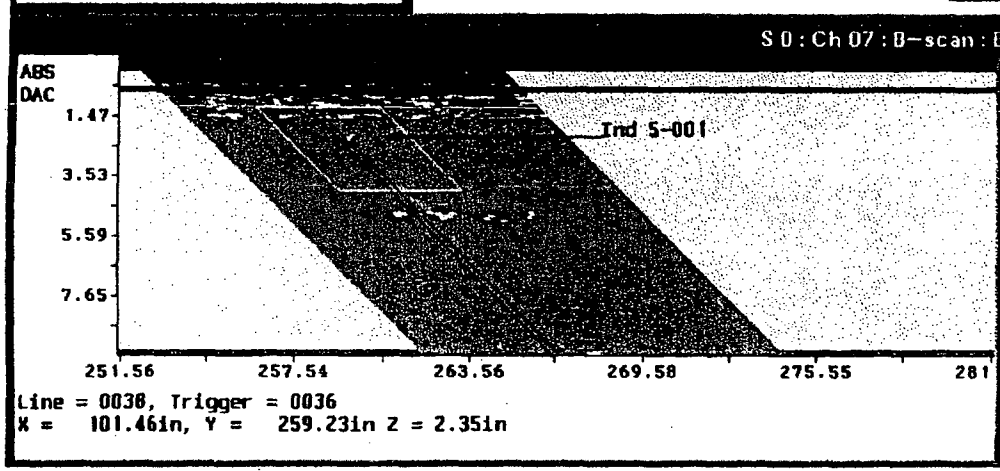

S 0 : Scale
32.3
36.6
41.0
45.3
49.7
54.0
58.4
62.7
67.1
71.4
75.8
80.1
84.5
88.8
100%
50%
20%

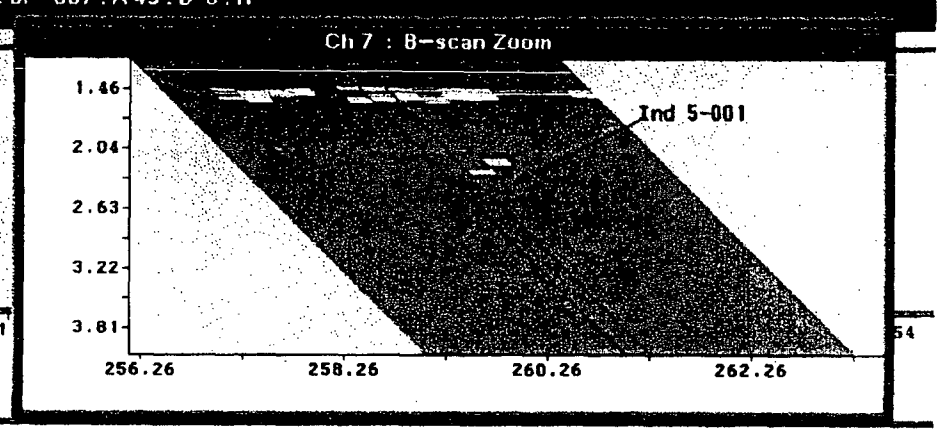

S 0 : Ch 07 : EV-scan : BF-087 : A 45 : D 0
ABS
DAC
0.59
1.76
2.94
4.12
5.29
6.47
7.65
8.82
92.58
97.58
102.57
Log


S 0 : Ch 07 : AMP C
L[038]
T[036]
ABS
289.30
278.80
268.30
257.80
247.30
92.46
107.96
X = 101.46in, Y = 256.80in
DAC-LOG

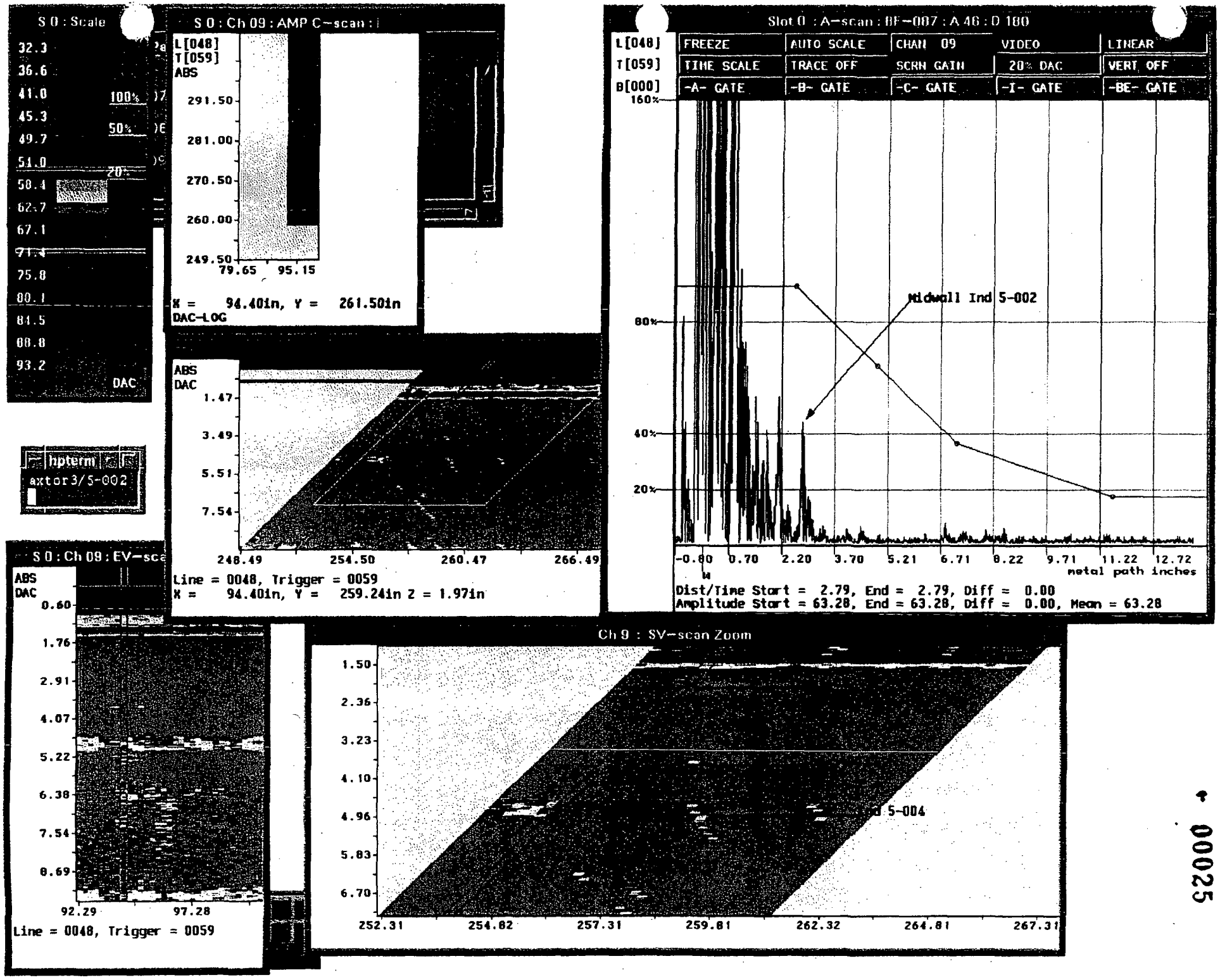
hpterm


Slot 0 : A-scan : BF-087 : A 45 : D 0
L[038]
T[036]
B[000]
FREEZE
AUTO SCALE
CHAN 07
VIDEO
LINEAR
TIME SCALE
TRACE OFF
SCRN GAIN
50% DAC
VERT OFF
-A- GATE
-B- GATE
-C- GATE
-I- GATE
-BE- GATE
160%
80%
40%
20%
Midwall Ind 5-001
0.10
1.25
2.60
3.95
5.30
6.66
8.01
9.36
10.71
12.06
metal path inches
Dist/Time Start = 3.39, End = 3.39, Diff = 0.00
Amplitude Start = 74.16, End = 74.16, Diff = 0.00, Mean = 74.16

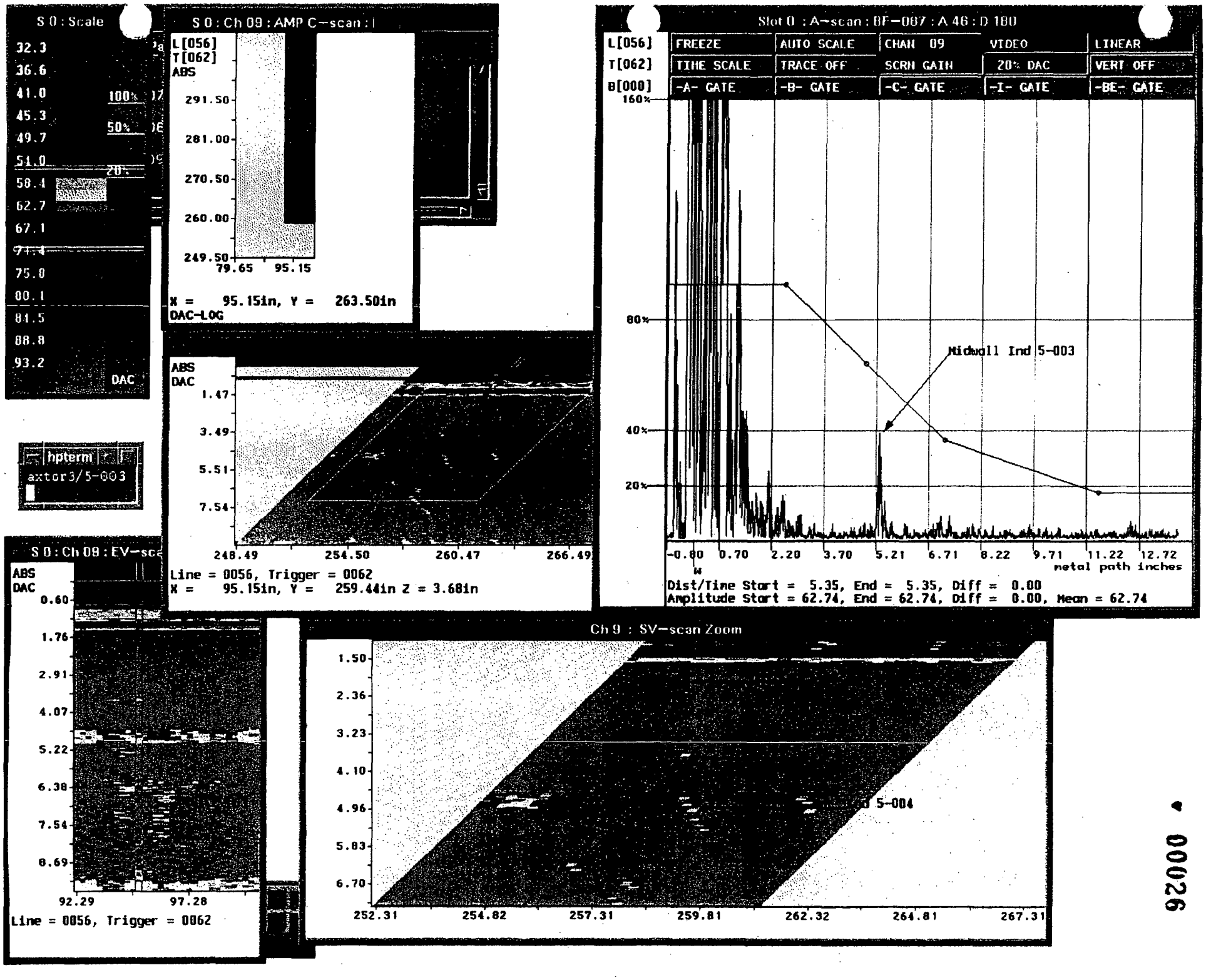

S 0 : Ch 07 : B-scan : BF-087 : A 45 : D 0 : H
ABS
DAC
1.47
3.53
5.59
7.65
Ind 5-001
251.56
257.54
263.56
269.58
275.55
Line = 0038, Trigger = 0036
X = 101.46in, Y = 259.23in Z = 2.35in


Ch 7 : B-scan Zoom
1.46
2.04
2.63
3.22
3.81
Ind 5-001
256.26
258.26
260.26
262.26

