



GE Nuclear Energy

GERIS 2000 Examination Summary Sheet

439

Project: TVA, Browns Ferry Nuclear Plant, Unit 3

System: Reactor Pressure Vessel

Weld ID: C-3-4

ASME Code Category: B-A

Calibration Sheets: C-001, C-004, C-115, C-116, and C-117

Supporting Data: Examination Data Sheets E-12-00 thru E-12-15, Indication Data Sheets 12-001 thru 12-163, Indication Evaluation Sheets, Screen Prints, Exam Patch Location Map, Exam Coverage Plots, GERIS 2000 Setup Records and Manual Data Sheets D-034, D-035, D-036, D-037, D-040, D-041, D-044 and D-045.

Examination Summary

The ultrasonic examination of weld C-3-4 resulted in six (6) 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 97%.

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 six (6) 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/l Calculated	% a/l Allowed
12-015	circ.	subsurface	94.35"	525.43"	1.16	.75"	.444"	1.75"	6.53"	0.13	3.4	2.71
12-069	circ.	subsurface	424.65"	524.58"	2.30"	1.94"	.34"	1.75"	6.51"	0.10	2.66	2.48
12-116	circ.	subsurface	617.15"	526.14"	3.85"	2.6	.62"	.75"	6.49"	0.21	4.81	3.50
12-144	circ.	subsurface	760.10"	525.11"	.78"	.75"	.325"	2.00"	6.44"	0.10	2.45	2.39
12-145	circ.	subsurface	763.85"	525.68"	.80"	2.40"	.39"	2.40"	6.44"	0.10	3.03	2.39
12-148	circ.	subsurface	771.35"	525.07"	.87"	.43"	.511"	2.75"	6.44"	0.10	3.97	2.46

Indication 12-015 was sized with 70° RL channel 5 utilizing the PATT technique. This indication was also recorded as 12-016 and 12-020. Indication 12-015 was also recorded within the exam volume of weld V-4-B.

Indication 12-069 was sized with 45° shear wave channel 9 utilizing the SPOT technique.

Indication 12-116 and 12-117 is a combined indication in accordance with IWA-3390 and is included in the table above as 12-116. Indication 12-116 and 12-117 were sized with 45° shear wave channel 7 utilizing the SPOT technique.

Indication 12-144 was sized with 70° RL channel 5 utilizing the PATT technique. This indication was also recorded as 12-130, 12-150, and 12-157.

GERIS Analyst: <i>Cl MA</i>	GE Reviewer: <i>Leresa Kimball</i>
LEVEL: <i>III</i> DATE: <i>12/21/93</i>	LEVEL: <i>III</i> DATE: <i>12-21-93</i>
UTILITY Review: <i>J M W</i>	ANII Review: <i>Albert Todd</i>
TITLE: <i>IF</i> DATE: <i>1/26/94</i>	TITLE: <i>Albert Todd</i> DATE: <i>9/8/94</i>

GERIS 2000 Examination Summary
(Continuation)

Indication 12-145 was sized with 70° RL channel 4 utilizing the PATT technique. This indication was also recorded as 12-131, 12-158, 12-161, 12-162 and 12-163.

Indication 12-148 was sized with 70° RL channel 5 utilizing the PATT technique. This indication was also recorded as 12-132 and 12-160.

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 OD surface, Nozzles N11-A, N11-B and N4-F were recorded with the 45° and 60° shear wave scans.

Selected areas were rescanned using 45° RL search units .

The manual technique utilized 0° longitudinal, 45° and 60° shear wave search units both parallel and perpendicular to the weld axis in two directions to effectively examine the weld and adjacent base material.

No indications were recorded with the manual technique.

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

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GERIS 2000 Examination Data Sheet

Project: TVA, Browns Ferry, Unit 3

Procedure No.: GE-UT-700

Weld ID: C-3-4

Revision No.: 2

Exam Data Sheet: E-12-00

FRR No.: 0

Patch	Data Sh.	Date	Start	Stop	Min X	Max X	Min Y	Max Y	Disk No.	Examiner
BF-025	E-12-01	10/13/93	1000	1054	13.00	50.00	515.25	542.00	42	ROF
BF-026	E-12-02	10/13/93	1156	1217	79.00	100.00	526.00	542.00	42	ROF
BF-027	E-12-03	10/13/93	1247	1411	100.25	161.00	515.25	542.00	45	ROF
BF-028R	E-12-04	10/18/93	0531	0650	161.00	221.00	515.25	542.00	64A	JCG
BF-029R	E-12-05	10/13/93	1619	1742	221.00	281.00	515.25	542.00	64B	ROF
BF-030	E-12-06	10/13/93	2357	0134	281.00	341.00	515.25	542.00	46	JCG
BF-031	E-12-07	10/13/93	2240	2343	341.00	381.00	515.25	542.00	47	JCG
BF-032	E-12-08	10/15/93	0839	0936	407.25	446.00	515.25	542.00	50	ROF
BF-033	E-12-09	10/15/93	0950	1010	473.75	494.25	526.00	542.00	50	ROF
BF-034	E-12-10	10/15/93	1106	1230	494.25	554.25	515.25	542.00	52	ROF
BF-035	E-12-11	10/15/93	1256	1446	554.50	614.25	515.25	542.00	52	ROF
BF-036	E-12-12	10/15/93	1641	1808	614.50	674.25	515.25	542.00	54	ROF
BF-037	E-12-13	10/15/93	1812	1933	674.50	734.25	515.25	542.00	54	ROF
BF-038	E-12-14	10/15/93	2117	2218	734.50	775.50	515.25	542.00	56	JCG
BF-139	E-12-15	11/12/93	1332	1521	731.15	755.55	515.30	542.00	109	ROF
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NOT CODE
SEE
BF-139
011
9/8/94

Comments: N/A

Limitations: BF-025, BF-031, BF-032, BF-038 are limited due to the guide rods @ 0° and 180°.
BF-026 and BF-033 are limited due to the N-11 Nozzles @ 40° and 220°.
BF-025, BF-026, BF-032 and BF-033 are limited due to the Visual Inspection Build Up areas @ 30° and 210°.

Analyst: CL M5
Level: III Date: 12/21/93

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

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GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-3-4
Cal. ID: C-005

Exam Data Sheet No.: E-12-15
Patch ID: BF-139
Ind. Data Sheet No.: 12-161

Indication: 12-161 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
32.4%	762.49	526.90	1.41	~	~	527.50	1.71	~	~	527.80	2.01	~
23.7%	762.64	527.20	1.71	~	~	527.50	1.96	~	~	527.80	2.25	~
36.7%	762.79	~	~	~	~	527.35	1.52	~	~	~	~	~
60.6%	762.94	526.60	1.18	526.75	1.18	527.05	1.44	527.20	1.57	527.80	2.25	~
57.0%	763.09	527.05	1.12	527.80	2.14	527.95	2.38	528.10	2.40	528.40	2.65	~
64.5%	763.24	526.45	1.06	526.75	1.14	527.65	2.22	527.95	2.43	529.00	3.37	PATT
68.7%	763.39	~	~	527.05	1.20	527.20	1.41	527.35	1.52	529.00	3.16	~
39.1%	763.54	527.05	1.44	~	~	527.35	1.82	~	~	528.70	3.23	~
34.5%	763.69	527.35	1.63	~	~	527.80	2.08	~	~	529.30	3.50	~
57.2%	763.84	527.20	1.65	~	~	527.80	2.35	~	~	529.00	3.45	~
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Comments: Thruwall size determined by the PATT technique and assigned from indication 12-163.
Relook of indication 12-145.

TW = .49 L = 2.4 S = .605 w/clad

Analyst: CL Ma
Level: III Date: 12/21/93

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

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GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-005

Exam Data Sheet No.: E-12-15

Patch ID: BF-139

Ind. Data Sheet No.: 12-162

Indication: 12-162

Channel: 6

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
4.2%	763.00	~	~	~	~	526.90	0.87	~	~	~	~	~
5.7%	763.15	~	~	~	~	526.90	0.94	~	~	~	~	~
8.3%	763.30	~	~	~	~	526.90	0.87	~	~	~	~	~
8.3%	763.45	~	~	~	~	526.90	1.12	~	~	~	~	~
6.1%	763.60	~	~	~	~	527.05	1.14	~	~	~	~	~
14.6%	763.75	~	~	~	~	526.90	1.24	~	~	~	~	~
15.5%	763.90	~	~	~	~	527.05	1.25	~	~	~	~	~
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Comments: Thruwall size determined by the PATT technique and assigned from indication 12-163.

Relook of indication 12-145.

TW = .390 L = 2.40 S = .605 w/clad

Analyst: CP M5

Reviewed By: R.O. Foyman

Level: III Date: 12/21/93

Level: II Date: 12-21-93

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GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3
Weld ID: C-3-4
Cal. ID: C-005

Exam Data Sheet No.: E-12-15
Patch ID: BF-139
Ind. Data Sheet No.: 12-163

Indication: 12-163 Channel: 4 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
4.7%	761.85	~	~	~	~	528.00	15.36	~	~	~	~	~
16.5%	762.00	~	~	~	~	529.20	30.00	~	~	~	~	~
12.9%	762.15	~	~	~	~	528.60	26.72	~	~	~	~	~
6.5%	762.30	~	~	~	~	528.75	24.80	~	~	~	~	~
2.6%	762.45	~	~	~	~	527.55	17.76	~	~	~	~	~
5.7%	762.60	~	~	~	~	527.60	15.92	~	~	~	~	~
16.4%	762.75	~	~	~	~	528.15	22.40	~	~	~	~	~
20.0%	762.90	~	~	~	~	528.90	25.92	~	~	~	~	~
22.3%	763.05	~	~	~	~	527.40	15.76	~	~	~	~	PATT
47.2%	763.20	~	~	~	~	529.65	32.08	~	~	~	~	~
30.4%	763.35	~	~	~	~	529.20	30.16	~	~	~	~	~
17.3%	763.50	~	~	~	~	529.05	27.04	~	~	~	~	~
18.5%	762.65	~	~	~	~	528.75	26.69	~	~	~	~	~
20.9%	763.80	~	~	~	~	529.05	27.68	~	~	~	~	~
25.2%	763.95	~	~	~	~	528.75	27.44	~	~	~	~	~
12.7%	764.10	~	~	~	~	529.20	29.52	~	~	~	~	~
7.2%	764.25	~	~	~	~	528.30	24.16	~	~	~	~	~
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Comments: Thruwall size determined by the PATT technique.

Relook of indication 12-145

TW = .390 L = 2.40 S = .605 w/clad

Analyst: CJ Ma

Reviewed By: R.O. Forman

Level: III Date: 12/21/93

Level: II Date: 12-21-93

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GE Nuclear Energy

GERIS 2000 Examination Data Sheet

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

Exam Data Sheet No.: E-12-14
 Patch ID: BF-038
 Ind. Data Sheet Series: 12-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	12-127	12-128	12-129	12-130	12-131
				12-132	~	~	~	~
4	70 RL	90 CW	NRI	~	~	~	~	~
5	70 RL	180 DN	1	12-138	12-134	12-135	12-136	12-137
				12-139	12-140	12-141	12-142	12-143
				12-144	12-145	12-146	12-147	12-148
6	70 RL	270 CCW	NRI	~	~	~	~	~
7	45 RS	0 UP	2	12-133	~	~	~	~
				~	~	~	~	~
8	45 RS	90 CW	NRI	~	~	~	~	~
9	45 RS	180 DN	1	12-149	12-150	12-151	~	~
10	45 RS	270 CCW	NRI	~	~	~	~	~
11	60 RS	0 UP	NRI	~	~	~	~	~
12	60 RS	90 CW	NRI	~	~	~	~	~
13	60 RS	180 DN	1	12-152	12-153	12-154	12-155	12-156
				12-157	12-158	12-159	12-160	~
14	60 RS	270 CCW	NRI	~	~	~	~	~
15	0 BM	N/A	NRI	~	~	~	~	~
16	0 BM	N/A	NRI	~	~	~	~	~
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Comments:

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: CO M

Reviewed By: R.O. Foman

Level: III Date: 12/19/93

Level: II Date: 12-21-93

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GE Nuclear Energy

GERIS 2000 Examination Data Sheet

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

Exam Data Sheet No.: E-12-01
 Patch ID: BF-025
 Ind. Data Sheet Series: 12-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	12-001	12-002	~	~	~
4	70 RL	90 CW	NRI	~	~	~	~	~
5	70 RL	180 DN	1	12-003	12-004	12-005	12-006	~
6	70 RL	270 CCW	NRI	~	~	~	~	~
7	45 RS	0 UP	1, 2	12-007	12-008	12-009	12-010	~
8	45 RS	90 CW	2	~	~	~	~	~
9	45 RS	180 DN	1, 2	12-011	12-012	~	~	~
10	45 RS	270 CCW	NRI	~	~	~	~	~
11	60 RS	0 UP	~	~	~	~	~	~
12	60 RS	90 CW	~	~	~	~	~	~
13	60 RS	180 DN	1	12-013	12-014	~	~	~
14	60 RS	270 CCW	~	~	~	~	~	~
15	0 BM	N/A	~	~	~	~	~	~
16	0 BM	N/A	~	~	~	~	~	~
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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: CF MS
 Level: III Date: 12/21/93

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



GE Nuclear Energy

GERIS 2000 Examination Data Sheet

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

Exam Data Sheet No.: E-12-02
Patch ID: BF-026
Ind. Data Sheet Series: 12-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	12-015	~	~	~	~
6	70 RL	270 CCW	NRI	~	~	~	~	~
7	45 RS	0 UP	1	12-016	12-017	~	~	~
8	45 RS	90 CW	1	12-018	~	~	~	~
9	45 RS	180 DN	1, 4	12-019	12-022	~	~	~
10	45 RS	270 CCW	NRI	~	~	~	~	~
11	60 RS	0 UP	1	12-020	~	~	~	~
12	60 RS	90 CW	NRI	~	~	~	~	~
13	60 RS	180 DN	4	12-021	~	~	~	~
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: Ch M
 Level: III Date: 12/19/93

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

R1153



GE Nuclear Energy

GERIS 2000 Examination Data Sheet

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

Exam Data Sheet No.: E-12-03
Patch ID: BF-027
Ind. Data Sheet Series: 12-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	12-023	~	~	~	~
6	70 RL	270 CCW	NRI	~	~	~	~	~
7	45 RS	0 UP	NRI	~	~	~	~	~
8	45 RS	90 CW	1	12-024	12-025	12-026	12-027	~
9	45 RS	180 DN	NRI	~	~	~	~	~
10	45 RS	270 CCW	1	12-028	12-029	12-030	~	~
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: Ch Ma
 Level: III Date: 12/19/93

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

R1153



GE Nuclear Energy

GERIS 2000 Examination Data Sheet

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

Exam Data Sheet No.: E-12-04
Patch ID: BF-028R
Ind. Data Sheet Series: 12-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	12-031	12-032	12-033	~	~
4	70 RL	90 CW	NRI	~	~	~	~	~
5	70 RL	180 DN	1	12-034	12-035	~	~	~
6	70 RL	270 CCW	NRI	~	~	~	~	~
7	45 RS	0 UP	1	12-036	~	~	~	~
8	45 RS	90 CW	NRI	~	~	~	~	~
9	45 RS	180 DN	1	12-037	~	~	~	~
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: Ch M
Level: III Date: 12/19/93

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



GE Nuclear Energy

R1153

GERIS 2000 Examination Data Sheet

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

Exam Data Sheet No.: E-12-06
Patch ID: BF-030
Ind. Data Sheet Series: 12-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	2	12-043	~	~	~	~
8	45 RS	90 CW	2	12-044	~	~	~	~
9	45 RS	180 DN	2	12-045	~	~	~	~
10	45 RS	270 CCW	2	12-046	~	~	~	~
11	60 RS	0 UP	2	~	~	~	~	~
12	60 RS	90 CW	2	~	~	~	~	~
13	60 RS	180 DN	2	~	~	~	~	~
14	60 RS	270 CCW	2	~	~	~	~	~
15	0 BM	N/A	NRI	~	~	~	~	~
16	0 BM	N/A	NRI	~	~	~	~	~
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Comments: (2) OD surface geometry: thermo couples @ 130°.

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: C.A. Medina
Level: III Date: 12/19/93

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

R1153



GE Nuclear Energy

GERIS 2000 Examination Data Sheet

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

Exam Data Sheet No.: E-12-08
Patch ID: BF-032
Ind. Data Sheet Series: 12-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	12-055	12-056	12-057A	~	~
4	70 RL	90 CW	NRI	~	~	~	~	~
5	70 RL	180 DN	NRI	~	~	~	~	~
6	70 RL	270 CCW	NRI	~	~	~	~	~
7	45 RS	0 UP	1	12-057B	12-058	12-059	12-060	12-061
			1	12-062	12-063	12-064	~	~
8	45 RS	90 CW	1	12-065	12-066	~	~	~
9	45 RS	180 DN	1	12-067	12-068	12-069	12-070	12-071
			1	12-072	~	~	~	~
10	45 RS	270 CCW	1	12-073	~	~	~	~
11	60 RS	0 UP	1	12-074	12-075	12-076	~	~
12	60 RS	90 CW	NRI	~	~	~	~	~
13	60 RS	180 DN	1	12-077	12-078	~	~	~
14	60 RS	270 CCW	NRI	~	~	~	~	~
15	0 BM	N/A	NRI	~	~	~	~	~
16	0 BM	N/A	NRI	~	~	~	~	~
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Comments:

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: Ch Ma

Reviewed By: R.O. Foman

Level: III Date: 12/19/93

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Examination Data Sheet

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

Exam Data Sheet No.: E-12-09
Patch ID: BF-033
Ind. Data Sheet Series: 12-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 (5)	12-080	12-081	~	~	~
8	45 RS	90 CW	NRI	~	~	~	~	~
9	45 RS	180 DN	1, 4, (5)	12-079	12-082	12-083	~	~
10	45 RS	270 CCW	NRI	~	~	~	~	~
11	60 RS	0 UP	1	12-084	~	~	~	~
12	60 RS	90 CW	NRI	~	~	~	~	~
13	60 RS	180 DN	1,2,4	12-085	12-086	12-087	12-088	~
14	60 RS	270 CCW	NRI	~	~	~	~	~
15	0 BM	N/A	NRI	~	~	~	~	~
16	0 BM	N/A	NRI	~	~	~	~	~
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Comments: (5) Segregates observed shell 4 side.

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: CP M...
Level: III Date: 12/19/93

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

R1153



GE Nuclear Energy

GERIS 2000 Examination Data Sheet

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

Exam Data Sheet No.: E-12-10
Patch ID: BF-034
Ind. Data Sheet Series: 12-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	12-089	12-090	~	~	~
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	12-091	12-092	12-093	12-094	12-095
				12-096	~	~	~	~
8	45 RS	90 CW	3	~	~	~	~	~
9	45 RS	180 DN	1	12-097	12-098	12-099	12-100	12-101
10	45 RS	270 CCW	NRI	~	~	~	~	~
11	60 RS	0 UP	1, 3	12-102	12-103	12-104	12-105	~
12	60 RS	90 CW	3	~	~	~	~	~
13	60 RS	180 DN	1	12-106	12-107	12-108	~	~
14	60 RS	270 CCW	NRI	~	~	~	~	~
15	0 BM	N/A	NRI	~	~	~	~	~
16	0 BM	N/A	NRI	~	~	~	~	~
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Comments: (3) OD attachments.

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

Analyst: CL Ms

Reviewed By: R.O. Forman

Level: III Date: 12/19/93

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Examination Data Sheet

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

Exam Data Sheet No.: E-12-11
 Patch ID: BF-035
 Ind. Data Sheet Series: 12-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	12-109	~	~	~	~
4	70 RL	90 CW	NRI	~	~	~	~	~
5	70 RL	180 DN	1	12-110	12-111	12-112	12-113	~
6	70 RL	270 CCW	NRI	~	~	~	~	~
7	45 RS	0 UP	NRI	~	~	~	~	~
8	45 RS	90 CW	3	~	~	~	~	~
9	45 RS	180 DN	3	~	~	~	~	~
10	45 RS	270 CCW	3	~	~	~	~	~
11	60 RS	0 UP	NRI	~	~	~	~	~
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 = OD surface attachments 554.5 and 558.5.

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 Ma
 Level: III Date: 12/19/93

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

R1153



GE Nuclear Energy

GERIS 2000 Examination Data Sheet

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-004

Exam Data Sheet No.: E-12-12

Patch ID: BF-036

Ind. Data Sheet Series: 12-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	12-114	12-115	~	~	~
8	45 RS	90 CW	NRI	~	~	~	~	~
9	45 RS	180 DN	1	12-116	12-117	12-118	12-119	~
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: CL Mas

Reviewed By: R.D. Forman

Level: III Date: 12/19/93

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

**GERIS 2000 Indication
Data Sheet**

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-001

Exam Data Sheet No.: E-12-01

Patch ID: BF-025

Ind. Data Sheet No.: 12-001

Indication: 12-001

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
22.3%	19.90	~	~	~	~	522.00	34.96	~	~	~	~	~
39.1%	20.15	~	~	~	~	522.00	34.96	~	~	~	~	~
39.1%	20.40	~	~	~	~	522.75	29.12	~	~	~	~	~
17.3%	20.65	~	~	~	~	522.25	33.20	~	~	~	~	~
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Comments: Thruwall size was determined by the PATT technique.

TW = .249 L = 1.0 S = 1.342 w/clad

Analyst: CE M5

Reviewed By: R.O. Foman

Level: III **Date:** 12/19/93

Level: II **Date:** 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-025

Exam Data Sheet No.: E-12-01
Ind. Data Sheet No.: 12-001
Indication: 12-001

Flaw Thruwall Dimension = 0.25
Flaw Length "l" = 1.00
Separation with clad "S" = 1.34
Surface Separation "S" = 1.15

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 2.35	Allowed 2.70

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

Flaw is Subsurface

Allowed a/t = 2.70%
a/t = 1.95%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-01
 Patch ID: BF-025
 Ind. Data Sheet No.: 12-002

Indication: 12-002 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
30.4%	22.15	~	~	~	~	524.00	15.52	~	~	~	~	~
39.1%	22.40	~	~	~	~	524.25	13.44	~	~	~	~	~
41.6%	22.65	~	~	~	~	524.00	15.52	~	~	~	~	~
44.3%	22.90	~	~	~	~	524.25	13.76	~	~	~	~	~
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Comments: Thruwall size was determined by the PATT technique.

TW = .250 L = 1.0 S = .338 w/clad

Analyst: CG M5
 Level: III Date: 12/19/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-025

Exam Data Sheet No.: E-12-01
Ind. Data Sheet No.: 12-002
Indication: 12-002

Flaw Thruwall Dimension = 0.25
Flaw Length "l" = 1.00
Separation with clad "S" = 0.34
Surface Separation "S" = 0.15

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 2.35	Allowed 2.70

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

Flaw is Subsurface

Allowed a/t = 2.70%
a/t = 1.95%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-01
Patch ID: BF-025
Ind. Data Sheet No.: 12-003

Indication: 12-003 **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%	12.35	~	~	~	~	526.45	12.24	~	~	~	~	~
82.9%	12.60	~	~	~	~	525.70	14.24	~	~	~	~	~
94.0%	12.85	~	~	~	~	526.70	14.32	~	~	~	~	PATT
34.5%	13.10	~	~	~	~	526.45	12.24	~	~	~	~	~
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Comments: Thruwall size was determined by the PATT technique.

TW = .225 L = 1.0 S = .273 w/clad

Analyst: CG Meadows
Level: III **Date:** 12/19/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-025

Exam Data Sheet No.: E-12-01
Ind. Data Sheet No.: 12-003
Indication: 12-003

Flaw Thruwall Dimension = 0.23
Flaw Length "l" = 1.00
Separation with clad "S" = 0.27
Surface Separation "S" = 0.08

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	2.60 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	1.92

a = 0.113
a/l value = 0.113
Y = 0.738

Flaw is Subsurface

Allowed a/t = 1.92%
a/t = 1.76%

Comments:

B1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-01
Patch ID: BF-025
Ind. Data Sheet No.: 12-004

Indication: 12-004 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
32.4%	15.10	~	~	~	~	527.70	31.92	~	~	~	~	~
57.0%	15.35	~	~	~	~	527.70	31.68	~	~	~	~	PATT
57.0%	15.60	~	~	~	~	527.95	33.52	~	~	~	~	~
39.1%	15.85	~	~	~	~	527.95	33.68	~	~	~	~	~
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Comments: Thruwall size was determined by the PATT technique.

TW = .212 L = 1.0 S = 1.476 w/clad

Analyst: CR M

Level: III Date: 12/17/93

Reviewed By: R.O. Farman

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-025

Exam Data Sheet No.: E-12-01
Ind. Data Sheet No.: 12-004
Indication: 12-004

Flaw Thruwall Dimension = 0.21
Flaw Length "l" = 1.00
Separation with clad "S" = 1.48
Surface Separation "S" = 1.29

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	2.24	2.55 Y
0.15	2.50	2.9	~	~
0.20	2.80	3.3	~	~
0.25	3.30	3.8	~	~
0.30	3.80	4.4	~	~
0.35	4.40	5.1	~	~
0.40	5.00	5.8	~	~
0.45	5.10	6.7	~	~
0.50	5.20	7.6	~	~
			Allowed 2.24	Allowed 2.55

a = 0.106
a/l value = 0.106
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.55%
a/t = 1.66%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-01
Patch ID: BF-025
Ind. Data Sheet No.: 12-005

Indication: 12-005 **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
20.9%	19.85	~	~	~	~	528.70	31.44	~	~	~	~	~
34.5%	20.10	~	~	~	~	528.45	29.60	~	~	~	~	PATT
44.3%	20.35	~	~	~	~	528.45	29.60	~	~	~	~	~
23.7%	20.65	~	~	~	~	528.45	29.84	~	~	~	~	~
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Comments: Thruwall size was determined by the PATT technique.

TW = .196 L = 1.0 S = 1.171 w/clad

Analyst: C. A. Mason
Level: III **Date:** 12/19/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-025

Exam Data Sheet No.: E-12-01
Ind. Data Sheet No.: 12-005
Indication: 12-005

Flaw Thruwall Dimension = 0.20
Flaw Length "l" = 1.00
Separation with clad "S" = 1.17
Surface Separation "S" = 0.98

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	2.19	2.49 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
			2.19	2.49

a = 0.098
a/l value = 0.098
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.49%
a/t = 1.54%

Comments:



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-01
Patch ID: BF-025
Ind. Data Sheet No.: 12-006

Indication: 12-006 **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
18.3%	22.10	~	~	~	~	526.70	14.48	~	~	~	~	~
16.3%	22.35	~	~	~	~	526.95	16.16	~	~	~	~	~
44.3%	22.60	~	~	~	~	526.70	14.32	~	~	~	~	~
19.6%	22.85	~	~	~	~	526.95	16.08	~	~	~	~	~
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Comments: No apparent tip signals.
Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: CJ M
Level: II Date: 12/19/93

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

R1153



GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-01
Patch ID: BF-025
Ind. Data Sheet No.: 12-007

Indication: 12-007 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
22.3%	27.71	~	~	~	~	524.30	9.62	~	~	~	~	~
77.9%	27.96	~	~	524.05	9.84	524.30	9.60	524.55	9.43	~	~	~
155.1%	28.21	~	~	523.55	10.21	524.80	9.28	525.30	8.87	~	~	~
211.8%	28.46	~	~	523.30	10.40	524.80	9.25	525.30	8.89	~	~	0 dB
199.1%	28.71	~	~	523.30	10.37	524.55	9.46	525.30	8.87	~	~	~
155.1%	28.96	~	~	523.30	10.40	524.55	9.46	525.30	9.06	~	~	~
64.5%	29.21	~	~	~	~	524.55	9.54	~	~	~	~	~
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Comments: 0 dB down.
OD surface geometry
This indication also seen with Ch. 8, 9, and 10.

Analyst: CL MS
Level: III Date: 12/19/93

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



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-01
Patch ID: BF-025
Ind. Data Sheet No.: 12-008

Indication: 12-008

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
77.9%	32.46	~	~	~	~	524.80	9.35	~	~	~	~	~
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Comments: OD surface Geometry
This indication also seen with Ch. 8, 9, and 10.
Seen 31.94 to 33.44
Outside exam volume

Analyst: CG MS
Level: III Date: 12/19/93

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

R1153



GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-01
Patch ID: BF-025
Ind. Data Sheet No.: 12-009

Indication: 12-009 **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
25.2%	45.46	~	~	~	~	522.30	4.79	~	~	~	~	~
77.9%	45.71	~	~	522.55	4.48	522.80	4.39	523.05	4.20	~	~	SPOT
77.9%	45.96	~	~	522.30	4.73	522.55	4.54	522.80	4.36	~	~	~
41.6%	46.21	~	~	~	~	522.55	4.54	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .226 L = .75 S = 2.99 w/clad

Analyst: CJ Mas
Level: III Date: 12/19/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-025

Exam Data Sheet No.: E-12-01
Ind. Data Sheet No.: 12-009
Indication: 12-009

Flaw Thruwall Dimension = 0.23
Flaw Length "l" = 0.75
Separation with clad "S" = 2.99
Surface Separation "S" = 2.80

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 2.50	Allowed 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:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-001

Exam Data Sheet No.: E-12-01

Patch ID: BF-025

Ind. Data Sheet No.: 12-010

Indication: 12-010

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
57.0%	46.96	~	~	~	~	520.80	9.16	~	~	~	~	-11.42 dB
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Comments: OD surface (weld build-up) seen throughout BF-025.

Analyst: CF MS
Level: III Date: 12/19/93

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



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-01
Patch ID: BF-025
Ind. Data Sheet No.: 12-011

Indication: 12-011

Channel: 9

Angle: 45

Direction: 180

Amp.	X	20% Min Y	MP	50% Min Y	MP	@ Max Y	MP	50% Max Y	MP	20% Max Y	MP	Remarks
20.9%	9.65	~	~	~	~	528.00	3.72	~	~	~	~	~
15.3%	9.90	~	~	~	~	528.25	3.89	~	~	~	~	SPOT
13.5%	10.15	~	~	~	~	527.25	2.82	~	~	~	~	~
5.8%	10.40	~	~	~	~	527.75	3.16	~	~	~	~	~
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Comments: Thruwall size was determined by the PATT technique.

TW = .63 L = .75 S = 2.315 w/clad

Analyst: CF MS

Reviewed By: R.D. Fournan

Level: III Date: 12/19/93

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-025

Exam Data Sheet No.: E-12-01
Ind. Data Sheet No.: 12-011
Indication: 12-011

Flaw Thruwall Dimension = 0.63
Flaw Length "l" = 0.75
Separation with clad "S" = 2.32
Surface Separation "S" = 2.13

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	5.04	6.16 Y
0.45	5.10	6.7	~	~
0.50	5.20	7.6	~	~
			Allowed 5.04	Allowed 6.16

a = 0.315
 a/l value = 0.420
 Y = 1.000

Flaw is Subsurface

Allowed a/t = 6.16%
 a/t = 4.94%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-01
Patch ID: BF-025
Ind. Data Sheet No.: 12-012

Indication: 12-012

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%	19.90	~	~	~	~	527.00	2.11	~	~	~	~	PATT
23.7%	20.15	~	~	~	~	527.25	2.33	~	~	~	~	~
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Comments: Thruwall size was determined by the PATT technique.

TW = .29 L = .25 S = 1.50 w/clad

Analyst: Cl M

Reviewed By: R.O. Forman

Level: III Date: 12/15/93

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-025

Exam Data Sheet No.: E-12-01
Ind. Data Sheet No.: 12-012
Indication: 12-012

Flaw Thruwall Dimension = 0.29
Flaw Length "l" = 0.25
Separation with clad "S" = 1.50
Surface Separation "S" = 1.31

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 = 0.145
a/l value = 0.500
Y = 1.000

Flaw is Subsurface

Allowed a/t = 7.60%
a/t = 2.27%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-01
Patch ID: BF-025
Ind. Data Sheet No.: 12-013

Indication: 12-013 **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
88.2%	10.04	~	~	526.20	1.18	526.45	1.37	526.70	1.66	526.95	1.81	~
155.1%	10.29	~	~	526.20	1.20	526.45	1.38	526.95	1.85	527.20	2.15	~
106.4%	10.54	525.95	1.19	~	~	526.70	1.64	527.20	2.18	527.45	2.36	~
88.2%	10.79	526.20	1.36	526.45	1.42	526.70	1.64	~	~	527.20	2.13	~
34.5%	11.04	~	~	~	~	526.95	1.81	~	~	~	~	~
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Comments: Thruwall size was determined by the ASME 50% method.

TW = .5 L = .75 S = .44 w/clad

Analyst: CF M.S.

Reviewed By: R.O. Foman

Level: III Date: 12/21/93

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
 Weld ID: C-3-4
 Patch: BF-025

Exam Data Sheet No.: E-12-01
 Ind. Data Sheet No.: 12-013
 Indication: 13-013

Flaw Thruwall Dimension = 0.50
 Flaw Length "l" = 0.75
 Separation with clad "S" = 0.44
 Surface Separation "S" = 0.25

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	~	~
0.20	2.80	3.3	~	~
0.25	3.30	3.8	~	~
0.30	3.80	4.4	4.20	4.87 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
			4.20	4.87

a = 0.250
 a/l value = 0.333
 Y = 1.000

Flaw is Subsurface

Allowed a/t = 4.87%
 a/t = 3.92%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-01
Patch ID: BF-025
Ind. Data Sheet No.: 12-014

Indication: 12-014 **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
50.2%	15.29	526.45	2.53	~	~	526.70	2.80	~	~	527.45	3.52	~
68.7%	15.54	526.45	2.58	~	~	526.95	3.03	527.20	3.30	527.95	3.96	SPOT
32.4%	15.79	~	~	~	~	526.95	2.98	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .36 L = .5 S = 1.335 w/clad

Analyst: CM
Level: III Date: 12/19/23

Reviewed By: CM
Level: III Date: 1/25/24

R 1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-025

Exam Data Sheet No.: E-12-01
Ind. Data Sheet No.: 12-014
Indication: 12-014

Flaw Thruwall Dimension = 0.36
Flaw Length "l" = 0.50
Separation with clad "S" = 1.34
Surface Separation "S" = 1.15

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	4.52	5.24 Y
0.40	5.00	5.8	~	~
0.45	5.10	6.7	~	~
0.50	5.20	7.6	~	~
			Allowed 4.52	Allowed 5.24

a = 0.180
a/l value = 0.360
Y = 1.000

Flaw is Subsurface

Allowed a/t = 5.24%
a/t = 2.82%

Comments:

R1153



GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-02
Patch ID: BF-026
Ind. Data Sheet No.: 12-015

Indication: 12-015 **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
12.7%	93.60	~	~	~	~	529.45	35.84	~	~	~	~	~
19.6%	93.85	~	~	~	~	528.20	33.84	~	~	~	~	~
25.2%	94.10	~	~	~	~	530.70	31.60	~	~	~	~	~
44.3%	94.35	~	~	~	~	528.20	25.84	~	~	~	~	~
39.1%	94.60	~	~	~	~	529.70	24.08	~	~	~	~	PATT
39.1%	94.85	~	~	~	~	529.70	26.00	~	~	~	~	~
14.4%	95.10	~	~	~	~	529.45	26.48	~	~	~	~	~
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Comments: Thruwall size was determined by the PATT technique.
 T measured = 6.72 with clad = 6.53 without clad.

TW = .444 L = 1.75 S = .94 w/clad

Analyst: *C. J. Mc...*
 Level: *III* Date: *12/19/93*

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-025

Exam Data Sheet No.: E-12-02
Ind. Data Sheet No.: 12-015
Indication: 12-015

Flaw Thruwall Dimension = 0.444
Flaw Length "l" = 1.75
Separation with clad "S" = 0.94
Surface Separation "S" = 0.75

T measured = 6.53
Clad T nominal = 0.19

Flaw is unacceptable by Table IWB-3510-1

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

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

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

Flaw is Subsurface

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

Comments: T measured = 6.72 with clad = 6.53 without clad.

R1153



GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-02
Patch ID: BF-026
Ind. Data Sheet No.: 12-016

Indication: 12-016 **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
25.4%	93.71	~	~	~	~	524.05	2.40	~	~	~	~	~
25.2%	93.96	~	~	~	~	524.05	2.50	~	~	~	~	~
41.6%	94.21	~	~	~	~	523.80	2.74	~	~	~	~	~
39.1%	94.46	~	~	~	~	523.80	2.74	~	~	~	~	SPOT
28.6%	94.71	~	~	~	~	523.80	2.74	~	~	~	~	~
15.3%	94.96	~	~	~	~	523.80	2.55	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .339 L = 1.25 S = 1.767 w/clad

Analyst: CR MA
Level: III Date: 12/19/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-026

Exam Data Sheet No.: E-12-02
Ind. Data Sheet No.: 12-016
Indication: 12-016

Flaw Thruwall Dimension = 0.34
Flaw Length "l" = 1.25
Separation with clad "S" = 1.77
Surface Separation "S" = 1.58

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	2.41	2.78 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
			2.41	2.78

a = 0.170
a/l value = 0.136
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.78%
a/t = 2.66%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-001

Exam Data Sheet No.: E-12-02

Patch ID: BF-026

Ind. Data Sheet No.: 12-017

Indication: 12-017

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
8.2%	84.21	~	~	~	~	522.55	4.41	~	~	~	~	~
34.5%	84.46	~	~	~	~	522.55	4.41	~	~	~	~	SPOT
25.2%	84.71	~	~	~	~	522.80	4.22	~	~	~	~	~
6.0%	84.96	~	~	~	~	522.55	4.41	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .226 L = .75 S = 3.004 w/clad

Analyst: CE Meadows

Reviewed By: R.O. Forman

Level: III Date: 12/19/93

Level: I Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-026

Exam Data Sheet No.: E-12-02
Ind. Data Sheet No.: 12-017
Indication: 12-017

Flaw Thruwall Dimension = 0.23
Flaw Length "l" = 0.75
Separation with clad "S" = 3.00
Surface Separation "S" = 2.81

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:



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

R1153

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

Exam Data Sheet No.: E-12-02
Patch ID: BF-026
Ind. Data Sheet No.: 12-018

Indication: 12-018 **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
4.4%	524.05	~	~	~	~	86.04	4.77	~	~	~	~	~
10.7%	524.30	~	~	~	~	56.29	4.64	~	~	~	~	SPOT
6.9%	524.55	~	~	~	~	86.29	4.56	~	~	~	~	~
2.9%	524.80	~	~	~	~	86.04	4.88	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .198 L = .75 S = 3.18 w/clad

Analyst: CB Ma

Reviewed By: R.O. Forman

Level: III Date: 12/19/93

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-026

Exam Data Sheet No.: E-12-02
Ind. Data Sheet No.: 12-018
Indication: 12-018

Flaw Thruwall Dimension = 0.20
Flaw Length "l" = 0.75
Separation with clad "S" = 3.18
Surface Separation "S" = 2.99

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	2.39	2.76 Y
0.15	2.50	2.9	~	~
0.20	2.80	3.3	~	~
0.25	3.30	3.8	~	~
0.30	3.80	4.4	~	~
0.35	4.40	5.1	~	~
0.40	5.00	5.8	~	~
0.45	5.10	6.7	~	~
0.50	5.20	7.6	~	~
			Allowed 2.39	Allowed 2.76

a = 0.099
a/l value = 0.132
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.76%
a/t = 1.55%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-02
Patch ID: BF-026
Ind. Data Sheet No.: 12-019

Indication: 12-019 **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
8.2%	71.65	~	~	~	~	529.25	4.98	~	~	~	~	~
23.7%	71.90	~	~	~	~	529.25	4.93	~	~	~	~	~
23.7%	72.15	~	~	~	~	529.25	4.93	~	~	~	~	~
14.4%	72.40	~	~	~	~	529.50	5.10	~	~	~	~	~
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Comments: Thruwall determined by the SPOT technique

TW = .240 L = .75 S = 2.994

Analyst: CE Ma

Reviewed By: R.O. Forman

Level: III Date: 12/19/93

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-026

Exam Data Sheet No.: E-12-02
Ind. Data Sheet No.: 12-019
Indication: 12-019

Flaw Thruwall Dimension = 0.24
Flaw Length "l" = 0.75
Separation with clad "S" = 2.99
Surface Separation "S" = 2.80

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	2.56	2.98 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 2.56	Allowed 2.98

a = 0.120
a/l value = 0.160
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.98%
a/t = 1.88%

Comments:

R 1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-02
Patch ID: BF-026
Ind. Data Sheet No.: 12-020

Indication: 12-020 **Channel:** 11 **Angle:** 60 **Direction:** 0

Amp.	X	20%		50%		@ Max		50%		20%		Remarks
		Min Y	MP	Min Y	MP	Y	MP	Max Y	MP	Max Y	MP	
36.7%	93.85	522.30	4.02	~	~	522.55	3.86	~	~	522.80	3.55	~
128.4%	94.10	522.05	4.18	522.30	4.02	522.55	3.73	523.30	3.14	523.55	3.30	
82.9%	94.35	522.05	4.18	522.55	3.78	522.80	3.55	523.30	3.11	~	~	~
41.6%	94.60	522.05	4.18	~	~	522.80	3.59	~	~	523.30	3.18	~
23.7%	94.85	~	~	~	~	522.30	4.02	~	~	~	~	~
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Comments: No apparent tip signals.
Thruwall size was determined by the ASME 50% method.

TW = .455 L = .75 S = 1.637 w/clad

Analyst: CF M5

Reviewed By: R.O. Forman

Level: III Date: 12/19/93

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-026

Exam Data Sheet No.: E-12-02
Ind. Data Sheet No.: 12-020
Indication: 12-020

Flaw Thruwall Dimension = 0.46
Flaw Length "l" = 0.75
Separation with clad "S" = 1.64
Surface Separation "S" = 1.45

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	3.84	4.45 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 3.84	Allowed 4.45

a = 0.228
a/l value = 0.303
Y = 1.000

Flaw is Subsurface

Allowed a/t = 4.45%
a/t = 3.57%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-001

Exam Data Sheet No.: E-12-02

Patch ID: BF-026

Ind. Data Sheet No.: 12-021

Indication: 12-021

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
308.7%	87.54	~	~	~	~	527.70	11.17	~	~	~	~	+11.42 Notch
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Comments: OD geometry due to the N11-A Nozzle.

Analyst: CL M
Level: III Date: 12/19/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-02
Patch ID: BF-026
Ind. Data Sheet No.: 12-022

Indication: 12-022 **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
614.5%	87.15	~	~	~	~	524.75	8.90	~	~	~	~	
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Comments: OD geometry due to the N11-A Nozzle.

Analyst: C. Med
Level: III **Date:** 12/15/93

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



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-03
 Patch ID: BF-027
 Ind. Data Sheet No.: 12-023

Indication: 12-023

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%	139.85	~	~	~	~	526.70	35.84	~	~	~	~	
100.0%	140.10	~	~	~	~	526.70	35.04	~	~	~	~	
165.0%	140.35	~	~	~	~	526.70	35.04	~	~	~	~	
73.1%	140.60	~	~	~	~	526.95	36.64	~	~	~	~	
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Comments: No apparent tip signals.
 Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: CF MA
 Level: III Date: 12/19/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-001

Exam Data Sheet No.: E-12-03

Patch ID: BF-027

Ind. Data Sheet No.: 12-024

Indication: 12-024

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
12.7%	140.04	~	~	~	~	525.30	2.97	~	~	~	~	~
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Comments: Weld repair area.

Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: CL M

Level: TL **Date:** 12/19/93

Reviewed By: R.O. Forman

Level: TL **Date:** 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-03
Patch ID: BF-027
Ind. Data Sheet No.: 12-025

Indication: 12-025 **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
6.0%	140.04	~	~	~	~	525.30	4.83	~	~	~	~	~
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Comments: Weld repair area.

Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: CJ Martin
 Level: III Date: 12/19/93

Reviewed By: R.O. Foman
 Level: II Date: 12-21-93
(R) 12-21-93



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

R1153

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

Exam Data Sheet No.: E-12-03
Patch ID: BF-027
Ind. Data Sheet No.: 12-026

Indication: 12-026

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
10.5%	144.29	~	~	~	~	525.80	2.94	~	~	~	~	~
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Comments: Weld repair area.
Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: C. J. [Signature]
Level: III Date: 12/19/93

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



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

R1153

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-001

Exam Data Sheet No.: E-12-03

Patch ID: BF-027

Ind. Data Sheet No.: 12-027

Indication: 12-027

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
8.7%	143.79	~	~	~	~	525.80	3.65	~	~	~	~	~
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Comments: Weld repair area.
Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: CL MS

Reviewed By: R.O. Forman

Level: III Date: 12/19/93

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-03
Patch ID: BF-027
Ind. Data Sheet No.: 12-028

Indication: 12-028 Channel: 10 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
7.7%	143.96	~	~	~	~	525.00	3.11	~	~	~	~	~
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Comments: Weld repair area.
Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: CJ M
Level: III Date: 12/19/93

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



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-03
Patch ID: BF-027
Ind. Data Sheet No.: 12-029

Indication: 12-029 Channel: 10 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
13.5%	144.71	~	~	~	~	525.00	4.21	~	~	~	~	~
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Comments: Weld repair area.
Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: CE M5
Level: IV Date: 12/19/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-001

Exam Data Sheet No.: E-12-03

Patch ID: BF-027

Ind. Data Sheet No.: 12-030

Indication: 12-030

Channel: 10

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
7.2%	145.21	~	~	~	~	525.00	4.93	~	~	~	~	~
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Comments: Weld repair area.
 Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: *CF M* Reviewed By: *R.D. Forman*
 Level: *II* Date: *12/19/93* Level: *II* Date: *12-21-93*

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-04
Patch ID: BF-028R
Ind. Data Sheet No.: 12-031

Indication: 12-031 **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
14.4%	165.40	~	~	~	~	525.00	25.76	~	~	~	~	~
53.5%	165.65	~	~	~	~	523.50	21.76	~	~	~	~	~
64.5%	165.90	~	~	~	~	523.25	23.92	~	~	~	~	PATT
30.4%	166.15	~	~	~	~	523.25	23.76	~	~	~	~	~
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Comments: Thruwall size was determined by the PATT technique.

TW = .204 L = 1.0 S = 1.077 w/clad

Analyst: *C. J. Miller*
 Level: *III* Date: *12/19/93*

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

R1153



GE Nuclear Energy

**GERIS 2000 Indication
Evaluation Sheet**

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-028R

Exam Data Sheet No.: E-12-04
Ind. Data Sheet No.: 12-031
Indication: 12-031

Flaw Thruwall Dimension = 0.20
Flaw Length "I" = 1.00
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	2.20	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:

65 of 439

00065

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-04
Patch ID: BF-028R
Ind. Data Sheet No.: 12-032

Indication: 12-032 **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%	176.15	~	~	~	~	524.50	29.44	~	~	~	~	~
39.1%	176.40	~	~	~	~	524.50	29.44	~	~	~	~	~
11.2%	176.65	~	~	~	~	524.25	30.72	~	~	~	~	~
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Comments: No apparent tip signals.
 Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: CR Miles
Level: III **Date:** 12/19/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-04
 Patch ID: BF-028R
 Ind. Data Sheet No.: 12-033

Indication: 12-033 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%	189.15	~	~	~	~	525.00	8.48	~	~	~	~	~
0.0%	189.40	~	~	~	~	524.75	10.80	~	~	~	~	~
0.0%	189.65	~	~	~	~	524.00	16.00	~	~	~	~	~
47.2%	189.90	~	~	~	~	524.50	12.80	~	~	~	~	~
39.1%	190.15	~	~	~	~	524.75	10.40	~	~	~	~	~
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Comments: No apparent tips.
 Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: OK MA
 Level: III Date: 12/19/93

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



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

R1153

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

Exam Data Sheet No.: E-12-04
Patch ID: BF-028R
Ind. Data Sheet No.: 12-034

Indication: 12-034

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
18.5%	189.10	~	~	~	~	526.70	13.44	~	~	~	~	~
36.7%	189.35	~	~	~	~	526.70	13.92	~	~	~	~	~
50.8%	189.60	~	~	~	~	526.95	16.16	~	~	~	~	~
15.3%	189.85	~	~	~	~	526.70	13.92	~	~	~	~	~
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Comments: No apparent tips.
Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: CJ Mas
Level: III Date: 12/19/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-04
Patch ID: BF-028R
Ind. Data Sheet No.: 12-035

Indication: 12-035 **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
20.9%	205.85	~	~	~	~	527.70	24.96	~	~	~	~	~
36.7%	206.10	~	~	~	~	527.20	18.16	~	~	~	~	~
28.6%	206.35	~	~	~	~	527.45	20.40	~	~	~	~	~
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Comments: No apparent tip signals.
Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: CR Mas
Level: III Date: 12/18/93

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

R 1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-04
Patch ID: BF-028R
Ind. Data Sheet No.: 12-036

Indication: 12-036 **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
23.7%	176.21	~	~	~	~	523.80	2.32	~	~	~	~	~
20.9%	176.46	~	~	~	~	524.05	2.13	~	~	~	~	~
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Comments: No apparent tip signals.

Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: CJ Mas
Level: III **Date:** 12/19/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-04
Patch ID: BF-028R
Ind. Data Sheet No.: 12-037

Indication: 12-037 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
36.7%	174.65	526.25	2.01	~	~	526.50	2.19	~	~	526.75	2.36	~
47.2%	174.90	526.00	1.85	~	~	526.25	2.01	~	~	527.00	2.52	~
32.5%	~	~	~	~	~	526.25	2.01	~	~	~	~	~
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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 L = .5 S = 1.19 w/clad

Analyst: CJ Ma

Level: III Date: 12/19/93

Reviewed By: R.O. Forman

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-05
 Patch ID: BF-029R
 Ind. Data Sheet No.: 12-038

Indication: 12-038 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
17.3%	220.85	~	~	~	~	528.20	26.72	~	~	~	~	~
28.6%	221.10	~	~	~	~	527.20	18.19	~	~	~	~	~
30.4%	221.35	~	~	~	~	528.95	16.40	~	~	~	~	~
20.9%	221.60	~	~	~	~	527.45	20.40	~	~	~	~	~
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Comments: No apparent tip signals.
 Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: CQ Mas
 Level: III Date: 12/19/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-05
 Patch ID: BF-029R
 Ind. Data Sheet No.: 12-039

Indication: 12-039 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
18.5%	229.10	~	~	~	~	526.95	16.56	~	~	~	~	~
34.5%	229.35	~	~	~	~	526.95	16.40	~	~	~	~	~
50.2%	229.60	~	~	~	~	526.95	16.40	~	~	~	~	~
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Comments: No apparent tip signals.

Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: CJ Ma
 Level: III Date: 12/15/93

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



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-001

Exam Data Sheet No.: E-12-05

Patch ID: BF-029R

Ind. Data Sheet No.: 12-040

Indication: 12-040

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
12.7%	231.35	~	~	~	~	526.95	16.08	~	~	~	~	~
53.5%	231.60	~	~	~	~	527.20	18.48	~	~	~	~	~
57.0%	231.85	~	~	~	~	526.95	16.40	~	~	~	~	~
22.3%	232.10	~	~	~	~	526.95	16.40	~	~	~	~	~
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Comments: No apparent tip signals.

Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: CD M

Reviewed By: R.O. Forman

Level: III Date: 12/19/92

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-001

Exam Data Sheet No.: E-12-05

Patch ID: BF-029R

Ind. Data Sheet No.: 12-041

Indication: 12-041

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
64.5%	229.46	~	~	~	~	520.55	8.70	~	~	~	~	-9.24 N
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Comments: OD surface geometry.
9.24 dB below Notch sensitivity

Analyst: CJ M
 Level: IV Date: 12/19/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-05
Patch ID: BF-029R
Ind. Data Sheet No.: 12-042

Indication: 12-042 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
18.5%	261.15	~	~	~	~	526.50	3.30	~	~	~	~	
39.1%	261.40	~	~	~	~	526.25	3.11	~	~	~	~	
47.2%	261.65	~	~	~	~	526.25	3.11	~	~	~	~	
23.7%	261.90	~	~	~	~	526.25	3.14	~	~	~	~	
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Comments: No apparent tip signals.
Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: CL Mat
Level: III Date: 12/17/93

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



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-06
Patch ID: BF-030
Ind. Data Sheet No.: 12-043

Indication: 12-043 **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
64.5%	287.96	~	~	~	~	522.80	10.67	~	~	~	~	12.51 N
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Comments: OD surface geometry: thermo couples @ 130°.

Analyst: CR M...

Reviewed By: P.O. Forman

Level: III **Date:** 12/17/93

Level: II **Date:** 12-21-93



GE Nuclear Energy

GERIS 2000 Examination Data Sheet

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

Exam Data Sheet No.: E-12-05
 Patch ID: BF-029R
 Ind. Data Sheet Series: 12-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	12-038	12-039	12-040	~	~
6	70 RL	270 CCW	NRI	~	~	~	~	~
7	45 RS	0 UP	2	12-041	~	~	~	~
8	45 RS	90 CW	NRI	~	~	~	~	~
9	45 RS	180 DN	1	12-042	~	~	~	~
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: CF MA
 Level: III Date: 12/19/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-06
Patch ID: BF-030
Ind. Data Sheet No.: 12-044

Indication: 12-044

Channel: 8

Angle: 45

Direction: 90

Amp.	Y	20%		50%		@ Max		50%		20%		Remarks
		Min X	MP	Min X	MP	X	MP	Max X	MP	Max X	MP	
39.1%	530.80	~	~	~	~	276.54	10.82	~	~	~	~	-16.31 N
28.6%	530.80	~	~	~	~	282.04	9.39	~	~	~	~	-16.85 N
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Comments: OD surface geometry: thermo couples @ 130°.

Analyst: Chris M...
Level: III **Date:** 12/14/93

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



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-06
Patch ID: BF-030
Ind. Data Sheet No.: 12-045

Indication: 12-045

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
60.6%	283.40	~	~	~	~	537.50	9.71	~	~	~	~	-12.51 N
73.1%	287.40	~	~	~	~	537.25	9.90	~	~	~	~	-11.42 N
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Comments: OD surface geometry: thermocouples @ 130°.

Analyst: Chris Mason

Level: III Date: 12/19/93

Reviewed By: R.O. Forman

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-001

Exam Data Sheet No.: E-12-06

Patch ID: BF-030

Ind. Data Sheet No.: 12-046

Indication: 12-046

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
60.6%	530.75	~	~	~	~	289.71	9.94	~	~	~	~	-13.05 N
39.1%	530.75	~	~	~	~	294.21	10.11	~	~	~	~	-16.85 N
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Comments: OD surface geometry: thermo couples @ 130°.

Analyst: CL MA

Reviewed By: R.O. Forman

Level: III Date: 12/19/93

Level: II Date: 12-21-93



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-001

Exam Data Sheet No.: E-12-07

Patch ID: BF-031

Ind. Data Sheet No.: 12-047

Indication: 12-047

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
22.3%	180.15	~	~	~	~	524.00	12.00	~	~	~	~	~
26.8%	380.40	~	~	~	~	523.75	13.76	~	~	~	~	~
34.4%	380.65	~	~	~	~	524.00	11.68	~	~	~	~	~
26.9%	380.90	~	~	~	~	523.75	13.60	~	~	~	~	~
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Comments: No apparent tip signals.
Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: *Cl M*
Level: *III* Date: *12/19/93*

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-07
Patch ID: BF-031
Ind. Data Sheet No.: 12-048

Indication: 12-048 **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
18.5%	373.96	~	~	~	~	522.80	4.79	~	~	~	~	~
57.0%	374.21	~	~	522.30	5.23	522.80	4.79	~	~	~	~	~
73.2%	374.46	~	~	522.05	5.45	522.30	5.23	522.80	4.79	~	~	SPOT
47.2%	374.71	~	~	~	~	522.30	5.21	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .21 L = 0.75 S = 2.797

Analyst: Ch Mas

Reviewed By: R.O. Foman

Level: III Date: 12/19/93

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-031

Exam Data Sheet No.: E-12-07
Ind. Data Sheet No.: 12-048
Indication: 12-048

Flaw Thruwall Dimension = 0.21
Flaw Length "l" = 0.75
Separation with clad "S" = N/A
Surface Separation "S" = 2.80

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	2.44	2.82 Y
0.15	2.50	2.9	~	~
0.20	2.80	3.3	~	~
0.25	3.30	3.8	~	~
0.30	3.80	4.4	~	~
0.35	4.40	5.1	~	~
0.40	5.00	5.8	~	~
0.45	5.10	6.7	~	~
0.50	5.20	7.6	~	~
			Allowed 2.44	Allowed 2.82

a = 0.105
a/l value = 0.140
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.82%
a/t = 1.65%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-07
Patch ID: BF-031
Ind. Data Sheet No.: 12-049

Indication: 12-049

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
20.9%	375.21	~	~	~	~	521.30	5.57	~	~	~	~	~
17.3%	375.46	~	~	~	~	521.30	5.57	~	~	~	~	~
17.3%	375.71	~	~	~	~	521.30	5.61	~	~	~	~	~
26.9%	375.96	~	~	~	~	521.30	5.63	~	~	~	~	~
25.2%	376.21	~	~	~	~	521.05	5.77	~	~	~	~	SPOT
17.3%	376.46	~	~	~	~	521.05	5.82	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .28 L = 1.25 S = 2.479

Analyst: CLM

Reviewed By: R.D. Forman

Level: III **Date:** 12/19/93

Level: II **Date:** 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-031

Exam Data Sheet No.: E-12-07
Ind. Data Sheet No.: 12-049
Indication: 12-049

Flaw Thruwall Dimension = 0.28
Flaw Length "l" = 1.25
Separation with clad "S" = N/A
Surface Separation "S" = 2.48

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	2.27	2.60 Y
0.15	2.50	2.9	~	~
0.20	2.80	3.3	~	~
0.25	3.30	3.8	~	~
0.30	3.80	4.4	~	~
0.35	4.40	5.1	~	~
0.40	5.00	5.8	~	~
0.45	5.10	6.7	~	~
0.50	5.20	7.6	~	~
			Allowed 2.27	Allowed 2.60

a = 0.140
a/l value = 0.112
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.60%
a/t = 2.19%

Comments:

86 of 439

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-07
Patch ID: BF-031
Ind. Data Sheet No.: 12-050

Indication: 12-050

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%	377.21	~	~	~	~	522.80	4.80	~	~	~	~	~
22.3%	377.46	~	~	~	~	522.80	4.77	~	~	~	~	SPOT
17.3%	377.71	~	~	~	~	522.55	5.03	~	~	~	~	~
34.5%	377.96	~	~	~	~	522.55	5.01	~	~	~	~	~
25.2%	378.21	~	~	~	~	522.55	5.02	~	~	~	~	~
32.4%	378.46	~	~	~	~	522.55	5.11	~	~	~	~	~
22.3%	378.71	~	~	~	~	522.30	5.10	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .226 L = 1.5 S = 2.944

Analyst: CL M

Reviewed By: R.O. Forman

Level: III Date: 12/12/93

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-031

Exam Data Sheet No.: E-12-07
Ind. Data Sheet No.: 12-050
Indication: 12-050

Flaw Thruwall Dimension = 0.23
Flaw Length "l" = 1.50
Separation with clad "S" = N/A
Surface Separation "S" = 2.94

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	2.10	2.35 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
			2.10	2.35

a = 0.113
a/l value = 0.075
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.35%
a/t = 1.77%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-07
Patch ID: BF-031
Ind. Data Sheet No.: 12-051

Indication: 12-051 **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
7.7%	384.71	~	~	~	~	522.30	5.32	~	~	~	~	~
30.4%	384.96	~	~	~	~	522.30	5.36	~	~	~	~	~
47.2%	385.21	~	~	~	~	522.30	5.36	~	~	~	~	SPOT
36.7%	385.46	~	~	~	~	522.55	5.19	~	~	~	~	~
11.2%	385.71	~	~	~	~	522.55	5.23	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .24 L = 1.0 S = 2.69

Analyst: Clf MA

Reviewed By: R.O. Forman

Level: II **Date:** 12/19/93

Level: II **Date:** 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-031

Exam Data Sheet No.: E-12-07
Ind. Data Sheet No.: 12-051
Indication: 12-051

Flaw Thruwall Dimension = 0.24
Flaw Length "l" = 1.00
Separation with clad "S" = N/A
Surface Separation "S" = 2.69

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	2.32	2.66 Y
0.15	2.50	2.9	~	~
0.20	2.80	3.3	~	~
0.25	3.30	3.8	~	~
0.30	3.80	4.4	~	~
0.35	4.40	5.1	~	~
0.40	5.00	5.8	~	~
0.45	5.10	6.7	~	~
0.50	5.20	7.6	~	~
			Allowed 2.32	Allowed 2.66

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

Flaw is Subsurface

Allowed a/t = 2.66%
a/t = 1.88%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-07
Patch ID: BF-031
Ind. Data Sheet No.: 12-052

Indication: 12-052 **Channel:** 9 **Angle:** 45 **Direction:** 180

Amp.	X	20% Min Y	MP	50% Min Y	MP	@ Max Y	MP	50% Max Y	MP	20% Max Y	MP	Remarks
12.9%	358.65	~	~	~	~	536.00	4.02	~	~	~	~	~
25.2%	358.90	~	~	~	~	536.00	3.99	~	~	~	~	SPOT
30.4%	359.15	~	~	~	~	535.75	3.84	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.
 Correlates with V-4-C.

TW = .35 L = .5 S = 2.54 w/clad

Analyst: CL M
Level: III **Date:** 12/19/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-031

Exam Data Sheet No.: E-12-07
Ind. Data Sheet No.: 12-052
Indication: 12-052

Flaw Thruwall Dimension = 0.35
Flaw Length "I" = 0.50
Separation with clad "S" = 2.54
Surface Separation "S" = 2.35

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	4.40	5.10 Y
0.40	5.00	5.8	~	~
0.45	5.10	6.7	~	~
0.50	5.20	7.6	~	~
			Allowed 4.40	Allowed 5.10

a = 0.175
a/l value = 0.350
Y = 1.000

Flaw is Subsurface

Allowed a/t = 5.10%
a/t = 2.74%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-001

Exam Data Sheet No.: E-12-07

Patch ID: BF-031

Ind. Data Sheet No.: 12-053

Indication: 12-053

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
77.9%	374.35	~	~	519.80	7.23	520.80	6.39	521.30	5.91	~	~	~
106.4%	374.60	~	~	519.80	7.23	520.80	6.39	521.30	5.98	~	~	SPOT
64.5%	374.85	~	~	519.80	7.27	520.55	6.65	521.30	5.98	~	~	~
44.3%	374.10	~	~	~	~	520.50	7.05	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .22 L = 0.75 S = 3.09 w/clad

Analyst:

C. M.

Reviewed By:

R.D. Forman

Level:

III

Date:

12/19/93

Level:

II

Date:

12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-031

Exam Data Sheet No.: E-12-07
Ind. Data Sheet No.: 12-053
Indication: 12-053

Flaw Thruwall Dimension = 0.22
Flaw Length "I" = 0.75
Separation with clad "S" = 3.09
Surface Separation "S" = 2.90

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	~	~
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 2.48	Allowed 2.87

a = 0.110
 a/l value = 0.147
 Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.87%
 a/t = 1.72%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-07
Patch ID: BF-031
Ind. Data Sheet No.: 12-054

Indication: 12-054 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
50.2%	377.35	~	~	~	~	520.30	6.79	~	~	~	~	~
57.0%	377.60	~	~	517.80	9.06	520.80	6.38	520.80	6.38	~	~	~
82.9%	377.85	~	~	515.30	11.39	520.30	6.85	520.80	6.44	~	~	~
82.9%	378.10	~	~	517.55	9.24	520.80	6.44	521.05	6.20	~	~	SPOT
77.9%	378.35	~	~	517.55	9.27	520.55	6.65	521.05	6.17	~	~	~
82.9%	378.60	~	~	517.55	9.36	520.55	6.58	521.05	6.20	~	~	~
73.1%	378.85	~	~	~	~	518.05	8.88	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.
Thruwall dimension of .226 assigned from indication 12-050.

TW = .226 L = 1.5 S = 3.107 w/clad

Analyst: CS Me

Reviewed By: R. O. Foman

Level: III Date: 12/19/93

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-031

Exam Data Sheet No.: E-12-07
Ind. Data Sheet No.: 12-054
Indication: 12-054

Flaw Thruwall Dimension = 0.23
Flaw Length "I" = 1.50
Separation with clad "S" = 3.11
Surface Separation "S" = 2.92

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	2.10	2.35 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 2.10	Allowed 2.35

a = 0.113
a/l value = 0.075
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.35%
a/t = 1.77%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Examination Data Sheet

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

Exam Data Sheet No.: E-12-07
 Patch ID: BF-031
 Ind. Data Sheet Series: 12-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	12-047	~	~	~	~
4	70 RL	90 CW	NRI	~	~	~	~	~
5	70 RL	180 DN	NRI	~	~	~	~	~
6	70 RL	270 CCW	NRI	~	~	~	~	~
7	45 RS	0 UP	1	12-048	12-049	12-050	12-051	~
8	45 RS	90 CW	NRI	~	~	~	~	~
9	45 RS	180 DN	1	12-052	~	~	~	~
10	45 RS	270 CCW	NRI	~	~	~	~	~
11	60 RS	0 UP	1	12-053	12-054	~	~	~
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: CLM

Reviewed By: R.O. Forman

Level: III Date: 12/19/93

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-08
Patch ID: BF-032
Ind. Data Sheet No.: 12-055

Indication: 12-055 **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
34.5%	434.40	~	~	~	~	523.00	27.60	~	~	~	~	~
47.2%	434.65	~	~	~	~	523.00	27.76	~	~	~	~	~
39.1%	434.90	~	~	~	~	523.25	25.60	~	~	~	~	~
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Comments: No apparent tip signals.
Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: CL Mids
Level: III Date: 12/19/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-08
 Patch ID: BF-032
 Ind. Data Sheet No.: 12-056

Indication: 12-056 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
22.3%	435.65	~	~	~	~	523.00	27.76	~	~	~	~	~
53.5%	435.90	~	~	~	~	523.00	27.92	~	~	~	~	~
47.2%	436.15	~	~	~	~	523.25	25.84	~	~	~	~	~
19.6%	436.80	~	~	~	~	523.25	25.84	~	~	~	~	~
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Comments: Thruwall size was determined by the PATT technique.

TW = .204 L = 1.0 S = 1.077 w/clad

Analyst: CJ Mas
 Level: III Date: 12/19/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-032

Exam Data Sheet No.: E-12-08
Ind. Data Sheet No.: 12-056
Indication: 12-056

Flaw Thruwall Dimension = 0.20
Flaw Length "l" = 1.00
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	2.21	2.52 Y
0.15	2.50	2.9	~	~
0.20	2.80	3.3	~	~
0.25	3.30	3.8	~	~
0.30	3.80	4.4	~	~
0.35	4.40	5.1	~	~
0.40	5.00	5.8	~	~
0.45	5.10	6.7	~	~
0.50	5.20	7.6	~	~
			Allowed 2.21	Allowed 2.52

a = 0.102
a/l value = 0.102
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.52%
a/t = 1.60%

Comments:



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-08
Patch ID: BF-032
Ind. Data Sheet No.: 12-057a

Indication: 12-057a 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
26.9%	444.90	~	~	~	~	523.50	15.12	~	~	~	~	~
30.4%	445.15	~	~	~	~	523.50	15.36	~	~	~	~	~
106.4%	445.40	~	~	~	~	523.50	15.68	~	~	~	~	PATT
57.0%	445.65	~	~	~	~	523.25	17.44	~	~	~	~	~
18.5%	445.90	~	~	~	~	523.25	17.44	~	~	~	~	~
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Comments: Thruwall size was determined by the PATT technique.

TW = .273 L = 1.25 S = .315 w/clad

Analyst: CM
Level: TIF Date: 12/12/93

Reviewed By: R.O. Foman
Level: # Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-032

Exam Data Sheet No.: E-12-08
Ind. Data Sheet No.: 12-057a
Indication: 12-057a

Flaw Thruwall Dimension = 0.27
Flaw Length "I" = 1.25
Separation with clad "S" = 0.32
Surface Separation "S" = 0.13

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	2.25	2.56 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
			2.25	2.37

a = 0.135
a/l value = 0.108
Y = 0.926

Flaw is Subsurface

Allowed a/t = 2.37%
a/t = 2.12%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-004

Exam Data Sheet No.: E-12-08

Patch ID: BF-032

Ind. Data Sheet No.: 12-057b

Indication: 12-057b

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
20.9%	430.46	~	~	~	~	522.30	5.19	~	~	~	~	~
28.6%	430.71	~	~	~	~	522.30	5.17	~	~	~	~	SPOT
25.2%	430.96	~	~	~	~	522.55	4.98	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .226 L = .5 S = 2.83

Analyst: Ch. Mas Reviewed By: R.O. Forman

Level: III Date: 12/19/93 Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-032

Exam Data Sheet No.: E-12-08
Ind. Data Sheet No.: 12-057b
Indication: 12-057b

Flaw Thruwall Dimension = 0.23
Flaw Length "l" = 0.50
Separation with clad "S" = N/A
Surface Separation "S" = 2.83

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 3.10	Allowed 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:

12-15-93 0000 1125

R1153



GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-08
Patch ID: BF-032
Ind. Data Sheet No.: 12-058

Indication: 12-058 **Channel:** 7 **Angle:** 45 **Direction:** 0

Amp.	X	20%		50%		@ Max		50%		20%		Remarks
		Min Y	MP	Min Y	MP	Y	MP	Max Y	MP	Max Y	MP	
32.4%	419.21	~	~	~	~	521.30	5.05	~	~	~	~	~
39.1%	419.46	~	~	~	~	521.05	5.19	~	~	~	~	SPOT
23.7%	419.71	~	~	~	~	521.05	5.19	~	~	~	~	~
16.3%	419.96	~	~	~	~	521.05	5.22	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .198 L = .75 S = 2.83

Analyst: Ch. Ma
 Level: III Date: 12/15/93

Reviewed By: F.O. Farman
 Level: II Date: 12-21-93

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GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-032

Exam Data Sheet No.: E-12-08
Ind. Data Sheet No.: 12-058
Indication: 12-058

Flaw Thruwall Dimension = 0.20
Flaw Length "l" = 0.75
Separation with clad "S" = N/A
Surface Separation "S" = 2.83

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	2.39	2.76 Y
0.15	2.50	2.9	~	~
0.20	2.80	3.3	~	~
0.25	3.30	3.8	~	~
0.30	3.80	4.4	~	~
0.35	4.40	5.1	~	~
0.40	5.00	5.8	~	~
0.45	5.10	6.7	~	~
0.50	5.20	7.6	~	~
			Allowed 2.39	Allowed 2.76

a = 0.099
a/l value = 0.132
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.76%
a/t = 1.55%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-08
Patch ID: BF-032
Ind. Data Sheet No.: 12-059

Indication: 12-059 **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
17.3%	433.21	~	~	~	~	521.30	4.92	~	~	~	~	~
16.3%	433.46	~	~	~	~	521.05	5.12	~	~	~	~	~
23.7%	433.71	~	~	~	~	521.30	5.14	~	~	~	~	~
22.3%	433.96	~	~	~	~	521.55	4.98	~	~	~	~	~
10.5%	434.21	~	~	~	~	521.05	5.36	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .198 L = 1.0 S = 2.867

Analyst: CLM
Level: III **Date:** 12/19/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-032

Exam Data Sheet No.: E-12-08
Ind. Data Sheet No.: 12-059
Indication: 12-059

Flaw Thruwall Dimension = 0.20
Flaw Length "l" = 1.00
Separation with clad "S" = N/A
Surface Separation "S" = 2.87

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	2.20	2.49 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 2.20	Allowed 2.49

a = 0.099
a/l value = 0.099
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.49%
a/t = 1.55%

Comments:

R 1153
R1157B



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-08
Patch ID: BF-032
Ind. Data Sheet No.: 12-060

Indication: 12-060 **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
18.5%	434.21	~	~	~	~	524.30	2.03	~	~	~	~	~
44.3%	434.46	524.05	2.08	~	~	524.30	2.03	~	~	524.80	1.65	~
53.5%	434.71	523.80	2.42	~	~	524.55	1.84	~	~	524.80	1.56	~
25.2%	434.96	524.30	2.00	~	~	524.55	1.76	~	~	524.80	1.49	~
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Comments: No apparent tip signals.

TW = .657 L = .75 S = .972 w/clad

Analyst: CP Ma

Reviewed By: R.O. Forman

Level: III Date: 12/19/93

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-032

Exam Data Sheet No.: E-12-08
Ind. Data Sheet No.: 12-060
Indication: 12-060

Flaw Thruwall Dimension = 0.66
Flaw Length "I" = 0.75
Separation with clad "S" = 0.97
Surface Separation "S" = 0.78

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 = 0.329
a/l value = 0.438
Y = 1.000

Flaw is Subsurface

Allowed a/t = 6.48%
a/t = 5.15%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-08
Patch ID: BF-032
Ind. Data Sheet No.: 12-061

Indication: 12-061 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
12.7%	435.21	~	~	~	~	521.30	5.12	~	~	~	~	~
36.7%	435.46	~	~	~	~	520.80	5.46	~	~	~	~	~
44.3%	435.71	~	~	~	~	521.05	5.32	~	~	~	~	~
32.4%	435.96	~	~	~	~	521.05	5.32	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .212 L = .75 S = 2.63

Analyst: Ch Ma

Reviewed By: R.D. Forman

Level: III Date: 12/19/93

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-032

Exam Data Sheet No.: E-12-08
Ind. Data Sheet No.: 12-061
Indication: 12-061

Flaw Thruwall Dimension = 0.21
Flaw Length "l" = 0.75
Separation with clad "S" = N/A
Surface Separation "S" = 2.63

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	2.45	2.83 Y
0.15	2.50	2.9	~	~
0.20	2.80	3.3	~	~
0.25	3.30	3.8	~	~
0.30	3.80	4.4	~	~
0.35	4.40	5.1	~	~
0.40	5.00	5.8	~	~
0.45	5.10	6.7	~	~
0.50	5.20	7.6	~	~
			Allowed 2.45	Allowed 2.83

a = 0.106
a/l value = 0.141
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.83%
a/t = 1.66%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-08
Patch ID: BF-032
Ind. Data Sheet No.: 12-062

Indication: 12-062 **Channel:** 7 **Angle:** 45 **Direction:** 0

Amp.	X	20%		50%		@ Max		50%		20%		Remarks
		Min Y	MP	Min Y	MP	Y	MP	Max Y	MP	Max Y	MP	
11.9%	440.71	~	~	~	~	521.30	5.06	~	~	~	~	~
23.7%	440.96	~	~	~	~	521.30	5.10	~	~	~	~	~
26.9%	441.21	~	~	~	~	521.05	5.27	~	~	~	~	SPOT
11.2%	441.46	~	~	~	~	521.05	5.28	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .226 L = .75 S = 2.76

Analyst: Ch Mas

Reviewed By: R.O. Forman

Level: III Date: 12/19/93

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-032

Exam Data Sheet No.: E-12-08
Ind. Data Sheet No.: 12-062
Indication: 12-062

Flaw Thruwall Dimension = 0.23
Flaw Length "l" = 0.75
Separation with clad "S" = N/A
Surface Separation "S" = 2.76

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:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-08
Patch ID: BF-032
Ind. Data Sheet No.: 12-063

Indication: 12-063 **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%	442.21	~	~	~	~	521.30	5.10	~	~	~	~	~
28.6%	442.46	~	~	~	~	521.30	5.01	~	~	~	~	~
36.7%	442.71	~	~	~	~	521.30	5.01	~	~	~	~	SPOT
25.2%	442.96	~	~	~	~	521.05	5.23	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .268 L = .75 S = 2.92

Analyst: C. M.
Level: III **Date:** 12/19/93

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



GE Nuclear Energy

**GERIS 2000 Indication
Evaluation Sheet**

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-032

Exam Data Sheet No.: E-12-08
Ind. Data Sheet No.: 12-063
Indication: 12-063

Flaw Thruwall Dimension = 0.27
Flaw Length "l" = 0.75
Separation with clad "S" = N/A
Surface Separation "S" = 2.92

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	2.67	3.13 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 2.67	Allowed 3.13

a = 0.134
a/l value = 0.179
Y = 1.000

Flaw is Subsurface

Allowed a/t = 3.13%
a/t = 2.10%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-08
Patch ID: BF-032
Ind. Data Sheet No.: 12-064

Indication: 12-064 **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
15.3%	448.46	~	~	~	~	520.80	5.37	~	~	~	~	~
41.6%	448.71	~	~	~	~	520.80	5.39	~	~	~	~	~
60.6%	448.96	~	~	520.55	5.55	521.05	5.18	531.30	5.01	~	~	~
64.5%	449.21	~	~	520.80	5.40	521.05	5.18	521.30	5.01	~	~	SPOT
32.4%	449.46	~	~	~	~	521.05	5.20	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .38 L = 1.0 S = 2.74

Analyst: Ch Mas
Level: III **Date:** 12/19/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-032

Exam Data Sheet No.: E-12-08
Ind. Data Sheet No.: 12-064
Indication: 12-064

Flaw Thruwall Dimension = 0.38
Flaw Length "l" = 1.00
Separation with clad "S" = N/A
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	2.74	3.22 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
			2.74	3.22

a = 0.190
a/l value = 0.190
Y = 1.000

Flaw is Subsurface

Allowed a/t = 3.22%
a/t = 2.98%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-08
Patch ID: BF-032
Ind. Data Sheet No.: 12-065

Indication: 12-065 **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
10.5%	524.30	~	~	~	~	426.54	5.44	~	~	~	~	~
12.7%	524.55	~	~	~	~	427.29	5.05	~	~	~	~	~
12.7%	524.80	~	~	~	~	426.79	5.20	~	~	~	~	~
14.4%	525.05	~	~	~	~	426.79	5.25	~	~	~	~	SPOT
6.0%	525.30	~	~	~	~	426.79	5.32	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .212 L = 1.0 S = 2.78

Analyst: Ch. Man

Reviewed By: R.O. Forman

Level: III Date: 12/19/93

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-032

Exam Data Sheet No.: E-12-08
Ind. Data Sheet No.: 12-065
Indication: 12-065

Flaw Thruwall Dimension = 0.21
Flaw Length "I" = 1.00
Separation with clad "S" = N/A
Surface Separation "S" = 2.78

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	2.24	2.55 Y
0.15	2.50	2.9	~	~
0.20	2.80	3.3	~	~
0.25	3.30	3.8	~	~
0.30	3.80	4.4	~	~
0.35	4.40	5.1	~	~
0.40	5.00	5.8	~	~
0.45	5.10	6.7	~	~
0.50	5.20	7.6	~	~
			Allowed 2.24	Allowed 2.55

a = 0.106
 a/l value = 0.106
 Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.55%
 a/t = 1.66%

Comments:

120 of 439

00120

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-08
Patch ID: BF-032
Ind. Data Sheet No.: 12-066

Indication: 12-066 **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
9.9%	524.30	~	~	~	~	430.04	5.25	~	~	~	~	~
20.9%	524.55	~	~	~	~	430.29	5.16	~	~	~	~	SPOT
18.5%	524.80	~	~	~	~	430.04	5.24	~	~	~	~	~
18.5%	525.05	~	~	~	~	430.29	5.17	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .367 L = .75 S = 2.76

Analyst: Clk Mas

Reviewed By: R.O. Forman

Level: III Date: 12/15/93

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-032

Exam Data Sheet No.: E-12-08
Ind. Data Sheet No.: 12-066
Indication: 12-066

Flaw Thruwall Dimension = 0.37
Flaw Length "I" = 0.75
Separation with clad "S" = N/A
Surface Separation "S" = 2.76

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	3.25	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 3.25	Allowed 3.75

a = 0.184
a/l value = 0.245
Y = 1.000

Flaw is Subsurface

Allowed a/t = 3.75%
a/t = 2.88%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-004

Exam Data Sheet No.: E-12-08

Patch ID: BF-032

Ind. Data Sheet No.: 12-067

Indication: 12-067

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%	408.40	~	~	~	~	527.00	3.08	~	~	~	~	~
12.7%	408.65	~	~	~	~	526.75	2.89	~	~	~	~	~
7.2%	408.90	~	~	~	~	526.75	3.19	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .48 L = .5 S = 1.80 w/clad

Analyst: *OJ Ma*

Reviewed By: *R.O. Forman*

Level: *III* Date: *12/19/93*

Level: *II* Date: *12-21-93*

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-032

Exam Data Sheet No.: E-12-08
Ind. Data Sheet No.: 12-067
Indication: 12-067

Flaw Thruwall Dimension = 0.48
Flaw Length "l" = 0.50
Separation with clad "S" = 1.80
Surface Separation "S" = 1.61

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 5.16	Allowed 7.24

a = 0.240
a/l value = 0.480
Y = 1.000

Flaw is Subsurface

Allowed a/t = 7.24%
a/t = 3.76%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-004

Exam Data Sheet No.: E-12-08

Patch ID: BF-032

Ind. Data Sheet No.: 12-068

Indication: 12-068

Channel: 9

Angle: 45

Direction: 180

Amp.	X	20%		50%		@ Max		50%		20%		Remarks
		Min Y	MP	Min Y	MP	Y	MP	Max Y	MP	Max Y	MP	
13.5%	415.65	~	~	~	~	528.50	3.84	~	~	~	~	~
16.3%	415.90	~	~	~	~	528.75	4.05	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .282 L = .25 S = 2.72 w/clad

Analyst: Ch MA

Reviewed By: R.O. Forman

Level: III Date: 02/19/93

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-032

Exam Data Sheet No.: E-12-08
Ind. Data Sheet No.: 12-068
Indication: 12-068

Flaw Thruwall Dimension = 0.28
Flaw Length "l" = 0.25
Separation with clad "S" = 2.72
Surface Separation "S" = 2.53

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 = 0.141
a/l value = 0.500
Y = 1.000

Flaw is Subsurface

Allowed a/t = 7.60%
a/t = 2.21%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-004

Exam Data Sheet No.: E-12-08

Patch ID: BF-032

Ind. Data Sheet No.: 12-069

Indication: 12-069

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
16.3%	423.90	~	~	~	~	526.50	3.07	~	~	~	~	~
20.9%	424.15	~	~	~	~	526.75	3.26	~	~	~	~	~
15.3%	424.40	~	~	~	~	527.00	3.44	~	~	~	~	~
19.6%	424.65	~	~	~	~	526.50	3.06	~	~	~	~	~
14.4%	424.90	~	~	~	~	526.75	3.21	~	~	~	~	~
8.7%	425.15	~	~	~	~	527.00	3.44	~	~	~	~	~
17.3%	425.40	~	~	~	~	527.00	3.44	~	~	~	~	~
16.3%	425.65	~	~	~	~	526.75	3.26	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .339 L = 1.75 S = 2.13 w/clad

Analyst: Ch. Ma

Reviewed By: R.O. Forman

Level: III **Date:** 12/19/93

Level: II **Date:** 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-032

Exam Data Sheet No.: E-12-08
Ind. Data Sheet No.: 12-069
Indication: 12-069

Flaw Thruwall Dimension = 0.34
Flaw Length "l" = 1.75
Separation with clad "S" = 2.13
Surface Separation "S" = 1.94

T nominal = 6.38
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	2.19	2.48 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 2.19	Allowed 2.48

a = 0.170
a/l value = 0.097
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.48%
a/t = 2.66%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-004

Exam Data Sheet No.: E-12-08

Patch ID: BF-032

Ind. Data Sheet No.: 12-070

Indication: 12-070

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%	429.65	~	~	~	528.50	5.47	~	~	~	~	~	~
50.2%	429.90	~	~	~	528.50	5.51	~	~	~	~	~	~
94.0%	430.15	~	528.00	4.96	528.50	5.35	528.75	5.64	~	~	~	SPOT
128.4%	430.40	~	528.00	4.98	528.50	5.38	528.75	5.58	~	~	~	~
145.5%	430.65	~	527.00	4.31	528.25	5.18	528.75	5.58	~	~	~	~
73.1%	430.90	~	~	~	528.25	5.16	~	~	~	~	~	~
25.2%	431.15	~	~	~	528.25	5.13	~	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .240 L = 1.50 S = 2.817

Analyst: Ch. Ma

Reviewed By: R. D. Forman

Level: III Date: 12/19/93

Level: II Date: 12-21-93

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R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-032

Exam Data Sheet No.: E-12-08
Ind. Data Sheet No.: 12-070
Indication: 12-070

Flaw Thruwall Dimension = 0.24
Flaw Length "I" = 1.50
Separation with clad "S" = N/A
Surface Separation "S" = 2.82

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 = 0.120
a/l value = 0.080
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.38%
a/t = 1.88%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-004

Exam Data Sheet No.: E-12-08

Patch ID: BF-032

Ind. Data Sheet No.: 12-071

Indication: 12-071

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%	432.90	~	~	~	~	528.00	5.08	~	~	~	~	~
32.4%	433.15	~	~	~	~	528.50	5.49	~	~	~	~	~
41.6%	433.40	~	~	~	~	528.25	5.30	~	~	~	~	SPOT
64.5%	433.65	~	~	~	~	528.25	5.23	~	~	~	~	~
47.2%	433.90	~	~	~	~	528.25	5.23	~	~	~	~	~
50.2%	434.15	~	~	~	~	528.25	5.18	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .141 L = 1.25 S = 2.83

Analyst: CF MS

Level: III **Date:** 12/19/93

Reviewed By: R.O. Forman

Level: II **Date:** 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-032

Exam Data Sheet No.: E-12-08
Ind. Data Sheet No.: 12-071
Indication: 12-071

Flaw Thruwall Dimension = 0.14
Flaw Length "l" = 1.25
Separation with clad "S" = N/A
Surface Separation "S" = 2.83

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	2.03	2.24 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 2.03	Allowed 2.24

a = 0.071
a/l value = 0.056
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.24%
a/t = 1.11%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-08
Patch ID: BF-032
Ind. Data Sheet No.: 12-072

Indication: 12-072 **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
41.6%	435.65	~	~	~	~	528.25	5.18	~	~	~	~	~
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Comments: No apparent tip signals.
Recorded due to proximity to Ind. 12-070 and 12-071.
Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: Ch. M...
Level: III Date: 12/19/93

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



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

R1153

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

Exam Data Sheet No.: E-12-08
Patch ID: BF-032
Ind. Data Sheet No.: 12-073

Indication: 12-073

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
8.2%	524.25	~	~	~	~	431.46	4.96	~	~	~	~	~
17.3%	524.50	~	~	~	~	431.21	4.87	~	~	~	~	~
11.2%	524.75	~	~	~	~	431.46	4.95	~	~	~	~	SPOT
12.7%	525.00	~	~	~	~	431.21	4.90	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .268 L = .75 S = 3.022

Analyst: CJ MA

Reviewed By: R.O. Forman

Level: III Date: 12/19/93

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-032

Exam Data Sheet No.: E-12-08
Ind. Data Sheet No.: 12-073
Indication: 12-073

Flaw Thruwall Dimension = 0.27
Flaw Length "I" = 0.75
Separation with clad "S" = N/A
Surface Separation "S" = 3.02

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	2.67	3.13 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 2.67	Allowed 3.13

a = 0.134
a/l value = 0.179
Y = 1.000

Flaw is Subsurface

Allowed a/t = 3.13%
a/t = 2.10%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-004

Exam Data Sheet No.: E-12-08

Patch ID: BF-032

Ind. Data Sheet No.: 12-074

Indication: 12-074

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
39.1%	430.35	~	~	~	~	520.80	3.51	~	~	~	~	~
47.2%	430.60	~	~	~	~	521.30	3.27	~	~	~	~	~
68.7%	430.85	~	~	520.55	3.30	521.05	3.40	521.30	3.27	~	~	SPOT
47.2%	431.10	~	~	~	~	520.55	3.63	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .44 L = .75 S = 1.48

Analyst: QJ Ma

Reviewed By: R.O. Forman

Level: III **Date:** 12/19/93

Level: II **Date:** 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-032

Exam Data Sheet No.: E-12-08
Ind. Data Sheet No.: 12-074
Indication: 12-074

Flaw Thruwall Dimension = 0.44
Flaw Length "I" = 0.75
Separation with clad "S" = 1.48
Surface Separation "S" = 1.29

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	~	~
0.20	2.80	3.3	~	~
0.25	3.30	3.8	3.73	4.32 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 3.73	Allowed 4.32

a = 0.220
a/l value = 0.293
Y = 1.000

Flaw is Subsurface

Allowed a/t = 4.32%
a/t = 3.45%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-08
Patch ID: BF-032
Ind. Data Sheet No.: 12-075

Indication: 12-075 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
14.4%	433.10	~	~	~	~	518.30	7.49	~	~	~	~	~
25.2%	433.35	~	~	~	~	518.55	7.23	~	~	~	~	SPOT
30.4%	433.60	~	~	~	~	518.55	7.16	~	~	~	~	~
32.4%	433.85	~	~	~	~	518.55	7.23	~	~	~	~	~
22.3%	434.10	~	~	~	~	518.55	7.38	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .28 L = 1.0 S = 2.845

Analyst: Ch May

Reviewed By: R.O. Forman

Level: III Date: 12/19/93

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-032

Exam Data Sheet No.: E-12-08
Ind. Data Sheet No.: 12-075
Indication: 12-075

Flaw Thruwall Dimension = 0.28
Flaw Length "l" = 1.00
Separation with clad "S" = N/A
Surface Separation "S" = 2.85

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	2.44	2.82 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
			2.44	2.82

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

Flaw is Subsurface

Allowed a/t = 2.82%
a/t = 2.19%

Comments:



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-08
 Patch ID: BF-032
 Ind. Data Sheet No.: 12-076

Indication: 12-076 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
17.3%	448.60	~	~	~	~	518.80	7.03	~	~	~	~	~
44.3%	448.85	~	~	~	~	518.30	7.48	~	~	~	~	SPOT
47.2%	449.10	~	~	~	~	518.30	7.48	~	~	~	~	~
30.4%	447.35	~	~	~	~	518.55	7.26	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .2 L = .75 S = 2.76

Analyst: CJ Mc

Level: III Date: 12/19/93

Reviewed By: R.O. Forman

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-032

Exam Data Sheet No.: E-12-08
Ind. Data Sheet No.: 12-076
Indication: 12-076

Flaw Thruwall Dimension = 0.20
Flaw Length "l" = 0.75
Separation with clad "S" = N/A
Surface Separation "S" = 2.76

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 2.40	Allowed 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:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-08
Patch ID: BF-032
Ind. Data Sheet No.: 12-077

Indication: 12-077 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%	429.79	~	~	~	~	531.20	7.81	~	~	~	~	~
88.2%	430.04	~	~	529.20	6.17	531.20	7.81	531.45	8.03	~	~	~
120.6%	430.29	~	~	528.70	5.66	531.20	7.80	531.70	8.29	~	~	~
145.5%	430.54	~	~	528.70	5.64	529.54	6.27	531.95	8.51	~	~	SPOT
113.4%	430.79	~	~	528.70	5.64	531.20	7.93	531.70	8.27	~	~	~
77.9%	431.04	~	~	528.95	5.81	531.45	8.03	531.70	8.30	~	~	~
41.6%	431.29	~	~	~	~	531.45	7.61	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .30 L = 1.5 S = 2.985 w/clad

Analyst: CE MS
Level: III Date: 12/19/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-032

Exam Data Sheet No.: E-12-08
Ind. Data Sheet No.: 12-077
Indication: 12-077

Flaw Thruwall Dimension = 0.30
Flaw Length "l" = 1.50
Separation with clad "S" = 2.99
Surface Separation "S" = 2.80

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 2.20	Allowed 2.50

a = 0.150
a/l value = 0.100
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.50%
a/t = 2.35%

Comments:

R1153



GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-08
Patch ID: BF-032
Ind. Data Sheet No.: 12-078

Indication: 12-078 **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
28.6%	432.79	~	~	~	~	531.20	7.79	~	~	~	~	~
57.0%	433.04	~	~	~	~	531.20	7.80	~	~	~	~	~
100.0%	433.29	~	~	529.20	6.05	531.20	7.80	531.70	8.29	~	~	~
136.8%	433.54	~	~	528.45	5.57	529.20	6.07	531.95	8.52	~	~	~
155.1%	433.79	~	~	528.45	5.48	529.45	6.28	531.70	8.29	~	~	SPOT
73.1%	434.04	~	~	528.45	5.49	529.45	6.29	531.45	8.09	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .36 L = 1.25 S = 2.96 w/clad

Analyst: CS M
 Level: III Date: 12/19/93

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

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GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-032

Exam Data Sheet No.: E-12-08
Ind. Data Sheet No.: 12-078
Indication: 12-078

Flaw Thruwall Dimension = 0.36
Flaw Length "l" = 1.25
Separation with clad "S" = 2.96
Surface Separation "S" = 2.77

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	2.46	2.85 Y
0.15	2.50	2.9	~	~
0.20	2.80	3.3	~	~
0.25	3.30	3.8	~	~
0.30	3.80	4.4	~	~
0.35	4.40	5.1	~	~
0.40	5.00	5.8	~	~
0.45	5.10	6.7	~	~
0.50	5.20	7.6	~	~
			Allowed 2.46	Allowed 2.85

a = 0.180
a/l value = 0.144
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.85%
a/t = 2.82%

Comments:

R1153



GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-09
Patch ID: BF-033
Ind. Data Sheet No.: 12-079

Indication: 12-079 **Channel:** 9 **Angle:** 45 **Direction:** 180

Amp.	X	20%		50%		@ Max		50%		20%		Remarks
		Min Y	MP	Min Y	MP	Y	MP	Max Y	MP	Max Y	MP	
18.5%	468.90	~	~	~	~	529.25	5.04	~	~	~	~	~
47.2%	469.15	~	~	~	~	529.25	5.06	~	~	~	~	~
50.2%	469.40	~	~	~	~	529.00	4.86	~	~	~	~	SPOT
39.1%	469.65	~	~	~	~	529.00	4.96	~	~	~	~	~
30.4%	469.90	~	~	~	~	529.25	5.13	~	~	~	~	~
20.9%	470.15	~	~	~	~	529.50	5.31	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .311 L = 1.25 S = 3.00

Analyst: *Ch M*
 Level: *III* Date: *12/19/93*

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

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GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-033

Exam Data Sheet No.: E-12-09
Ind. Data Sheet No.: 12-079
Indication: 12-079

Flaw Thruwall Dimension = 0.31
Flaw Length "I" = 1.25
Separation with clad "S" = 3.00
Surface Separation "S" = 2.76

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 2.35	Allowed 2.70

a = 0.156
a/l value = 0.124
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.70%
a/t = 2.44%

Comments:



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-004

Exam Data Sheet No.: E-12-09

Patch ID: BF-033

Ind. Data Sheet No.: 12-080

Indication: 12-080

Channel: 7

Angle: 45

Direction: 0

Amp.	X	20%		50%		@ Max		50%		20%		Remarks
		Min Y	MP	Min Y	MP	Y	MP	Max Y	MP	Max Y	MP	
32.4%	481.96	~	~	~	~	522.55	3.25	~	~	~	~	
64.5%	482.21	~	~	522.30	3.38	522.55	3.27	523.05	2.99	~	~	
68.7%	482.46	~	~	~	~	522.30	3.41	522.80	3.16	~	~	SPOT
25.2%	482.71	~	~	~	~	522.55	3.25	~	~	~	~	
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Comments: Thruwall size was determined by the SPOT technique.

TW = .226 L = .75 S = 2.297 w/clad

Analyst: CQ M

Reviewed By: R.O. Forman

Level: III Date: 12/19/93

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-033

Exam Data Sheet No.: E-12-09
Ind. Data Sheet No.: 12-080
Indication: 12-080

Flaw Thruwall Dimension = 0.23
Flaw Length "l" = 0.75
Separation with clad "S" = 2.30
Surface Separation "S" = 2.11

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 2.50	Allowed 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:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-09
Patch ID: BF-033
Ind. Data Sheet No.: 12-081

Indication: 12-081

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
15.3%	488.96	~	~	~	~	522.55	4.79	~	~	~	~	~
73.1%	489.21	~	~	~	~	522.55	4.80	~	~	~	~	~
187.1%	489.46	~	~	522.05	5.20	522.55	4.82	523.30	4.21	~	~	~
240.2%	489.71	~	~	522.05	5.21	522.80	4.60	523.30	4.22	~	~	SPOT
100.0%	489.96	~	~	522.30	4.98	522.80	4.60	523.05	4.42	~	~	~
28.6%	490.21	~	~	~	~	522.80	4.64	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .311 L = 1.25 S = 3.097 w/clad

Analyst: CQ MS

Reviewed By: R.O. Forman

Level: III Date: 12/19/93

Level: II Date: 12-21-93

150 of 439

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-033

Exam Data Sheet No.: E-12-09
Ind. Data Sheet No.: 12-081
Indication: 12-081

Flaw Thruwall Dimension = 0.31
Flaw Length "l" = 1.25
Separation with clad "S" = 3.10
Surface Separation "S" = 2.91

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	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 2.35	Allowed 2.70

a = 0.156
a/l value = 0.124
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.70%
a/t = 2.44%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-004

Exam Data Sheet No.: E-12-09

Patch ID: BF-033

Ind. Data Sheet No.: 12-082

Indication: 12-082

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
18.3%	478.90	~	~	~	~	529.25	5.04	~	~	~	~	~
23.7%	479.15	~	~	~	~	529.25	5.06	~	~	~	~	~
23.7%	479.40	~	~	~	~	529.25	4.99	~	~	~	~	~
34.5%	479.65	~	~	~	~	529.25	5.04	~	~	~	~	~
44.3%	479.90	~	~	~	~	529.25	5.06	~	~	~	~	SPOT
22.3%	480.15	~	~	~	~	529.00	4.86	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .297 L = 1.25 S = 2.87

Analyst: CR M5

Reviewed By: R.O. Forman

Level: III Date: 12/19/93

Level: TL Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-033

Exam Data Sheet No.: E-12-09
Ind. Data Sheet No.: 12-082
Indication: 12-082

Flaw Thruwall Dimension = 0.30
Flaw Length "I" = 1.25
Separation with clad "S" = N/A
Surface Separation "S" = 2.87

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	2.31	2.65 Y
0.15	2.50	2.9	~	~
0.20	2.80	3.3	~	~
0.25	3.30	3.8	~	~
0.30	3.80	4.4	~	~
0.35	4.40	5.1	~	~
0.40	5.00	5.8	~	~
0.45	5.10	6.7	~	~
0.50	5.20	7.6	~	~
			Allowed 2.31	Allowed 2.65

a = 0.149
 a/l value = 0.119
 Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.65%
 a/t = 2.33%

Comments:



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-09
Patch ID: BF-033
Ind. Data Sheet No.: 12-083

Indication: 12-083

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
128.4%	481.90	~	~	~	~	525.00	9.15	~	~	~	~	~
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Comments: OD geometry due to Nozzle N11-B.

Analyst: CG MJ
Level: III Date: 12/20/93

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



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-09
Patch ID: BF-033
Ind. Data Sheet No.: 12-084

Indication: 12-084 **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
39.1%	489.35	~	~	~	~	521.80	5.31	~	~	~	~	~
64.5%	489.60	~	~	521.80	5.36	522.05	5.17	~	~	~	~	SPOT
68.7%	489.85	~	~	~	~	521.80	5.36	422.05	5.24	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.
Signal not at Max Y due to scan limitation.

TW = .46 L = .50 S = 2.45 w/clad

Analyst: Cl M
Level: III **Date:** 12/20/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-033

Exam Data Sheet No.: E-12-09
Ind. Data Sheet No.: 12-084
Indication: 12-084

Flaw Thruwall Dimension = 0.46
Flaw Length "l" = 0.50
Separation with clad "S" = 2.45
Surface Separation "S" = 2.26

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	5.12	6.88 Y
0.50	5.20	7.6	~	~
			Allowed	Allowed
			5.12	6.88

a = 0.230
a/l value = 0.460
Y = 1.000

Flaw is Subsurface

Allowed a/t = 6.88%
a/t = 3.61%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-09
Patch ID: BF-033
Ind. Data Sheet No.: 12-085

Indication: 12-085 **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
36.7%	469.21	~	~	~	~	531.45	7.01	~	~	~	~	~
50.2%	469.54	~	~	~	~	531.45	6.98	~	~	~	~	~
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Comments: No apparent tip signals.
 Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: <u>CL Mas</u> Level: <u>III</u> Date: <u>12/20/93</u>	Reviewed By: <u>R.O. Forman</u> Level: <u>II</u> Date: <u>12-21-93</u>
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R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-004

Exam Data Sheet No.: E-12-09

Patch ID: BF-033

Ind. Data Sheet No.: 12-086

Indication: 12-086

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
57.0%	469.54	~	~	~	~	531.20	11.36	~	~	~	~	~
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Comments: No apparent tip signals.
 OD surface. 3.26 dB below notch.
 Evaluated to notch sensitivity.

TW = .127 0.25 S = 0

Analyst: CF M

Reviewed By: R.O. Forman

Level: III **Date:** 12/20/93

Level: II **Date:** 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-033

Exam Data Sheet No.: E-12-09
Ind. Data Sheet No.: 12-086
Indication: 12-086

Flaw Thruwall Dimension = 0.127
Flaw Length "l" = 0.75
Separation with clad "S" = 1.48
Surface Separation "S" = 1.29

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	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 2.14	Allowed 2.41

a = 0.064
a/l value = 0.085
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.41%
a/t = 1.00%

Comments:

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-09
Patch ID: BF-033
Ind. Data Sheet No.: 12-087

Indication: 12-087 **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
25.2%	479.04	~	~	~	~	530.95	6.53	~	~	~	~	~
40.8%	479.29	~	~	~	~	531.20	6.75	~	~	~	~	~
44.3%	479.54	~	~	~	~	530.95	6.50	~	~	~	~	~
41.6%	479.79	~	~	~	~	530.95	6.50	~	~	~	~	~
44.3%	480.04	~	~	~	~	531.20	6.68	~	~	~	~	~
26.9%	480.29	~	~	~	~	531.20	6.72	~	~	~	~	~
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Comments: No apparent tip signals.
Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: CE Ma
Level: III **Date:** 12/20/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-09
Patch ID: BF-033
Ind. Data Sheet No.: 12-088

Indication: 12-088 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
128.4%	482.04	~	~	~	~	526.95	10.69	~	~	~	~	~
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Comments: OD geometry due to Nozzle N11-B.

Analyst: CL M
Level: III Date: 12/20/93

Reviewed By: R.O. Forman
Level: II Date: 12.21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-10
Patch ID: BF-034
Ind. Data Sheet No.: 12-089

Indication: 12-089 **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%	507.15	~	~	~	~	523.00	18.32	~	~	~	~	~
94.0%	507.40	~	~	~	~	523.25	16.16	~	~	~	~	~
36.7%	507.65	~	~	~	~	523.25	16.16	~	~	~	~	~
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Comments: No apparent tip signals.
Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: CL M₅
Level: III **Date:** 12/20/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-10
Patch ID: BF-034
Ind. Data Sheet No.: 12-090

Indication: 12-090

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
22.3%	510.40	~	~	~	~	523.00	18.40	~	~	~	~	~
47.2%	510.65	~	~	~	~	523.50	14.32	~	~	~	~	~
44.3%	510.90	~	~	~	~	523.25	16.56	~	~	~	~	~
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Comments: No apparent tip signals.
 Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: C. J. Ma
 Level: III Date: 12/20/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-10
Patch ID: BF-034
Ind. Data Sheet No.: 12-091

Indication: 12-091 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
9.9%	500.21	~	~	~	~	522.80	4.63	~	~	~	~	~
26.9%	500.46	~	~	~	~	522.80	4.63	~	~	~	~	~
36.7%	500.71	~	~	~	~	522.80	4.66	~	~	~	~	SPOT
19.6%	500.96	~	~	~	~	523.05	4.47	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .212 L = .75 S = 3.19 w/clad

Analyst: CA Mas
Level: III Date: 12/20/93

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

R 1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-034

Exam Data Sheet No.: E-12-10
Ind. Data Sheet No.: 12-091
Indication: 12-091

Flaw Thruwall Dimension = 0.21
Flaw Length "l" = 0.75
Separation with clad "S" = 3.19
Surface Separation "S" = 3.00

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	2.45	2.83 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
			2.45	2.83

a = 0.106
a/l value = 0.141
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.83%
a/t = 1.66%

Comments:



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-10
Patch ID: BF-034
Ind. Data Sheet No.: 12-092

Indication: 12-092

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
11.2%	501.46	~	~	~	~	522.46	4.98	~	~	~	~	~
28.6%	501.71	~	~	~	~	522.80	4.61	~	~	~	~	~
39.1%	501.96	~	~	~	~	522.55	4.74	~	~	~	~	~
50.2%	502.21	~	~	~	~	522.55	4.75	~	~	~	~	SPOT
47.2%	502.46	~	~	~	~	522.80	4.61	~	~	~	~	~
50.2%	502.71	~	~	~	~	522.80	4.57	~	~	~	~	~
23.7%	502.98	~	~	~	~	522.55	4.76	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .169 L = 1.50 S = 3.152

Analyst: CP M

Reviewed By: R.O. Forman

Level: III Date: 12/20/93

Level: II Date: 12-21-93



GE Nuclear Energy

**GERIS 2000 Indication
Evaluation Sheet**

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-034

Exam Data Sheet No.: E-12-10
Ind. Data Sheet No.: 12-092
Indication: 12-092

Flaw Thruwall Dimension = 0.17
Flaw Length "I" = 1.50
Separation with clad "S" = 3.15
Surface Separation "S" = 2.96

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	2.03	2.24 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 2.03	Allowed 2.24

a = 0.085
a/l value = 0.057
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.24%
a/t = 1.33%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-10
Patch ID: BF-034
Ind. Data Sheet No.: 12-093

Indication: 12-093 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%	512.46	~	~	~	~	523.30	3.47	~	~	~	~	~
41.6%	512.71	~	~	~	~	523.55	3.28	~	~	~	~	SPOT
28.6%	512.96	~	~	~	~	523.55	3.27	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .169 L = .50 S = 2.234 w/clad

Analyst: CR M5

Reviewed By: R.O. Forman

Level: III Date: 12/20/93

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-034

Exam Data Sheet No.: E-12-10
Ind. Data Sheet No.: 12-093
Indication: 12-093

Flaw Thruwall Dimension = 0.17
Flaw Length "l" = 0.50
Separation with clad "S" = 2.23
Surface Separation "S" = 2.04

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	2.61	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 2.61	Allowed 3.05

a = 0.085
a/l value = 0.169
Y = 1.000

Flaw is Subsurface

Allowed a/t = 3.05%
a/t = 1.32%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-004

Exam Data Sheet No.: E-12-10

Patch ID: BF-034

Ind. Data Sheet No.: 12-094

Indication: 12-094

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
9.9%	519.46	~	~	~	~	522.30	4.95	~	~	~	~	~
41.6%	519.71	~	~	~	~	522.30	4.90	~	~	~	~	L1
100.0%	519.96	~	~	522.05	5.22	522.80	4.60	523.05	4.39	~	~	SPOT
73.1%	520.21	~	~	522.30	4.98	522.55	4.76	523.05	4.41	~	~	~
57.2%	520.46	~	~	~	~	522.55	4.85	~	~	~	~	~
16.3%	520.71	~	~	~	~	522.80	4.60	~	~	~	~	L2
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Comments: Thruwall size was determined by the SPOT technique.

TW = .339 L = 1.0 S = 3.08 w/clad

Analyst: CF M5

Reviewed By: R.O. Forman

Level: III Date: 12/20/93

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-034

Exam Data Sheet No.: E-12-10
Ind. Data Sheet No.: 12-094
Indication: 12-094

Flaw Thruwall Dimension = 0.339
Flaw Length "l" = 1.00
Separation with clad "S" = 3.08
Surface Separation "S" = 2.89

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	~	~
0.15	2.50	2.9	2.62	3.06 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 2.62	Allowed 3.06

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

Flaw is Subsurface

Allowed a/t = 3.06%
 a/t = 2.66%

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3

Exam Data Sheet No.: E-12-10

Weld ID: C-3-4

Patch ID: BF-034

Cal. ID: C-004

Ind. Data Sheet No.: 12-095

Indication: 12-095

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
77.9%	554.96	~	~	~	~	523.55	10.24	~	~	~	~	-8.16 N
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Comments: OD geometry due to surface attachments.

Analyst: CF M
Level: III **Date:** 12/20/93

Reviewed By: R.D. Freeman
Level: II **Date:** 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-10
Patch ID: BF-034
Ind. Data Sheet No.: 12-096

Indication: 12-096 **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
57.0%	558.96	~	~	~	~	523.05	9.99	~	~	~	~	~
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Comments: OD geometry due to surface attachments.

Analyst: *CJ M*
 Level: *III* Date: *12/20/96*

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

B1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-10
Patch ID: BF-034
Ind. Data Sheet No.: 12-097

Indication: 12-097

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%	489.15	~	~	~	~	529.00	4.77	~	~	~	~	~
19.6%	489.40	~	~	~	~	529.00	4.91	~	~	~	~	~
19.6%	489.65	~	~	~	~	529.00	4.88	~	~	~	~	~
36.7%	489.90	~	~	~	~	529.00	4.80	~	~	~	~	~
28.6%	490.15	~	~	~	~	529.00	4.83	~	~	~	~	Delta MP
56.0%	490.40	~	~	~	~	529.25	5.04	~	~	~	~	~
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Comments: Thruwall size was determined by the Delta Metal Path technique.

TW = .27 L = 1.25 S = 2.90

Analyst: C.P. M...

Reviewed By: R.O. Foman

Level: III Date: 12/20/93

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-034

Exam Data Sheet No.: E-12-10
Ind. Data Sheet No.: 12-097
Indication: 12-097

Flaw Thruwall Dimension = 0.27
Flaw Length "l" = 1.25
Separation with clad "S" = N/A
Surface Separation "S" = 2.90

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	~	~
0.10	2.20	2.5	2.25	2.56 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
			2.25	2.56

a = 0.135
a/l value = 0.108
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.56%
a/t = 2.12%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-004

Exam Data Sheet No.: E-12-10

Patch ID: BF-034

Ind. Data Sheet No.: 12-098

Indication: 12-098

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
23.7%	500.40	~	~	~	~	529.25	5.00	~	~	~	~	~
32.4%	500.65	~	~	~	~	529.25	4.97	~	~	~	~	~
22.3%	500.95	~	~	~	~	529.25	5.00	~	~	~	~	~
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Comments: No apparent tip signals.
 Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: CR M5
 Level: III Date: 12/20/93

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



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-10
Patch ID: BF-034
Ind. Data Sheet No.: 12-099

Indication: 12-099

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
16.3%	501.40	~	~	~	~	529.00	4.75	~	~	~	~	~
39.1%	501.65	~	~	~	~	529.00	4.77	~	~	~	~	~
39.1%	501.90	~	~	~	~	529.25	4.94	~	~	~	~	SPOT
41.6%	502.15	~	~	~	~	529.25	4.94	~	~	~	~	~
22.3%	502.40	~	~	~	~	529.25	5.01	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .212 L = 1.00 S = 3.001

Analyst: CLM

Reviewed By: R.O. Forman

Level: III Date: 12/20/93

Level: II Date: 12-21-93



GE Nuclear Energy

**GERIS 2000 Indication
Evaluation Sheet**

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-034

Exam Data Sheet No.: E-12-10
Ind. Data Sheet No.: 12-099
Indication: 12-099

Flaw Thruwall Dimension = 0.21
Flaw Length "l" = 1.00
Separation with clad "S" = N/A
Surface Separation "S" = 3.00

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	2.24	2.55 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
			2.24	2.55

a = 0.106
a/l value = 0.106
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.55%
a/t = 1.66%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-10
Patch ID: BF-034
Ind. Data Sheet No.: 12-100

Indication: 12-100 **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
26.9%	516.65	~	~	~	~	529.50	7.65	~	~	~	~	~
44.3%	516.90	~	~	~	~	529.50	7.62	~	~	~	~	~
47.2%	517.15	~	~	~	~	529.50	7.65	~	~	~	~	SPOT
32.4%	517.40	~	~	~	~	529.75	7.84	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .31 L = .75 S = 1.036

Analyst: CJ M
Level: II **Date:** 12/30/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-034

Exam Data Sheet No.: E-12-10
Ind. Data Sheet No.: 12-100
Indication: 12-100

Flaw Thruwall Dimension = 0.31
Flaw Length "l" = 0.75
Separation with clad "S" = N/A
Surface Separation "S" = 1.04

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	2.87	3.37 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 2.87	Allowed 3.37

a = 0.156
a/l value = 0.207
Y = 1.000

Flaw is Subsurface

Allowed a/t = 3.37%
a/t = 2.44%

Comments:



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-10
Patch ID: BF-034
Ind. Data Sheet No.: 12-101

Indication: 12-101 **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
22.2%	519.65	~	~	~	~	529.00	4.87	~	~	~	~	~
30.4%	519.90	~	~	~	~	529.25	5.05	~	~	~	~	~
25.2%	520.15	~	~	~	~	529.50	5.28	~	~	~	~	SPOT
25.2%	520.40	~	~	~	~	529.25	5.09	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .169 L = .75 S = 2.945

Analyst: Cl M

Reviewed By: R.O. Forman

Level: III Date: 12/20/93

Level: II Date: 12-21-93



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-034

Exam Data Sheet No.: E-12-10
Ind. Data Sheet No.: 12-101
Indication: 12-101

Flaw Thruwall Dimension = 0.17
Flaw Length "l" = 0.75
Separation with clad "S" = N/A
Surface Separation "S" = 2.95

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	2.60 Y
0.15	2.50	2.9	~	~
0.20	2.80	3.3	~	~
0.25	3.30	3.8	~	~
0.30	3.80	4.4	~	~
0.35	4.40	5.1	~	~
0.40	5.00	5.8	~	~
0.45	5.10	6.7	~	~
0.50	5.20	7.6	~	~
			Allowed 2.28	Allowed 2.60

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

Flaw is Subsurface

Allowed a/t = 2.60%
 a/t = 1.32%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-10
Patch ID: BF-034
Ind. Data Sheet No.: 12-102

Indication: 12-102 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
175.6%	502.10	~	~	517.80	9.07	520.80	6.20	521.80	5.28	~	~	~
187.1%	502.35	~	~	517.55	9.26	520.55	6.43	521.80	5.31	~	~	SPOT
225.7%	502.60	~	~	517.55	9.30	520.55	6.34	521.80	5.31	~	~	~
145.5%	502.85	~	~	517.55	9.26	520.55	6.39	521.55	5.62	~	~	~
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Comments: SPOT MP1 = 6.44 MP2 = 6.57 Delta = 0.14

Thruwall size was determined by the SPOT technique.

