R1153

GE Nuclear Energy

GERIS 2000 Examination Summary Sheet

Project: TVA, Browns Ferry Nuclear Plant, Unit 3
System: Reactor Pressure Vessel
Weld ID: C-4-5 **ASME Code Category:** B-A

Calibration Sheets: C-001, C-004

Supporting Data: Examination Data Sheets E-16-00 thru E-16-12, Indication Data Sheets 16-001 thru 16-094, Indication Evaluation Sheets, Screen Prints, Exam Patch Location Map, Exam Coverage Plots and GERIS 2000 Setup Records.

Examination Summary

The ultrasonic examination of weld C-4-5 resulted in two (2) 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 Guide Rods at 0° and 180°°. The total examination coverage was calculated to be 93%.

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 two (2) unacceptable indications were recorded and sized in accordance with GE-UT-700, Rev. 2 and GE-UT-701, Rev. 2 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
16-075	circ.	subsurface	603.30"	574.70"	3.17"	2.83"	.30"	2.75"	6.6"	.055	2.27	2.23
16-076	circ.	subsurface	617.50"	574.05"	3.85"	2.53"	.44"	1.50"	6.6"	.147	3.33	2.87

Indication 16-075 was sized with 60° shear wave channel 13 utilizing the SPOT technique. This indication was also recorded with 45° shear wave channel 9 as 16-072 .

Indication 16-076 was sized with 60° shear wave channel 13 utilizing the SPOT technique. This indication was also recorded with 45° shear wave channel 9 as 16-074 .

The GERIS 2000 also recorded indications with the 0° weld metal scans, 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 stabilizer brackets were recorded with the 0° weld metal, 45° and 60° shear wave scans. Geometric indications from the OD surface were recorded with the 45° 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: [signature]	GE Reviewer: R.O. Fouman
LEVEL: III DATE: 12/20/93	LEVEL: II DATE: 12-20-93
UTILITY Review: [signature]	ANII Review:
TITLE: --- DATE: 1/26/94	TITLE: Albert Ladd DATE: 9/11/94

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-10
Patch ID: BF-022
Ind. Data Sheet No.: 16-072

Indication: 16-072 **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
19.6%	602.15	~	~	~	~	577.75	4.05	~	~	~	~	~
34.5%	602.40	~	~	~	~	577.75	4.16	~	~	~	~	~
39.1%	602.65	~	~	~	~	578.00	4.35	~	~	~	~	~
53.5%	602.90	~	~	~	~	577.75	4.13	~	~	~	~	~
106.4%	603.15	~	~	577.50	3.94	577.75	4.08	578.25	4.48	~	~	SPOT
77.9%	603.40	~	~	577.75	4.08	578.00	4.32	578.25	4.45	~	~	~
30.4%	603.65	~	~	~	~	578.00	4.23	~	~	~	~	~
14.4%	603.90	~	~	~	~	578.00	4.30	~	~	~	~	~
28.6%	604.15	~	~	~	~	578.25	4.56	~	~	~	~	~
73.1%	604.40	~	~	577.50	3.99	577.75	416.00	578.00	4.35	~	~	~
77.9%	604.65	~	~	577.75	4.16	578.00	4.36	~	~	~	~	~
34.5%	604.90	~	~	~	~	578.00	4.32	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.
Same as indication 16-075.
Flaw dimensions from 16-075.

TW = 0.30 L = 2.75 S = 3.02 with clad

Analyst: Cl M
Level: III Date: 12/18/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

B1152

GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-022

Exam Data Sheet No.: E-16-10
Ind. Data Sheet No.: 16-072
Indication: 16-072

Flaw Thruwall Dimension =	0.30
Flaw Length "l" =	2.75
Separation with clad "S" =	3.02
Surface Separation "S" =	2.83

T measured =	6.60
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 %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	2.02	2.23 Y
0.10	2.20	2.5	~	~
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 2.02	Allowed 2.23

a =	0.150
a/l value =	0.055
Y =	1.000

Flaw is Subsurface

Allowed a/t =	2.23%
a/t =	2.27%

Comments: Same as indication 16-075.
Flaw dimensions from 16-075.

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GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-10
Patch ID: BF-022
Ind. Data Sheet No.: 16-074

Indication: 16-074 **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
41.6%	616.90	~	~	~	~	578.70	6.12	~	~	~	~	L1
113.0%	617.15	~	~	578.25	5.84	578.75	6.18	579.00	6.35	~	~	Delta MP
73.1%	617.40	~	~	578.25	5.86	579.00	6.36	579.25	6.48	~	~	~
44.3%	617.65	~	~	~	~	578.50	5.91	~	~	~	~	L2
22.3%	617.90	~	~	~	~	578.50	5.97	~	~	~	~	~
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Comments: Same as indication 16-076.
Flaw dimensions from 16-076.

TW = 0.44 L = 1.50 S = 2.53

Analyst: [signature] Level: III Date: 12/18/93

Reviewed By: R.O. Forman Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-022

Exam Data Sheet No.: E-16-10
Ind. Data Sheet No.: 16-074
Indication: 16-074

Flaw Thruwall Dimension =	0.44
Flaw Length "l" =	1.50
Separation with clad "S" =	N/A
Surface Separation "S" =	2.53

T measured =	6.60
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 %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	~	~
0.10	2.20	2.5	2.48	2.87 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
			2.48	2.87

a =	0.220
a/l value =	0.147
Y =	1.000

Flaw is Subsurface

Allowed a/t =	2.87%
a/t =	3.33%

Comments: Same as indication 16-076.
Flaw dimensions from 16-076.

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-10
Patch ID: BF-022
Ind. Data Sheet No.: 16-075

Indication: 16-075 **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
44.3%	602.29	~	~	~	~	580.45	6.63	~	~	~	~	~
77.9%	602.54	~	~	579.95	6.13	580.45	6.65	580.70	6.91	~	~	~
53.5%	602.79	~	~	~	~	580.45	6.60	~	~	~	~	~
88.2%	603.04	~	~	578.45	4.73	580.45	6.60	580.95	7.12	~	~	~
113.4%	603.29	~	~	577.95	4.40	580.20	6.34	580.95	7.12	~	~	~
88.2%	603.54	~	~	578.20	4.62	580.20	6.34	580.70	6.79	~	~	~
44.3%	603.79	~	~	~	~	580.45	6.65	~	~	~	~	~
77.9%	604.04	~	~	578.95	5.31	579.95	6.13	580.70	6.86	~	~	~
113.4%	604.29	~	~	578.70	5.06	579.95	6.17	580.70	6.91	~	~	~
106.4%	604.54	~	~	578.45	4.84	579.70	5.91	580.45	6.60	~	~	~
82.9%	604.79	~	~	578.20	4.66	580.20	6.34	580.45	6.65	~	~	~
47.2%	605.04	~	~	~	~	579.70	5.95	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = 0.30 L = 2.75 S = 3.02 with clad

Analyst: [signature] Level: II Date: 12/17/93

Reviewed By: R.O. Forman Level: II Date: 12-20-93

GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-022

Exam Data Sheet No.: E-16-10
Ind. Data Sheet No.: 16-075
Indication: 16-075

Flaw Thruwall Dimension =	0.30
Flaw Length "l" =	2.75
Separation with clad "S" =	3.02
Surface Separation "S" =	2.83

T measured =	6.60
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 %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	2.02	2.23 Y
0.10	2.20	2.5	~	~
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
			2.02	2.23

a =	0.150
a/l value =	0.055
Y =	1.000

Flaw is Subsurface

Allowed a/t =	2.23%
a/t =	2.27%

Comments: *Same as indication 16-072.*

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GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-10
Patch ID: BF-022
Ind. Data Sheet No.: 16-076

Indication: 16-076 **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
39.1%	616.79	~	~	~	~	582.95	9.78	~	~	~	~	~
64.5%	617.04	~	~	582.70	9.56	582.95	9.73	583.20	9.99	~	~	~
94.0%	617.29	~	~	580.45	7.49	582.95	9.73	583.20	9.99	~	~	~
175.6%	617.54	~	~	580.20	7.34	580.95	7.97	583.45	10.18	~	~	~
175.6%	617.79	~	~	580.20	7.31	580.70	7.71	583.45	10.21	~	~	SPOT
88.2%	618.04	~	~	580.45	7.53	582.20	9.07	582.70	9.47	~	~	~
26.9%	618.29	~	~	~	~	581.20	8.15	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.
Same as indication 16-074.

TW = 0.44 L = 1.50 S = 2.53

Analyst: [signature] Level: III Date: 12/15/93

Reviewed By: R.O Forman Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-022

Exam Data Sheet No.: E-16-10
Ind. Data Sheet No.: 16-076
Indication: 16-076

Flaw Thruwall Dimension =	0.44
Flaw Length "l" =	1.50
Separation with clad "S" =	N/A
Surface Separation "S" =	2.53

T measured =	6.60
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 %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	~	~
0.10	2.20	2.5	2.48	2.87 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
			2.48	2.87

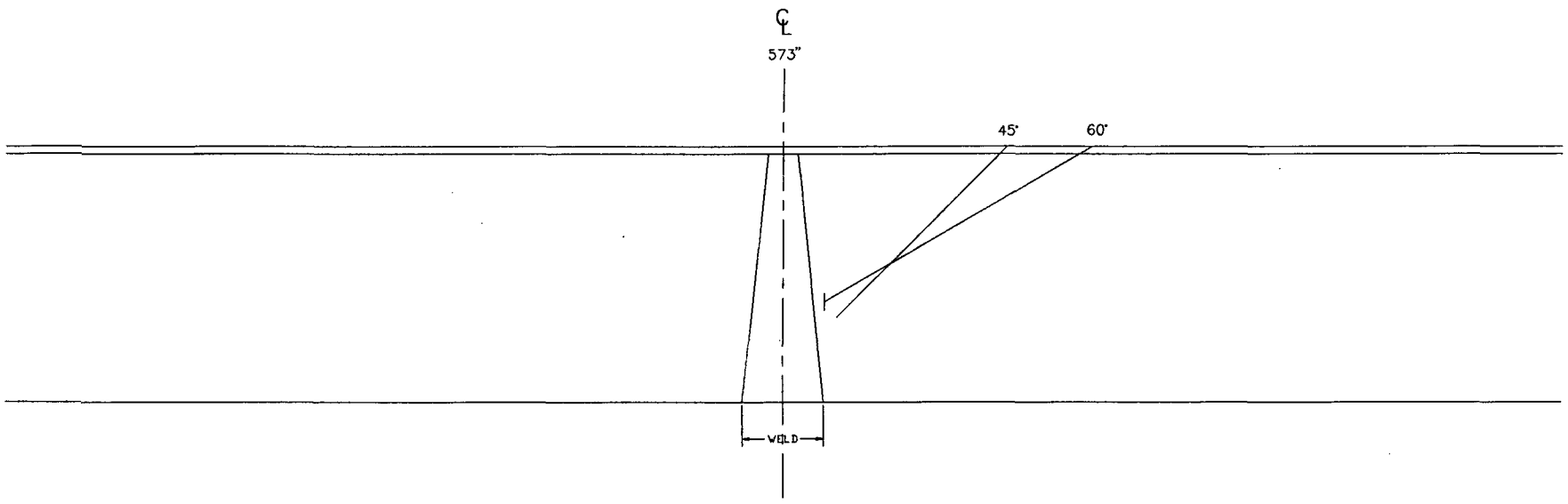
a =	0.220
a/l value =	0.147
Y =	1.000

Flaw is Subsurface

Allowed a/t =	2.87%
a/t =	3.33%

Comments: Same as indication 16-074.

C-4-5



Indication 16-076
Flaw "X" location is 617.50"
Flaw "Y" location is 574.05"

TW
LENGTH
T MEASURED

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

GE NUCLEAR ENERGY	BROWNS FERRY UNIT 3	WELD C-4-5 IND. 16-076	SCALE: NONE	DWG. BFC45IND	REV. 0

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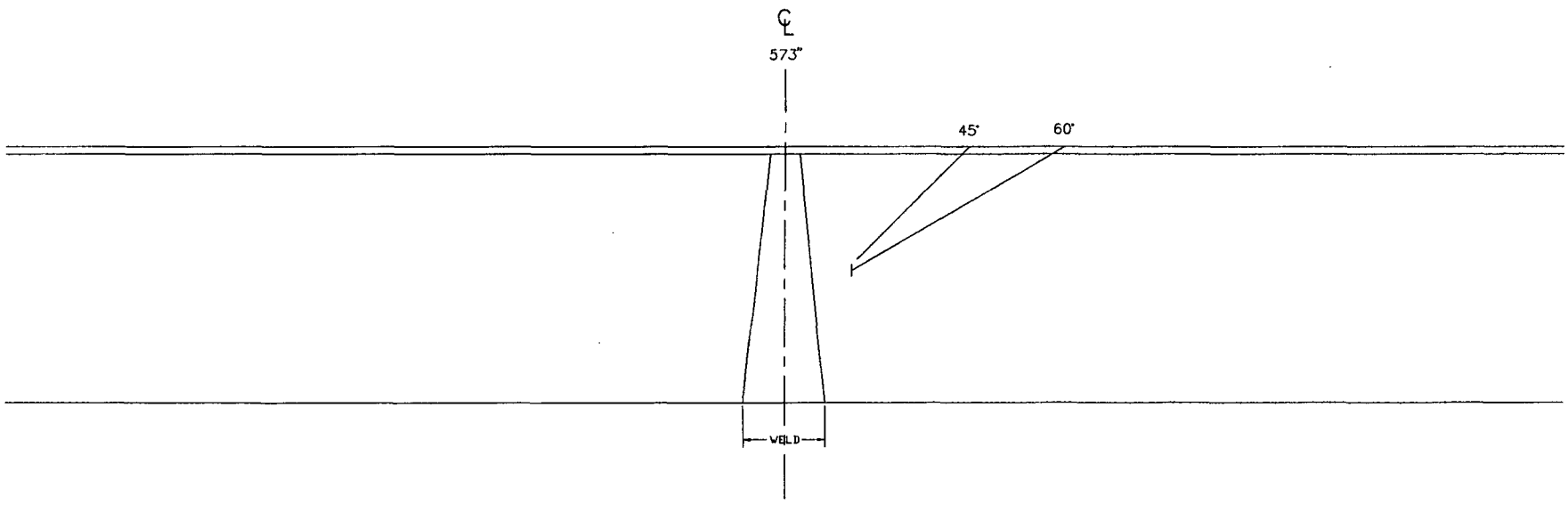
C-4-5



Indication 16-075
Flaw "X" location is 603.30"
Flaw "Y" location is 574.70"

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

GE NUCLEAR ENERGY	BROWNS FERRY UNIT 3	WELD C-4-5 IND. 16-075	SCALE: NONE	DWG. BFC45IND	REV. 0

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GE Nuclear Energy

GERIS 2000 Examination Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Exam Data Sheet: E-16-00

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-013	E-16-01	10/7/93	1713	1757	13.00	80.00	559.50	590.50	33A	ROF
BF-014	E-16-02	10/7/93	2124	2304	80.00	140.00	559.50	590.50	33B	JCG
BF-015	E-16-03	10/7/93	2315	0050	140.00	200.00	559.50	590.50	34A	JCG
BF-016	E-16-04	10/8/93	0059	0233	200.00	260.00	559.50	590.50	34B	JCG
BF-017	E-16-05	10/8/93	0244	0426	260.00	320.00	559.50	590.50	35A	JCG
BF-018R	E-16-06	10/17/93	2133	2307	320.00	381.00	559.50	590.50	62A	JCG
BF-019R	E-16-07	10/17/93	2319	0050	407.25	466.50	559.50	590.50	62B	JCG
BF-020R	E-16-08	10/18/93	0056	0227	466.75	526.50	559.50	590.50	63A	JCG
BF-021R	E-16-09	10/18/93	0330	0514	526.75	586.50	559.50	590.50	63B	JCG
BF-022	E-16-10	10/14/93	0249	0423	586.75	646.50	559.50	590.50	49A	JCG
BF-023	E-16-11	10/14/93	0453	0627	646.75	706.50	559.50	590.50	49B	JCG
BF-024	E-16-12	10/12/93	1436	1630	706.75	775.50	559.50	590.50	39B	ROF
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Comments: N/A

Limitations: BF-013, BF-018R, BF-019R, and BF-024 limited due to guide rods at 0° and 180°.

Analyst: [signature]
Level: III Date: 12/18/93

Reviewed By: [signature]
Level: III Date: 1/25/94

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R1152

GE Nuclear Energy

GERIS 2000 Examination Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-01
Patch ID: BF-013
Ind. Data Sheet Series: 16-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	Note 1	~	~	~	~
5	70 RL	180 DN	1	16-001	16-002	16-003	~	~
6	70 RL	270 CCW	NRI	~	~	~	~	~
7	45 RS	0 UP	1, 2	16-009	16-010	16-011	~	~
8	45 RS	90 CW	1	16-004	~	~	~	~
9	45 RS	180 DN	1, 2	16-005	16-006	16-007	16-008	~
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: Note 1: Ch. 4 analyzed line by line in A-scan due to store process error.

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: 12/18/93

Reviewed By: R.O. Forman
Level: II
Date: 12-20-93

GE Nuclear Energy

GERIS 2000 Examination Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-02
Patch ID: BF-014
Ind. Data Sheet Series: 16-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	1, 3	16-012	~	~	~	~
3	70 RL	0 UP	NRI	~	~	~	~	~
4	70 RL	90 CW	NRI	~	~	~	~	~
5	70 RL	180 DN	1	16-013	~	~	~	~
6	70 RL	270 CCW	NRI	~	~	~	~	~
7	45 RS	0 UP	1, 2, 3,	16-014	16-015	16-017	16-018	16-019
8	45 RS	90 CW	3	16-016	~	~	~	~
9	45 RS	180 DN	1, 3	16-020	16-021	~	~	~
10	45 RS	270 CCW	3	16-022	~	~	~	~
11	60 RS	0 UP	3	16-023	~	~	~	~
12	60 RS	90 CW	3	16-024	~	~	~	~
13	60 RS	180 DN	3	16-025	~	~	~	~
14	60 RS	270 CCW	3	16-026	~	~	~	~
15	0 BM	N/A	NRI	~	~	~	~	~
16	0 BM	N/A	NRI	~	~	~	~	~
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Comments: (3) Stabilizer bracket geometry.

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: CJ M[illegible]
Level: III Date: 12/18/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

EXAM-DS2 V.1 9/28/93

00377

RH52

GE Nuclear Energy

GERIS 2000 Examination Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-03
Patch ID: BF-015
Ind. Data Sheet Series: 16-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	1	16-027	16-028	~	~	~
3	70 RL	0 UP	1	16-029	~	~	~	~
4	70 RL	90 CW	1	16-030	~	~	~	~
5	70 RL	180 DN	1	16-031	16-032	~	~	~
6	70 RL	270 CCW	1	16-033	~	~	~	~
7	45 RS	0 UP	1, 3	16-034	16-035	~	~	~
8	45 RS	90 CW	1, 3	16-036	16-037	~	~	~
9	45 RS	180 DN	1, 3	16-038	16-039	16-040	16-041	16-042
9	45 RS	180 DN	1, 3	16-043	~	~	~	~
10	45 RS	270 CCW	1, 3	16-044	~	~	~	~
11	60 RS	0 UP	NRI (3)	~	~	~	~	~
12	60 RS	90 CW	NRI (3)	~	~	~	~	~
13	60 RS	180 DN	NRI (3)	~	~	~	~	~
14	60 RS	270 CCW	NRI (3)	~	~	~	~	~
15	0 BM	N/A	NRI (3)	~	~	~	~	~
16	0 BM	N/A	NRI (3)	~	~	~	~	~
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Comments: (3) Stabilizer bracket geometry.

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: 12/18/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Examination Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-04
Patch ID: BF-016
Ind. Data Sheet Series: 16-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	1	16-045	16-046	~	~	~
4	70 RL	90 CW	NRI	~	~	~	~	~
5	70 RL	180 DN	NRI	~	~	~	~	~
6	70 RL	270 CCW	NRI	~	~	~	~	~
7	45 RS	0 UP	1	16-047	~	~	~	~
8	45 RS	90 CW	NRI (3)	~	~	~	~	~
9	45 RS	180 DN	NRI (3)	~	~	~	~	~
10	45 RS	270 CCW	NRI	~	~	~	~	~
11	60 RS	0 UP	NRI	~	~	~	~	~
12	60 RS	90 CW	NRI (3)	~	~	~	~	~
13	60 RS	180 DN	NRI (3)	~	~	~	~	~
14	60 RS	270 CCW	NRI	~	~	~	~	~
15	0 BM	N/A	NRI	~	~	~	~	~
16	0 BM	N/A	NRI	~	~	~	~	~
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Comments: (3) Stabilizer bracket geometry.

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: 12/18/93

Reviewed By: R.O. Forman Level: II Date: 12-20-93

EXAM-DS2 V.1 9/28/93

B1152

GE Nuclear Energy

GERIS 2000 Examination Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-05
Patch ID: BF-017
Ind. Data Sheet Series: 16-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	1	16-048	16-049	16-050	16-051	16-052
1	0 WM	N/A	1	16-053	~	~	~	~
2	0 WM	N/A	1	Note 1	~	~	~	~
3	70 RL	0 UP	1	16-054	~	~	~	~
4	70 RL	90 CW	NRI	~	~	~	~	~
5	70 RL	180 DN	1	16-055	~	~	~	~
6	70 RL	270 CCW	NRI	~	~	~	~	~
7	45 RS	0 UP	1, 3	16-086	~	~	~	~
8	45 RS	90 CW	3	~	~	~	~	~
9	45 RS	180 DN	1	16-087	16-088	16-089	~	~
10	45 RS	270 CCW	3	~	~	~	~	~
11	60 RS	0 UP	3	~	~	~	~	~
12	60 RS	90 CW	3	~	~	~	~	~
13	60 RS	180 DN	3	~	~	~	~	~
14	60 RS	270 CCW	3	~	~	~	~	~
15	0 BM	N/A	NRI	~	~	~	~	~
16	0 BM	N/A	NRI	~	~	~	~	~
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Comments: (3) Stabilizer bracket geometry.
Note 1: Refer to indications 16-048 through 16-050 for straight beam 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: [signature] Level: III Date: 12/18/93

Reviewed By: R.O. Forman Level: II Date: 12-20-93

EXAM-DS2 V.1 8/28/93

R1152

GE Nuclear Energy

GERIS 2000 Examination Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-004

Exam Data Sheet No.: E-16-06
Patch ID: BF-018R
Ind. Data Sheet Series: 16-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	5	16-090	~	~	~	~
2	0 WM	N/A	5	~	~	~	~	~
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, 5	16-091	16-092	~	~	~
8	45 RS	90 CW	5	16-093	~	~	~	~
9	45 RS	180 DN	1, 5	16-094	~	~	~	~
10	45 RS	270 CCW	5	~	~	~	~	~
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	5	~	~	~	~	~
16	0 BM	N/A	5	~	~	~	~	~
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Comments: (5) Segregates Shell 4 side (non relevant).

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: 12/15/93

Reviewed By: R.O. Forman
Level: II
Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Examination Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-004

Exam Data Sheet No.: E-16-07
Patch ID: BF-019R
Ind. Data Sheet Series: 16-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	1	16-056	~	~	~	~
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	1	16-057	~	~	~	~
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: [signature] Level: III Date: 12/18/93

Reviewed By: R.O. Forman Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Examination Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-004

Exam Data Sheet No.: E-16-08
Patch ID: BF-020R
Ind. Data Sheet Series: 16-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	5	~	~	~	~	~
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	3, 5	~	~	~	~	~
8	45 RS	90 CW	3	~	~	~	~	~
9	45 RS	180 DN	3	~	~	~	~	~
10	45 RS	270 CCW	3	~	~	~	~	~
11	60 RS	0 UP	3	~	~	~	~	~
12	60 RS	90 CW	3	~	~	~	~	~
13	60 RS	180 DN	3	~	~	~	~	~
14	60 RS	270 CCW	3	~	~	~	~	~
15	0 BM	N/A	NRI	~	~	~	~	~
16	0 BM	N/A	NRI	~	~	~	~	~
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Comments: (5) Segregates Shell 4 side (non relevant).
(3) Stabilizer bracket geometry.

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: 12/18/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

EXAM-DS2 V.1 9/28/93

00383

GE Nuclear Energy

GERIS 2000 Examination Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-004

Exam Data Sheet No.: E-16-09
Patch ID: BF-021R
Ind. Data Sheet Series: 16-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, 3	16-058	16-059	~	~	~
8	45 RS	90 CW	NRI	~	~	~	~	~
9	45 RS	180 DN	1	16-060	~	~	~	~
10	45 RS	270 CCW	NRI	~	~	~	~	~
11	60 RS	0 UP	3	~	~	~	~	~
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: (3) Stabilizer bracket geometry.

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: 12/18/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Examination Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-10
Patch ID: BF-022
Ind. Data Sheet Series: 16-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	1, 5	16-061	~	~	~	~
2	0 WM	N/A	1, 5	Note 1	~	~	~	~
3	70 RL	0 UP	1	16-062	~	~	~	~
4	70 RL	90 CW	NRI	~	~	~	~	~
5	70 RL	180 DN	1	16-063	16-064	16-065	16-066	~
6	70 RL	270 CCW	1	16-067	~	~	~	~
7	45 RS	0 UP	1, 3, 5	16-068	16-069	16-070	16-071	~
8	45 RS	90 CW	3, 5	~	~	~	~	~
9	45 RS	180 DN	1	16-072	16-073	16-074	~	~
10	45 RS	270 CCW	3, 5	~	~	~	~	~
11	60 RS	0 UP	3	~	~	~	~	~
12	60 RS	90 CW	3	~	~	~	~	~
13	60 RS	180 DN	1, 3	16-075	16-076	~	~	~
14	60 RS	270 CCW	1, 3	16-077	~	~	~	~
15	0 BM	N/A	5	~	~	~	~	~
16	0 BM	N/A	5	~	~	~	~	~
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Comments: Note 1: Recorded as 16-061.
(3) Stabilizer bracket geometry.
(5) Segregates Shell 4 side (non relevant).

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: 12/20/93

Reviewed By: R.O. Forman Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Examination Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-11
Patch ID: BF-023
Ind. Data Sheet Series: 16-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	1	16-078	16-079	~	~	~
3	70 RL	0 UP	1	16-080	~	~	~	~
4	70 RL	90 CW	NRI	~	~	~	~	~
5	70 RL	180 DN	1	16-081	~	~	~	~
6	70 RL	270 CCW	NRI	~	~	~	~	~
7	45 RS	0 UP	3	~	~	~	~	~
8	45 RS	90 CW	3	~	~	~	~	~
9	45 RS	180 DN	1, 3	16-082	16-083	~	~	~
10	45 RS	270 CCW	3	~	~	~	~	~
11	60 RS	0 UP	3	~	~	~	~	~
12	60 RS	90 CW	3	~	~	~	~	~
13	60 RS	180 DN	1, 3	16-084	~	~	~	~
14	60 RS	270 CCW	3	~	~	~	~	~
15	0 BM	N/A	NRI	~	~	~	~	~
16	0 BM	N/A	NRI	~	~	~	~	~
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Comments: (3) Segregates Shell 4 side (non relevant)

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: 12/18/93

Reviewed By: R.O. Forman Level: II Date: 12-20-93

EXAM-DS2 V.1 9/28/93

R1152

GE Nuclear Energy

GERIS 2000 Examination Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-12
Patch ID: BF-024
Ind. Data Sheet Series: 16-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	1	16-085	~	~	~	~
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: [signature]
Level: III Date: 12/19/93

Reviewed By: R.O Forman
Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-01
Patch ID: BF-013
Ind. Data Sheet No.: 16-001

Indication: 16-001 **Channel:** 5 **Angle:** 70 **Direction:** 180

Amp.	X	20% Min Y	TOF	50% Min Y	TOF	@ Max Y	TOF	50% Max Y	TOF	20% Max Y	TOF	Remarks
23.7%	23.35	~	~	~	~	574.95	20.24	~	~	~	~	~
44.3%	23.60	~	~	~	~	574.95	20.24	~	~	~	~	~
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Comments: No apparent tip signals.
Indication has no determinable thruwall dimension and is acceptable to IWB-3510-1.

Analyst: [illegible signature]
Level: III Date: 12/15/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

EXAM-DS3 V.2 10/22/93

00358

R 1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-01
Patch ID: BF-013
Ind. Data Sheet No.: 16-002

Indication: 16-002 **Channel:** 5 **Angle:** 70 **Direction:** 180

Amp.	X	20% Min Y	TOF	50% Min Y	TOF	@ Max Y	TOF	50% Max Y	TOF	20% Max Y	TOF	Remarks
44.3%	35.85	~	~	~	~	578.45	44.16	~	~	~	~	~
64.5%	36.10	~	~	~	~	578.45	44.16	~	~	~	~	~
68.7%	36.35	~	~	~	~	578.70	46.40	~	~	~	~	~
26.9%	36.60	~	~	~	~	578.20	42.24	~	~	~	~	~
34.5%	36.85	~	~	~	~	578.45	44.09	~	~	~	~	~
41.6%	37.10	~	~	~	~	578.20	42.32	~	~	~	~	~
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Comments: No apparent tip signals.
Indication has no determinable thruwall dimension and is acceptable to IWB-3510-1.

Analyst: [signature] Level: III Date: 12/15/93

Reviewed By: R.O. Forman Level: II Date: 12-20-93

R 1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-01
Patch ID: BF-013
Ind. Data Sheet No.: 16-003

Indication: 16-003 **Channel:** 5 **Angle:** 70 **Direction:** 180

Amp.	X	20% Min Y	TOF	50% Min Y	TOF	@ Max Y	TOF	50% Max Y	TOF	20% Max Y	TOF	Remarks
28.6%	53.10	~	~	~	~	576.70	30.88	~	~	~	~	~
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Comments: No apparent tip signals.
Indication has no determinable thruwall dimension and is acceptable to IWB-3510-1.

Analyst: [signature]
Level: III Date: 12/15/93

Reviewed By: R. O. Forman
Level: II Date: 12-20-93

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-01
Patch ID: BF-013
Ind. Data Sheet No.: 16-004

Indication: 16-004 **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
26.9%	573.55	69.29	2.19	~	~	69.79	1.92	~	~	70.04	1.72	~
30.4%	573.80	69.54	2.09	~	~	69.79	2.06	~	~	70.29	1.58	~
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Comments: Thruwall size determined by the Reg. Guide 20% beam spread correction method.
Indication has no determinable thruwall dimension and is acceptable to IWB-3510-1.

TW = 0.00 L = 0.50 S = 1.46 with clad

Analyst: [signature]
Level: II Date: 12/15/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-01
Patch ID: BF-013
Ind. Data Sheet No.: 16-005

Indication: 16-005 **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
11.9%	44.40	~	~	~	~	578.25	5.74	~	~	~	~	~
15.3%	44.65	~	~	~	~	577.75	5.34	~	~	~	~	SPOT
13.5%	44.90	~	~	~	~	578.00	5.55	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = 0.34 L = 0.50 S = 2.66

Analyst: [signature]
Level: III
Date: 12/15/93

Reviewed By: R.O. Forman
Level: II
Date: 12-20-93

GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-013

Exam Data Sheet No.: E-16-01
Ind. Data Sheet No.: 16-005
Indication: 16-005

Flaw Thruwall Dimension =	0.34
Flaw Length "l" =	0.50
Separation with clad "S" =	N/A
Surface Separation "S" =	2.66

T nominal =	6.38
Clad T nominal =	0.19

Flaw is acceptable by Table IWB-3510-1

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

a/l	Surface %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	~	~
0.10	2.20	2.5	~	~
0.15	2.50	2.9	~	~
0.20	2.80	3.3	~	~
0.25	3.30	3.8	~	~
0.30	3.80	4.4	4.28	4.96 Y
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
			4.28	4.96

a =	0.170
a/l value =	0.340
Y =	1.000

Flaw is Subsurface

Allowed a/t =	4.96%
a/t =	2.66%

Comments:

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-01
Patch ID: BF-013
Ind. Data Sheet No.: 16-006

Indication: 16-006 **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
15.3%	29.40	~	~	~	~	576.25	4.45	~	~	~	~	~
14.4%	29.65	~	~	~	~	576.25	4.45	~	~	~	~	SPOT
11.9%	29.90	~	~	~	~	576.00	4.30	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = 0.23 L = 0.50 S = 3.03 with clad

Analyst: [signature]
Level: III Date: 12/15/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

EXAM-DS3 V.2 10/22/93

00394

R1152

GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-013

Exam Data Sheet No.: E-16-01
Ind. Data Sheet No.: 16-006
Indication: 16-006

Flaw Thruwall Dimension =	0.23
Flaw Length "l" =	0.50
Separation with clad "S" =	3.03
Surface Separation "S" =	2.84

T nominal =	6.38
Clad T nominal =	0.19

Flaw is acceptable by Table IWB-3510-1

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

a/l	Surface %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	~	~
0.10	2.20	2.5	~	~
0.15	2.50	2.9	~	~
0.20	2.80	3.3	3.10	3.60 Y
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
			3.10	3.60

a =	0.115
a/l value =	0.230
Y =	1.000

Flaw is Subsurface

Allowed a/t =	3.60%
a/t =	1.80%

Comments:

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-01
Patch ID: BF-013
Ind. Data Sheet No.: 16-007

Indication: 16-007 **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
19.6%	52.65	~	~	~	~	576.25	3.06	~	~	~	~	~
30.4%	52.90	~	~	~	~	576.25	3.13	~	~	~	~	SPOT
22.3%	53.15	~	~	~	~	576.00	2.90	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = 0.23 L = 0.50 S = 2.10 with clad

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

Reviewed By: R.O Forman Level: II Date: 12-20-93

EXAM-DS3 V.2 10/22/93

12/13/9316-007.XLS

B1152

GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-013

Exam Data Sheet No.: E-16-01
Ind. Data Sheet No.: 16-007
Indication: 16-007

Flaw Thruwall Dimension =	0.23
Flaw Length "l" =	0.50
Separation with clad "S" =	2.10
Surface Separation "S" =	1.91

T nominal =	6.38
Clad T nominal =	0.19

Flaw is acceptable by Table IWB-3510-1

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

a/l	Surface %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	~	~
0.10	2.20	2.5	~	~
0.15	2.50	2.9	~	~
0.20	2.80	3.3	3.10	3.60 Y
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
			3.10	3.60

a =	0.115
a/l value =	0.230
Y =	1.000

Flaw is Subsurface

Allowed a/t =	3.60%
a/t =	1.80%

Comments:

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-01
Patch ID: BF-013
Ind. Data Sheet No.: 16-008

Indication: 16-008 **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
39.1%	53.90	~	~	~	~	578.00	9.10	~	~	~	~	-15.77 N
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Comments: OD surface indication: crown geometry.
Indication has no determinable thruwall dimension and is acceptable to IWB-3510-1.
15.77 dB below notch sensitivity.

Analyst: [signature]
Level: III Date: 12/15/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

EXAM-DS3 V.2 10/22/93

12/13/93 00398

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-01
Patch ID: BF-013
Ind. Data Sheet No.: 16-009

Indication: 16-009 **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
11.9%	44.96	~	~	~	~	571.55	4.89	~	~	~	~	~
34.5%	45.21	~	~	~	~	571.55	4.96	~	~	~	~	L1
34.5%	45.46	~	~	~	~	571.80	4.71	~	~	~	~	~
26.9%	45.71	~	~	~	~	571.80	4.70	~	~	~	~	~
36.7%	45.96	~	~	~	~	572.05	4.47	~	~	~	~	~
47.2%	46.21	~	~	~	~	571.80	4.77	~	~	~	~	SPOT
36.7%	46.46	~	~	~	~	571.80	4.77	~	~	~	~	~
36.7%	46.71	~	~	~	~	571.80	4.78	~	~	~	~	L2
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Comments: Thruwall size was determined by the SPOT technique.

TW = 0.31 L = 1.50 S = 3.07

Analyst: [signature]
Level: III Date: 12/17/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

B1152

GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-013

Exam Data Sheet No.: E-16-01
Ind. Data Sheet No.: 16-009
Indication: 16-009

Flaw Thruwall Dimension =	0.31
Flaw Length "l" =	1.50
Separation with clad "S" =	N/A
Surface Separation "S" =	3.07

T nominal =	6.38
Clad T nominal =	0.19

Flaw is acceptable by Table IWB-3510-1

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

a/l	Surface %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	~	~
0.10	2.20	2.5	2.22	2.53 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
			2.22	2.53

a =	0.155
a/l value =	0.103
Y =	1.000

Flaw is Subsurface

Allowed a/t =	2.53%
a/t =	2.43%

Comments:

B1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-01
Patch ID: BF-013
Ind. Data Sheet No.: 16-010

Indication: 16-010 **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
25.2%	36.21	~	~	~	~	571.55	3.50	~	~	~	~	~
28.6%	36.46	~	~	~	~	571.80	3.37	~	~	~	~	~
34.5%	36.71	~	~	~	~	571.80	3.37	~	~	~	~	~
39.1%	36.96	~	~	~	~	571.80	3.37	~	~	~	~	SPOT
36.7%	37.21	~	~	~	~	571.80	3.39	~	~	~	~	~
39.1%	37.46	~	~	~	~	571.80	3.39	~	~	~	~	~
39.1%	37.71	~	~	~	~	571.80	3.42	~	~	~	~	~
18.5%	37.96	~	~	~	~	571.80	3.42	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = 0.21 L = 1.75 S = 2.28 with clad

Analyst: [signature] Level: III Date: 12/17/93

Reviewed By: R.O. Forman Level: II Date: 12-20-93

GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-013

Exam Data Sheet No.: E-16-01
Ind. Data Sheet No.: 16-010
Indication: 16-010

Flaw Thruwall Dimension = 0.21
Flaw Length "l" = 1.75
Separation with clad "S" = 2.28
Surface Separation "S" = 2.09

T nominal = 6.38
Clad T nominal = 0.19

Flaw is acceptable by Table IWB-3510-1

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

a/l	Surface %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	2.04	2.26 Y
0.10	2.20	2.5	~	~
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
			2.04	2.26

a = 0.105
a/l value = 0.060
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.26%
a/t = 1.65%

Comments:

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-01
Patch ID: BF-013
Ind. Data Sheet No.: 16-011

Indication: 16-011 **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
211.8%	74.21	~	~	~	~	565.05	8.79	~	~	~	~	~
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Comments: OD Surface geometry.
1.09 dB above notch sensitivity.

Analyst: [illegible]
Level: III Date: 12/17/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-02
Patch ID: BF-014
Ind. Data Sheet No.: 16-012

Indication: 16-012 **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
106.4%	569.30	~	~	100.15	5.51	100.40	5.53	100.90	5.51	~	~	~
~	~	~	~	~	~	~	~	~	~	~	~	~
57.0%	568.05	~	~	~	~	100.65	5.66	~	~	~	~	~
136.8%	568.30	~	~	99.90	5.56	100.65	5.56	100.90	5.58	~	~	~
106.4%	568.55	~	~	99.65	5.49	100.65	5.47	100.90	5.49	~	~	~
155.1%	568.80	~	~	99.90	5.53	100.90	5.47	101.15	5.47	~	~	~
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Comments: This indication is over a stabilizer bracket.
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: 12/17/93

Reviewed By: R.O. Forman Level: II Date: 12-20-93

B1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-02
Patch ID: BF-014
Ind. Data Sheet No.: 16-013

Indication: 16-013 **Channel:** 5 **Angle:** 70 **Direction:** 180

Amp.	X	20% Min Y	TOF	50% Min Y	TOF	@ Max Y	TOF	50% Max Y	TOF	20% Max Y	TOF	Remarks
50.2%	127.85	~	~	~	~	577.95	40.00	~	~	~	~	~
68.7%	128.10	~	~	~	~	577.95	39.76	~	~	~	~	~
94.0%	128.35	~	~	~	~	577.70	37.84	~	~	~	~	~
64.5%	128.60	~	~	~	~	577.70	37.92	~	~	~	~	~
36.7%	128.85	~	~	~	~	577.70	38.00	~	~	~	~	~
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Comments: No apparent tip signals.
Indication has no determinable thruwall dimension and is acceptable to IWB-3510-1.

Analyst: [signature]
Level: III Date: 12/17/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-02
Patch ID: BF-014
Ind. Data Sheet No.: 16-014

Indication: 16-014 **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
478.1%	101.71	~	~	~	~	564.80	9.89	~	~	~	~	+5.98 N
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Comments: OD geometry stabilizer bracket at 45°.

Analyst: [signature]
Level: III Date: 12/17/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

EXAM-DS3 V.2 10/22/93

12/13/9316-014.XLS

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R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-02
Patch ID: BF-014
Ind. Data Sheet No.: 16-015

Indication: 16-015 **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
25.8%	127.21	~	~	~	~	571.05	4.36	~	~	~	~	~
47.2%	127.46	~	~	~	~	571.05	4.39	~	~	~	~	~
34.5%	127.71	~	~	~	~	571.30	4.20	~	~	~	~	~
17.3%	127.96	~	~	~	~	571.30	4.17	~	~	~	~	~
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Comments: No apparent tip signals.
Indication has no determinable thruwall dimension and is acceptable to IWB-3510-1.

Analyst: [signature]
Level: III Date: 12/17/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-02
Patch ID: BF-014
Ind. Data Sheet No.: 16-016

Indication: 16-016 **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
199.1%	568.30	~	~	~	~	97.04	9.54	~	~	~	~	~
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Comments: OD geometry stabilizer bracket at 45°.

Analyst: [signature]
Level: III Date: 12/17/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-02
Patch ID: BF-014
Ind. Data Sheet No.: 16-017

Indication: 16-017 **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
25.2%	133.96	~	~	~	~	571.05	2.83	~	~	~	~	~
23.7%	134.21	~	~	~	~	571.05	2.86	~	~	~	~	~
36.7%	134.46	~	~	~	~	571.05	2.86	~	~	~	~	SPOT
53.5%	134.71	~	~	~	~	570.80	3.02	~	~	~	~	~
30.4%	134.96	~	~	~	~	570.80	3.07	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = 0.20 L = 1.00 S = 2.04 with clad

Analyst: [signature] Level: II Date: 12/17/93

Reviewed By: R.O. Forman Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-014

Exam Data Sheet No.: E-16-02
Ind. Data Sheet No.: 16-017
Indication: 16-017

Flaw Thruwall Dimension =	0.20
Flaw Length "l" =	1.00
Separation with clad "S" =	2.04
Surface Separation "S" =	1.85

T nominal =	6.38
Clad T nominal =	0.19

Flaw is acceptable by Table IWB-3510-1

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

a/l	Surface %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	~	~
0.10	2.20	2.5	2.20	2.50 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
			2.20	2.50

a =	0.100
a/l value =	0.100
Y =	1.000

Flaw is Subsurface

Allowed a/t =	2.50%
a/t =	1.57%

Comments:

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-02
Patch ID: BF-014
Ind. Data Sheet No.: 16-018

Indication: 16-018 **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
26.9%	134.46	~	~	~	~	570.05	4.08	~	~	~	~	~
50.2%	134.71	~	~	~	~	570.05	4.06	~	~	~	~	~
28.6%	134.96	~	~	~	~	569.80	4.21	~	~	~	~	SPOT
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Comments: Thruwall size was determined by the SPOT technique.

TW = 0.20 L = 0.50 S = 2.77 with clad

Analyst: [signature] Level: III Date: 12/17/93

Reviewed By: R.O. Forman Level: II Date: 12-20-93

GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-014

Exam Data Sheet No.: E-16-02
Ind. Data Sheet No.: 16-018
Indication: 16-018

Flaw Thruwall Dimension =	0.20
Flaw Length "l" =	0.50
Separation with clad "S" =	2.77
Surface Separation "S" =	2.58

T nominal =	6.38
Clad T nominal =	0.19

Flaw is acceptable by Table IWB-3510-1

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

a/l	Surface %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	~	~
0.10	2.20	2.5	~	~
0.15	2.50	2.9	~	~
0.20	2.80	3.3	2.80	3.30 Y
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
			2.80	3.30

a =	0.100
a/l value =	0.200
Y =	1.000

Flaw is Subsurface

Allowed a/t =	3.30%
a/t =	1.57%

Comments:

0471 0000 1525

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-02
Patch ID: BF-014
Ind. Data Sheet No.: 16-019

Indication: 16-019 **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
28.6%	133.71	~	~	~	~	571.55	9.92	~	~	~	~	~
44.3%	133.96	~	~	~	~	571.80	9.72	~	~	~	~	~
64.5%	134.21	~	~	~	~	571.80	9.79	~	~	~	~	~
36.7%	134.46	~	~	~	~	571.80	9.72	~	~	~	~	~
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Comments: OD Surface geometry.
10.87 dB below notch sensitivity.

TW = 0.127 L = 0.75 S = 0.00

Analyst: CJ M
Level: III Date: 12/17/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

EXAM-DS3 V.2 10/22/93

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12/14/9316-019.XLS

00413

GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-014

Exam Data Sheet No.: E-16-02
Ind. Data Sheet No.: 16-019
Indication: 16-019

Flaw Thruwall Dimension = 0.127
Flaw Length "l" = 0.75
Separation with clad "S" = N/A
Surface Separation "S" = 0.00

T nominal = 6.38
Clad T nominal = 0.19

Flaw is acceptable by Table IWB-3510-1

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

a/l	Surface %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	~	~
0.10	2.20	2.5	~	~
0.15	2.50	2.9	2.62	3.05 Y
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
			2.62	0.00

a = 0.127
a/l value = 0.169
Y = 0.000

Flaw is Surface

Allowed a/t = 2.62%
a/t = 1.99%

Comments: Evaluated to notch sensitivity assigned thruwall dimension = 2% T.

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-02
Patch ID: BF-014
Ind. Data Sheet No.: 16-020

Indication: 16-020 **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
136.8%	98.65	~	~	~	~	567.00	10.31	~	~	~	~	-6.52 N
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Comments: OD geometry stabilizer bracket at 45°.

Analyst: [signature]
Level: III Date: 12/17/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-02
Patch ID: BF-014
Ind. Data Sheet No.: 16-021

Indication: 16-021 **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
13.5%	127.65	~	~	~	~	575.75	3.03	~	~	~	~	~
22.3%	127.90	~	~	~	~	576.25	3.38	~	~	~	~	PATT
34.5%	128.15	~	~	~	~	576.25	3.14	~	~	~	~	~
41.6%	128.40	~	~	~	~	576.00	2.92	~	~	~	~	~
28.6%	128.65	~	~	~	~	576.00	2.97	~	~	~	~	~
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Comments: Thruwall size was determined by the PATT technique.

TW = 0.36 L = 1.00 S = 1.88 with clad

Analyst: [signature] Level: III Date: 12/17/93

Reviewed By: R.O. Forman Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-014

Exam Data Sheet No.: E-16-02
Ind. Data Sheet No.: 16-021
Indication: 16-021

Flaw Thruwall Dimension =	0.36
Flaw Length "l" =	1.00
Separation with clad "S" =	1.88
Surface Separation "S" =	1.69
T nominal =	6.38
Clad T nominal =	0.19

Flaw is acceptable by Table IWB-3510-1

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

a/l	Surface %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	~	~
0.10	2.20	2.5	~	~
0.15	2.50	2.9	2.68	3.14 Y
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
			2.68	3.14

a =	0.180
a/l value =	0.180
Y =	1.000

Flaw is Subsurface

Allowed a/t =	3.14%
a/t =	2.82%

Comments:

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-02
Patch ID: BF-014
Ind. Data Sheet No.: 16-022

Indication: 16-022 **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
398.1%	570.25	~	~	~	~	99.46	9.25	~	~	~	~	~
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Comments: OD geometry stabilizer bracket at 45°.

Analyst: [signature]
Level: III Date: 12/17/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-02
Patch ID: BF-014
Ind. Data Sheet No.: 16-023

Indication: 16-023 **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
449.3%	96.85	~	~	~	~	561.86	12.86	~	~	~	~	+15.22 N
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Comments: OD geometry stabilizer bracket at 45°.

Analyst: [signature]
Level: III Date: 12/17/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

R 1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-02
Patch ID: BF-014
Ind. Data Sheet No.: 16-024

Indication: 16-024 **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
175.6%	92.79	~	~	~	~	567.25	12.96	~	~	~	~	+6.52 N
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Comments: OD geometry stabilizer bracket at 45°.

Analyst: [signature]
Level: III Date: 12/17/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-02
Patch ID: BF-014
Ind. Data Sheet No.: 16-025

Indication: 16-025 **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
240.2%	97.54	~	~	~	~	570.70	13.56	~	~	~	~	+6.52 N
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Comments: OD geometry stabilizer bracket at 45.°

Analyst: [signature]
Level: III Date: 12/17/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-02
Patch ID: BF-014
Ind. Data Sheet No.: 16-026

Indication: 16-026 **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
396.3%	103.10	~	~	~	~	567.50	11.93	~	~	~	~	+11.96 N
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Comments: OD geometry stabilizer bracket at 45°.

Analyst: [signature]
Level: III Date: 12/17/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93 (12-28-93 corrected to 20, initialed 12-20-93)

EXAM-DS3 V.2 10/22/93

59 of 245

12/14/93 ... .XLS 00422

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-03
Patch ID: BF-015
Ind. Data Sheet No.: 16-027

Indication: 16-027 **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
77.9%	567.80	~	~	166.40	1.86	166.65	1.86	166.90	1.97	~	~	~
68.7%	568.05	~	~	166.15	1.86	166.65	1.86	166.90	1.88	~	~	~
255.9%	568.30	~	~	166.15	1.83	166.65	1.88	166.90	1.86	~	~	~
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Comments: Non-relevant straight beam indications due to plate segregates, no significant loss of back wall.

Analyst: [signature]
Level: III Date: 12/17/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

0473 0000 1532

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-03
Patch ID: BF-015
Ind. Data Sheet No.: 16-028

Indication: 16-028 **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
57.0%	569.30	~	~	~	~	180.65	5.84	~	~	~	~	~
50.2%	569.55	~	~	179.90	5.81	180.15	5.86	180.40	5.81	~	~	~
146.0%	569.80	~	~	179.90	5.78	180.40	5.79	180.90	5.78	~	~	~
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Comments: Non-relevant straight beam indications due to plate segregates, no significant loss of back wall.

Analyst: [signature] Level: III Date: 12/17/93

Reviewed By: R.O. Forman Level: II Date: 12-20-93

6471 0000 1537

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-03
Patch ID: BF-015
Ind. Data Sheet No.: 16-029

Indication: 16-029 **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
41.6%	156.90	~	~	~	~	569.00	41.36	~	~	~	~	~
39.1%	157.15	~	~	~	~	569.00	42.00	~	~	~	~	~
39.1%	157.40	~	~	~	~	569.25	38.88	~	~	~	~	~
68.7%	157.65	~	~	~	~	569.00	41.12	~	~	~	~	~
53.5%	157.90	~	~	~	~	569.00	41.36	~	~	~	~	~
57.0%	158.15	~	~	~	~	569.00	41.36	~	~	~	~	~
28.6%	158.40	~	~	~	~	569.00	41.36	~	~	~	~	~
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Comments: No apparent tip signals.
Indication has no determinable thruwall dimension and is acceptable to IWB-3510-1.

Analyst: [signature] Level: III Date: 12/17/93

Reviewed By: R.O. Forman Level: II Date: 12-20-93

B1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-03
Patch ID: BF-015
Ind. Data Sheet No.: 16-030

Indication: 16-030 **Channel:** 4 **Angle:** 70 **Direction:** 90

Amp.	Y	20% Min X	TOF	50% Min X	TOF	@ Max X	TOF	50% Max X	TOF	20% Max X	TOF	Remarks
60.6%	573.00	~	~	~	~	156.10	44.72	~	~	~	~	~
22.3%	573.25	~	~	~	~	156.10	42.56	~	~	~	~	~
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Comments: No apparent tip signals.
Indication has no determinable thruwall dimension and is acceptable to IWB-3510-1.

Analyst: [signature]
Level: III Date: 12/17/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-03
Patch ID: BF-015
Ind. Data Sheet No.: 16-031

Indication: 16-031 **Channel:** 5 **Angle:** 70 **Direction:** 180

Amp.	X	20% Min Y	TOF	50% Min Y	TOF	@ Max Y	TOF	50% Max Y	TOF	20% Max Y	TOF	Remarks
44.3%	156.85	~	~	~	~	573.95	38.00	~	~	~	~	~
68.7%	157.10	~	~	~	~	574.20	40.32	~	~	~	~	~
44.3%	157.35	~	~	~	~	574.20	39.76	~	~	~	~	~
25.2%	157.60	~	~	~	~	574.20	39.60	~	~	~	~	~
25.2%	157.85	~	~	~	~	574.20	40.80	~	~	~	~	~
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Comments: No apparent tip signals.
Indication has no determinable thruwall dimension and is acceptable to IWB-3510-1.

Analyst: [signature]
Level: II Date: 12/17/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-03
Patch ID: BF-015
Ind. Data Sheet No.: 16-032

Indication: 16-032 **Channel:** 5 **Angle:** 70 **Direction:** 180

Amp.	X	20% Min Y	TOF	50% Min Y	TOF	@ Max Y	TOF	50% Max Y	TOF	20% Max Y	TOF	Remarks
36.7%	160.35	~	~	~	~	574.45	34.32	~	~	~	~	~
22.3%	160.60	~	~	~	~	574.45	34.00	~	~	~	~	~
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Comments: No apparent tip signals.
Indication has no determinable thruwall and is acceptable to IWB-3510.

Analyst: [signature]
Level: III Date: 12/17/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-03
Patch ID: BF-015
Ind. Data Sheet No.: 16-033

Indication: 16-033 **Channel:** 6 **Angle:** 70 **Direction:** 270

Amp.	Y	20% Min X	TOF	50% Min X	TOF	@ Max X	TOF	50% Max X	TOF	20% Max X	TOF	Remarks
53.5%	572.95	~	~	~	~	158.15	41.20	~	~	~	~	~
41.6%	573.20	~	~	~	~	158.40	41.68	~	~	~	~	~
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Comments: No apparent tip signals.
Indication has no determinable thruwall dimension and is acceptable to IWB-3510-1.

Analyst: [signature]
Level: III Date: 12/17/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-03
Patch ID: BF-015
Ind. Data Sheet No.: 16-034

Indication: 16-034 **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
32.4%	156.96	~	~	~	~	570.55	3.39	~	~	~	~	~
53.5%	157.21	~	~	~	~	570.55	3.39	~	~	~	~	~
47.2%	157.46	~	~	~	~	5770.55	3.39	~	~	~	~	Delta MP
39.1%	157.71	~	~	~	~	570.80	3.26	~	~	~	~	~
19.6%	157.96	~	~	~	~	569.80	4.09	~	~	~	~	~
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Comments: Thruwall size was determined by the Delta MP technique.
T measured = 6.85 w/ clad = 6.66 w/o clad

TW = 0.49 L = 1.00 S = 2.15 with clad

Analyst: [signature] Level: III Date: 12/17/93

Reviewed By: R.O. Forman Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-015

Exam Data Sheet No.: E-16-03
Ind. Data Sheet No.: 16-034
Indication: 16-034

Flaw Thruwall Dimension =	0.49
Flaw Length "l" =	1.00
Separation with clad "S" =	2.15
Surface Separation "S" =	1.96

T measured =	6.66
Clad T nominal =	0.19

Flaw is acceptable by Table IWB-3510-1

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

a/l	Surface %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	~	~
0.10	2.20	2.5	~	~
0.15	2.50	2.9	~	~
0.20	2.80	3.3	3.25	3.75 Y
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
			3.25	3.75

a =	0.245
a/l value =	0.245
Y =	1.000

Flaw is Subsurface

Allowed a/t =	3.75%
a/t =	3.68%

Comments: T measured with clad = 6.85" without = 6.66".

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-03
Patch ID: BF-015
Ind. Data Sheet No.: 16-035

Indication: 16-035 **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
30.4%	171.71	572.30	2.48	~	~	572.55	2.32	~	~	572.80	2.13	~
30.4%	171.96	~	~	~	~	572.80	2.16	~	~	~	~	~
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Comments: Thruwall size determined by the Reg. Guide 20% beam spread correction method.
Indication has no determinable thruwall dimension and is acceptable to IWB-3510-1.

TW = 0.00 L = 0.25 S = 1.64 with clad

Analyst: CQ Mas
Level: III
Date: 12/17/93

Reviewed By: R.O. Forman
Level: II
Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-03
Patch ID: BF-015
Ind. Data Sheet No.: 16-036

Indication: 16-036 **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
18.5%	572.55	~	~	~	~	154.54	3.45	~	~	~	~	~
34.5%	572.80	~	~	~	~	154.79	3.40	~	~	~	~	L1
82.9%	573.05	~	~	154.29	3.67	154.79	3.30	155.04	3.08	~	~	~
68.7%	573.30	~	~	154.29	3.81	154.79	3.38	155.04	3.16	~	~	~
44.3%	573.55	~	~	~	~	154.54	3.48	~	~	~	~	L2
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Comments: No apparent tip signals.
Thruwall size determined by the ASME 50% DAC method.

TW = 0.46 L = 0.75 S = 2.10 with clad

Analyst: [signature] Level: III Date: 12/17/93

Reviewed By: R.O. Forman Level: II Date: 12-20-93

EXAM-DS3 V.2 10/22/93

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00433

R1152

GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-015

Exam Data Sheet No.: E-16-03
Ind. Data Sheet No.: 16-036
Indication: 16-036

Flaw Thruwall Dimension =	0.46
Flaw Length "l" =	0.75
Separation with clad "S" =	2.10
Surface Separation "S" =	1.91

T nominal =	6.38
Clad T nominal =	0.19

Flaw is acceptable by Table IWB-3510-1

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

a/l	Surface %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	~	~
0.10	2.20	2.5	~	~
0.15	2.50	2.9	~	~
0.20	2.80	3.3	~	~
0.25	3.30	3.8	~	~
0.30	3.80	4.4	3.88	4.49 Y
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
			3.88	4.49

a =	0.230
a/l value =	0.307
Y =	1.000

Flaw is Subsurface

Allowed a/t =	4.49%
a/t =	3.61%

Comments:

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-03
Patch ID: BF-015
Ind. Data Sheet No.: 16-037

Indication: 16-037 **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
20.9%	573.05	~	~	~	~	158.59	3.45	~	~	~	~	~
36.7%	573.30	~	~	~	~	159.04	3.35	~	~	~	~	~
34.5%	573.55	~	~	~	~	158.79	3.43	~	~	~	~	~
16.3%	573.80	~	~	~	~	159.04	3.35	~	~	~	~	~
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Comments: No apparent tip signals.
Indication has no determinable thruwall dimension and is acceptable to IWB-3510-1.

Analyst: [illegible]
Level: II Date: 12/17/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-03
Patch ID: BF-015
Ind. Data Sheet No.: 16-038

Indication: 16-038 **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
11.2%	133.65	~	~	~	~	574.75	2.78	~	~	~	~	~
19.6%	133.90	~	~	~	~	575.00	2.96	~	~	~	~	~
16.3%	134.15	~	~	~	~	575.00	2.92	~	~	~	~	SPOT
23.7%	134.40	~	~	~	~	574.75	2.75	~	~	~	~	~
18.5%	134.65	~	~	~	~	575.00	2.94	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = 0.25 L = 1.00 S = 1.82 with clad

Analyst: [signature] Level: III Date: 12/17/93

Reviewed By: R.D. Forman Level: II Date: 12-20-93

B1152

GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-015

Exam Data Sheet No.: E-16-03
Ind. Data Sheet No.: 16-038
Indication: 16-038

Flaw Thruwall Dimension =	0.25
Flaw Length "l" =	1.00
Separation with clad "S" =	1.82
Surface Separation "S" =	1.63

T nominal =	6.38
Clad T nominal =	0.19

Flaw is acceptable by Table IWB-3510-1

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

a/l	Surface %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	~	~
0.10	2.20	2.5	2.35	2.70 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
			2.35	2.70

a =	0.125
a/l value =	0.125
Y =	1.000

Flaw is Subsurface

Allowed a/t =	2.70%
a/t =	1.96%

Comments:

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-03
Patch ID: BF-015
Ind. Data Sheet No.: 16-039

Indication: 16-039 **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
10.5%	134.90	~	~	~	~	575.75	2.78	~	~	~	~	~
36.7%	135.15	~	~	~	~	575.75	2.76	~	~	~	~	~
44.3%	135.40	~	~	~	~	575.75	2.80	~	~	~	~	~
20.9%	135.65	~	~	~	~	575.75	2.76	~	~	~	~	SPOT
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Comments: Thruwall size was determined by the SPOT technique.

TW = 0.17 L = 0.75 S = 1.89 with clad

Analyst: [signature]
Level: II Date: 12/17/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-015

Exam Data Sheet No.: E-16-03
Ind. Data Sheet No.: 16-039
Indication: 16-039

Flaw Thruwall Dimension =	0.17
Flaw Length "l" =	0.75
Separation with clad "S" =	1.89
Surface Separation "S" =	1.70

T nominal =	6.38
Clad T nominal =	0.19

Flaw is acceptable by Table IWB-3510-1

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

a/l	Surface %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	~	~
0.10	2.20	2.5	2.28	2.61 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
			2.28	2.61

a =	0.085
a/l value =	0.113
Y =	1.000

Flaw is Subsurface

Allowed a/t =	2.61%
a/t =	1.33%

Comments:

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-03
Patch ID: BF-015
Ind. Data Sheet No.: 16-040

Indication: 16-040 **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
7.2%	155.65	~	~	~	~	575.75	4.38	~	~	~	~	~
15.3%	155.90	~	~	~	~	575.75	4.28	~	~	~	~	SPOT
12.7%	156.15	~	~	~	~	576.00	4.45	~	~	~	~	~
6.4%	156.40	~	~	~	~	576.00	4.56	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = 0.17 L = 0.75 S = 2.94 with clad

Analyst: [signature] Level: III Date: 12/17/93

Reviewed By: R.O. Forman Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-015

Exam Data Sheet No.: E-16-03
Ind. Data Sheet No.: 16-040
Indication: 16-040

Flaw Thruwall Dimension = 0.17
Flaw Length "l" = 0.75
Separation with clad "S" = 2.94
Surface Separation "S" = 2.75

T nominal = 6.38
Clad T nominal = 0.19

Flaw is acceptable by Table IWB-3510-1

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

a/l	Surface %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	~	~
0.10	2.20	2.5	2.28	2.61 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
			2.28	2.61

a = 0.085
a/l value = 0.113
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.61%
a/t = 1.33%

Comments:

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B1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-03
Patch ID: BF-015
Ind. Data Sheet No.: 16-041

Indication: 16-041 **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
19.6%	157.40	~	~	~	~	575.00	3.09	~	~	~	~	~
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Comments: No apparent tip signals.
Indication has no determinable thruwall dimension and is acceptable to IWB-3510-1.

Analyst: [signature]
Level: III Date: 12/17/93

Reviewed By: R.D. Forman
Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-03
Patch ID: BF-015
Ind. Data Sheet No.: 16-042

Indication: 16-042 **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
9.3%	159.90	~	~	~	~	575.75	2.95	~	~	~	~	~
22.3%	160.15	~	~	~	~	575.75	2.97	~	~	~	~	L1
50.2%	160.40	~	~	~	~	575.75	2.93	~	~	~	~	SPOT
25.2%	160.65	~	~	~	~	575.50	2.76	~	~	~	~	L2
8.2%	160.90	~	~	~	~	575.50	2.74	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = 0.28 L = 0.50 S = 1.93 with clad

Analyst: [signature] Reviewed By: R.O. Forman
Level: III Date: 12/17/93 Level: II Date: 12-20-93

GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-015

Exam Data Sheet No.: E-16-03
Ind. Data Sheet No.: 16-042
Indication: 16-042

Flaw Thruwall Dimension = 0.28
Flaw Length "l" = 0.50
Separation with clad "S" = 1.93
Surface Separation "S" = 1.74

T nominal = 6.38
Clad T nominal = 0.19

Flaw is acceptable by Table IWB-3510-1

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

a/l	Surface %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	~	~
0.10	2.20	2.5	~	~
0.15	2.50	2.9	~	~
0.20	2.80	3.3	~	~
0.25	3.30	3.8	3.60	4.16 Y
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
			3.60	4.16

a = 0.140
a/l value = 0.280
Y = 1.000

Flaw is Subsurface

Allowed a/t = 4.16%
a/t = 2.19%

Comments:

R 1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-03
Patch ID: BF-015
Ind. Data Sheet No.: 16-043

Indication: 16-043 **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
9.9%	164.90	~	~	~	~	576.25	3.43	~	~	~	~	~
17.3%	165.15	~	~	~	~	576.25	3.66	~	~	~	~	SPOT
20.9%	165.40	~	~	~	~	576.00	3.48	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = 0.31 L = 0.50 S = 2.31 with clad

Analyst: [signature]
Level: II Date: 12/17/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

R 1152

GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-015

Exam Data Sheet No.: E-16-03
Ind. Data Sheet No.: 16-043
Indication: 16-043

Flaw Thruwall Dimension =	0.31
Flaw Length "l" =	0.50
Separation with clad "S" =	2.31
Surface Separation "S" =	2.12

T nominal =	6.38
Clad T nominal =	0.19

Flaw is acceptable by Table IWB-3510-1

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

a/l	Surface %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	~	~
0.10	2.20	2.5	~	~
0.15	2.50	2.9	~	~
0.20	2.80	3.3	~	~
0.25	3.30	3.8	~	~
0.30	3.80	4.4	3.92	4.54 Y
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
			3.92	4.54

a =	0.155
a/l value =	0.310
Y =	1.000

Flaw is Subsurface

Allowed a/t =	4.54%
a/t =	2.43%

Comments:

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-03
Patch ID: BF-015
Ind. Data Sheet No.: 16-044

Indication: 16-044 **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
39.1%	572.75	~	~	~	~	159.46	3.11	~	~	~	~	~
50.2%	573.00	~	~	~	~	159.46	3.03	~	~	~	~	~
41.6%	573.25	~	~	~	~	159.96	3.57	~	~	~	~	~
17.3%	573.50	~	~	~	~	159.96	3.45	~	~	~	~	~
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Comments: Multiple reflectors. No apparent tip signals.
Indication has no determinable thruwall dimension and is acceptable to IWB-3510-1.

Analyst: [signature] Level: III Date: 12/17/93

Reviewed By: R.O. Forman Level: II Date: 12-20-93

EXAM-DS3 V.2 10/22/93

12/14/9316-044.XLS

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R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-04
Patch ID: BF-016
Ind. Data Sheet No.: 16-045

Indication: 16-045 **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
57.0%	215.40	~	~	~	~	572.25	35.28	~	~	~	~	~
30.4%	215.65	~	~	~	~	572.50	33.20	~	~	~	~	~
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Comments: No apparent tip signals.
Indication has no determinable thruwall dimension and is acceptable to IWB-3510-1.

Analyst: [signature]
Level: III Date: 12/18/93

Reviewed By: R.O. Zorman
Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-04
Patch ID: BF-016
Ind. Data Sheet No.: 16-046

Indication: 16-046 **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
36.7%	256.40	~	~	~	~	572.75	34.96	~	~	~	~	~
32.4%	256.65	~	~	~	~	572.75	34.72	~	~	~	~	~
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Comments: No apparent tip signals.
Indication has no determinable thruwall dimension and is acceptable to IWB-3510-1.

Analyst: C. K. M. Level: III Date: 12/18/93

Reviewed By: R.O. Forman Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-04
Patch ID: BF-016
Ind. Data Sheet No.: 16-047

Indication: 16-047 **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
16.3%	214.96	~	~	~	~	571.05	4.76	~	~	~	~	~
34.5%	215.21	~	~	~	~	571.05	4.75	~	~	~	~	~
41.6%	215.46	~	~	~	~	571.05	4.77	~	~	~	~	~
36.7%	215.71	~	~	~	~	571.05	4.76	~	~	~	~	~
50.2%	215.96	~	~	~	~	571.30	4.56	~	~	~	~	SPOT
26.9%	216.21	~	~	~	~	571.30	4.53	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = 0.20 L = 1.25 S = 3.12 with clad

Analyst: [signature]
Level: III Date: 12/18/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-016

Exam Data Sheet No.: E-16-04
Ind. Data Sheet No.: 16-047
Indication: 16-047

Flaw Thruwall Dimension =	0.20
Flaw Length "l" =	1.25
Separation with clad "S" =	3.12
Surface Separation "S" =	2.93

T nominal =	6.38
Clad T nominal =	0.19

Flaw is acceptable by Table IWB-3510-1

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

a/l	Surface %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	2.12	2.38 Y
0.10	2.20	2.5	~	~
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
			2.12	2.38

a =	0.100
a/l value =	0.080
Y =	1.000

Flaw is Subsurface

Allowed a/t =	2.38%
a/t =	1.57%

Comments:

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-05
Patch ID: BF-017
Ind. Data Sheet No.: 16-048

Indication: 16-048 **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
88.2%	293.21	~	~	~	~	572.45	3.98	~	~	~	~	~
128.4%	293.46	~	~	570.45	4.02	572.45	3.98	572.95	4.04	~	~	~
187.1%	293.71	~	~	570.45	3.96	572.45	3.93	572.95	3.98	~	~	~
187.1%	293.96	~	~	570.45	3.85	572.45	3.85	572.95	3.87	~	~	~
155.1%	294.21	~	~	570.45	3.93	572.20	3.78	572.70	3.93	~	~	~
328.5%	294.46	~	~	570.70	3.93	572.45	3.78	572.70	2.78	~	~	~
695.8%	294.71	~	~	570.70	3.91	572.45	3.73	573.20	3.65	~	~	~
653.9%	294.96	~	~	570.70	3.85	572.20	3.72	573.20	3.60	~	~	~
478.1%	295.21	~	~	570.70	3.91	572.20	3.70	573.45	3.70	~	~	~
349.5%	295.46	~	~	570.70	3.85	572.20	3.70	573.45	3.65	~	~	~
509.3%	295.71	~	~	570.45	3.78	572.20	3.70	573.20	3.60	~	~	~
478.1%	295.96	~	~	571.45	3.65	572.45	3.57	573.20	3.58	~	~	~
289.7%	296.21	~	~	570.70	3.72	572.45	3.54	573.20	3.60	~	~	~
272.3%	296.46	~	~	571.70	3.72	572.70	3.45	572.95	3.50	~	~	~
165.0%	296.71	~	~	570.95	3.80	572.45	3.45	573.45	3.63	~	~	~
187.1%	296.96	~	~	571.70	3.67	572.45	3.47	573.20	3.45	~	~	~
155.1%	297.21	~	~	570.95	3.65	572.45	3.45	573.20	3.52	~	~	~
255.9%	297.46	~	~	570.70	3.72	572.45	3.45	573.20	3.47	~	~	~
349.5%	297.71	~	~	570.95	3.78	572.70	3.42	572.95	3.63	~	~	~
187.1%	297.96	~	~	571.70	3.89	572.95	3.65	572.95	3.60	~	~	~
211.8%	298.21	~	~	572.20	3.54	572.70	3.57	573.20	3.60	~	~	~
225.7%	298.46	~	~	572.20	3.58	572.45	3.63	573.20	3.54	~	~	~
199.1%	298.71	~	~	572.20	3.60	572.70	3.57	573.20	3.60	~	~	~
82.9%	298.96	~	~	572.20	3.52	572.70	3.52	572.95	3.54	~	~	~
73.1%	299.21	~	~	~	~	572.70	3.65	~	~	~	~	~

Comments: This indication is multiple aligned laminar reflectors.
Loss of backwall accompaning this indication is due to stabilizer bracket below flaw.
This indication is acceptable in accordance with IWB-3510-2, ASME Section XI, 1986 Edition, No Addenda.

Analyst: C. Mas
Level: III Date: 12/17/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-05
Patch ID: BF-017
Ind. Data Sheet No.: 16-049

Indication: 16-049 **Channel:** 1 **Angle:** 0 **Direction:** 0

Amp.	X	20% Min Y	MP	50% Min Y	MP	@ Max Y	MP	50% Max Y	MP	20% Max Y	MP	Remarks
82.9%	306.46	~	~	~	~	572.45	3.76	~	~	~	~	~
396.3%	306.71	~	~	571.95	3.73	572.45	3.87	572.70	3.89	~	~	~
328.5%	306.96	~	~	571.95	3.91	572.20	3.89	572.70	3.83	~	~	~
199.1%	307.21	~	~	571.70	3.87	572.20	3.87	572.70	3.76	~	~	~
128.4%	307.46	~	~	~	~	572.20	3.83	572.45	3.85	~	~	~
77.9%	307.71	~	~	~	~	572.20	3.89	~	~	~	~	~
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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: 12/17/93

Reviewed By: R.O. Forman Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-05
Patch ID: BF-017
Ind. Data Sheet No.: 16-050

Indication: 16-050 **Channel:** 1 **Angle:** 0 **Direction:** 0

Amp.	X	20% Min Y	MP	50% Min Y	MP	@ Max Y	MP	50% Max Y	MP	20% Max Y	MP	Remarks
44.3%	310.96	~	~	~	~	572.45	3.98	~	~	~	~	~
100.0%	311.21	~	~	572.20	3.93	572.45	3.76	572.70	3.83	~	~	~
100.0%	311.46	~	~	~	~	572.70	3.76	572.70	3.72	~	~	~
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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: 12/17/93

Reviewed By: R.D. Forman Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-05
Patch ID: BF-017
Ind. Data Sheet No.: 16-051

Indication: 16-051 **Channel:** 1 **Angle:** 0 **Direction:** 0

Amp.	X	20% Min Y	MP	50% Min Y	MP	@ Max Y	MP	50% Max Y	MP	20% Max Y	MP	Remarks
68.7%	316.46	~	~	~	~	572.45	3.78	~	~	~	~	~
88.5%	316.71	~	~	572.20	3.73	572.45	3.76	572.70	3.83	~	~	~
64.5%	316.96	~	~	~	~	572.20	3.76	572.70	3.72	~	~	~
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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: [illegible signature]
Level: III Date: 12/17/93

Reviewed By: R.O. Forman
Level: II Date: 12-21-93

B1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-05
Patch ID: BF-017
Ind. Data Sheet No.: 16-052

Indication: 16-052 **Channel:** 1 **Angle:** 0 **Direction:** 0

Amp.	X	20% Min Y	MP	50% Min Y	MP	@ Max Y	MP	50% Max Y	MP	20% Max Y	MP	Remarks
60.6%	317.71	~	~	572.20	3.73	572.45	3.83	~	~	~	~	~
155.1%	317.96	~	~	572.20	3.76	572.45	3.76	572.70	3.85	~	~	~
136.8%	318.21	~	~	571.93	3.78	572.00	3.78	572.70	3.83	~	~	~
100.0%	318.46	~	~	~	~	572.20	3.83	572.45	3.83	~	~	~
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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: 12/17/93

Reviewed By: R.O. Forman
Level: II Date: 12-21-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-05
Patch ID: BF-017
Ind. Data Sheet No.: 16-053

Indication: 16-053 **Channel:** 1 **Angle:** 0 **Direction:** 0

Amp.	X	20% Min Y	MP	50% Min Y	MP	@ Max Y	MP	50% Max Y	MP	20% Max Y	MP	Remarks
73.1%	319.46	~	~	572.20	3.89	572.45	3.89	~	~	~	~	~
73.1%	319.71	~	~	~	~	572.45	2.72	~	~	~	~	~
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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: 12/17/93

Reviewed By: R.O. Forman
Level: II Date: 12-21-93

B1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-05
Patch ID: BF-017
Ind. Data Sheet No.: 16-054

Indication: 16-054 **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
57.0%	276.90	~	~	~	~	573.75	32.48	~	~	~	~	~
30.4%	277.19	~	~	~	~	573.50	34.40	~	~	~	~	~
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Comments: No apparent tip signals.
Indication has no determinable thruwall dimension and is acceptable to IWB-3510-1.

Analyst: [signature] Level: III Date: 12/17/93

Reviewed By: R.O. Forman Level: II Date: 12-20-93

EXAM-DS3 V.2 10/22/93

12/17/9316-054.XLS

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R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-05
Patch ID: BF-017
Ind. Data Sheet No.: 16-055

Indication: 16-055 **Channel:** 5 **Angle:** 70 **Direction:** 180

Amp.	X	20% Min Y	TOF	50% Min Y	TOF	@ Max Y	TOF	50% Max Y	TOF	20% Max Y	TOF	Remarks
25.2%	288.10	~	~	~	~	374.45	34.32	~	~	~	~	~
44.3%	288.35	~	~	~	~	574.20	31.92	~	~	~	~	~
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Comments: No apparent tip signals.
Indication has no determinable thruwall dimension and is acceptable to IWB-3510-1.

Analyst: [signature] Level: III Date: 12/17/93

Reviewed By: R.O. Forman Level: II Date: 12-20-93

B1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-004

Exam Data Sheet No.: E-16-07
Patch ID: BF-019R
Ind. Data Sheet No.: 16-056

Indication: 16-056 **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
64.5%	574.05	~	~	~	~	453.65	5.17	~	~	~	~	~
82.9%	574.30	~	~	453.40	5.36	453.65	5.30	454.15	5.12	~	~	~
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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: 12/17/93

Reviewed By: R.O. Forman Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-004

Exam Data Sheet No.: E-16-07
Patch ID: BF-019R
Ind. Data Sheet No.: 16-057

Indication: 16-057 **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
28.6%	455.65	~	~	~	~	578.25	9.71	~	~	~	~	~
44.3%	455.90	~	~	~	~	578.25	9.73	~	~	~	~	~
53.5%	456.15	~	~	~	~	578.25	9.68	~	~	~	~	~
57.0%	456.40	~	~	577.00	8.75	578.50	9.87	579.00	10.19	~	~	~
73.1%	456.65	~	~	576.75	8.48	577.00	8.69	579.00	10.17	~	~	~
53.5%	456.90	~	~	~	~	577.25	8.88	~	~	~	~	~
39.1%	457.15	~	~	~	~	577.00	8.69	~	~	~	~	~
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Comments: OD surface indication. No apparent tip signals.
10.33 dB below Notch sensitivity.

TW = 0.127 L = 0.75 S = 0.00

Analyst: [signature]
Level: III Date: 12/17/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-019R

Exam Data Sheet No.: E-16-07
Ind. Data Sheet No.: 16-057
Indication: 16-057

Flaw Thruwall Dimension =	0.127
Flaw Length "l" =	0.75
Separation with clad "S" =	N/A
Surface Separation "S" =	0.00

T nominal =	6.38
Clad T nominal =	0.19

Flaw is acceptable by Table IWB-3510-1

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

a/l	Surface %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	~	~
0.10	2.20	2.5	~	~
0.15	2.50	2.9	2.62	3.05 Y
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
			2.62	0.00

a =	0.127
a/l value =	0.169
Y =	0.000

Flaw is Surface

Allowed a/t =	2.62%
a/t =	1.99%

Comments: Evaluated to notch sensitivity assigned thruwall dimension = 2%T.

R 1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-004

Exam Data Sheet No.: E-16-09
Patch ID: BF-021R
Ind. Data Sheet No.: 16-058

Indication: 16-058 **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
17.3%	570.46	~	~	~	~	571.09	3.39	~	~	~	~	~
41.6%	570.71	~	~	~	~	570.30	3.61	~	~	~	~	~
39.1%	570.96	~	~	~	~	570.80	3.61	~	~	~	~	~
11.9%	571.21	~	~	~	~	570.80	3.58	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = 0.23 L = 0.75 S = 2.44 with clad

Analyst: [signature] Level: III Date: 12/17/93

Reviewed By: R.O. Forman Level: II Date: 12-20-93

R 1152

GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-021R

Exam Data Sheet No.: E-16-09
Ind. Data Sheet No.: 16-058
Indication: 16-058

Flaw Thruwall Dimension = 0.23
Flaw Length "l" = 0.75
Separation with clad "S" = 2.44
Surface Separation "S" = 2.25

T nominal = 6.38
Clad T nominal = 0.19

Flaw is acceptable by Table IWB-3510-1

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

a/l	Surface %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	~	~
0.10	2.20	2.5	~	~
0.15	2.50	2.9	2.50	2.91 Y
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
			2.50	2.91

a = 0.113
a/l value = 0.151
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.91%
a/t = 1.77%

Comments:

R 1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-004

Exam Data Sheet No.: E-16-09
Patch ID: BF-021R
Ind. Data Sheet No.: 16-059

Indication: 16-059 **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
19.6%	590.96	~	~	~	~	564.55	10.18	~	~	~	~	~
73.1%	591.21	~	~	563.05	11.32	564.05	10.50	564.80	9.97	~	~	~
57.0%	591.46	~	~	562.55	11.66	564.55	10.18	566.05	9.11	~	~	~
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Comments: OD geometric indication due to stabilizer bracket.

Analyst: CJ Ms
Level: III Date: 12/17/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

R 1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-004

Exam Data Sheet No.: E-16-09
Patch ID: BF-021R
Ind. Data Sheet No.: 16-060

Indication: 16-060 **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
17.3%	532.90	~	~	~	~	576.25	3.70	~	~	~	~	~
41.6%	533.15	~	~	~	~	576.25	3.67	~	~	~	~	~
39.1%	533.40	~	~	~	~	576.25	3.67	~	~	~	~	~
30.4%	533.65	~	~	~	~	576.50	3.91	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = 0.23 L = 0.75 S = 2.48 with clad

Analyst: [signature]
Level: II Date: 12/20/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

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GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-021R

Exam Data Sheet No.: E-16-09
Ind. Data Sheet No.: 16-060
Indication: 16-060

Flaw Thruwall Dimension =	0.23
Flaw Length "l" =	0.75
Separation with clad "S" =	2.48
Surface Separation "S" =	2.29

T nominal =	6.38
Clad T nominal =	0.19

Flaw is acceptable by Table IWB-3510-1

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

a/l	Surface %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	~	~
0.10	2.20	2.5	~	~
0.15	2.50	2.9	2.50	2.91 Y
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
			2.50	2.91

a =	0.113
a/l value =	0.151
Y =	1.000

Flaw is Subsurface

Allowed a/t =	2.91%
a/t =	1.77%

Comments:

EXAM-DS4 V.1 10/3/93

IWB16060.XLS12/14/93

00467

R 1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-10
Patch ID: BF-022
Ind. Data Sheet No.: 16-061

Indication: 16-061 **Channel:** 1 **Angle:** 0 **Direction:** 0

Amp.	X	20% Min Y	MP	50% Min Y	MP	@ Max Y	MP	50% Max Y	MP	20% Max Y	MP	Remarks
34.5%	607.96	~	~	~	~	572.45	2.98	~	~	~	~	~
77.9%	608.21	~	~	572.20	2.96	572.45	2.93	572.95	3.00	~	~	~
94.0%	608.46	~	~	~	~	572.20	2.98	572.70	2.96	~	~	~
100.0%	608.71	~	~	572.20	2.93	572.45	2.93	572.70	2.98	~	~	~
94.0%	608.96	~	~	572.20	2.89	572.70	2.91	572.95	2.93	~	~	~
94.0%	609.21	~	~	571.95	2.93	572.70	2.96	573.20	2.98	~	~	~
47.2%	609.46	~	~	572.20	2.96	572.45	2.91	572.95	3.06	~	~	~
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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: 12/17/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

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GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-10
Patch ID: BF-022
Ind. Data Sheet No.: 16-062

Indication: 16-062 **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
47.2%	612.15	~	~	~	~	570.25	26.40	~	~	~	~	~
60.6%	612.40	~	~	~	~	570.00	28.56	~	~	~	~	~
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Comments: Thruwall size was determined by the PATT technique.

TW = 0.31 L = 0.50 S = 0.90 with clad

Analyst: [signature] Level: III Date: 12/17/93

Reviewed By: R.O. Forman Level: II Date: 12-20-93

B1152

GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-022

Exam Data Sheet No.: E-16-10
Ind. Data Sheet No.: 16-062
Indication: 16-062

Flaw Thruwall Dimension =	0.31
Flaw Length "l" =	0.50
Separation with clad "S" =	0.90
Surface Separation "S" =	0.71

T nominal =	6.38
Clad T nominal =	0.19

Flaw is acceptable by Table IWB-3510-1

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

a/l	Surface %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	~	~
0.10	2.20	2.5	~	~
0.15	2.50	2.9	~	~
0.20	2.80	3.3	~	~
0.25	3.30	3.8	~	~
0.30	3.80	4.4	3.93	4.55 Y
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
			3.93	4.55

a =	0.156
a/l value =	0.311
Y =	1.000

Flaw is Subsurface

Allowed a/t =	4.55%
a/t =	2.44%

Comments:

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-10
Patch ID: BF-022
Ind. Data Sheet No.: 16-063

Indication: 16-063 **Channel:** 5 **Angle:** 70 **Direction:** 180

Amp.	X	20% Min Y	TOF	50% Min Y	TOF	@ Max Y	TOF	50% Max Y	TOF	20% Max Y	TOF	Remarks
22.3%	598.10	~	~	~	~	575.95	27.52	~	~	~	~	~
28.6%	598.35	~	~	~	~	575.95	27.36	~	~	~	~	~
26.9%	598.60	~	~	~	~	575.70	25.44	~	~	~	~	~
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Comments: No apparent tip signals.
Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: CB M[illegible]
Level: III Date: 12/17/93

Reviewed By: R.D. Forman
Level: II Date: 12-20-93

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-10
Patch ID: BF-022
Ind. Data Sheet No.: 16-064

Indication: 16-064 **Channel:** 5 **Angle:** 70 **Direction:** 180

Amp.	X	20% Min Y	TOF	50% Min Y	TOF	@ Max Y	TOF	50% Max Y	TOF	20% Max Y	TOF	Remarks
53.5%	602.35	~	~	~	~	578.95	45.04	~	~	~	~	~
64.5%	602.60	~	~	~	~	578.95	45.25	~	~	~	~	~
25.2%	602.85	~	~	~	~	578.20	40.00	~	~	~	~	~
68.7%	603.10	~	~	~	~	578.95	44.72	~	~	~	~	~
77.9%	603.35	~	~	~	~	578.70	42.88	~	~	~	~	~
36.7%	603.60	~	~	~	~	578.70	42.72	~	~	~	~	~
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Comments: No apparent tip signals.
Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: [signature]
Level: II Date: 12/17/93

Reviewed By: R.D. Forman
Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-10
Patch ID: BF-022
Ind. Data Sheet No.: 16-065

Indication: 16-065 **Channel:** 5 **Angle:** 70 **Direction:** 180

Amp.	X	20% Min Y	TOF	50% Min Y	TOF	@ Max Y	TOF	50% Max Y	TOF	20% Max Y	TOF	Remarks
23.7%	611.60	~	~	~	~	575.95	27.92	~	~	~	~	~
39.1%	611.85	~	~	~	~	575.70	25.76	~	~	~	~	~
22.3%	612.10	~	~	~	~	575.70	26.08	~	~	~	~	~
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Comments: Thruwall size was determined by the PATT technique.