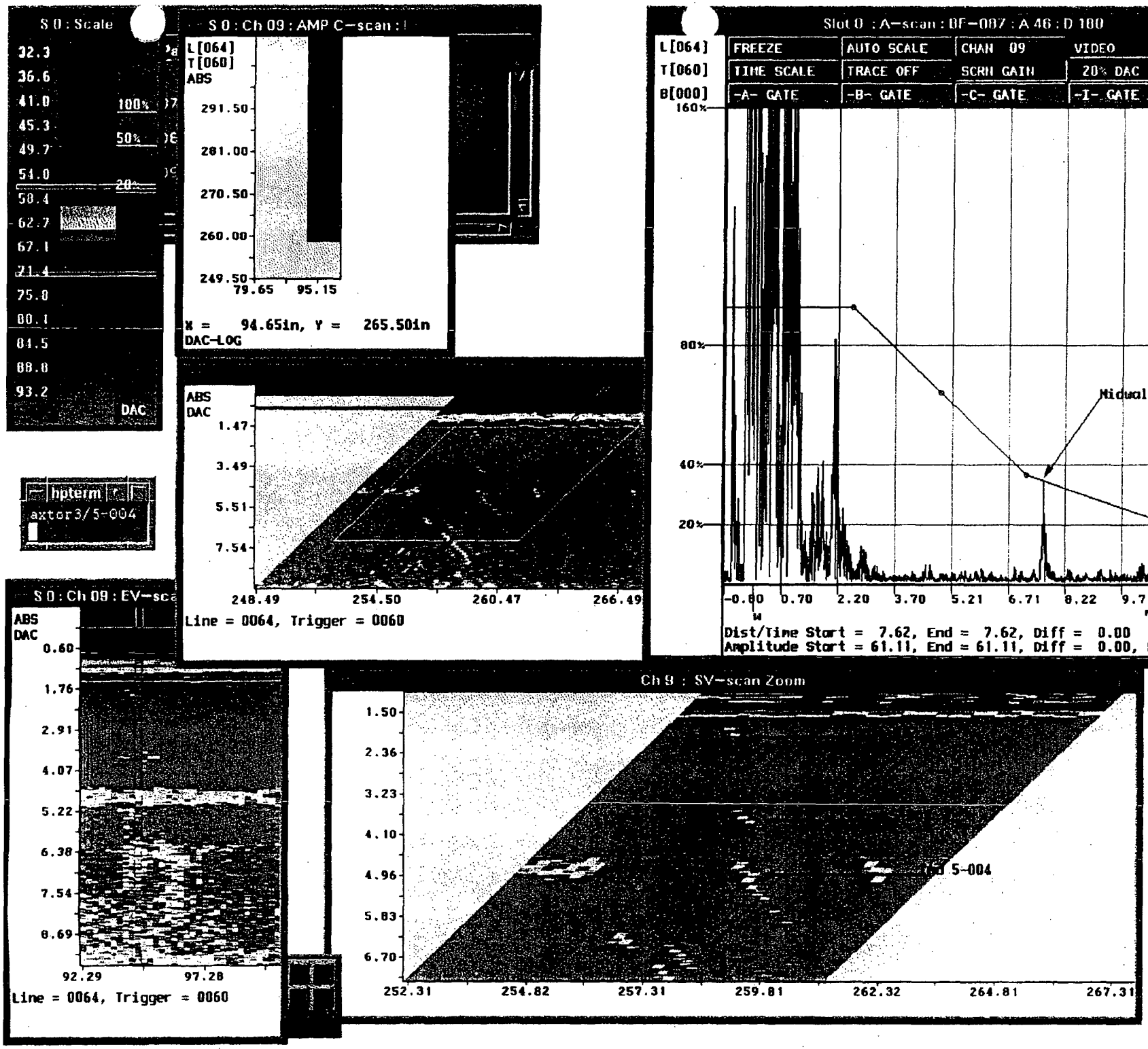
00024


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
S 0 : Ch 09 : AMP C-scan : 1
L[048]
T[059]
ABS
291.50
281.00
270.50
260.00
249.50
79.65
95.15
X = 94.40in, Y = 261.50in
DAC-LOG
ABS
DAC
1.47
3.49
5.51
7.54
248.49
254.50
260.47
266.49
Line = 0048, Trigger = 0059
X = 94.40in, Y = 259.24in Z = 1.97in
hpterm
axtor3/5-002
Slot 0 : A-scan : BF-007 : A 46 : D 180
L[048]
T[059]
B[000]
FREEZE
AUTO SCALE
CHAN 09
VIDEO
LINEAR
TIME SCALE
TRACE OFF
SCRN GAIN
20% DAC
VERT OFF
-A- GATE
-B- GATE
-C- GATE
-I- GATE
-BE- GATE
160%
80%
40%
20%
Midwall Ind 5-002
-0.80
0.70
2.20
3.70
5.21
6.71
8.22
9.71
11.22
12.72
metal path inches
Dist/Time Start = 2.79, End = 2.79, Diff = 0.00
Amplitude Start = 63.28, End = 63.28, Diff = 0.00, Mean = 63.28
S 0 : Ch 09 : EV-sca
ABS
DAC
0.60
1.76
2.91
4.07
5.22
6.38
7.54
8.69
92.29
97.28
Line = 0048, Trigger = 0059
Ch 9 : SV-scan Zoom
1.50
2.36
3.23
4.10
4.96
5.83
6.70
5-004
252.31
254.82
257.31
259.81
262.32
264.81
267.31

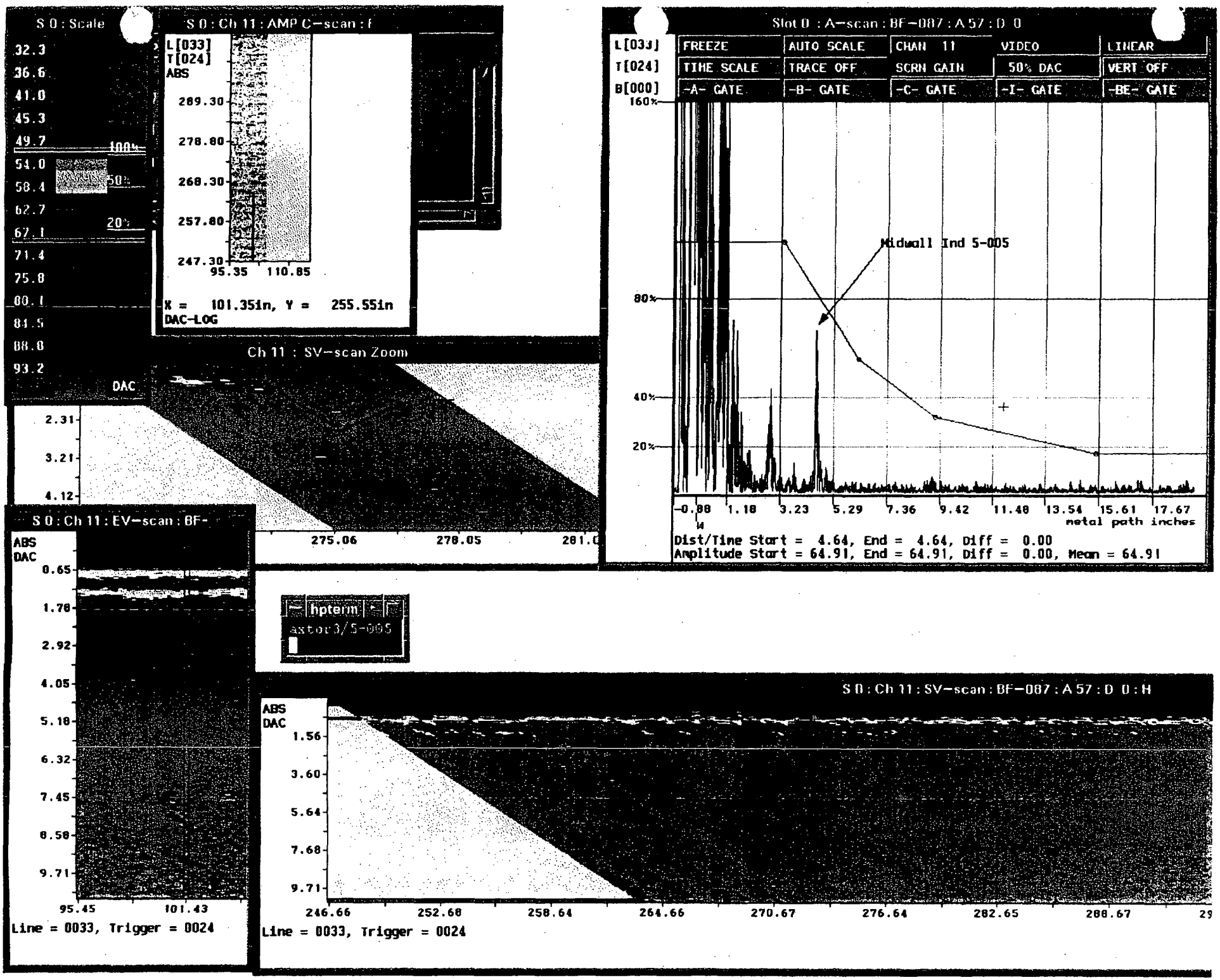
00025


S 0 : Scale
32.3
36.6
41.0
45.3
49.7
51.0
58.4
62.7
67.1
75.8
80.1
84.5
88.8
93.2
100%
50%
20%
DAC
S 0 : Ch 09 : AMP C-scan : I
L[056]
T[062]
ABS
291.50
281.00
270.50
260.00
249.50
79.65
95.15
X = 95.15in, Y = 263.50in
DAC-LOG
ABS
DAC
1.47
3.49
5.51
7.54
248.49
254.50
260.47
266.49
Line = 0056, Trigger = 0062
X = 95.15in, Y = 259.44in Z = 3.68in
hpterm
axtor3/5-003
S 0 : Ch 08 : EV-sca
ABS
DAC
0.60
1.76
2.91
4.07
5.22
6.38
7.54
8.69
92.29
97.28
Line = 0056, Trigger = 0062
Slot 0 : A-scan : BF-087 : A 46 : D 180
L[056]
T[062]
B[000]
FREEZE
AUTO SCALE
CHAN 09
VIDEO
LINEAR
TIME SCALE
TRACE OFF
SCRN GAIN
20% DAC
VERT OFF
-A- GATE
-B- GATE
-C- GATE
-I- GATE
-BE- GATE
160%
80%
40%
20%
Midwall Ind 5-003
-0.80
0.70
2.20
3.70
5.21
6.71
8.22
9.71
11.22
12.72
metal path inches
Dist/Time Start = 5.35, End = 5.35, Diff = 0.00
Amplitude Start = 62.74, End = 62.74, Diff = 0.00, Mean = 62.74
Ch 9 : SV-scan Zoom
1.50
2.36
3.23
4.10
4.96
5.83
6.70
5-004
252.31
254.82
257.31
259.81
262.32
264.81
267.31