Analyst: CE M/S

Level: III Date: 12/21/93

Reviewed By: R.O. Forman

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

**GERIS 2000 Indication
Evaluation Sheet**

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-034

Exam Data Sheet No.: E-12-10
Ind. Data Sheet No.: 12-102
Indication: 12-102

Flaw Thruwall Dimension = 0.28
Flaw Length "l" = 0.75
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	2.72	3.19 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 2.72	Allowed 3.19

a = 0.140
a/l value = 0.187
Y = 1.000

Flaw is Subsurface

Allowed a/t = 3.19%
a/t = 2.19%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-004

Exam Data Sheet No.: E-12-10

Patch ID: BF-034

Ind. Data Sheet No.: 12-103

Indication: 12-103

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
64.5%	519.60	~	~	517.80	9.00	520.30	6.72	521.80	5.43	~	~	~
199.1%	519.85	~	~	517.30	9.44	520.80	6.24	522.05	5.14	~	~	~
255.9%	520.10	~	~	517.80	9.00	520.80	6.27	522.05	5.14	~	~	SPOT
155.1%	520.35	~	~	517.30	9.47	520.55	6.46	521.60	5.43	~	~	~
136.8%	520.60	~	~	517.55	9.30	520.55	6.50	521.60	6.02	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .44 L = 1.0 S = 2.915 w/clad

Analyst: CF Me

Reviewed By: R.O. Forman

Level: II Date: 12-21-93

Level: II Date: 12-21-93



GE Nuclear Energy

**GERIS 2000 Indication
Evaluation Sheet**

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-034

Exam Data Sheet No.: E-12-10
Ind. Data Sheet No.: 12-103
Indication: 12-1032

Flaw Thruwall Dimension = 0.44
Flaw Length "l" = 1.00
Separation with clad "S" = 2.92
Surface Separation "S" = 2.73

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	3.00	3.50 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 3.00	Allowed 3.50

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

Flaw is Subsurface

Allowed a/t = 3.50%
a/t = 3.45%

Comments:



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-10
Patch ID: BF-034
Ind. Data Sheet No.: 12-104

Indication: 12-104

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
53.5%	555.10	~	~	~	~	522.30	11.24	~	~	~	~	-2.72 N
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Comments: OD surface attachment.

Analyst: CF M

Reviewed By: R.O. Forman

Level: III Date: 12/21/93

Level: II Date: 12-21-93



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-10
Patch ID: BF-034
Ind. Data Sheet No.: 12-105

Indication: 12-105

Channel: 11

Angle: 60

Direction: 0

Amp.	X	20% Min Y	MP	50% Min Y	MP	@ Max Y	MP	50% Max Y	MP	20% Max Y	MP	Remarks
60.6%	558.60	~	~	~	~	521.05	11.65	~	~	~	~	-2.12 N
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Comments: OD geometry due to surface attachment.

Analyst: CL MS
Level: III Date: 12/20/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-10
Patch ID: BF-034
Ind. Data Sheet No.: 12-106

Indication: 12-106

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
73.1%	489.54	~	~	~	~	531.20	6.68	~	~	~	~	~
77.9%	489.79	~	~	~	~	531.20	6.75	~	~	~	~	SPOT
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Comments: Thruwall size was determined by the SPOT technique.

TW = .32 L = .25 S = 3.065

Analyst: QJ MA

Reviewed By: R.O. Forman

Level: II Date: 12/20/93

Level: II Date: 12-21-93



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-034

Exam Data Sheet No.: E-12-10
Ind. Data Sheet No.: 12-106
Indication: 12-106

Flaw Thruwall Dimension = 0.32
Flaw Length "l" = 0.25
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	~	~
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 5.20	Allowed 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:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-004

Exam Data Sheet No.: E-12-10

Patch ID: BF-034

Ind. Data Sheet No.: 12-107

Indication: 12-107

Channel: 13

Angle: 60

Direction: 180

Amp.	X	20% Min Y	MP	50% Min Y	MP	@ Max Y	MP	50% Max Y	MP	20% Max Y	MP	Remarks
28.6%	502.04	~	~	~	~	531.45	6.82	~	~	~	~	~
47.2%	502.29	~	~	~	~	531.20	6.67	~	~	~	~	SPOT
47.2%	502.54	~	~	~	~	530.95	6.46	~	~	~	~	~
23.7%	502.79	~	~	~	~	531.45	6.84	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .34 L = .75 S = 3.095

Analyst: OL May

Level: IV Date: 12/20/93

Reviewed By: R.O. Forman

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-034

Exam Data Sheet No.: E-12-10
Ind. Data Sheet No.: 12-107
Indication: 12-107

Flaw Thruwall Dimension = 0.34
Flaw Length "l" = 0.75
Separation with clad "S" = N/A
Surface Separation "S" = 3.10

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	3.07	3.57 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 3.07	Allowed 3.57

a = 0.170
 a/l value = 0.227
 Y = 1.000

Flaw is Subsurface

Allowed a/t = 3.57%
 a/t = 2.66%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-10
 Patch ID: BF-034
 Ind. Data Sheet No.: 12-108

Indication: 12-108 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
25.2%	519.79	~	~	~	~	531.20	6.71	~	~	~	~	~
47.2%	520.04	~	~	~	~	531.20	6.73	~	~	~	~	~
47.2%	520.29	~	~	~	~	531.20	6.71	~	~	~	~	~
22.3%	520.54	~	~	~	~	530.95	6.49	~	~	~	~	~
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Comments: No apparent tip signals.
 Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: <u>CP M</u>	Reviewed By: <u>R.D. Forman</u>
Level: <u>TU</u> Date: <u>12/20/93</u>	Level: <u>#</u> Date: <u>12-21-93</u>



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-11
Patch ID: BF-035
Ind. Data Sheet No.: 12-109

Indication: 12-109

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%	577.90	~	~	~	~	523.50	14.00	~	~	~	~	~
53.5%	578.15	~	~	~	~	523.25	16.00	~	~	~	~	~
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Comments: No apparent tip signals.
 Indication has no determinable thruwall and is acceptable to IVB-3510-1.

Analyst: CB M5
Level: III **Date:** 12/20/93

Reviewed By: R.D. Foreman
Level: II **Date:** 12-21-93



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-11
Patch ID: BF-035
Ind. Data Sheet No.: 12-110

Indication: 12-110

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
14.4%	559.35	~	~	~	~	526.20	19.20	~	~	~	~	~
41.6%	559.60	~	~	~	~	526.45	21.04	~	~	~	~	PATT
47.2%	559.85	~	~	~	~	526.45	21.12	~	~	~	~	~
15.3%	560.10	~	~	~	~	526.45	21.36	~	~	~	~	~
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Comments: Thruwall size was determined by the PATT technique.

TW = .317 L = 1.00 S = .914 w/clad

Analyst: Ch Mc

Reviewed By: R.O. Forman

Level: III Date: 12/20/93

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-035

Exam Data Sheet No.: E-12-11
Ind. Data Sheet No.: 12-110
Indication: 12-110

Flaw Thruwall Dimension = 0.32
Flaw Length "l" = 1.00
Separation with clad "S" = 0.91
Surface Separation "S" = 0.72

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	2.56	2.98 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 2.56	Allowed 2.98

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

Flaw is Subsurface

Allowed a/t = 2.98%
a/t = 2.51%

Comments:

Blank lines for comments.

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-11
Patch ID: BF-035
Ind. Data Sheet No.: 12-111

Indication: 12-111 **Channel:** 5 **Angle:** 70 **Direction:** 180

Amp.	X	20%		50%		@ Max		50%		20%		Remarks
		Min Y	TOF	Min Y	TOF	Y	TOF	Max Y	TOF	Max Y	TOF	
17.3%	566.35	~	~	~	~	526.70	15.20	~	~	~	~	~
17.3%	566.60	~	~	~	~	526.95	17.20	~	~	~	~	~
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Comments: No apparent tip signals.
 Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: *CJ Mc*
Level: III **Date:** 12/20/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-11
Patch ID: BF-035
Ind. Data Sheet No.: 12-112

Indication: 12-112 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%	571.85	~	~	~	~	527.20	17.92	~	~	~	~	~
28.6%	572.10	~	~	~	~	527.20	17.84	~	~	~	~	~
20.9%	572.35	~	~	~	~	526.95	15.84	~	~	~	~	~
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Comments: No apparent tip signals.
Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: <u>Cl Ma</u>	Reviewed By: <u>R.O. Forman</u>
Level: <u>III</u> Date: <u>12/20/93</u>	Level: <u>II</u> Date: <u>12-21-93</u>



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-11
Patch ID: BF-035
Ind. Data Sheet No.: 12-113

Indication: 12-113 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%	577.60	~	~	~	~	526.70	21.12	~	~	~	~	~
50.2%	577.65	~	~	~	~	526.20	17.44	~	~	~	~	PATT
34.5%	578.10	~	~	~	~	526.45	19.28	~	~	~	~	~
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Comments: Thruwall size was determined by the PATT technique.

TW = .346 L = .75 S = .703 w/clad

Analyst: *C.J. Meadows*
Level: *III* Date: *12/20/93*

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-035

Exam Data Sheet No.: E-12-11
Ind. Data Sheet No.: 12-113
Indication: 12-113

Flaw Thruwall Dimension = 0.35
Flaw Length "l" = 0.75
Separation with clad "S" = 0.70
Surface Separation "S" = 0.51

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	3.13	3.63 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 3.13	Allowed 3.63

a = 0.175
a/l value = 0.233
Y = 1.000

Flaw is Subsurface

Allowed a/t = 3.63%
a/t = 2.74%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-004

Exam Data Sheet No.: E-12-12

Patch ID: BF-036

Ind. Data Sheet No.: 12-114

Indication: 12-114

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
23.7%	677.96	~	~	~	~	523.80	5.75	~	~	~	~	~
34.5%	678.21	~	~	~	~	523.80	5.75	~	~	~	~	SPOT
25.2%	678.46	~	~	~	~	524.05	5.76	~	~	~	~	~
22.3%	678.71	~	~	~	~	524.05	5.76	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .169 L = .75 S = 2.45

Analyst: CF M15

Reviewed By: R.O. Forman

Level: JH Date: 12/20/93

Level: JH Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-036

Exam Data Sheet No.: E-12-12
Ind. Data Sheet No.: 12-114
Indication: 12-114

Flaw Thruwall Dimension = 0.17
Flaw Length "I" = 0.75
Separation with clad "S" = N/A
Surface Separation "S" = 2.45

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	2.60 Y
0.15	2.50	2.9	~	~
0.20	2.80	3.3	~	~
0.25	3.30	3.8	~	~
0.30	3.80	4.4	~	~
0.35	4.40	5.1	~	~
0.40	5.00	5.8	~	~
0.45	5.10	6.7	~	~
0.50	5.20	7.6	~	~
			Allowed 2.28	Allowed 2.60

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

Flaw is Subsurface

Allowed a/t = 2.60%
 a/t = 1.32%

Comments:

06 Y 3 0000 1978

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-12
Patch ID: BF-036
Ind. Data Sheet No.: 12-115

Indication: 12-115 **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%	678.46	~	~	~	~	523.30	3.97	~	~	~	~	~
28.6%	678.71	~	~	~	~	523.30	4.06	~	~	~	~	~
57.0%	678.96	~	~	~	~	523.30	4.05	~	~	~	~	~
77.9%	679.21	~	~	~	~	523.05	4.23	~	~	~	~	SPOT
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Comments: Thruwall size was determined by the SPOT technique.
Indication continues past X limit.

TW = .212 L = .75 S = 2.88 w/clad

Analyst: CL M

Reviewed By: R.D. Forman

Level: III Date: 12/20/93

Level: II Date: 12-21-93

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GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-036

Exam Data Sheet No.: E-12-12
Ind. Data Sheet No.: 12-115
Indication: 12-115

Flaw Thruwall Dimension = 0.21
Flaw Length "l" = 0.75
Separation with clad "S" = 2.88
Surface Separation "S" = 2.69

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	2.45	2.83 Y
0.15	2.50	2.9	~	~
0.20	2.80	3.3	~	~
0.25	3.30	3.8	~	~
0.30	3.80	4.4	~	~
0.35	4.40	5.1	~	~
0.40	5.00	5.8	~	~
0.45	5.10	6.7	~	~
0.50	5.20	7.6	~	~
			Allowed 2.45	Allowed 2.83

a = 0.106
 a/l value = 0.141
 Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.83%
 a/t = 1.66%

Comments:



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-004

Exam Data Sheet No.: E-12-12

Patch ID: BF-036

Ind. Data Sheet No.: 12-116

Indication: 12-116

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
16.3%	616.65	~	~	~	~	530.00	5.39	~	~	~	~	~
23.7%	616.90	~	~	~	~	530.00	5.44	~	~	~	~	SPOT
22.3%	617.15	~	~	~	~	530.25	5.61	~	~	~	~	~
11.9%	617.40	~	~	~	~	530.25	5.64	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .311 L = .75 S = 2.598

Analyst: C. M. [Signature]

Reviewed By: R.O. Forman [Signature]

Level: III Date: 12/20/93

Level: II Date: 12-21-93

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GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-036

Exam Data Sheet No.: E-12-12
Ind. Data Sheet No.: 12-116
Indication: 12-116

Flaw Thruwall Dimension = 0.311
Flaw Length "l" = 0.75
Separation with clad "S" = N/A
Surface Separation "S" = 2.60

T measured = 6.49
Clad T nominal = 0.19

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	2.87	3.37 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 2.87	Allowed 3.37

a = 0.156
a/l value = 0.207
Y = 1.000

Flaw is Subsurface

Allowed a/t = 3.37%
a/t = 2.40%

Comments: Ind 12-116 combines with ind. 12-117 in accordance with the rules of IWA-3390.

a = actual a dimension $(12-116 a + 117 a) < ((12-116 e + 12-117 e))/ 2$

e = allowed a dimension $(.156 + .156) < ((6.49 * .0337) + (6.49 * .0455))/2$

.312 < .227

Combined indication 12-116 is unacceptable to IWB-3510-1. *

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-12
Patch ID: BF-036
Ind. Data Sheet No.: 12-117

Indication: 12-117

Channel: 9

Angle: 45

Direction: 180

Amp.	X	20% Min Y	MP	50% Min Y	MP	@ Max Y	MP	50% Max Y	MP	20% Max Y	MP	Remarks
12.7%	616.90	~	~	~	~	529.00	4.24	~	~	~	~	~
22.3%	617.15	~	~	~	~	529.25	4.40	~	~	~	~	~
15.3%	617.40	~	~	~	~	529.25	4.38	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .311 L = .5 S = 2.95 w/clad

Analyst: CJ Mc

Reviewed By: R.D. Forman

Level: III Date: 12/20/93

Level: II Date: 12-21-93



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

R1153

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-036

Exam Data Sheet No.: E-12-12
Ind. Data Sheet No.: 12-117
Indication: 12-117

Flaw Thruwall Dimension = 0.311
Flaw Length "l" = 0.50
Separation with clad "S" = 2.95
Surface Separation "S" = 2.76

T measured = 6.49
Clad T nominal = 0.19

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 = 2.40%

Comments: Ind 12-116 combines with ind. 12-117 in accordance with the rules of IWA-3390.

a = actual a dimension $(12-116 a + 117 a) < ((12-116 e + 12-117 e))/ 2$

e = allowed a dimension $(.156 + .156) < ((6.49 * .0337) + (6.49 * .0455))/2$

.312 < .227

Combined indication 12-116 is unacceptable to IWB-3510-1.

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GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-12
Patch ID: BF-036
Ind. Data Sheet No.: 12-118

Indication: 12-118 **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%	618.90	~	~	~	~	529.00	3.98	~	~	~	~	~
26.9%	619.15	~	~	~	~	529.00	3.94	~	~	~	~	~
23.7%	619.40	~	~	~	~	529.25	4.12	~	~	~	~	SPOT
10.5%	619.65	~	~	~	~	529.25	4.08	~	~	~	~	~
12.7%	619.90	~	~	~	~	529.00	3.98	~	~	~	~	~
13.5%	620.15	~	~	~	~	529.25	4.21	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .169 L = 1.25 S = 2.701 w/clad

Analyst: CQ M-J

Reviewed By: R.O. Forman

Level: III Date: 12/20/93

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-036

Exam Data Sheet No.: E-12-12
Ind. Data Sheet No.: 12-118
Indication: 12-118

Flaw Thruwall Dimension = 0.17
Flaw Length "l" = 1.25
Separation with clad "S" = 2.70
Surface Separation "S" = 2.51

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	2.07	2.31 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
			2.07	2.31

a = 0.085
a/l value = 0.068
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.31%
a/t = 1.32%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-12
Patch ID: BF-036
Ind. Data Sheet No.: 12-119

Indication: 12-119 **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
36.7%	632.90	~	~	~	~	529.50	5.02	~	~	~	~	~
32.4%	633.15	~	~	~	~	529.50	5.01	~	~	~	~	~
26.9%	633.40	~	~	~	~	529.75	5.21	~	~	~	~	~
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Comments: No apparent tip signals.
Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: CRM
Level: III Date: 12/20/93

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

R1153



GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-13
Patch ID: BF-037
Ind. Data Sheet No.: 12-120

Indication: 12-120 **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
22.3%	686.15	~	~	~	~	523.00	17.20	~	~	~	~	~
30.4%	686.40	~	~	~	~	523.00	17.52	~	~	~	~	~
30.4%	686.65	~	~	~	~	522.50	24.40	~	~	~	~	~
39.1%	686.90	~	~	~	~	522.75	22.48	~	~	~	~	~
23.7%	687.15	~	~	~	~	522.75	22.80	~	~	~	~	~
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Comments: No apparent tip signals.
 Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: CF M5
 Level: III Date: 12/20/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-13
 Patch ID: BF-037
 Ind. Data Sheet No.: 12-121

Indication: 12-121

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
34.5%	685.85	~	~	~	~	525.70	16.16	~	~	~	~	~
41.6%	686.10	~	~	~	~	525.95	17.84	~	~	~	~	~
36.7%	686.35	~	~	~	~	526.45	19.04	~	~	~	~	~
57.0%	686.60	~	~	~	~	526.45	19.04	~	~	~	~	~
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Comments: No apparent tip signals.
 Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: Ch M
 Level: III Date: 12/20/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-13
Patch ID: BF-037
Ind. Data Sheet No.: 12-122

Indication: 12-122

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
14.4%	722.96	~	~	~	~	523.30	2.42	~	~	~	~	~
28.6%	723.21	522.55	3.00	~	~	522.80	2.86	~	~	523.55	2.27	~
34.5%	723.46	522.55	3.02	~	~	525.05	2.67	~	~	523.30	2.45	~
12.7%	723.71	~	~	~	~	523.05	2.61	~	~	~	~	~
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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 and is acceptable to IWB-3510-1.

TW=0 L=.75 S=1.622 w/clad

Analyst: CF M
Level: III Date: 12/21/93

Reviewed By: CF M
Level: III Date: 1/25/94

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-004

Exam Data Sheet No.: E-12-13

Patch ID: BF-037

Ind. Data Sheet No.: 12-123

Indication: 12-123

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%	731.96	~	~	~	~	519.80	5.92	~	~	~	~	~
20.9%	732.21	~	~	~	~	520.80	5.17	~	~	~	~	SPOT
25.2%	732.46	~	~	~	~	520.05	5.68	~	~	~	~	~
12.7%	732.71	~	~	~	~	520.05	5.68	~	~	~	~	~
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Comments: Thruwall size was determined by the SPOT technique.

TW = .254 L = .75 S = 2.457

Analyst: CR MS

Reviewed By: R.O. Forman

Level: III Date: 12/20/93

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-037

Exam Data Sheet No.: E-12-13
Ind. Data Sheet No.: 12-123
Indication: 12-123

Flaw Thruwall Dimension = 0.25
Flaw Length "I" = 0.75
Separation with clad "S" = N/A
Surface Separation "S" = 2.46

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 2.62	Allowed 3.05

a = 0.127
a/l value = 0.169
Y = 1.000

Flaw is Subsurface

Allowed a/t = 3.05%
a/t = 1.99%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-037

Exam Data Sheet No.: E-12-13
Ind. Data Sheet No.: 12-124
Indication: 12-124

Flaw Thruwall Dimension = 0.27
Flaw Length "I" = 1.25
Separation with clad "S" = 2.17
Surface Separation "S" = 1.98

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	2.24	2.56 Y
0.15	2.50	2.9	~	~
0.20	2.80	3.3	~	~
0.25	3.30	3.8	~	~
0.30	3.80	4.4	~	~
0.35	4.40	5.1	~	~
0.40	5.00	5.8	~	~
0.45	5.10	6.7	~	~
0.50	5.20	7.6	~	~
			Allowed 2.24	Allowed 2.56

a = 0.134
a/l value = 0.107
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.56%
a/t = 2.10%

Comments:



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-14
Patch ID: BF-038
Ind. Data Sheet No.: 12-130

Indication: 12-130 **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
17.3%	759.65	~	~	~	~	523.50	21.12	~	~	~	~	~
17.3%	759.90	~	~	~	~	523.75	17.60	~	~	~	~	~
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Comments: No apparent tip signals.
 Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: Cl M
 Level: III Date: 12/20/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-14
Patch ID: BF-038
Ind. Data Sheet No.: 12-131

Indication: 12-131 **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
60.6%	763.40	~	~	~	~	524.75	8.48	~	~	~	~	~
50.2%	763.65	~	~	~	~	522.25	13.76	~	~	~	~	~
36.7%	763.90	~	~	~	~	524.25	13.92	~	~	~	~	~
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Comments: Thruwall determined by the PATT technique.

TW = .520 L = .75 S = .469 w/clad

Analyst: CP Mas
Level: III **Date:** 12/20/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-038

Exam Data Sheet No.: E-12-14
Ind. Data Sheet No.: 12-131
Indication: 12-131

Flaw Thruwall Dimension = 0.52
Flaw Length "l" = 0.75
Separation with clad "S" = 0.47
Surface Separation "S" = 0.28

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	4.36	5.05 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 4.36	Allowed 5.05

a = 0.260
a/l value = 0.347
Y = 1.000

Flaw is Subsurface

Allowed a/t = 5.05%
a/t = 4.08%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-004

Exam Data Sheet No.: E-12-14

Patch ID: BF-038

Ind. Data Sheet No.: 12-132

Indication: 12-132

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
20.9%	770.90	~	~	~	~	523.75	17.92	~	~	~	~	~
34.5%	771.15	~	~	~	~	523.75	17.92	~	~	~	~	~
12.7%	771.40	~	~	~	~	523.75	17.84	~	~	~	~	~
30.4%	771.65	~	~	~	~	523.75	17.76	~	~	~	~	~
26.9%	771.90	~	~	~	~	523.75	17.76	~	~	~	~	~
14.4%	772.15	~	~	~	~	523.75	17.76	~	~	~	~	~
14.4%	772.40	~	~	~	~	523.75	17.76	~	~	~	~	~
14.4%	772.65	~	~	~	~	523.75	17.76	~	~	~	~	~
22.3%	772.90	~	~	~	~	523.75	18.08	~	~	~	~	~
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Comments: No apparent tip signals.
 Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: CJ Mc
Level: TU **Date:** 12/20/93

Reviewed By: R.O. Forman
Level: II **Date:** 12.21.93

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-14
Patch ID: BF-038
Ind. Data Sheet No.: 12-133

Indication: 12-133 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%	747.46	~	~	~	~	520.80	8.36	~	~	~	~	~
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Comments: OD surface geometry due to crown.

Analyst: CL M
Level: III Date: 12/20/93

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



GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-14
Patch ID: BF-038
Ind. Data Sheet No.: 12-135

Indication: 12-135 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
15.3%	738.10	~	~	~	~	529.20	35.28	~	~	~	~	~
11.9%	738.35	~	~	~	~	527.20	18.72	~	~	~	~	~
11.9%	738.60	~	~	~	~	526.95	16.72	~	~	~	~	~
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Comments: No apparent tip signals.
Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: OT M5
Level: III Date: 12/21/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-14
 Patch ID: BF-038
 Ind. Data Sheet No.: 12-136

Indication: 12-136

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
14.4%	740.35	~	~	~	~	528.20	27.30	~	~	~	~	~
23.7%	740.60	~	~	~	~	528.20	27.52	~	~	~	~	~
23.7%	740.85	~	~	~	~	527.70	23.36	~	~	~	~	PATT
11.2%	741.10	~	~	~	~	528.20	28.08	~	~	~	~	~
14.4%	741.35	~	~	~	~	528.45	29.84	~	~	~	~	~
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Comments: Thruwall size was determined by the PATT technique.

TW = .239 L = 1.25 S = .809 w/clad

Analyst: CL Me
 Level: III Date: 12/20/93

Reviewed By: R.D. Fannan
 Level: JE Date: 12-21-93

232 of 439

00232 WR 7-5-95



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-14
Patch ID: BF-038
Ind. Data Sheet No.: 12-137

Indication: 12-137

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%	742.35	~	~	~	~	528.20	27.60	~	~	~	~	~
25.2%	742.60	~	~	~	~	528.20	27.52	~	~	~	~	~
13.5%	742.85	~	~	~	~	528.45	29.60	~	~	~	~	~
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Comments: No apparent tip signals.

Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: OT M₂₅

Reviewed By: R.O. Forman

Level: III Date: 12/20/93

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-036

Exam Data Sheet No.: E-12-14
Ind. Data Sheet No.: 12-136
Indication: 12-136

Flaw Thruwall Dimension = 0.239
Flaw Length "l" = 1.25
Separation with clad "S" = 0.81
Surface Separation "S" = 0.62

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	2.18	2.47 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 2.18	Allowed 2.47

a = 0.120
 a/l value = 0.096
 Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.47%
 a/t = 1.87%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-14
Patch ID: BF-038
Ind. Data Sheet No.: 12-138

Indication: 12-138 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
17.3%	744.10	~	~	~	~	528.20	27.04	~	~	~	~	~
18.5%	744.35	~	~	~	~	527.20	19.04	~	~	~	~	~
18.5%	744.60	~	~	~	~	527.45	21.28	~	~	~	~	~
41.6%	744.85	~	~	~	~	527.70	23.04	~	~	~	~	~
60.6%	745.10	~	~	~	~	527.45	20.88	~	~	~	~	PATT
26.9%	745.35	~	~	~	~	527.45	20.80	~	~	~	~	~
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Comments: Thruwall size was determined by the PATT technique.

TW = .315 L = 1.50 S = .904 w/clad

Analyst: C. J. Miller
Level: III Date: 12/20/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-036

Exam Data Sheet No.: E-12-14
Ind. Data Sheet No.: 12-138
Indication: 12-138

Flaw Thruwall Dimension = 0.32
Flaw Length "l" = 1.50
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	2.24	2.55 Y
0.15	2.50	2.9	~	~
0.20	2.80	3.3	~	~
0.25	3.30	3.8	~	~
0.30	3.80	4.4	~	~
0.35	4.40	5.1	~	~
0.40	5.00	5.8	~	~
0.45	5.10	6.7	~	~
0.50	5.20	7.6	~	~
			Allowed 2.24	Allowed 2.55

a = 0.160
a/l value = 0.107
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.55%
a/t = 2.51%

Comments:

Blank lines for handwritten comments.

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-14
Patch ID: BF-038
Ind. Data Sheet No.: 12-139

Indication: 12-139 **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%	747.10	~	~	~	~	528.20	27.60	~	~	~	~	~
18.5%	747.35	~	~	~	~	527.95	25.60	~	~	~	~	~
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Comments: No apparent tip signals.
 Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: CL M
Level: III **Date:** 12/20/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-004

Exam Data Sheet No.: E-12-14

Patch ID: BF-038

Ind. Data Sheet No.: 12-140

Indication: 12-140

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
16.3%	749.60	~	~	~	~	528.20	27.60	~	~	~	~	~
28.6%	749.85	~	~	~	~	528.20	27.52	~	~	~	~	~
22.3%	750.10	~	~	~	~	527.95	25.28	~	~	~	~	~
11.2%	750.35	~	~	~	~	527.95	25.76	~	~	~	~	~
16.3%	750.60	~	~	~	~	528.20	27.20	~	~	~	~	~
14.4%	750.85	~	~	~	~	527.95	24.96	~	~	~	~	~
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Comments: No apparent tip signals.
Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: Ch M
Level: III Date: 12/20/93

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



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

R1153

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

Exam Data Sheet No.: E-12-14
Patch ID: BF-038
Ind. Data Sheet No.: 12-141

Indication: 12-141 **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
11.9%	753.10	~	~	~	~	527.45	21.44	~	~	~	~	~
14.4%	753.35	~	~	~	~	527.20	20.24	~	~	~	~	~
14.4%	753.60	~	~	~	~	526.70	16.64	~	~	~	~	~
9.3%	753.85	~	~	~	~	527.95	25.76	~	~	~	~	~
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Comments: No apparent tip signals.
 Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: *CE May*
Level: *III* **Date:** *12/20/93*

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



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

R1153

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-004

Exam Data Sheet No.: E-12-14

Patch ID: BF-038

Ind. Data Sheet No.: 12-142

Indication: 12-142

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
10.5%	754.35	~	~	~	~	527.20	18.48	~	~	~	~	~
22.3%	754.60	~	~	~	~	528.70	19.04	~	~	~	~	~
23.7%	754.85	~	~	~	~	528.70	21.28	~	~	~	~	PATT
25.2%	755.10	~	~	~	~	527.45	50.72	~	~	~	~	~
12.7%	755.35	~	~	~	~	527.95	24.58	~	~	~	~	~
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Comments: Thruwall size was determined by the PATT technique.

TW = .202 L = 1.25 S = .928 w/clad

Analyst: CP M

Reviewed By: R.O. Forman

Level: III Date: 12/20/93

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-036

Exam Data Sheet No.: E-12-14
Ind. Data Sheet No.: 12-142
Indication: 12-142

Flaw Thruwall Dimension = 0.202
Flaw Length "l" = 1.25
Separation with clad "S" = 0.93
Surface Separation "S" = 0.74

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	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 2.12	Allowed 2.38

a = 0.101
a/l value = 0.081
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.38%
a/t = 1.58%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-14
Patch ID: BF-038
Ind. Data Sheet No.: 12-143

Indication: 12-143 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
12.7%	756.35	~	~	~	~	527.70	22.80	~	~	~	~	~
22.3%	756.60	~	~	~	~	527.95	24.72	~	~	~	~	~
15.3%	756.58	~	~	~	~	527.95	25.20	~	~	~	~	~
17.3%	757.10	~	~	~	~	527.95	25.12	~	~	~	~	~
16.3%	757.35	~	~	~	~	527.95	25.28	~	~	~	~	~
23.7%	757.60	~	~	~	~	528.95	14.48	~	~	~	~	~
22.3%	757.85	~	~	~	~	526.95	16.34	~	~	~	~	~
16.3%	758.10	~	~	~	~	527.95	25.60	~	~	~	~	~
26.9%	758.35	~	~	~	~	527.95	25.28	~	~	~	~	~
34.5%	758.60	~	~	~	~	527.95	25.12	~	~	~	~	~
18.5%	758.85	~	~	~	~	527.95	24.72	~	~	~	~	~
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Comments: No apparent tip signals.
Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: C.P. May
Level: III Date: 12/21/93

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

R1153



GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-14
 Patch ID: BF-038
 Ind. Data Sheet No.: 12-144

Indication: 12-144 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
41.6%	759.35	~	~	~	~	528.20	27.20	~	~	~	~	~
64.5%	759.60	~	~	~	~	528.20	27.60	~	~	~	~	~
41.6%	759.85	~	~	~	~	527.45	21.44	~	~	~	~	~
26.9%	760.10	~	~	~	~	528.45	29.44	~	~	~	~	~
17.3%	760.35	~	~	~	~	528.20	27.52	~	~	~	~	~
28.6%	760.60	~	~	~	~	527.95	25.28	~	~	~	~	~
18.5%	760.85	~	~	~	~	527.95	24.64	~	~	~	~	~
17.3%	761.10	~	~	~	~	527.95	20.48	~	~	~	~	~
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Comments: Thruwall size was determined by the PATT technique.

TW = .325 L = 2.0 S = .939 w/clad

Analyst: Cl Ma
 Level: III Date: 12/20/93

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

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* 00243

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GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-038

Exam Data Sheet No.: E-12-14
Ind. Data Sheet No.: 12-144
Indication: 12-144

Flaw Thruwall Dimension = 0.33
Flaw Length "l" = 2.00
Separation with clad "S" = 0.94
Surface Separation "S" = 0.75

T measured = 6.63
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	2.13	2.39 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 2.13	Allowed 2.39

a = 0.163
a/l value = 0.081
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.39%
a/t = 2.45%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-14
Patch ID: BF-038
Ind. Data Sheet No.: 12-145

Indication: 12-145 **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
26.9%	763.10	~	~	~	~	527.20	23.12	~	~	~	~	~
50.2%	763.35	~	~	~	~	527.70	23.04	~	~	~	~	~
53.5%	763.60	~	~	~	~	527.45	20.40	~	~	~	~	~
57.0%	763.85	~	~	~	~	528.45	28.72	~	~	~	~	~
30.4%	764.10	~	~	~	~	528.20	27.20	~	~	~	~	~
28.6%	764.35	~	~	~	~	528.20	27.20	~	~	~	~	~
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Comments: Same as indication 12-163.
 Thruwall size was determined by the PATT technique, assigned from 12-163..
 Length assigned from 12-163.

TW = 0.39 L = 2.4 S = 0.605 with clad

Analyst: CP MA
Level: III **Date:** 12/21/93

Reviewed By: CP MA
Level: III **Date:** 1/25/94

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-036

Exam Data Sheet No.: E-12-14
Ind. Data Sheet No.: 12-145
Indication: 12-145

Flaw Thruwall Dimension = 0.39
Flaw Length "I" = 2.40
Separation with clad "S" = 0.61
Surface Separation "S" = 0.42

T measured = 6.44
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	2.13	2.39 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 2.13	Allowed 2.39

a = 0.195
 a/l value = 0.081
 Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.39%
 a/t = 3.03%

Comments:

Thruwall size was determined by the PATT technique, assigned from 12-163.

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-14
Patch ID: BF-038
Ind. Data Sheet No.: 12-146

Indication: 12-146 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
30.4%	765.85	~	~	~	~	528.20	27.36	~	~	~	~	~
39.1%	766.10	~	~	~	~	528.20	27.28	~	~	~	~	~
28.6%	766.35	~	~	~	~	528.20	27.20	~	~	~	~	~
20.9%	766.60	~	~	~	~	528.20	27.76	~	~	~	~	~
30.4%	766.85	~	~	~	~	528.20	27.28	~	~	~	~	~
50.2%	767.10	~	~	~	~	526.95	27.28	~	~	~	~	PATT
36.7%	767.35	~	~	~	~	528.45	27.28	~	~	~	~	~
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Comments: Thruwall size was determined by the PATT technique.

TW = .192 L = 1.75 S = 1.252 w/clad

Analyst: C. M. S.

Level: III Date: 12/20/93

Reviewed By: R. D. Fournier

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-038

Exam Data Sheet No.: E-12-14
Ind. Data Sheet No.: 12-146
Indication: 12-146

Flaw Thruwall Dimension = 0.192
Flaw Length "l" = 1.75
Separation with clad "S" = 1.25
Surface Separation "S" = 1.06

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	2.02	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 = 0.096
a/l value = 0.055
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.23%
a/t = 1.50%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-14
Patch ID: BF-038
Ind. Data Sheet No.: 12-147

Indication: 12-147 **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
32.5%	768.60	~	~	~	~	528.20	27.28	~	~	~	~	~
34.5%	768.85	~	~	~	~	528.20	27.04	~	~	~	~	~
34.5%	769.10	~	~	~	~	527.95	25.20	~	~	~	~	~
26.9%	769.35	~	~	~	~	527.95	24.96	~	~	~	~	~
15.3%	769.60	~	~	~	~	527.95	24.96	~	~	~	~	~
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Comments: No apparent tip signals.
Indication has no determinable thruwall and is acceptable to IWB-3510-1.

Analyst: CL Mc
Level: III **Date:** 12/20/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-14
Patch ID: BF-038
Ind. Data Sheet No.: 12-148

Indication: 12-148

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%	770.10	~	~	~	~	528.20	27.28	~	~	~	~	~
47.2%	770.35	~	~	~	~	528.20	26.96	~	~	~	~	~
64.5%	770.60	~	~	~	~	528.20	27.20	~	~	~	~	~
73.1%	770.85	~	~	~	~	527.95	25.12	~	~	~	~	~
68.7%	771.10	~	~	~	~	528.20	27.04	~	~	~	~	~
77.9%	771.35	~	~	~	~	528.20	26.88	~	~	~	~	~
60.6%	771.60	~	~	~	~	527.95	24.72	~	~	~	~	~
26.9%	771.85	~	~	~	~	527.95	24.88	~	~	~	~	~
11.9%	772.10	~	~	~	~	527.95	24.56	~	~	~	~	~
20.9%	772.35	~	~	~	~	527.70	22.88	~	~	~	~	~
20.9%	722.60	~	~	~	~	527.70	22.64	~	~	~	~	~
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Comments: Thruwall determined by the PATT technique.

TW = .511 L = 2.75 S = .619 w/clad

Analyst: CR Mas
Level: III **Date:** 12/20/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-038

Exam Data Sheet No.: E-12-14
Ind. Data Sheet No.: 12-148
Indication: 12-148

Flaw Thruwall Dimension = 0.511
Flaw Length "l" = 2.75
Separation with clad "S" = 0.62
Surface Separation "S" = 0.43

T measured = 6.44
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	2.17	2.46 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
			2.17	2.46

a = 0.256
a/l value = 0.093
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.46%
a/t = 3.97%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-004

Exam Data Sheet No.: E-12-14

Patch ID: BF-038

Ind. Data Sheet No.: 12-149

Indication: 12-149

Channel: 9

Angle: 45

Direction: 180

Amp.	X	20% Min Y	MP	50% Min Y	MP	@ Max Y	MP	50% Max Y	MP	20% Max Y	MP	Remarks
20.0%	742.15	~	~	~	~	527.00	2.04	~	~	~	~	~
23.7%	742.40	526.75	1.87	~	~	527.00	2.04	~	~	527.80	2.28	~
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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 L = 0.25 S = 1.44

Analyst: CS Mas
 Level: III Date: 12/20/93

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



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-14
Patch ID: BF-038
Ind. Data Sheet No.: 12-150

Indication: 12-150 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
36.7%	759.65	565.50	1.67	~	~	527.00	1.99	~	~	527.25	2.13	~
47.2%	759.90	526.50	1.51	~	~	526.75	1.82	~	~	527.25	2.16	~
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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 L = 0.25 S = 1.28 with clad

Analyst: CS Ma
Level: III Date: 12/20/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-14
Patch ID: BF-038
Ind. Data Sheet No.: 12-151

Indication: 12-151 **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
32.4%	766.90	526.25	1.55	~	~	526.75	1.70	~	~	527.25	2.06	~
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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 L = 0.25 S = 1.201 with clad

Analyst: Cl M5
Level: III **Date:** 12/20/93

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

R.1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-14
 Patch ID: BF-038
 Ind. Data Sheet No.: 12-152

Indication: 12-152 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
28.6%	730.79	~	~	~	~	532.20	7.46	~	~	~	~	~
34.5%	731.04	~	~	~	~	532.20	7.42	~	~	~	~	~
39.1%	731.29	~	~	~	~	531.95	7.12	~	~	~	~	~
28.6%	731.54	~	~	~	~	531.95	7.12	~	~	~	~	~
19.6%	731.79	~	~	~	~	531.95	7.12	~	~	~	~	~
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Comments: No apparent tip signals.
 Recorded for information/reference only.

Analyst: CG Ma
 Level: III Date: 12/20/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-14
Patch ID: BF-038
Ind. Data Sheet No.: 12-153

Indication: 12-153 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
41.6%	740.79	526.95	2.57	~	~	527.70	2.69	~	~	528.20	3.35	~
47.2%	741.04	526.95	2.36	~	~	527.45	2.44	~	~	528.20	3.31	~
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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 L = 0.25 S = 1.22 with clad

Analyst: *CJ MS*

Level: *III* Date: *12/20/93*

Reviewed By: *R.D. Forman*

Level: *II* Date: *12-21-93*

R 1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-004

Exam Data Sheet No.: E-12-14

Patch ID: BF-038

Ind. Data Sheet No.: 12-154

Indication: 12-154

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
15.3%	744.54	~	~	~	~	528.20	3.06	~	~	~	~	~
20.9%	744.79	~	~	~	~	527.70	2.89	~	~	~	~	~
73.1%	745.04	526.70	1.83	~	~	527.20	2.20	527.45	2.44	528.45	3.27	~
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Comments: No apparent tip signals.
 Thruwall size was determined by the ASME 50% method.

TW = 0.12 L = 0.5 S = 1.1 with clad

Analyst: CR Mas
 Level: III Date: 12/20/93

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

B1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-036

Exam Data Sheet No.: E-12-14
Ind. Data Sheet No.: 12-154
Indication: 12-154

Flaw Thruwall Dimension = 0.12
Flaw Length "l" = 0.50
Separation with clad "S" = 1.10
Surface Separation "S" = 0.91

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	2.32	2.66 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
			2.32	2.66

a = 0.060
a/l value = 0.120
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.66%
a/t = 0.94%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-14
Patch ID: BF-038
Ind. Data Sheet No.: 12-155

Indication: 12-155 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
28.9%	754.79	~	~	~	~	527.70	2.65	~	~	~	~	~
36.7%	755.04	528.45	1.55	~	~	528.95	1.87	~	~	527.20	2.44	~
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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 L = 0.25 S = 0.93 with clad

Analyst: CA Mc

Reviewed By: R.O. Forman

Level: III Date: 12/20/93

Level: II Date: 12-21-93

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-14
 Patch ID: BF-038
 Ind. Data Sheet No.: 12-156

Indication: 12-156 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
36.7%	758.04	526.95	1.94	~	~	527.45	2.41	~	~	527.70	2.71	~
44.3%	758.29	526.95	2.02	~	~	527.45	2.41	~	~	527.95	2.88	~
47.2%	758.54	526.95	1.94	~	~	527.70	2.67	~	~	528.20	3.08	~
39.1%	758.79	526.70	1.78	~	~	527.45	2.38	~	~	527.95	2.84	~
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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 L = 0.75 S = 1.33 with clad

Analyst: Ch M
 Level: III Date: 12/20/93

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

81153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

Project: TVA, Browns Ferry, Unit 3

Weld ID: C-3-4

Cal. ID: C-004

Exam Data Sheet No.: E-12-14

Patch ID: BF-038

Ind. Data Sheet No.: 12-157

Indication: 12-157

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
64.5%	759.29	526.45	1.82	526.95	1.94	527.20	2.18	527.45	2.41	528.20	3.11	~
82.9%	759.54	526.45	1.52	526.70	1.78	527.45	2.38	527.95	2.84	528.45	3.28	~
82.9%	759.79	526.45	1.65	526.95	1.99	527.70	2.67	527.95	2.91	528.45	3.41	~
53.5%	760.04	526.70	1.82	~	~	527.45	2.41	~	~	528.20	3.11	~
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Comments: No apparent tips
 Thruwall size was determined by the ASME 50% method.

TW = .53 L = .75 S = 1.07 w/clad

Analyst: CE Martin
 Level: III Date: 12/20/93

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-038

Exam Data Sheet No.: E-12-14
Ind. Data Sheet No.: 12-157
Indication: 12-157

Flaw Thruwall Dimension = 0.53
Flaw Length "l" = 0.75
Separation with clad "S" = 1.07
Surface Separation "S" = 0.88

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	4.44	5.15 Y
0.40	5.00	5.8	~	~
0.45	5.10	6.7	~	~
0.50	5.20	7.6	~	~
			Allowed 4.44	Allowed 5.15

a = 0.265
a/l value = 0.353
Y = 1.000

Flaw is Subsurface

Allowed a/t = 5.15%
a/t = 4.15%

Comments:

Blank lines for comments.

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-14
 Patch ID: BF-038
 Ind. Data Sheet No.: 12-158

Indication: 12-158 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
36.7%	763.29	~	~	~	~	527.45	2.48	~	~	~	~	~
57.0%	763.54	528.45	1.72	527.20	2.18	527.45	2.41	527.70	2.67	529.95	4.79	PATT
77.9%	763.79	528.70	1.65	527.20	2.18	527.45	2.41	527.70	2.84	529.45	4.23	~
68.7%	764.04	528.70	1.72	~	~	527.45	2.38	~	~	527.95	2.88	~
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Comments: Thruwall size was determined by the PATT technique, assigned from indication 12-161.
 Flaw dimensions from relook data, ind 12-161.

TW = .49 L = 2.4 S = .605 w/clad

Analyst: *Cl Mas*
 Level: *III* Date: *12/20/93*

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

R1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-038

Exam Data Sheet No.: E-12-14
Ind. Data Sheet No.: 12-158
Indication: 12-158

Flaw Thruwall Dimension = 0.49
Flaw Length "l" = 2.40
Separation with clad "S" = 0.61
Surface Separation "S" = 0.42

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	2.21	2.52 Y
0.15	2.50	2.9	~	~
0.20	2.80	3.3	~	~
0.25	3.30	3.8	~	~
0.30	3.80	4.4	~	~
0.35	4.40	5.1	~	~
0.40	5.00	5.8	~	~
0.45	5.10	6.7	~	~
0.50	5.20	7.6	~	~
			Allowed 2.21	Allowed 2.52

a = 0.245
a/l value = 0.102
Y = 1.000

Flaw is Subsurface

Allowed a/t = 2.52%
a/t = 3.71%

Comments:

R1153



GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-14
Patch ID: BF-038
Ind. Data Sheet No.: 12-159

Indication: 12-159 **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%	769.04	526.04	1.01	~	~	527.70	1.41	~	~	528.20	1.69	~
30.4%	769.26	526.95	1.05	~	~	527.70	1.41	~	~	527.95	1.55	~
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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 L = 0.25 S = 0.7 with clad

Analyst: C. J. M...

Reviewed By: R. O. Forman

Level: III Date: 12/20/93

Level: II Date: 12-21-93

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GE Nuclear Energy

GERIS 2000 Indication Data Sheet

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

Exam Data Sheet No.: E-12-14
Patch ID: BF-038
Ind. Data Sheet No.: 12-160

Indication: 12-160

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
100.0%	770.54	528.70	1.67	528.95	1.97	527.20	2.15	527.70	2.63	528.45	3.14	~
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Comments: End of scan; indication continues.
No apparent tips
Thruwall size was determined by the ASME 50% method.

TW = .33 L = .25 S = .885 w/clad

Analyst: CL MS
Level: III Date: 12/21/93

Reviewed By: CL MS
Level: III Date: 1/25/94

R 1153



GE Nuclear Energy

GERIS 2000 Indication Evaluation Sheet

Project: TVA, Browns Ferry Unit 3
Weld ID: C-3-4
Patch: BF-038

Exam Data Sheet No.: E-12-14
Ind. Data Sheet No.: 12-160
Indication: 12-160

Flaw Thruwall Dimension = 0.33
Flaw Length "I" = 0.25
Separation with clad "S" = 0.89
Surface Separation "S" = 0.70

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"

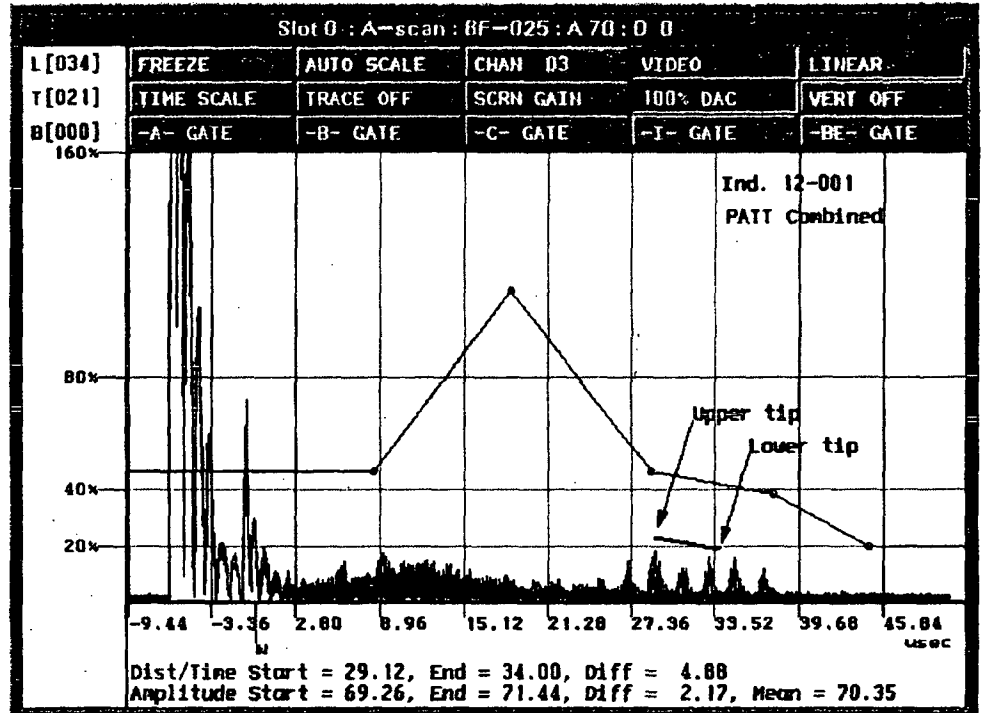
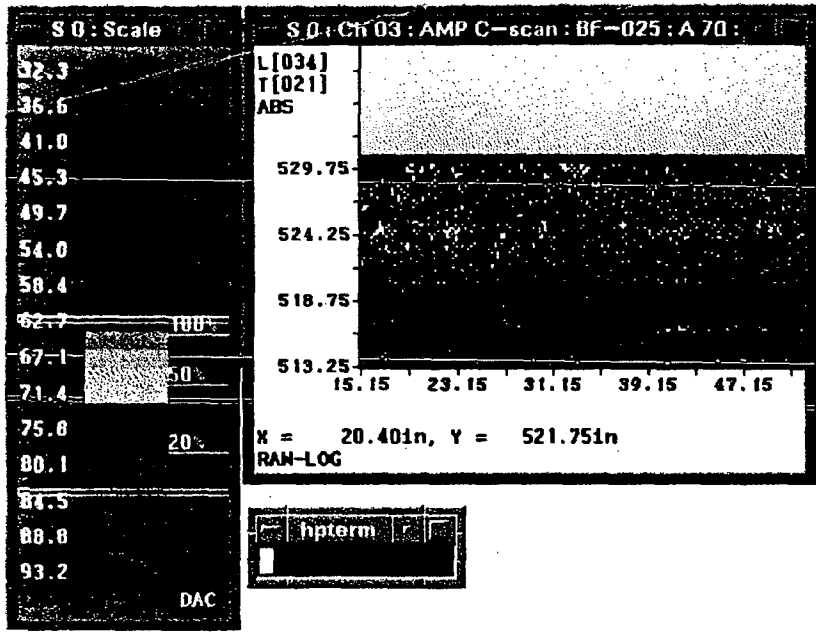
a/l	Surface %	Subsurface %	Surface %	Subsurface %
0.00	1.90	2	~	~
0.05	2.00	2.2	~	~
0.10	2.20	2.5	~	~
0.15	2.50	2.9	~	~
0.20	2.80	3.3	~	~
0.25	3.30	3.8	~	~
0.30	3.80	4.4	~	~
0.35	4.40	5.1	~	~
0.40	5.00	5.8	~	~
0.45	5.10	6.7	~	~
0.50	5.20	7.6	5.20	7.60 Y
			Allowed	Allowed
			5.20	7.60

a = 0.165
 a/l value = 0.500
 Y = 1.000

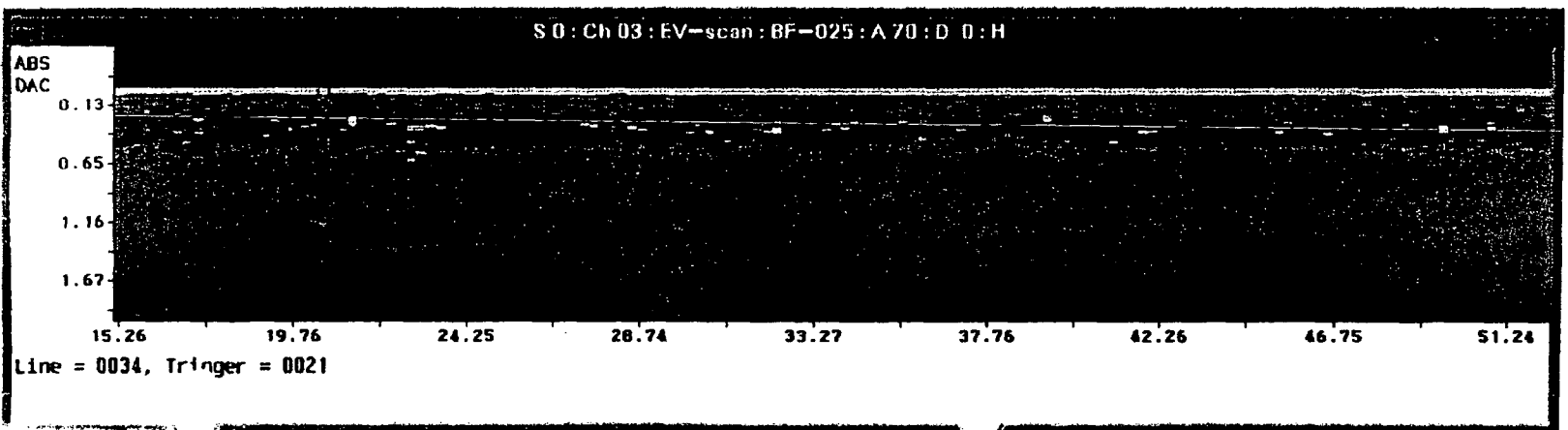
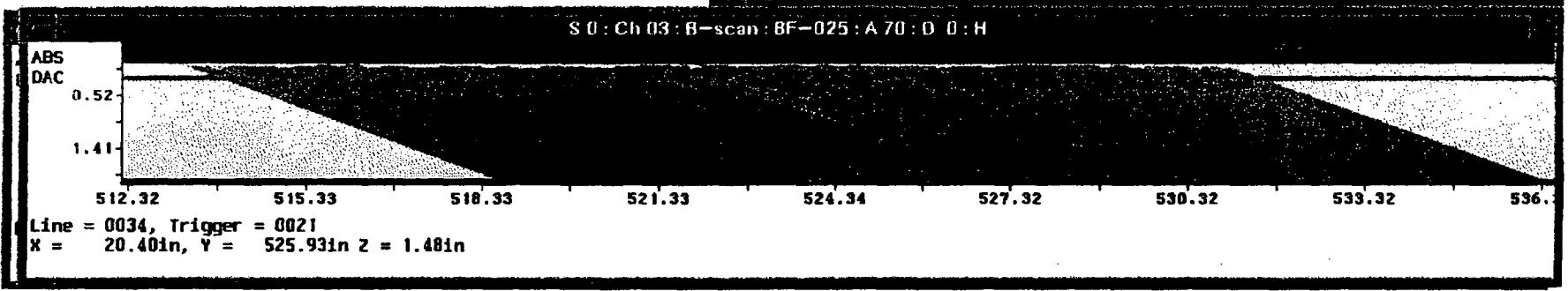
Flaw is Subsurface

Allowed a/t = 7.60%
 a/t = 2.59%

Comments:

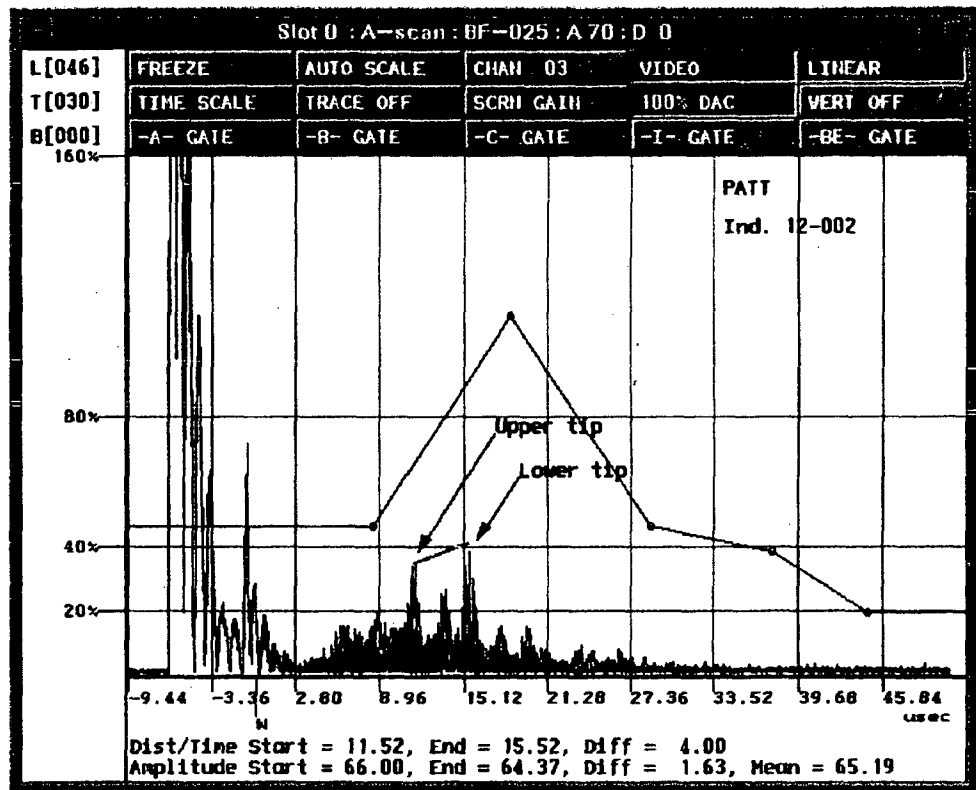
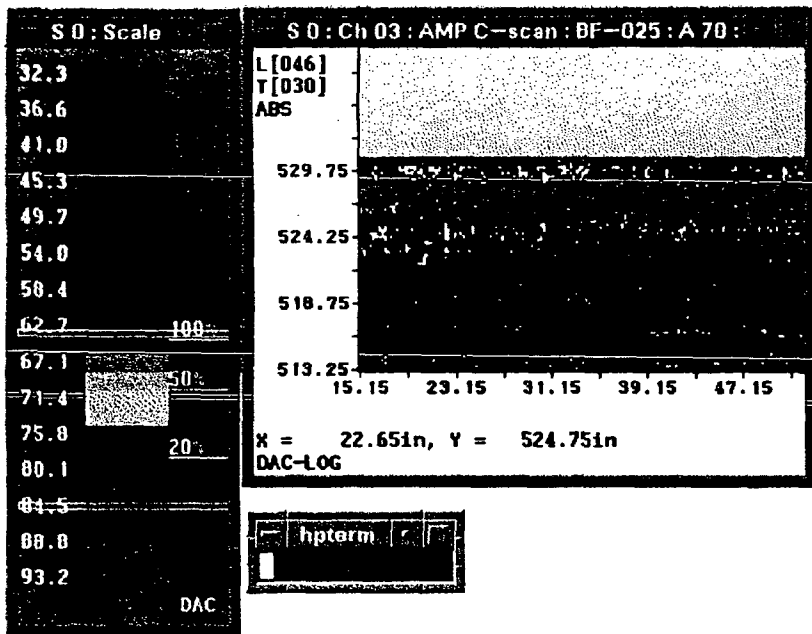


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00268

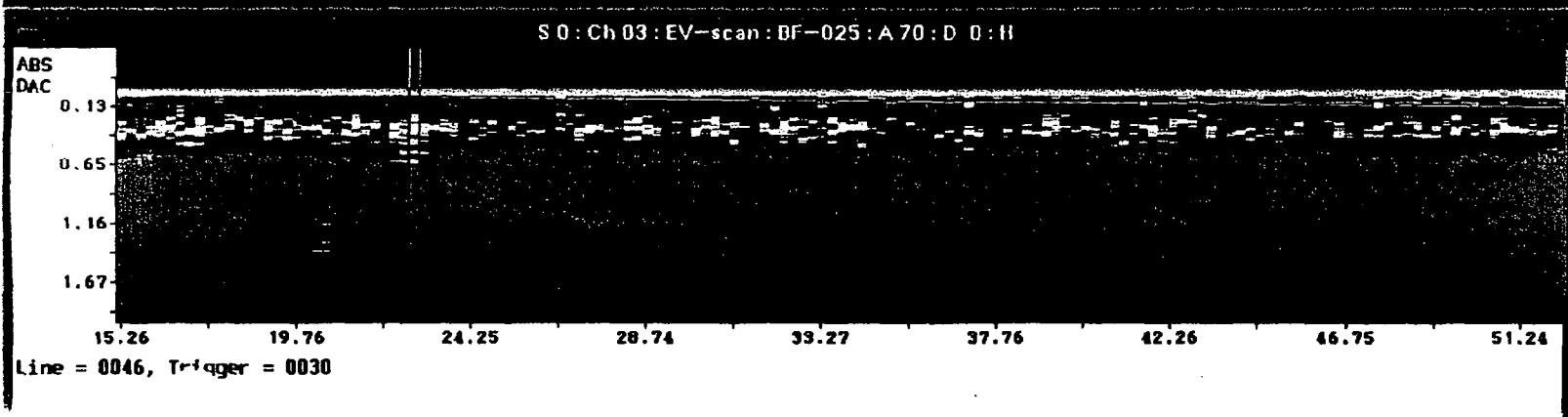
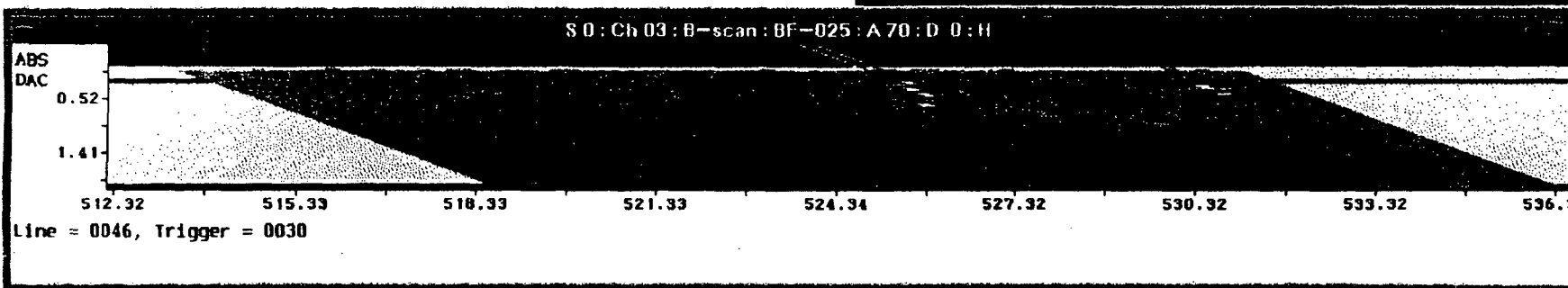
00268

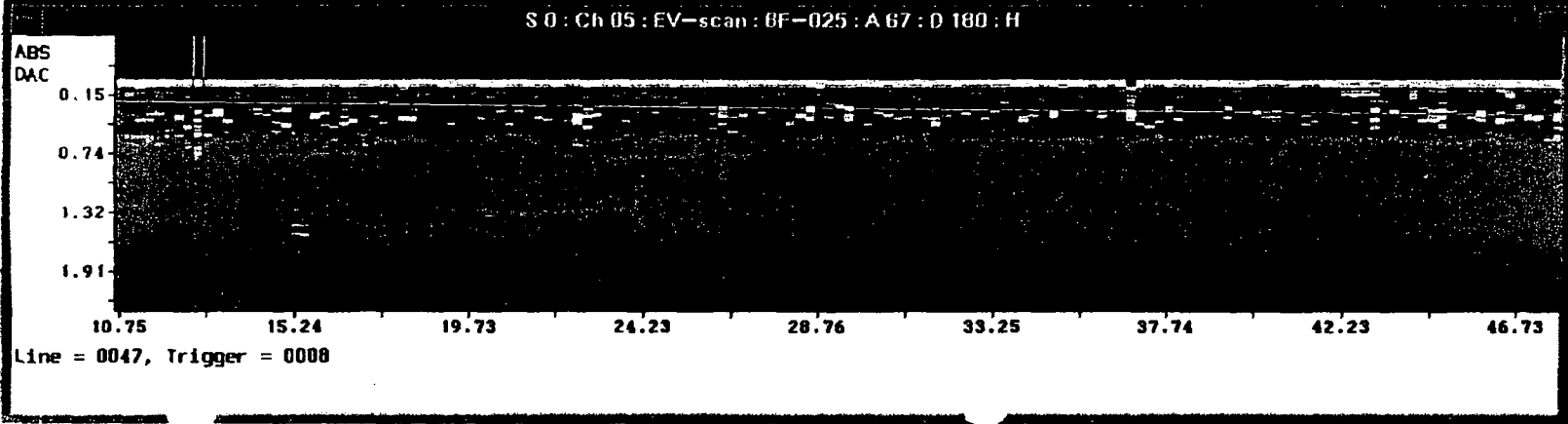
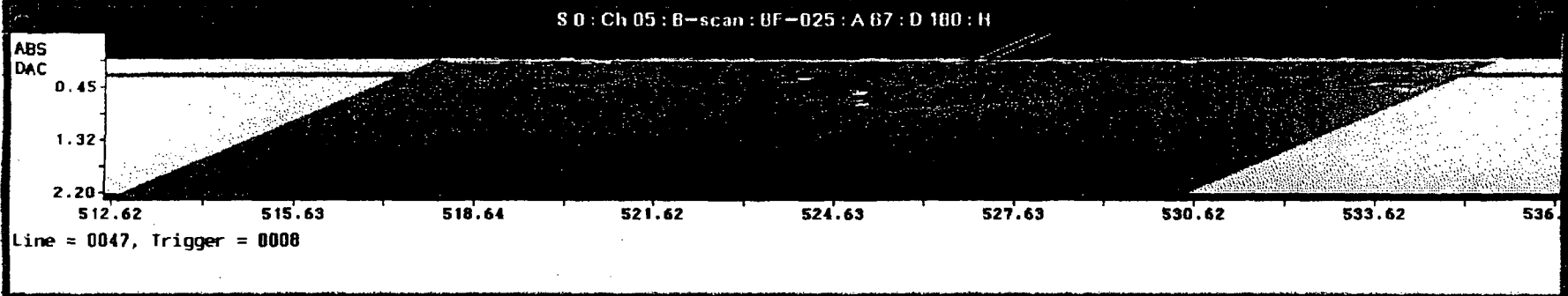
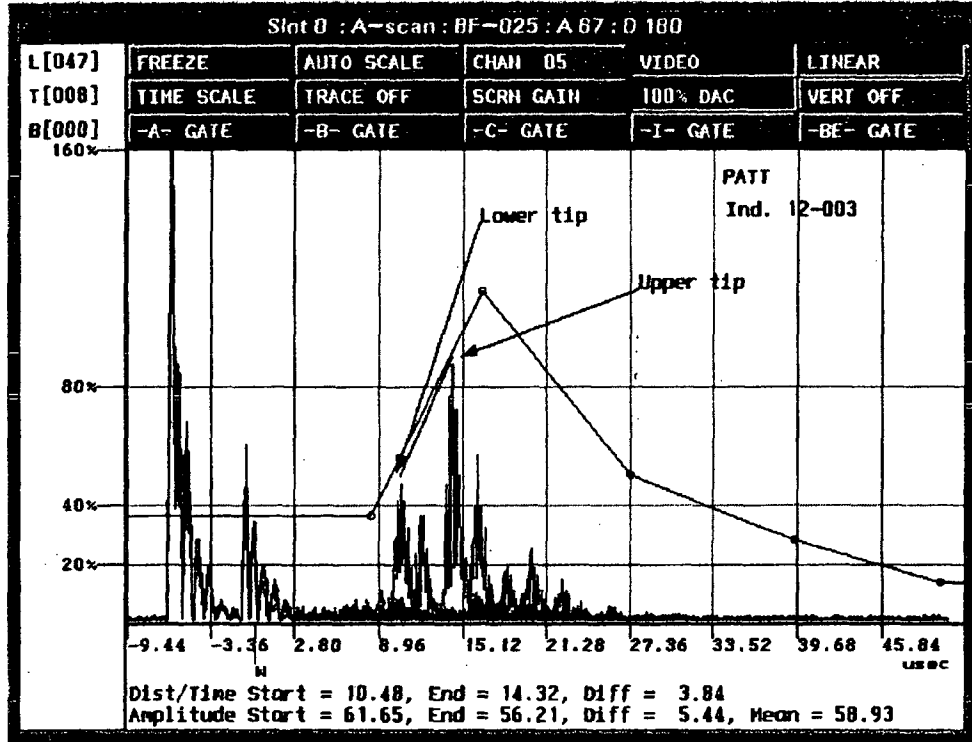
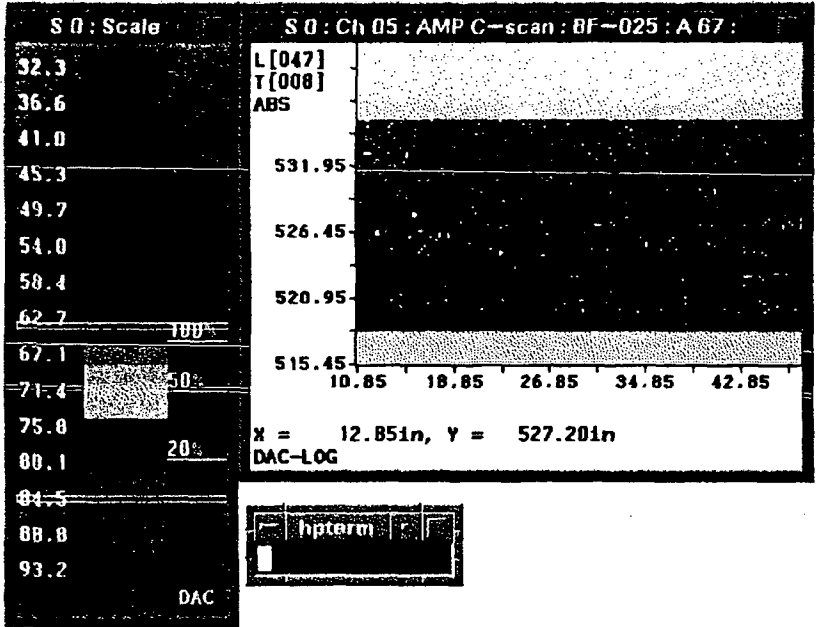


R153

69200 4 00269

0110

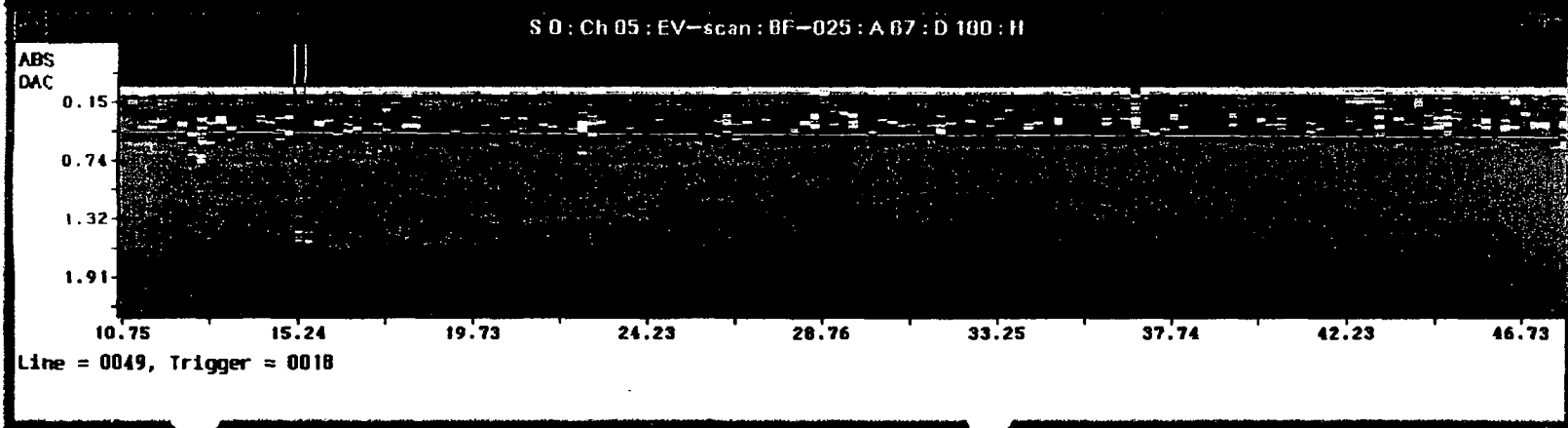
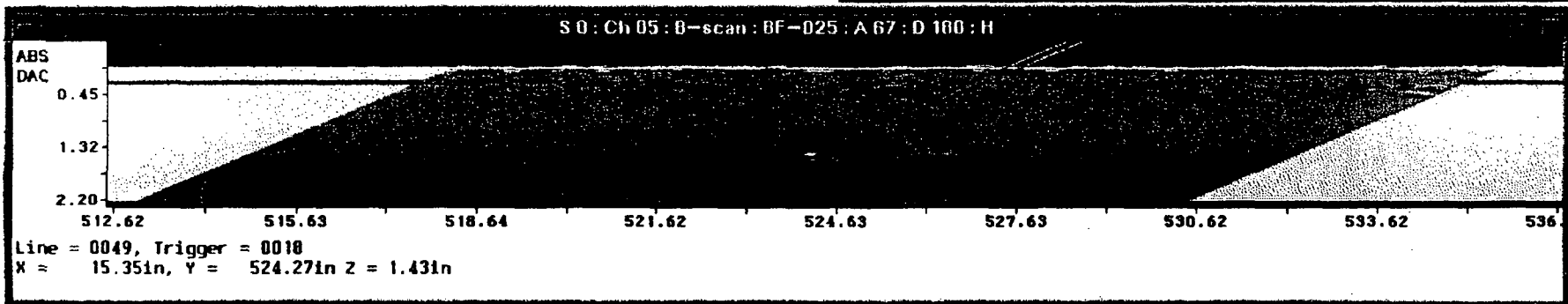
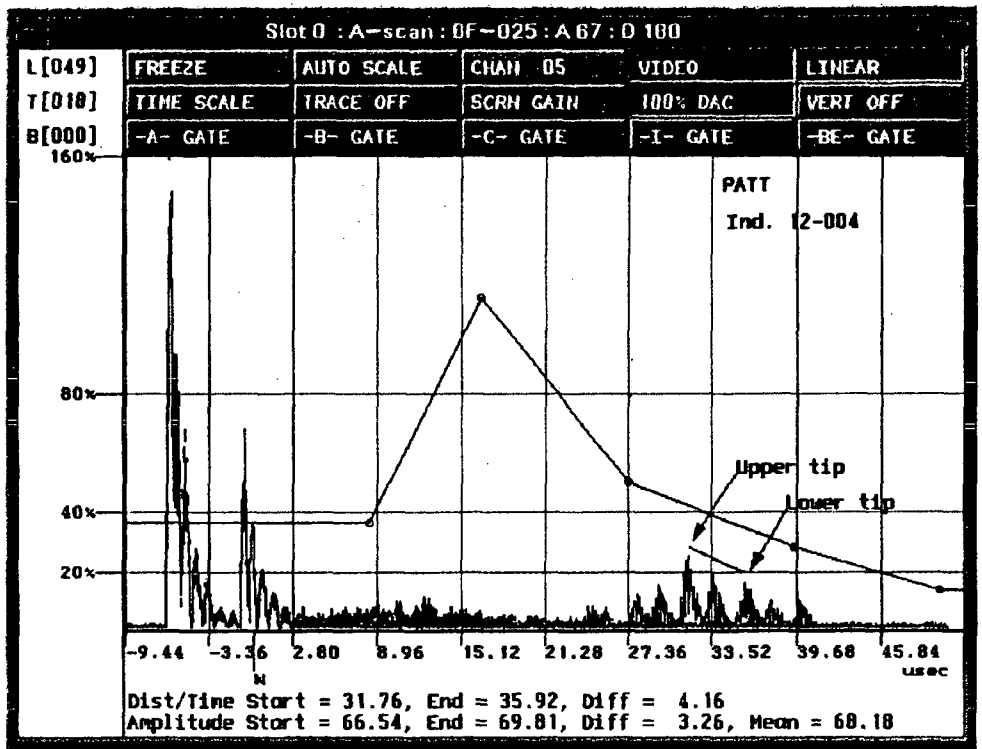
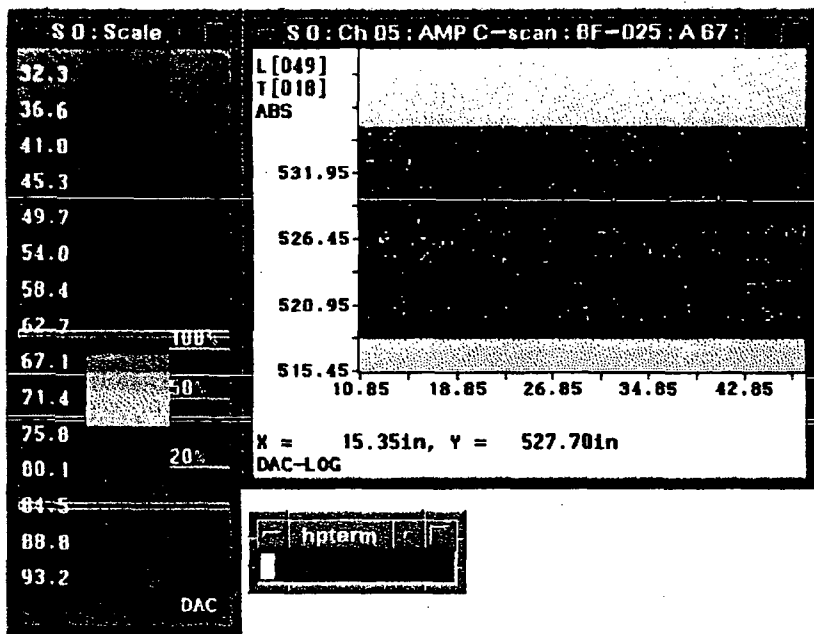




00270

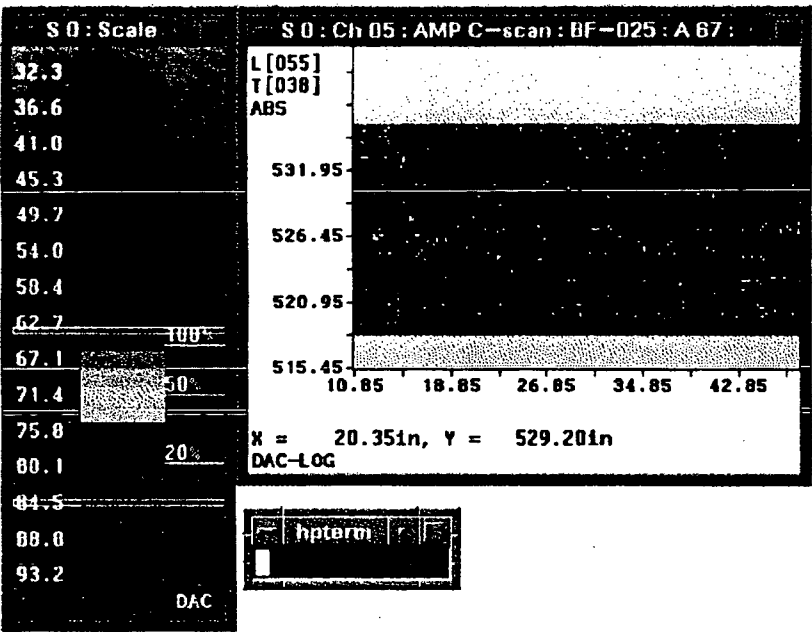
MAN. F. USA

R 1153

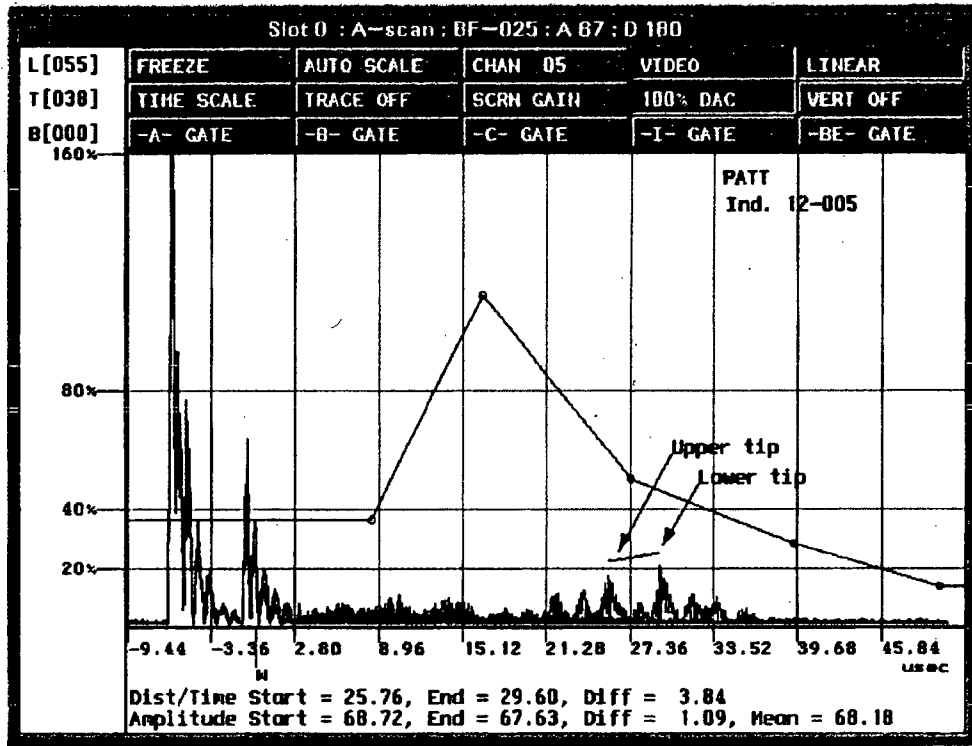


00271

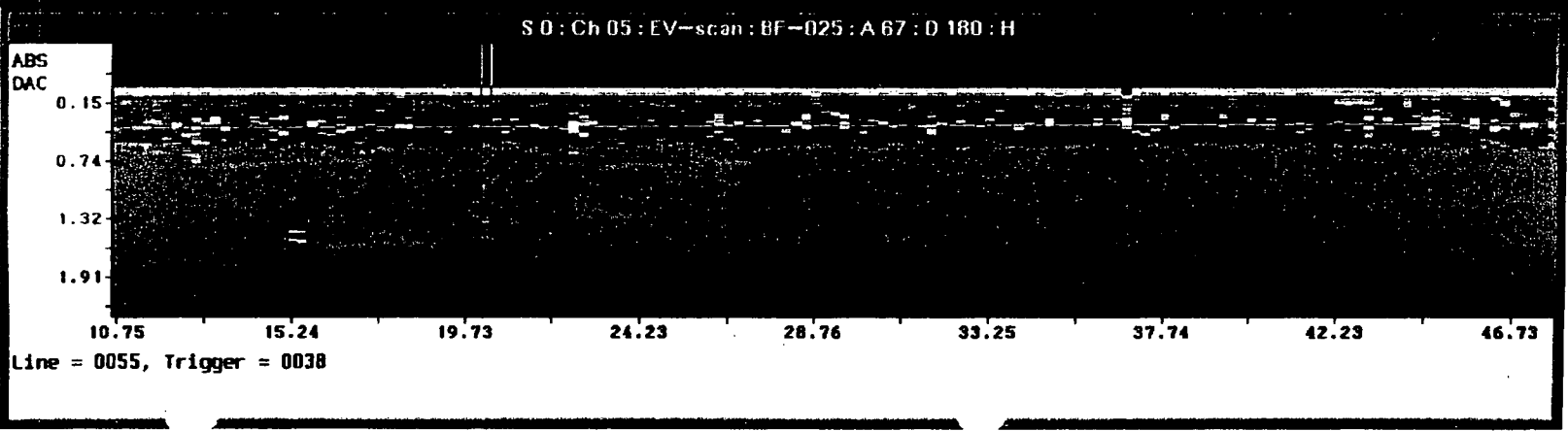
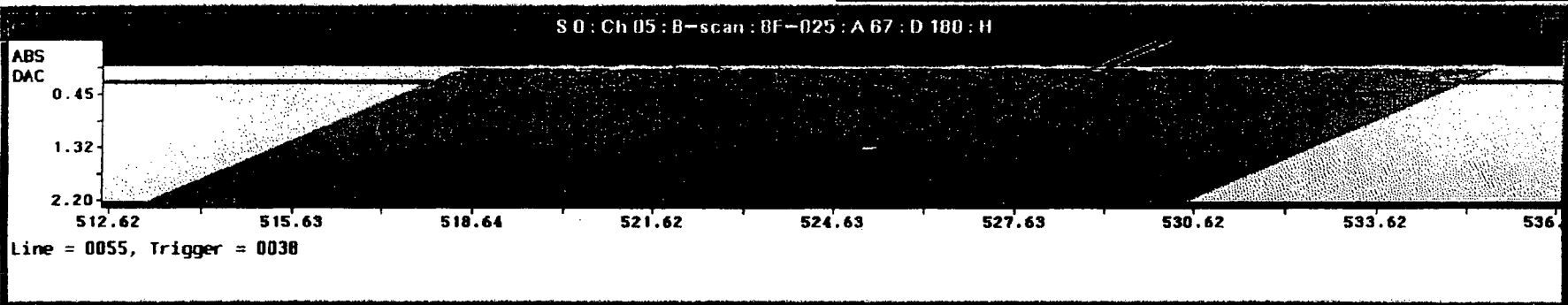
R 1153



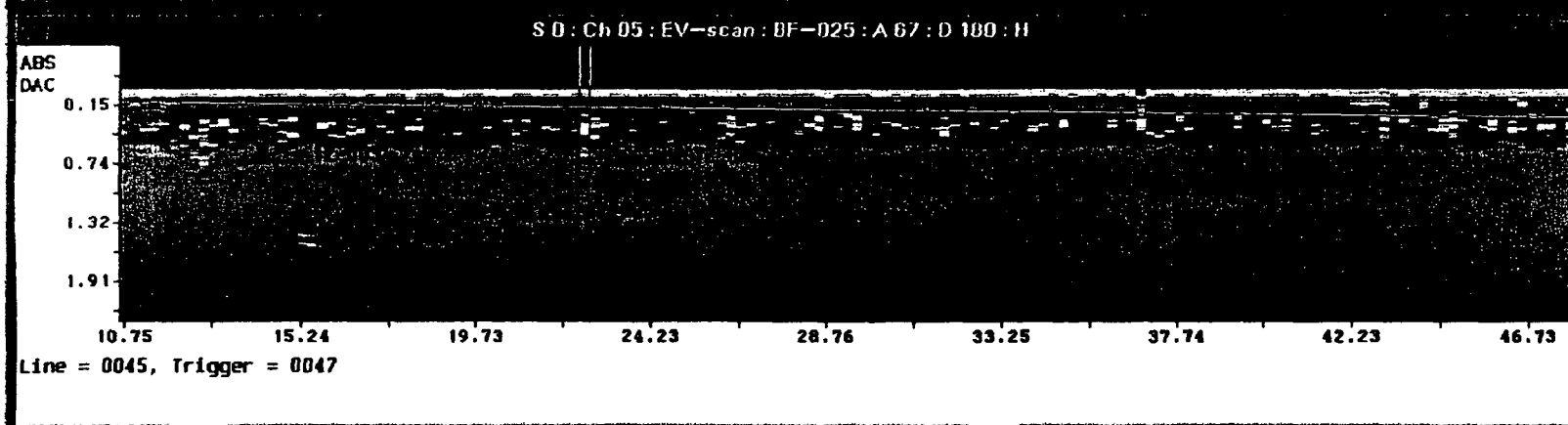
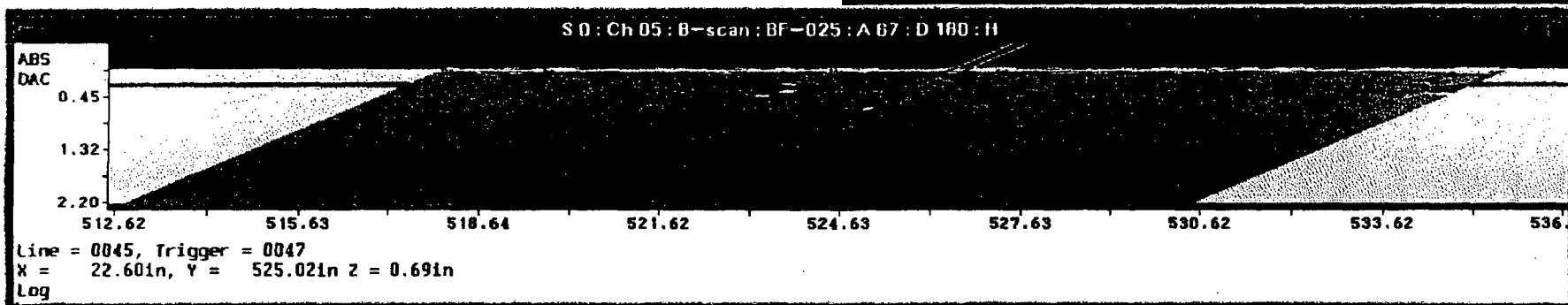
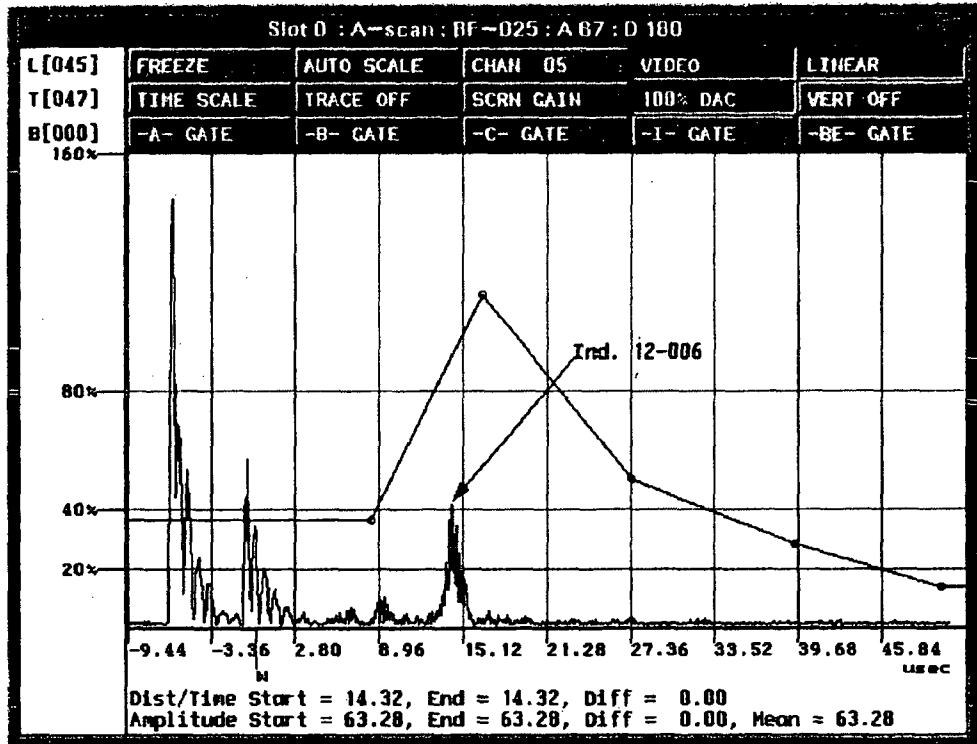
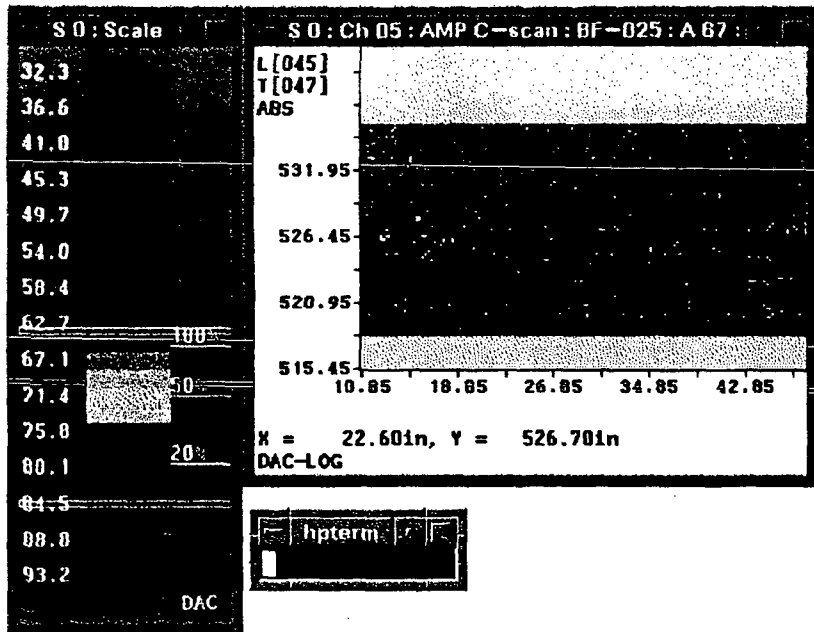
- 32.3
 - 36.6
 - 41.0
 - 45.3
 - 49.7
 - 54.0
 - 58.4
 - 62.7
 - 67.1
 - 71.4
 - 75.8
 - 80.1
 - 84.5
 - 88.0
 - 93.2
- 100%
50%
20%



* 00272



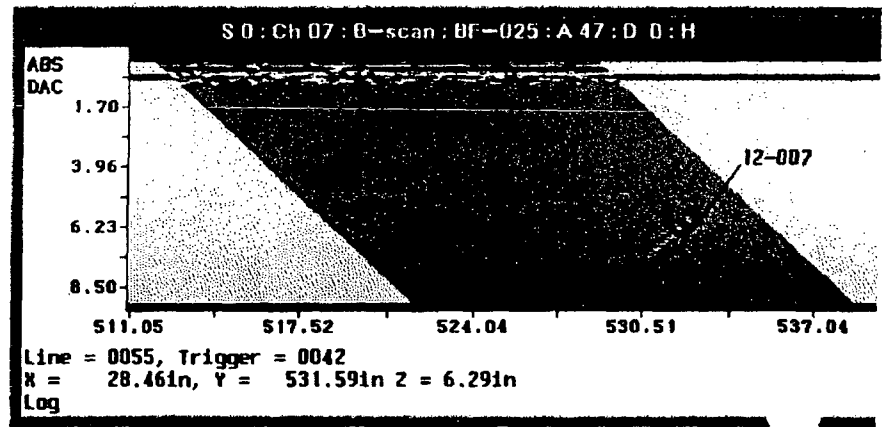
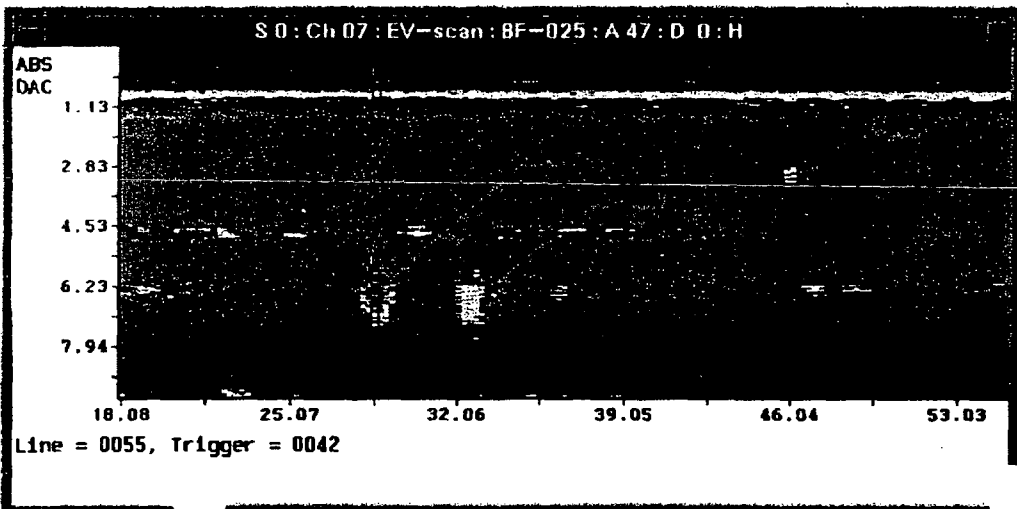
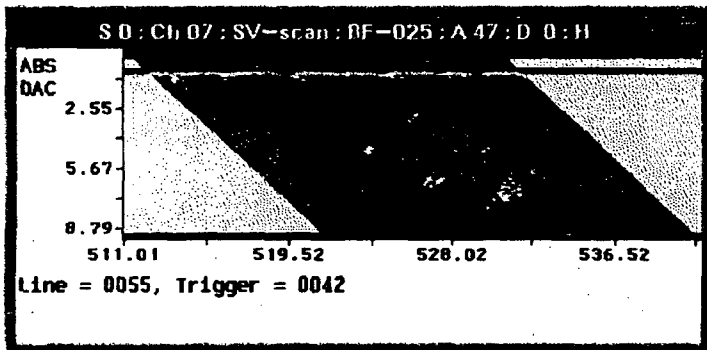
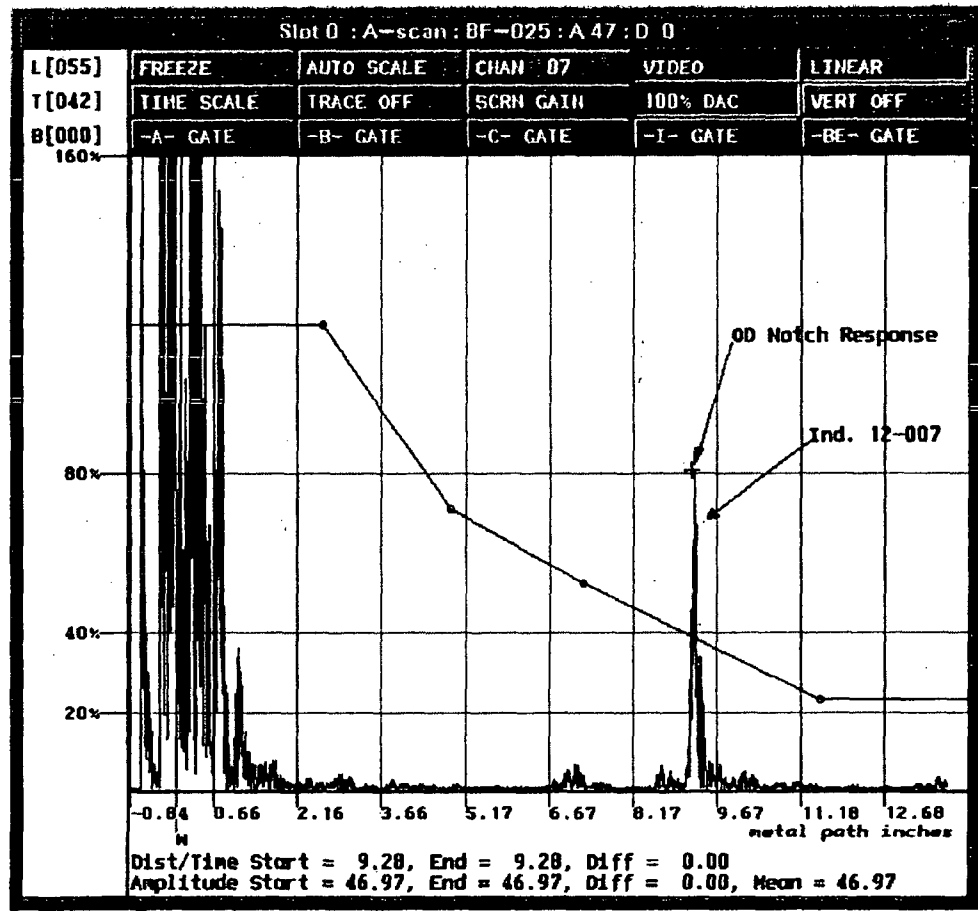
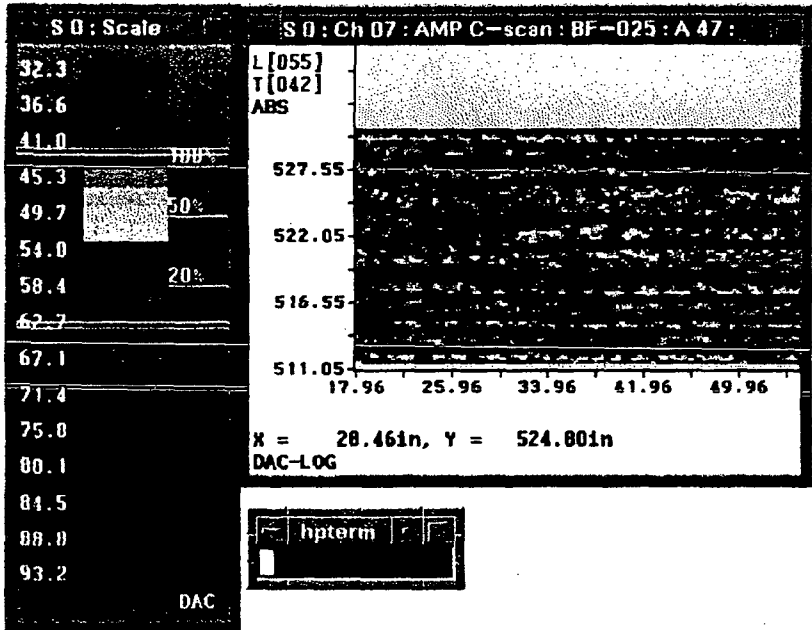
R 1153



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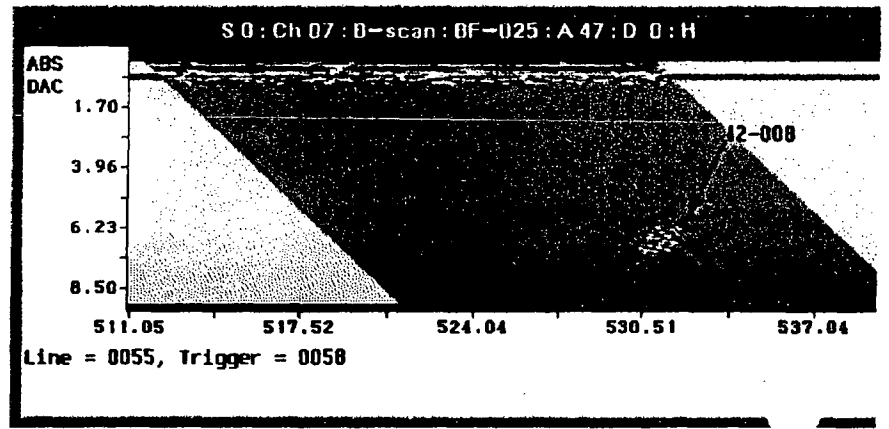
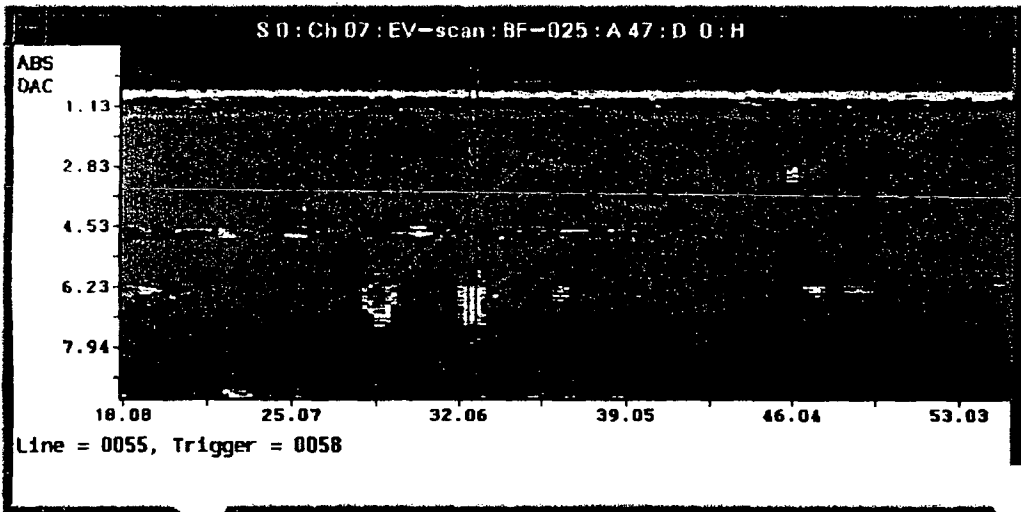
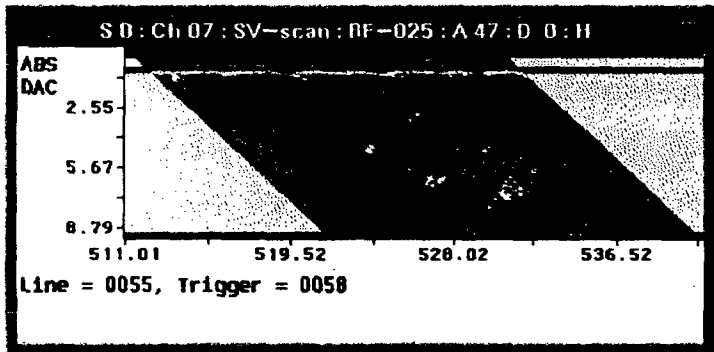
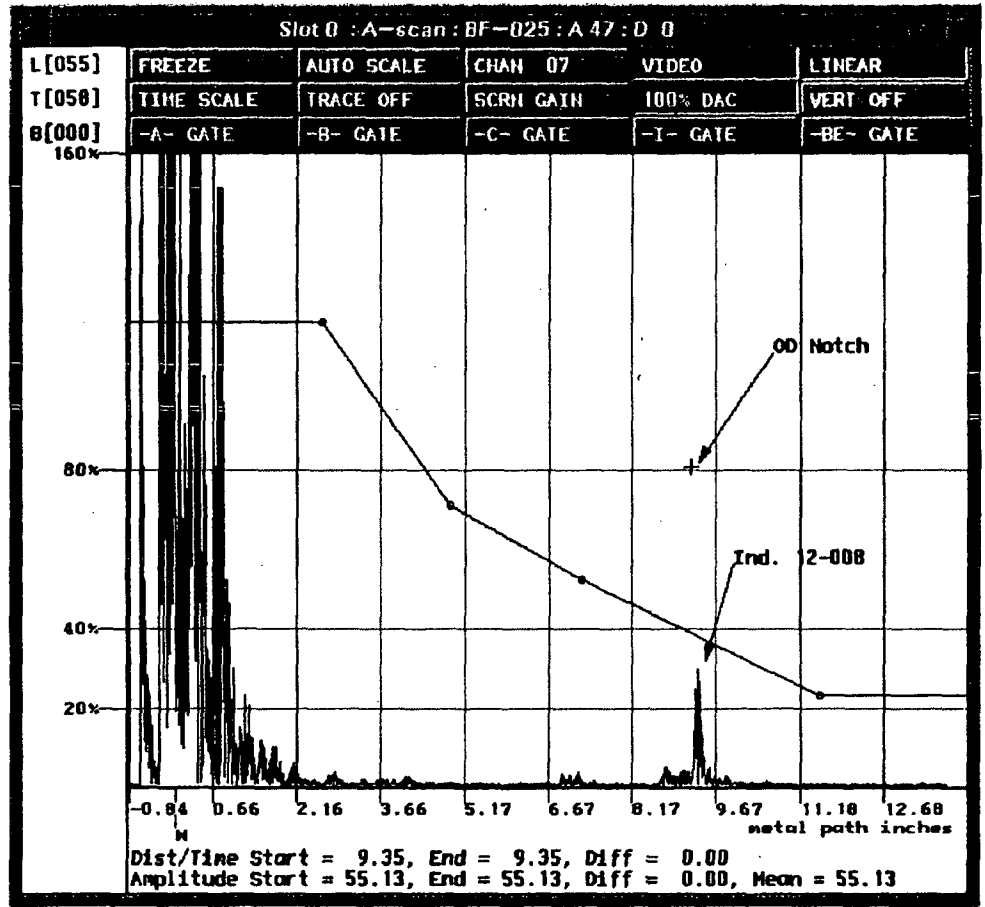
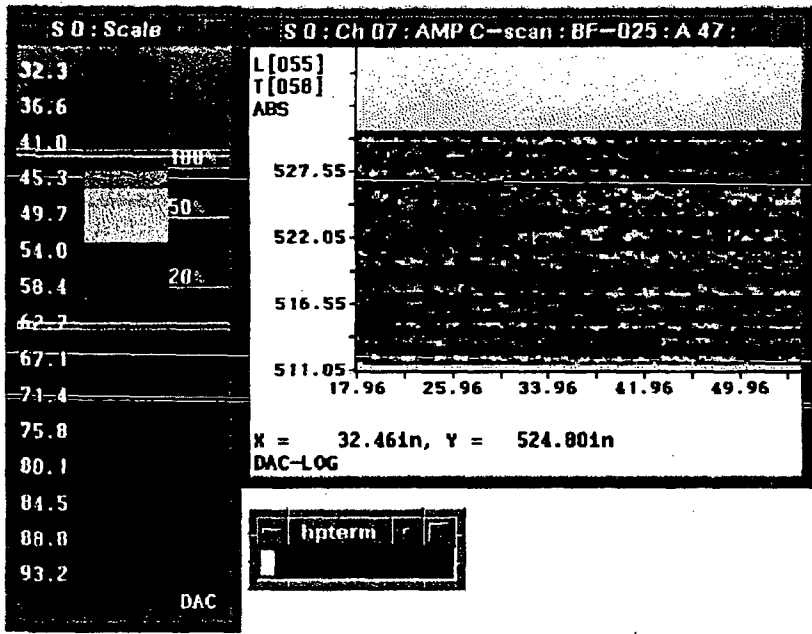
R 1153