TW = 0.20 L = 0.75 S = 1.08 with clad

Analyst: [signature]
Level: III Date: 12/17/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

EXAM-DS3 V.2 10/22/93

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B1152

GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-022

Exam Data Sheet No.: E-16-10
Ind. Data Sheet No.: 16-065
Indication: 16-065

Flaw Thruwall Dimension =	0.20
Flaw Length "l" =	0.75
Separation with clad "S" =	1.08
Surface Separation "S" =	0.89

T nominal =	6.38
Clad T nominal =	0.19

Flaw is acceptable by Table IWB-3510-1

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

a/l	Surface %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	~	~
0.10	2.20	2.5	2.40	2.77 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
			2.40	2.77

a =	0.100
a/l value =	0.133
Y =	1.000

Flaw is Subsurface

Allowed a/t =	2.77%
a/t =	1.57%

Comments:

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-10
Patch ID: BF-022
Ind. Data Sheet No.: 16-066

Indication: 16-066 **Channel:** 5 **Angle:** 70 **Direction:** 180

Amp.	X	20% Min Y	TOF	50% Min Y	TOF	@ Max Y	TOF	50% Max Y	TOF	20% Max Y	TOF	Remarks
8.7%	638.10	~	~	~	~	575.45	24.32	~	~	~	~	~
28.6%	638.35	~	~	~	~	575.20	22.24	~	~	~	~	~
17.3%	638.60	~	~	~	~	575.20	22.00	~	~	~	~	~
18.5%	638.85	~	~	~	~	575.45	24.40	~	~	~	~	~
11.9%	639.10	~	~	~	~	575.20	22.48	~	~	~	~	~
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Comments: No apparent tip signals.
Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: [signature] Level: III Date: 12/17/93

Reviewed By: R.O. Forman Level: II Date: 12-20-93

EXAM-DS3 V.2 10/22/93

12/15/93 ... .XLS

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GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-10
Patch ID: BF-022
Ind. Data Sheet No.: 16-067

Indication: 16-067 **Channel:** 6 **Angle:** 70 **Direction:** 270

Amp.	Y	20% Min X	TOF	50% Min X	TOF	@ Max X	TOF	50% Max X	TOF	20% Max X	TOF	Remarks
23.7%	573.95	~	~	~	~	622.40	38.88	~	~	~	~	~
50.2%	574.20	~	~	~	~	622.40	38.00	~	~	~	~	~
60.6%	574.45	~	~	~	~	622.40	39.28	~	~	~	~	~
34.5%	574.70	~	~	~	~	622.90	42.00	~	~	~	~	~
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Comments: No apparent tip signals.
Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: [signature] Level: III Date: 12/17/93

Reviewed By: R.O. Forman Level: II Date: 12-20-93

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-10
Patch ID: BF-022
Ind. Data Sheet No.: 16-068

Indication: 16-068 **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
17.3%	608.46	~	~	~	~	569.55	4.28	~	~	~	~	~
50.2%	608.71	~	~	~	~	569.55	4.28	~	~	~	~	~
44.3%	608.96	~	~	~	~	569.55	4.31	~	~	~	~	~
30.4%	609.21	~	~	~	~	569.80	4.31	~	~	~	~	~
17.3%	609.46	~	~	~	~	569.80	4.25	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = 0.25 L = 1.00 S = 2.90 with clad

Analyst: [signature] Level: III Date: 12/17/93

Reviewed By: R.O. Forman Level: II Date: 12-20-93

B1152

GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-022

Exam Data Sheet No.: E-16-10
Ind. Data Sheet No.: 16-068
Indication: 16-068

Flaw Thruwall Dimension = 0.25
Flaw Length "l" = 1.00
Separation with clad "S" = 2.90
Surface Separation "S" = 2.71

T nominal = 6.38
Clad T nominal = 0.19

Flaw is acceptable by Table IWB-3510-1

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

a/l	Surface %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	~	~
0.10	2.20	2.5	2.36	2.72 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	2.72

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

Flaw is Subsurface

Allowed a/t = 2.72%
a/t = 1.99%

Comments:

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-10
Patch ID: BF-022
Ind. Data Sheet No.: 16-069

Indication: 16-069 **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
26.9%	611.96	~	~	~	~	569.55	4.20	~	~	~	~	~
39.1%	612.21	~	~	~	~	569.55	4.26	~	~	~	~	SPOT
28.6%	612.46	~	~	~	~	569.30	4.65	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = 0.23 L = 0.50 S = 2.90 with clad

Analyst: [signature] Level: III Date: 12/17/93

Reviewed By: R.O. Forman Level: II Date: 12-20-93

B1152

GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-022

Exam Data Sheet No.: E-16-10
Ind. Data Sheet No.: 16-069
Indication: 16-069

Flaw Thruwall Dimension =	0.23
Flaw Length "l" =	0.50
Separation with clad "S" =	2.90
Surface Separation "S" =	2.71

T nominal =	6.38
Clad T nominal =	0.19

Flaw is acceptable by Table IWB-3510-1

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

a/l	Surface %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	~	~
0.10	2.20	2.5	~	~
0.15	2.50	2.9	~	~
0.20	2.80	3.3	3.06	3.56 Y
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
			3.06	3.56

a =	0.113
a/l value =	0.226
Y =	1.000

Flaw is Subsurface

Allowed a/t =	3.56%
a/t =	1.77%

Comments:

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-10
Patch ID: BF-022
Ind. Data Sheet No.: 16-070

Indication: 16-070 **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
30.4%	615.46	~	~	~	~	567.05	5.11	~	~	~	~	~
28.6%	615.71	~	~	~	~	567.05	5.06	~	~	~	~	~
36.7%	615.96	~	~	~	~	567.05	5.09	~	~	~	~	~
41.6%	616.21	~	~	~	~	567.55	4.84	~	~	~	~	~
39.1%	616.46	~	~	~	~	567.05	5.12	~	~	~	~	~
44.3%	616.71	~	~	~	~	567.55	4.65	~	~	~	~	~
88.2%	616.96	~	~	567.05	5.20	567.55	4.86	567.80	4.88	~	~	~
94.0%	617.21	~	~	567.05	5.20	567.55	4.86	567.80	4.94	~	~	~
120.8%	617.46	~	~	566.30	5.90	567.30	5.02	568.05	4.78	~	~	~
106.4%	617.71	~	~	566.30	5.95	567.30	5.04	568.05	4.83	~	~	~
155.1%	617.96	~	~	566.30	6.00	567.55	4.86	568.05	4.83	~	~	~
136.6%	618.21	~	~	566.30	6.03	567.30	5.13	568.05	4.90	~	~	~
64.5%	618.46	~	~	566.30	6.09	567.55	4.90	567.80	4.98	~	~	~
68.7%	618.71	~	~	567.05	5.29	567.30	5.25	568.05	4.90	~	~	~
19.6%	618.96	~	~	~	~	568.05	4.93	~	~	~	~	~
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Comments: Indication number assigned to typical plate segregate reflectors.
For information / reference only.

Analyst: C. Mas
Level: III Date: 12/17/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

R 1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-10
Patch ID: BF-022
Ind. Data Sheet No.: 16-071

Indication: 16-071 **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
34.5%	620.71	~	~	~	~	567.55	4.98	~	~	~	~	~
64.5%	620.96	~	~	567.05	5.36	567.55	4.98	567.80	5.17	~	~	~
50.2%	621.21	~	~	~	~	567.55	5.00	~	~	~	~	~
36.7%	621.46	~	~	~	~	567.30	5.22	~	~	~	~	~
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Comments: Indication number assigned to typical plate segregate reflectors.
For information / reference only.

Analyst: [illegible signature]
Level: III Date: 12/17/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

B 1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-10
Patch ID: BF-022
Ind. Data Sheet No.: 16-073

Indication: 16-073 **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
19.6%	608.40	~	~	~	~	576.25	4.32	~	~	~	~	~
34.5%	608.65	~	~	~	~	576.25	4.36	~	~	~	~	~
28.6%	608.90	~	~	~	~	576.25	4.34	~	~	~	~	~
15.2%	609.15	~	~	~	~	576.50	4.50	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = 0.30 L = 0.75 S = 2.93 with clad

Analyst: [signature] Level: III Date: 12/17/93

Reviewed By: R.O. Forman Level: II Date: 12-20-93

GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-022

Exam Data Sheet No.: E-16-10
Ind. Data Sheet No.: 16-073
Indication: 16-073

Flaw Thruwall Dimension =	0.30
Flaw Length "l" =	0.75
Separation with clad "S" =	2.93
Surface Separation "S" =	2.74

T nominal =	6.38
Clad T nominal =	0.19

Flaw is acceptable by Table IWB-3510-1

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

a/l	Surface %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	~	~
0.10	2.20	2.5	~	~
0.15	2.50	2.9	2.79	3.28 Y
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
			2.79	3.28

a =	0.149
a/l value =	0.198
Y =	1.000

Flaw is Subsurface

Allowed a/t =	3.28%
a/t =	2.33%

Comments:

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-10
Patch ID: BF-022
Ind. Data Sheet No.: 16-077

Indication: 16-077 **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
19.6%	573.50	~	~	~	~	621.60	3.83	~	~	~	~	~
57.0%	573.75	~	~	621.10	3.49	621.35	3.71	621.60	3.93	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = 0.32 L = 0.25 S = 1.70 with clad

Analyst: C A Ma[illegible]
Level: III Date: 12/17/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-022

Exam Data Sheet No.: E-16-10
Ind. Data Sheet No.: 16-077
Indication: 16-077

Flaw Thruwall Dimension =	0.32
Flaw Length "l" =	0.25
Separation with clad "S" =	1.70
Surface Separation "S" =	1.51

T nominal =	6.38
Clad T nominal =	0.19

Flaw is acceptable by Table IWB-3510-1

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

a/l	Surface %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	~	~
0.10	2.20	2.5	~	~
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	5.20	7.60 Y
			Allowed	Allowed
			5.20	7.60

a =	0.160
a/l value =	0.500
Y =	1.000

Flaw is Subsurface

Allowed a/t =	7.60%
a/t =	2.51%

Comments:

R 1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-11
Patch ID: BF-023
Ind. Data Sheet No.: 16-078

Indication: 16-078 **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
30.4%	572.30	~	~	~	~	653.65	3.58	~	~	~	~	~
39.1%	572.55	~	~	~	~	653.15	3.36	~	~	~	~	~
165.0%	572.80	~	~	652.90	3.36	653.40	3.34	653.65	3.34	~	~	~
50.2%	573.05	~	~	~	~	653.15	3.38	~	~	~	~	~
34.5%	573.30	~	~	~	~	653.40	3.47	~	~	~	~	~
28.6%	573.55	~	~	~	~	653.15	3.51	~	~	~	~	~
26.9%	573.80	~	~	~	~	653.15	3.62	~	~	~	~	~
28.6%	574.05	~	~	~	~	652.90	3.71	~	~	~	~	~
44.3%	574.30	~	~	~	~	653.15	3.77	~	~	~	~	~
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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: 12/17/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-11
Patch ID: BF-023
Ind. Data Sheet No.: 16-079

Indication: 16-079 **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
50.2%	572.55	~	~	~	~	654.40	3.21	~	~	~	~	~
155.1%	572.80	~	~	654.15	3.18	654.65	3.18	655.15	3.16	~	~	~
57.0%	573.05	~	~	~	~	654.65	3.25	~	~	~	~	~
41.6%	573.30	~	~	~	~	654.65	3.29	~	~	~	~	~
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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: 12/17/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

R 1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-11
Patch ID: BF-023
Ind. Data Sheet No.: 16-080

Indication: 16-080 **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
18.5%	669.15	~	~	~	~	572.75	29.60	~	~	~	~	~
28.6%	669.40	~	~	~	~	573.00	27.60	~	~	~	~	~
34.5%	669.65	~	~	~	~	573.00	27.92	~	~	~	~	~
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Comments: No apparent tip signals.
Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: [signature]
Level: III Date: 12/17/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

B1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-11
Patch ID: BF-023
Ind. Data Sheet No.: 16-081

Indication: 16-081 **Channel:** 5 **Angle:** 70 **Direction:** 180

Amp.	X	20% Min Y	TOF	50% Min Y	TOF	@ Max Y	TOF	50% Max Y	TOF	20% Max Y	TOF	Remarks
44.3%	656.35	~	~	~	~	576.45	38.16	~	~	~	~	~
73.1%	656.60	~	~	~	~	576.45	38.00	~	~	~	~	~
53.5%	656.85	~	~	~	~	575.70	32.96	~	~	~	~	~
23.7%	657.10	~	~	~	~	575.70	32.80	~	~	~	~	~
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Comments: Thruwall size was determined by the PATT technique.

TW = 0.32 L = 0.75 S = 1.58 with clad

Analyst: [signature] Level: III Date: 12/17/93

Reviewed By: R.O. Forman Level: II Date: 12-20-93

B1152

GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-023

Exam Data Sheet No.: E-16-11
Ind. Data Sheet No.: 16-081
Indication: 16-081

Flaw Thruwall Dimension =	0.32
Flaw Length "l" =	0.75
Separation with clad "S" =	1.58
Surface Separation "S" =	1.39

T nominal =	6.38
Clad T nominal =	0.19

Flaw is acceptable by Table IWB-3510-1

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

a/l	Surface %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	~	~
0.10	2.20	2.5	~	~
0.15	2.50	2.9	~	~
0.20	2.80	3.3	2.95	3.45 Y
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
			2.95	3.45

a =	0.161
a/l value =	0.215
Y =	1.000

Flaw is Subsurface

Allowed a/t =	3.45%
a/t =	2.52%

Comments:

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-11
Patch ID: BF-023
Ind. Data Sheet No.: 16-082

Indication: 16-082 **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
34.5%	638.90	~	~	~	~	578.25	5.90	~	~	~	~	~
60.6%	639.15	~	~	577.75	5.52	578.25	5.93	~	~	~	~	~
73.1%	639.40	~	~	577.75	5.47	578.00	5.66	578.50	6.08	~	~	~
41.6%	639.65	~	~	~	~	578.00	5.66	~	~	~	~	~
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Comments: No apparent tip signals.

TW = 0.43 L = 0.75 S = 2.38

Analyst: [signature]
Level: III Date: 12/17/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-023

Exam Data Sheet No.: E-16-11
Ind. Data Sheet No.: 16-082
Indication: 16-082

Flaw Thruwall Dimension =	0.43
Flaw Length "l" =	0.75
Separation with clad "S" =	2.38
Surface Separation "S" =	2.19

T nominal =	6.38
Clad T nominal =	0.19

Flaw is acceptable by Table IWB-3510-1

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

a/l	Surface %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	~	~
0.10	2.20	2.5	~	~
0.15	2.50	2.9	~	~
0.20	2.80	3.3	~	~
0.25	3.30	3.8	3.67	4.25 Y
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
			3.67	4.25

a =	0.216
a/l value =	0.287
Y =	1.000

Flaw is Subsurface

Allowed a/t =	4.25%
a/t =	3.38%

Comments:

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-11
Patch ID: BF-023
Ind. Data Sheet No.: 16-083

Indication: 16-083 **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
19.6%	656.15	~	~	~	~	575.25	3.24	~	~	~	~	~
73.1%	656.40	~	~	574.75	2.89	575.25	3.24	575.50	3.40	~	~	~
106.4%	656.65	~	~	574.50	2.74	575.00	3.08	575.50	3.43	~	~	~
82.9%	656.90	~	~	574.75	2.87	575.00	3.08	575.25	3.24	~	~	~
39.1%	657.15	~	~	~	~	575.00	3.08	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = 0.17 L = 1.00 S = 2.09 with clad

Analyst: [signature] Level: III Date: 12/18/93

Reviewed By: R.D. Forman Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-023

Exam Data Sheet No.: E-16-11
Ind. Data Sheet No.: 16-083
Indication: 16-083

Flaw Thruwall Dimension = 0.17
Flaw Length "l" = 1.00
Separation with clad "S" = 2.09
Surface Separation "S" = 1.90

T nominal = 6.38
Clad T nominal = 0.19

Flaw is acceptable by Table IWB-3510-1

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

a/l	Surface %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	2.14	2.41 Y
0.10	2.20	2.5	~	~
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
			2.14	2.41

a = 0.085
a/l value = 0.085
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.41%
a/t = 1.32%

Comments:

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-11
Patch ID: BF-023
Ind. Data Sheet No.: 16-084

Indication: 16-084 **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
26.9%	656.29	~	~	~	~	576.45	4.43	~	~	~	~	~
68.7%	656.54	~	~	575.70	3.70	576.20	4.14	576.45	4.43	~	~	~
88.2%	656.79	~	~	575.70	3.70	576.20	4.14	576.45	4.43	~	~	~
53.5%	657.04	~	~	~	~	576.20	4.18	~	~	~	~	~
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Comments: No apparent tip signals.

TW = 0.37 L = 0.75 S = 1.89 with clad

Analyst: [signature] Level: III Date: 12/17/93

Reviewed By: R.O. Forman Level: II Date: 12-20-93

GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-023

Exam Data Sheet No.: E-16-11
Ind. Data Sheet No.: 16-084
Indication: 16-084

Flaw Thruwall Dimension = 0.37
Flaw Length "l" = 0.75
Separation with clad "S" = 1.89
Surface Separation "S" = 1.70

T nominal = 6.38
Clad T nominal = 0.19

Flaw is acceptable by Table IWB-3510-1

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

a/l	Surface %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	~	~
0.10	2.20	2.5	~	~
0.15	2.50	2.9	~	~
0.20	2.80	3.3	3.23	3.73 Y
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
			3.23	3.73

a = 0.183
a/l value = 0.243
Y = 1.000

Flaw is Subsurface

Allowed a/t = 3.73%
a/t = 2.86%

Comments:

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-12
Patch ID: BF-024
Ind. Data Sheet No.: 16-085

Indication: 16-085 **Channel:** 5 **Angle:** 70 **Direction:** 180

Amp.	X	20% Min Y	TOF	50% Min Y	TOF	@ Max Y	TOF	50% Max Y	TOF	20% Max Y	TOF	Remarks
23.7%	724.35	~	~	~	~	574.95	19.84	~	~	~	~	~
28.6%	724.60	~	~	~	~	574.70	17.76	~	~	~	~	~
14.4%	724.85	~	~	~	~	574.70	17.84	~	~	~	~	~
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Comments: No apparent tip signals.
Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: [signature]
Level: III Date: 12/17/93

Reviewed By: R. O. Forman
Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-05
Patch ID: BF-017
Ind. Data Sheet No.: 16-086

Indication: 16-086 **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
34.5%	294.71	~	~	~	~	570.50	4.87	~	~	~	~	~
26.9%	294.96	~	~	~	~	570.05	4.90	~	~	~	~	~
34.5%	295.21	~	~	~	~	570.50	4.79	~	~	~	~	~
44.3%	295.46	~	~	~	~	570.50	4.79	~	~	~	~	~
41.6%	295.71	~	~	~	~	570.05	4.79	~	~	~	~	~
44.3%	295.96	~	~	~	~	570.50	4.82	~	~	~	~	~
30.4%	296.21	~	~	~	~	569.80	4.92	~	~	~	~	~
20.9%	296.46	~	~	~	~	569.30	5.22	~	~	~	~	~
13.5%	296.71	~	~	~	~	569.30	5.12	~	~	~	~	~
23.7%	296.96	~	~	~	~	569.55	5.03	~	~	~	~	~
32.4%	297.21	~	~	~	~	569.30	5.19	~	~	~	~	~
32.4%	297.46	~	~	~	~	569.30	5.19	~	~	~	~	~
34.5%	297.71	~	~	~	~	569.30	5.17	~	~	~	~	~
26.9%	297.96	~	~	~	~	569.30	5.17	~	~	~	~	~
34.5%	298.21	~	~	~	~	569.05	5.56	~	~	~	~	~
25.2%	298.46	~	~	~	~	569.05	5.38	~	~	~	~	~
25.2%	298.71	~	~	~	~	569.30	5.38	~	~	~	~	~
25.2%	298.96	~	~	~	~	569.30	5.22	~	~	~	~	~
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Comments: No apparent tip signals. No determinable thruwall dimension. Same indication as 0° ind. 16-048.
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: 12/18/93

Reviewed By: R.O. Forman Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-05
Patch ID: BF-017
Ind. Data Sheet No.: 16-087

Indication: 16-087 **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
25.2%	276.65	~	~	~	~	576.25	3.21	~	~	~	~	~
30.4%	276.90	~	~	~	~	576.00	3.03	~	~	~	~	~
18.5%	277.15	~	~	~	~	576.00	3.06	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = 0.44 L = 0.50 S = 1.92 with clad

Analyst: [signature]
Level: III Date: 12/18/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-017

Exam Data Sheet No.: E-16-05
Ind. Data Sheet No.: 16-087
Indication: 16-087

Flaw Thruwall Dimension =	0.44
Flaw Length "l" =	0.50
Separation with clad "S" =	1.92
Surface Separation "S" =	1.73

T nominal =	6.38
Clad T nominal =	0.19

Flaw is acceptable by Table IWB-3510-1

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

a/l	Surface %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	~	~
0.10	2.20	2.5	~	~
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	5.08	6.48 Y
0.45	5.10	6.7	~	~
0.50	5.20	7.6	~	~
			Allowed	Allowed
			5.08	6.48

a =	0.219
a/l value =	0.438
Y =	1.000

Flaw is Subsurface

Allowed a/t =	6.48%
a/t =	3.43%

Comments:

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-05
Patch ID: BF-017
Ind. Data Sheet No.: 16-088

Indication: 16-088 **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
18.5%	283.90	~	~	~	~	576.25	4.14	~	~	~	~	~
14.4%	284.15	~	~	~	~	576.00	3.79	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = 0.24 L = 0.25 S = 2.80 with clad

Analyst: [signature]
Level: III Date: 12/18/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-017

Exam Data Sheet No.: E-16-05
Ind. Data Sheet No.: 16-088
Indication: 16-088

Flaw Thruwall Dimension = 0.24
Flaw Length "l" = 0.25
Separation with clad "S" = 2.80
Surface Separation "S" = 2.61

T nominal = 6.38
Clad T nominal = 0.19

Flaw is acceptable by Table IWB-3510-1

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

a/l	Surface %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	~	~
0.10	2.20	2.5	~	~
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	5.16	7.24 Y
0.50	5.20	7.6	~	~
			Allowed	Allowed
			5.16	7.24

a = 0.120
a/l value = 0.480
Y = 1.000

Flaw is Subsurface

Allowed a/t = 7.24%
a/t = 1.88%

Comments:

EXAM-DS4 V.1 10/3/93

IWB16088.XLS12/15/93

00503

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-001

Exam Data Sheet No.: E-16-05
Patch ID: BF-017
Ind. Data Sheet No.: 16-089

Indication: 16-089 **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
8.7%	287.90	~	~	~	~	575.25	2.63	~	~	~	~	~
28.6%	288.15	575.00	2.43	~	~	575.25	2.61	~	~	575.50	2.83	~
23.7%	288.40	~	~	~	~	575.00	2.41	~	~	~	~	~
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Comments: No apparent tip signals.
Thruwall size was determined by the Reg.Guide 20% beam spread correction method.
Indication has no determinable thruwall dimension and is acceptable to IWB-3510-1.

TW = 0.00 L = 0.50 S = 1.70 with clad

Analyst: [signature]
Level: III Date: 12/18/93

Reviewed By: R.O. Furman
Level: II Date: 12-20-93

81152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-004

Exam Data Sheet No.: E-16-06
Patch ID: BF-018R
Ind. Data Sheet No.: 16-090

Indication: 16-090 **Channel:** 1 **Angle:** 0 **Direction:** 0

Amp.	X	20% Min Y	MP	50% Min Y	MP	@ Max Y	MP	50% Max Y	MP	20% Max Y	MP	Remarks
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Comments: Indication number assigned to typical plate segregate reflectors.
For information / reference only.

Analyst: [signature]
Level: III Date: 12/18/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-004

Exam Data Sheet No.: E-16-06
Patch ID: BF-018R
Ind. Data Sheet No.: 16-091

Indication: 16-091 **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
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Comments: Indication number assigned to typical plate segregate reflectors.
For information / reference only.

Analyst: [signature]
Level: III Date: 12/18/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

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GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-004

Exam Data Sheet No.: E-16-06
Patch ID: BF-018R
Ind. Data Sheet No.: 16-092

Indication: 16-092 **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
47.2%	331.96	~	~	~	~	564.80	8.60	~	~	~	~	~
53.5%	332.21	~	~	~	~	564.80	8.63	~	~	~	~	~
77.9%	332.46	~	~	~	~	564.55	9.28	565.05	8.47	~	~	~
120.6%	332.71	~	~	564.30	9.43	564.55	9.30	565.05	8.44	~	~	~
120.6%	332.96	~	~	564.30	9.48	564.55	9.30	565.05	8.44	~	~	~
88.2%	333.21	~	~	564.30	9.48	564.55	9.30	565.05	8.44	~	~	~
50.2%	333.46	~	~	~	~	564.55	9.33	~	~	~	~	~
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Comments: OD surface indication.
4.89 dB below Notch sensitivity.
Evaluated to notch sensitivity assigned thruwall dimension = 2% T.

TW = 0.127 L = 1.50 S = 0.00

Analyst: [signature]
Level: III Date: 12/18/93

Reviewed By: R.O. Forman
Level: II Date: 12-20-93

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GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-018R

Exam Data Sheet No.: E-16-06
Ind. Data Sheet No.: 16-092
Indication: 16-092

Flaw Thruwall Dimension =	0.127
Flaw Length "l" =	1.50
Separation with clad "S" =	N/A
Surface Separation "S" =	0.00

T nominal =	6.38
Clad T nominal =	0.19

Flaw is acceptable by Table IWB-3510-1

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

a/l	Surface %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	2.14	2.41 Y
0.10	2.20	2.5	~	~
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
			2.14	0.00

a =	0.127
a/l value =	0.085
Y =	0.000

Flaw is Surface

Allowed a/t =	2.14%
a/t =	1.99%

Comments: Evaluated to notch sensitivity assigned thruwall dimension = 2%T.

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-004

Exam Data Sheet No.: E-16-06
Patch ID: BF-018R
Ind. Data Sheet No.: 16-093

Indication: 16-093 **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
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Comments: Indication number assigned to typical plate segregate reflectors.
For information / reference only.

Analyst: [signature]
Level: III Date: 12/18/93

Reviewed By: R.D. Forman
Level: II Date: 12-20-93

R1152

GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-4-5
Cal. ID: C-004

Exam Data Sheet No.: E-16-06
Patch ID: BF-018R
Ind. Data Sheet No.: 16-094

Indication: 16-094 **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
50.2%	332.15	~	~	~	~	573.50	8.10	~	~	~	~	~
50.2%	332.40	~	~	~	~	575.25	9.12	~	~	~	~	~
73.1%	332.65	~	~	575.00	8.99	575.50	9.34	575.75	9.44	~	~	~
82.9%	332.90	~	~	575.00	8.99	575.50	9.34	576.00	9.85	~	~	~
77.9%	333.15	~	~	575.75	9.15	575.50	9.31	575.75	9.44	~	~	~
32.4%	333.40	~	~	~	~	575.50	9.79	~	~	~	~	~
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Comments: OD surface indication. No apparent tip signals.
9.79 dB below Notch sensitivity.
Evaluated to notch sensitivity assigned thruwall dimension = 2% T.

TW = 0.127 L = 1.25 S = 0.00

Analyst: [signature] Level: II Date: 12/18/93

Reviewed By: R.O. Forman Level: II Date: 12-20-93

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GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-4-5
Patch: BF-018R

Exam Data Sheet No.: E-16-06
Ind. Data Sheet No.: 16-094
Indication: 16-094

Flaw Thruwall Dimension =	0.127
Flaw Length "l" =	1.25
Separation with clad "S" =	N/A
Surface Separation "S" =	0.00

T nominal =	6.38
Clad T nominal =	0.19

Flaw is acceptable by Table IWB-3510-1

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

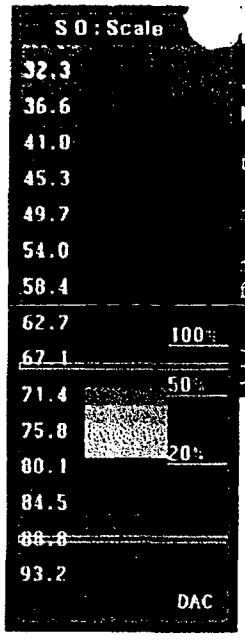
a/l	Surface %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	~	~
0.10	2.20	2.5	2.21	2.51 Y
0.15	2.50	2.9	~	~
0.20	2.80	3.3	~	~
0.25	3.30	3.8	~	~
0.30	3.80	4.4	~	~
0.35	4.40	5.1	~	~
0.40	5.00	5.8	~	~
0.45	5.10	6.7	~	~
0.50	5.20	7.6	~	~
			Allowed	Allowed
			2.21	0.00

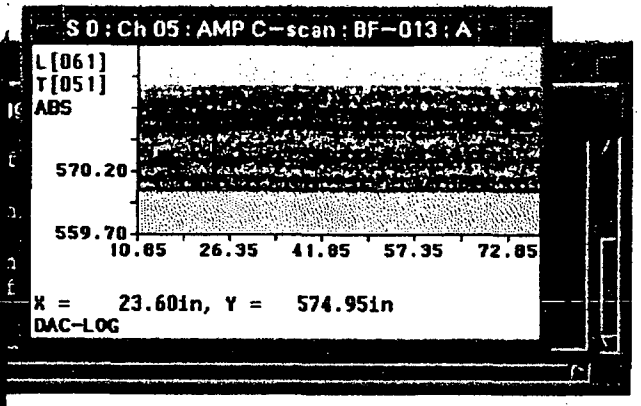
a =	0.127
a/l value =	0.102
Y =	0.000

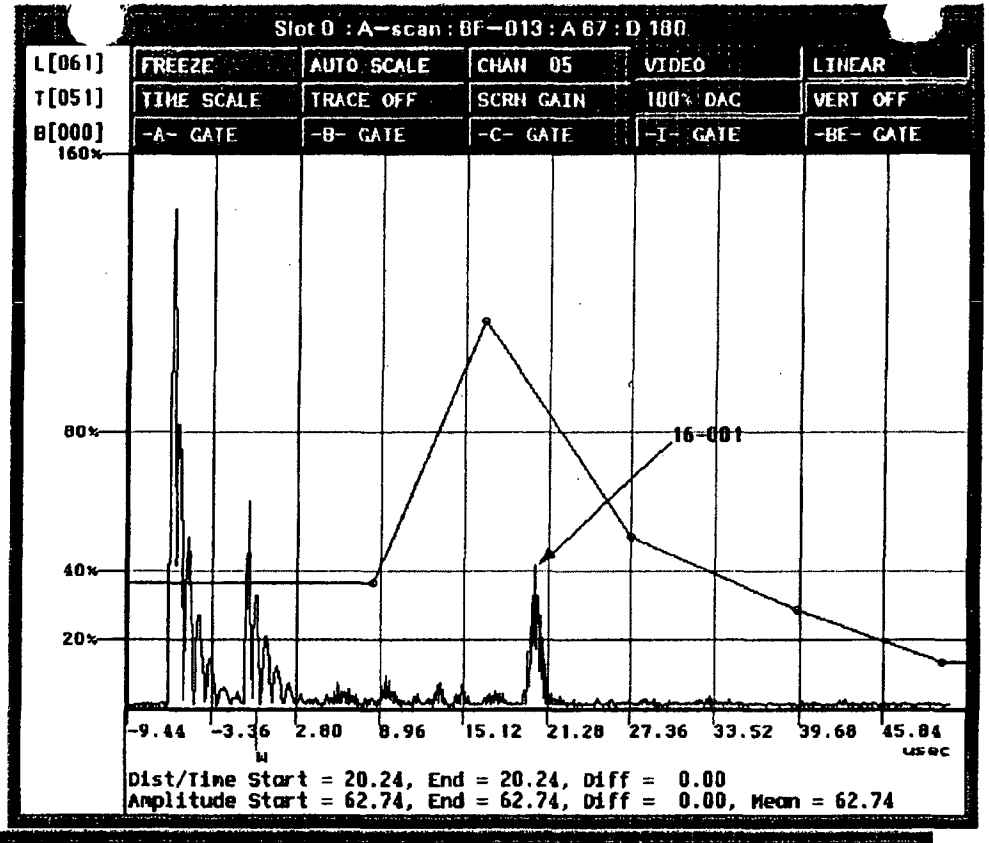
Flaw is Surface

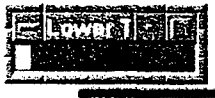
Allowed a/t =	2.21%
a/t =	1.99%

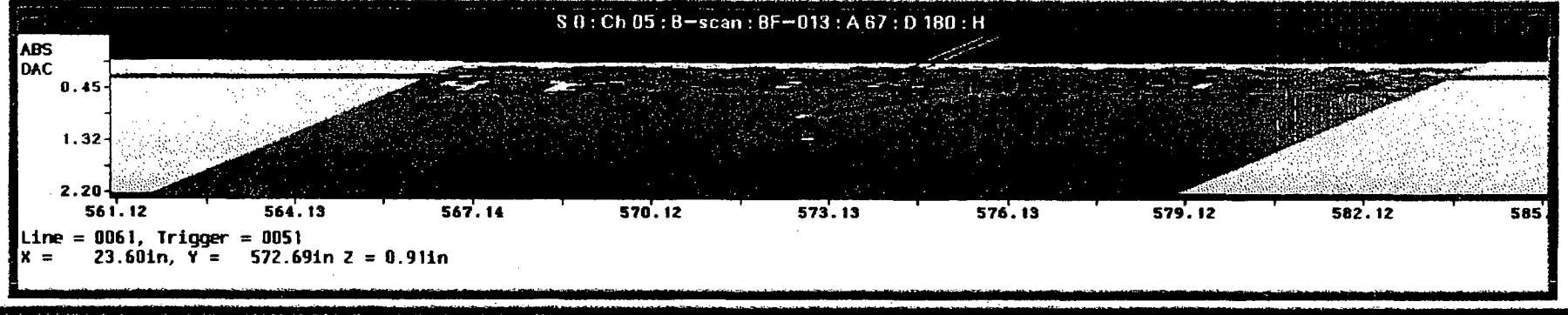
Comments: Evaluated to notch sensitivity assigned thruwall dimension = 2%T.

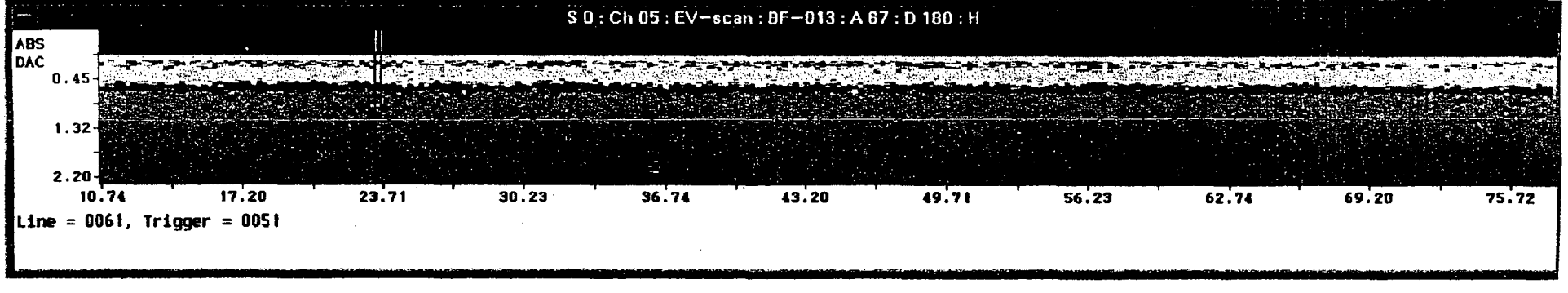












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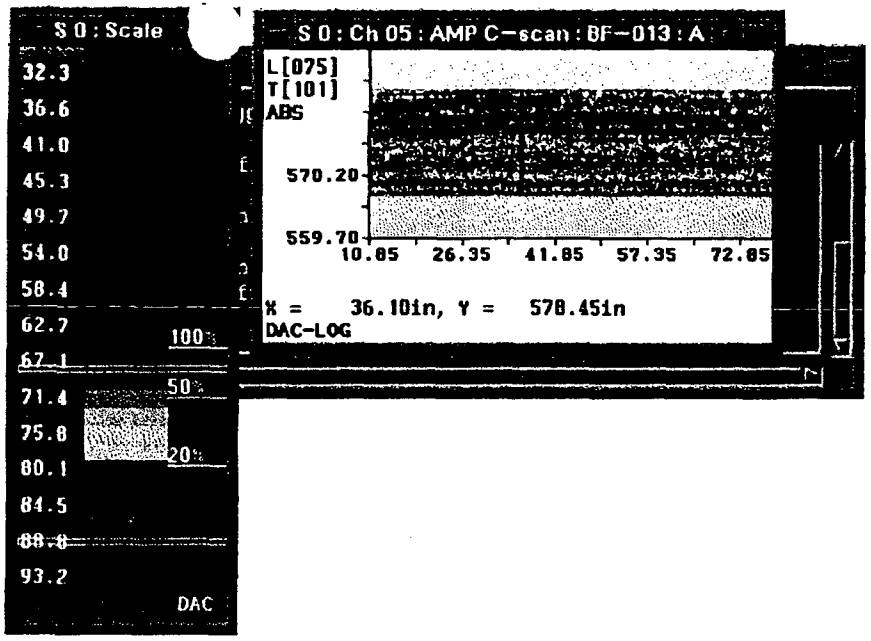

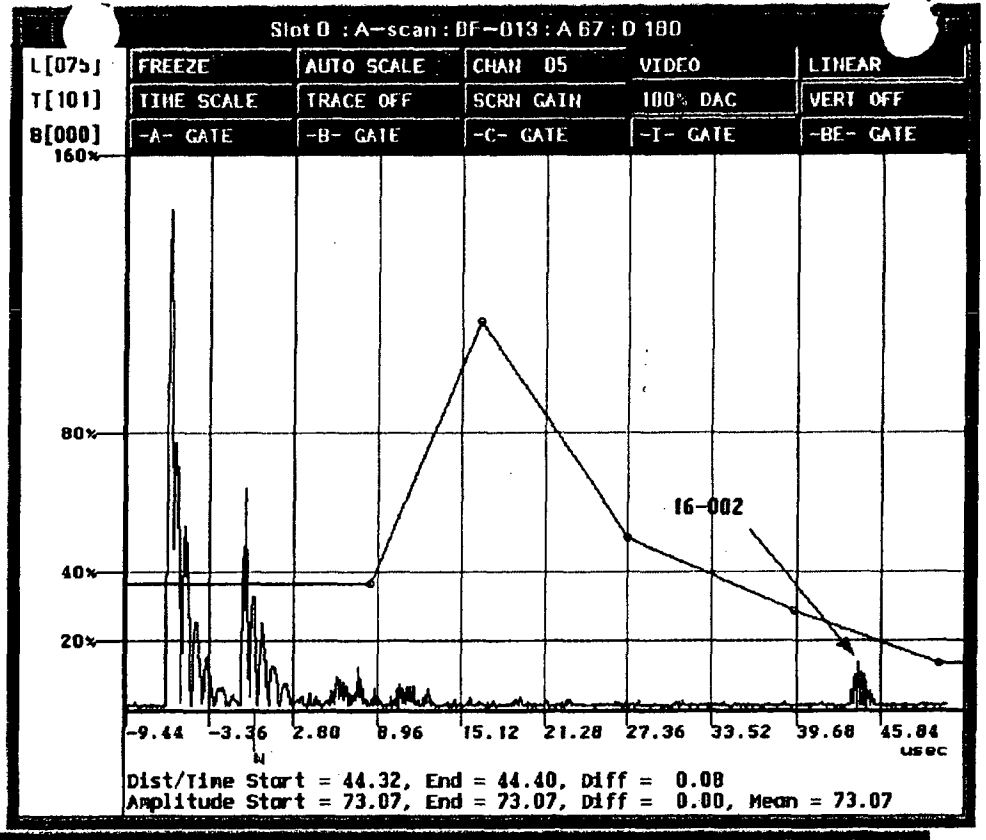

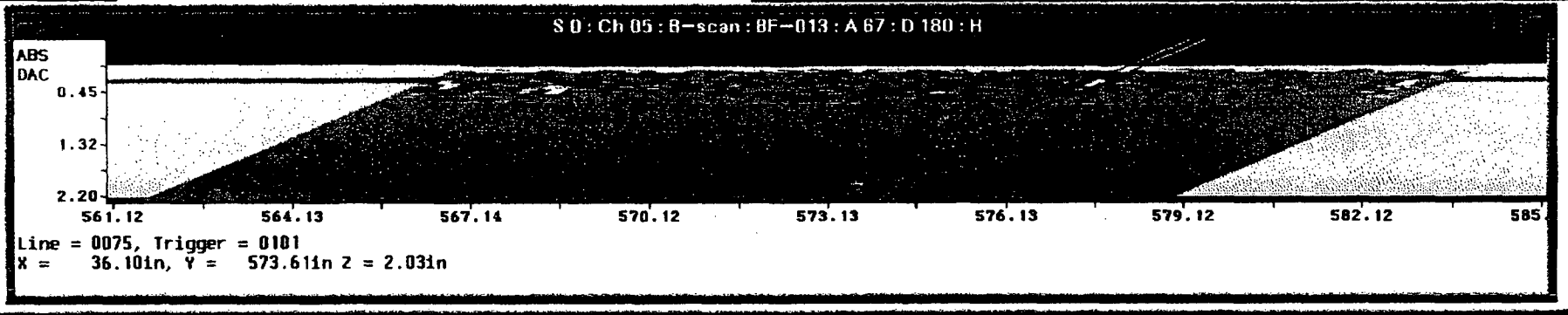

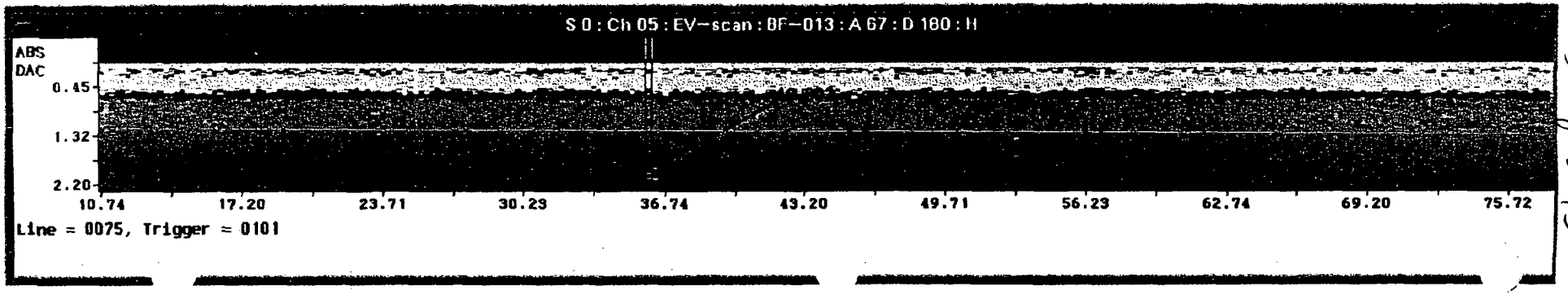

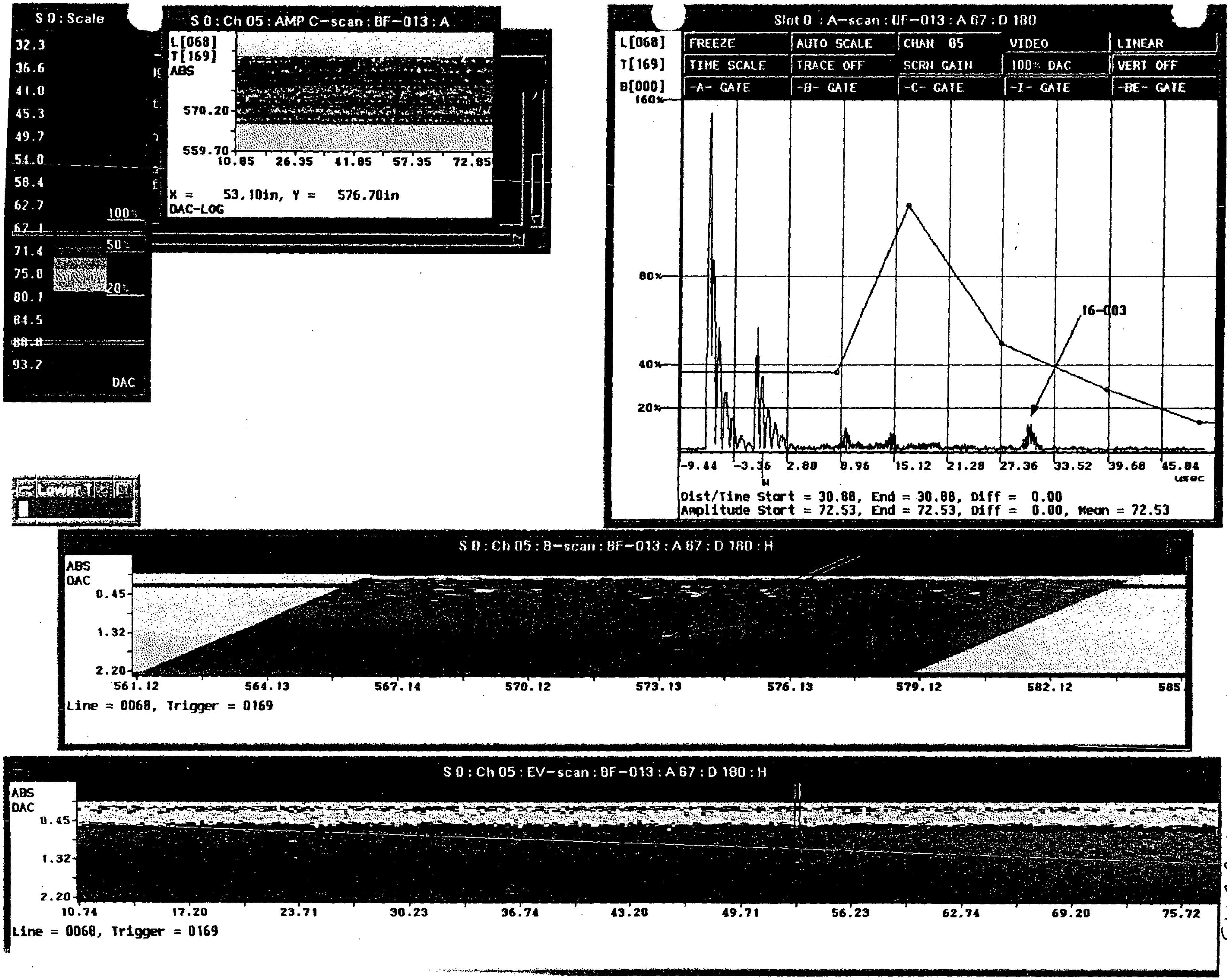

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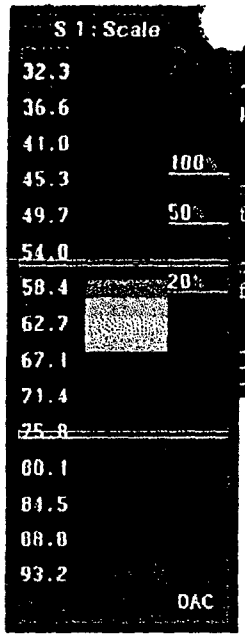

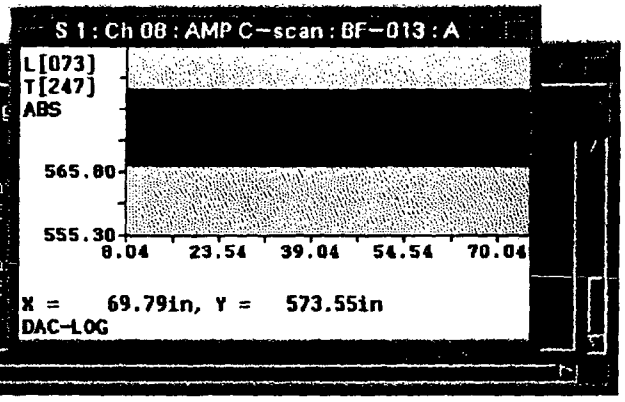

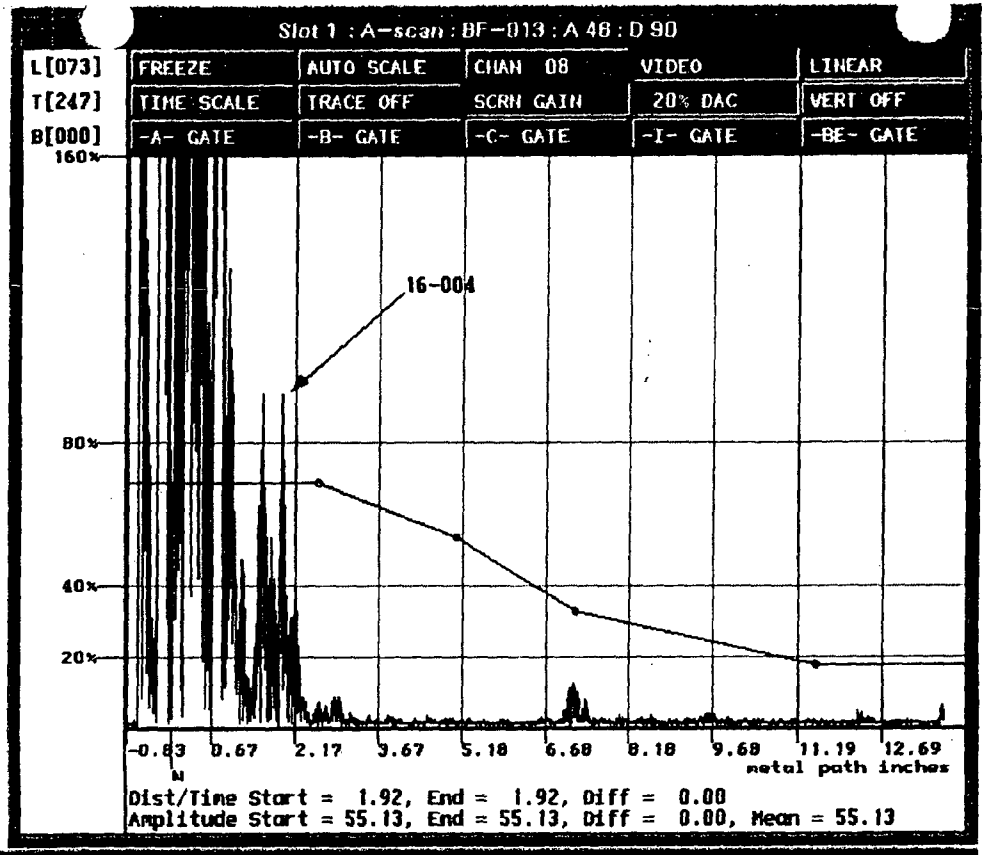

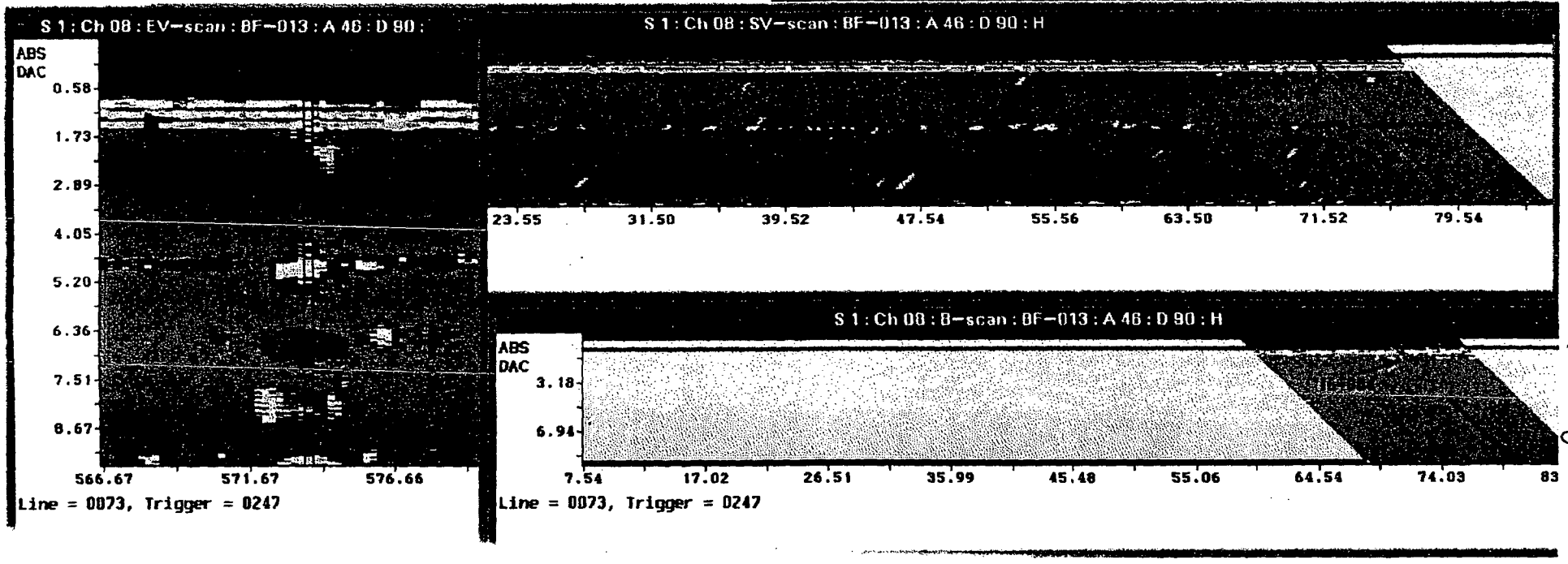

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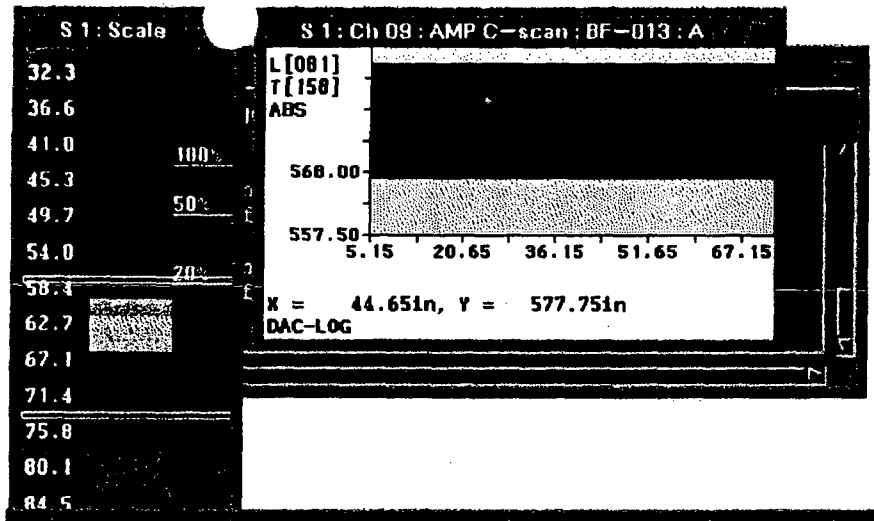

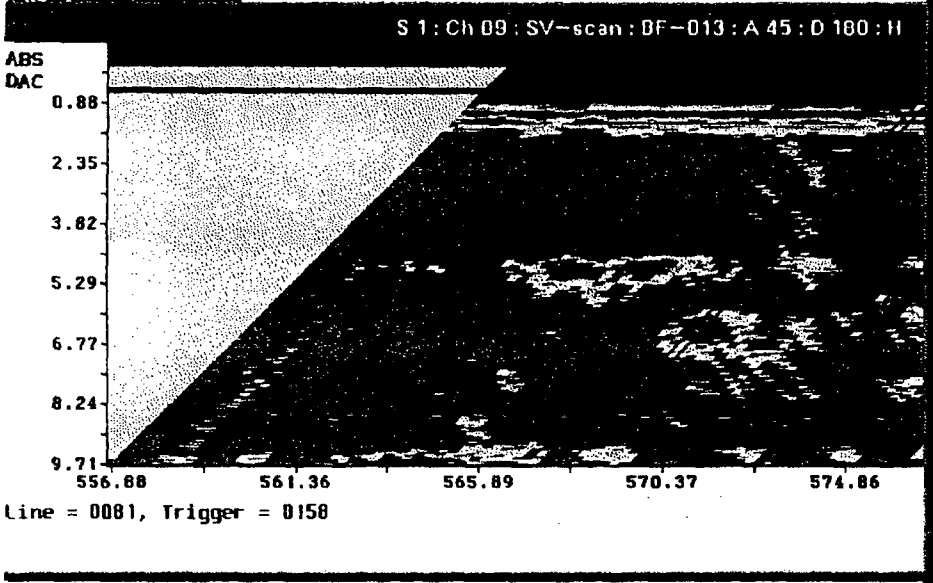

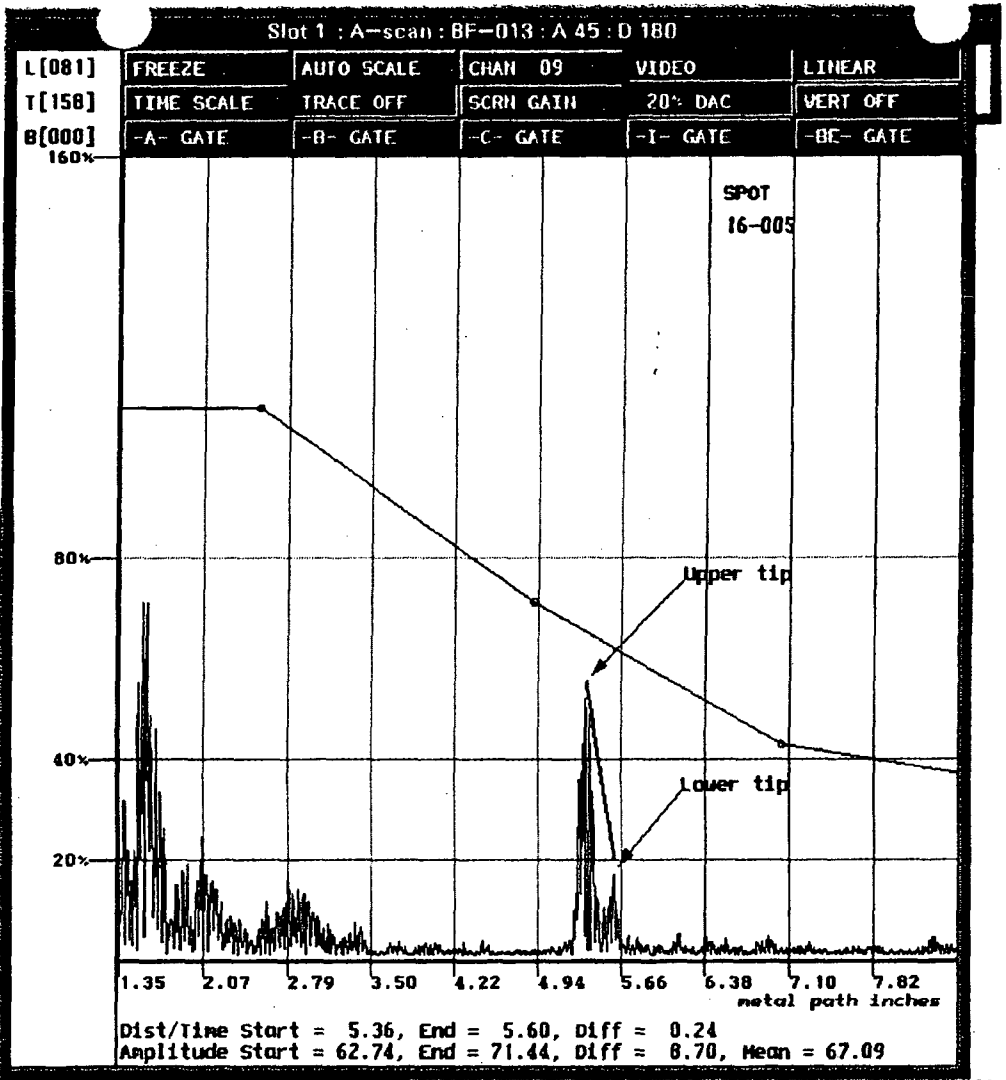

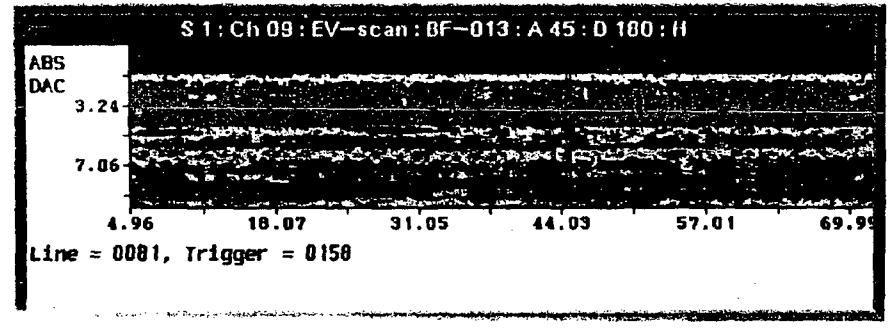

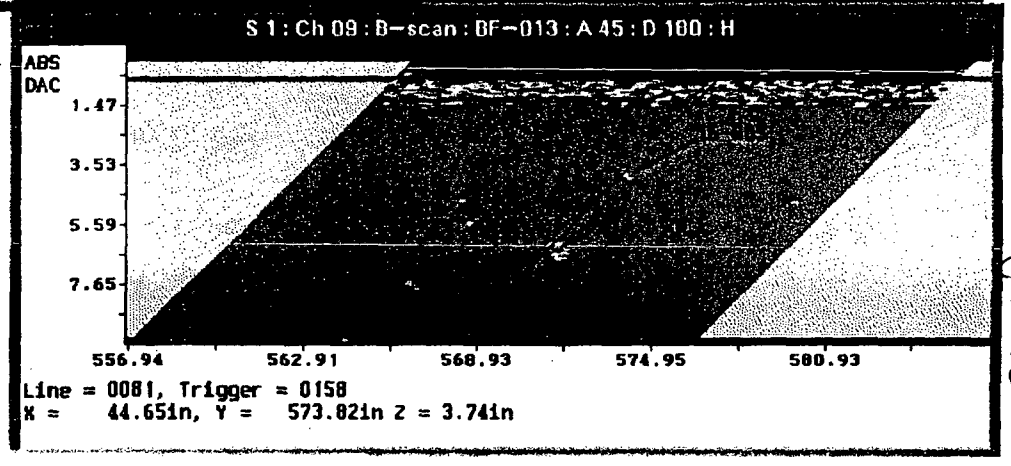

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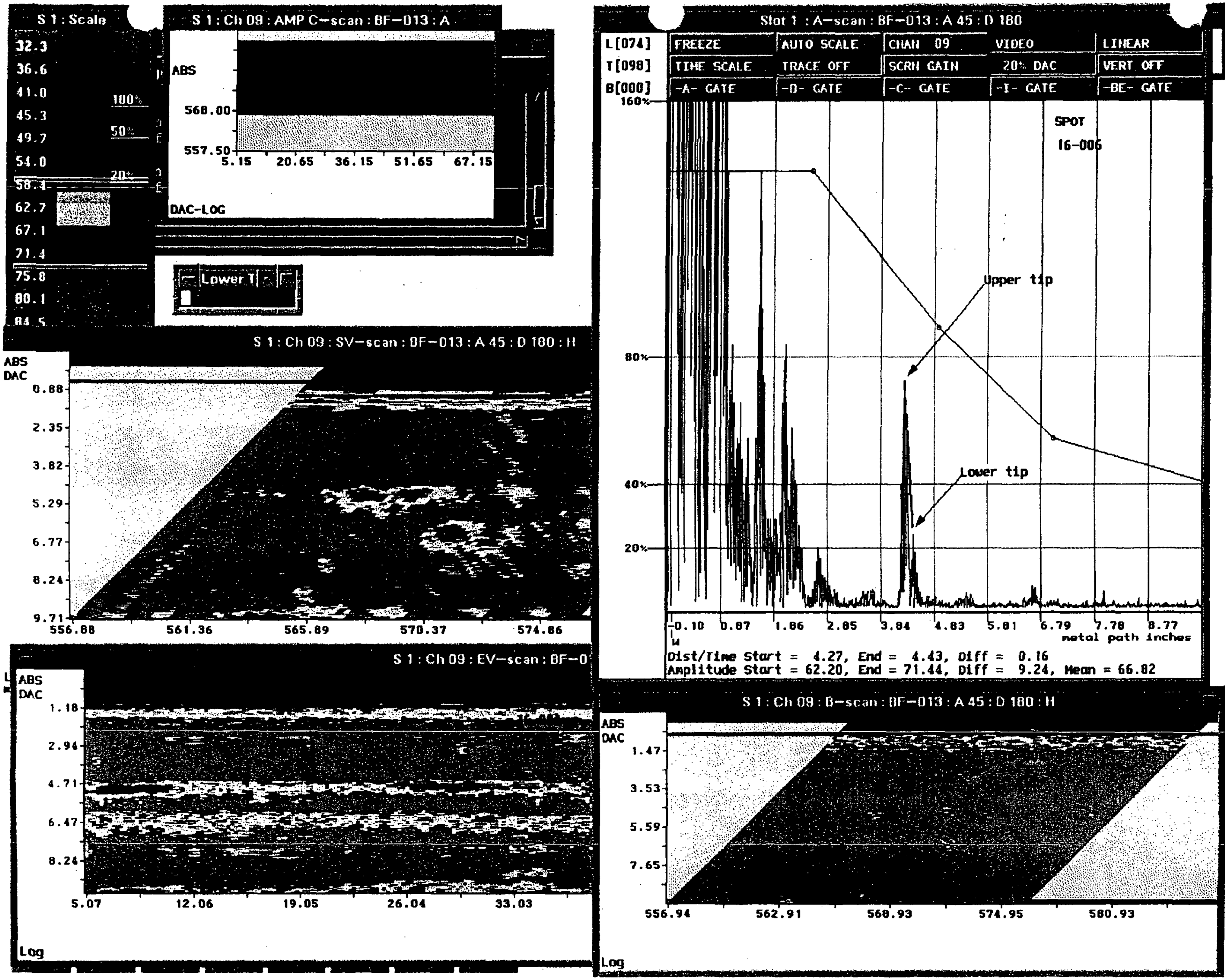

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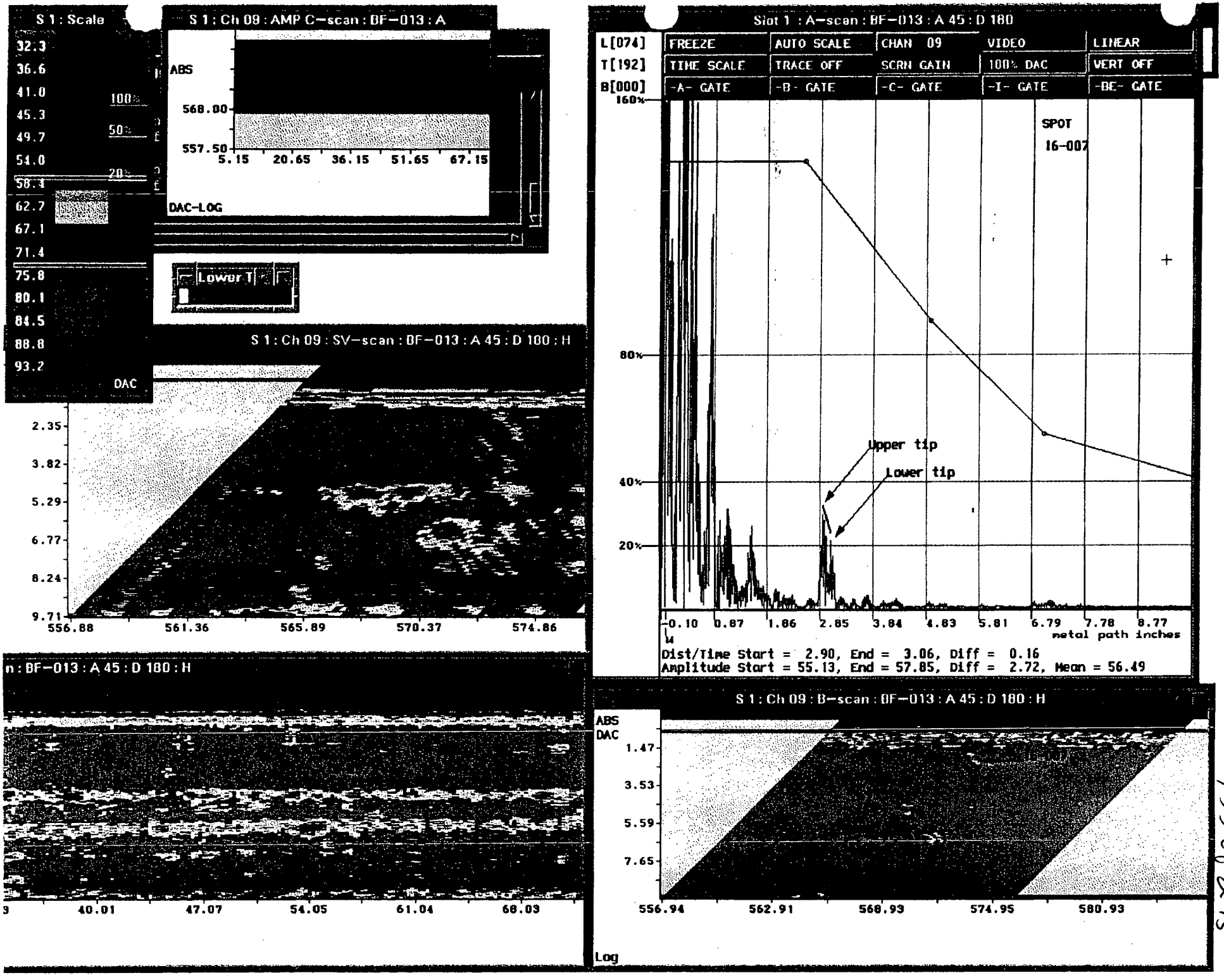
0051



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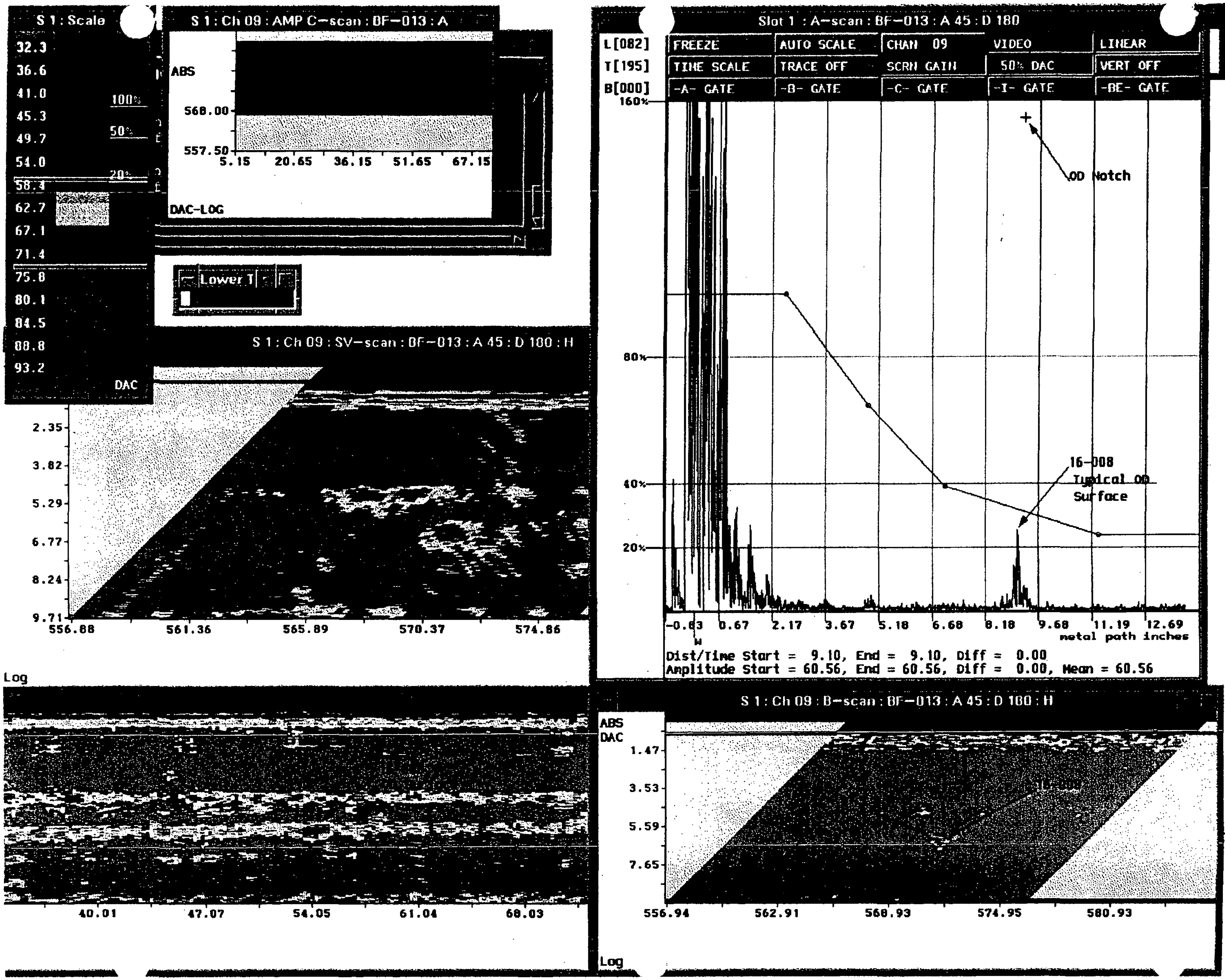

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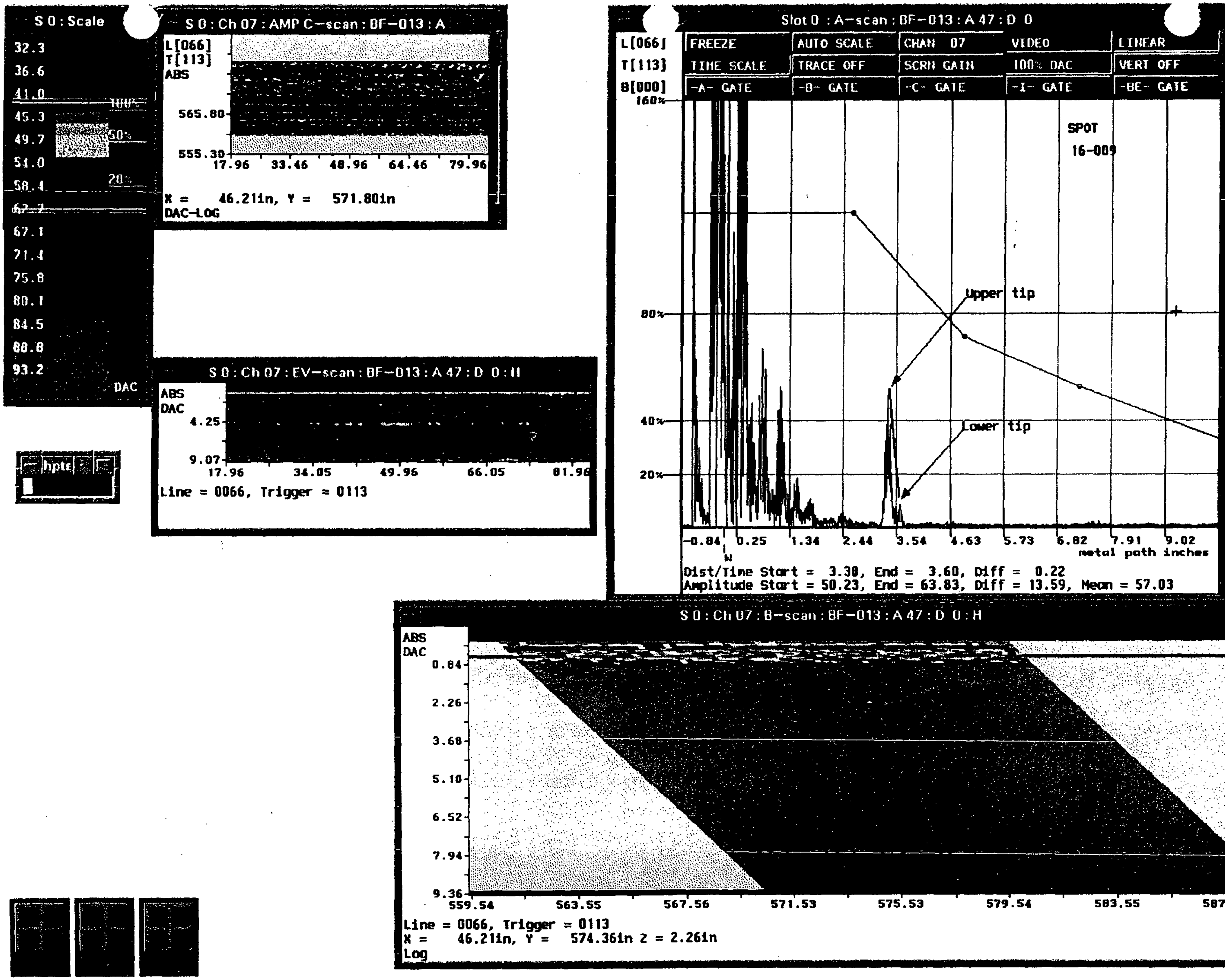
00519



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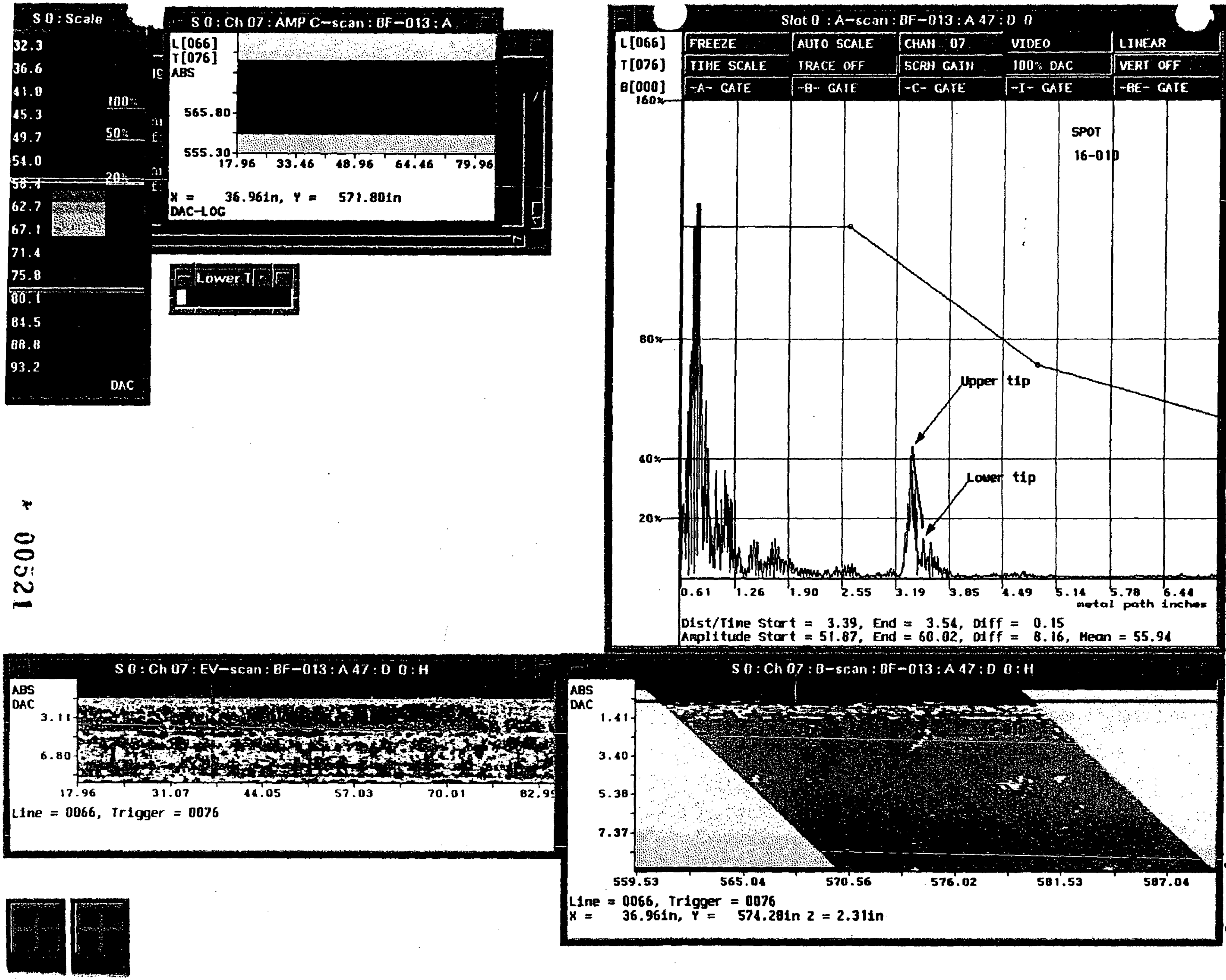

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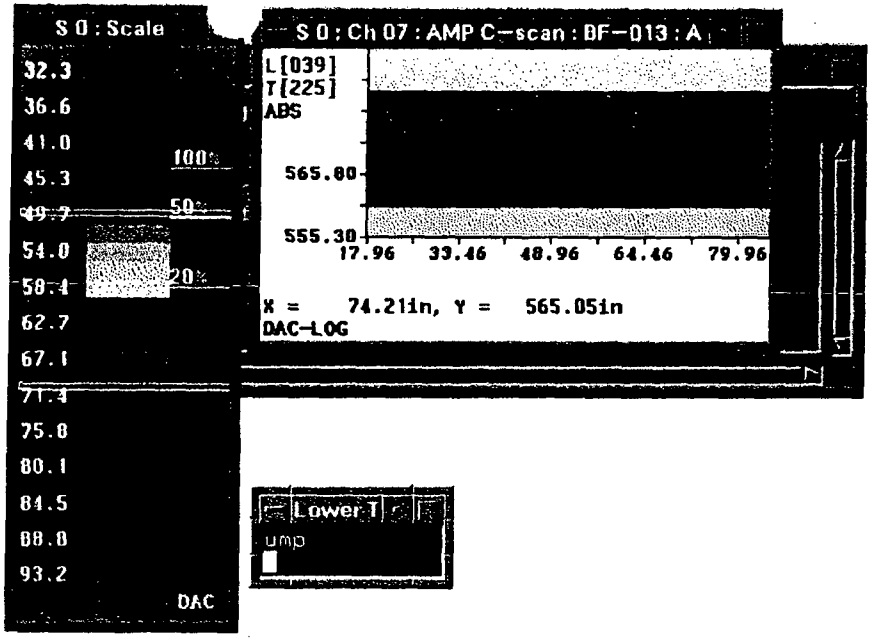
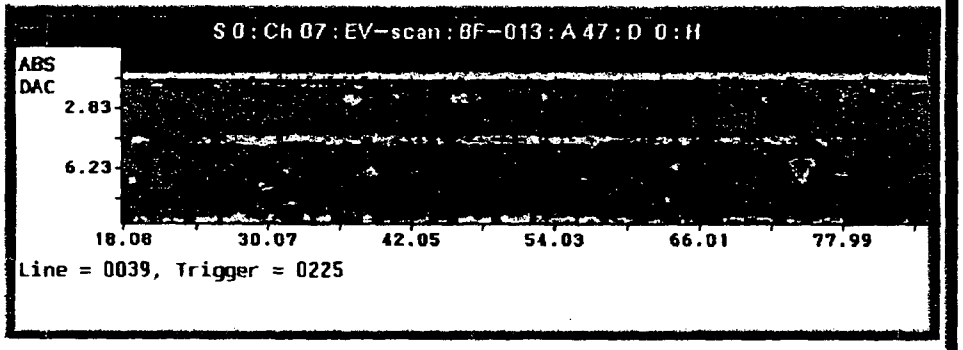
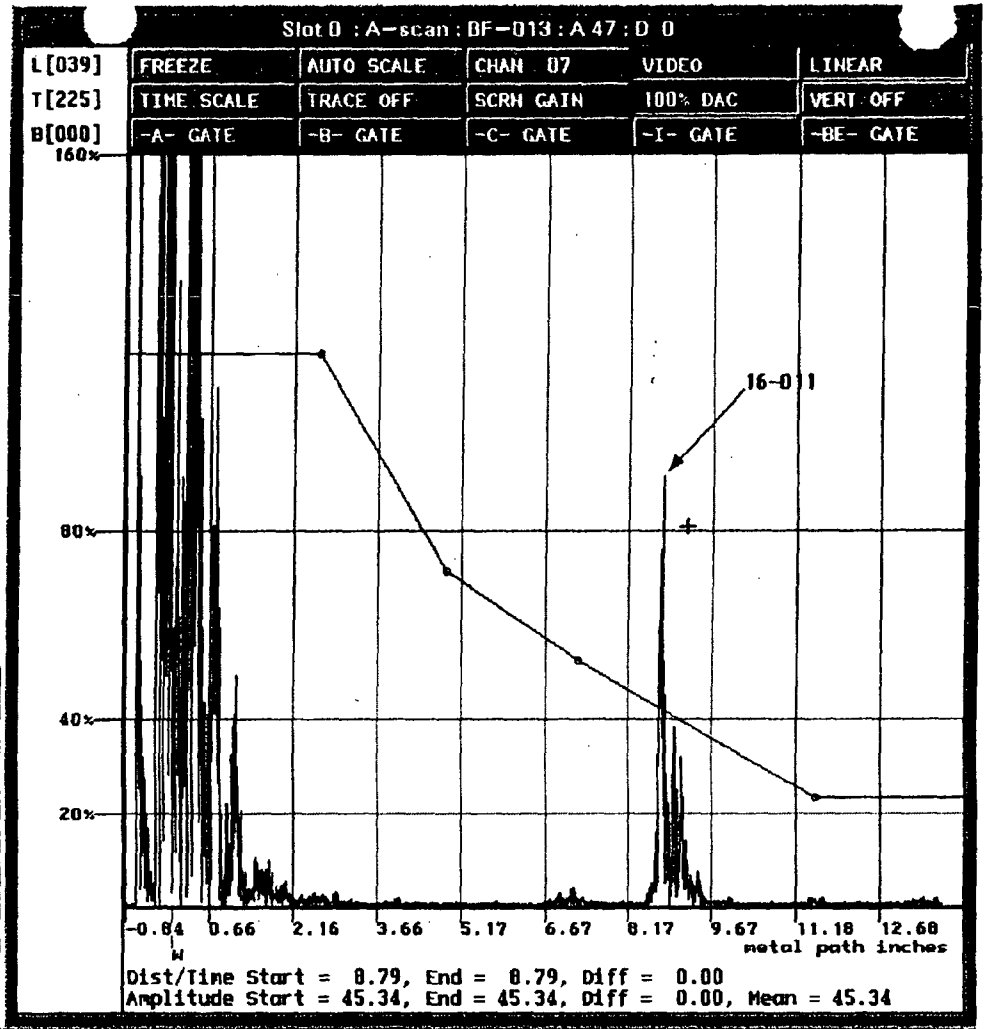
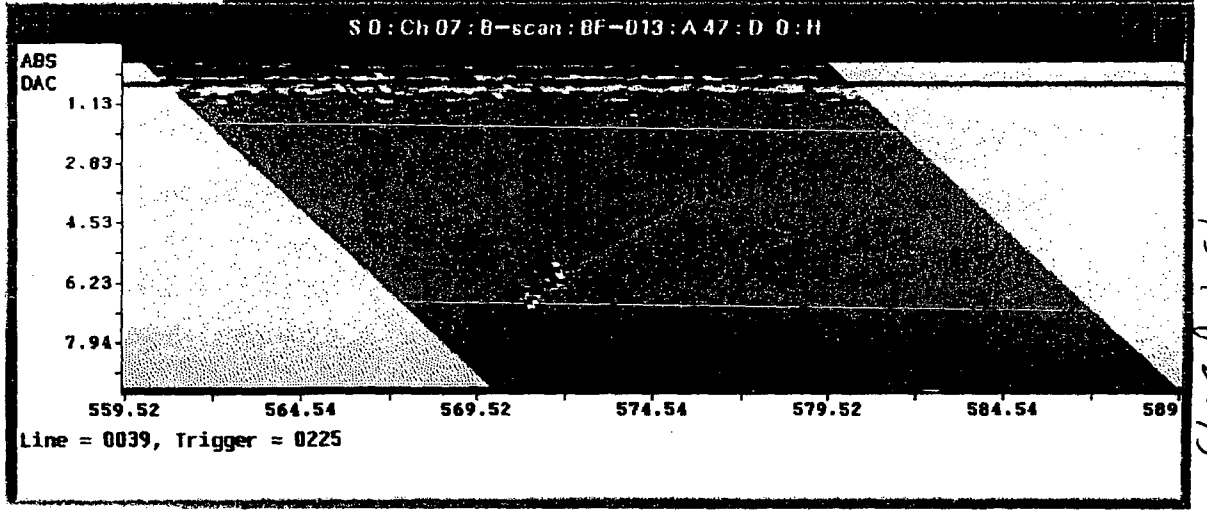
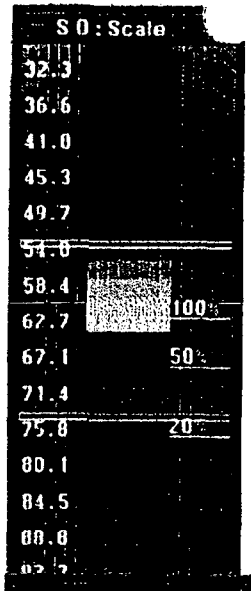
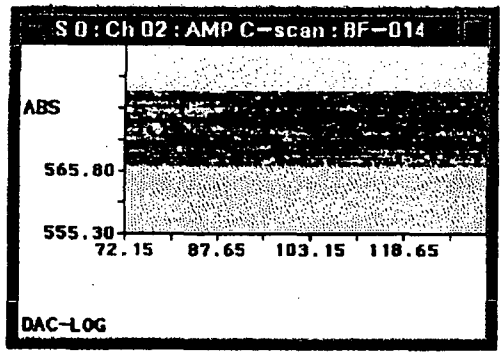