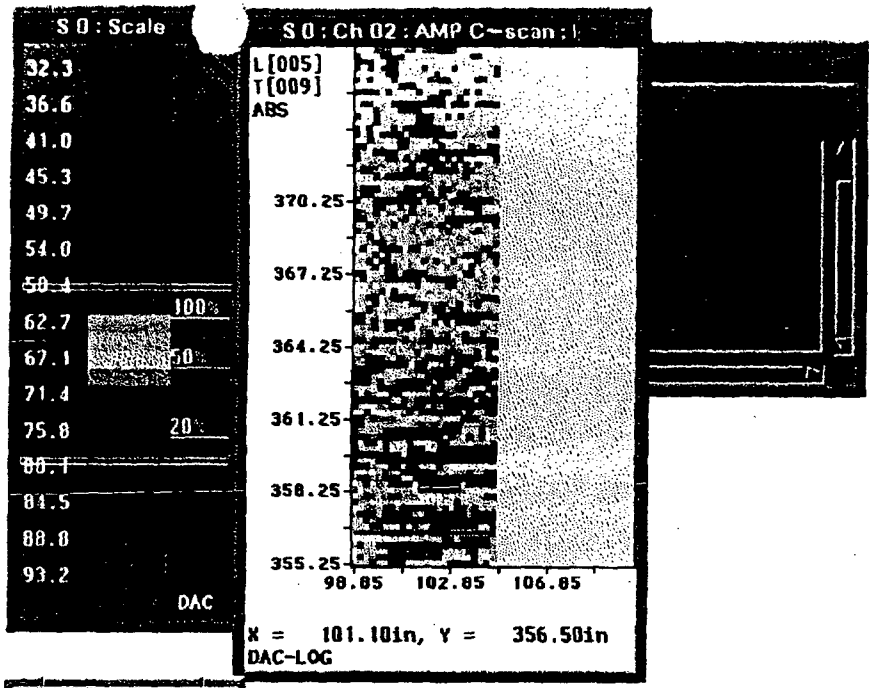
00026

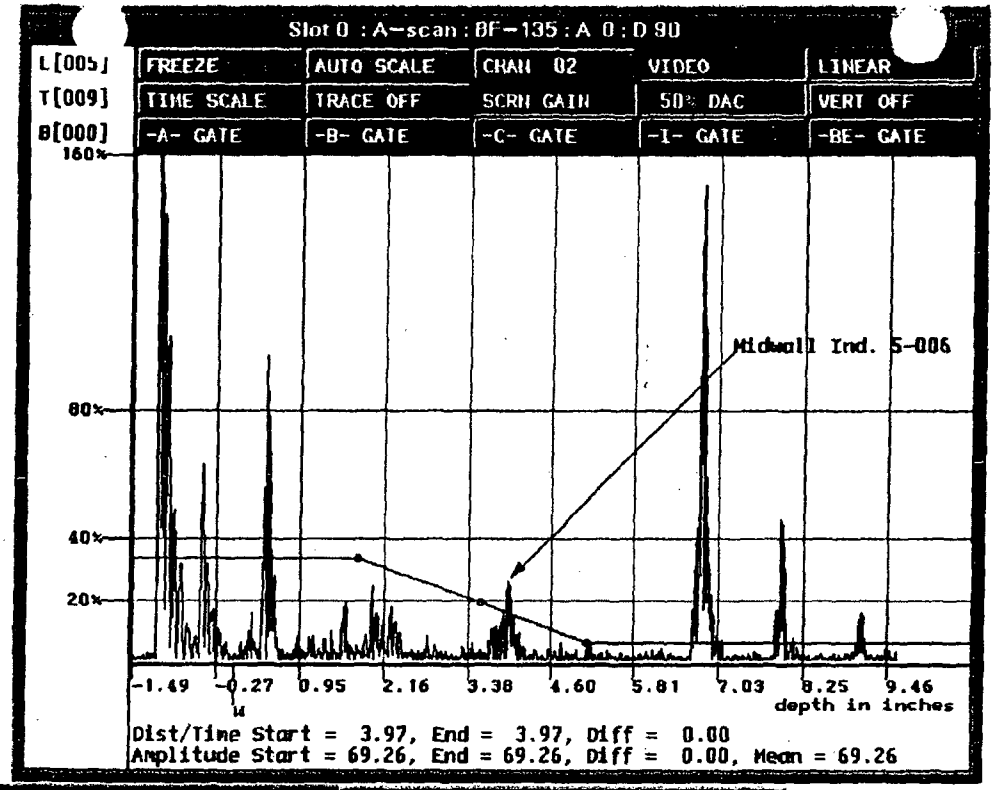

S 0 : Scale
32.3
36.6
41.0
45.3
49.7
54.0
58.4
62.7
67.1
71.4
75.8
80.1
84.5
88.8
93.2
100%
50%
20%
DAC
S 0 : Ch 09 : AMP C-scan : I
L[064]
T[060]
ABS
291.50
281.00
270.50
260.00
249.50
79.65
95.15
X = 94.65in, Y = 265.50in
DAC-LOG
ABS
DAC
1.47
3.49
5.51
7.54
248.49
254.50
260.47
266.49
Line = 0064, Trigger = 0060
hpterm
axtor3/5-004
Slot 0 : A-scan : DF-087 : A 46 : D 180
L[064]
T[060]
B[000]
FREEZE
AUTO SCALE
CHAN 09
VIDEO
LINEAR
TIME SCALE
TRACE OFF
SCRN GAIN
20% DAC
VERT OFF
-A- GATE
-B- GATE
-C- GATE
-I- GATE
-BE- GATE
160%
80%
40%
20%
Midwall Ind 5-004
-0.80
0.70
2.20
3.70
5.21
6.71
8.22
9.71
11.22
12.72
metal path inches
Dist/Time Start = 7.62, End = 7.62, Diff = 0.00
Amplitude Start = 61.11, End = 61.11, Diff = 0.00, Mean = 61.11
S 0 : Ch 09 : EV-sca
ABS
DAC
0.60
1.76
2.91
4.07
5.22
6.38
7.54
8.69
92.29
97.28
Line = 0064, Trigger = 0060
Ch 9 : SV-scan Zoom
1.50
2.36
3.23
4.10
4.96
5.83
6.70
5-004
252.31
254.82
257.31
259.81
262.32
264.81
267.31

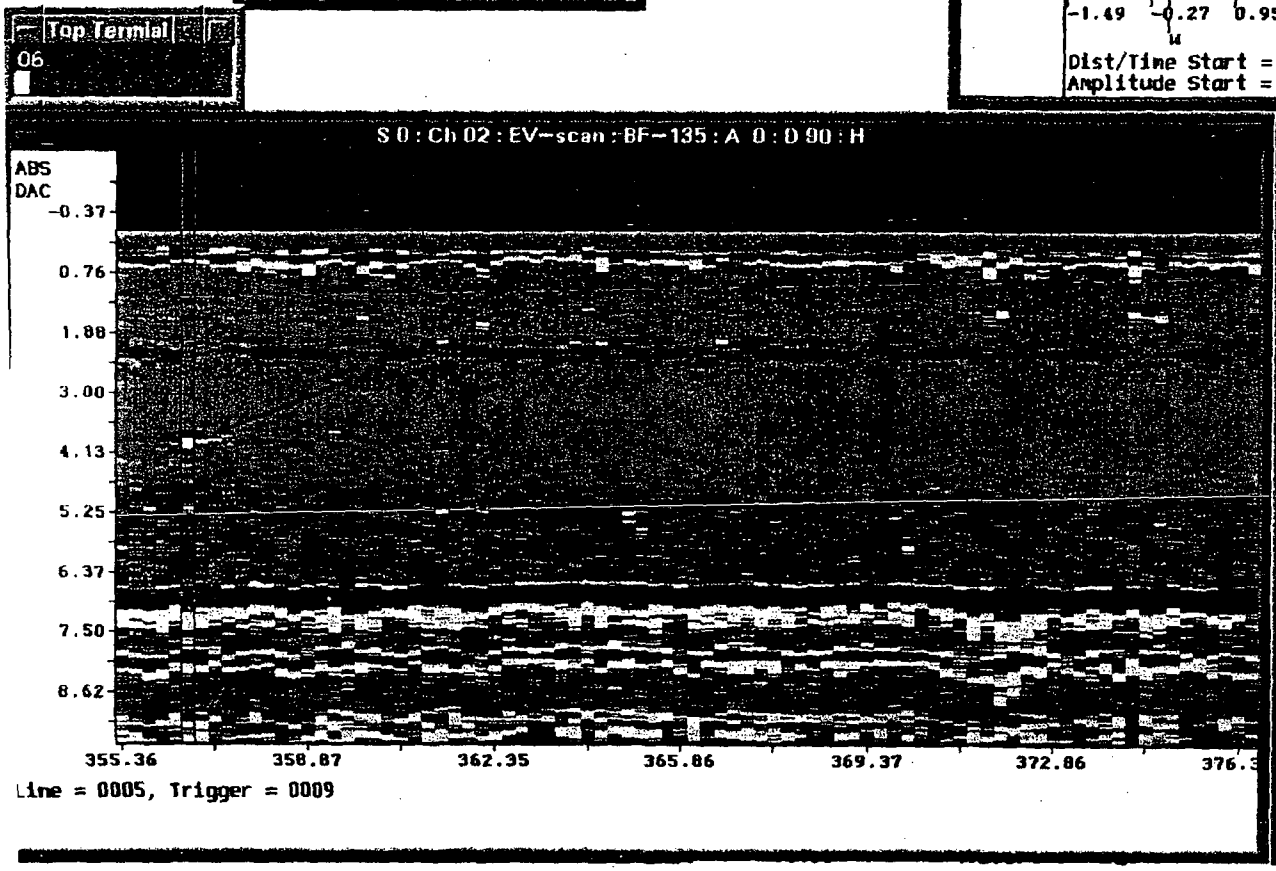
00027

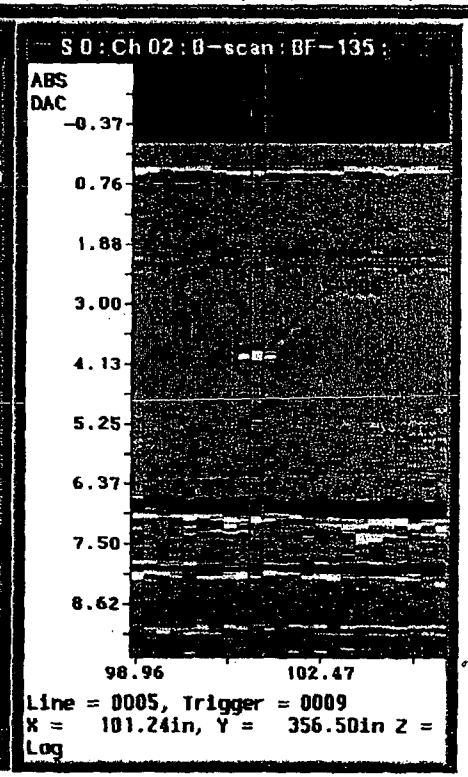

S 0 : Scale
S 0 : Ch 11 : AMP C-scan : F
L[033]
T[024]
ABS
X = 101.35in, Y = 255.55in
DAC-LOG
Ch 11 : SV-scan Zoom
DAC
Slot 0 : A-scan : BF-087 : A 57 : D 0
FREEZE
AUTO SCALE
CHAN 11
VIDEO
LINEAR
TIME SCALE
TRACE OFF
SCRN GAIN
50% DAC
VERT OFF
-A- GATE
-B- GATE
-C- GATE
-I- GATE
-BE- GATE
Midwall Ind 5-005
metal path inches
Dist/Time Start = 4.64, End = 4.64, Diff = 0.00
Amplitude Start = 64.91, End = 64.91, Diff = 0.00, Mean = 64.91
S 0 : Ch 11 : EV-scan : BF-
ABS
DAC
Line = 0033, Trigger = 0024
hpterm
axtor3/5-005
S 0 : Ch 11 : SV-scan : BF-087 : A 57 : D 0 : H
ABS
DAC
Line = 0033, Trigger = 0024

00028









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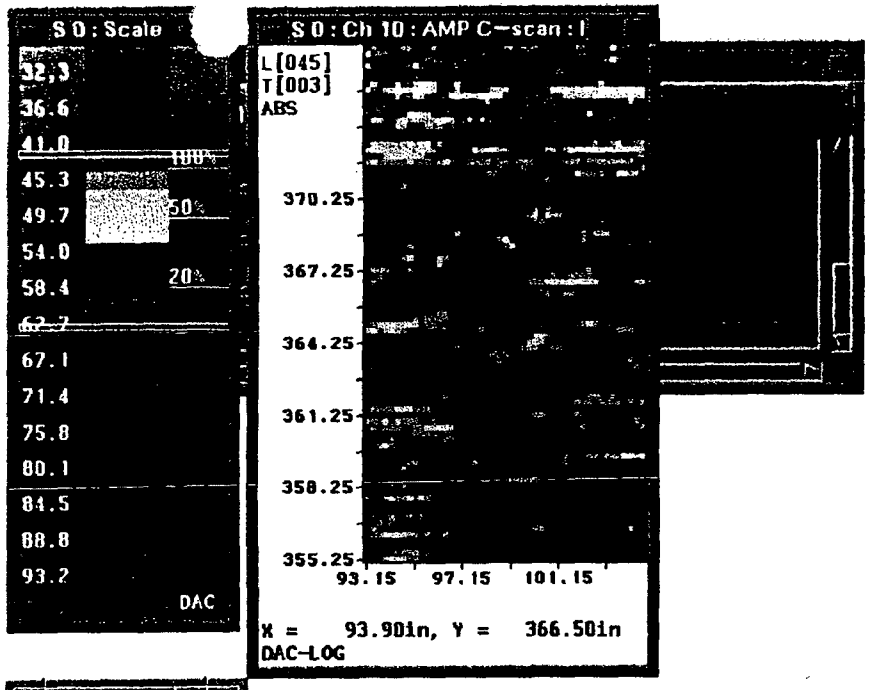