00271

0.1120

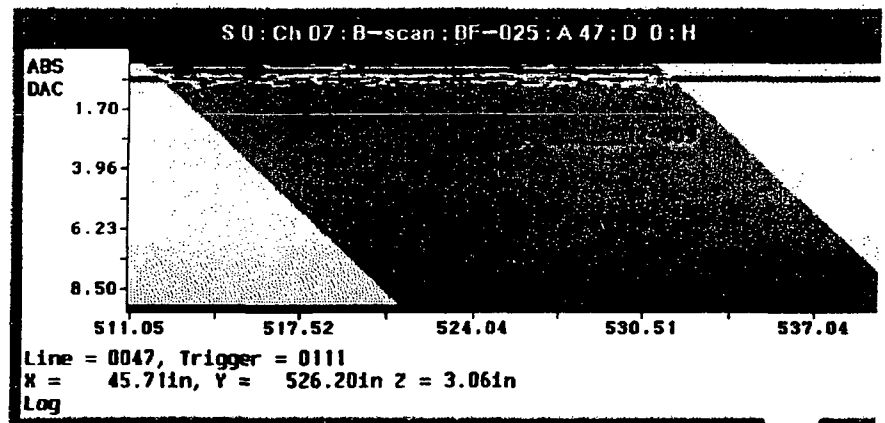
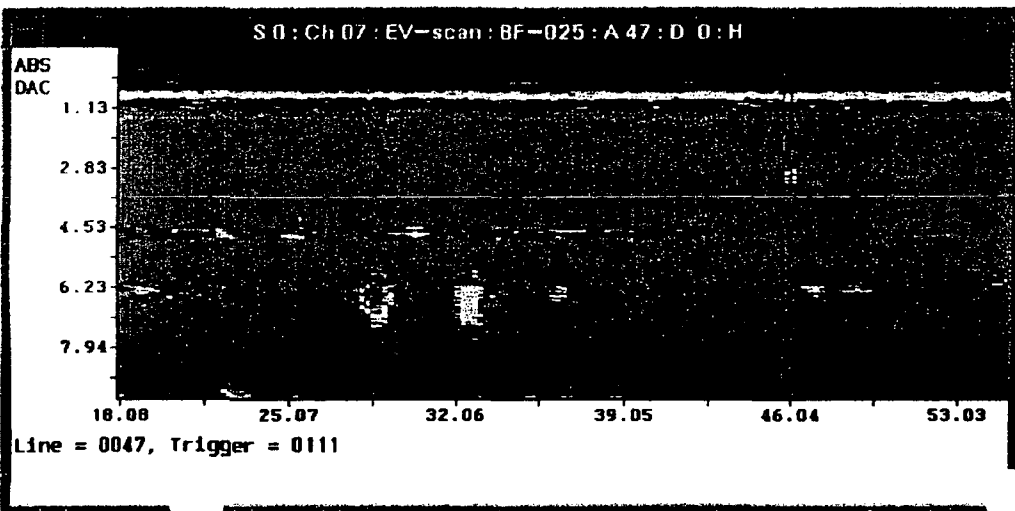
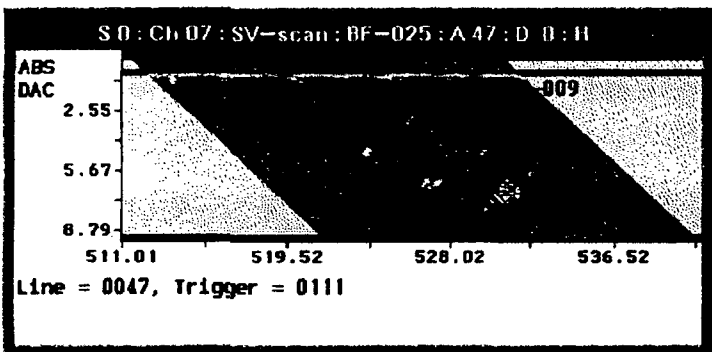
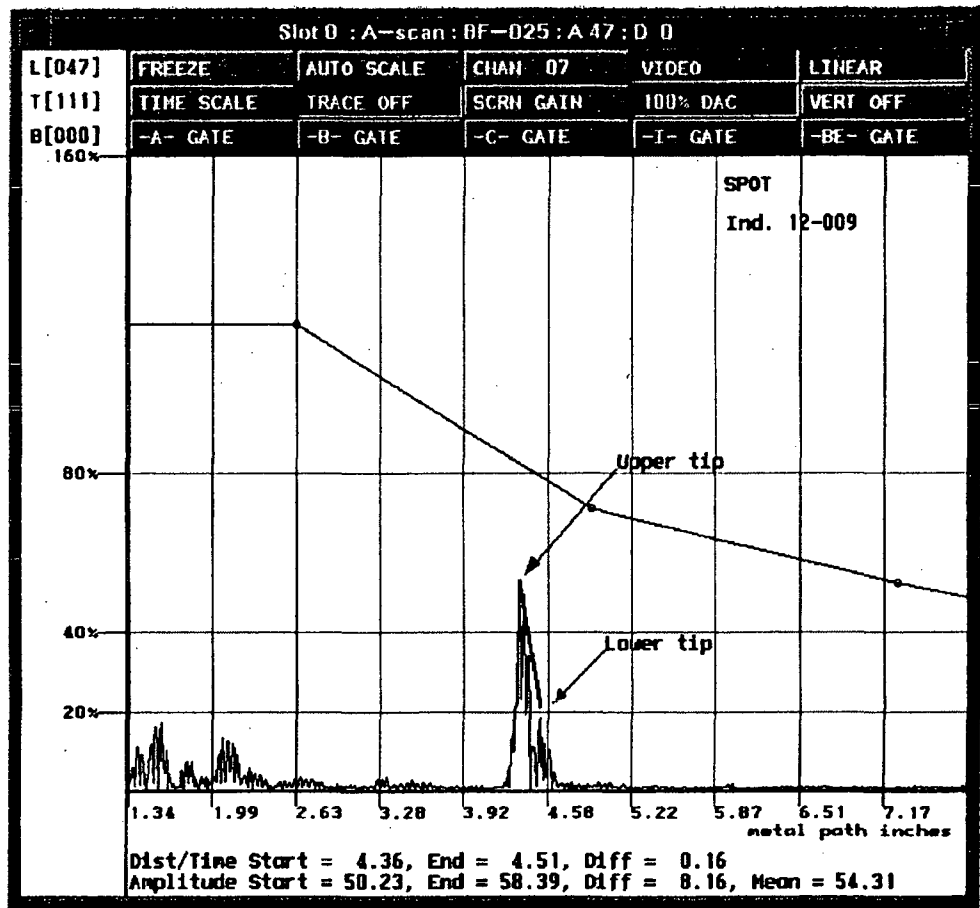
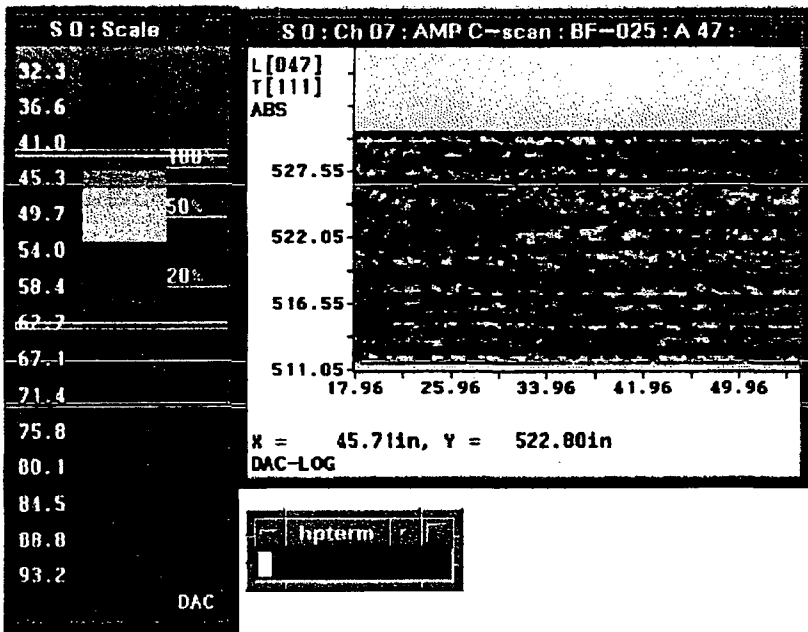
R 1153



00275

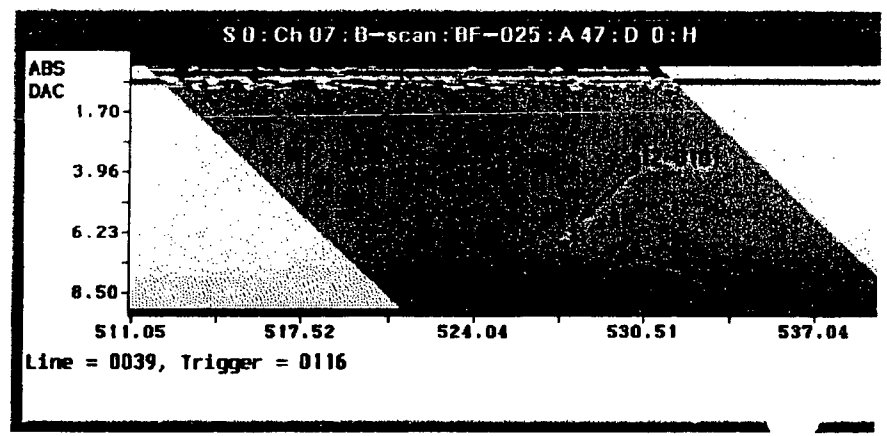
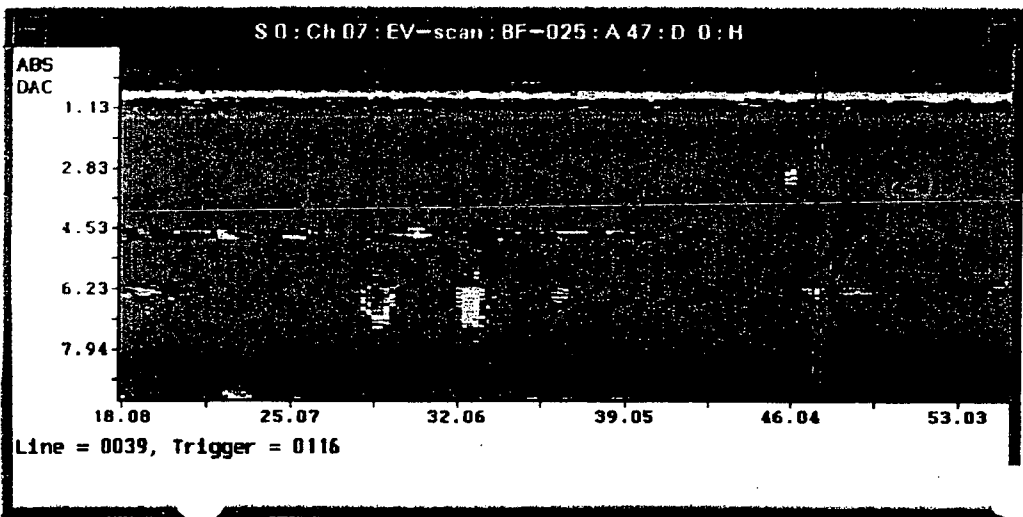
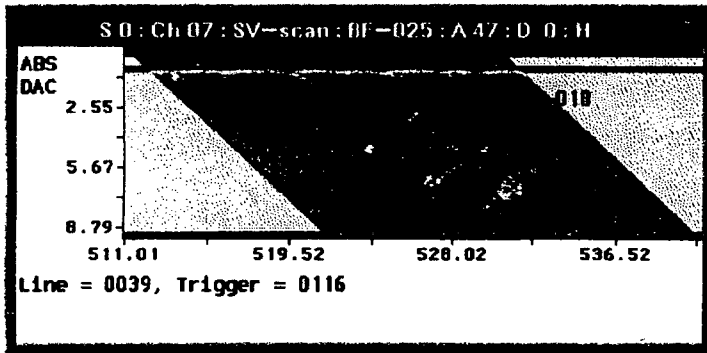
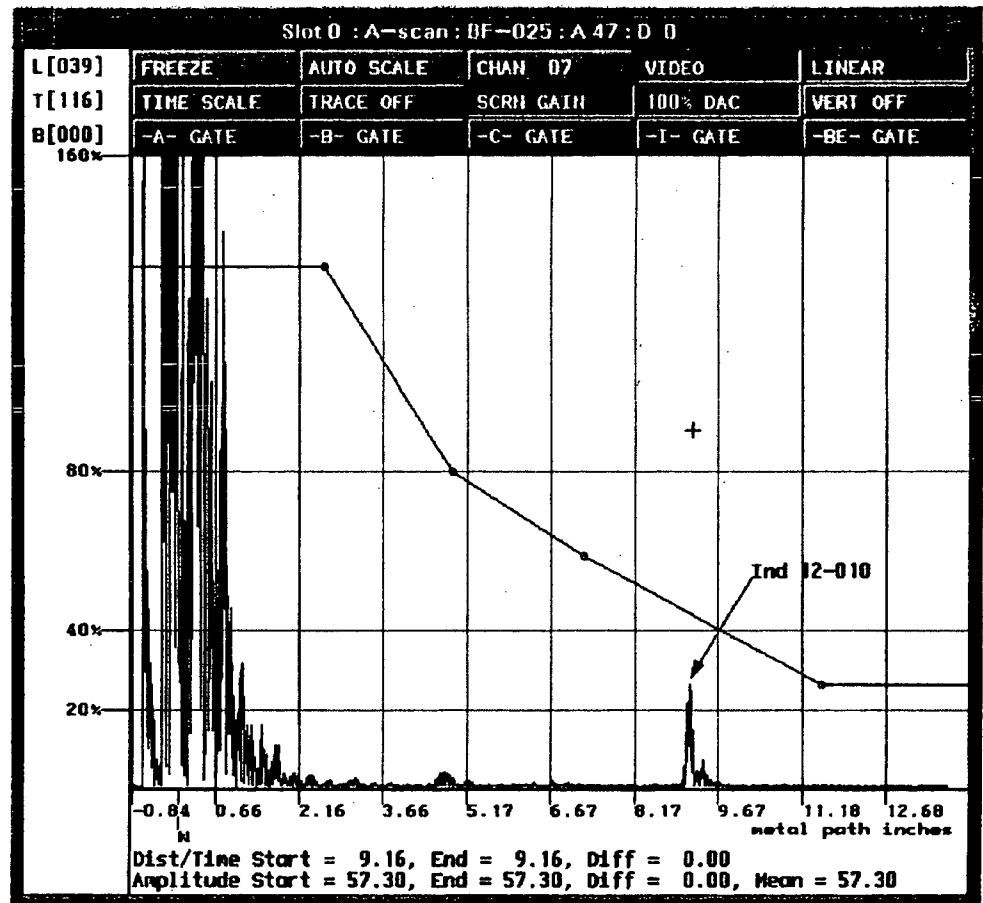
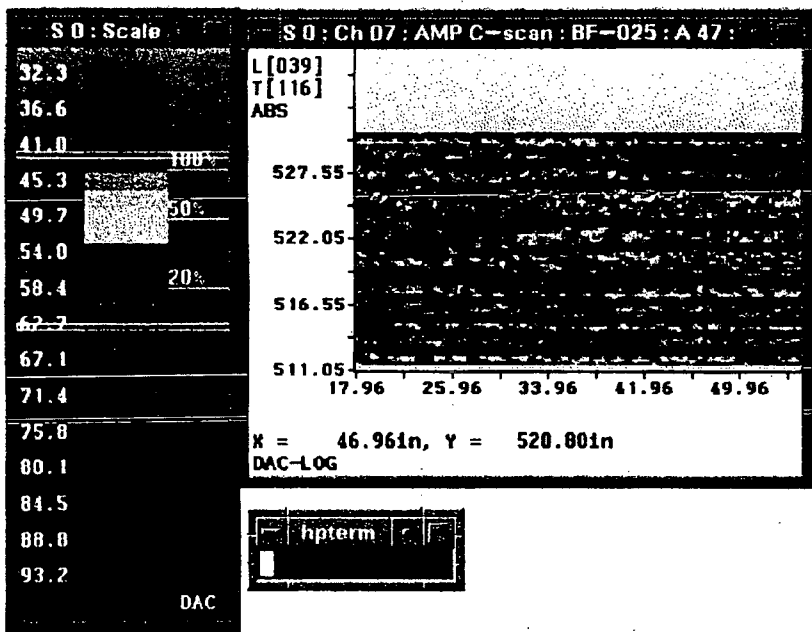
R 1153

0.120



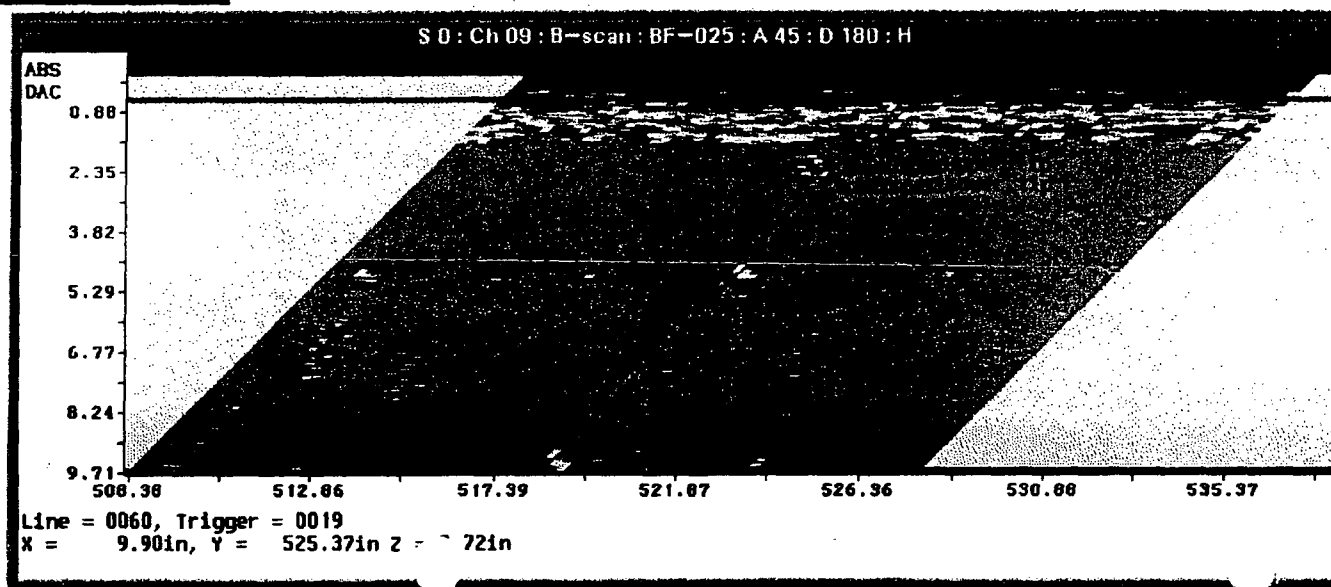
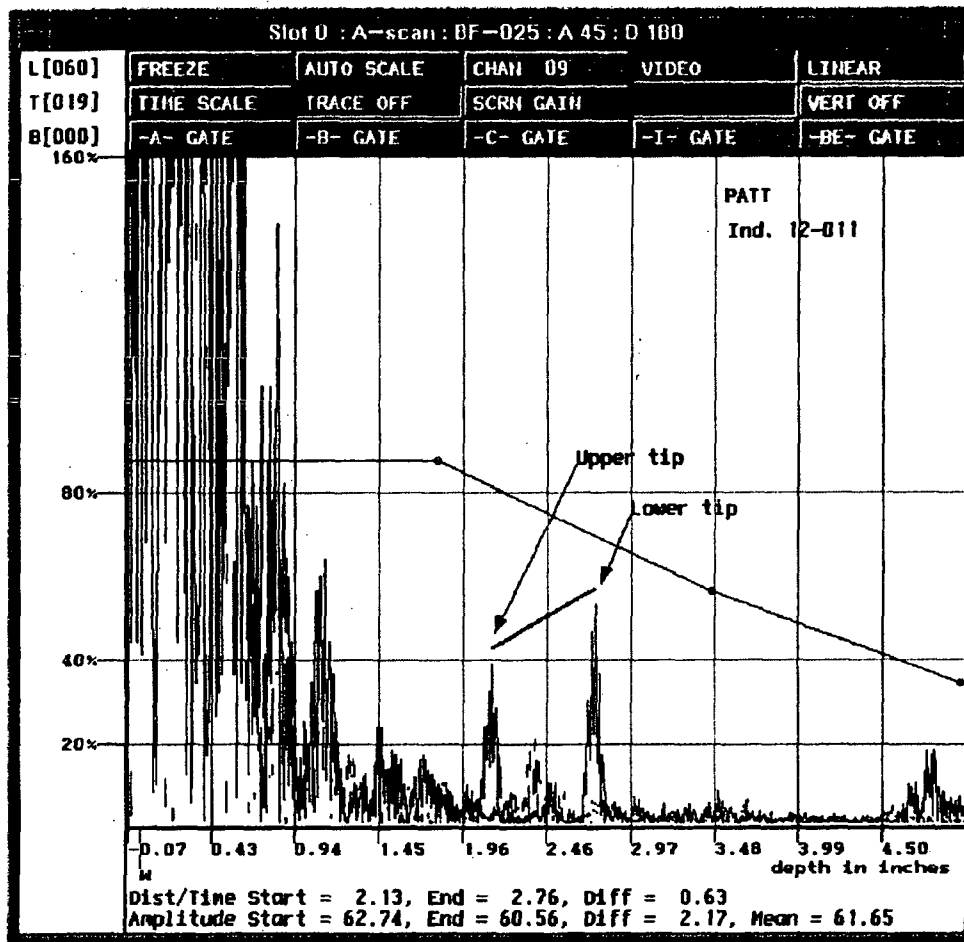
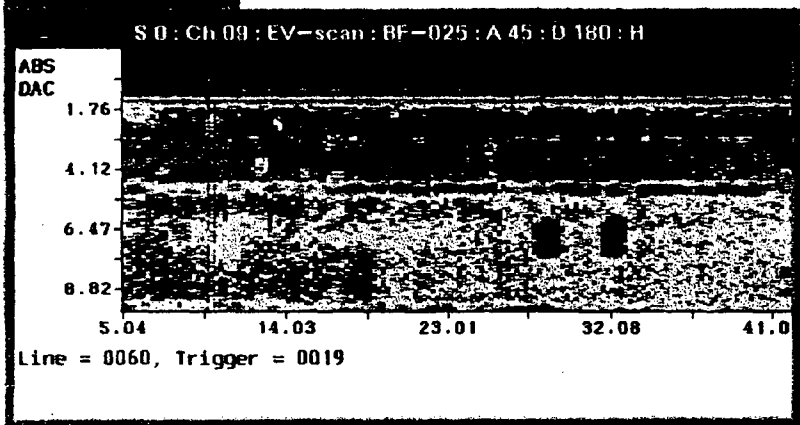
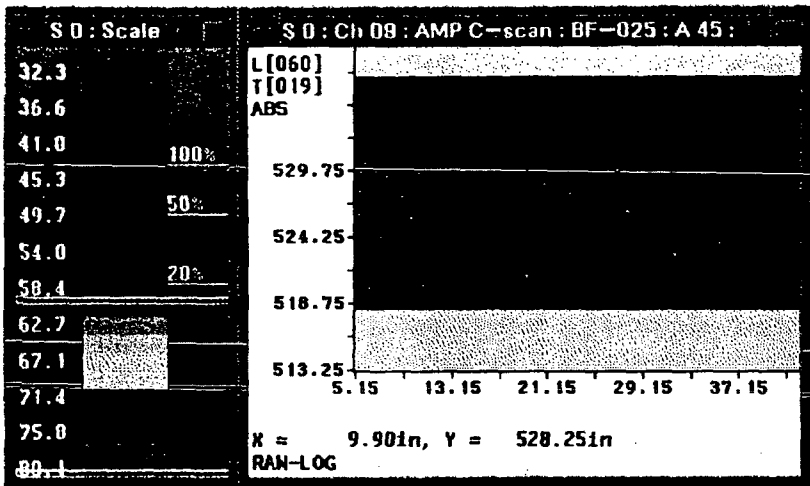
00276

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00277

R1153

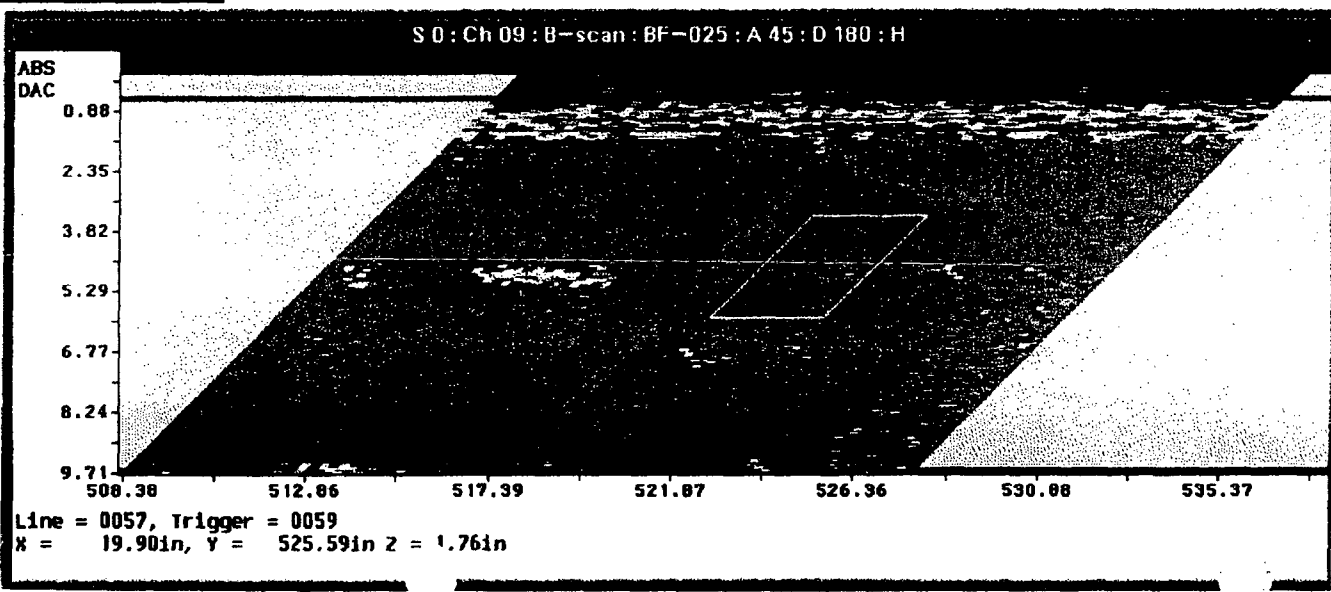
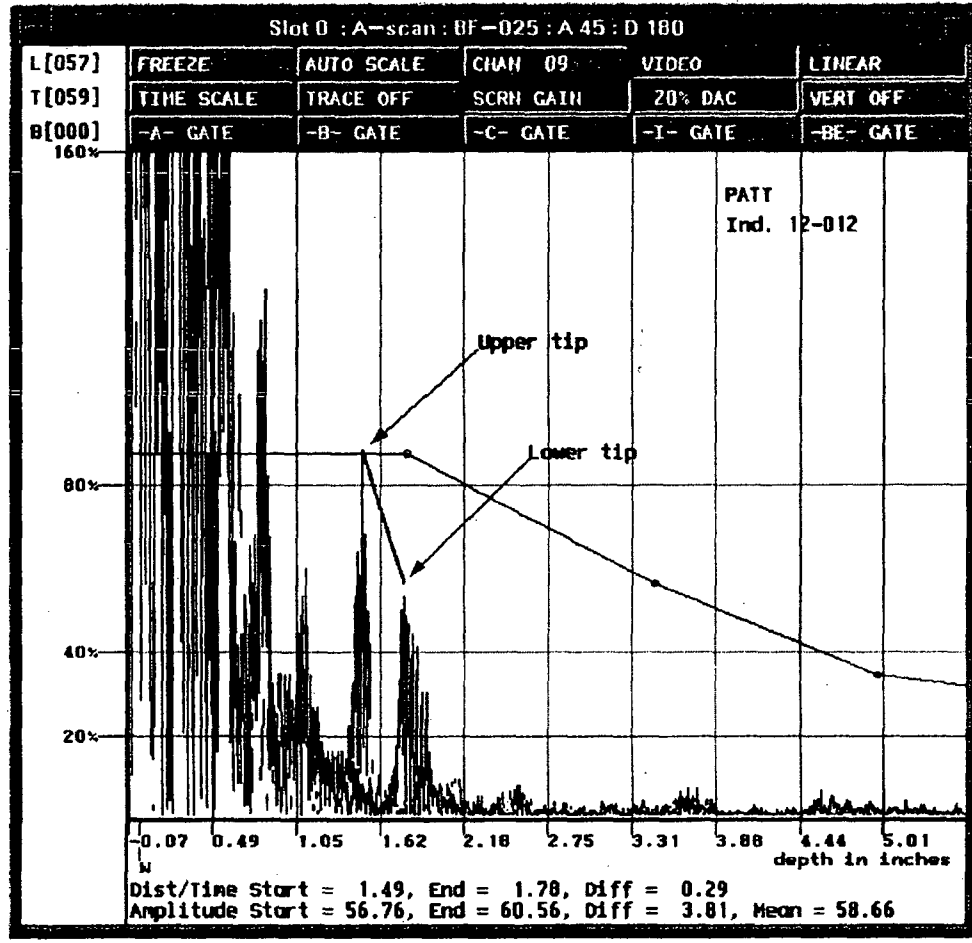
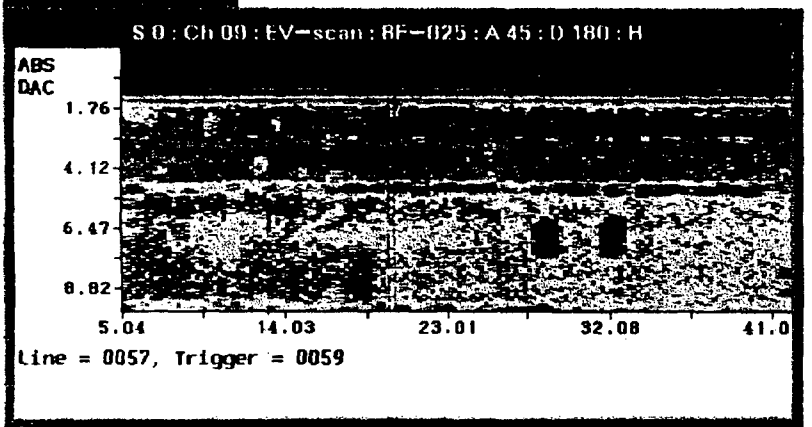
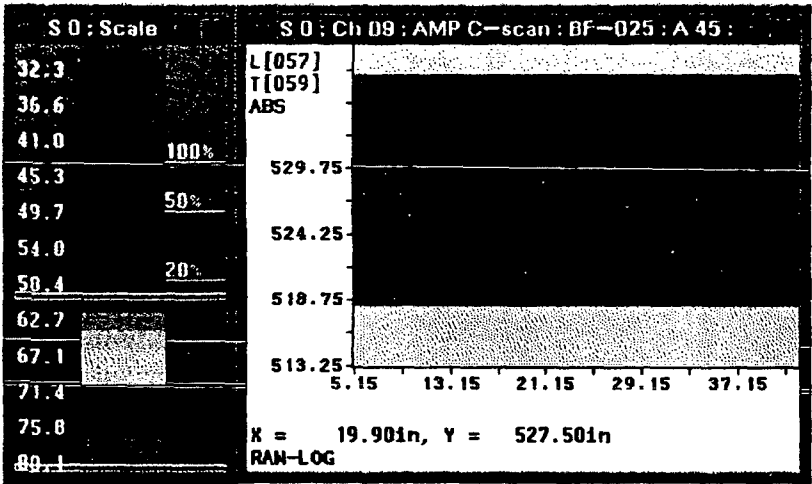


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278-642

R 1153





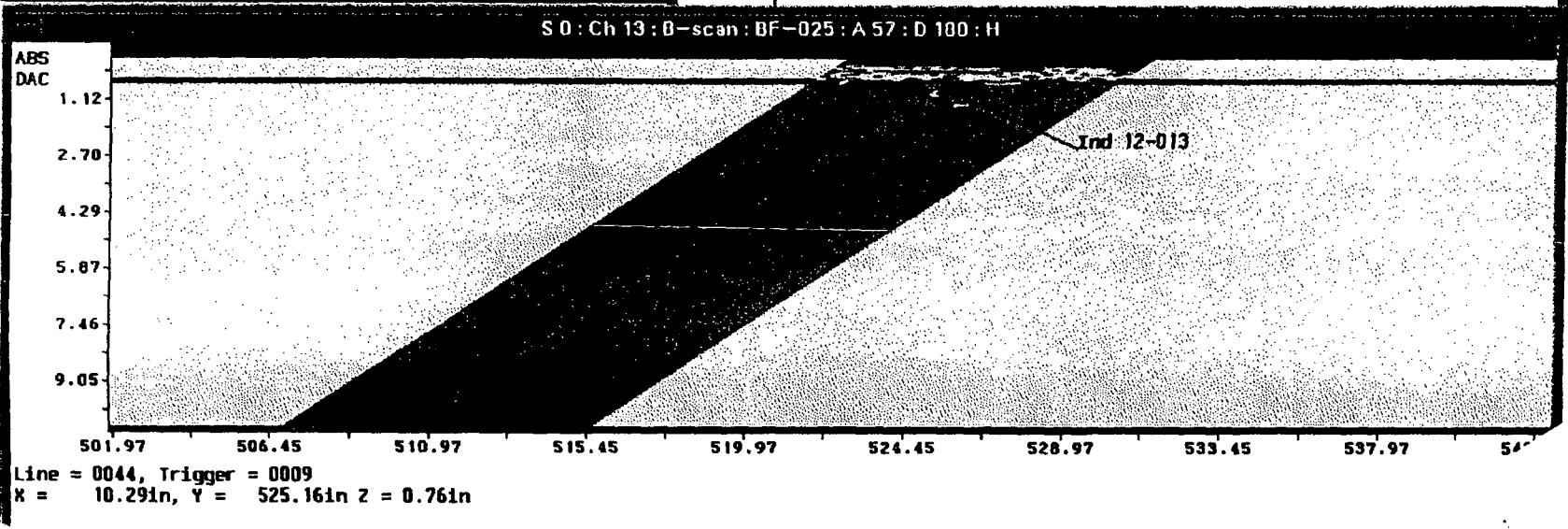
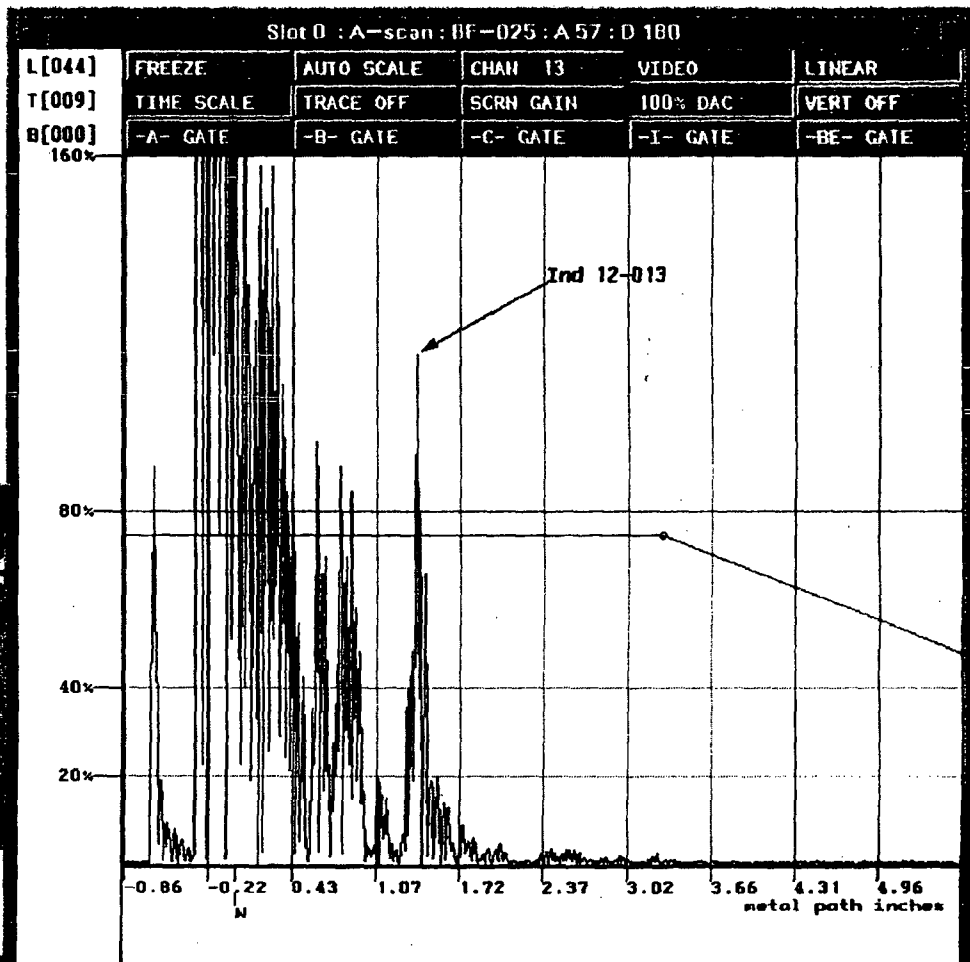
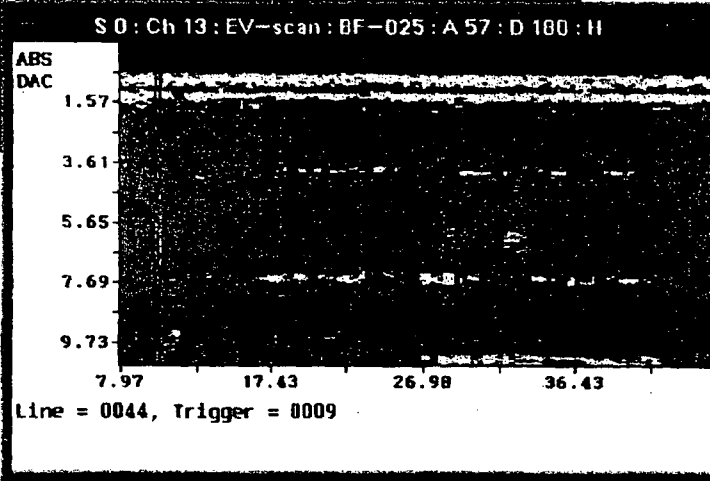
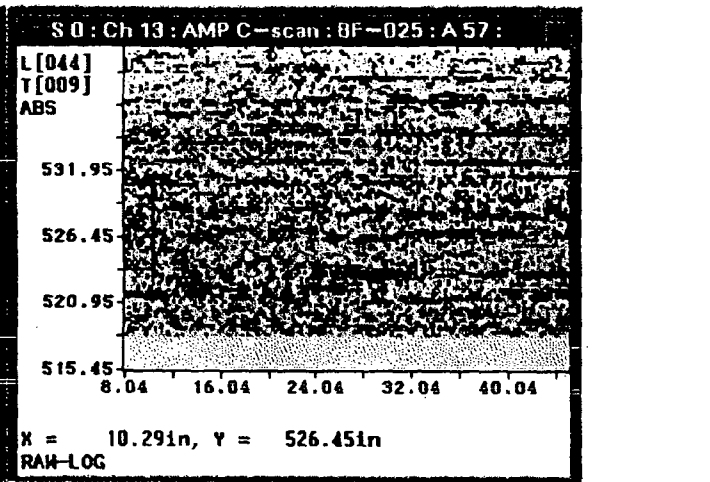
6/11/75
00278
00279

270 0 019

R 1153



- S O : 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
- DAC



00279
00230

200 of 439

R 1153

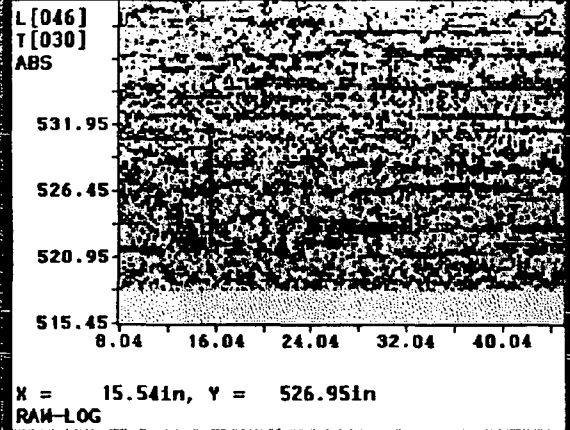
Disk Debugger

loaded :
 BF-025 channel
 Could not find
 loaded :
 BF-025 channel
 Could not find

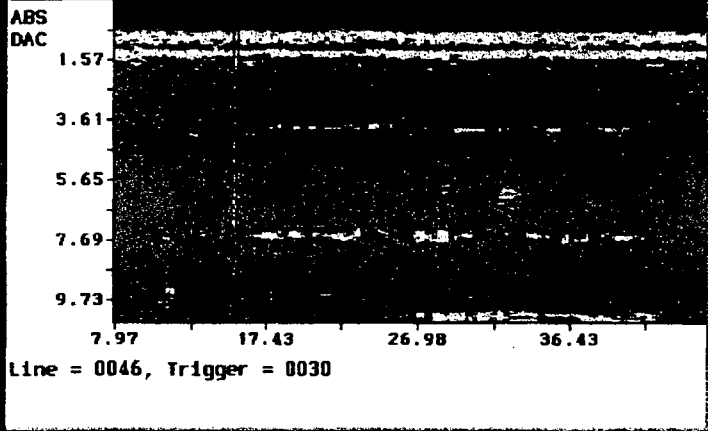
- 71.4
- 75.8
- 80.1
- 84.5
- 88.8
- 93.2

DAC

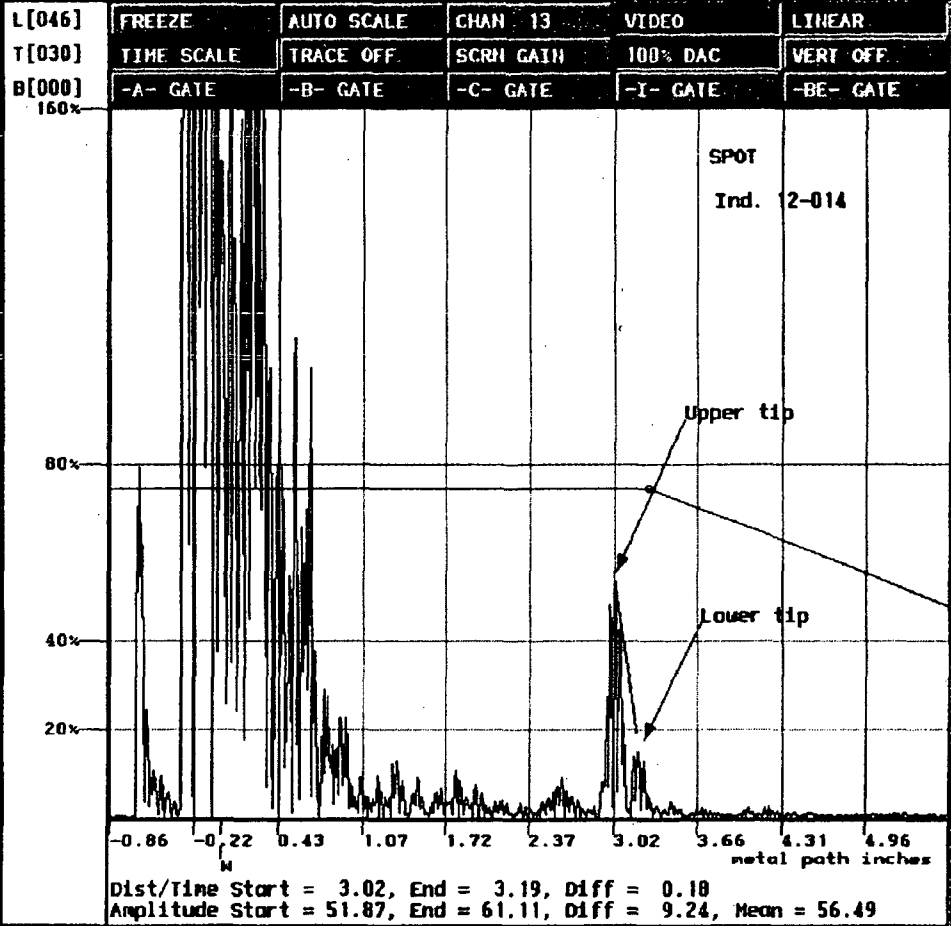
S 0 : Ch 13 : AMP C-scan : BF-025 : A 57 :



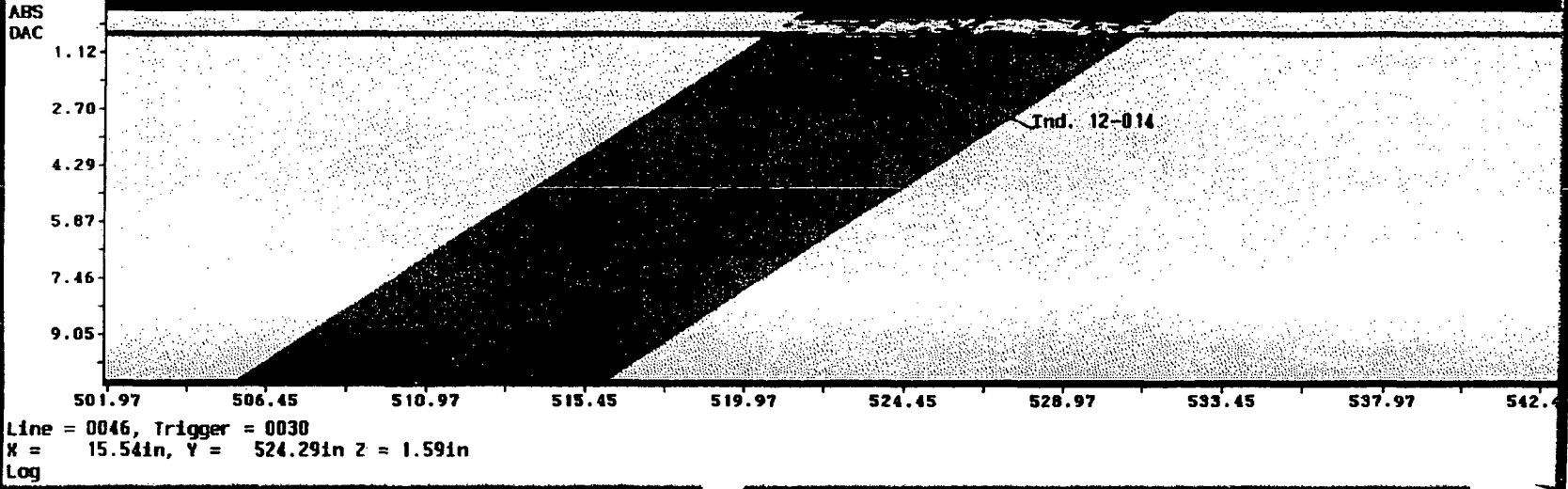
S 0 : Ch 13 : EV-scan : BF-025 : A 57 : D 180 : H



Slot 0 : A-scan : BF-025 : A 57 : D 180



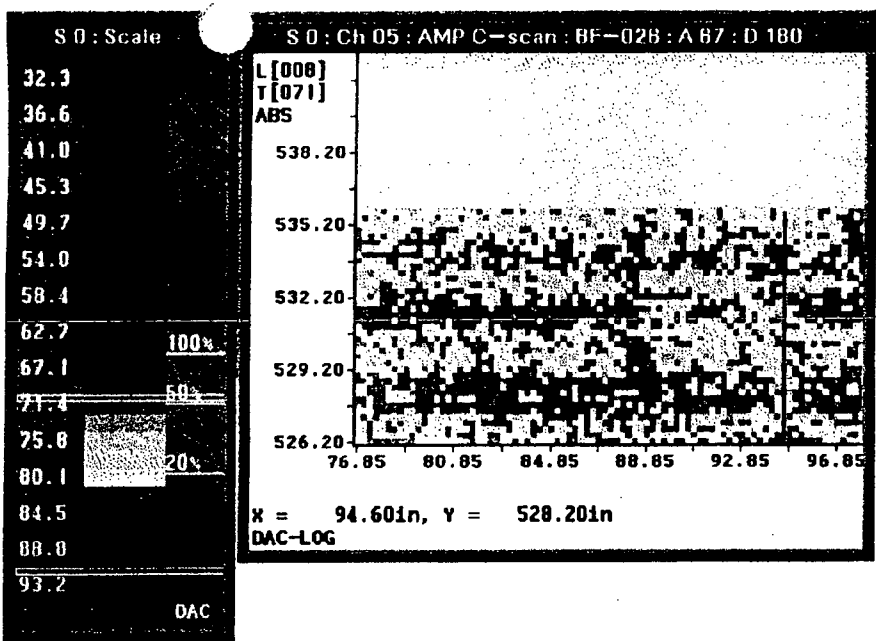
S 0 : Ch 13 : B-scan : BF-025 : A 57 : D 180 : H



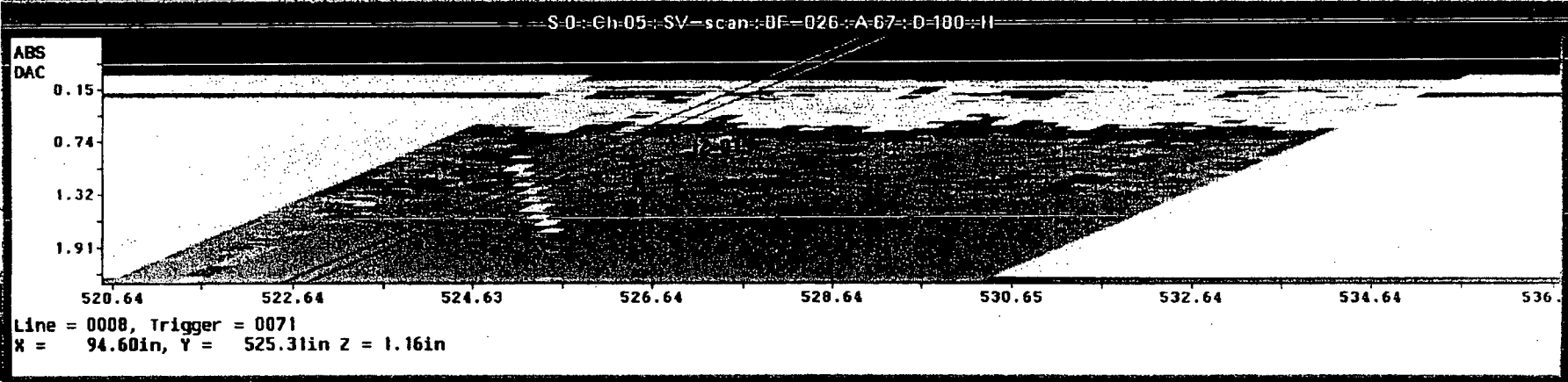
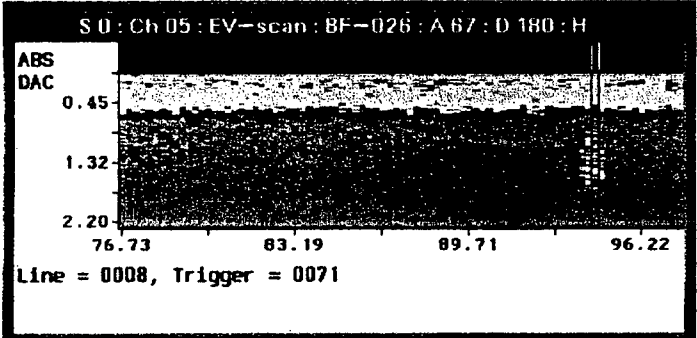
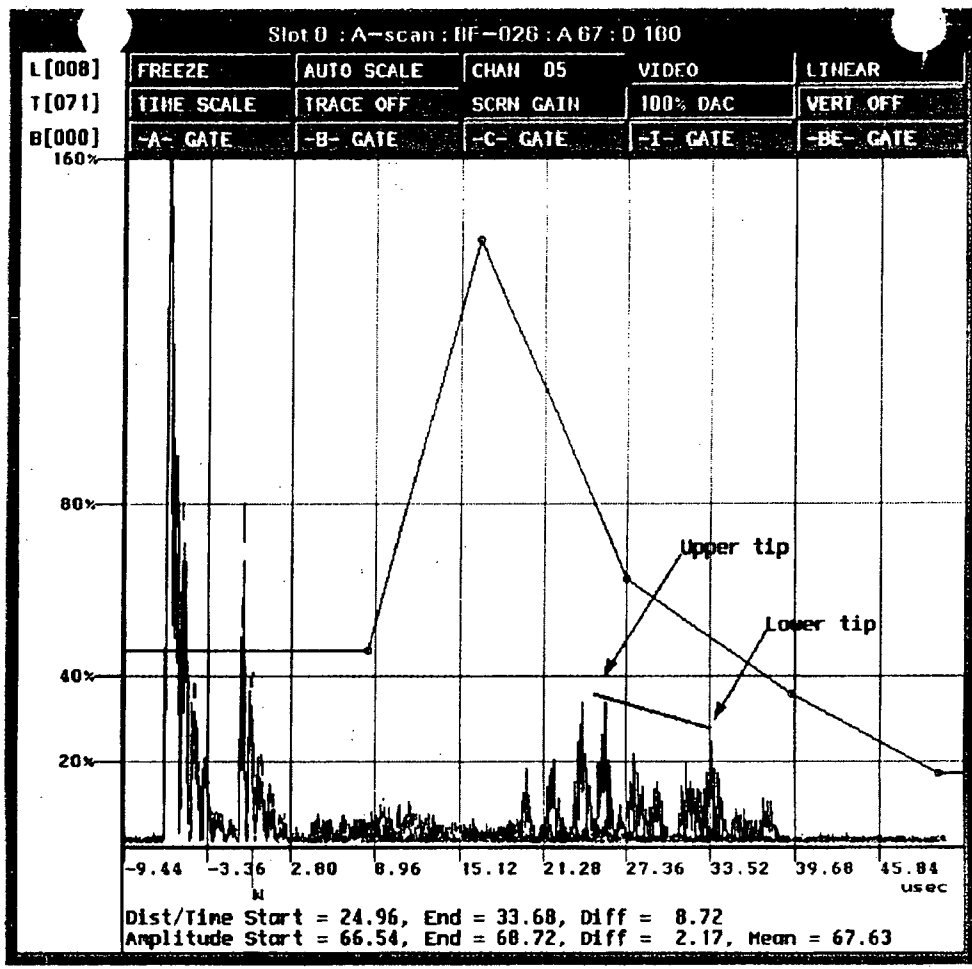
66280
 00281

R1153

201 of 400



hpterm



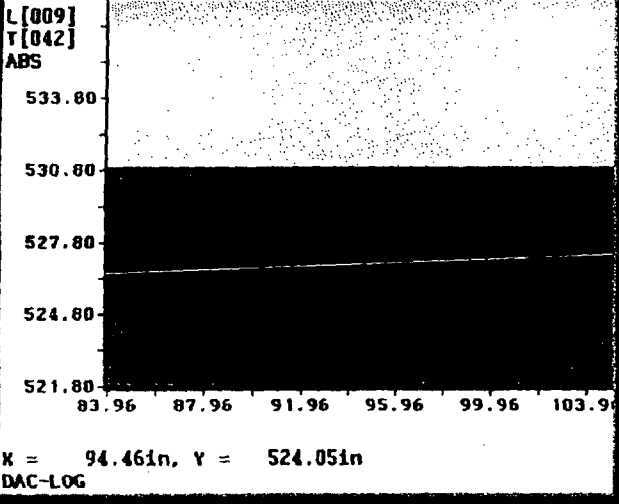
00281
00282

00281

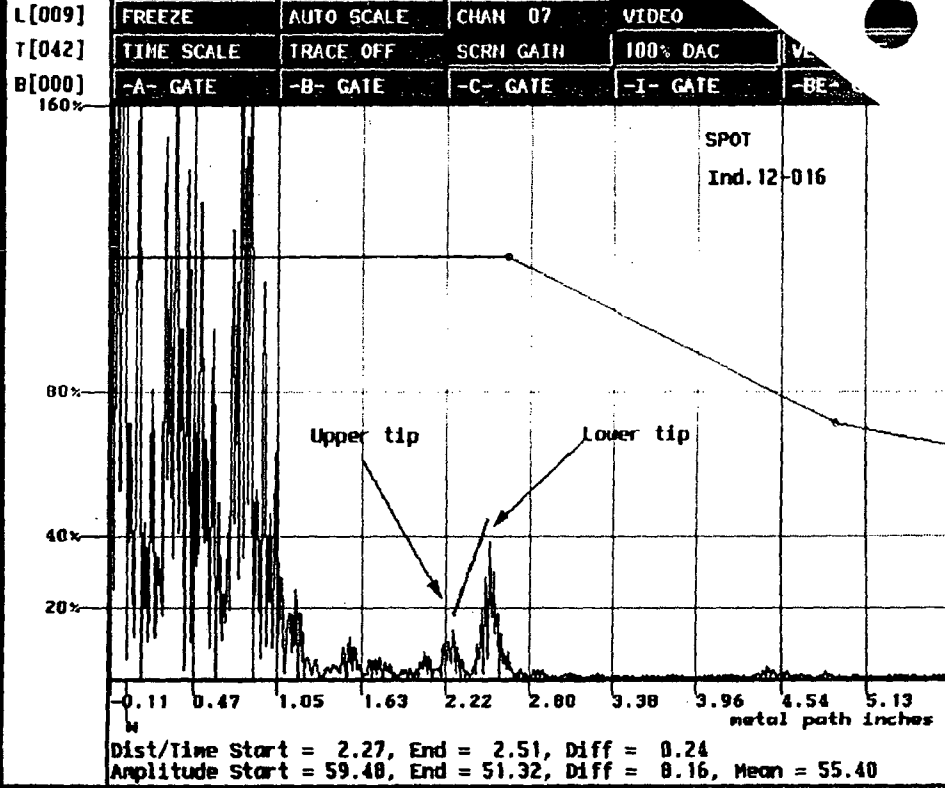
S 0 : Scale

S 0 : Ch 07 : AMP C-scan : BF-026 : A 47 : D 0

- 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%
- OAC

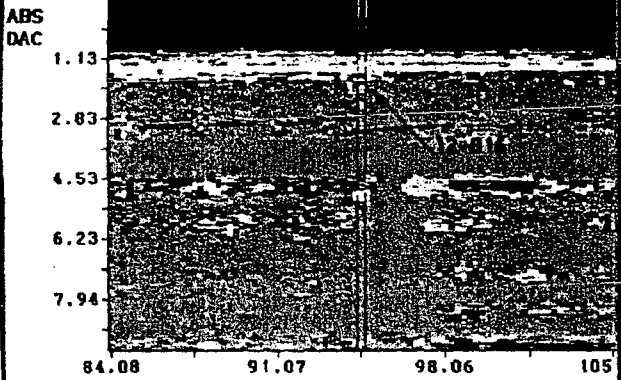


Slot 0 : A-scan : BF-026 : A 47 : D 0



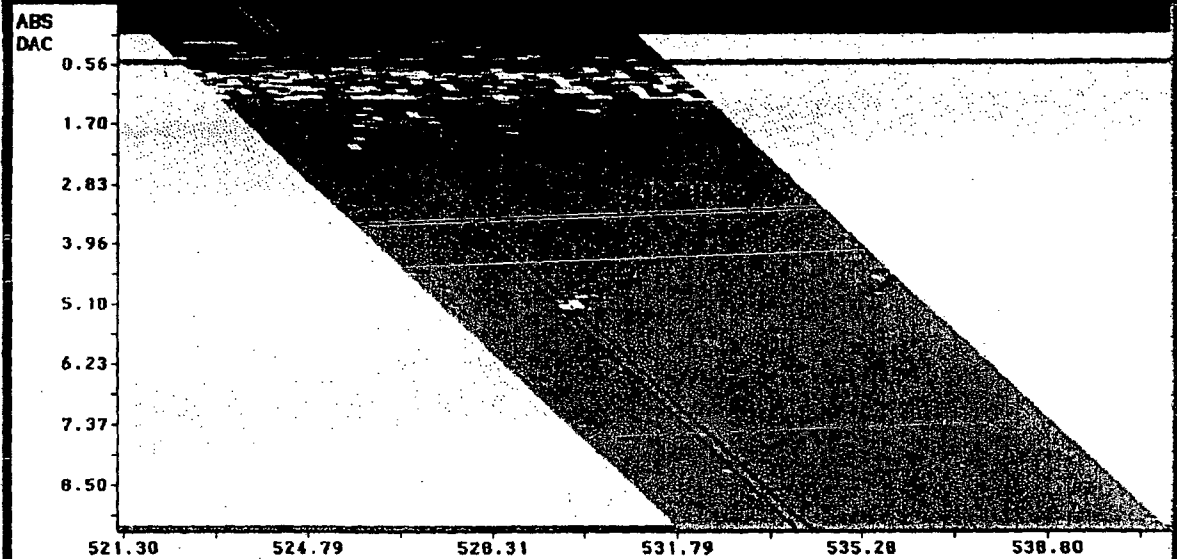
002822
 1988-2-5-84
 565-2-5-84

S 0 : Ch 07 : EV-scan : BF-026 : A 47 : D 0 : H



Line = 0009, Trigger = 0042

S 0 : Ch 07 : B-scan : BF-026 : A 47 : D 0 : H



Line = 0009, Trigger = 0042
 X = 94.46in, Y = 525.95in Z = 1.70in

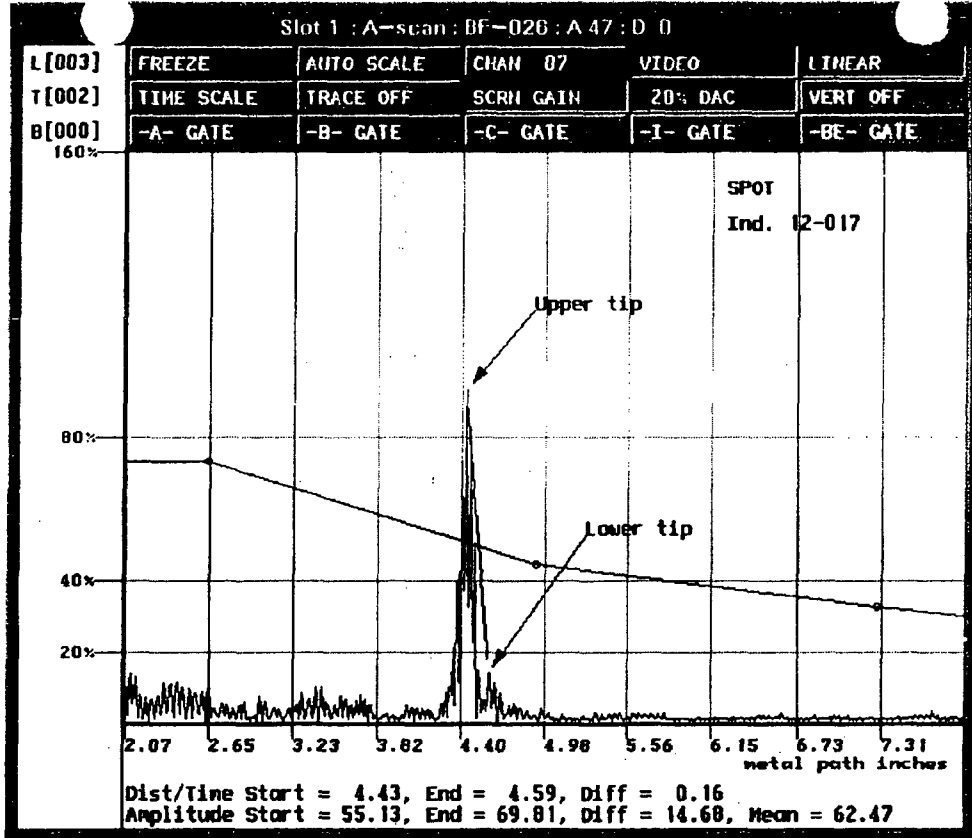
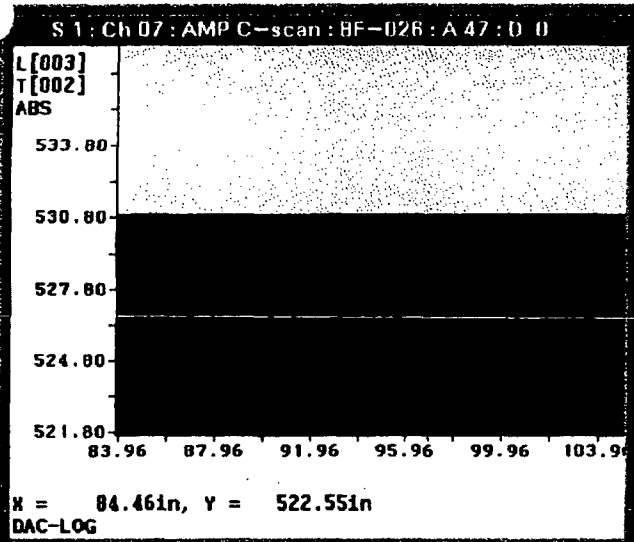
00-11-83

S 1: Scale

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

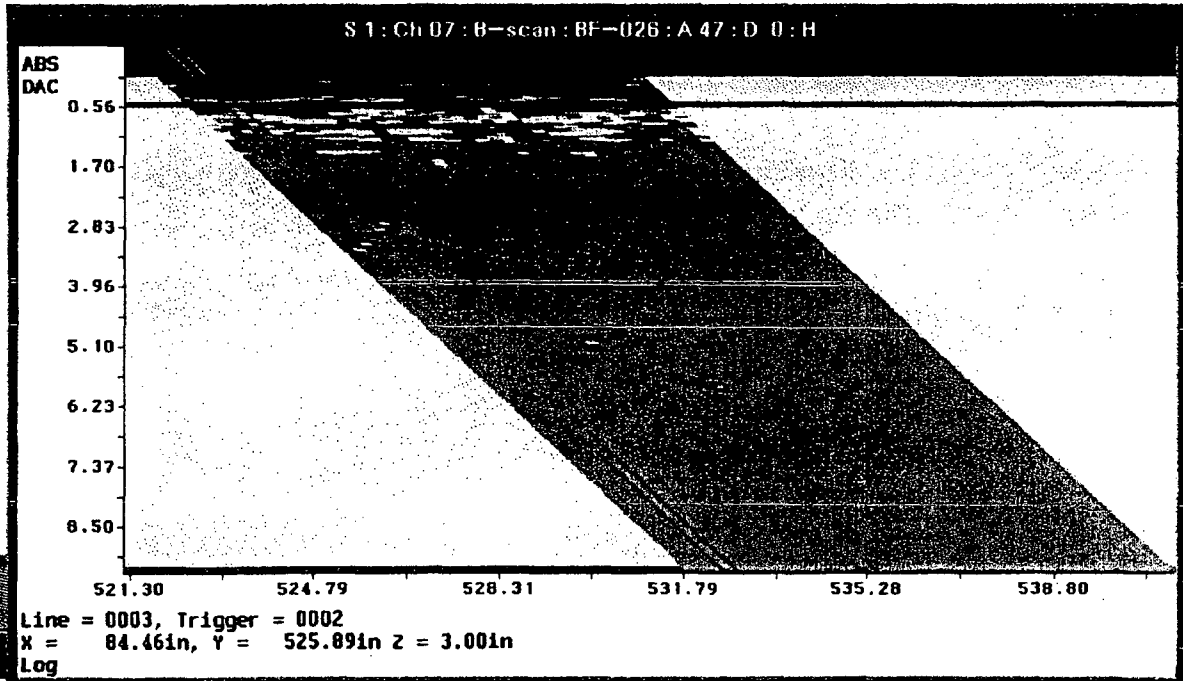
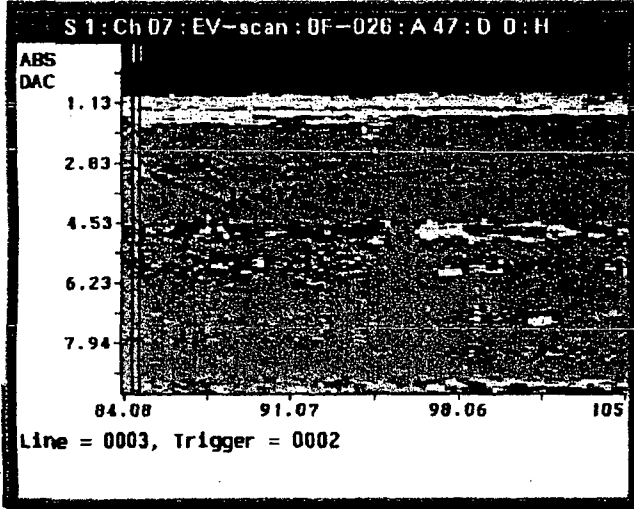
100%
50%
20%

DAC

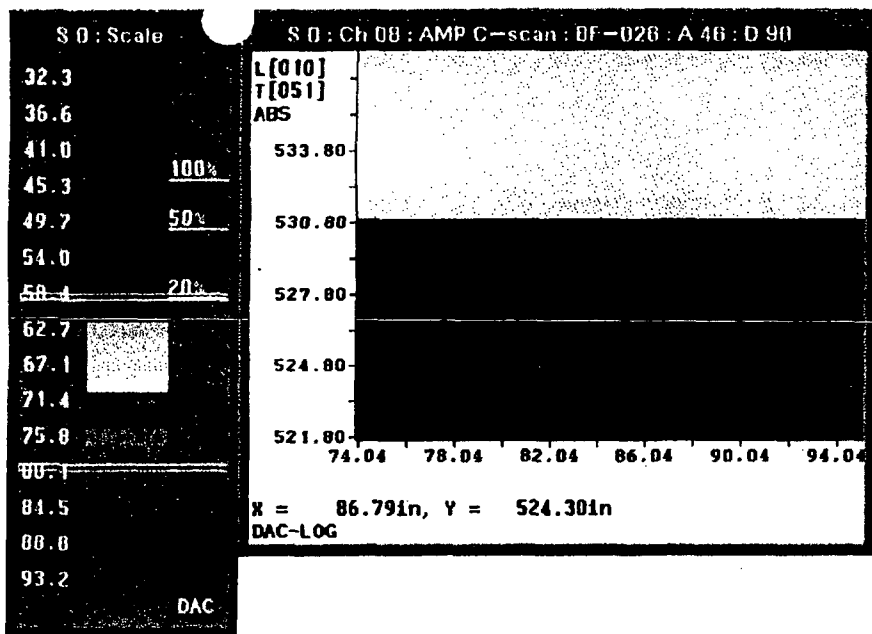


hpterm

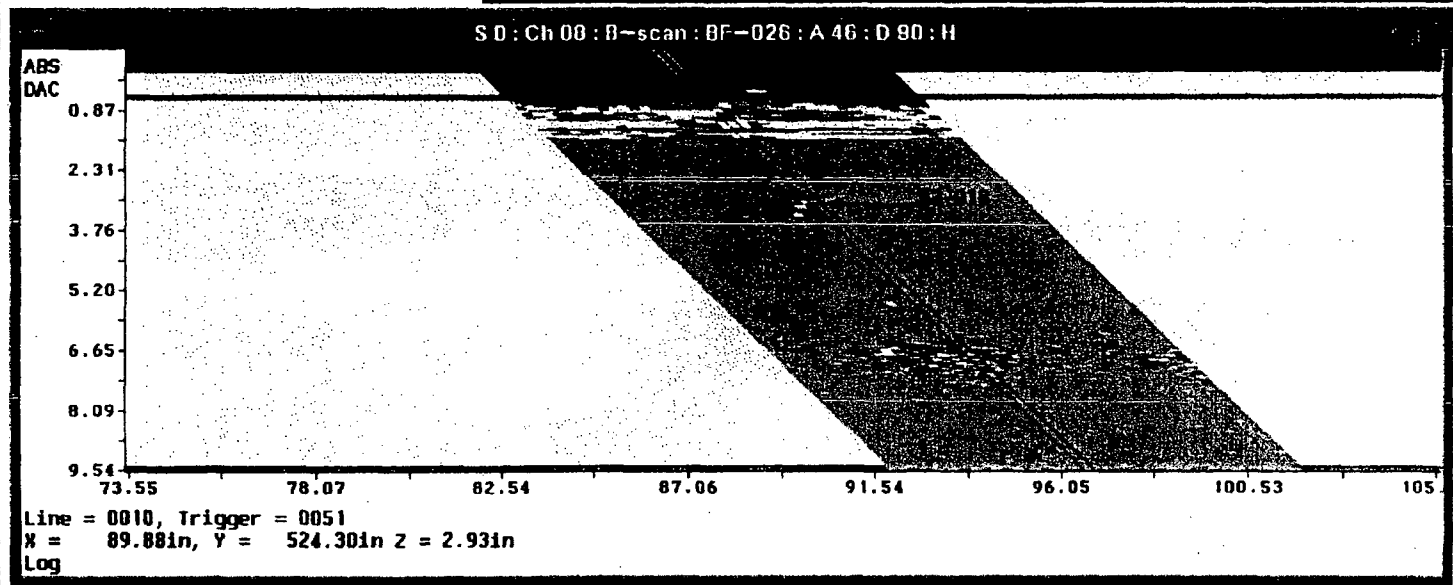
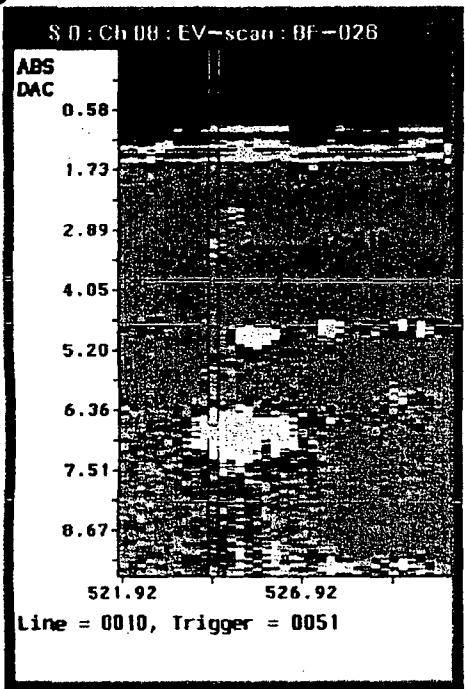
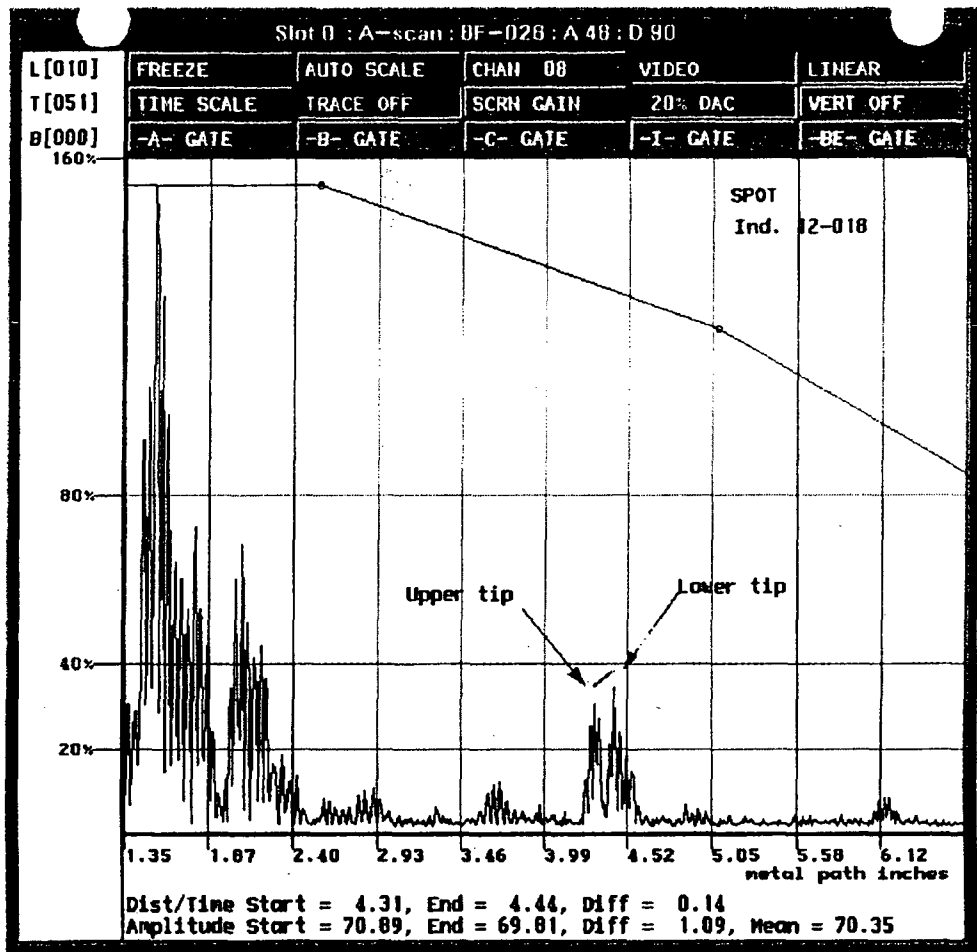
00283
00284



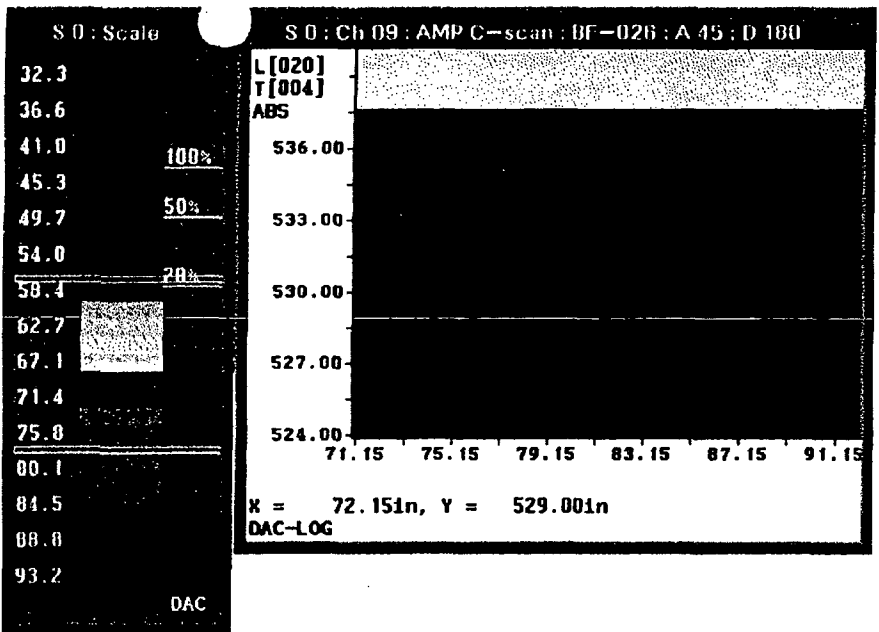
2-1-53



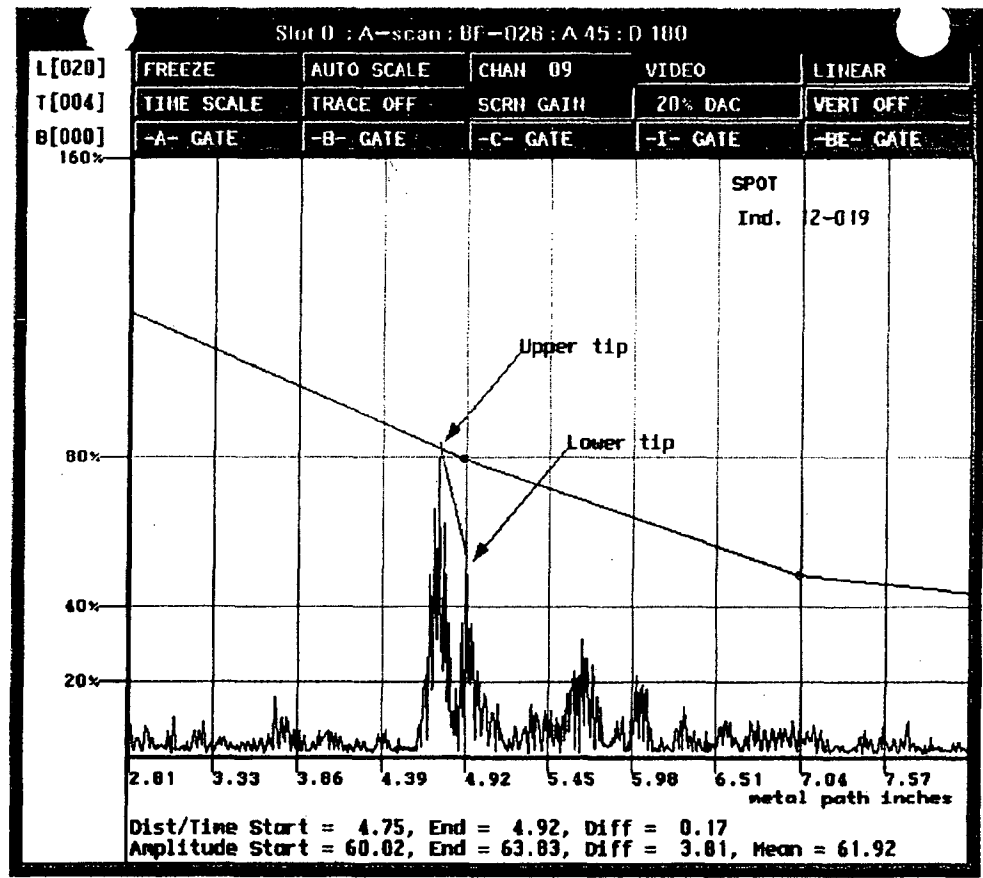
hpterm



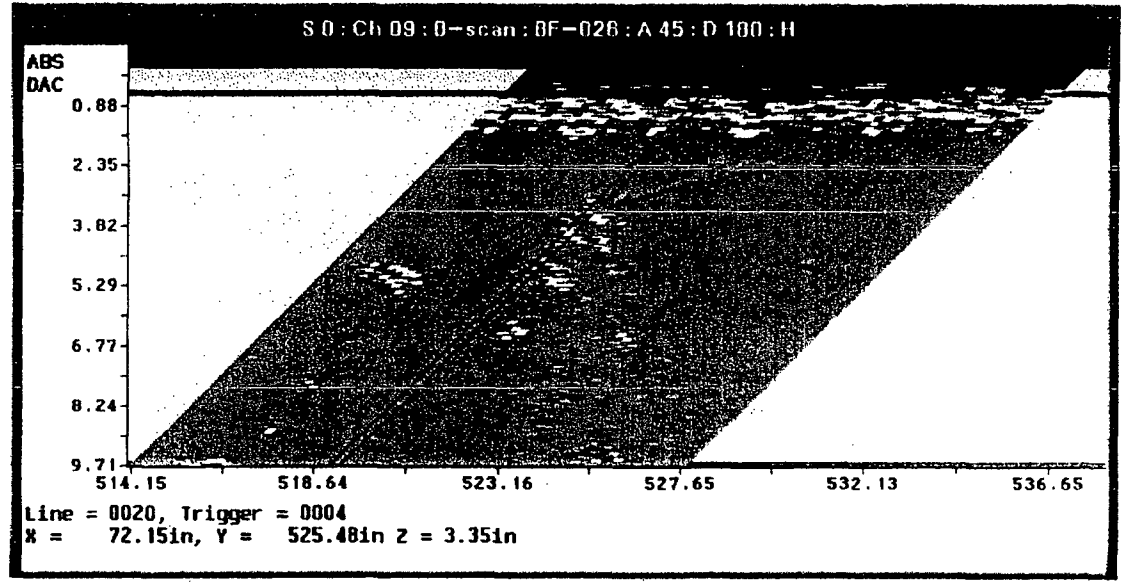
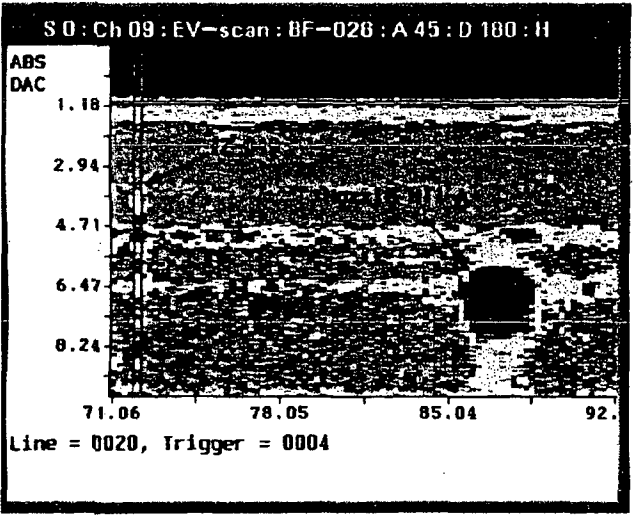
R 1153
00285



hpterm



00286



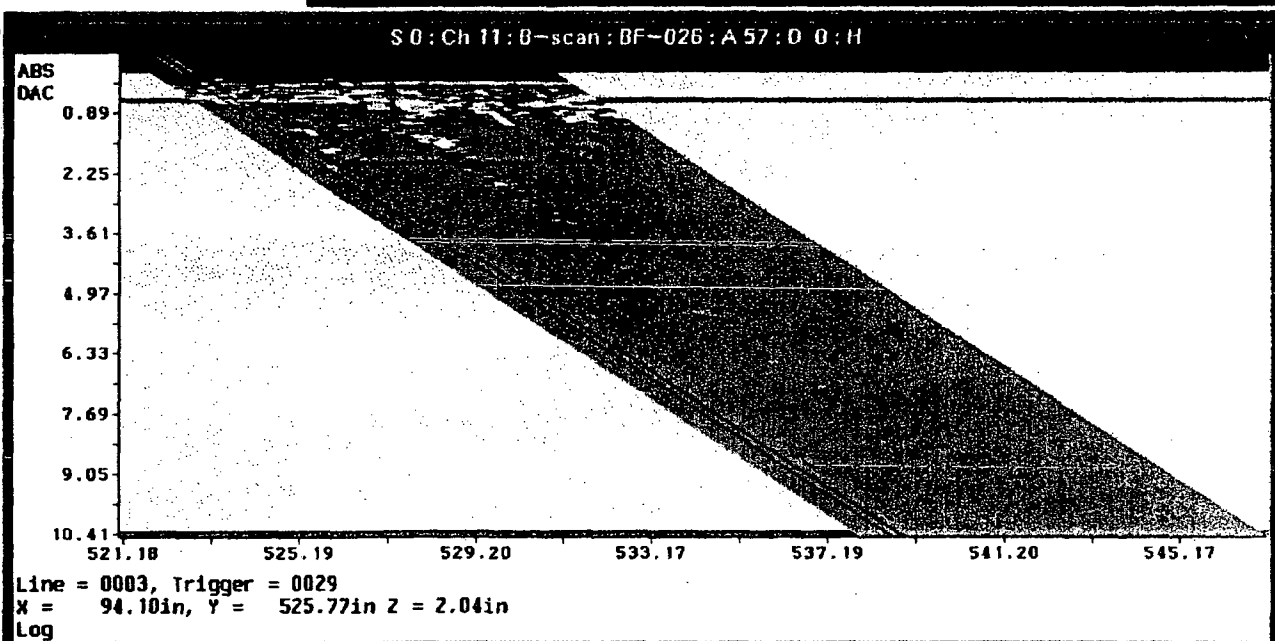
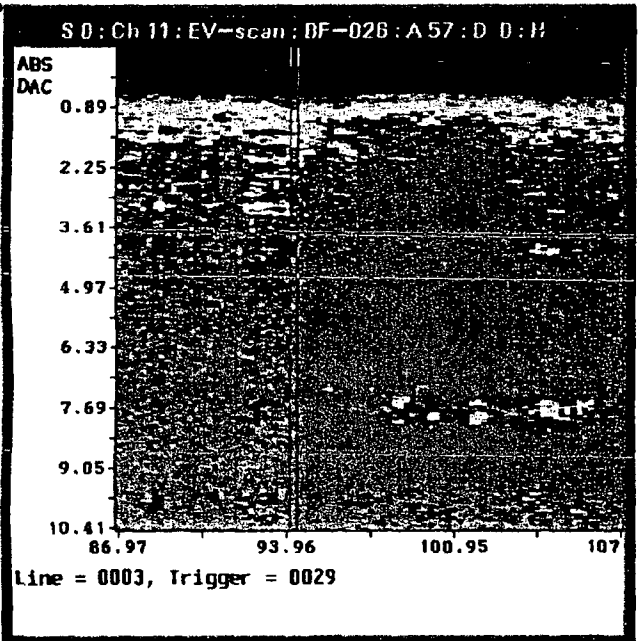
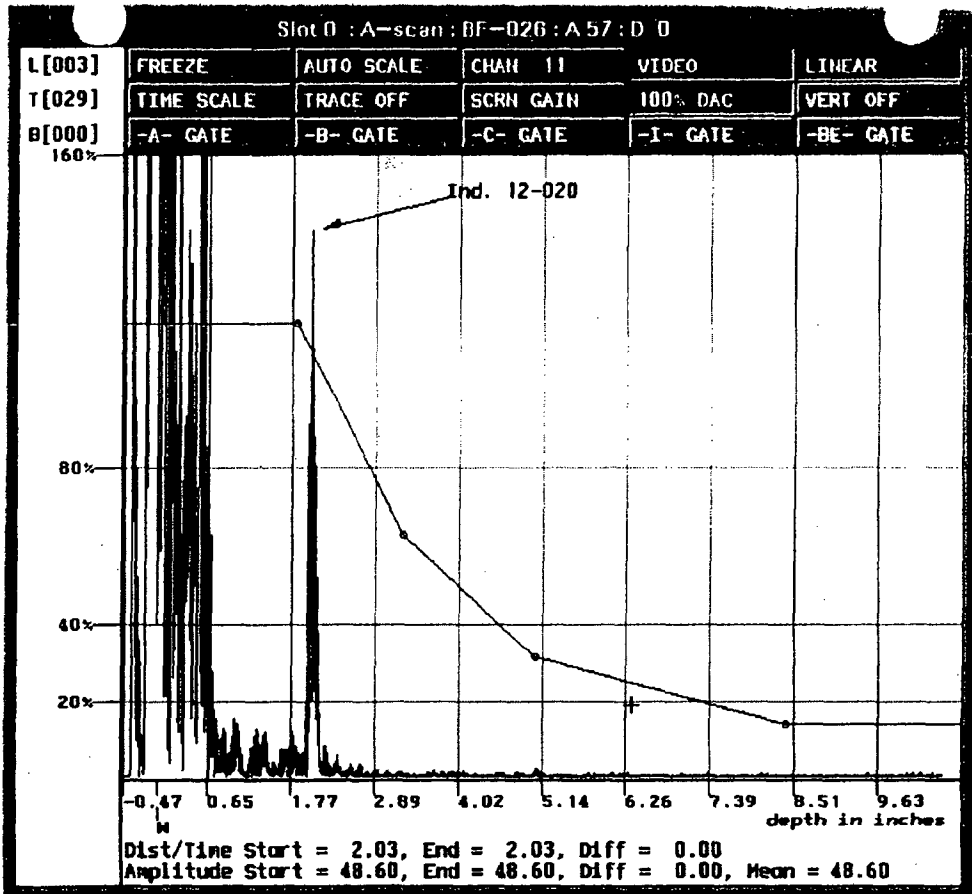
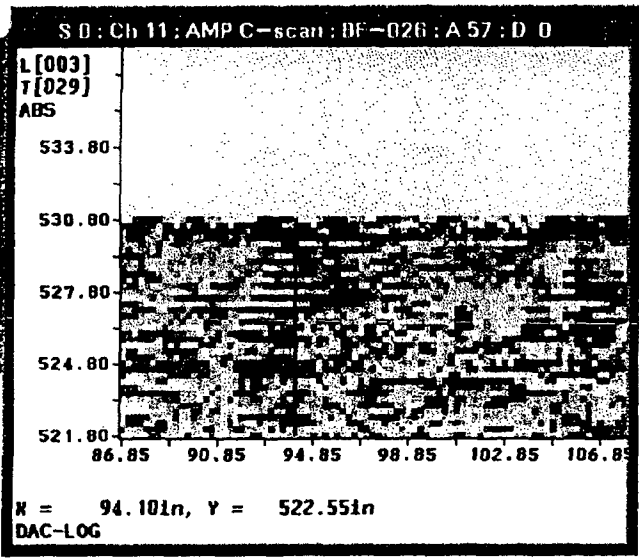
51153

S 0 : Scale

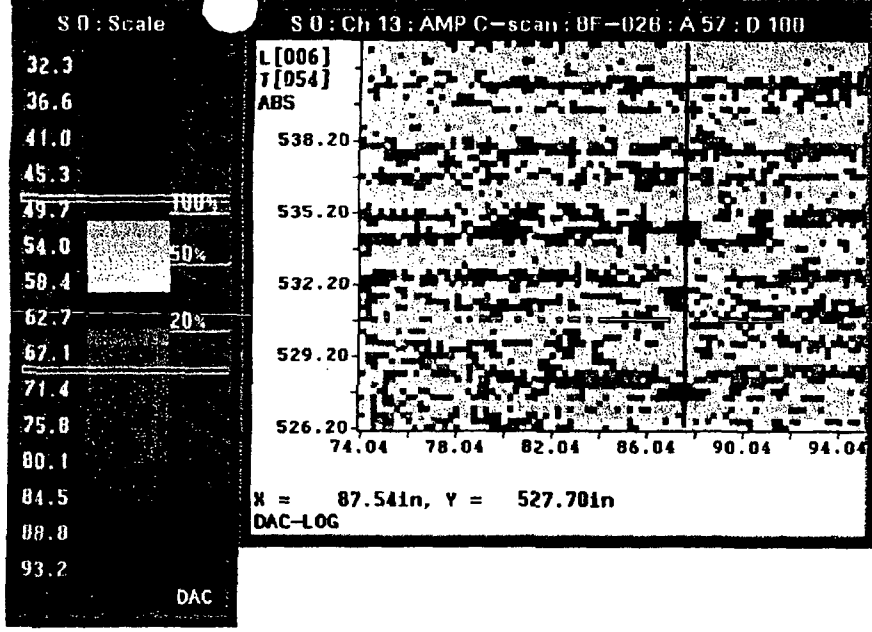
32.3
36.6
41.0
45.3
49.7
54.0
58.4
62.7
67.1
71.4
75.8
80.1
84.5
88.8
93.2

180%
50%
20%

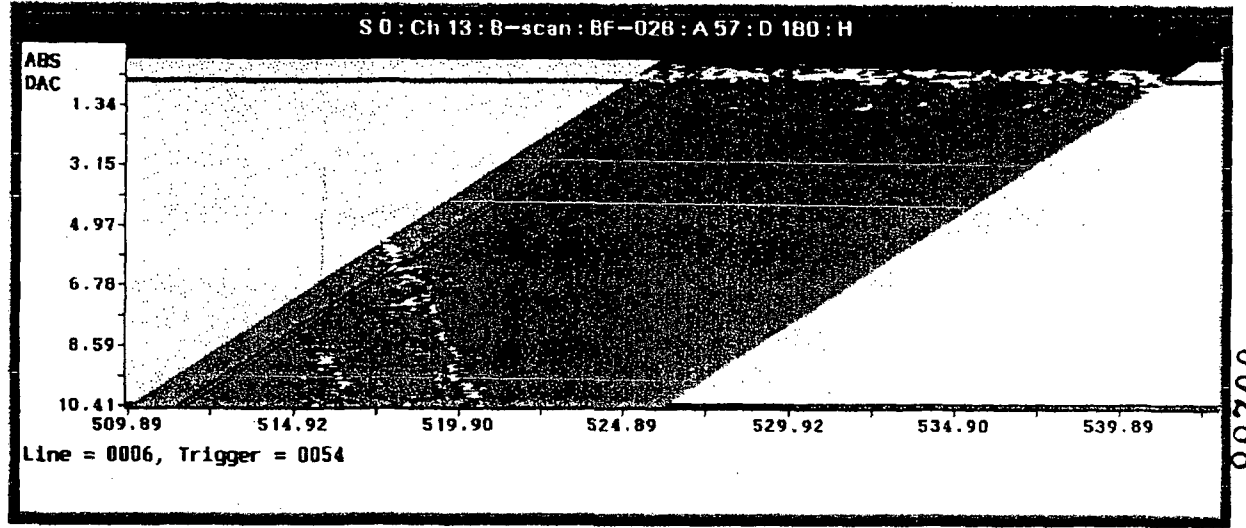
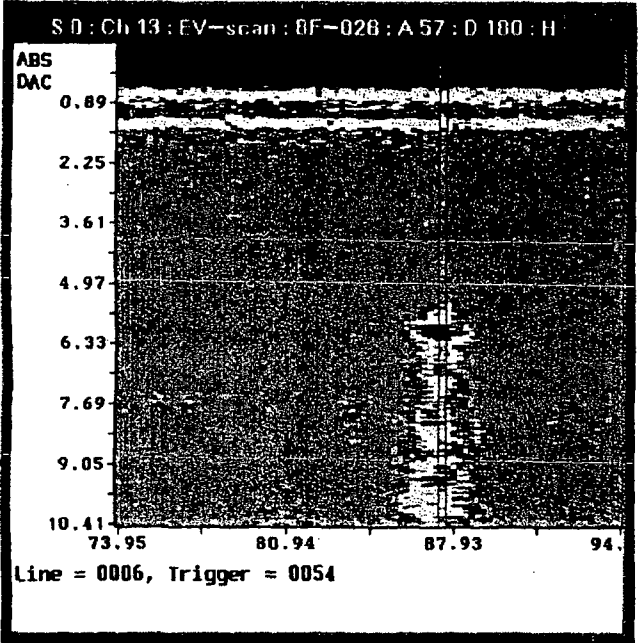
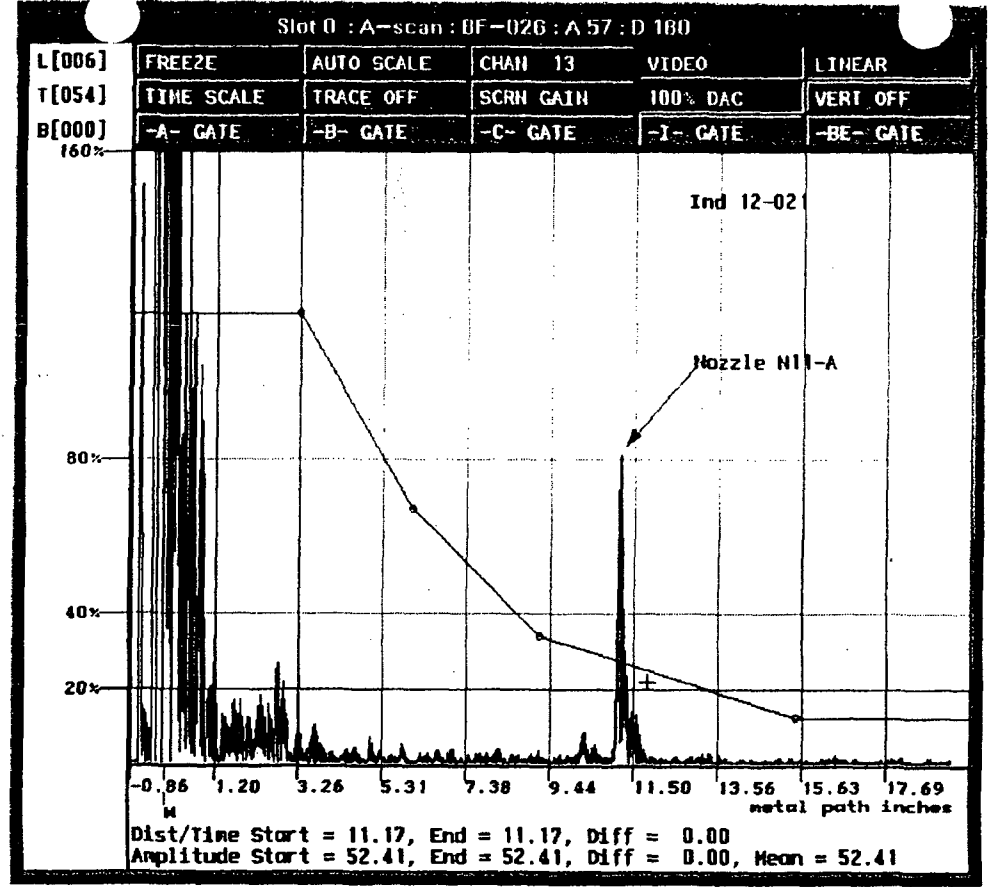
DAC



R 1153
00287



hpterm



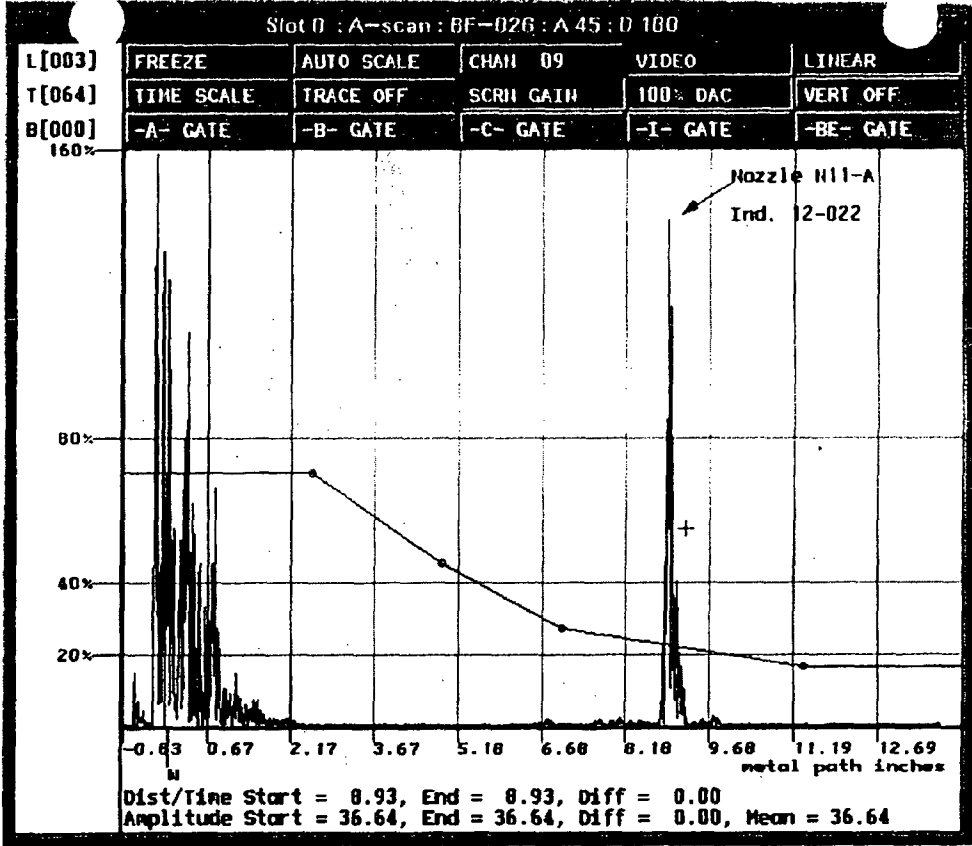
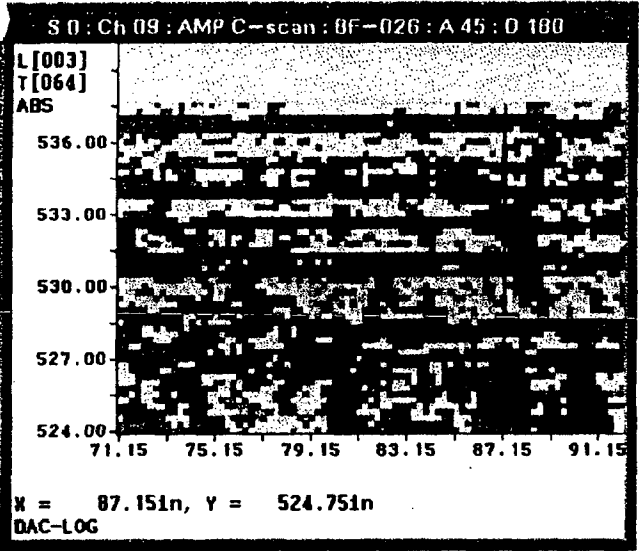
R 1153
60288

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

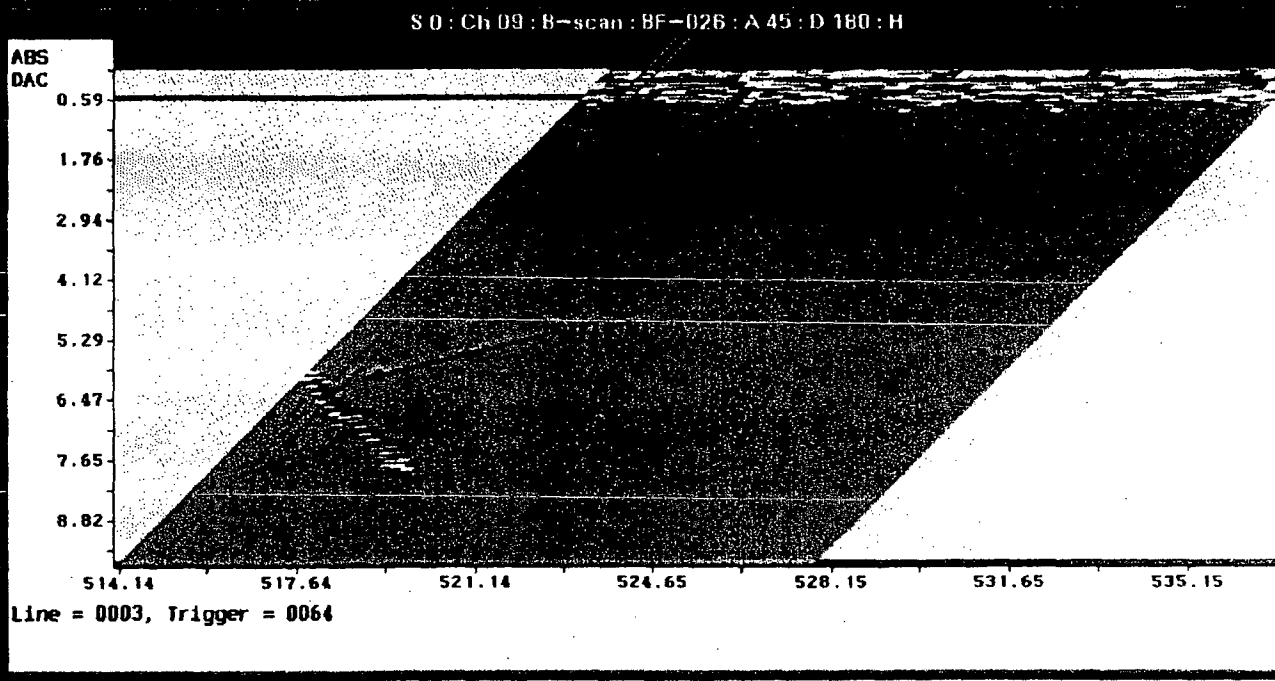
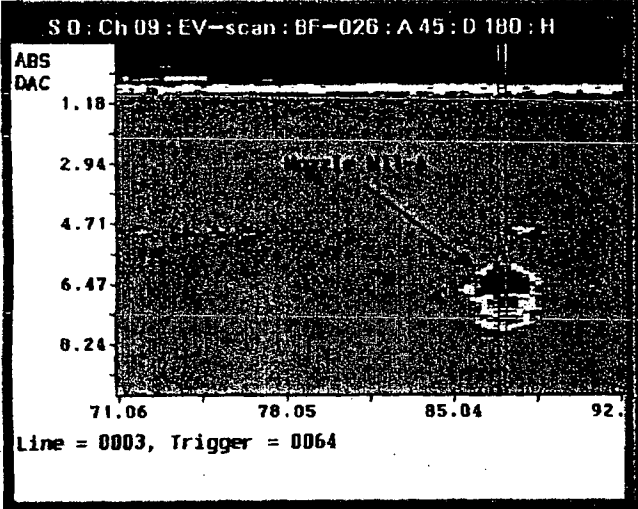
100%
50%
20%

DAC



hpterm

00289



R1153

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

Pat
04
tv
05
tv

100%
50%
20%

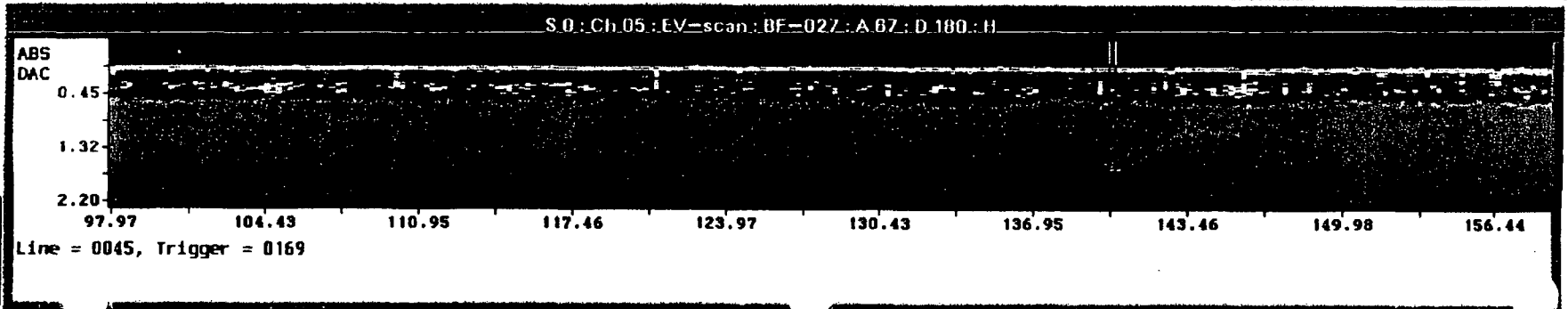
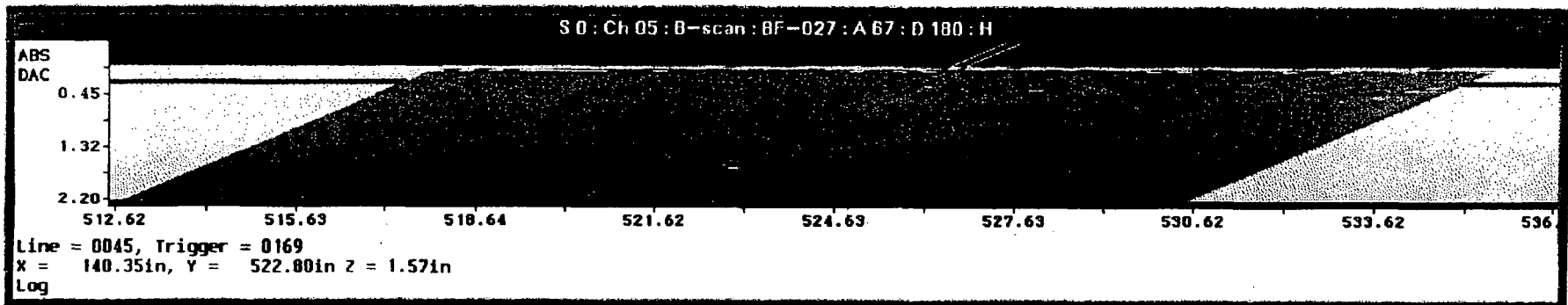
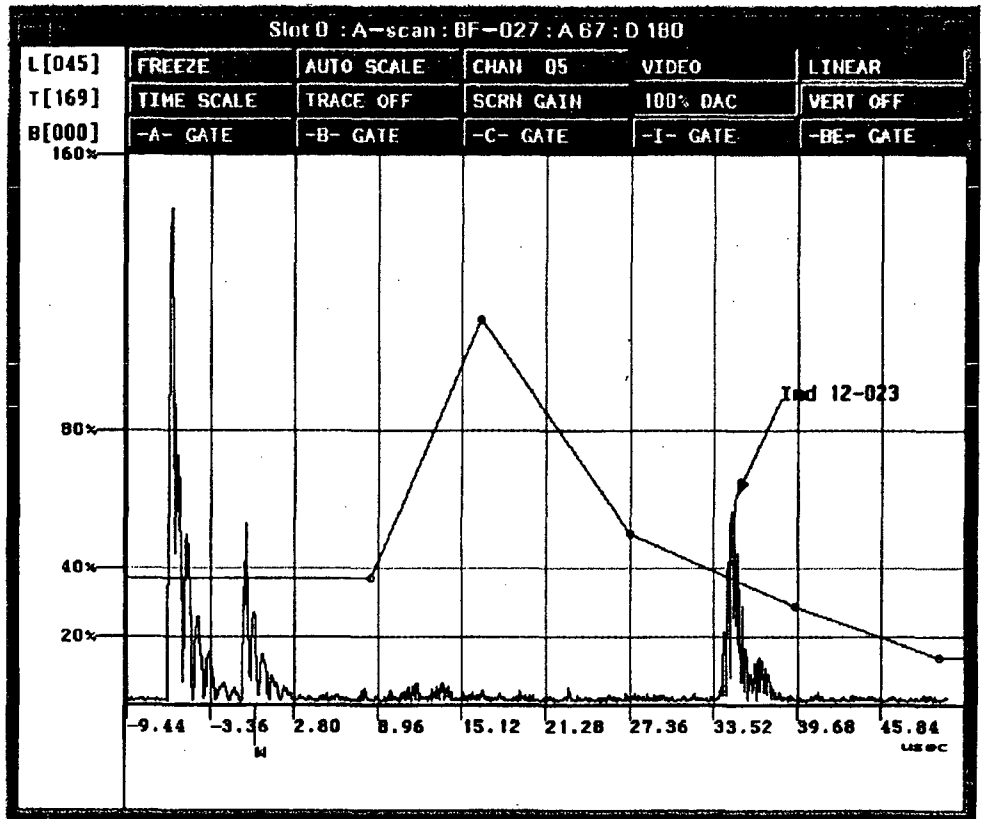
DAC