S 0 : Scale
32.3
36.6
41.0
45.3
49.7
54.0
58.4
62.7
67.1
71.4
75.8
80.1
84.5
88.8
93.2
100%
50%
20%
DAC
S 0 : Ch 07 : AMP C-scan : BF-013 : A
L[039]
T[225]
ABS
565.80
555.30
17.96
33.46
48.96
64.46
79.96
X = 74.21in, Y = 565.05in
DAC-LOG
Lower T
ump

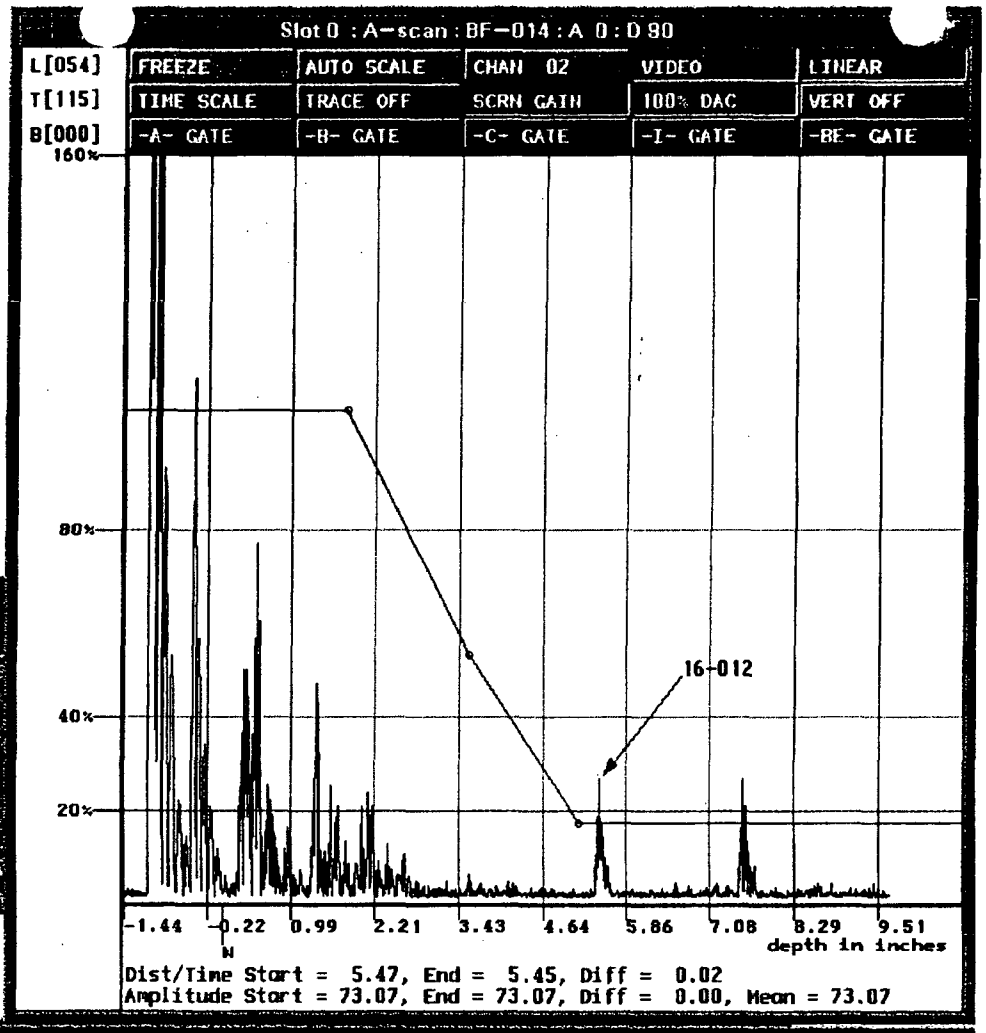

S 0 : Ch 07 : EV-scan : BF-013 : A 47 : D 0 : H
ABS
DAC
2.83
6.23
18.08
30.07
42.05
54.03
66.01
77.99
Line = 0039, Trigger = 0225

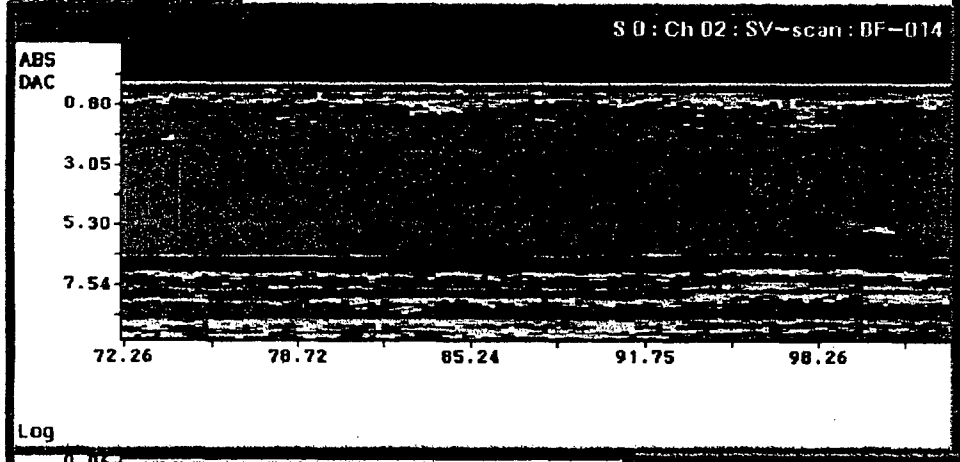

Slot 0 : A-scan : BF-013 : A 47 : D 0
L[039]
T[225]
B[000]
FREEZE
AUTO SCALE
CHAN 07
VIDEO
LINEAR
TIME SCALE
TRACE OFF
SCRN GAIN
100% DAC
VERT OFF
-A- GATE
-B- GATE
-C- GATE
-I- GATE
-BE- GATE
160%
80%
40%
20%
16-0 1
-0.84
0.66
2.16
3.66
5.17
6.67
8.17
9.67
11.18
12.68
metal path inches
Dist/Time Start = 8.79, End = 8.79, Diff = 0.00
Amplitude Start = 45.34, End = 45.34, Diff = 0.00, Mean = 45.34

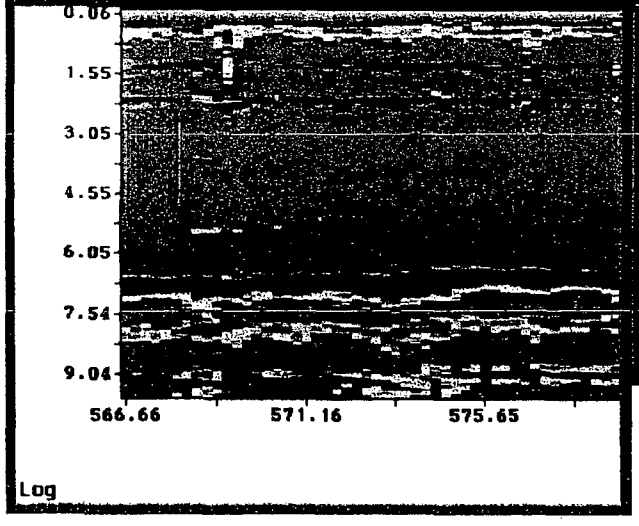

S 0 : Ch 07 : B-scan : BF-013 : A 47 : D 0 : H
ABS
DAC
1.13
2.83
4.53
6.23
7.94
559.52
564.54
569.52
574.54
579.52
584.54
589
Line = 0039, Trigger = 0225

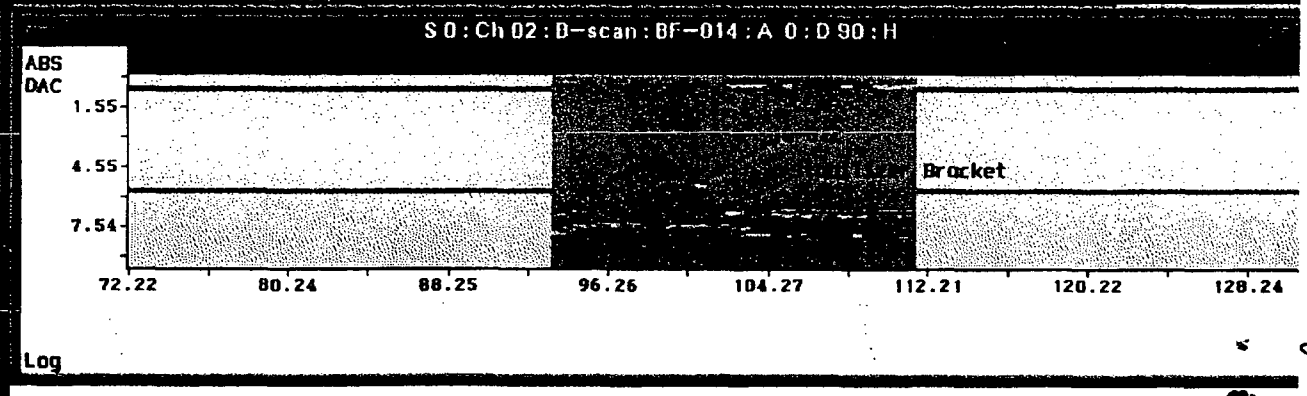












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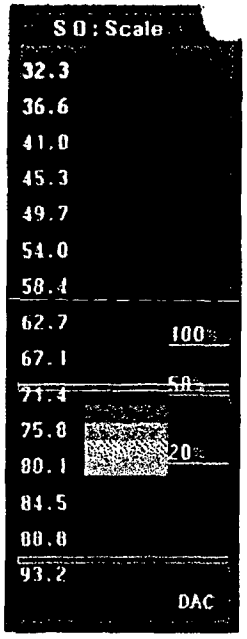

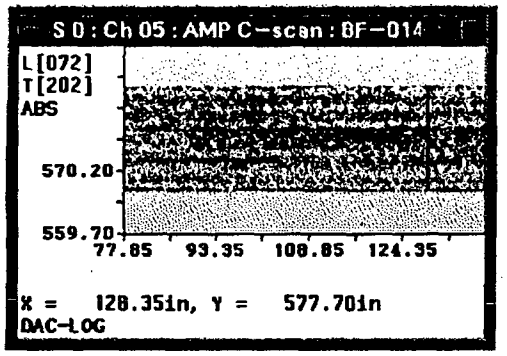

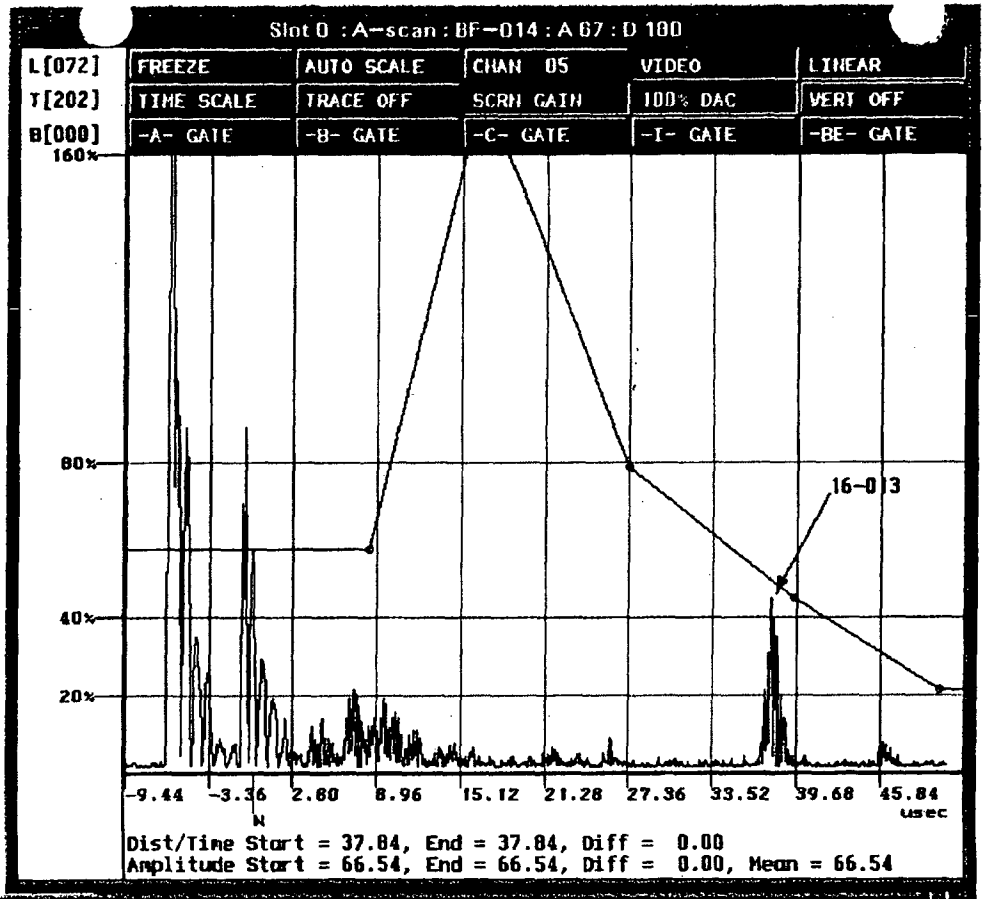

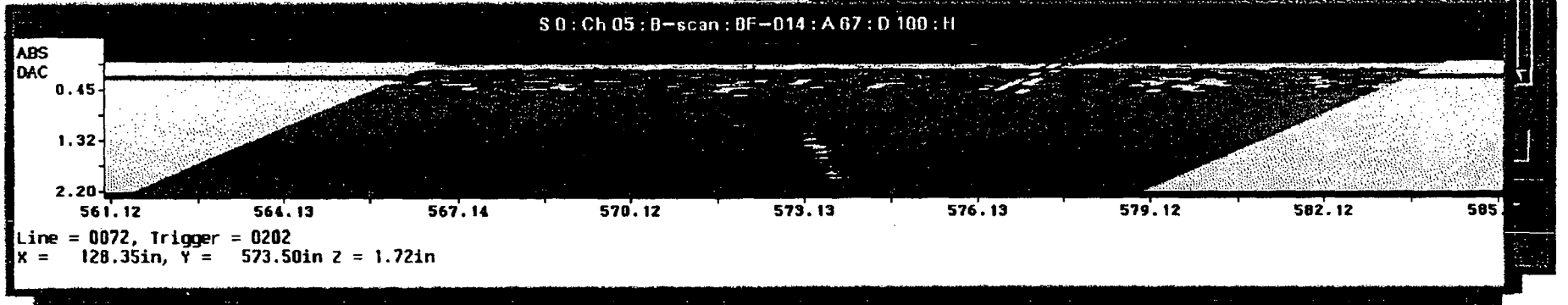

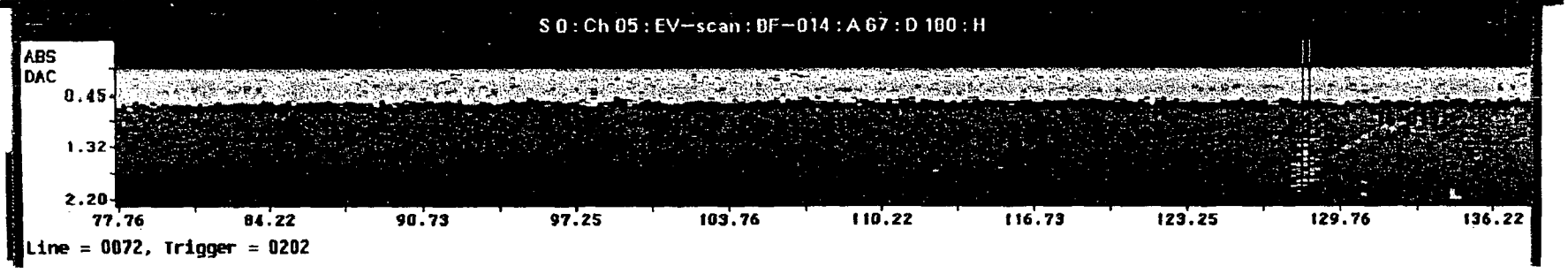

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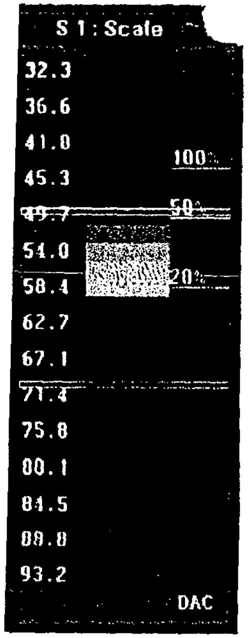

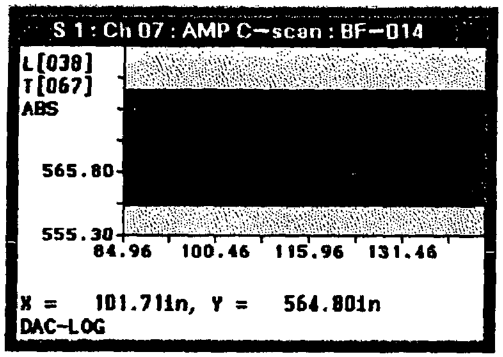

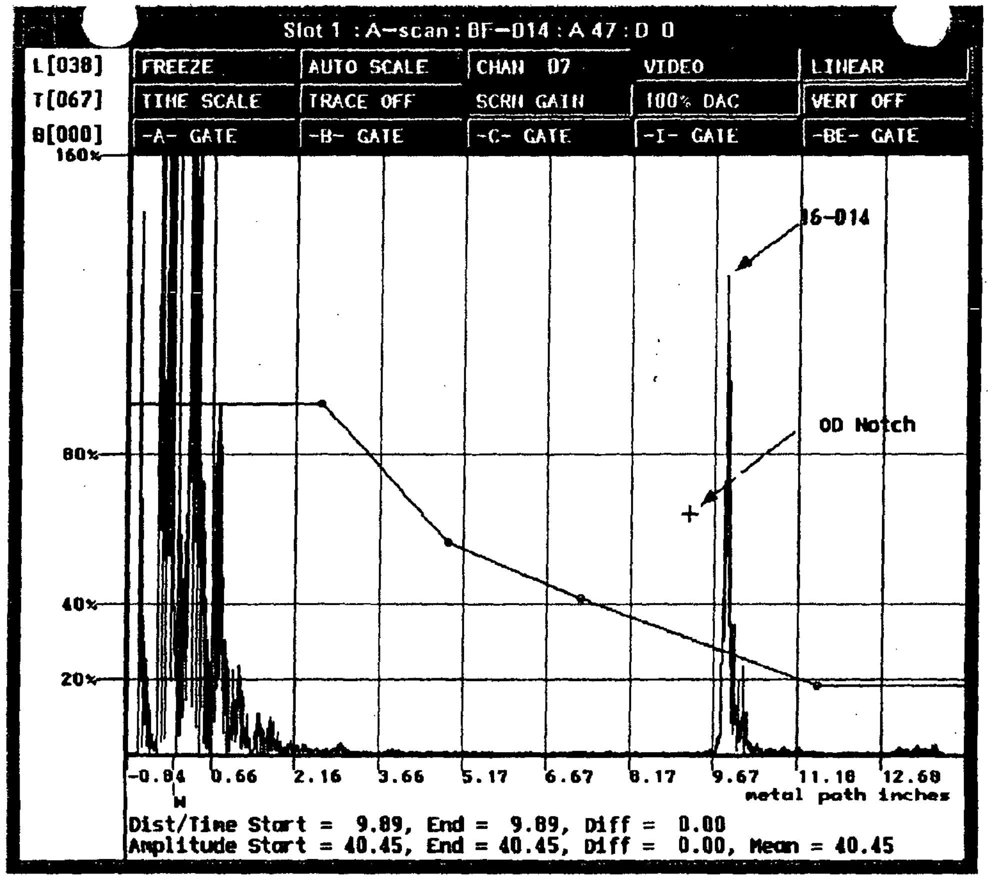

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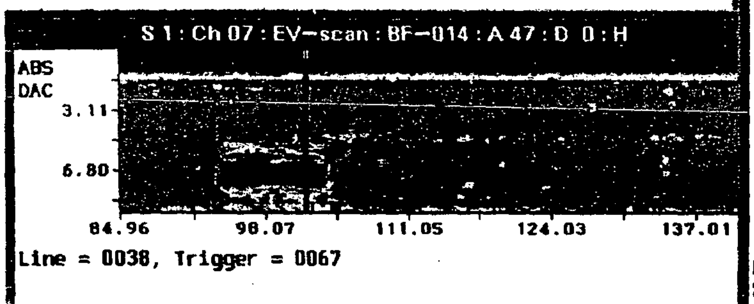

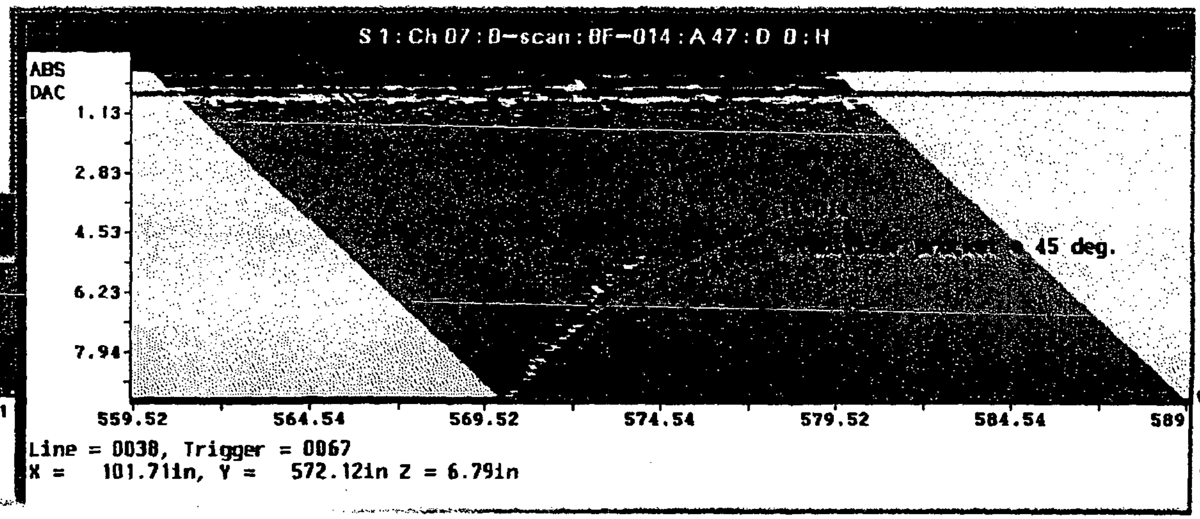

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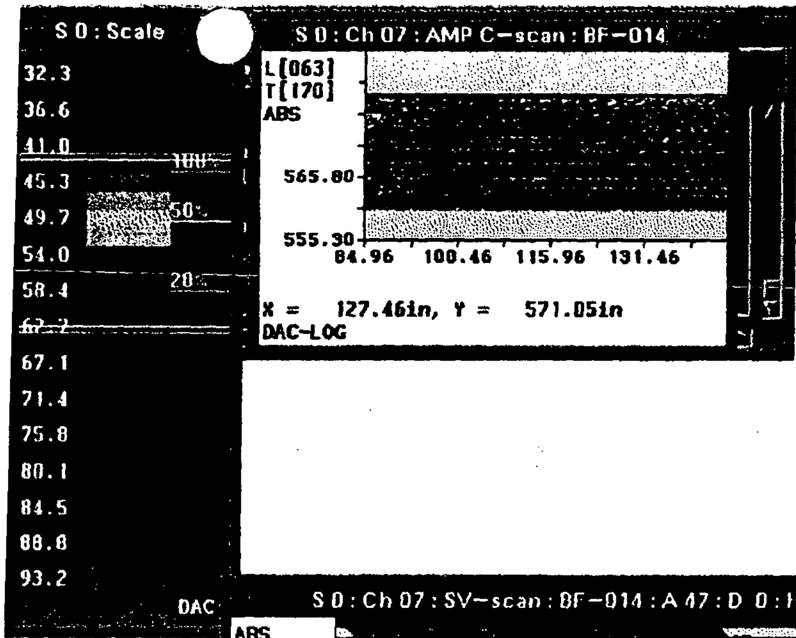

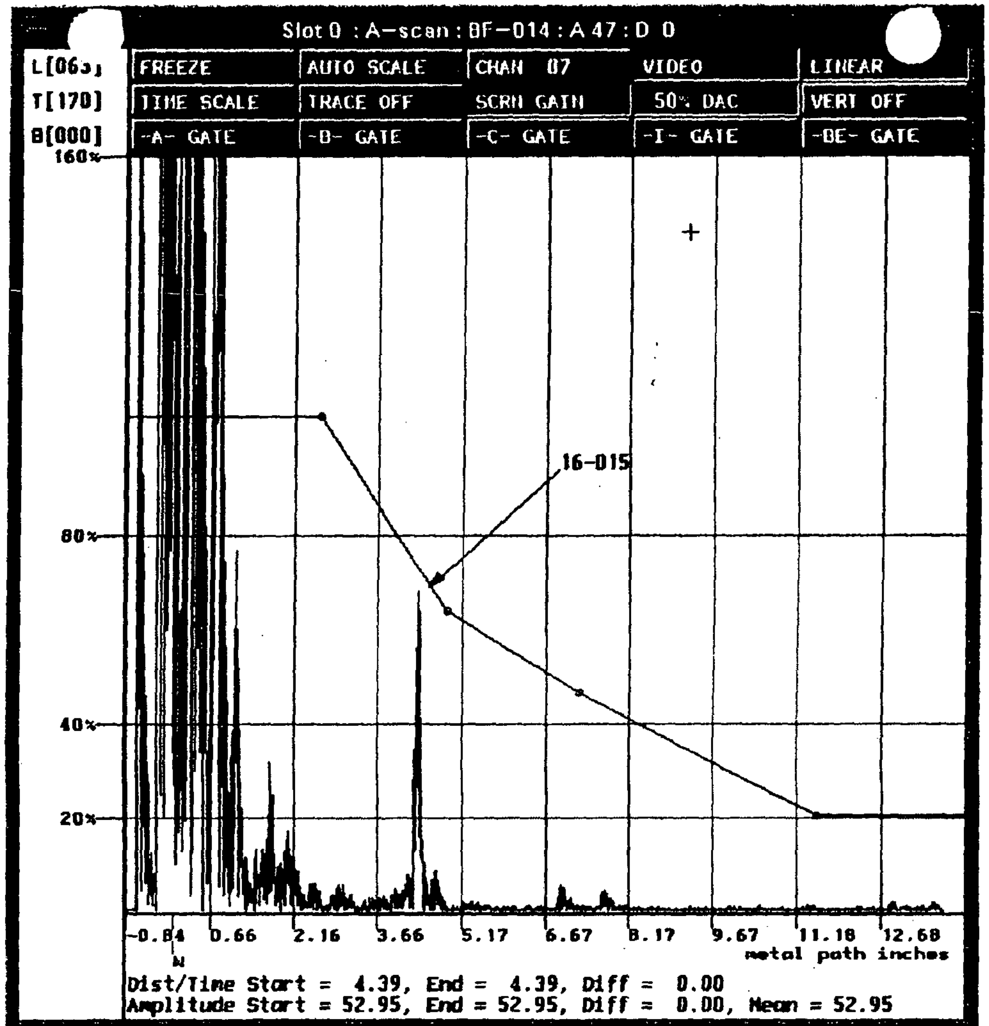

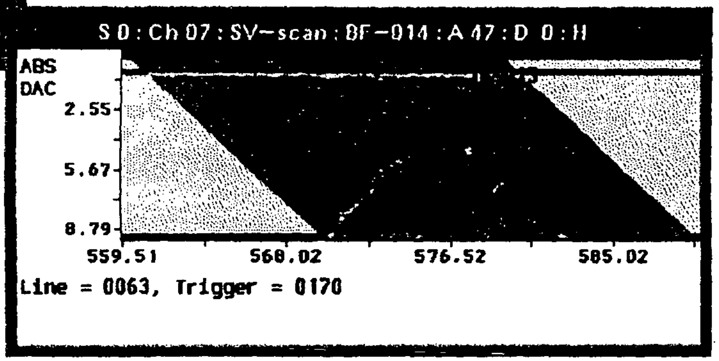

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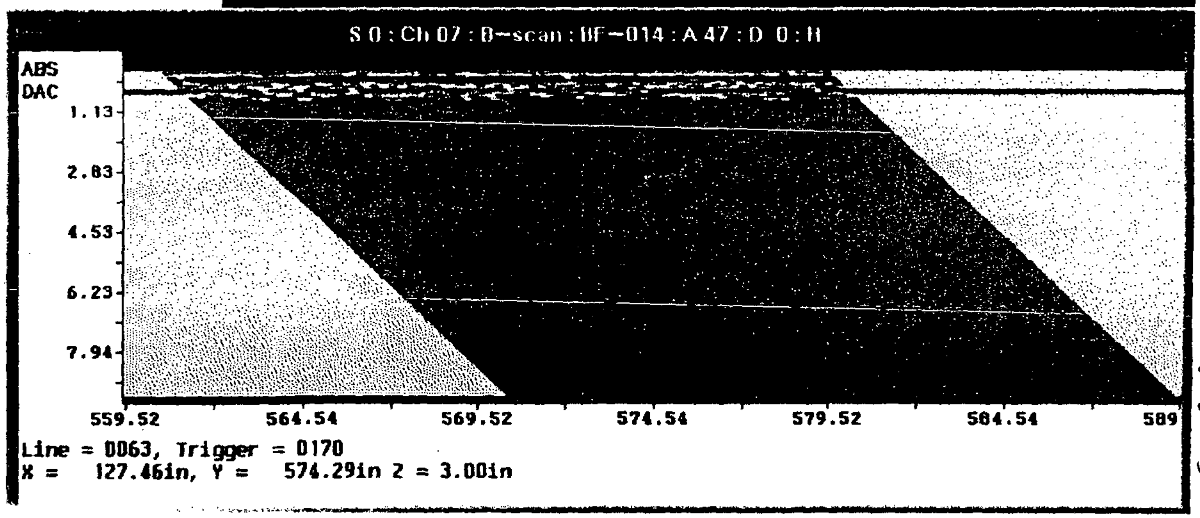

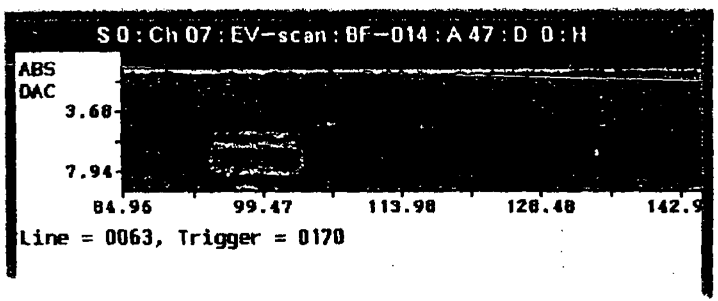

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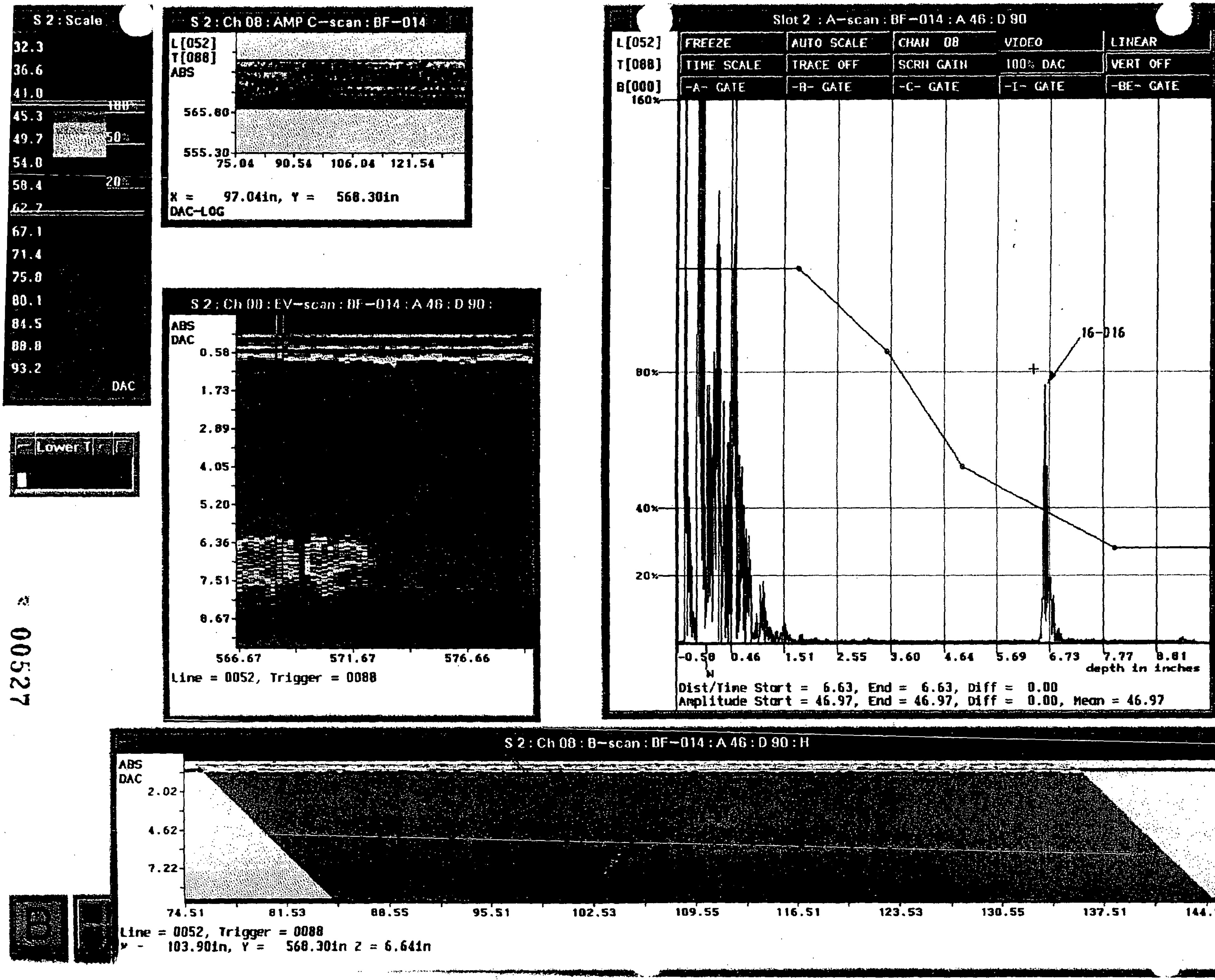

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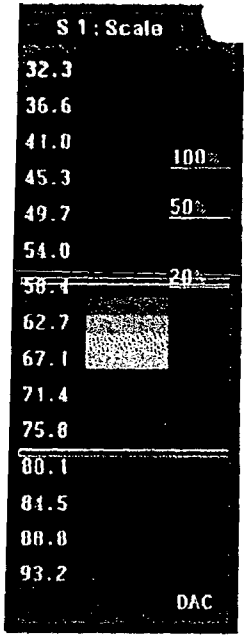

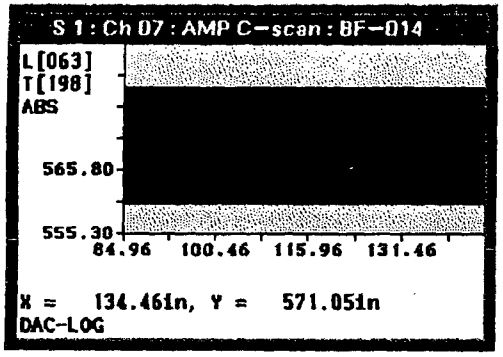

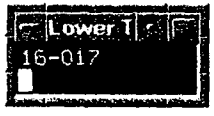

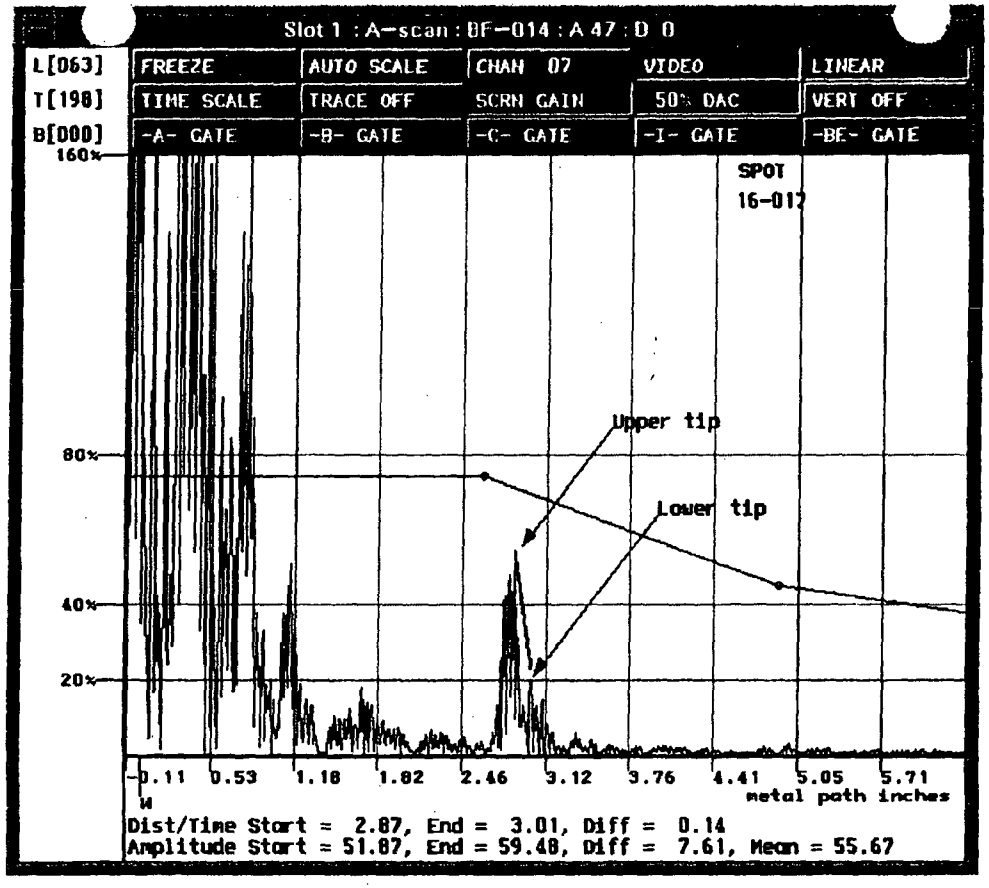

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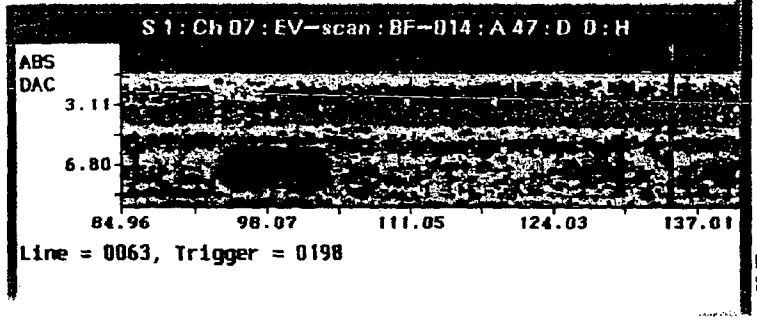

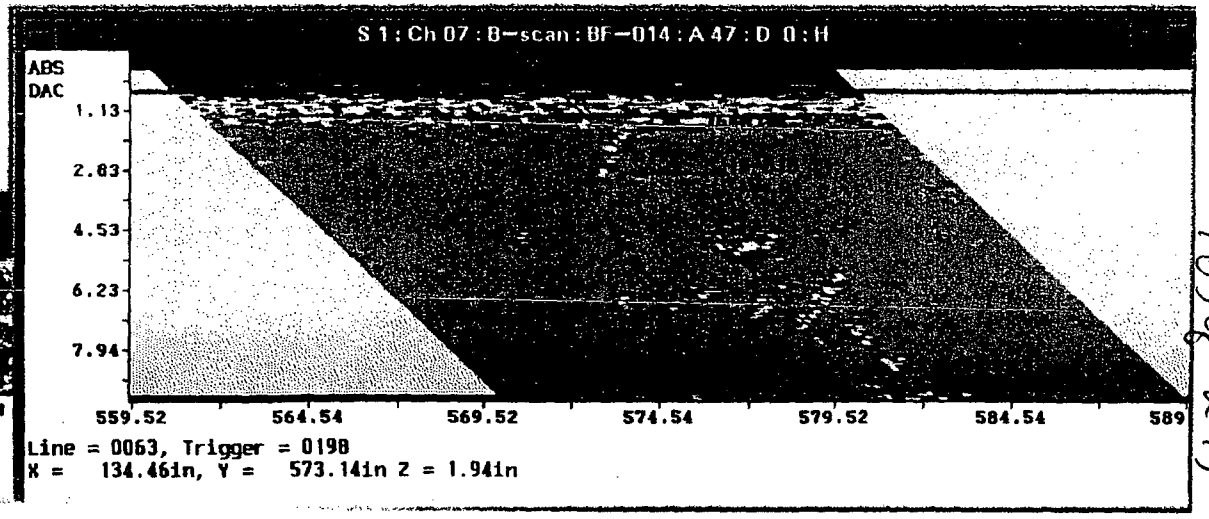

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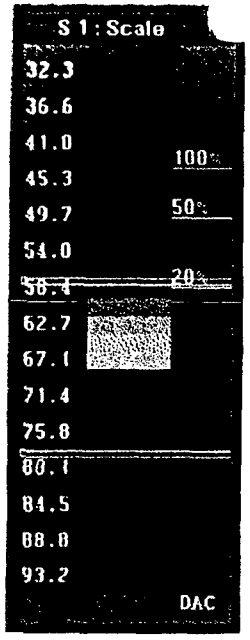

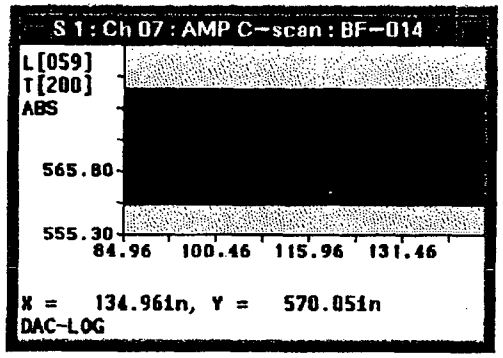

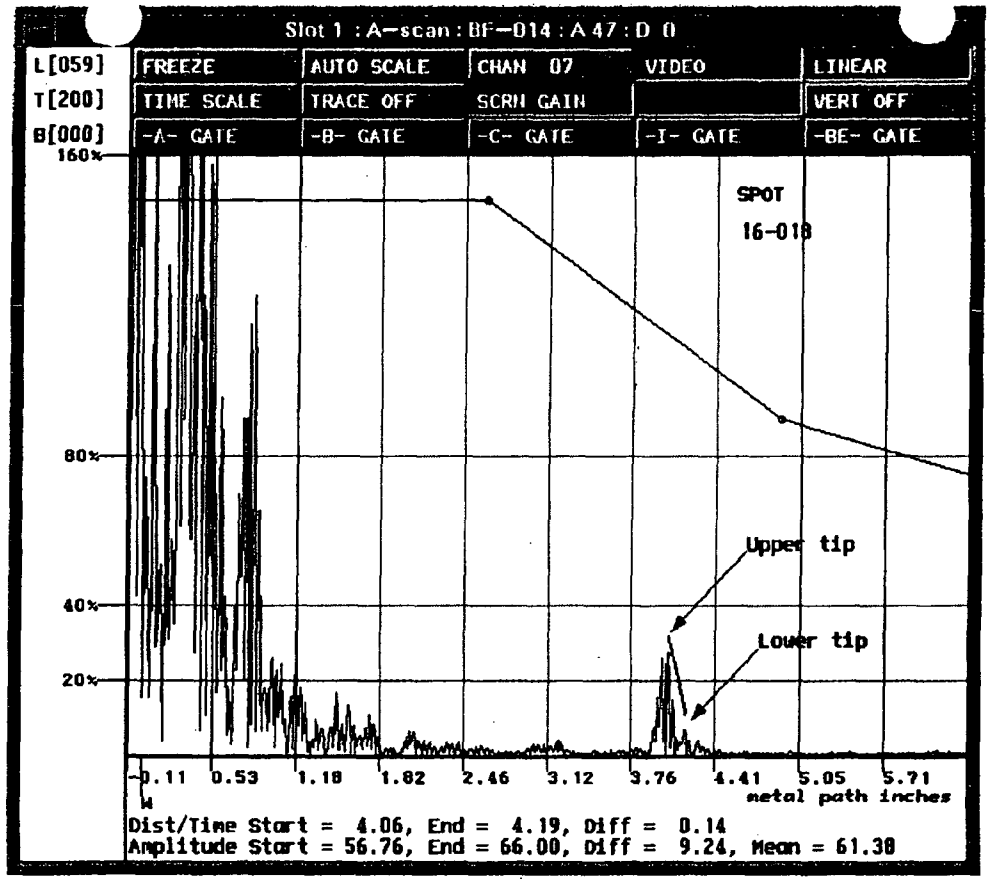

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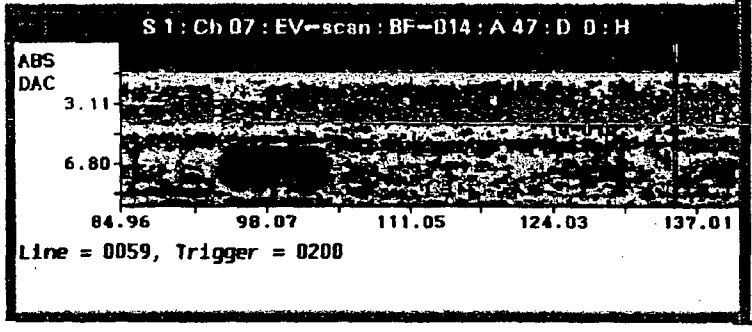

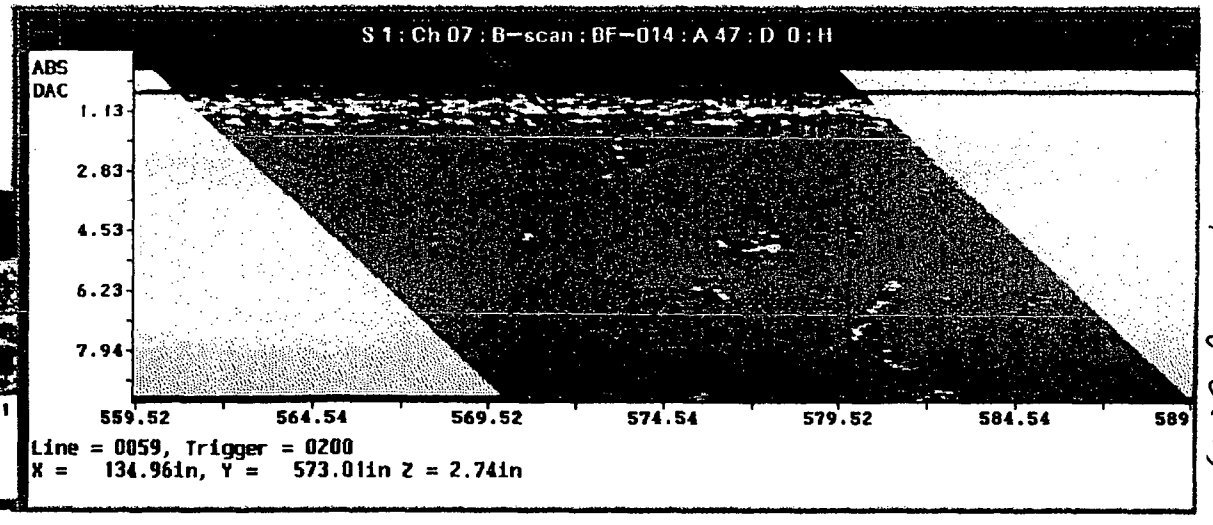

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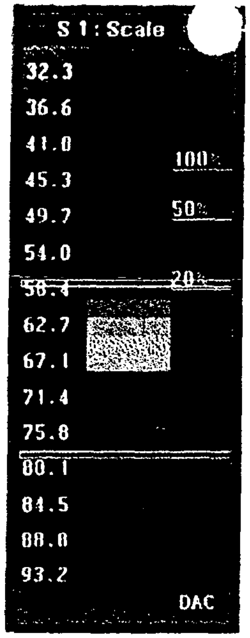

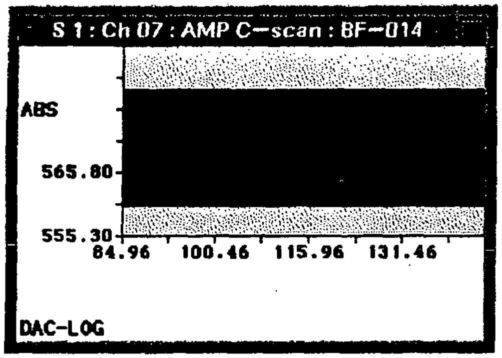

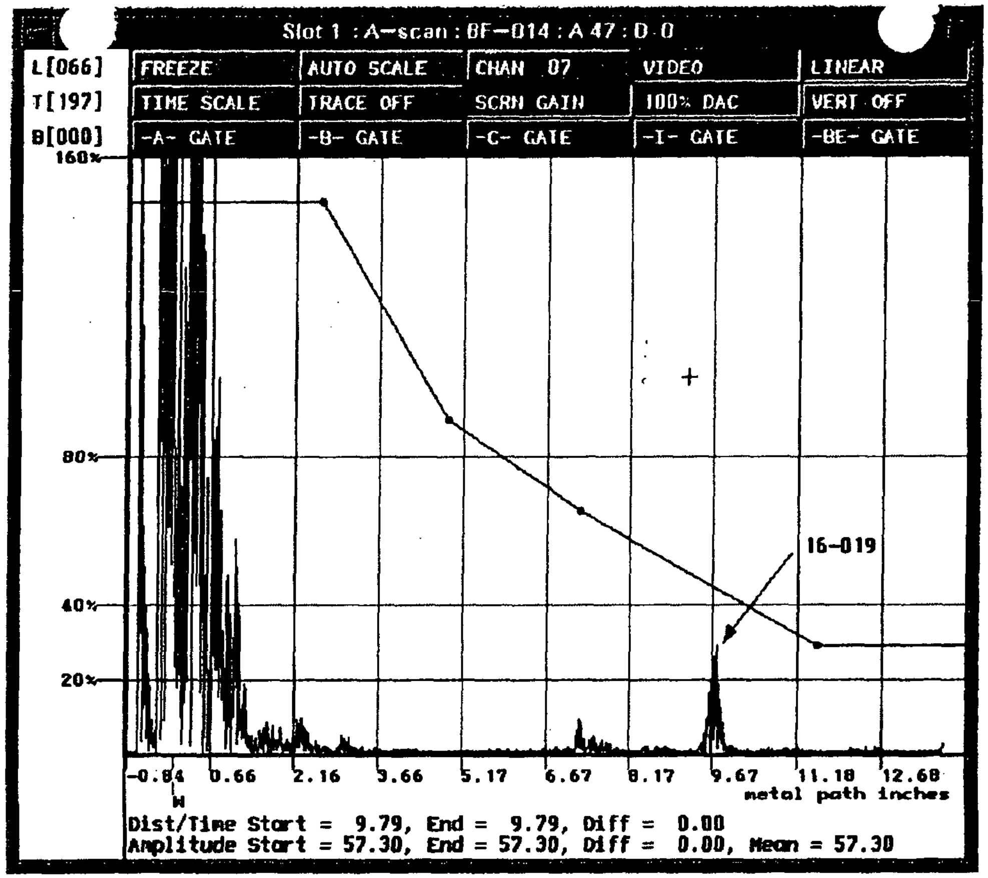

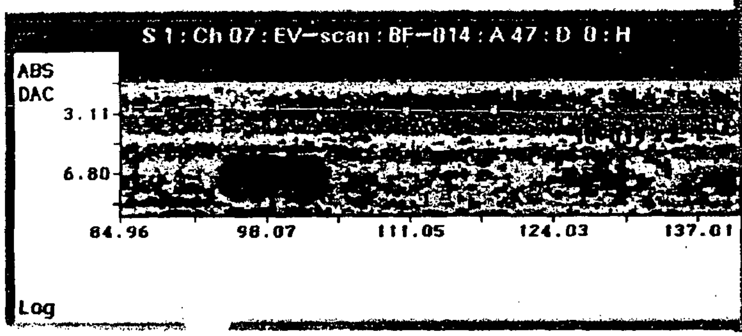

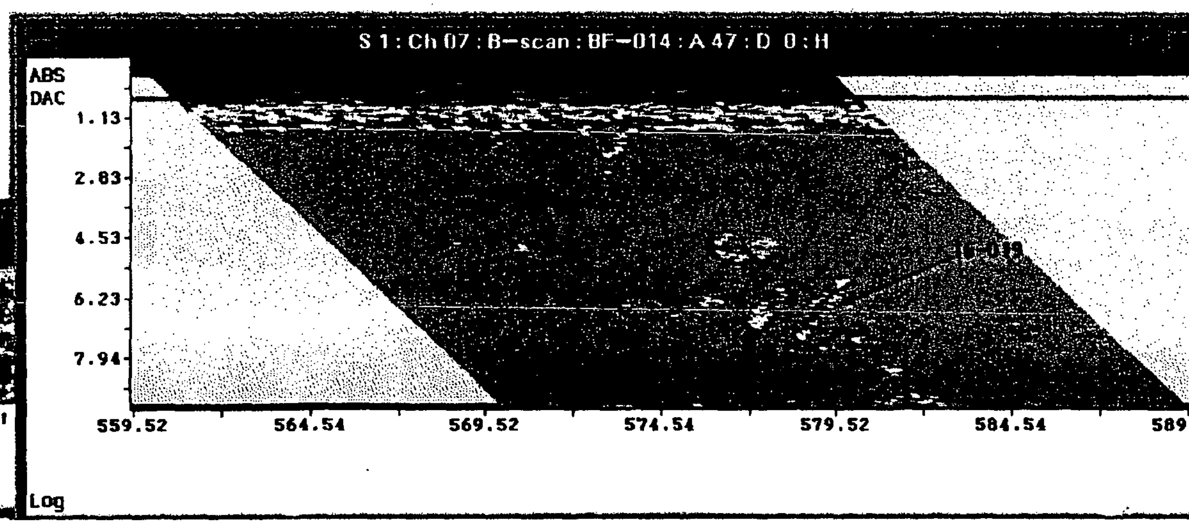

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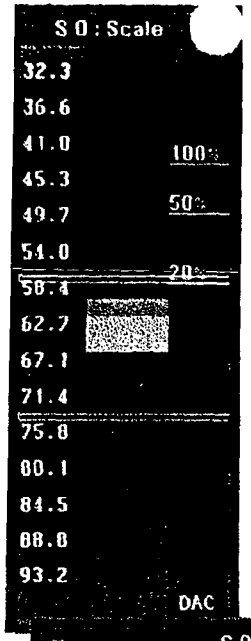

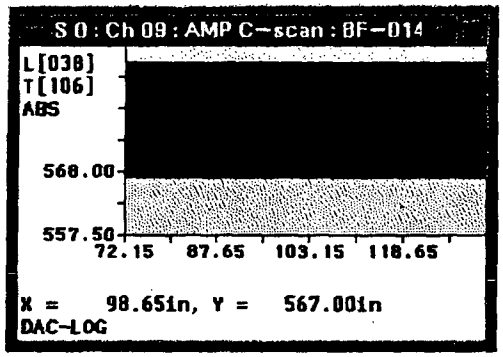

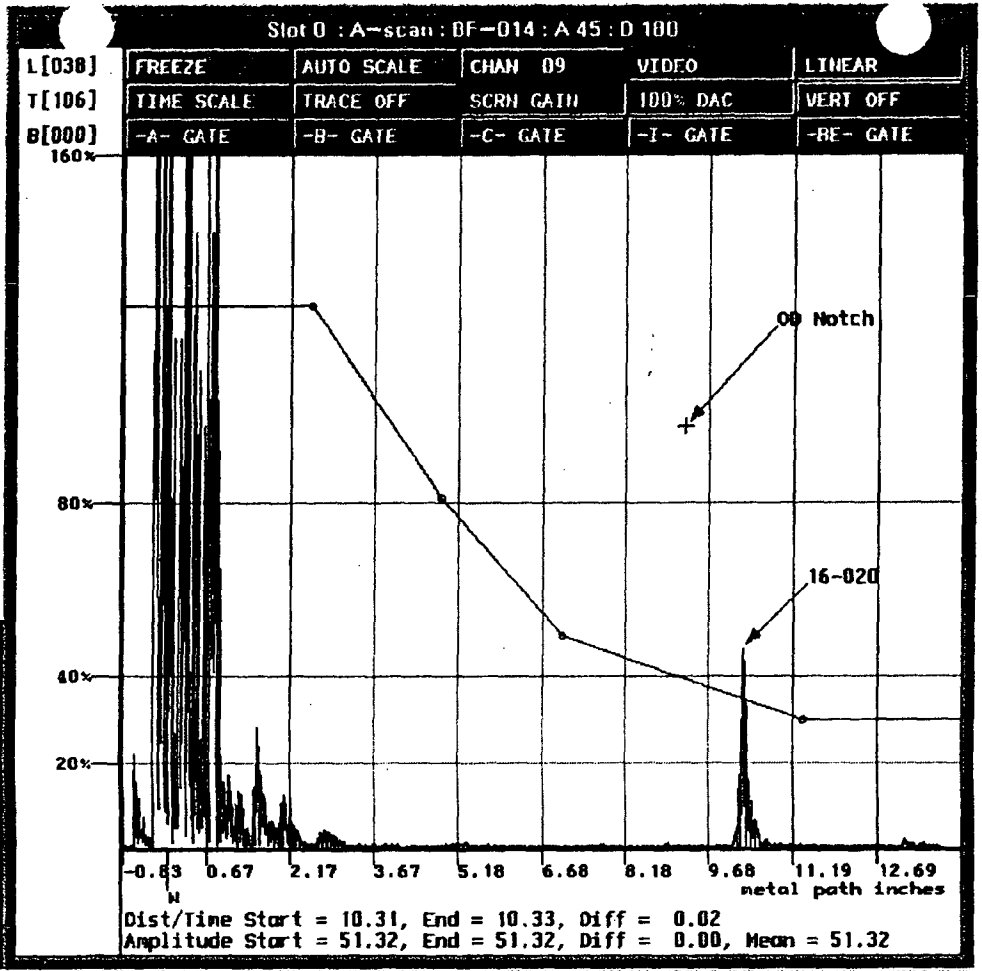

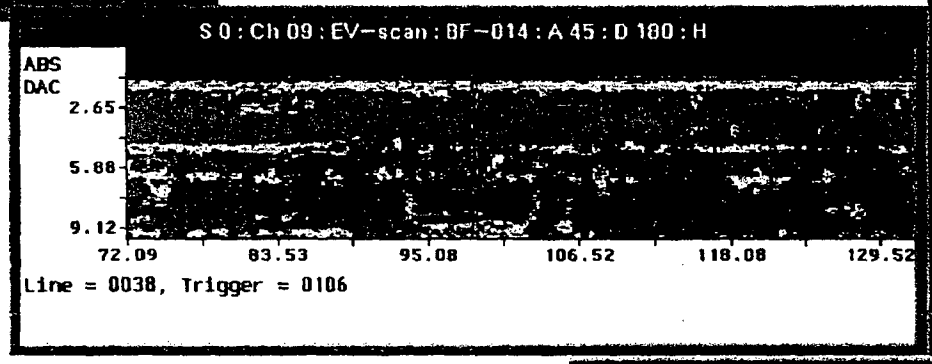

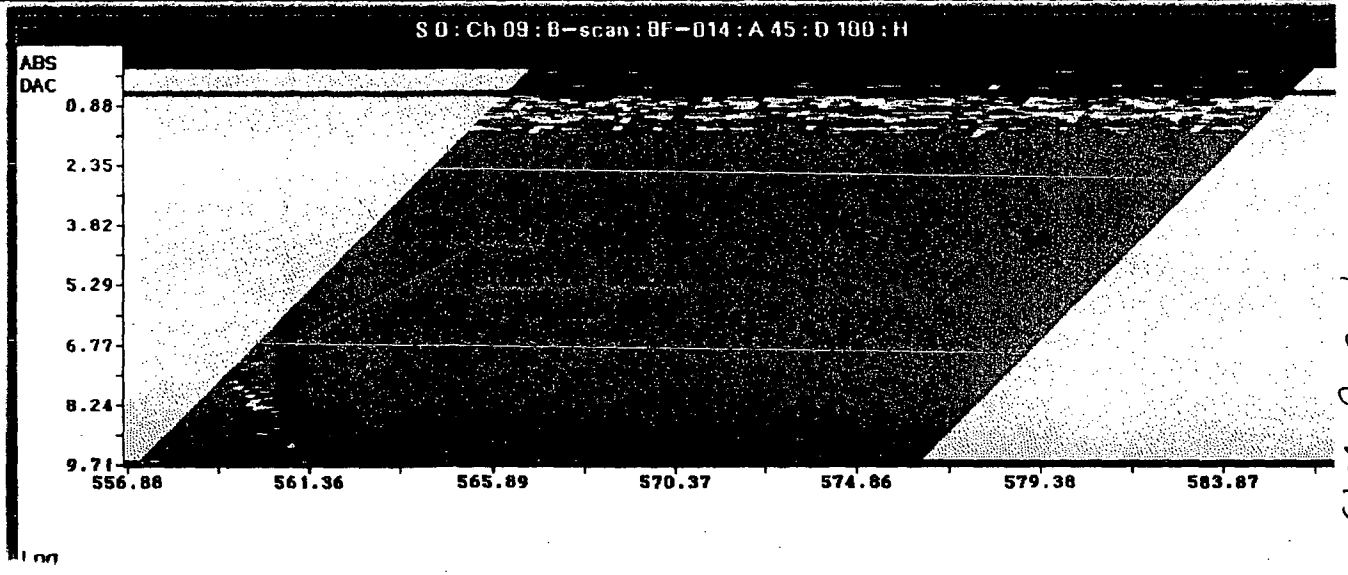

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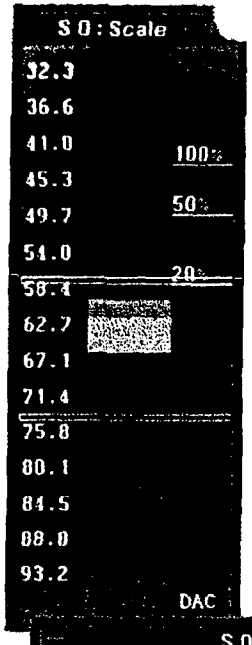

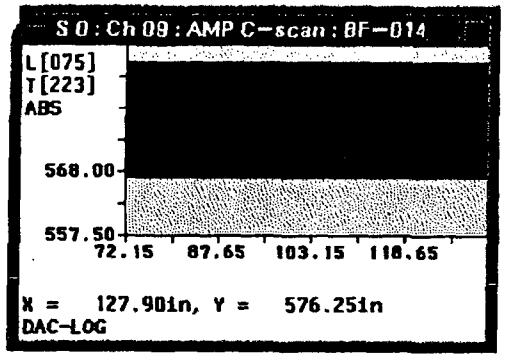

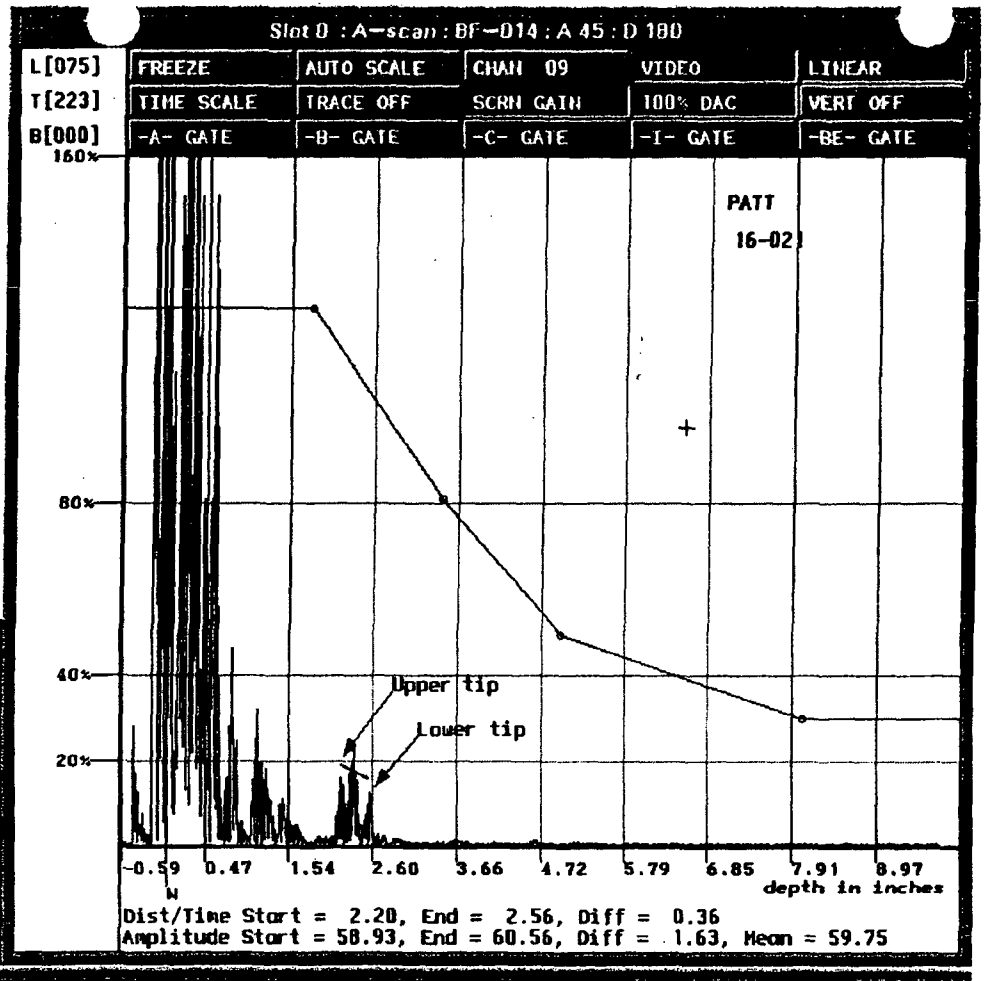

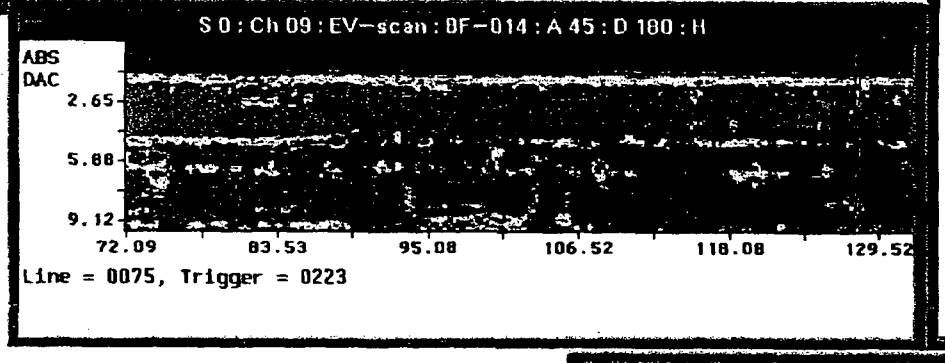

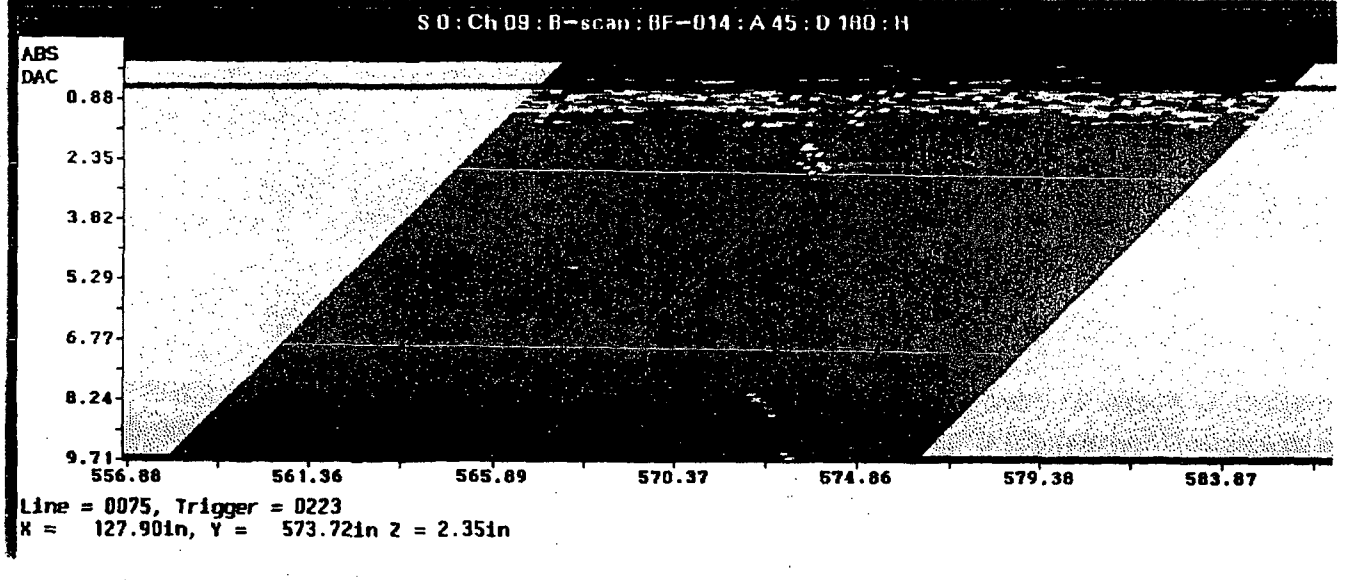

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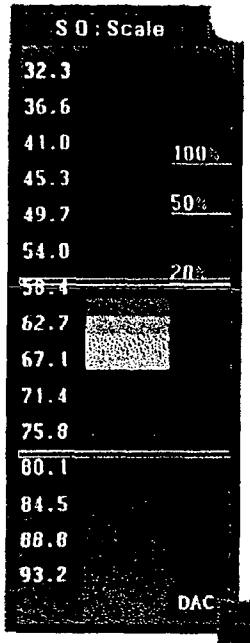

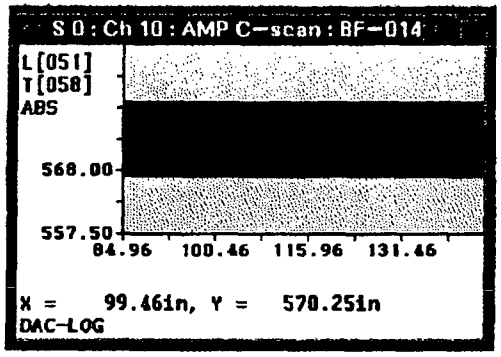

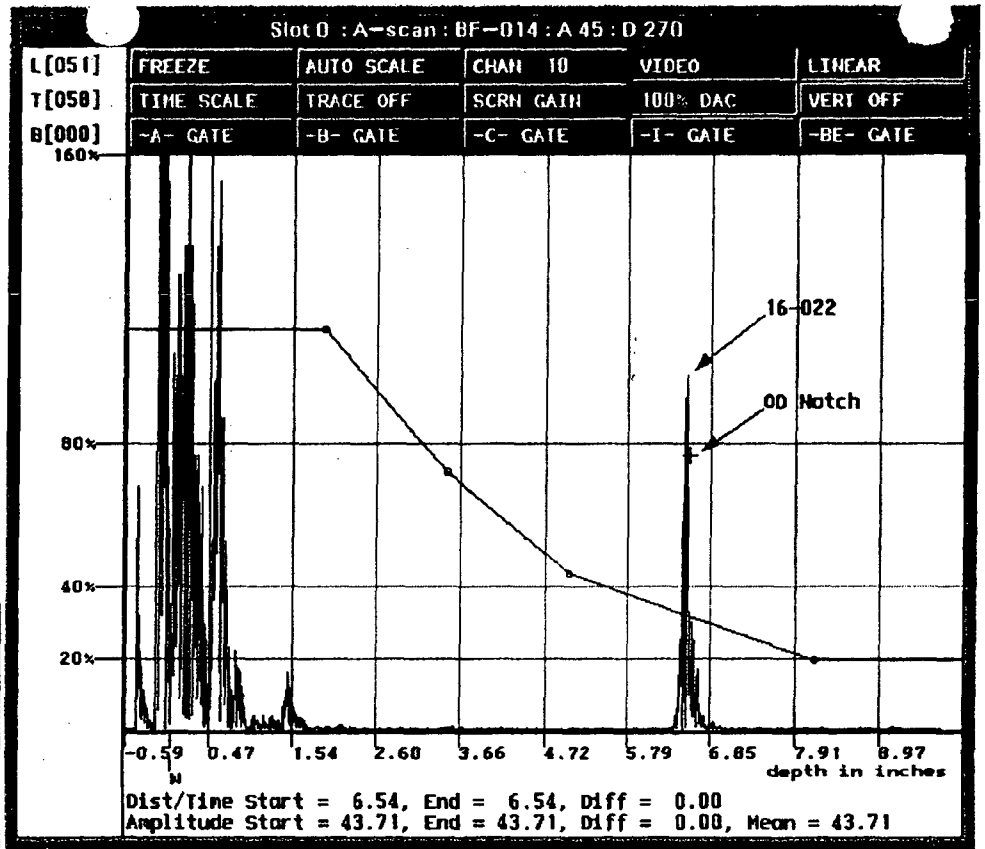

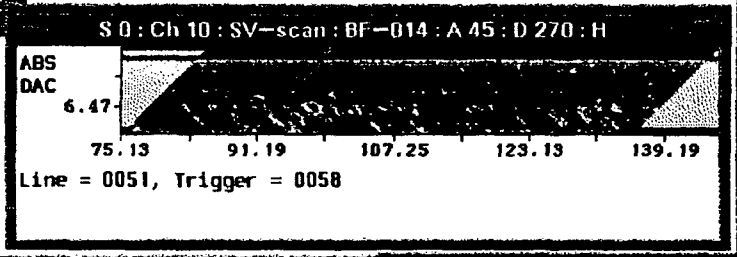

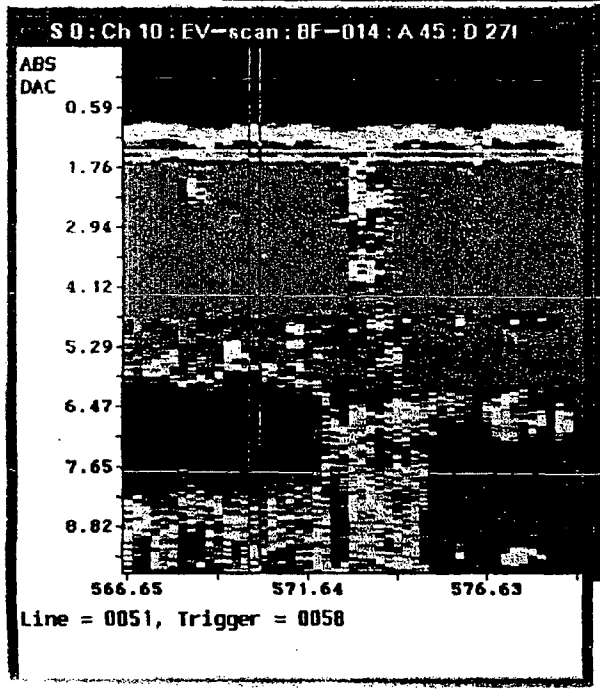

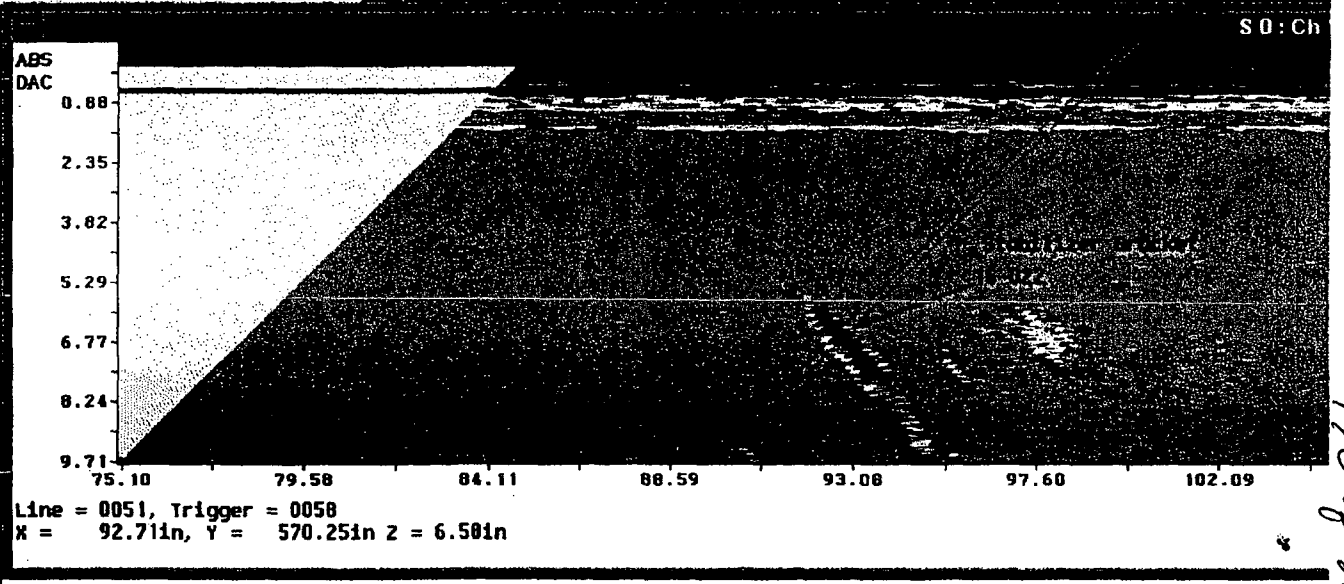

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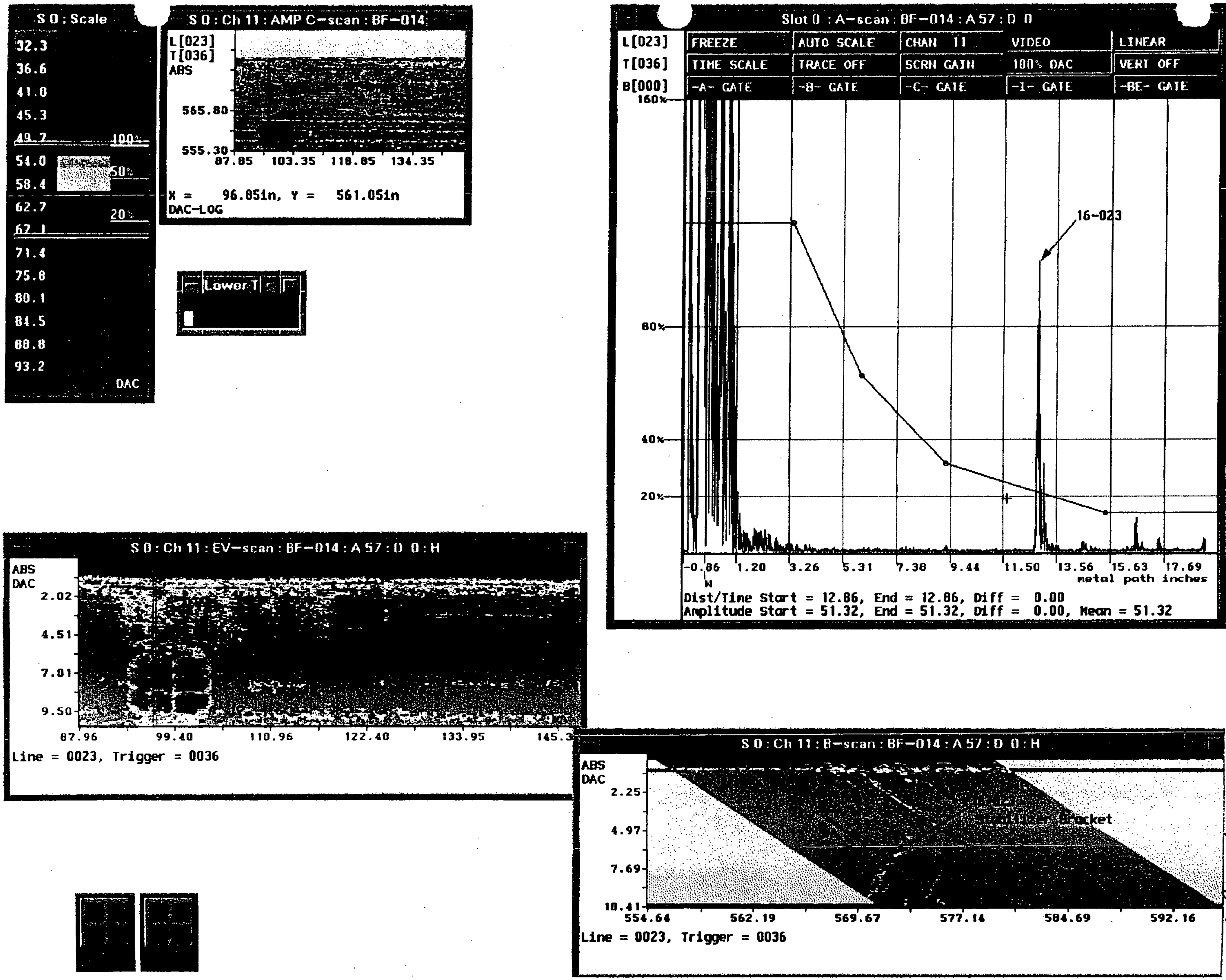

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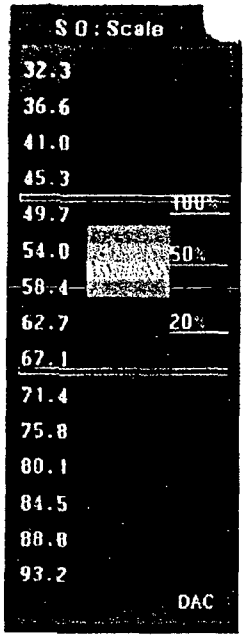