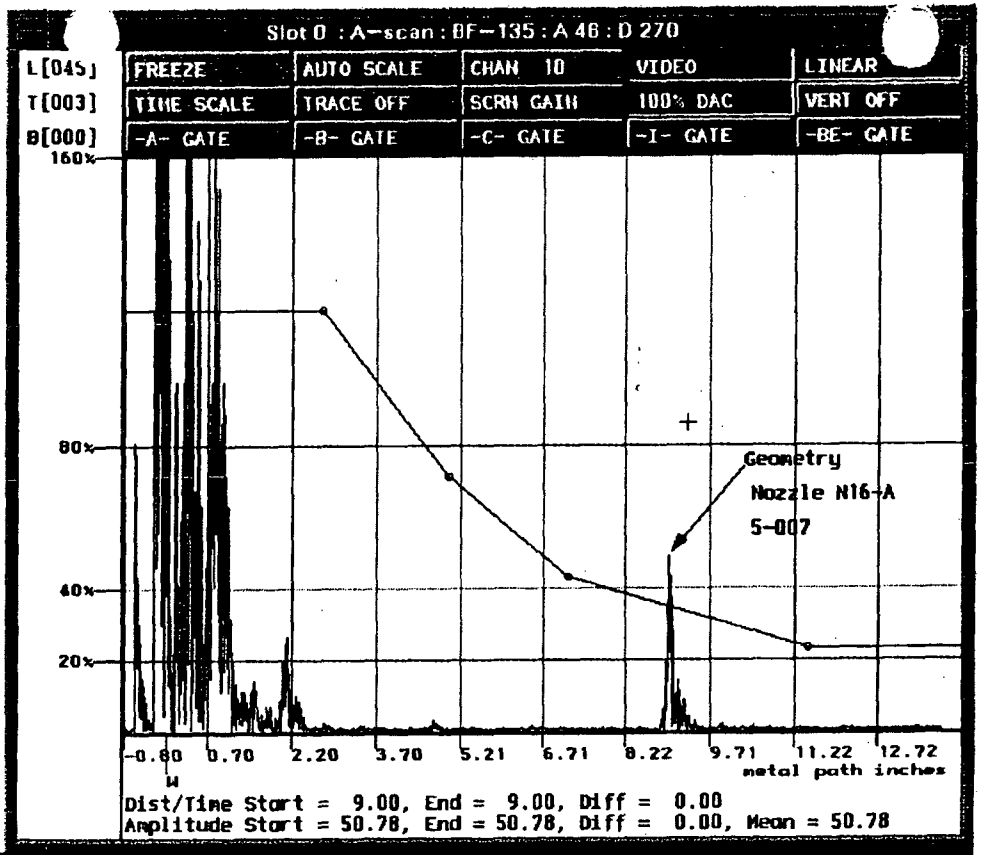

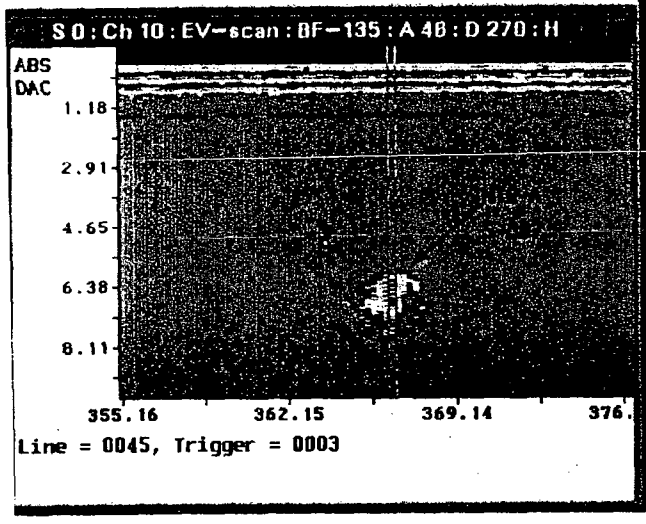

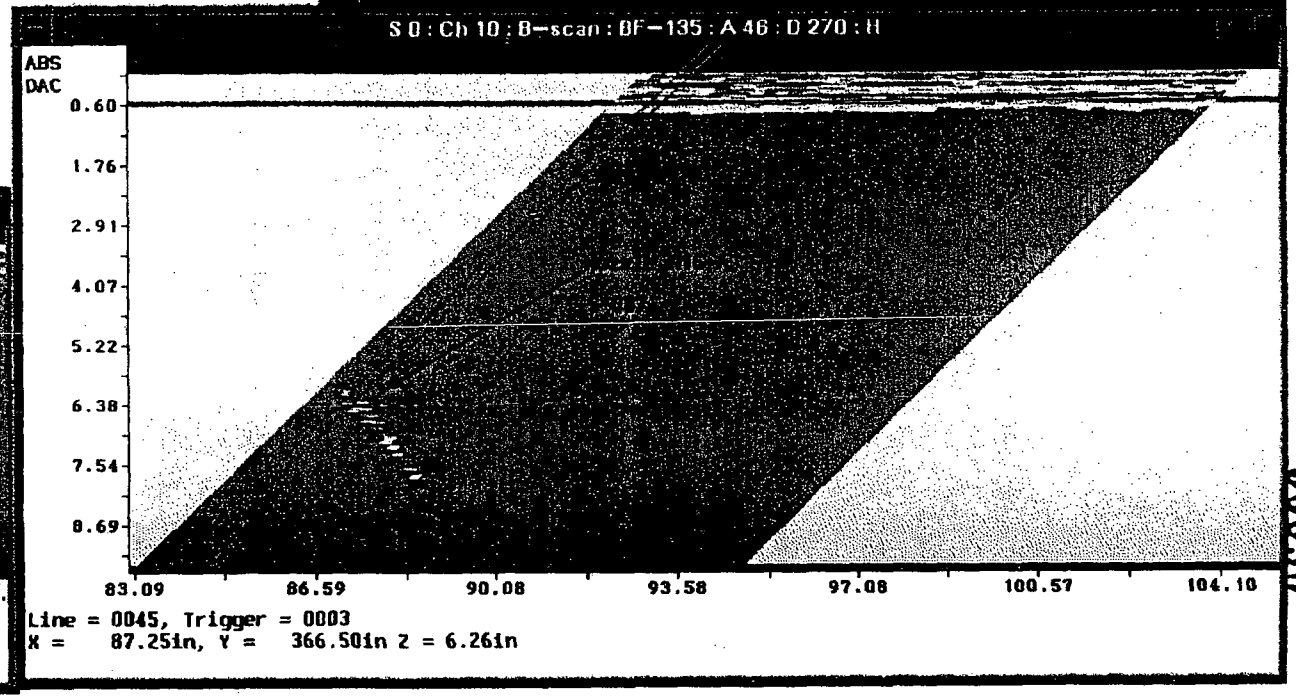

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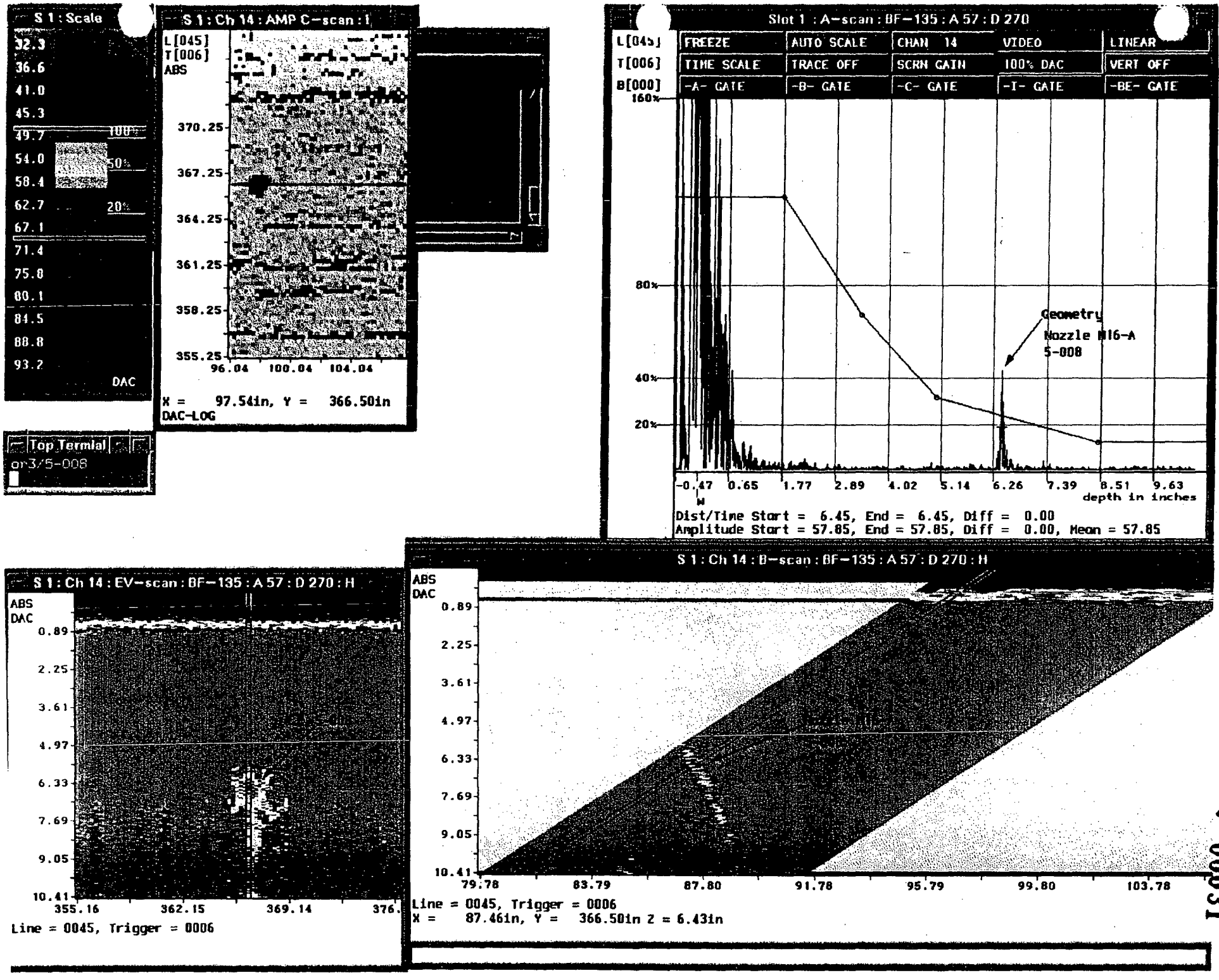

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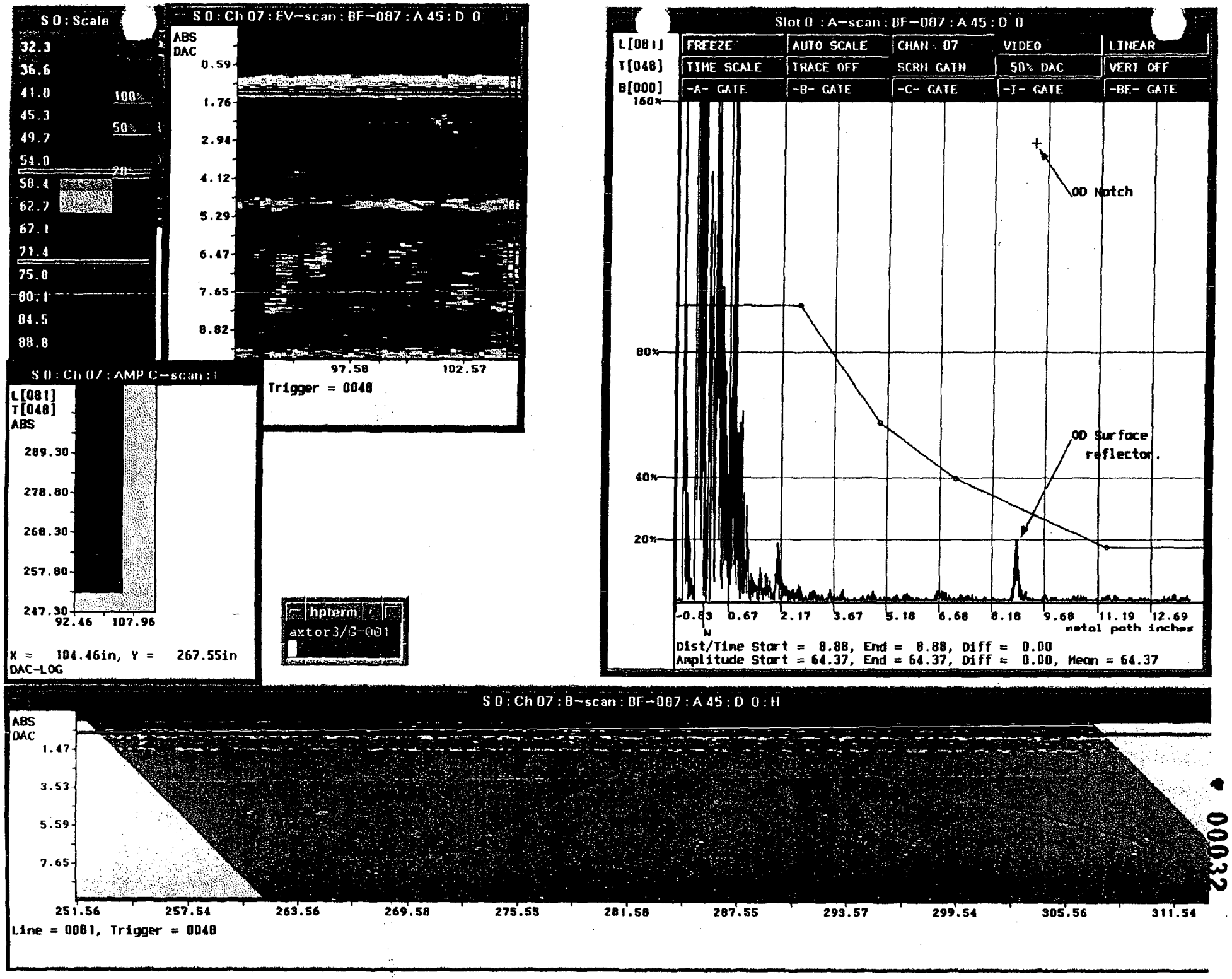

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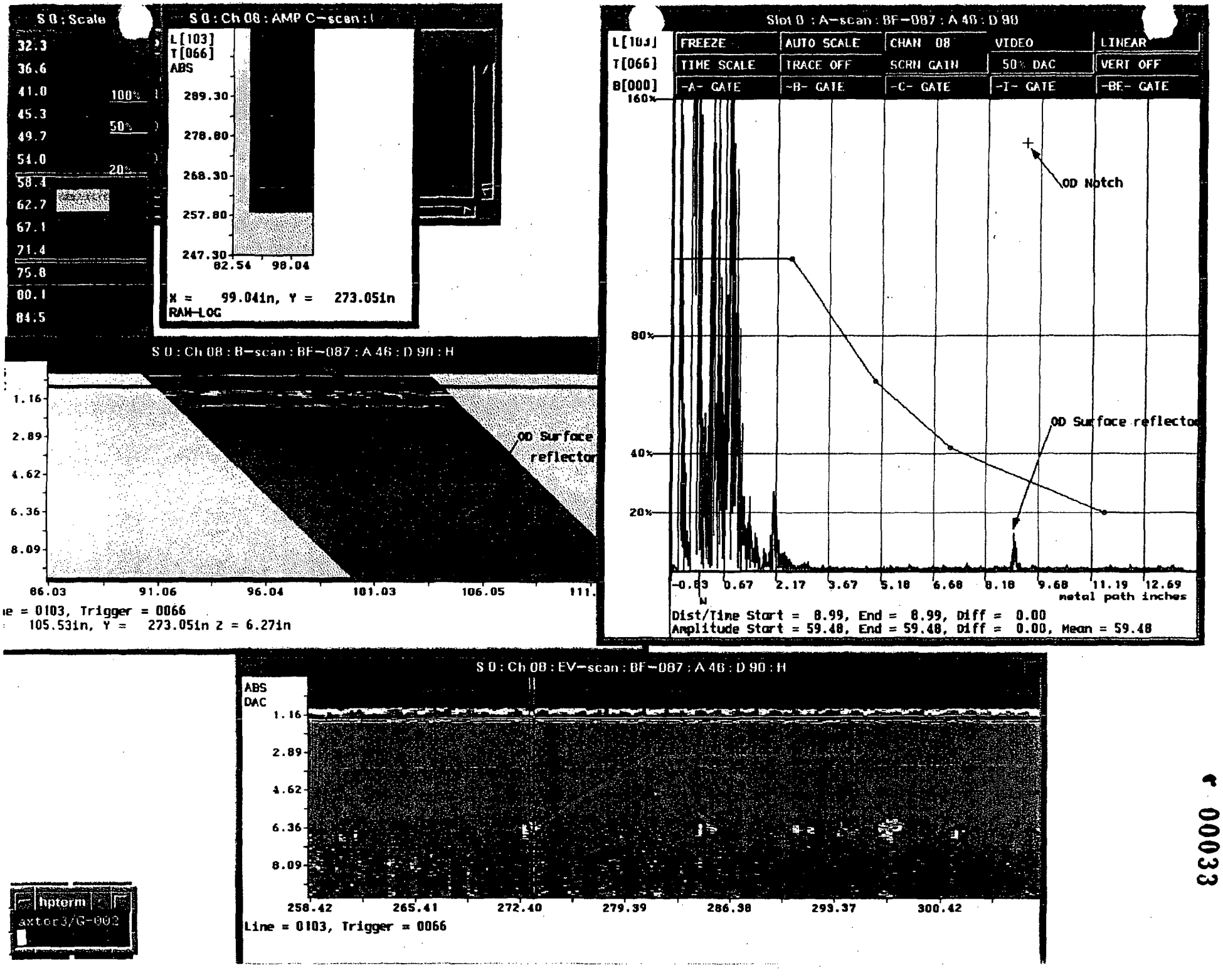