S 0 : Ch 05 : AMP C-scan : BF-027

L[045]
T[169]
ABS

525.95
515.45
98.10 113.60 129.10 144.60

X = 140.35in, Y = 526.70in
DAC-LOG



R 1153

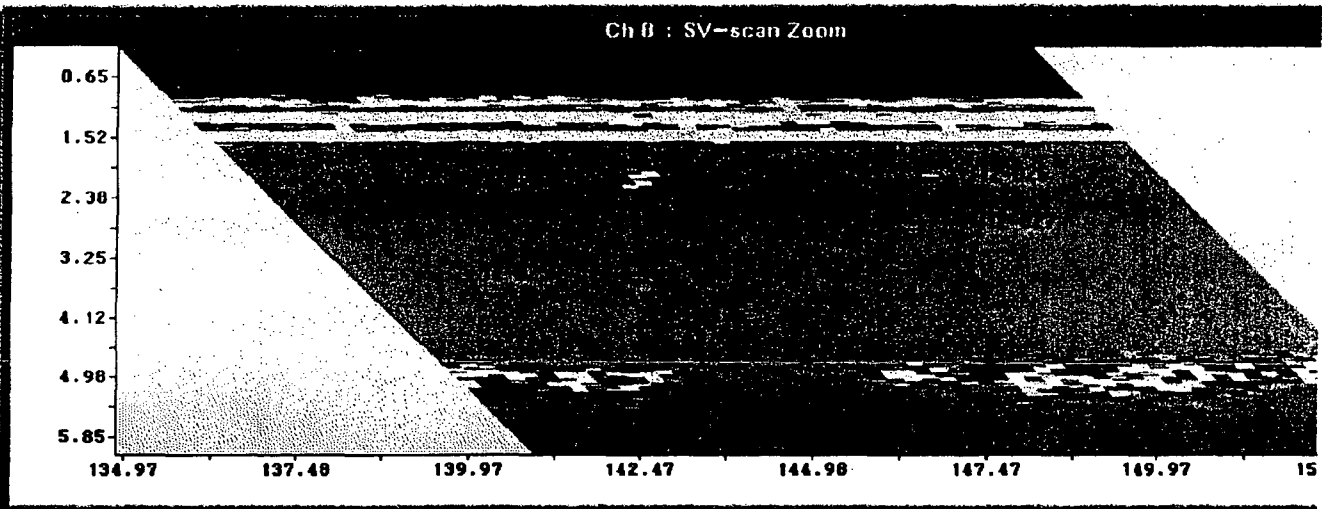
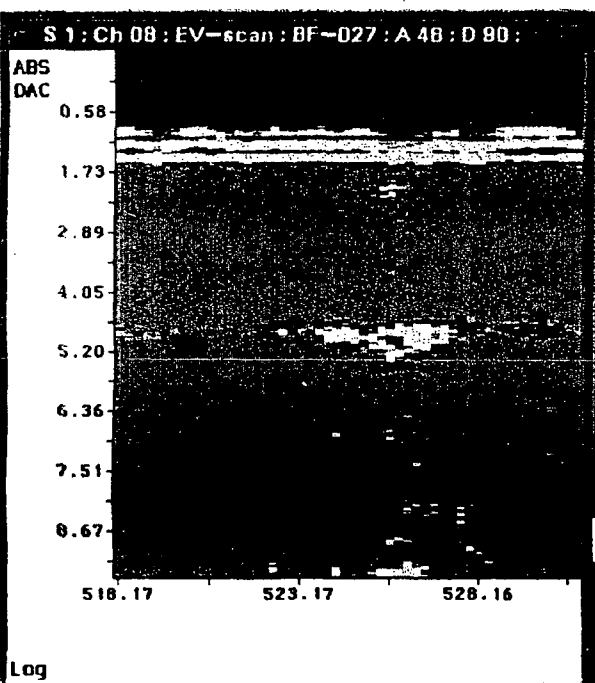
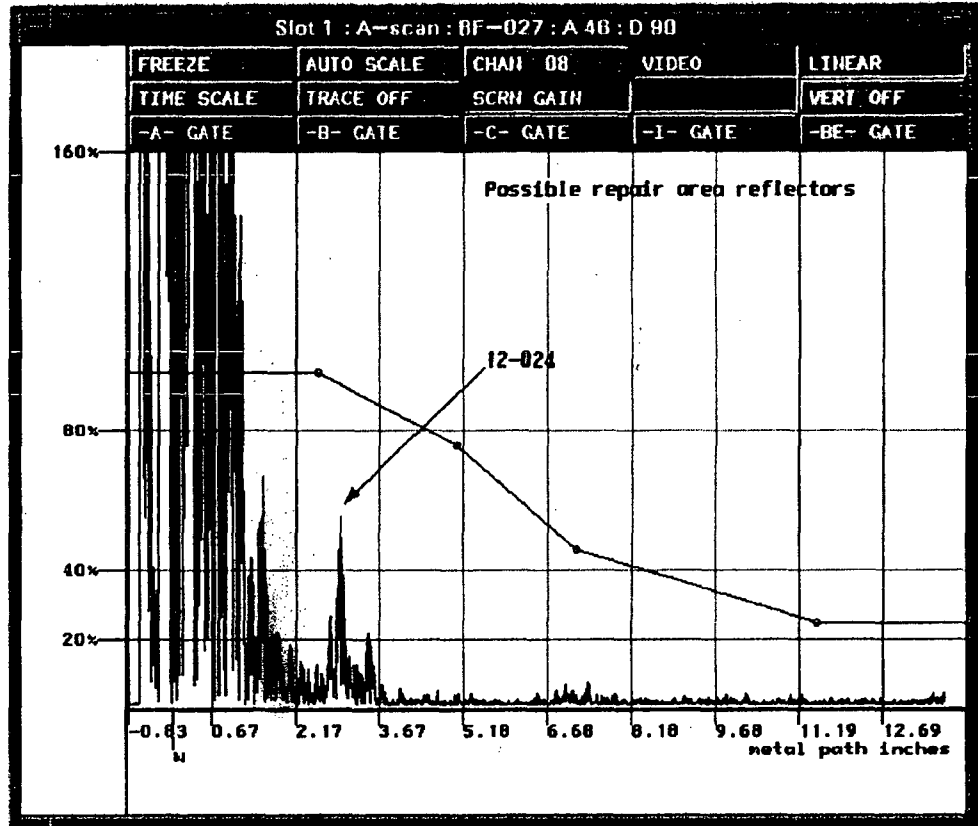
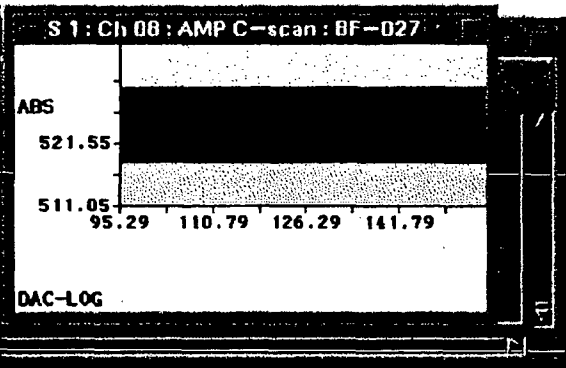
00290

S 1 : Scale

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

100%
50%
20%

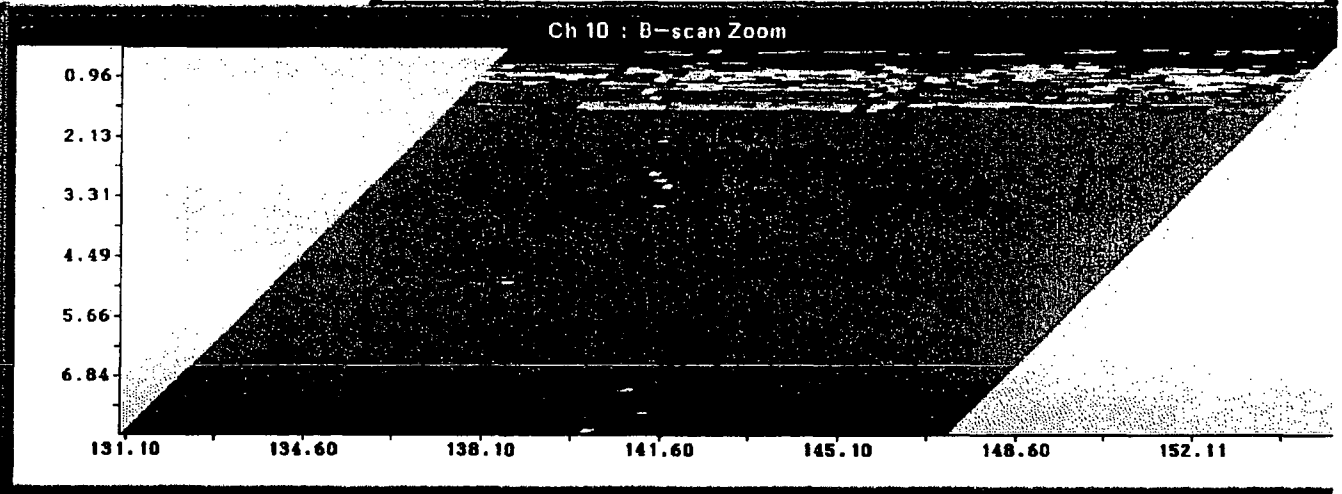
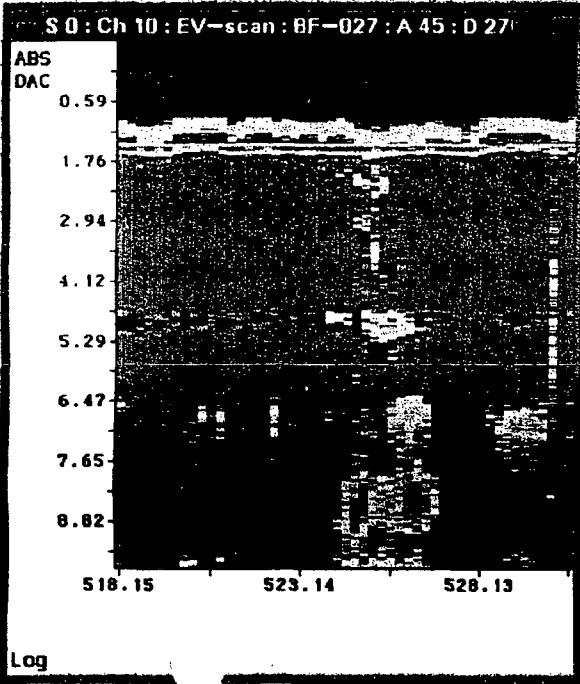
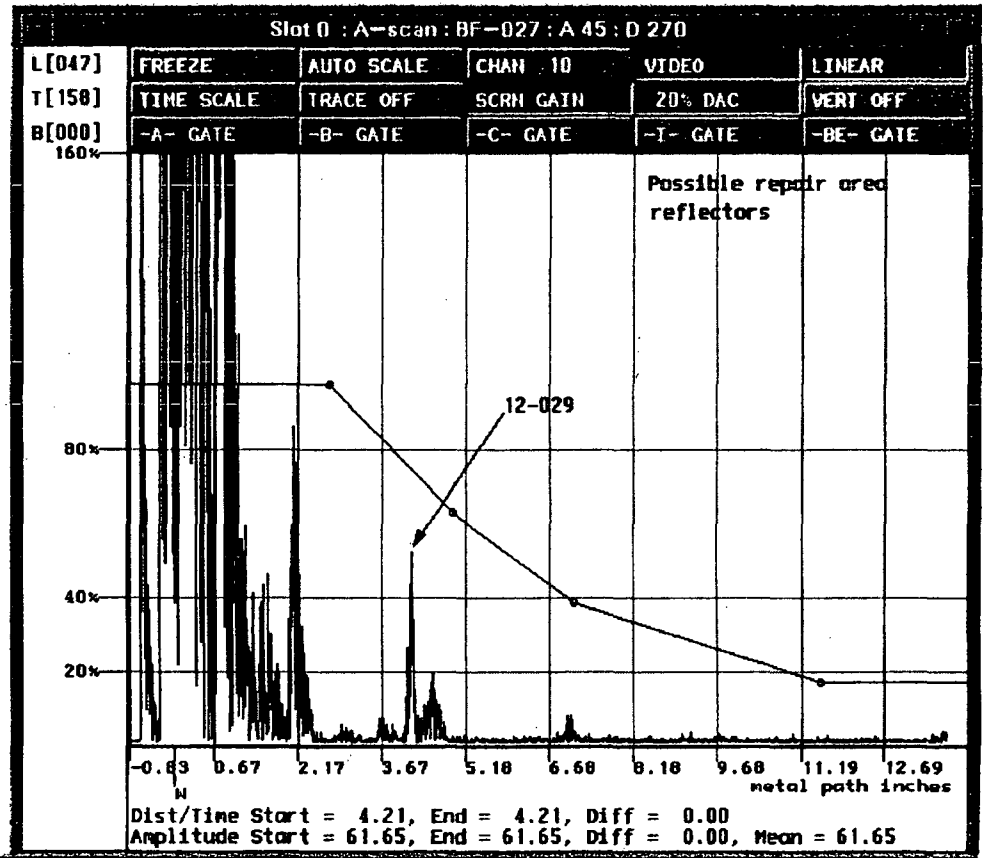
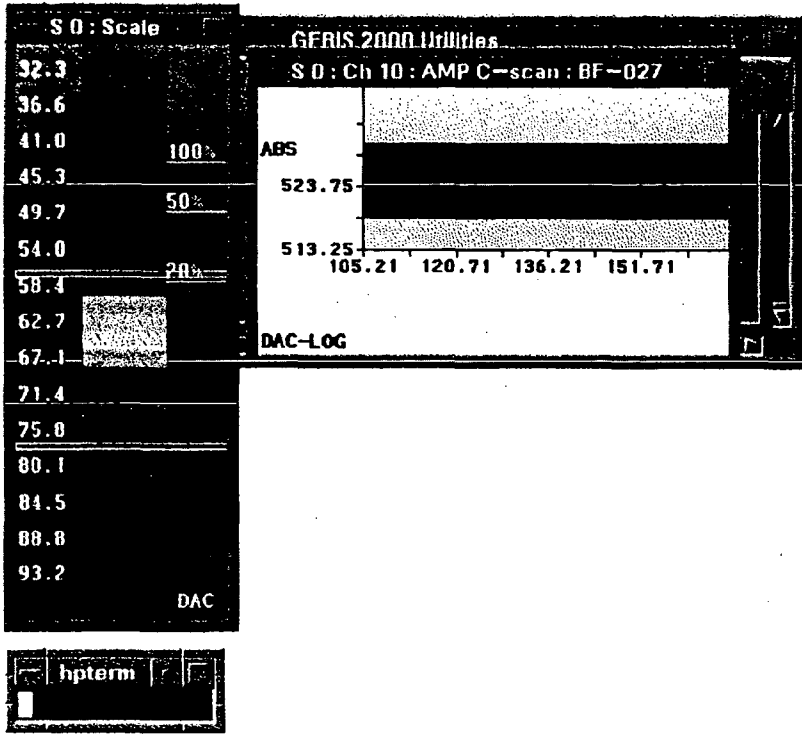
DAC



R 1153

16200 * 00291

DATE



00292

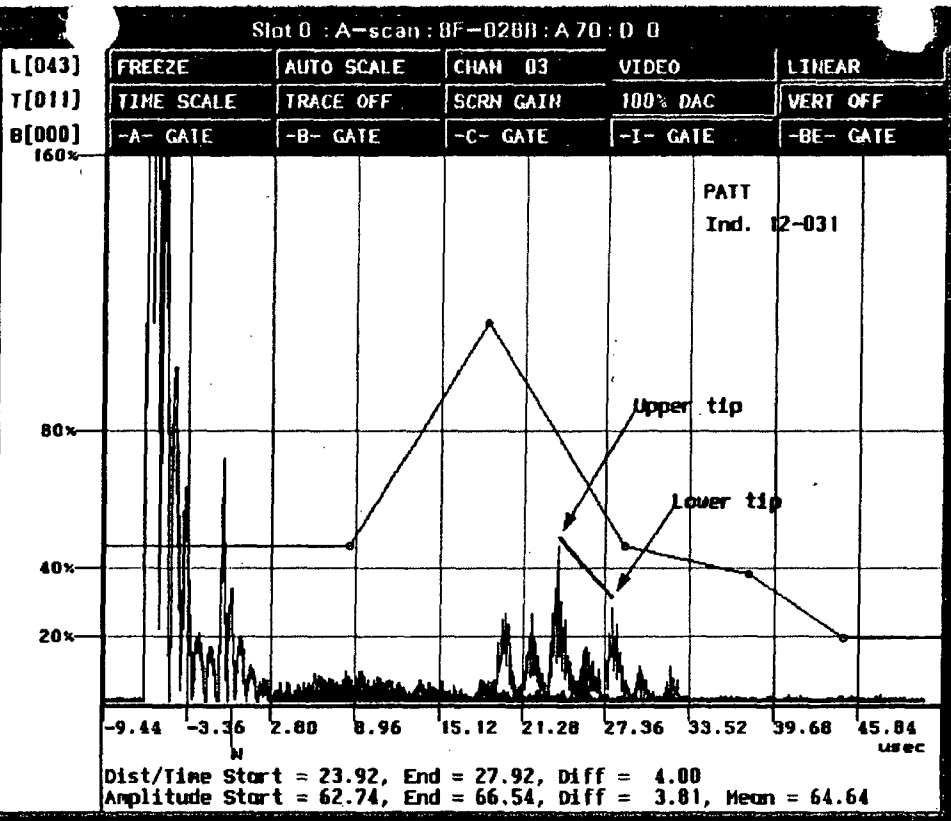
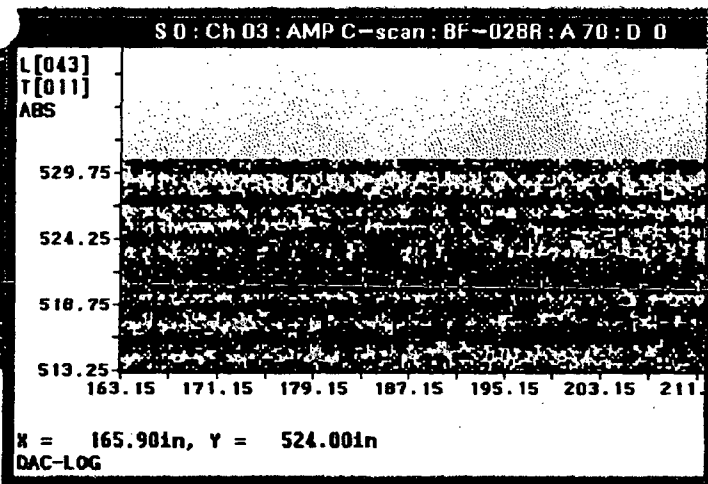
R1153

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%

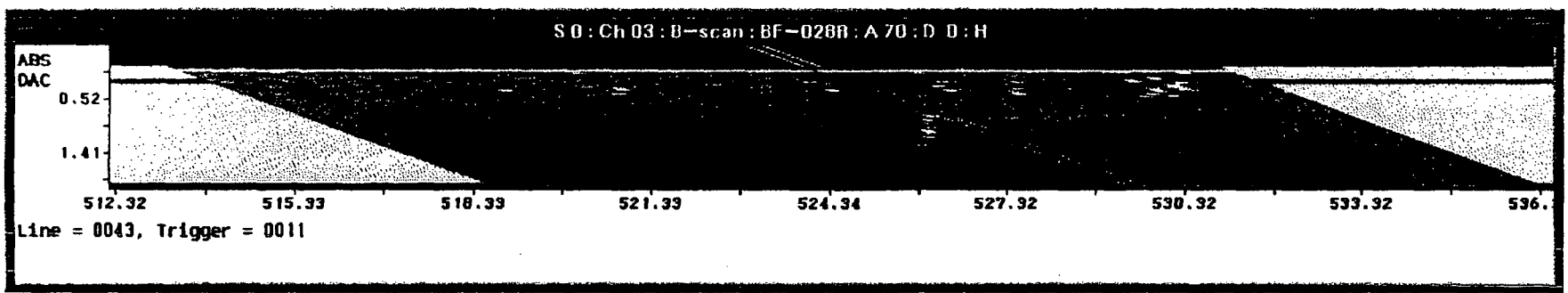
DAC



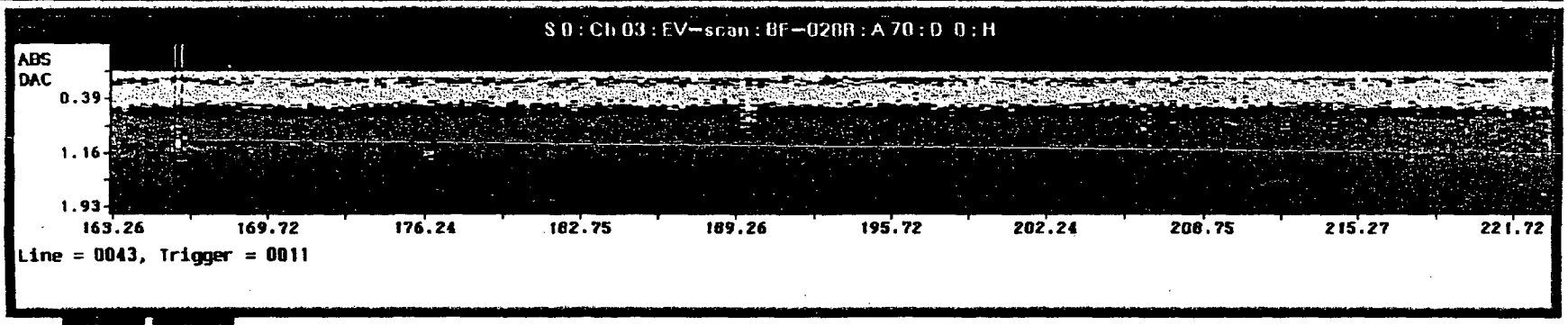
Top Terminal

/test>dump /maxt
on3/12-031

29308439



00293



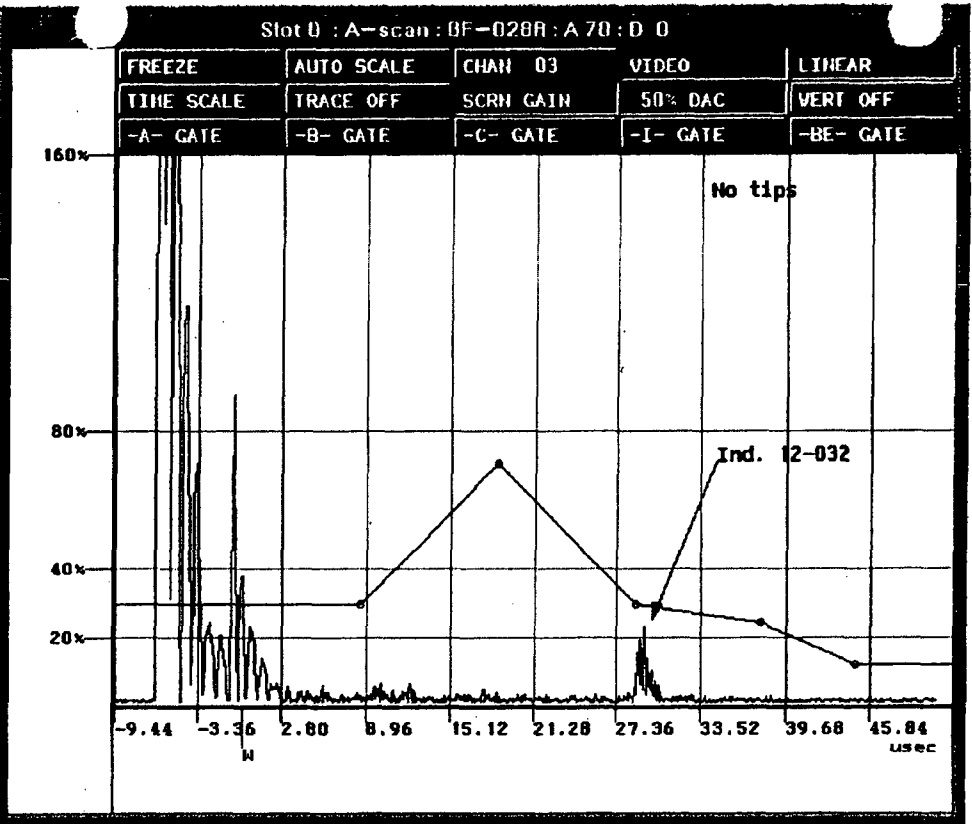
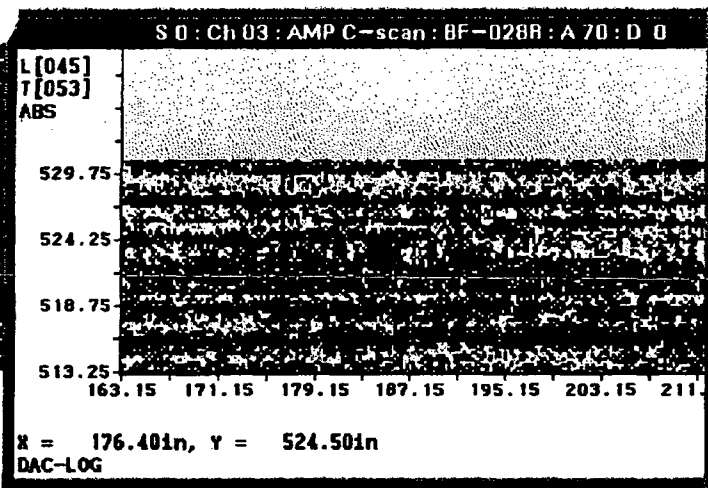
R 1153

S 0 : Scale

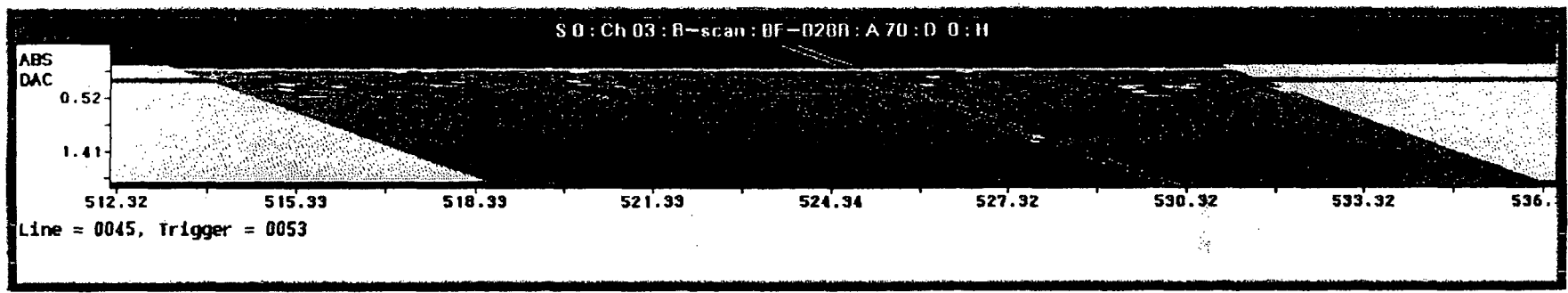
32.3
36.6
41.0
45.3
49.7
54.0
58.4
62.7
67.1
71.4
75.8
80.1
84.5
88.8
93.2

100%
50%
20%

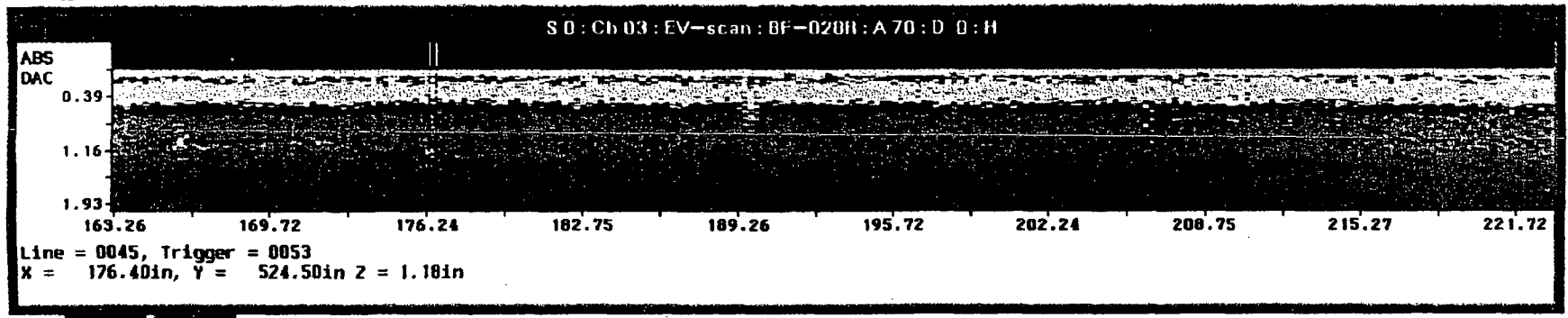
DAC



bch of h6e



00294



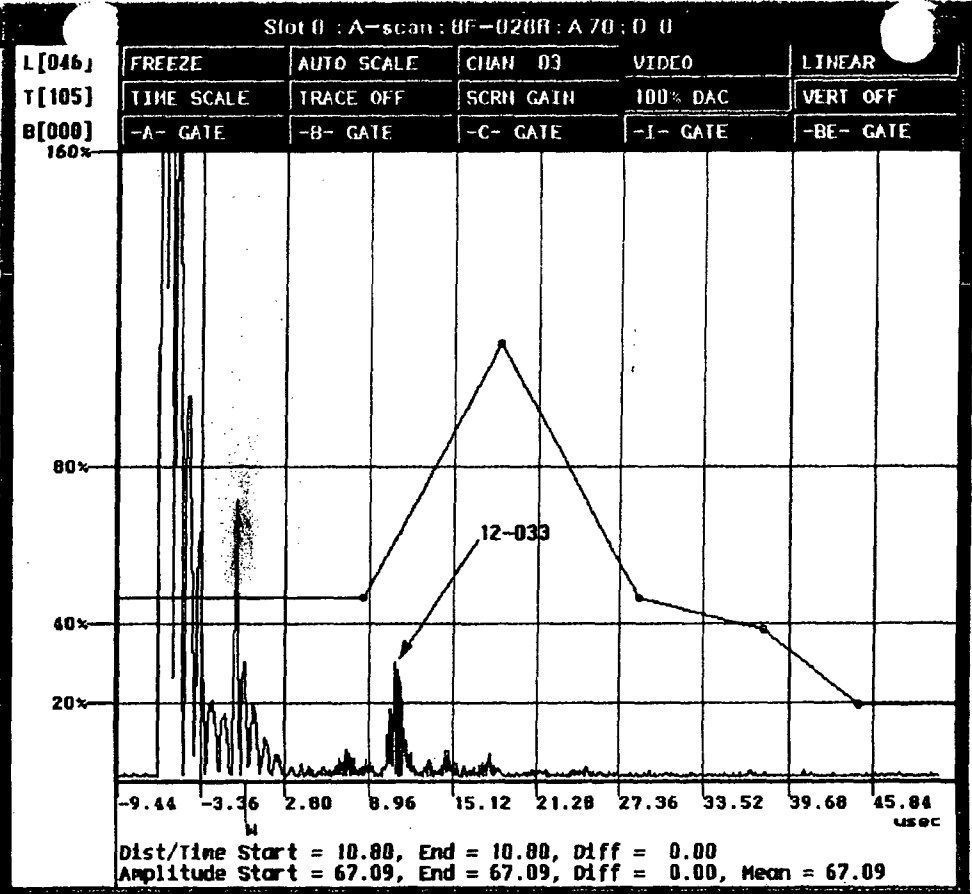
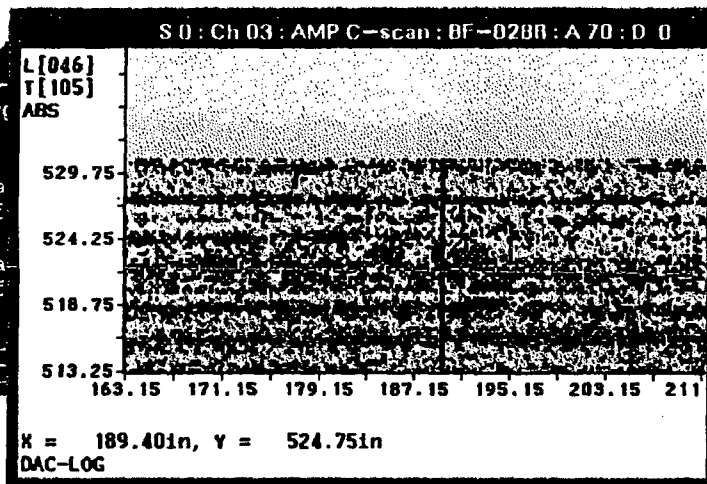
R 1153

S 0 : Scale

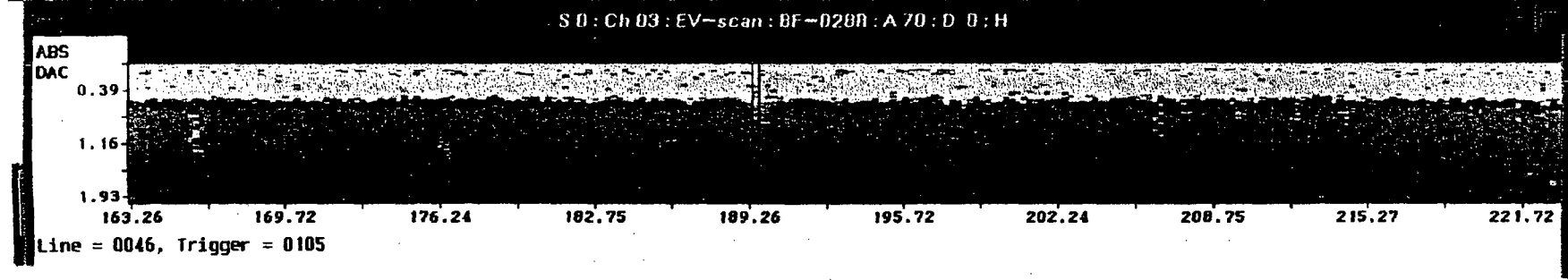
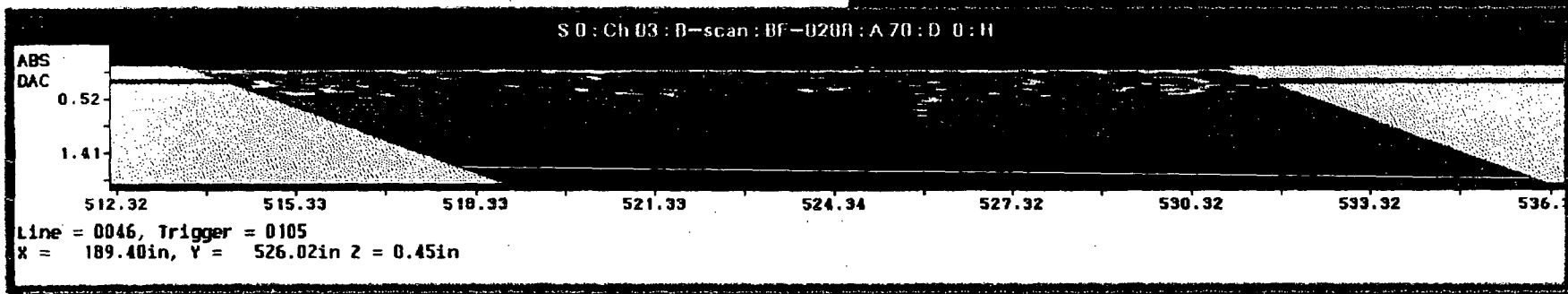
32.3
36.6
41.0
45.3
49.7
54.0
58.4
62.7
67.1
71.4
75.0
80.1
84.5
88.8
93.2

100%
50%
20%

DAC



95 of 129
00295



R 1153

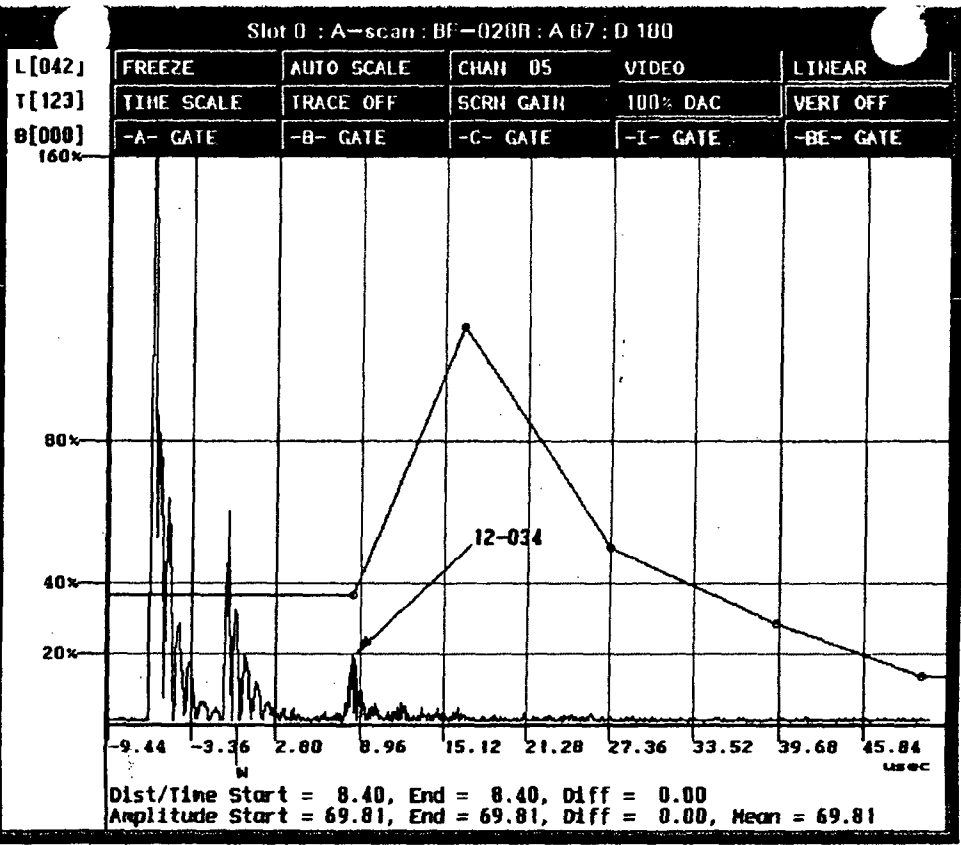
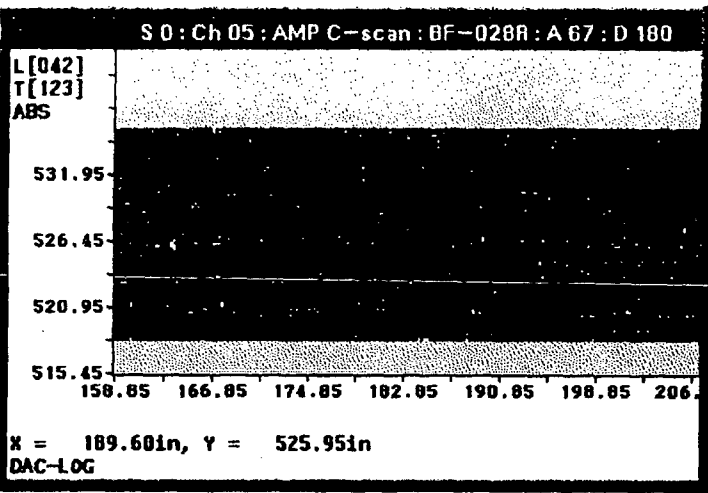
S 0 : Scale

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

TOU

50
20

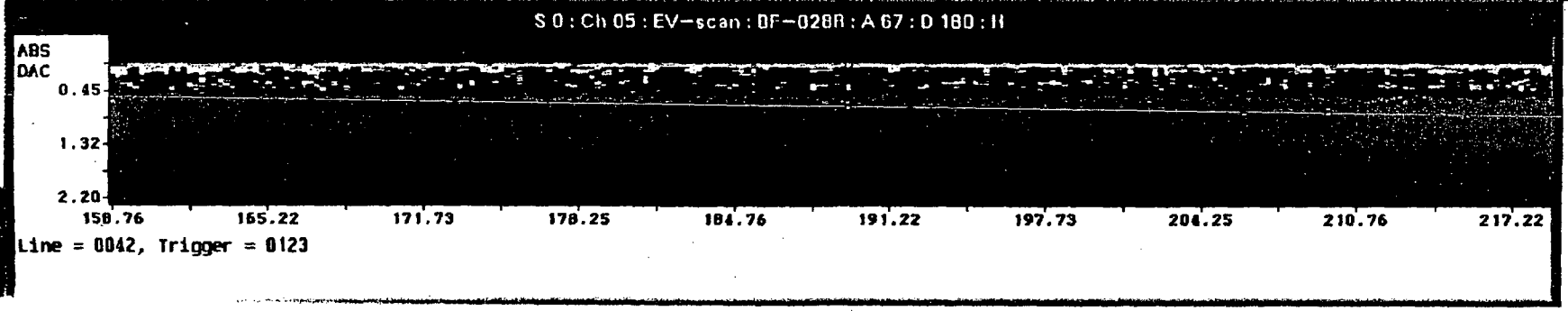
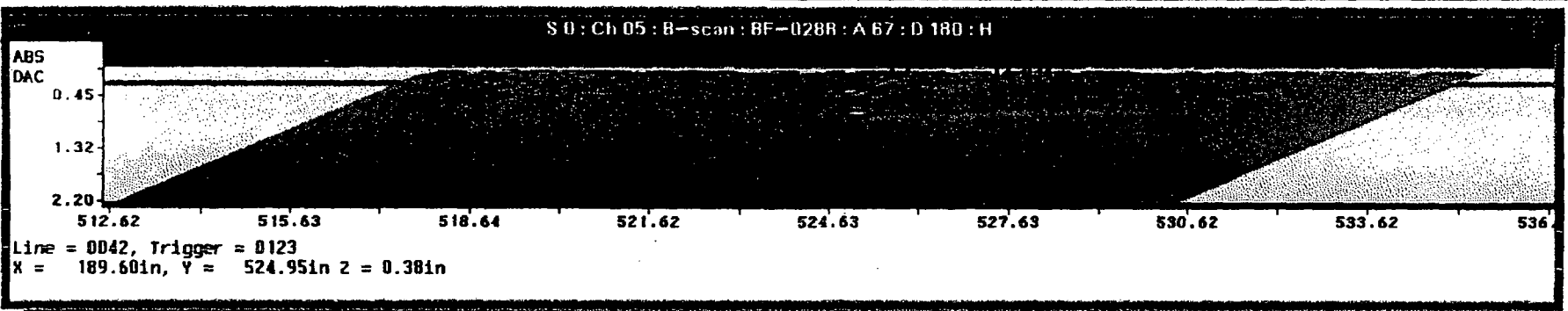
DAC



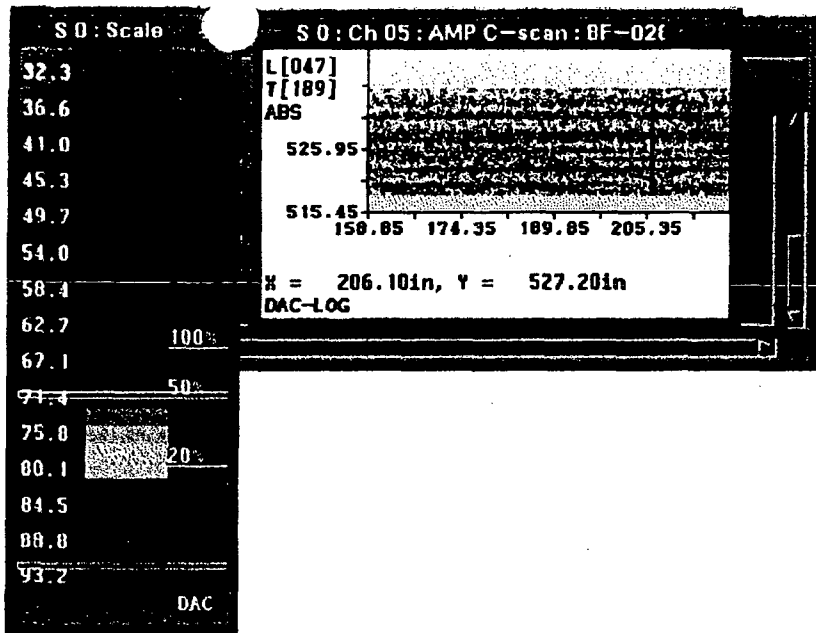
291.0 of 439



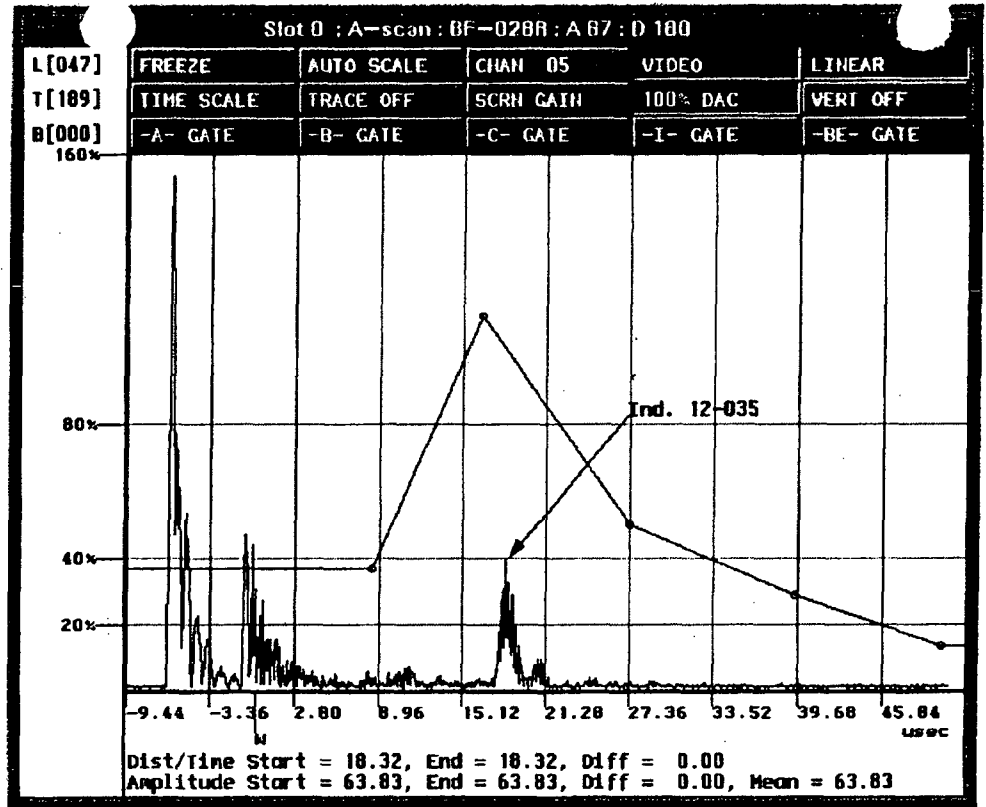
00296



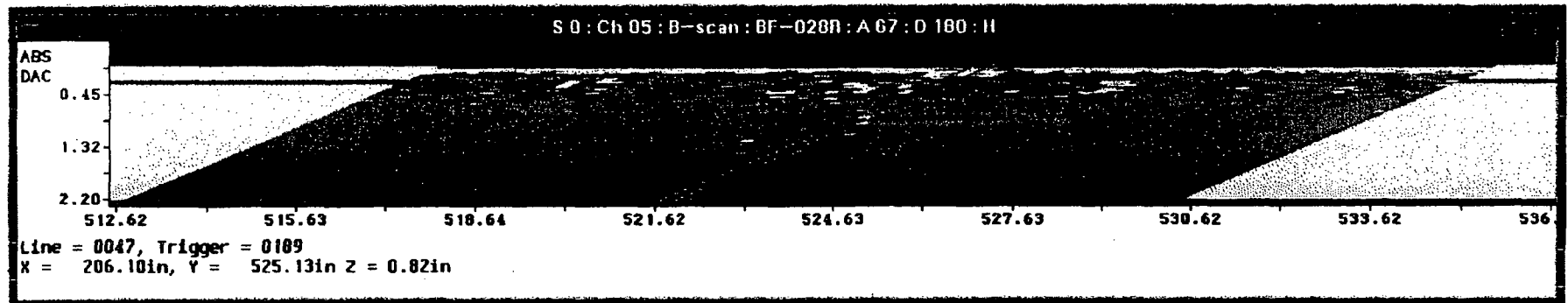
R1153



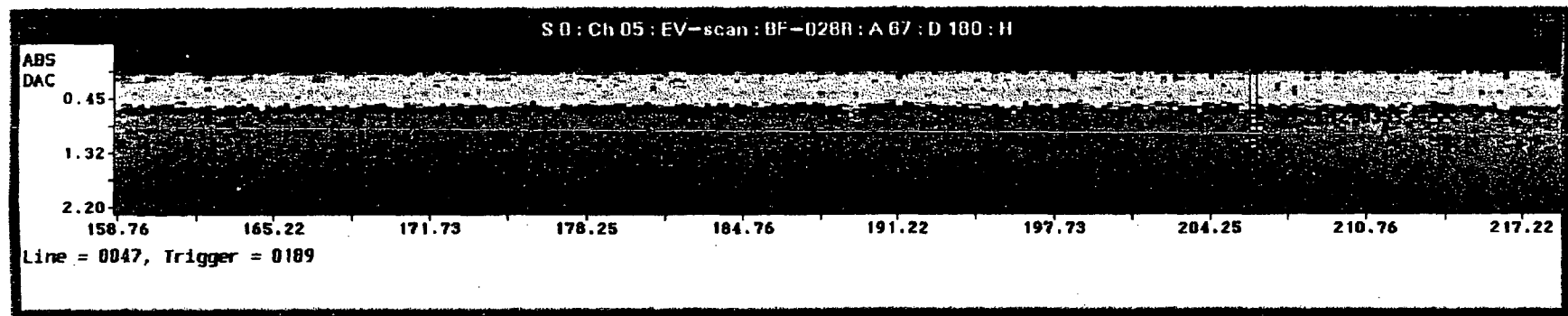
Top Terminal



nat of 439



00297



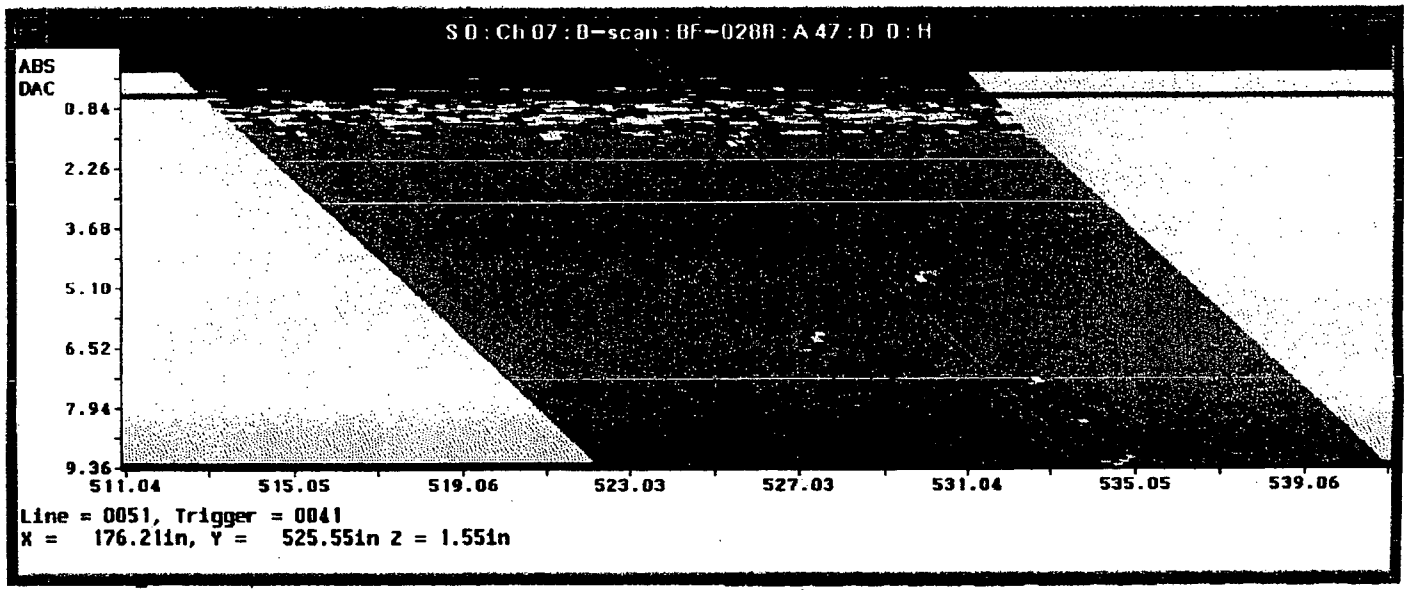
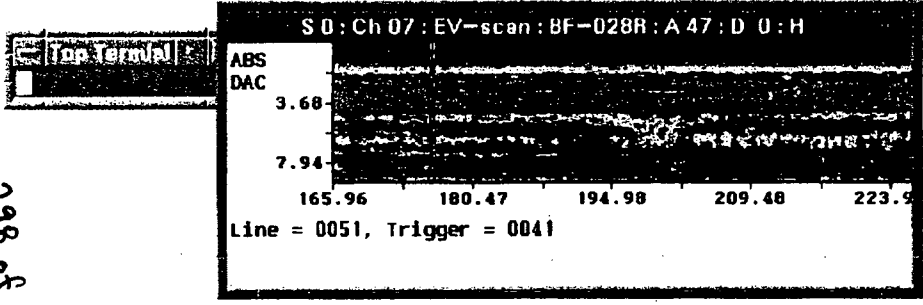
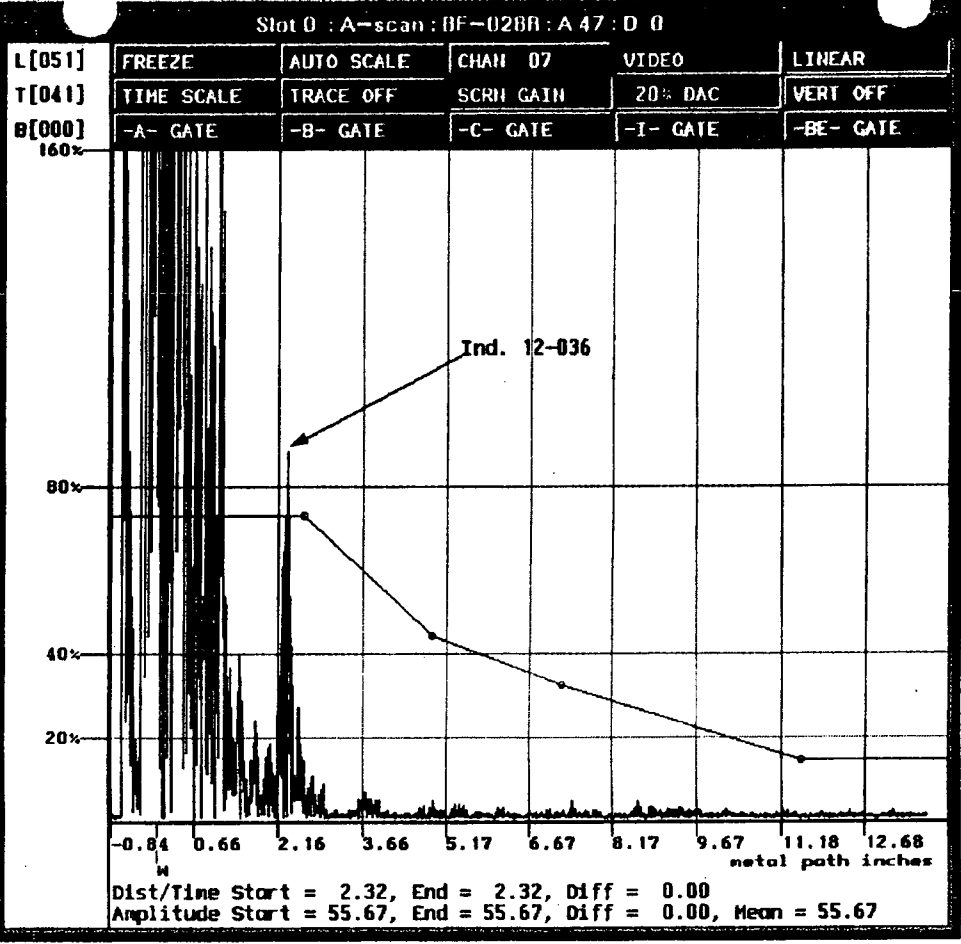
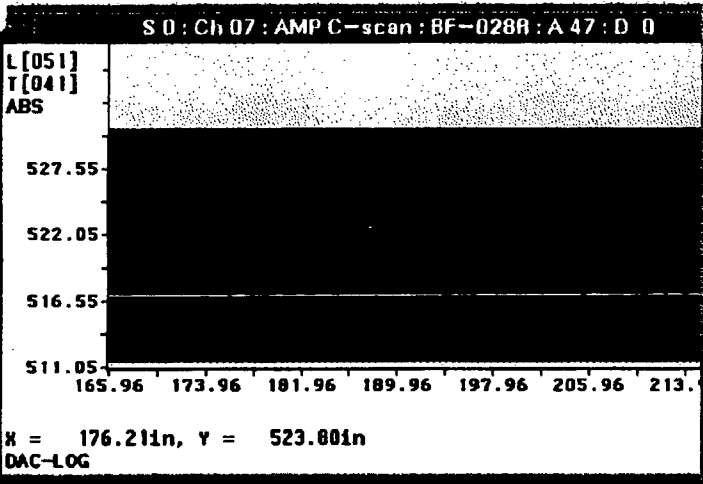
R1153

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



298 of 439

00298

00000

2153

S 0 : Scale

32.3
36.6
41.0
45.3
49.7
54.0
58.4
62.7
67.1
71.4
75.0
00.1
84.5
08.0
93.2

100%

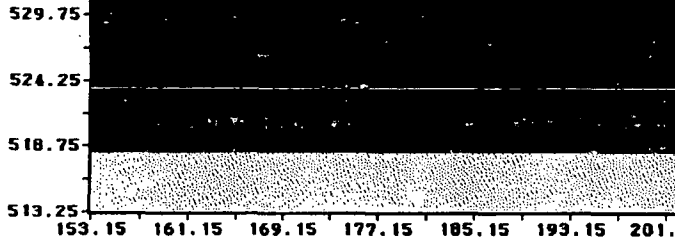
50%

20%

DAC

S 0 : Ch 08 : AMP C-scan : BF-028R : A 45 : D 180

L[052]
T[087]
ABS

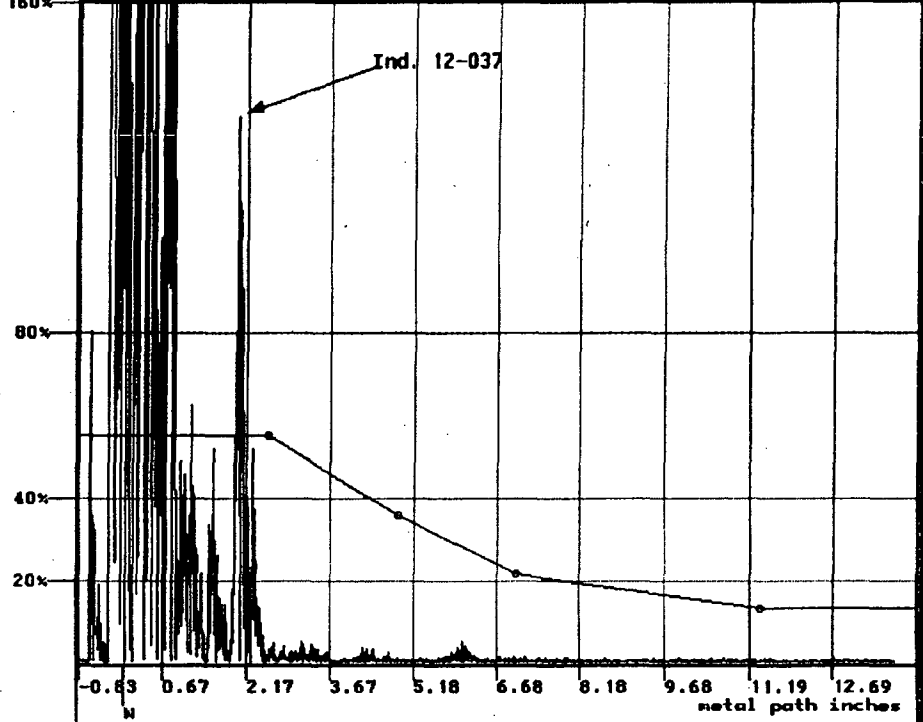


X = 174.90in, Y = 526.25in
DAC-LOG

Slot 0 : A-scan : BF-028R : A 45 : D 180

L[052]
T[087]
B[000]
160%

FREEZE	AUTO SCALE	CHAN 09	VIDEO	LINEAR
TIME SCALE	TRACE OFF	SCRN GAIN	20% DAC	VERT OFF
-A- GATE	-B- GATE	-C- GATE	-I- GATE	-BE- GATE



SCRN GAIN +019

S 0 : Ch 09 : EV-scan : BF-028R : A 45 : D 180 : H

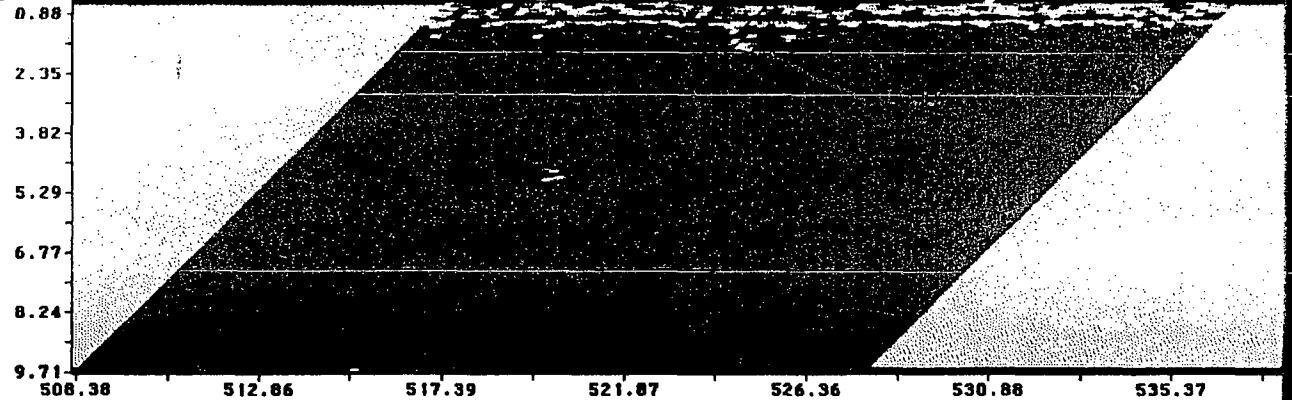
ABS
DAC



Line = 0052, Trigger = 0087

S 0 : Ch 09 : B-scan : BF-028R : A 45 : D 180 : H

ABS
DAC



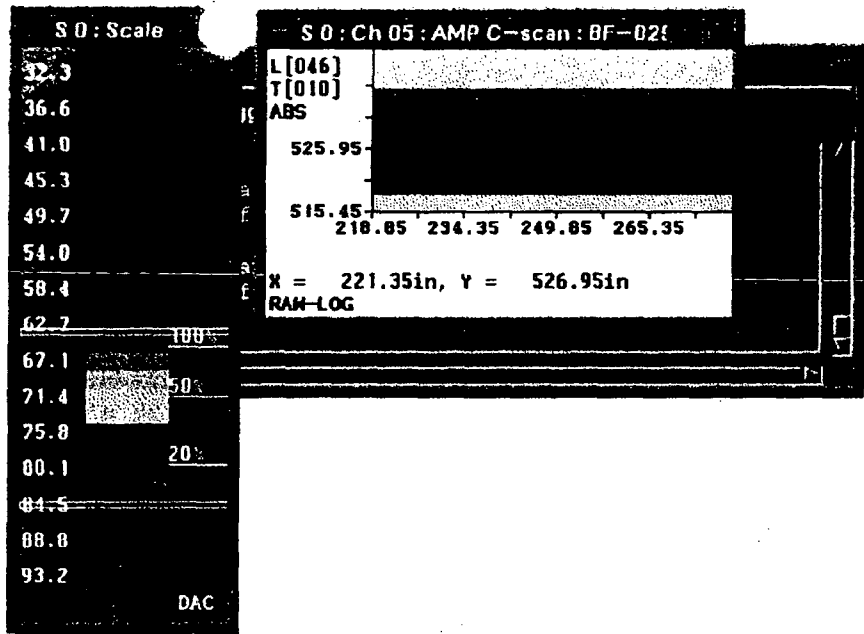
Line = 0052, Trigger = 0087
X = 174.90in, Y = 524.63in Z = 1.47in

Top Terminal
03/12-037

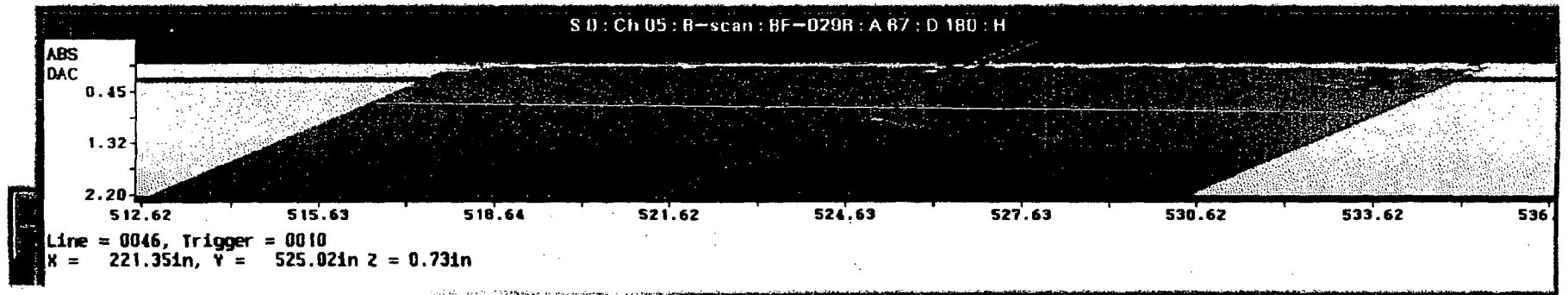
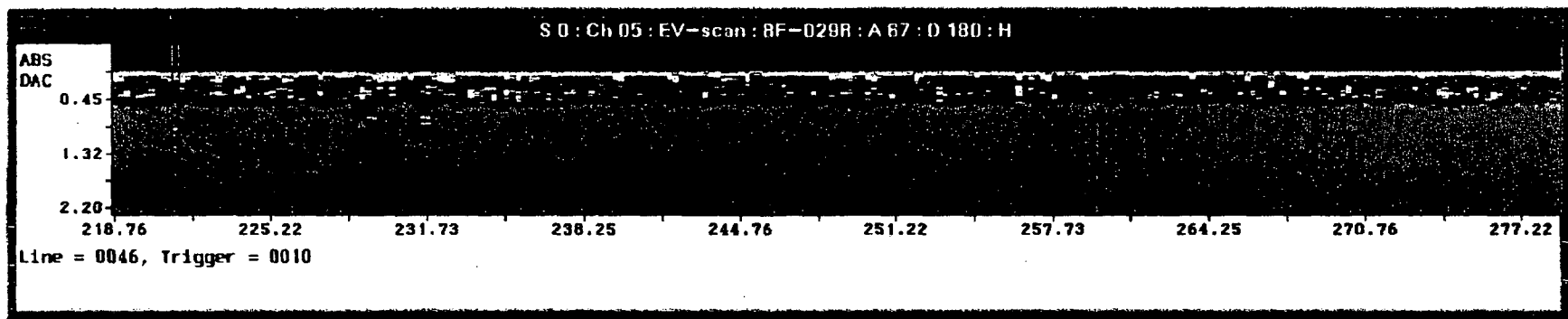
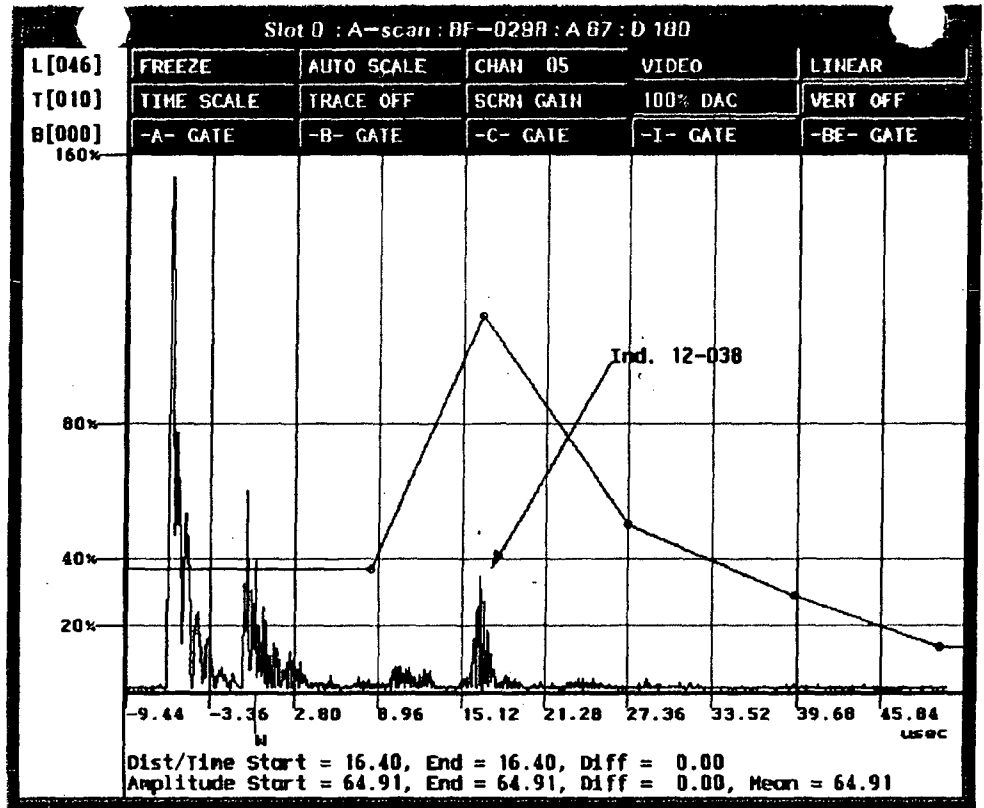
009 of 429

00299
6000
011-7-55

R1153



Top Terminal
03/12-038



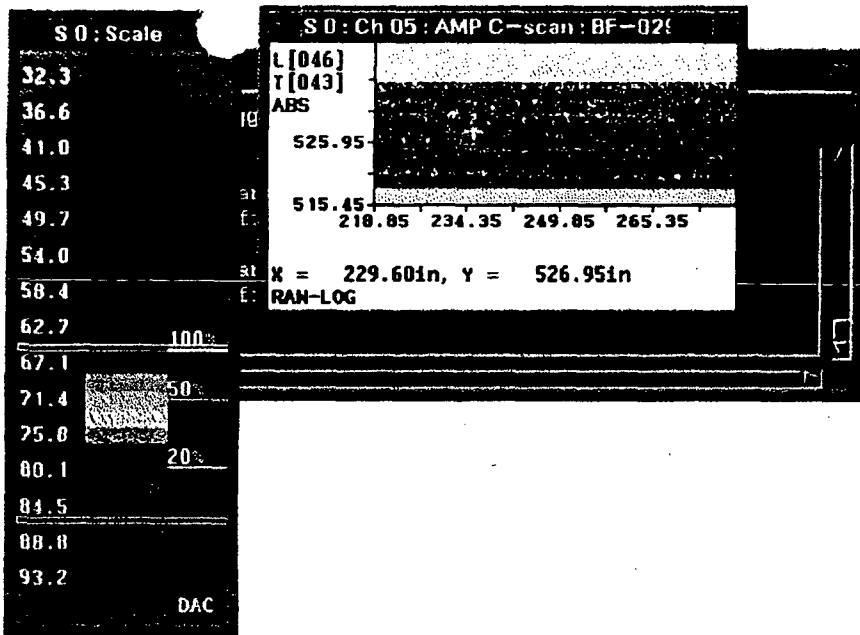
300 of 499

000300

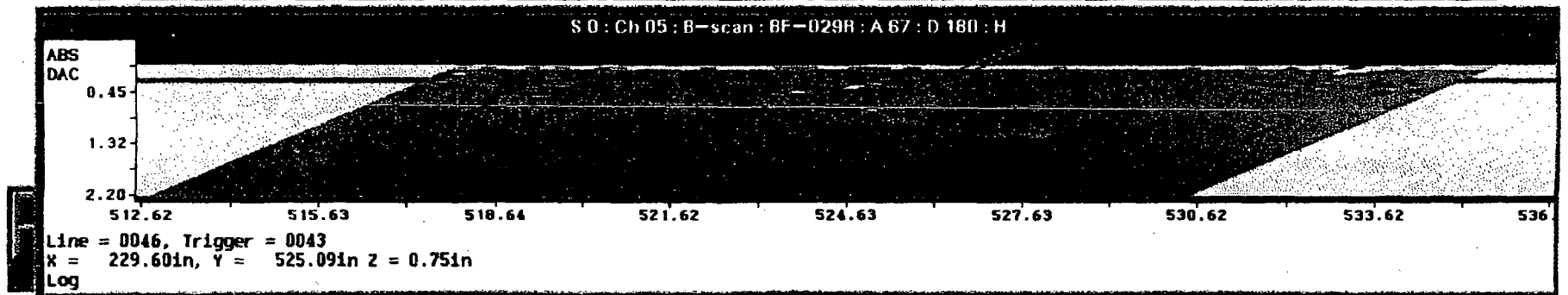
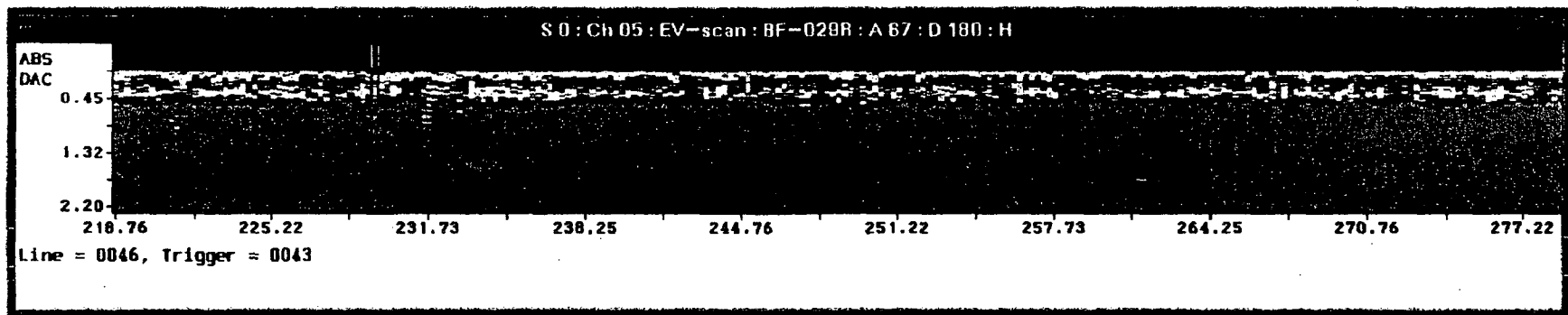
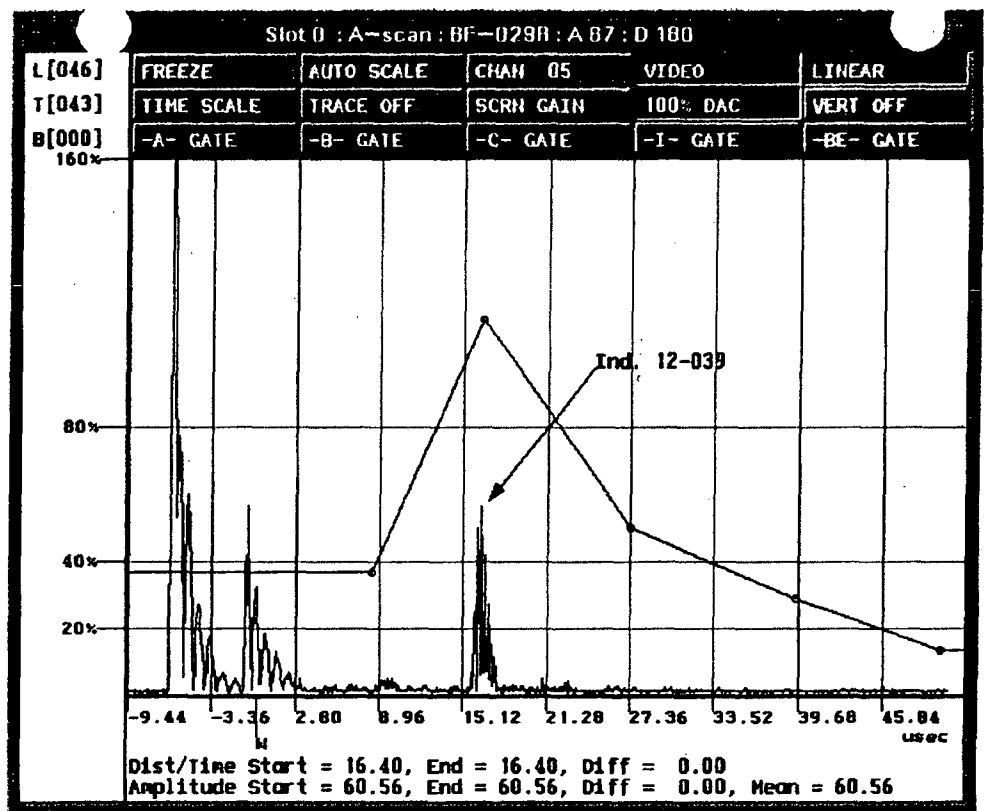
515-525

00000000

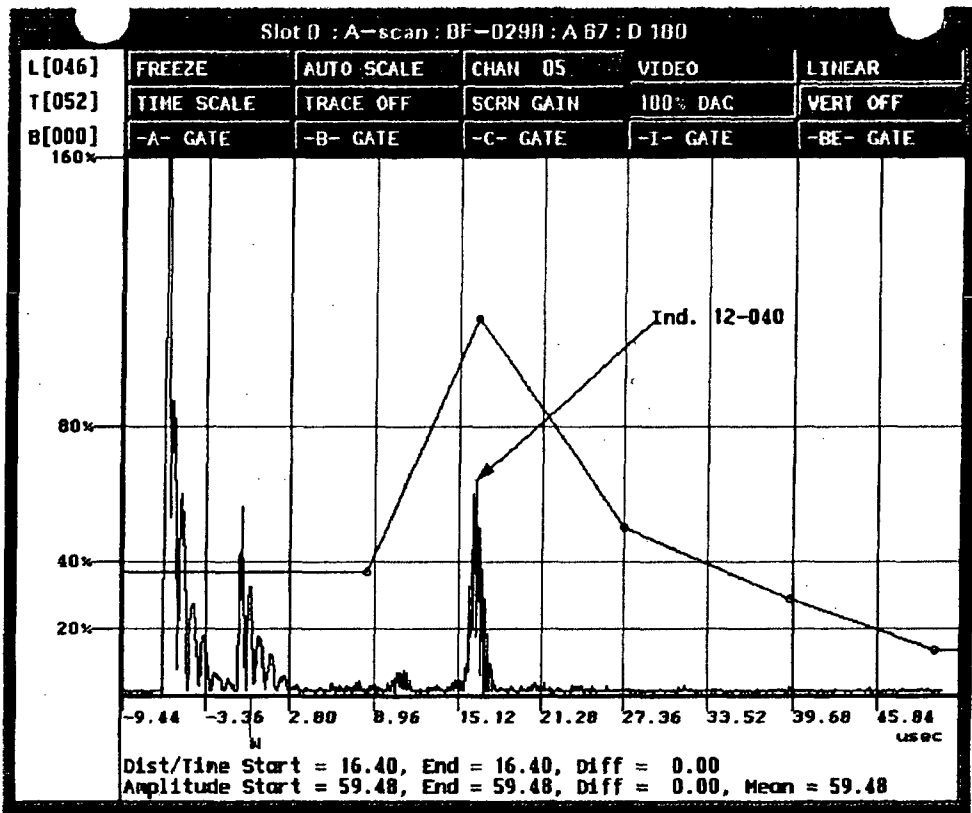
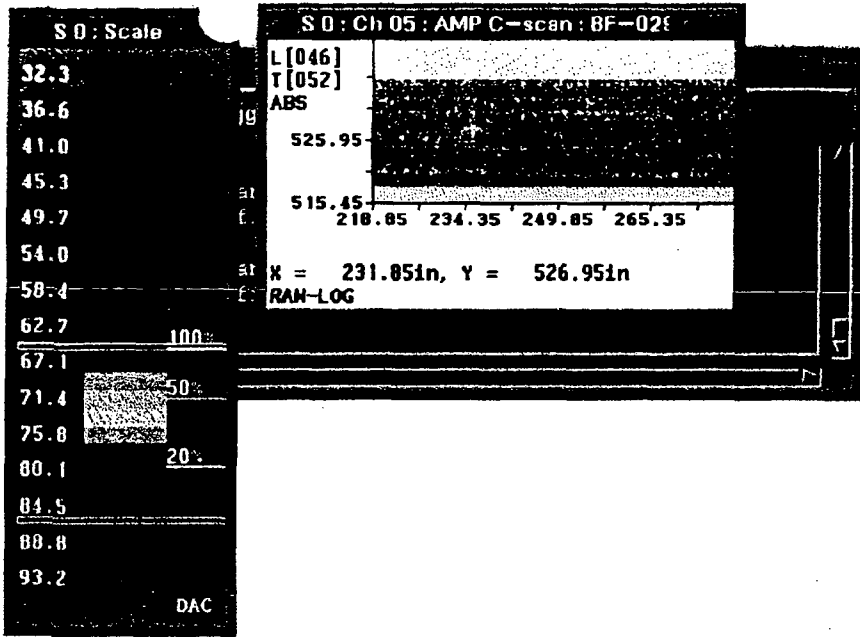
R1153



Top Terminal
pr3/12-039

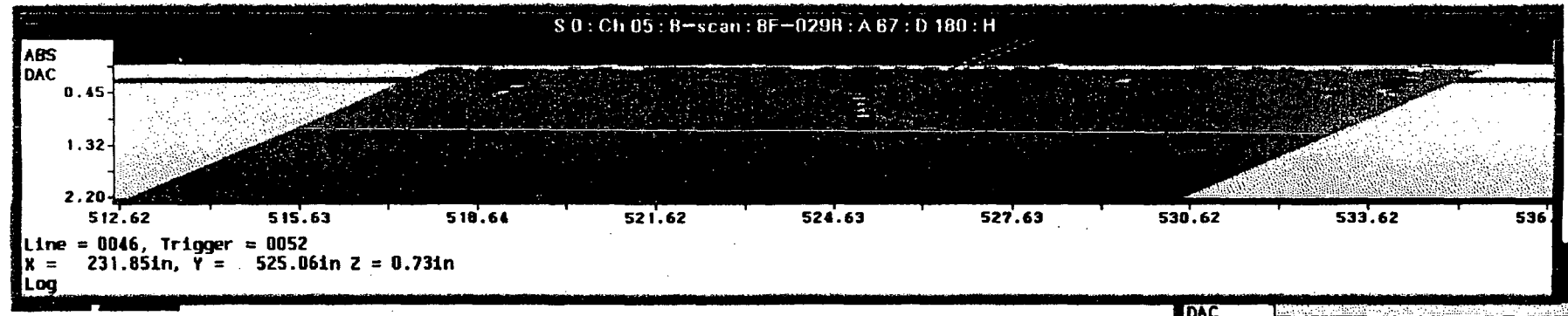
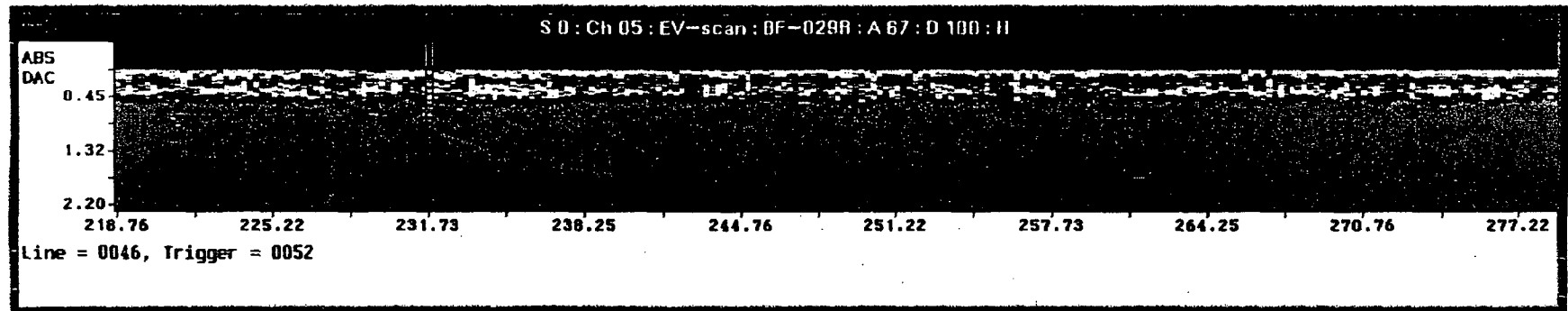


R1153

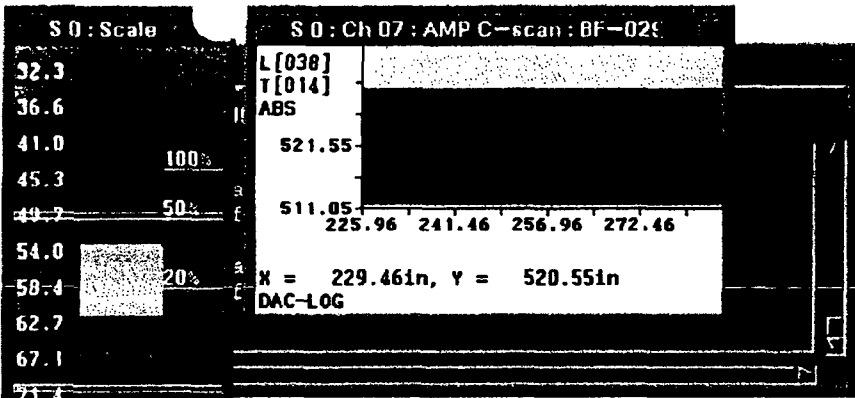


Top Terminal
or 3/12-040

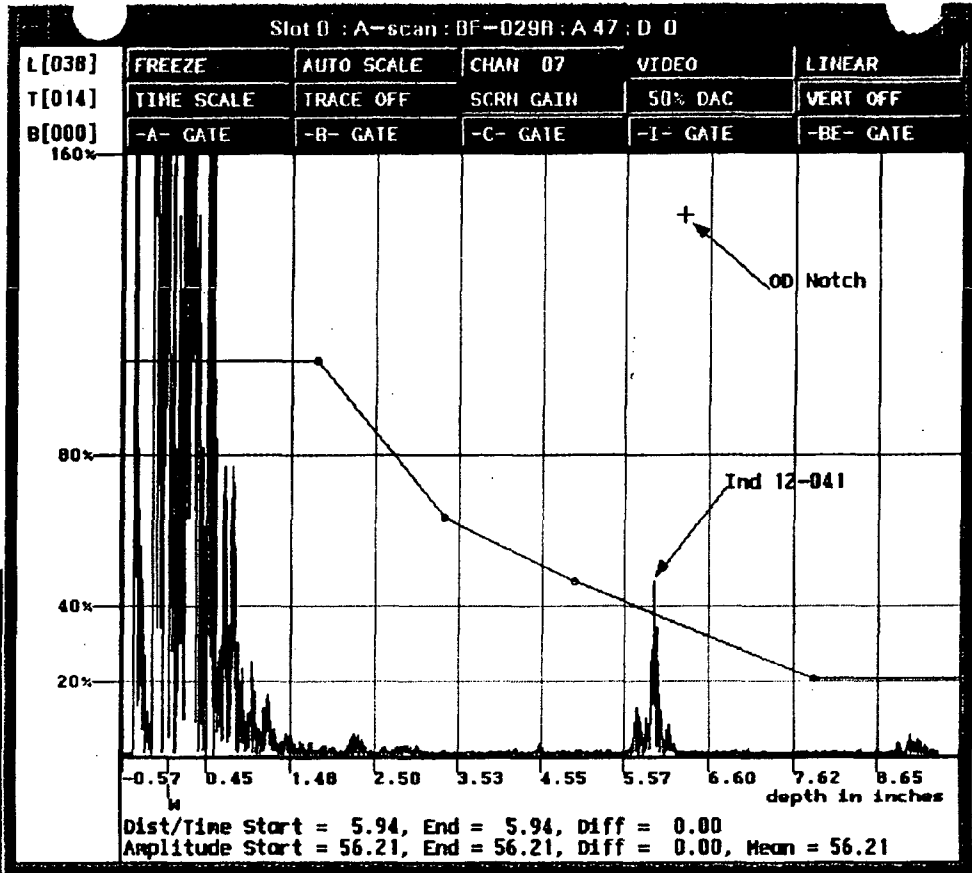
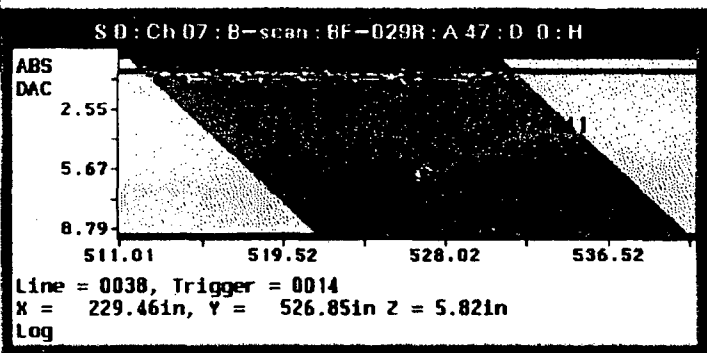
202 of 439



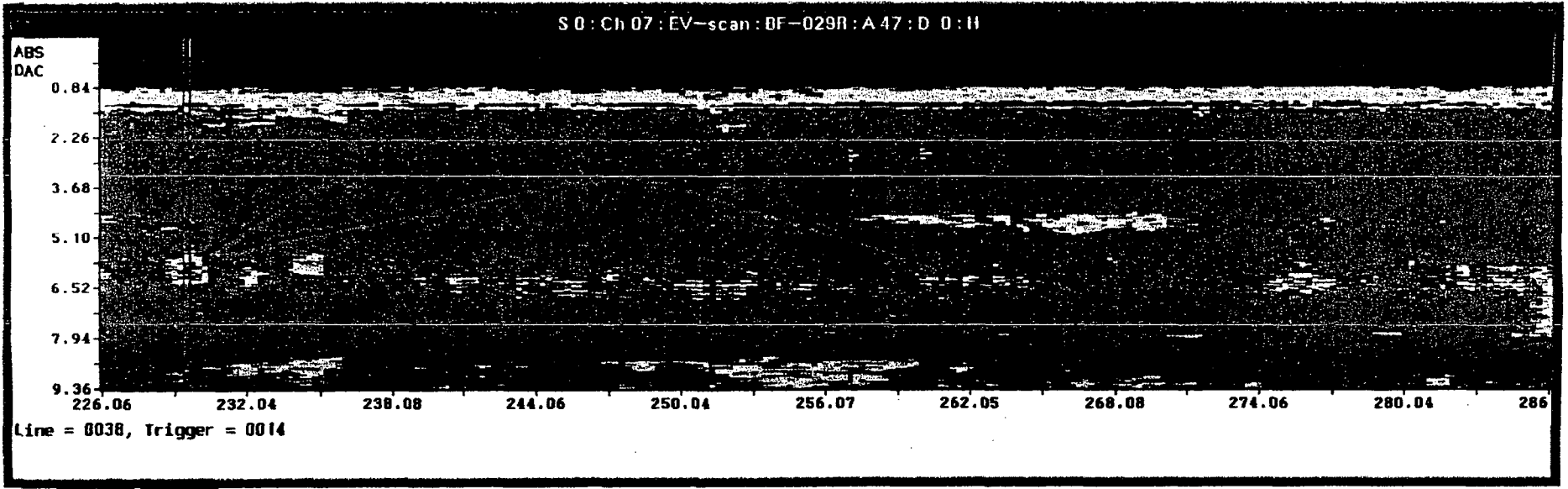
R1153



Top Terminal
or 3/12-041



top of unit



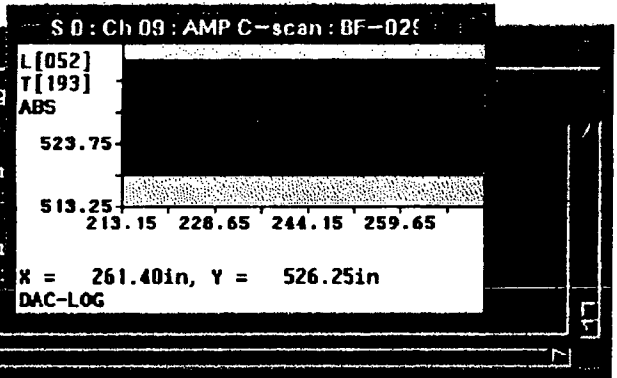
R1153

S 0 : Scale

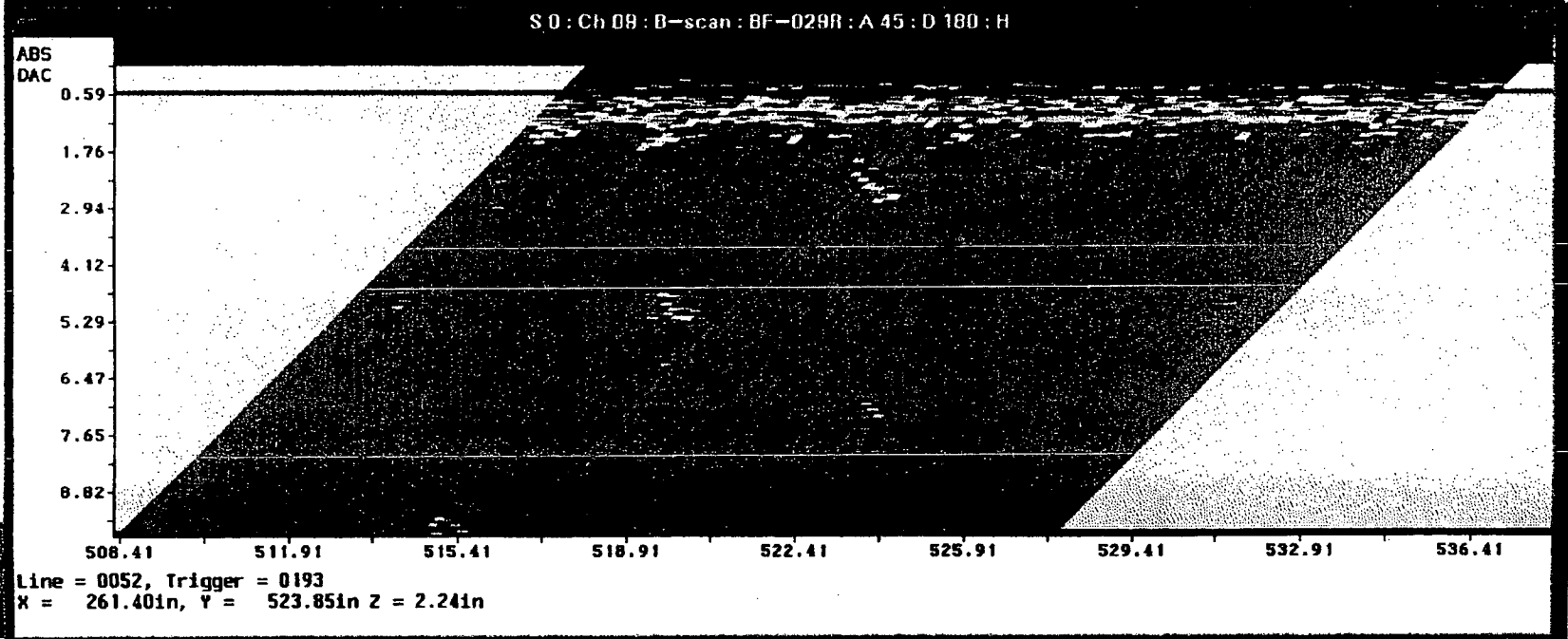
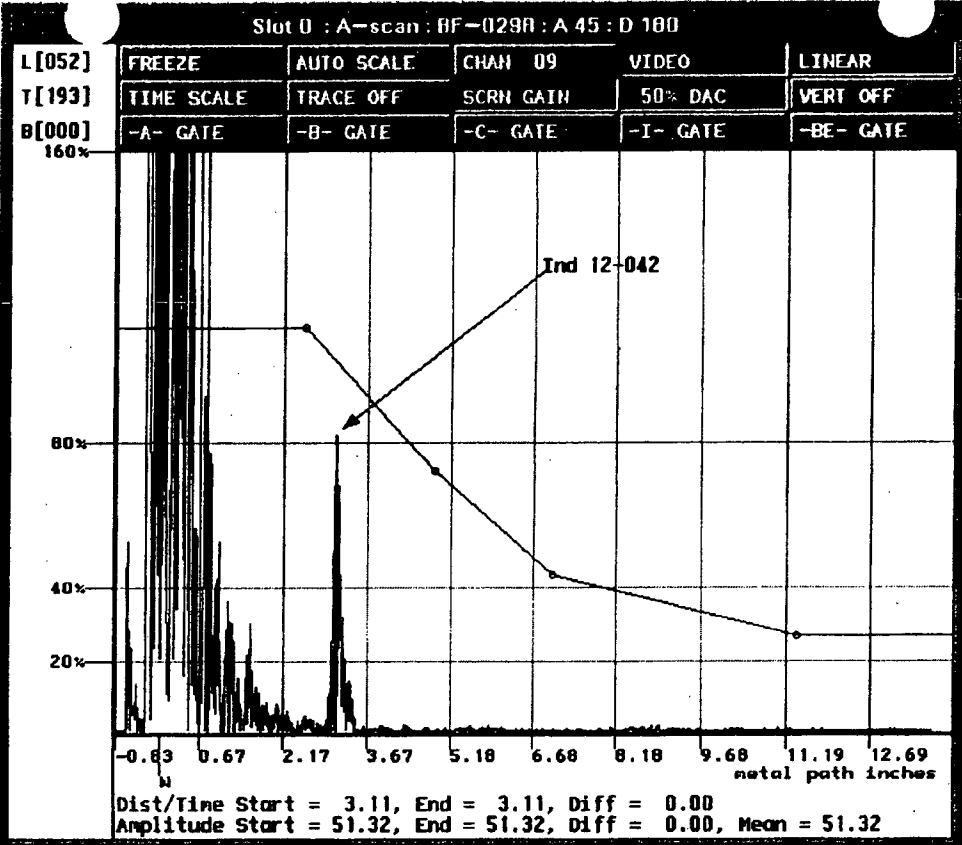
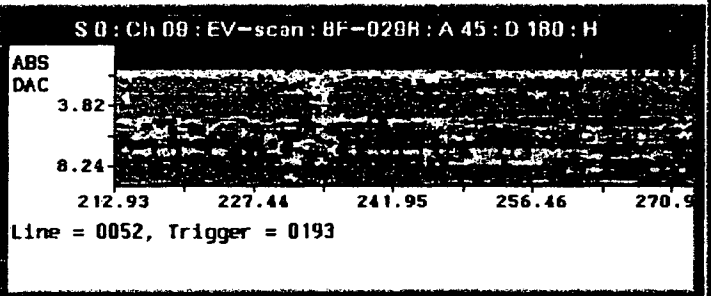
32.3
36.6
41.0
45.3
49.7
54.0
58.4
62.7
67.1
71.4
75.8
80.1
84.5
88.8
93.2

100%
50%
20%

DAC



Top Terminal
on 3/12-042



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R1153

S O : Scale

S O : Ch 07 : AMP C-scan : BF-030

L [047]
T [008]
ABS

521.55
511.05
285.96 301.46 316.96 332.46

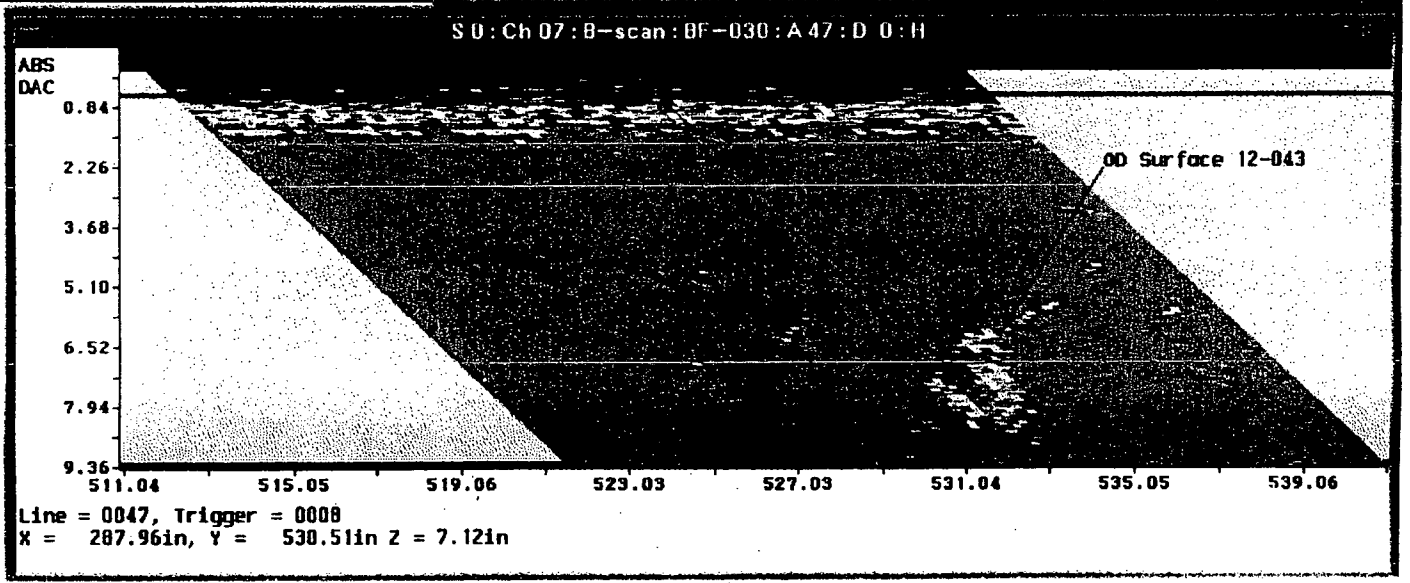
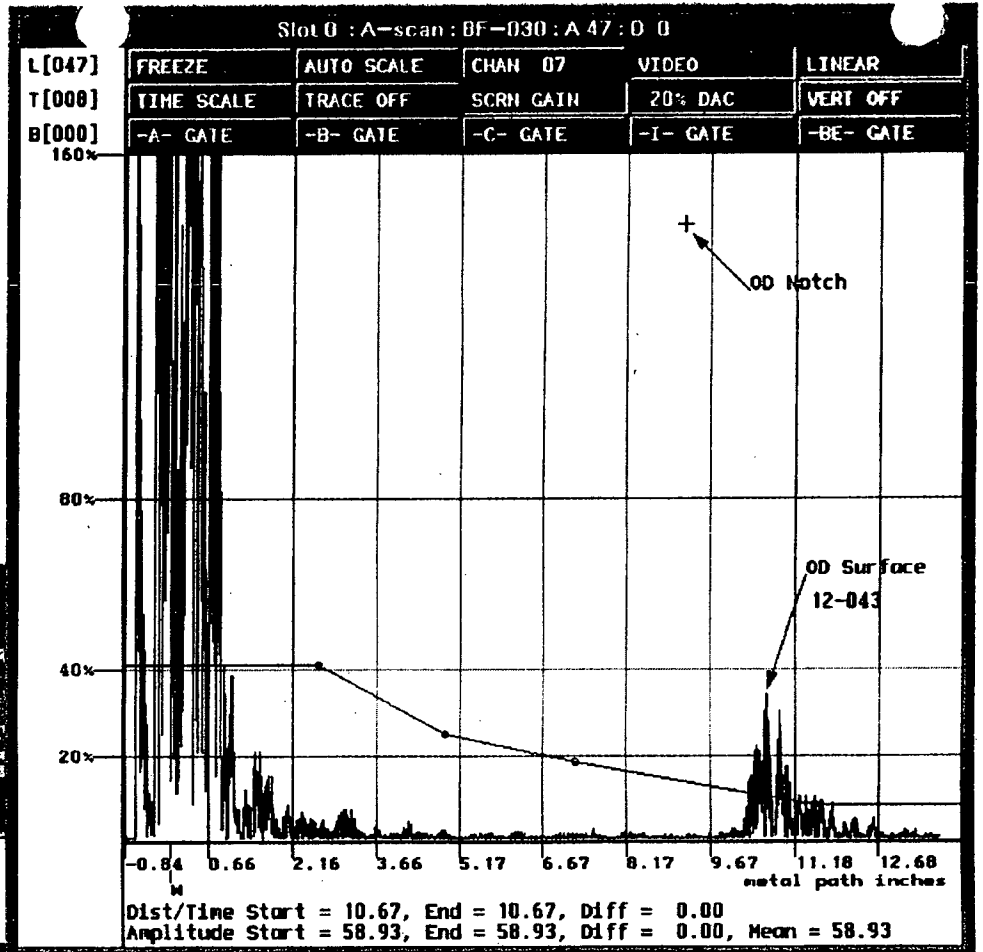
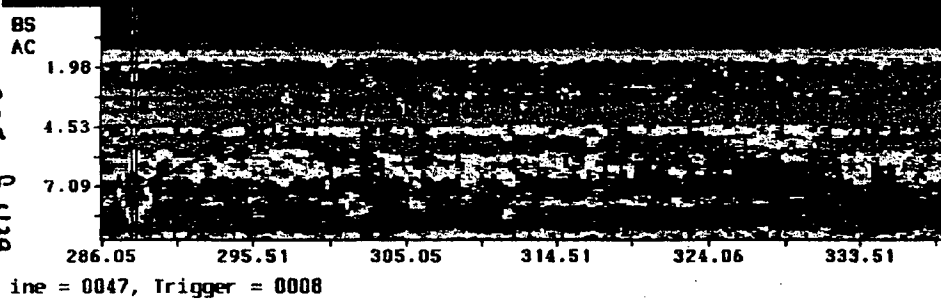
X = 287.96in, Y = 522.80in
DAC-LOG

Top Terminal
03/12-043

S O : Ch 07 : EV-scan : BF-030 : A 47 : D 0 : H

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

100%
50%
20%



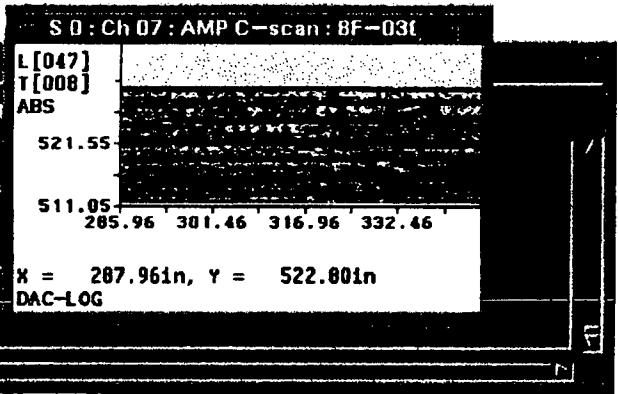
R1153

S 0 : Scale

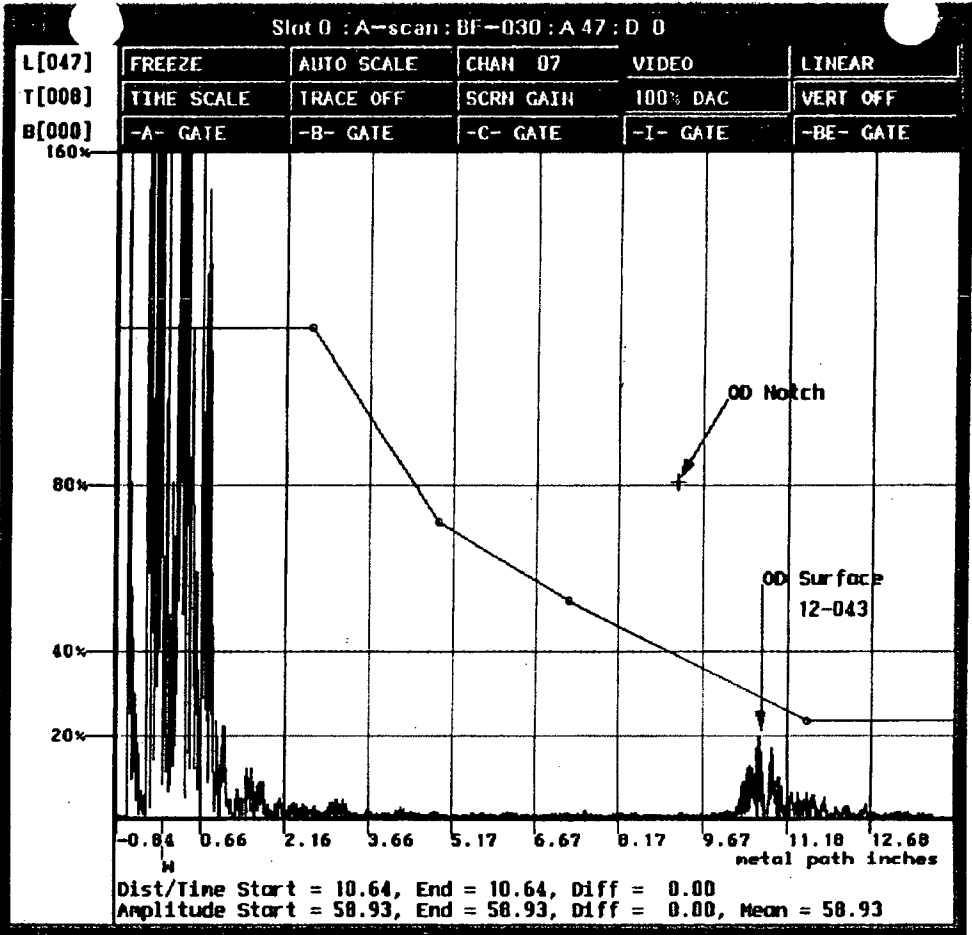
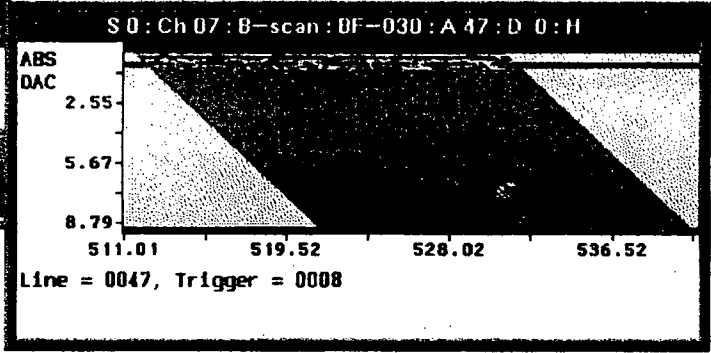
32.3
36.6
41.0
45.3
49.7
54.0
58.4
62.7
67.1
71.4
75.8
80.1
84.5
88.8
93.2