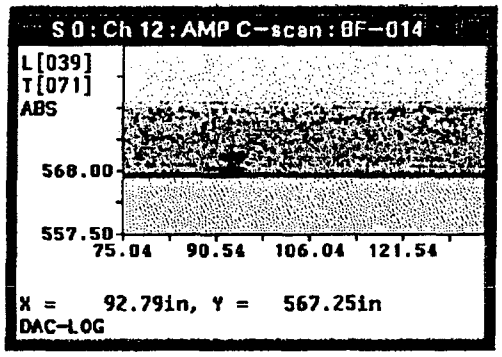

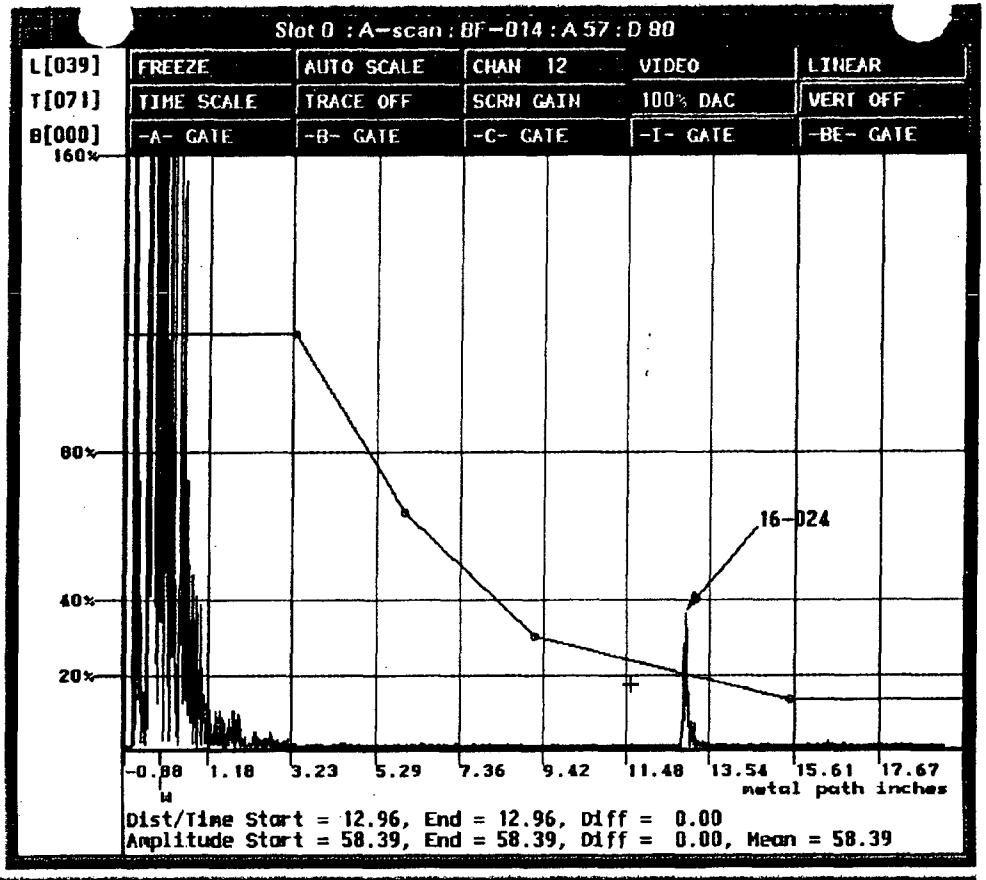

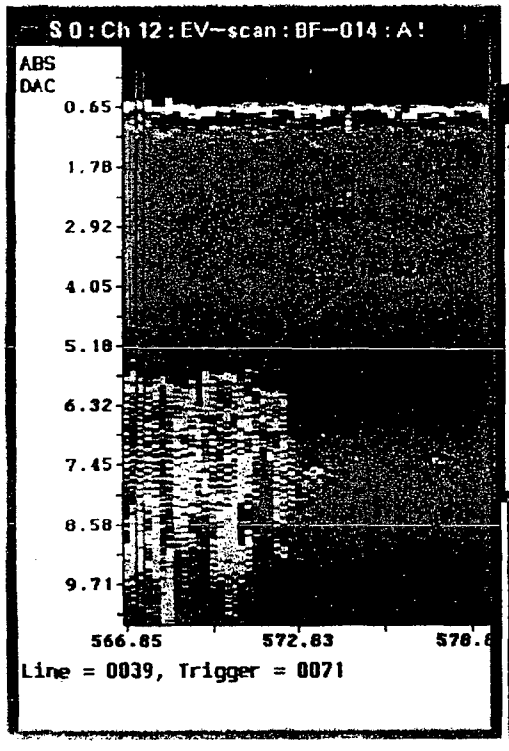

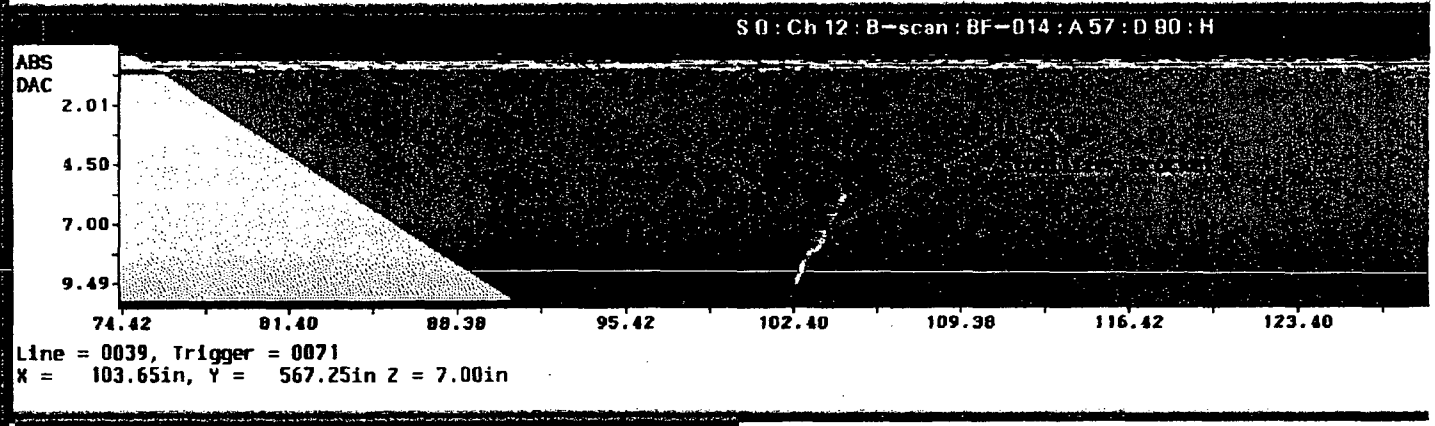

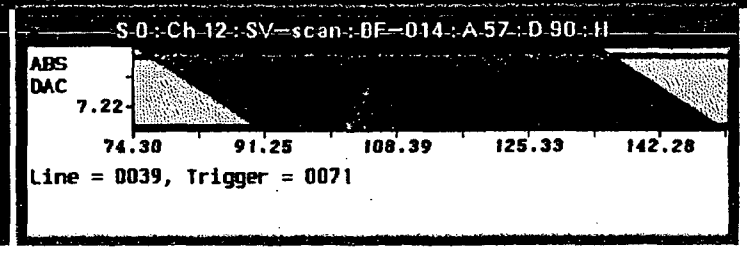

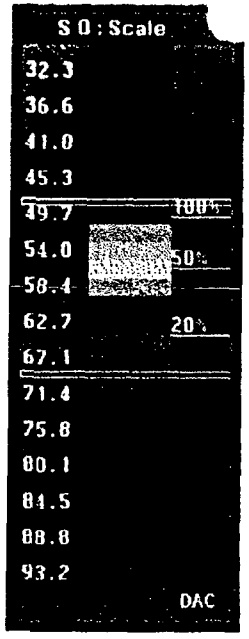

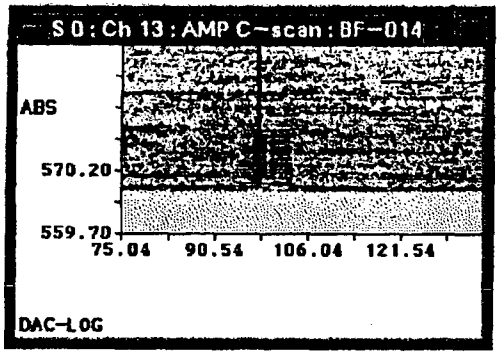

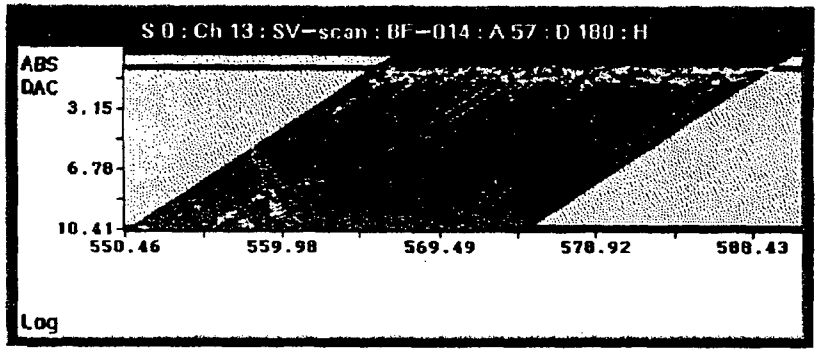

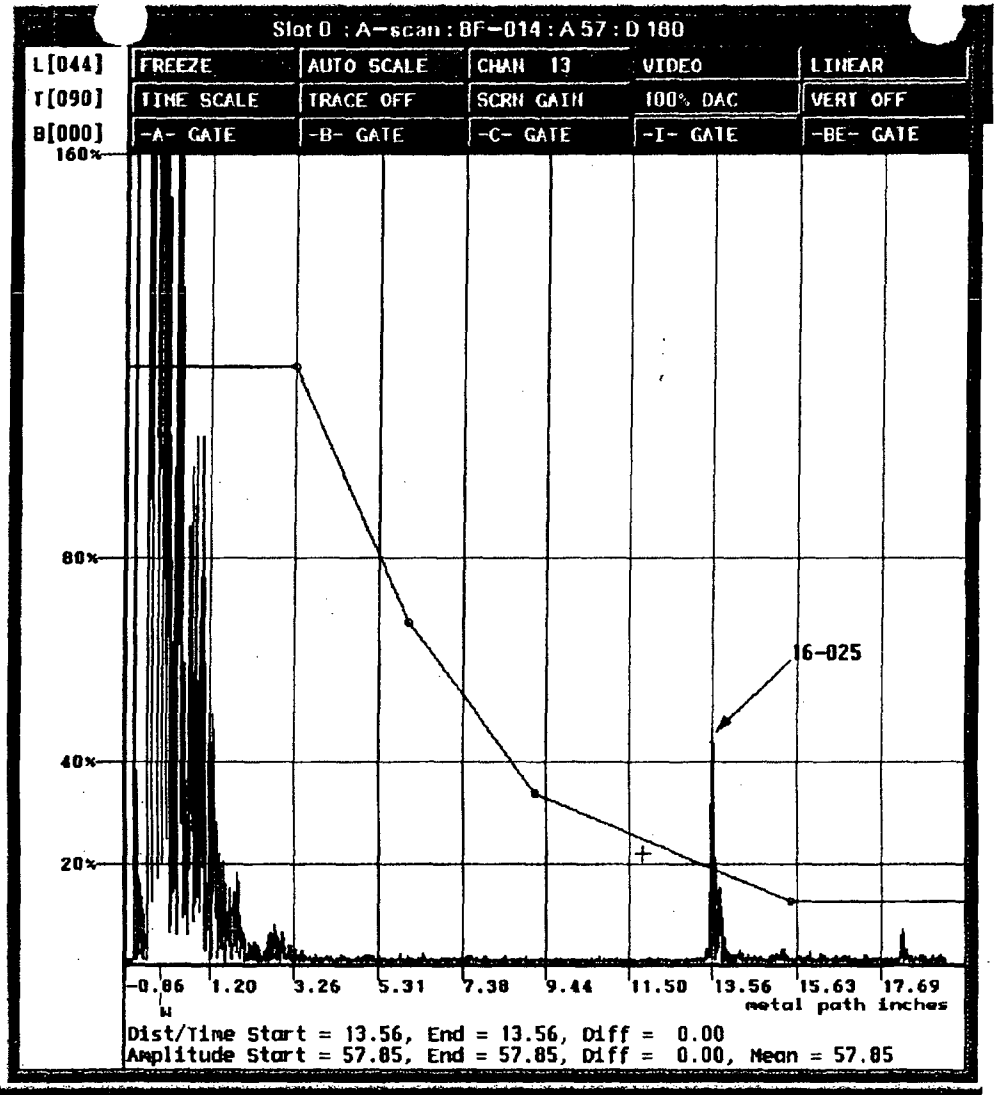

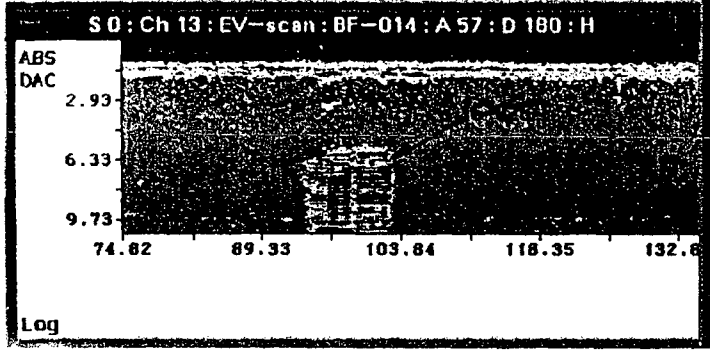

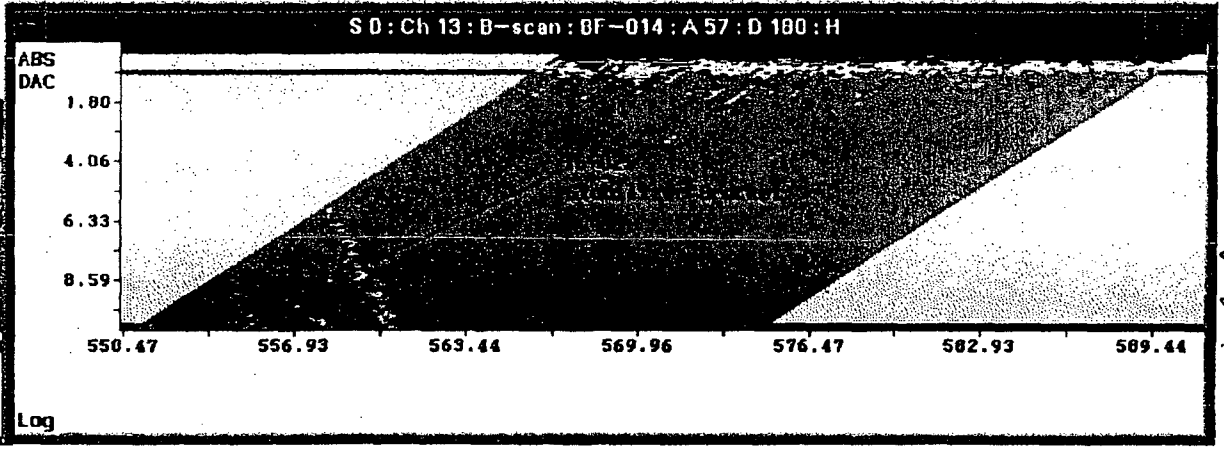

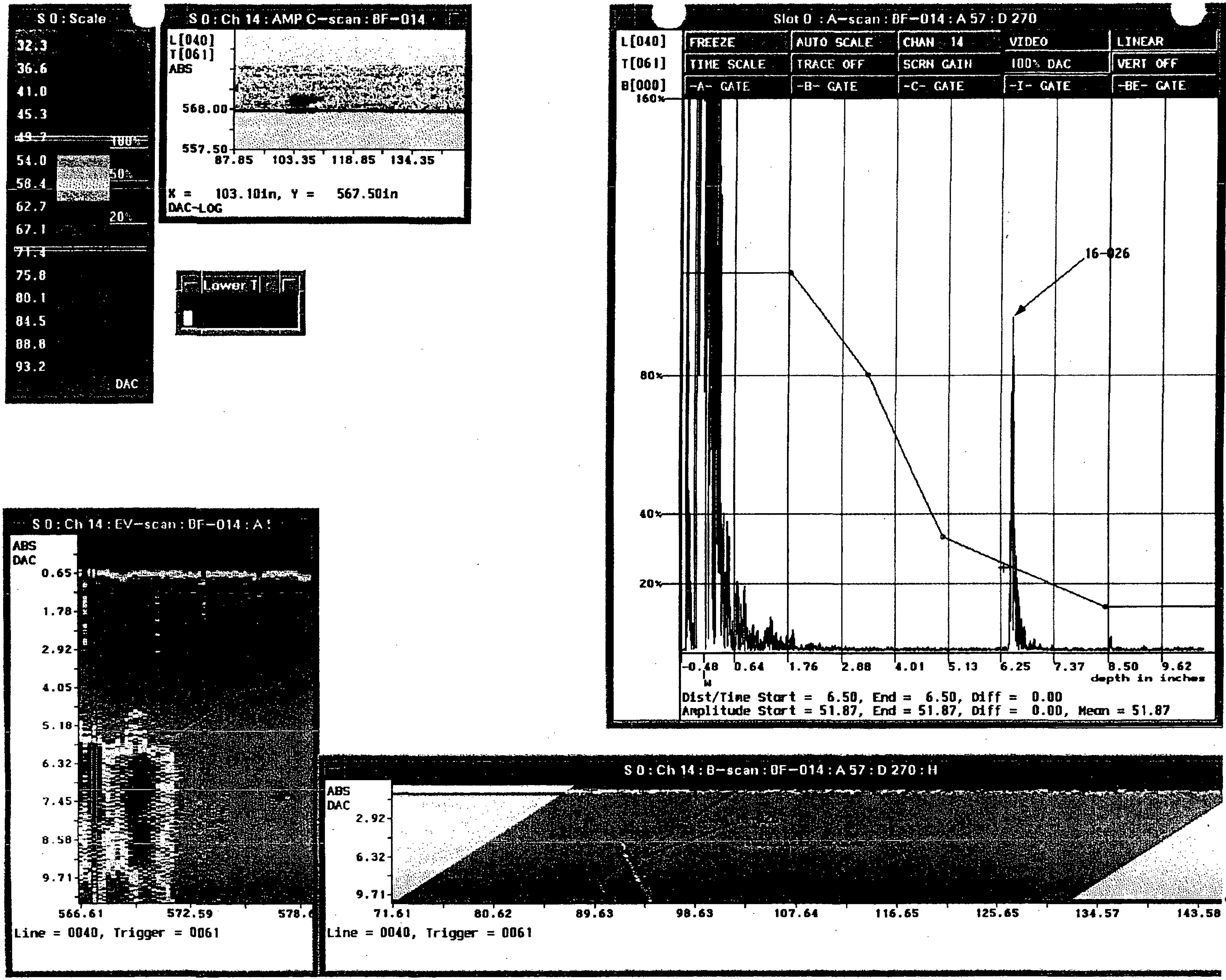

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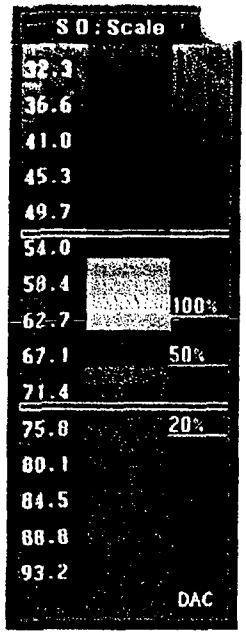

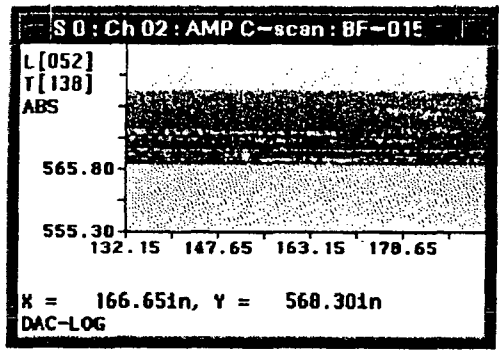

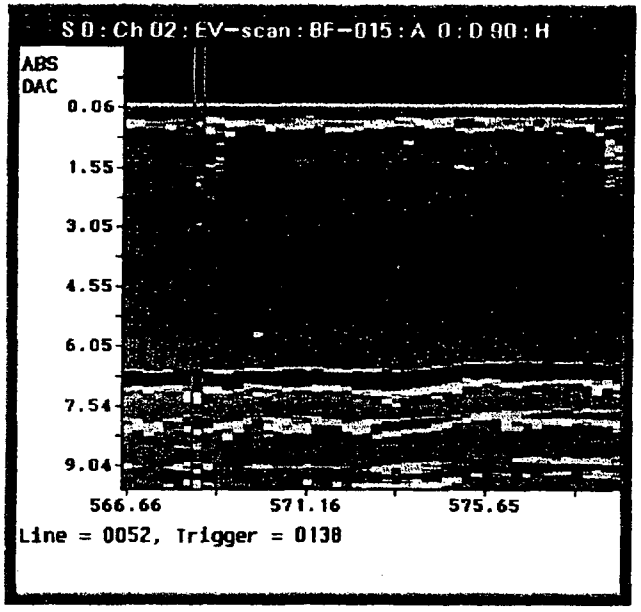

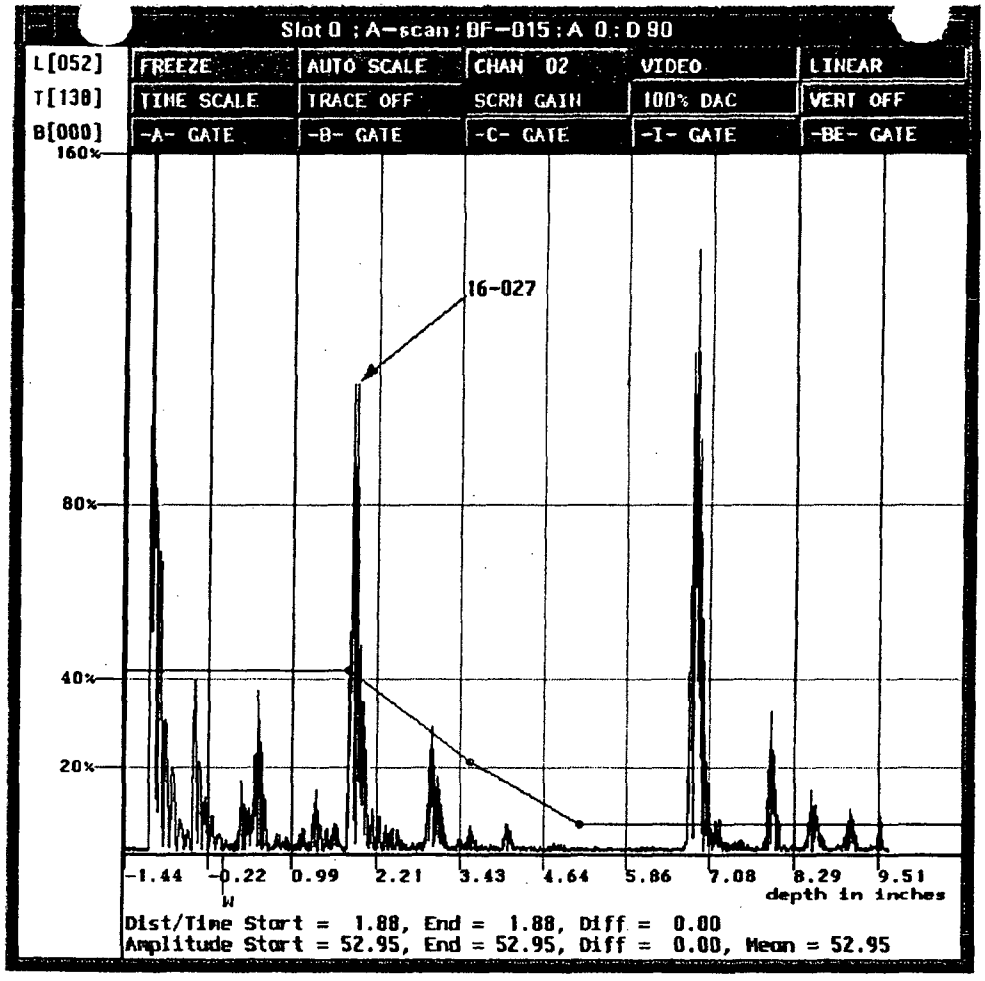

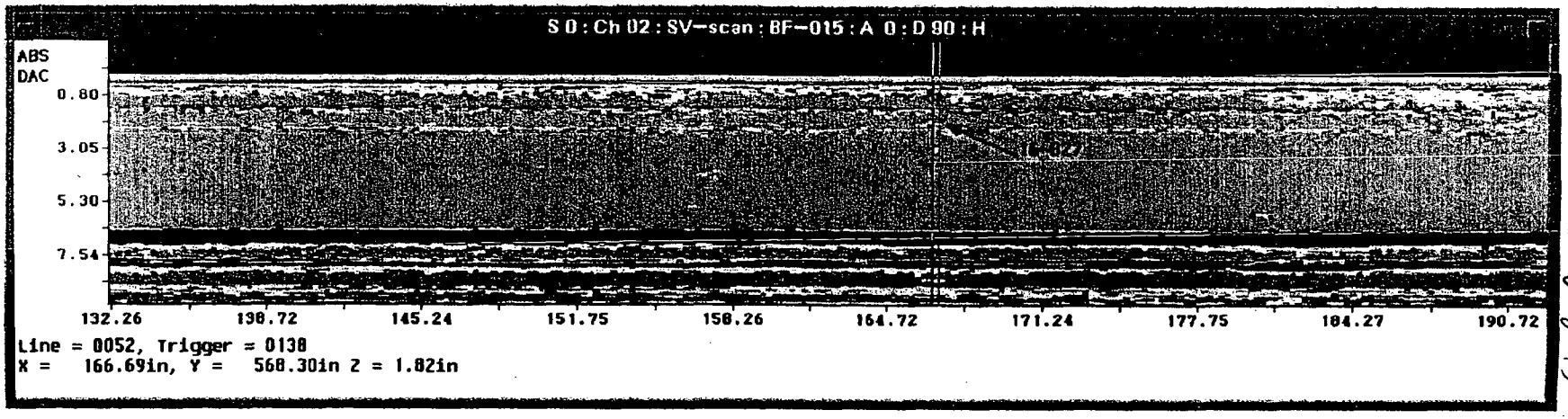

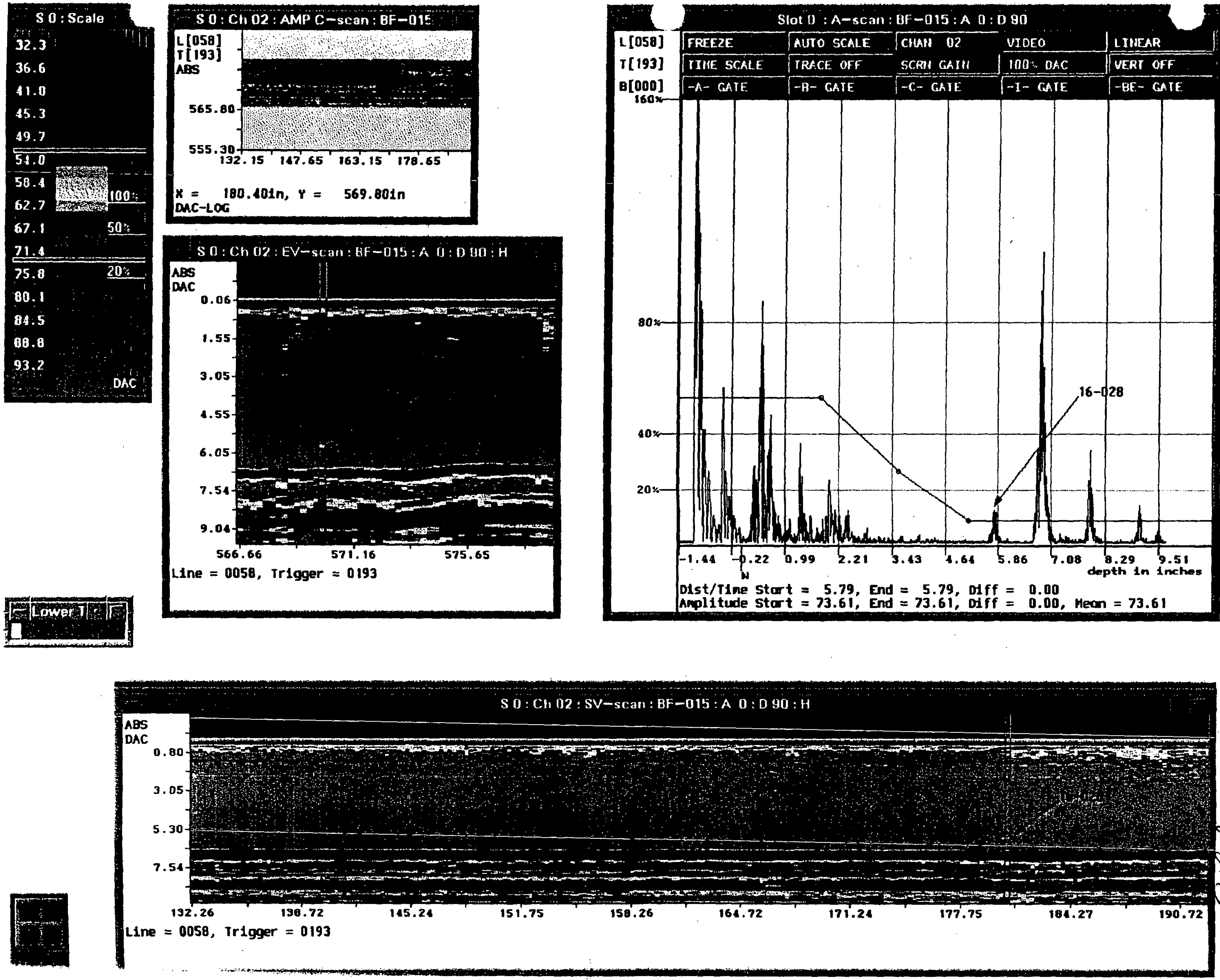

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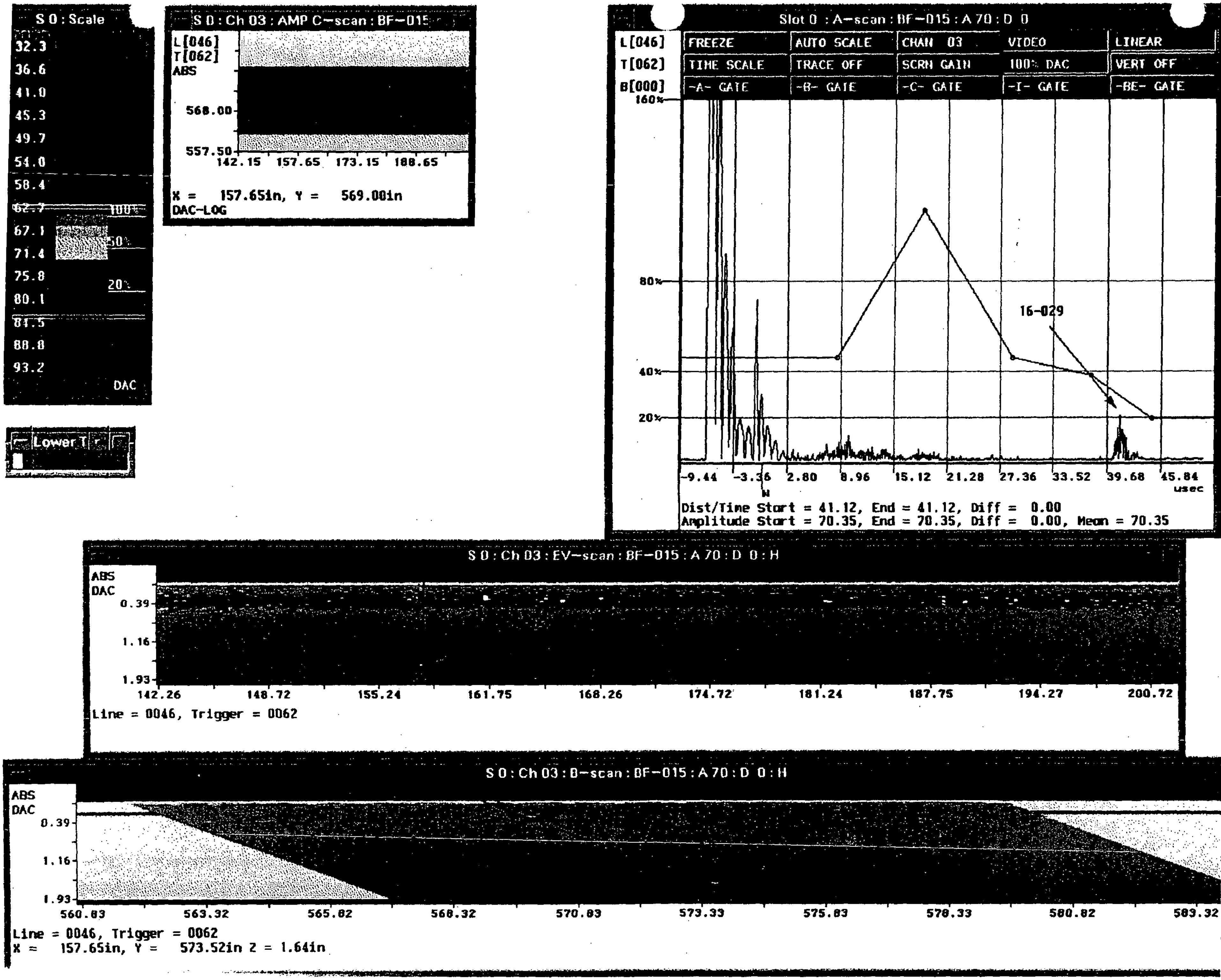
00539



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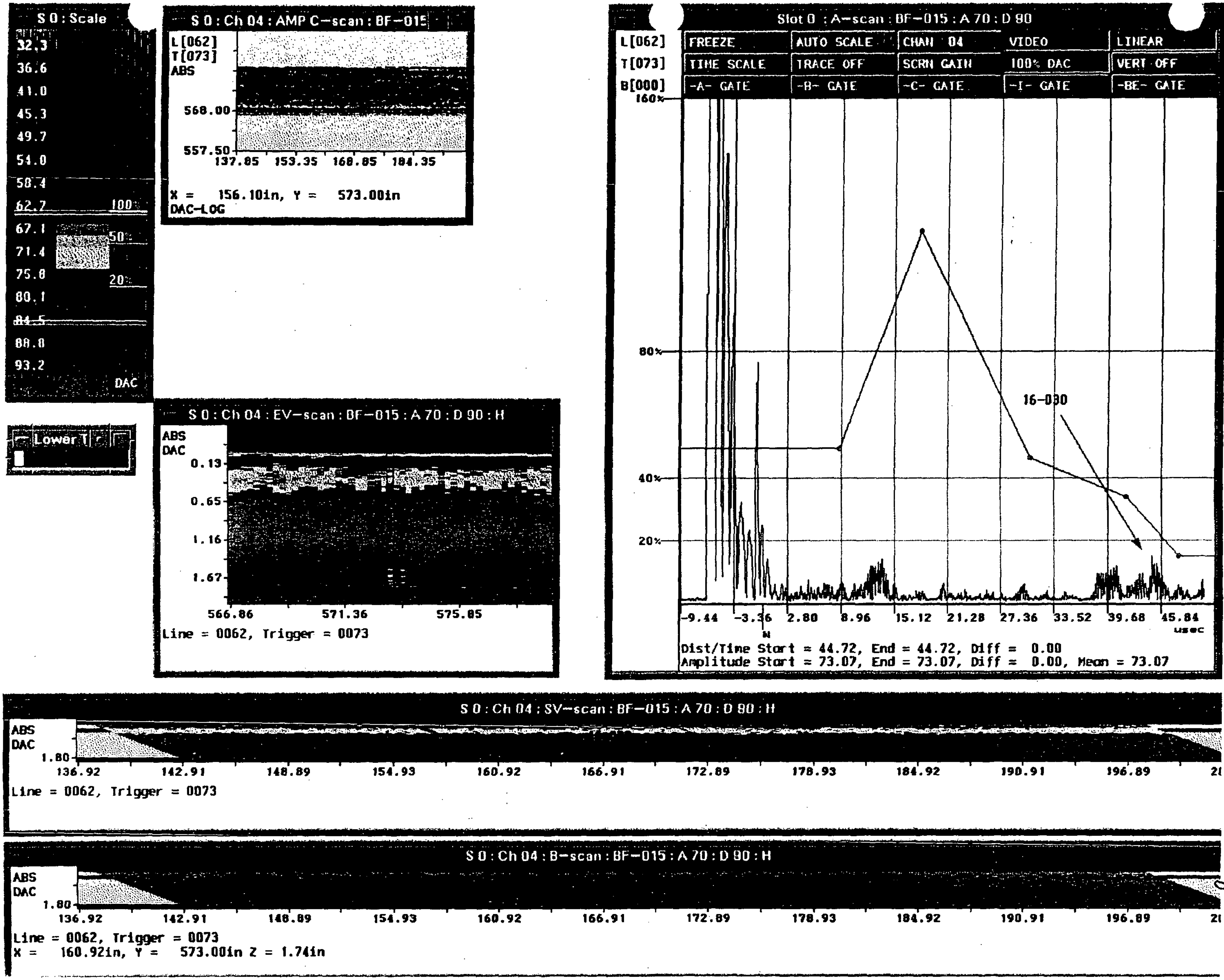
00540



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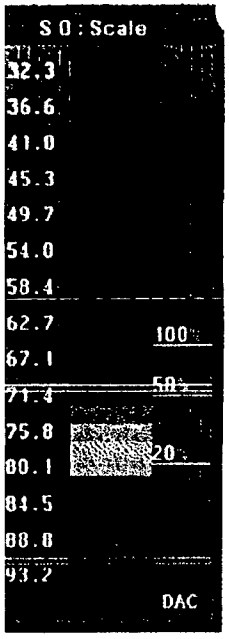

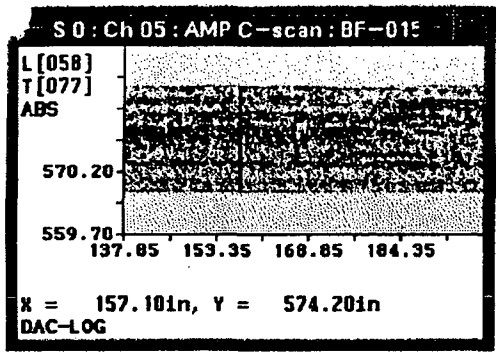

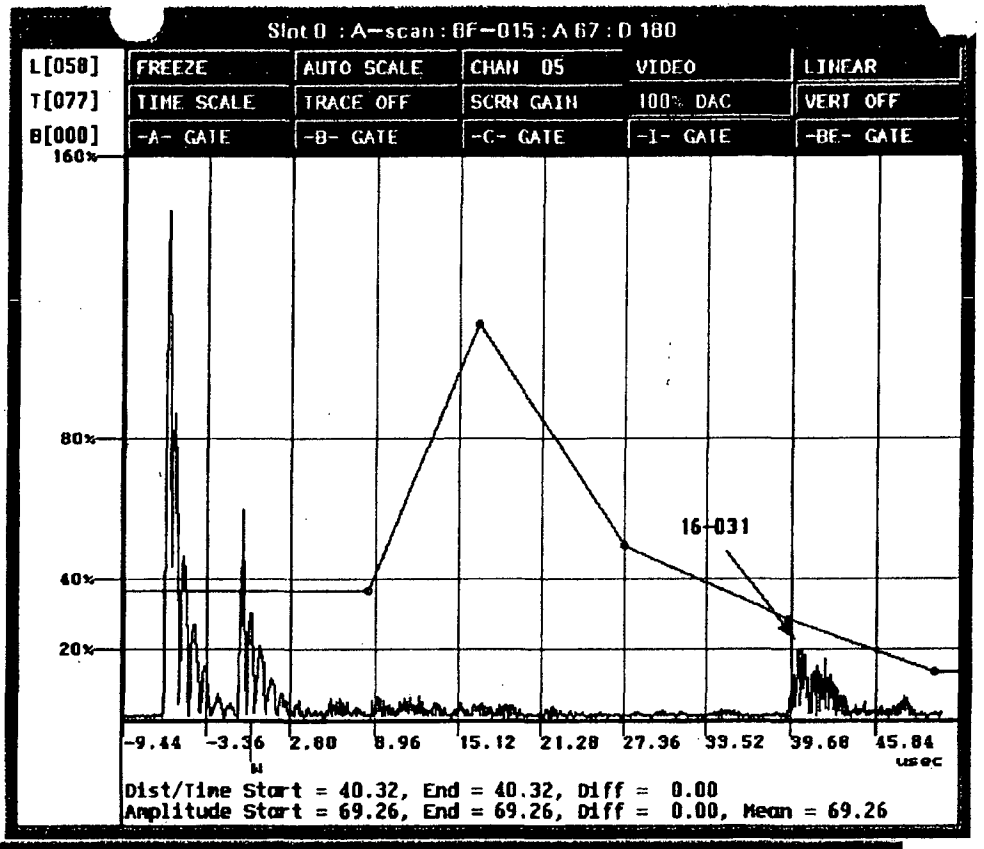

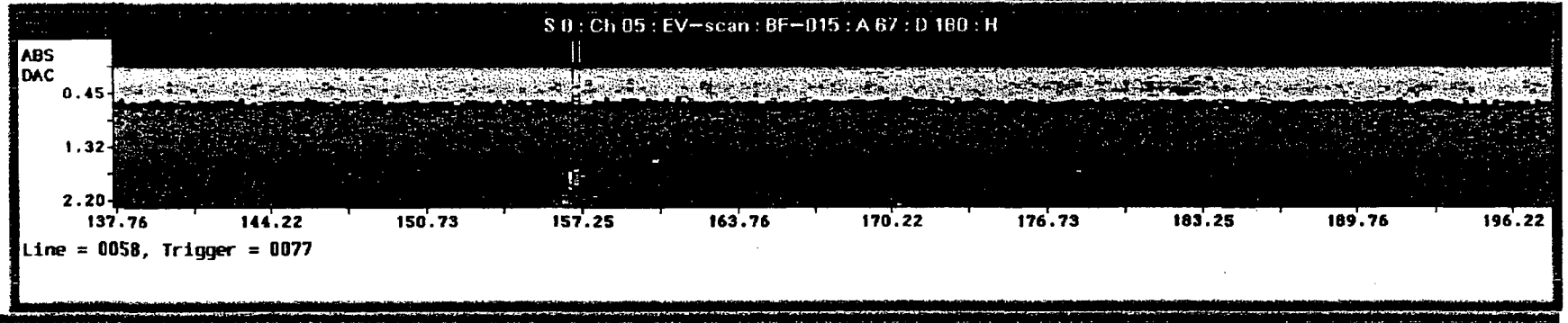

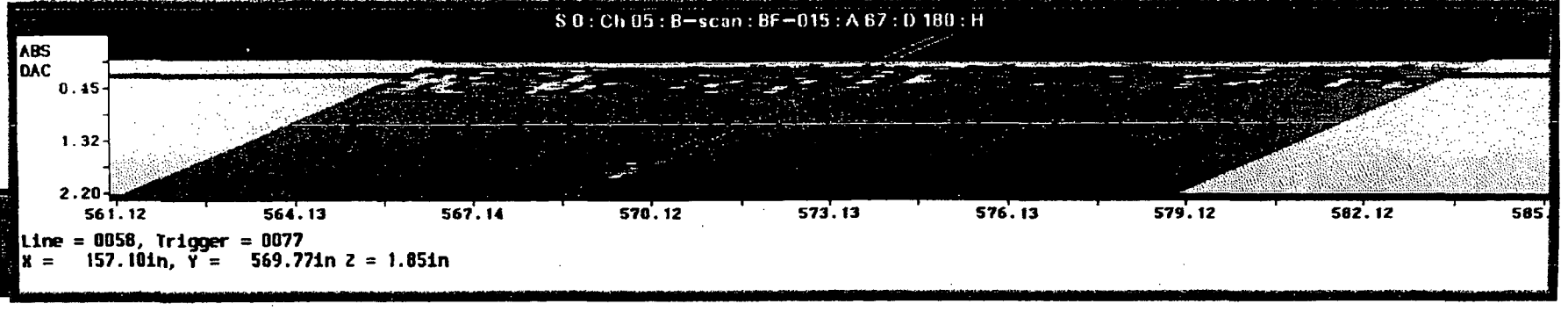

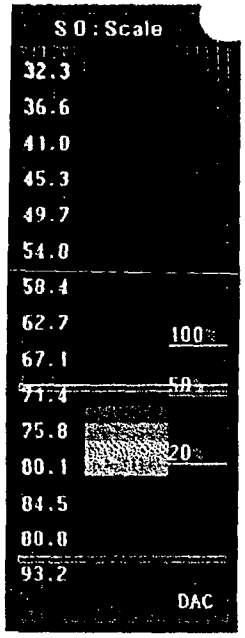

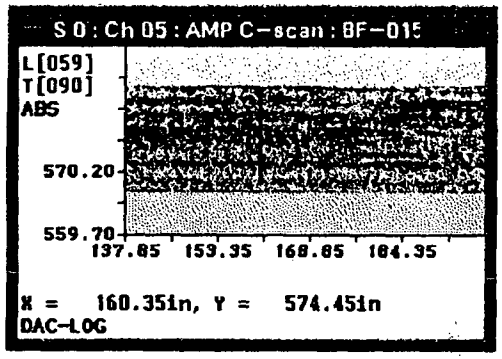

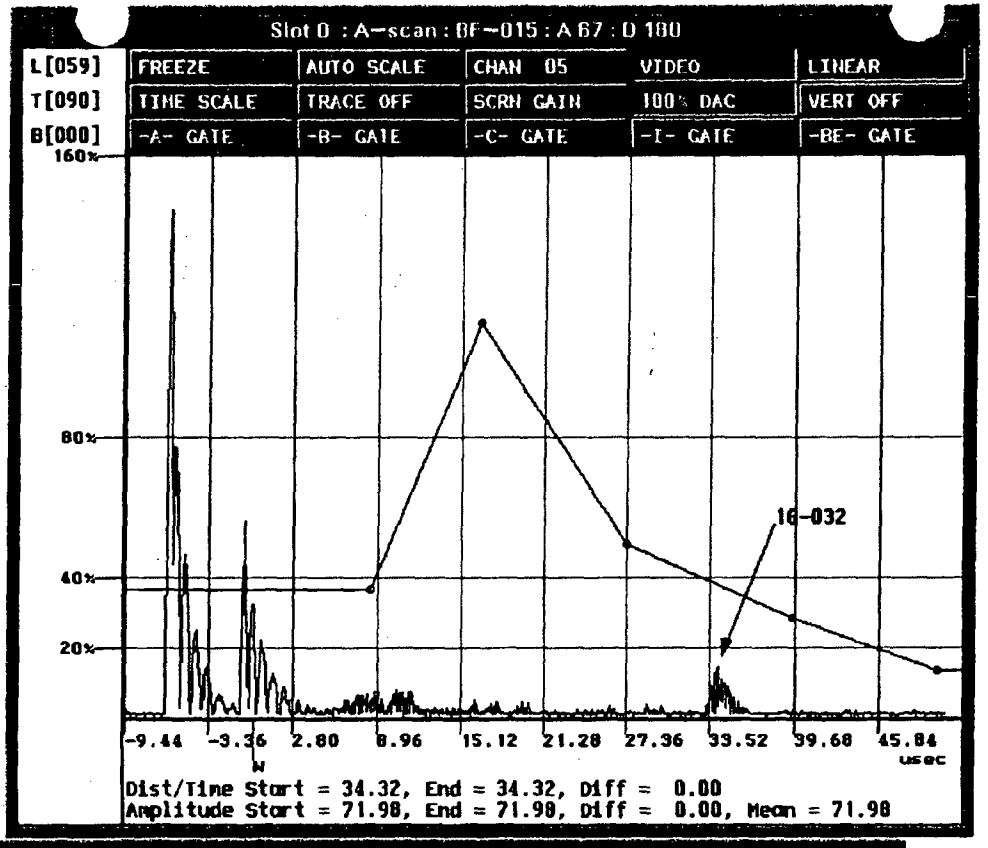

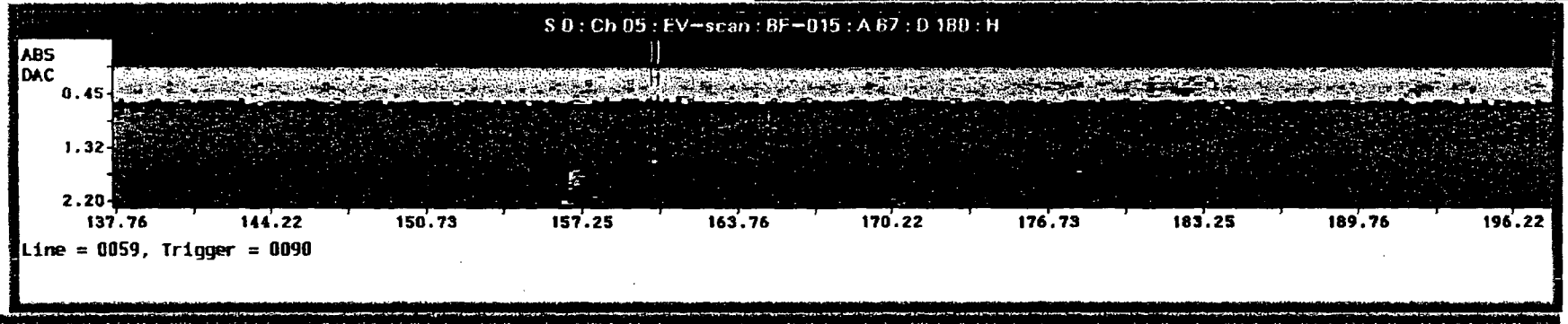

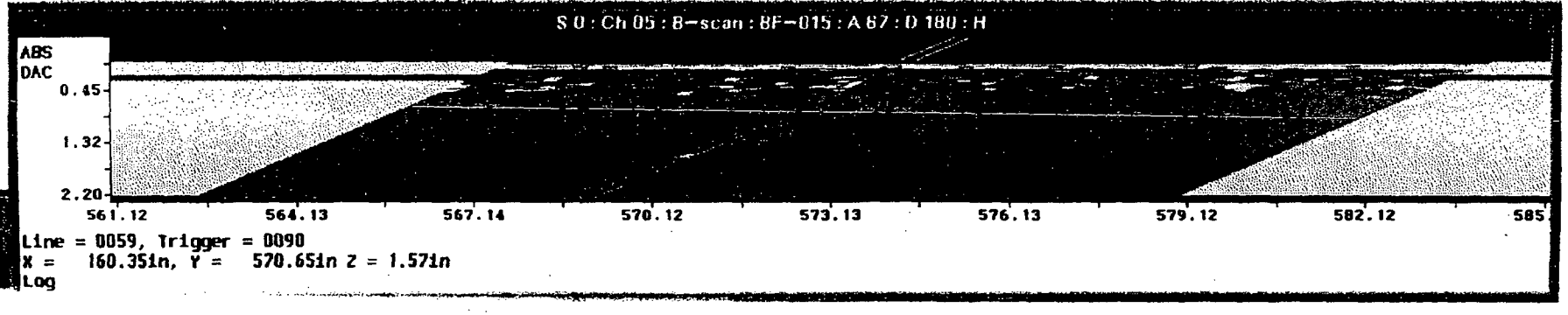

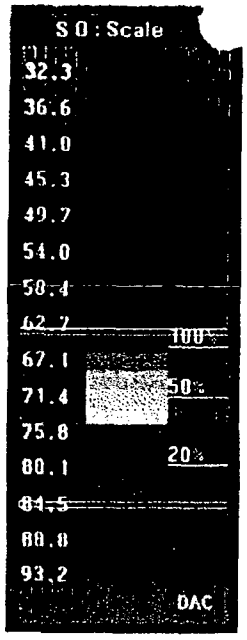

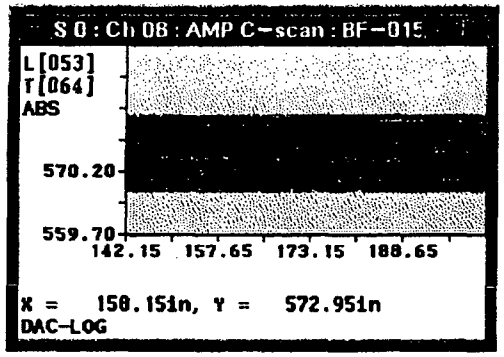

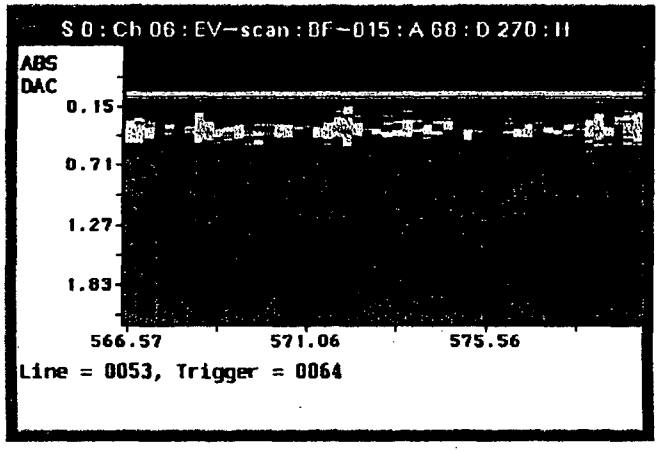

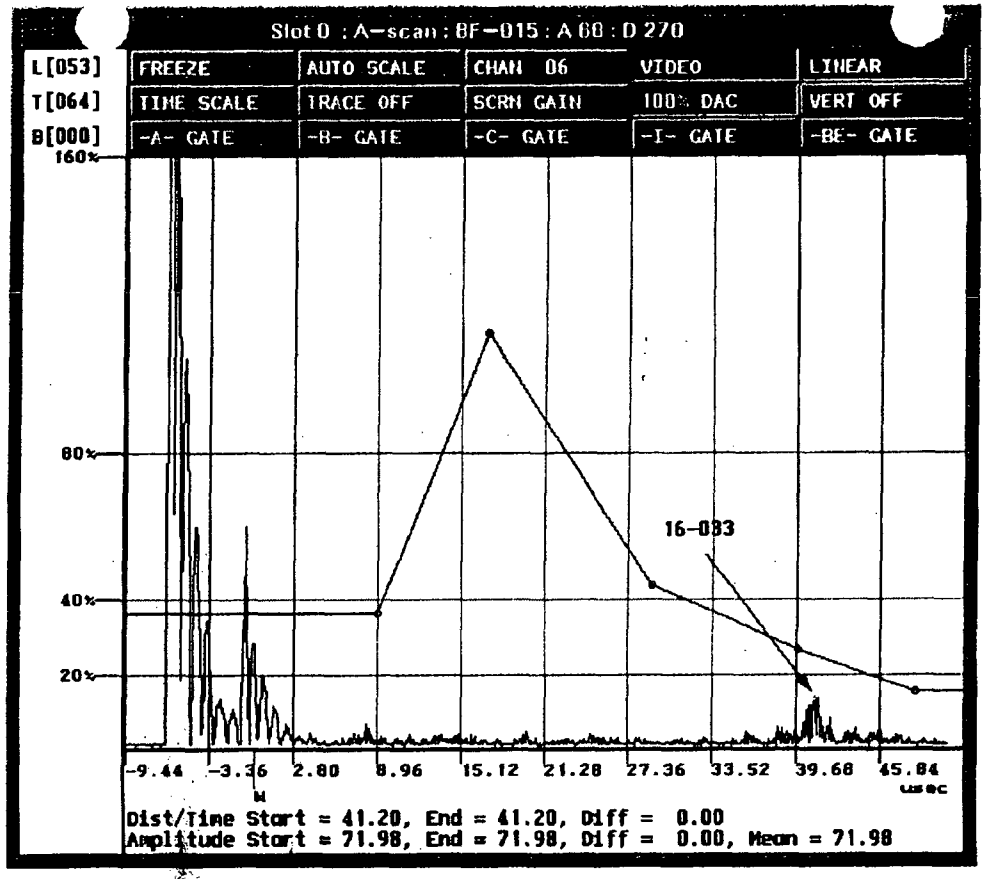

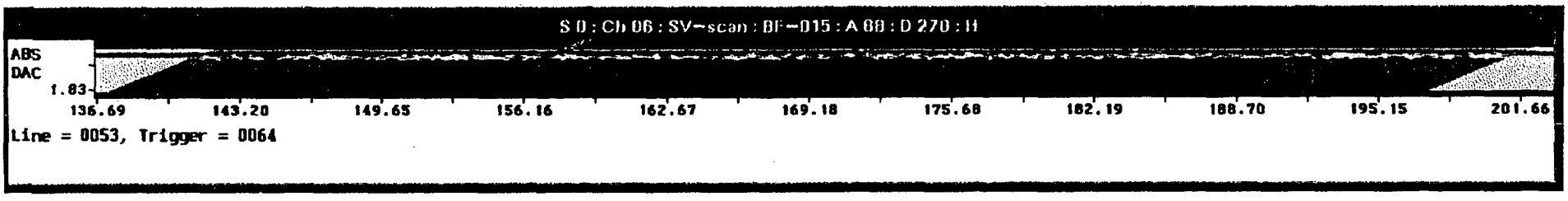

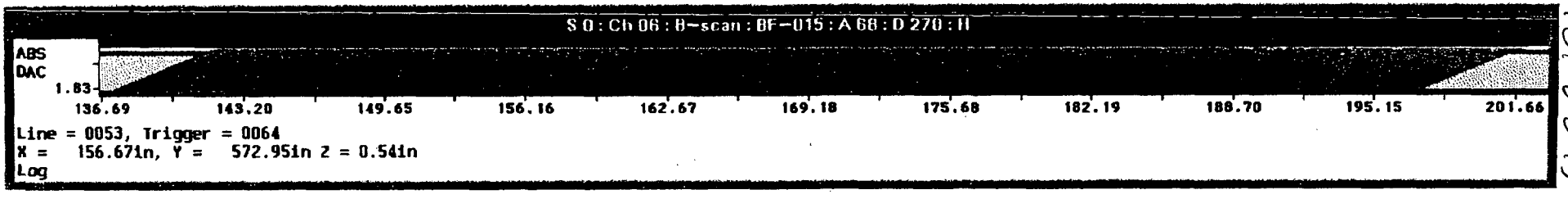

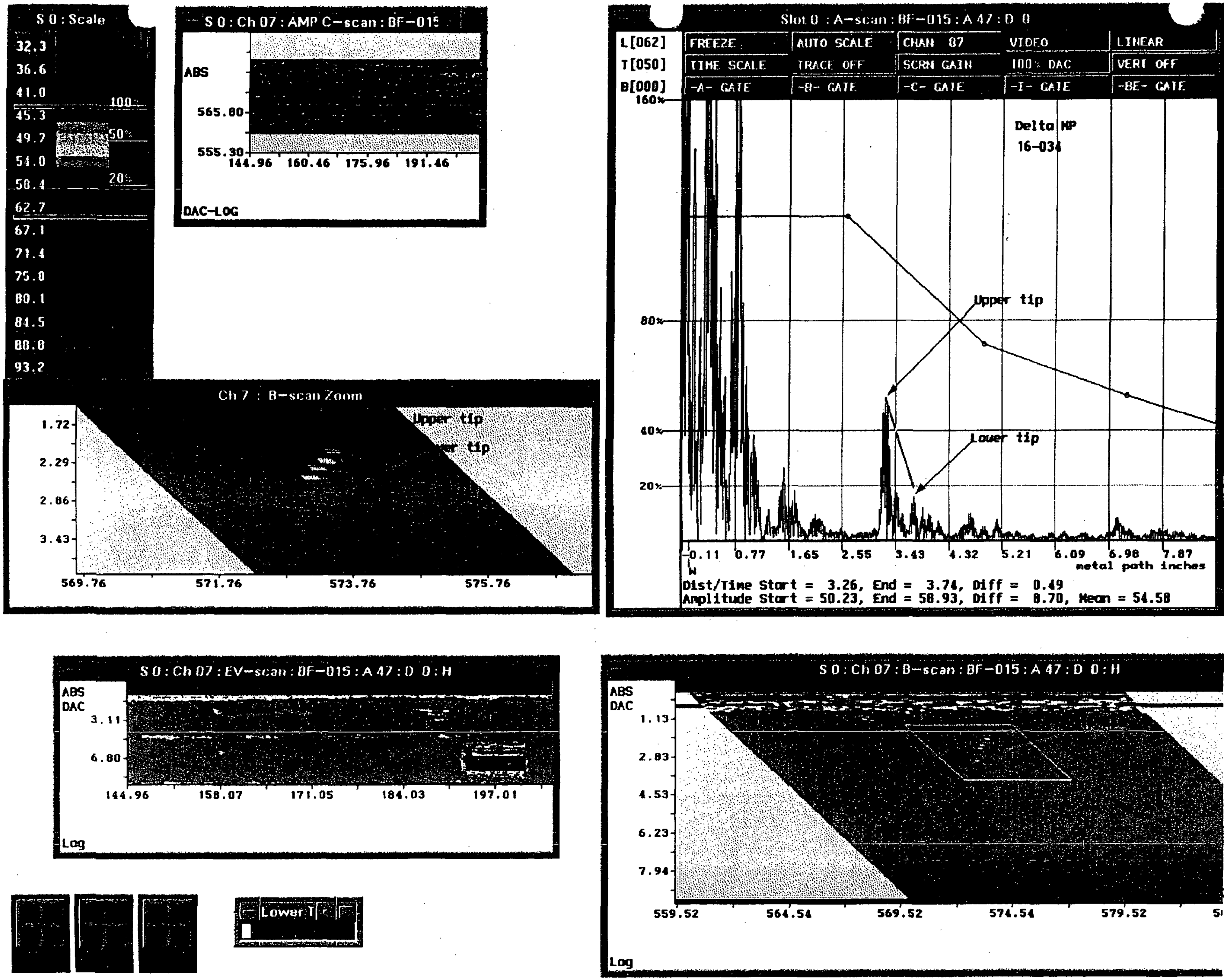

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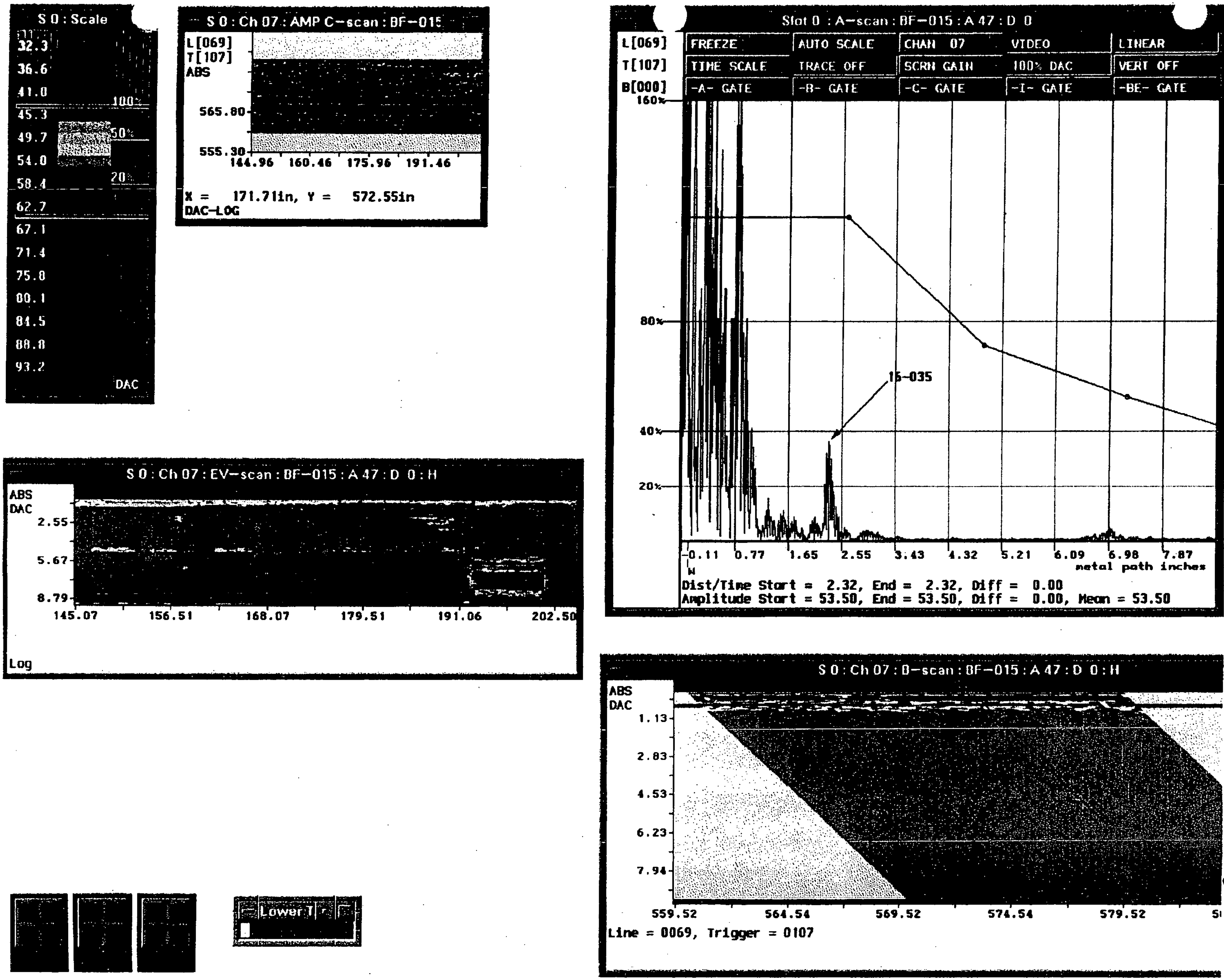

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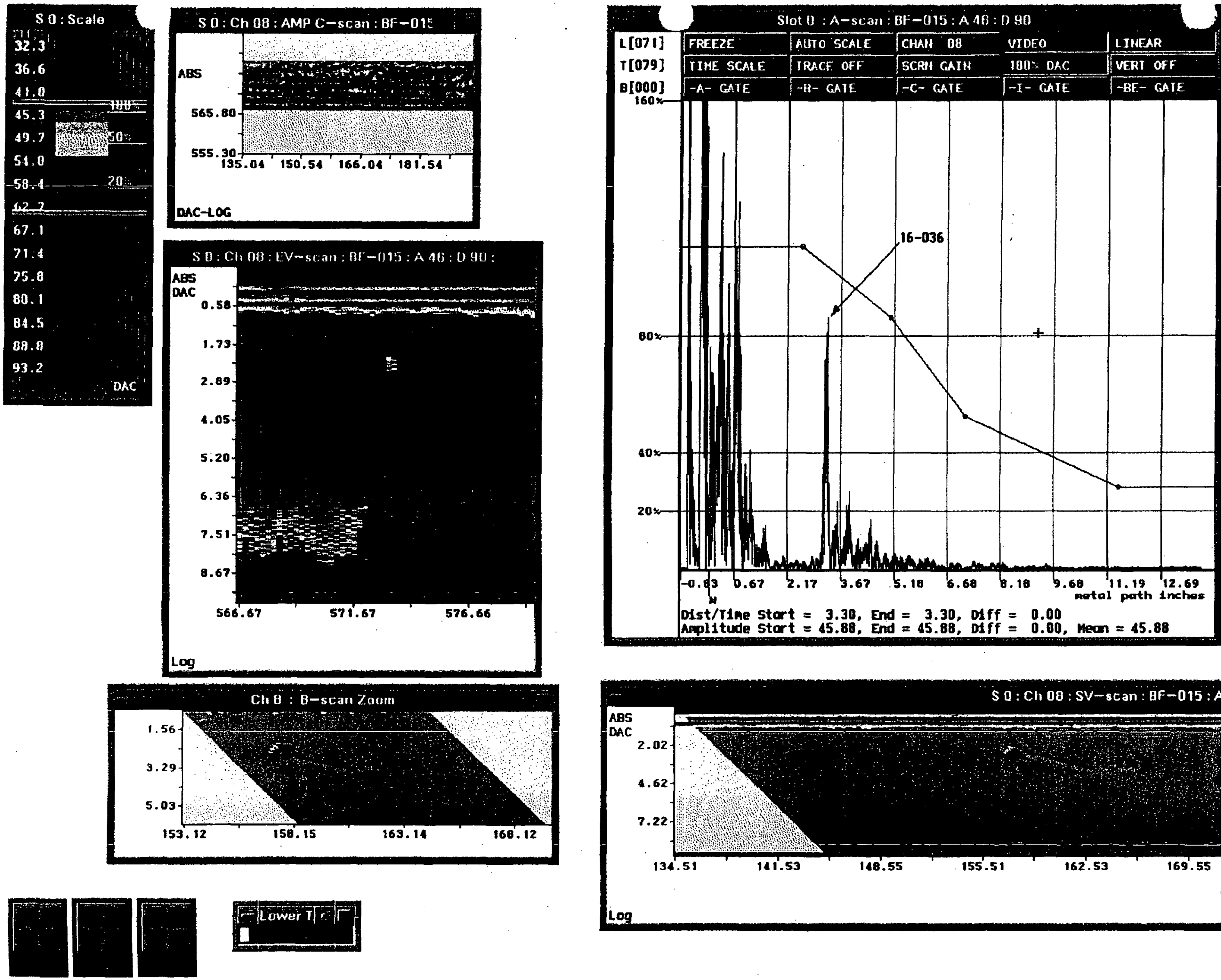
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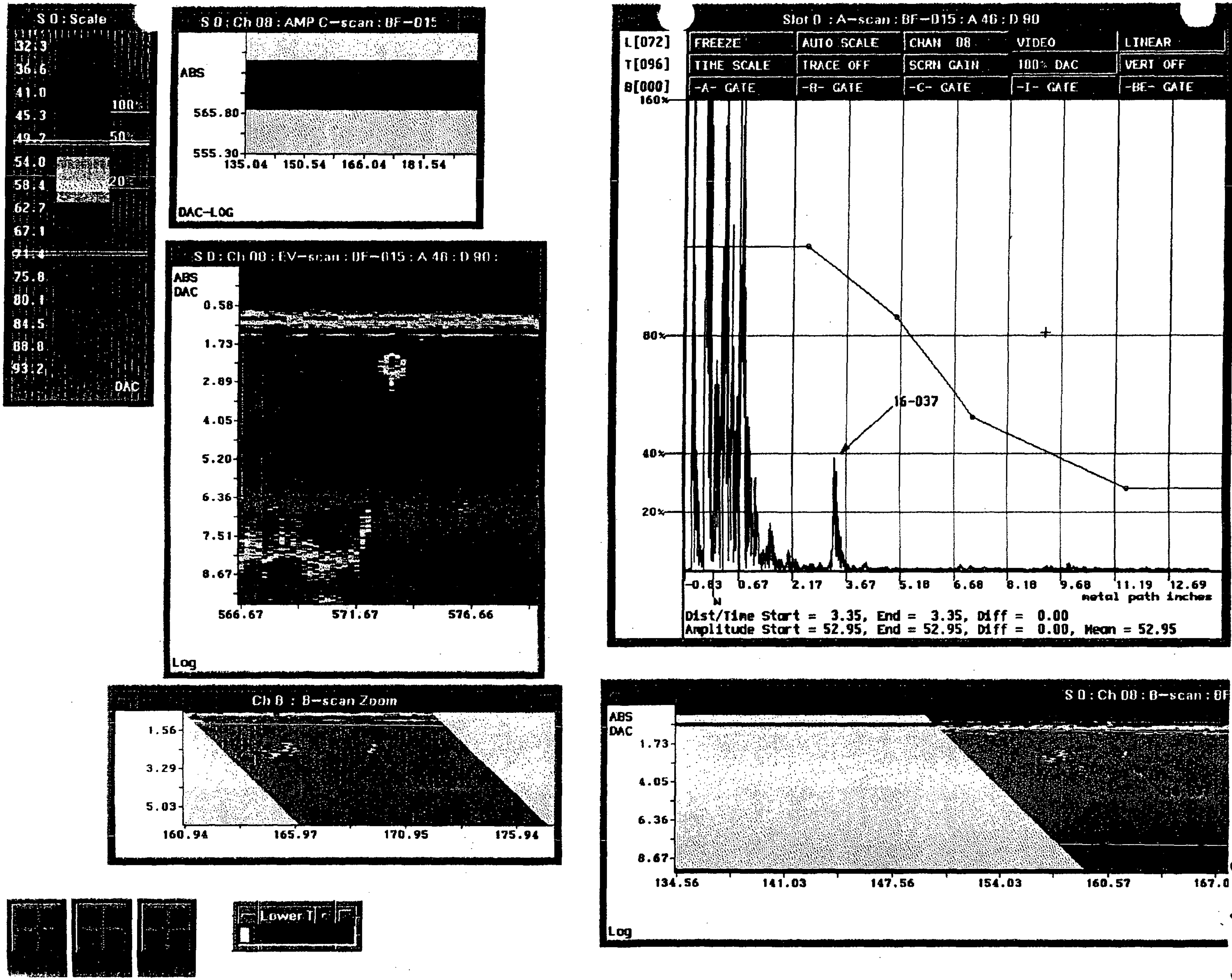
32.3
36.6
41.0
45.3
49.7
54.0
58.4
62.7
67.1
71.4
75.8
80.1
84.5
88.8
93.2
100%
50%
20%
DAC
S 0 : Ch 08 : AMP C-scan : BF-015
ABS
565.80
555.30
135.04
150.54
166.04
181.54
DAC-LOG
S 0 : Ch 08 : EV-scan : BF-015 : A 46 : D 90 :
ABS
DAC
0.58
1.73
2.89
4.05
5.20
6.36
7.51
8.67
566.67
571.67
576.66
Log
Slot 0 : A-scan : BF-015 : A 46 : D 90
L[071]
T[079]
B[000]
FREEZE
AUTO SCALE
CHAN 08
VIDEO
LINEAR
TIME SCALE
TRACE OFF
SCRN GAIN
100% DAC
VERT OFF
-A- GATE
-B- GATE
-C- GATE
-I- GATE
-BE- GATE
160%
80%
40%
20%
16-036
-0.83
0.67
2.17
3.67
5.18
6.68
8.18
9.68
11.19
12.69
metal path inches
Dist/Time Start = 3.30, End = 3.30, Diff = 0.00
Amplitude Start = 45.88, End = 45.88, Diff = 0.00, Mean = 45.88
Ch 8 : B-scan Zoom
1.56
3.29
5.03
153.12
158.15
163.14
168.12
S 0 : Ch 08 : SV-scan : BF-015 : A
ABS
DAC
2.02
4.62
7.22
134.51
141.53
148.55
155.51
162.53
169.55
Log
Lower T



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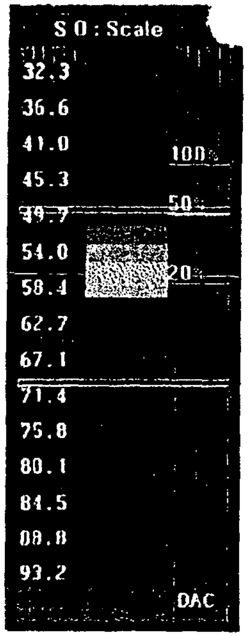

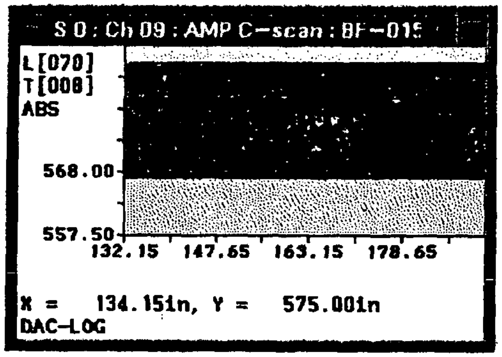

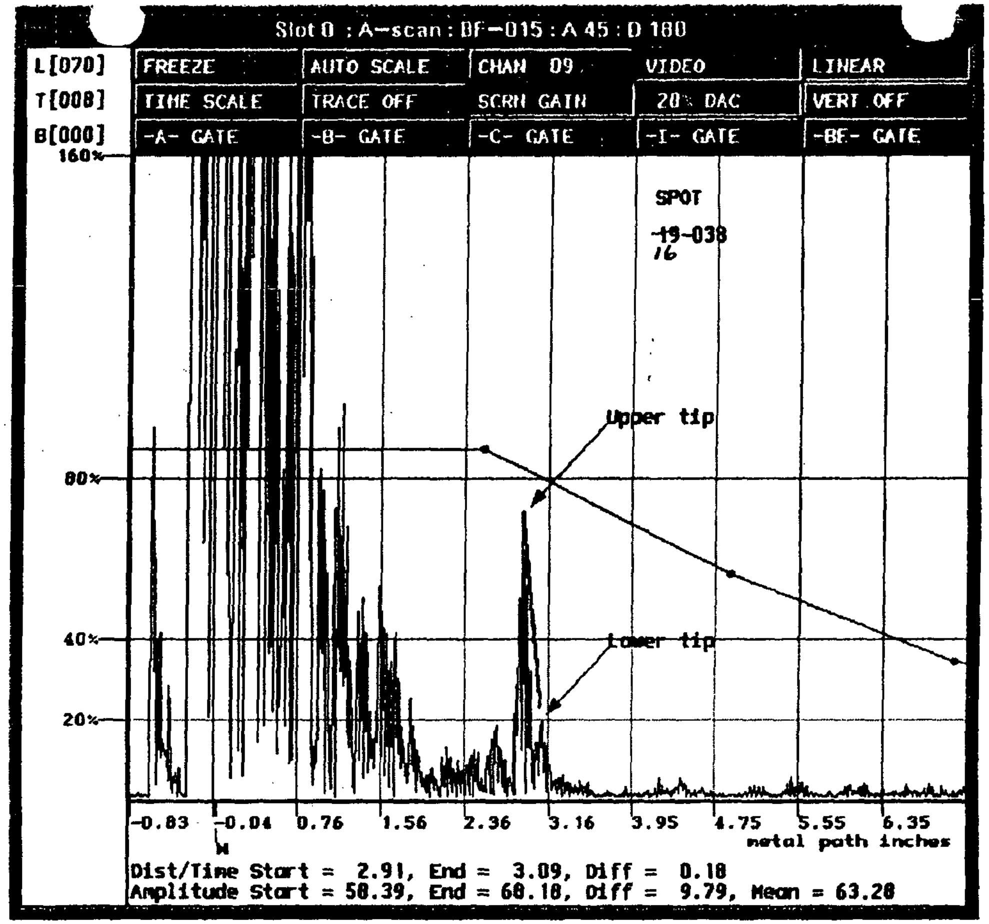

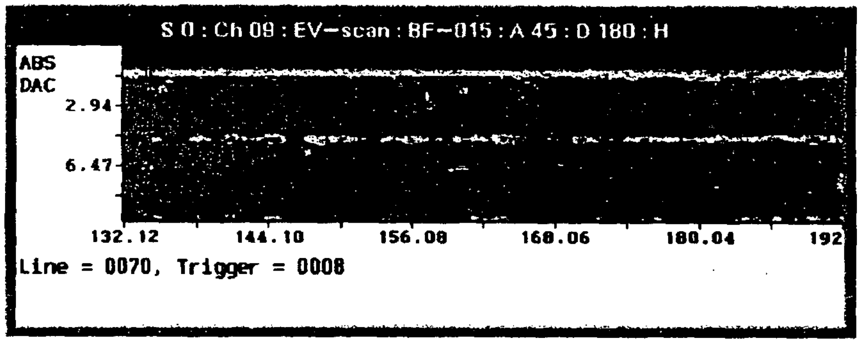

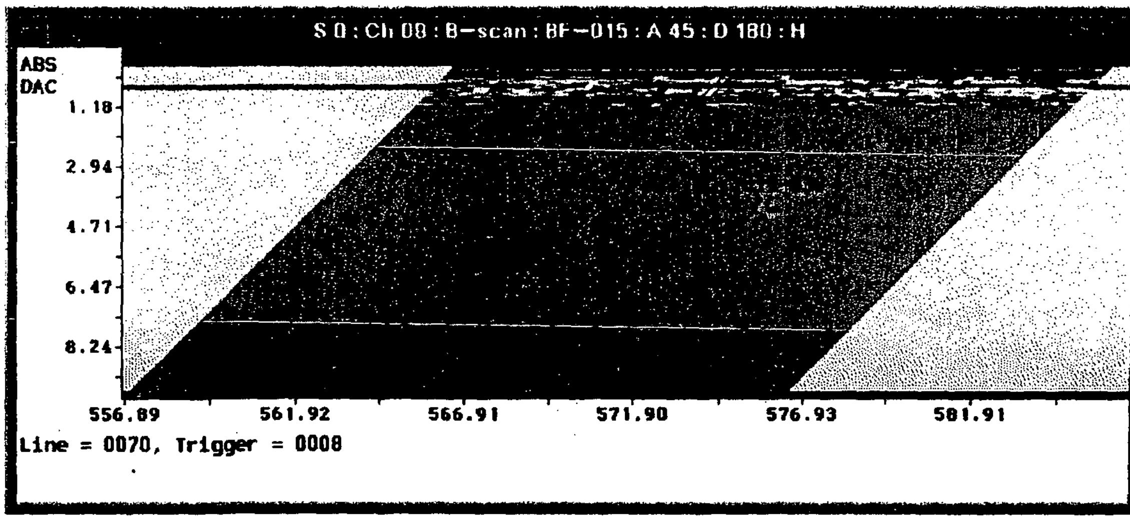

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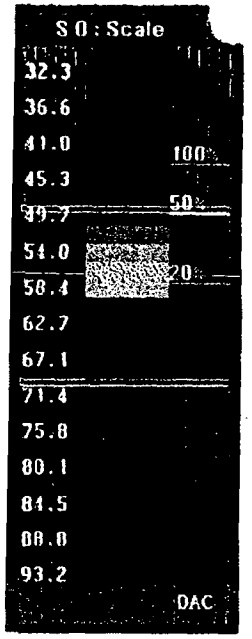
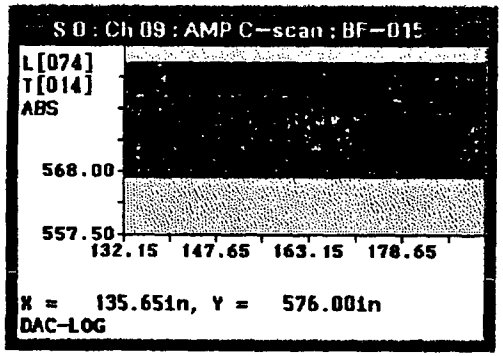
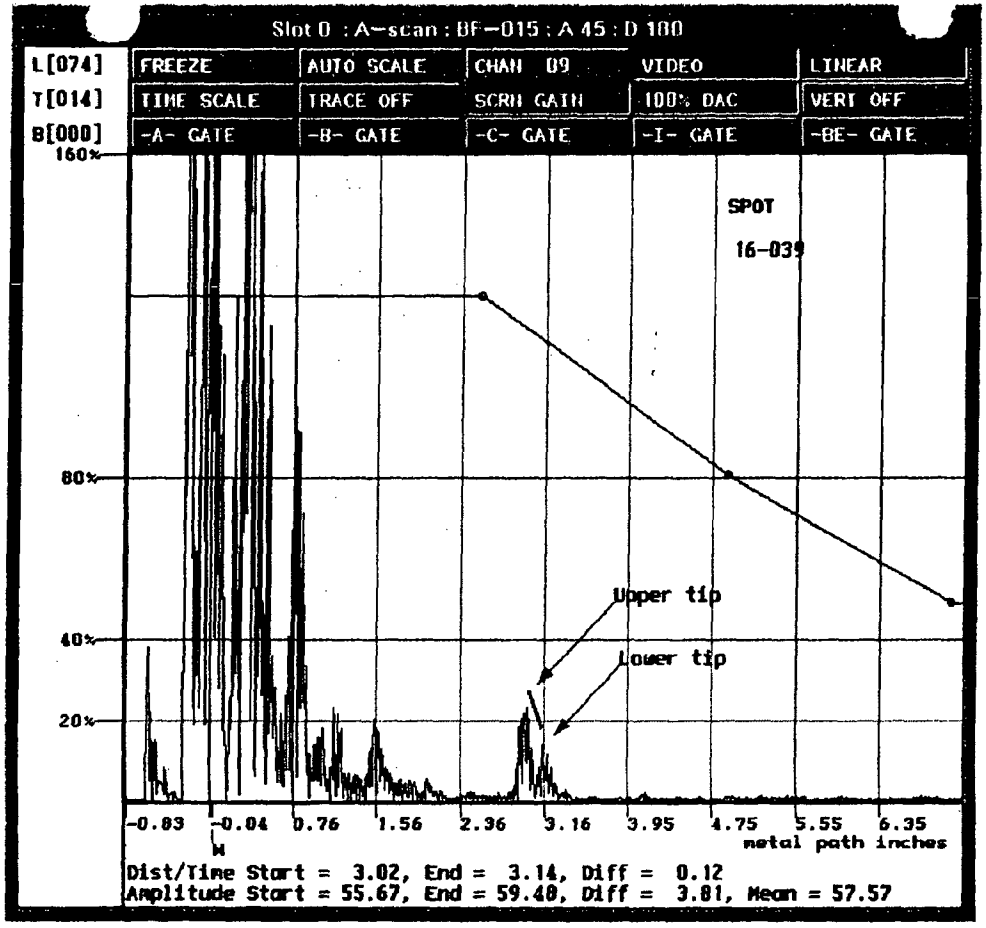
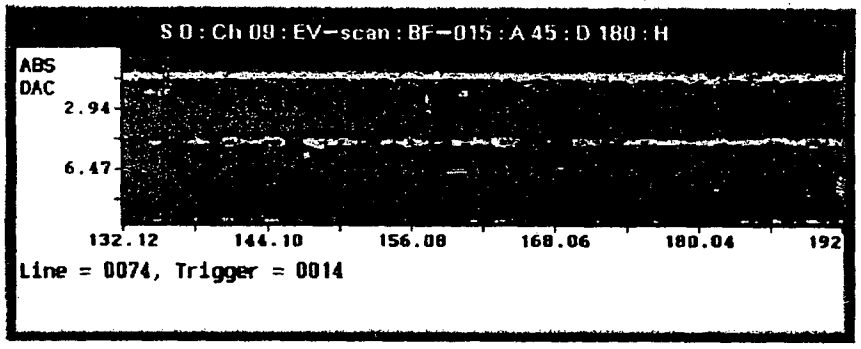
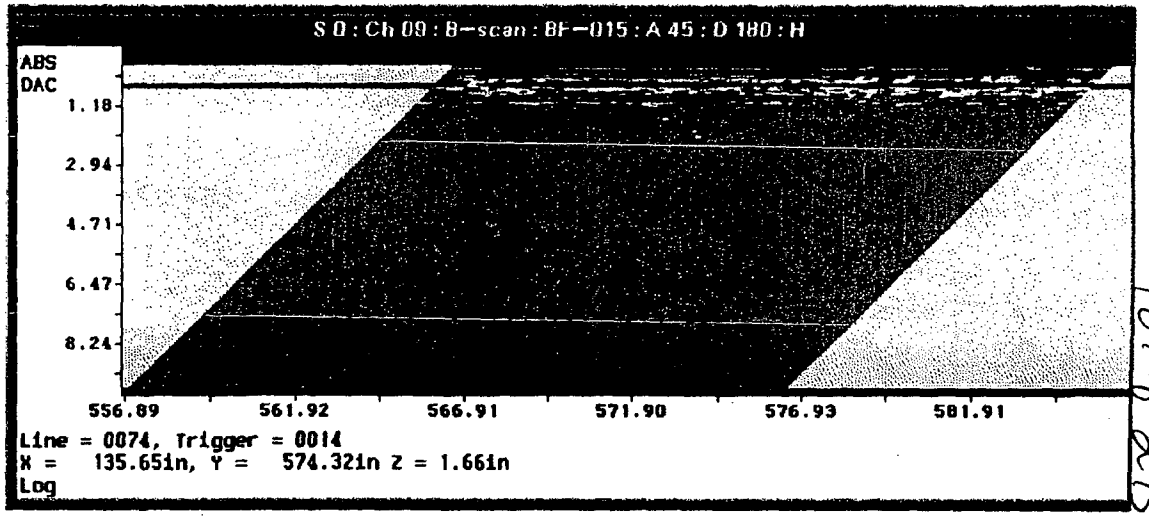

S 0 : Scale
32.3
36.6
41.0
100%
45.3
50%
49.7
54.0
20%
58.4
62.7
67.1
71.4
75.8
80.1
84.5
88.0
93.2
DAC


S 0 : Ch 09 : AMP C-scan : BF-015
L[074]
T[014]
ABS
568.00
557.50
132.15
147.65
163.15
178.65
X = 135.651in, Y = 576.001in
DAC-LOG

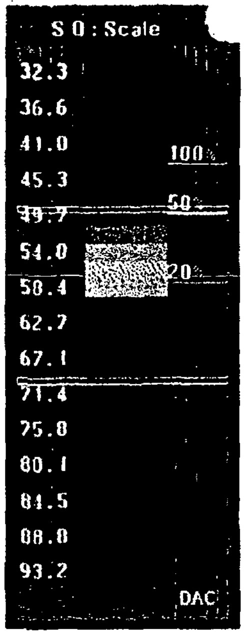

Slot 0 : A-scan : BF-015 : A 45 : D 100
L[074]
T[014]
B[000]
FREEZE
AUTO SCALE
CHAN 09
VIDEO
LINEAR
TIME SCALE
TRACE OFF
SCRN GAIN
100% DAC
VERT OFF
-A- GATE
-B- GATE
-C- GATE
-I- GATE
-BE- GATE
160%
80%
40%
20%
SPOT
16-039
Upper tip
Lower tip
-0.83
-0.04
0.76
1.56
2.36
3.16
3.95
4.75
5.55
6.35
metal path inches
Dist/Time Start = 3.02, End = 3.14, Diff = 0.12
Amplitude Start = 55.67, End = 59.40, Diff = 3.81, Mean = 57.57

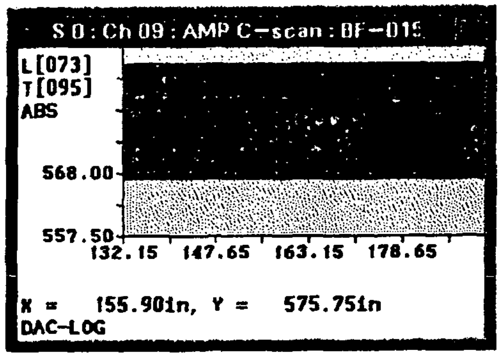

S 0 : Ch 09 : EV-scan : BF-015 : A 45 : D 180 : H
ABS
DAC
2.94
6.47
132.12
144.10
156.08
168.06
180.04
192
Line = 0074, Trigger = 0014