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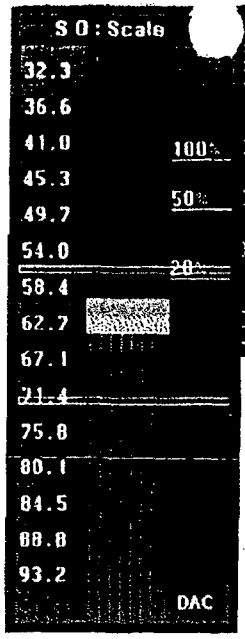

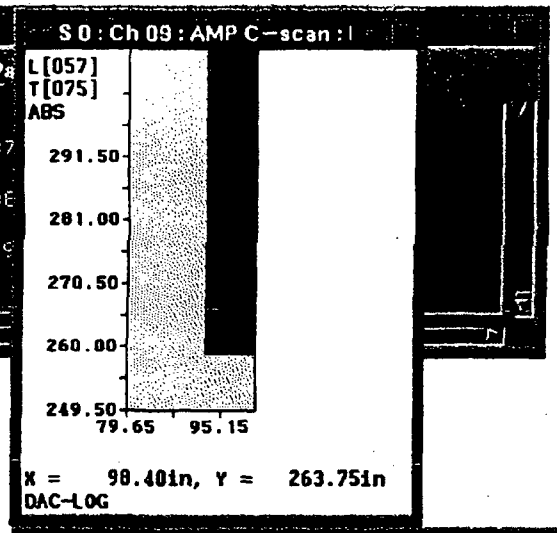

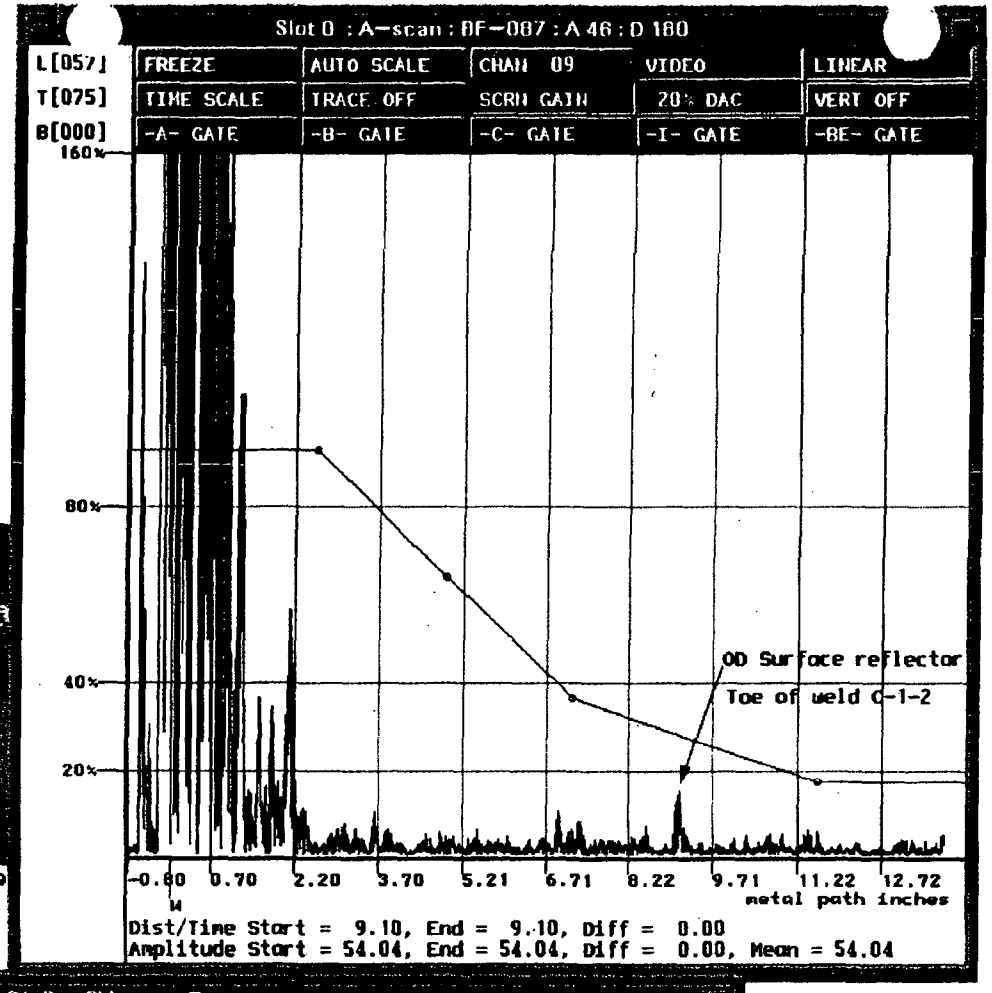

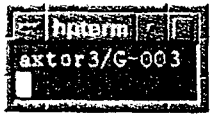

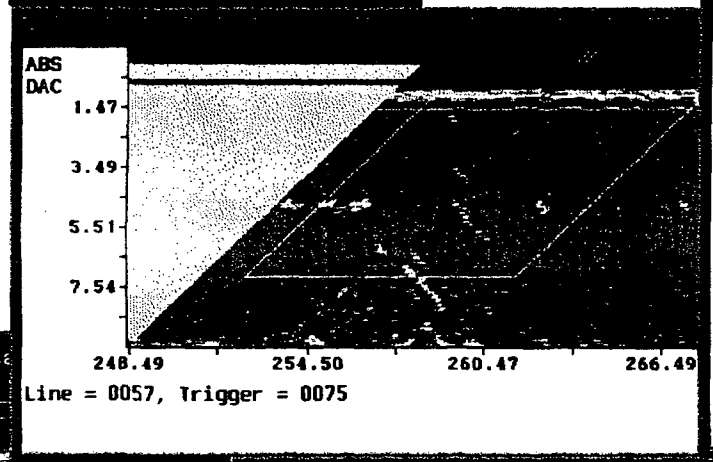

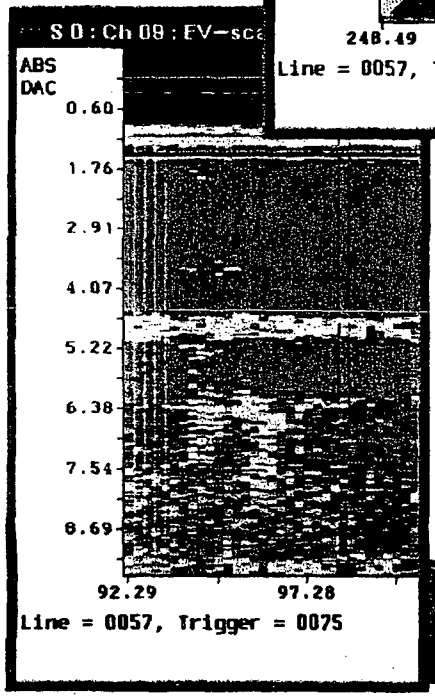

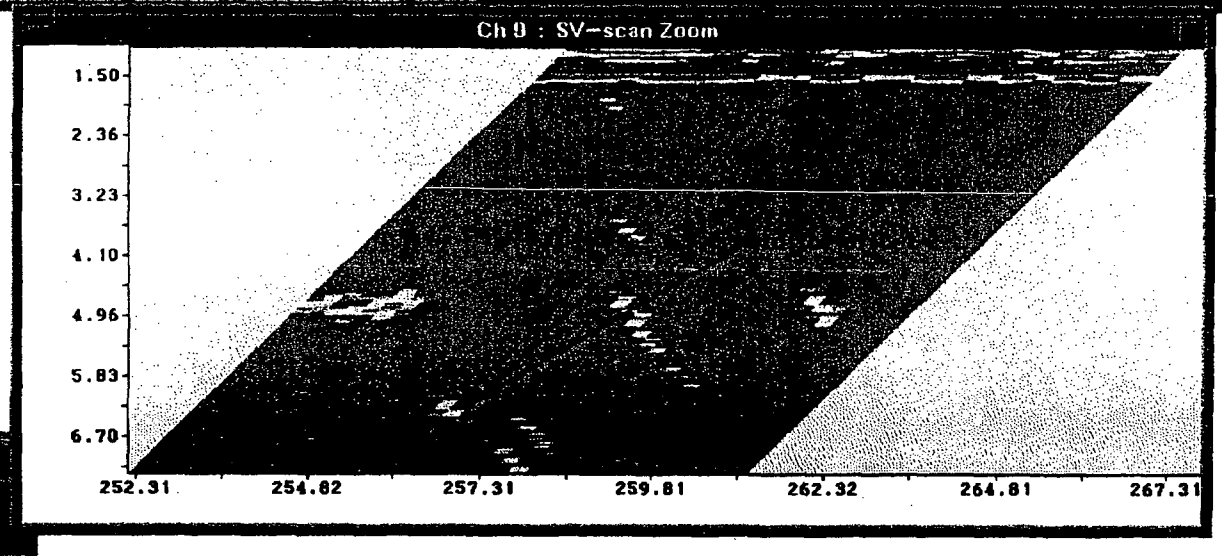

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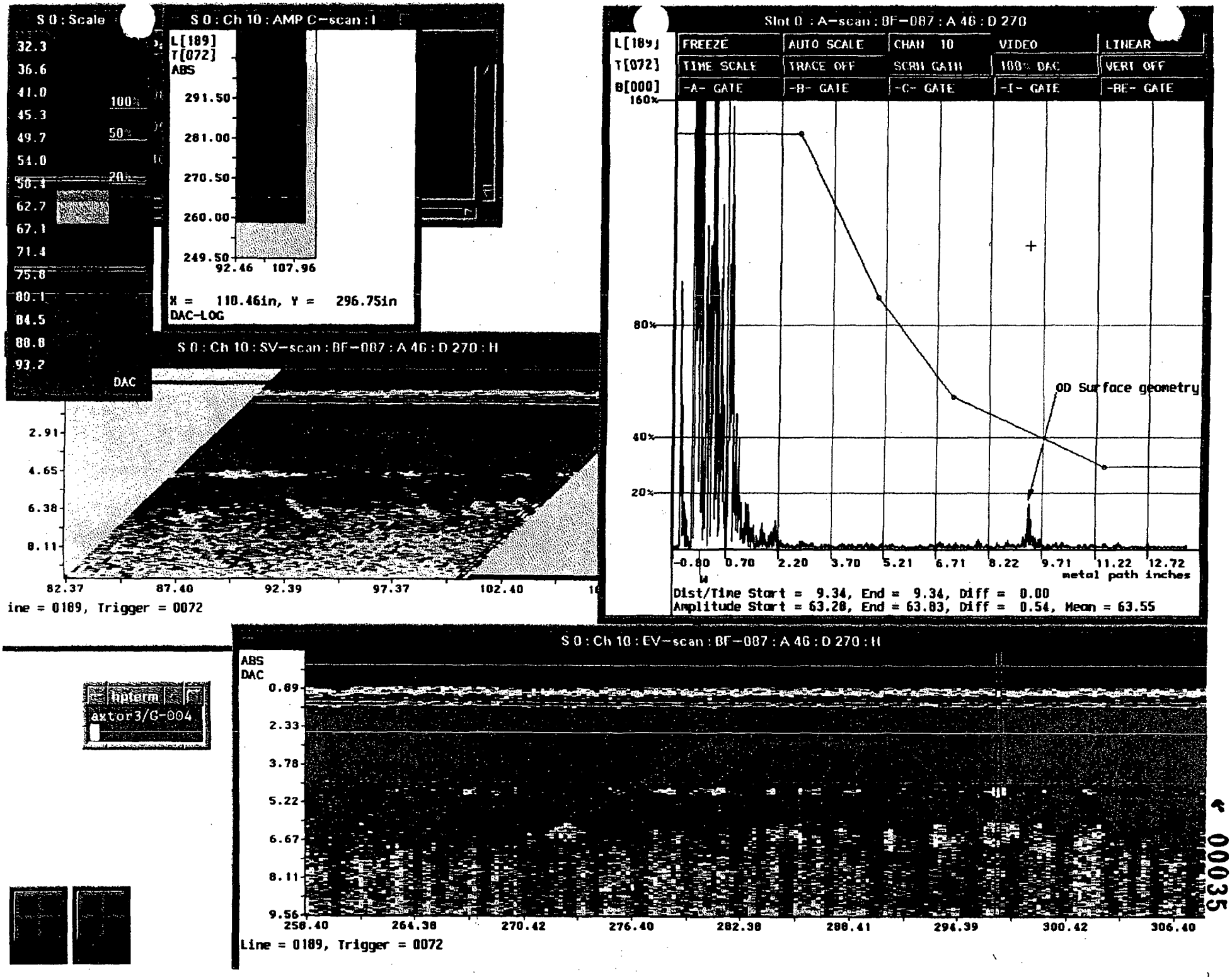