100%
50%
20%

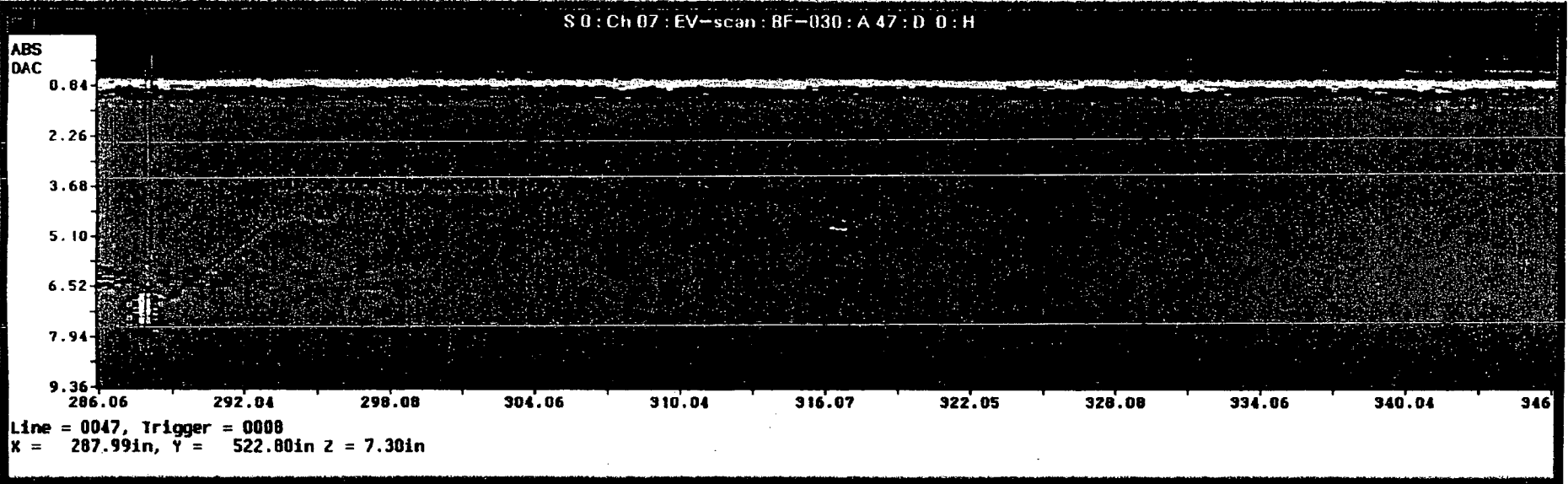
DAC



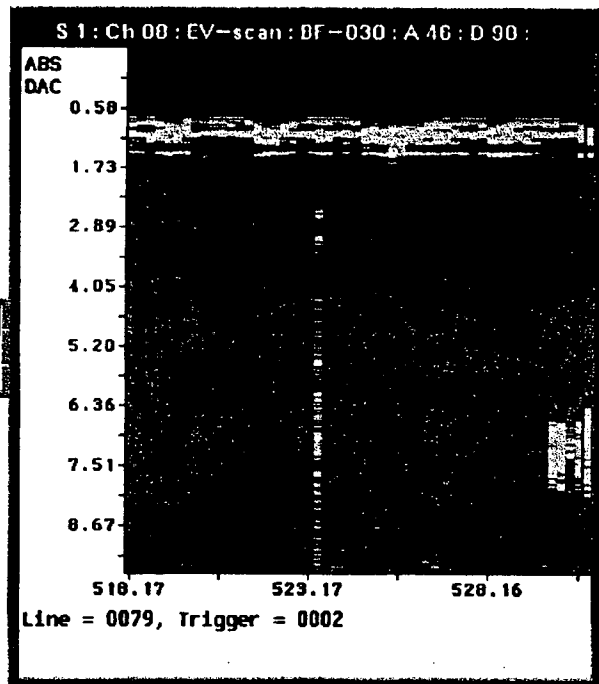
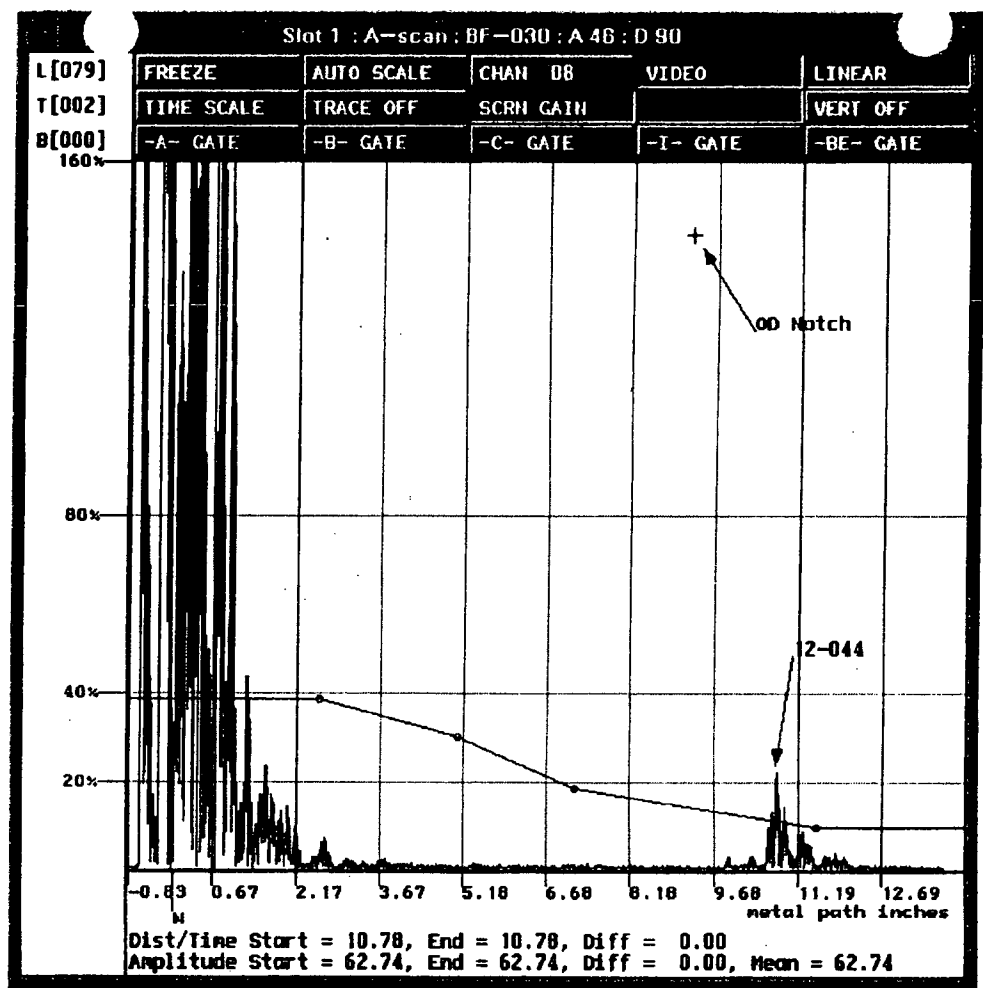
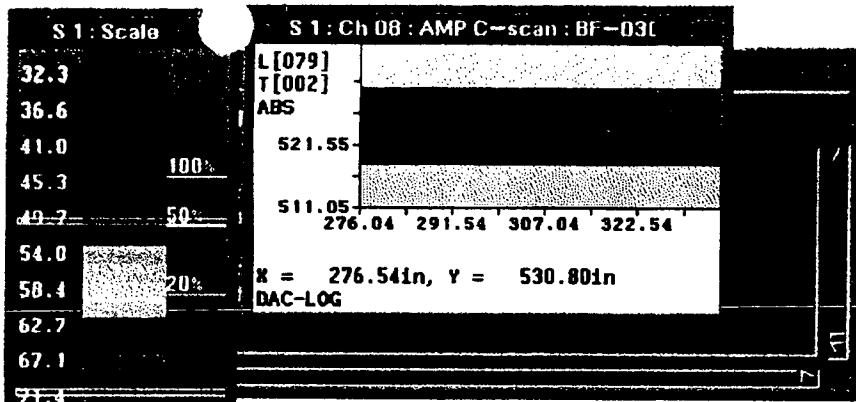
Top Terminal
or 3/12-043



201-0-043

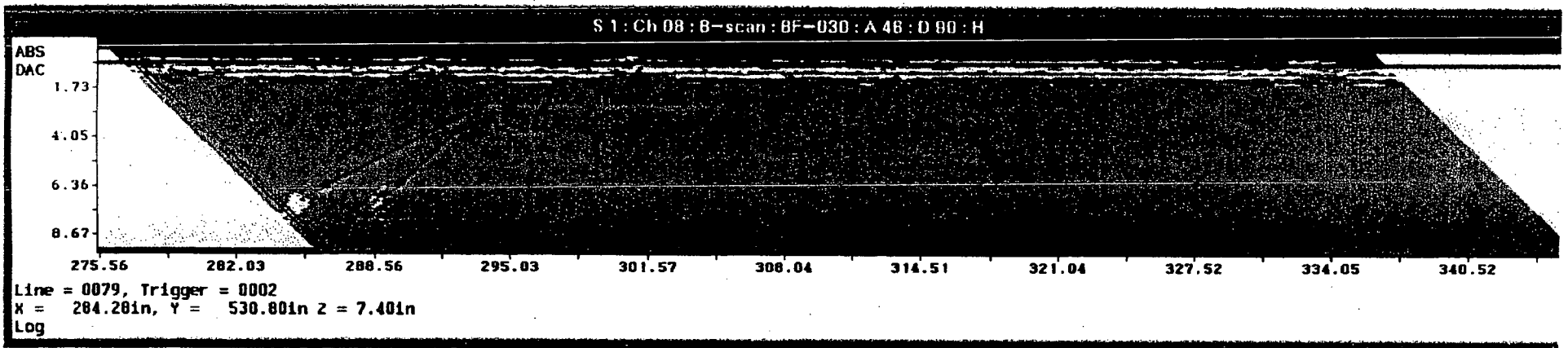


R1153

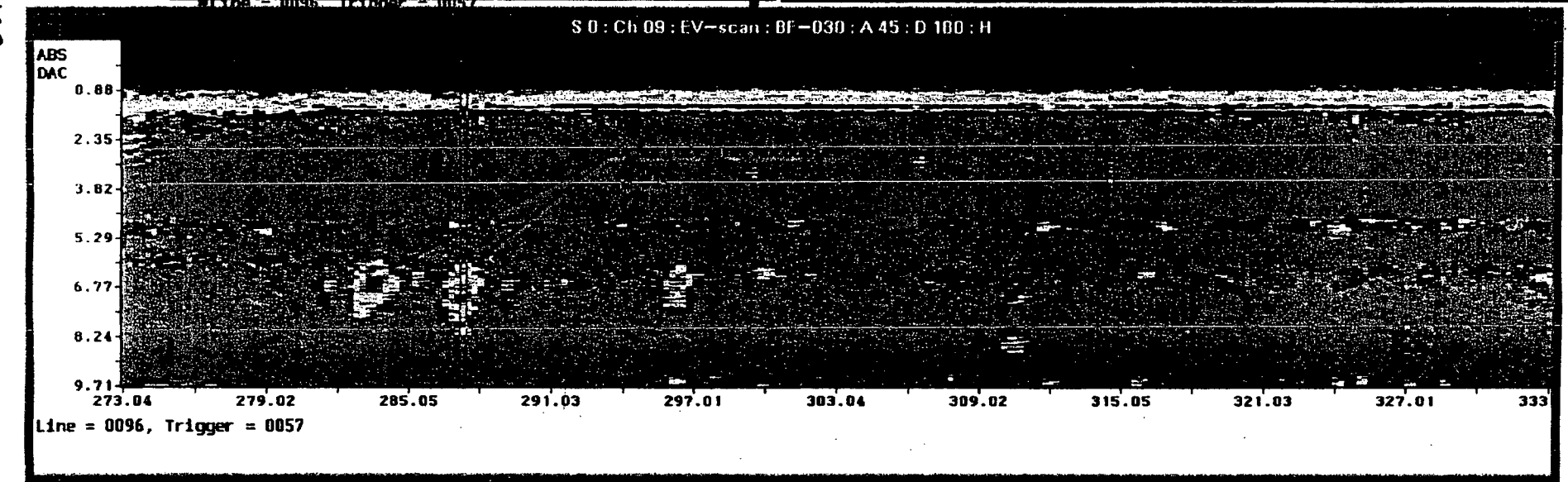
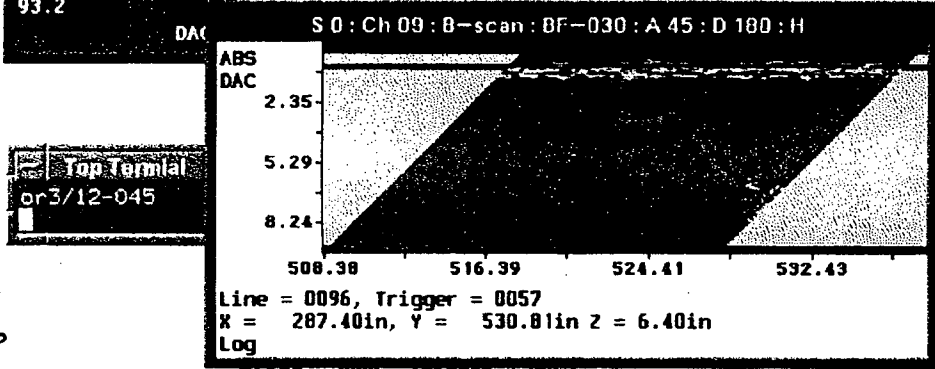
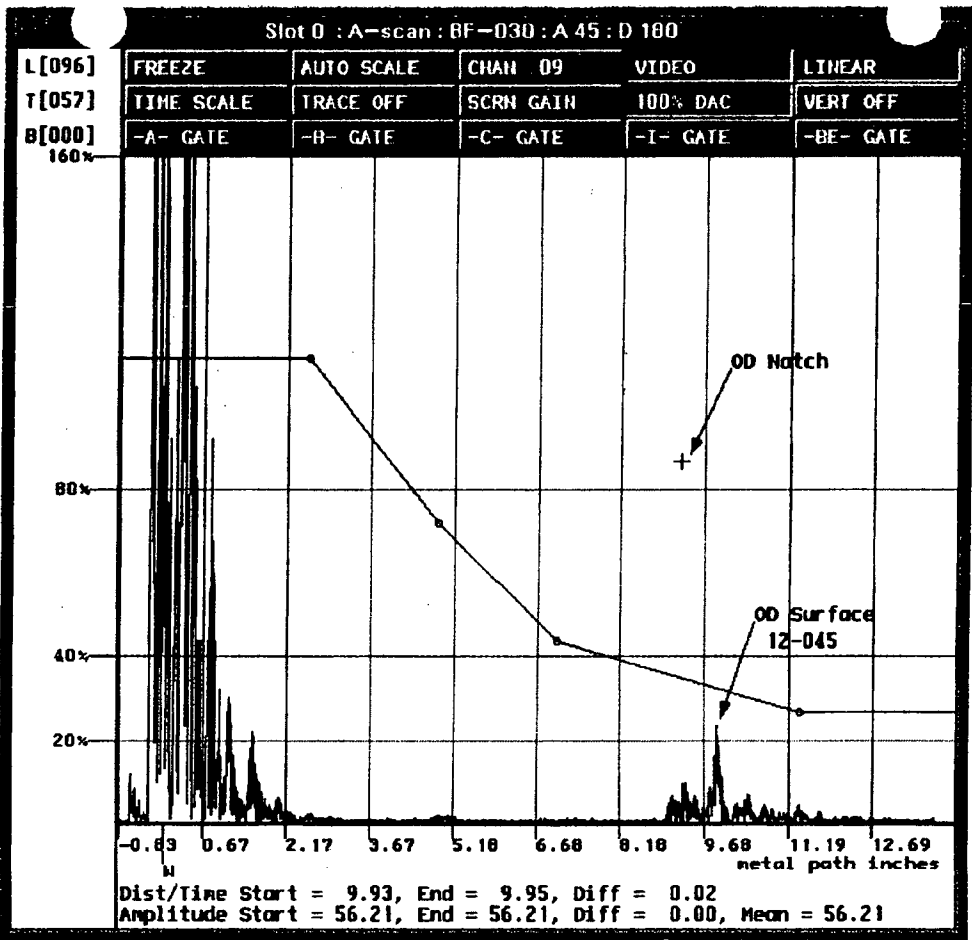
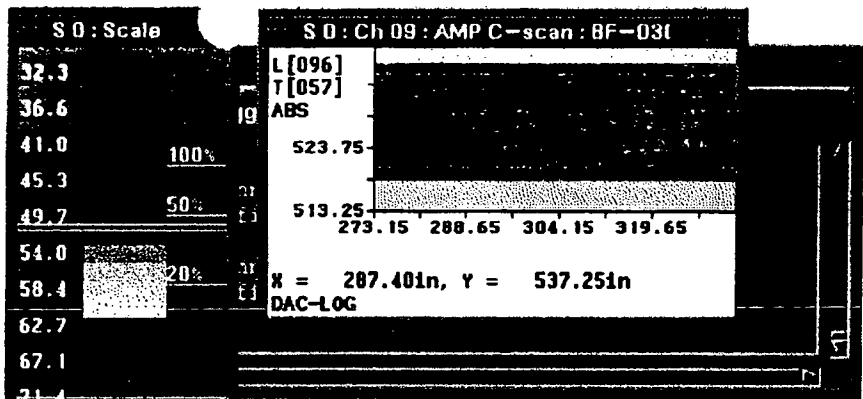


Top Terminal
03/12-044

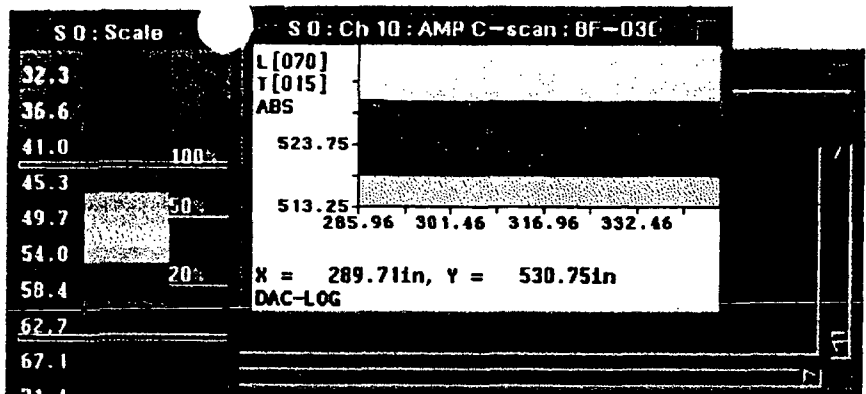
207 208



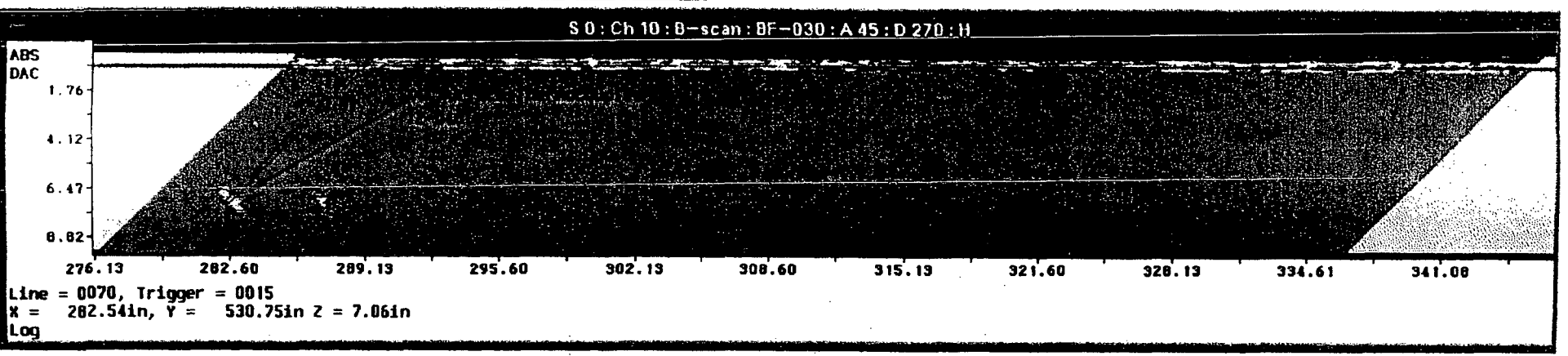
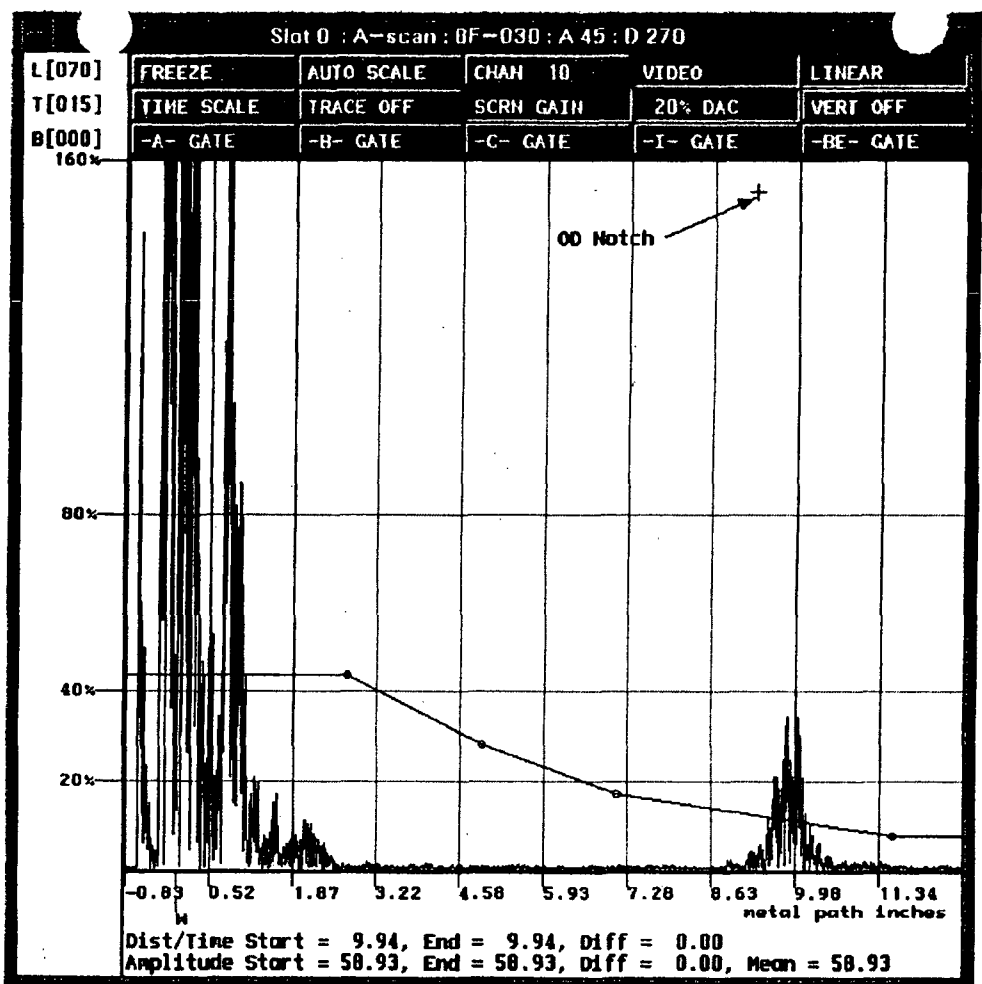
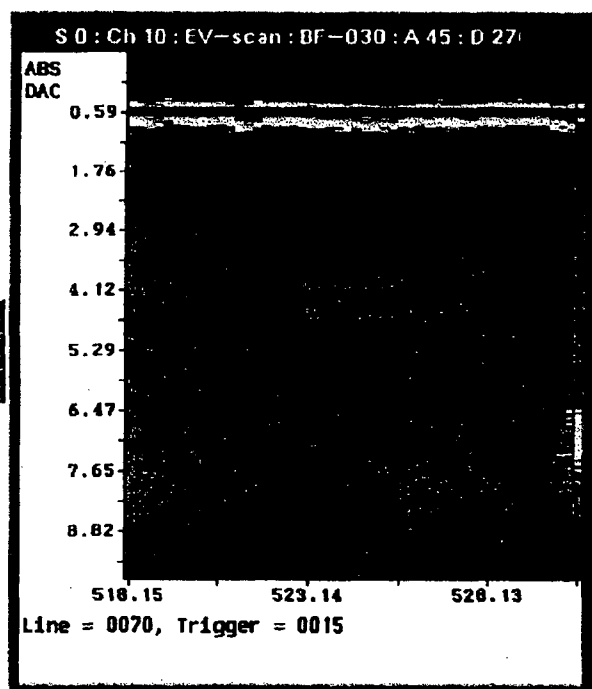
R1153



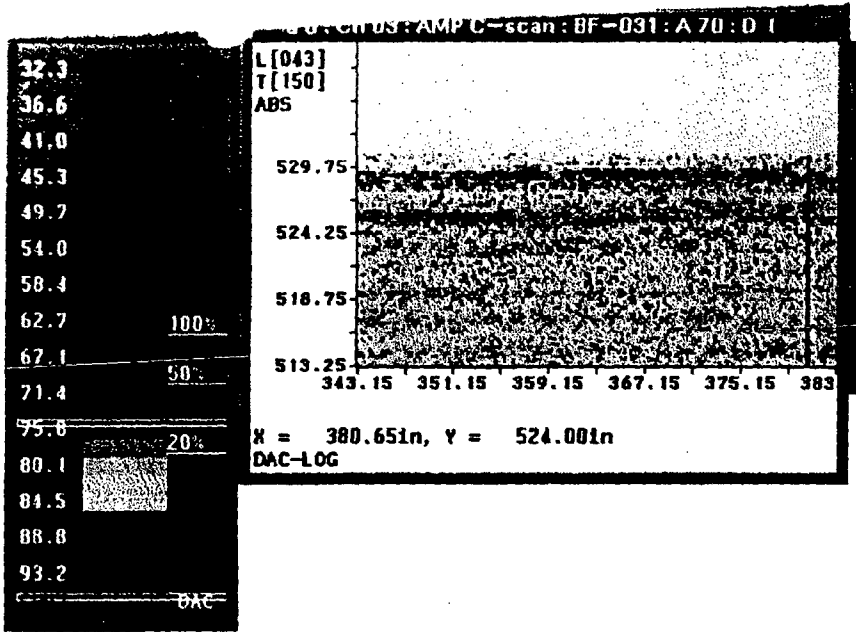
R1153



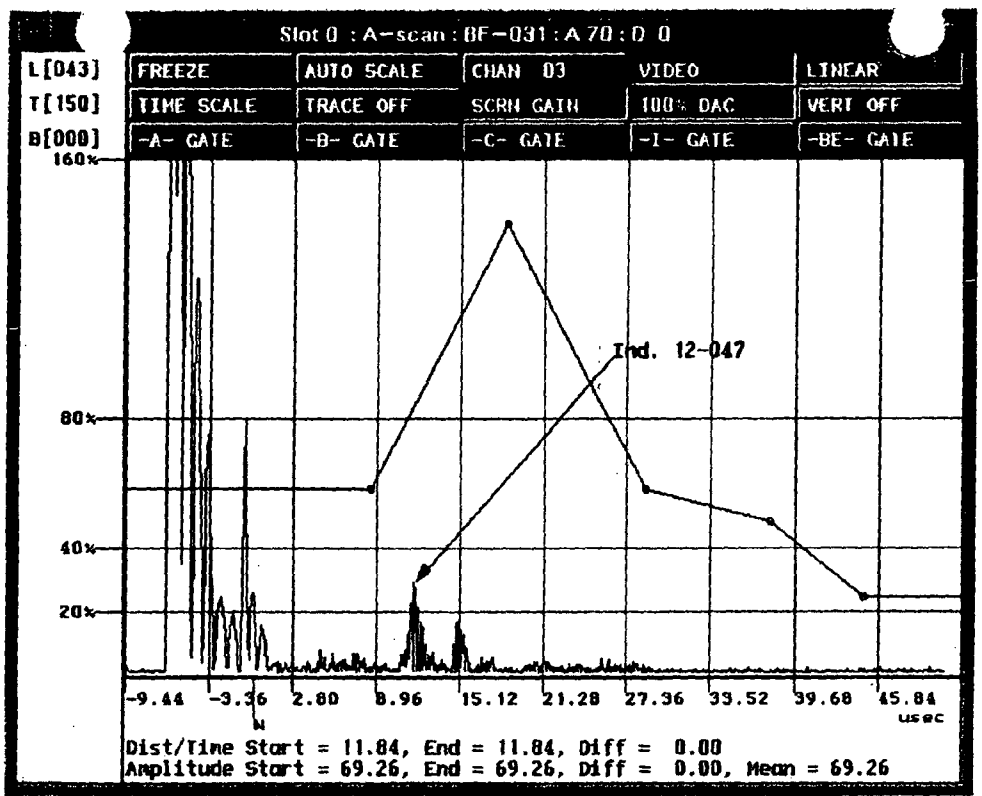
Top Terminal
or 3/12-046



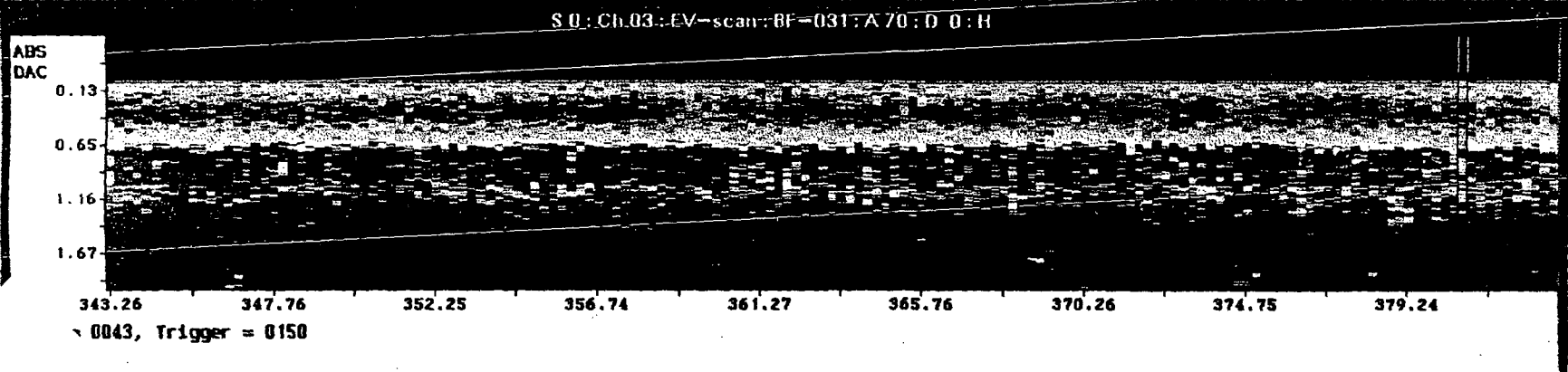
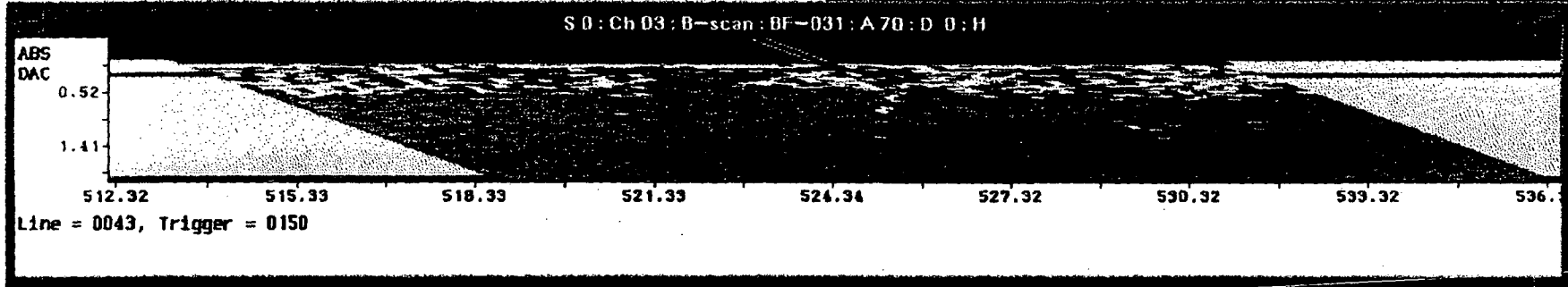
R1153



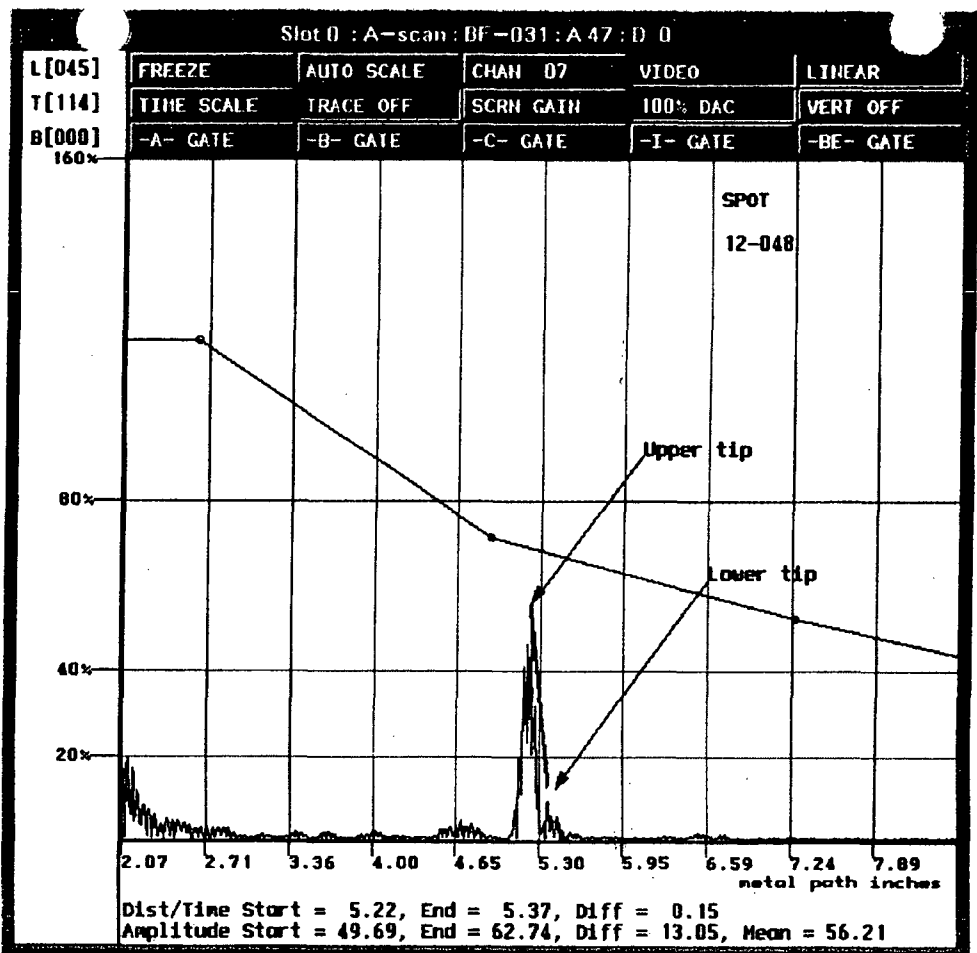
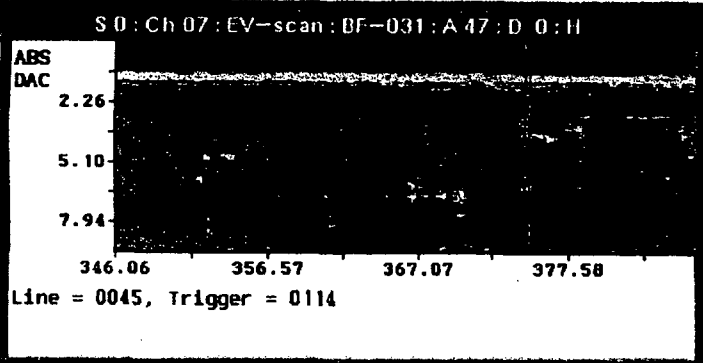
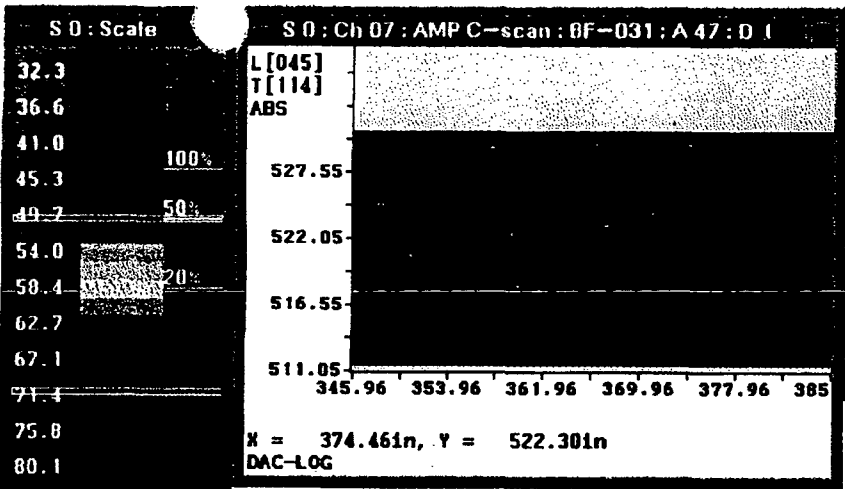
Top Terminal
or 3/12-047



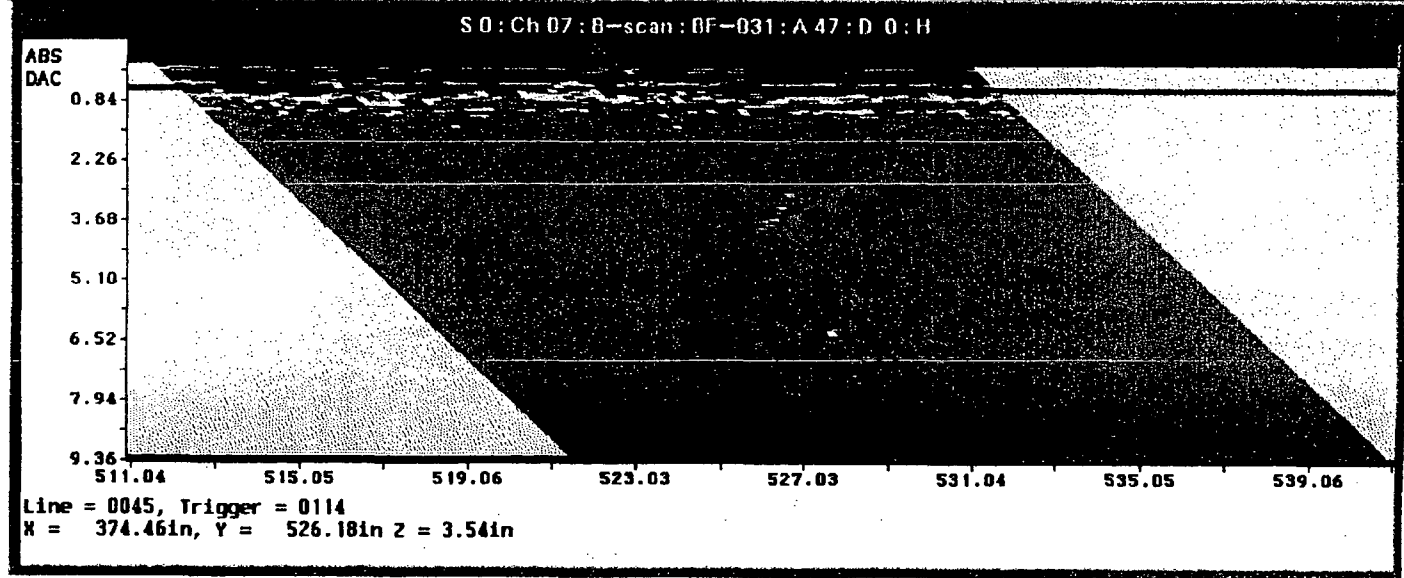
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R 1152

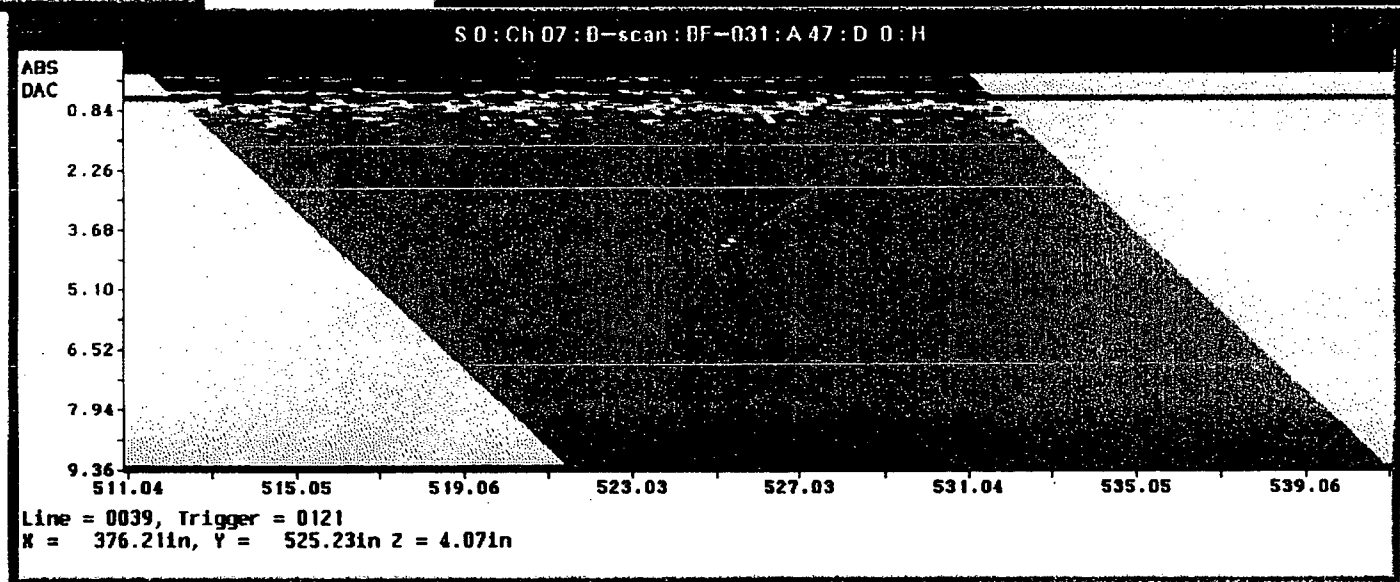
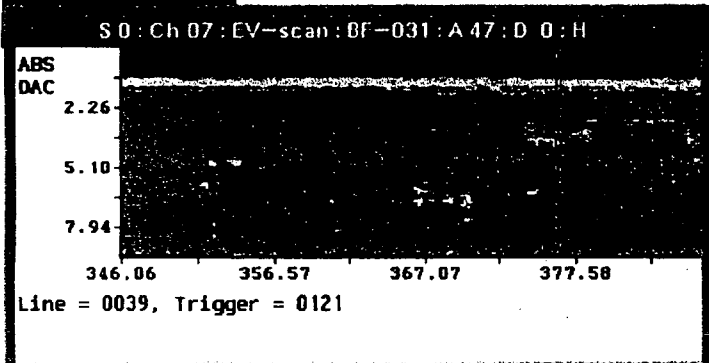
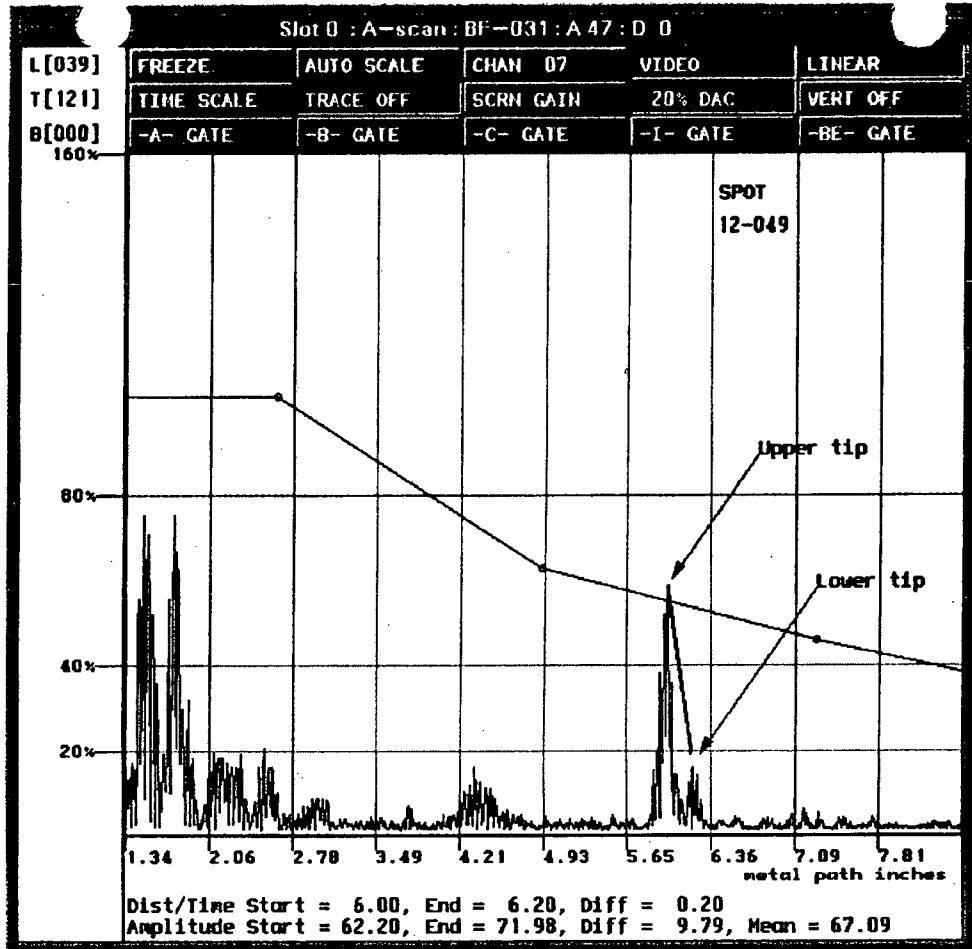
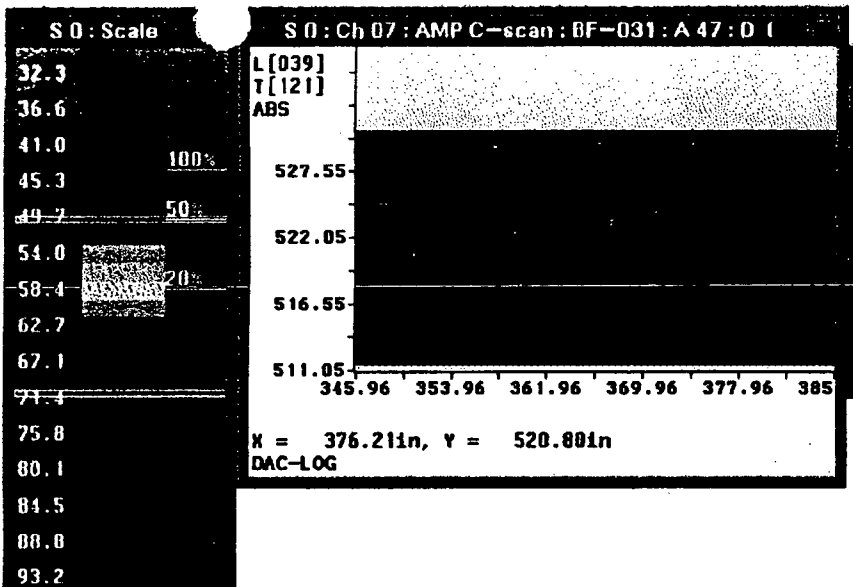


Lower Term



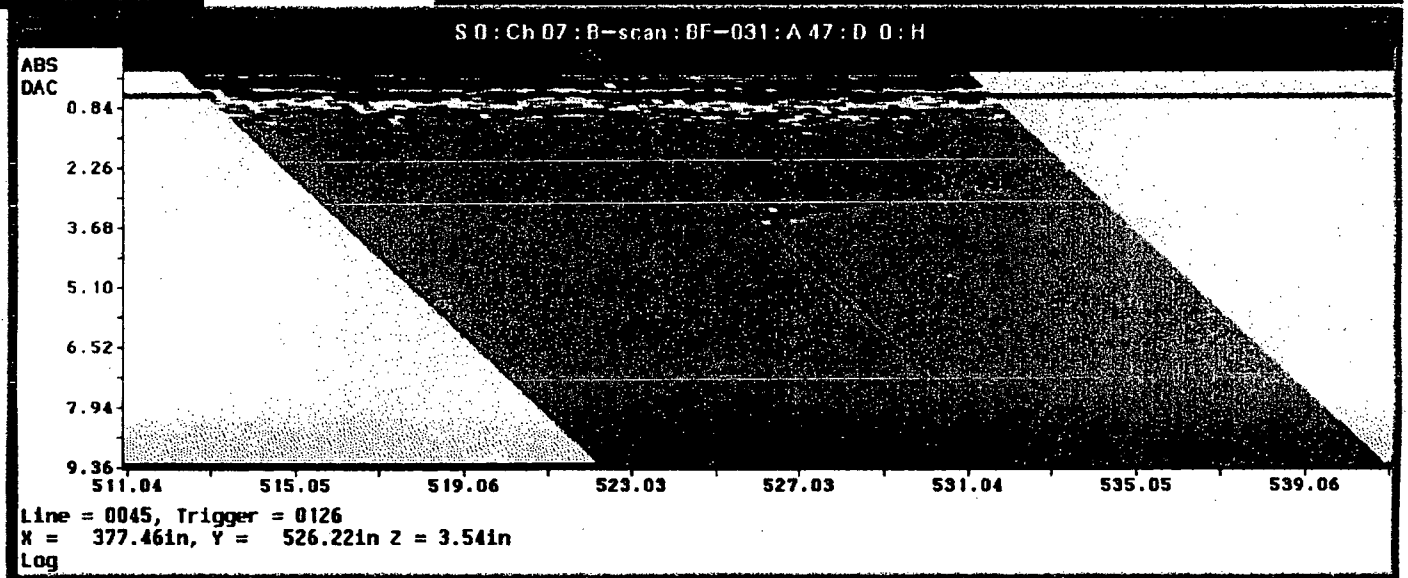
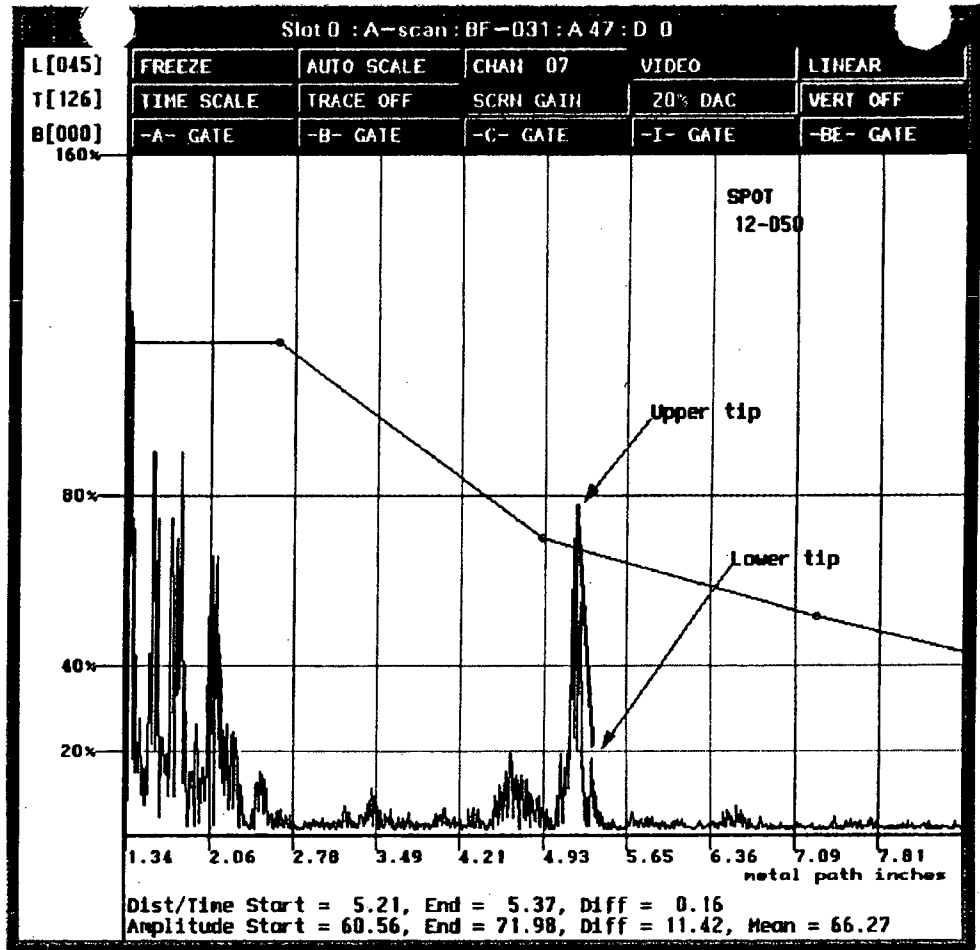
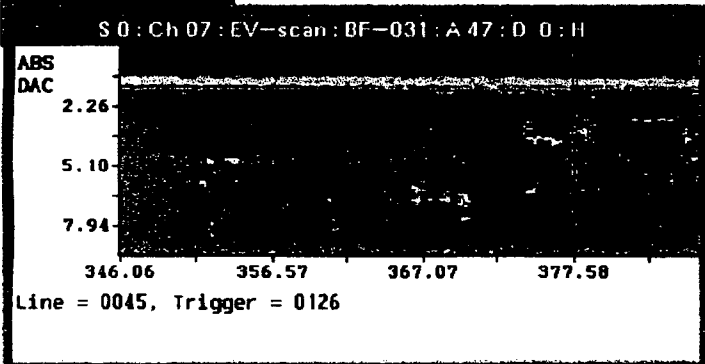
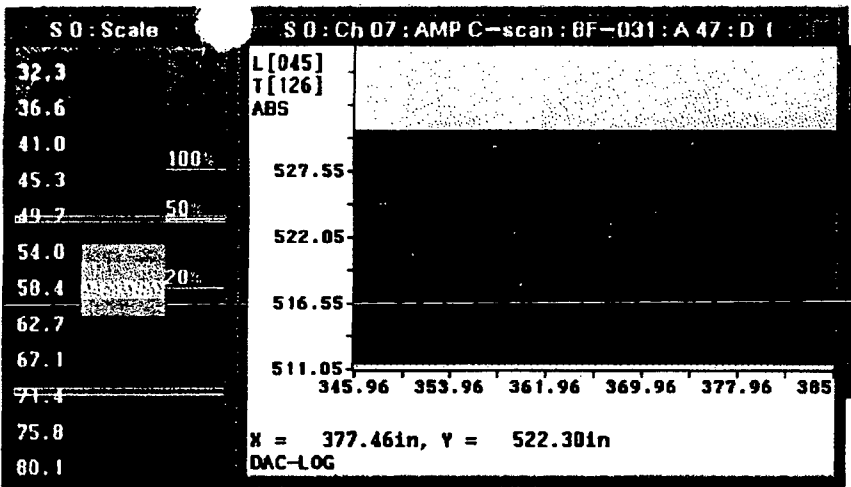
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R1153



6648013

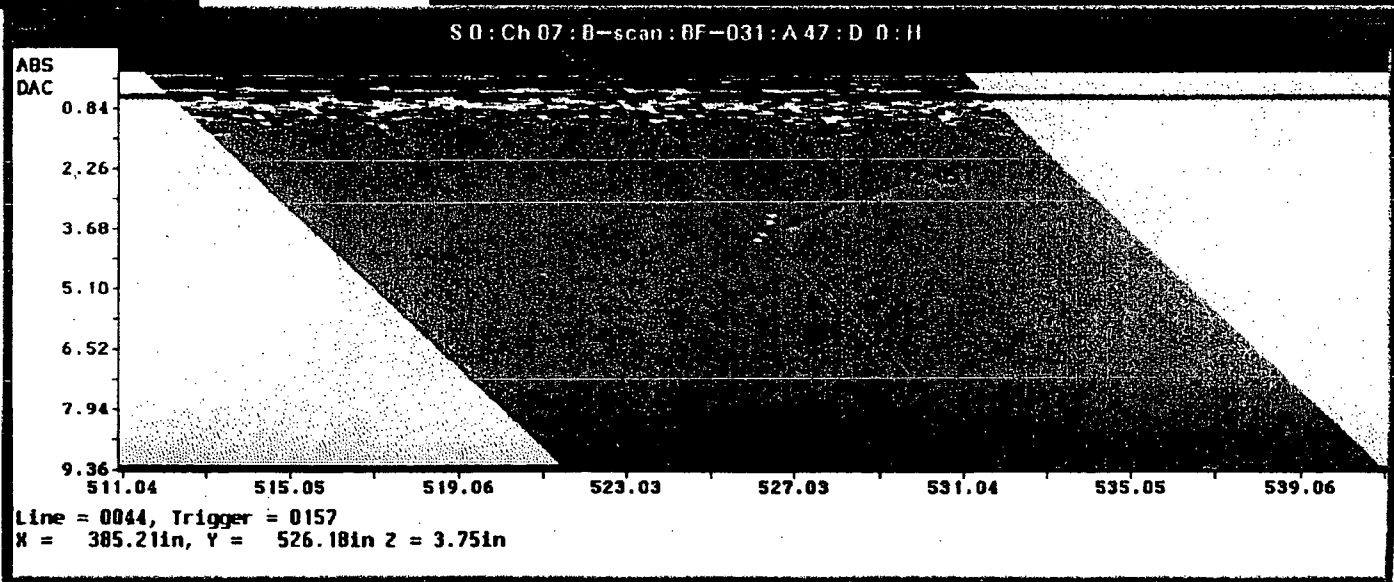
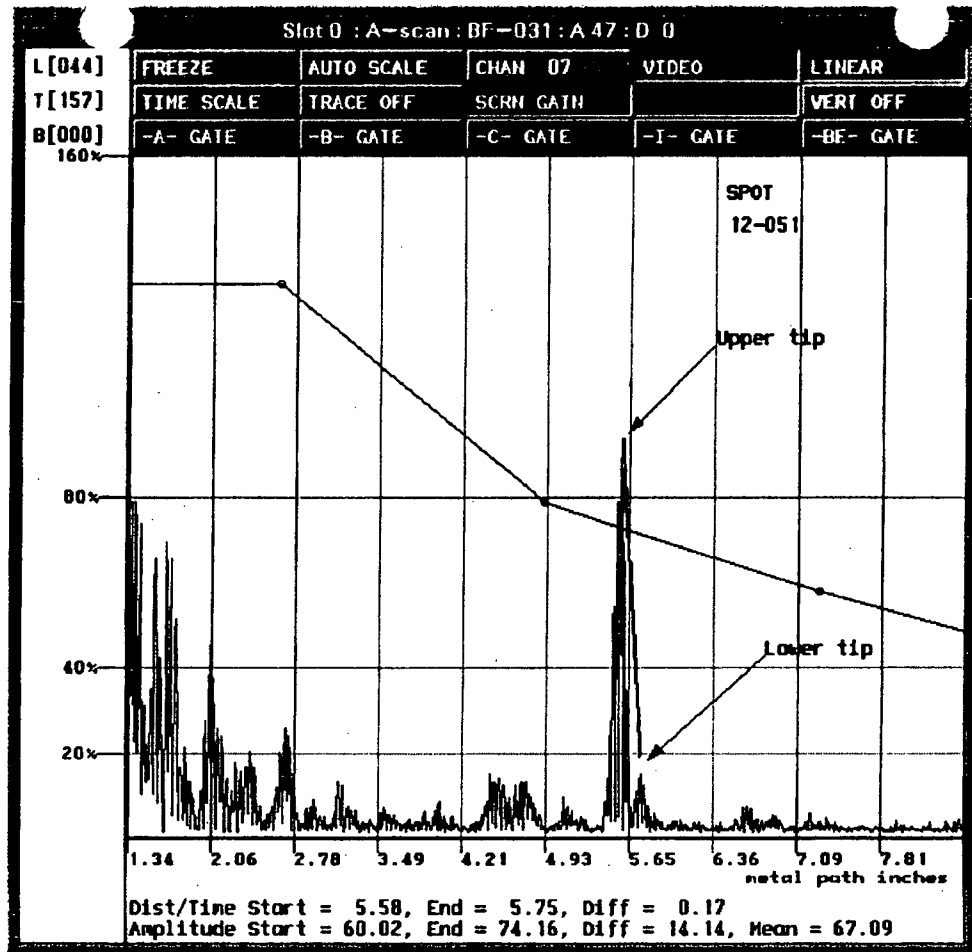
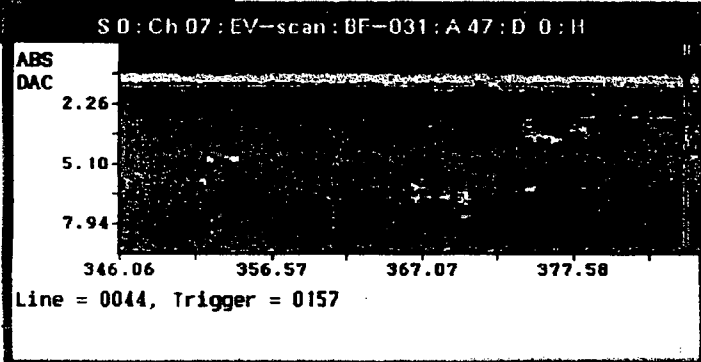
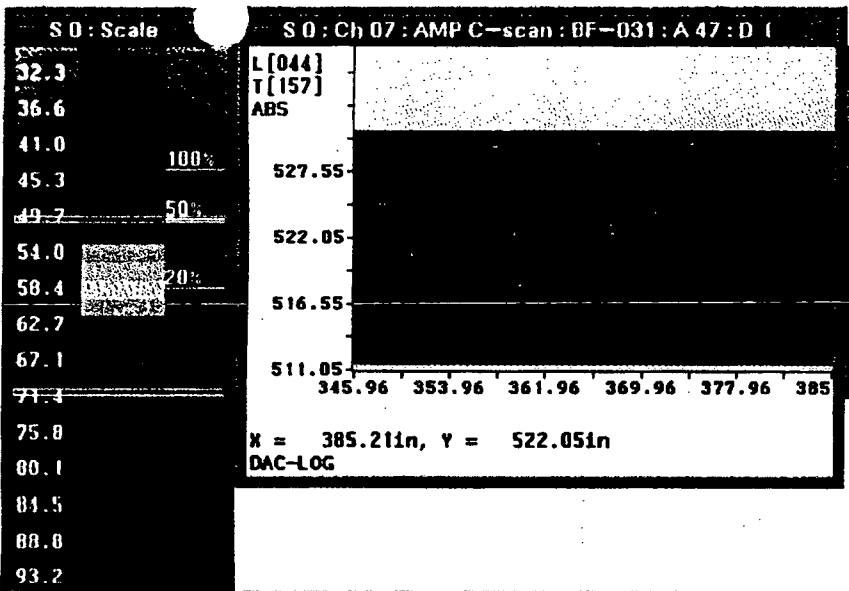
R1153



R 1153

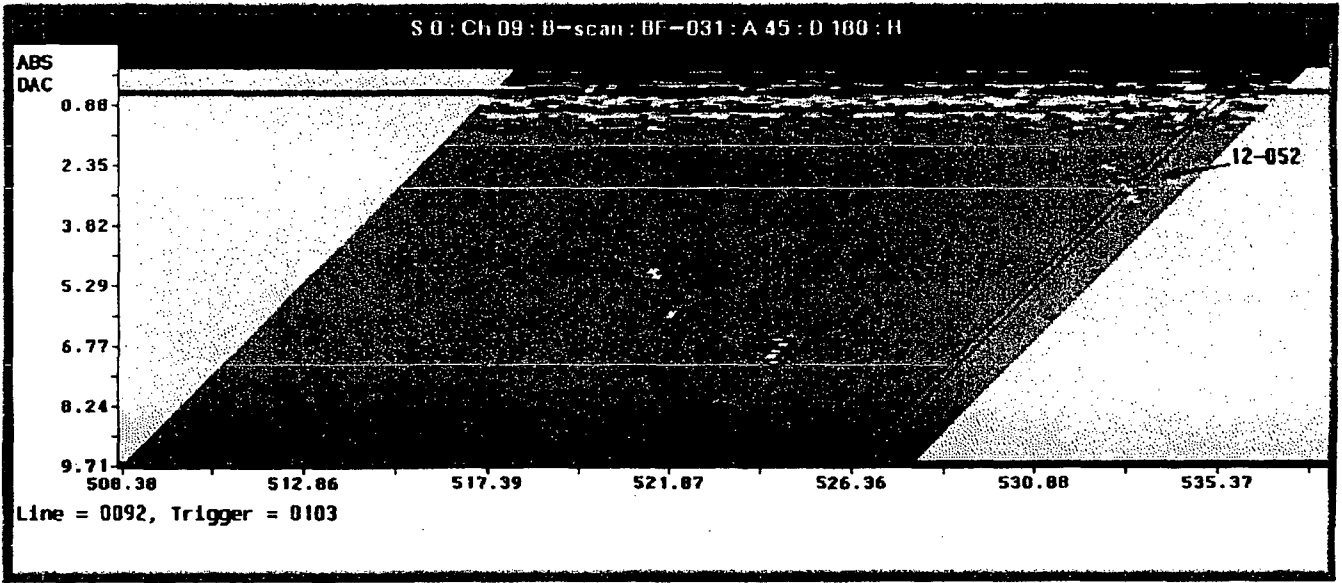
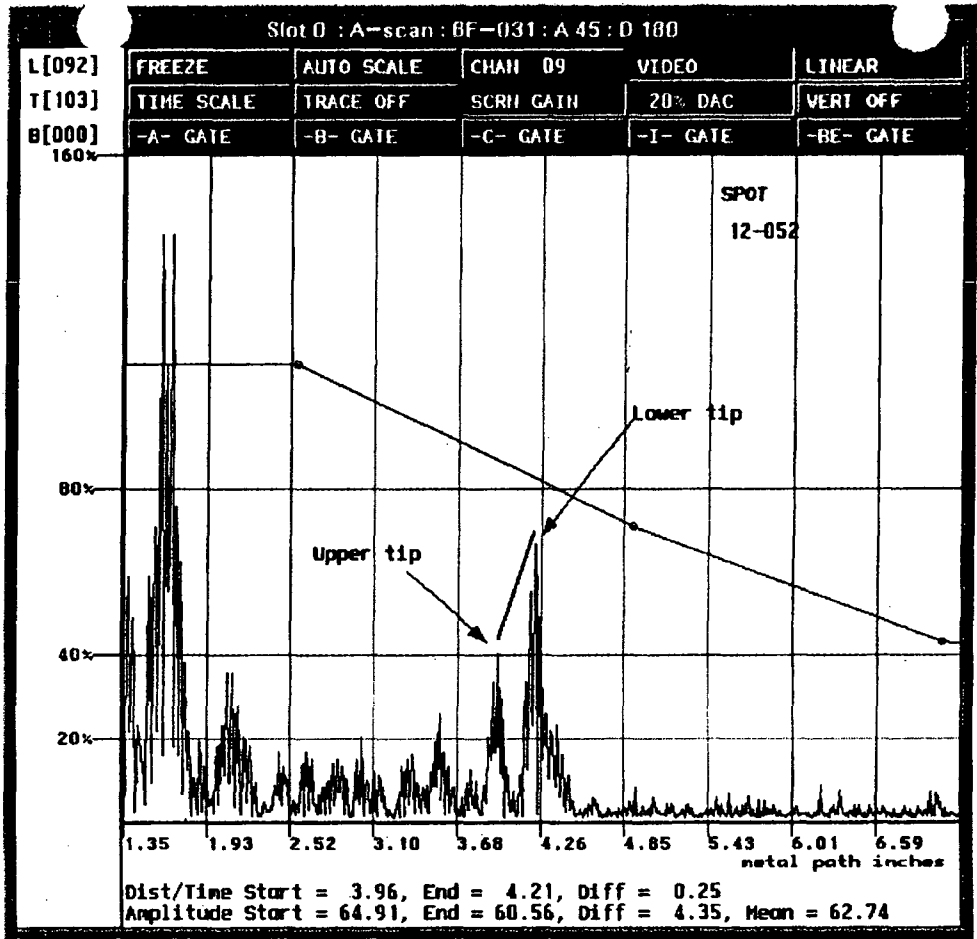
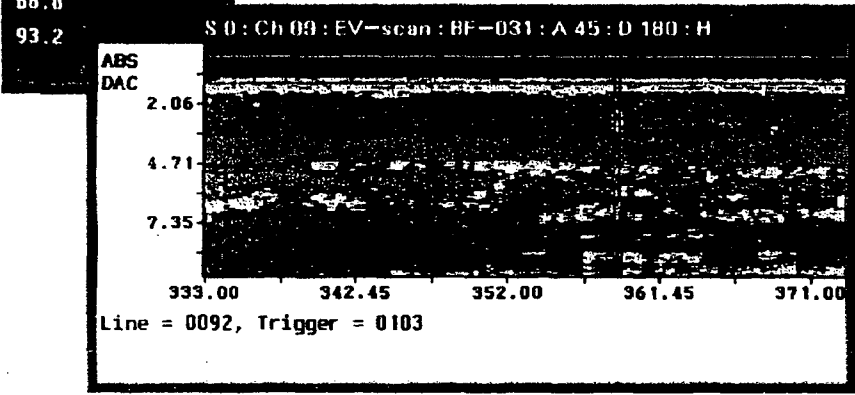
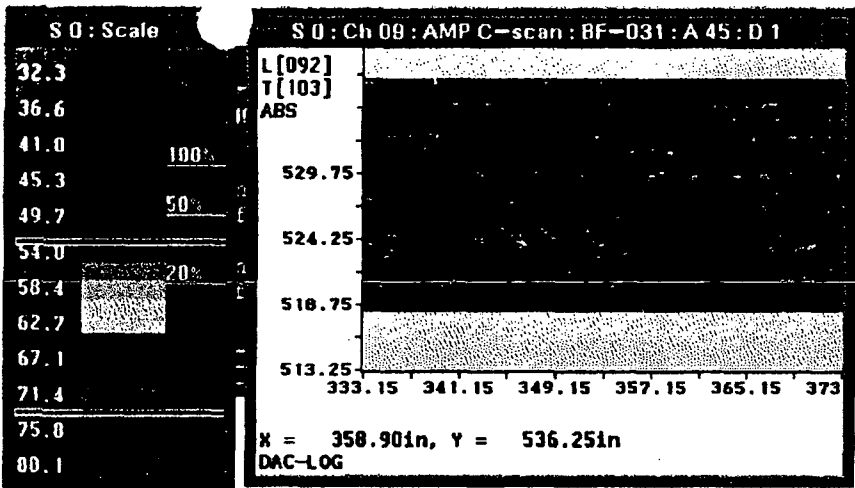
R 1153

3/3 of 439



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R1153



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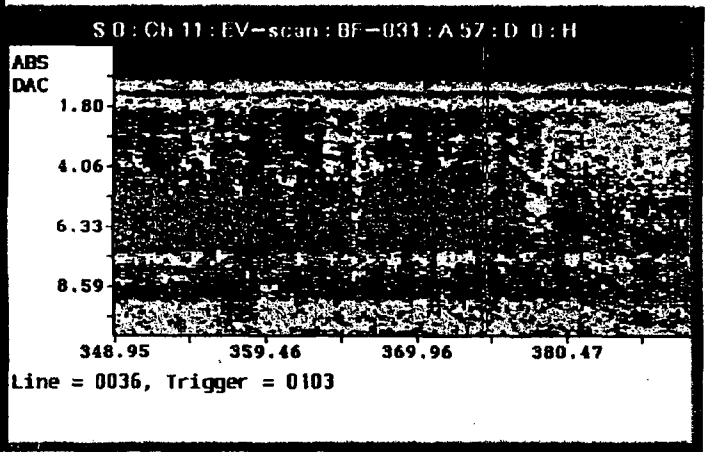
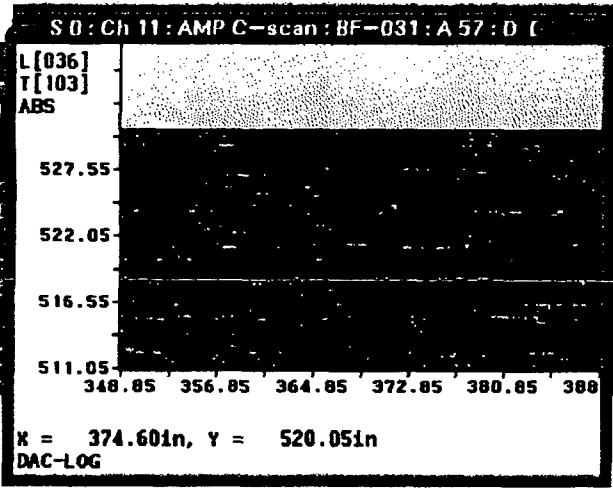
R1153

S 0 : Scale

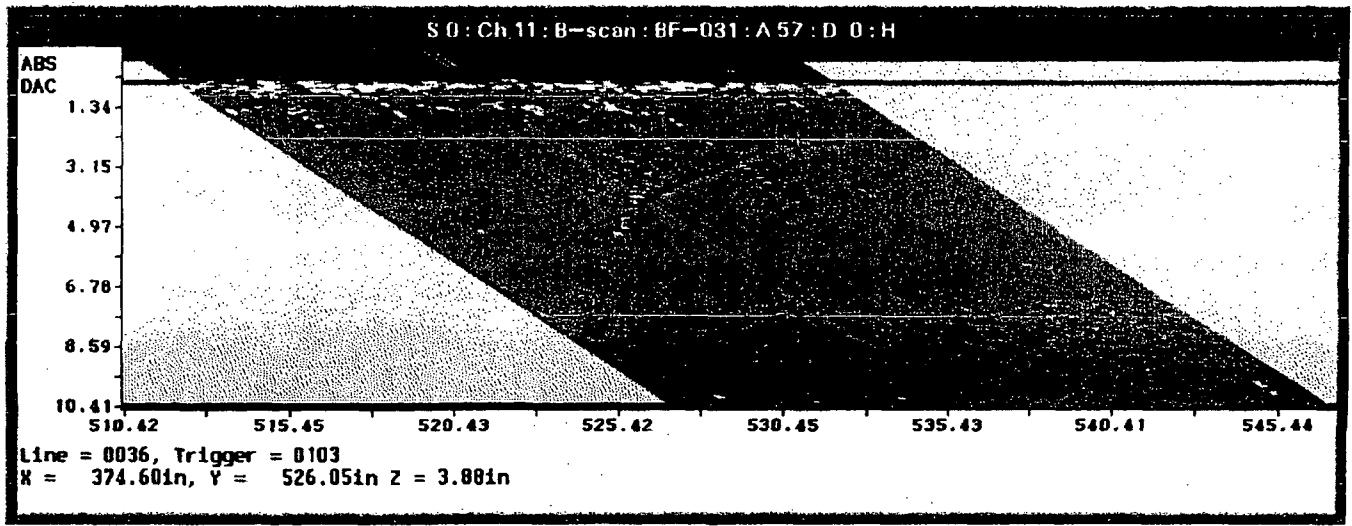
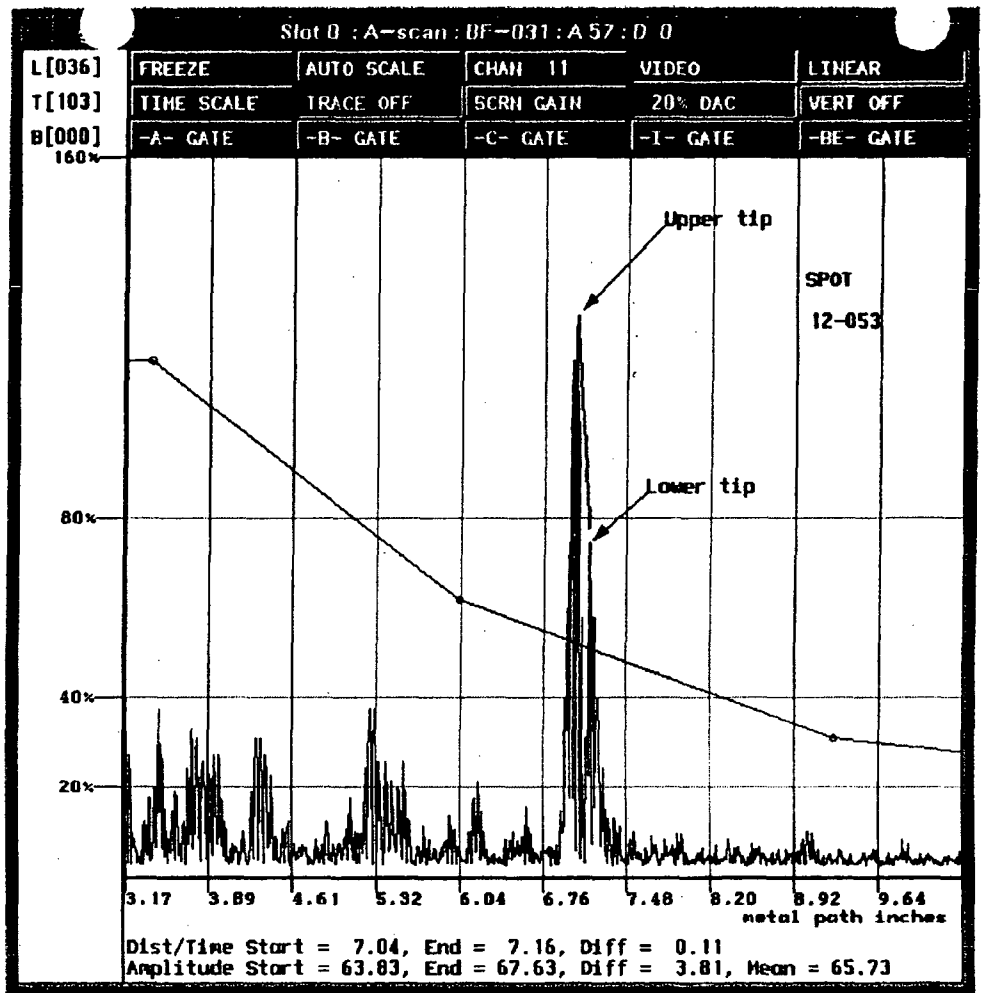
32.3
36.6
41.0
45.3
49.7
54.0
58.4
62.7
67.1
71.4
75.8
80.1
84.5
88.0
93.2

100%
50%
20%

DAC



Lower Termi
1/test>dump /max
or 3/12-053



211. - 2039

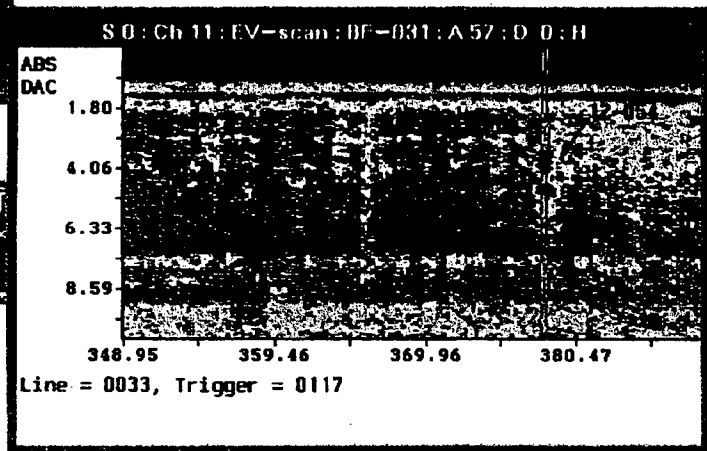
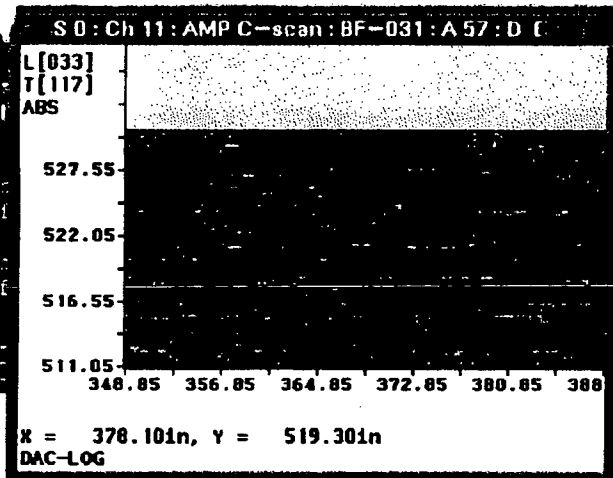
R1153

S 0 : Scale

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

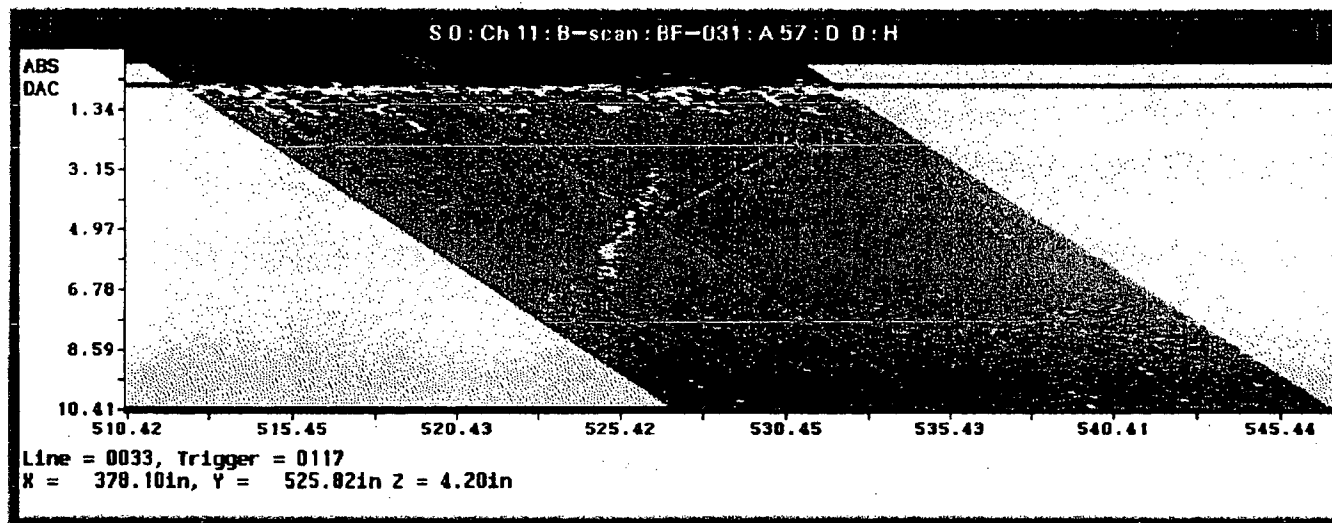
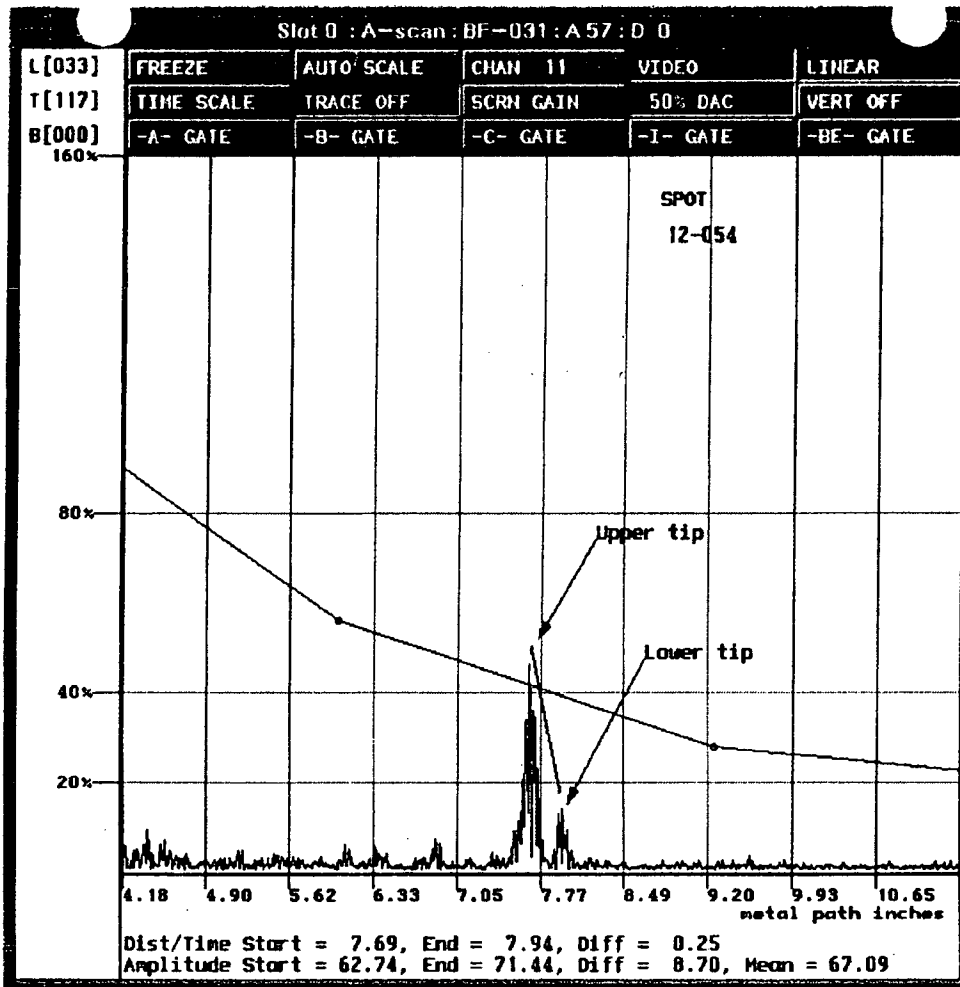
100%
50%
20%

DAC



Lower Termli

1/test>dump /max
on3/12-054



R1153

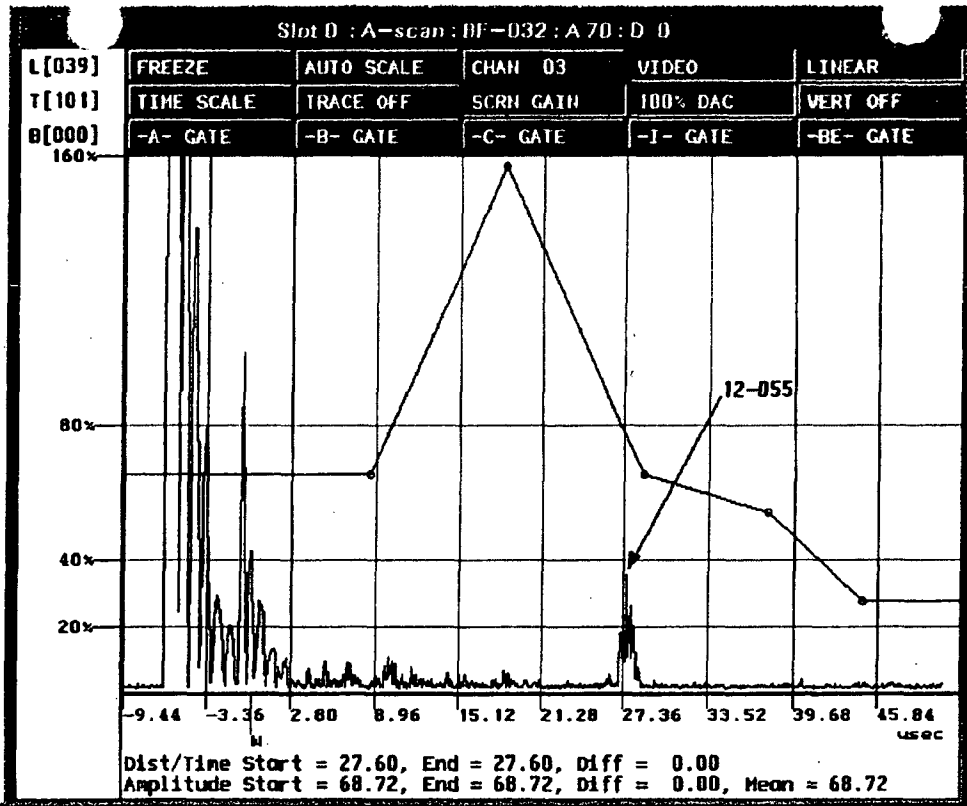
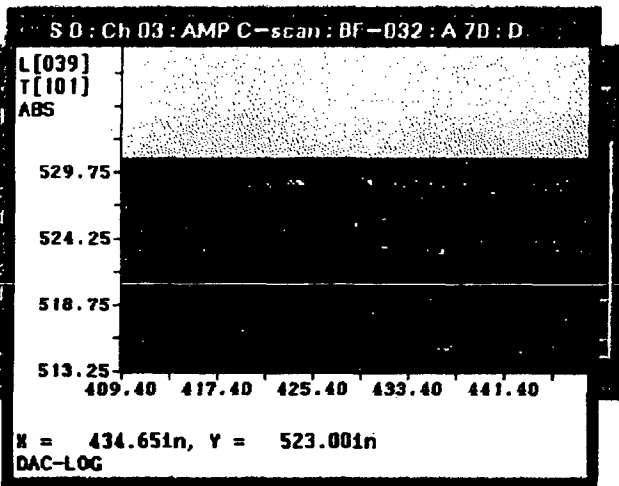
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S 0 : Scale

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

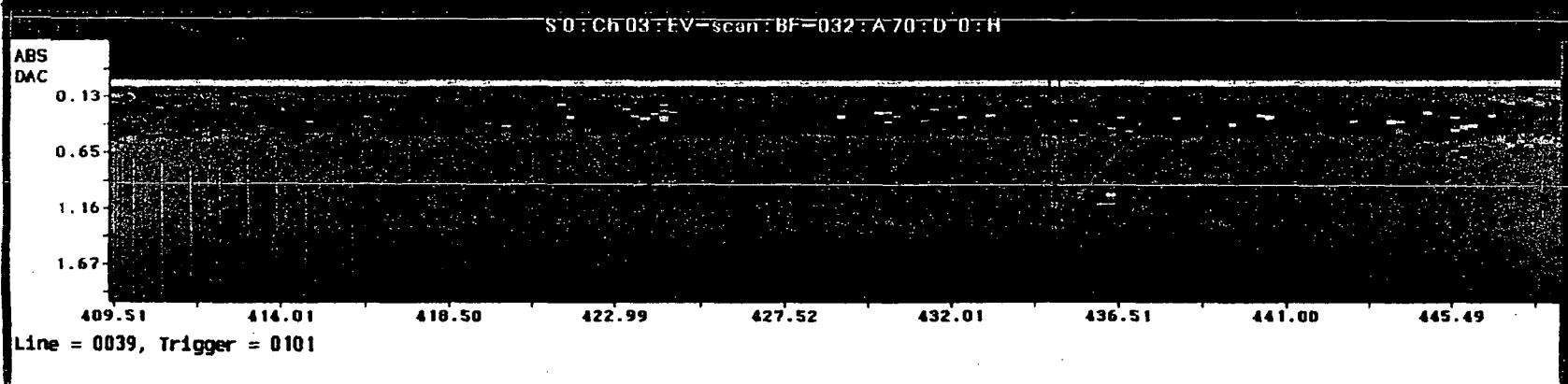
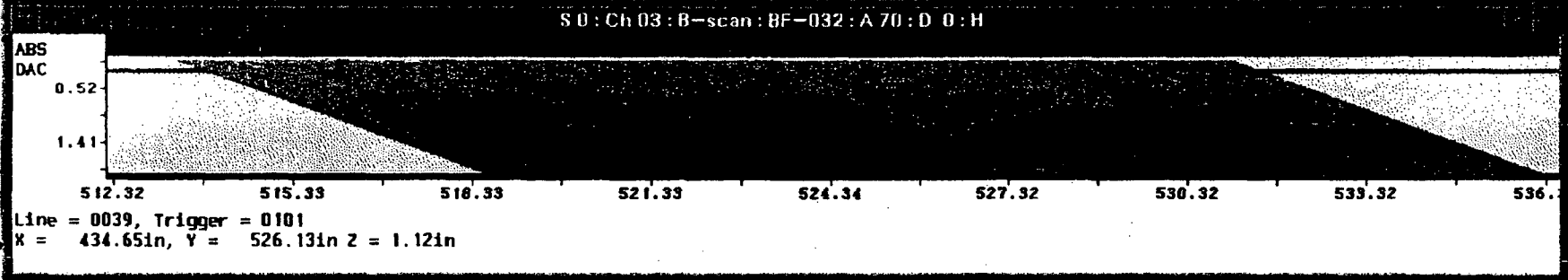
100%
50%
20%

DAC



Lower Term

1/test>pump /maxt
or 3/12-055



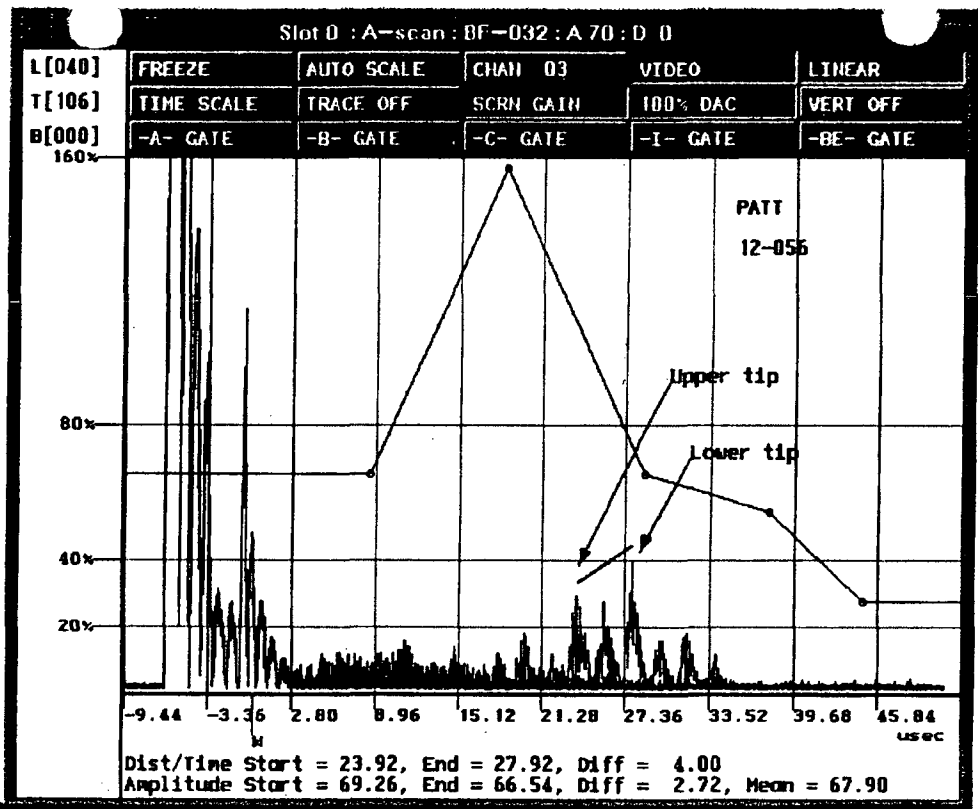
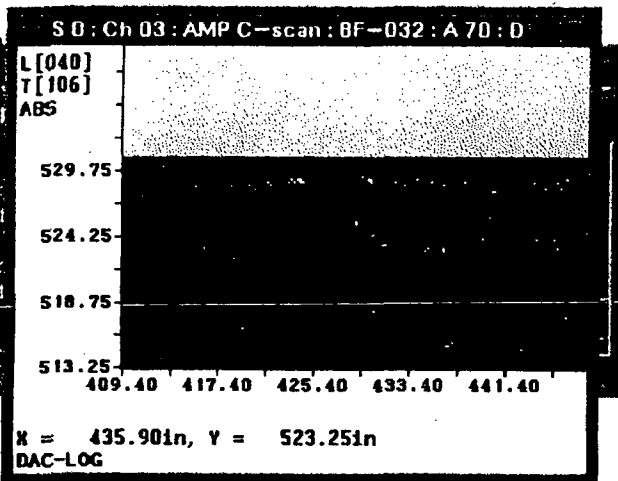
R-1153

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
81.5
88.8
93.2

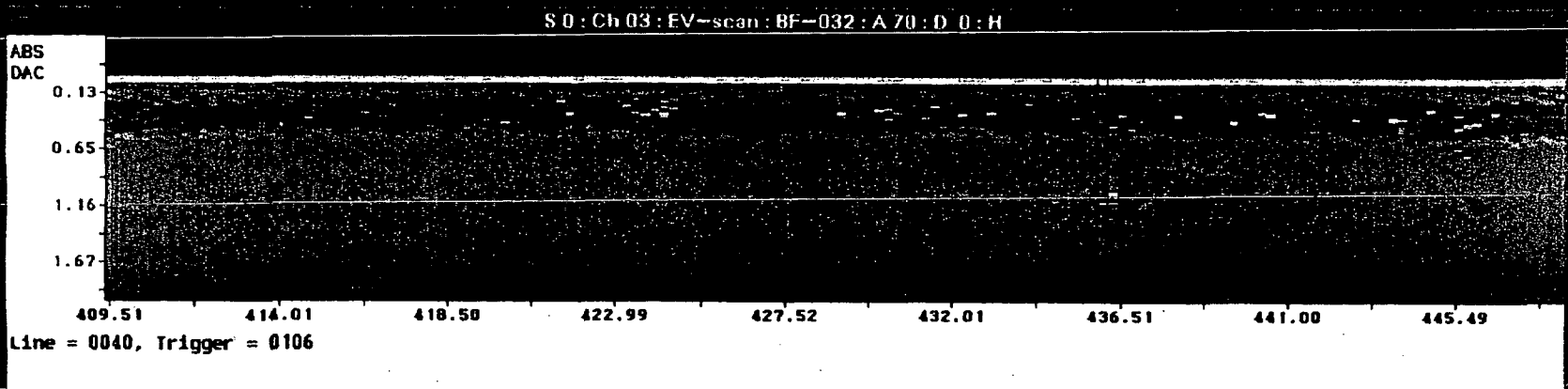
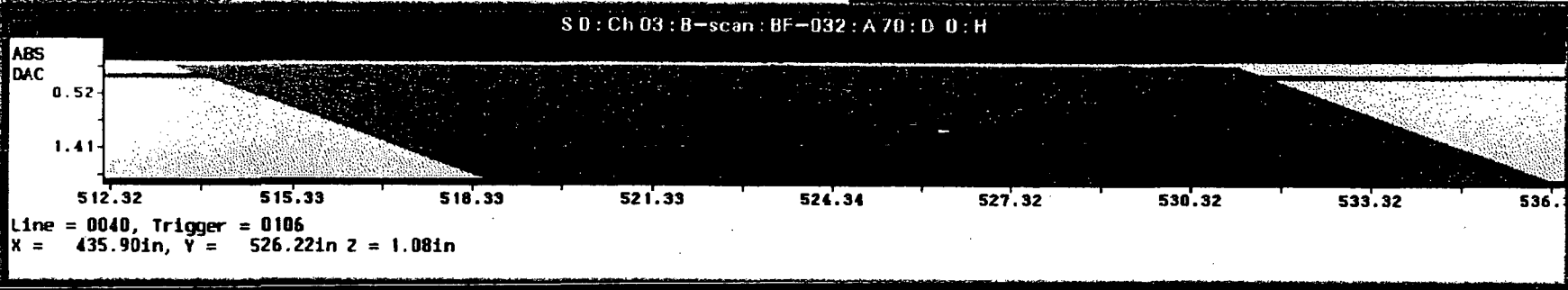
100%
50%
20%

DAC



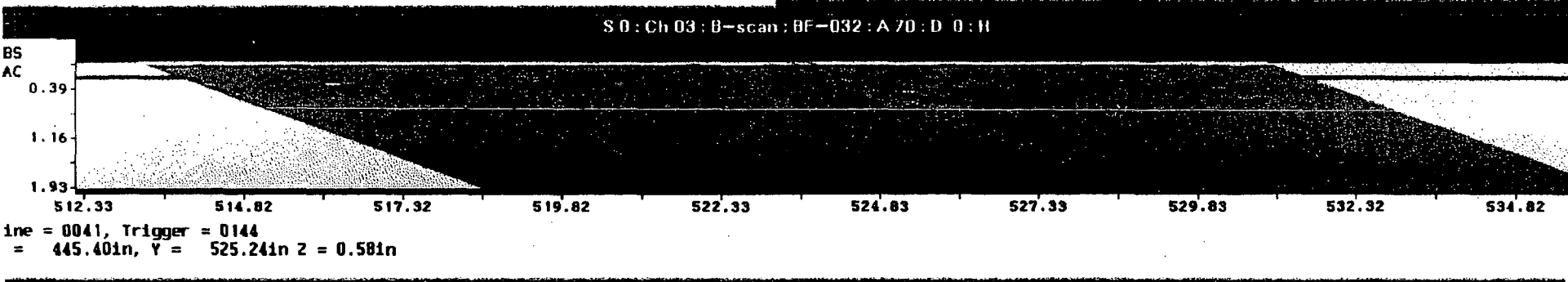
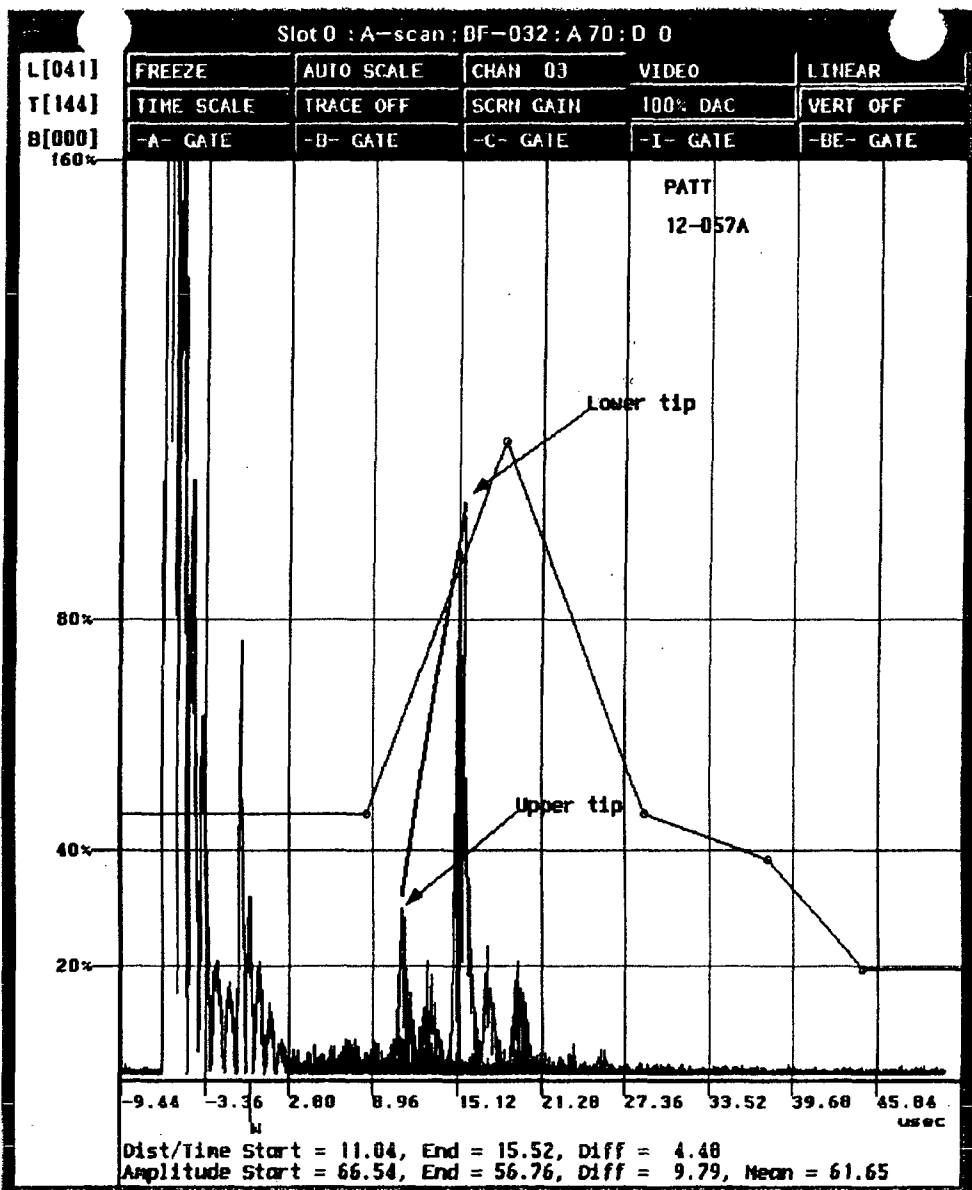
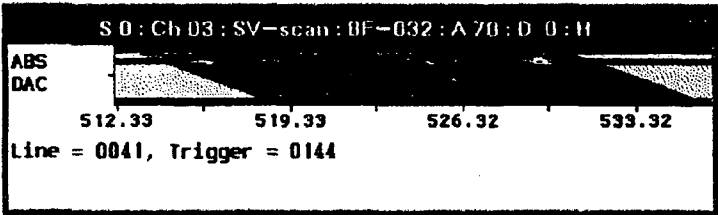
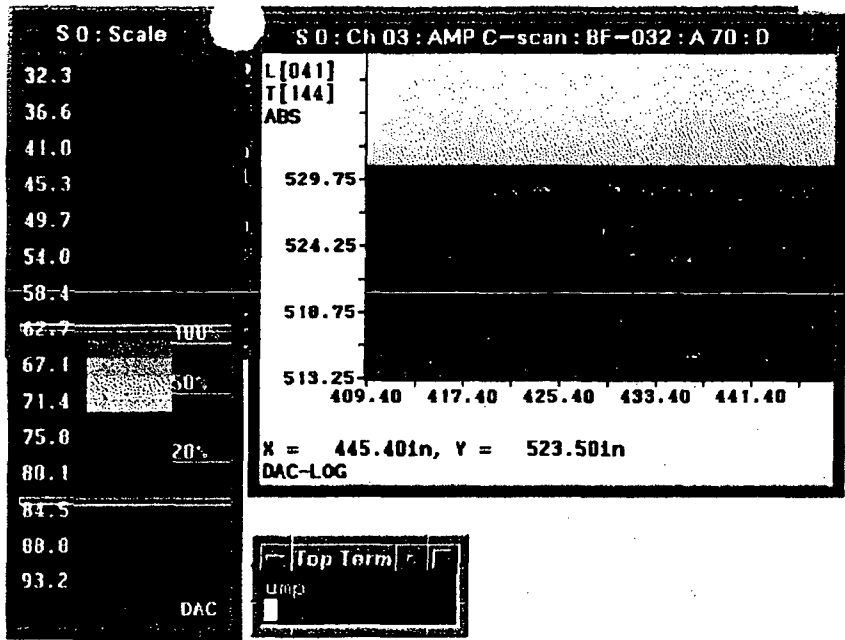
Lower Tarnli

l/test>dump /maxt
or3/12-056



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R1153



R-153

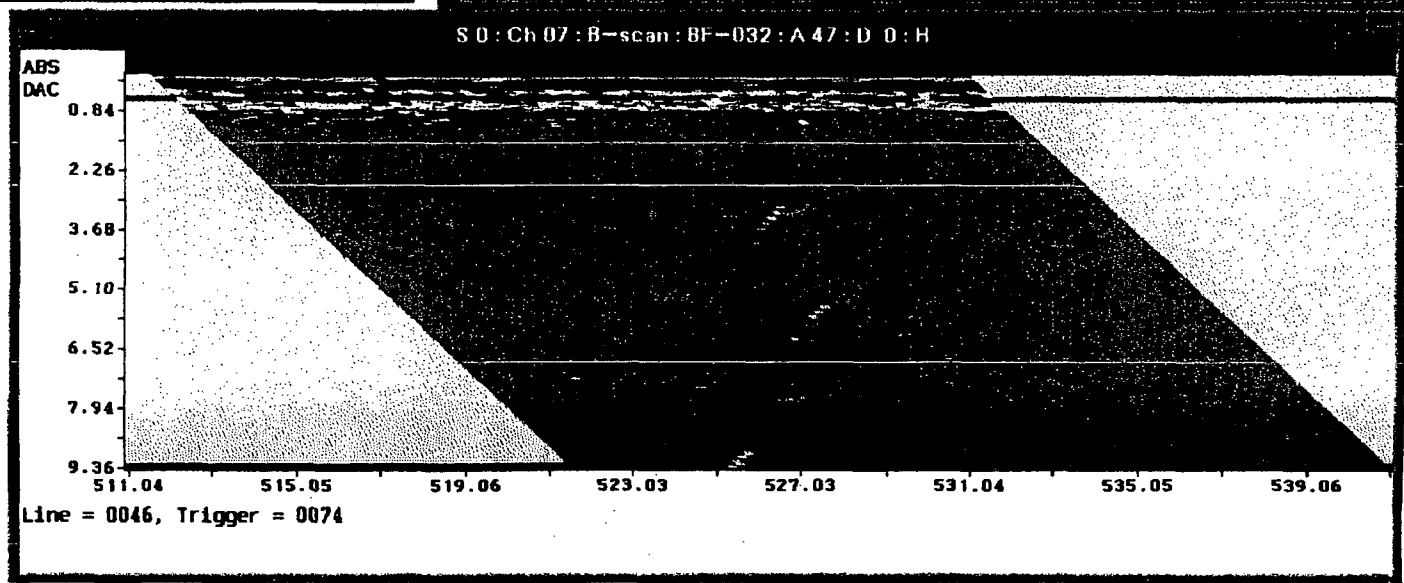
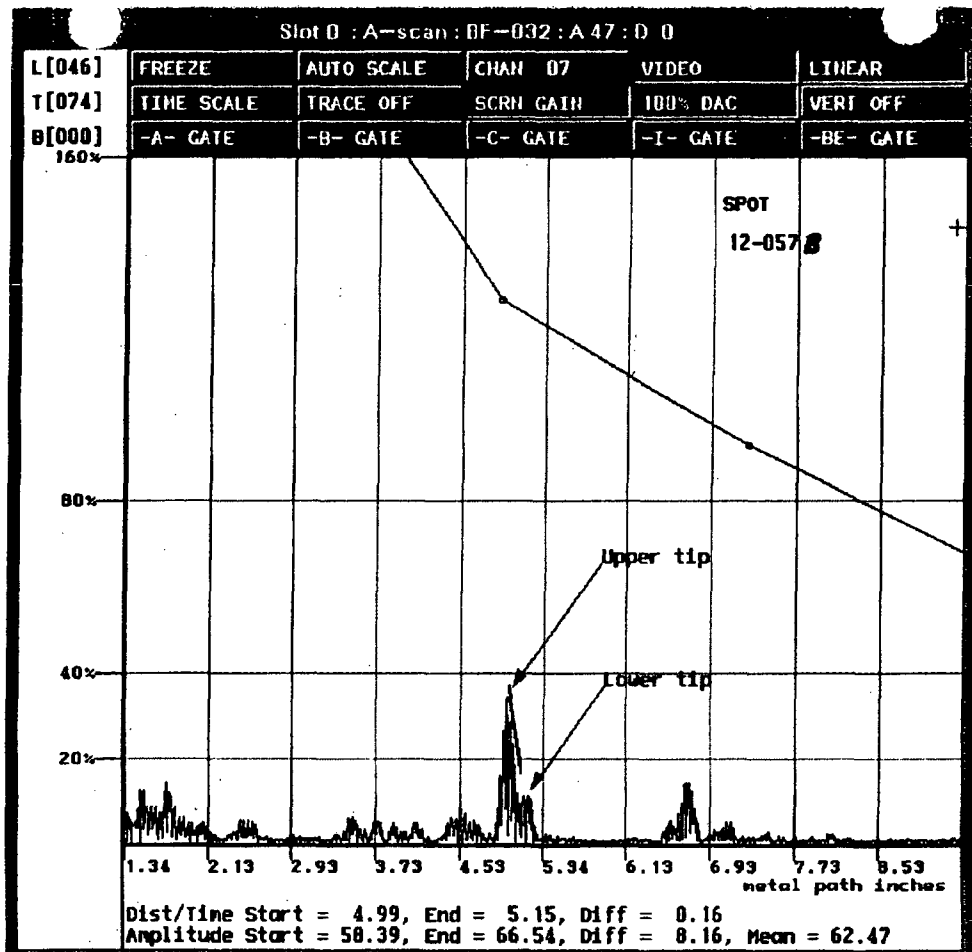
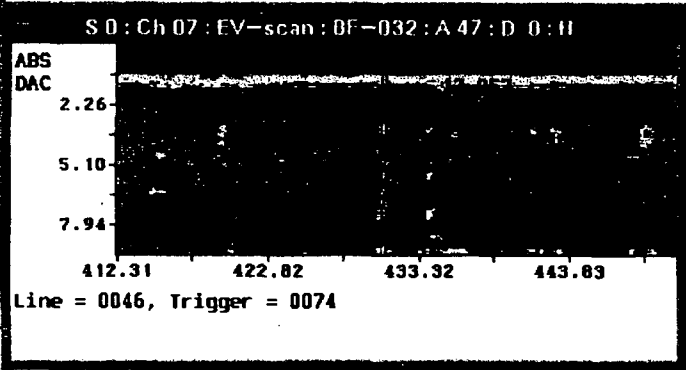
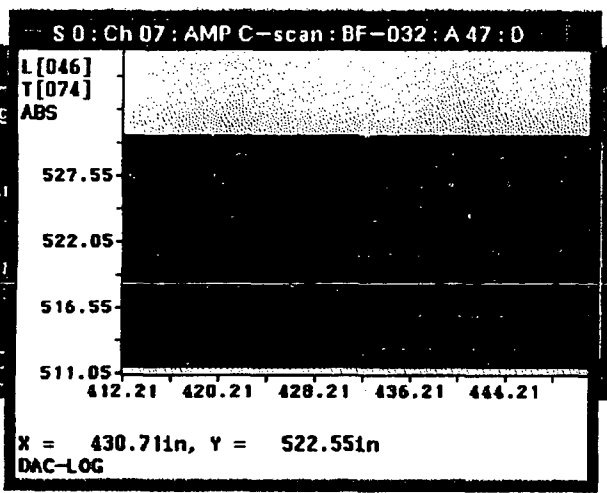
S 0 : Scale