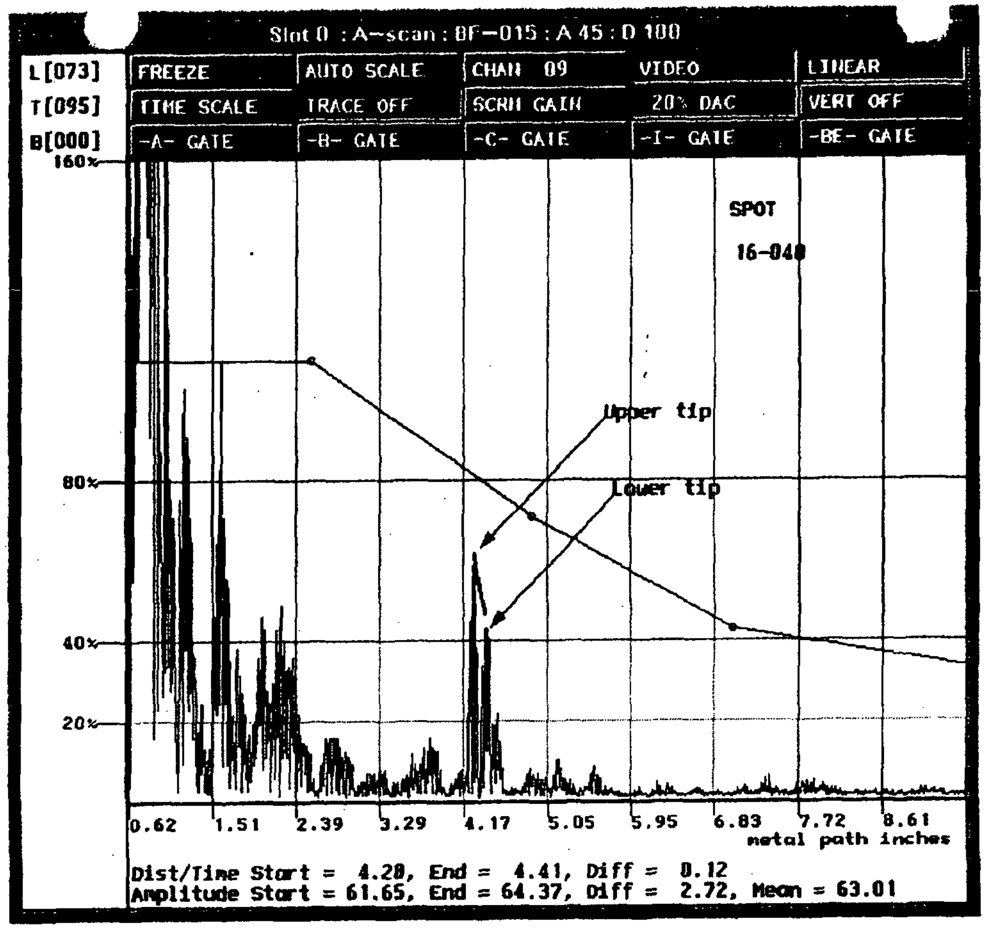

S 0 : Ch 09 : B-scan : BF-015 : A 45 : D 180 : H
ABS
DAC
1.18
2.94
4.71
6.47
8.24
556.89
561.92
566.91
571.90
576.93
581.91
Line = 0074, Trigger = 0014
X = 135.651in, Y = 574.321in Z = 1.661in
Log

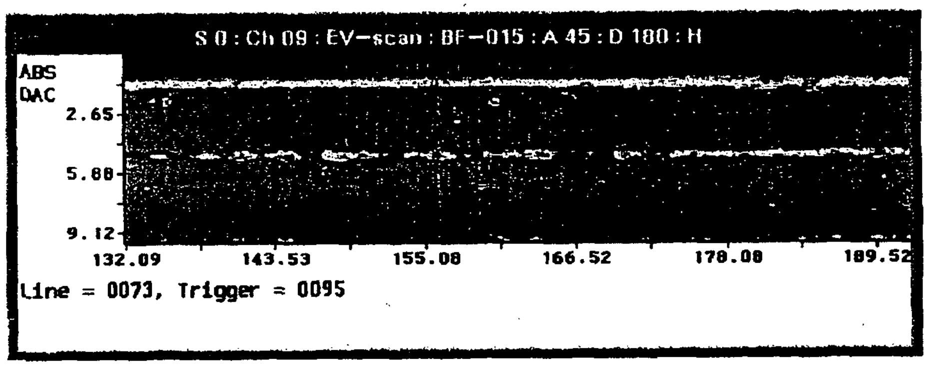

Lower T

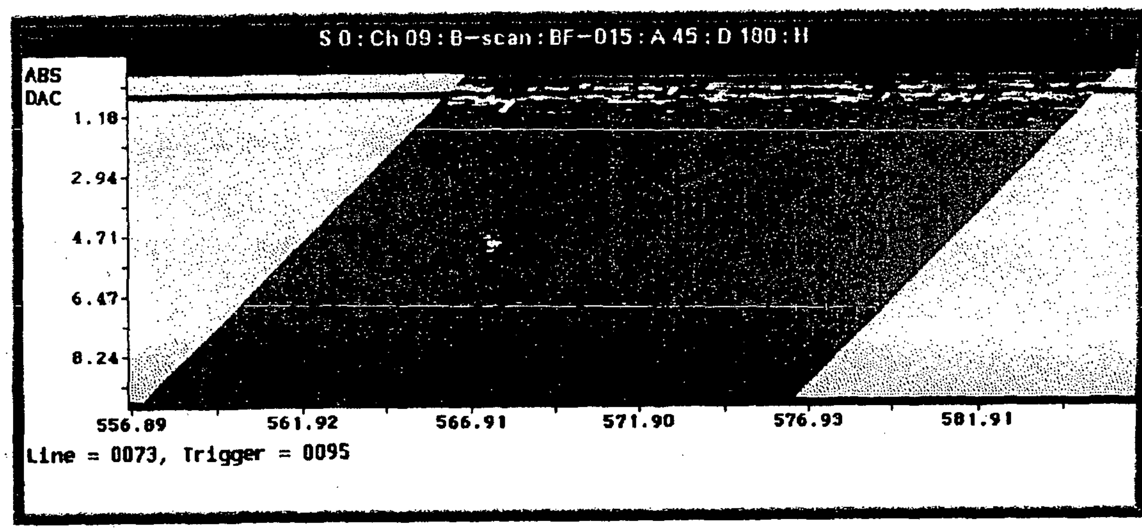
R1152 00550











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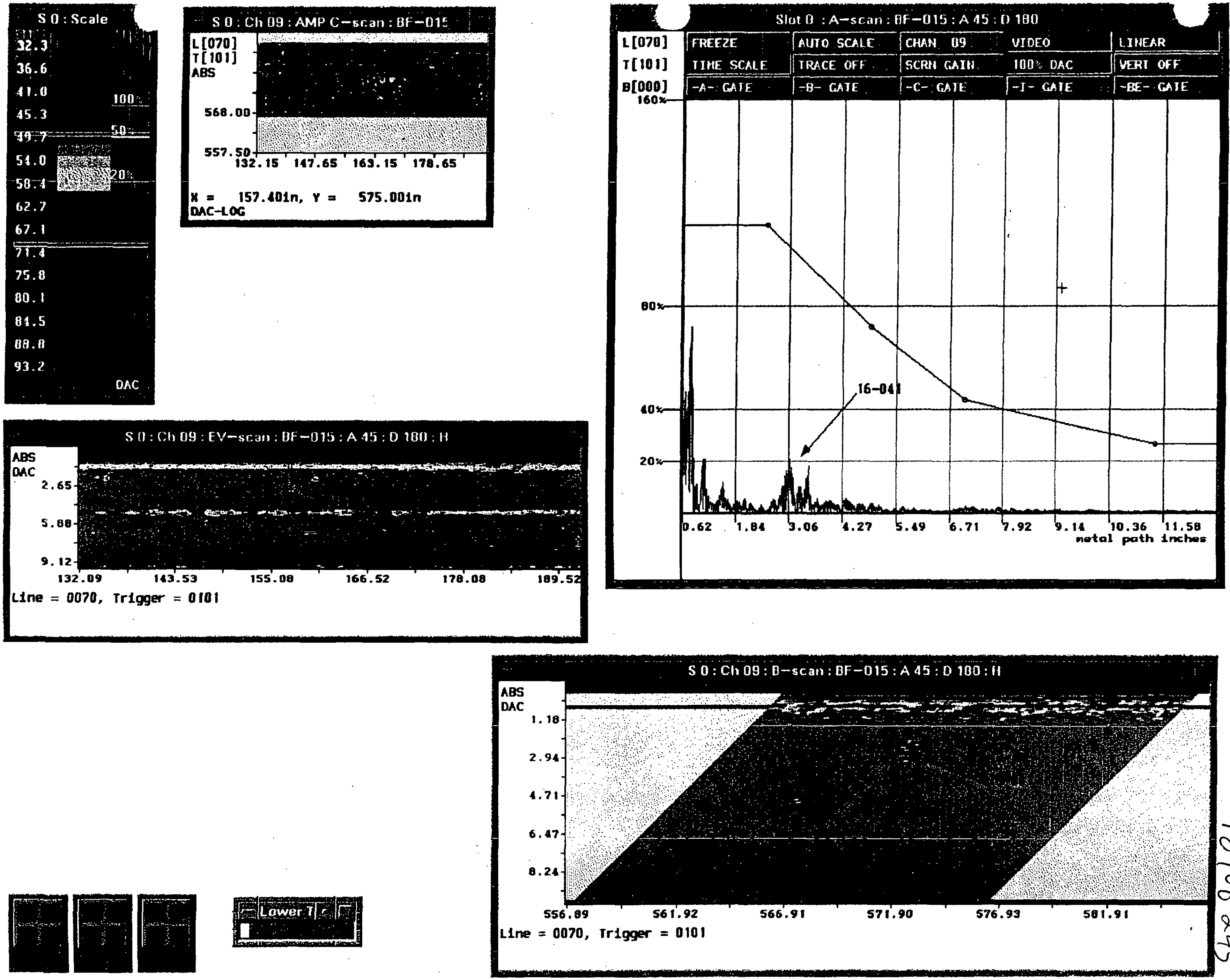

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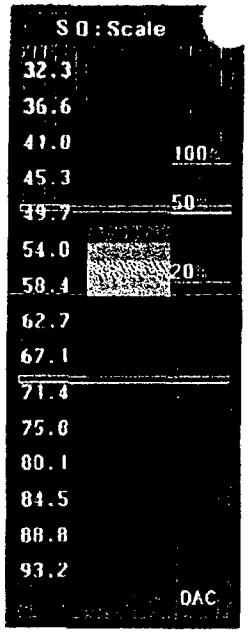
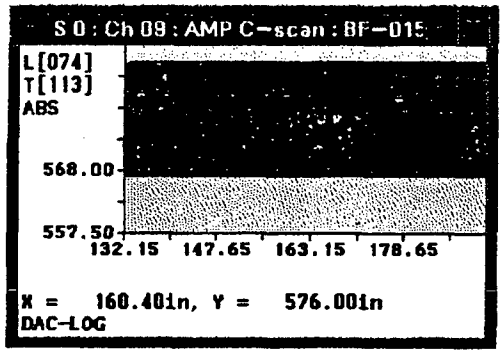
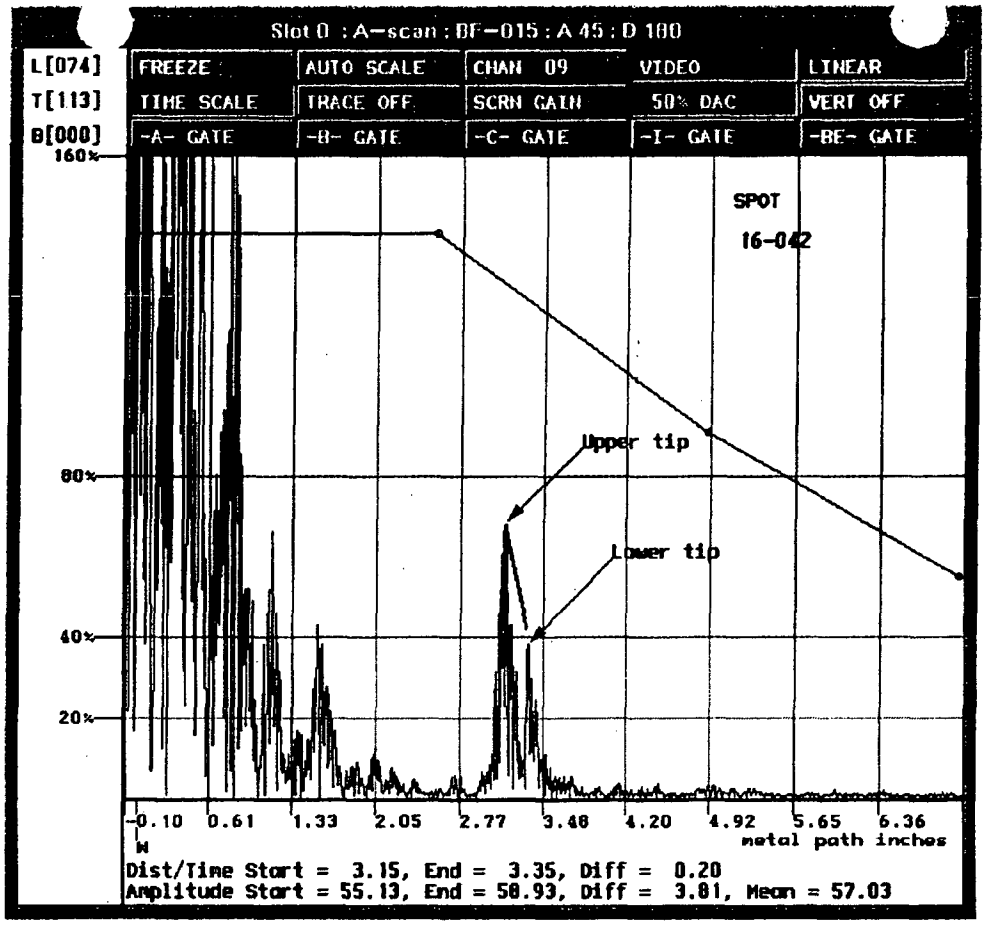
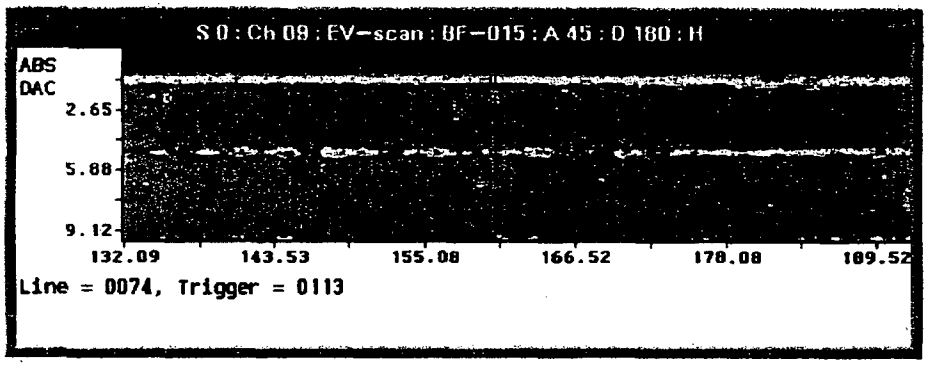
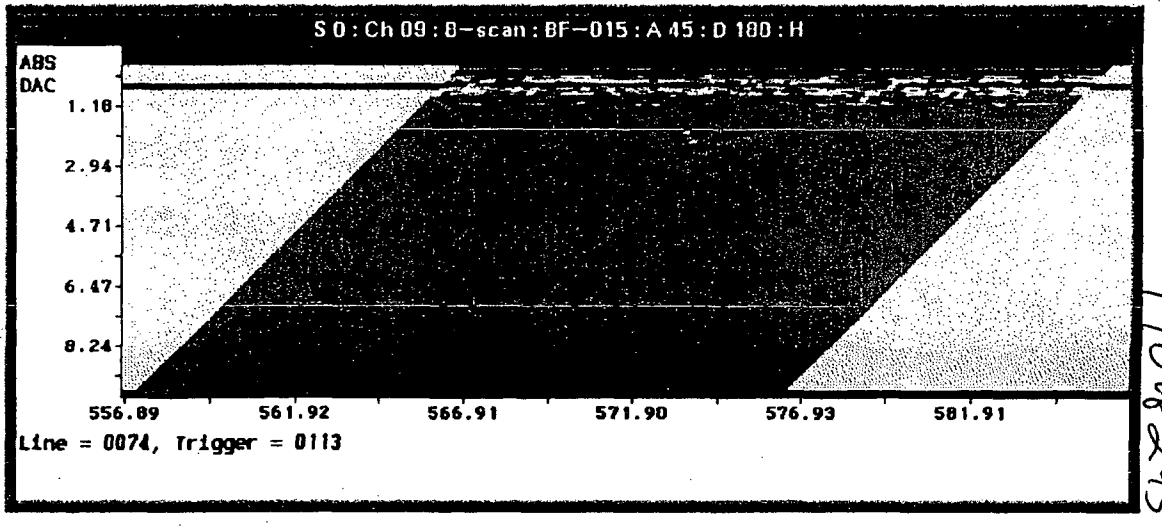
21152
* 00552

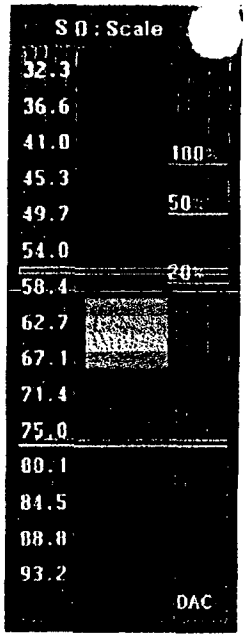


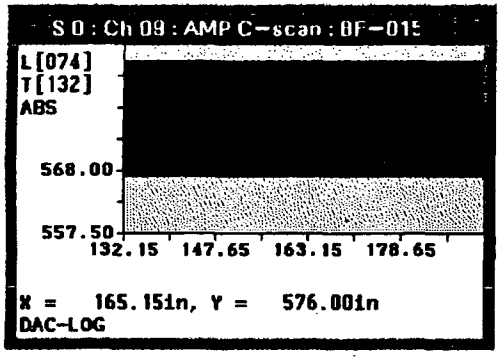


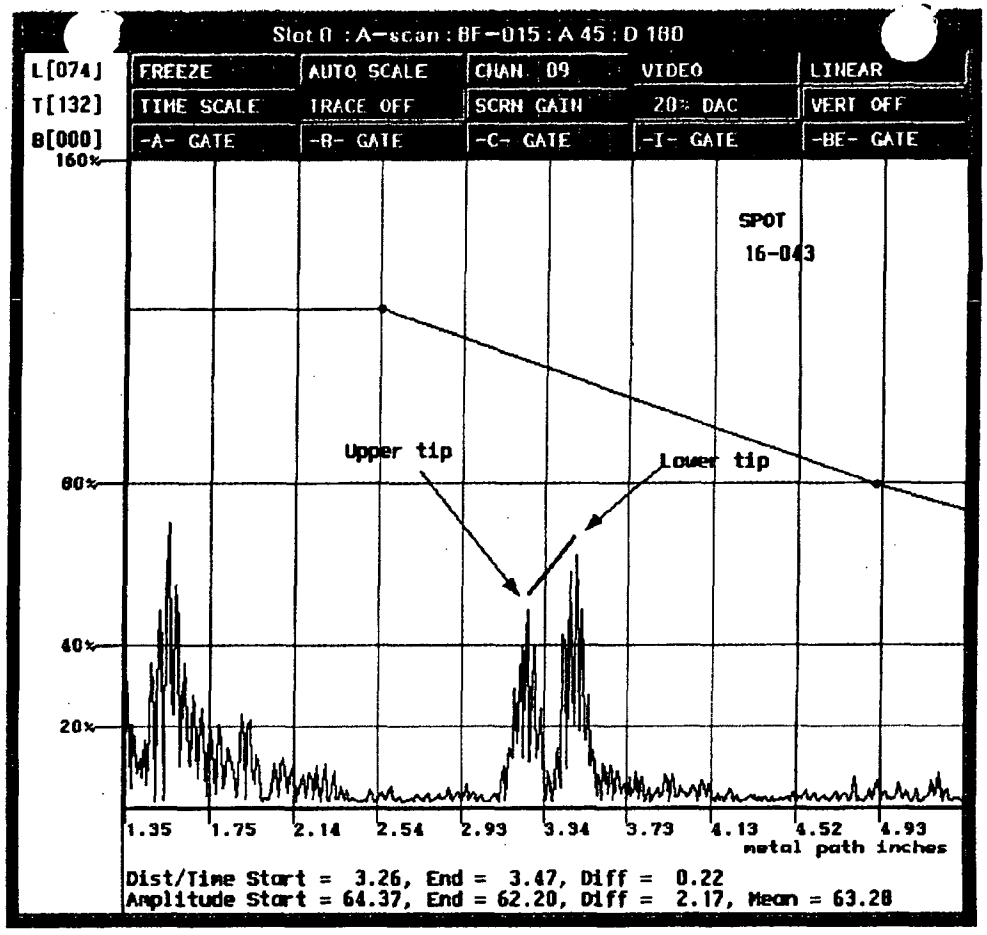


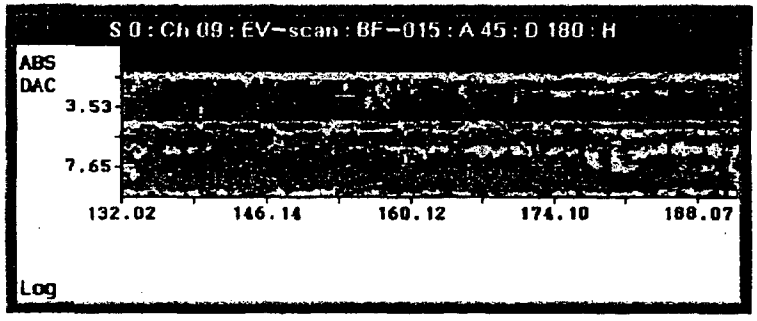


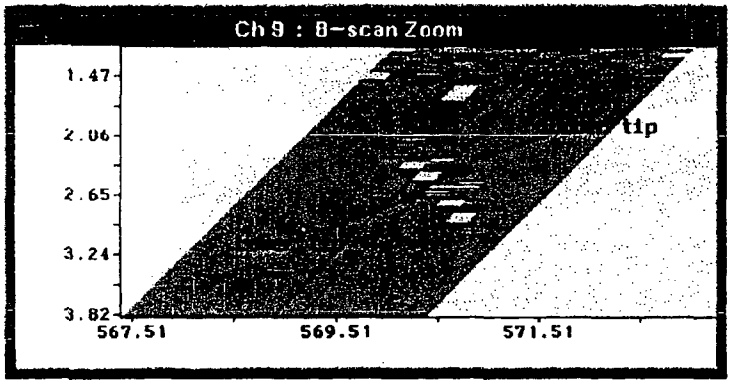


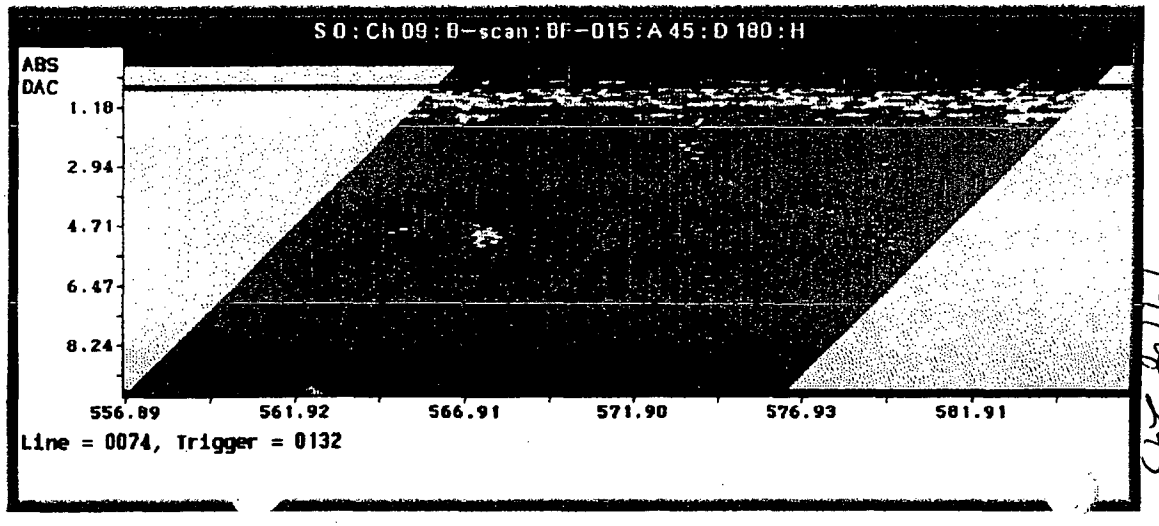












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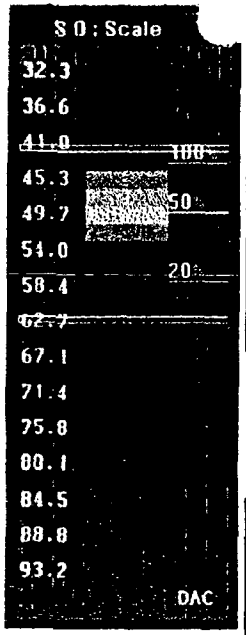

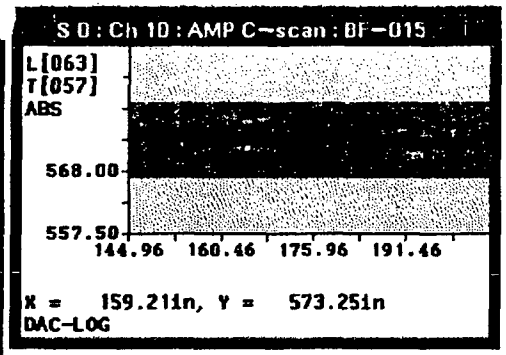

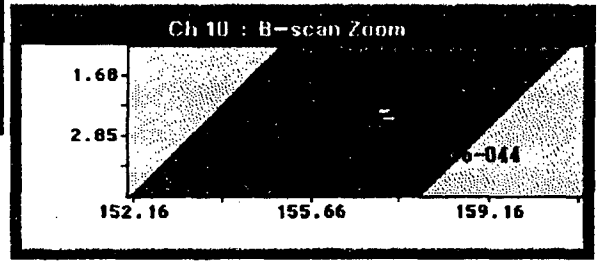

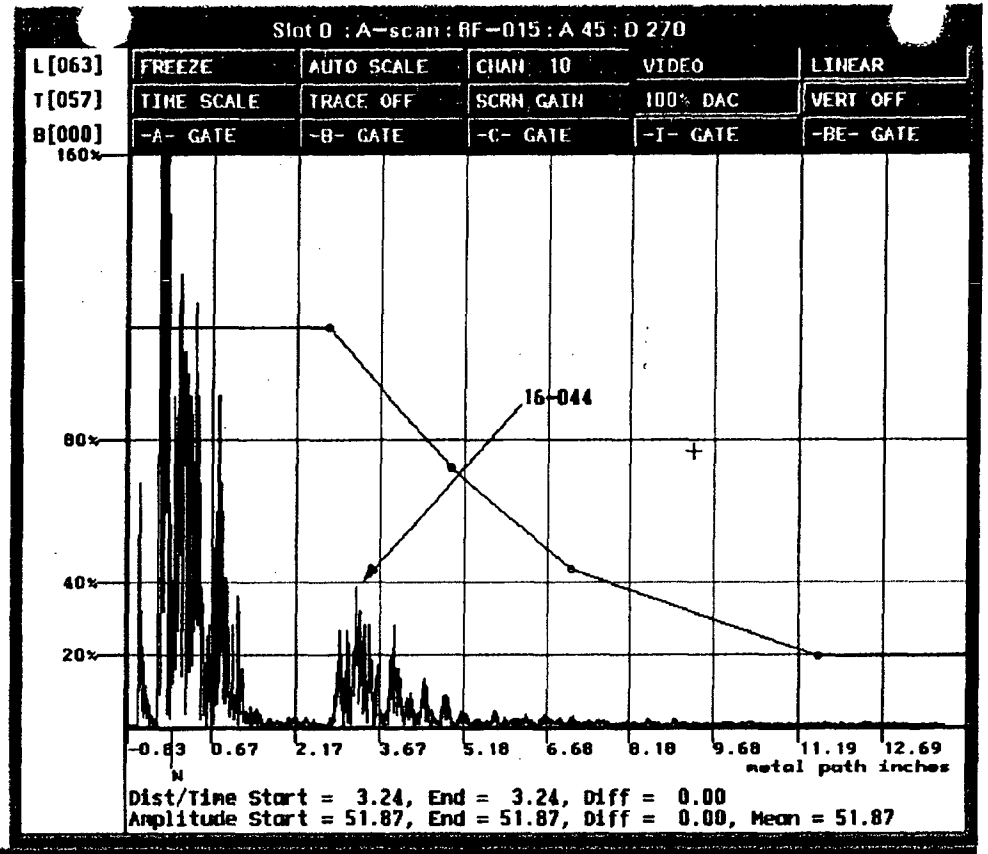

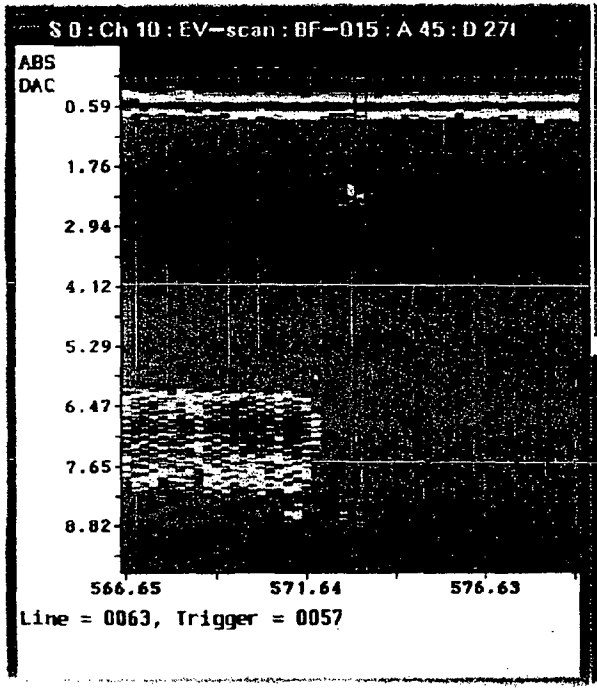

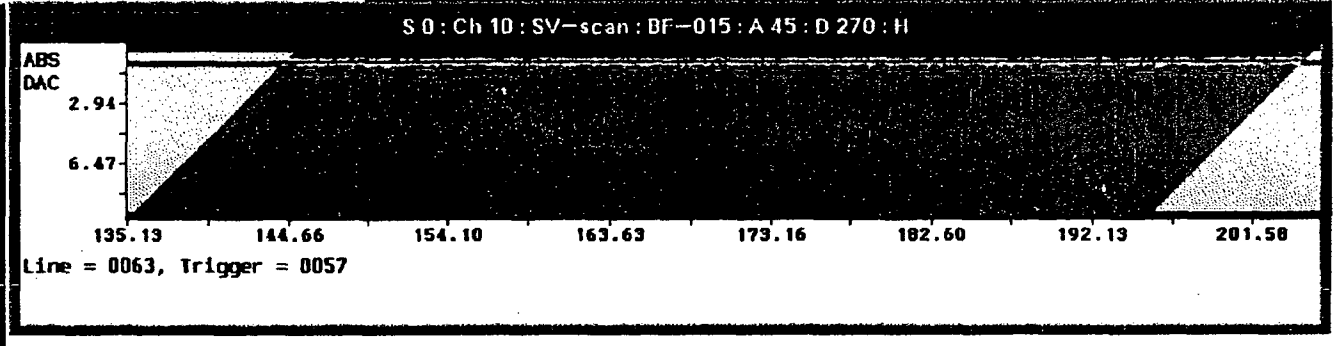

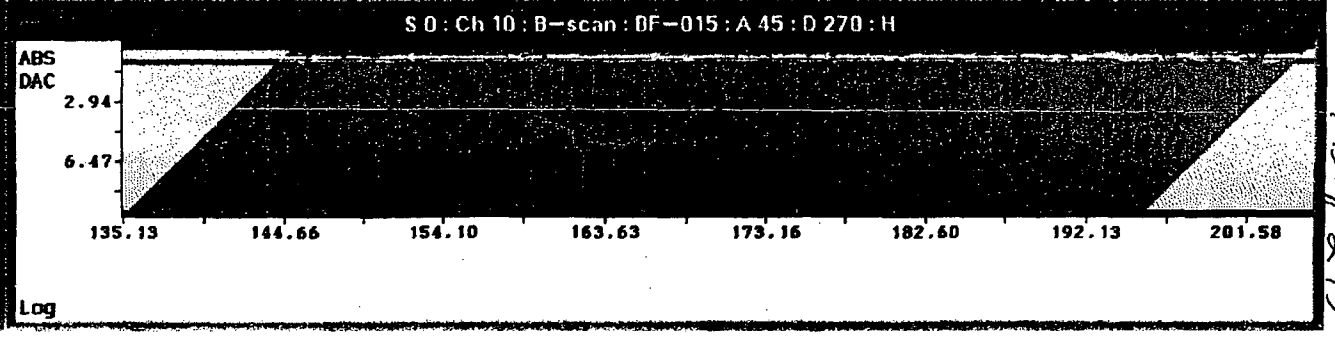

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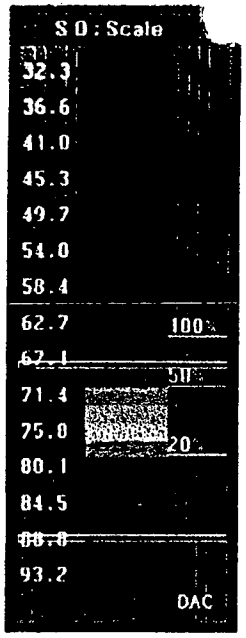

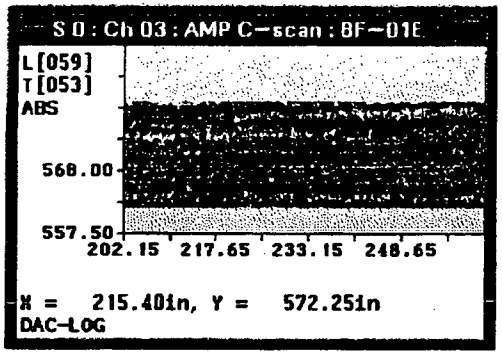

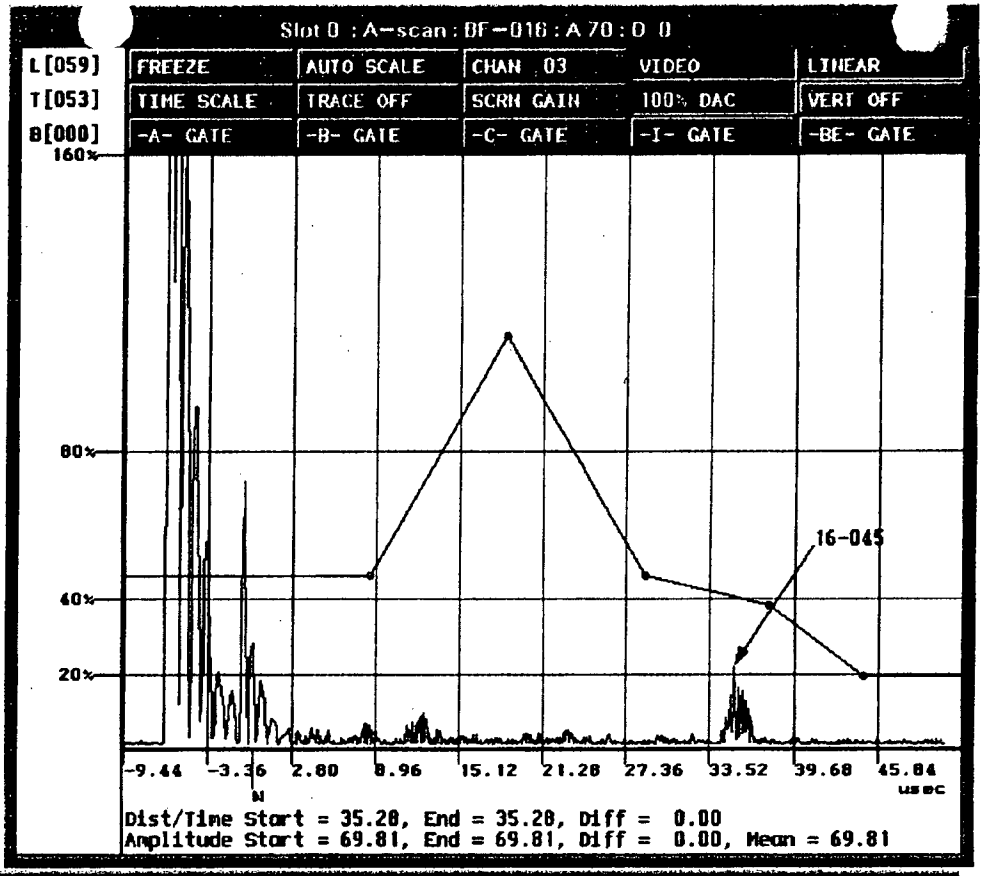

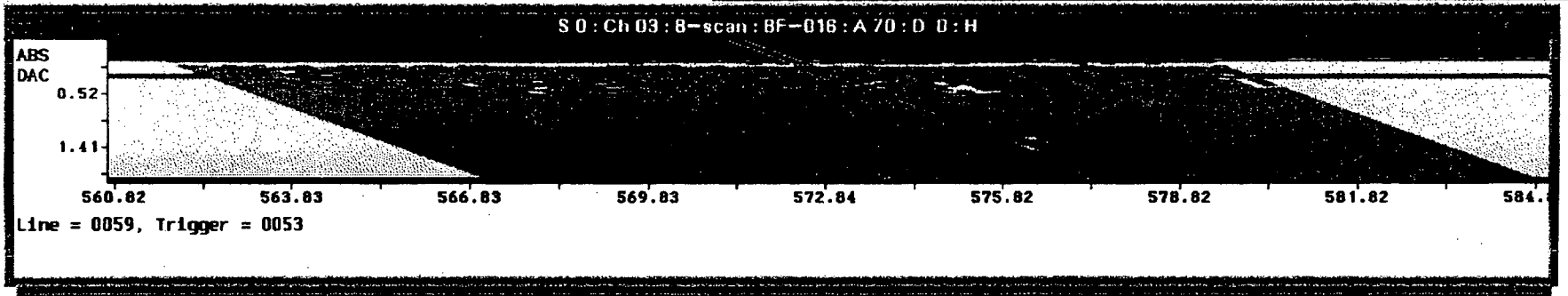

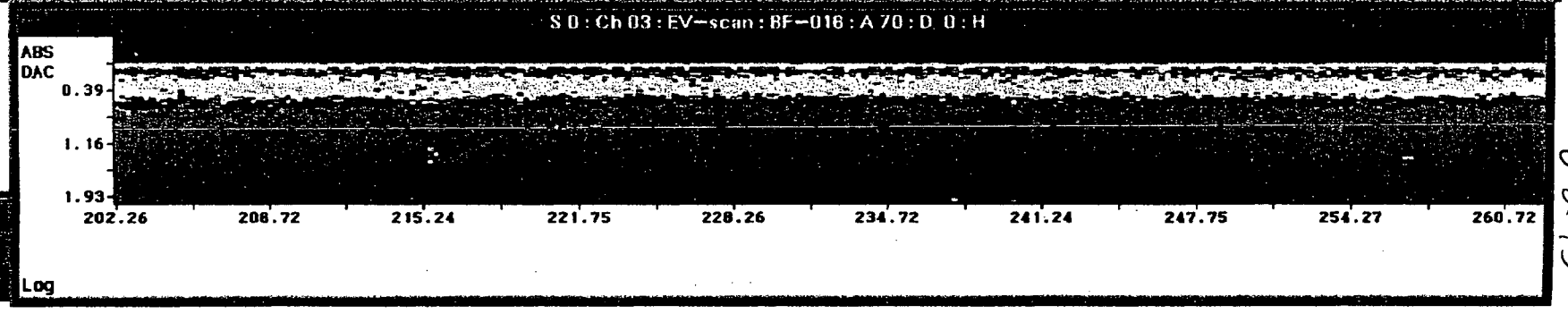

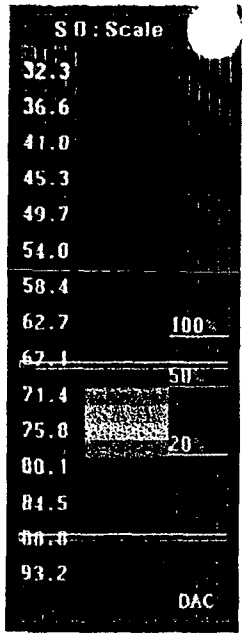

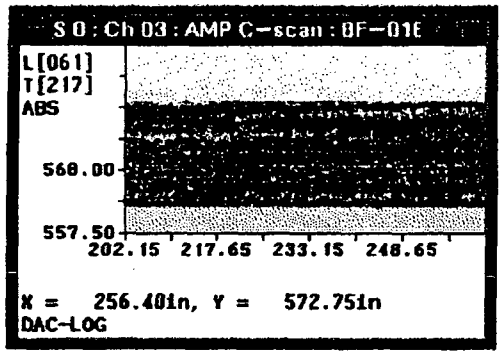

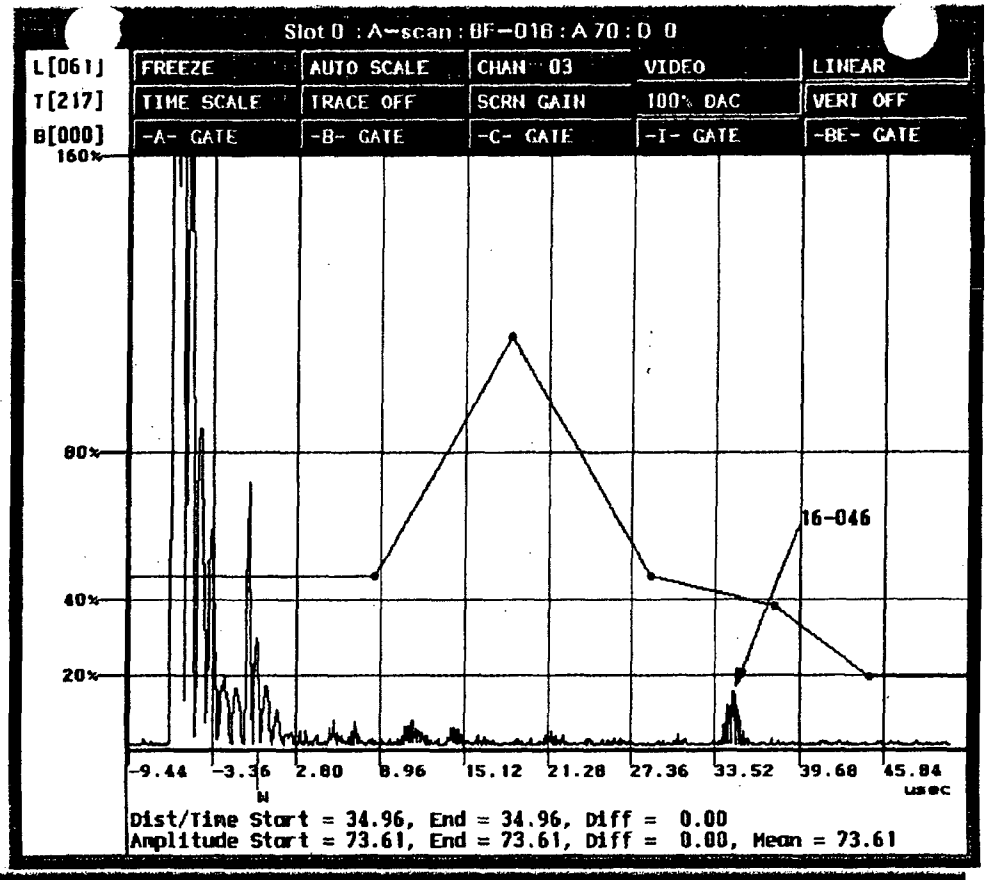

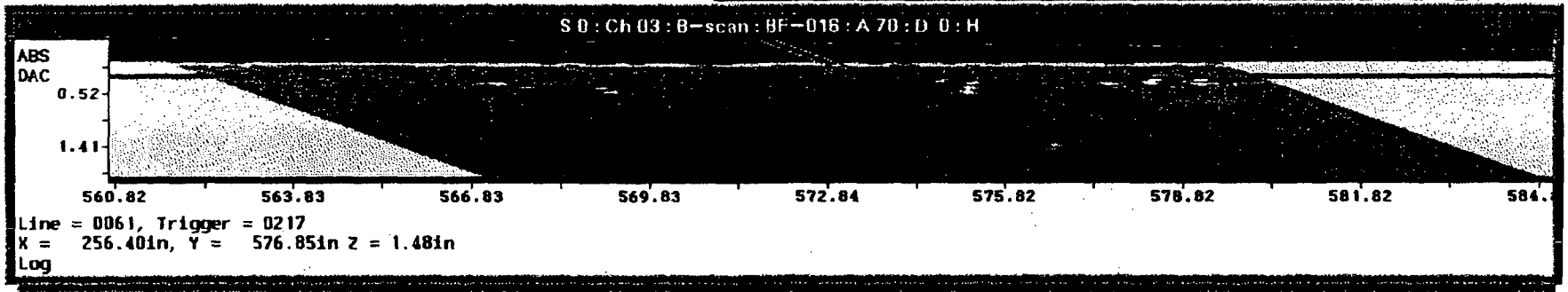

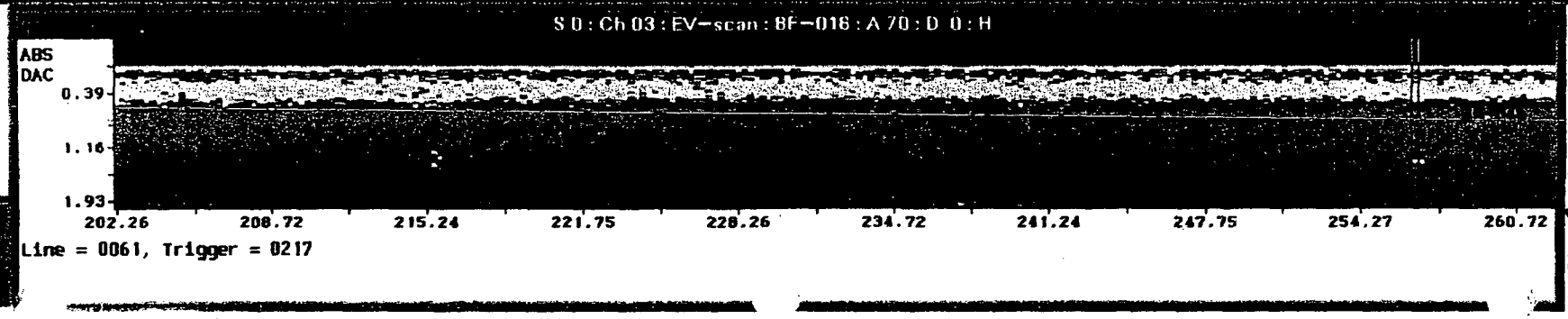

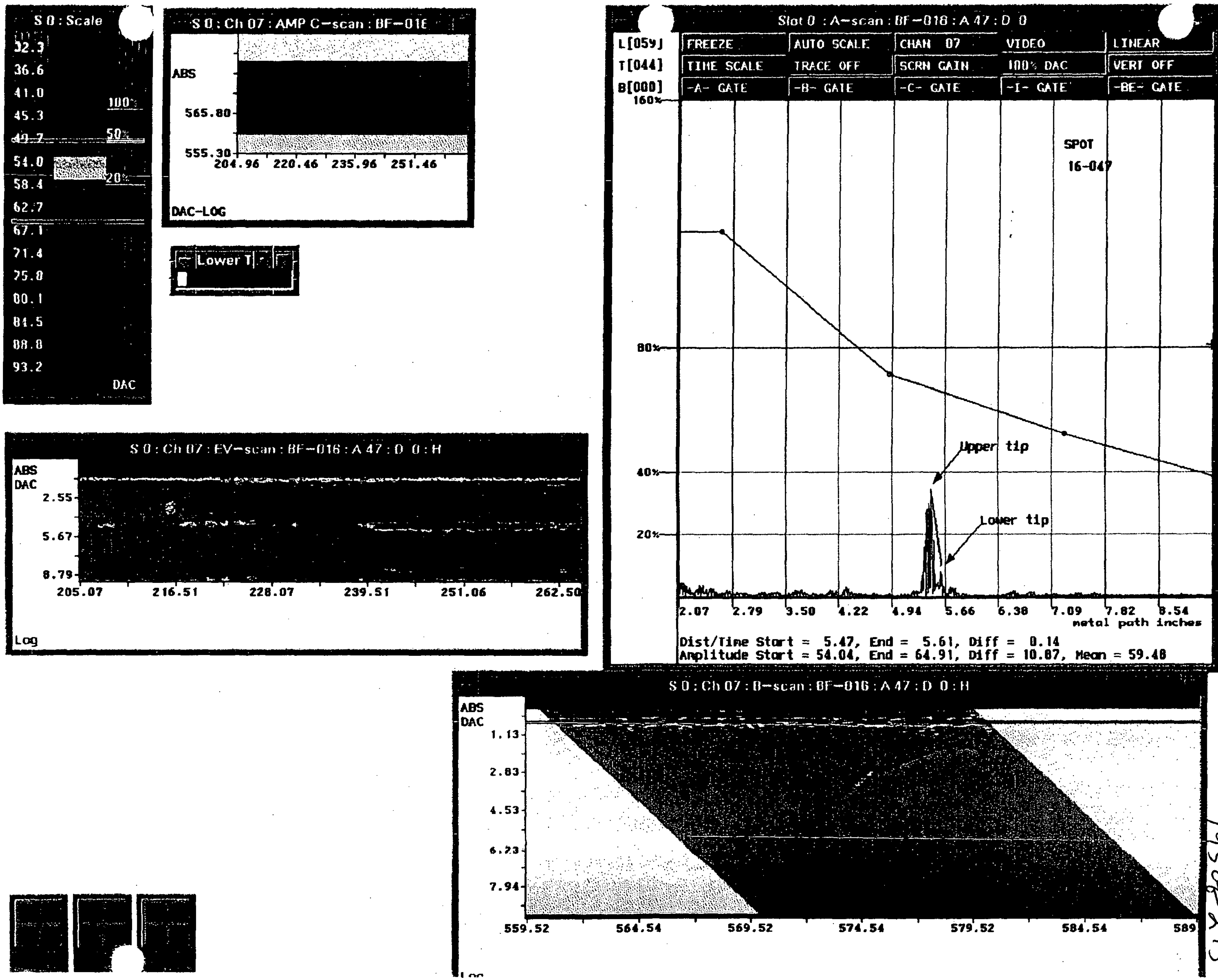

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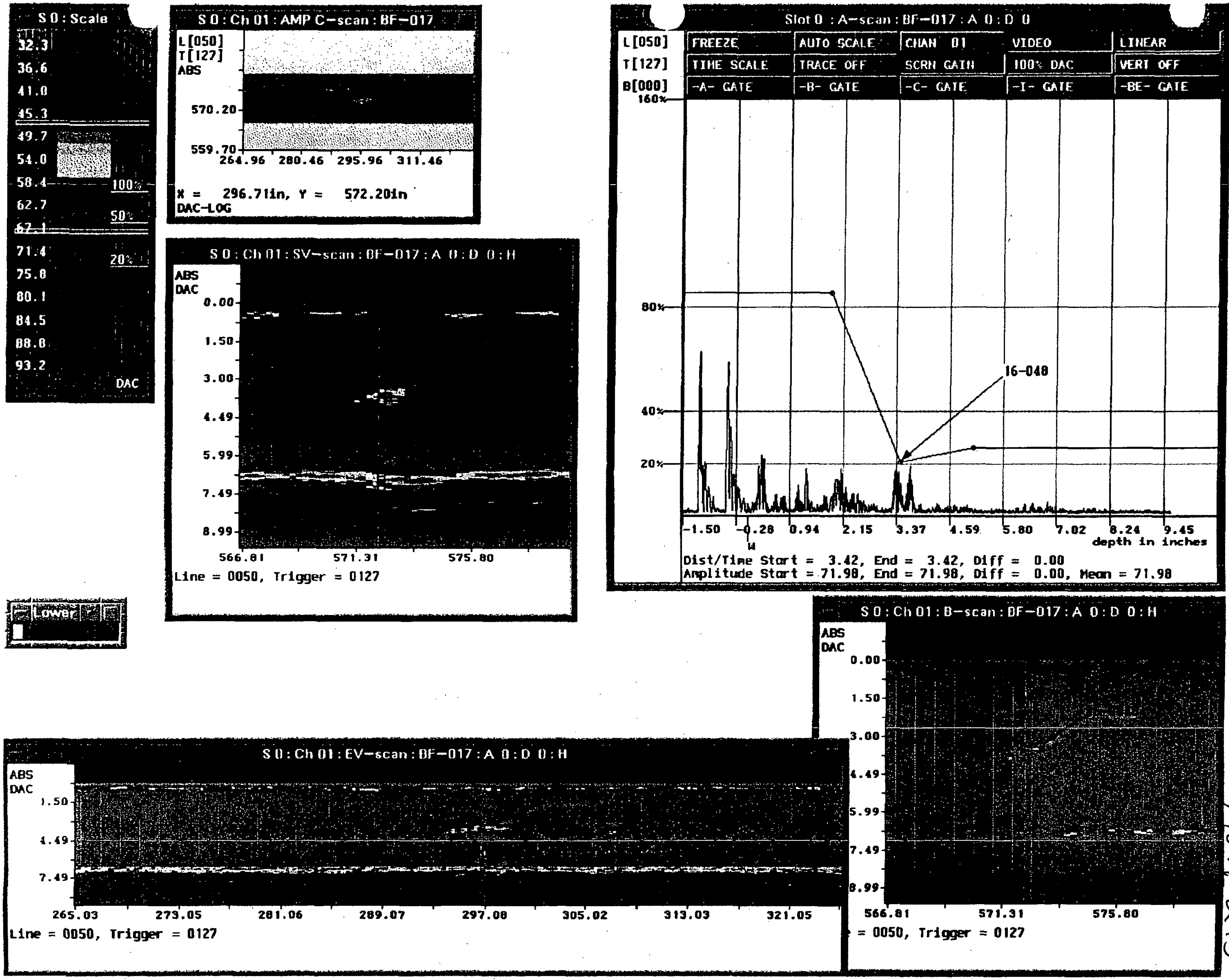

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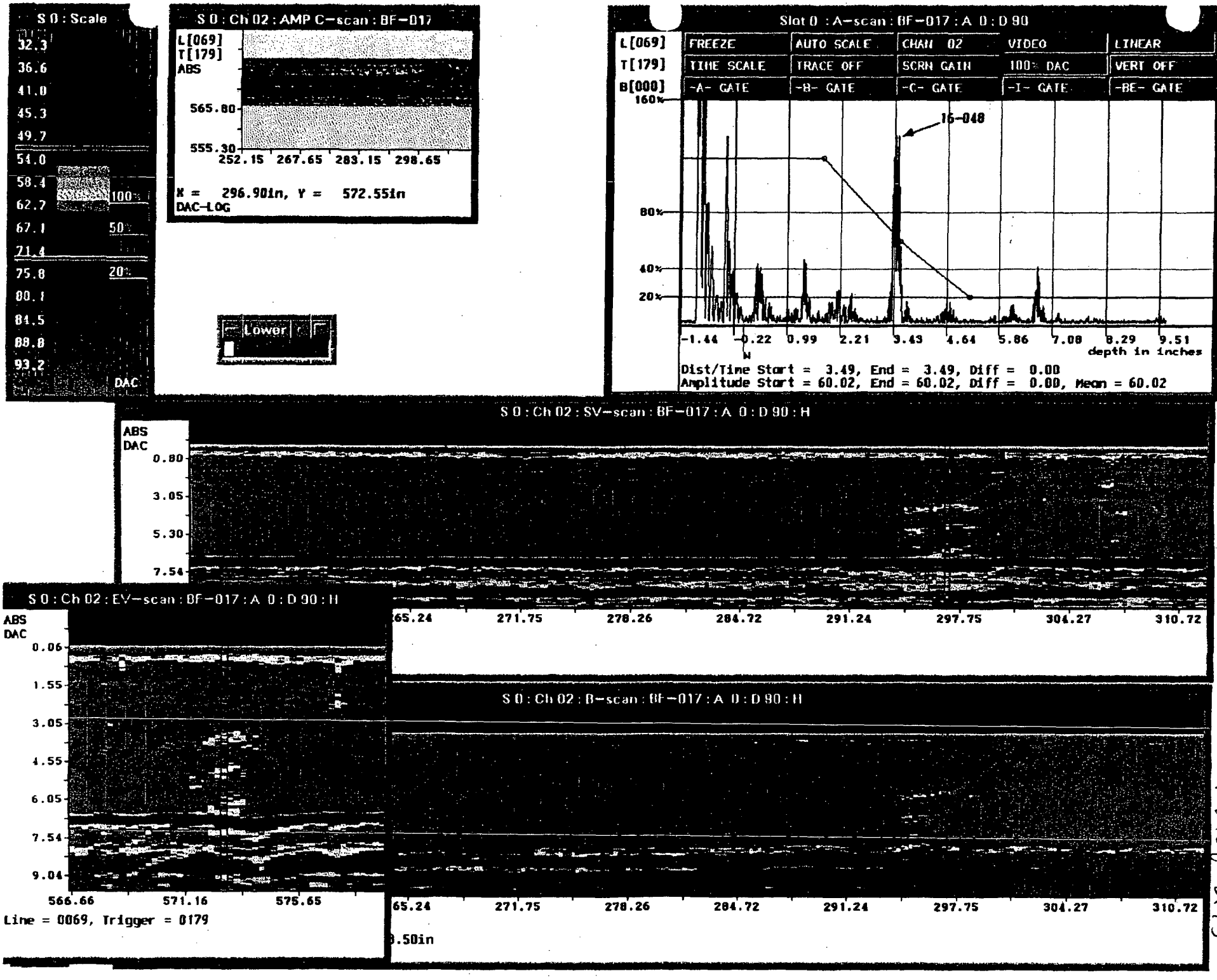

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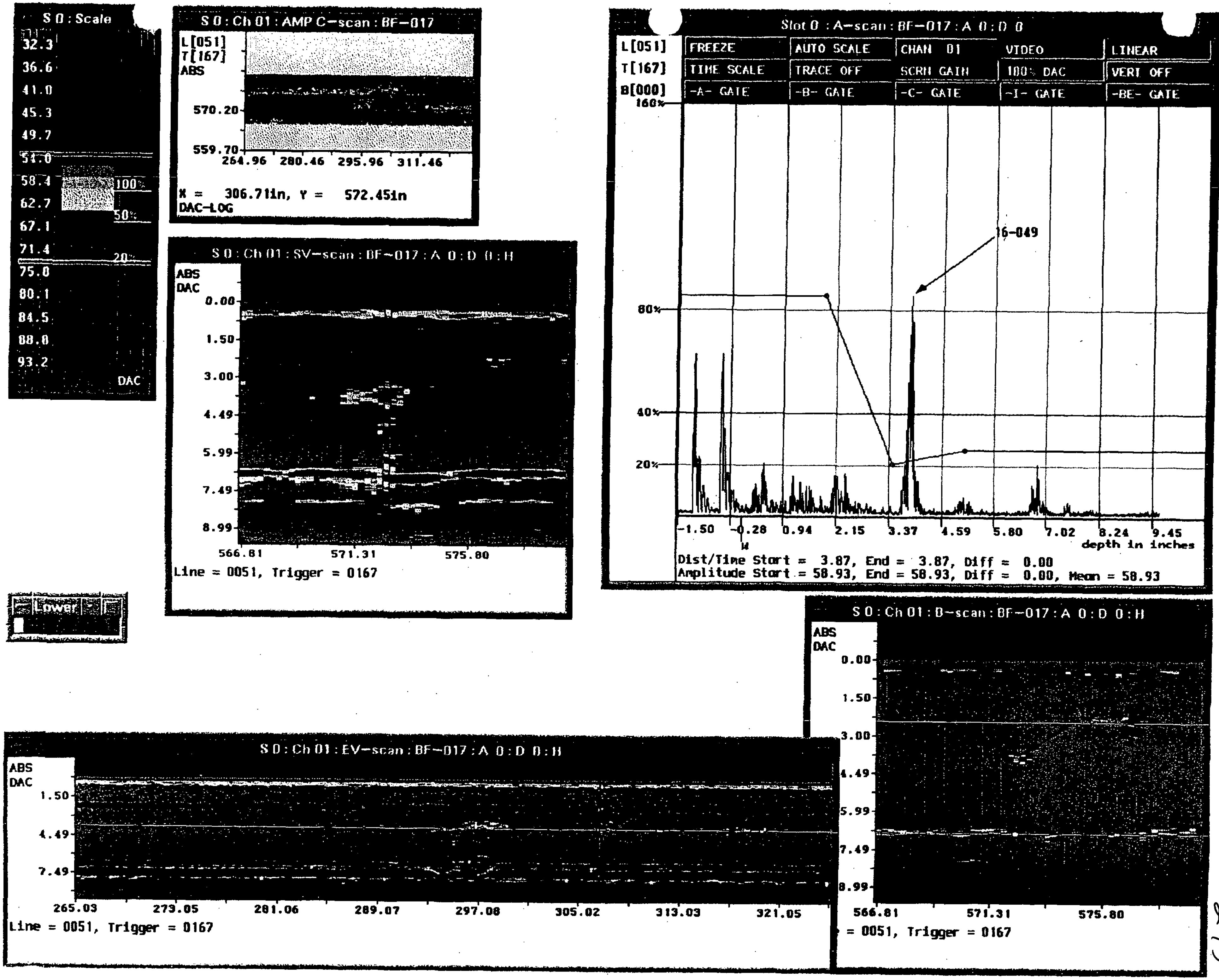
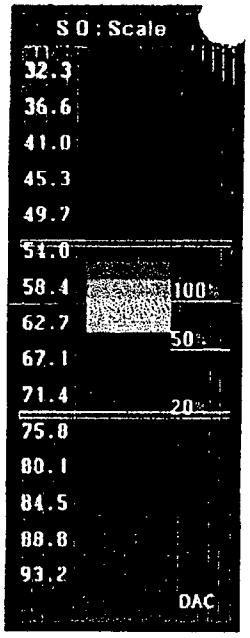
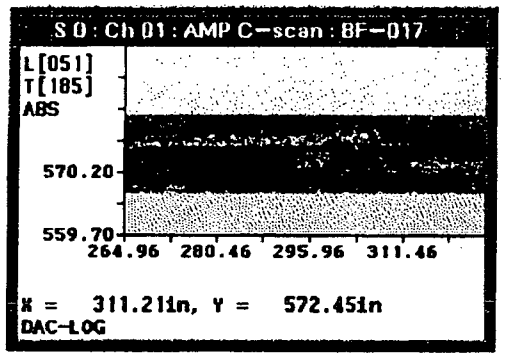
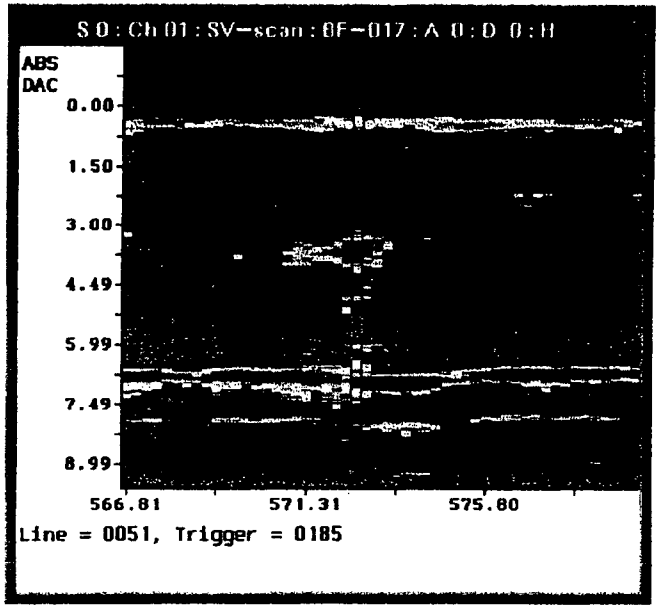
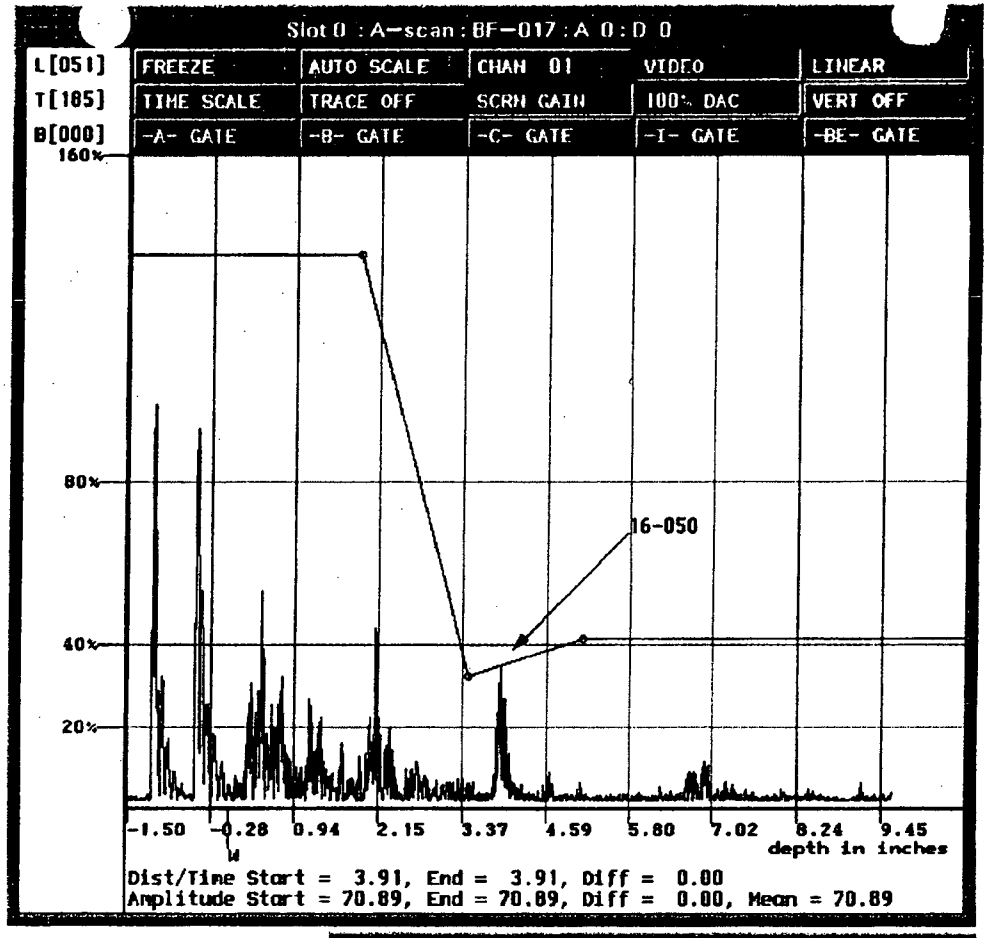


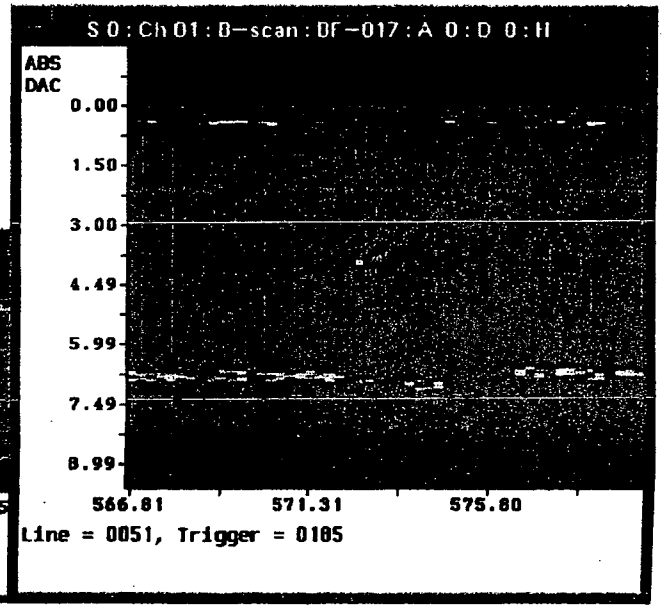
00561 198 of
R115 245

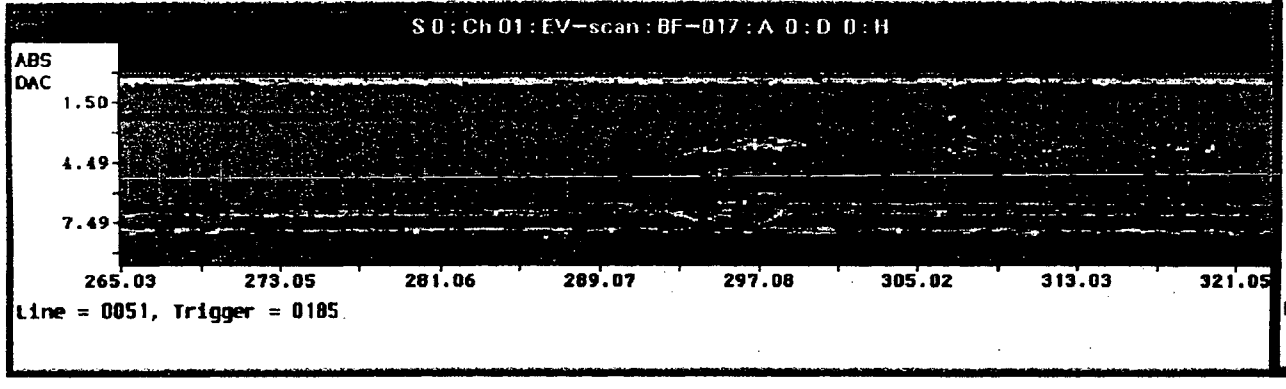












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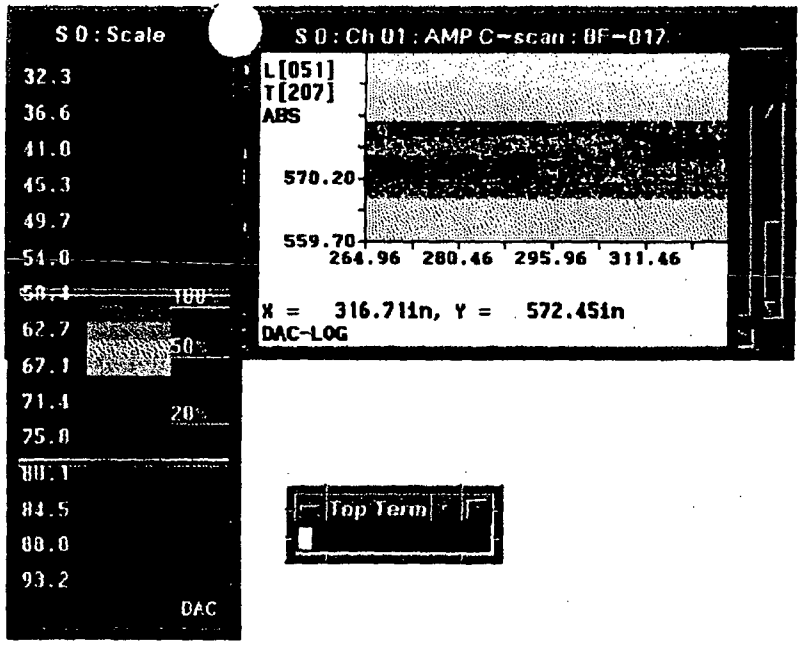
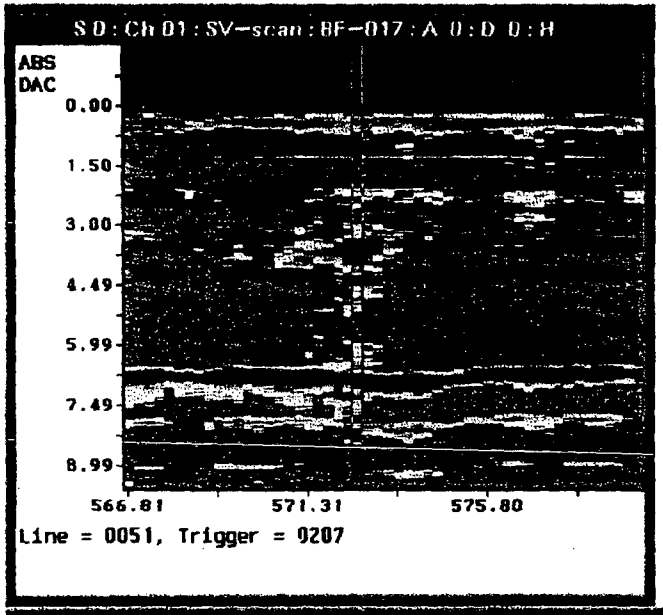
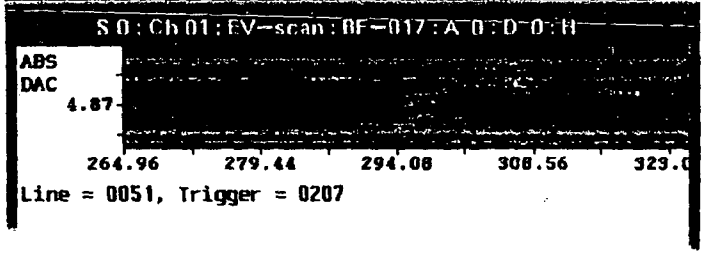
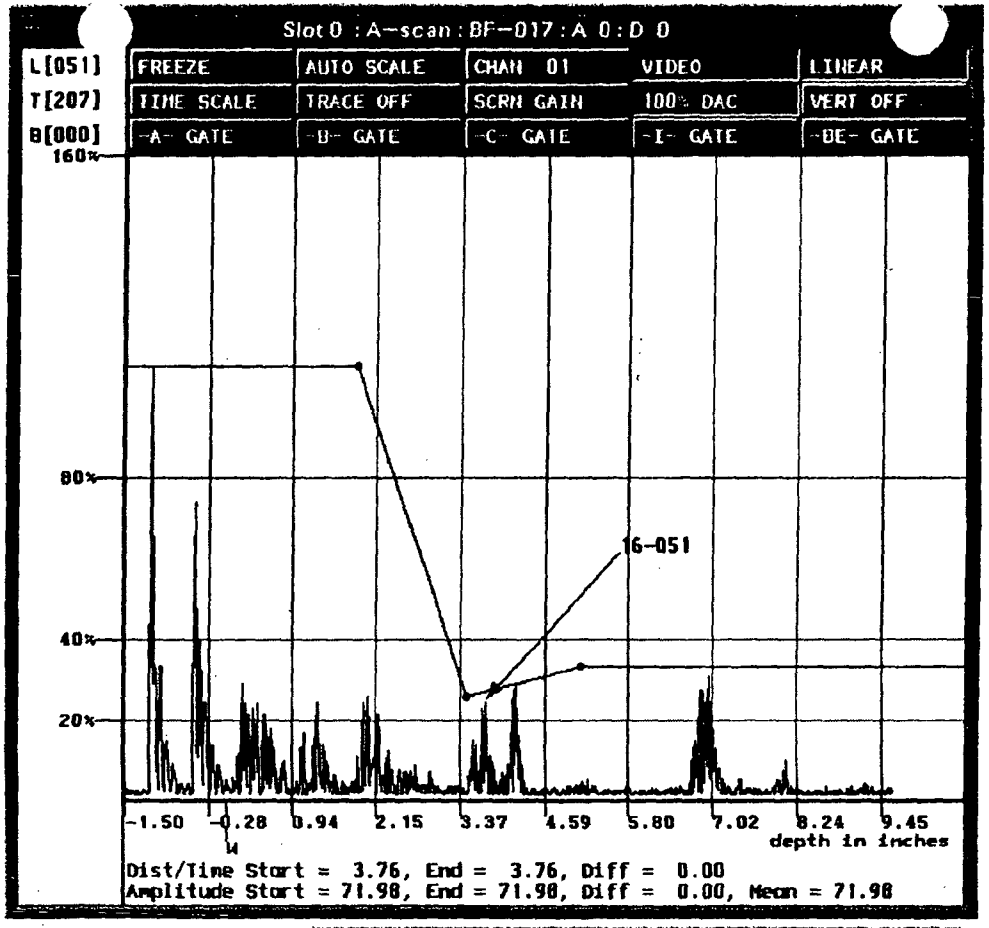
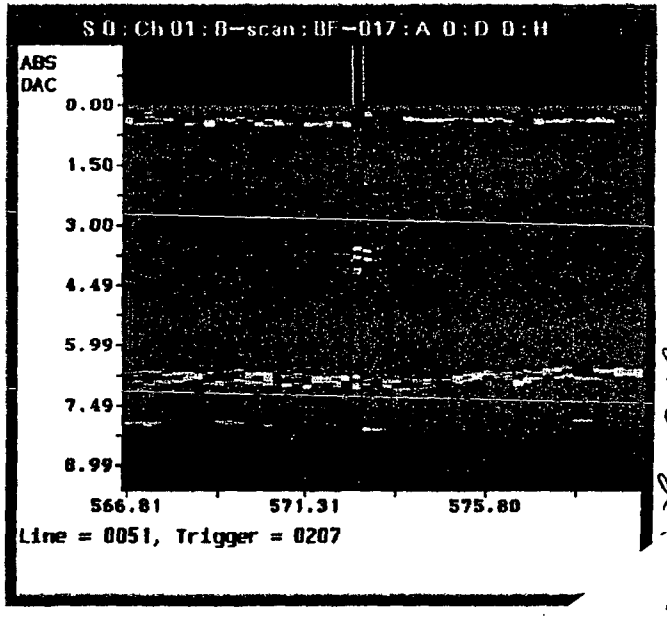

S 0 : Scale
32.3
36.6
41.0
45.3
49.7
54.0
58.4
62.7
67.1
71.4
75.8
80.1
84.5
88.0
93.2
100
50
20
DAC
S 0 : Ch 01 : AMP C-scan : BF-017
L[051]
T[207]
ABS
570.20
559.70
264.96
280.46
295.96
311.46
X = 316.71in, Y = 572.45in
DAC-LOG

Top Term

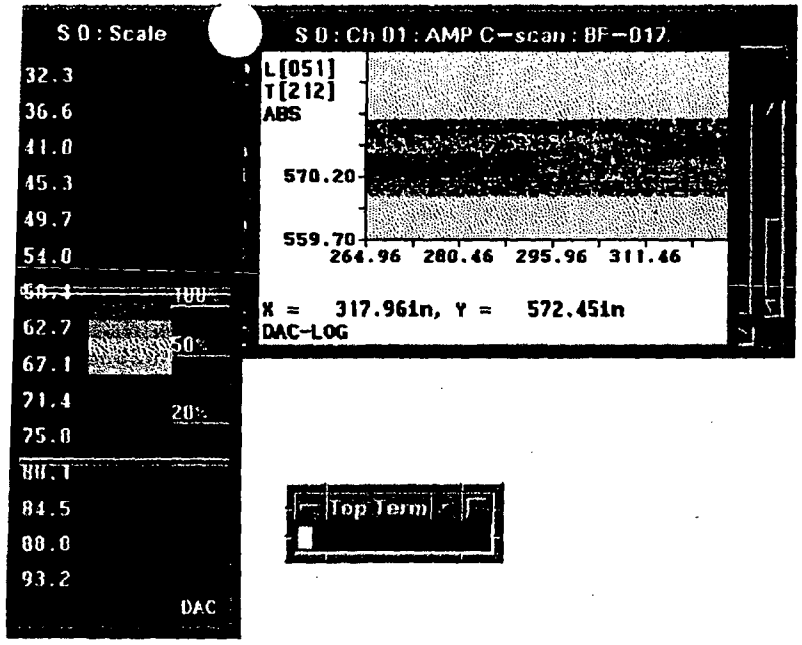

S 0 : Ch 01 : SV-scan : BF-017 : A 0 : D 0 : H
ABS
DAC
0.00
1.50
3.00
4.49
5.99
7.49
8.99
566.81
571.31
575.80
Line = 0051, Trigger = 0207

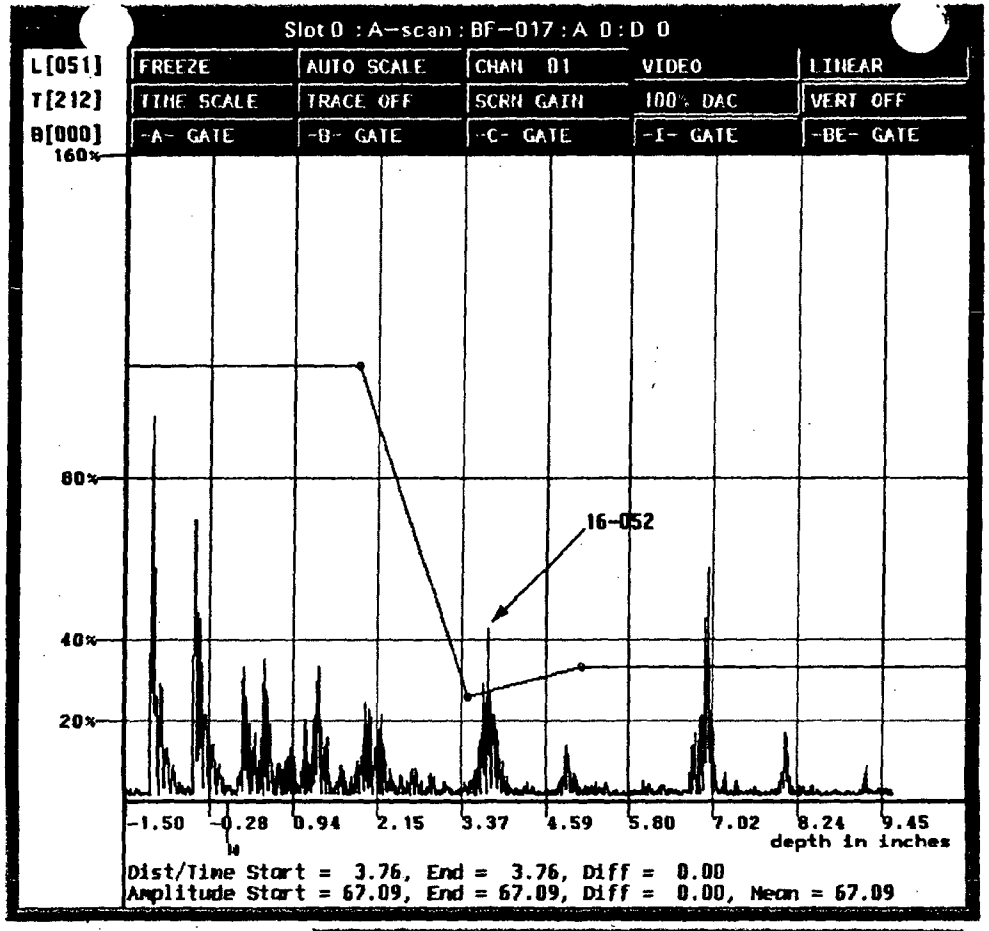

S 0 : Ch 01 : EV-scan : BF-017 : A 0 : D 0 : H
ABS
DAC
4.87
264.96
279.44
294.08
308.56
Line = 0051, Trigger = 0207

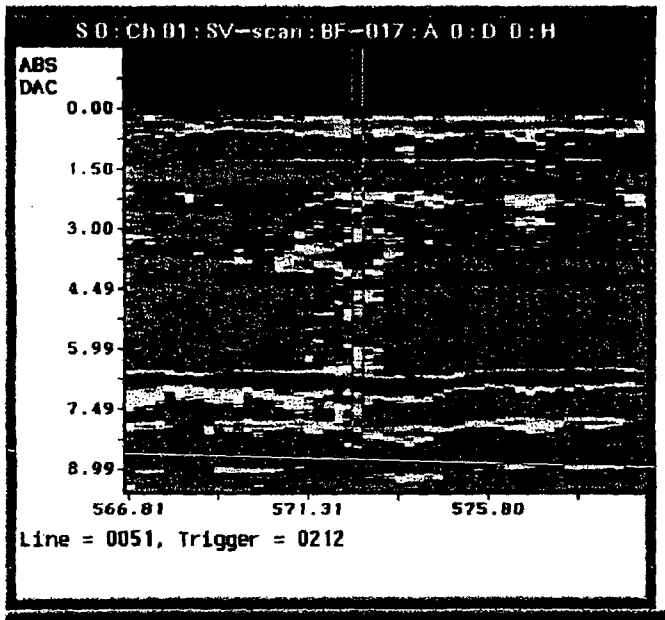

Slot 0 : A-scan : BF-017 : A 0 : D 0
L[051]
T[207]
B[000]
FREEZE
AUTO SCALE
CHAN 01
VIDEO
LINEAR
TIME SCALE
TRACE OFF
SCRN GAIN
100% DAC
VERT OFF
-A- GATE
-B- GATE
-C- GATE
-I- GATE
-BE- GATE
160%
80%
40%
20%
16-051
-1.50
-0.28
0.94
2.15
3.37
4.59
5.80
7.02
8.24
9.45
depth in inches
Dist/Time Start = 3.76, End = 3.76, Diff = 0.00
Amplitude Start = 71.98, End = 71.98, Diff = 0.00, Mean = 71.98

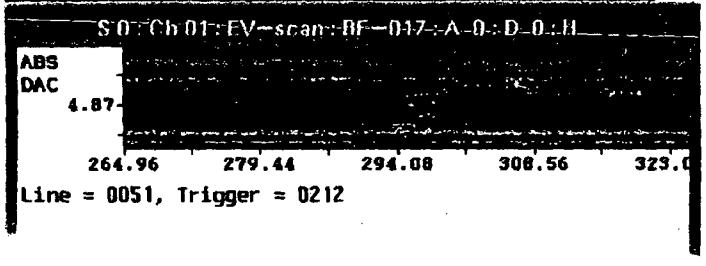

S 0 : Ch 01 : B-scan : BF-017 : A 0 : D 0 : H
ABS
DAC
0.00
1.50
3.00
4.49
5.99
7.49
8.99
566.81
571.31
575.80
Line = 0051, Trigger = 0207

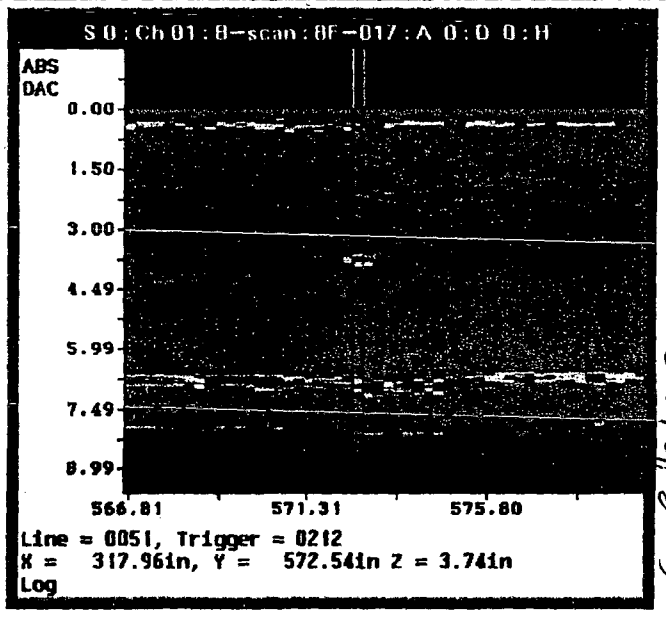
R1152
200-2











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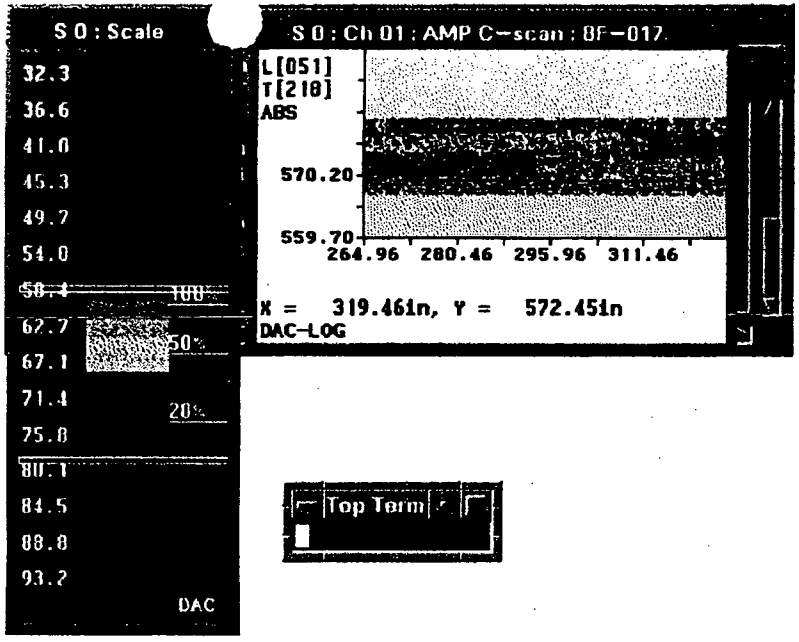