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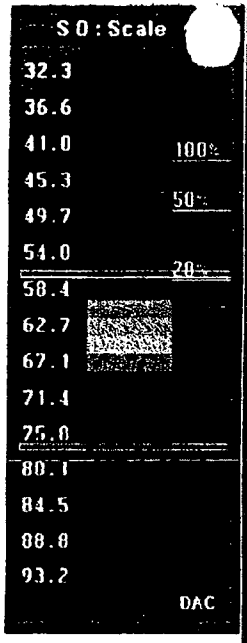

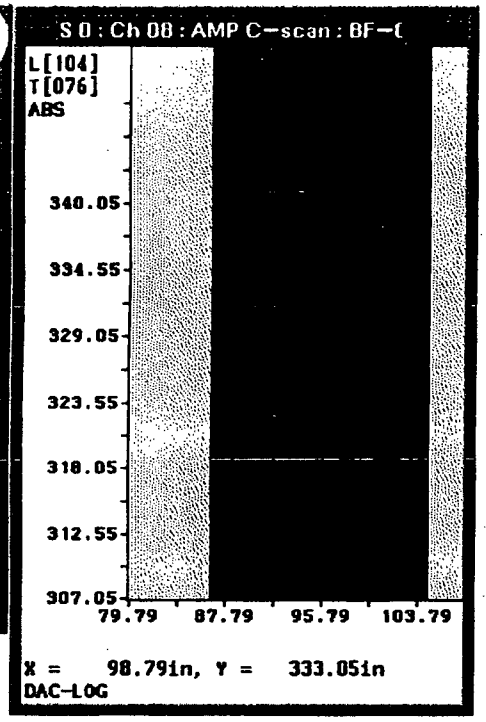

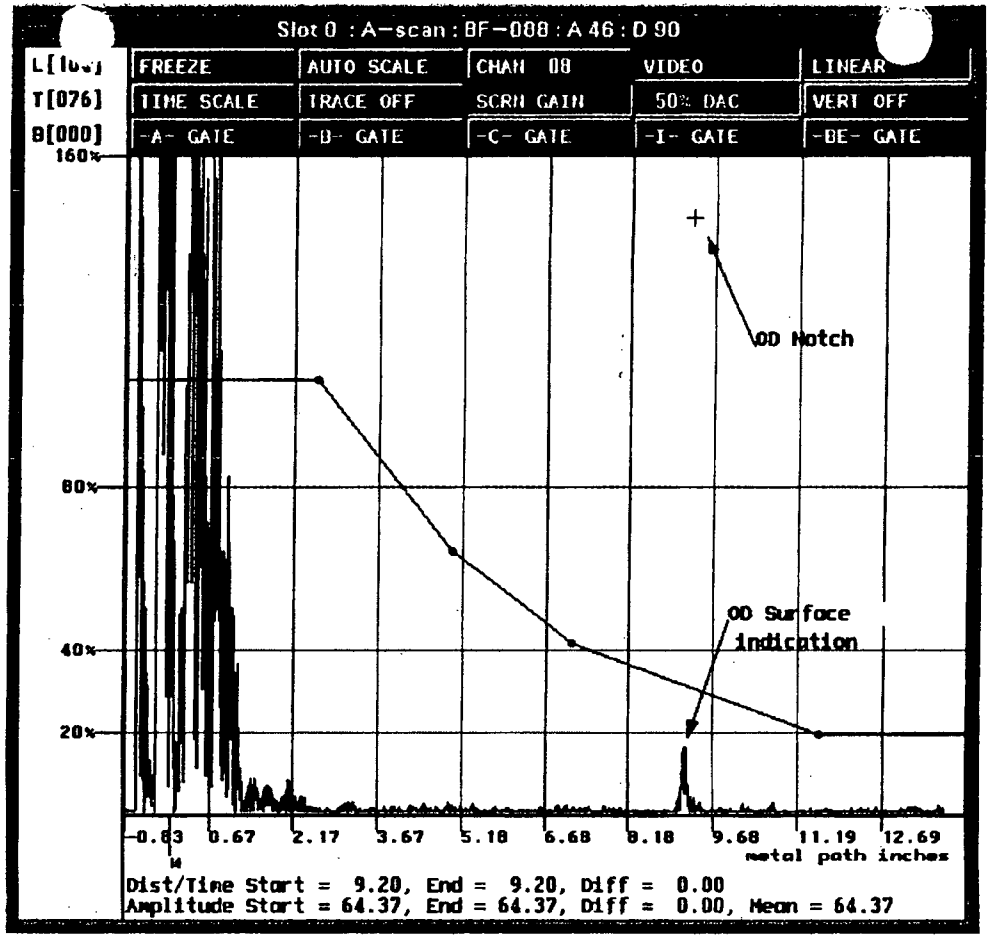

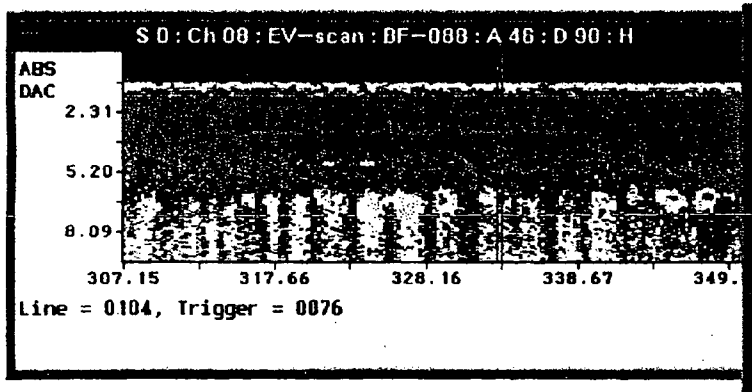

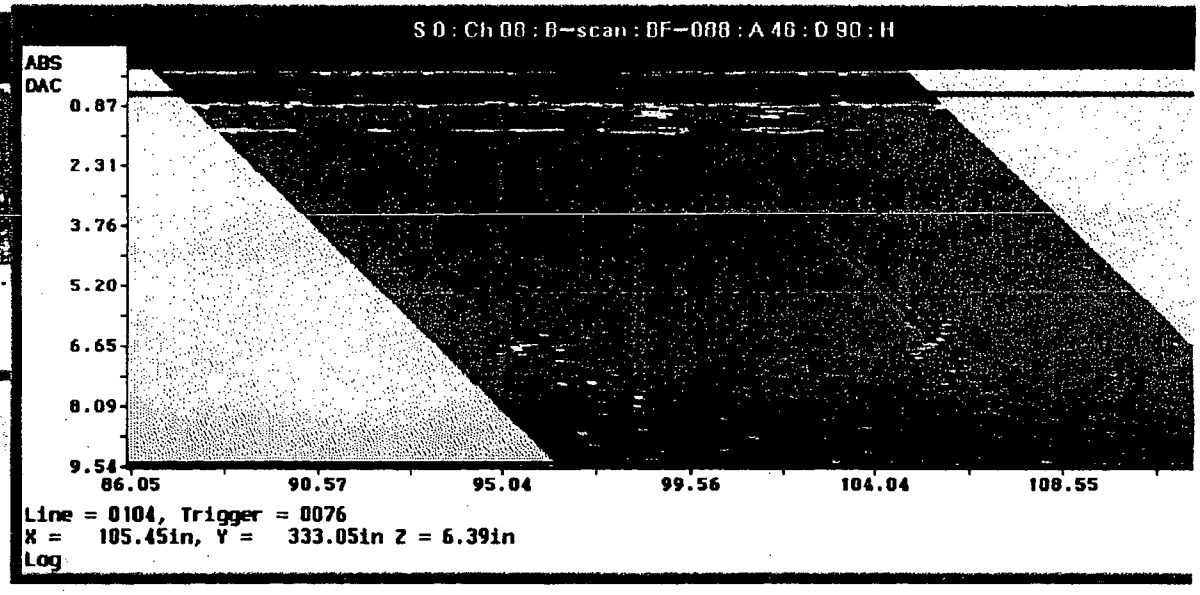

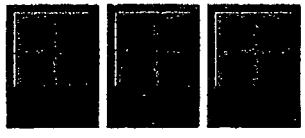

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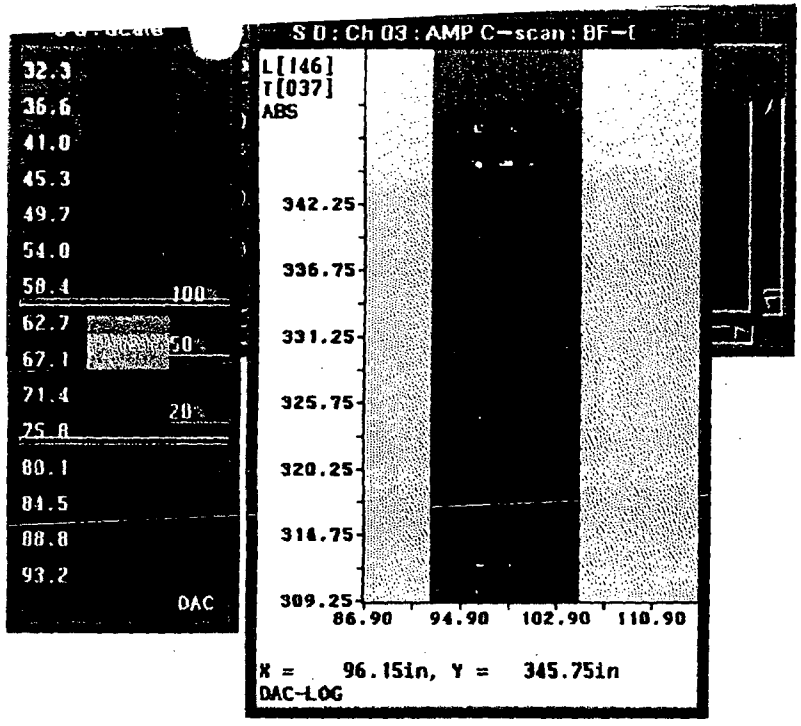