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

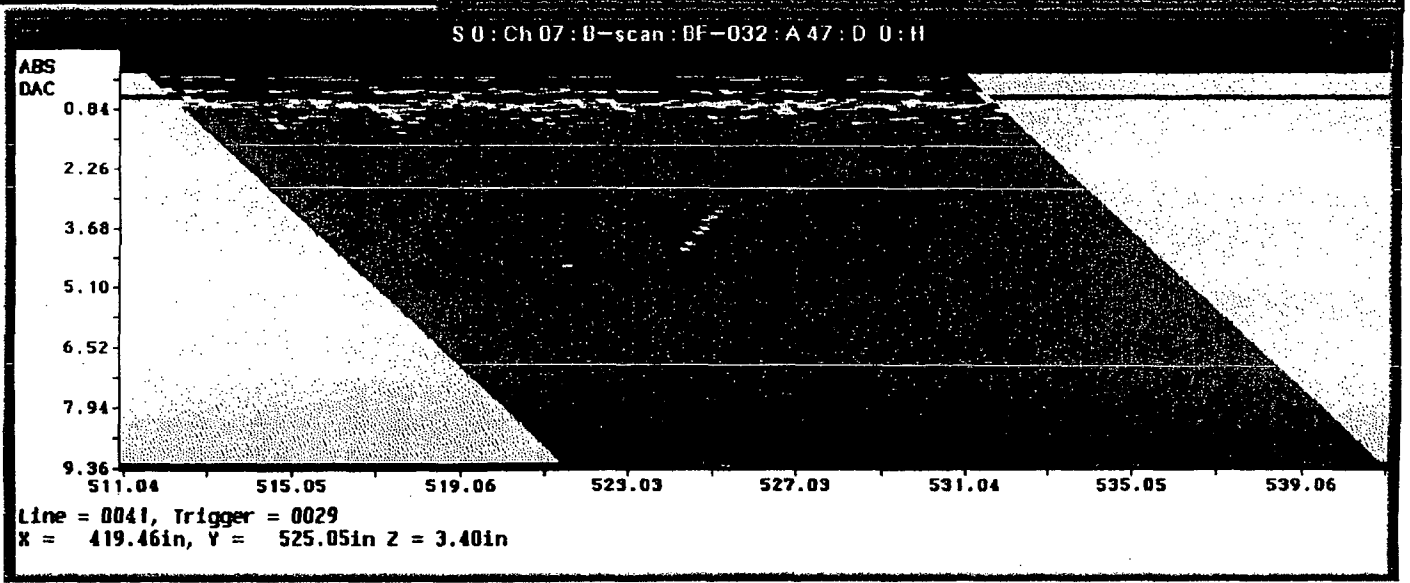
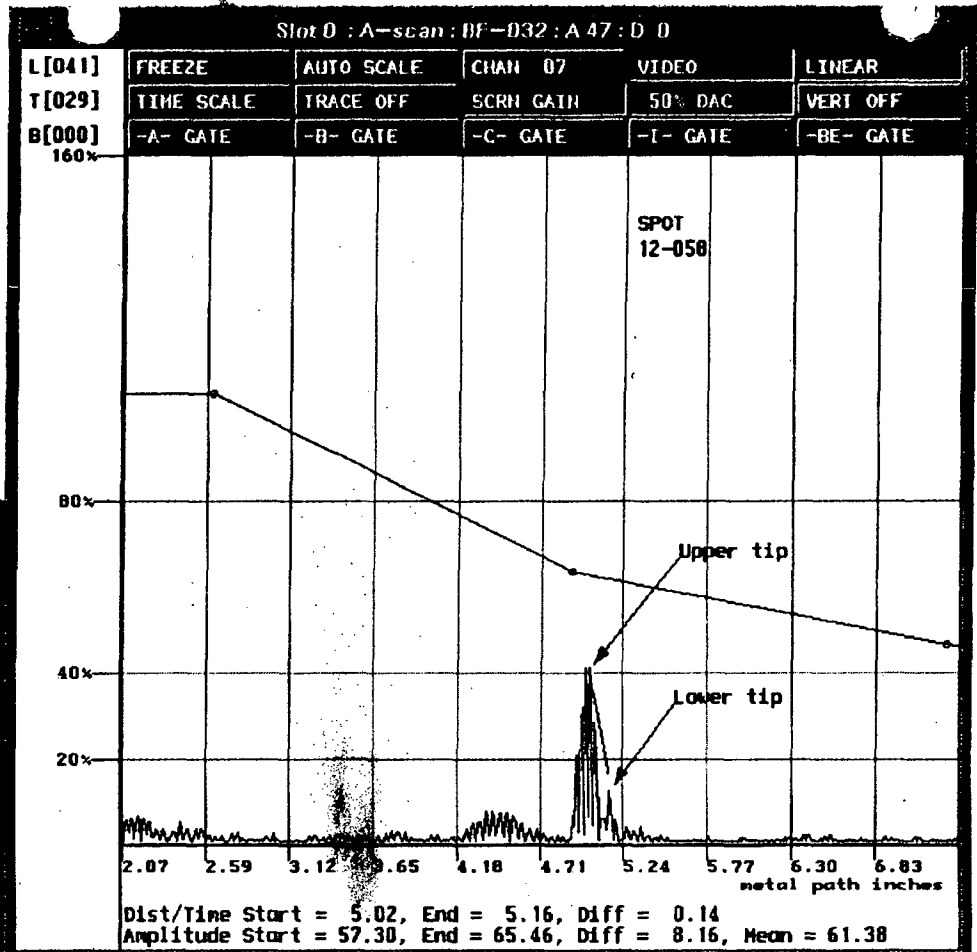
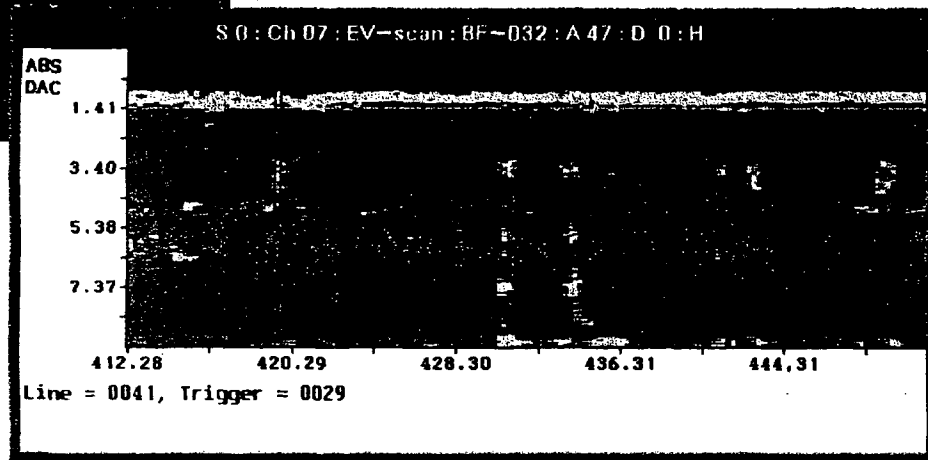
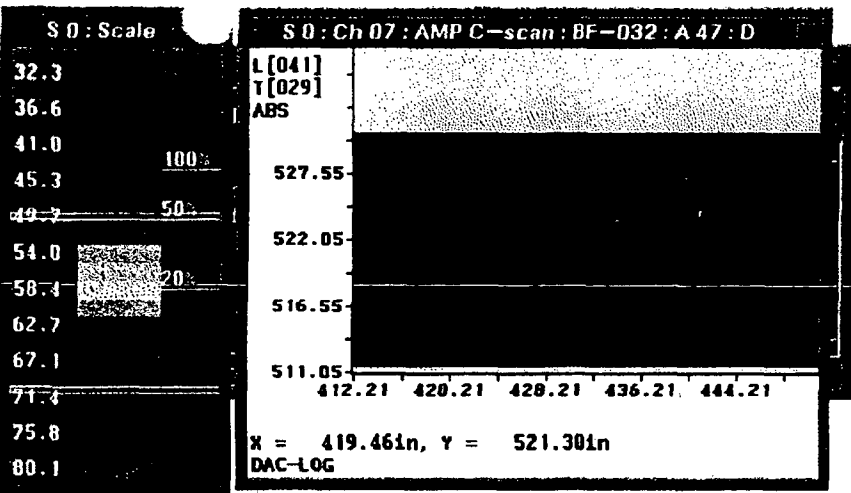
100%
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DAC

Lower Ten



2153



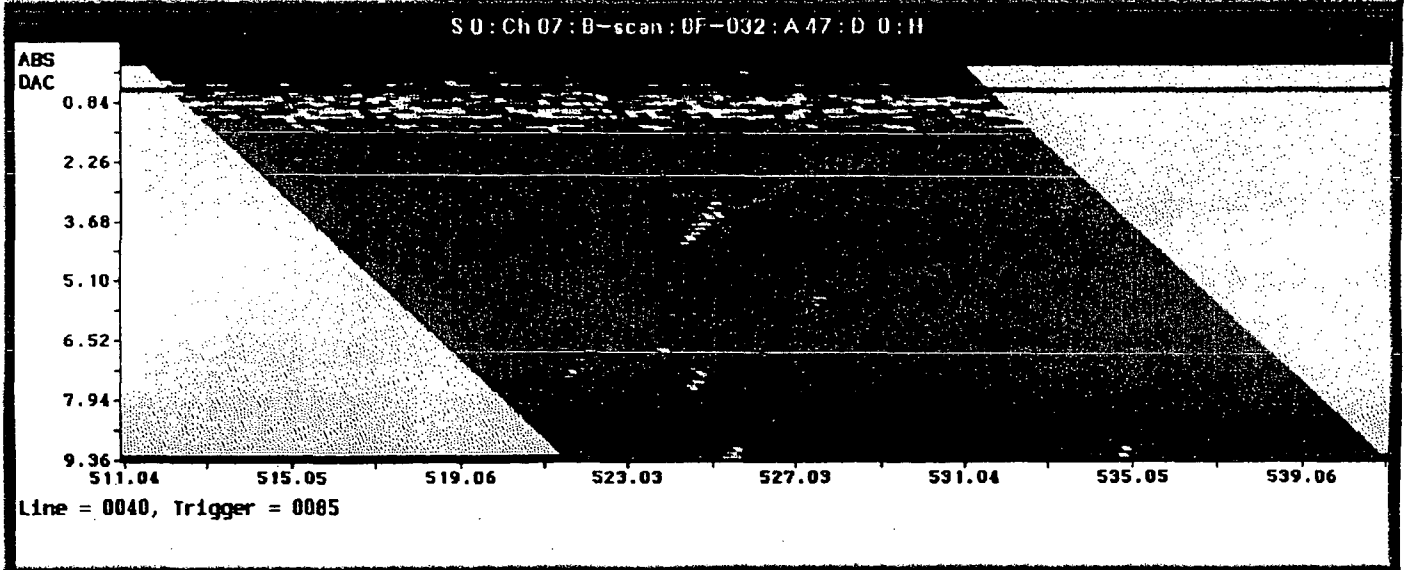
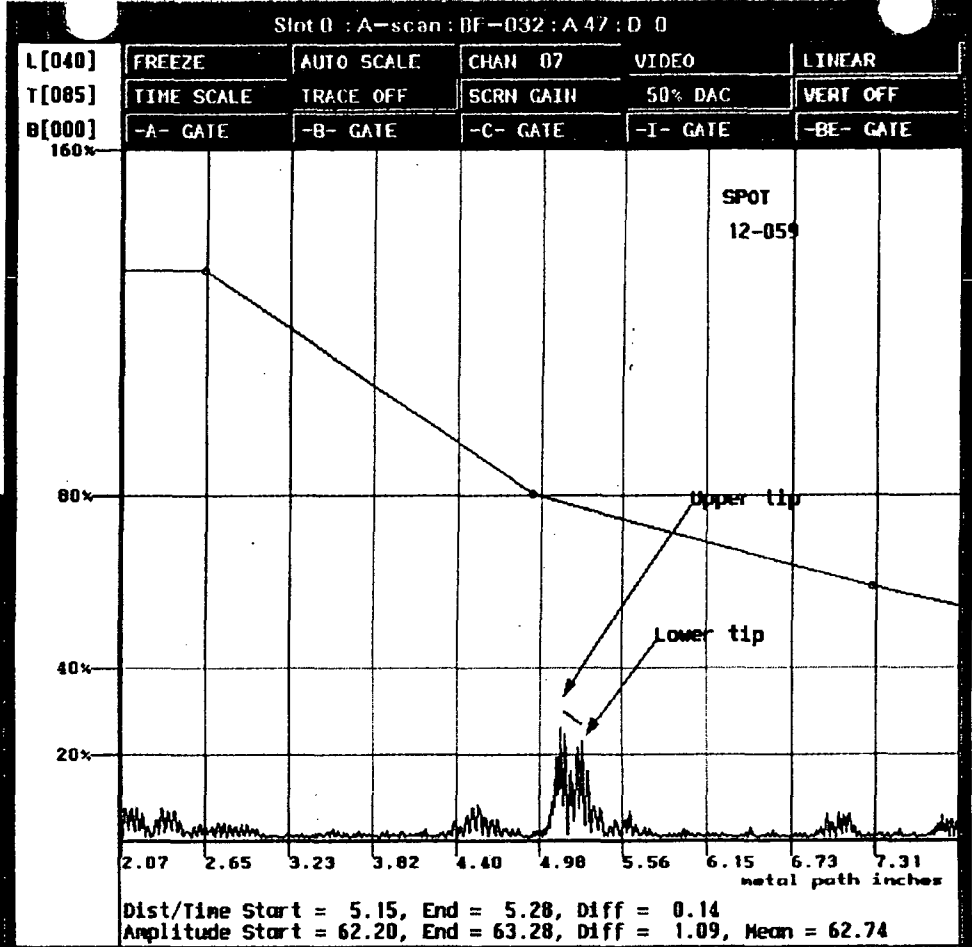
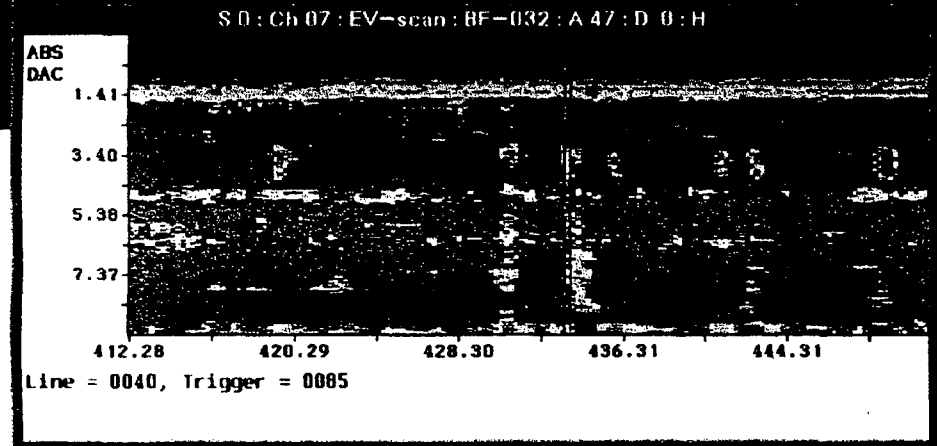
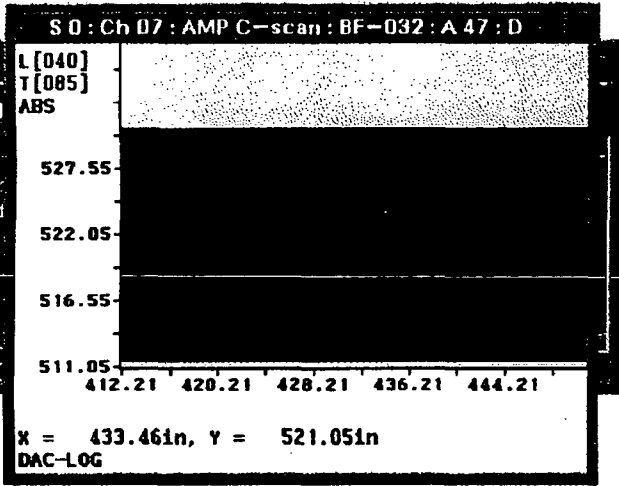
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R1153

S 0 : Scale

32.3
36.6
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45.3
49.7
54.0
58.4
62.7
67.1
71.4
75.0
80.1

100%
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20%

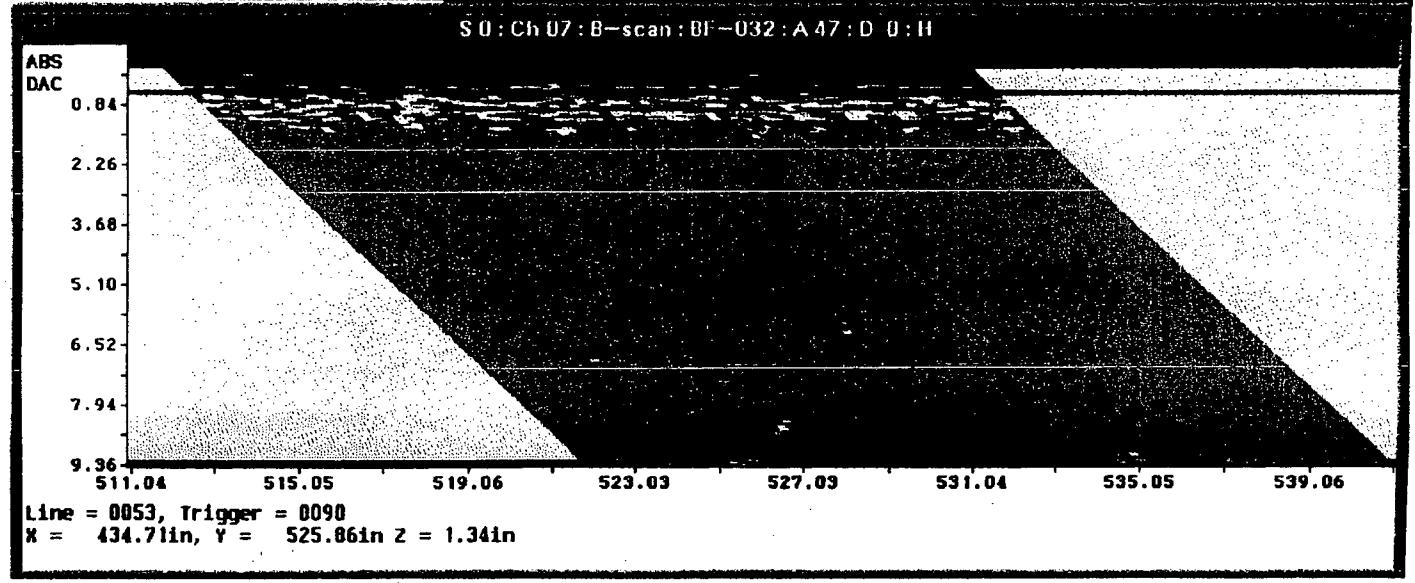
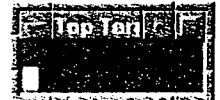
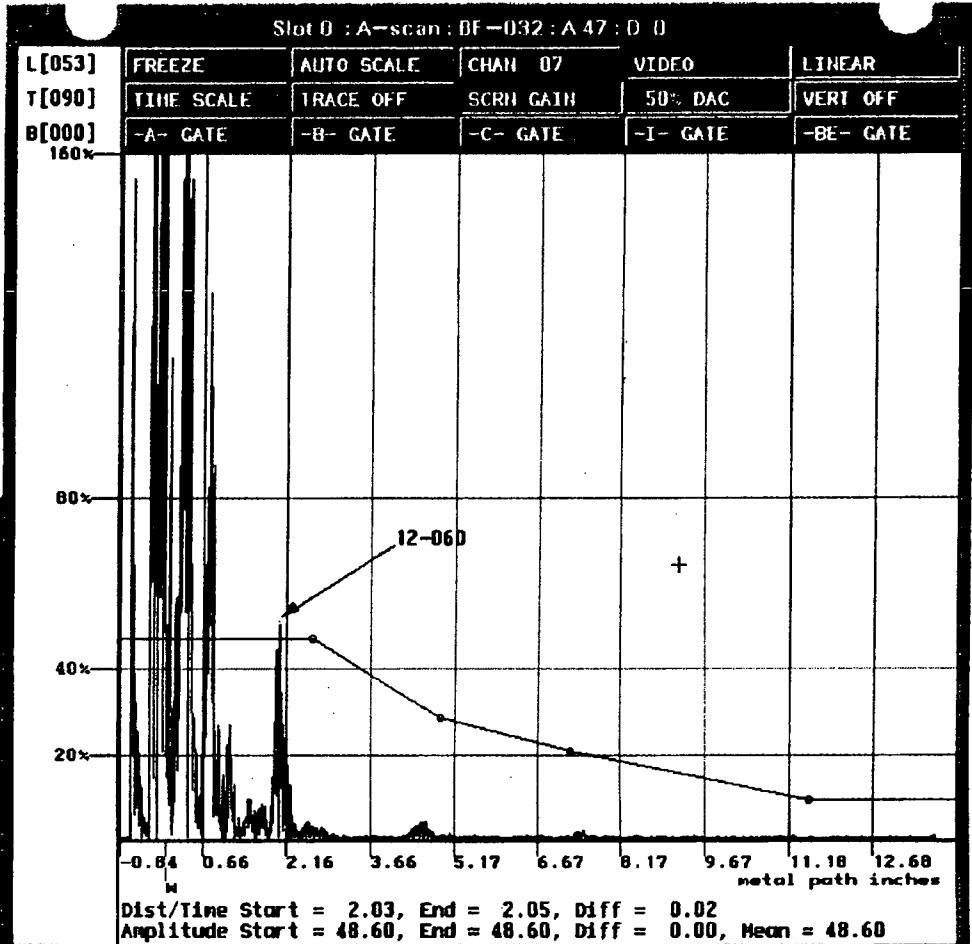
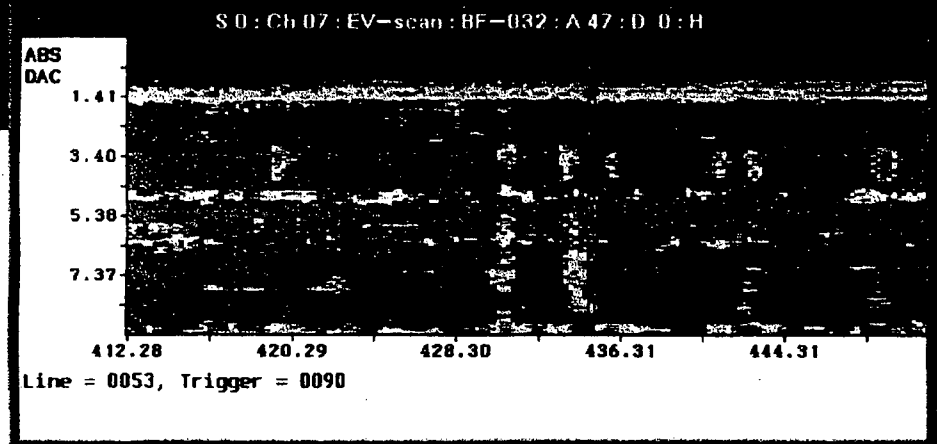
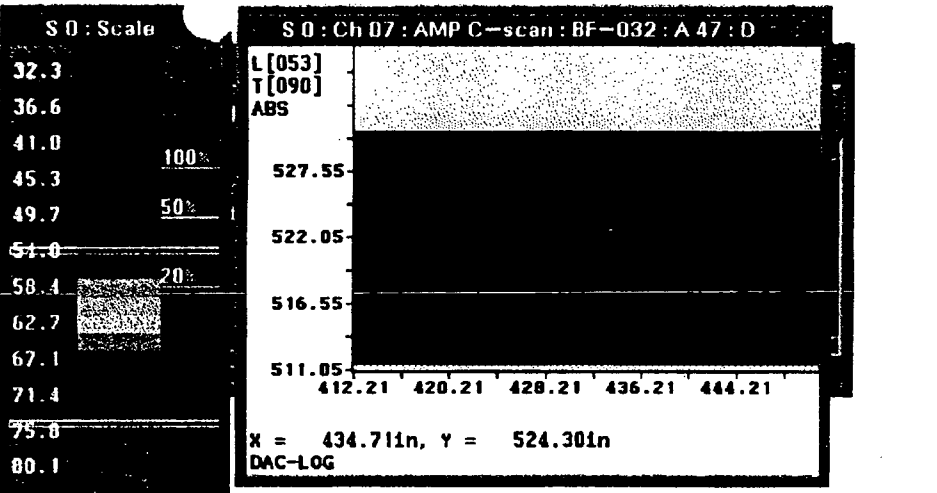


Top Ten

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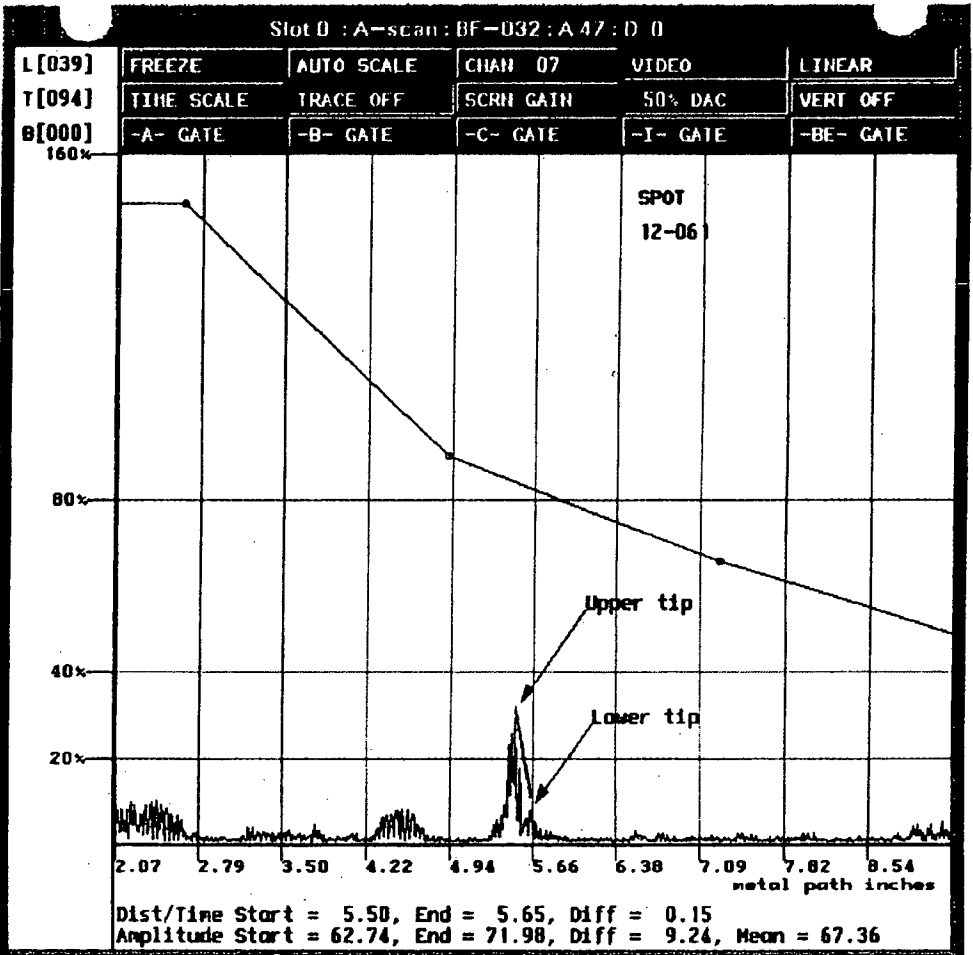
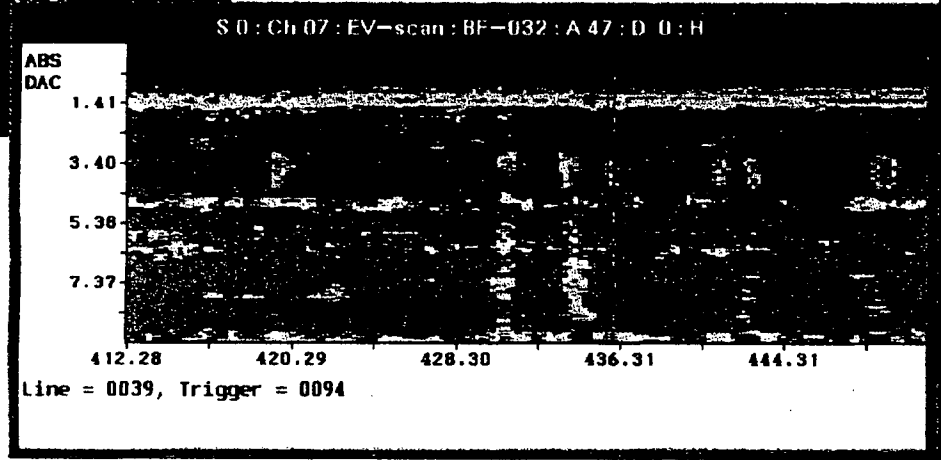
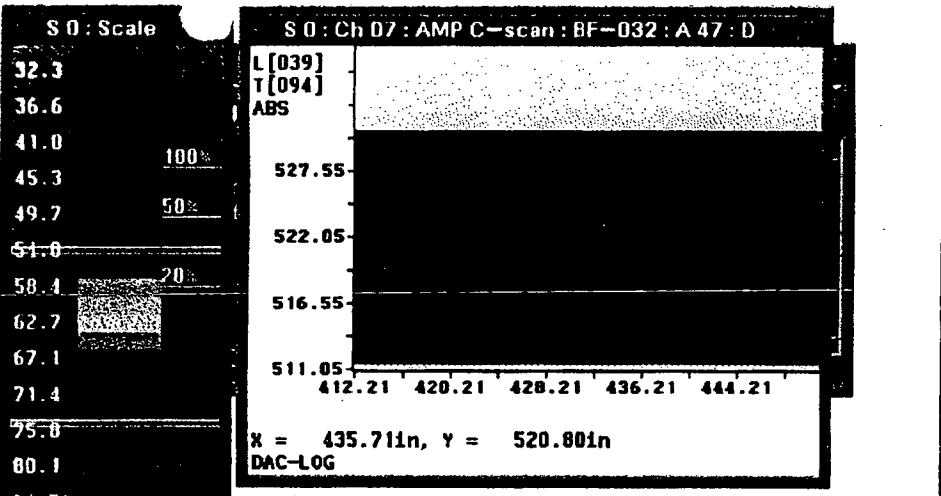


21153

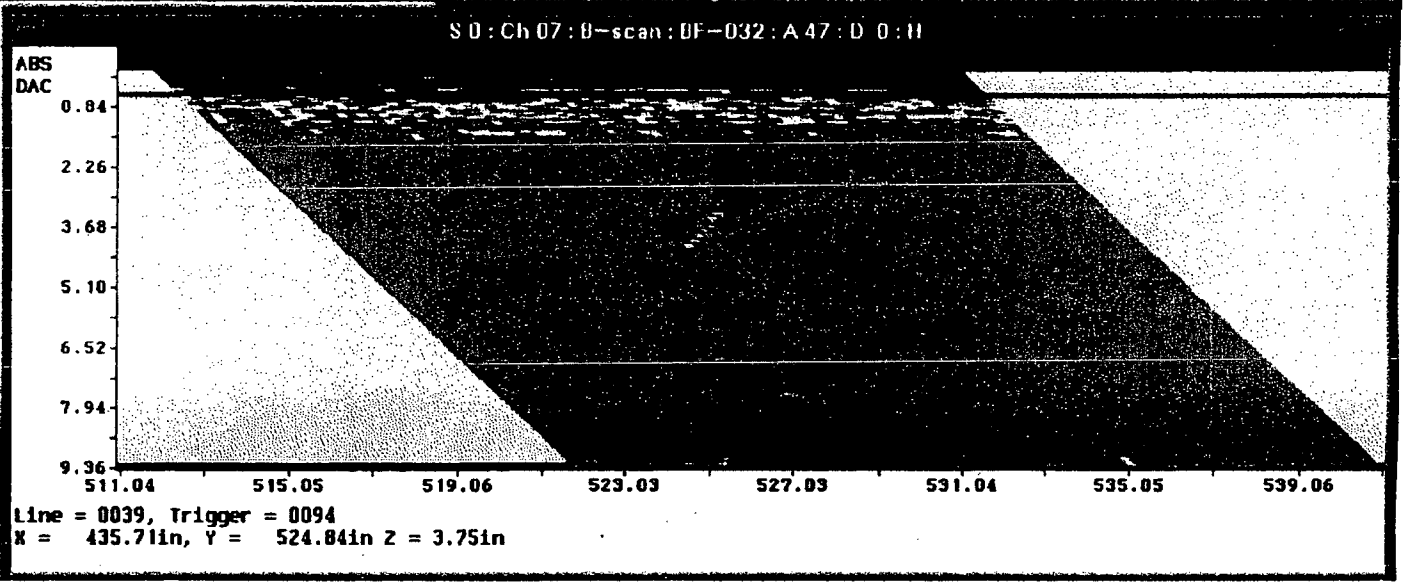


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R1153

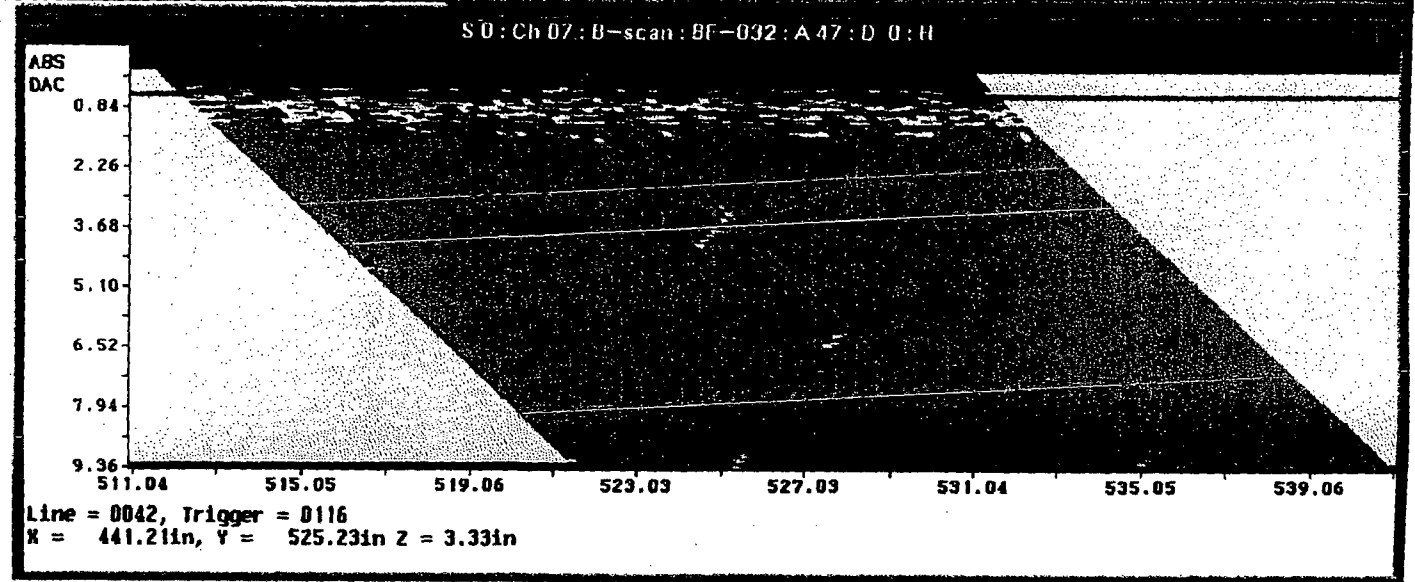
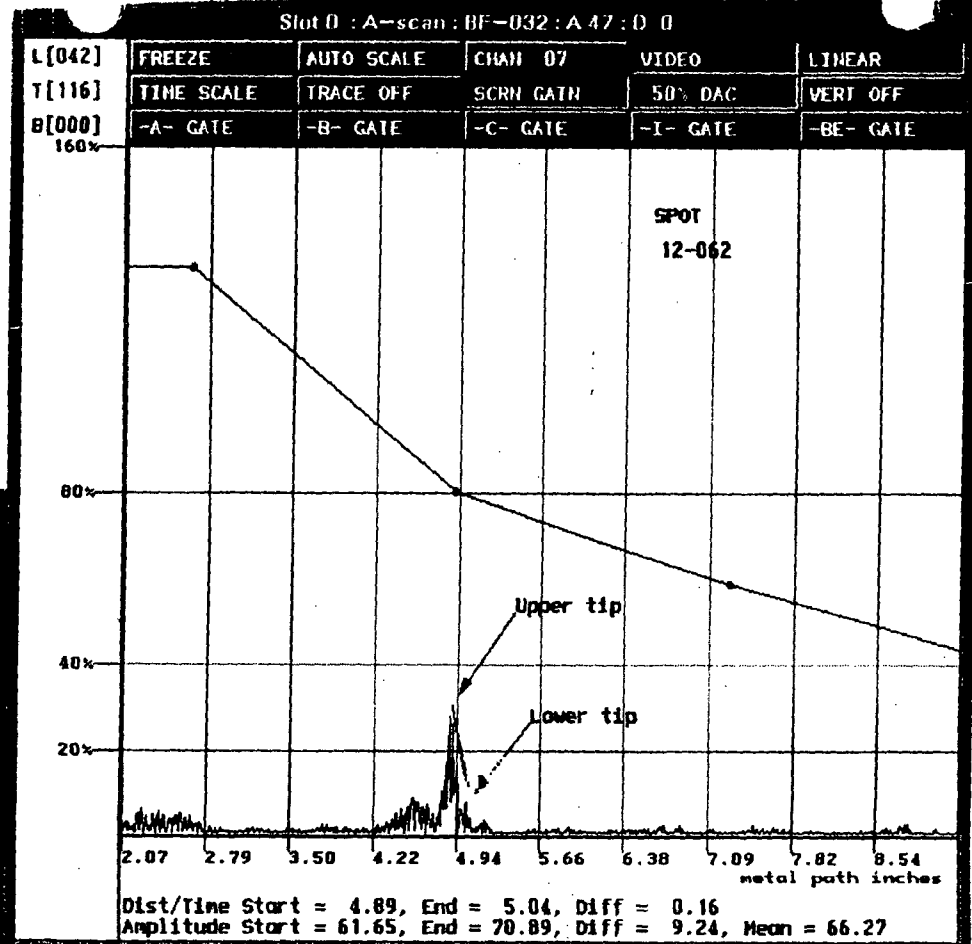
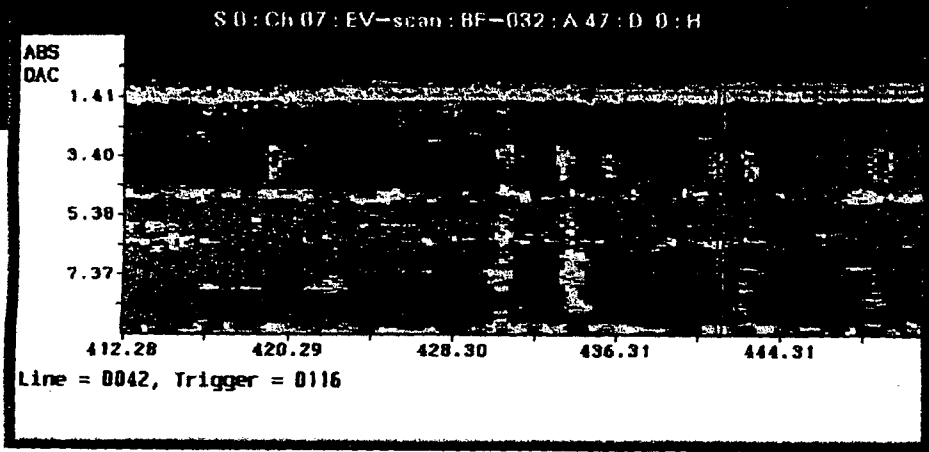
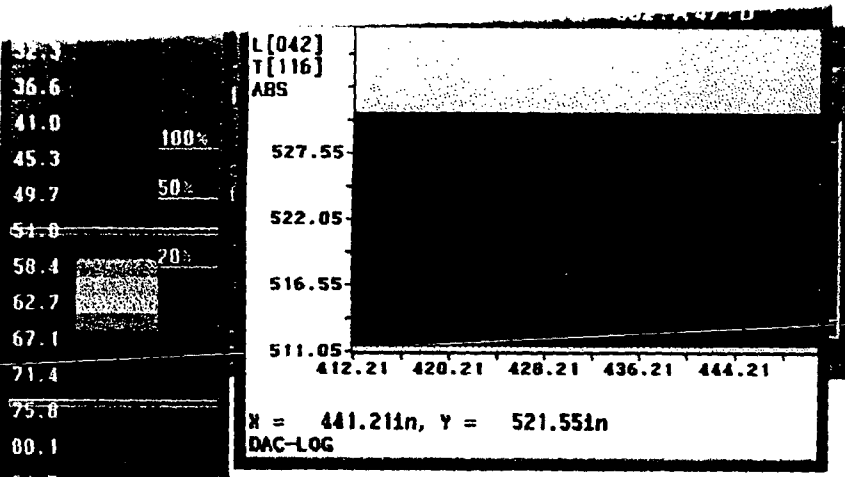


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R1153



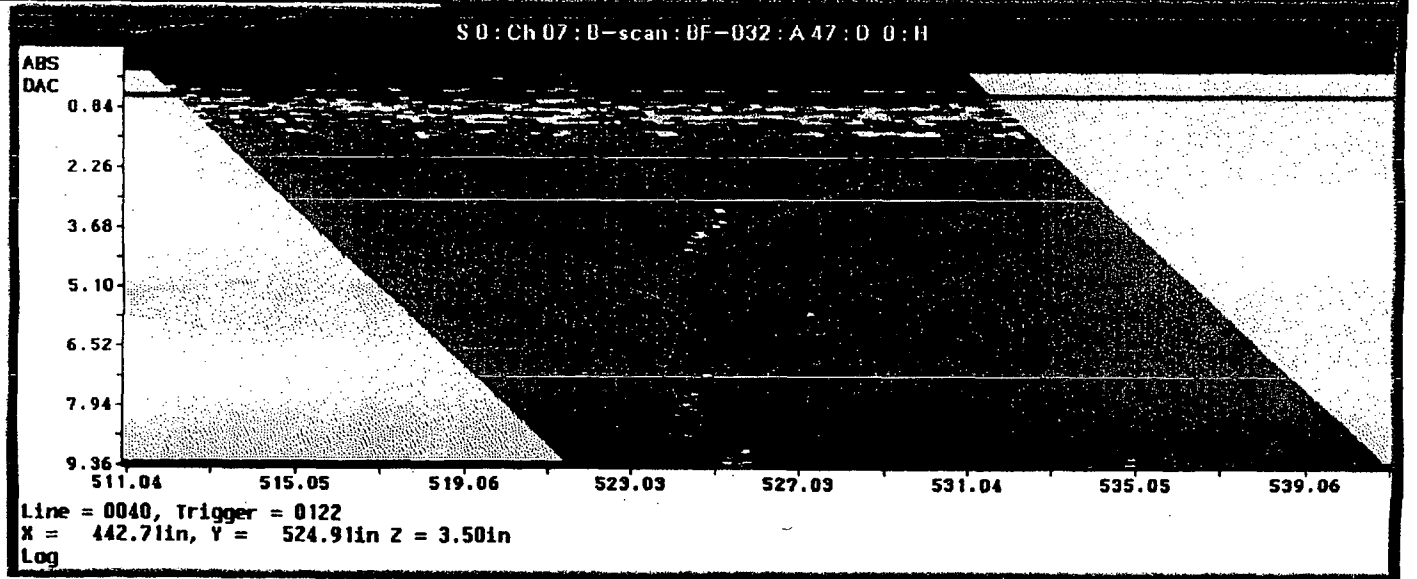
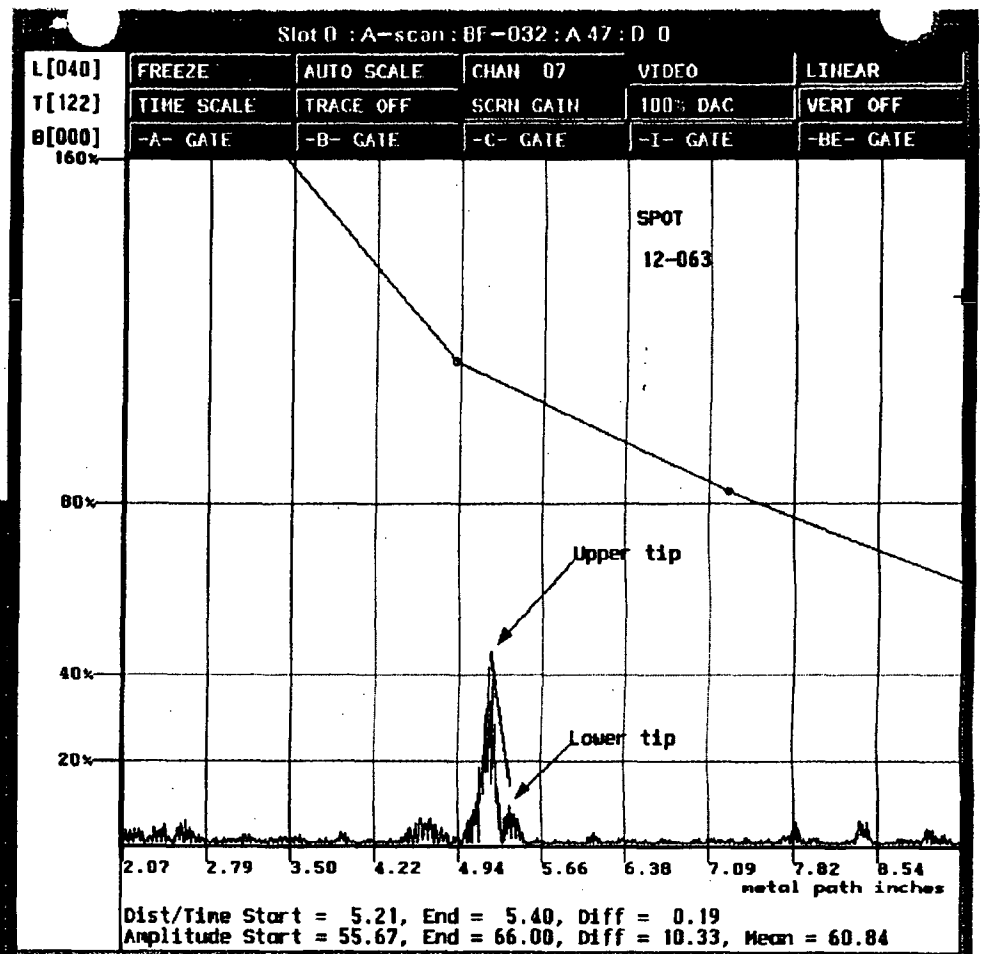
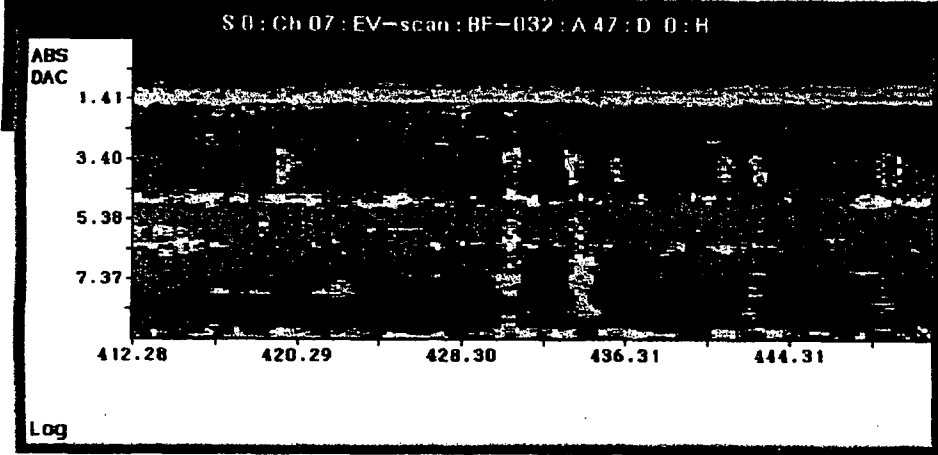
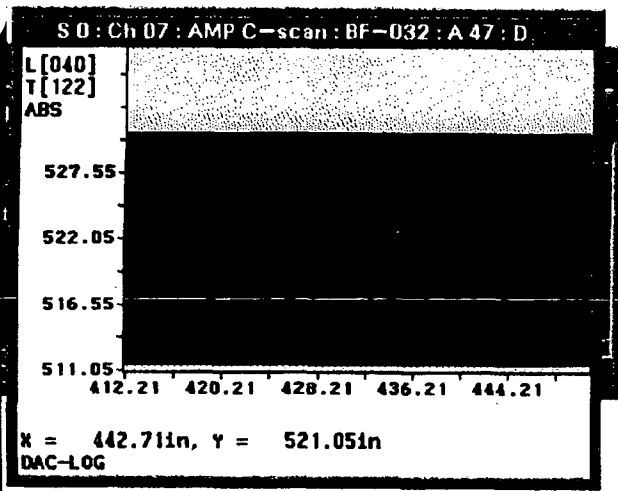
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R1153

S 0 : Scale

32.3
36.6
41.0
45.3
49.7
51.0
58.4
62.7
67.1
71.4
75.0
80.1

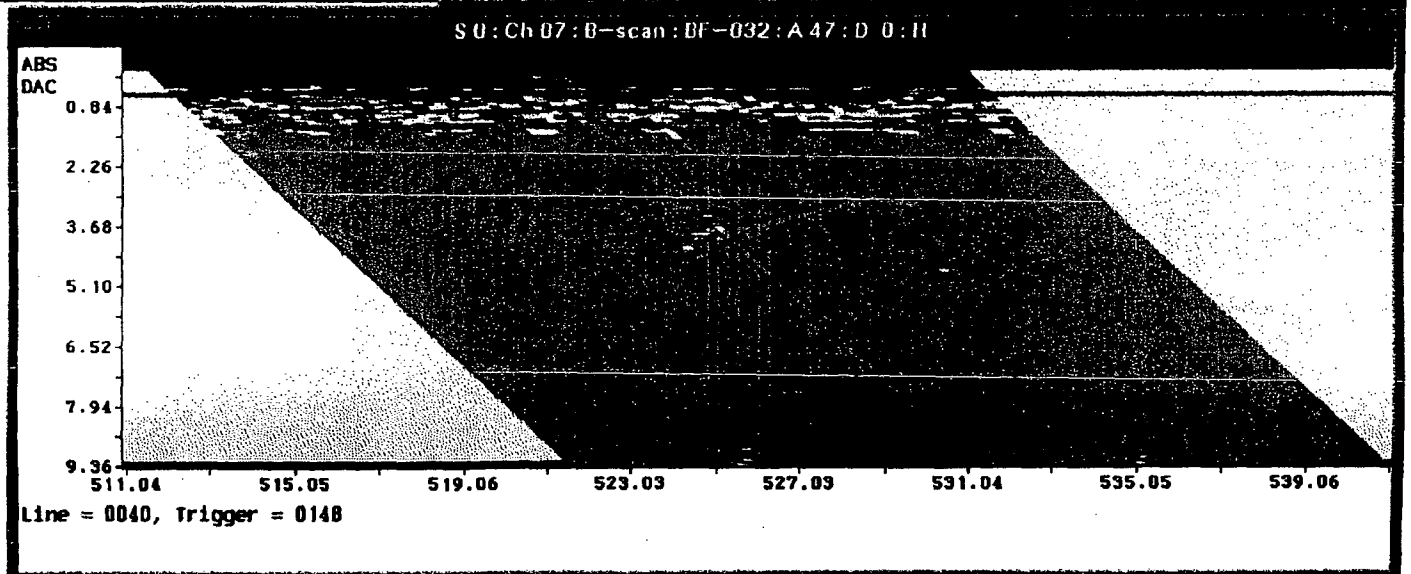
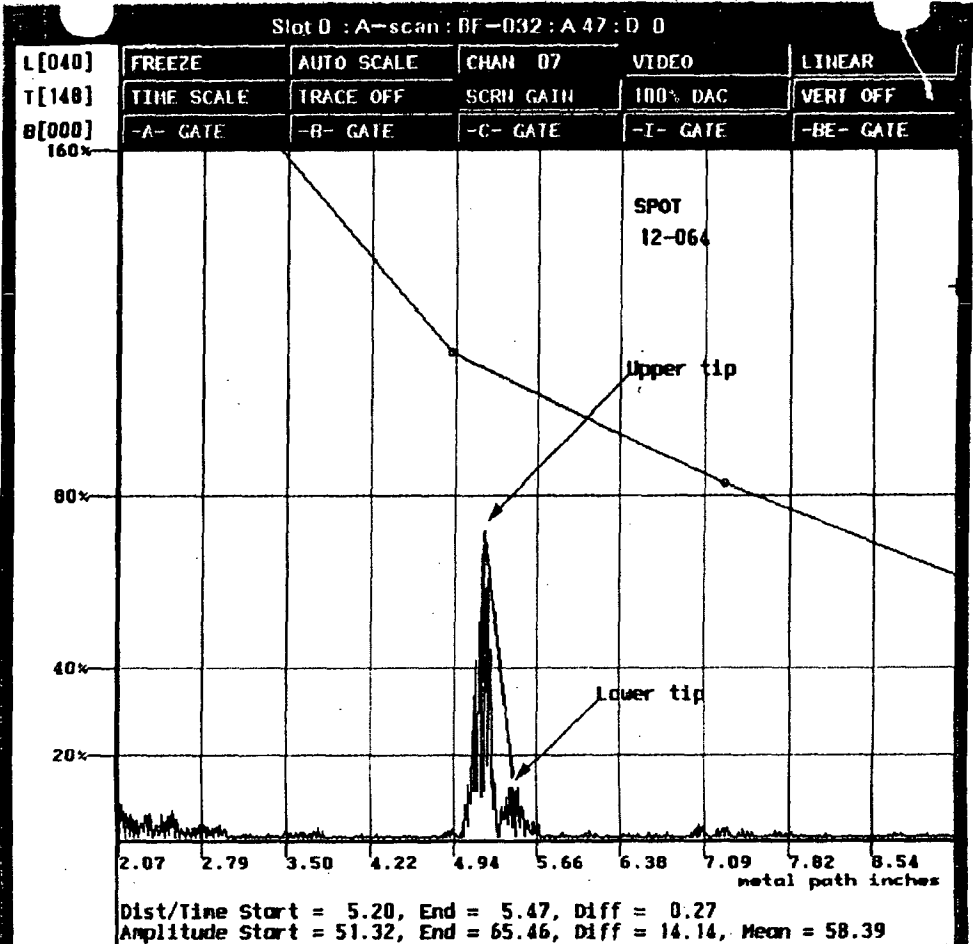
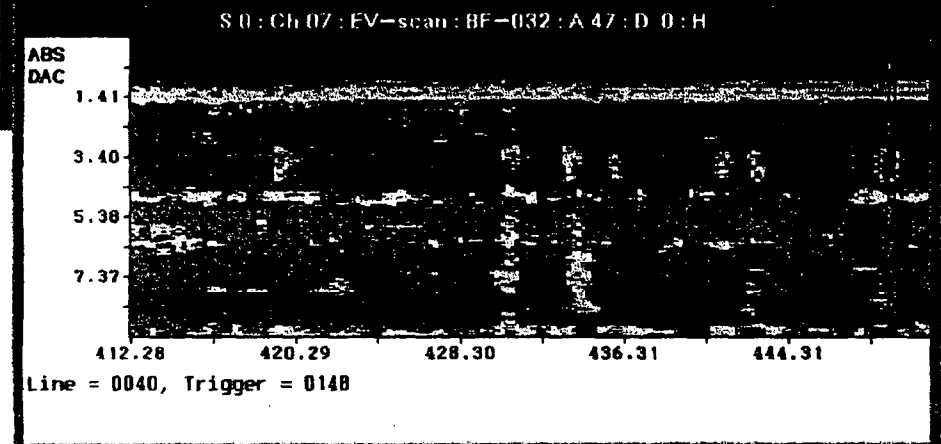
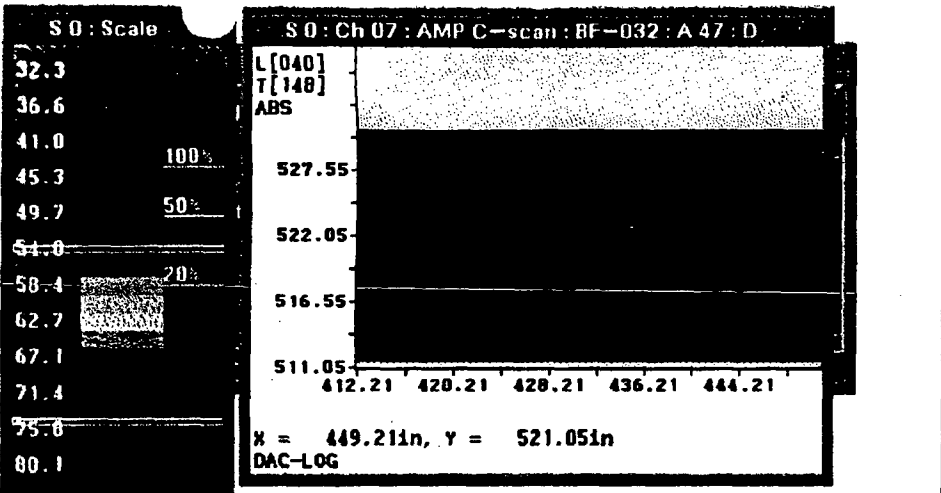
100
50
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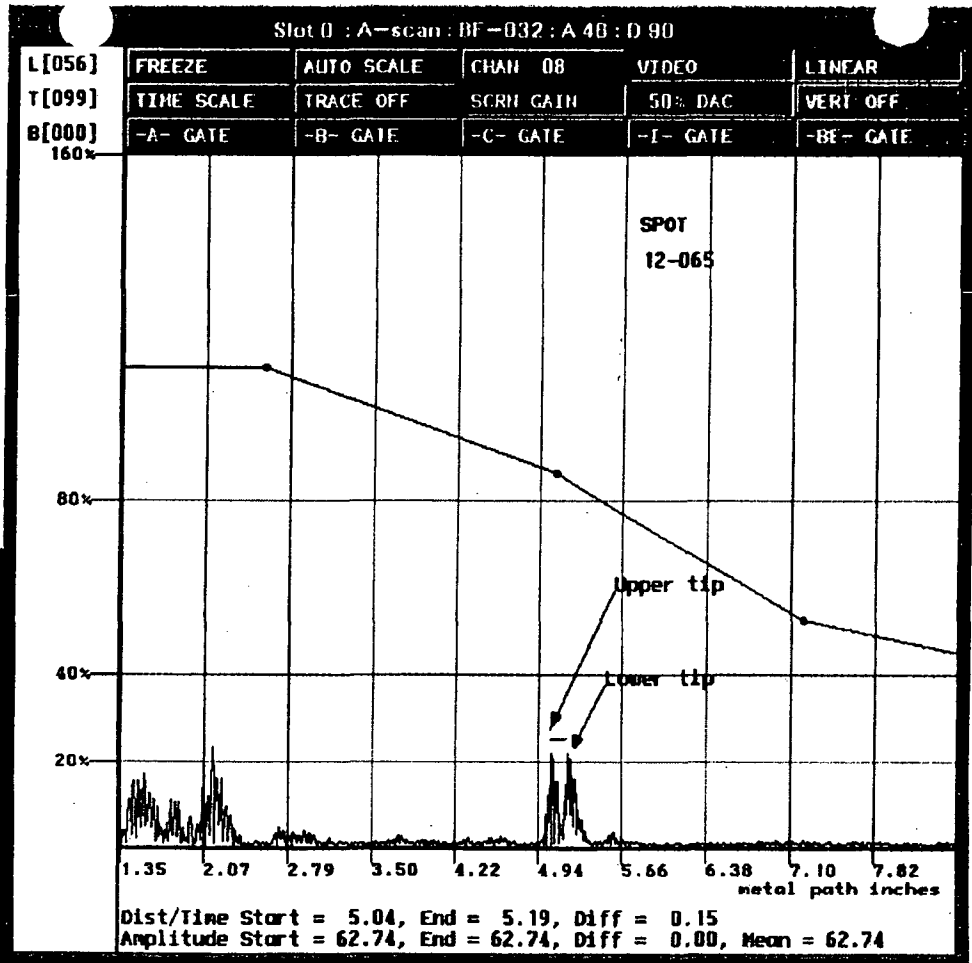
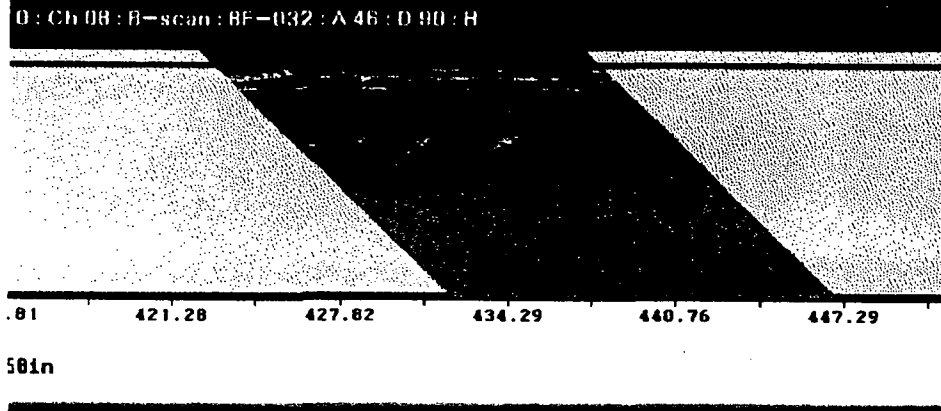
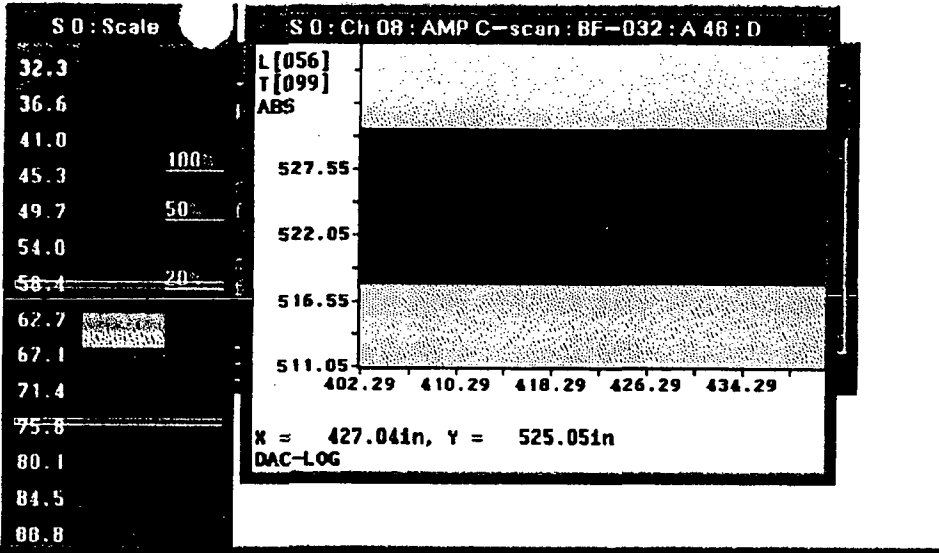
part 8 1170



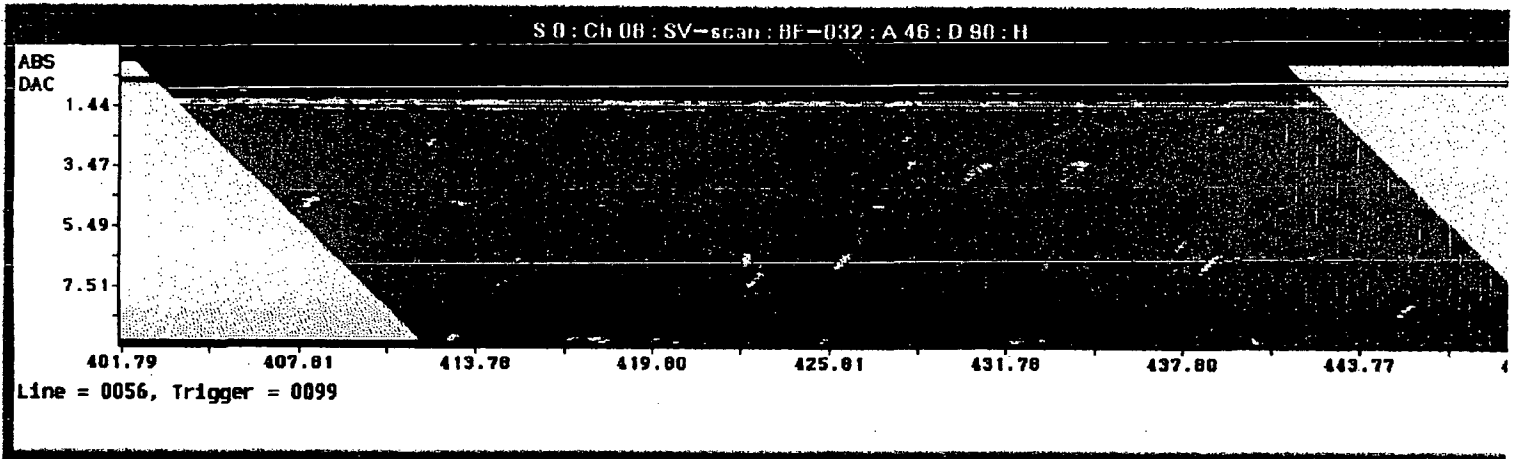
R1153



R 1153

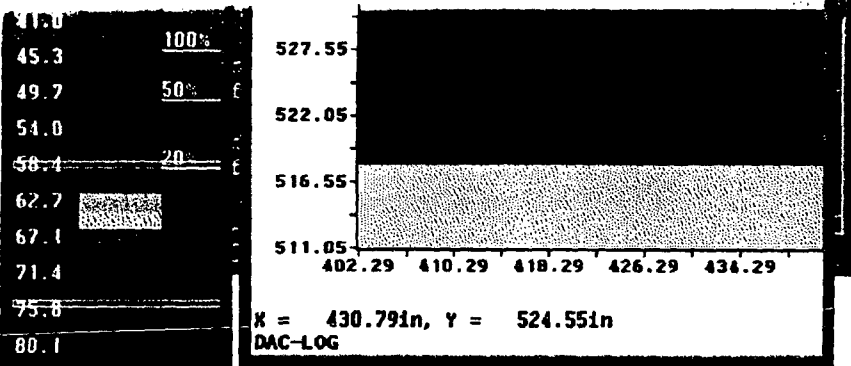


Top Ten

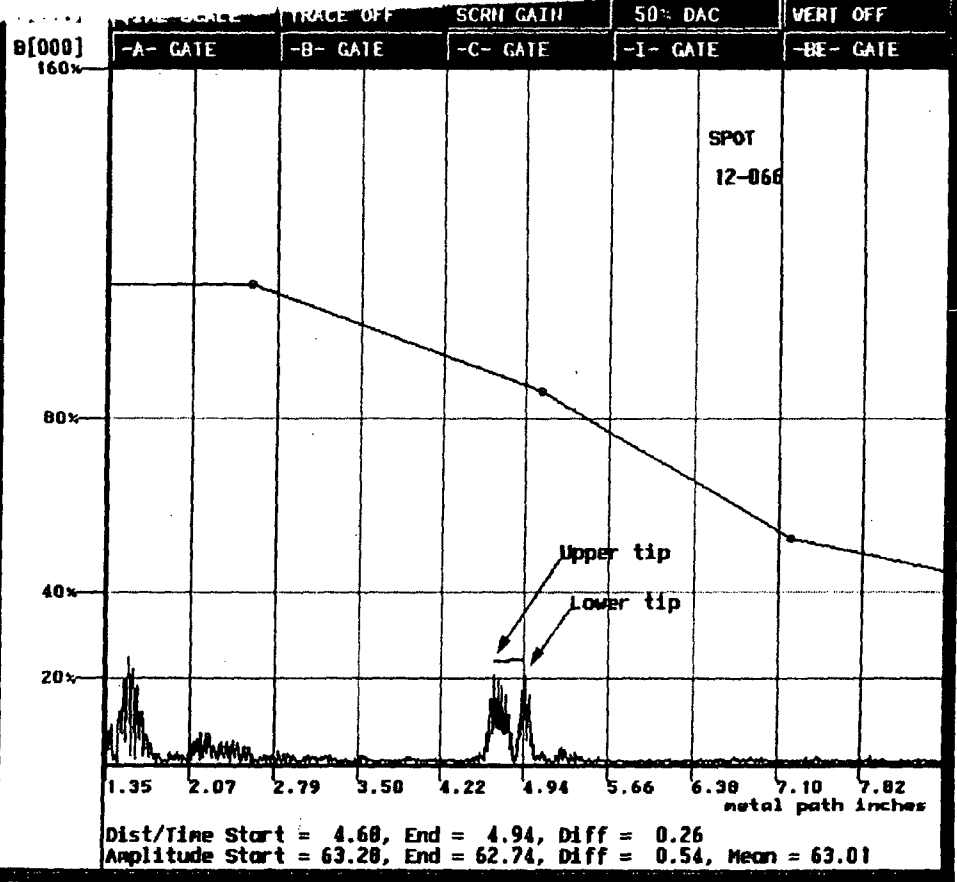
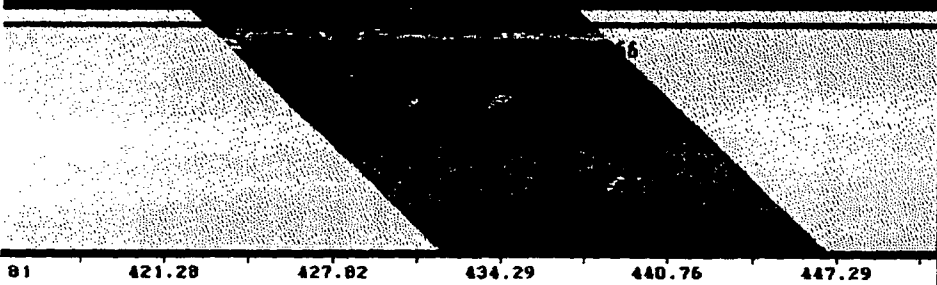


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R1153

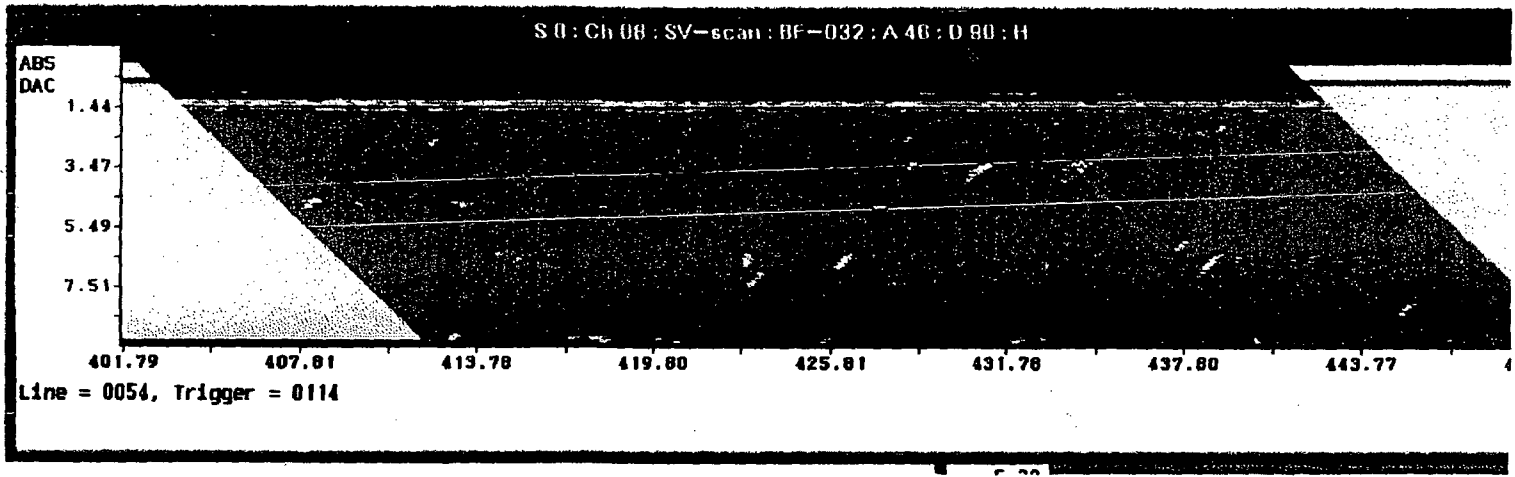


U : Ch 08 : B-scan : BF-032 : A 46 : D 80 : H

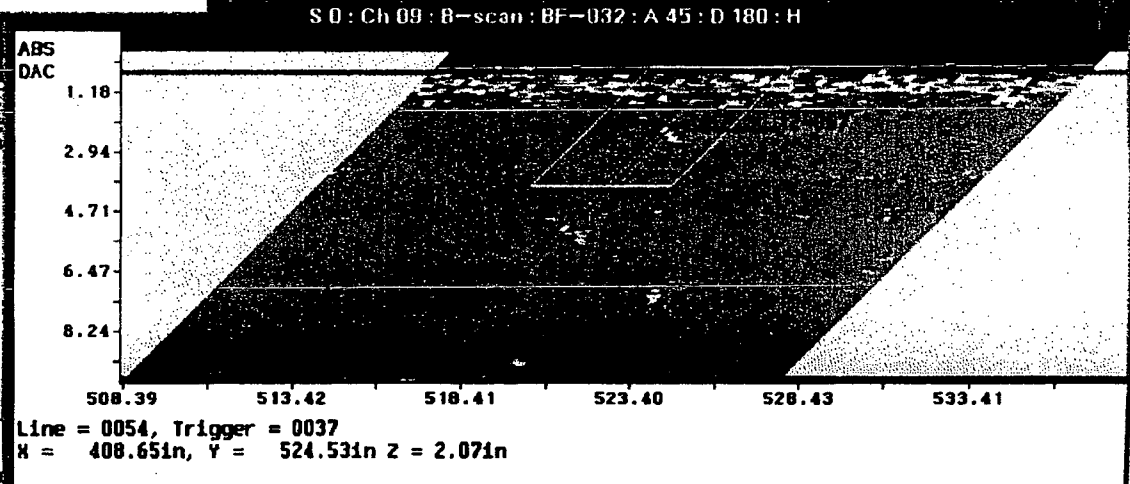
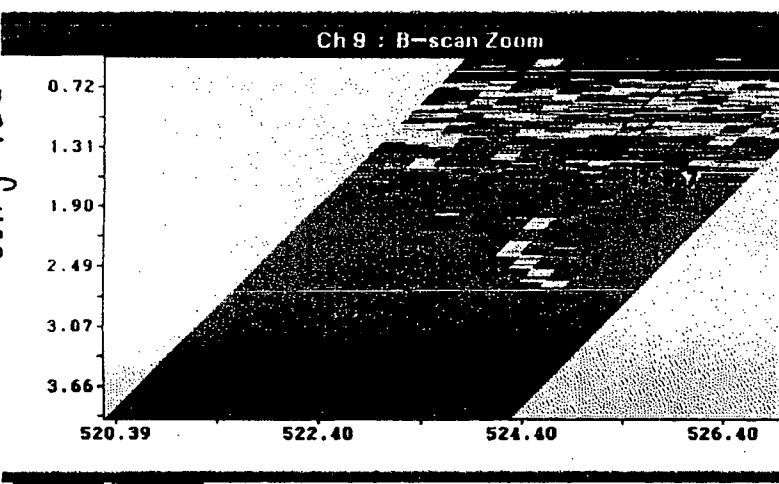
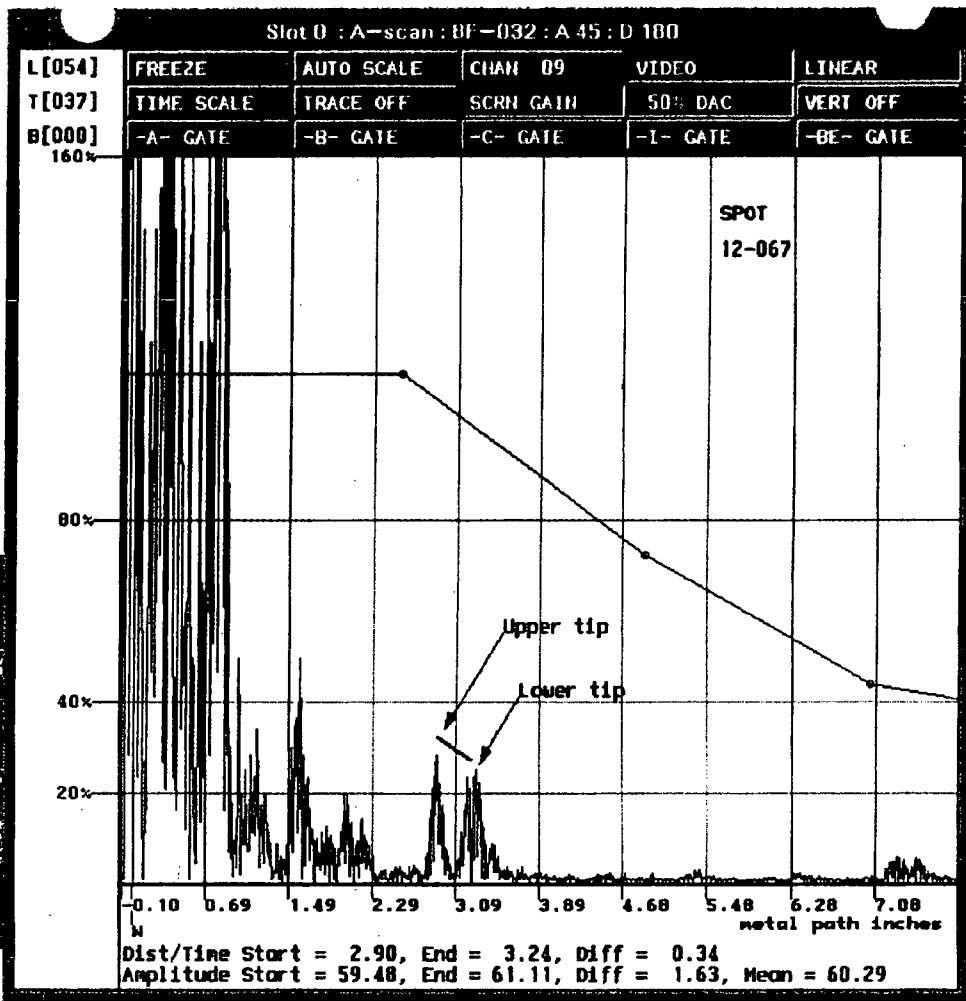
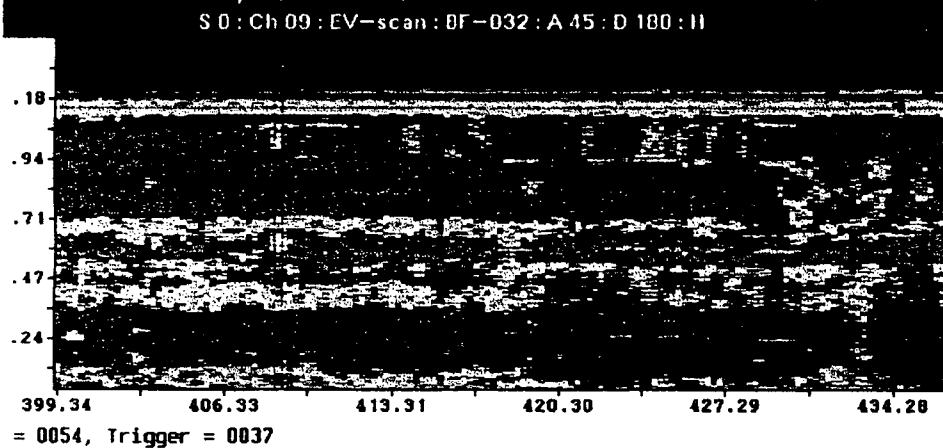
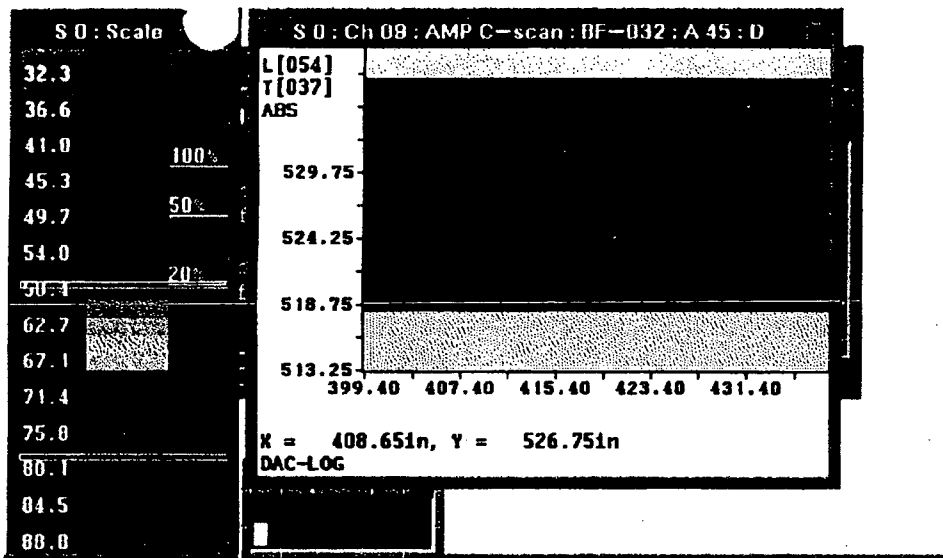


Top Ten

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R1153

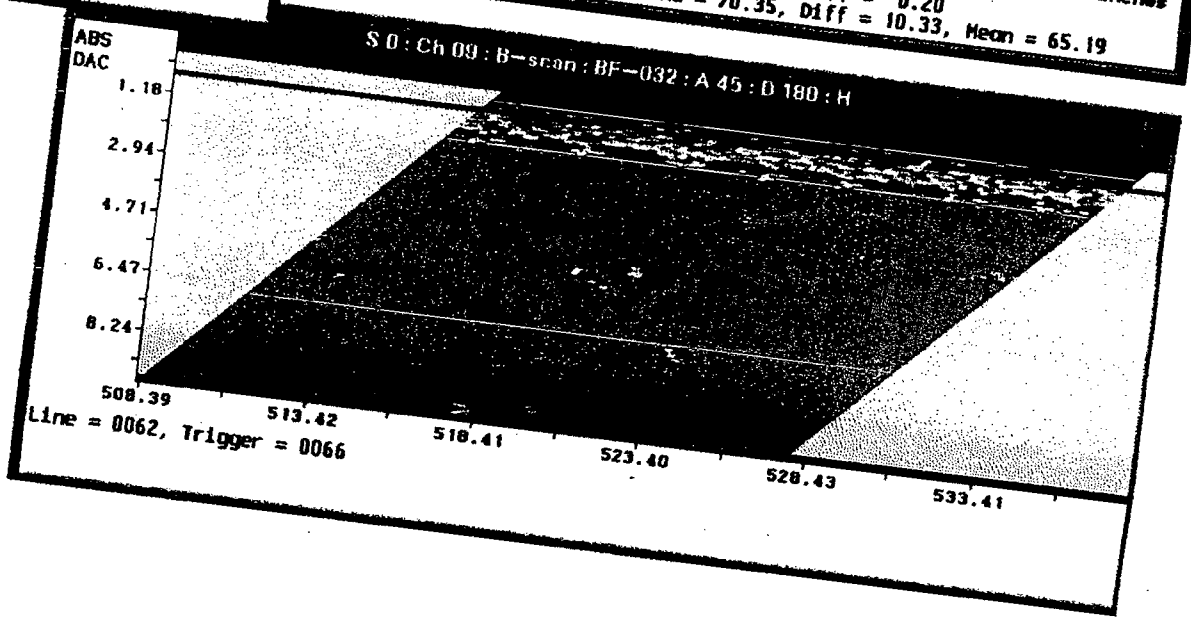
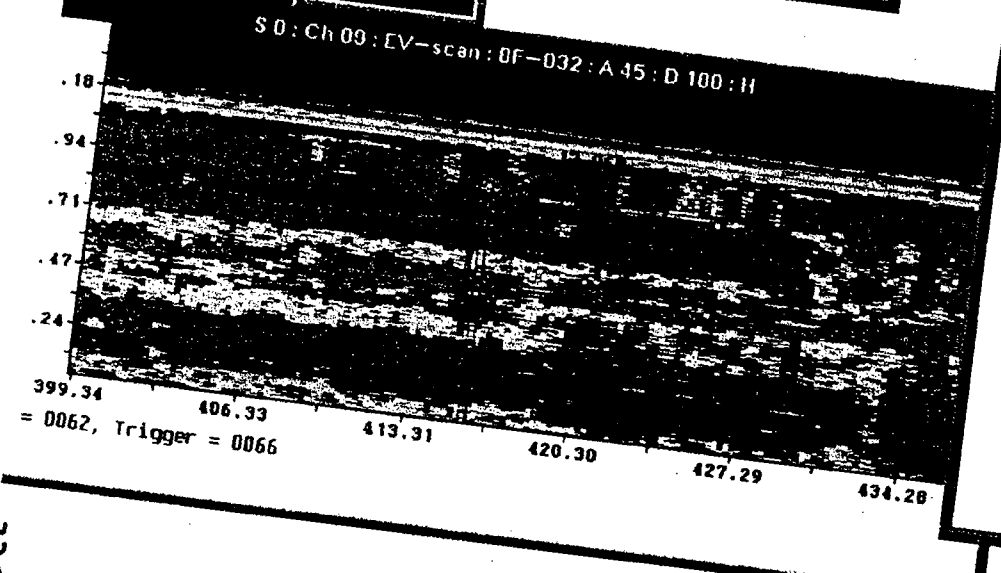
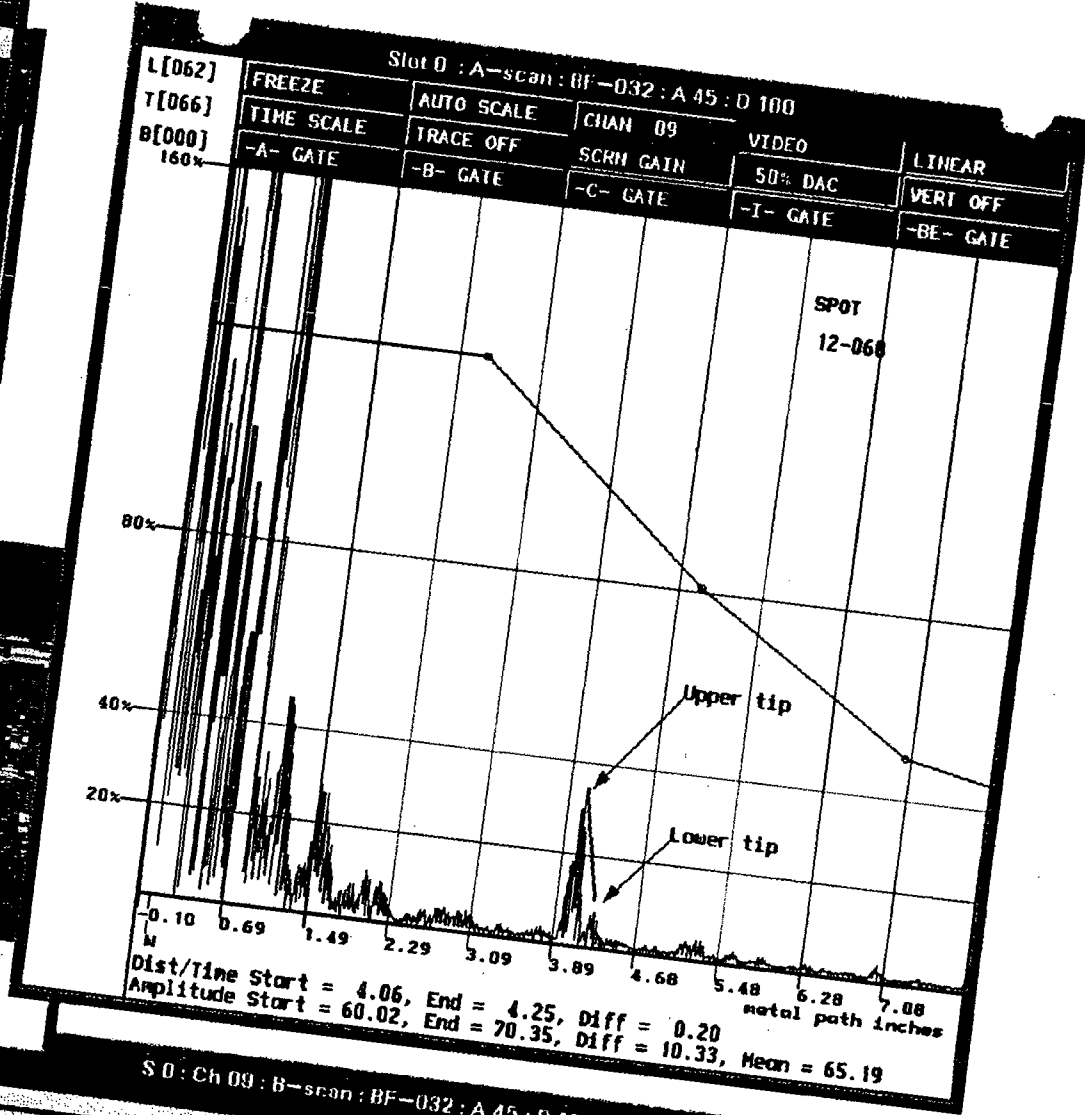
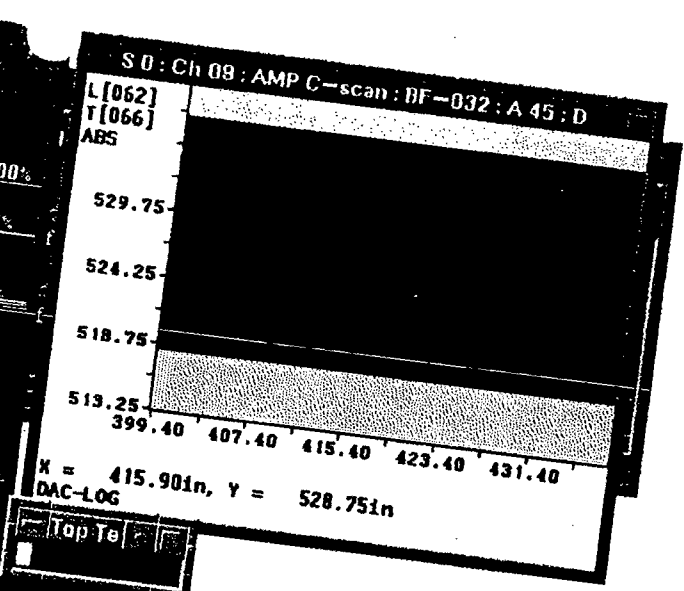


S 0 : Scale

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

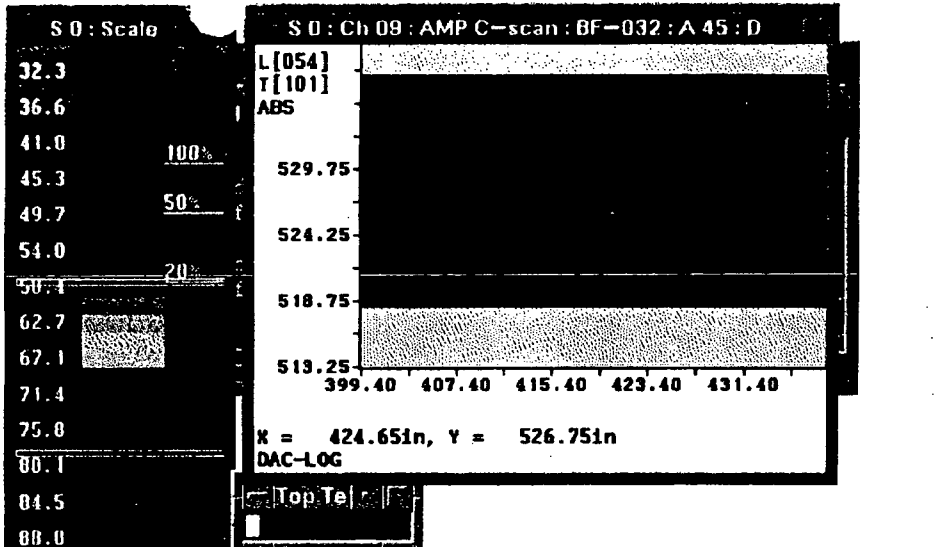
100%
50%
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Top To

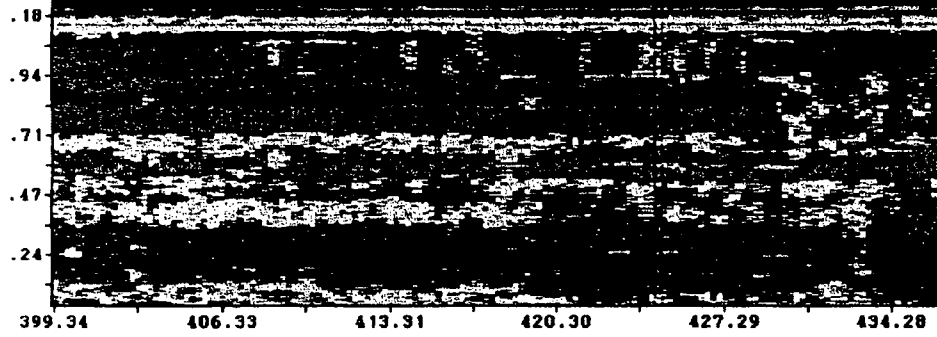


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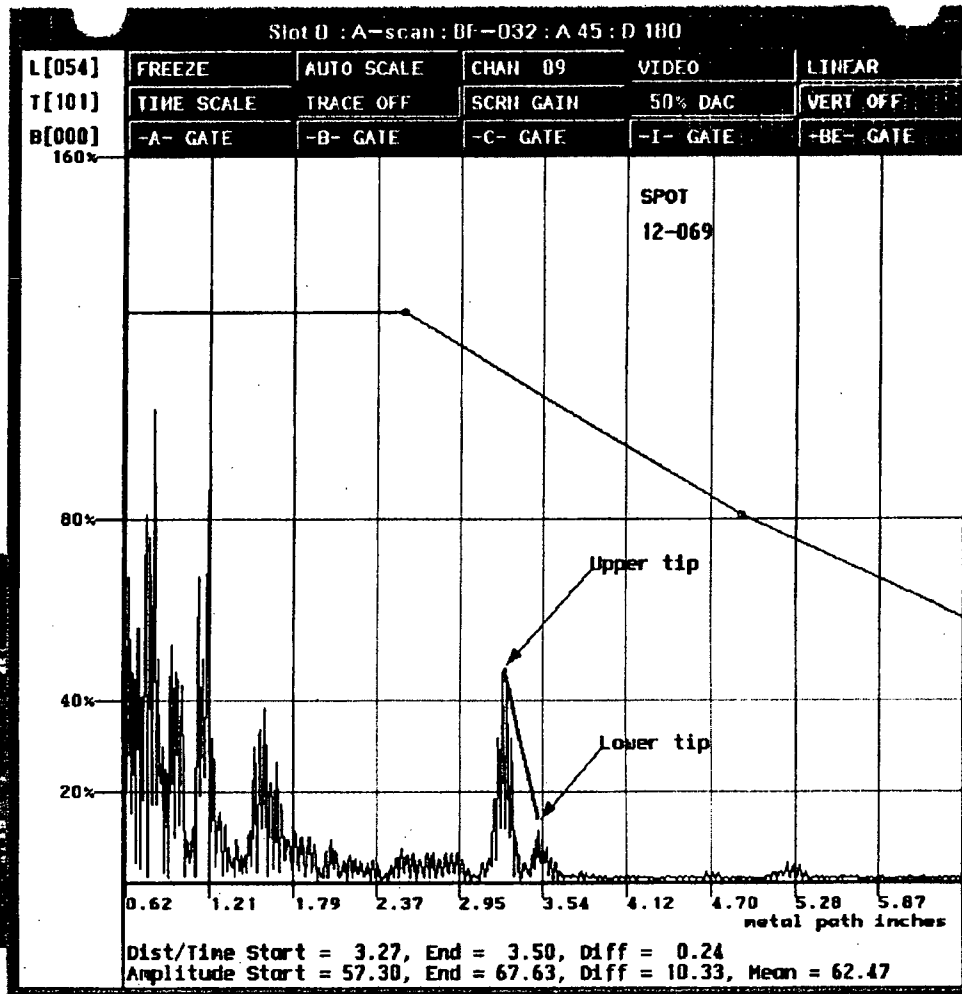
R1153



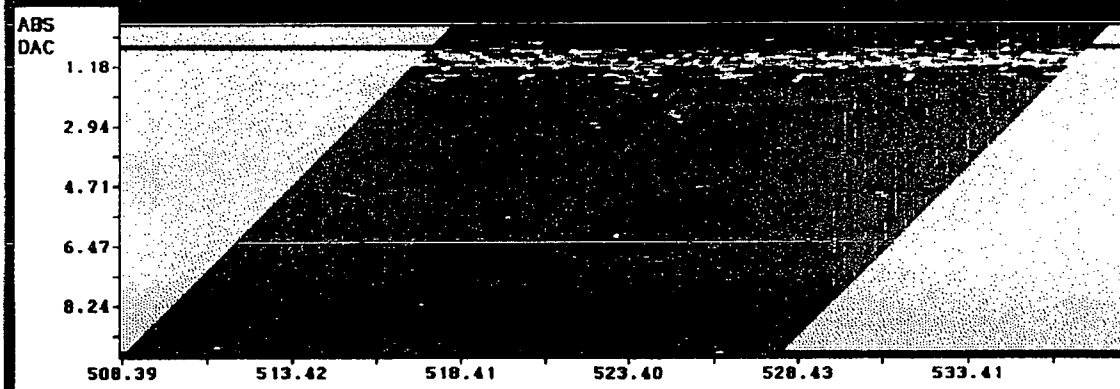
S 0 : Ch 09 : EV-scan : BF-032 : A 45 : D 180 : H



= 0054, Trigger = 0101



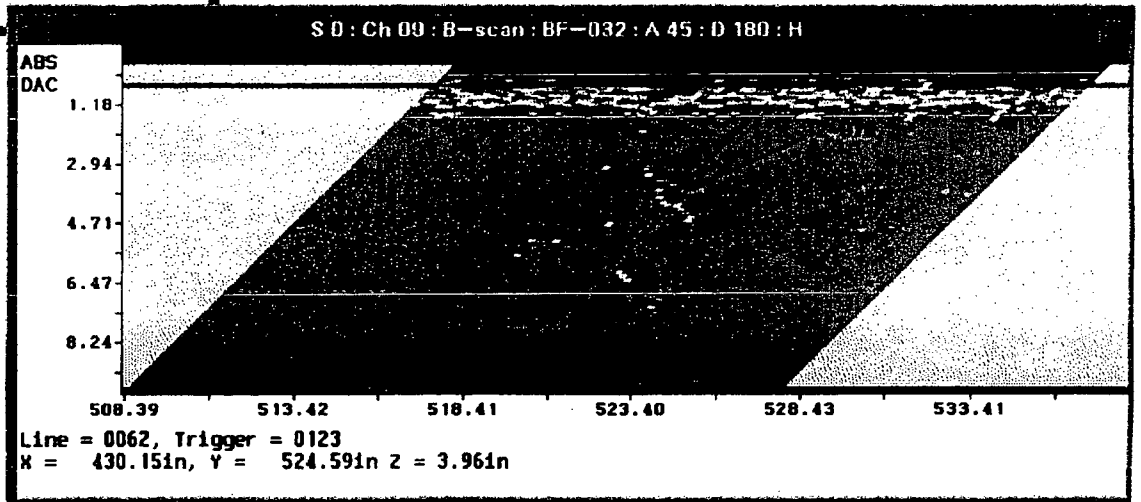
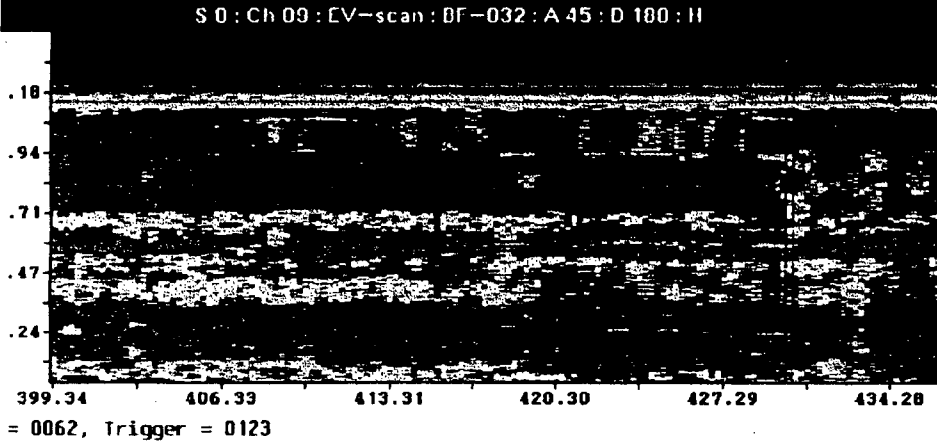
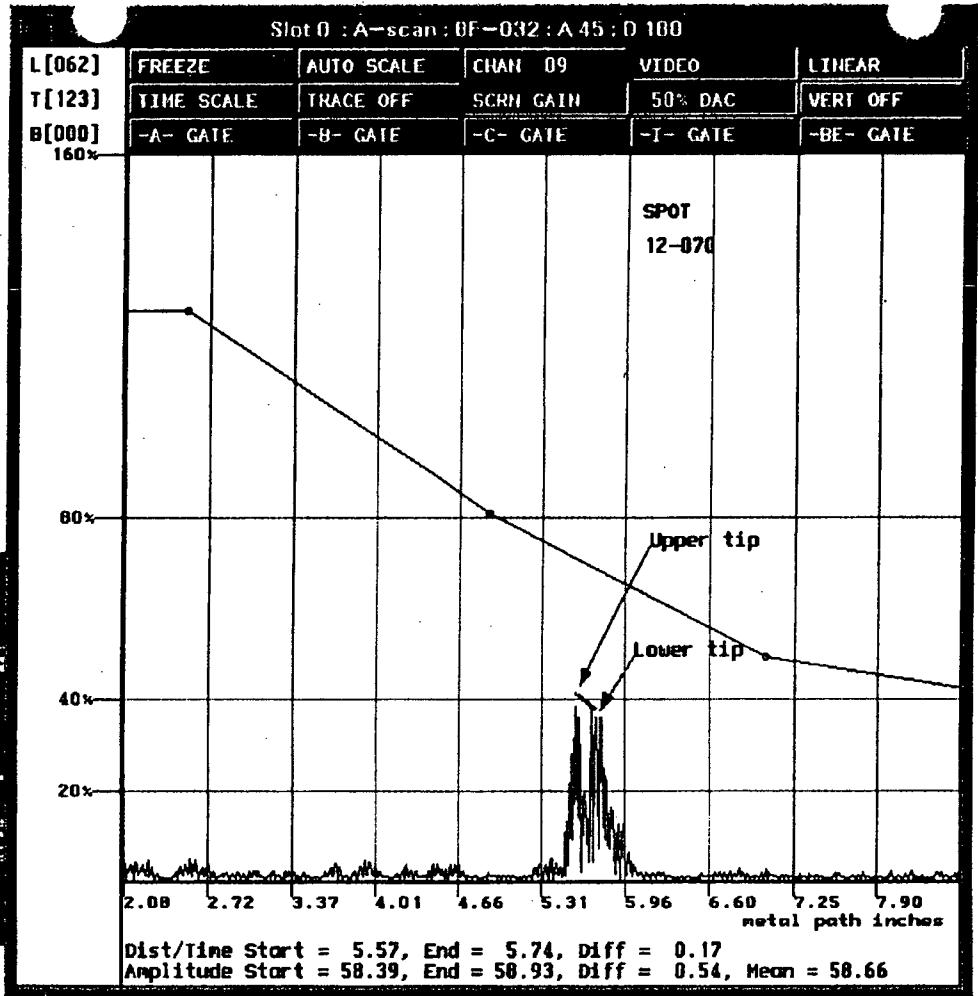
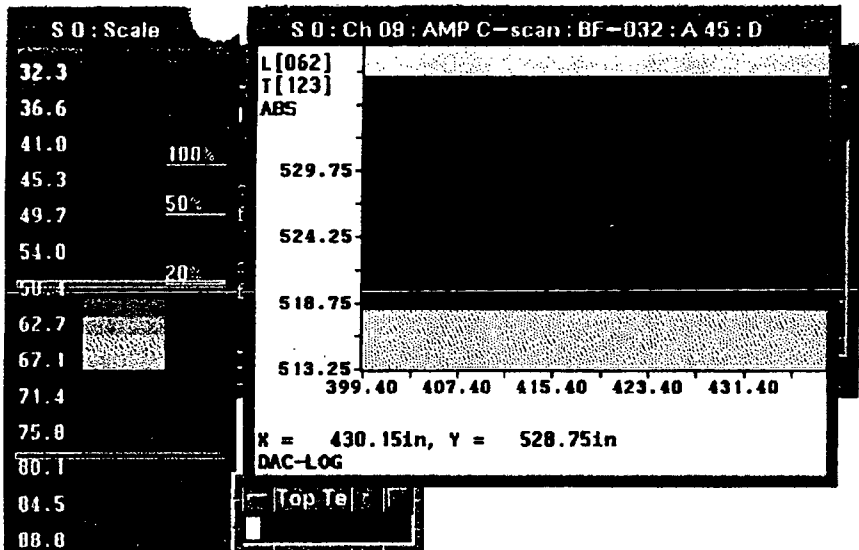
S 0 : Ch 09 : B-scan : BF-032 : A 45 : D 180 : H



Line = 0054, Trigger = 0101

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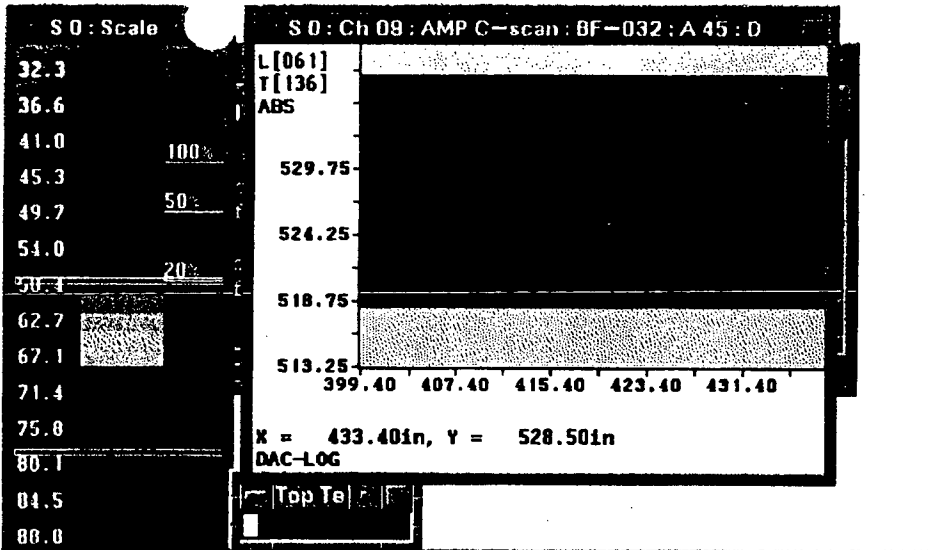
R1153



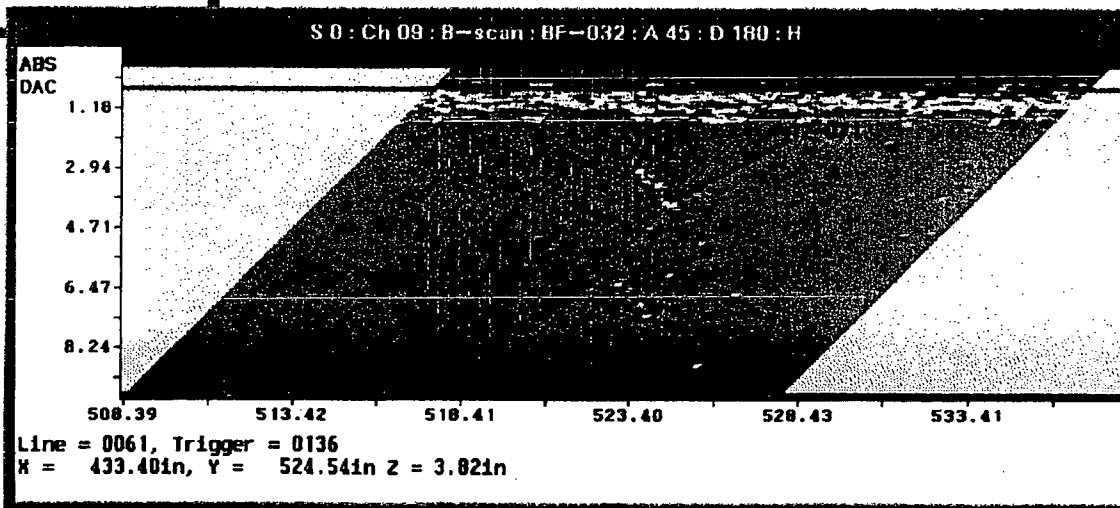
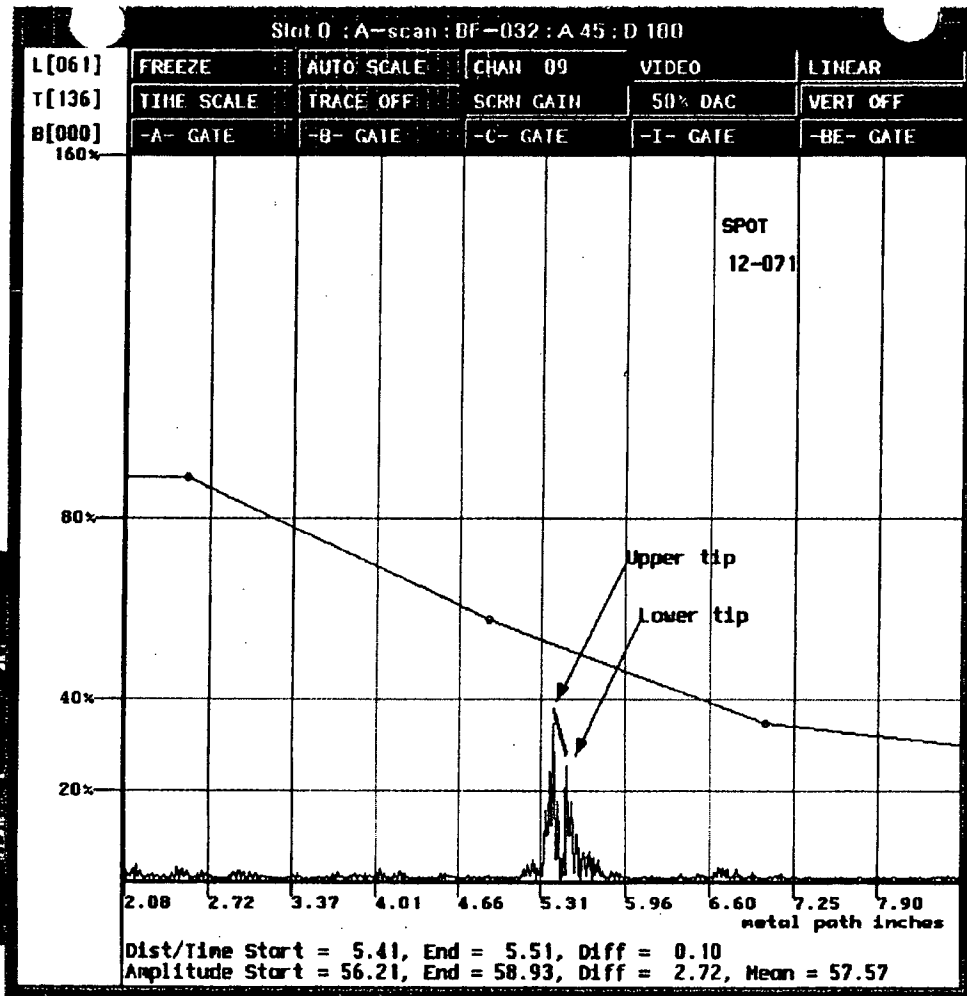
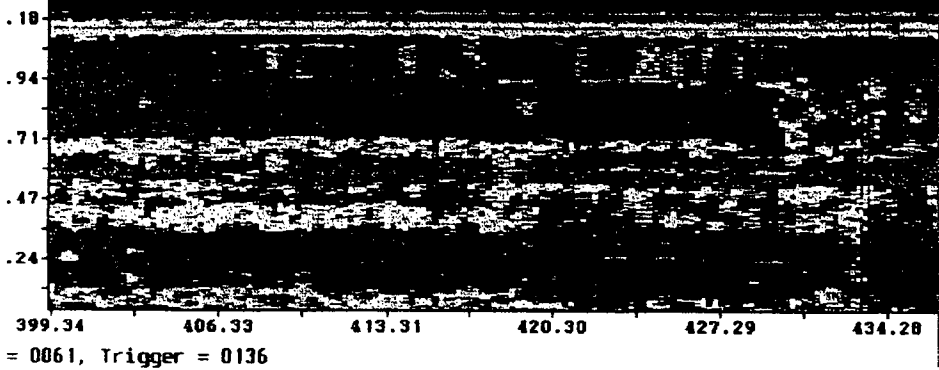
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R1153