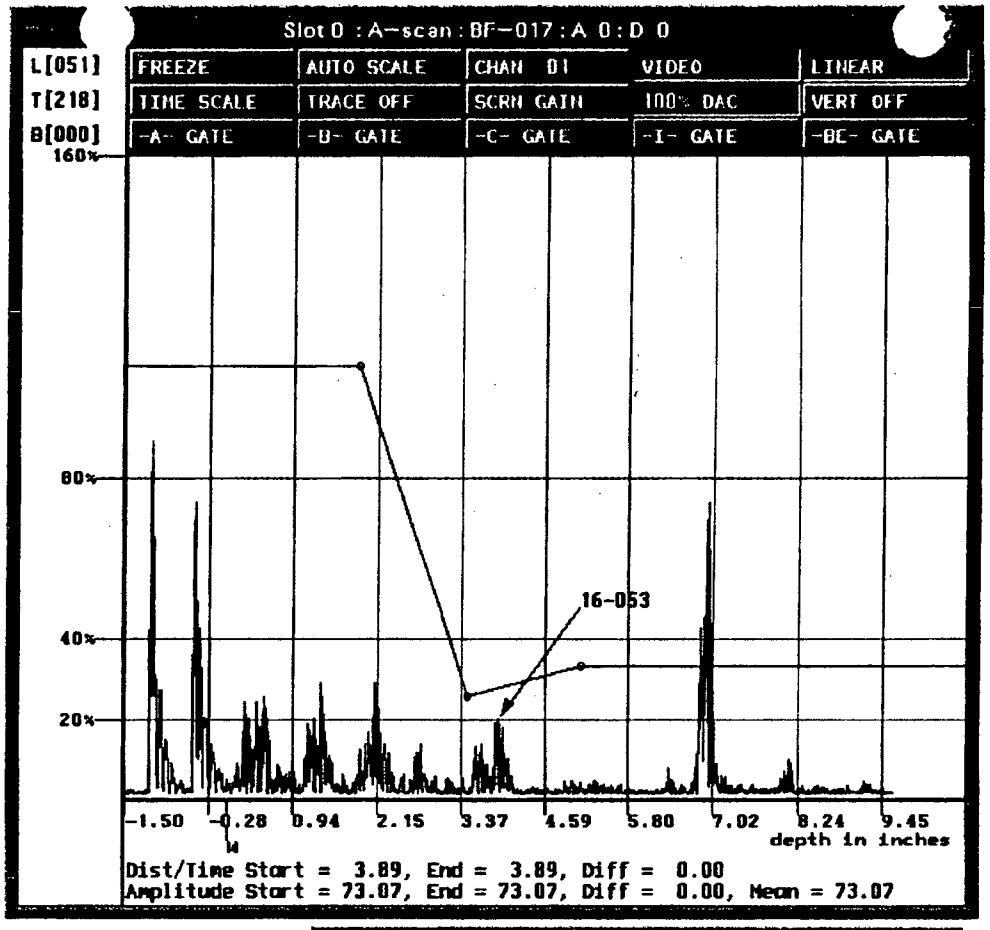

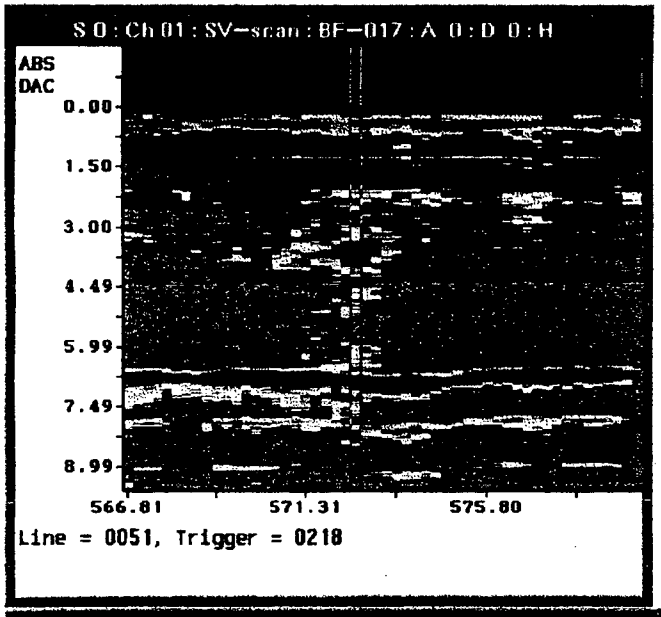

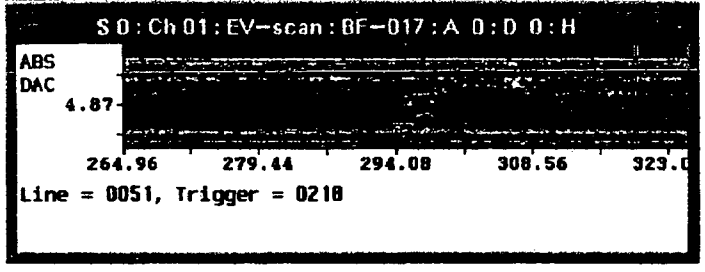

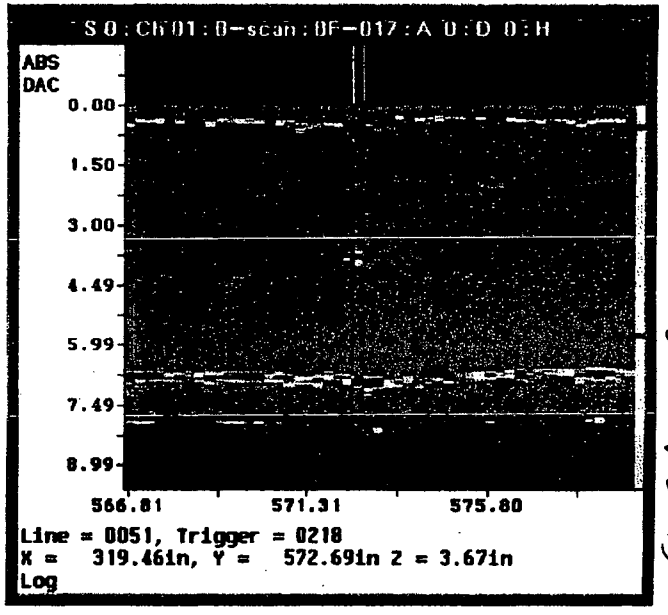

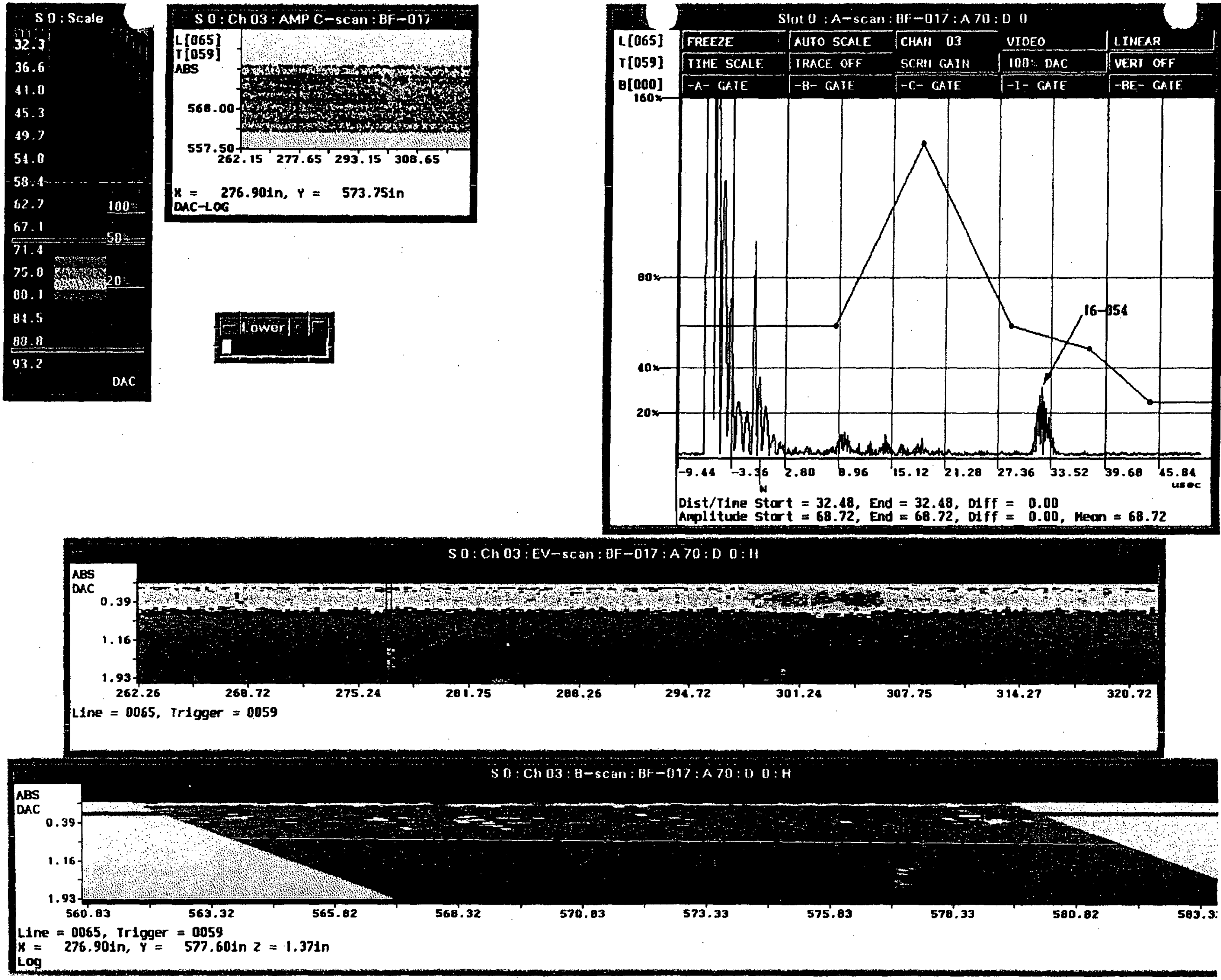

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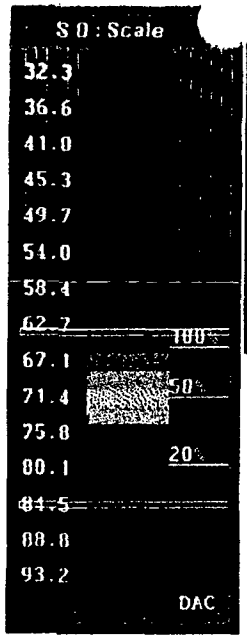

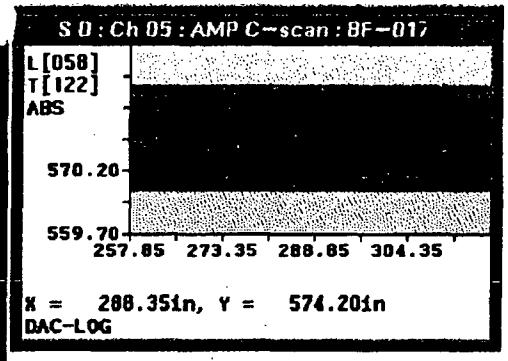

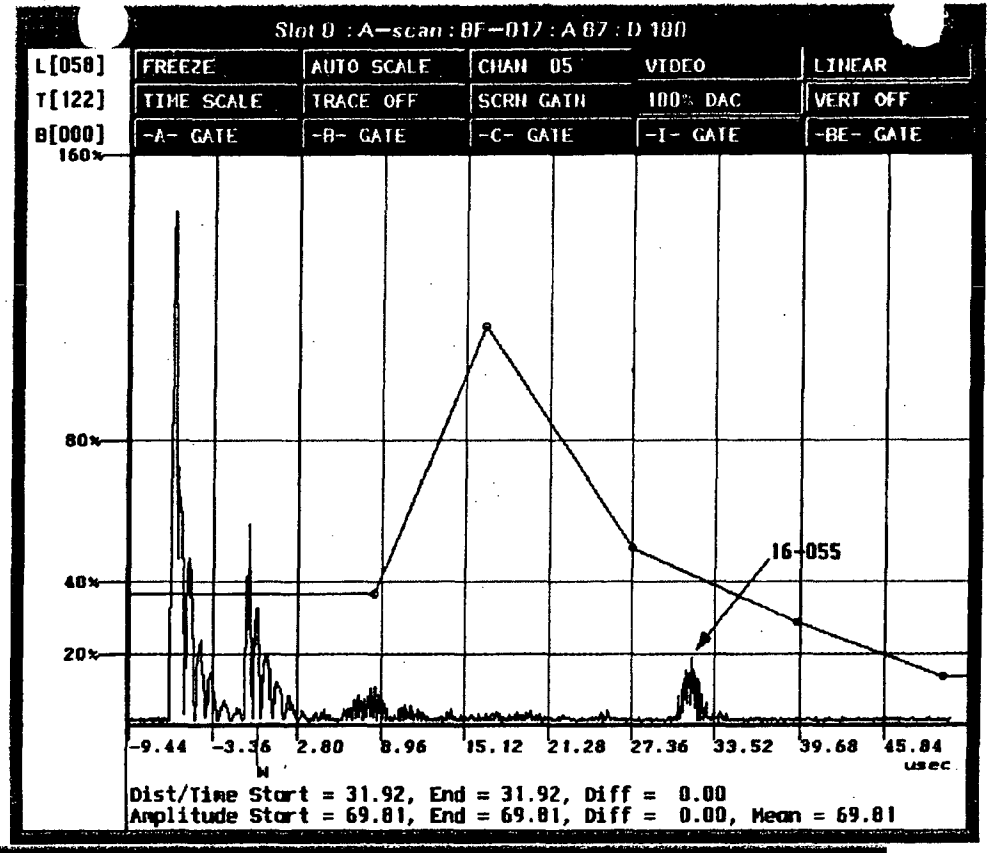

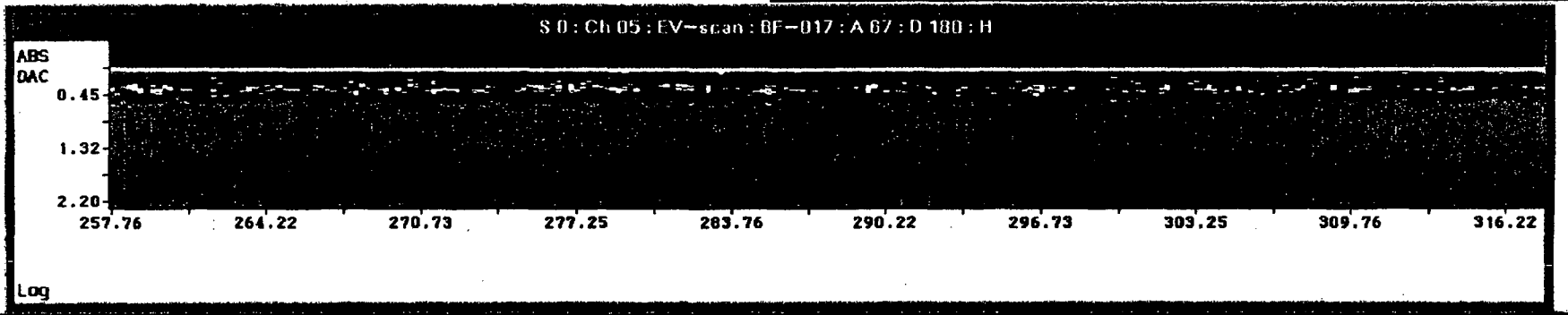

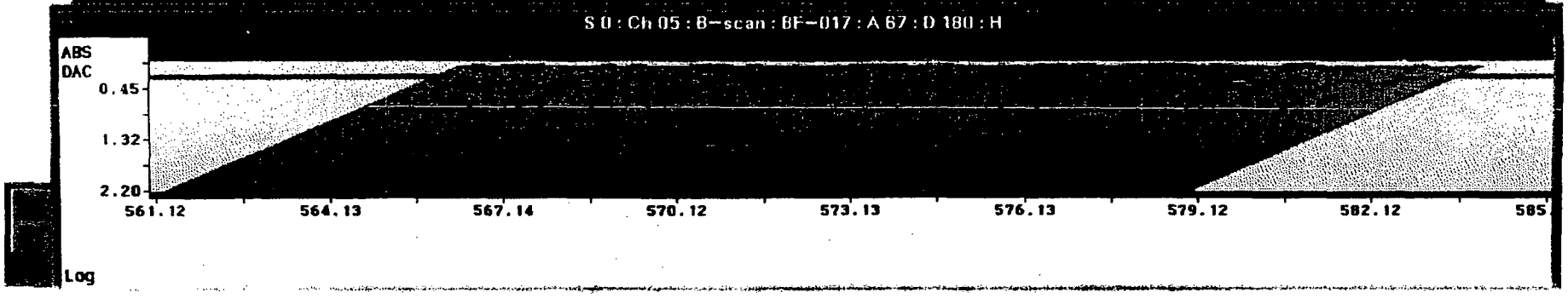

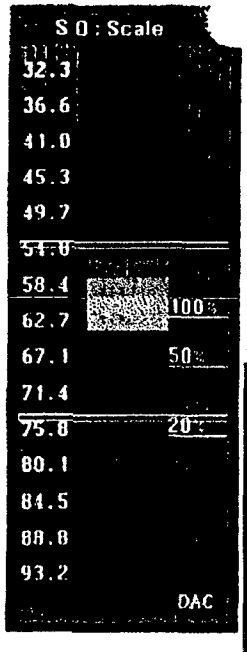

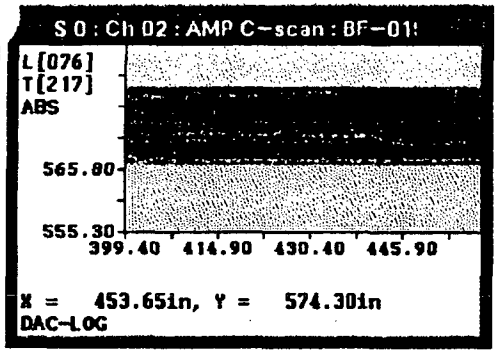

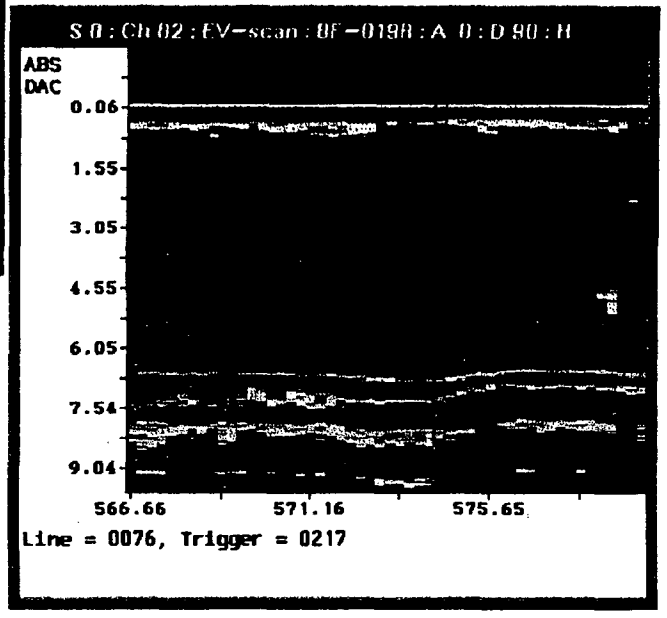

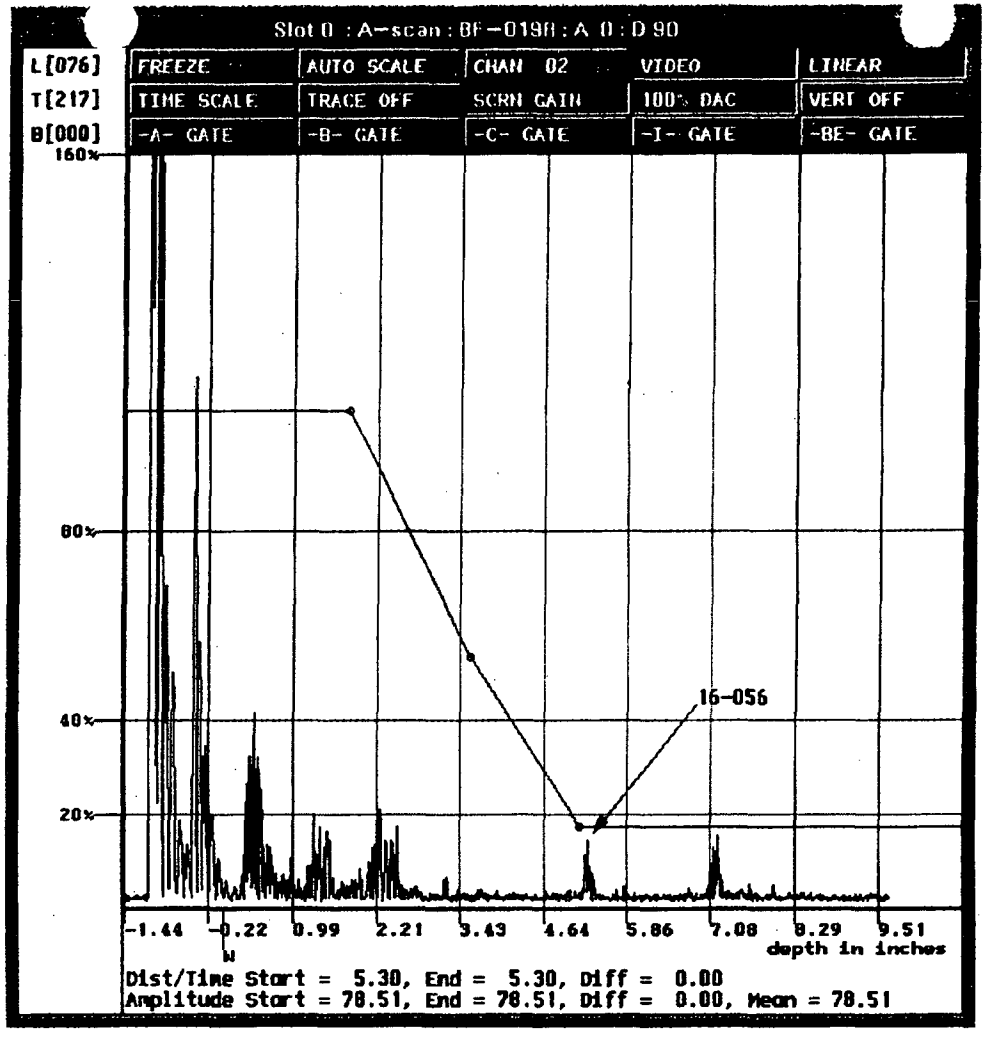

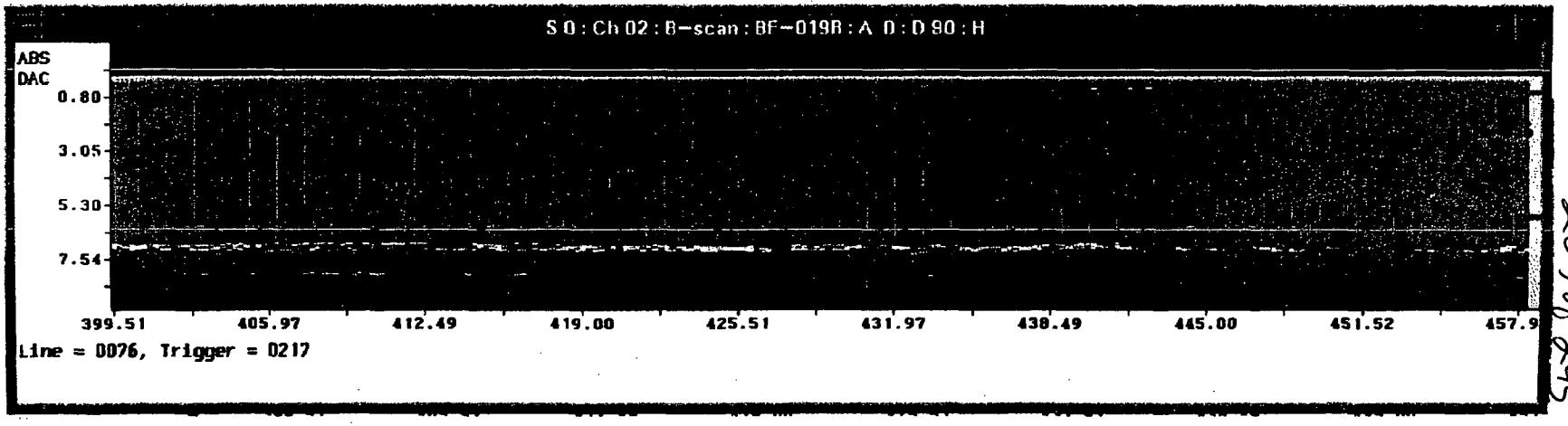

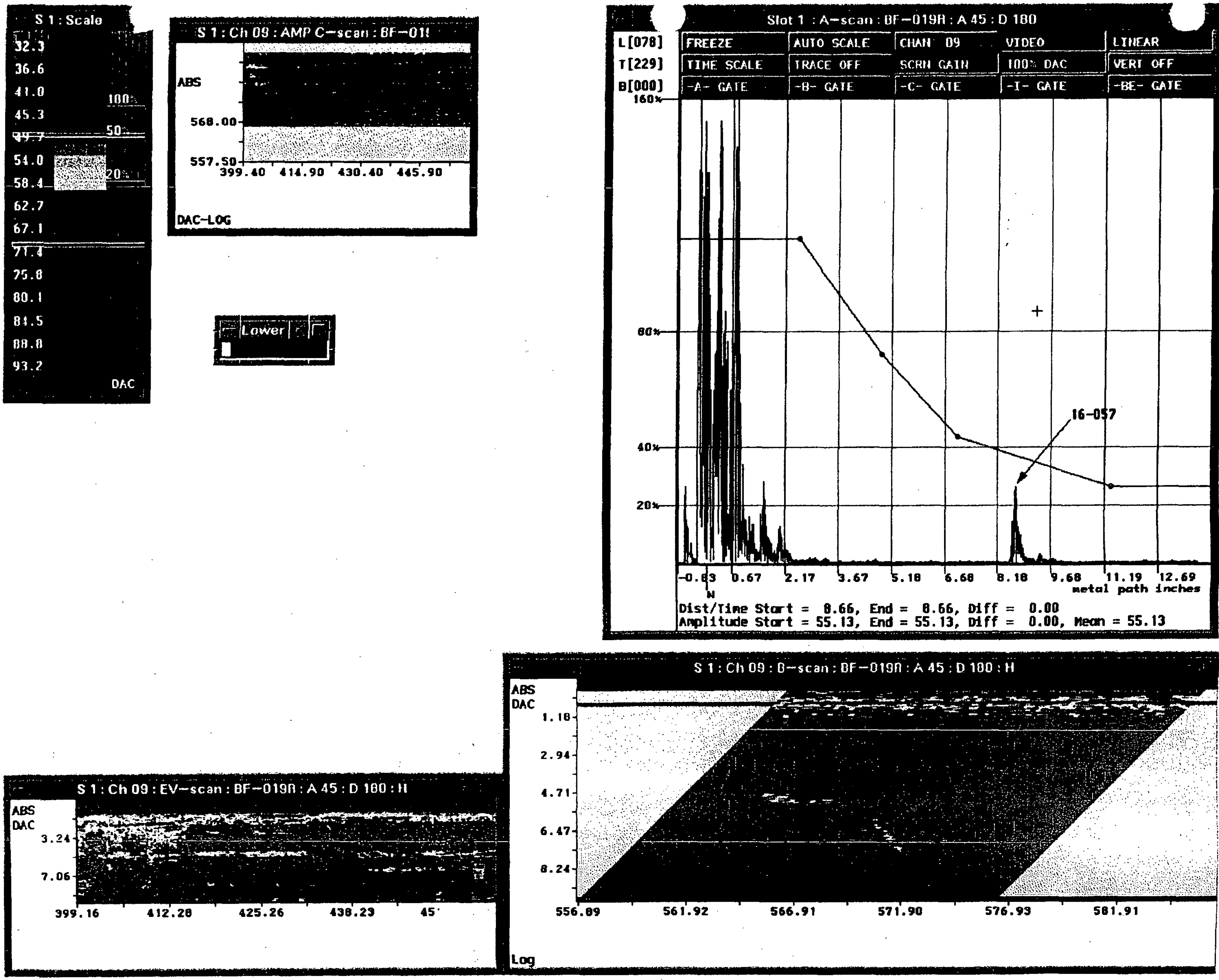

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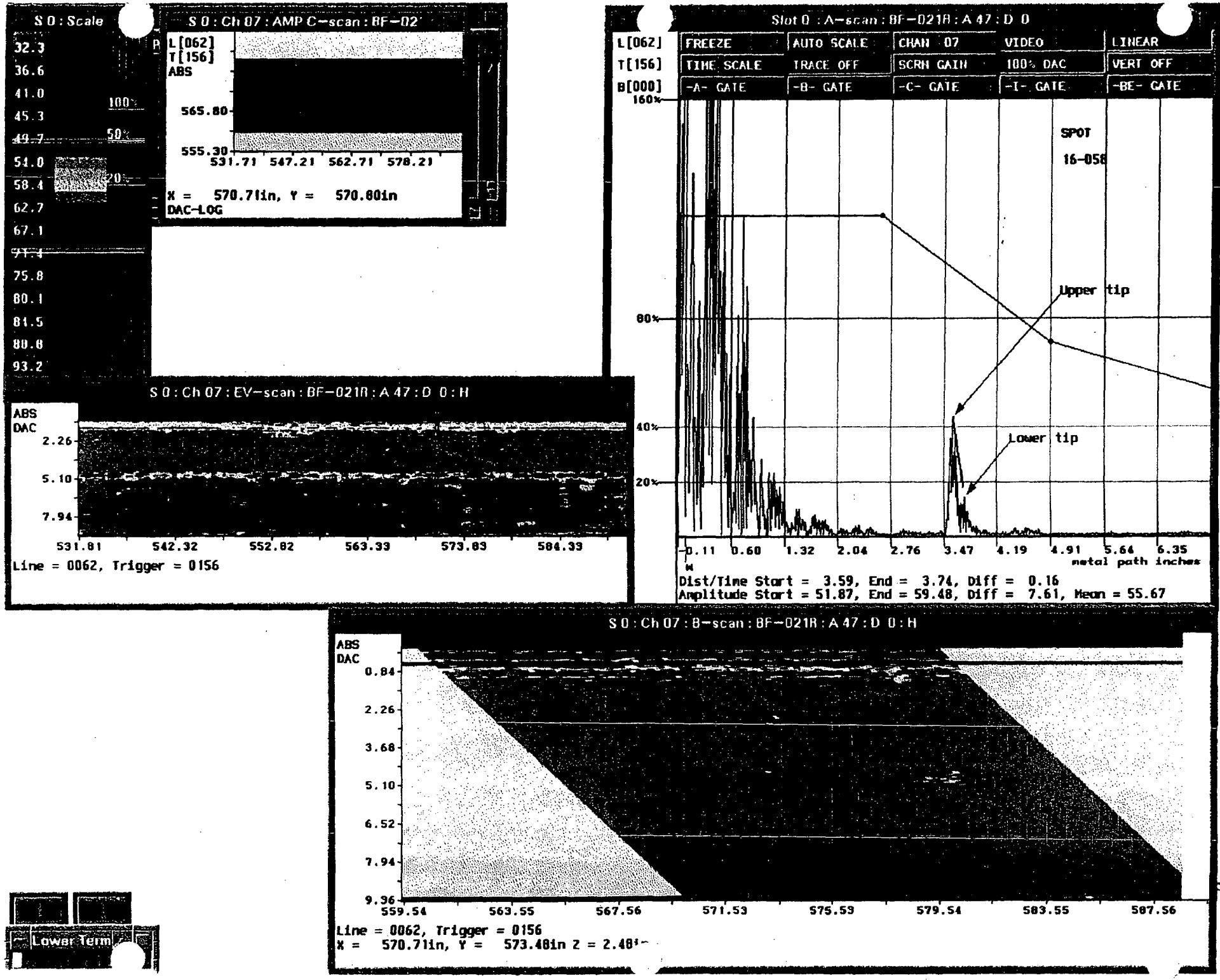

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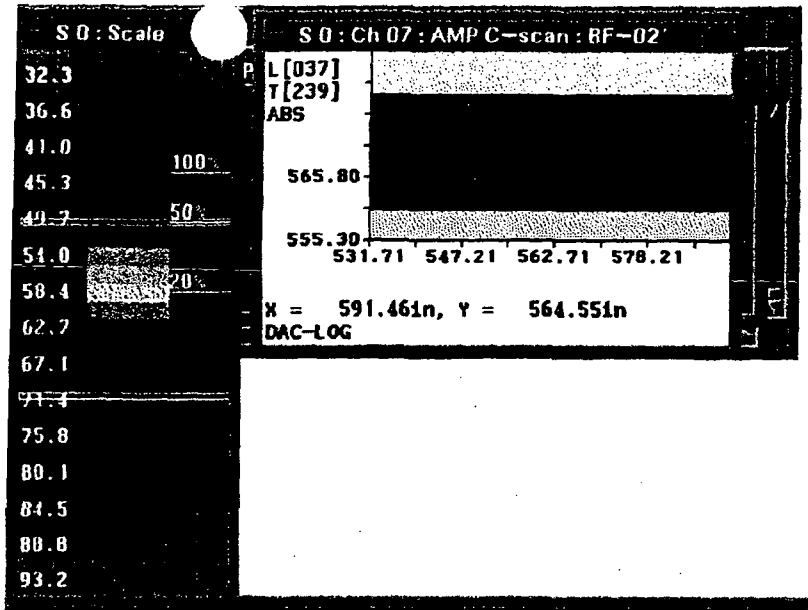

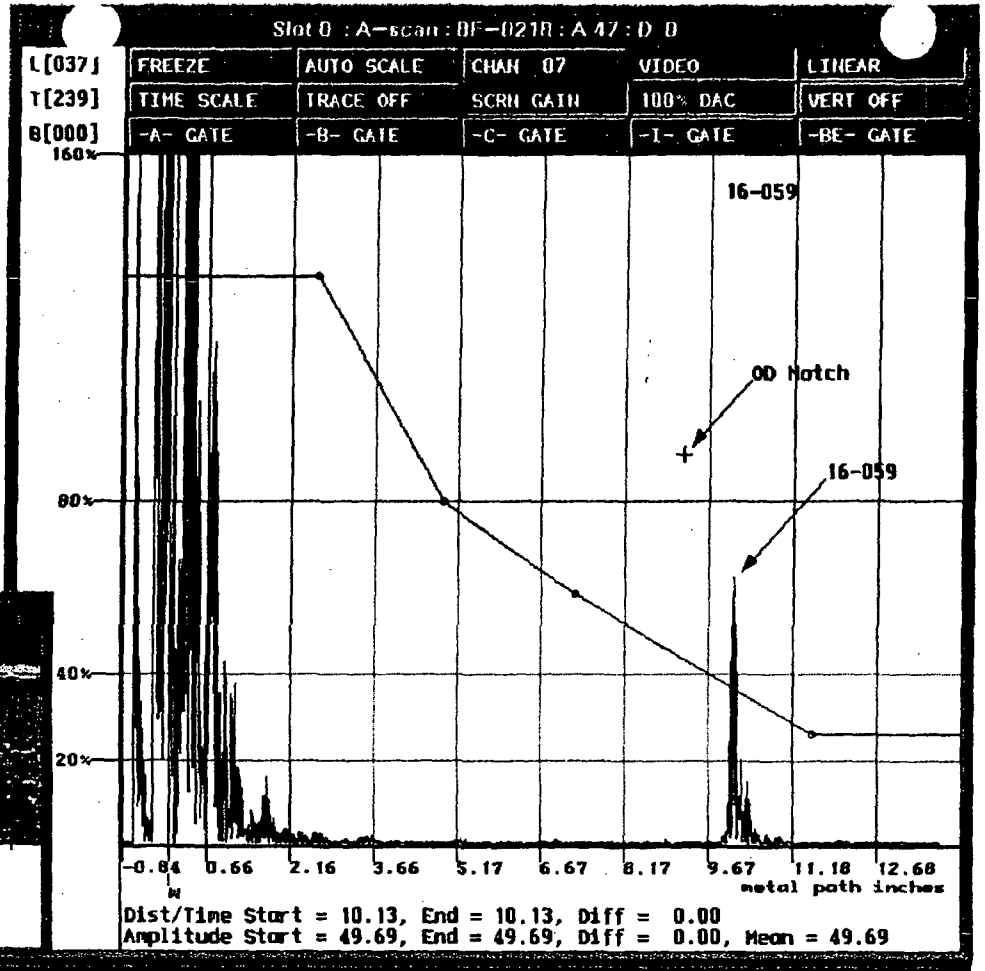

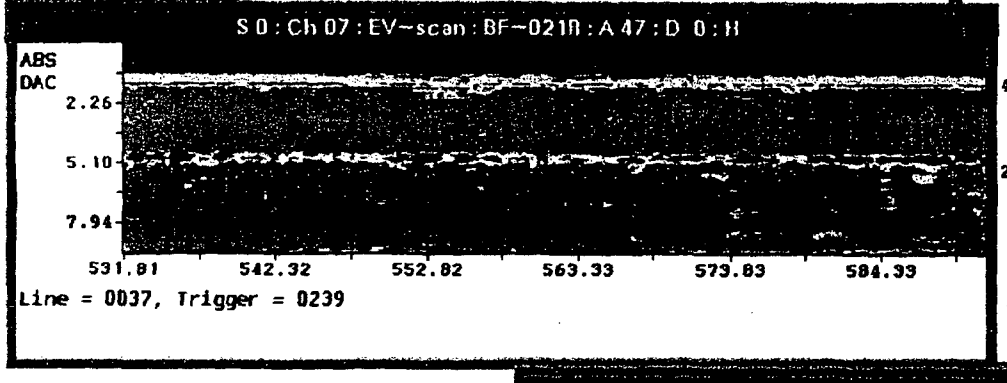

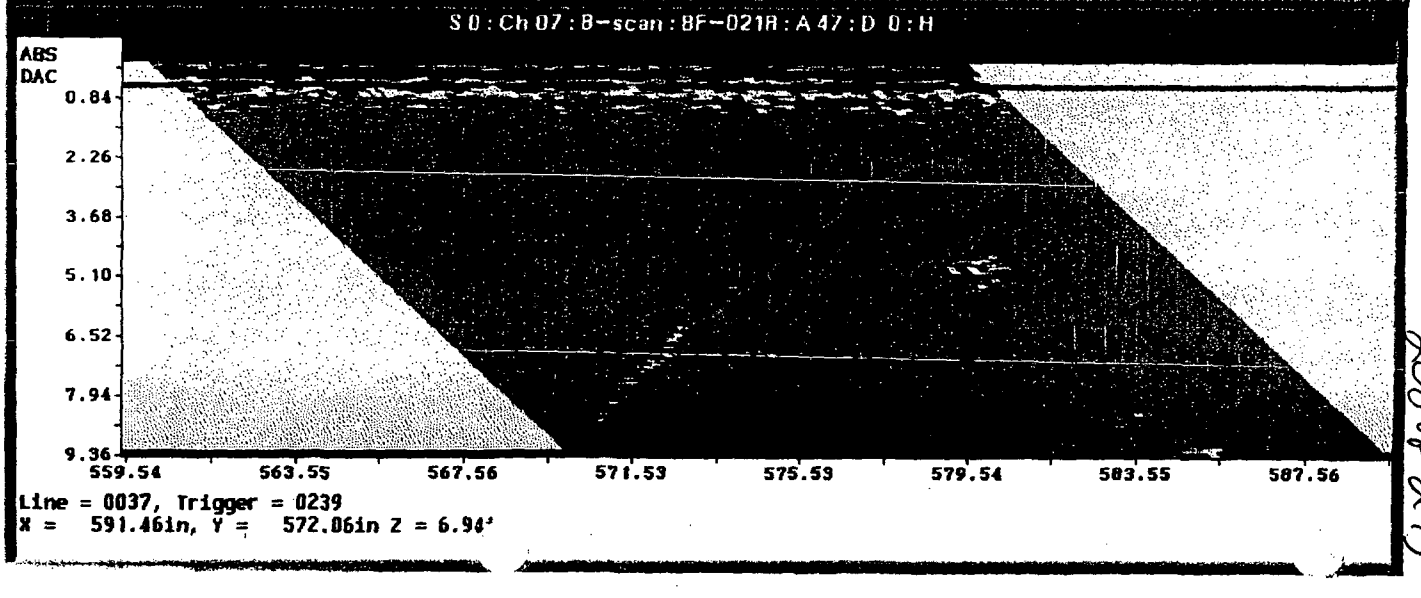

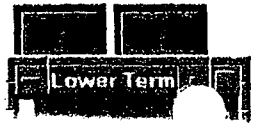

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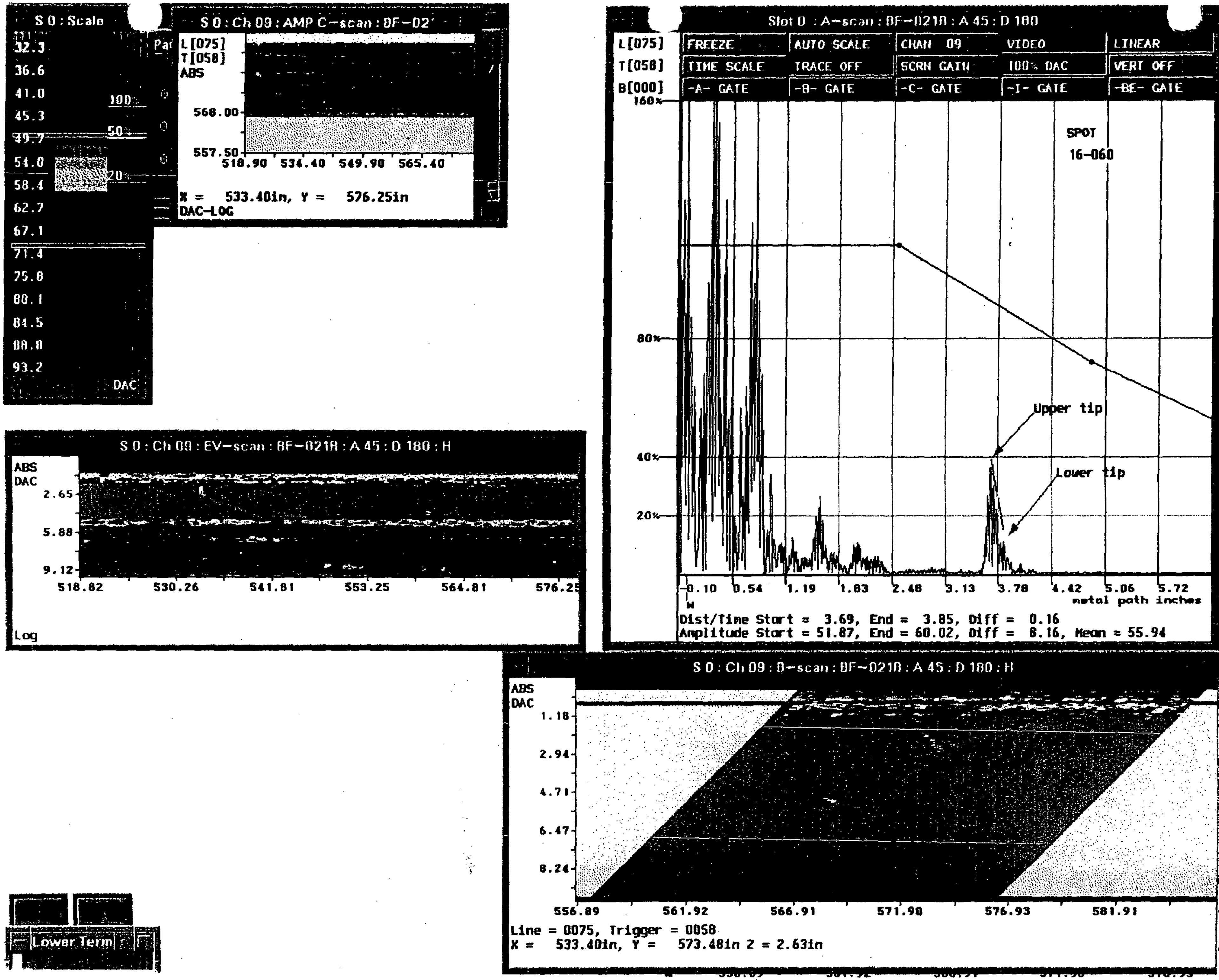

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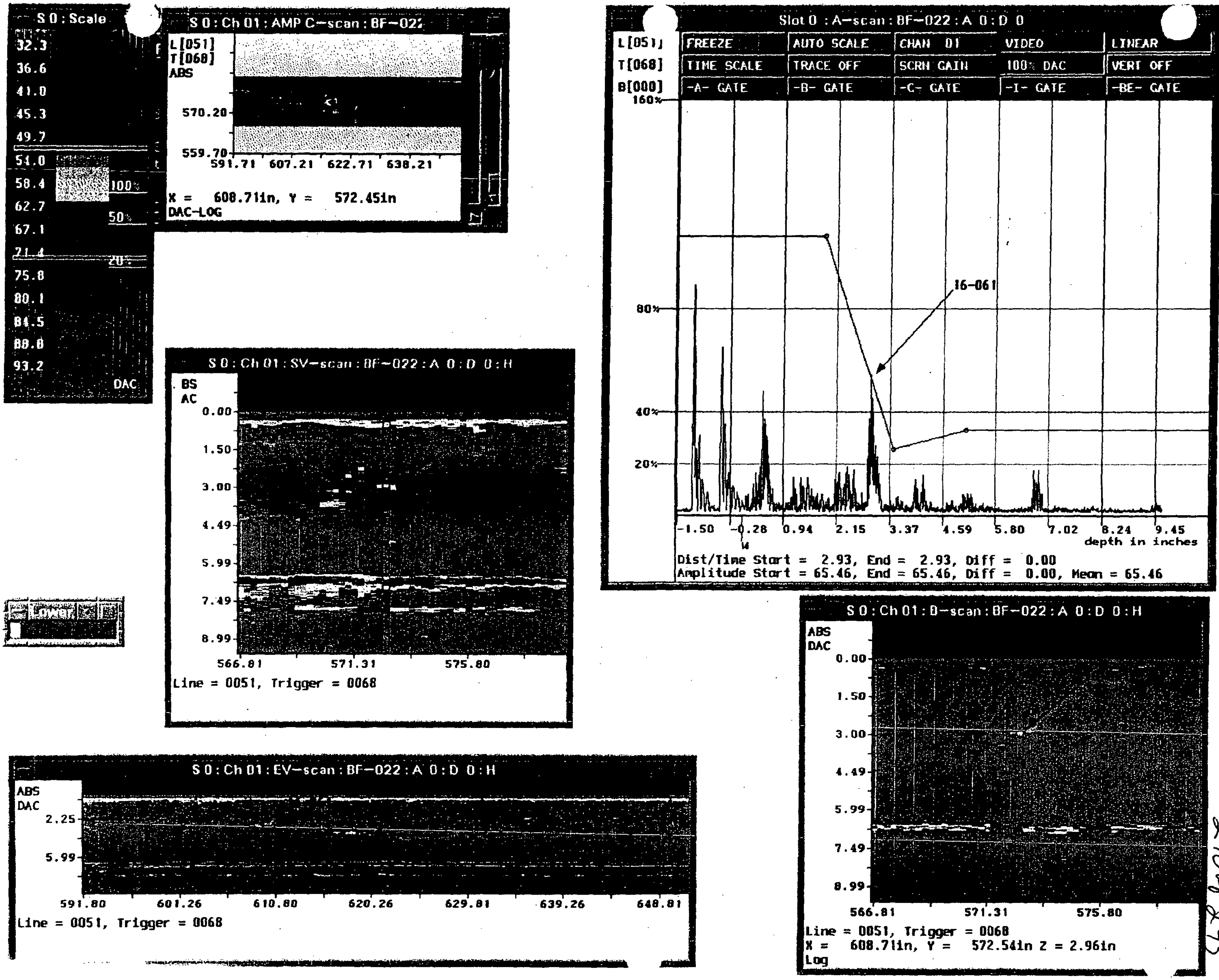

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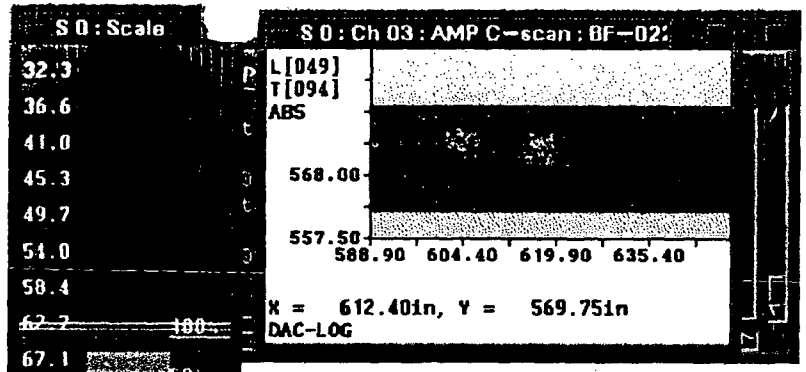

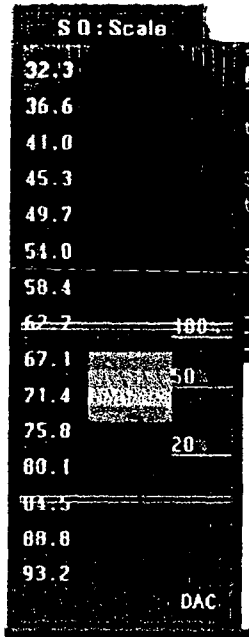

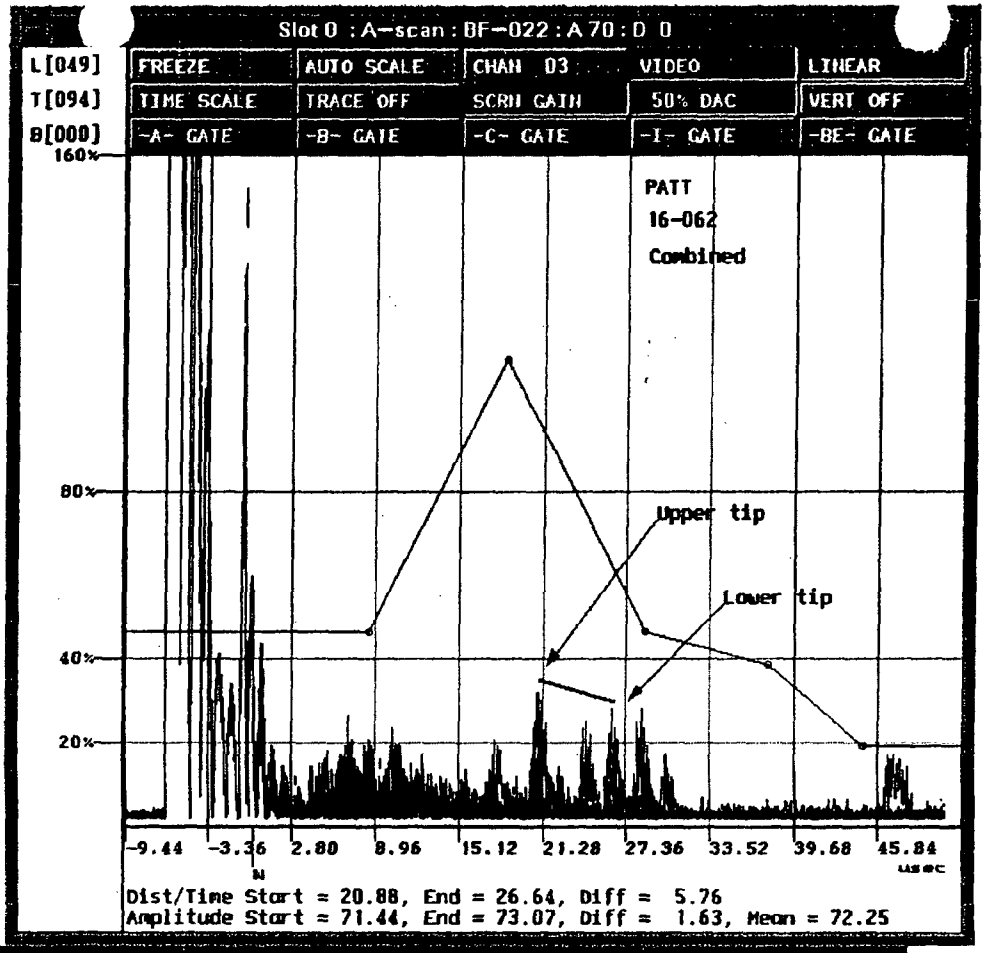

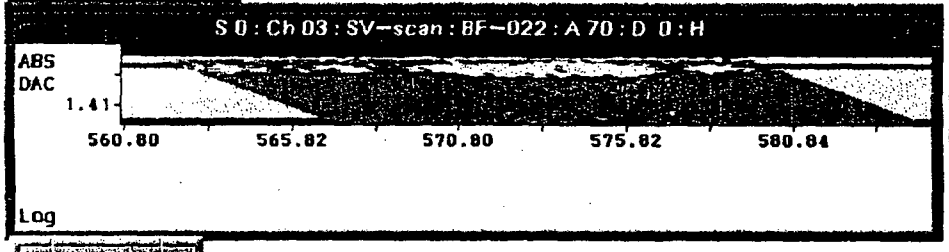

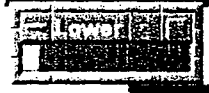

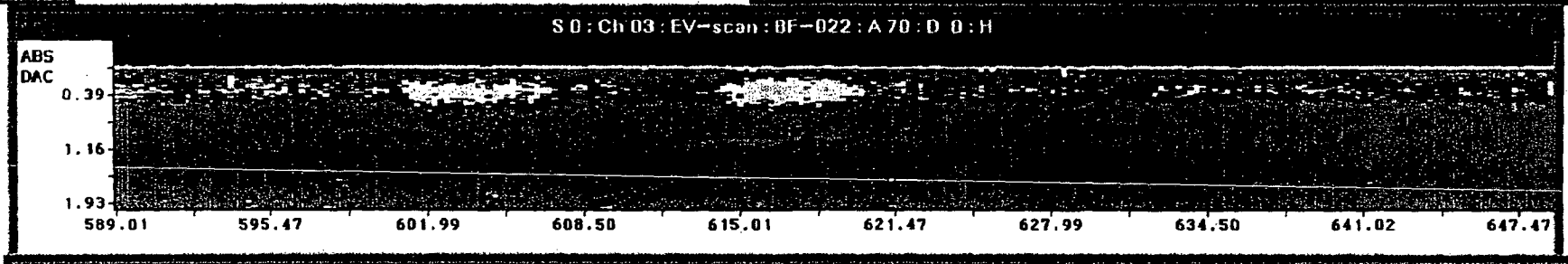

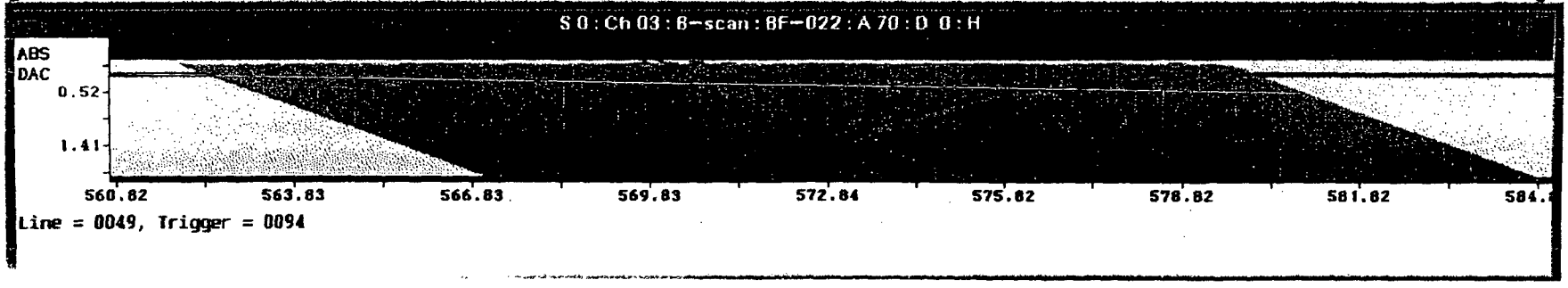

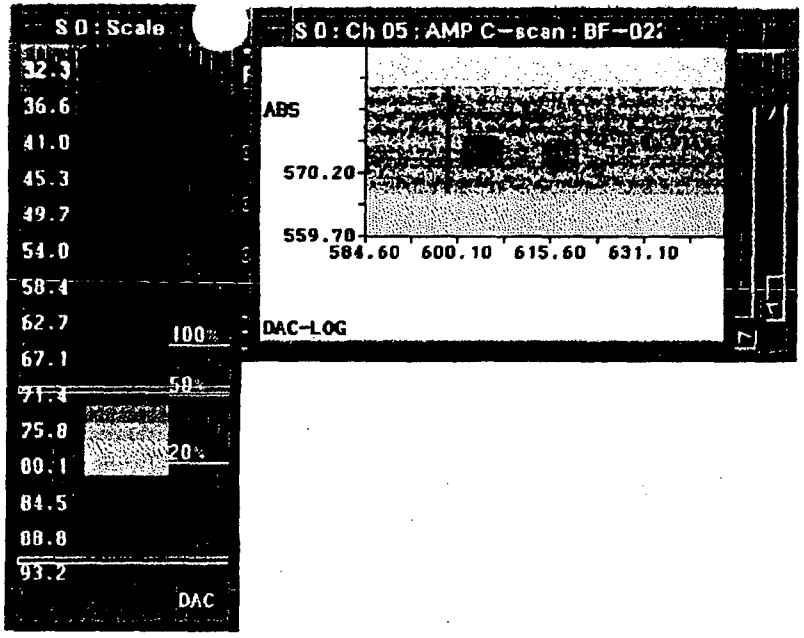

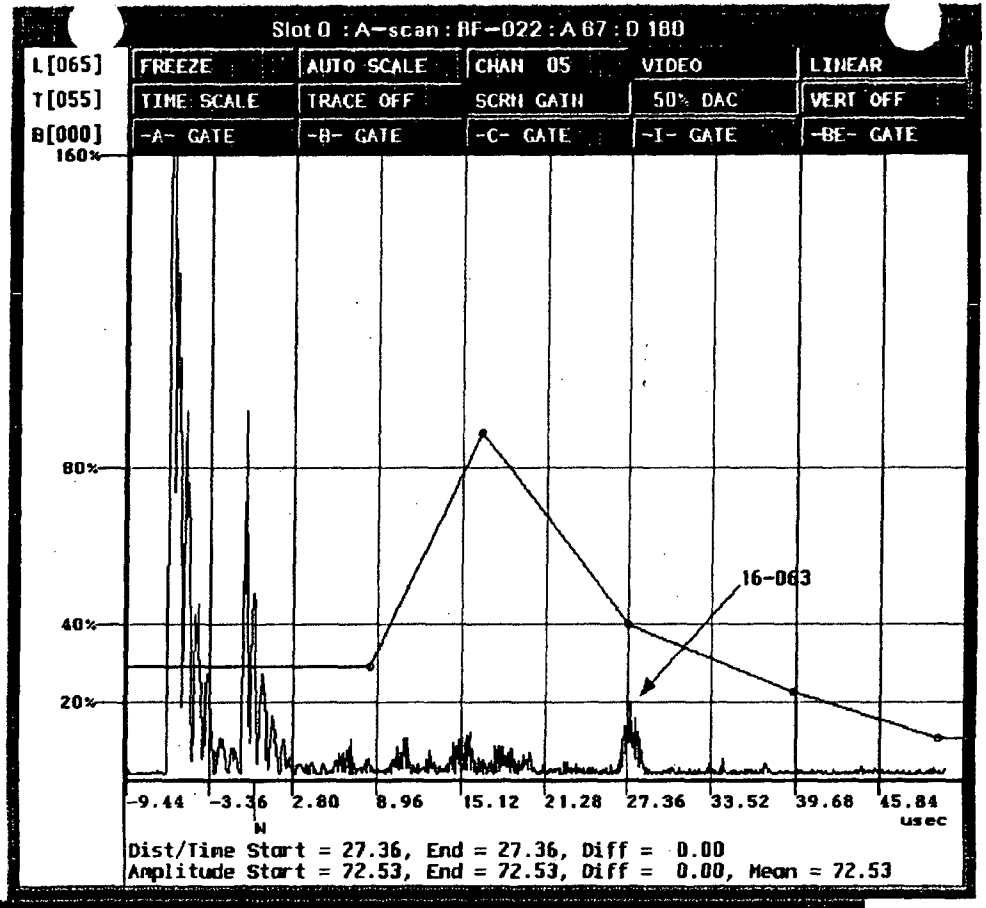

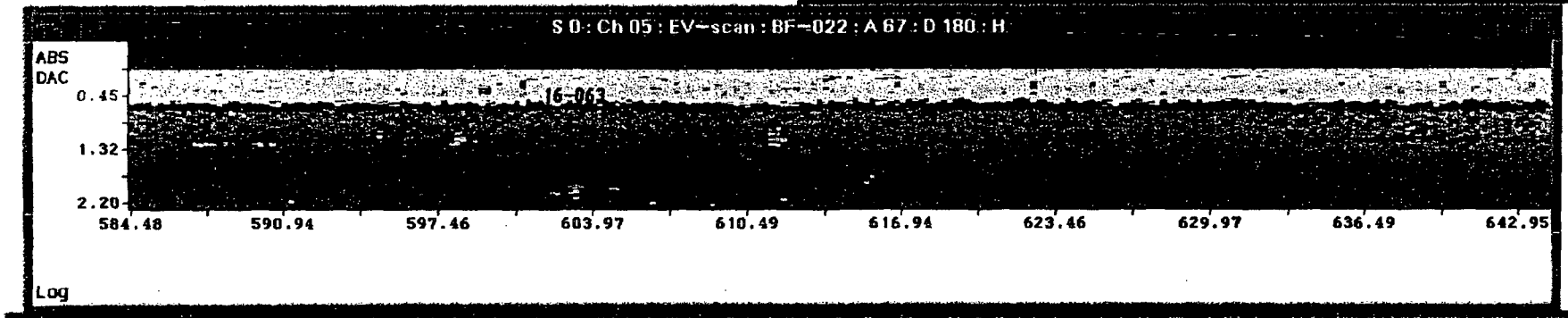

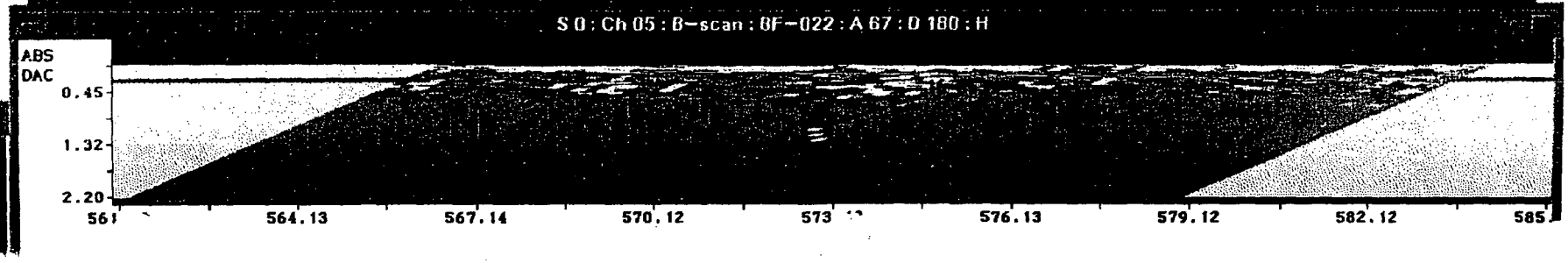

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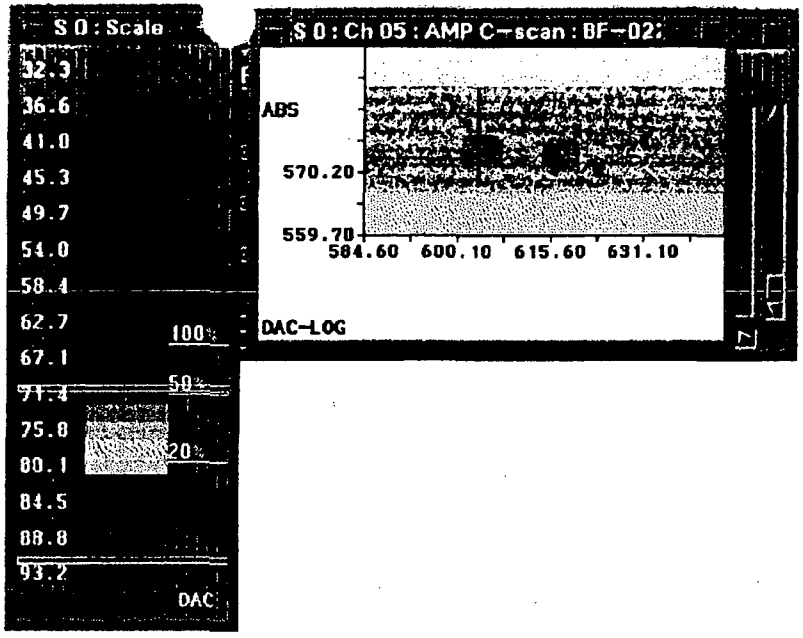

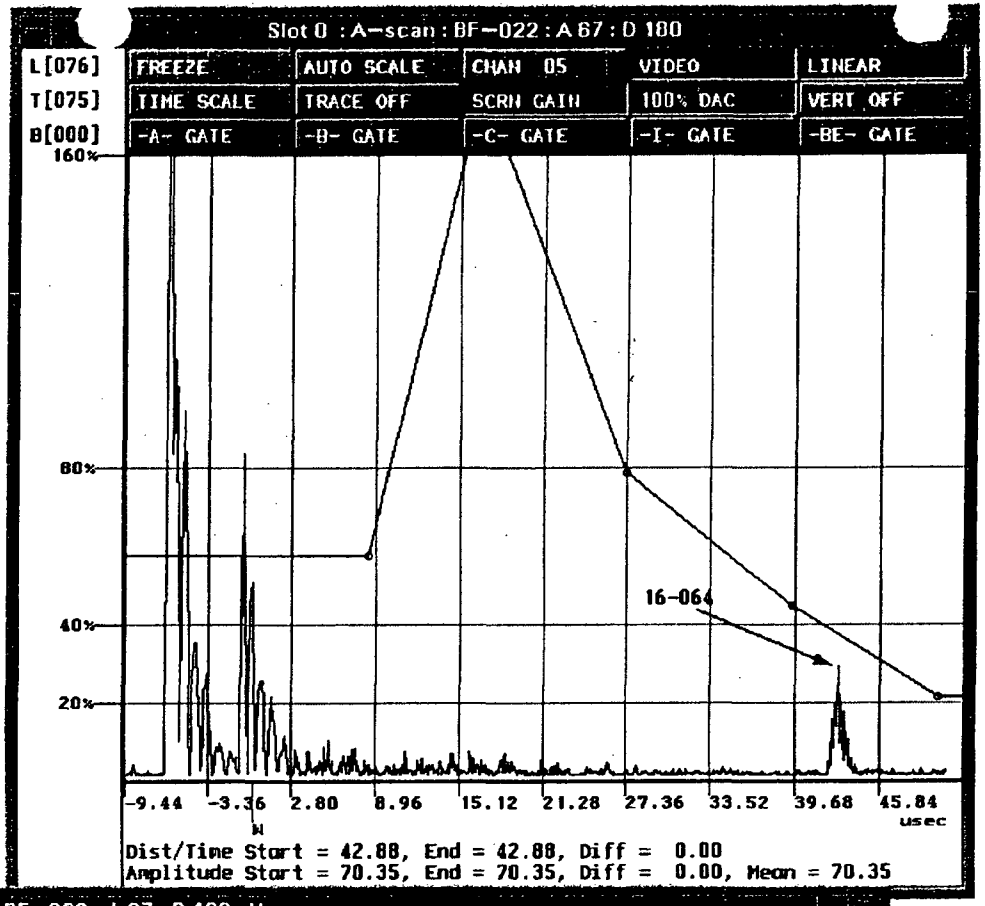

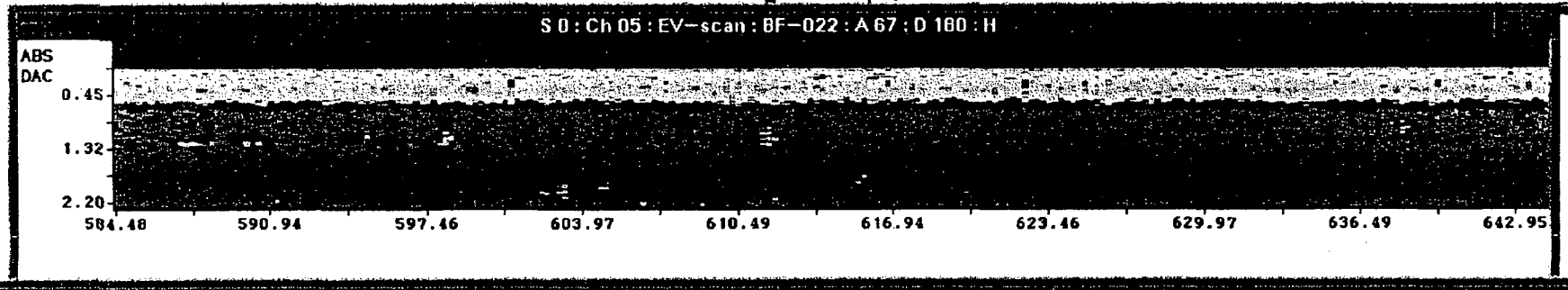

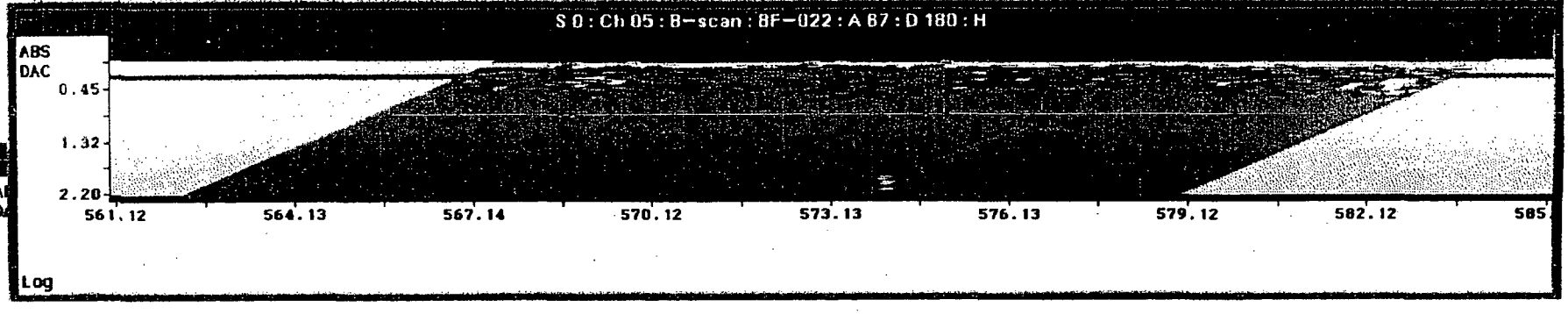

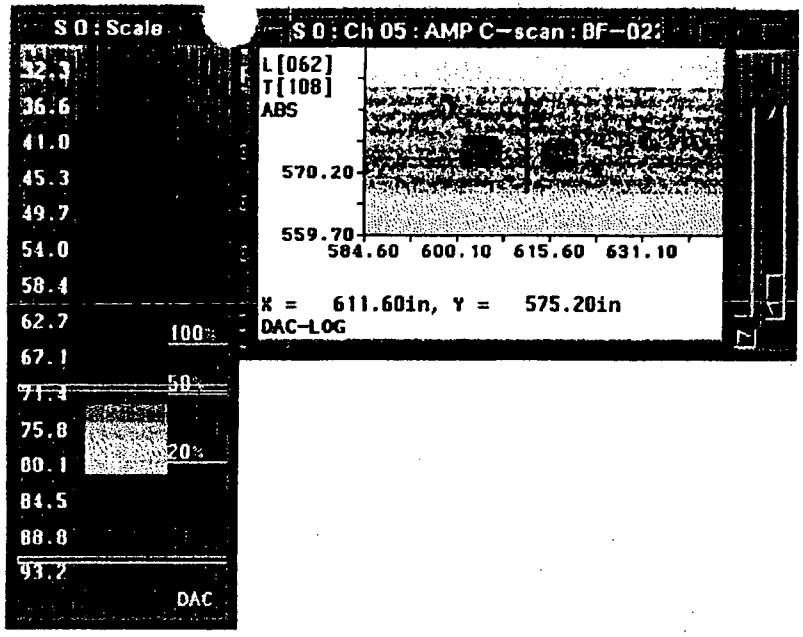

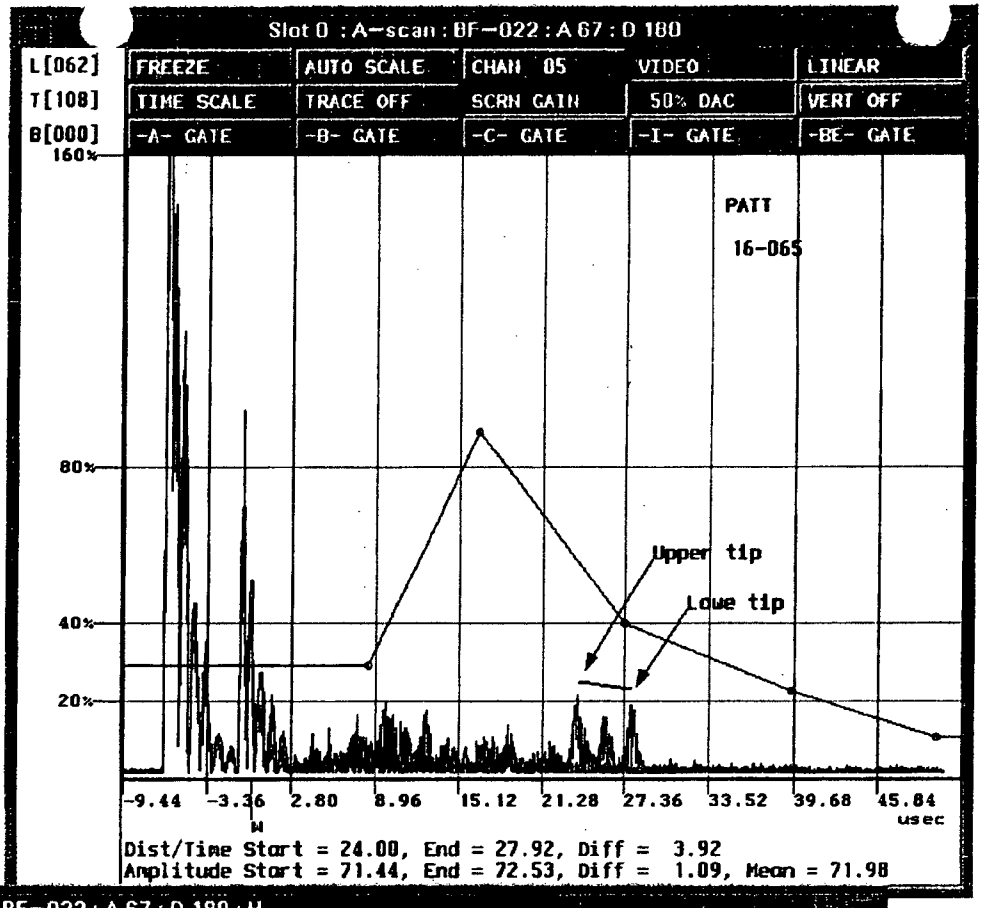

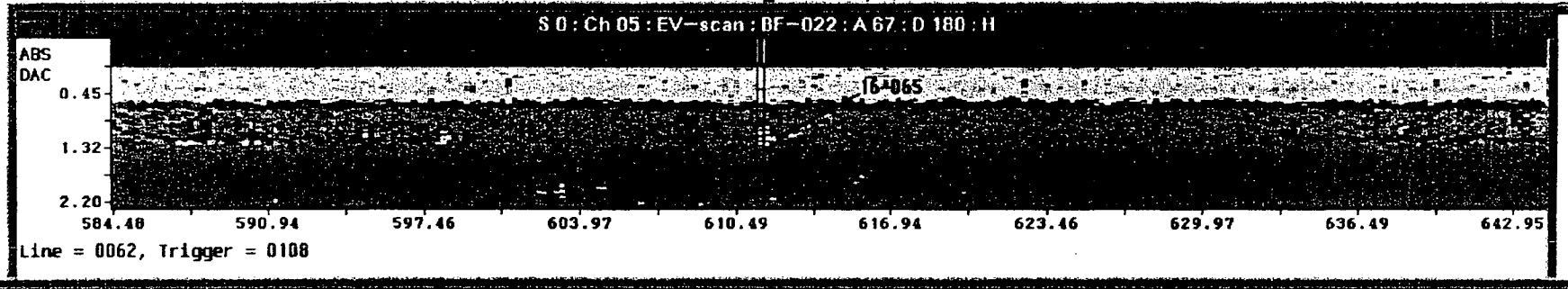

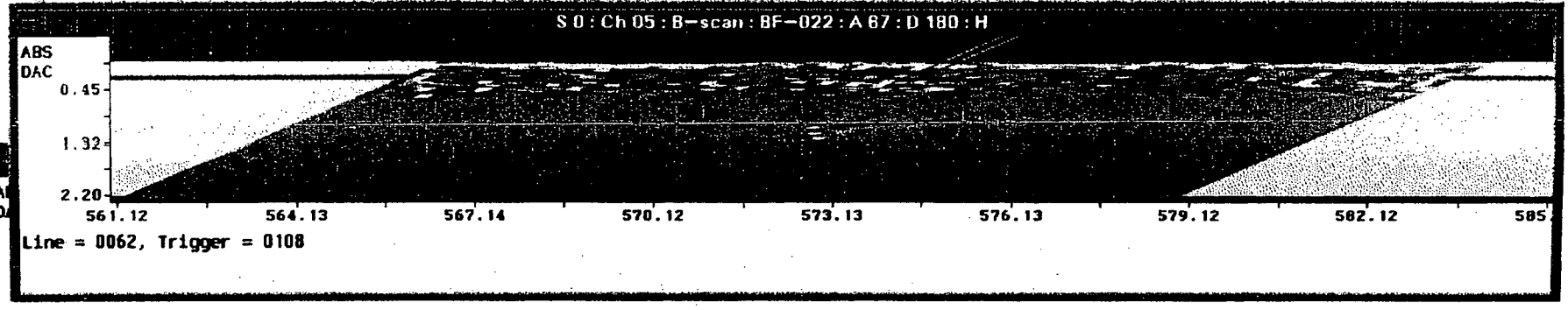

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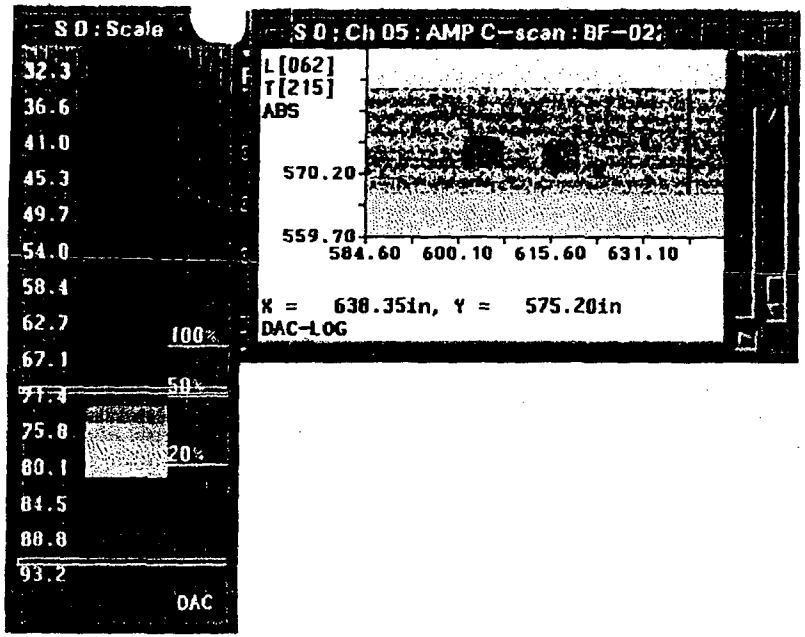

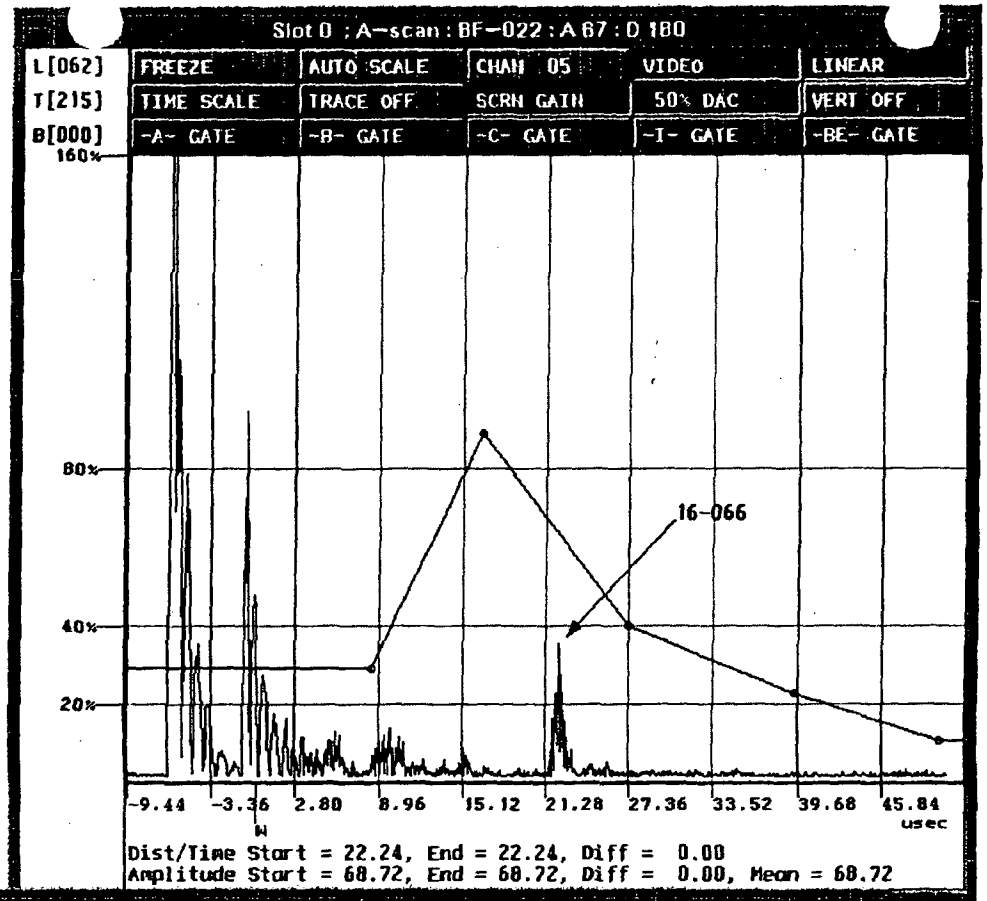

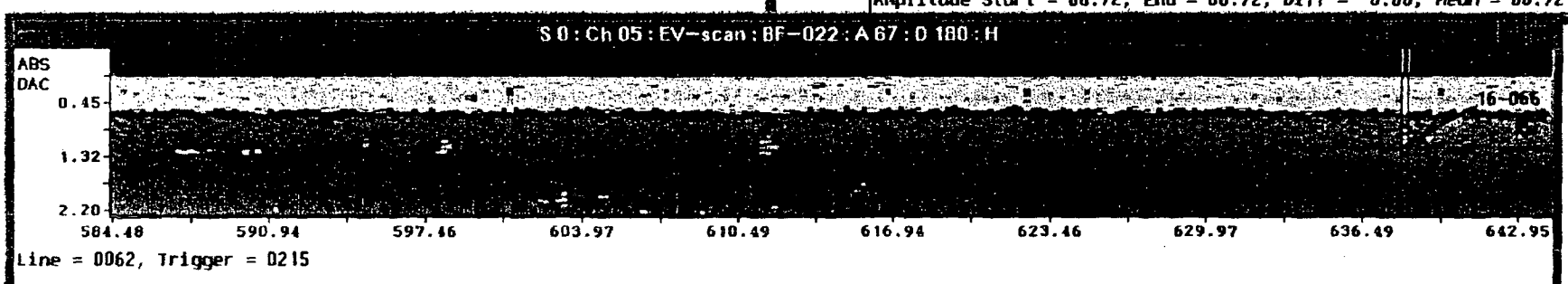

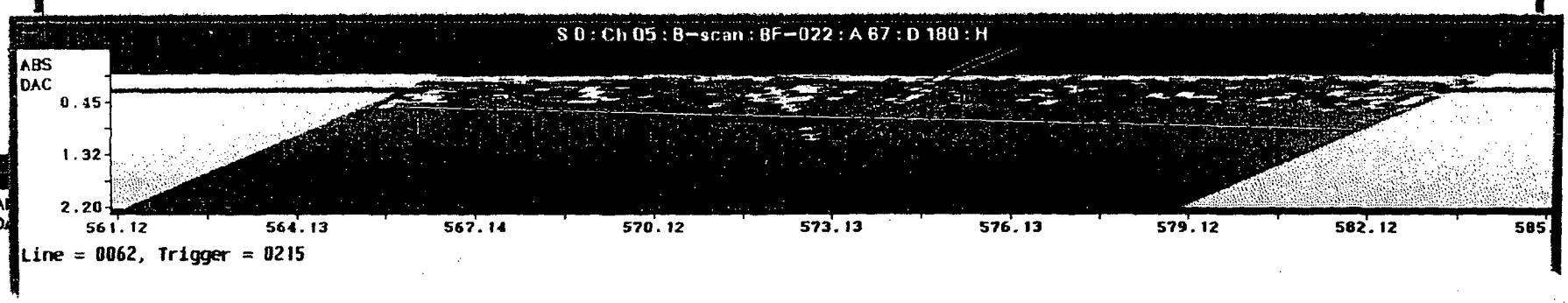

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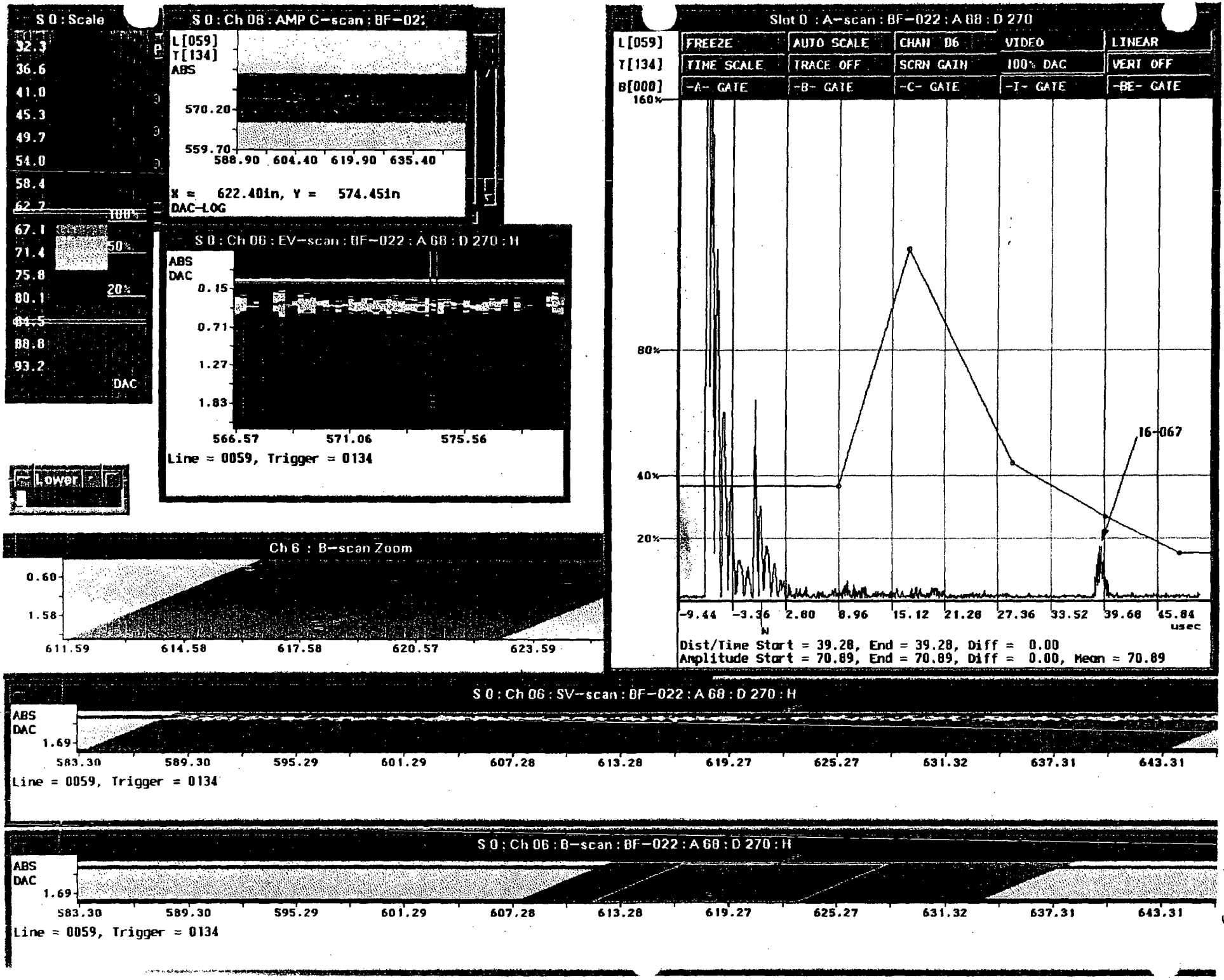