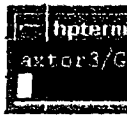

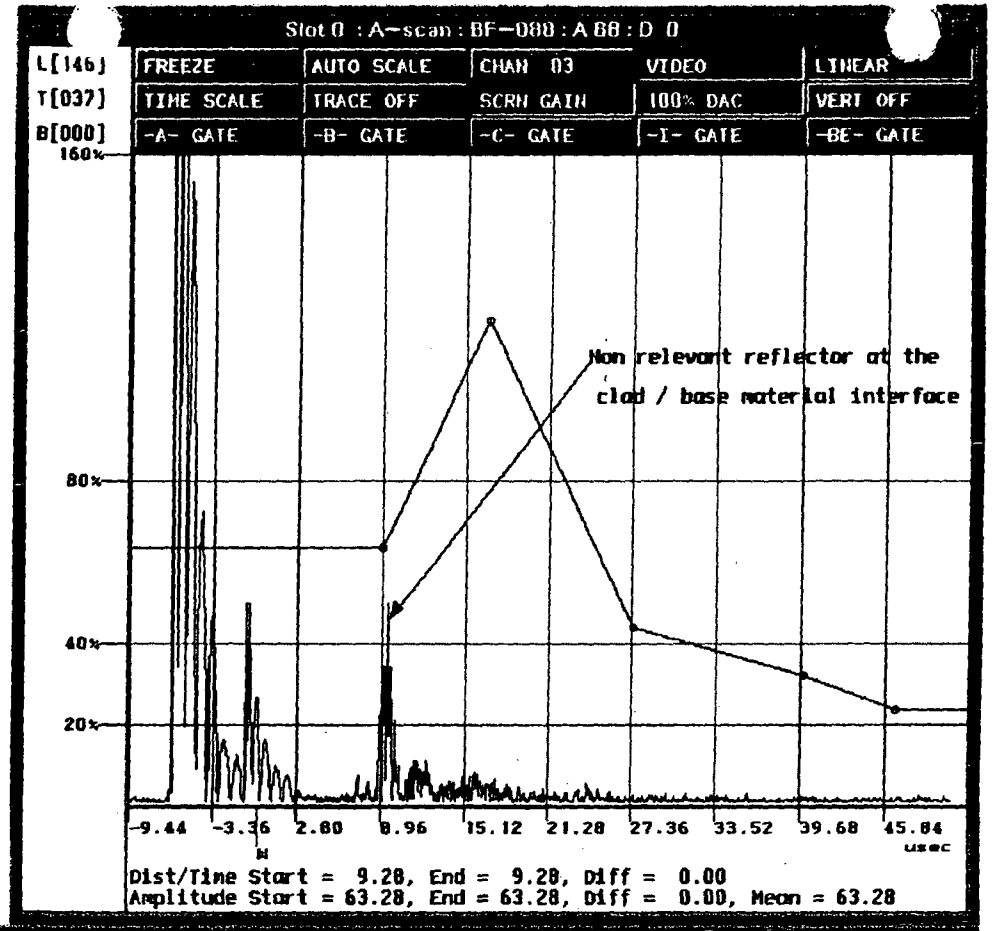

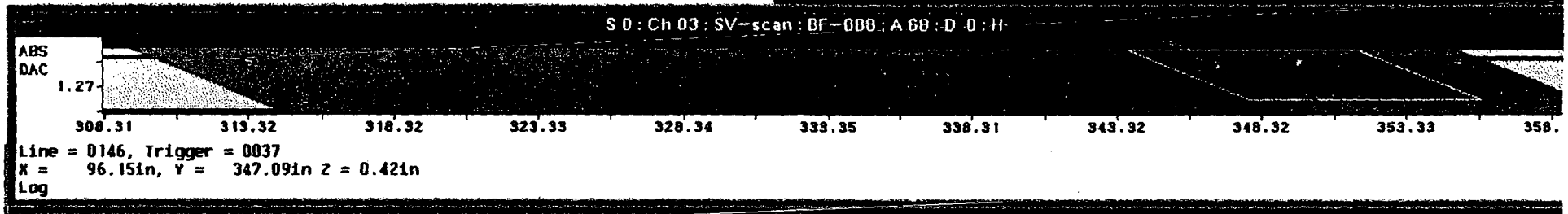

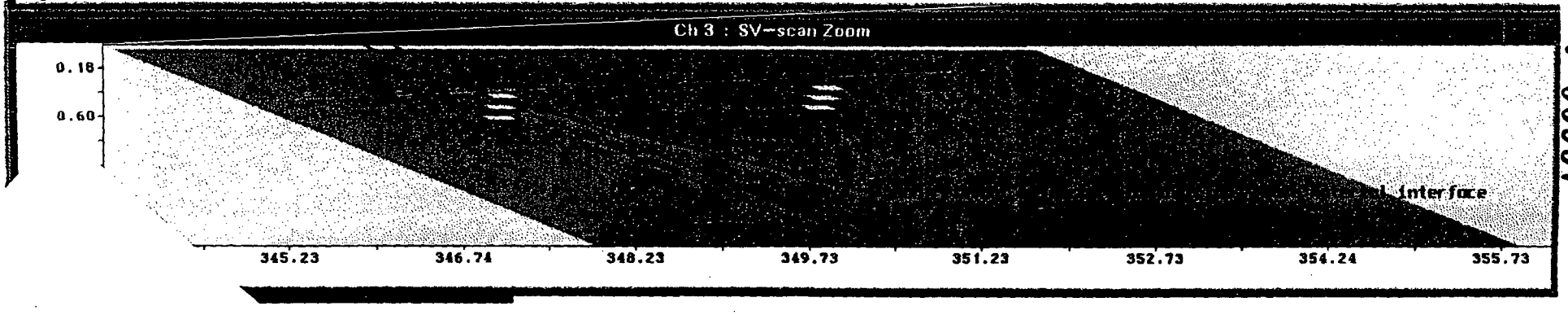

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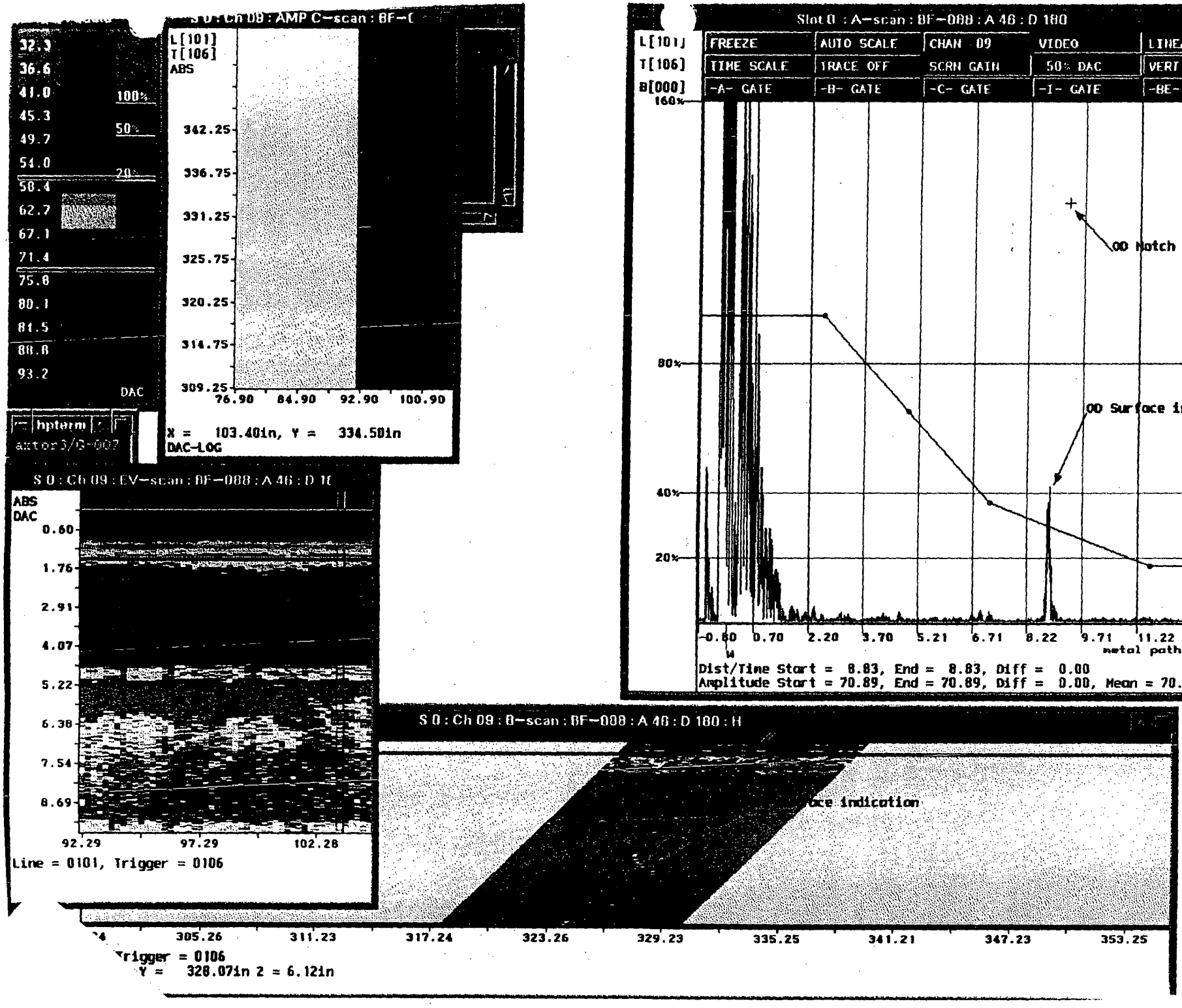

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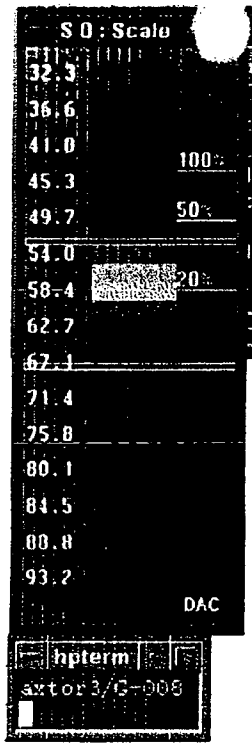