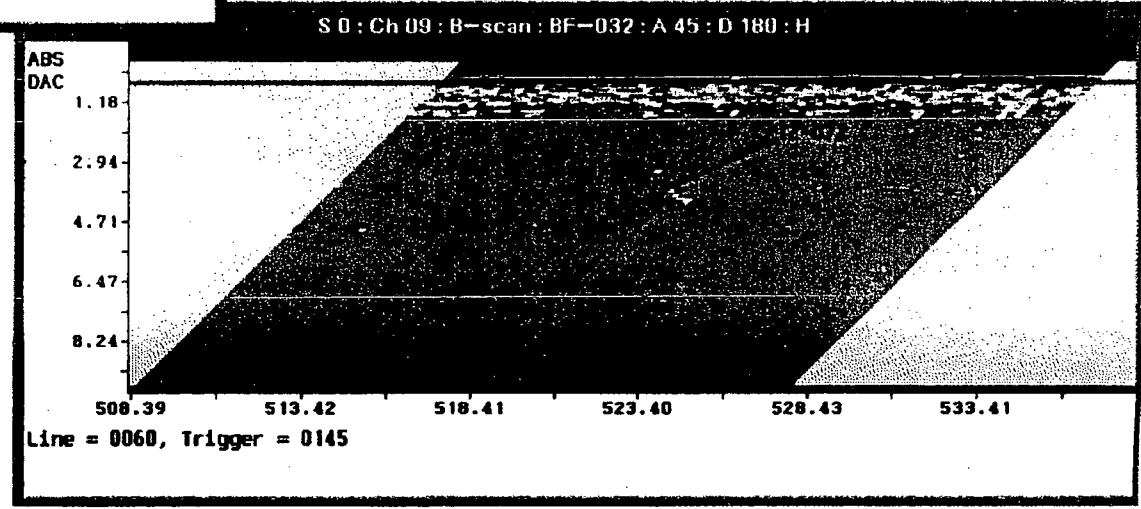
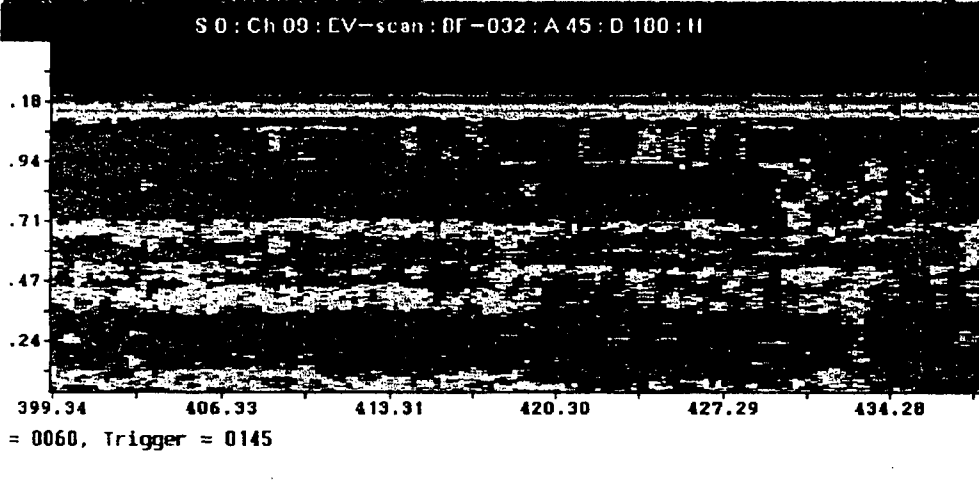
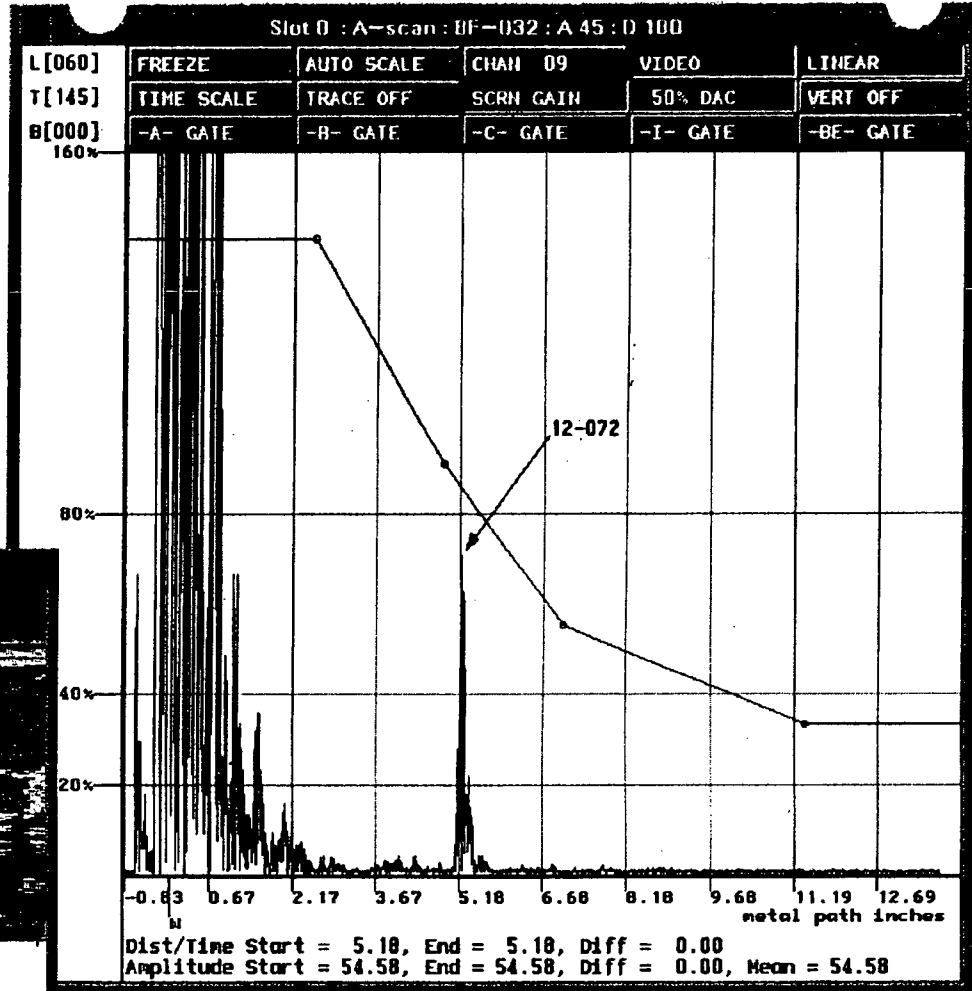
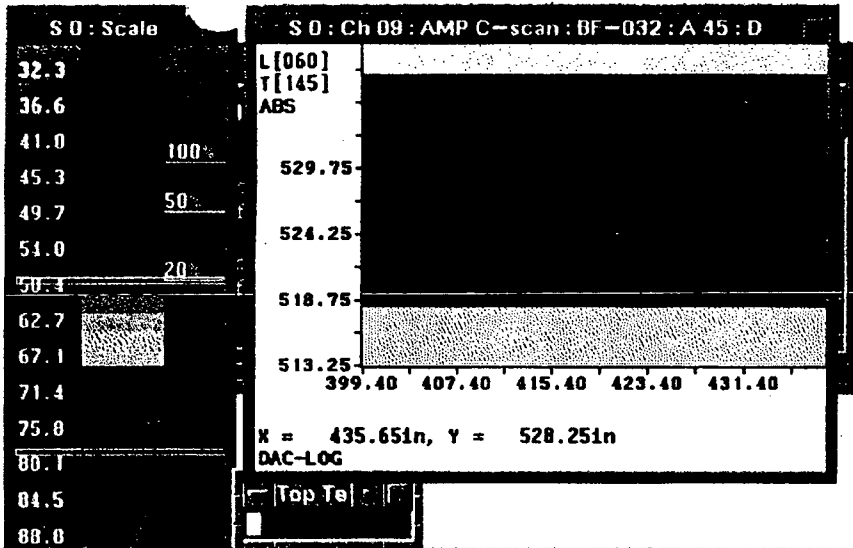


S 0 : Ch 09 : CV-scan : BF-032 : A 45 : D 100 : II



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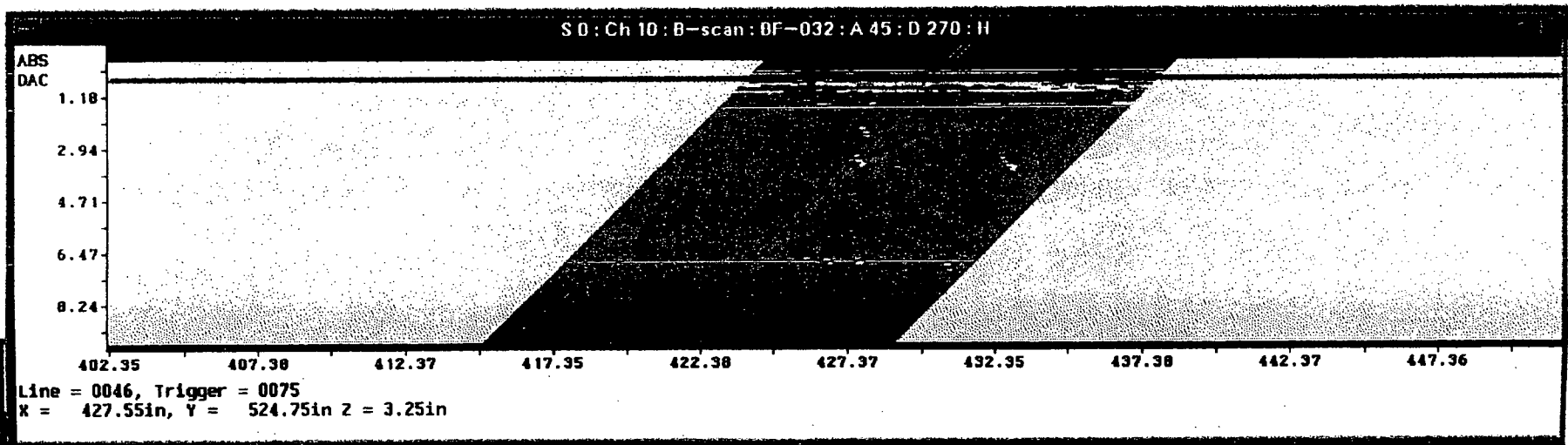
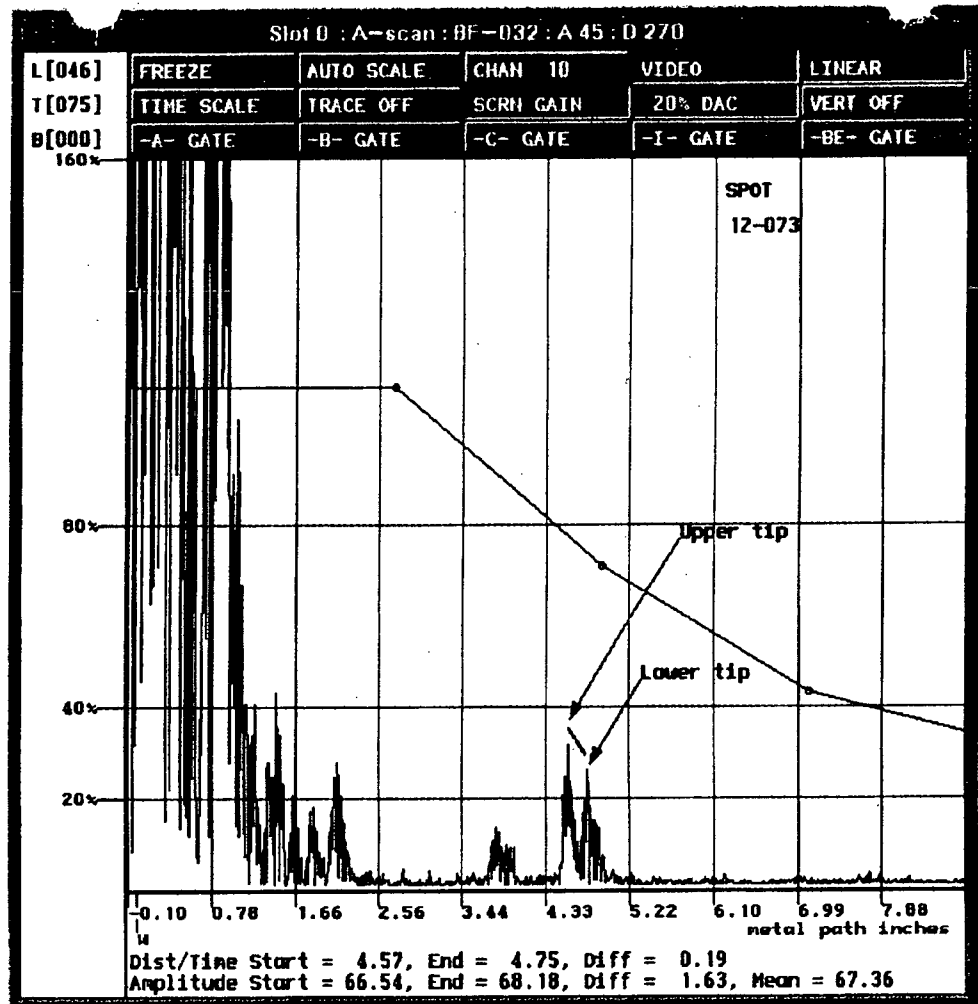
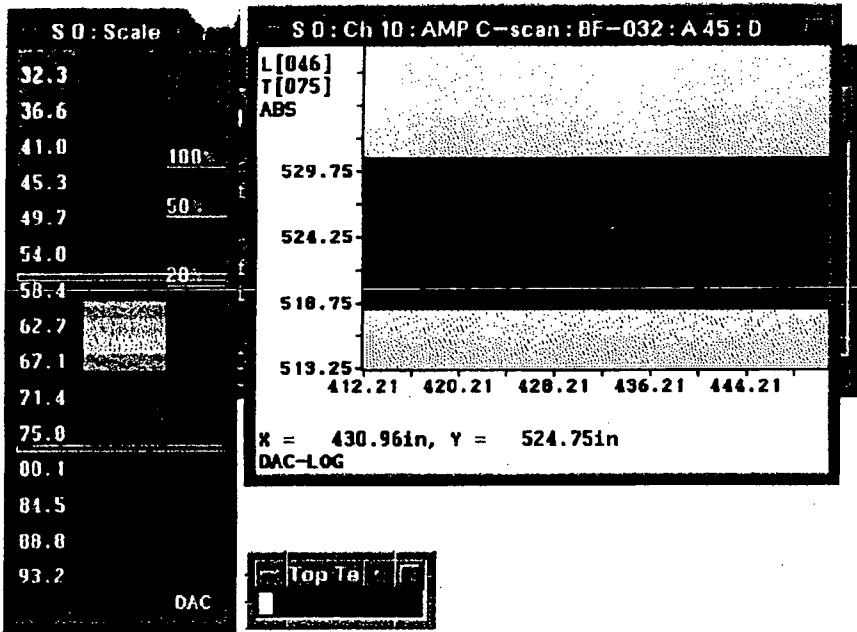
21153



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R1153

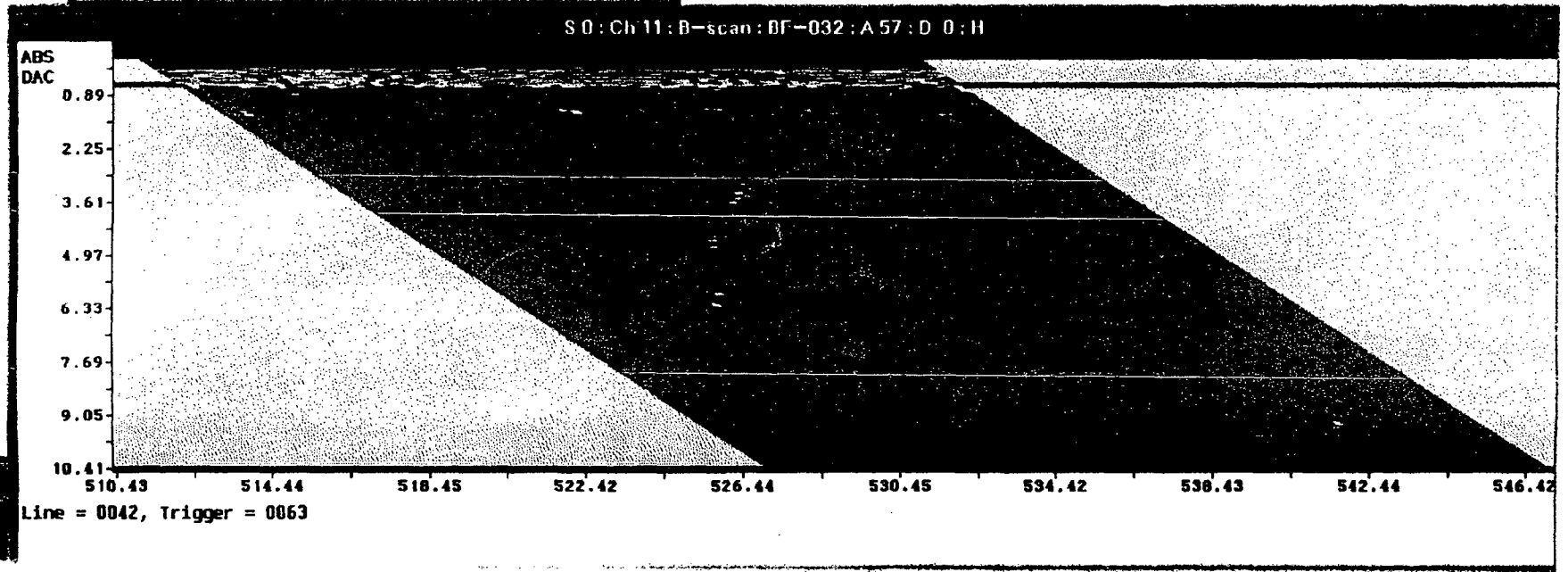
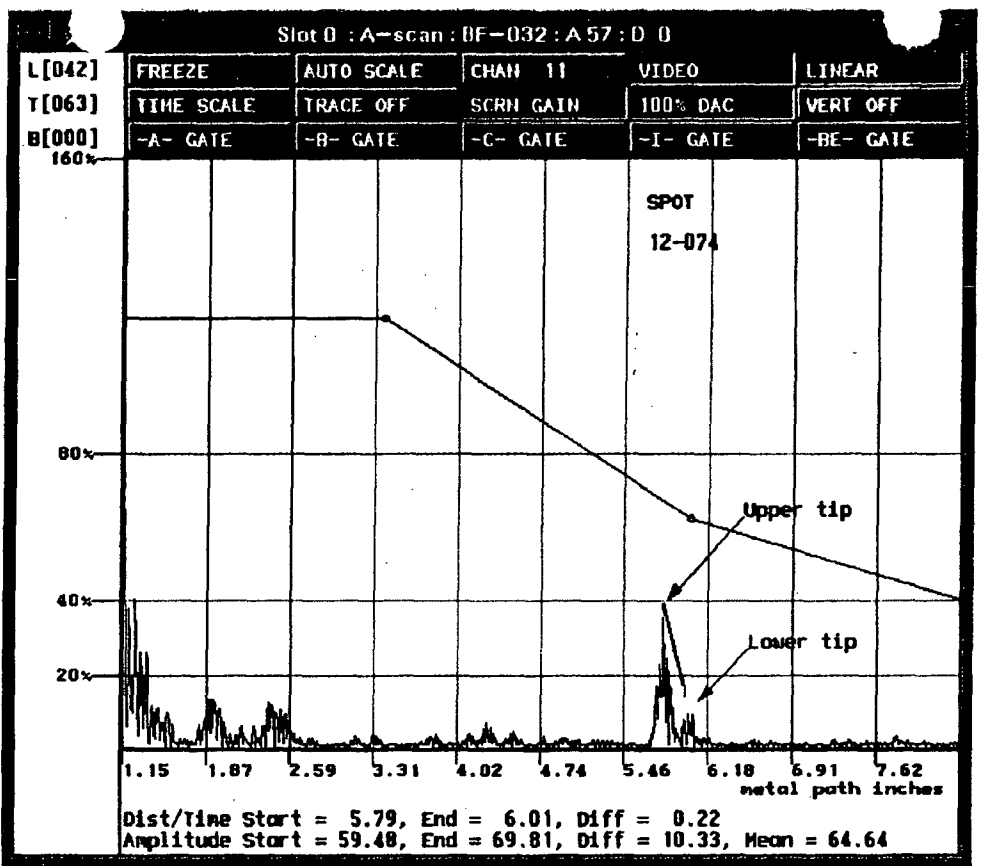
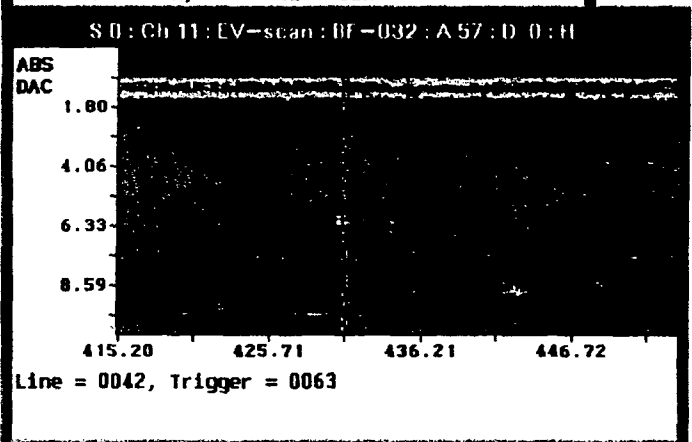
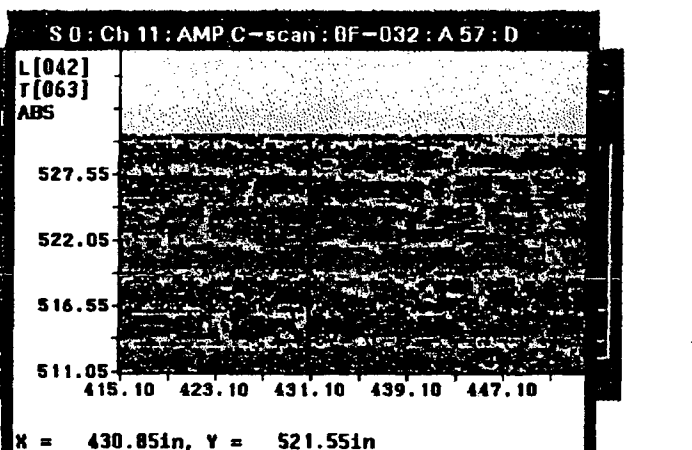
S 0 : Scale

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

100
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DAC

Top 1e



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R1153

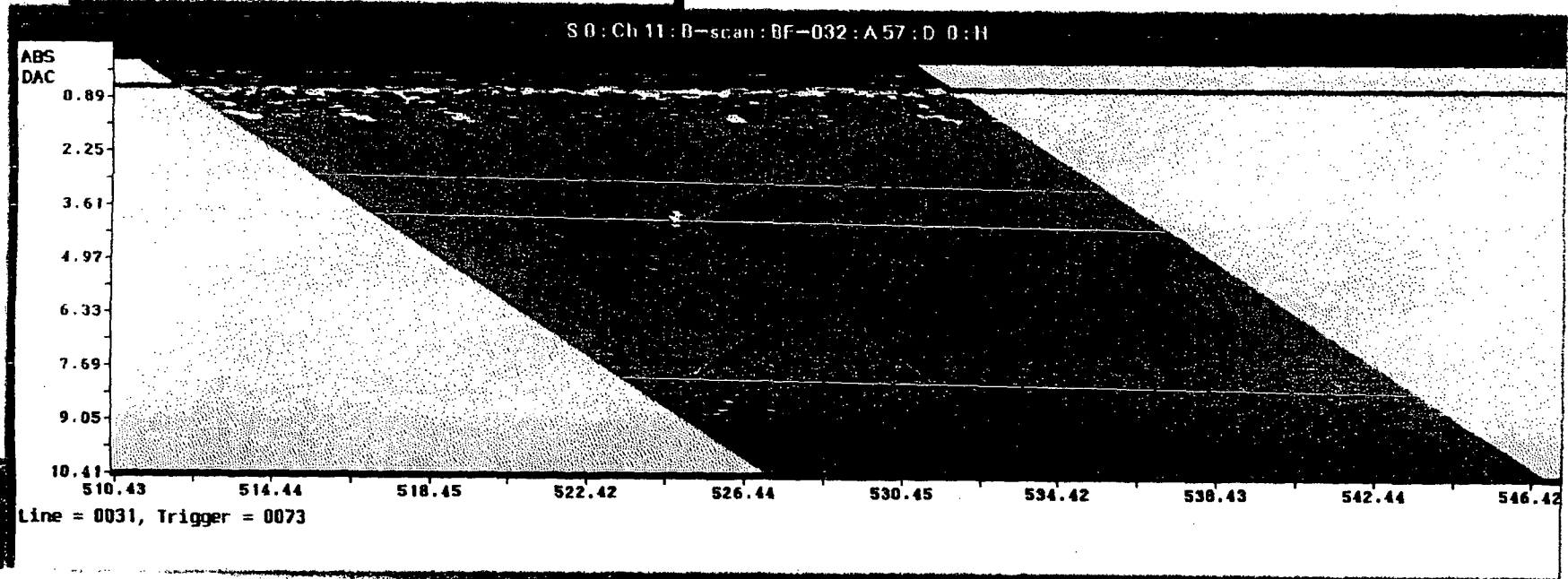
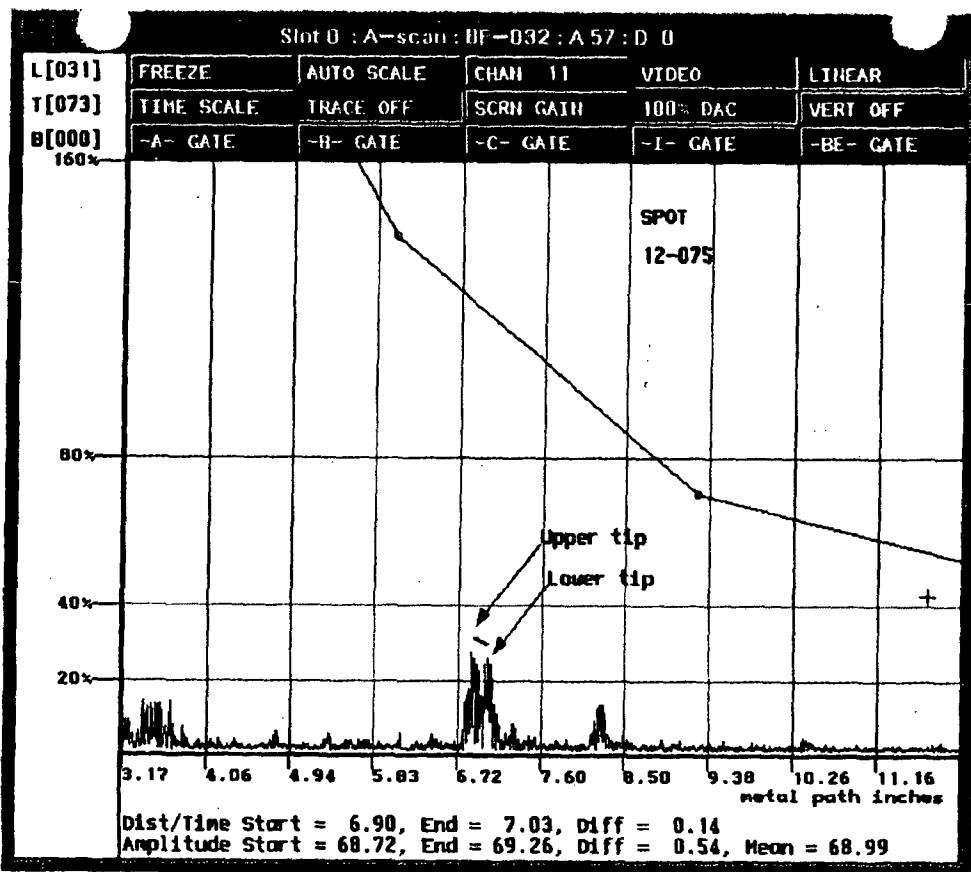
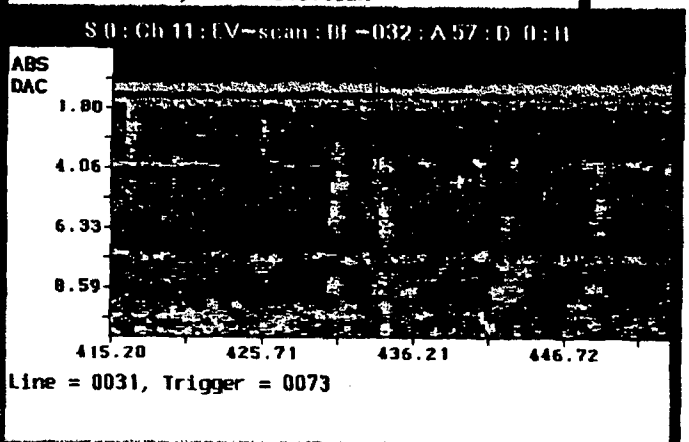
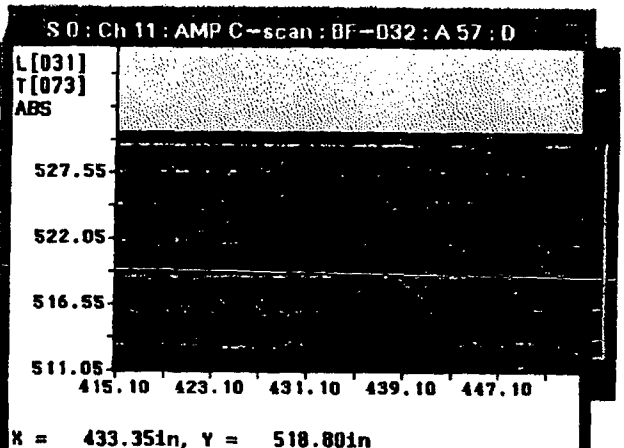
S 0 : Scale

32.3
36.6
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67.1
71.4
75.0
80.1
84.5
88.8
93.2

100%
50%
20%

DAC

Top Te



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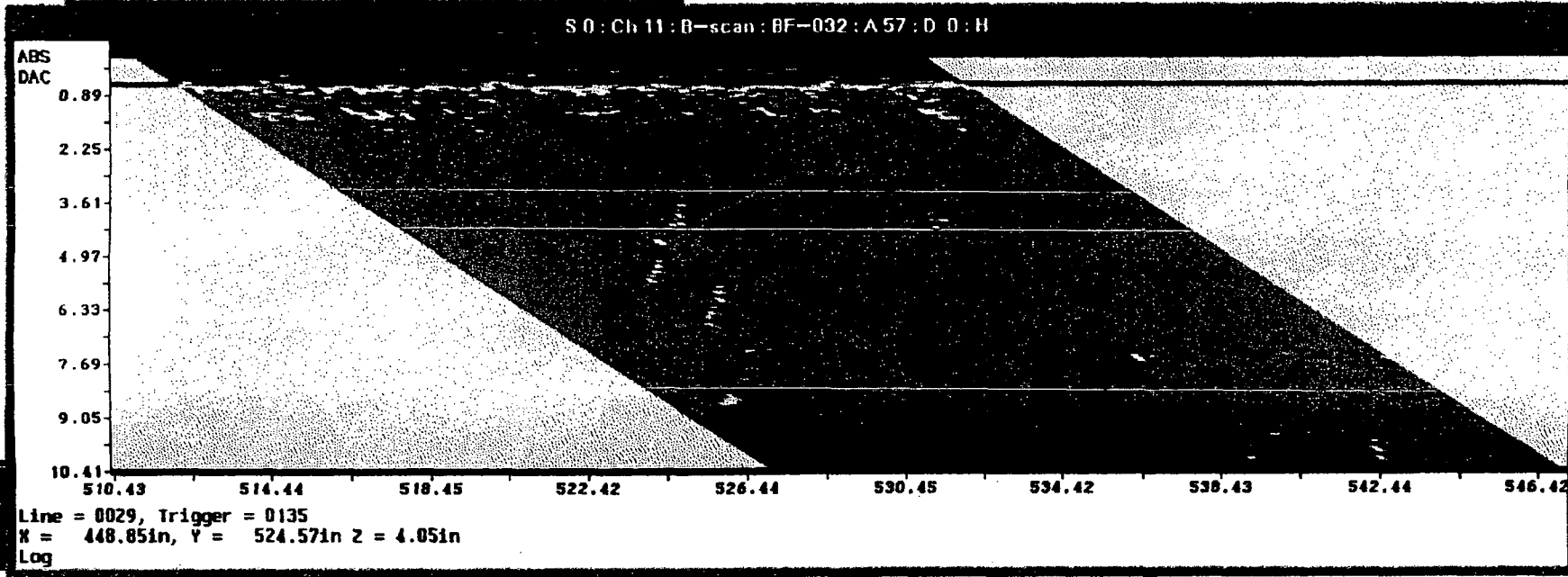
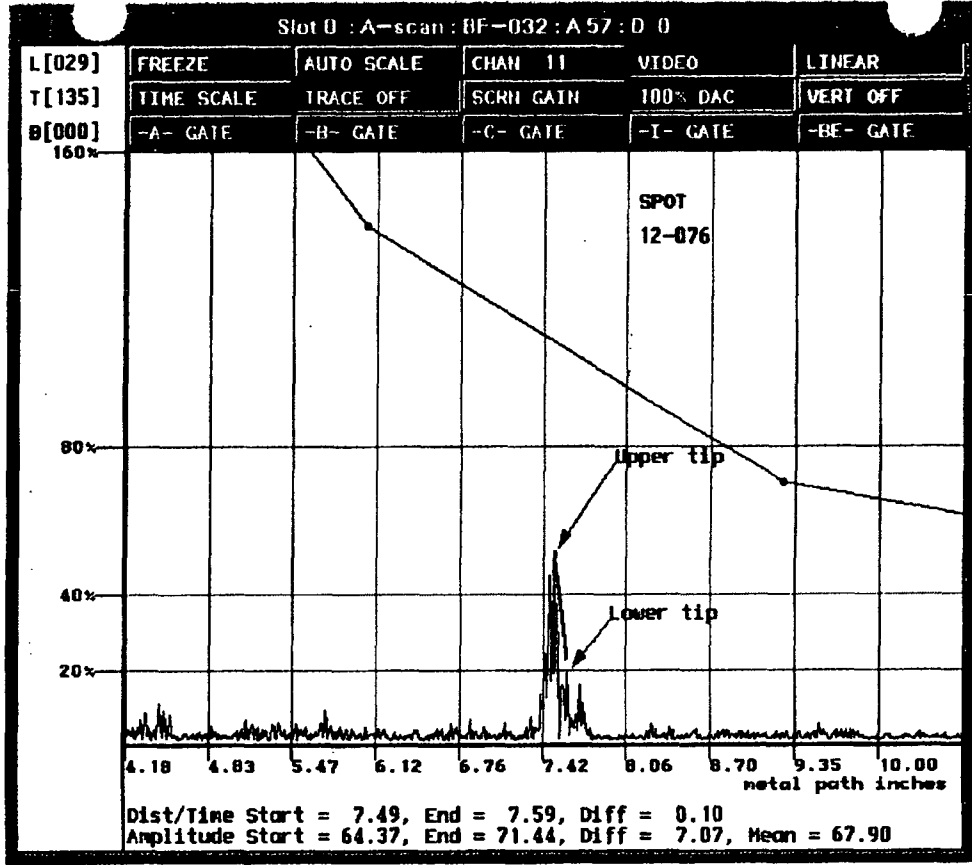
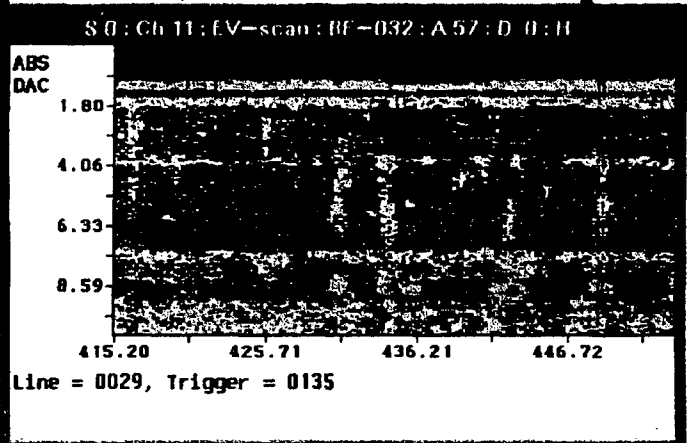
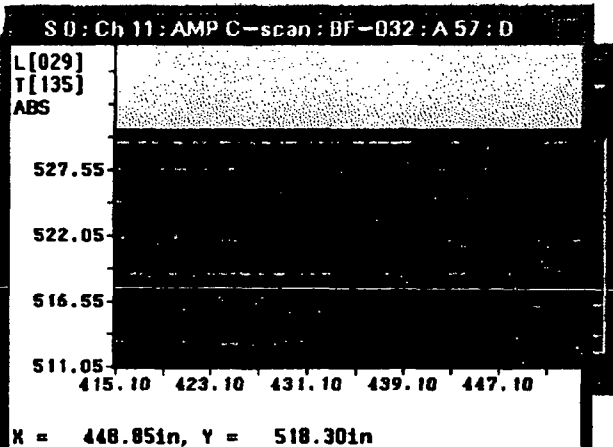
R1153

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



340 of 439

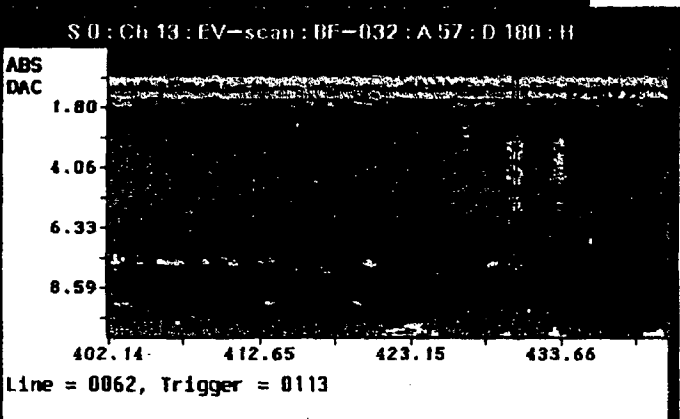
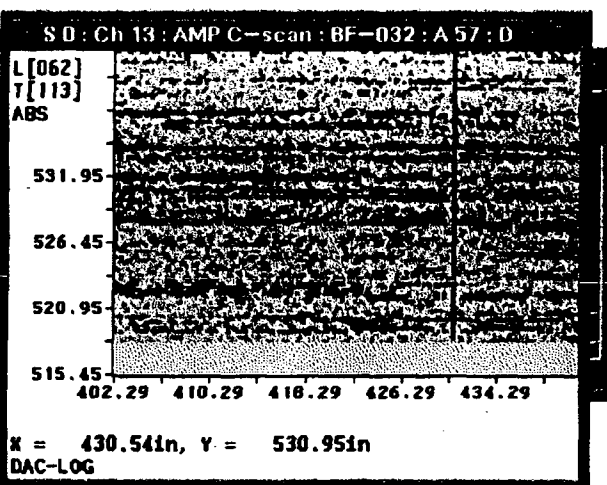
R1153

S 0 : Scale

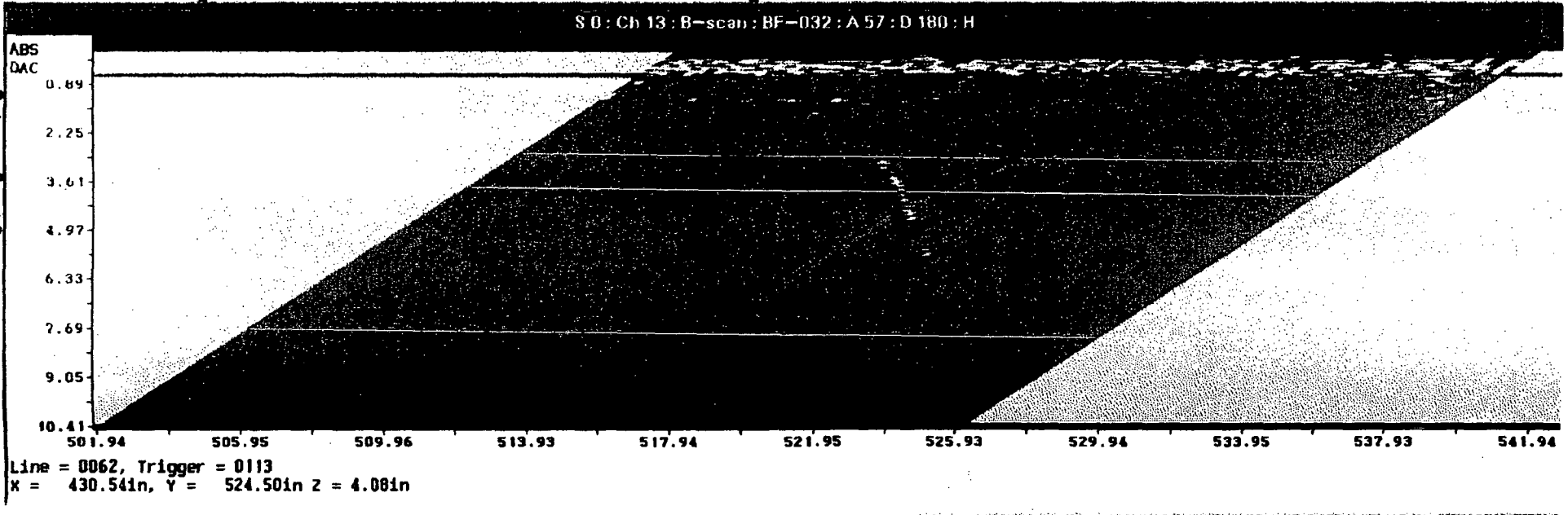
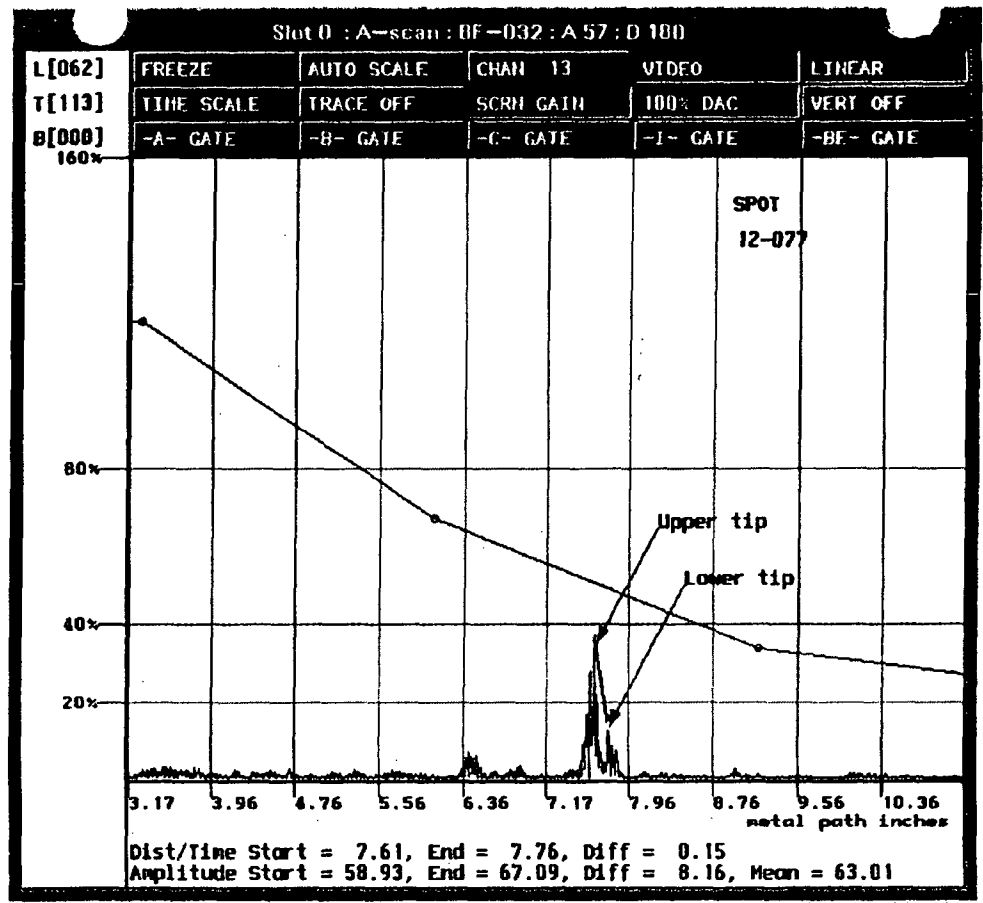
32.3
36.6
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67.1
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88.8
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100%
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DAC



Top Tip



R1153

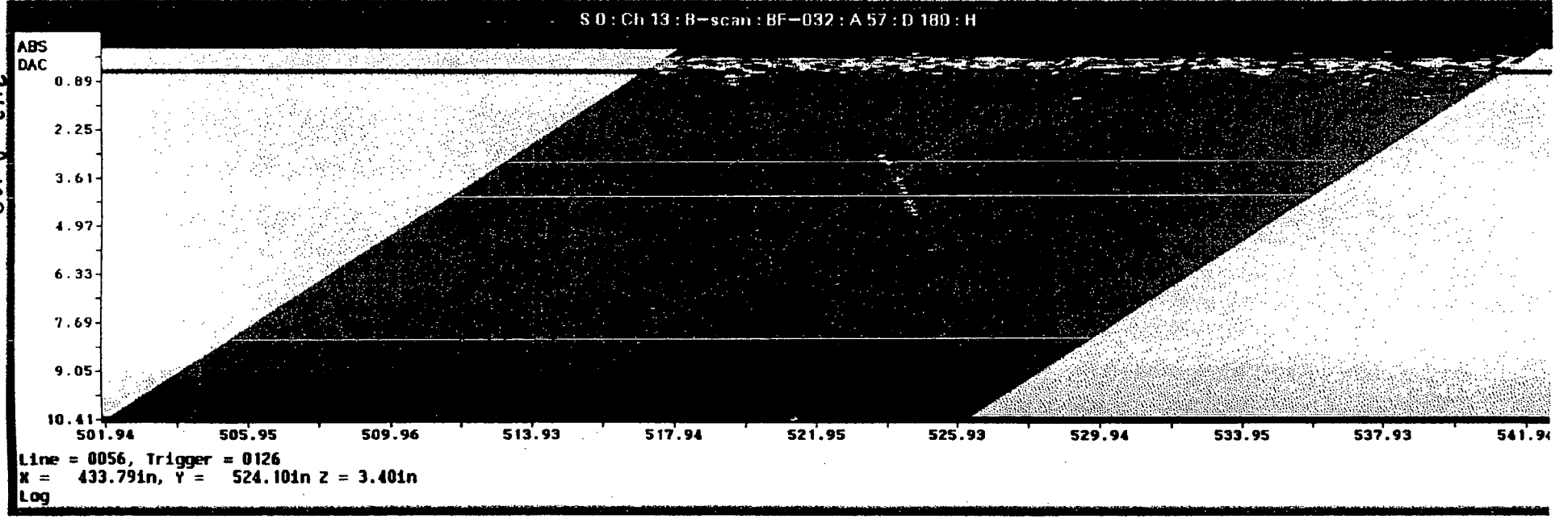
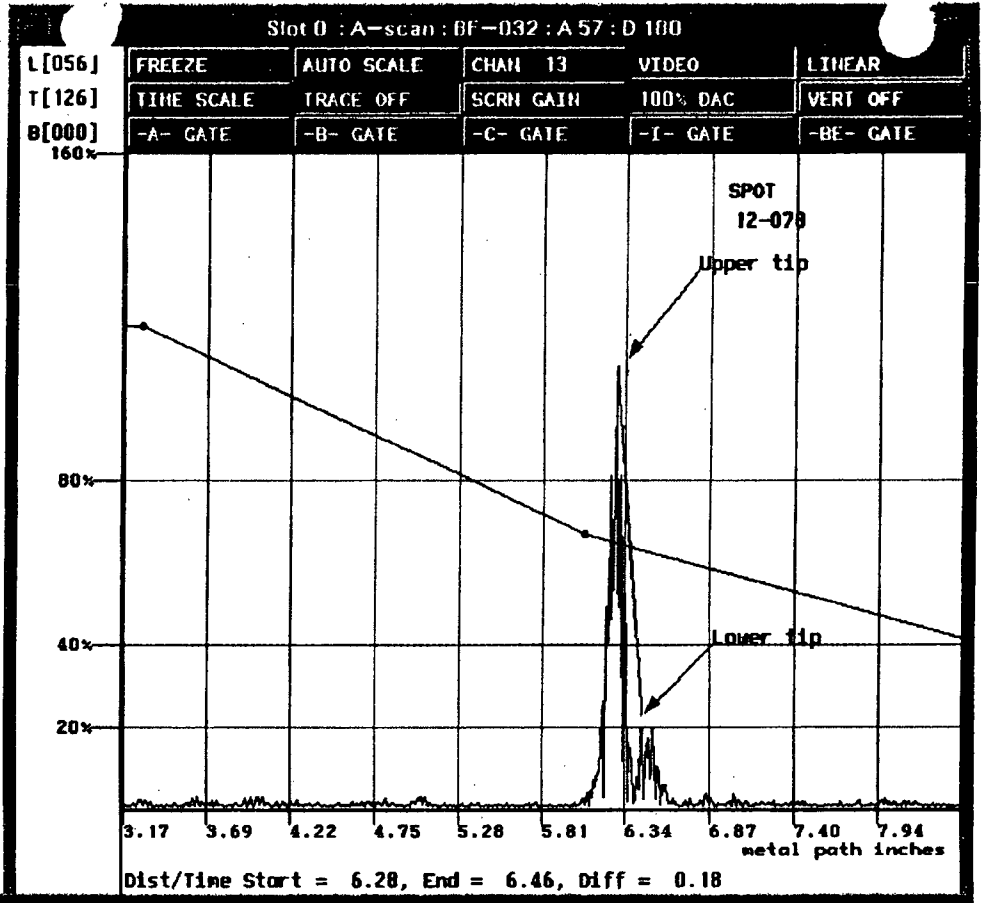
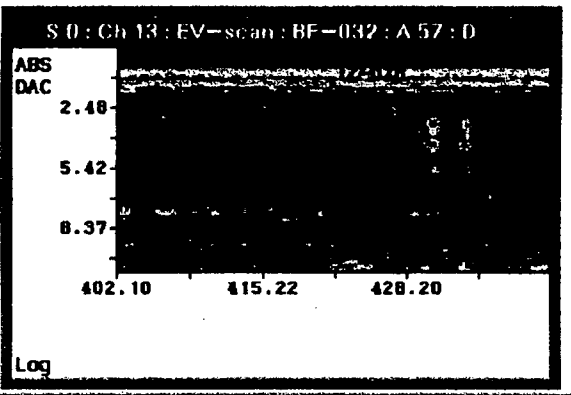
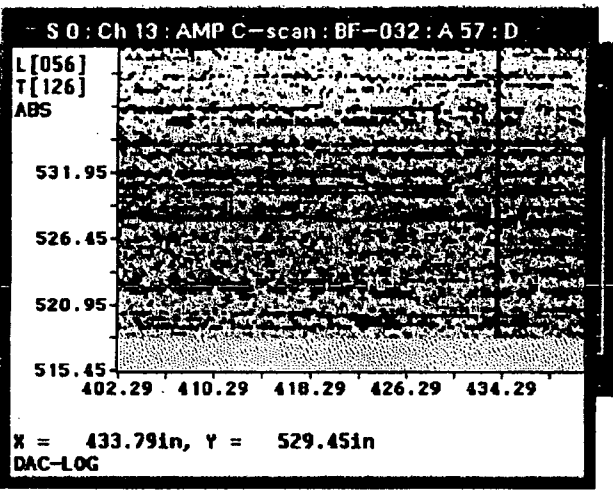
S 0 : Scale

32.3
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100%
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DAC

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R 1153

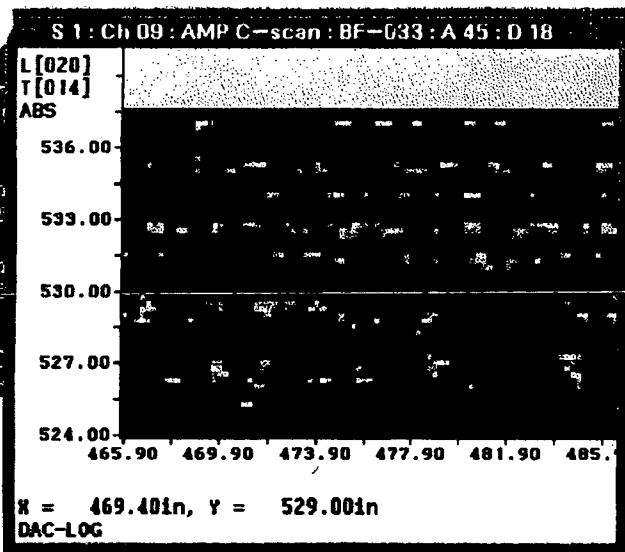
R 1153

S 1 : Scale

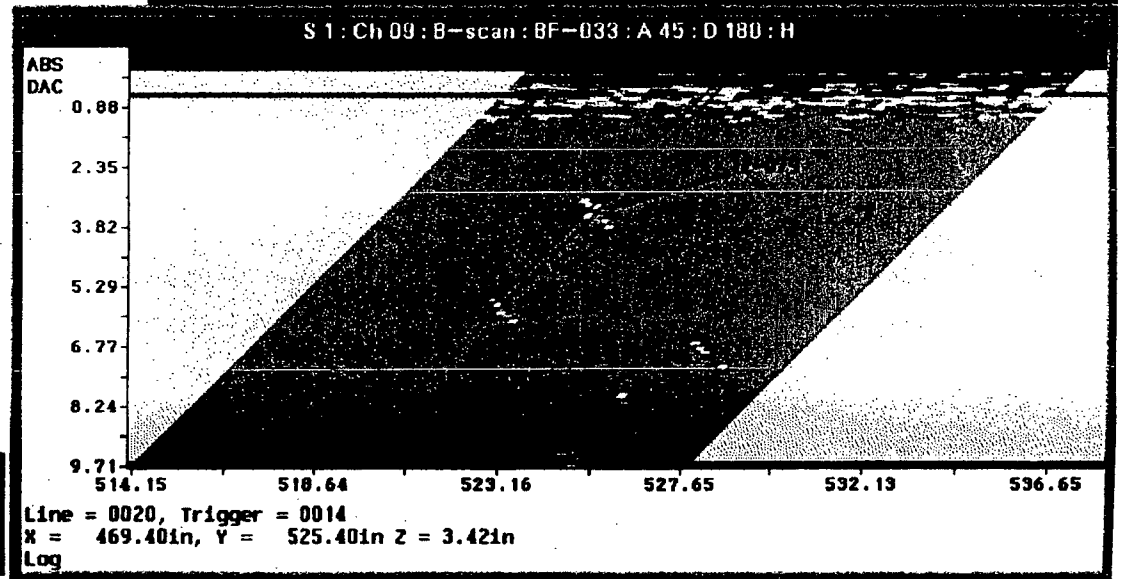
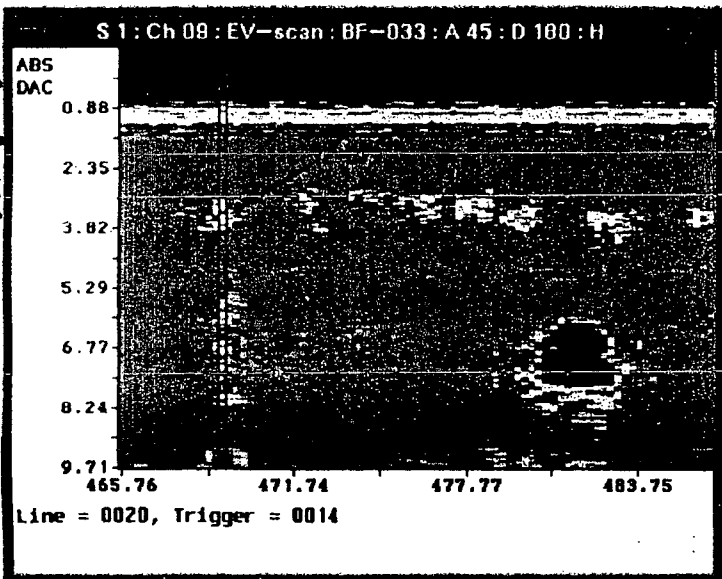
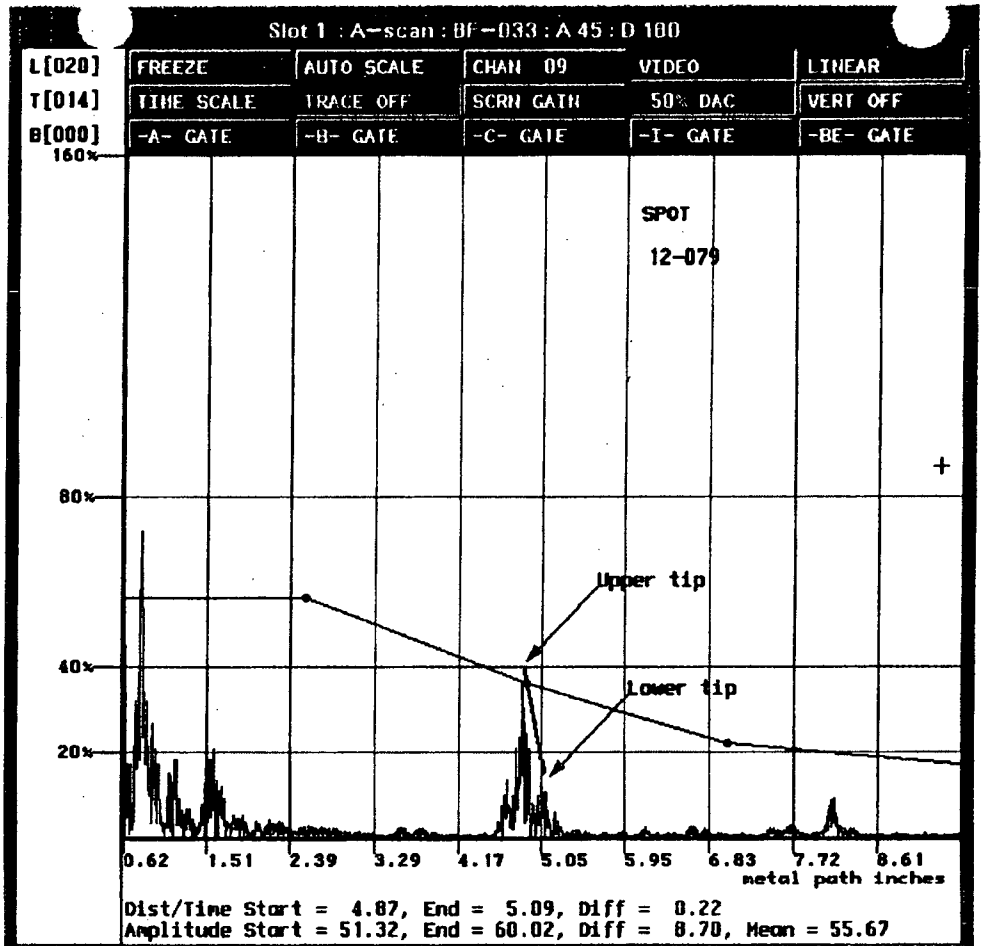
32.3
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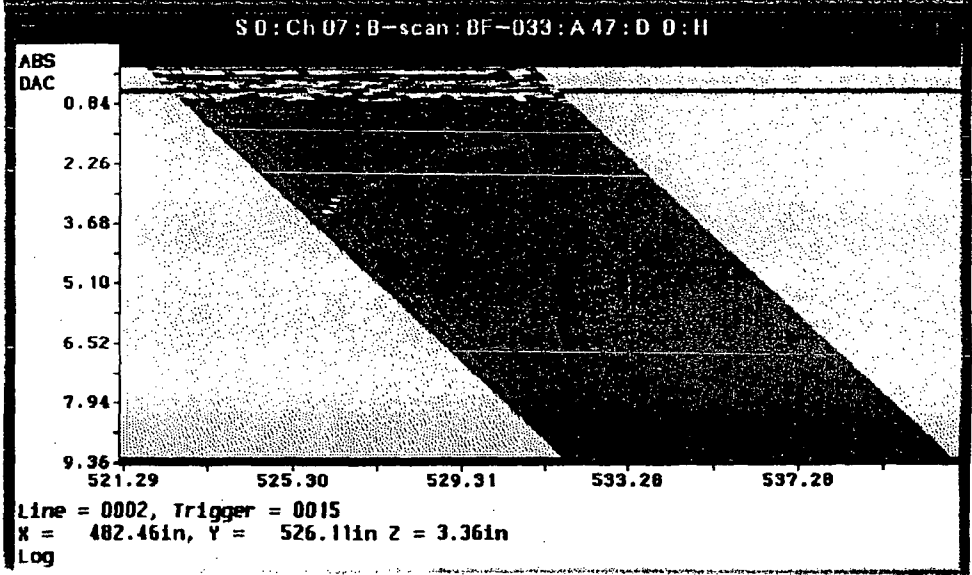
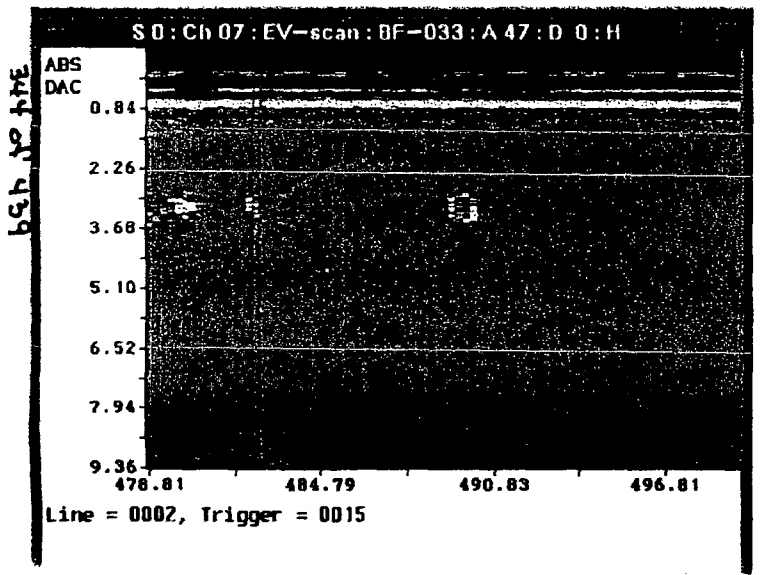
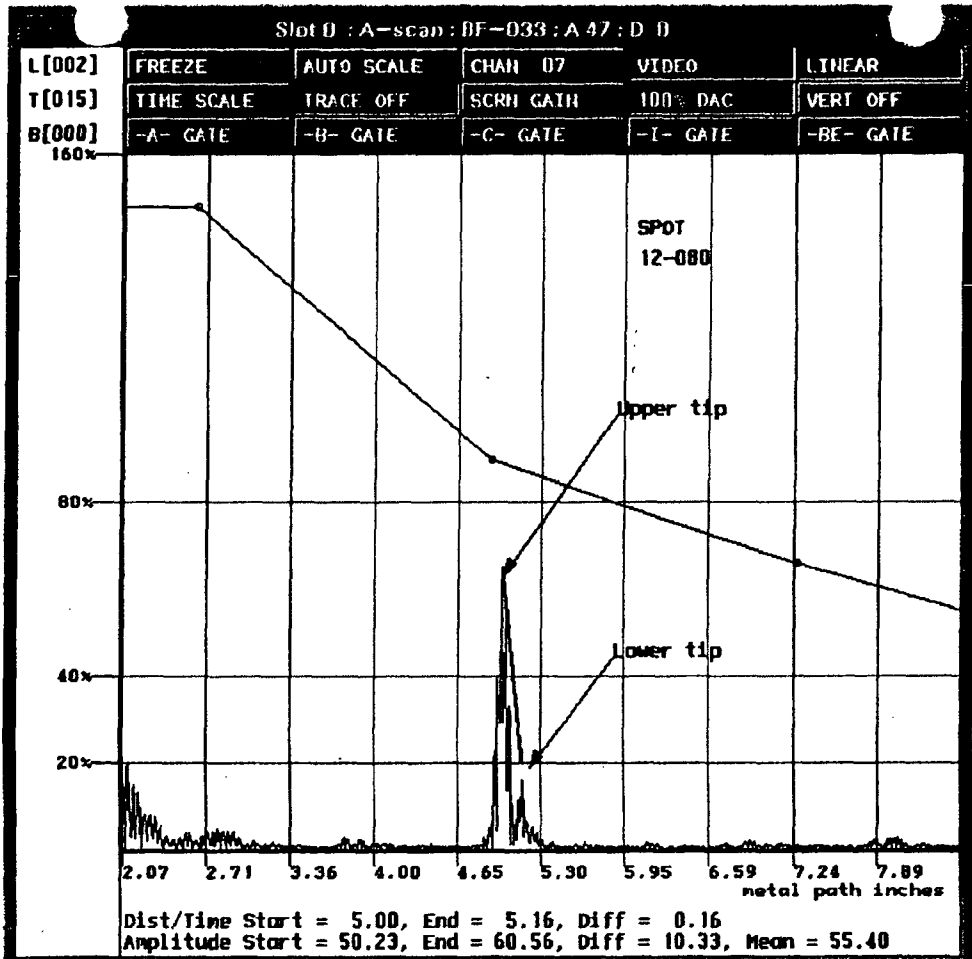
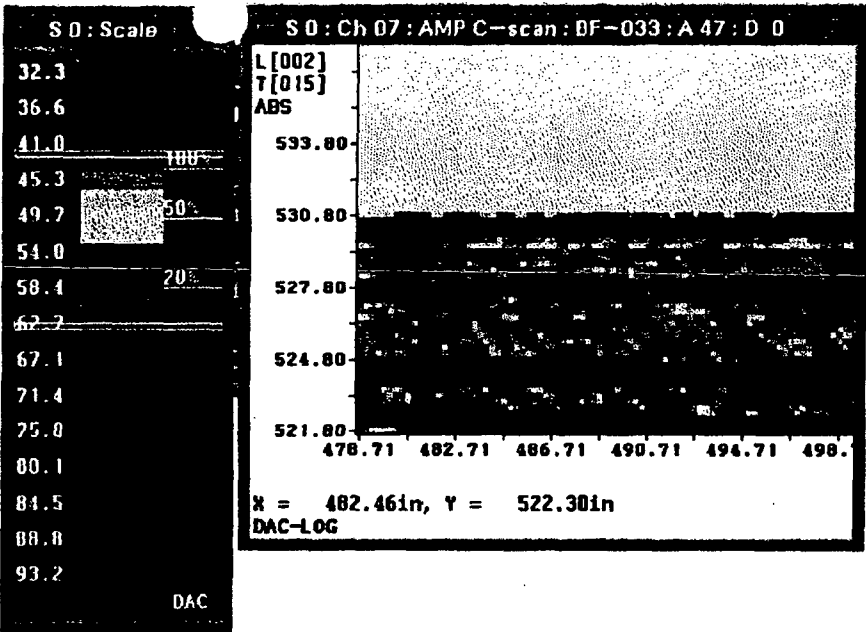
DAC



Top Te

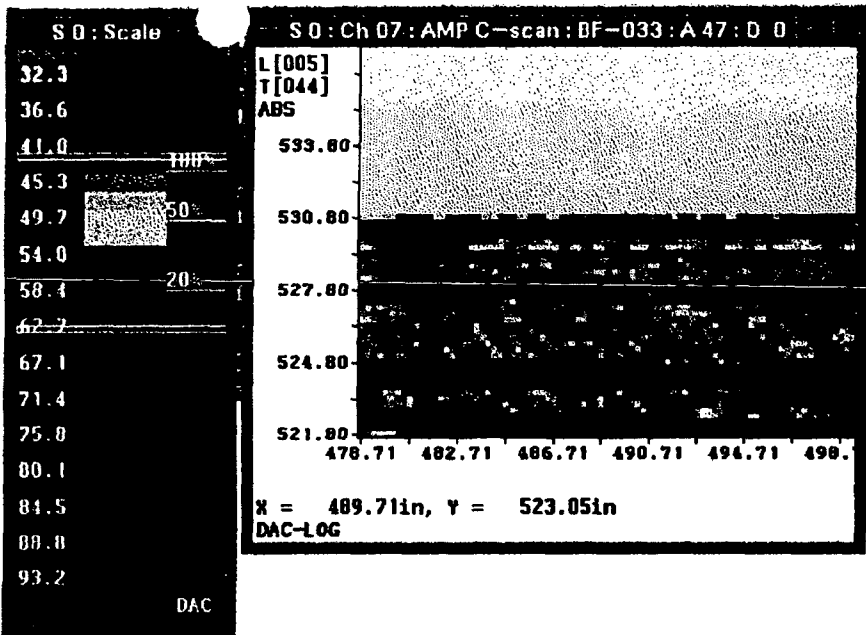


21153

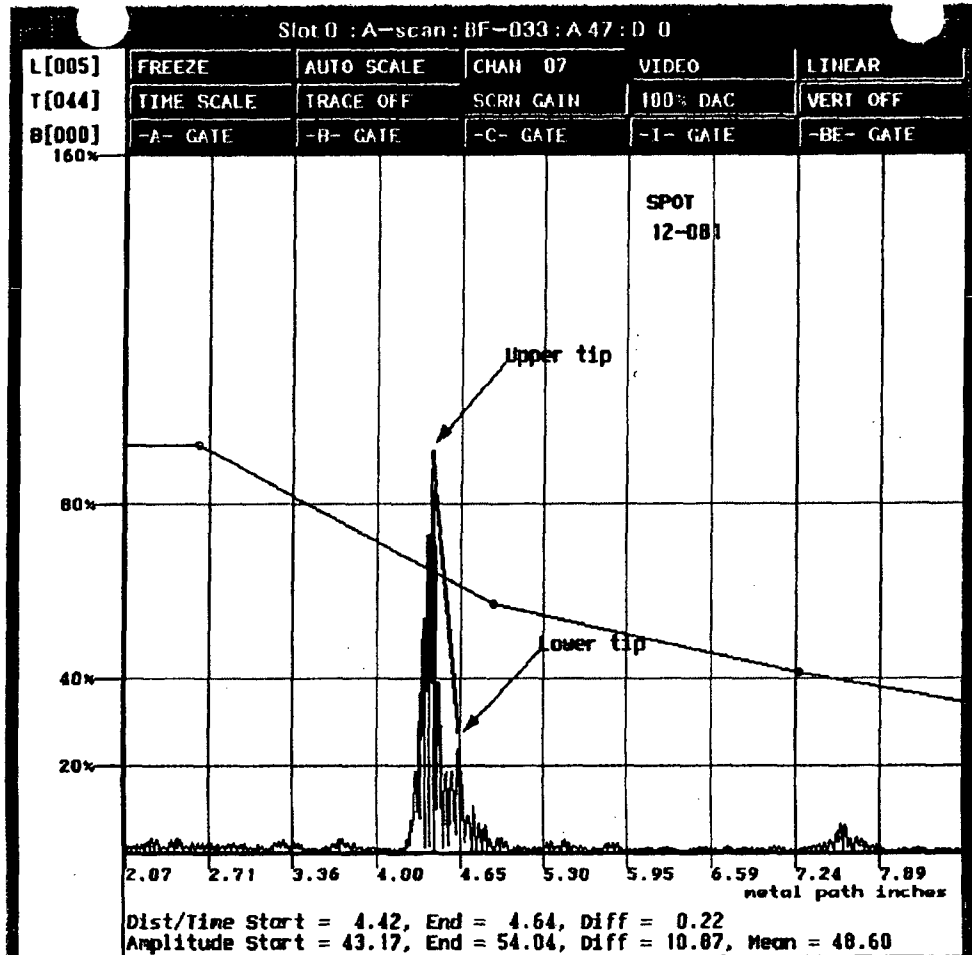


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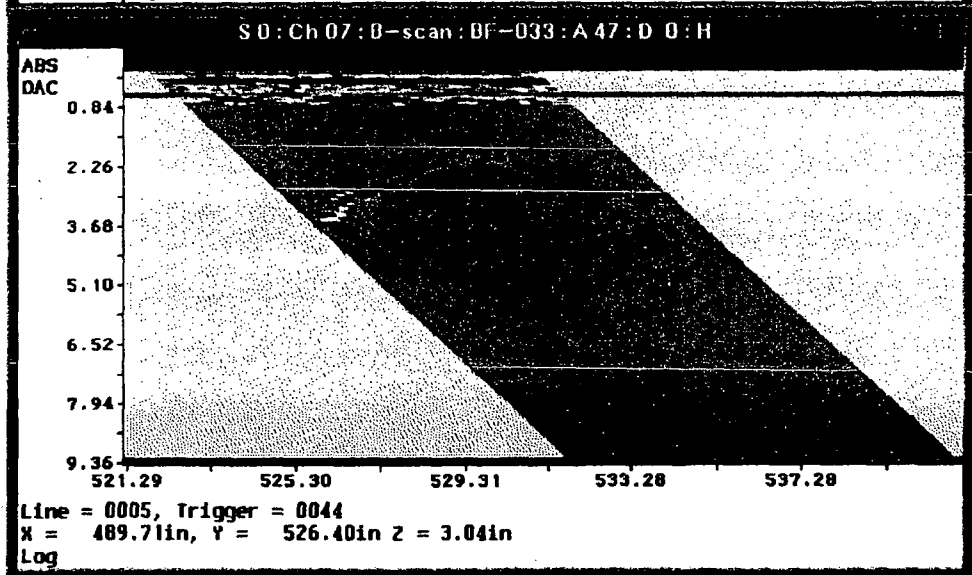
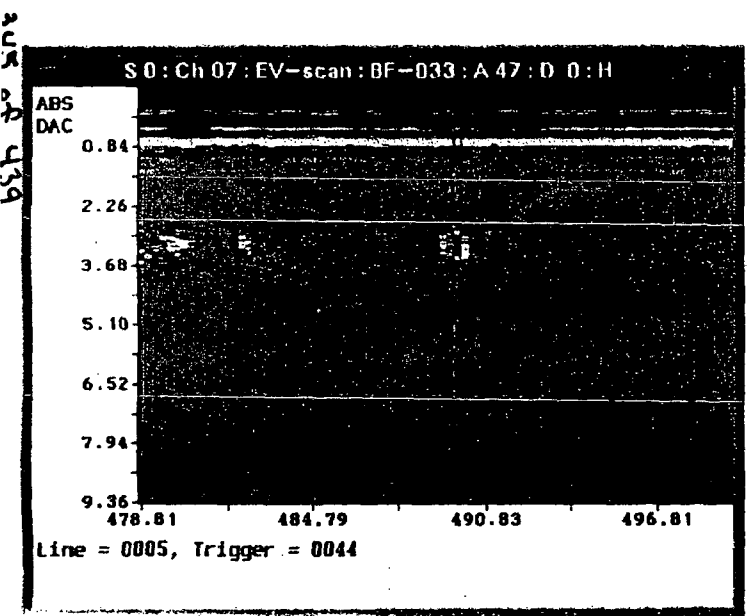
R1153



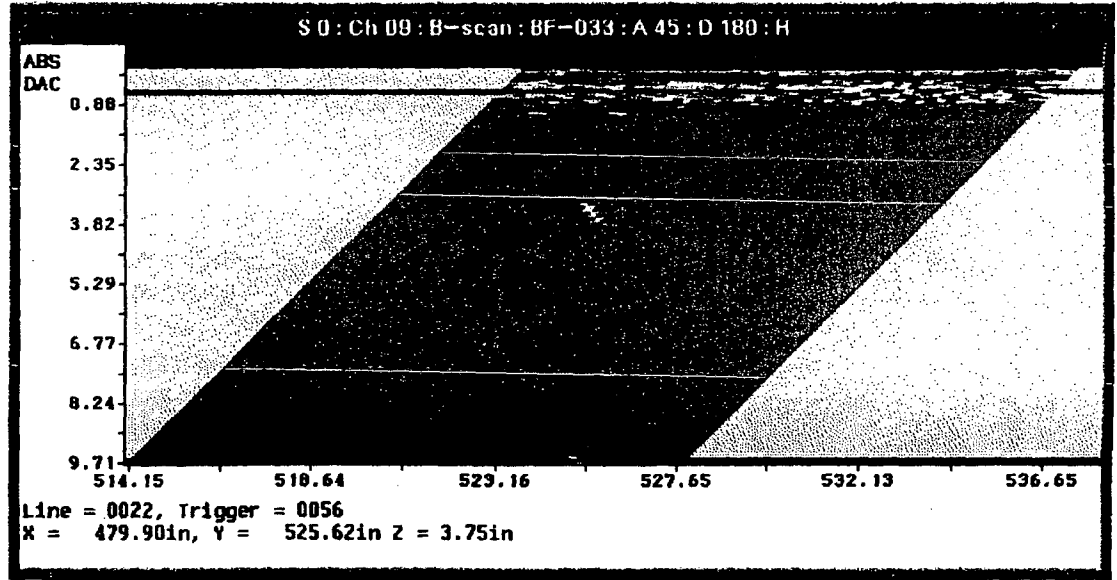
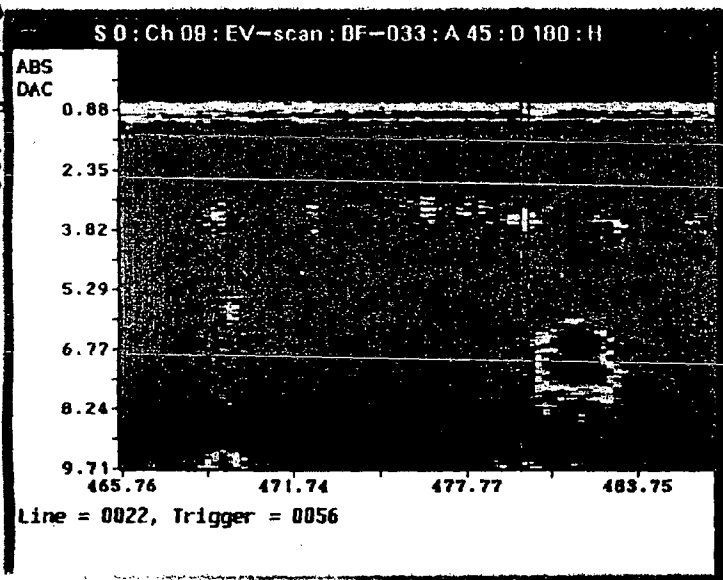
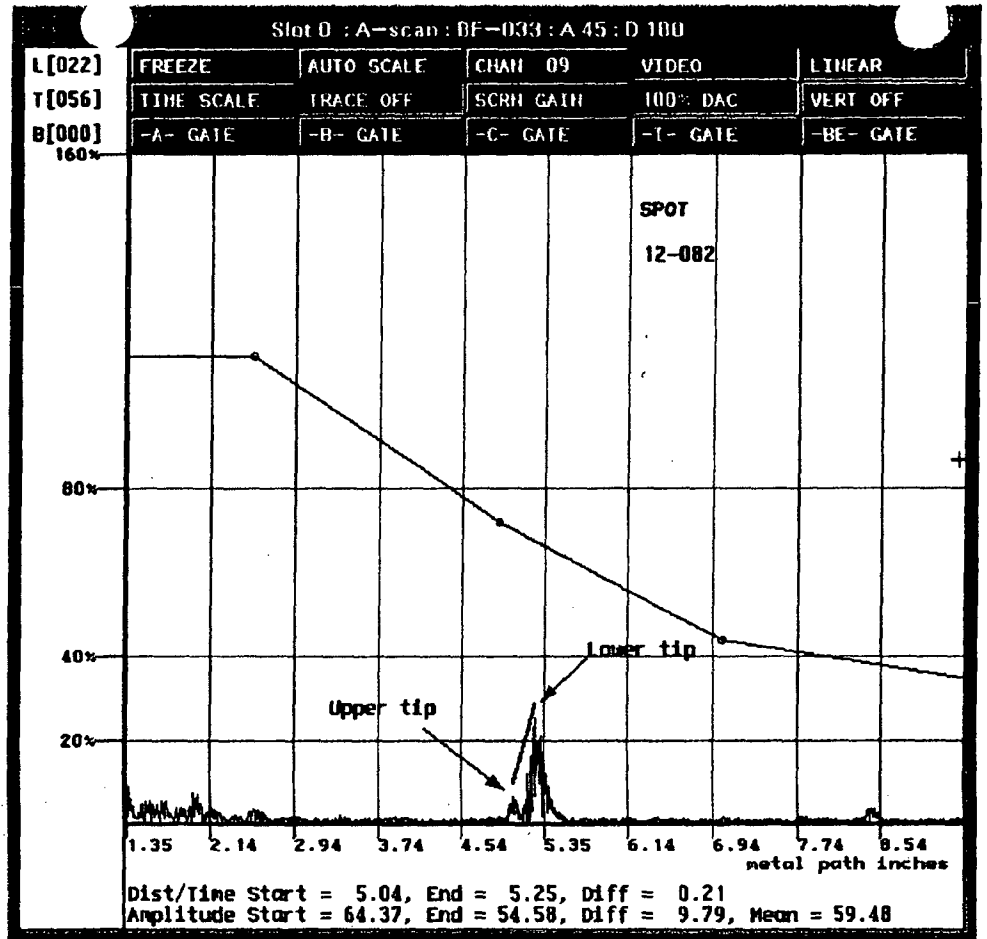
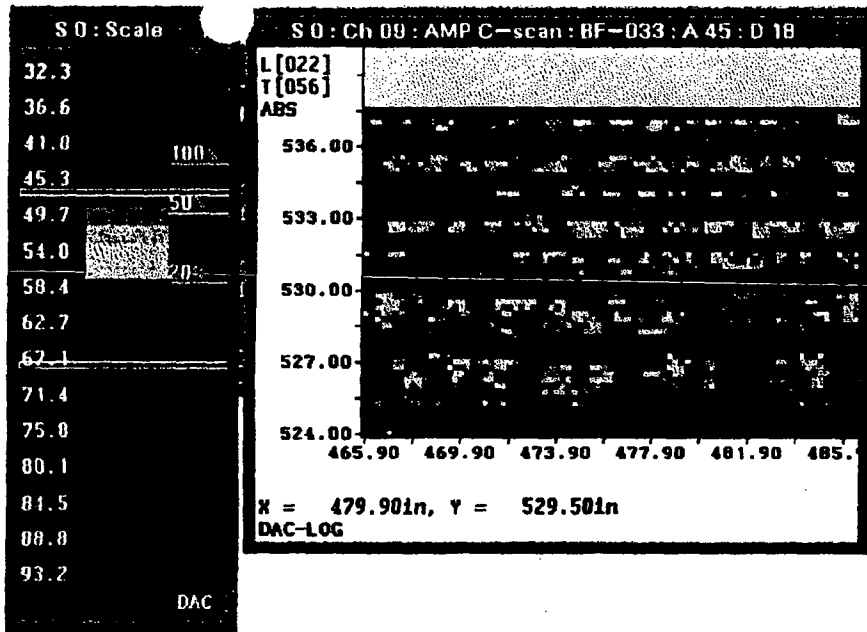
Top Te



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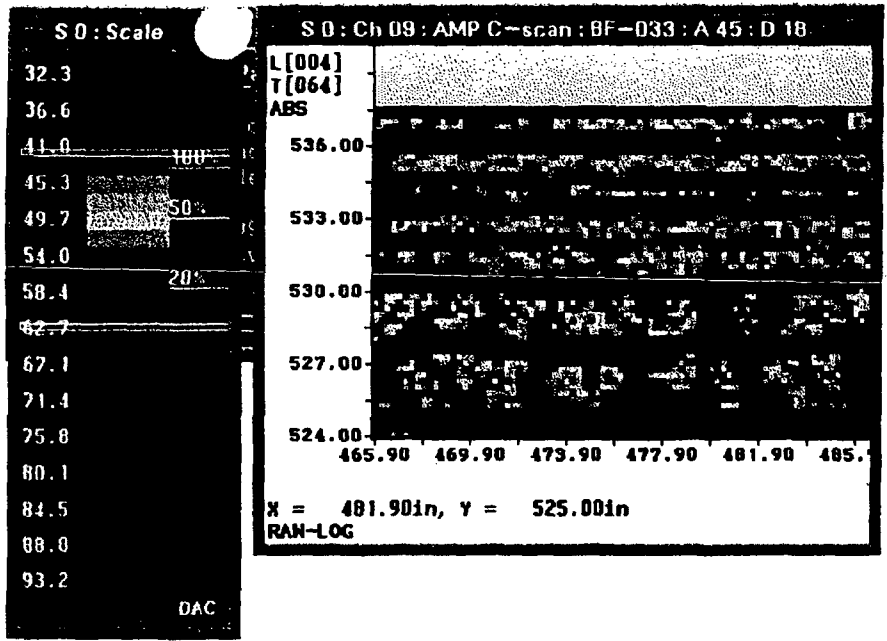


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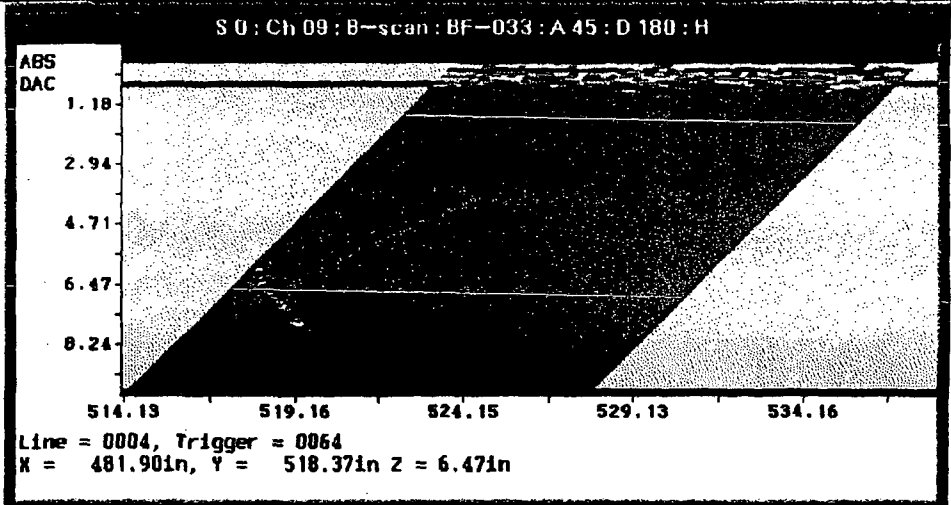
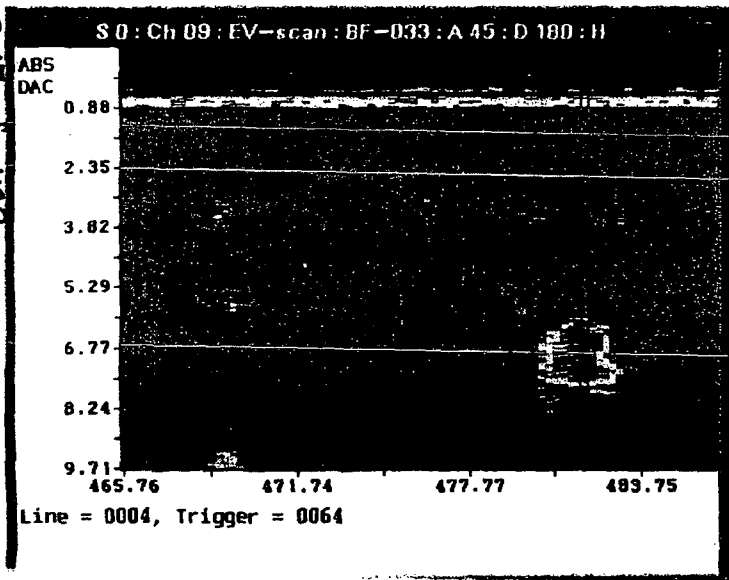
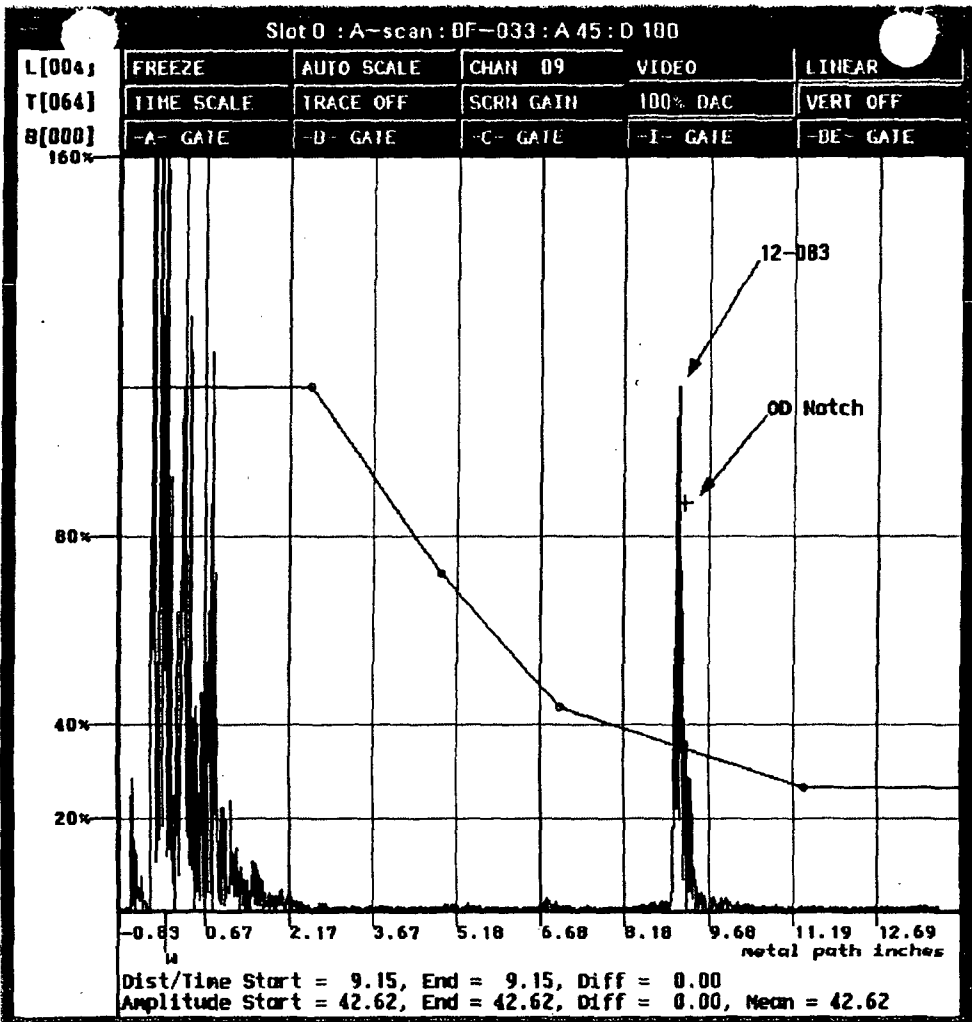


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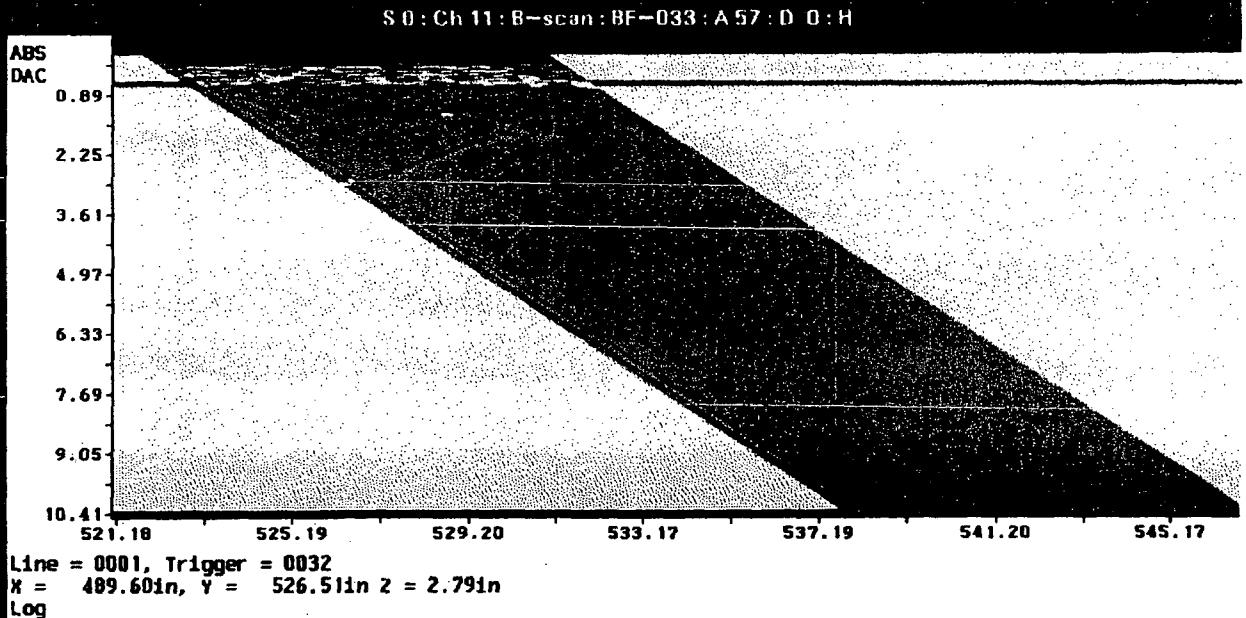
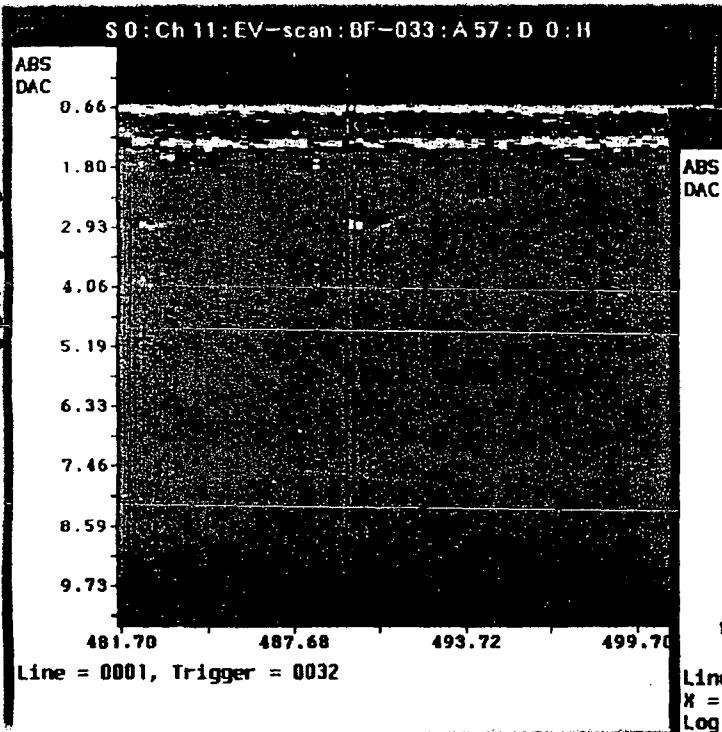
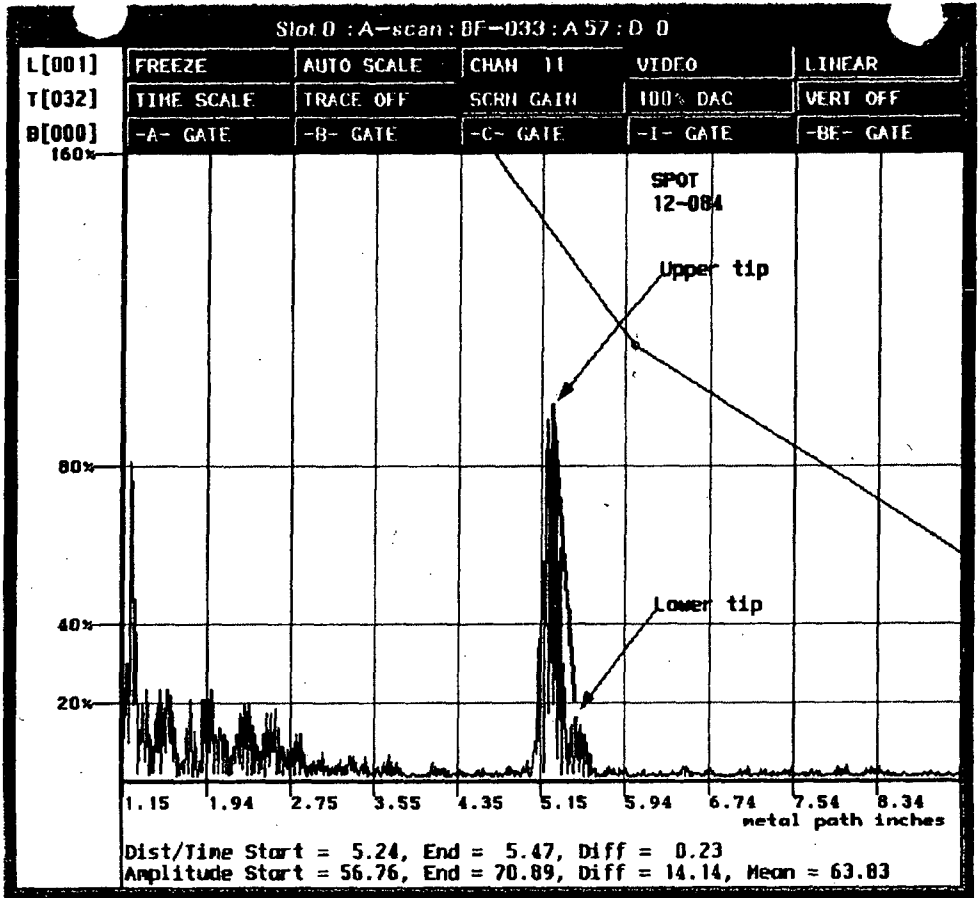
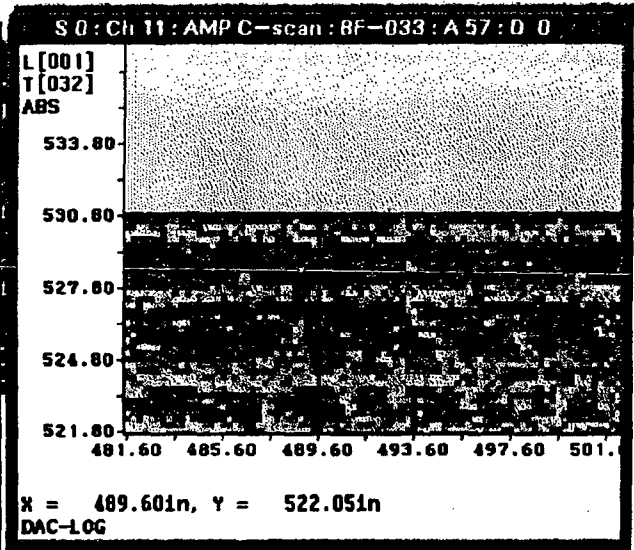
S 0: Scale

32.3
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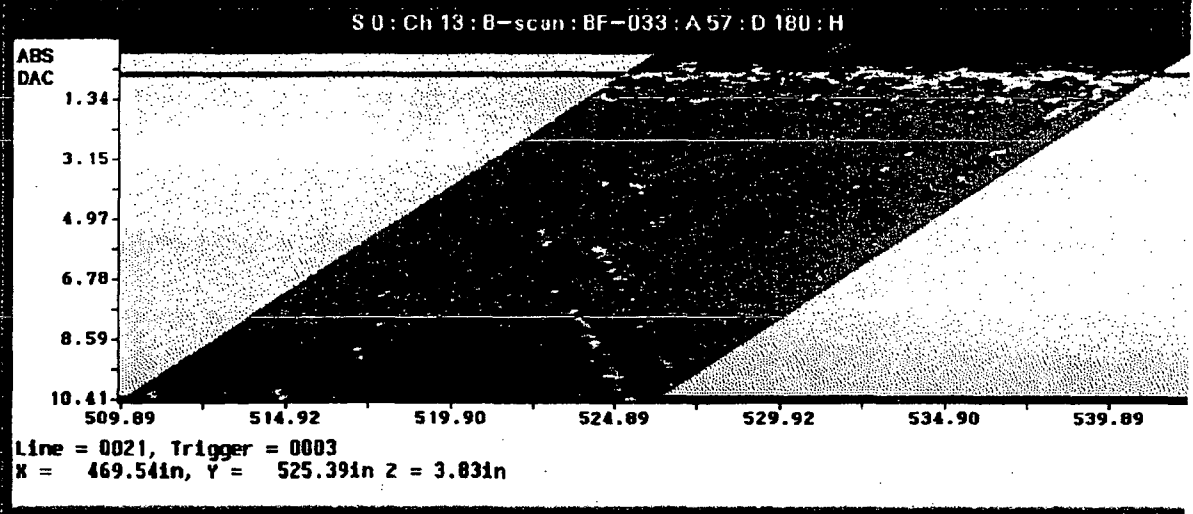
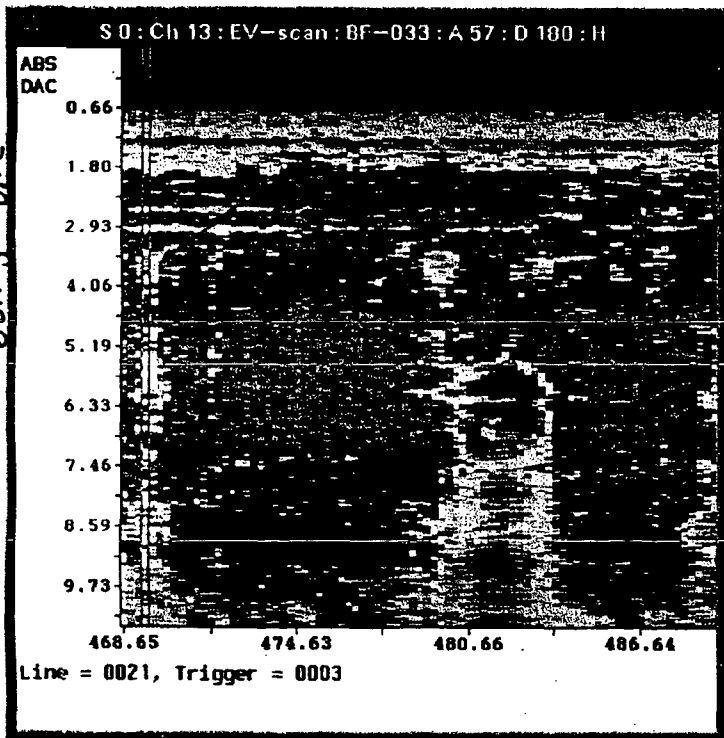
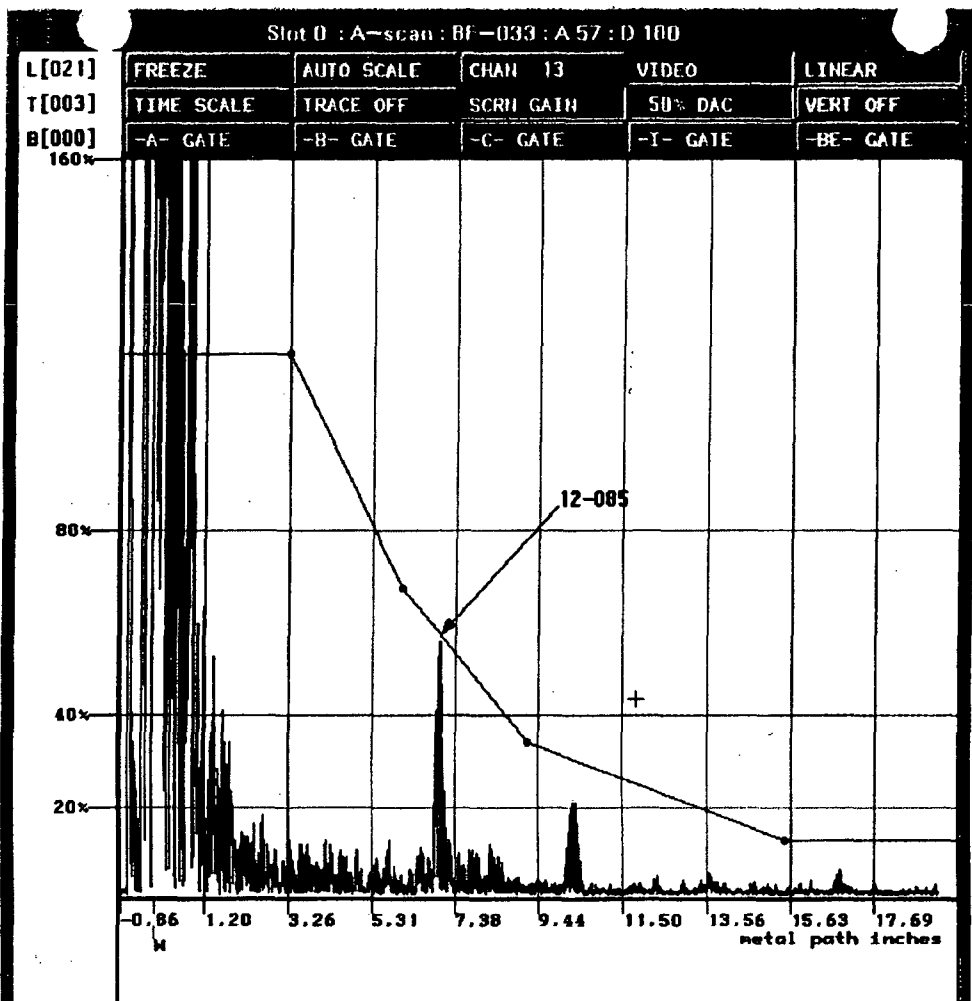
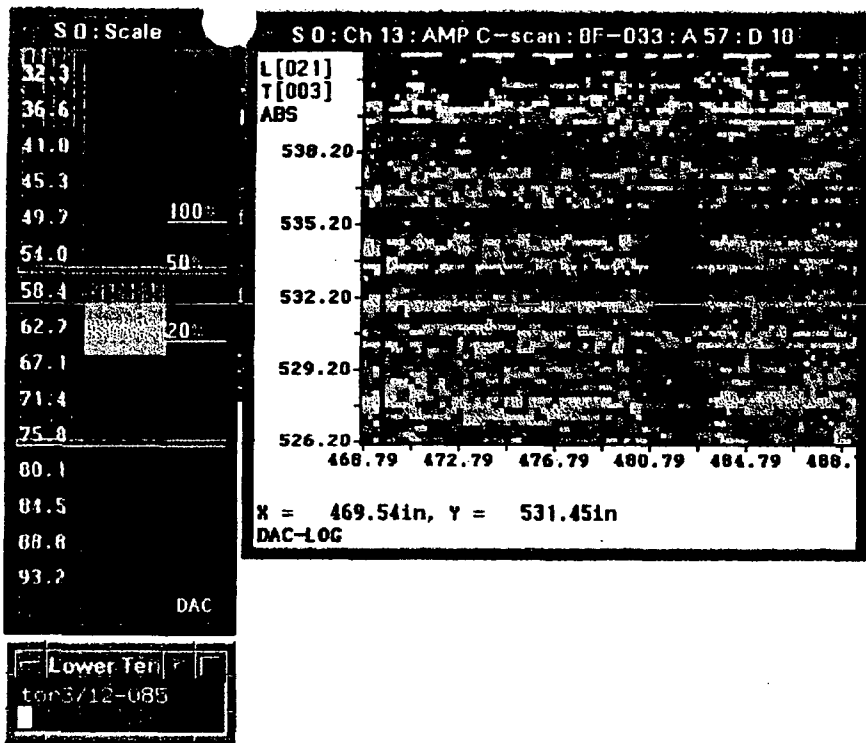
DAC