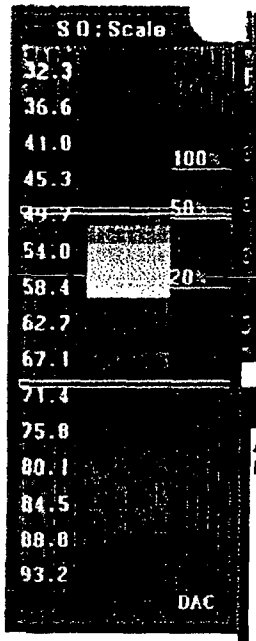

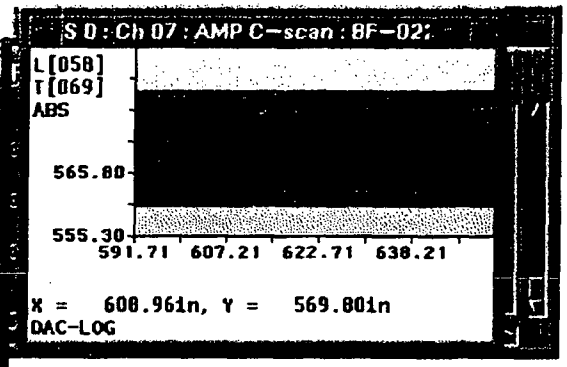

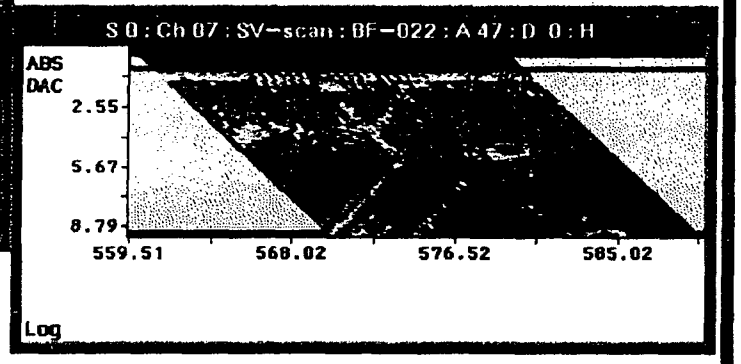

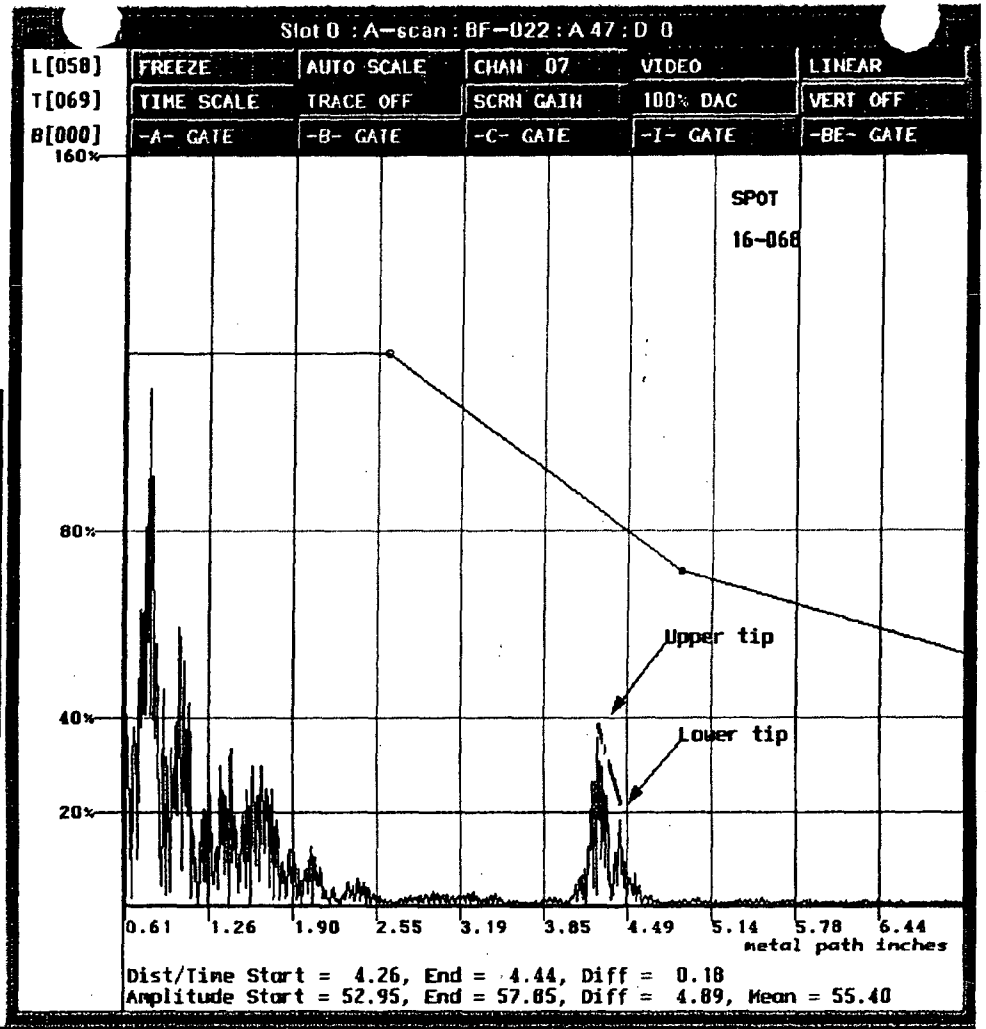

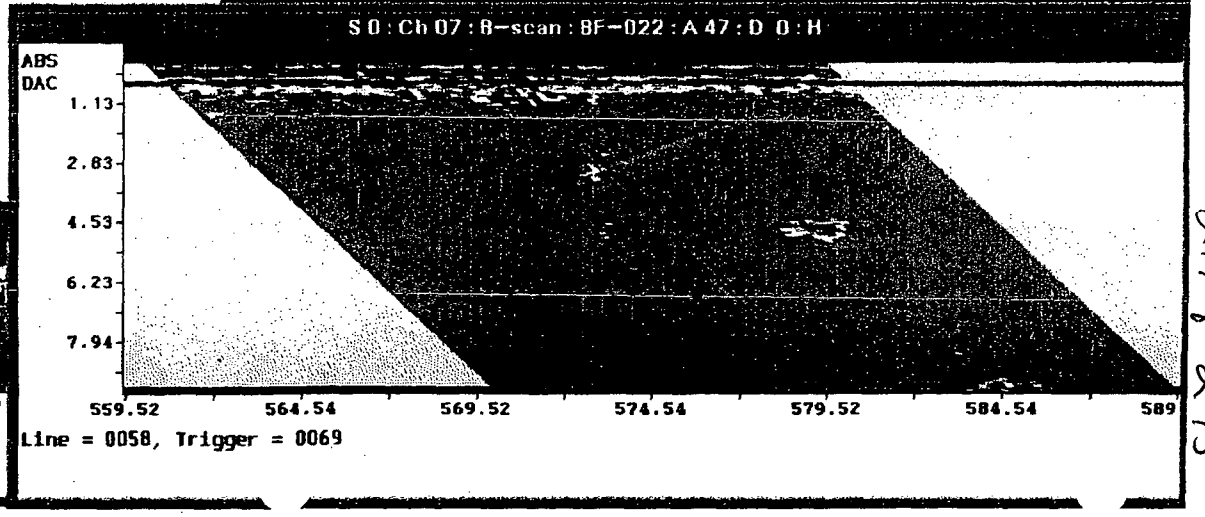

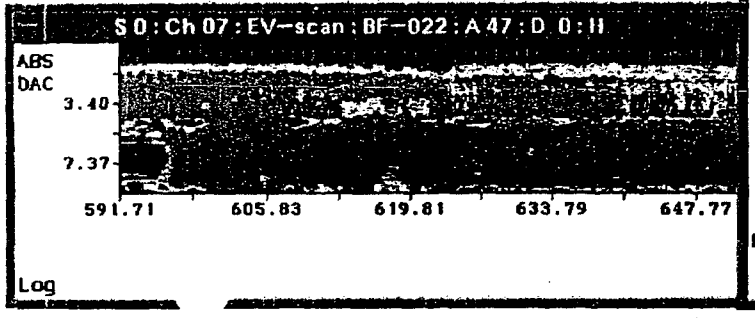

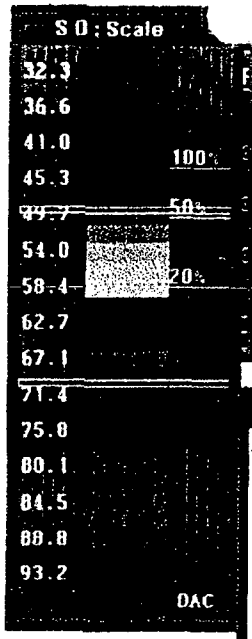

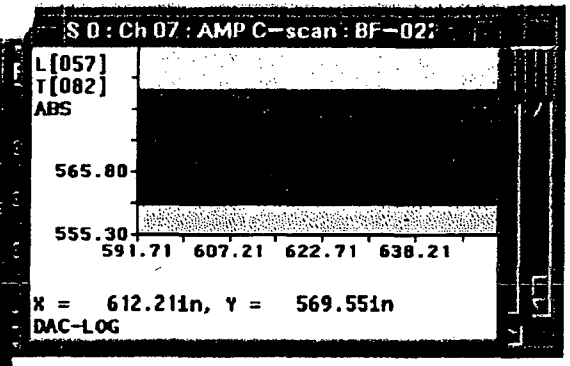

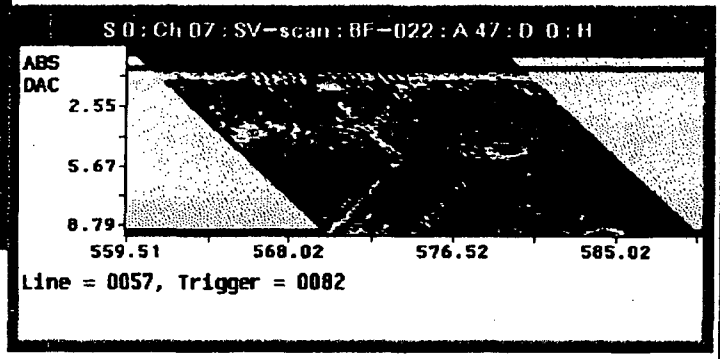

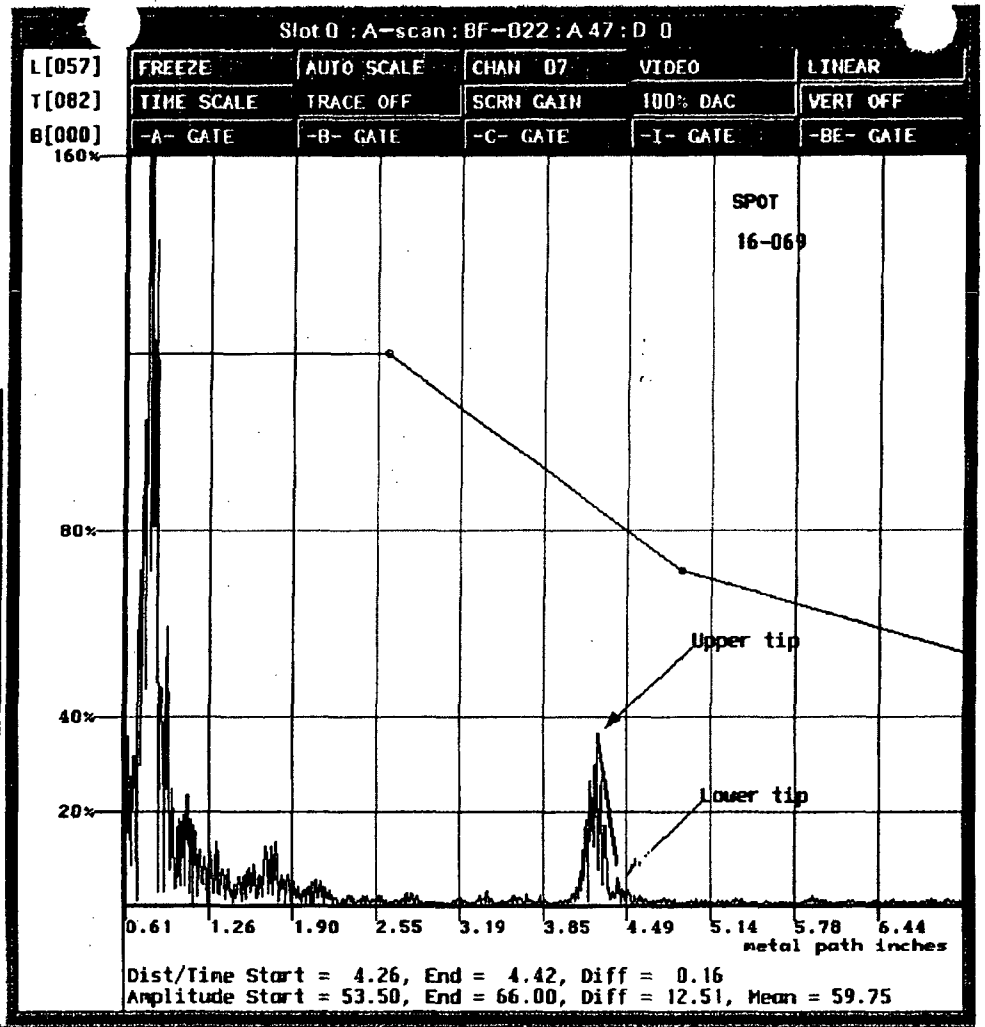

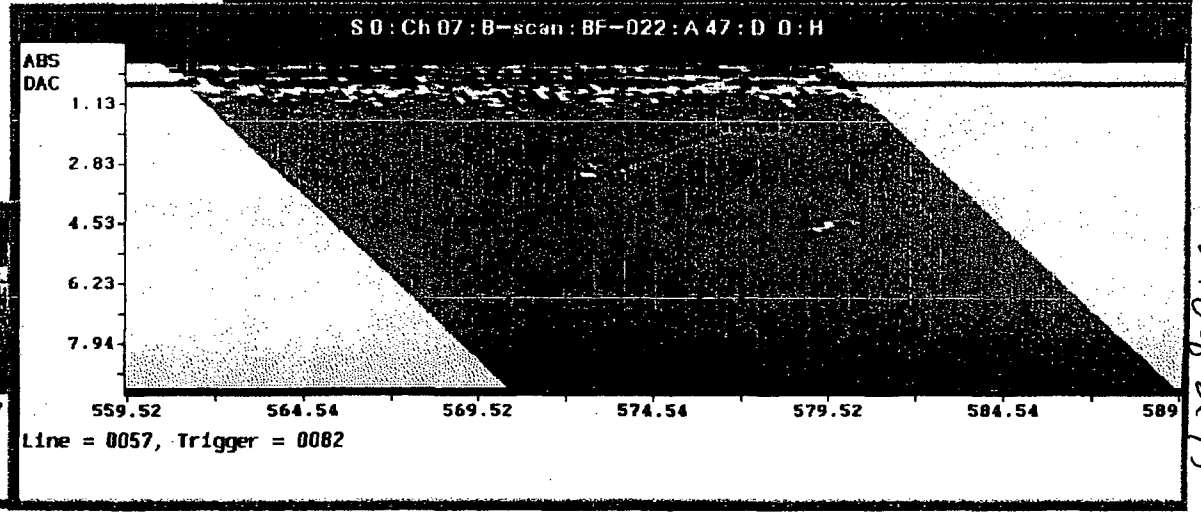

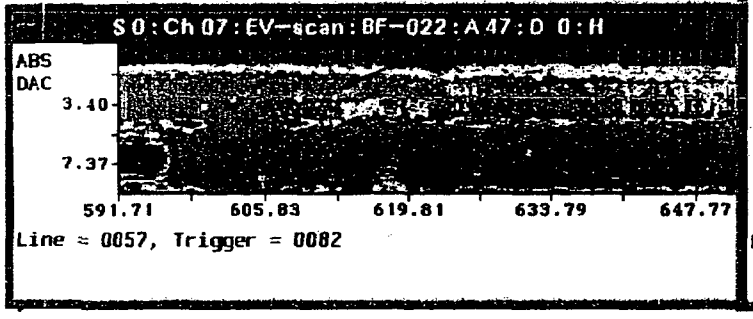

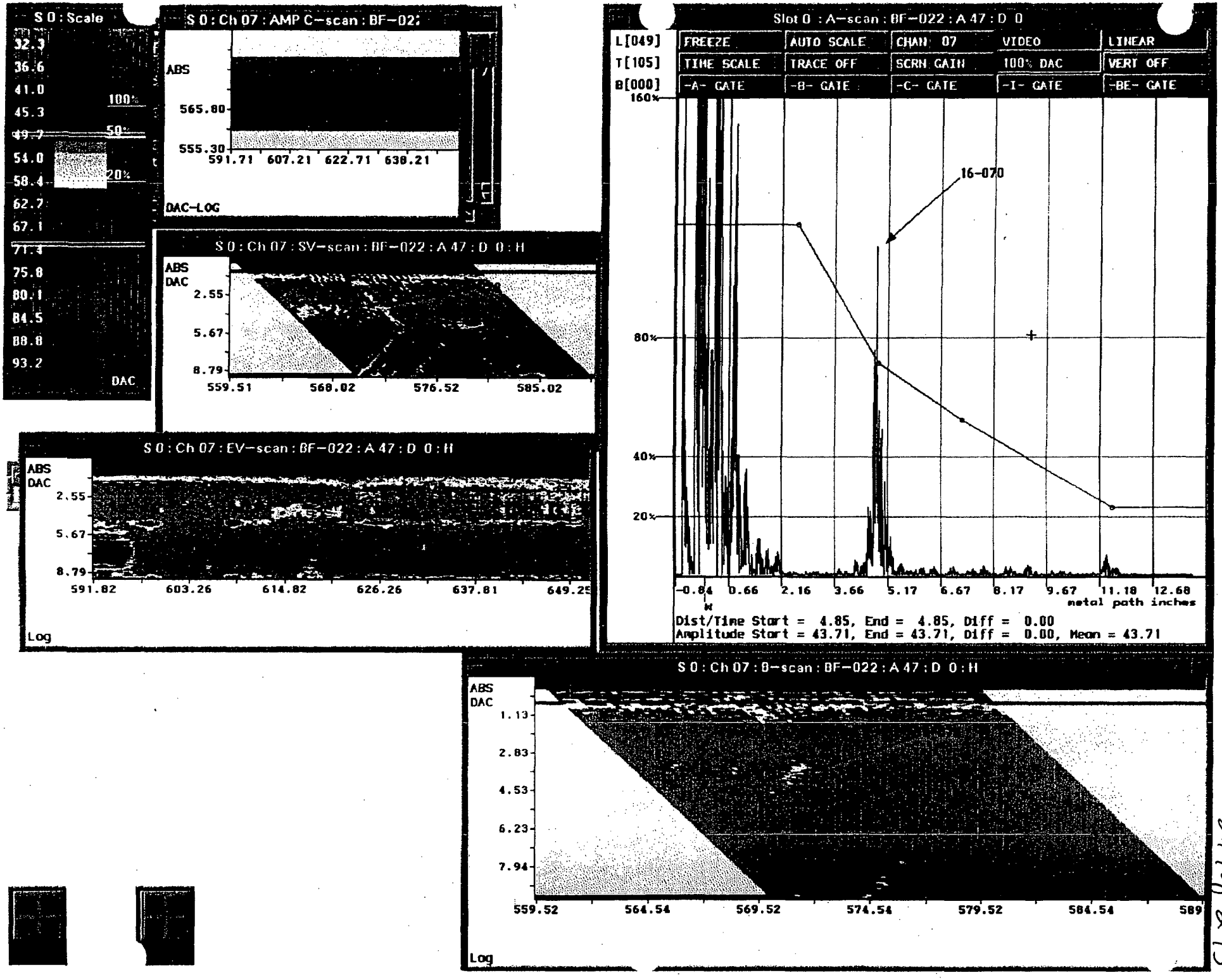

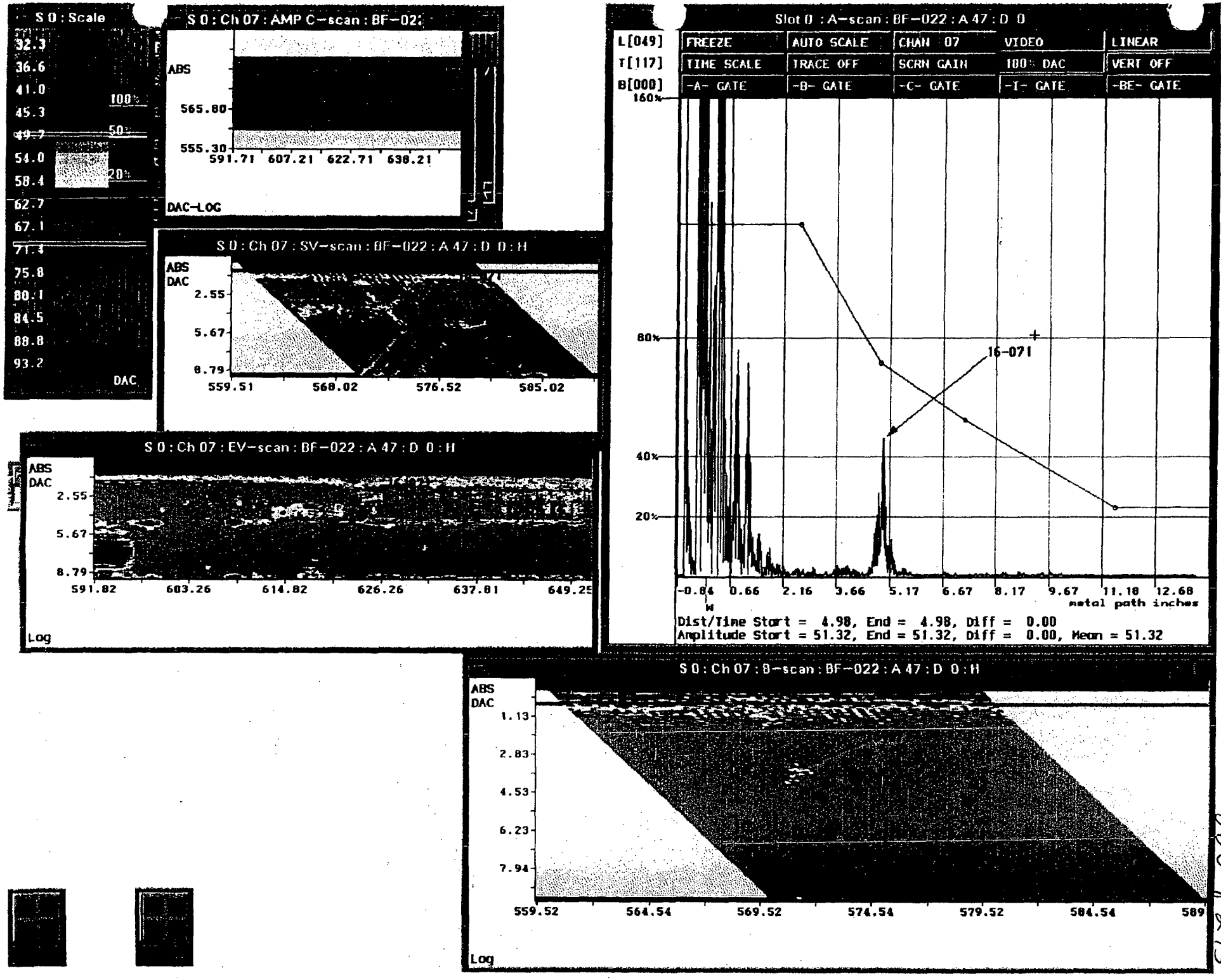

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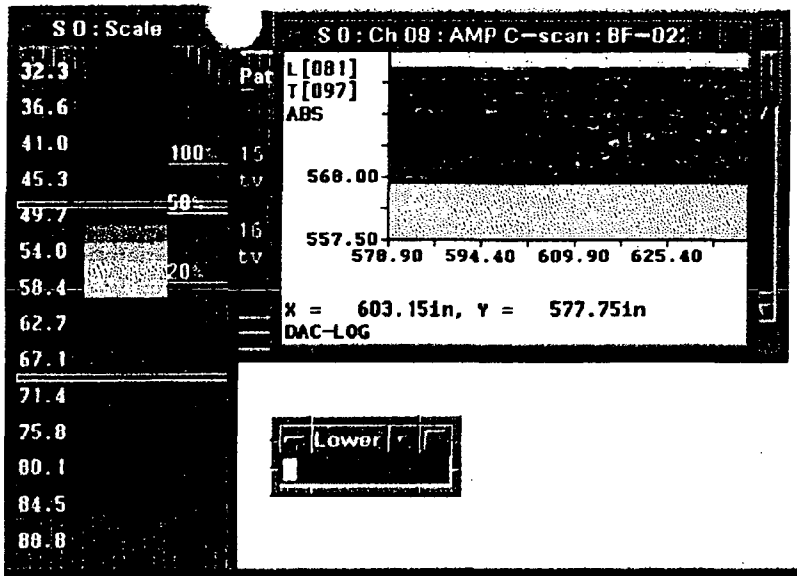

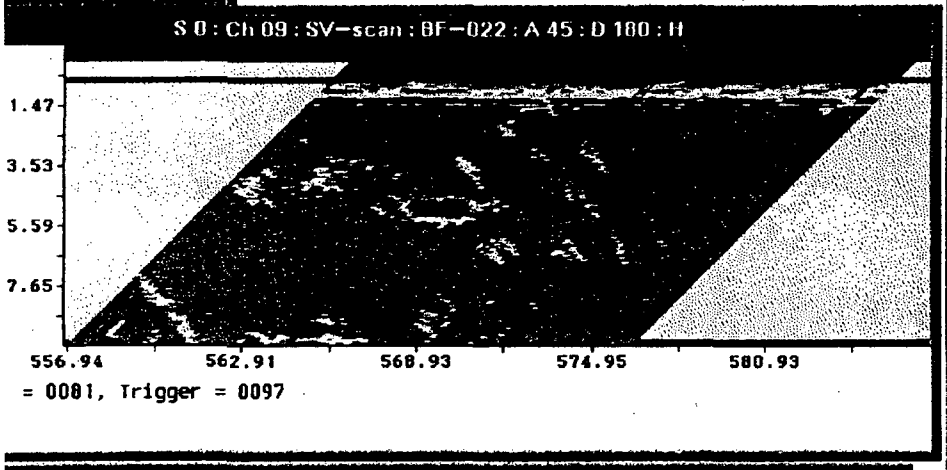

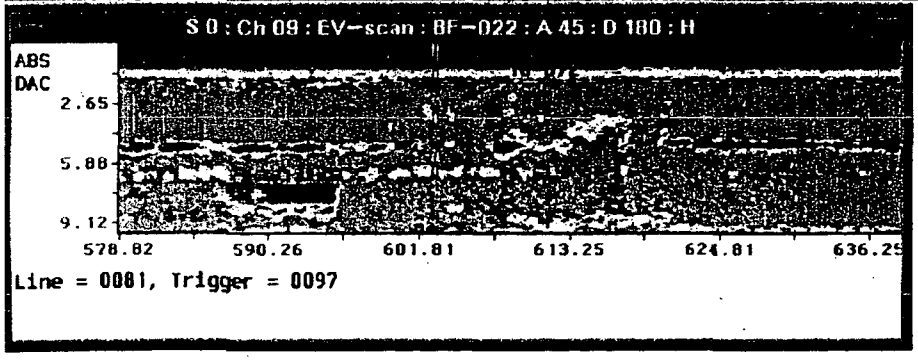

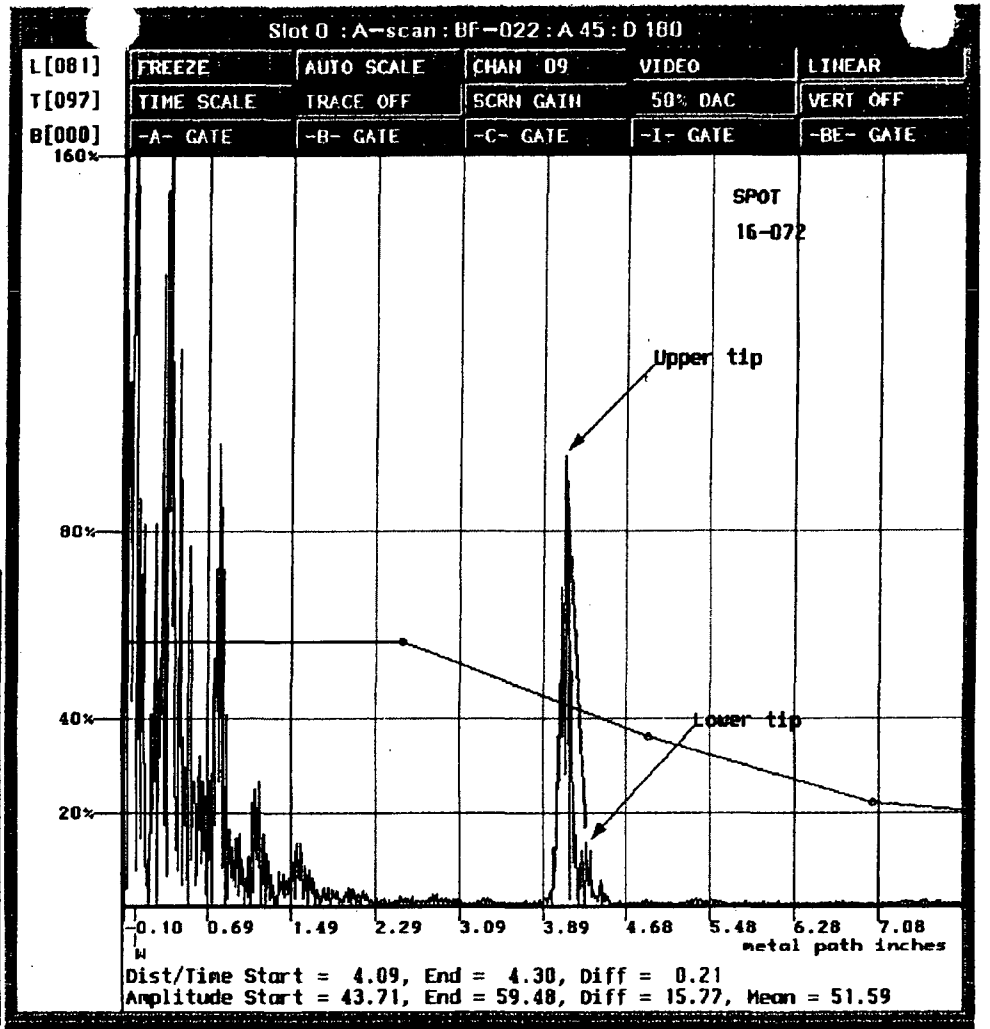

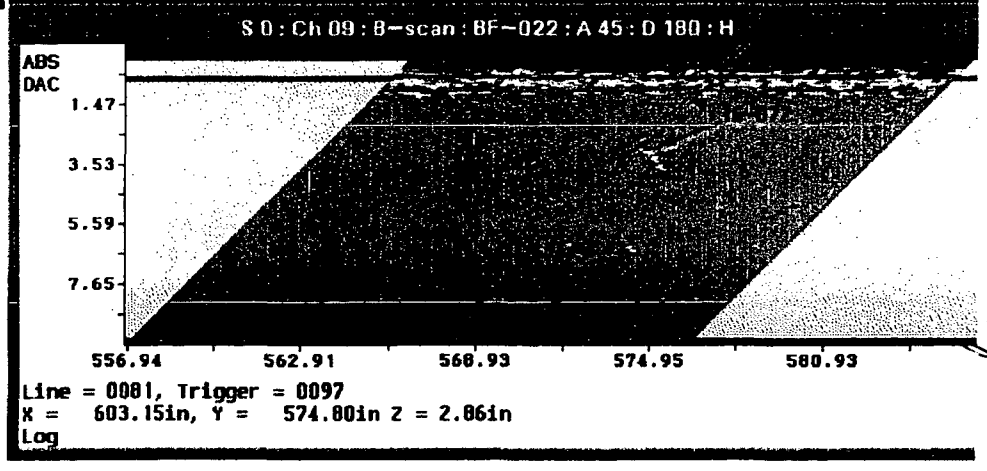

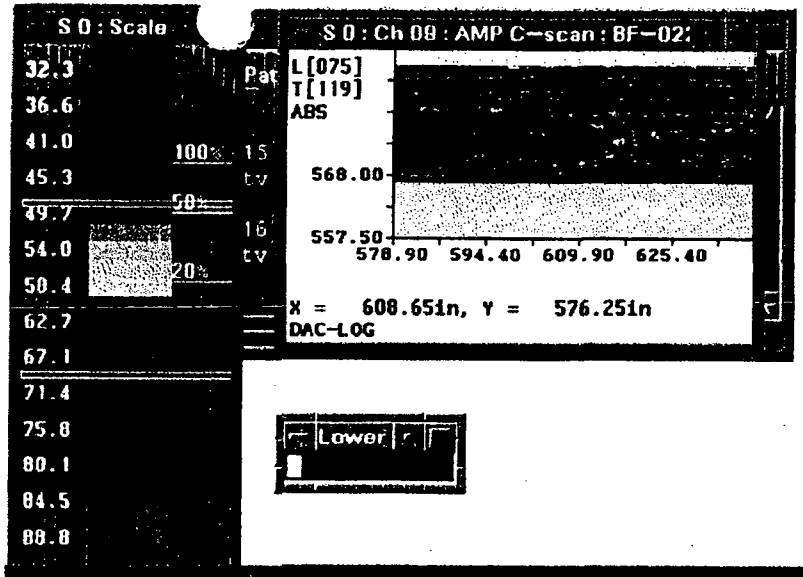

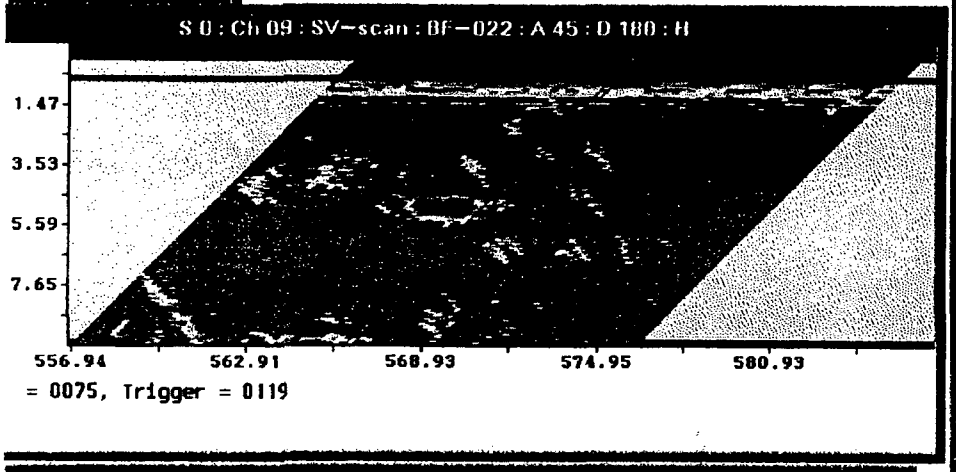

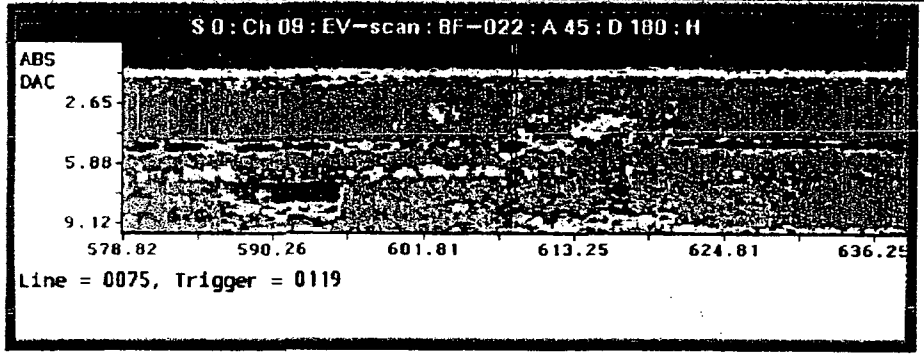

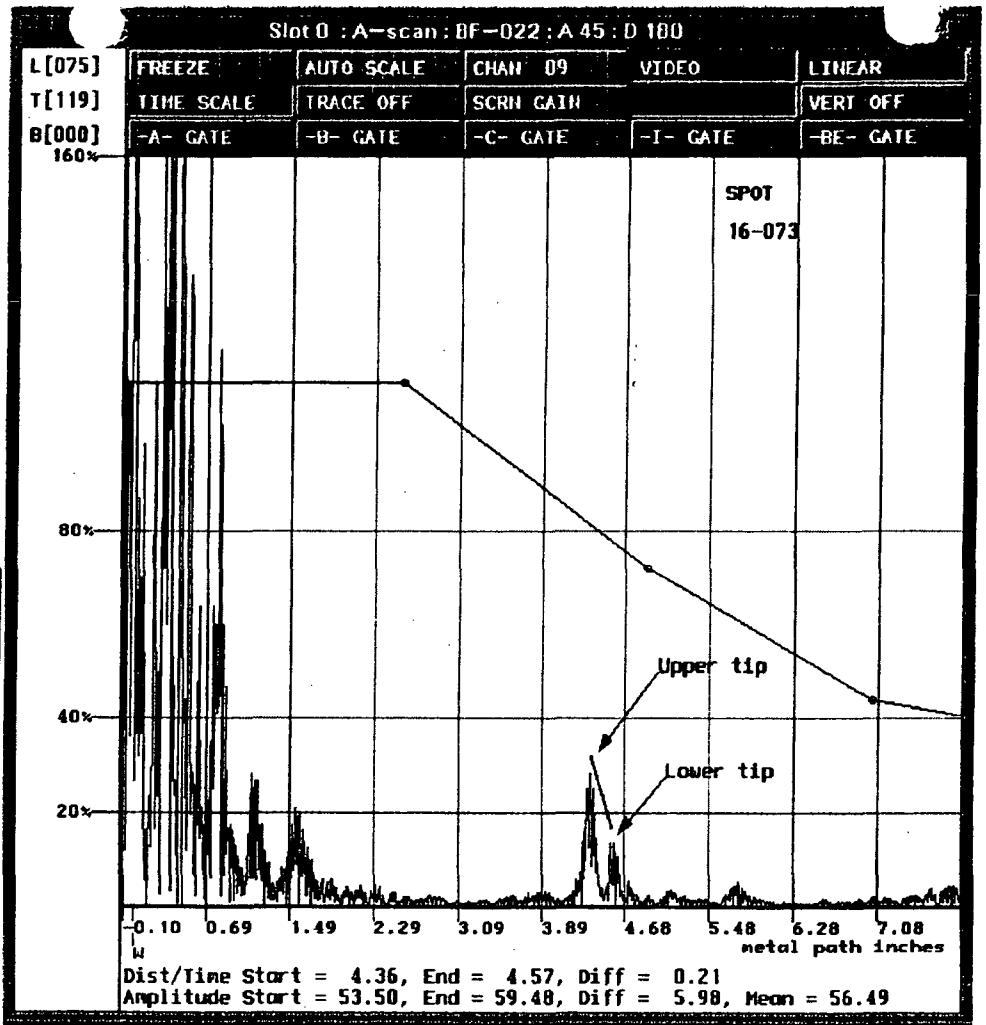

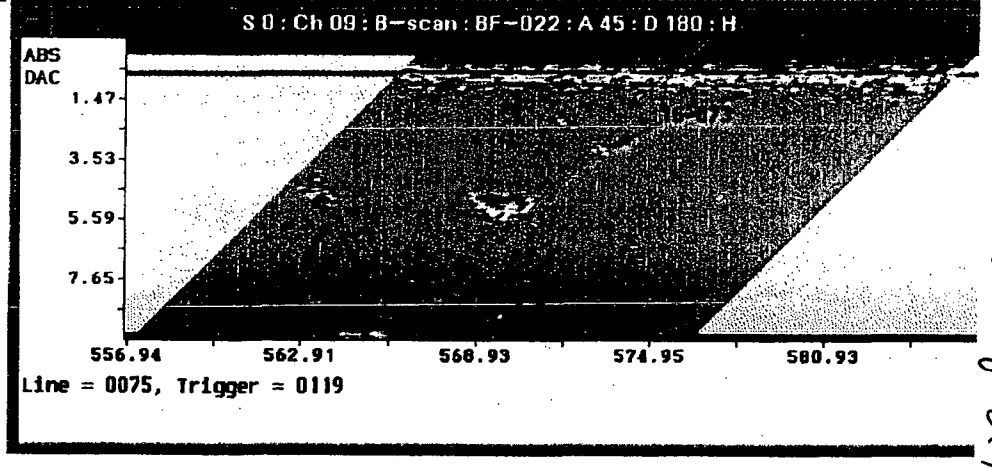

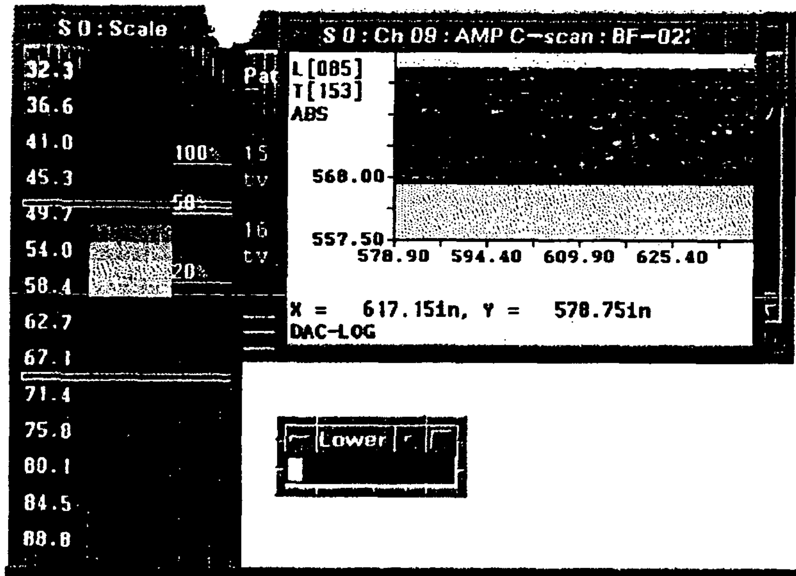

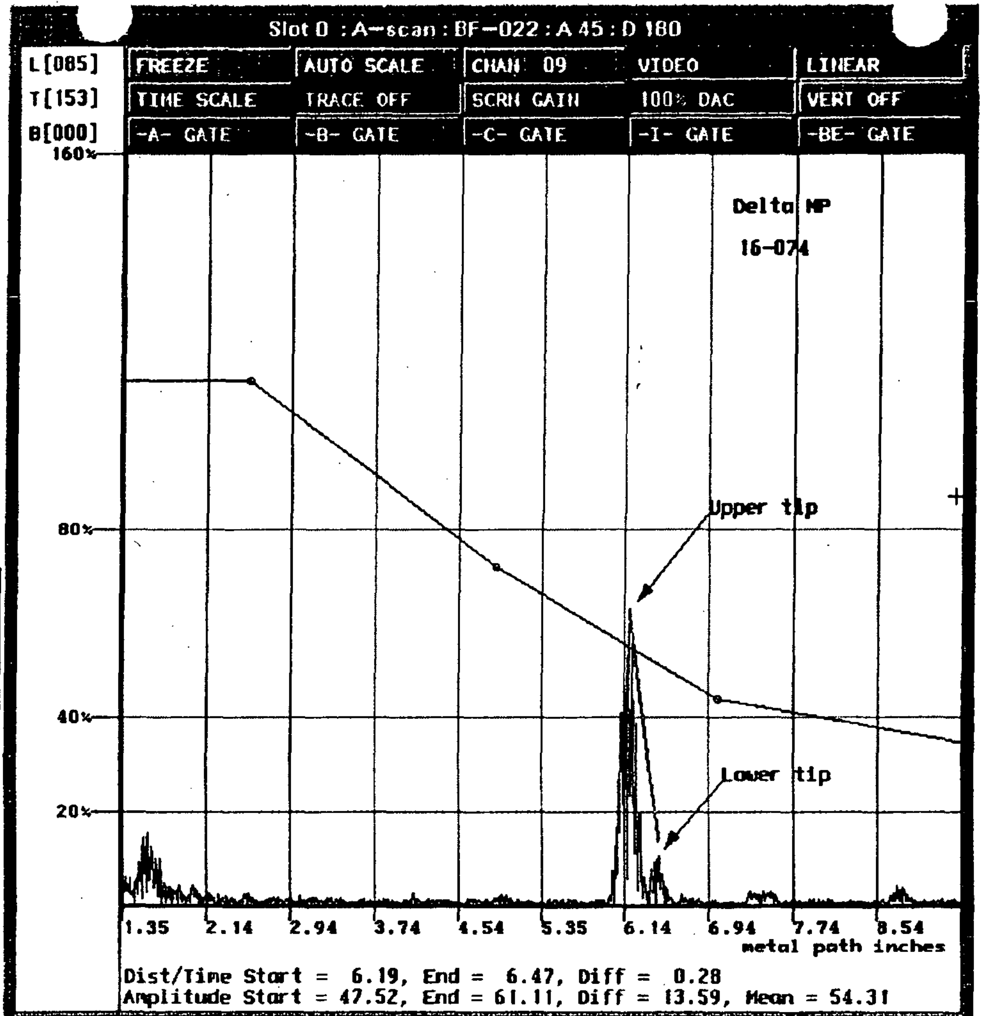

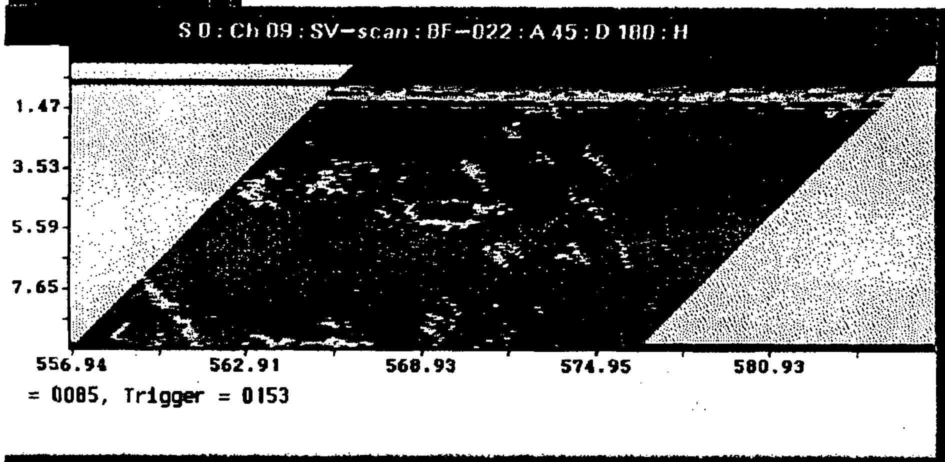

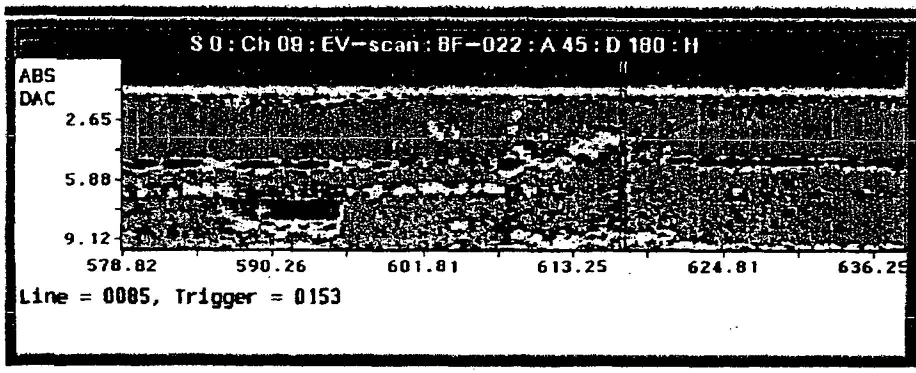

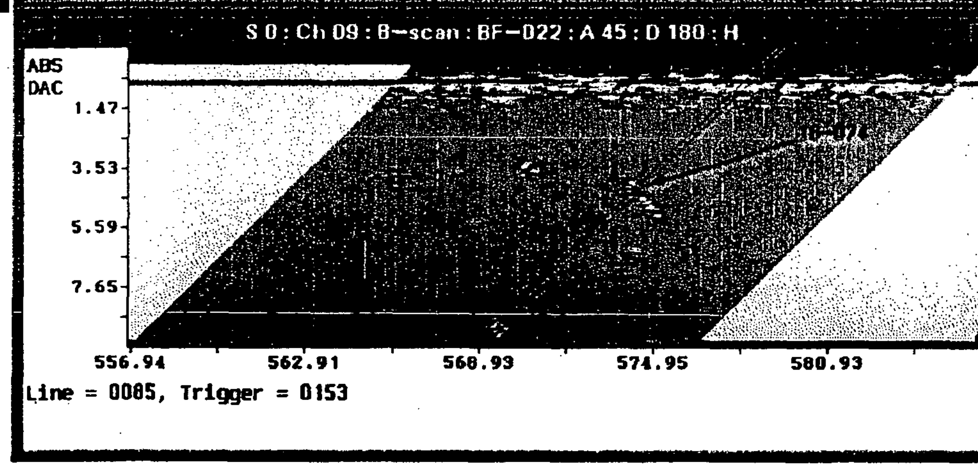

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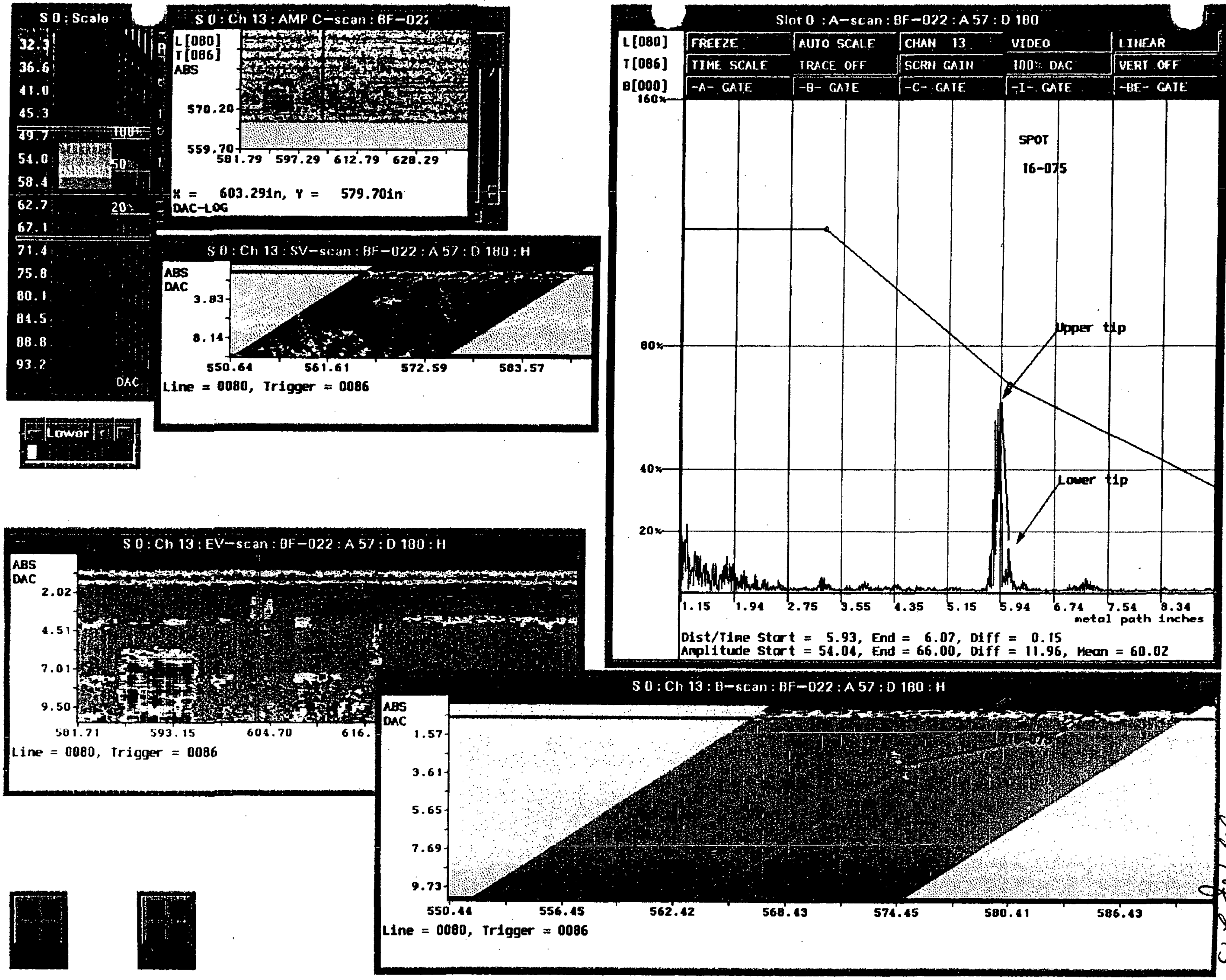

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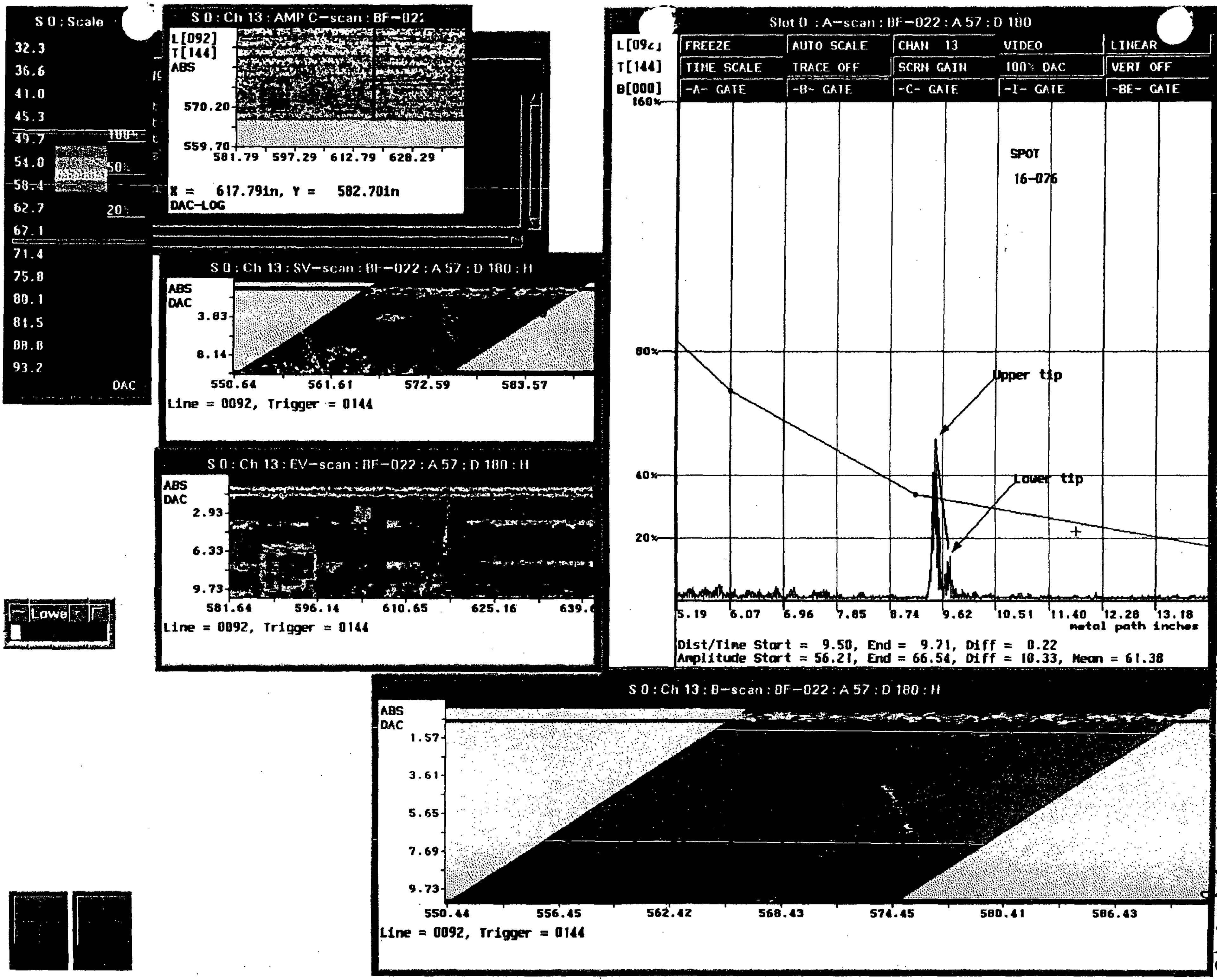

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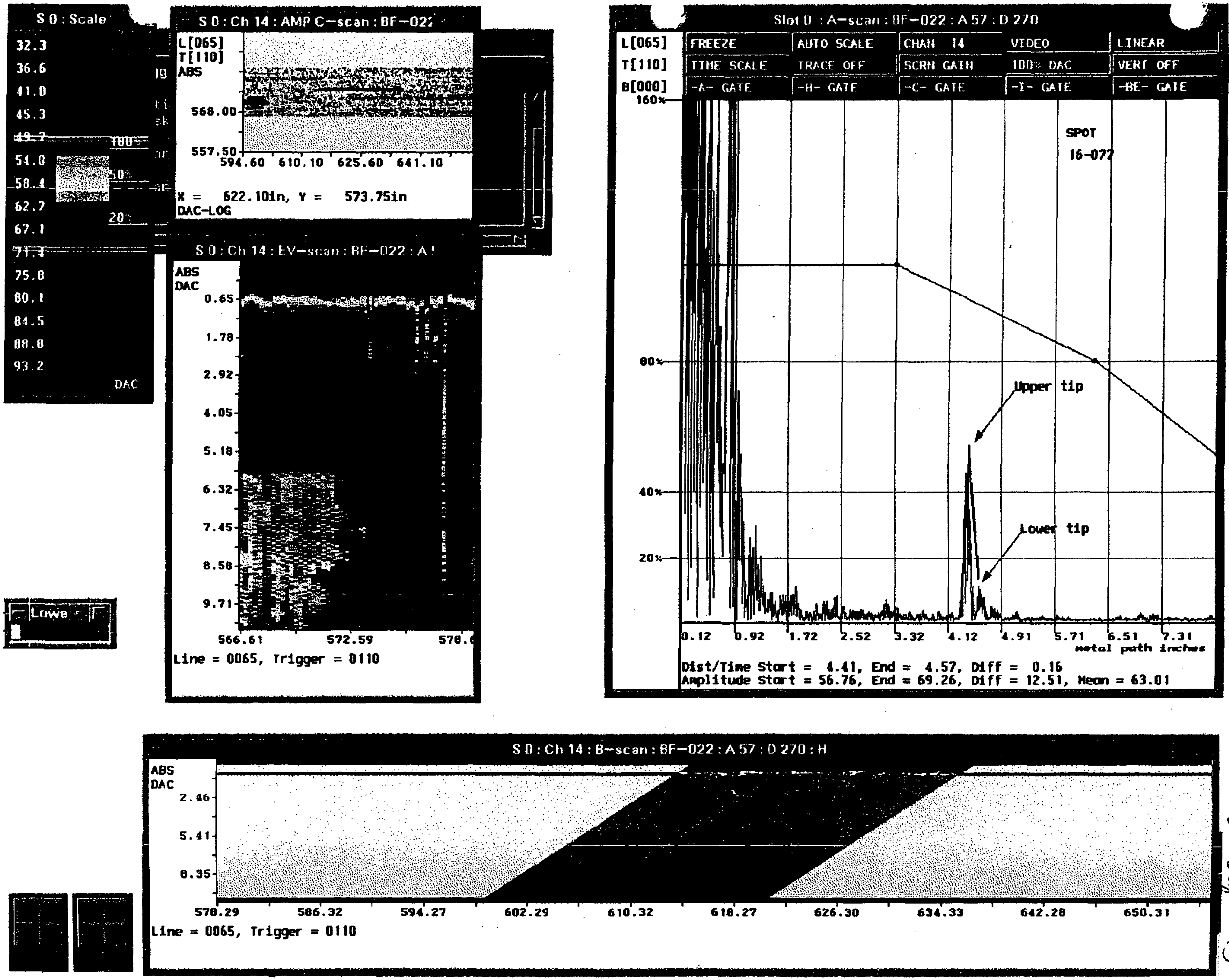

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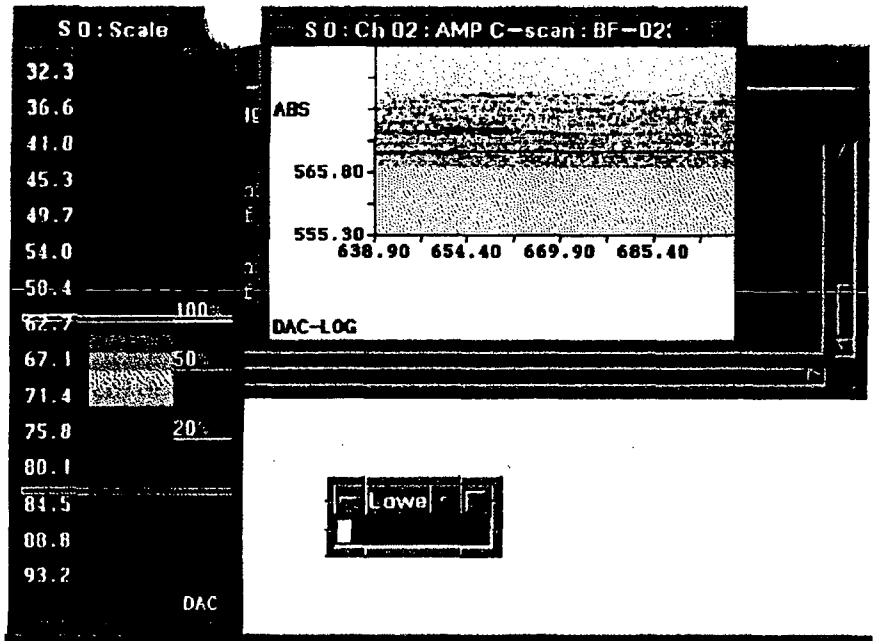

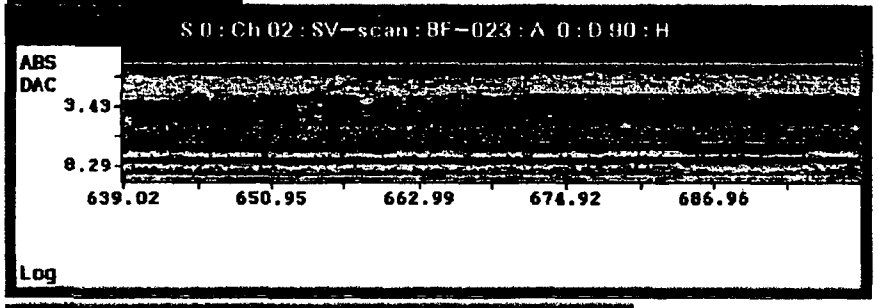

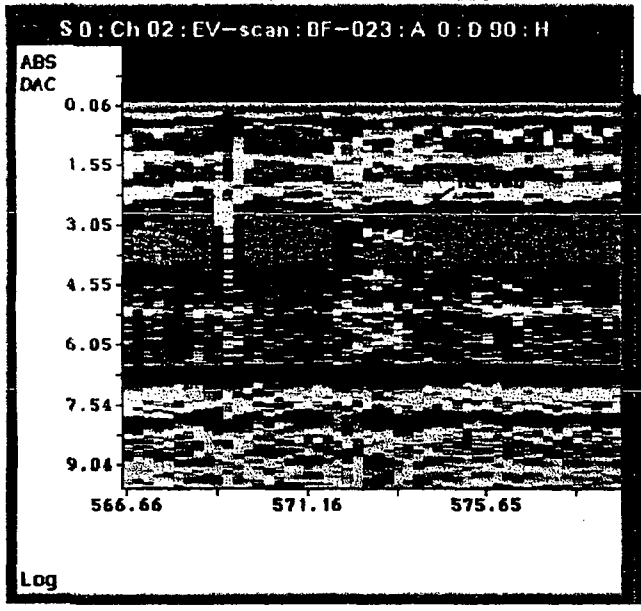

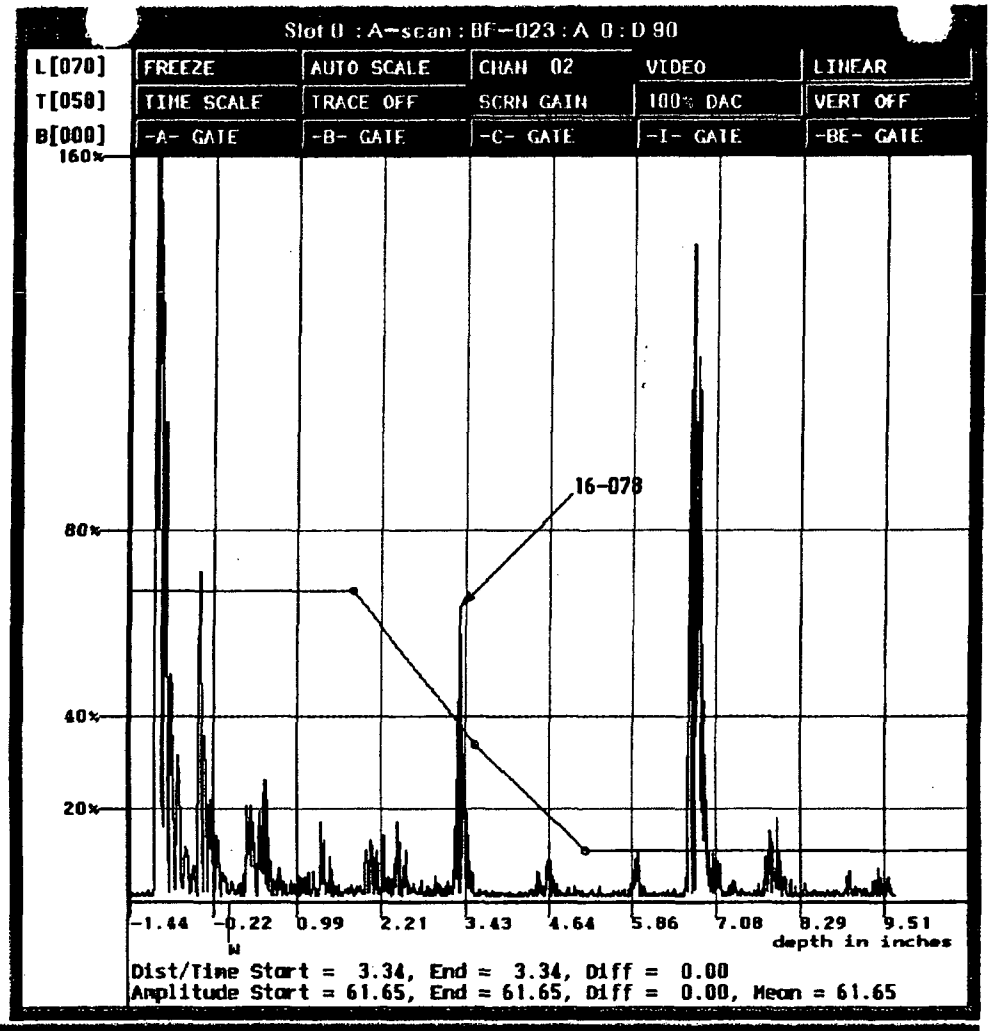

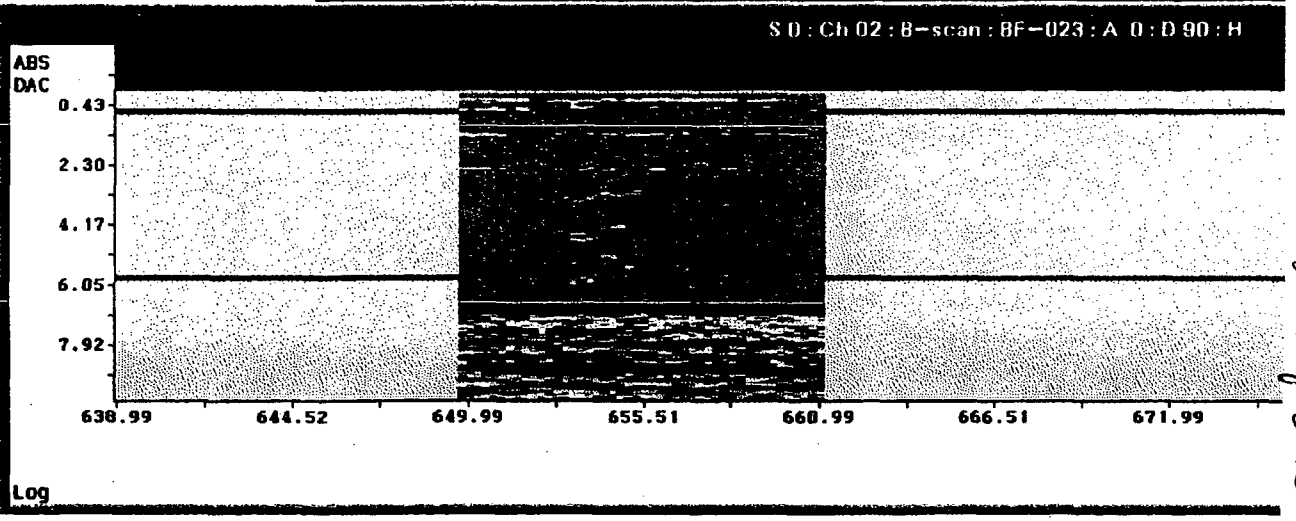

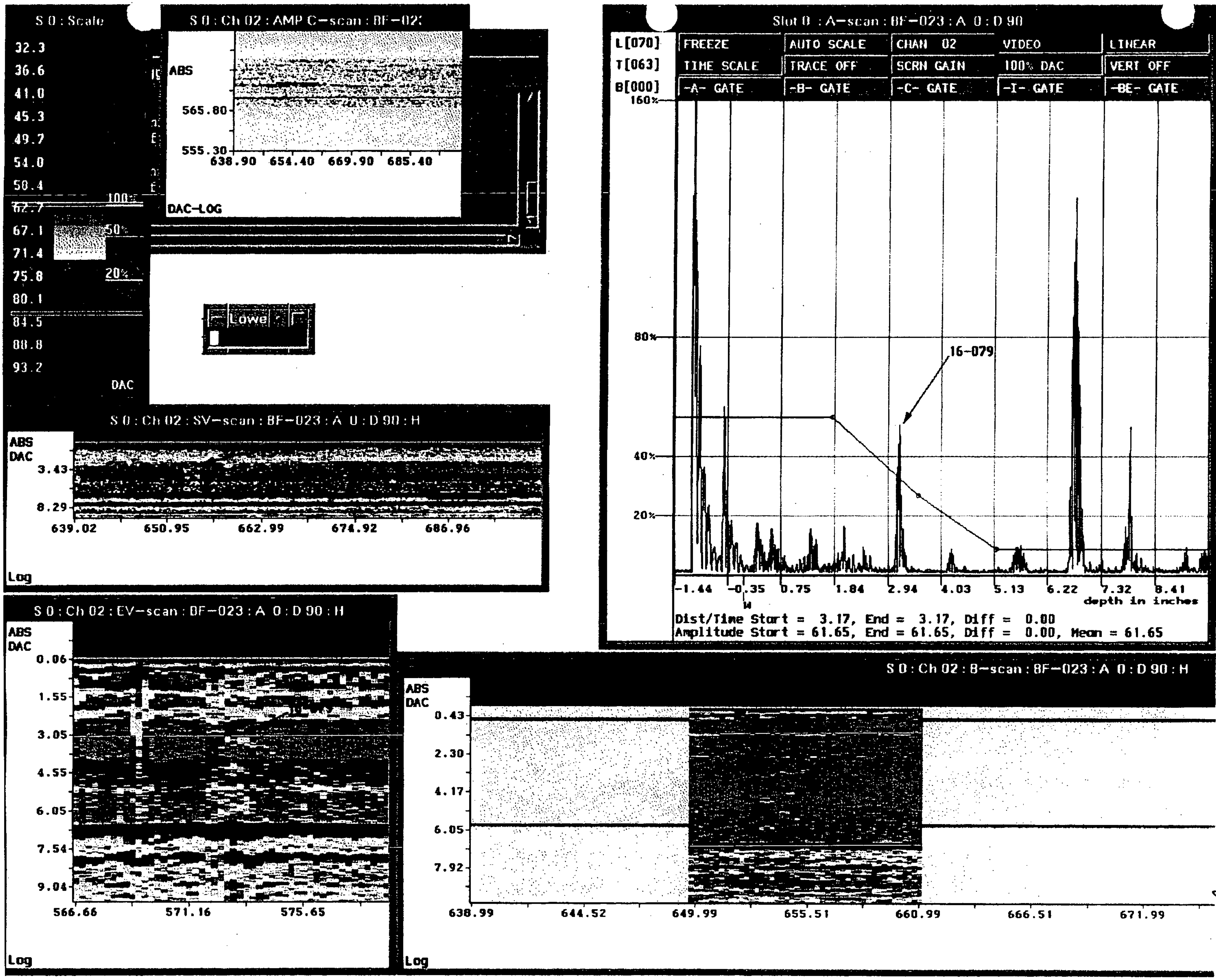

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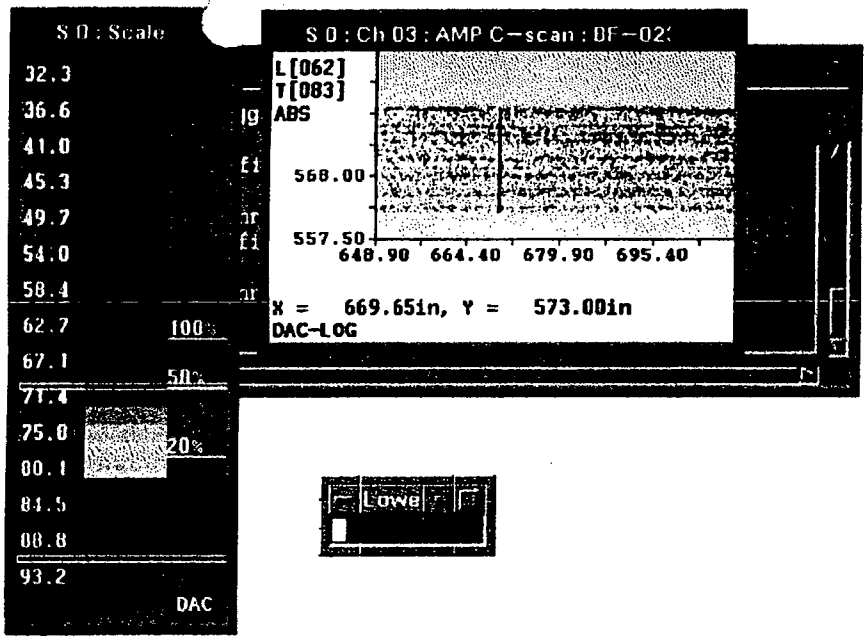

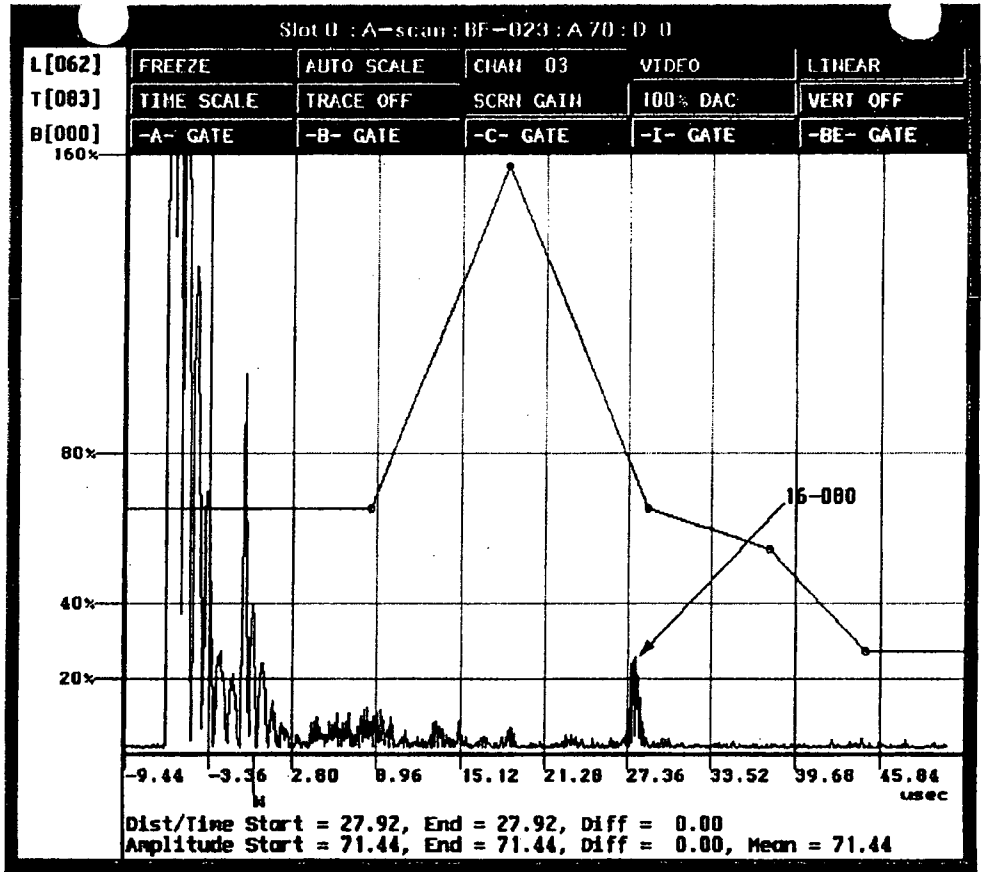

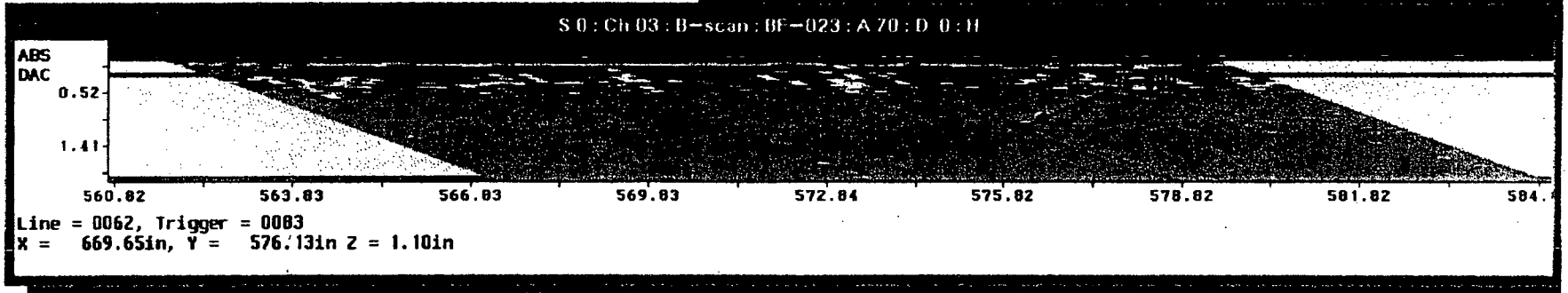

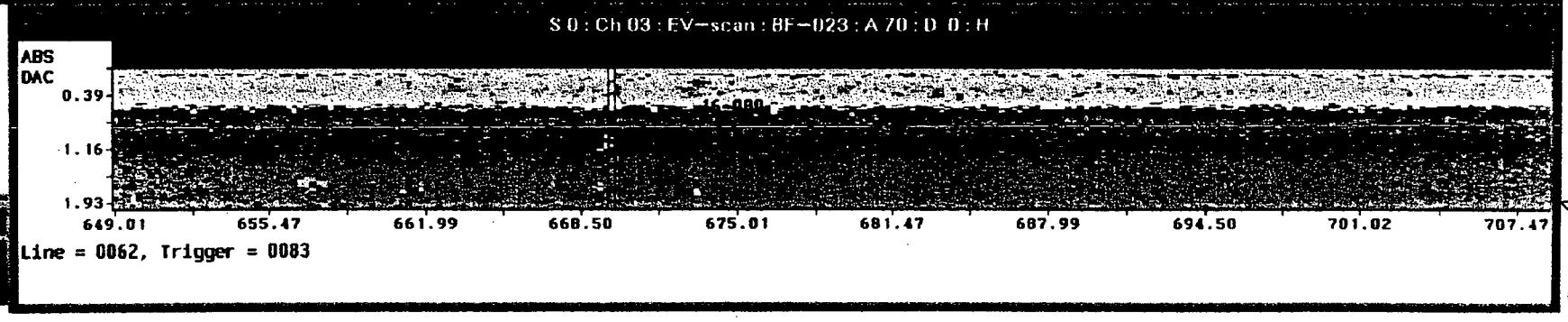

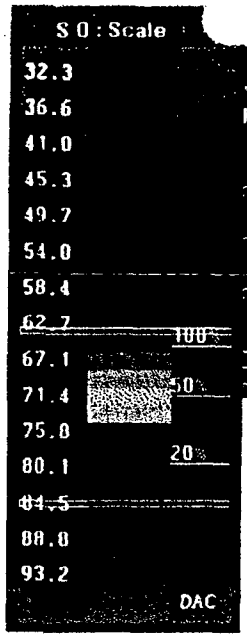

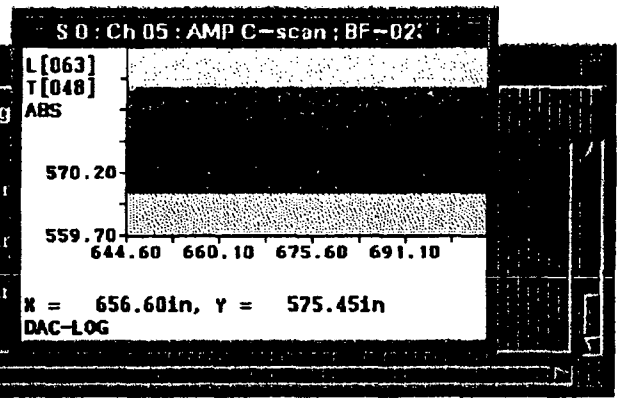

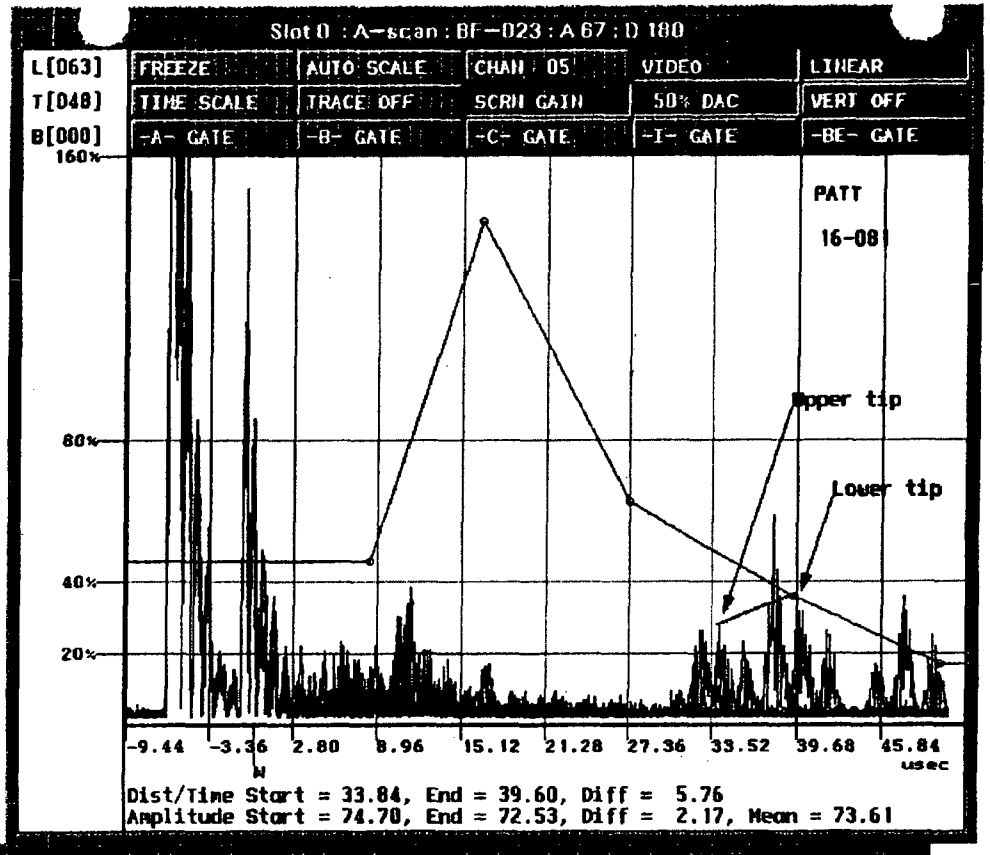

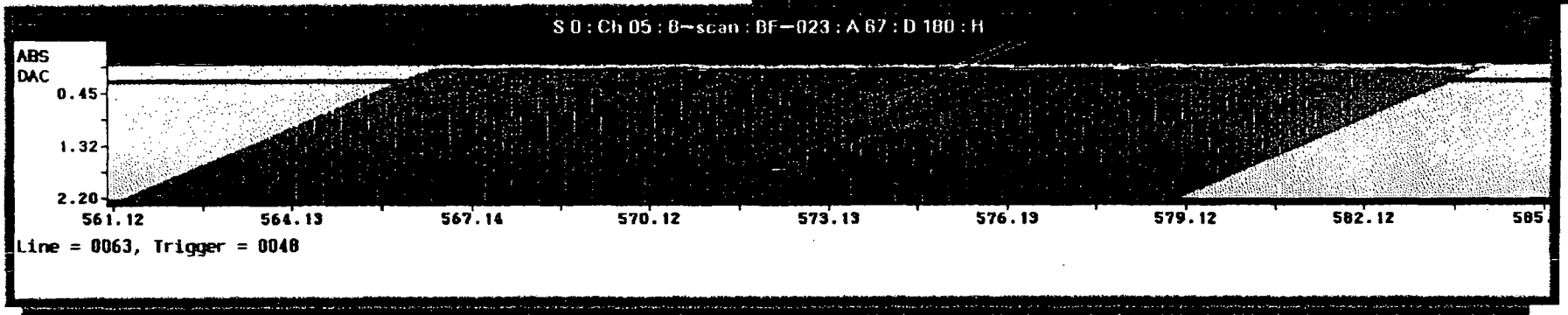

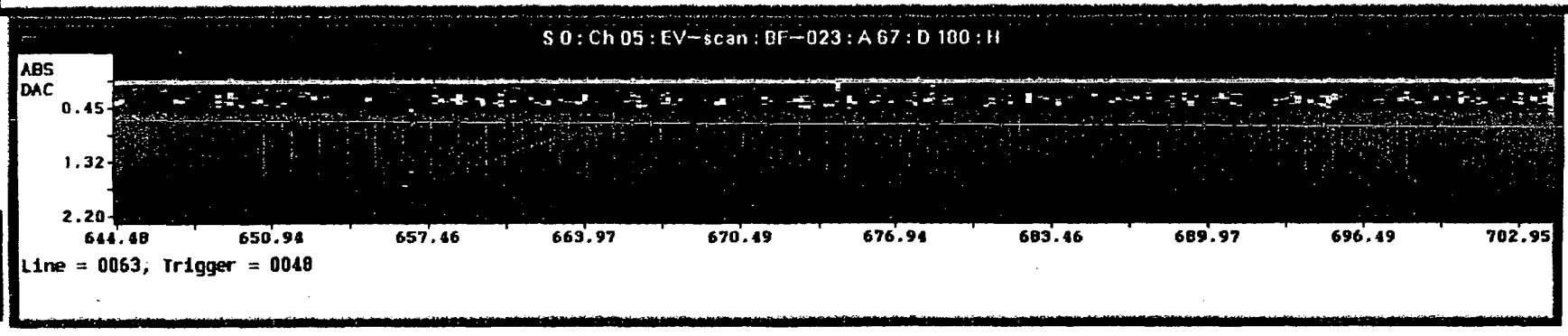

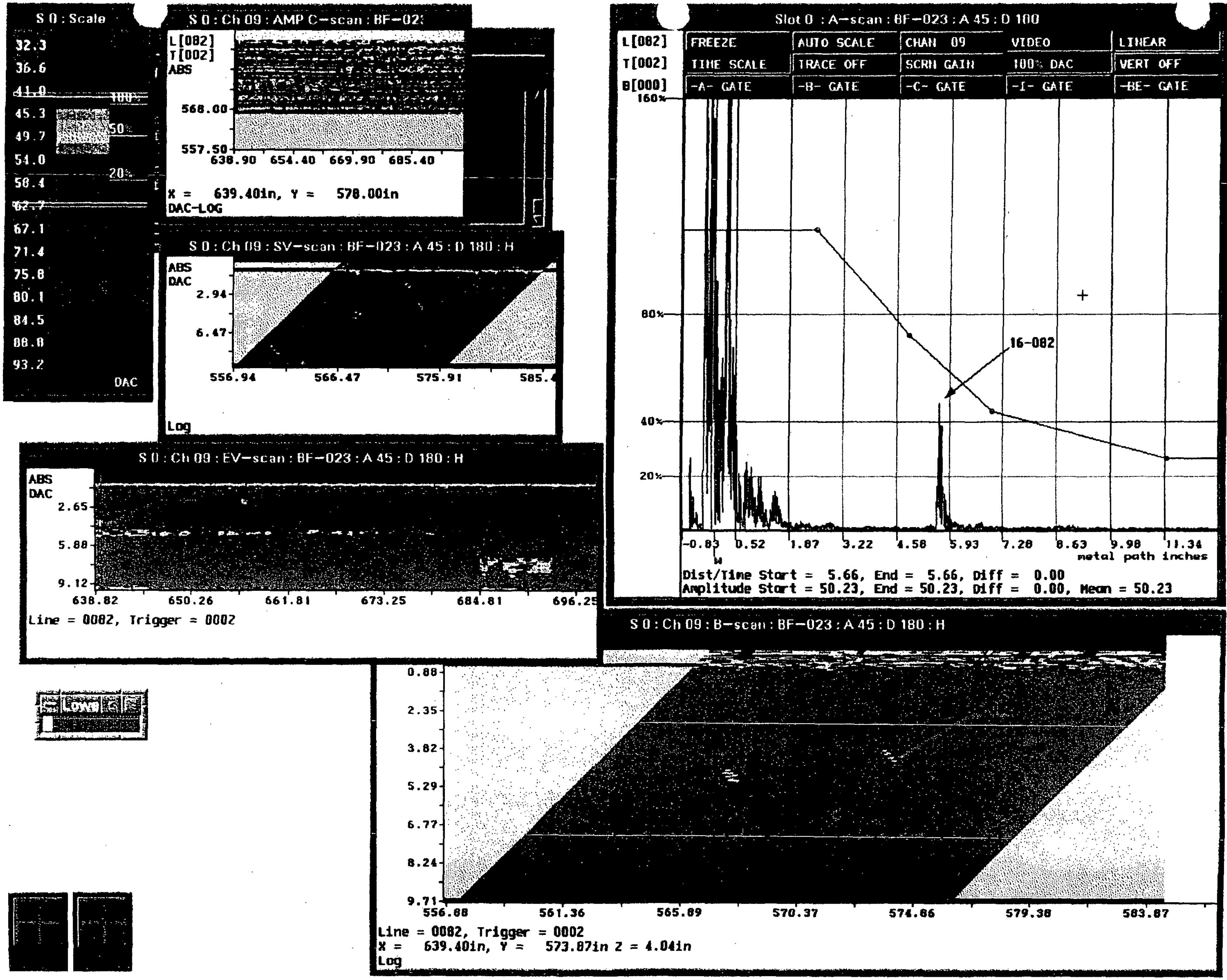

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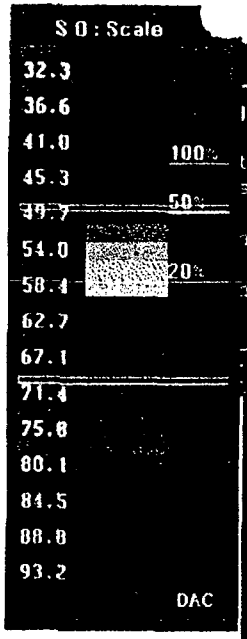