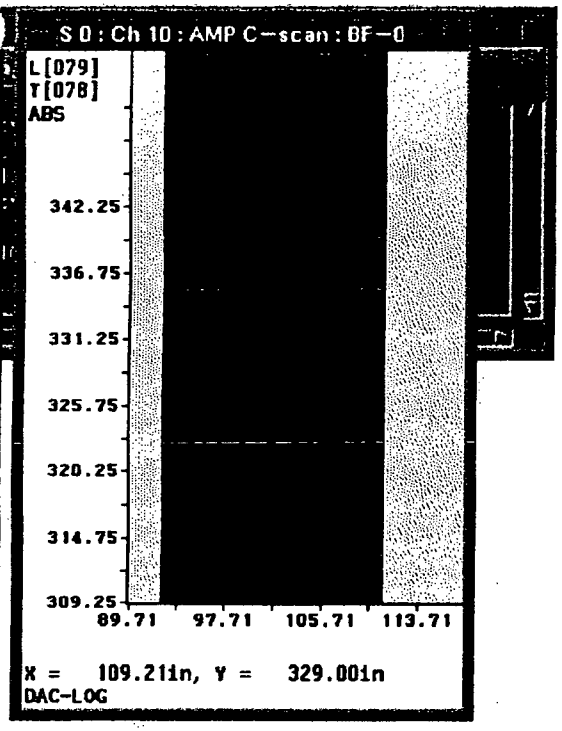

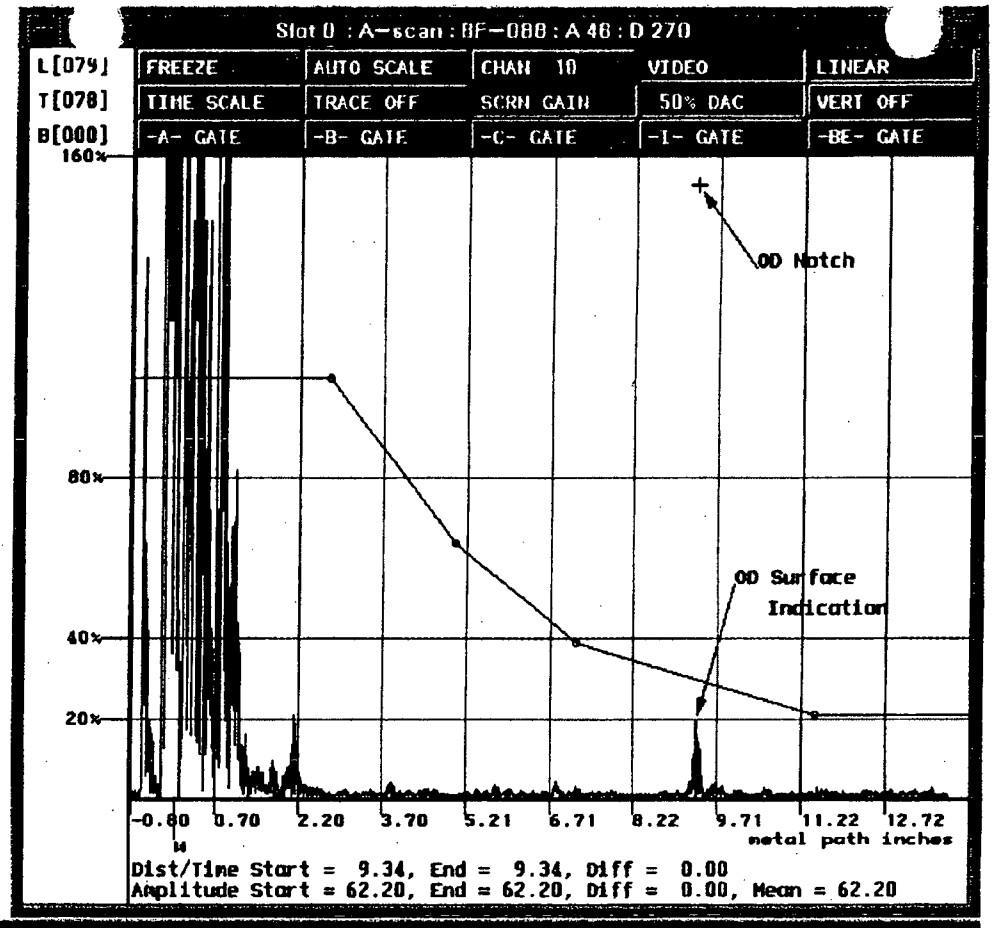

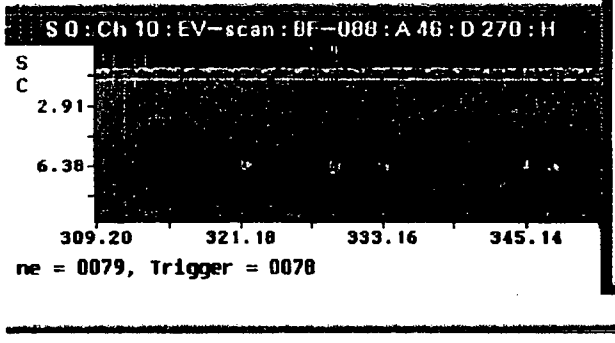

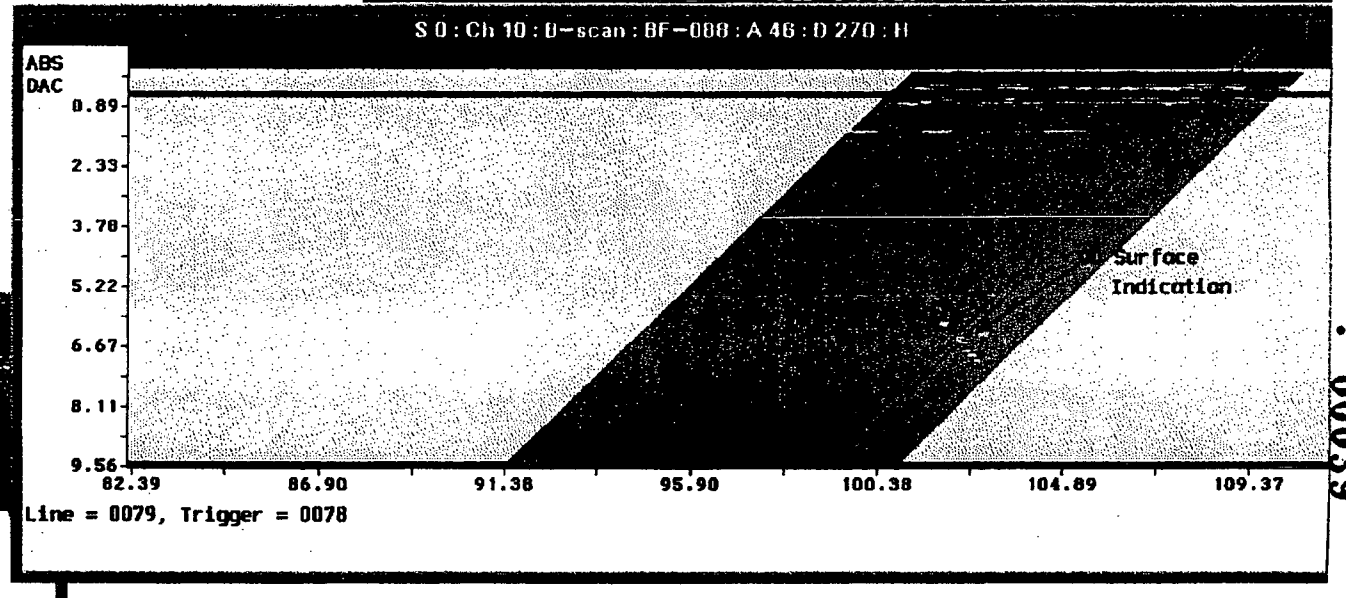

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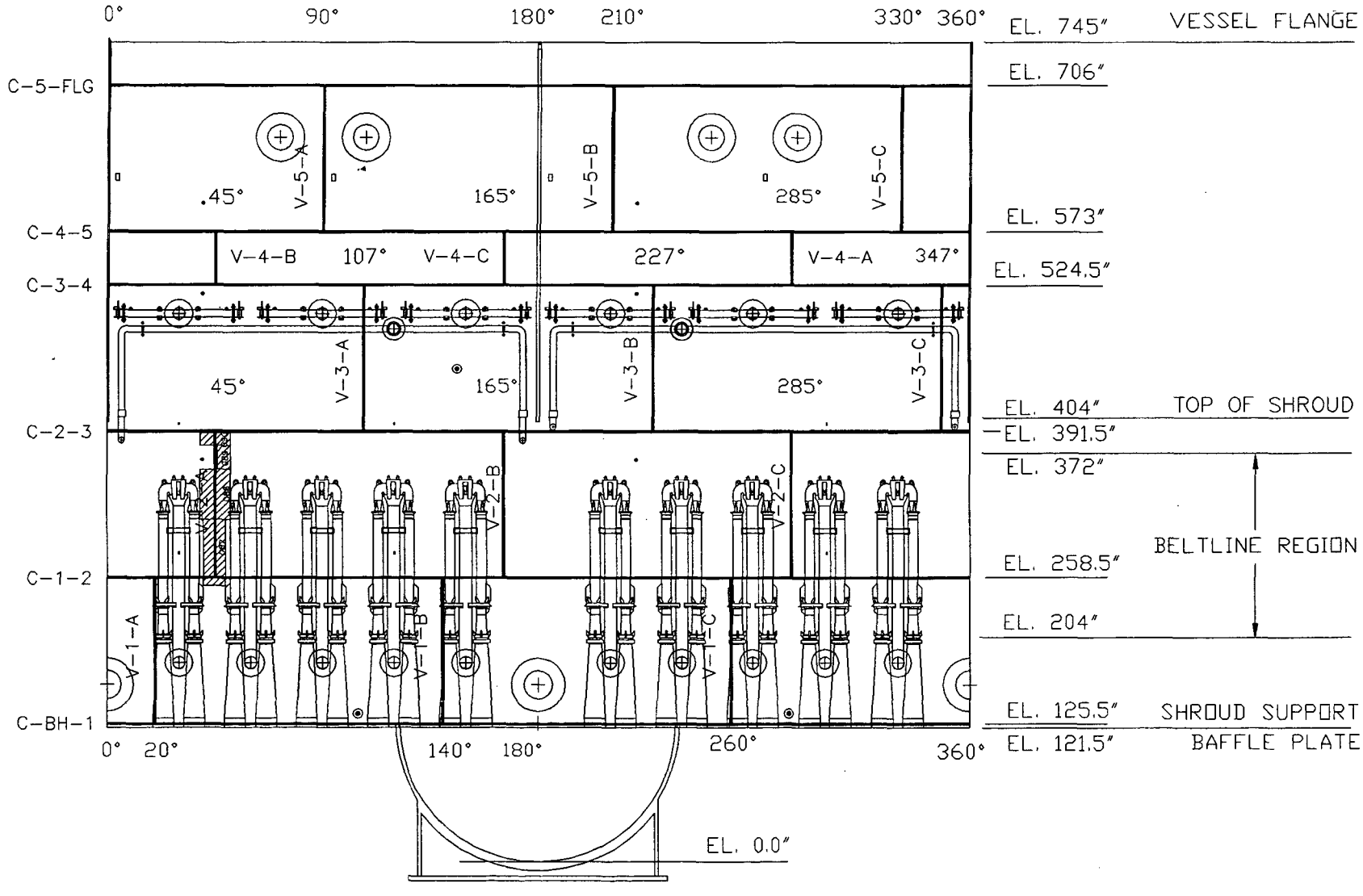
BROWNS FERRY UNIT-3 WELD LOCATIONS



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

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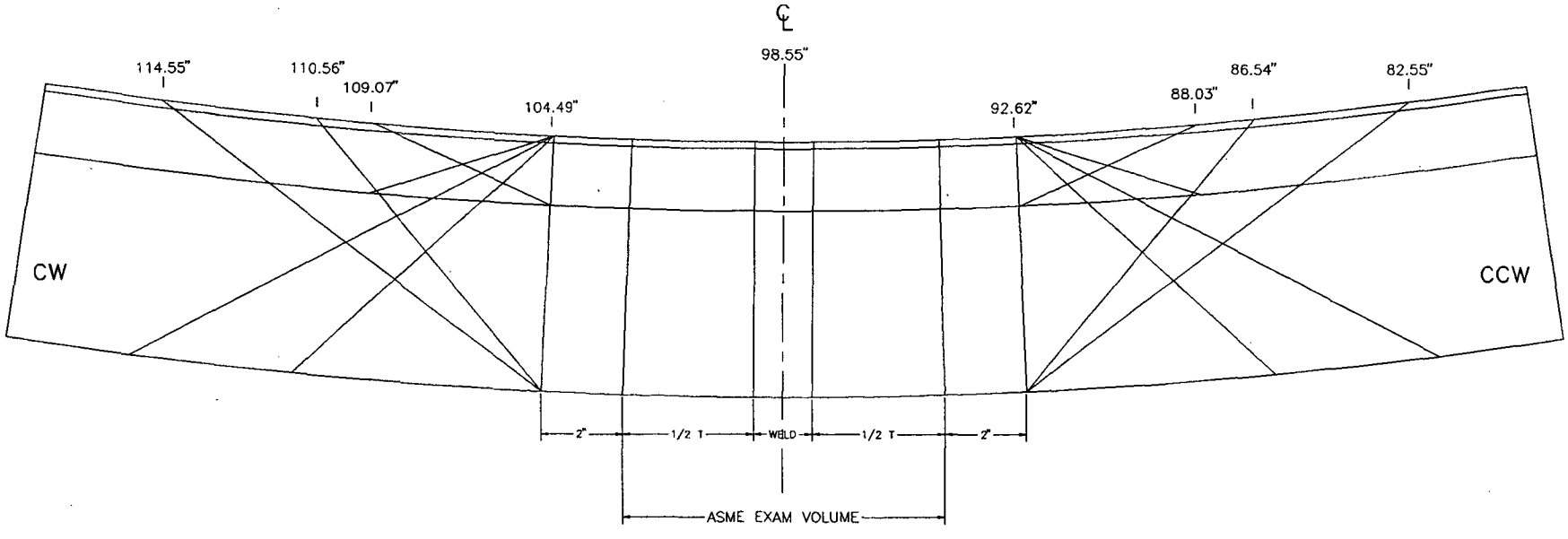

Nominal Clad T = 3/16"
Nominal Base Metal T = 6 3/8"
1 Degree = 2.19"

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

GE NUCLEAR ENERGY	BROWNS FERRY UNIT 3	WELD V-2-A EXAM VOLUME	SCALE: NONE	DWG. BF3-VERT	REV. 0

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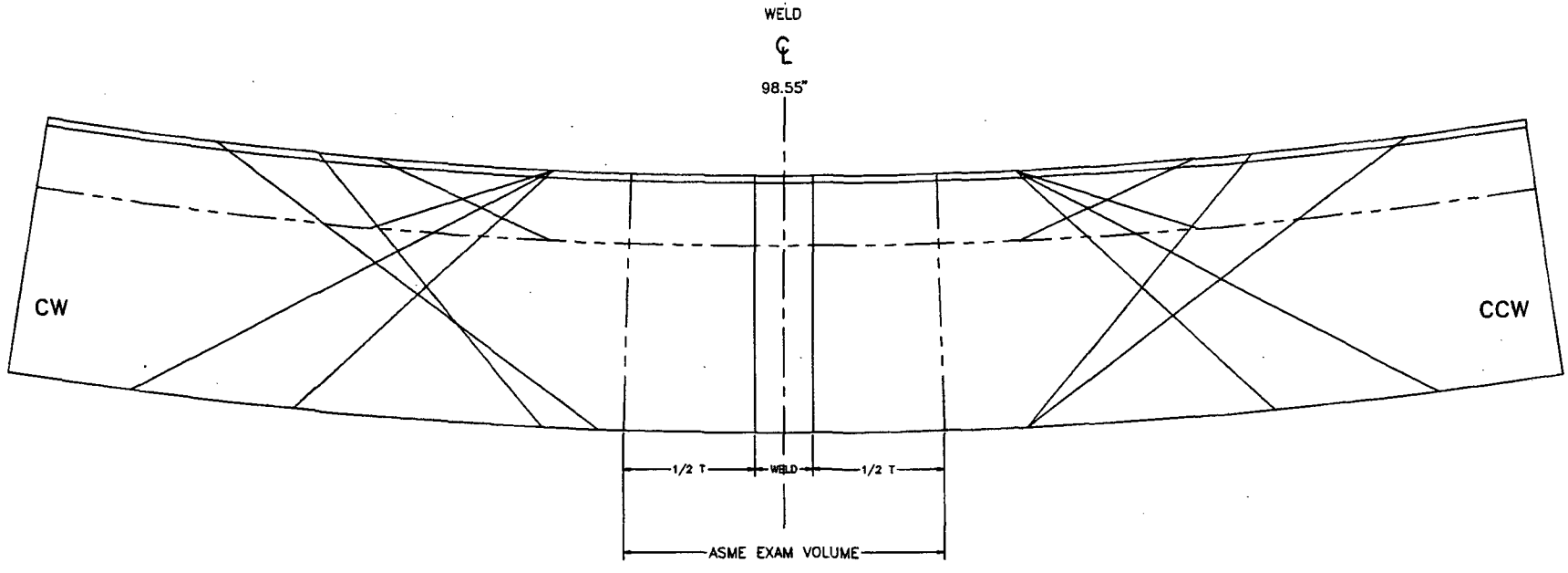

Nominal Clad T = 3/16"
Nominal Base Metal T = 6 3/8"
1 Degree = 2.19"

P-scans limited due to Jet Pump Brackets.
Reference Scanner Data Setup BF-087 and BF-089

GE NUCLEAR ENERGY	BROWNS FERRY UNIT 3	JET PP AUTOMATED SCAN LIMIT	SCALE: NONE	DWG. V2ABCJET	REV. 0

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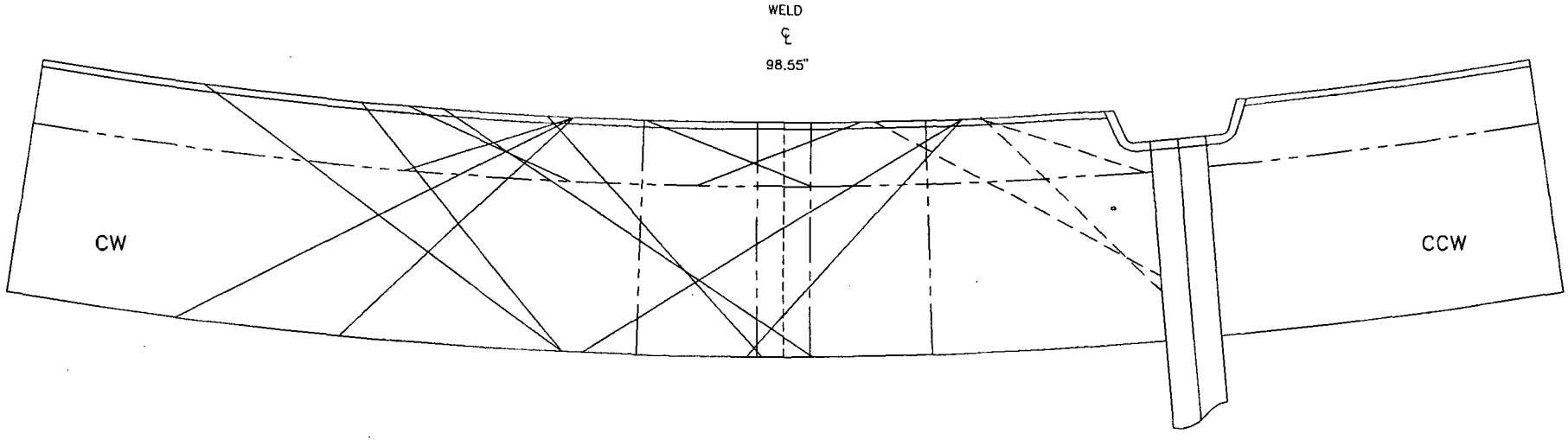

Nominal Clad T = 3/16"
Nominal Base Metal T = 6 3/8"
1 Degree = 2.19"

- — — — — EXTENDED SCAN AREA

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GE NUCLEAR ENERGY	BROWNS FERRY UNIT 3	N16A NOZ. AUTOMATED SCAN LIMIT	SCALE: NONE	DWG. V-2AN16A	REV. 0