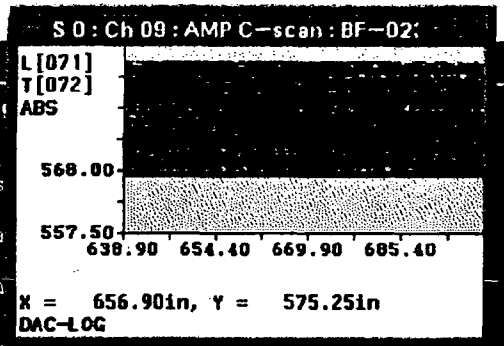

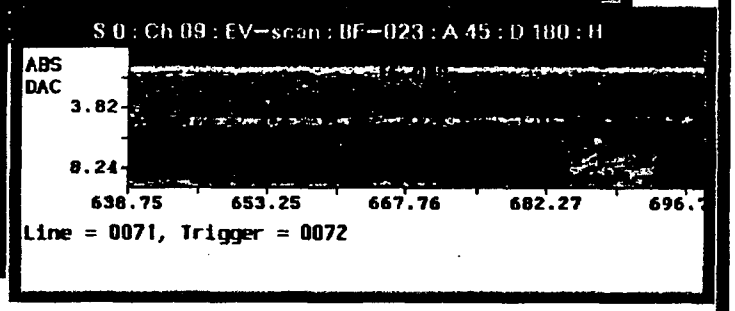

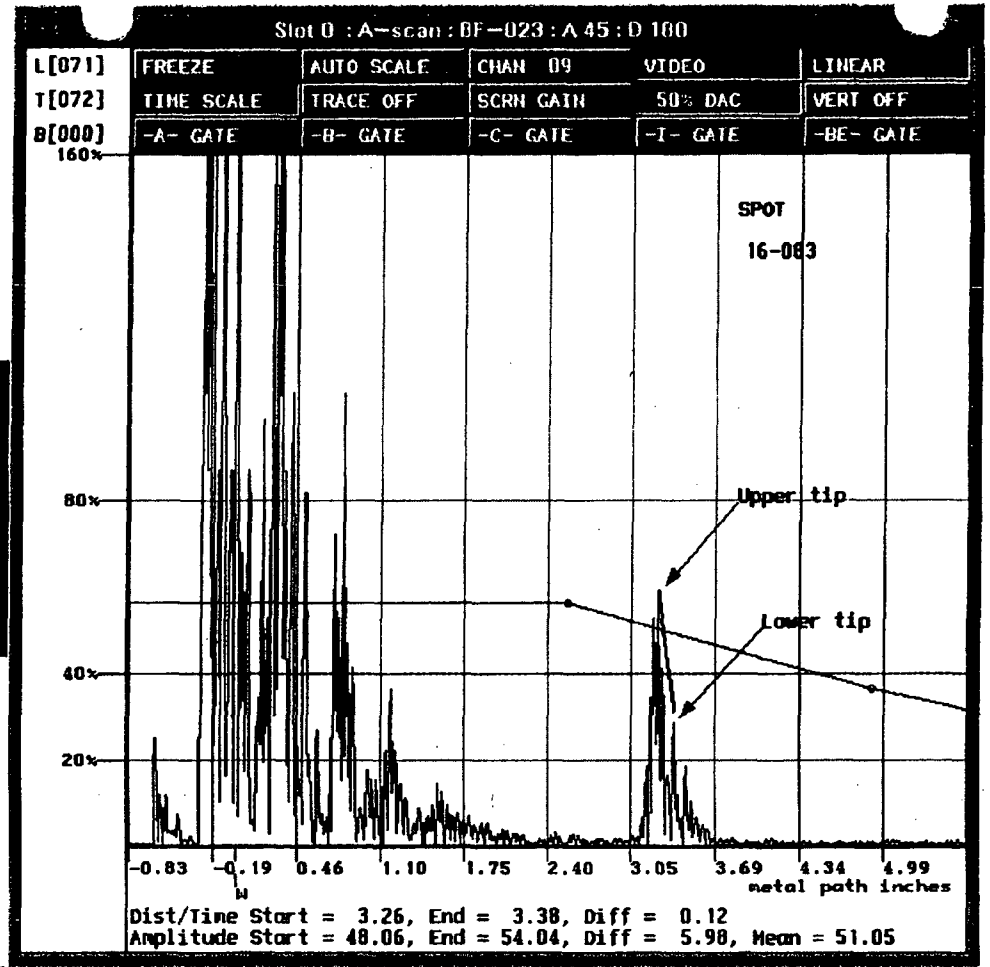

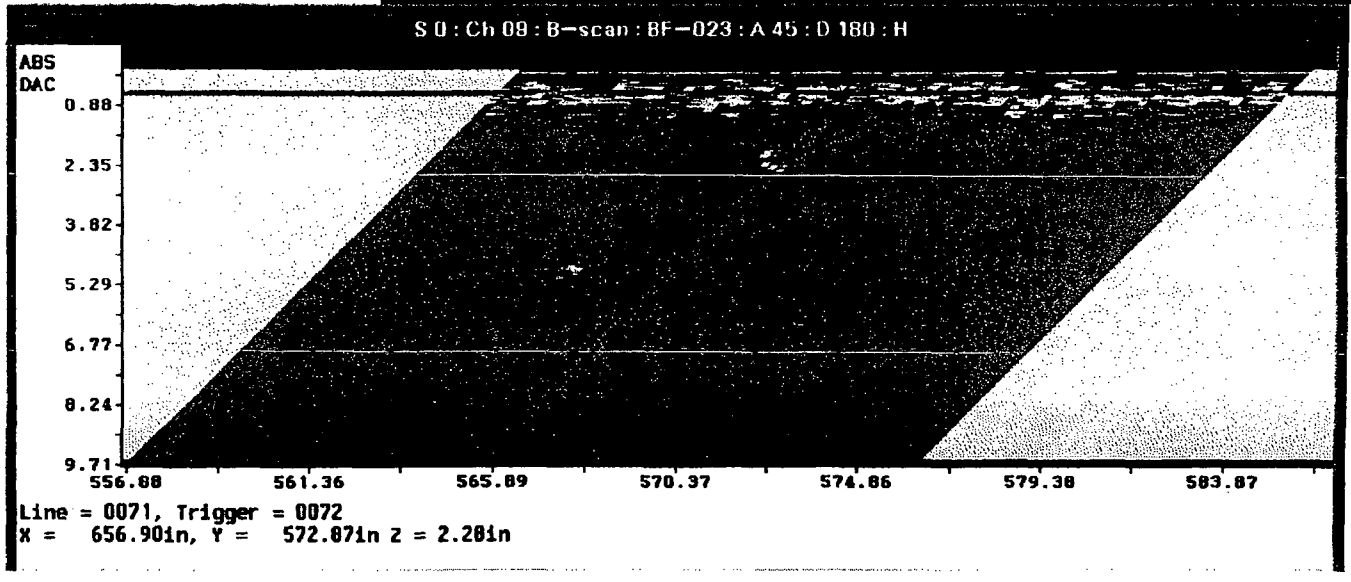

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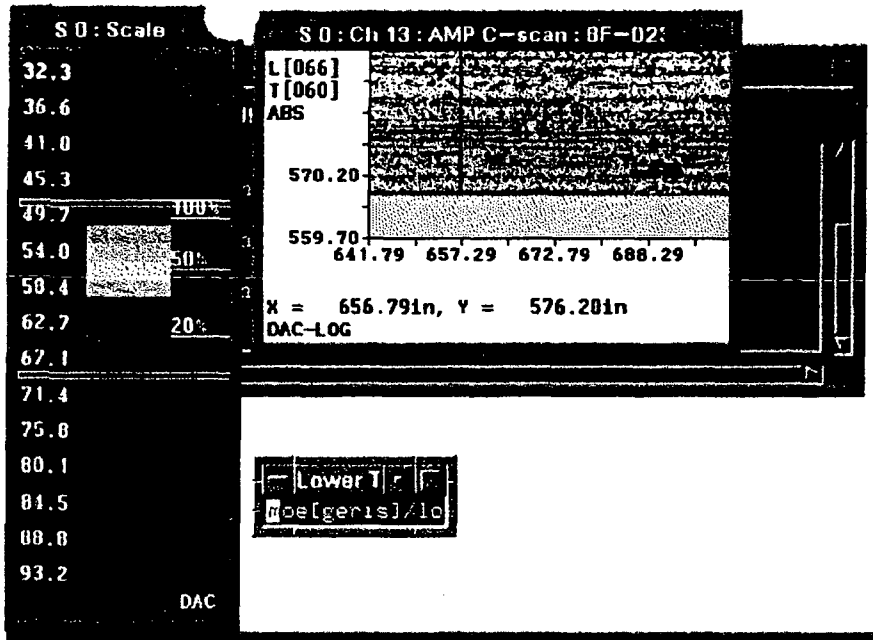

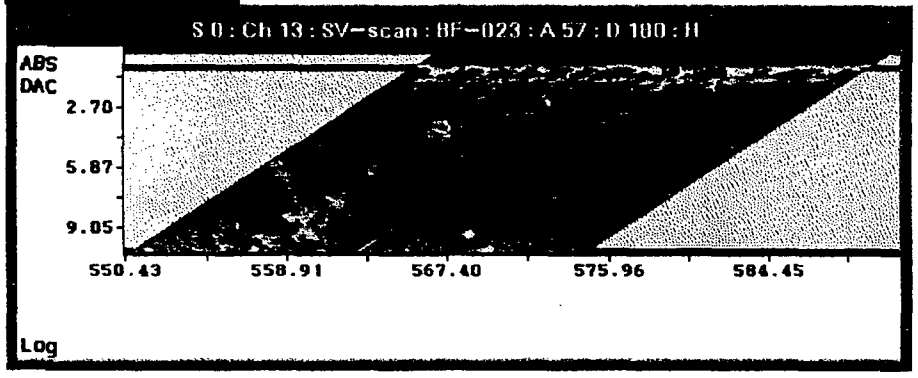

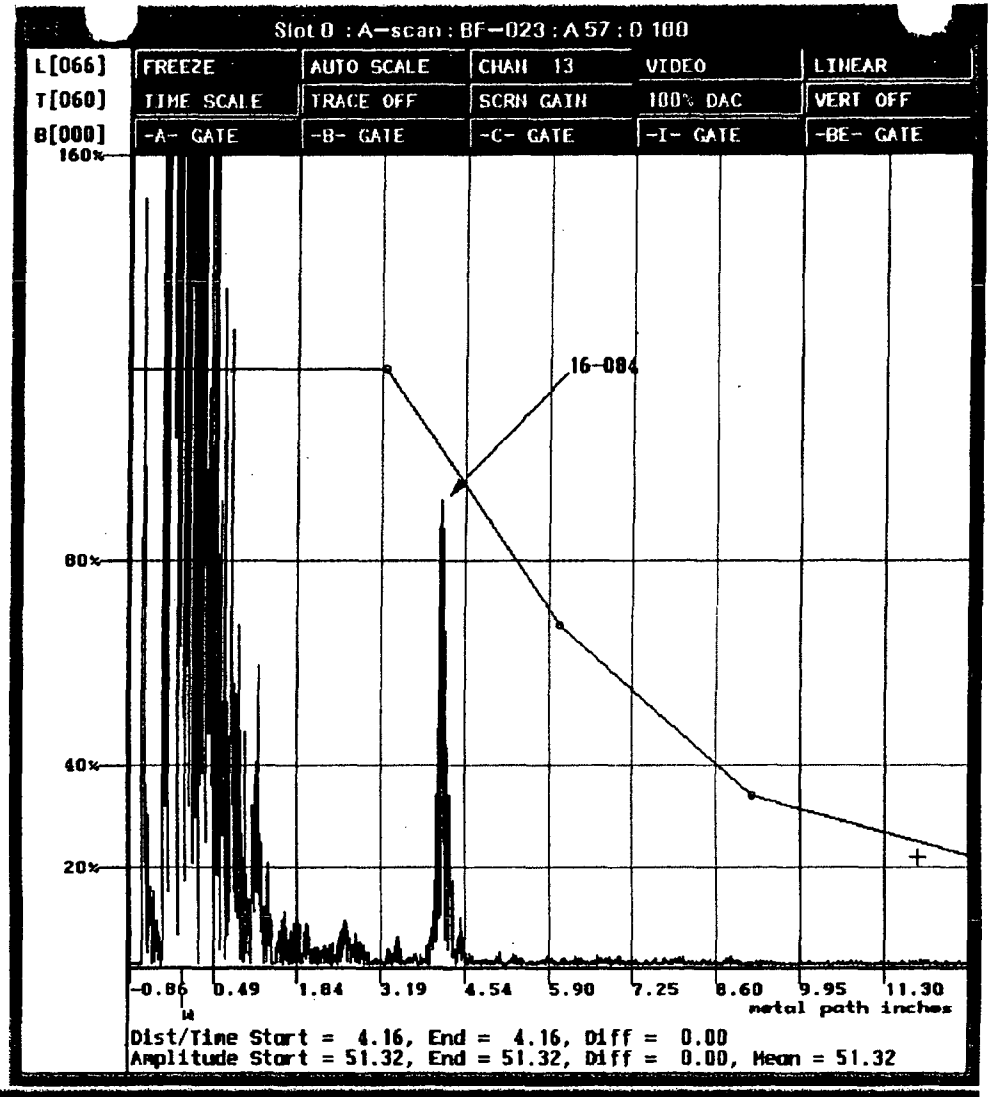

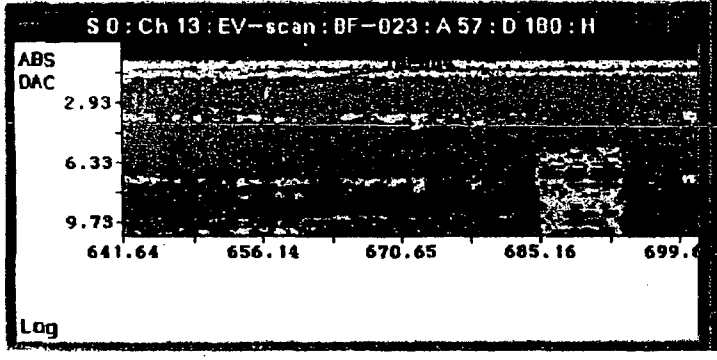

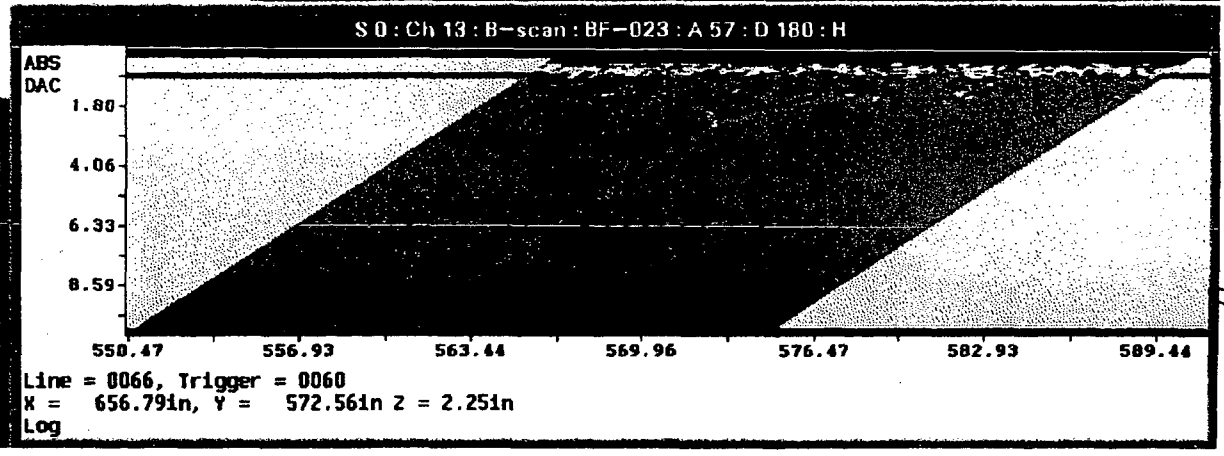

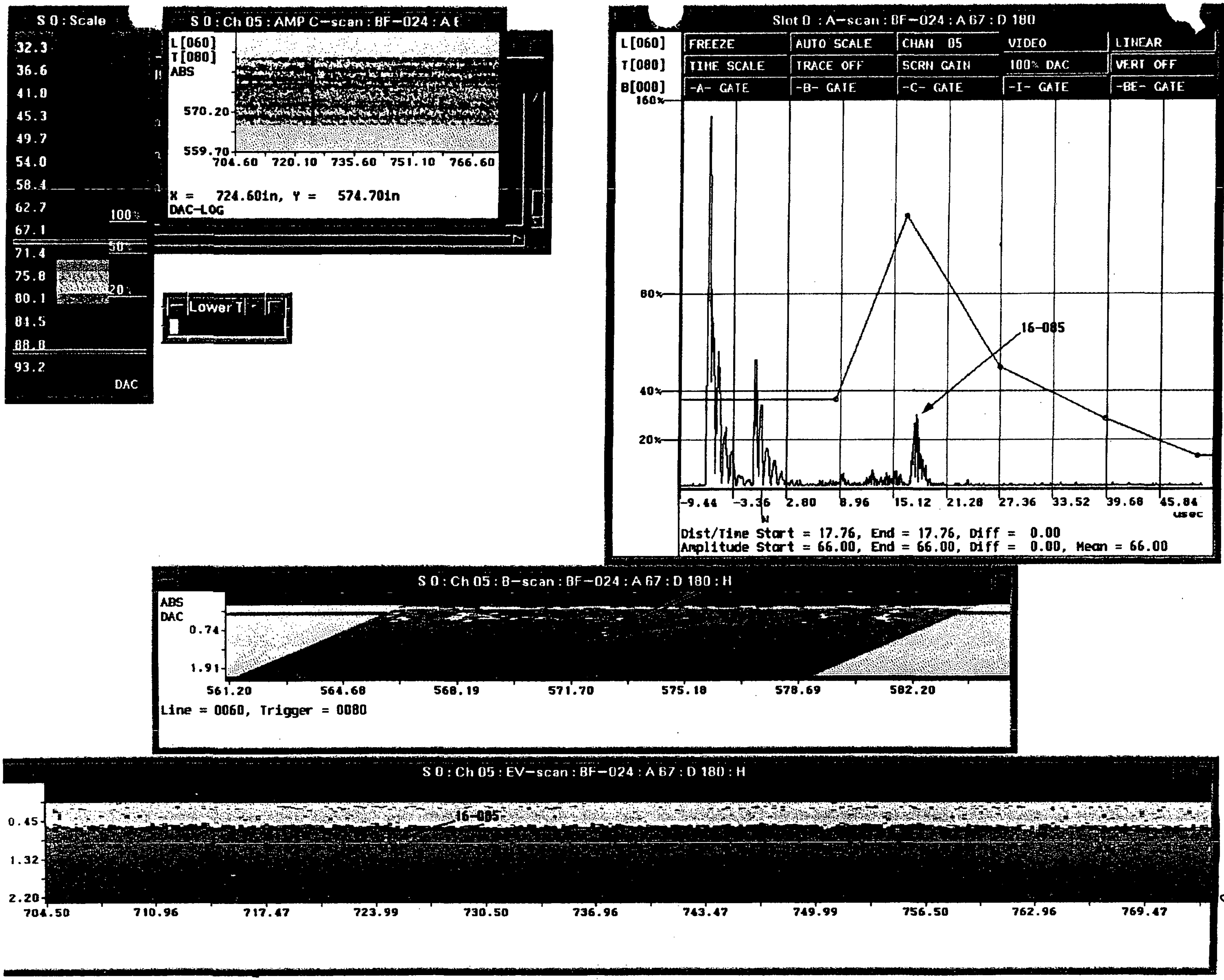

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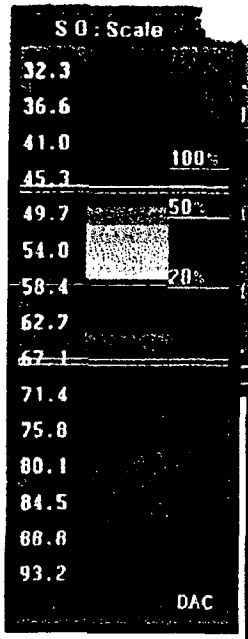

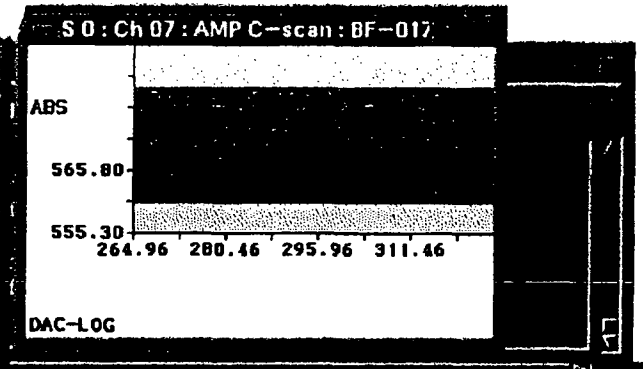

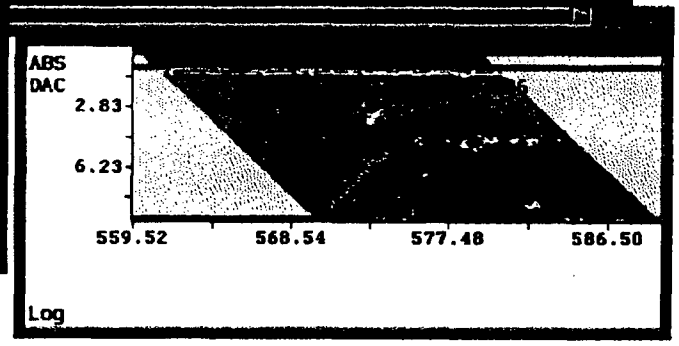

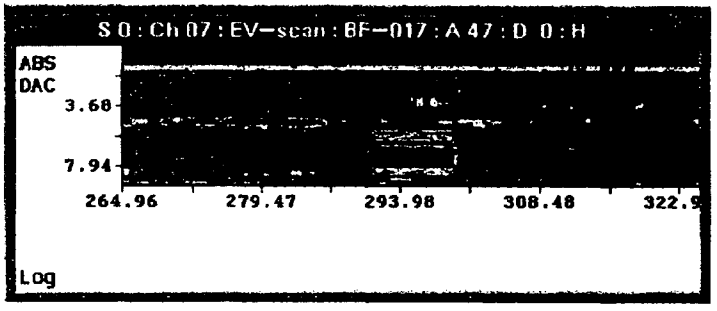

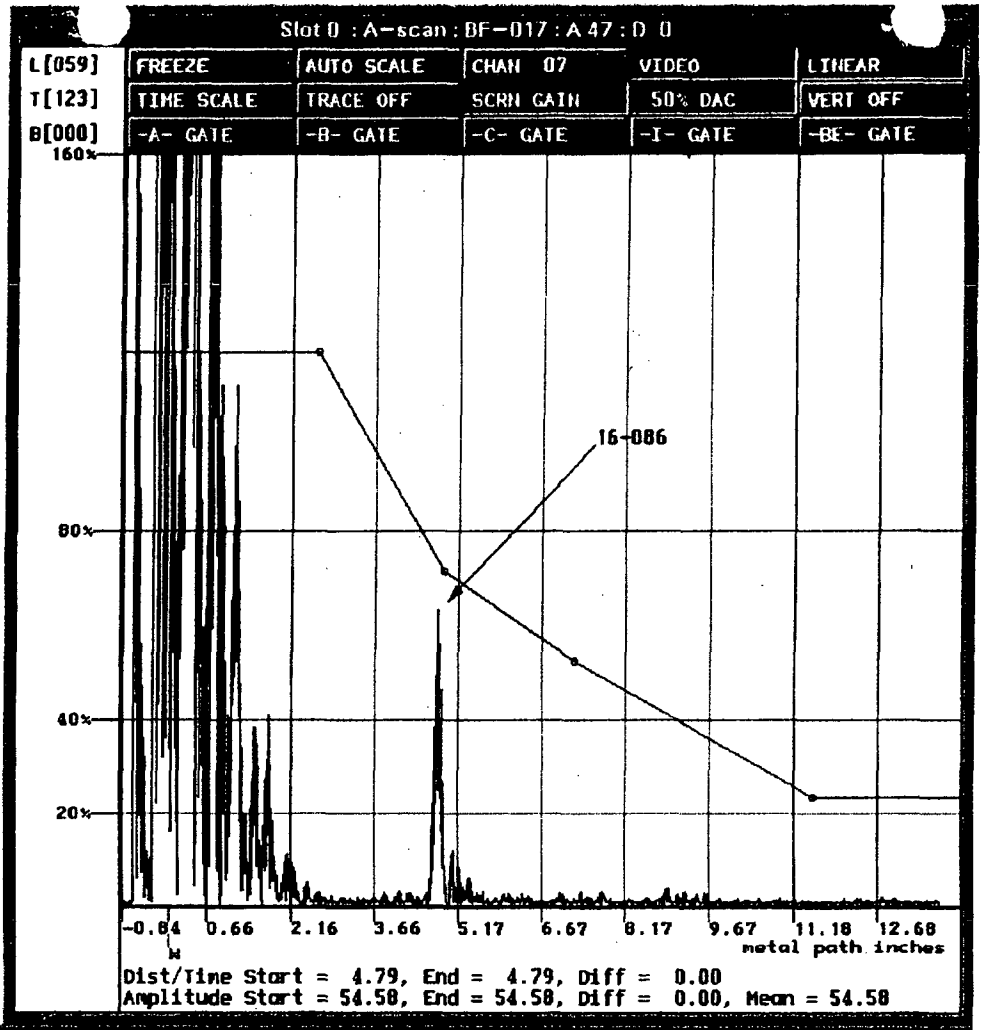

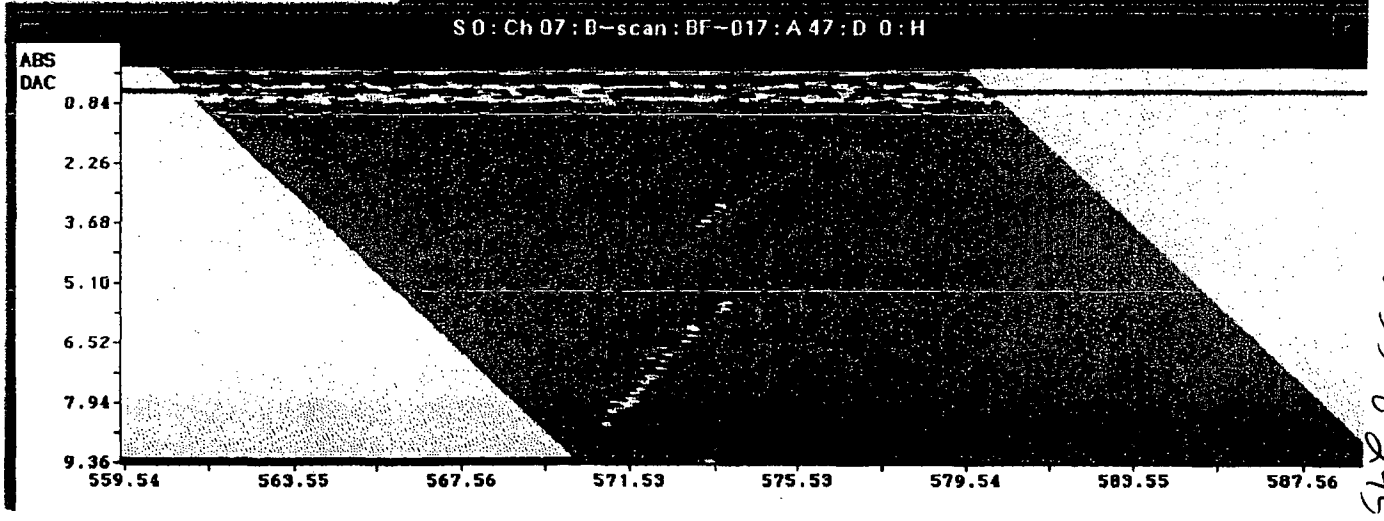

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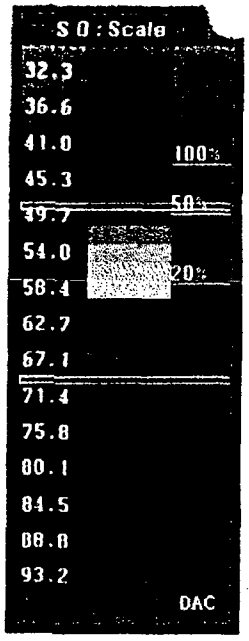
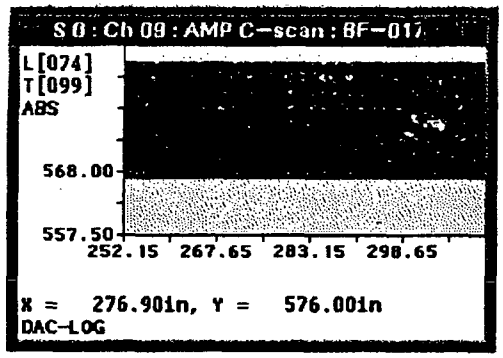
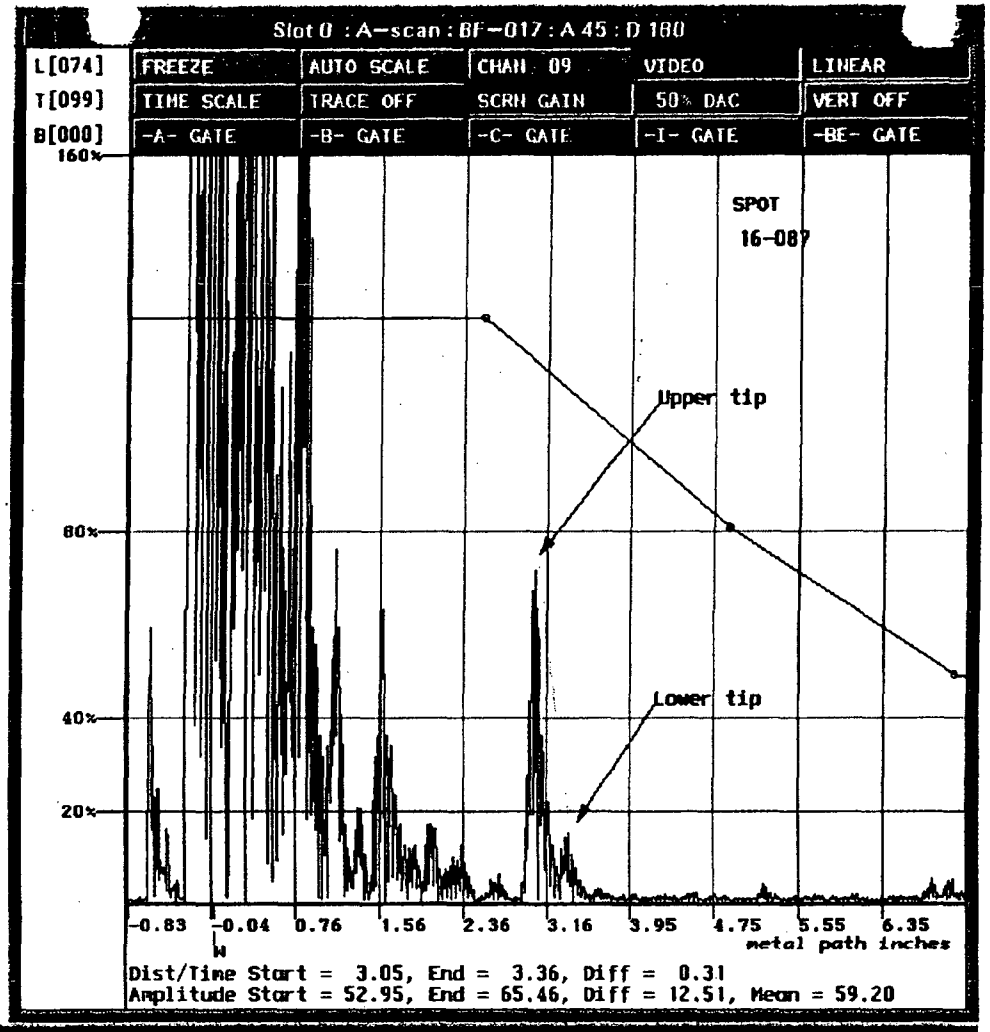
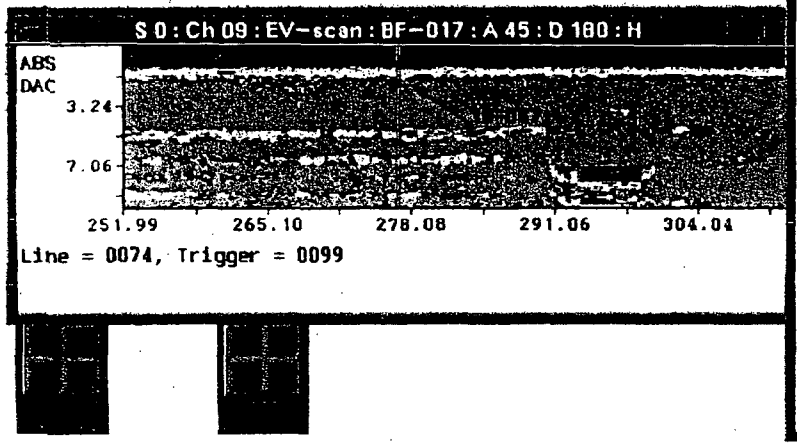
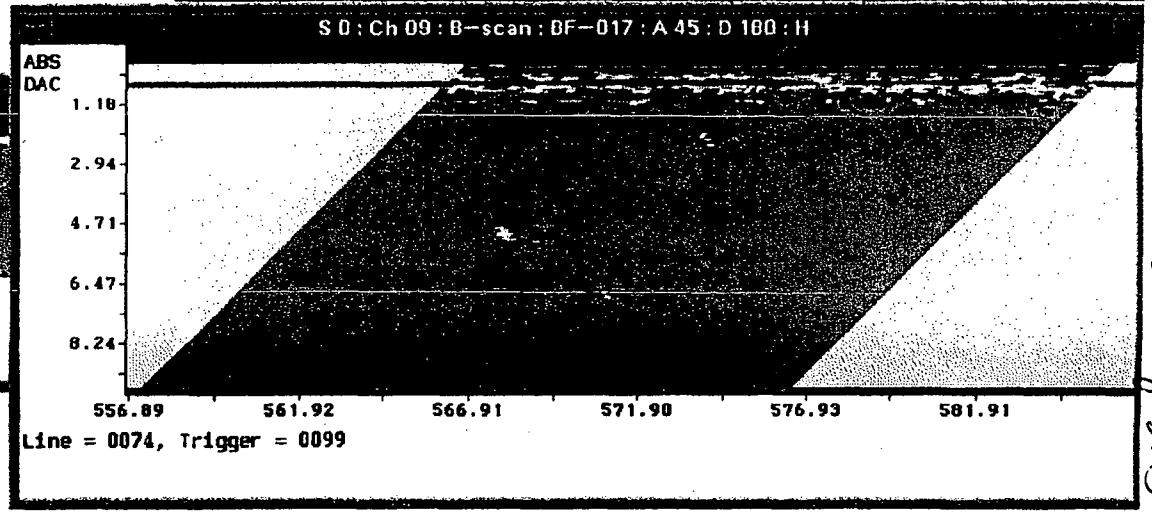
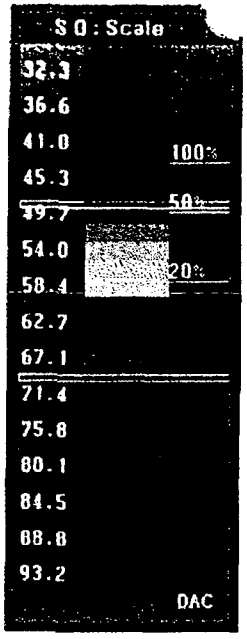


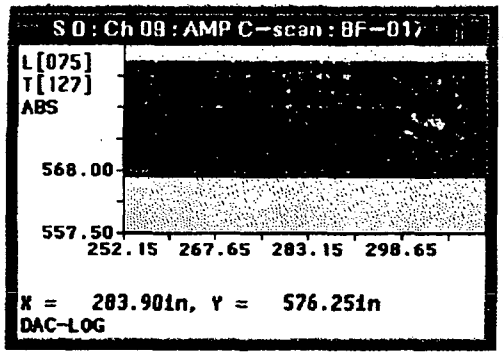


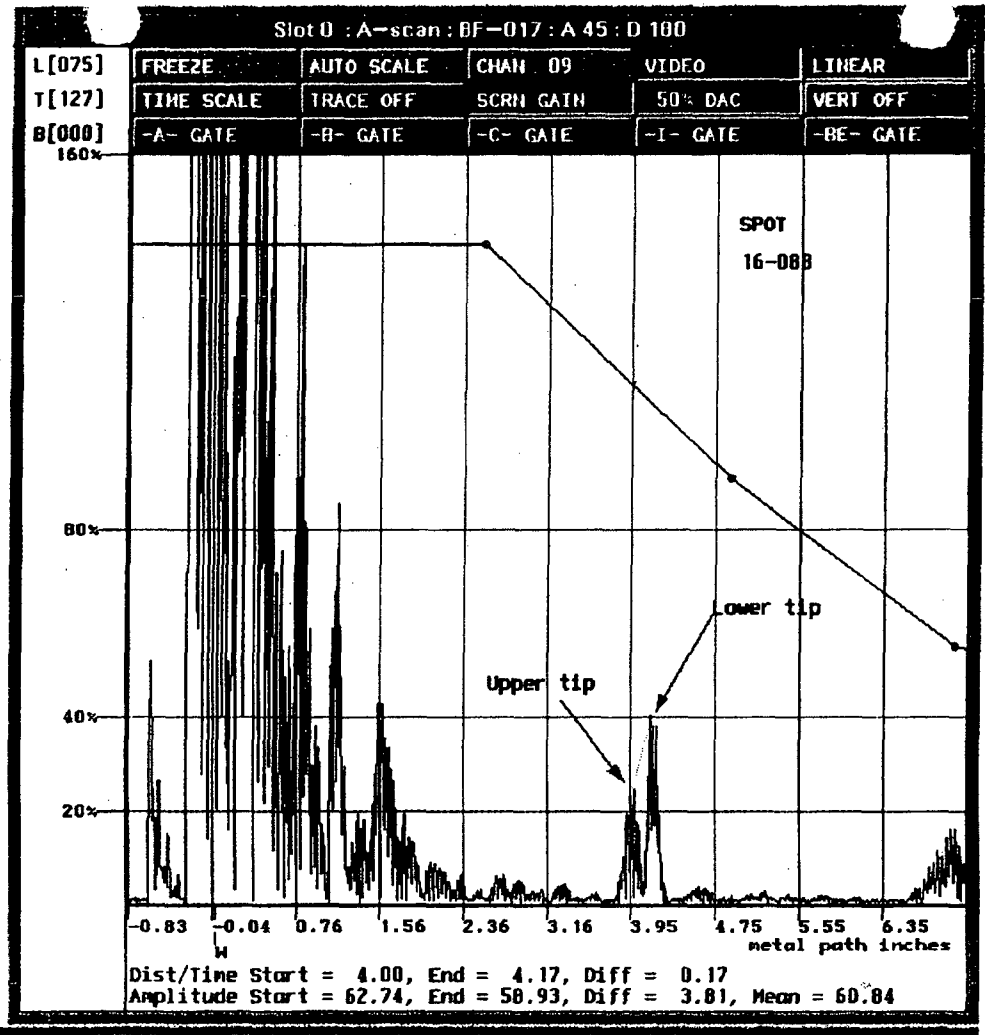


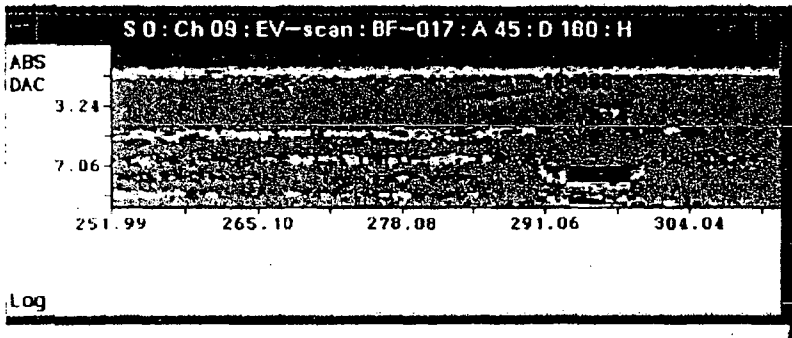


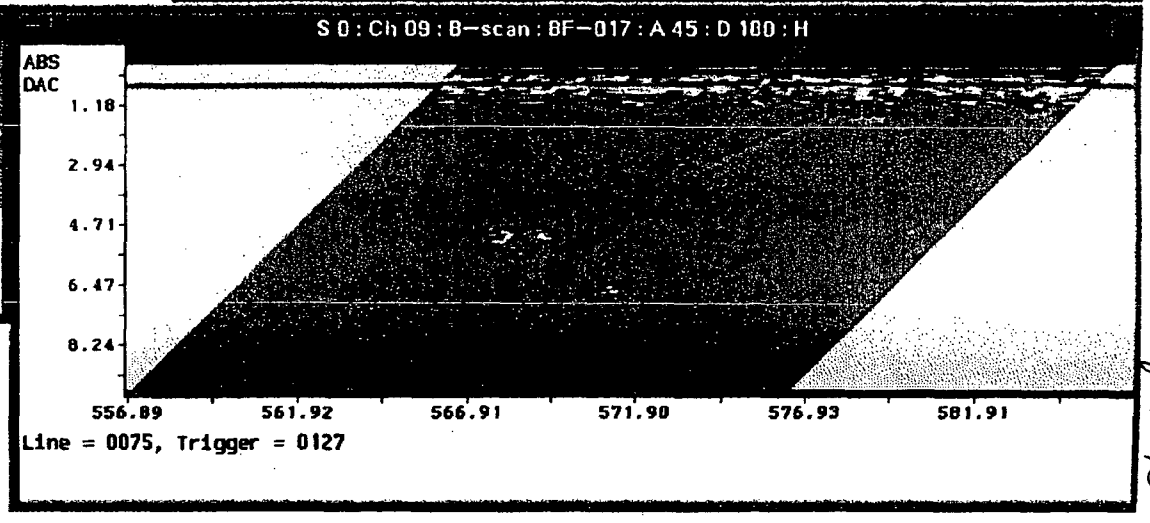


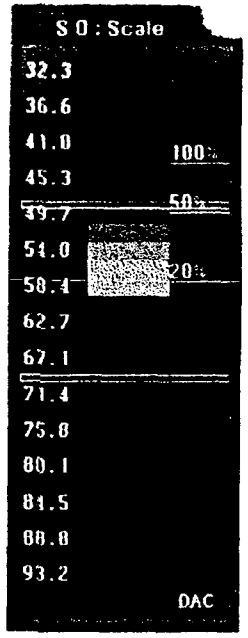


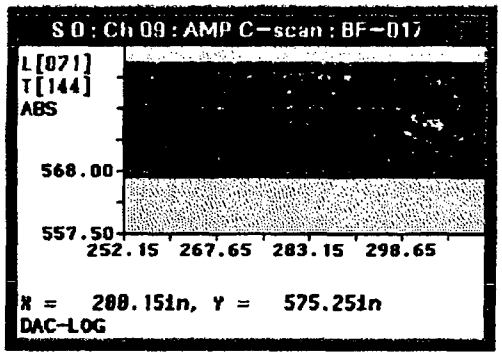


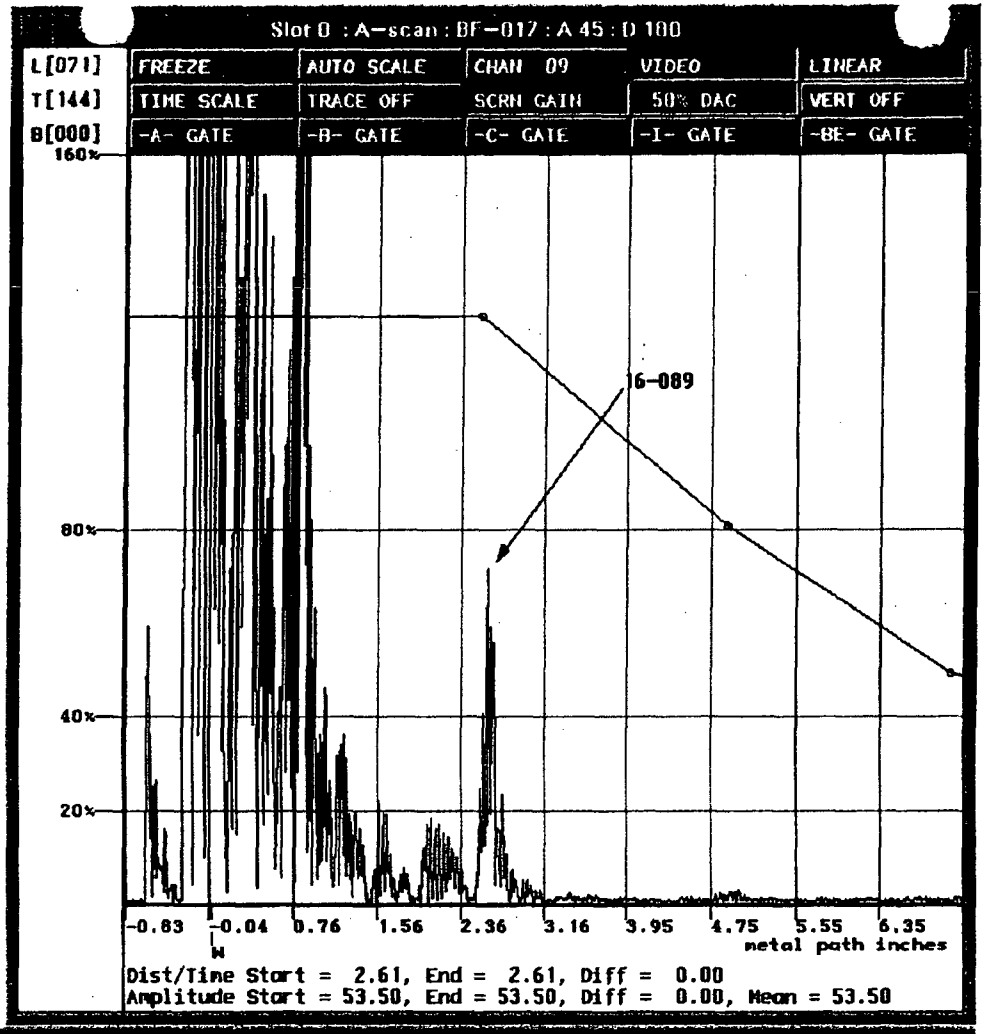


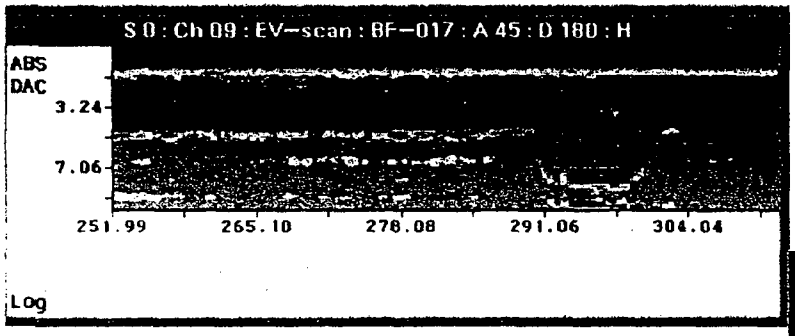


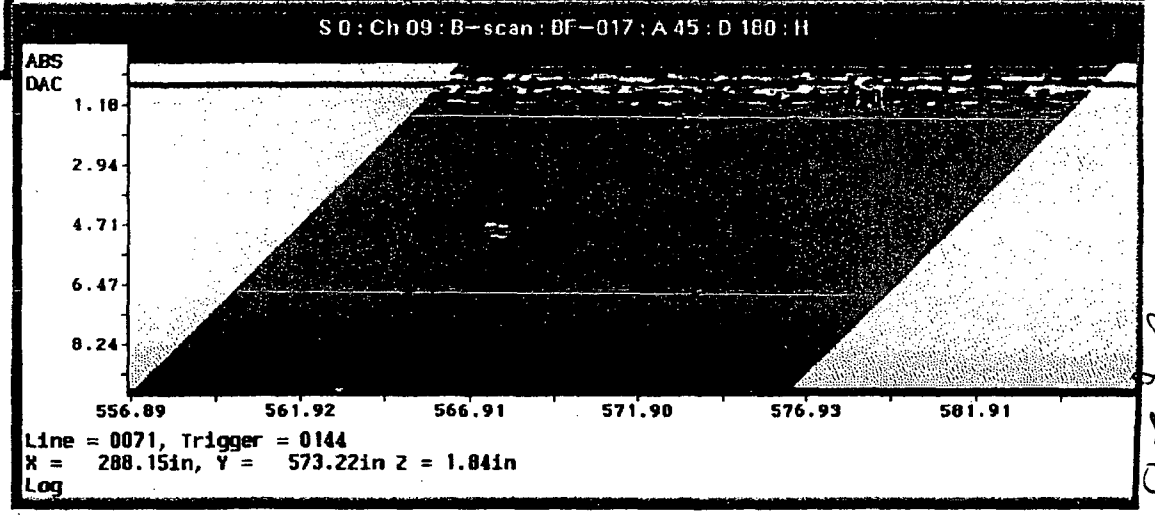


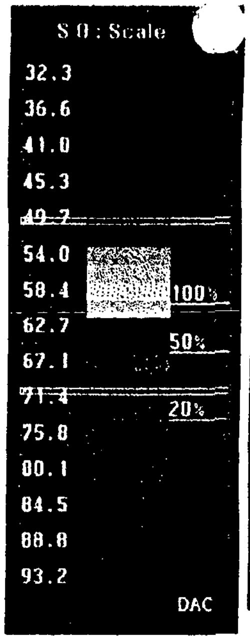


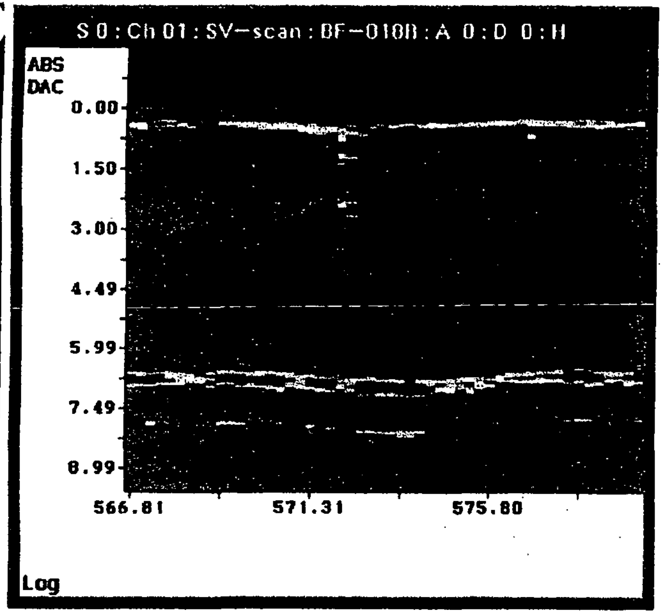


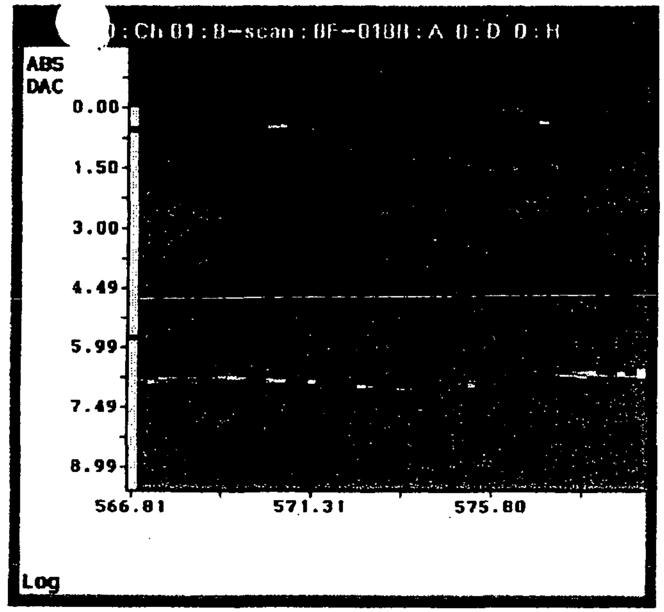




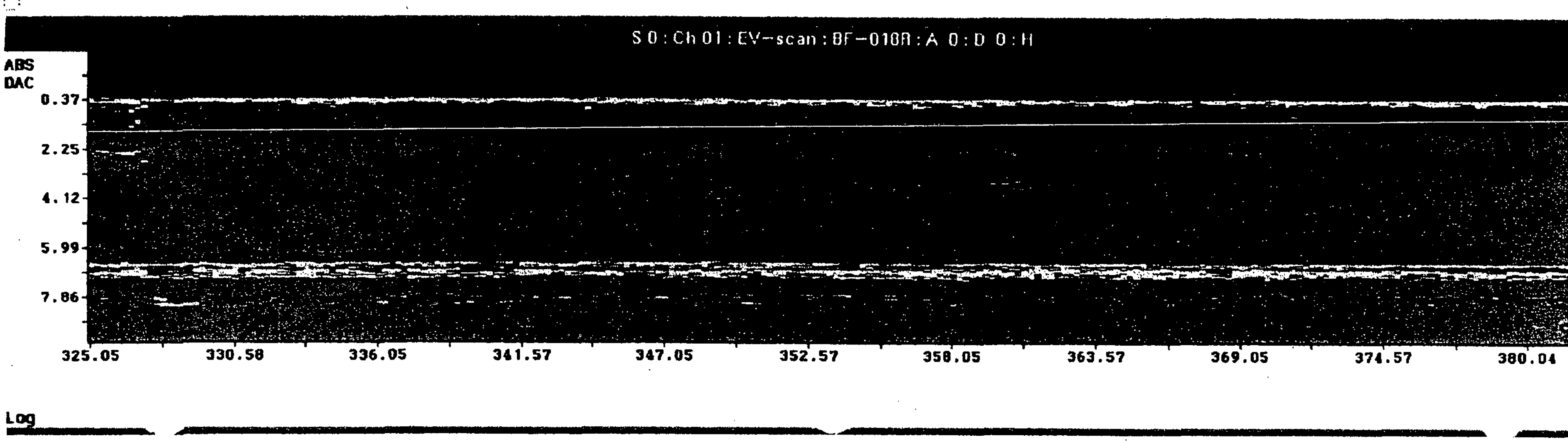








16-090



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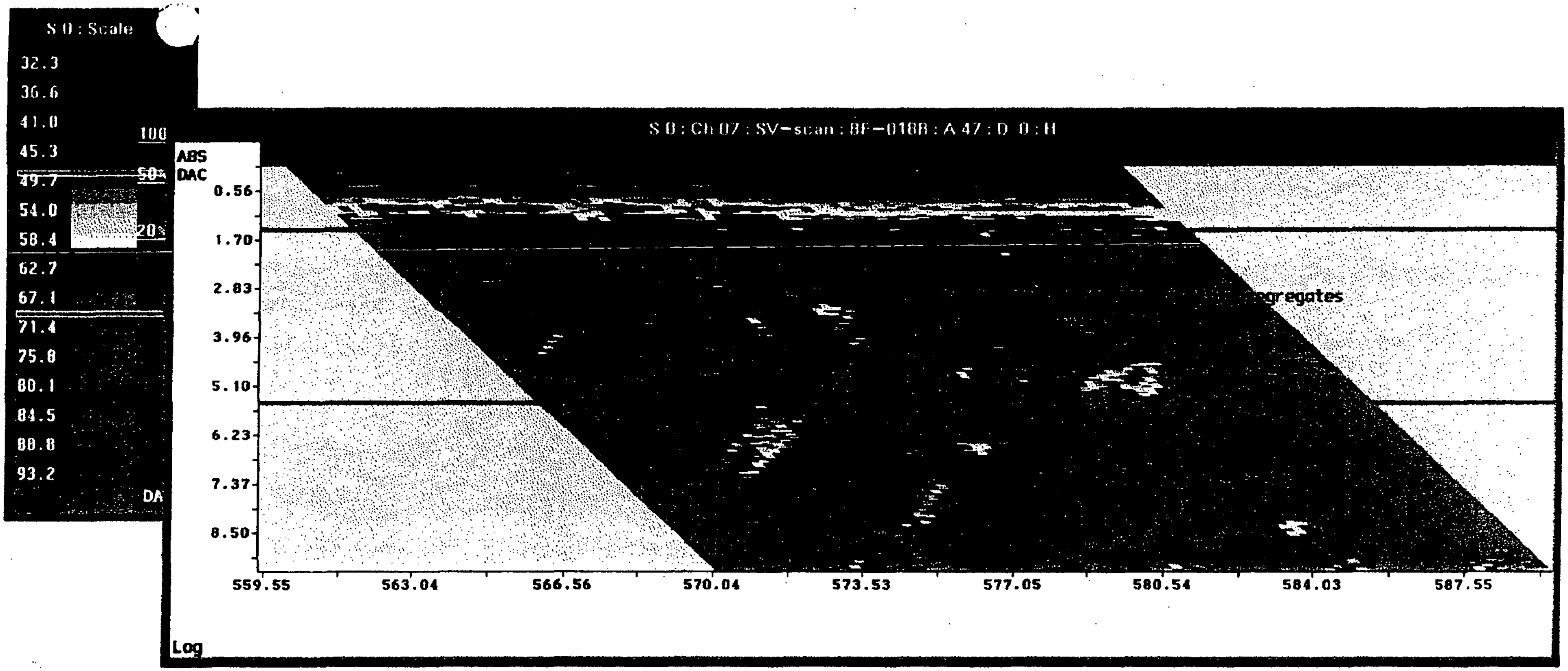
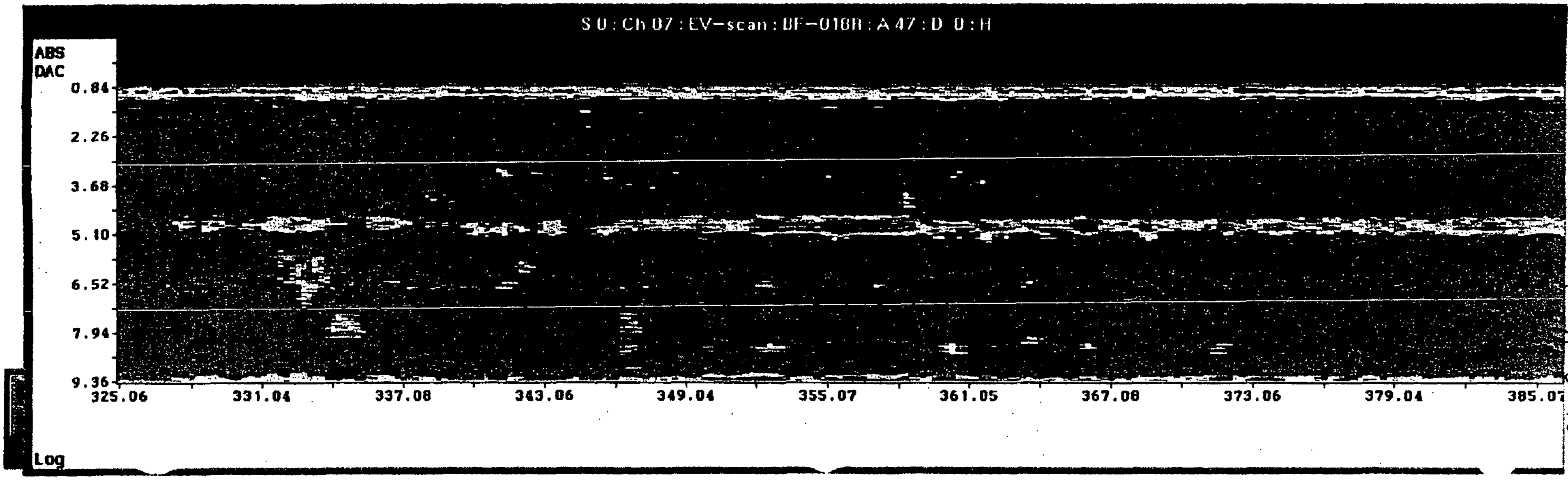


Top Te

16-091
CHM 12/18/97



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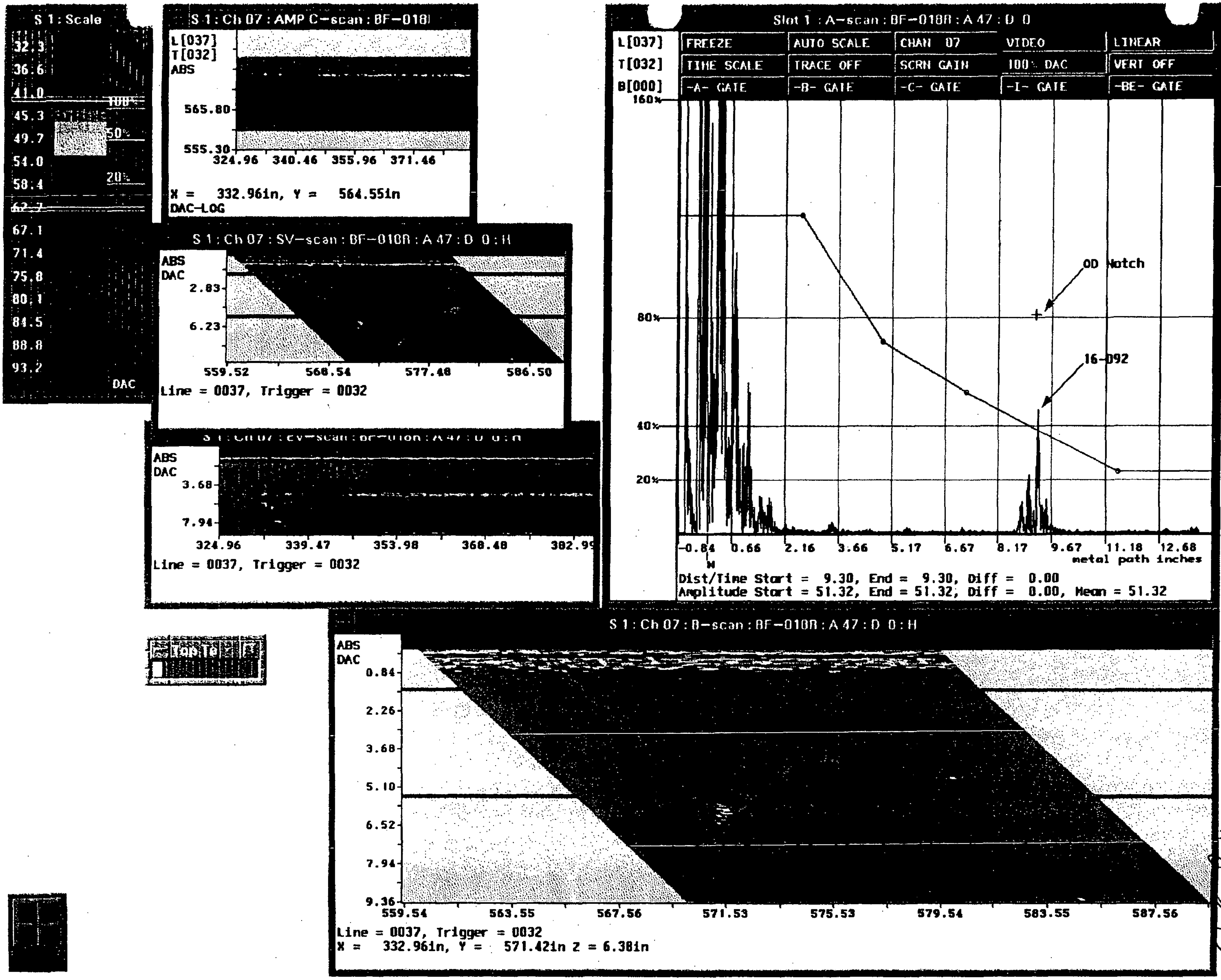

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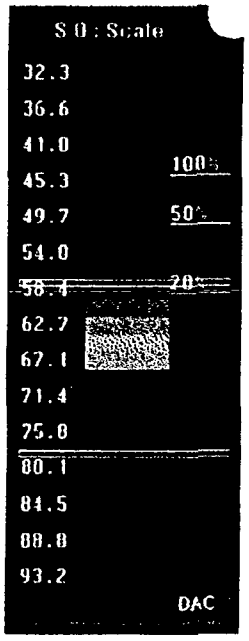
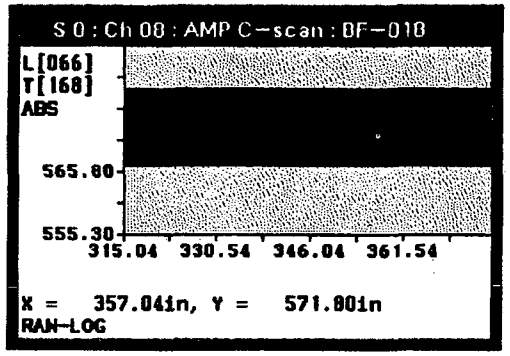
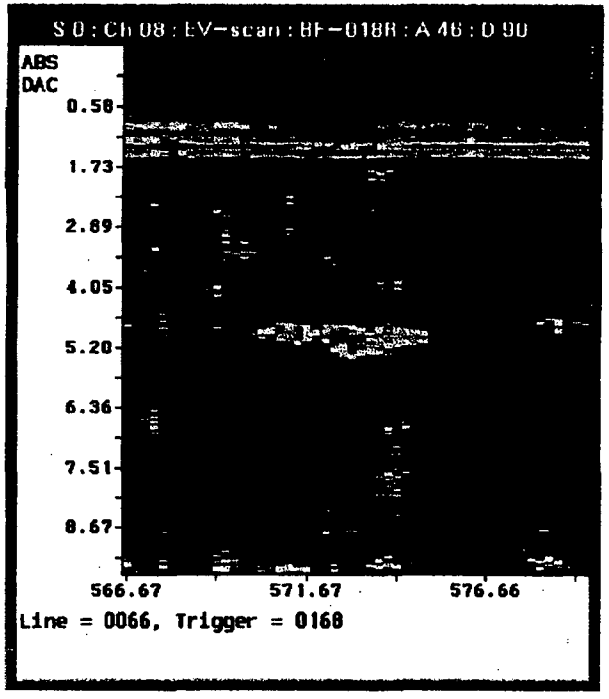
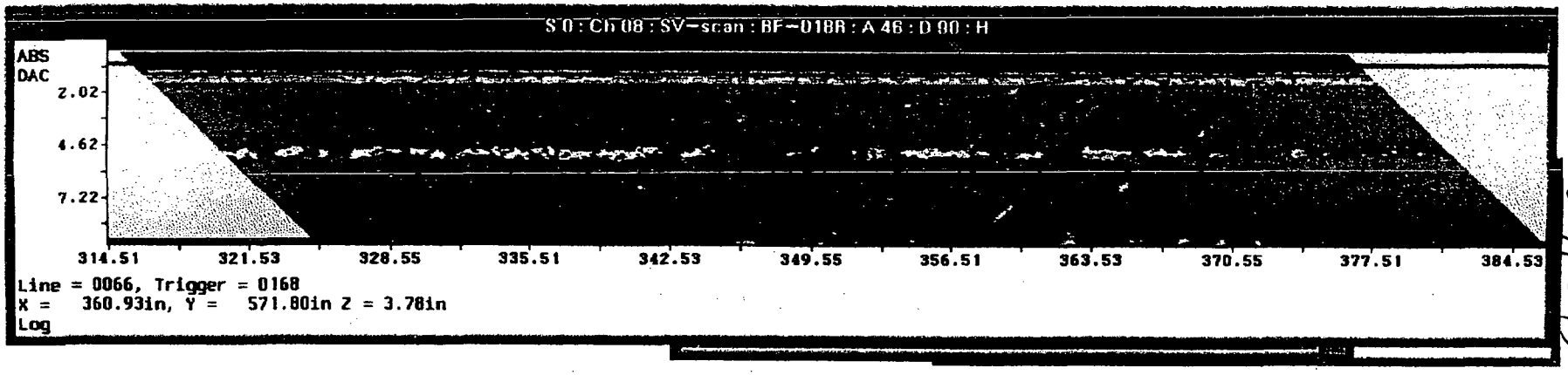






Top Te

16-~~097~~ 093
CAM 12/13/93



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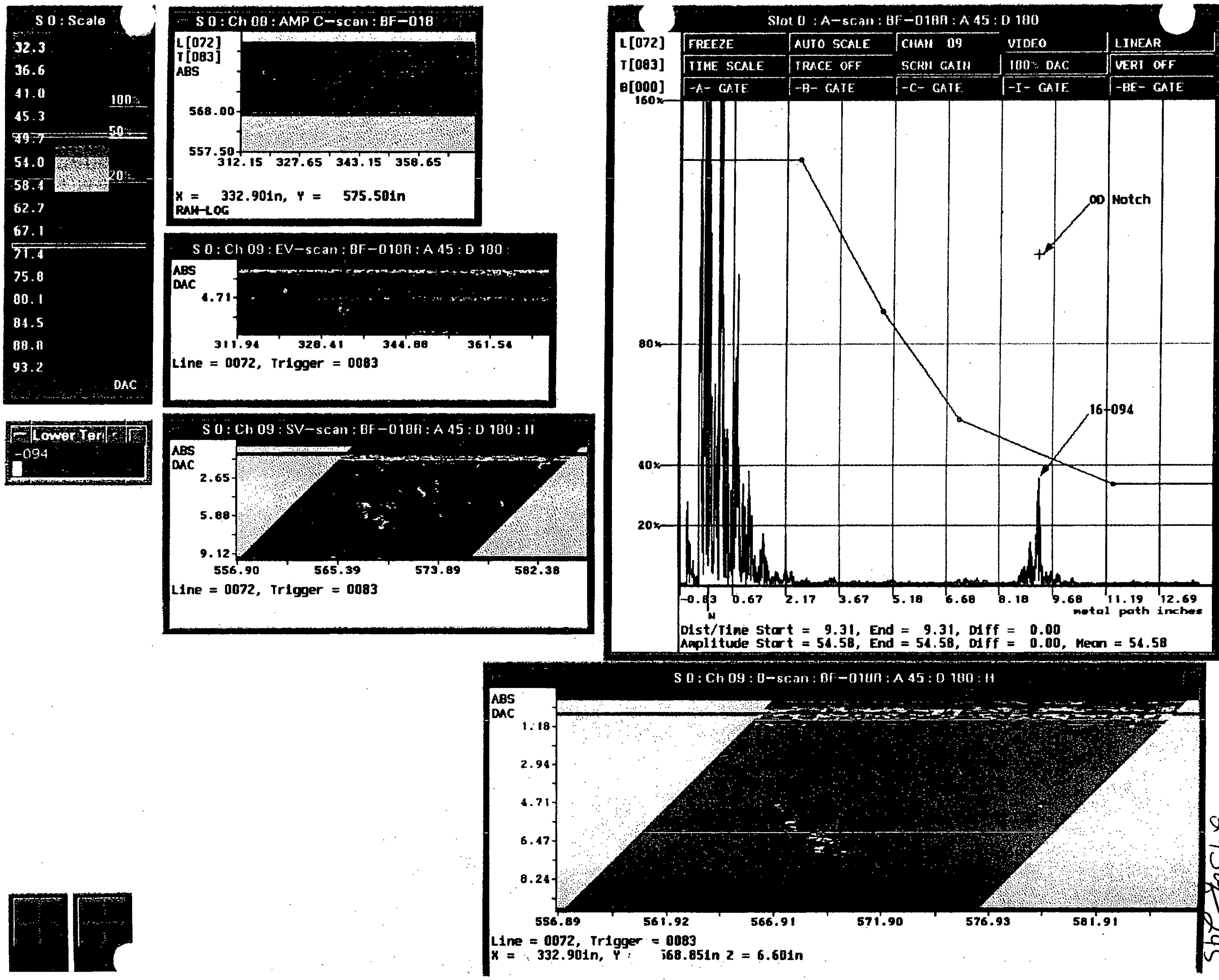

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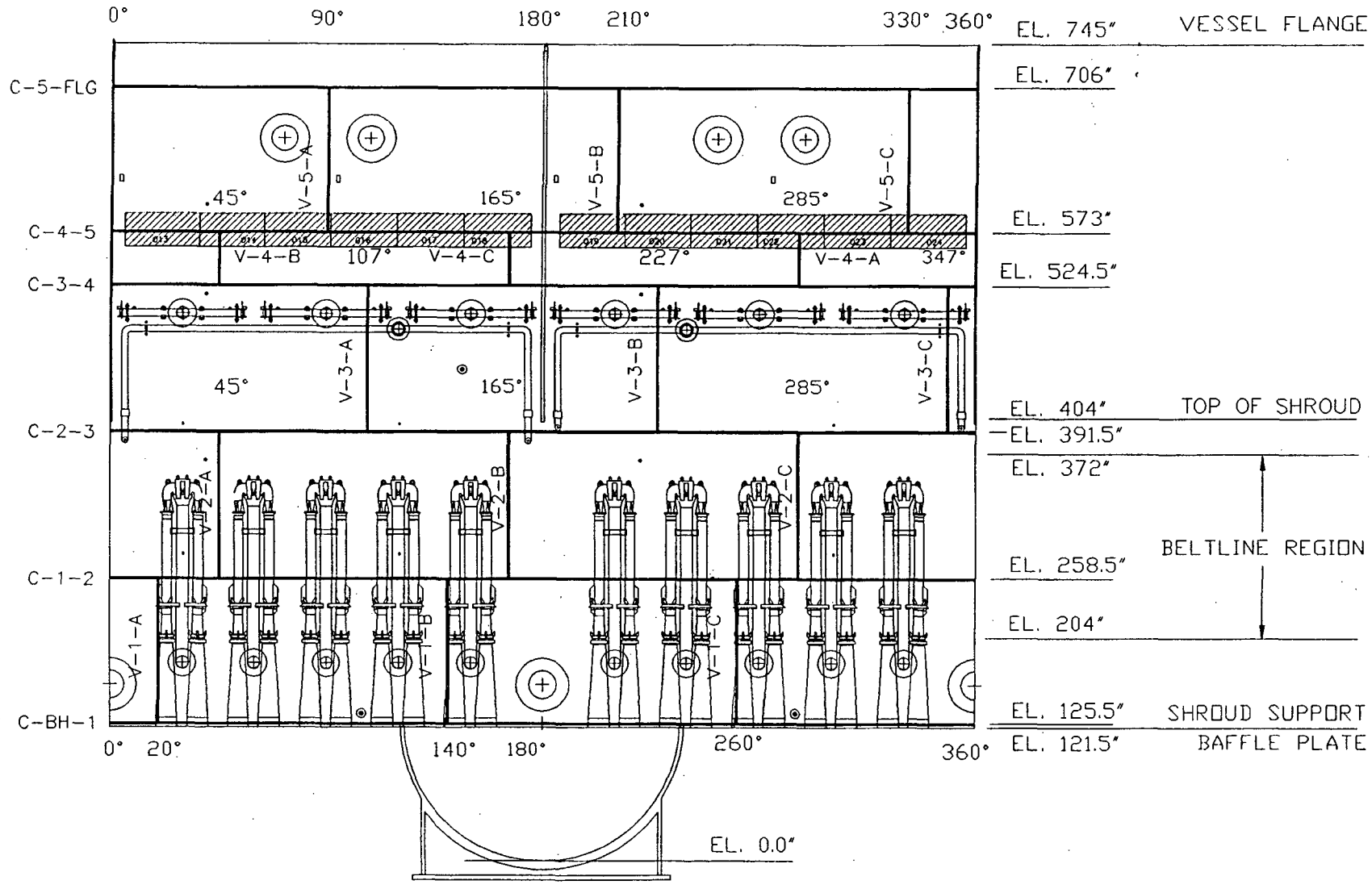
BROWNS FERRY UNIT-3 WELD LOCATIONS



EL. 745" VESSEL FLANGE

EL. 706"

EL. 573"

EL. 524.5"

EL. 404" TOP OF SHROUD

EL. 391.5"

EL. 372"

BELTLINE REGION

EL. 258.5"

EL. 204"

EL. 125.5" SHROUD SUPPORT

EL. 121.5" BAFFLE PLATE

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

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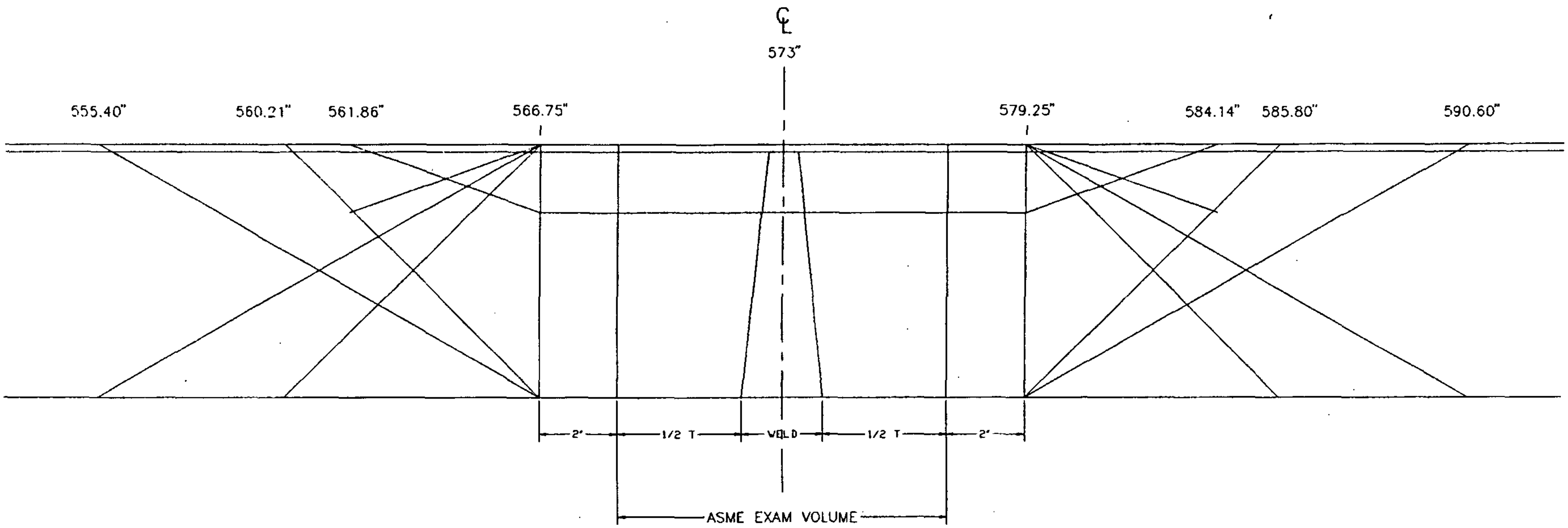

Nominal Clad T = 3/16"
Nominal Base Metal T = 6 3/8"

CH.	ANGLE	DIR.	MIN Y	MAX Y
1	0 W	0	566.75	579.25
2	0 W	90	566.75	579.25
3	70 UP	0	561.86	579.25
4	70 CW	90	566.75	579.25
5	70 DN	180	566.75	584.14
6	70 CCW	270	566.75	579.25
7	45 UP	0	560.21	579.25
8	45 CW	90	566.75	579.25
9	45 DN	180	566.75	585.80
10	45 CCW	270	566.75	579.25
11	60 UP	0	555.40	579.25
12	60 CW	90	566.75	579.25
13	60 DN	180	566.75	590.60
14	60 CCW	270	566.75	579.25
15	0 BM	0	566.75	590.60
16	0 BM	90	555.40	579.25

GE NUCLEAR ENERGY	BROWNS FERRY UNIT 3	WELD C-4-5 EXAM VOLUME	SCALE: NONE	DWG. BF3C-4-5	REV. 0

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