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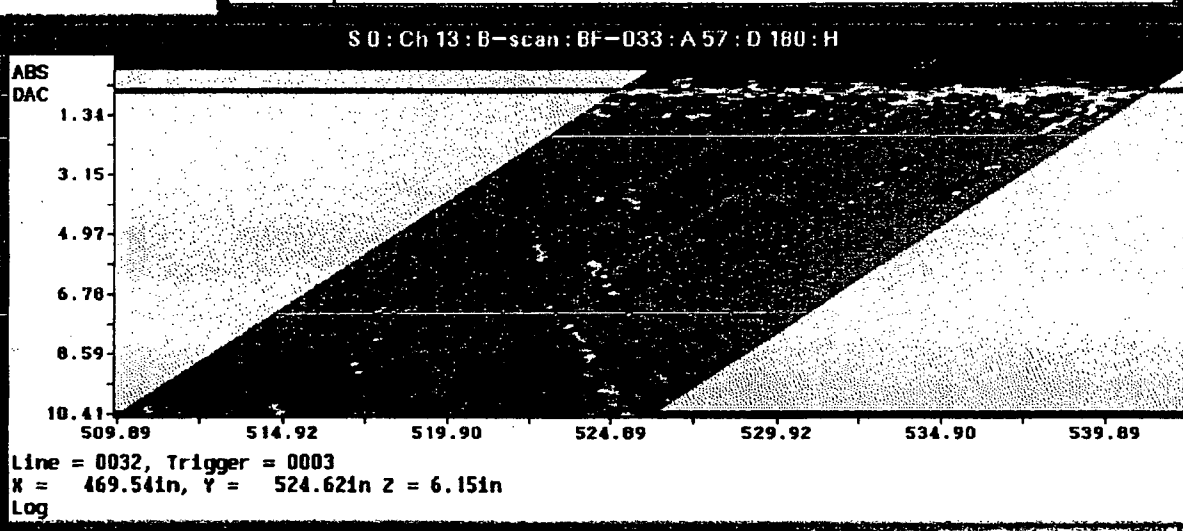
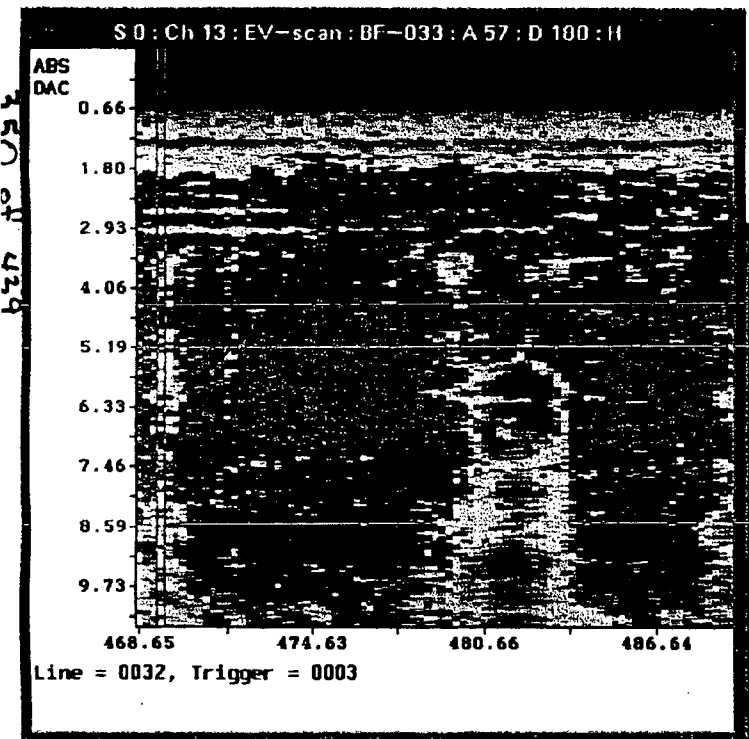
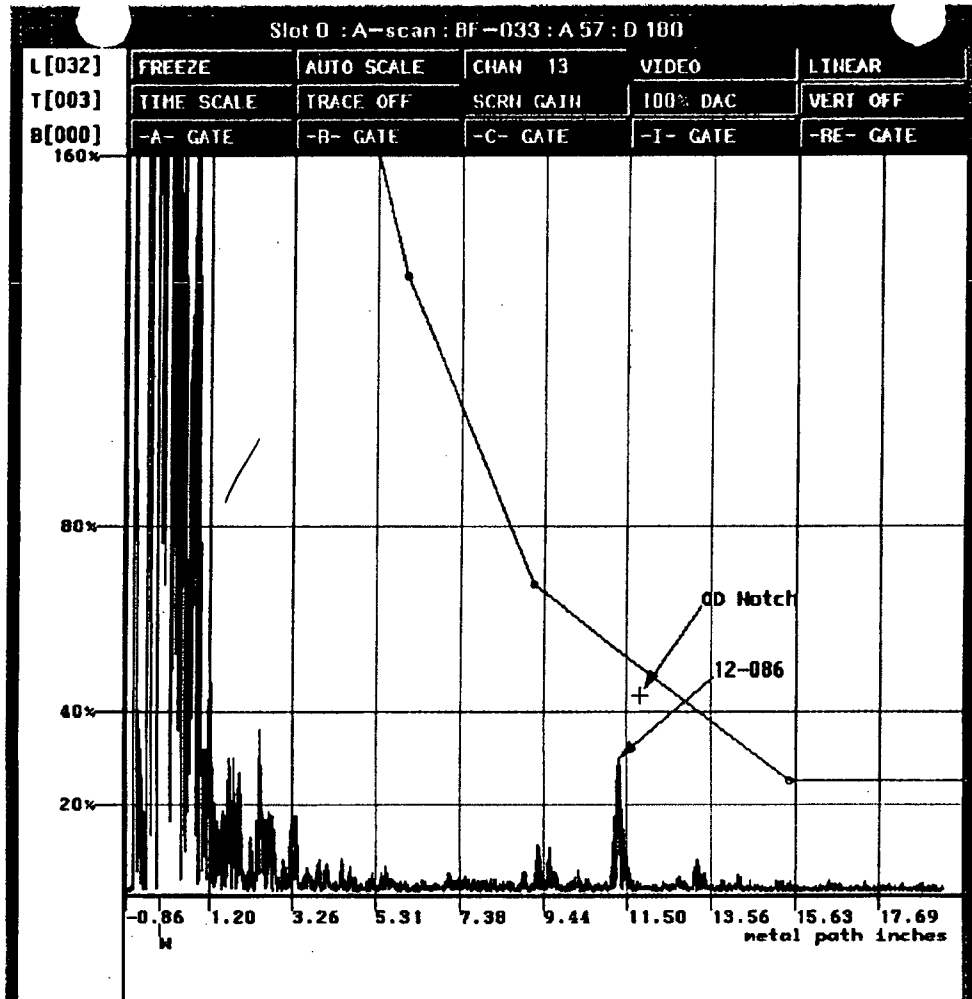
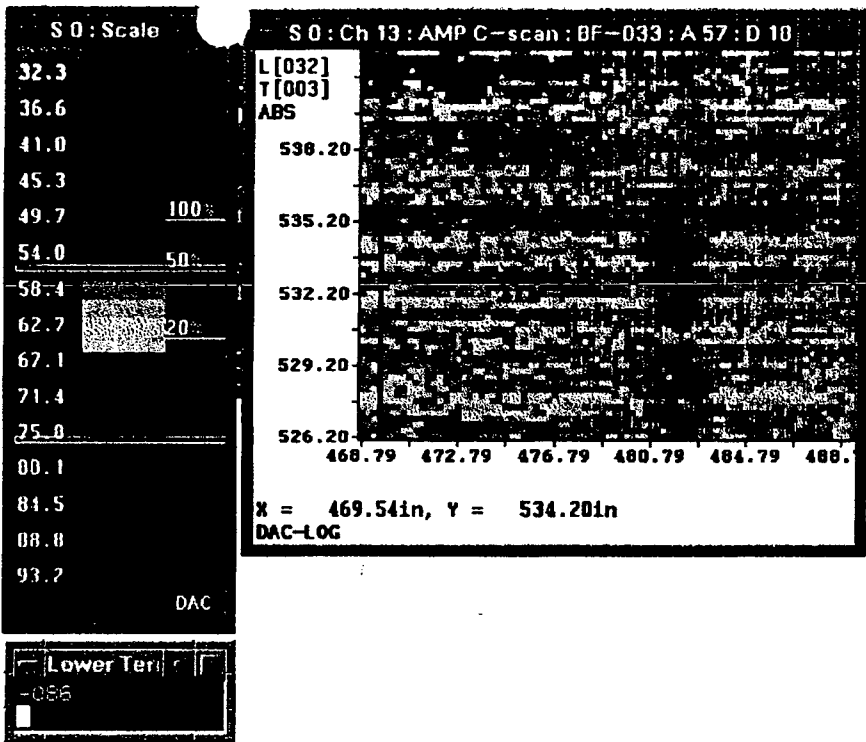


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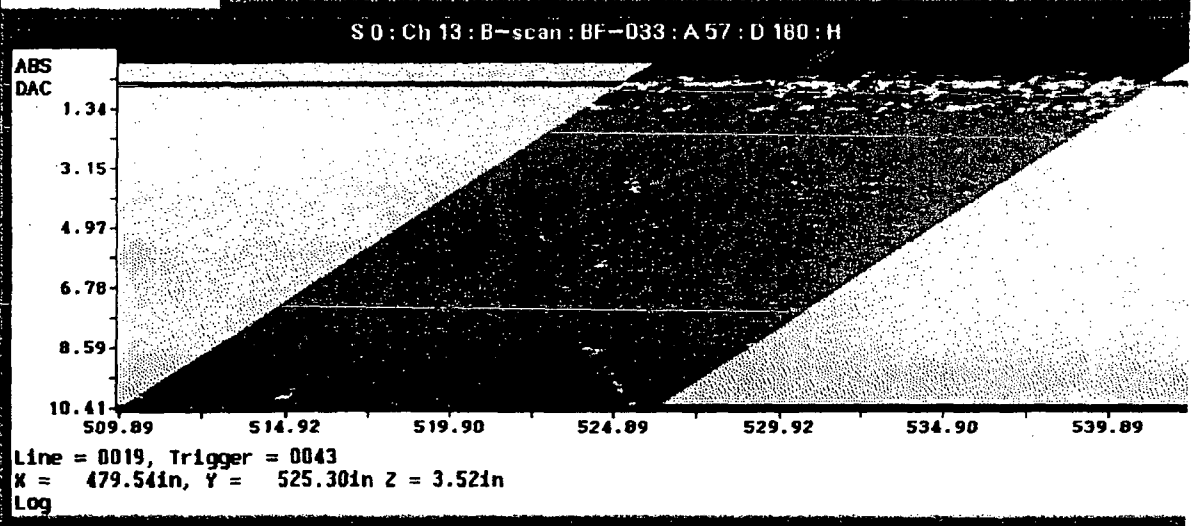
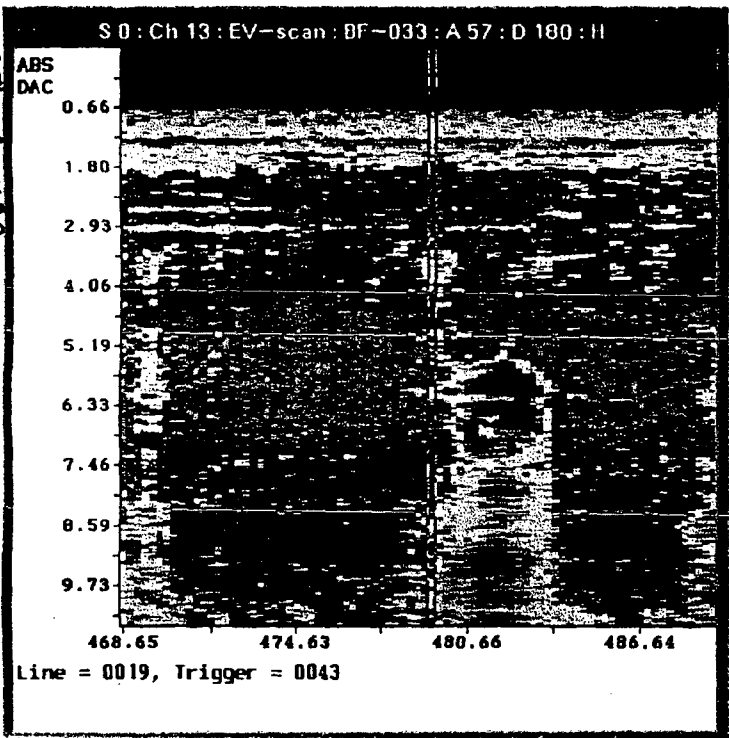
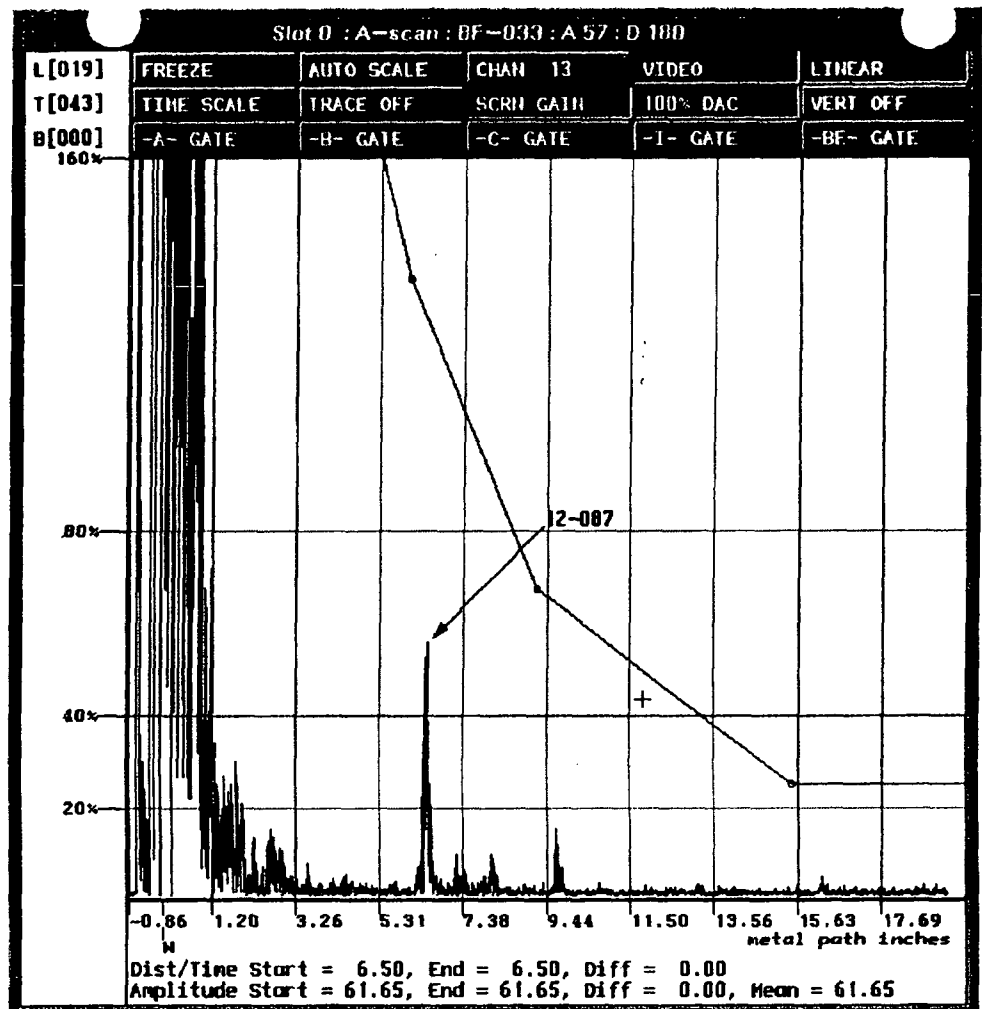
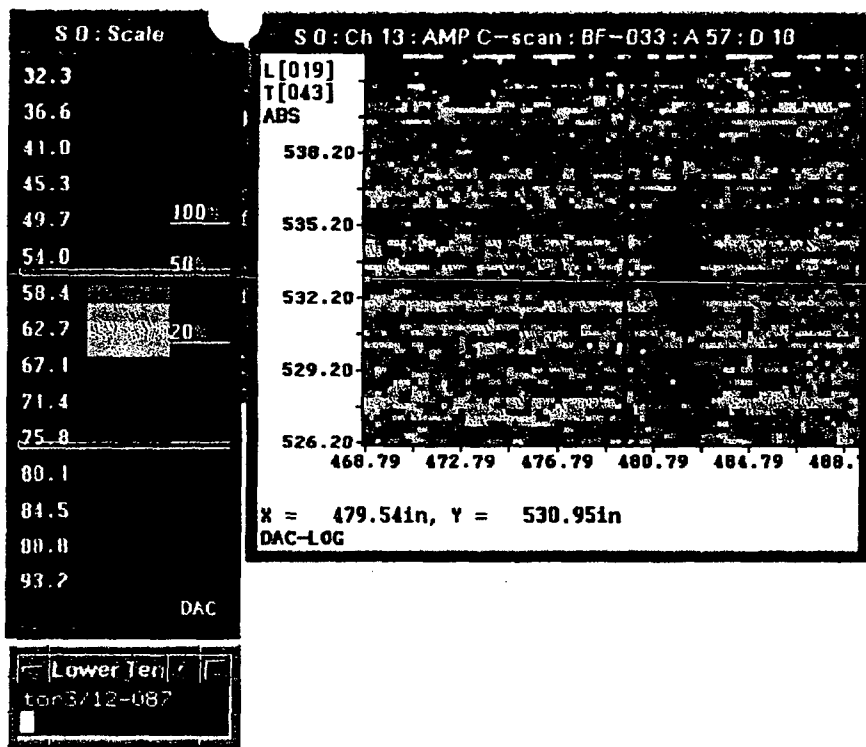
R1153



R1153



R1153



R 1153

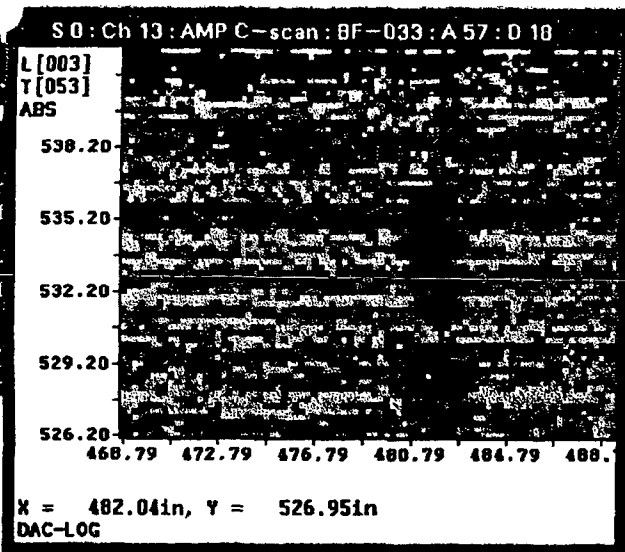
R 1153

S 0 : Scale

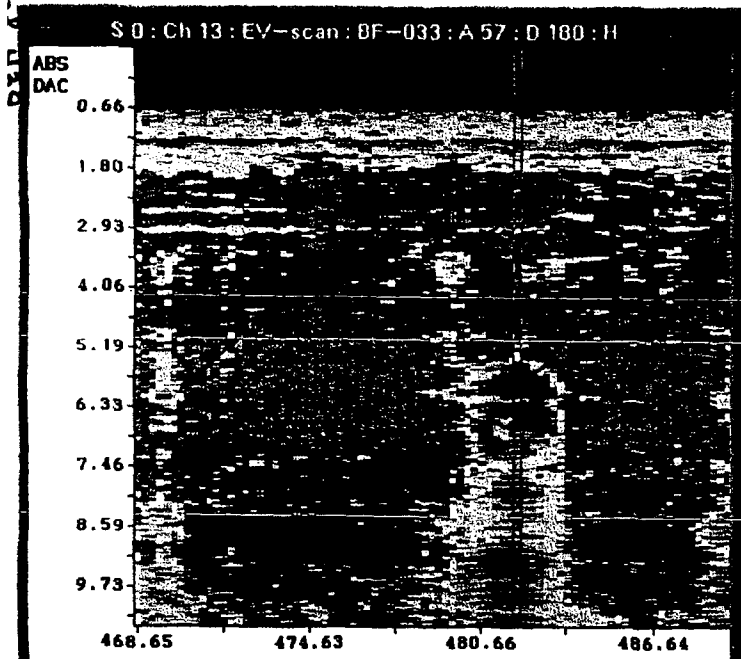
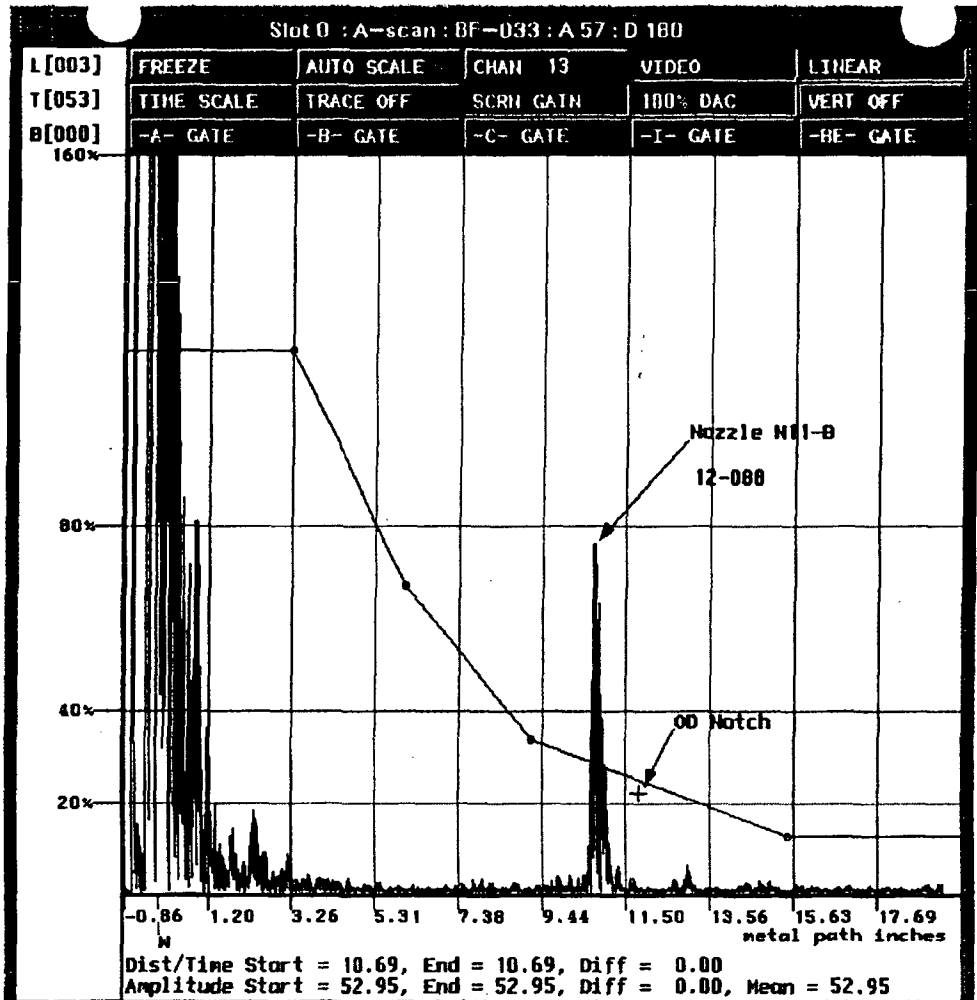
32.3
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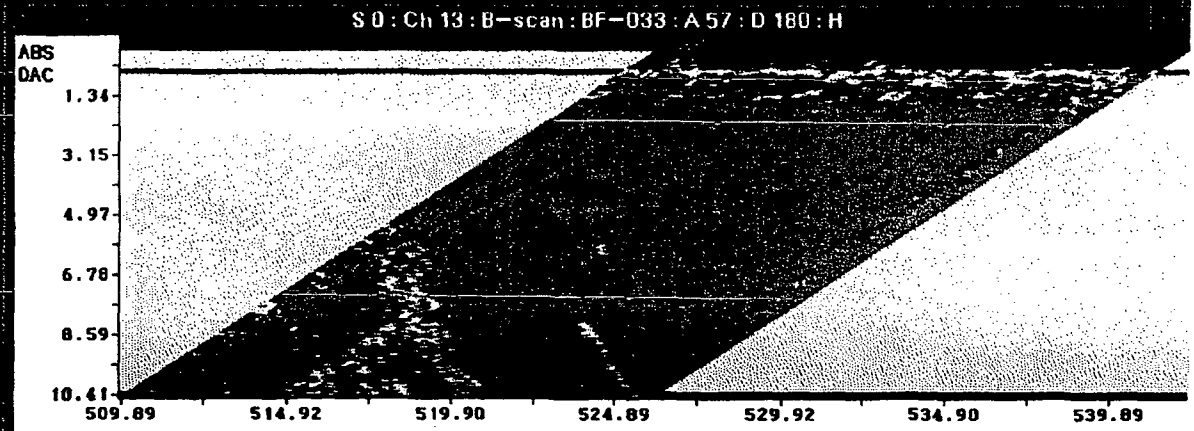
DAC



Lower Tern
ton 3/12-088

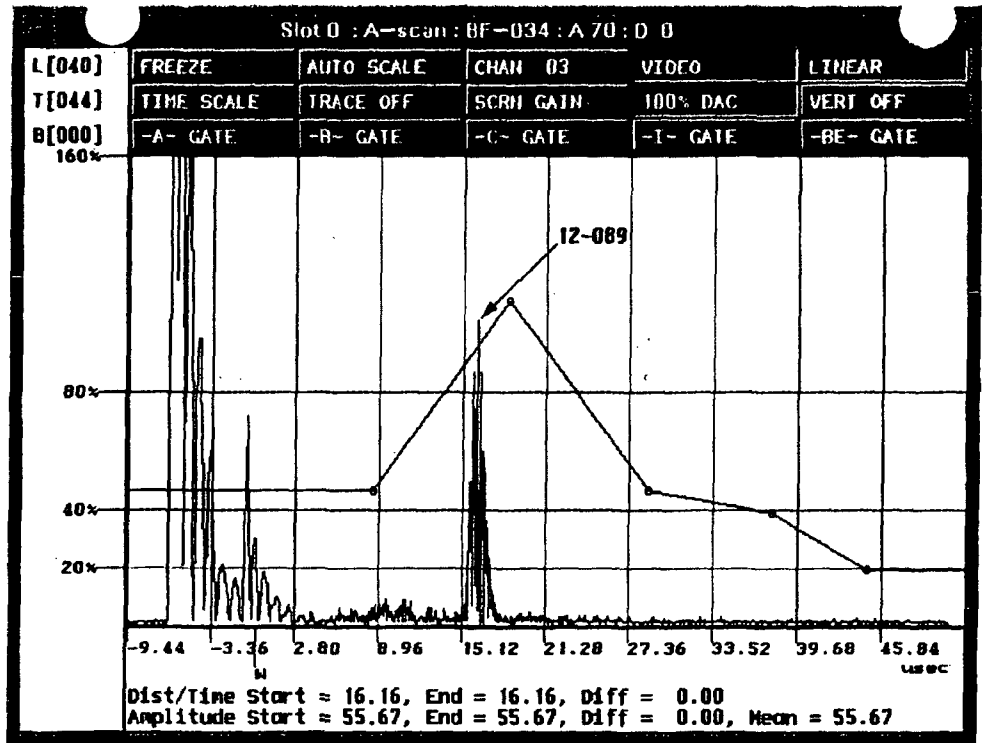
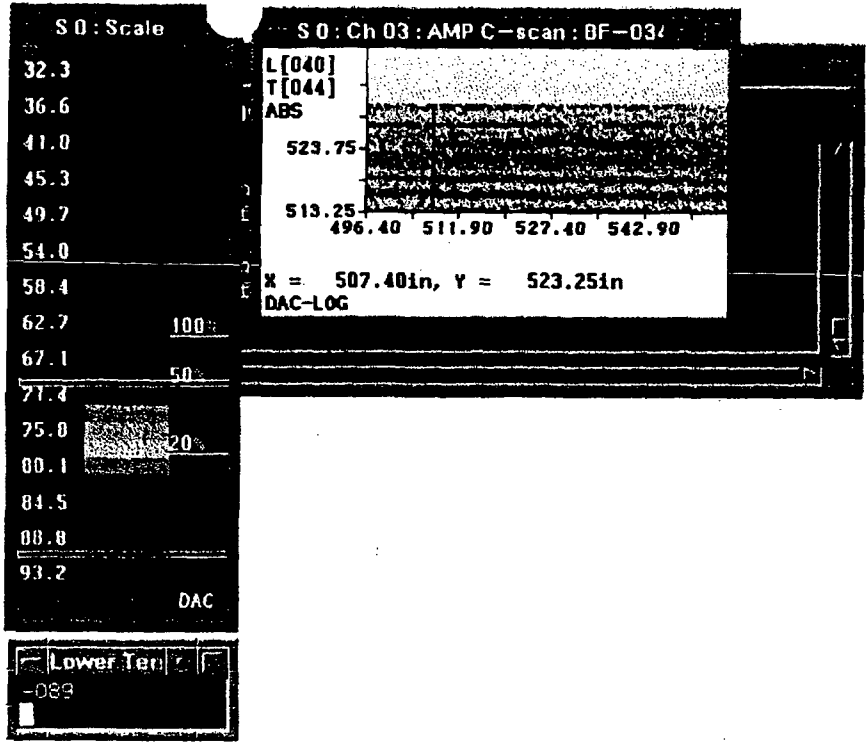


Line = 0003, Trigger = 0053

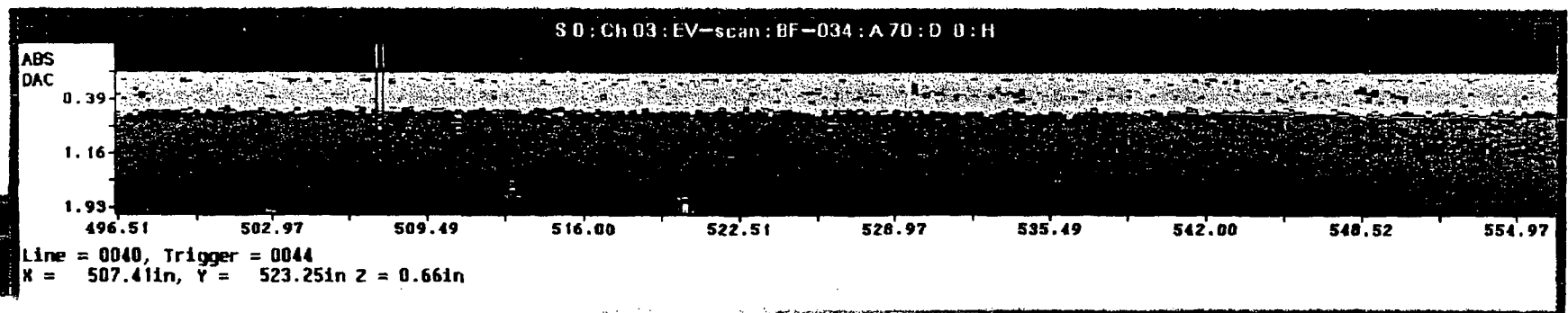
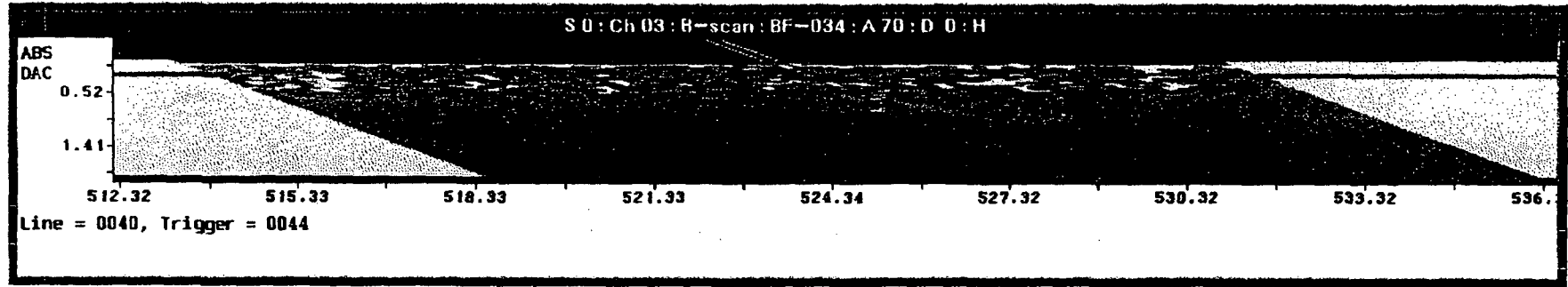


Line = 0003, Trigger = 0053
X = 482.04in, Y = 518.32in Z = 5.56in
Log

21153

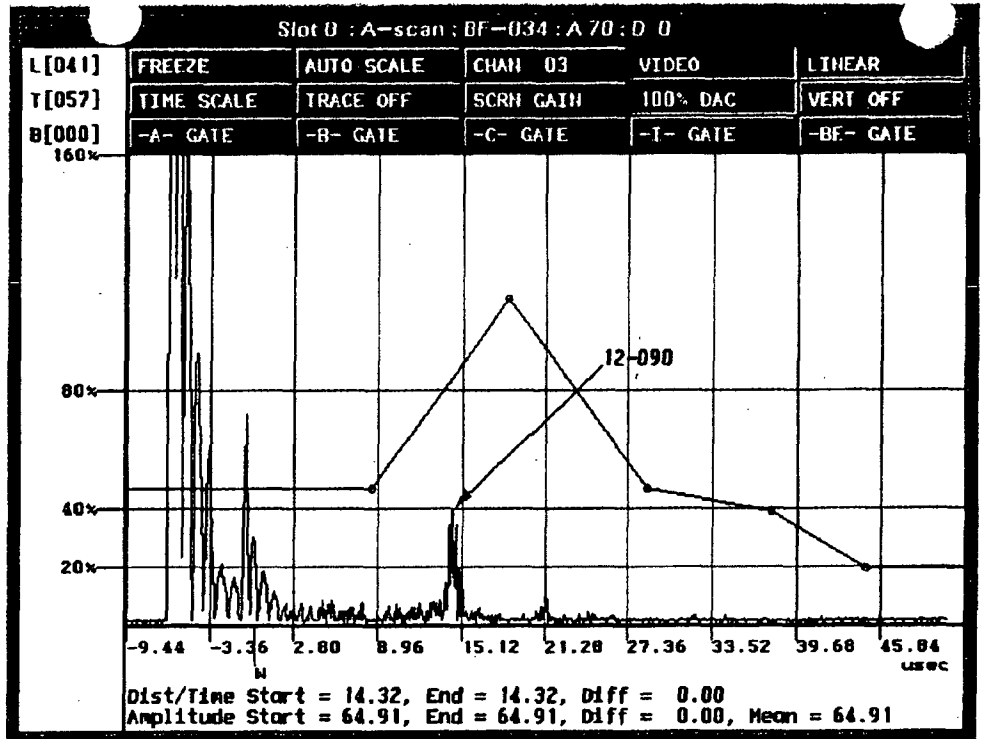
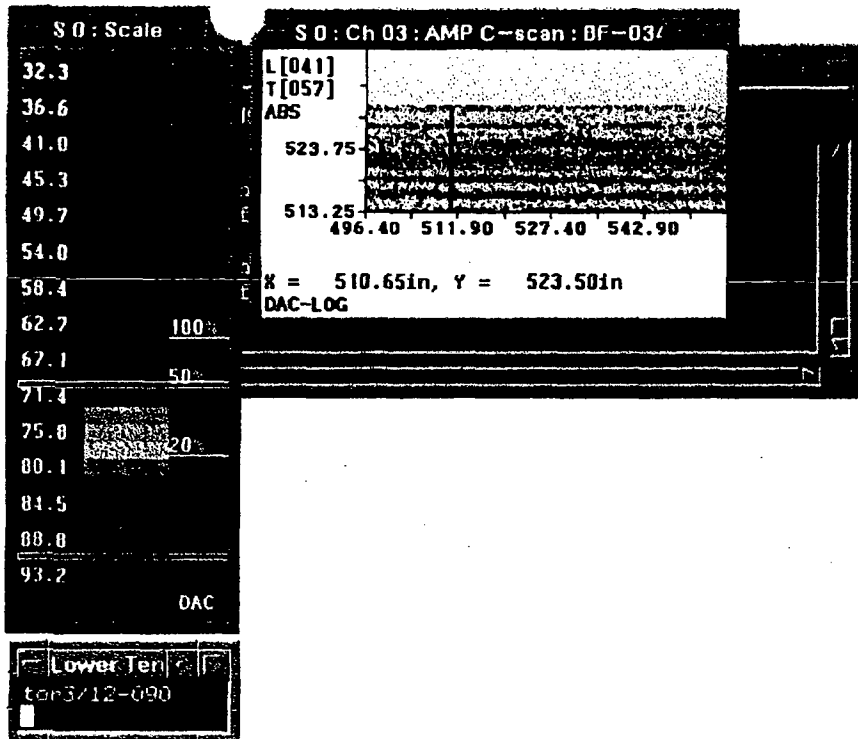


222 J 222

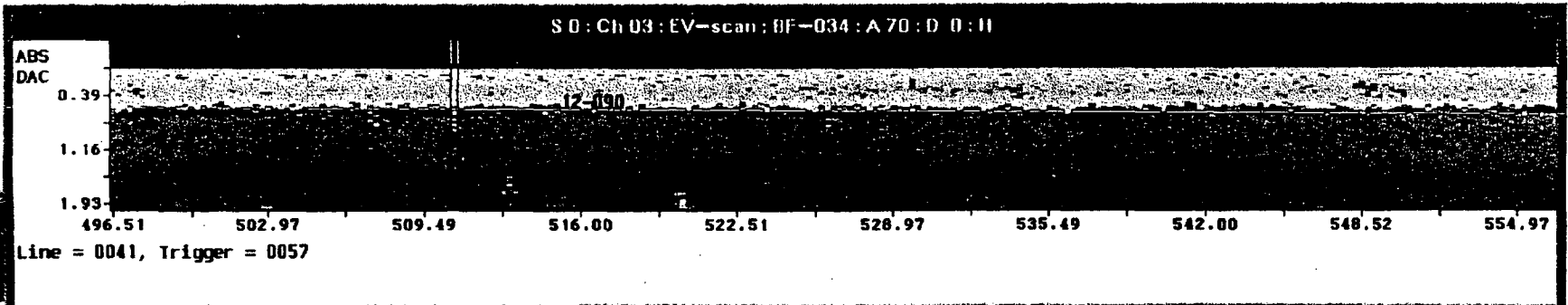
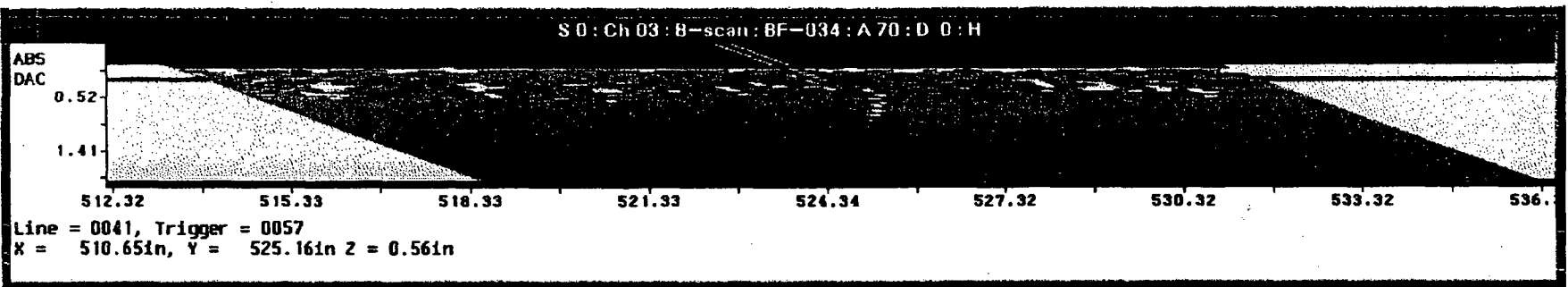


0000 0000

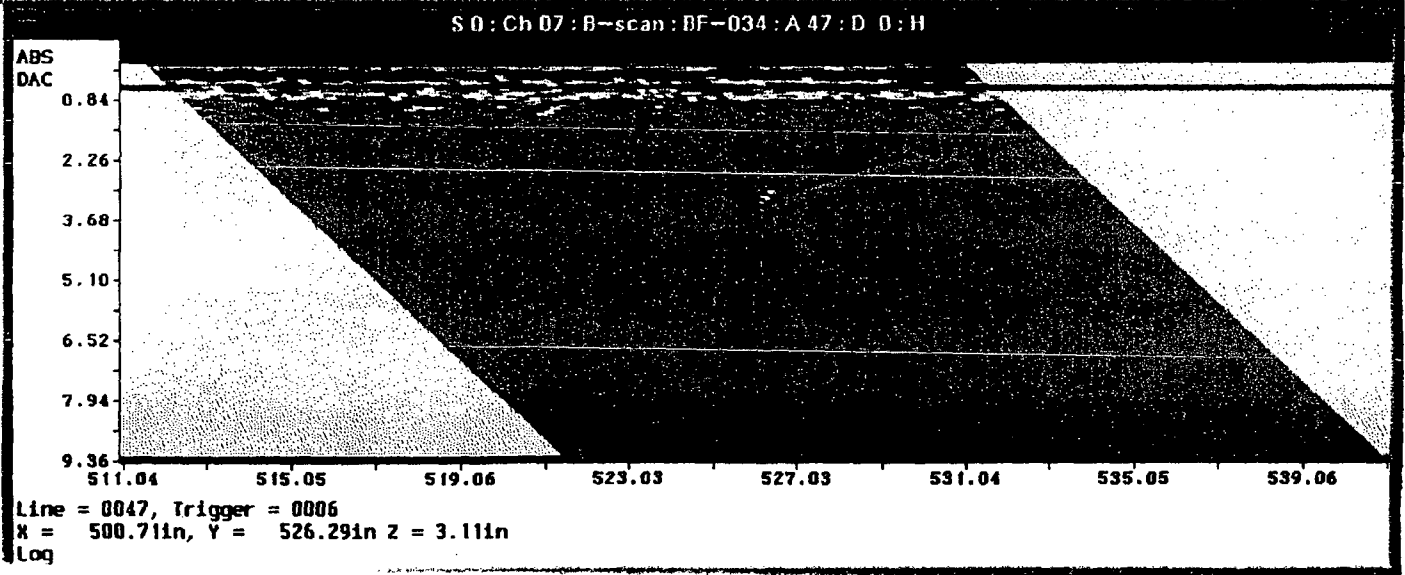
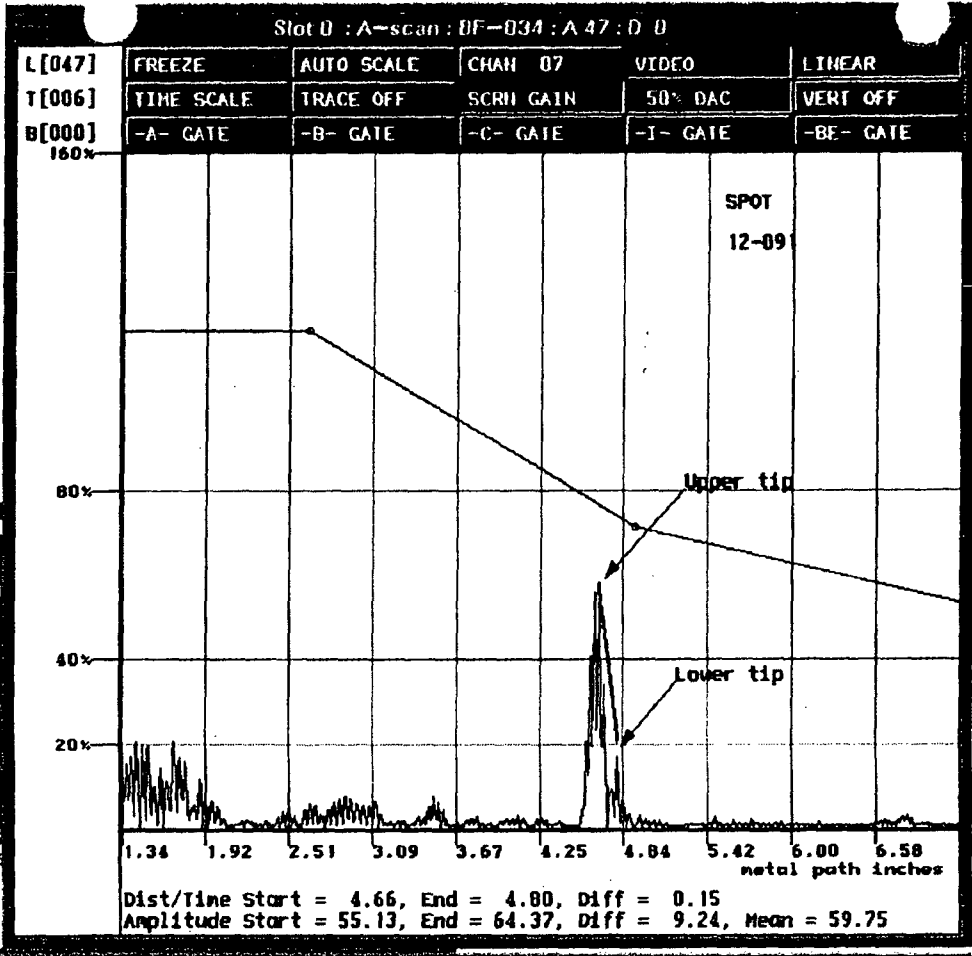
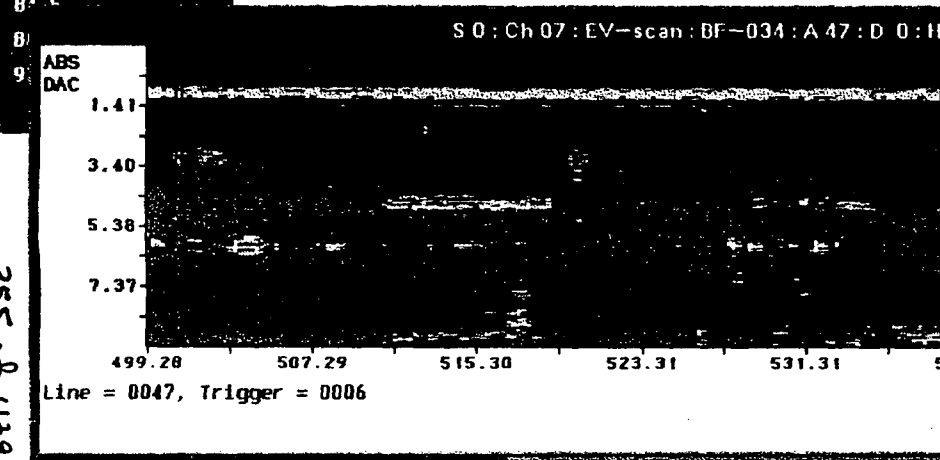
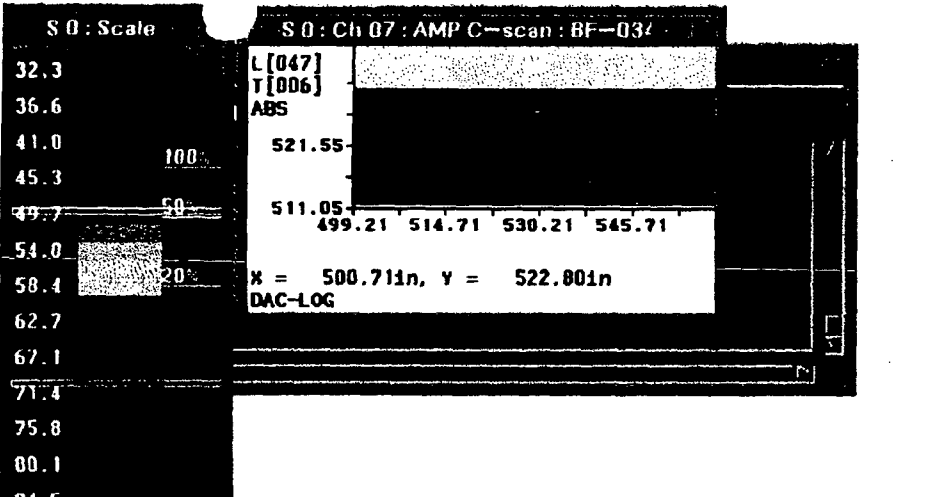
R2153



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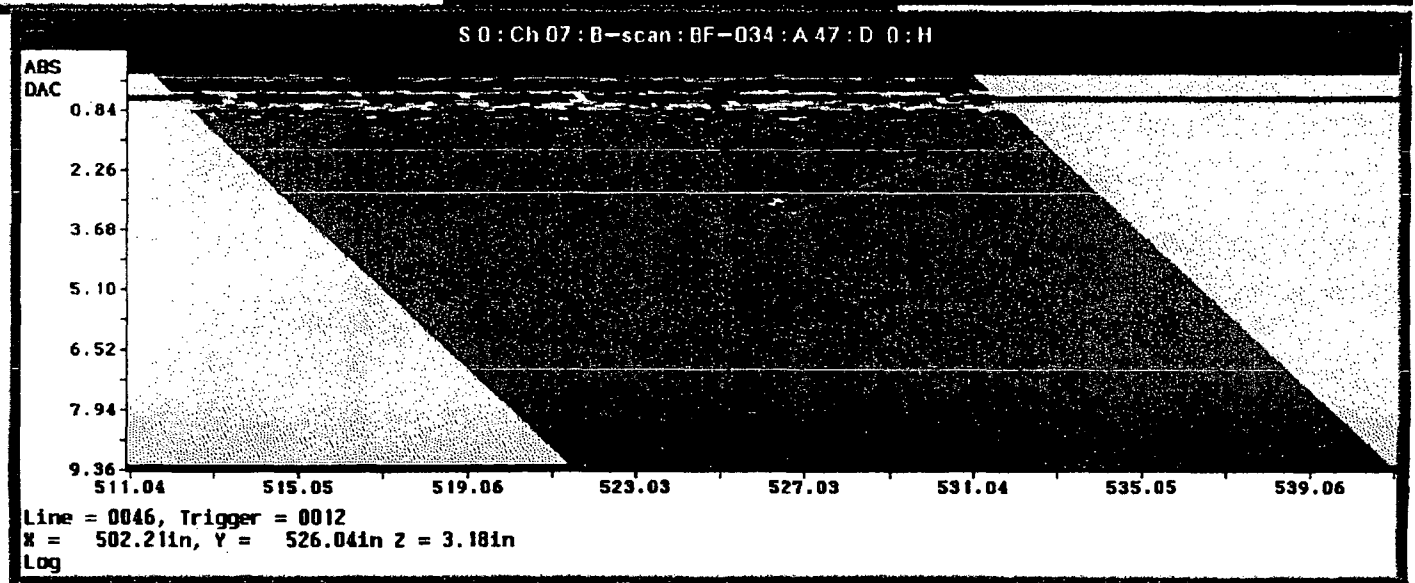
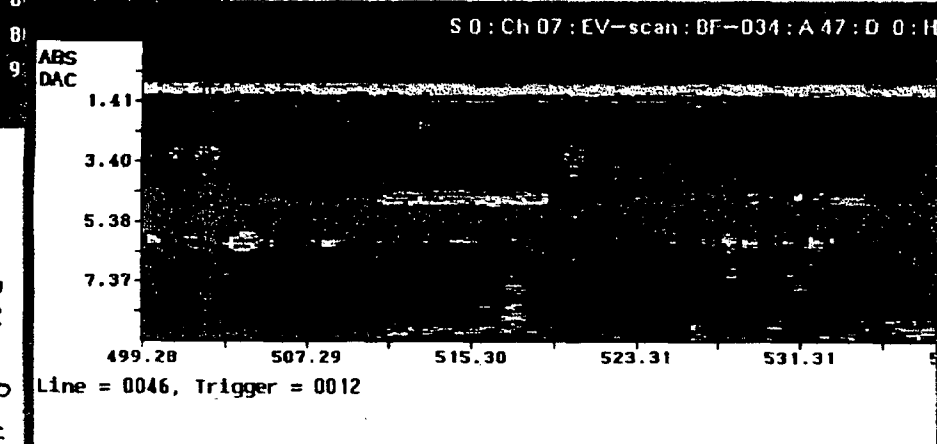
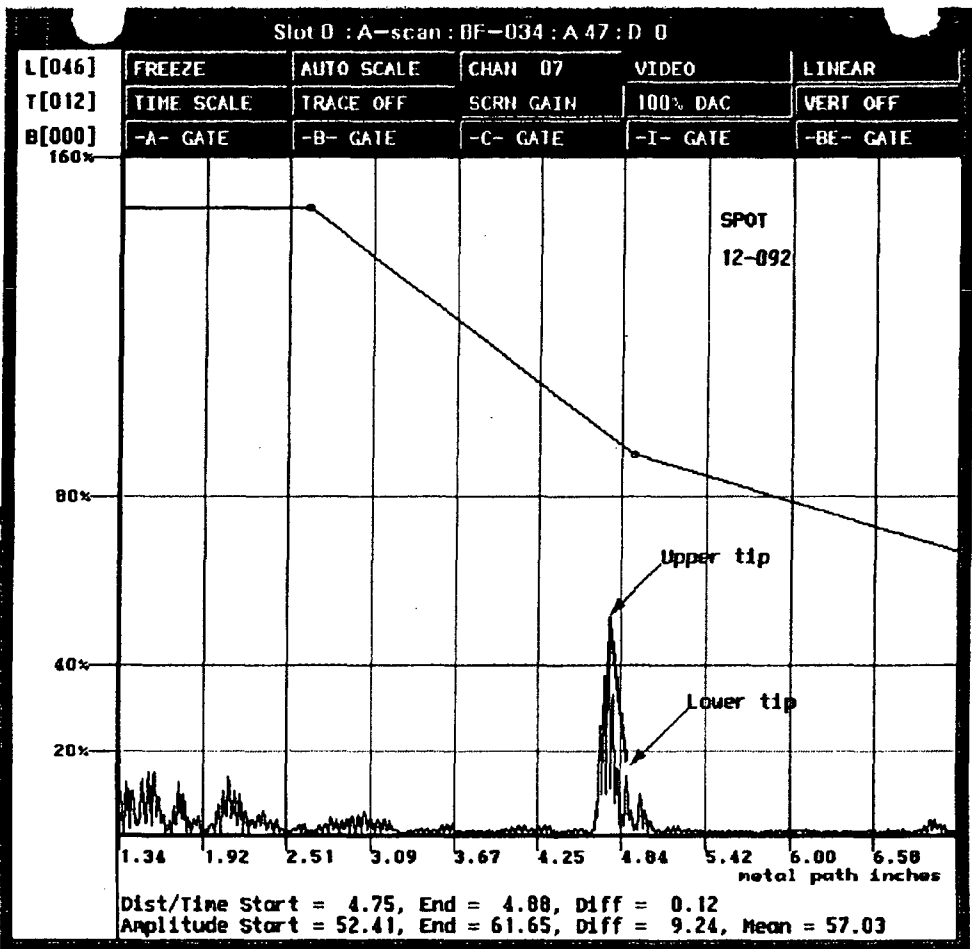
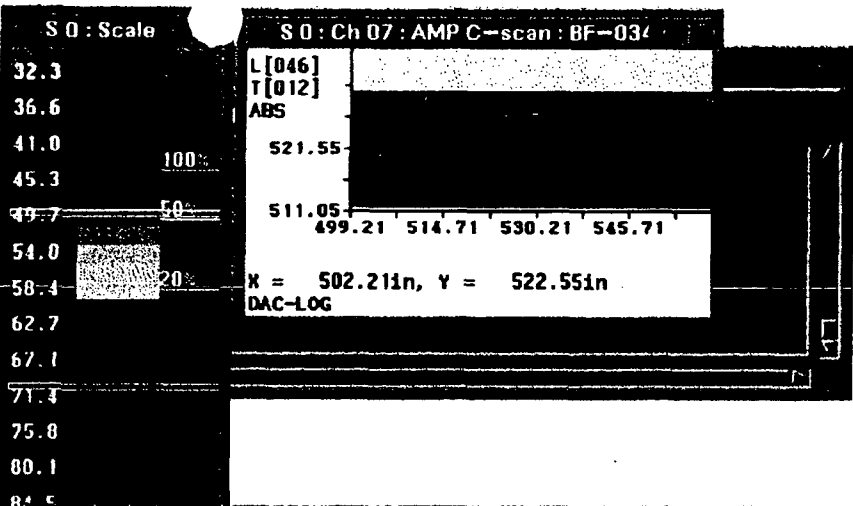
R1153



Lower Tip
for 3/12-091

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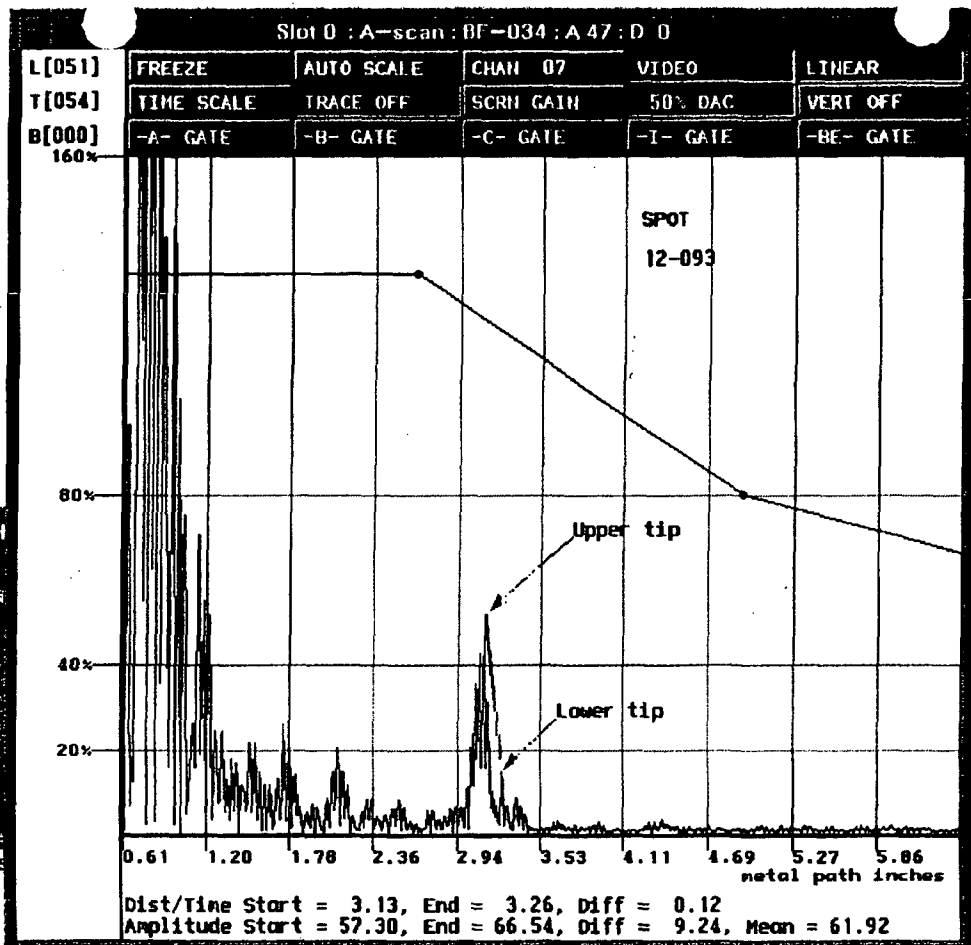
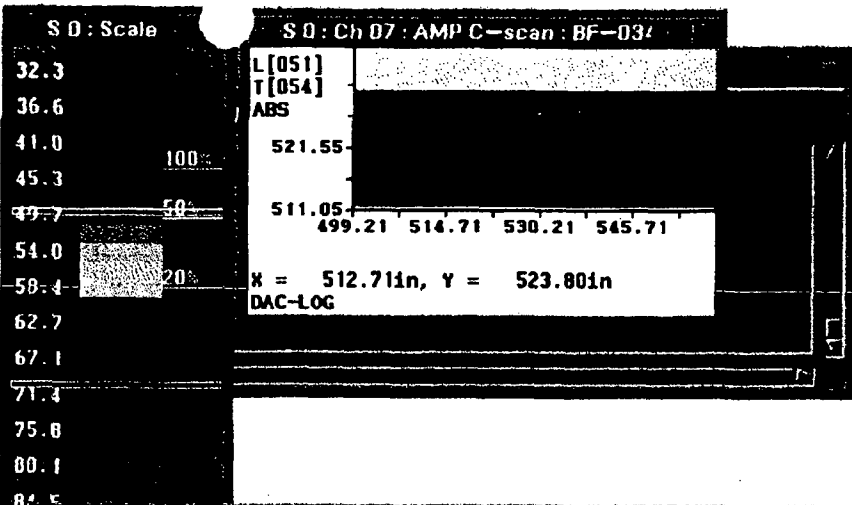
21153



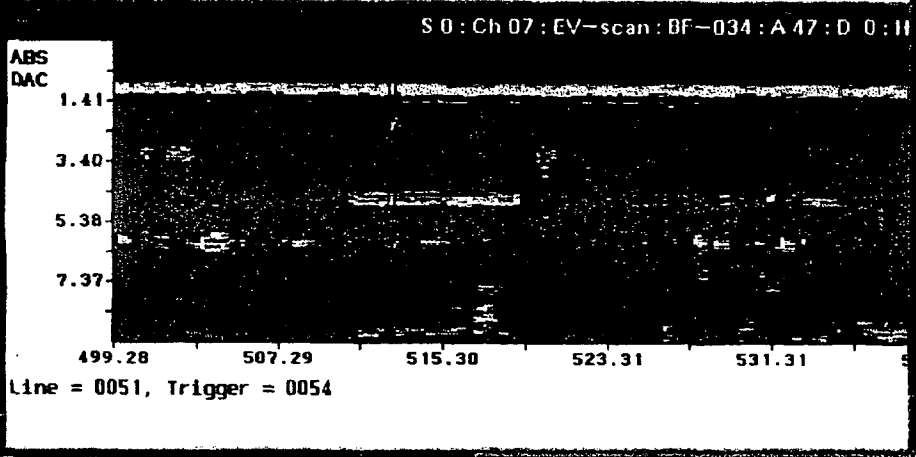
Lower tip
top3/12-092

352 of 439

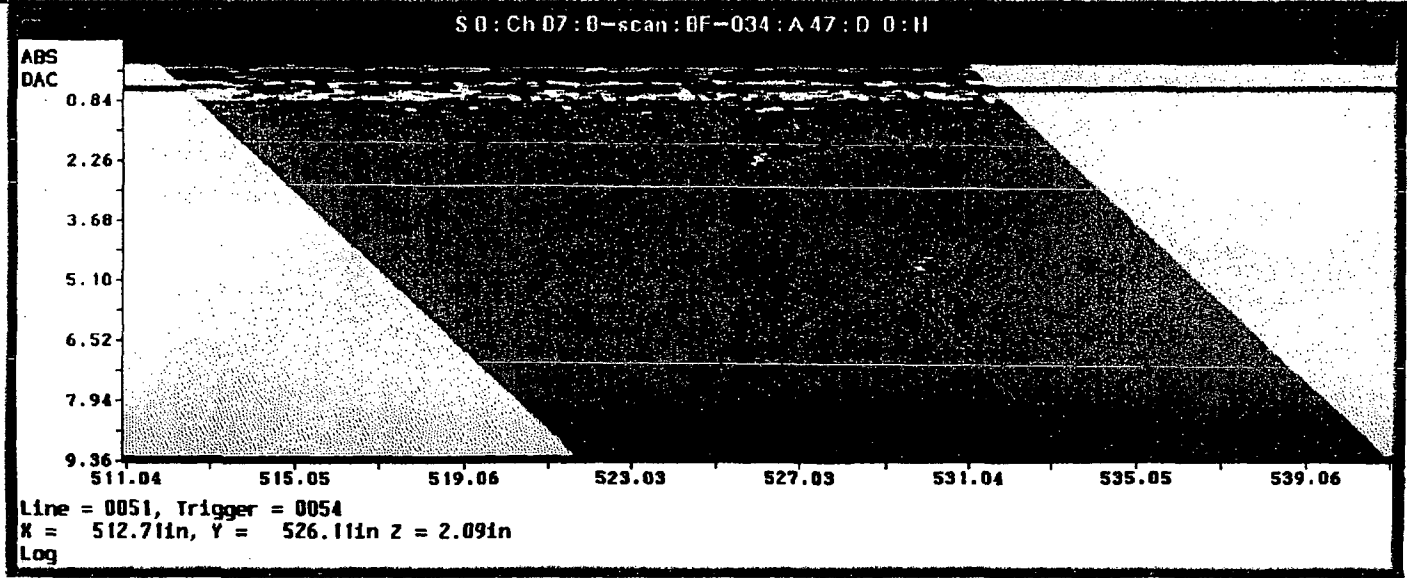
R1153



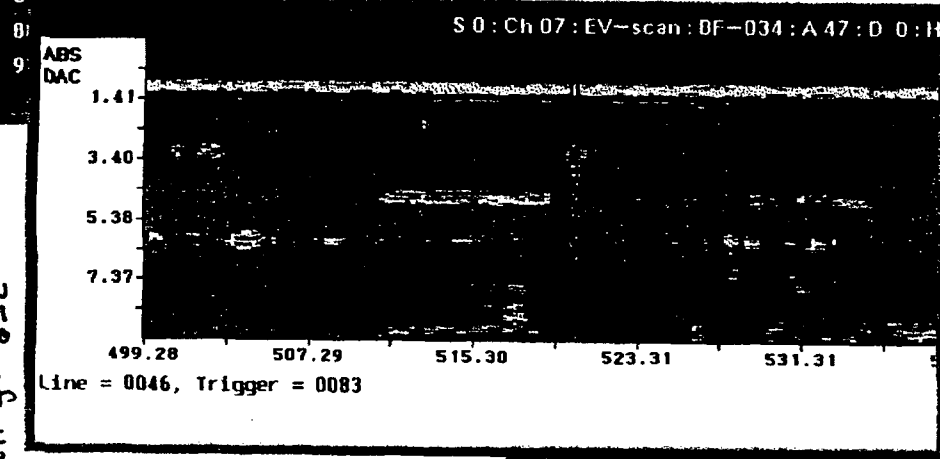
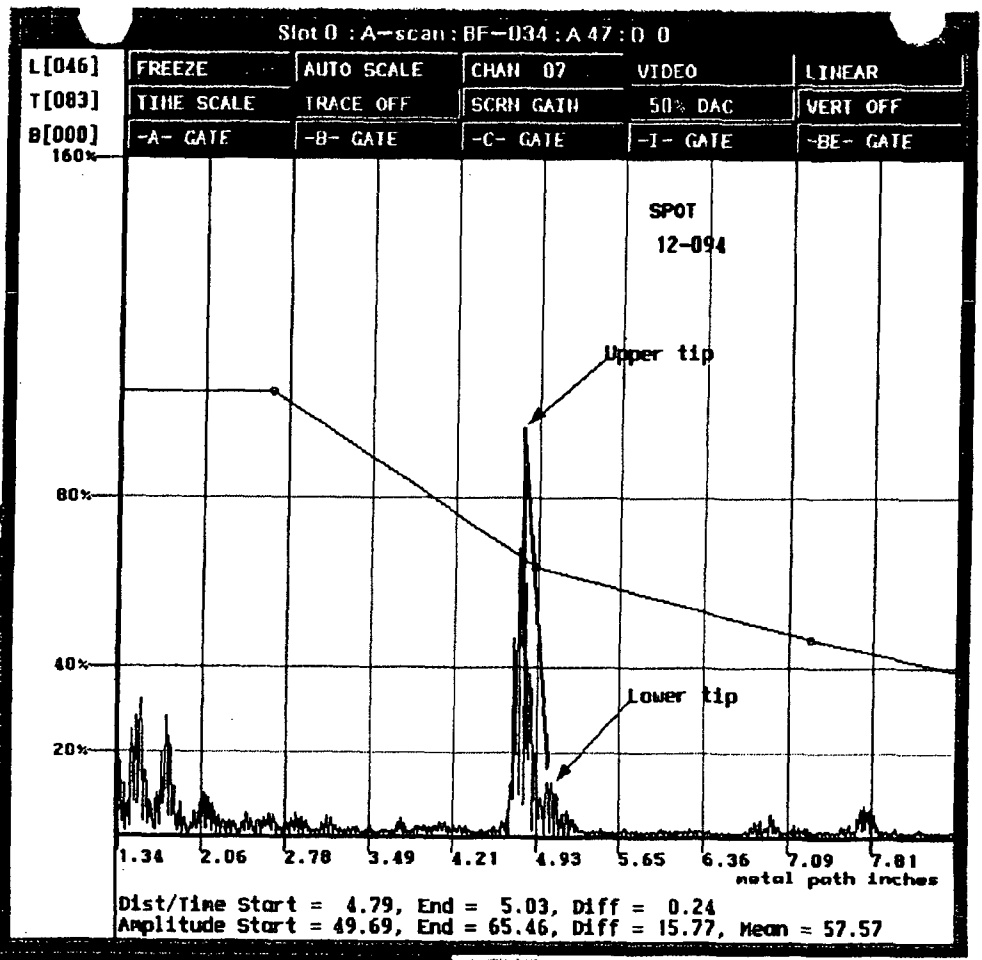
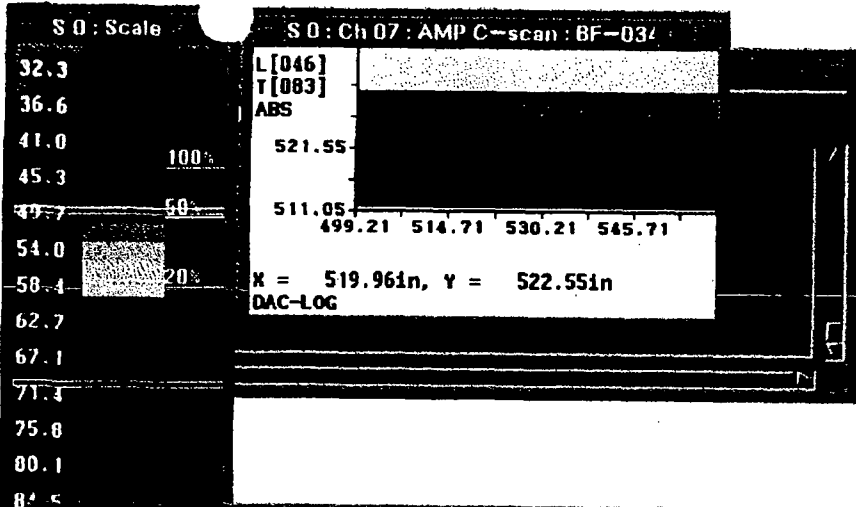
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Lower tip
tor3/12-093

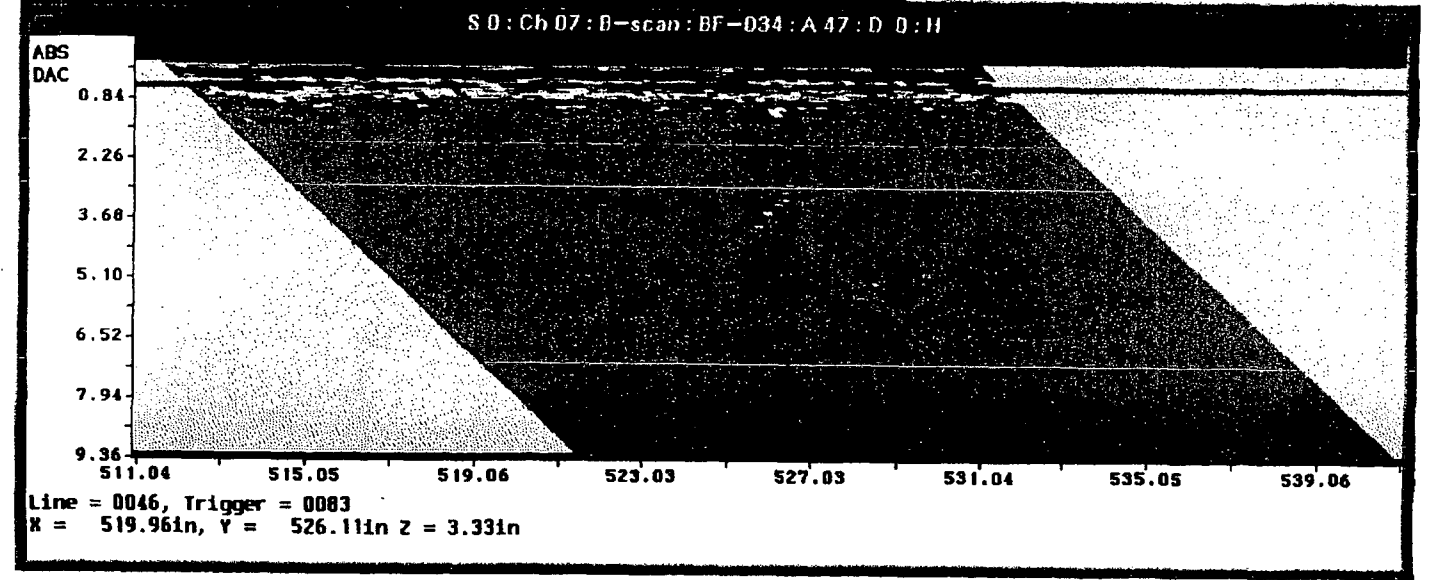


21153



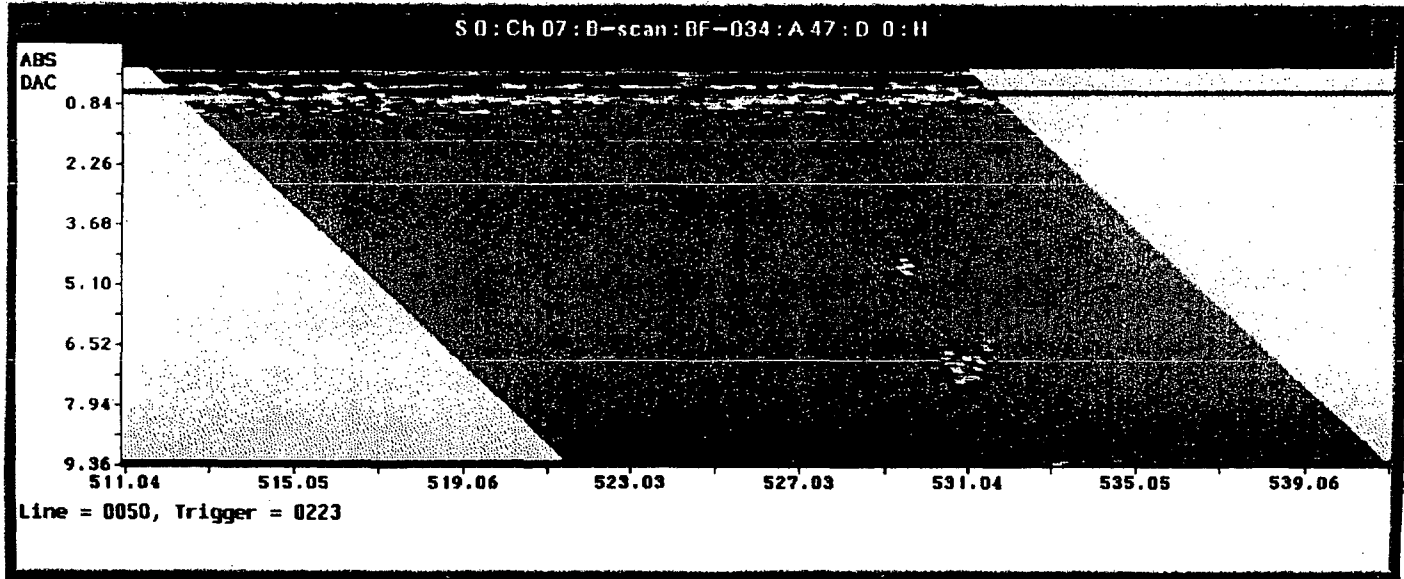
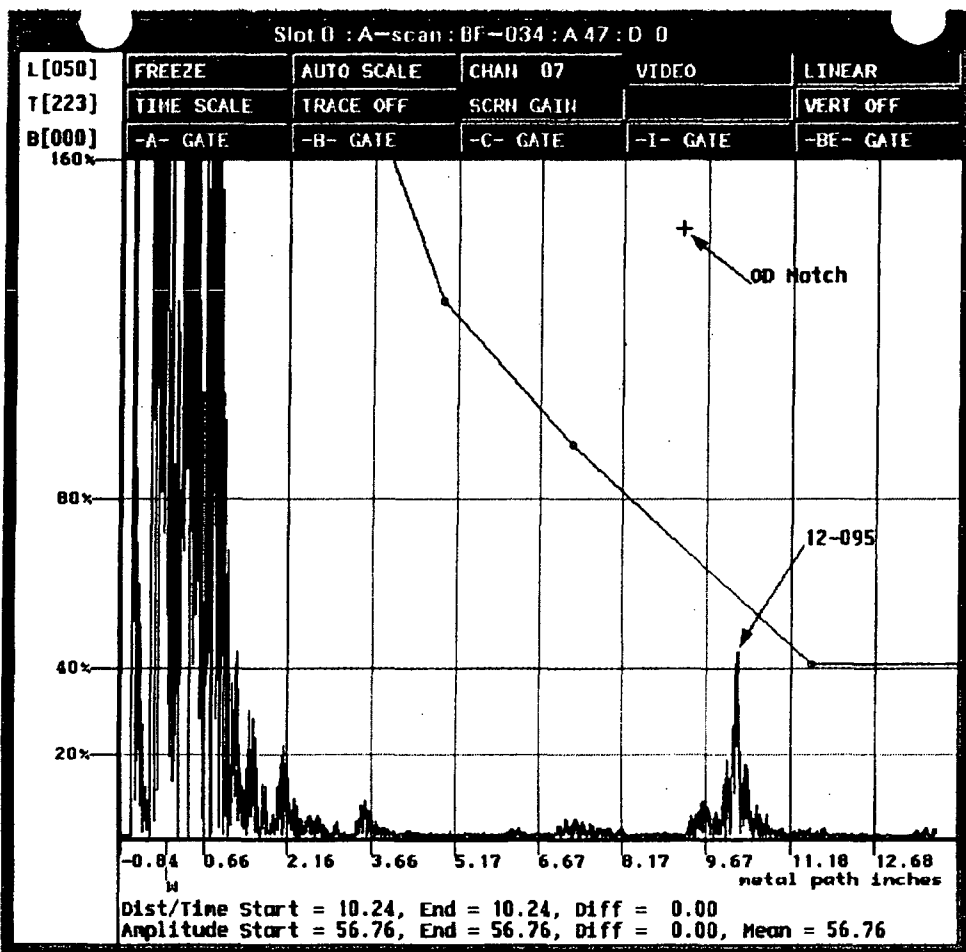
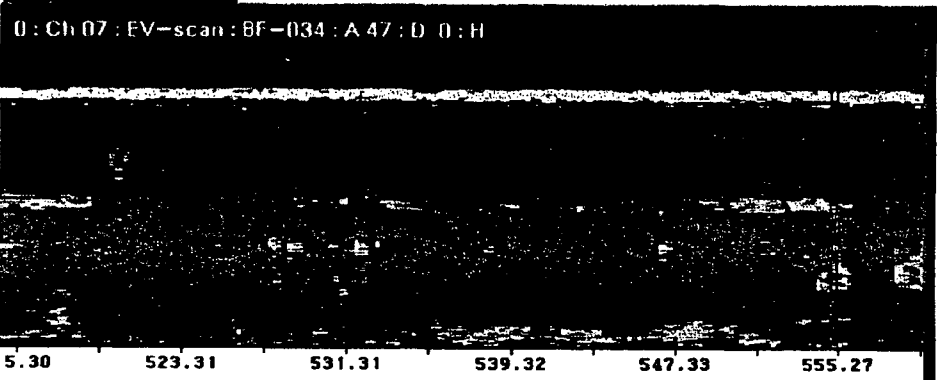
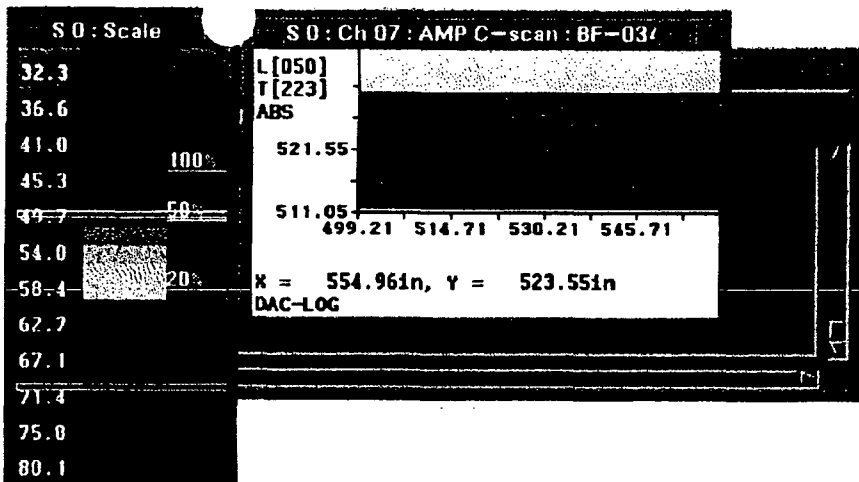
358 of 439

Lower Tip
tor3/12-094



12-094

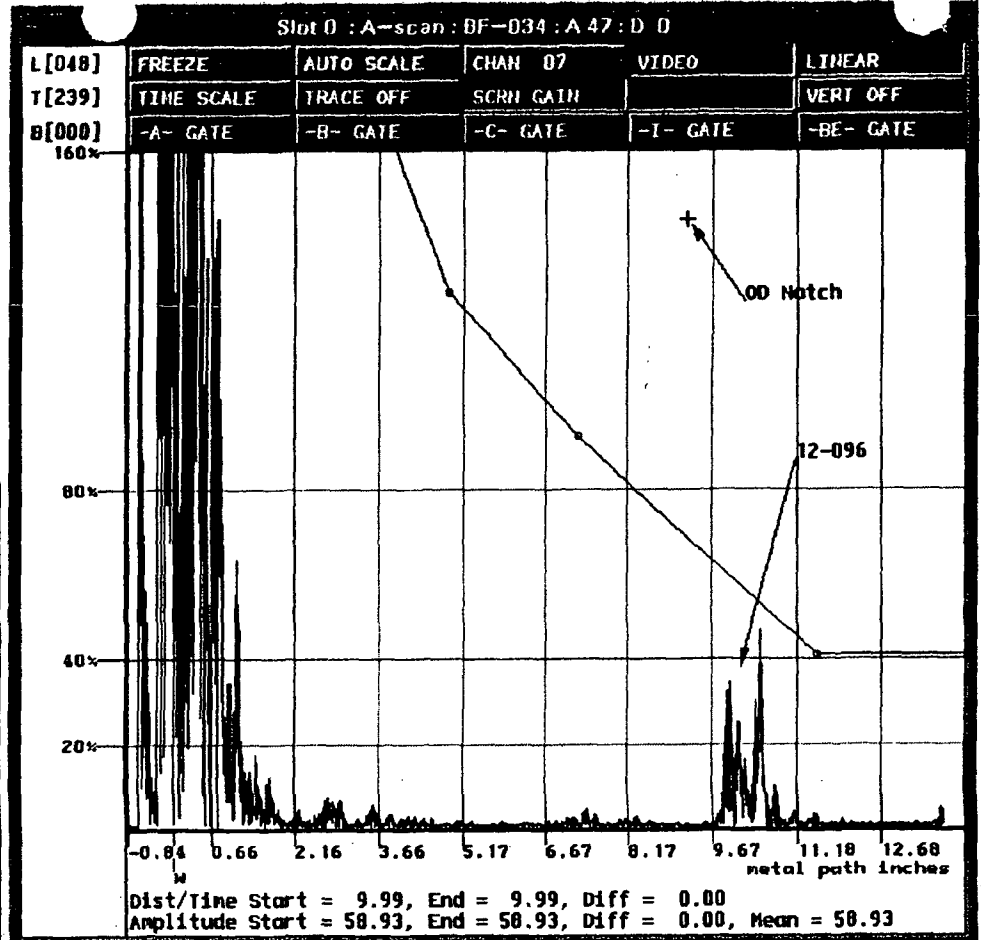
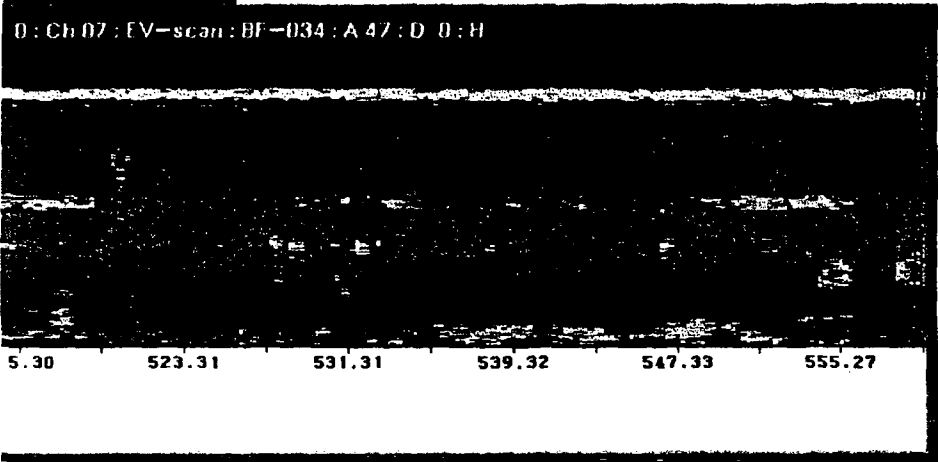
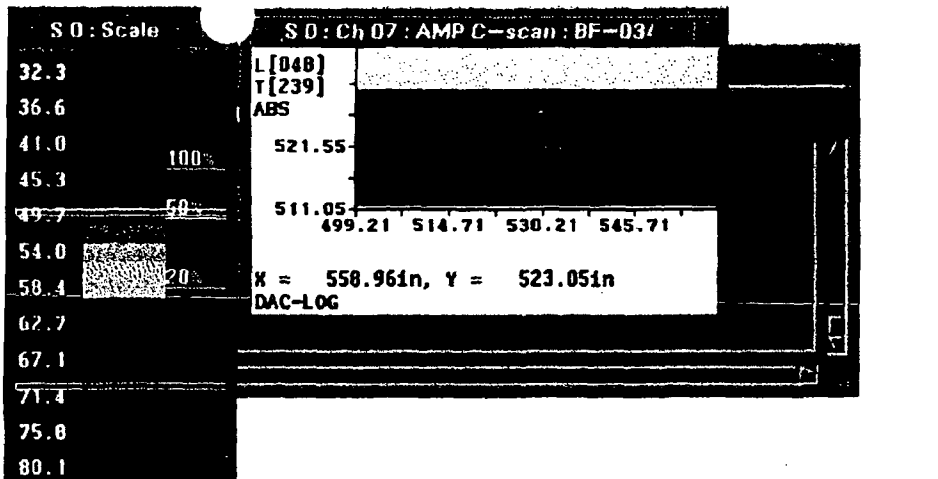
R1153



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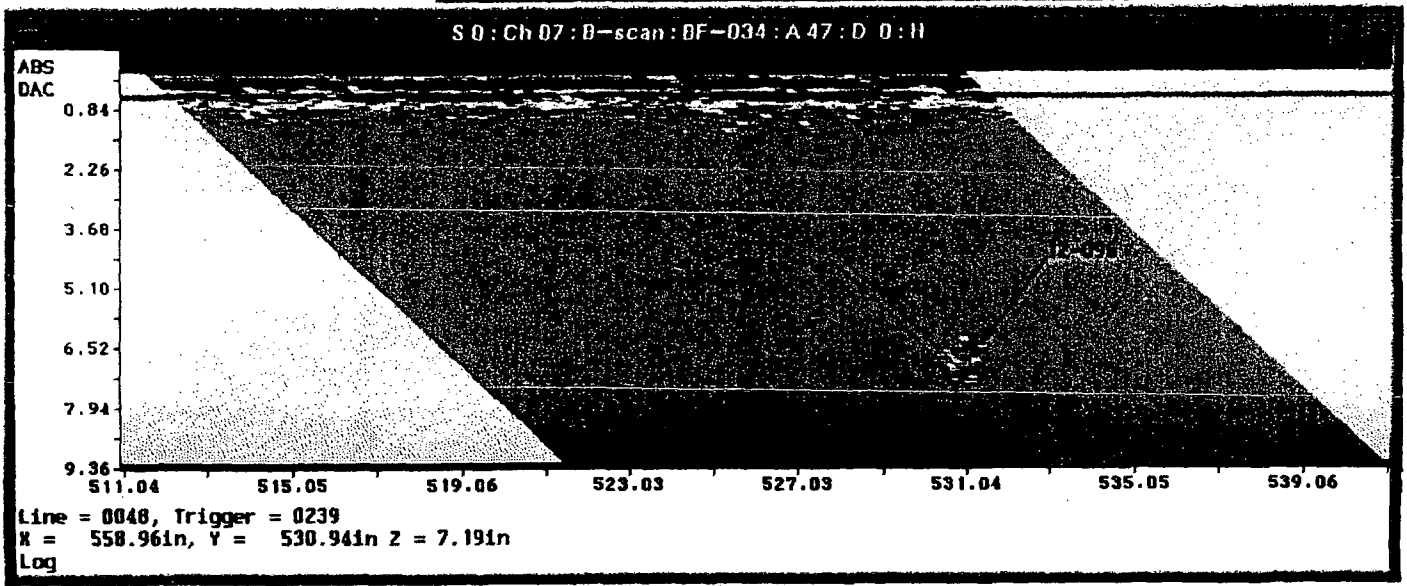
Lower JAR
tar3/12-095

21153

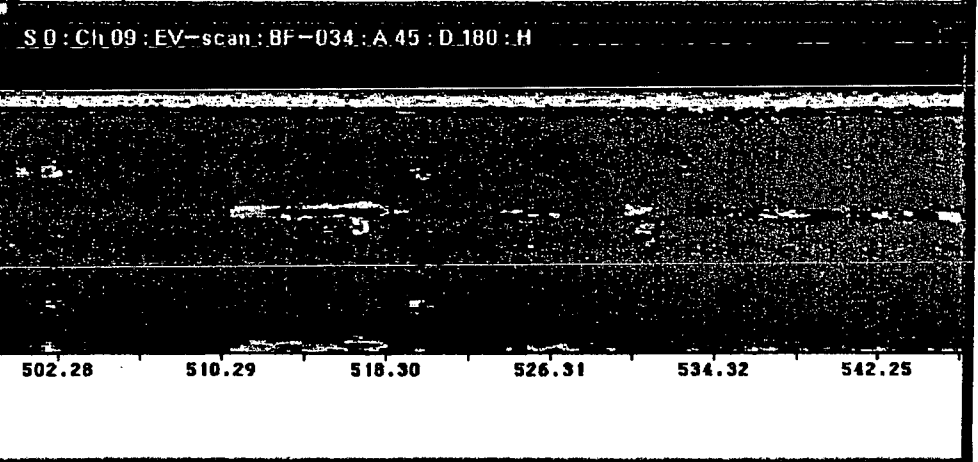
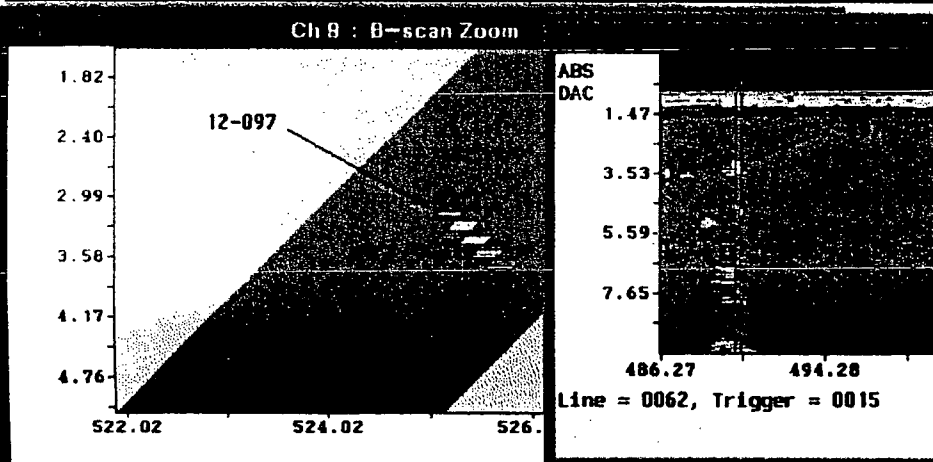
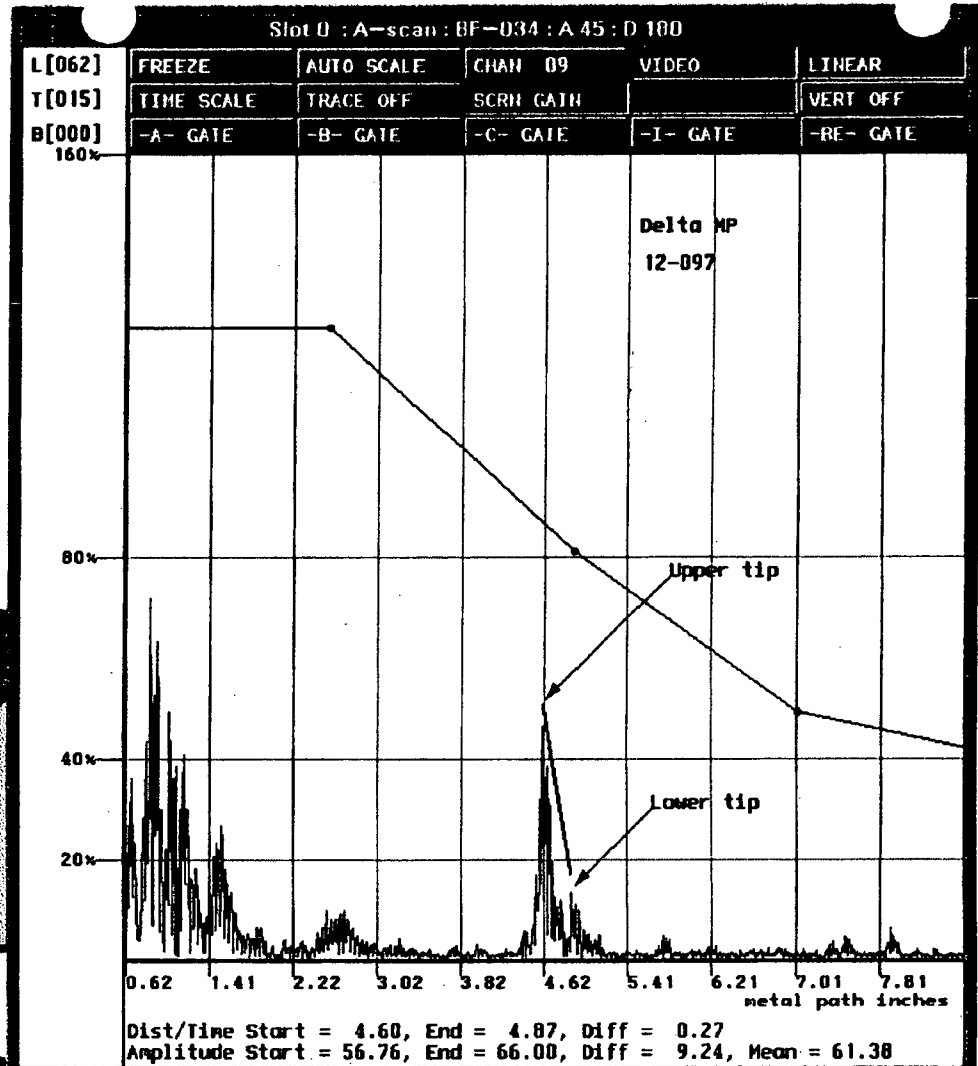
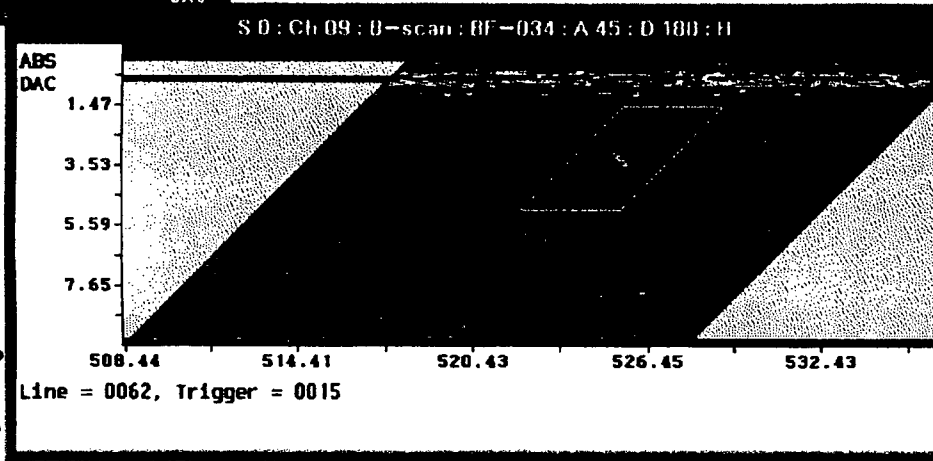
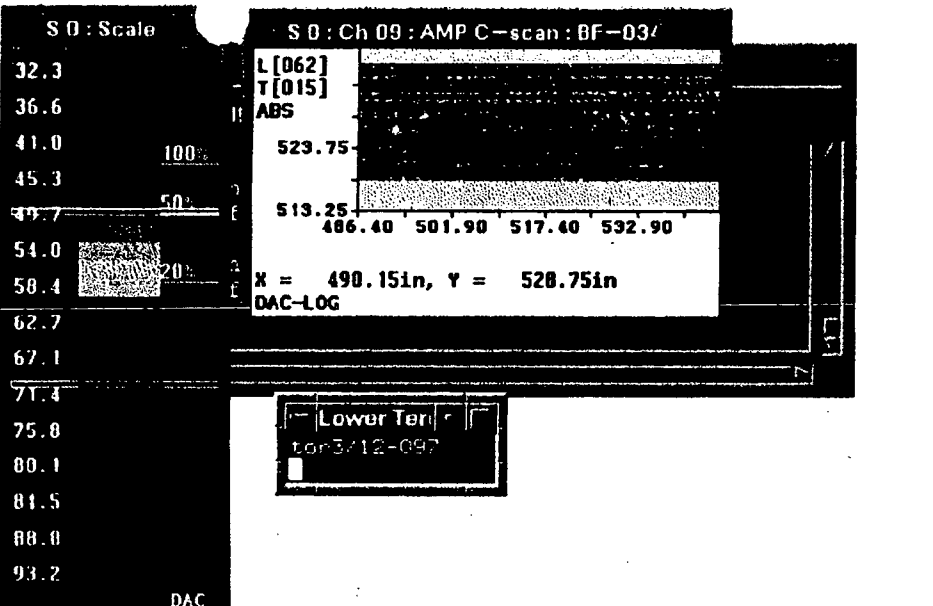


2153

Lower Tan
tar3/12-096

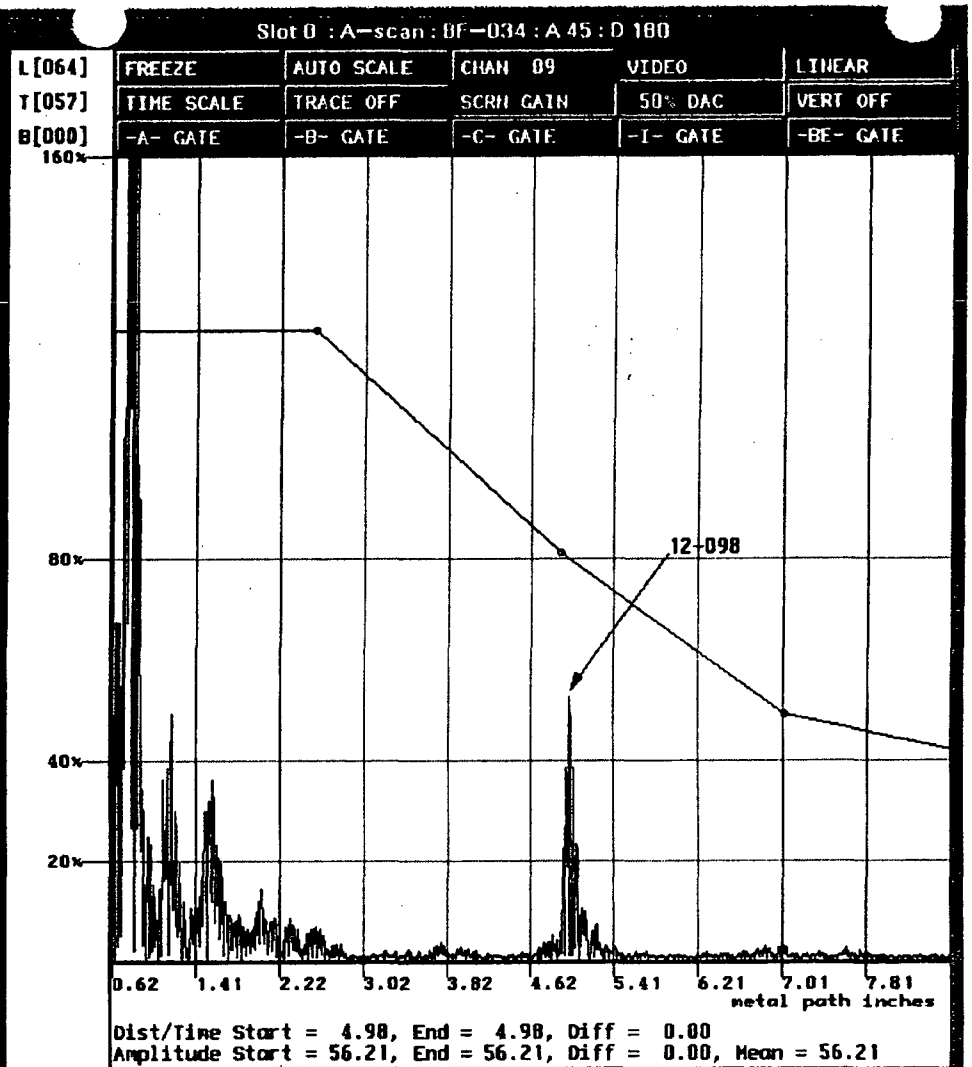
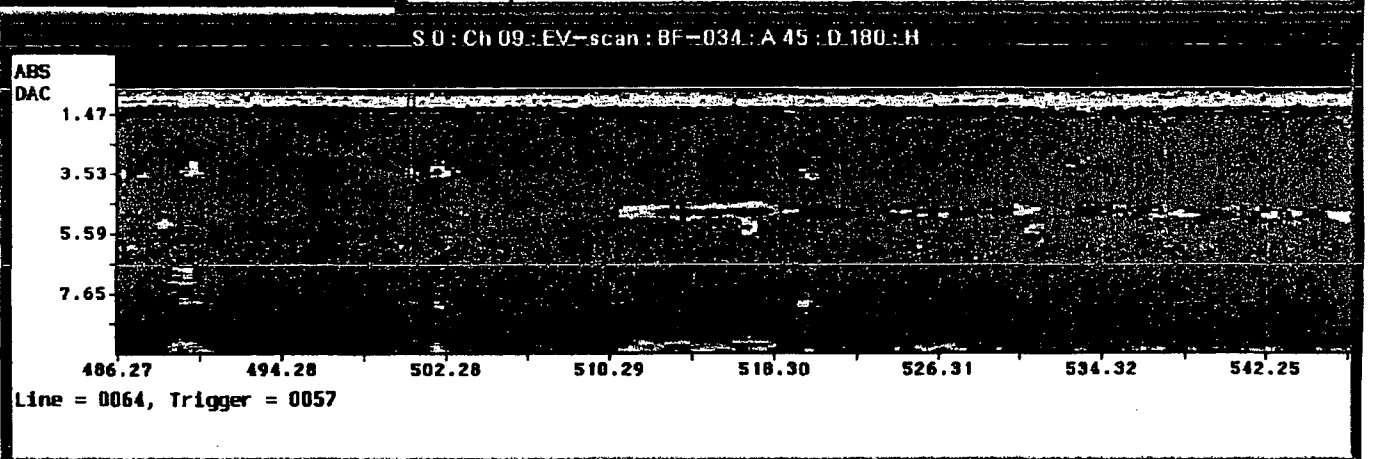
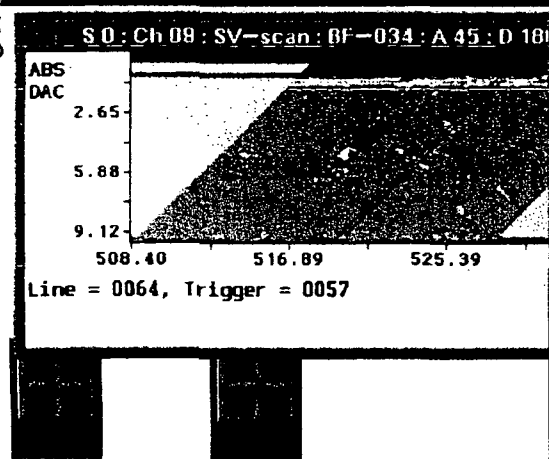
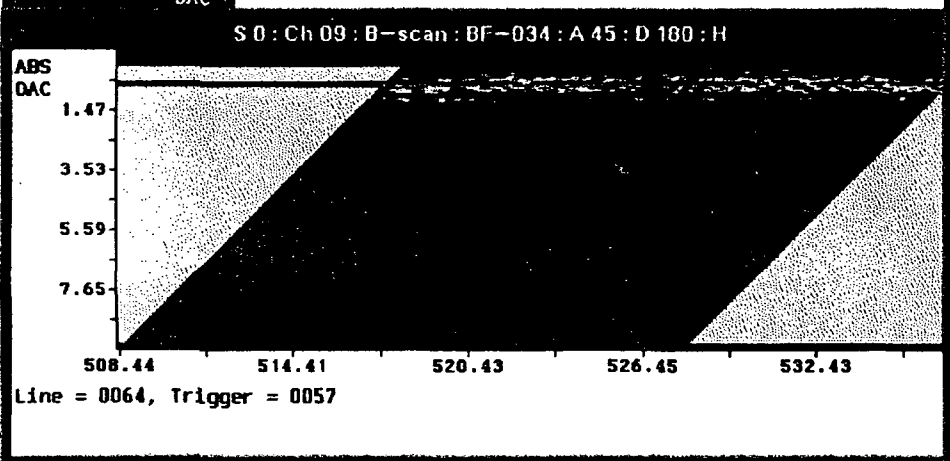
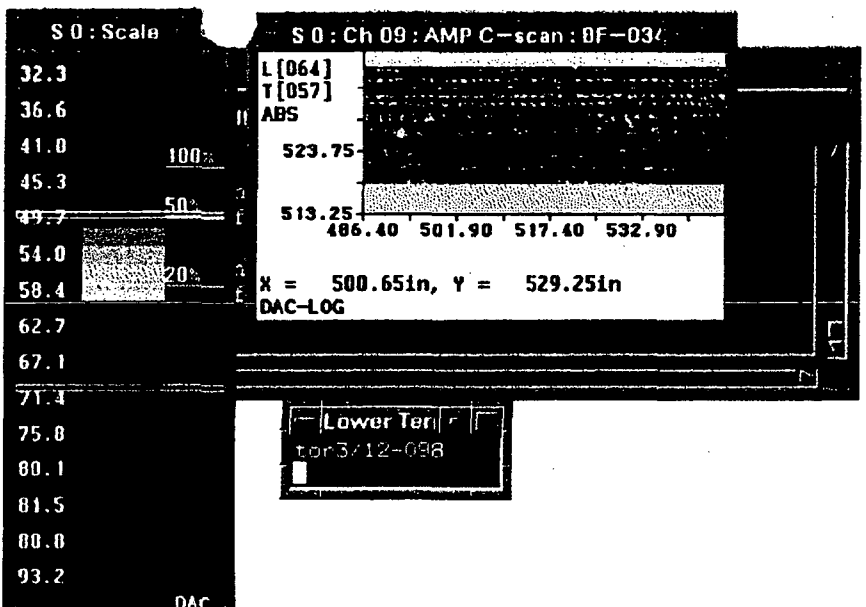


2153

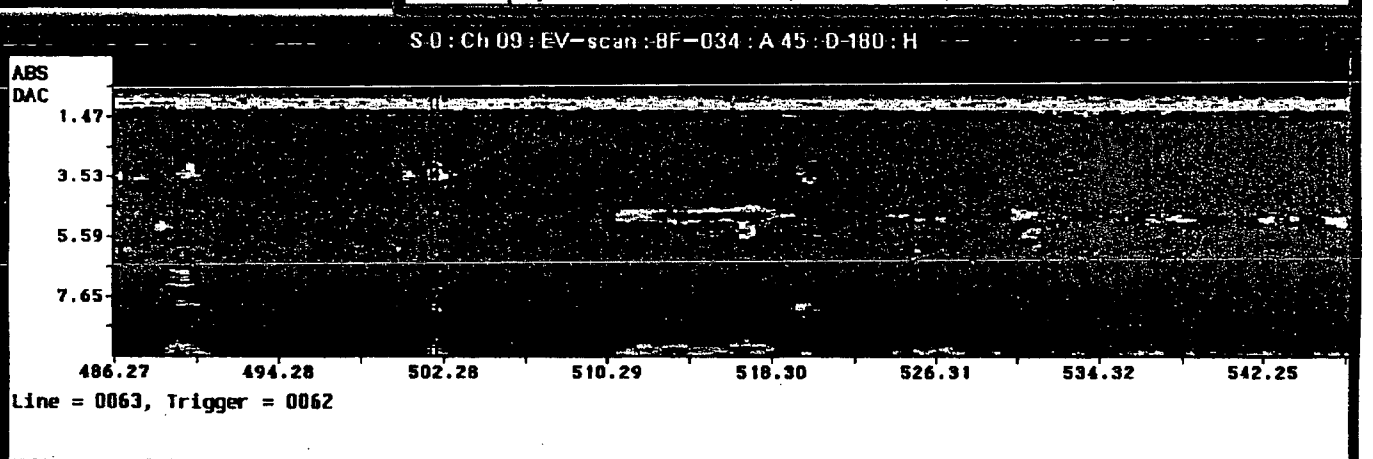
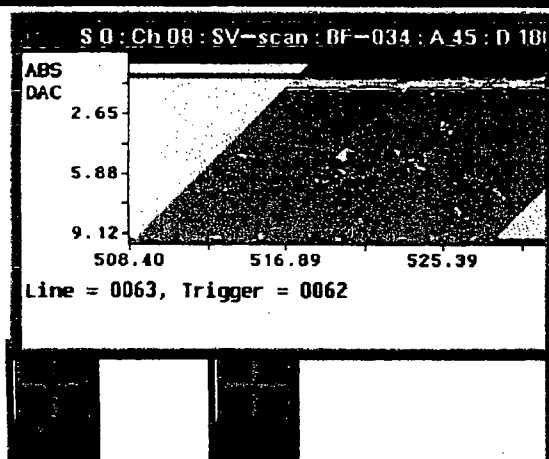
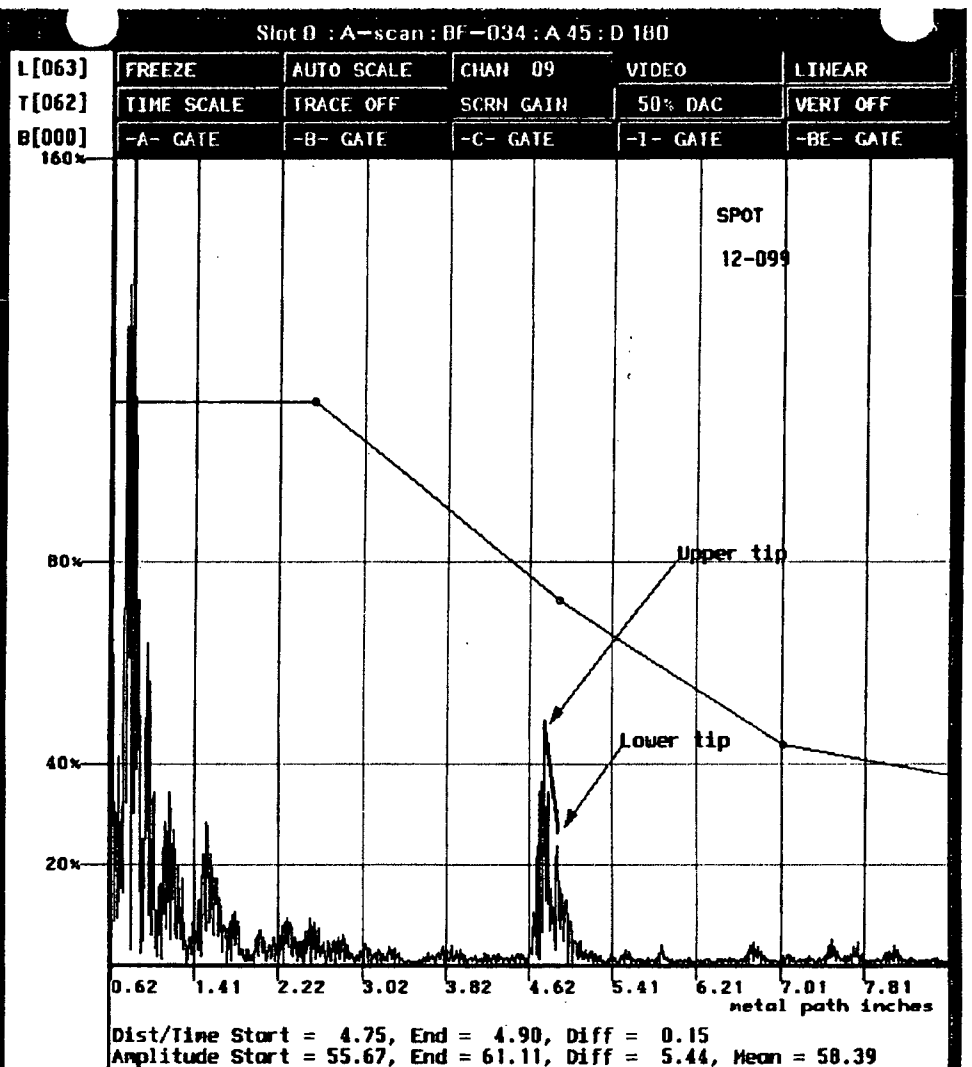
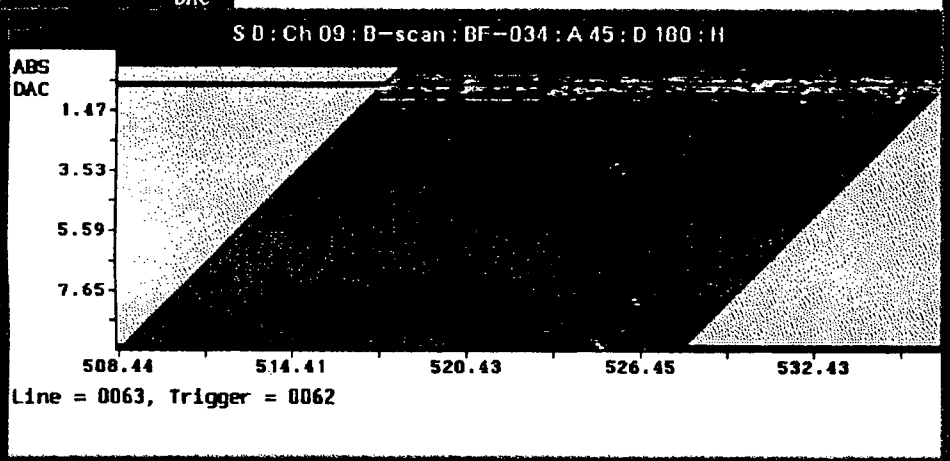
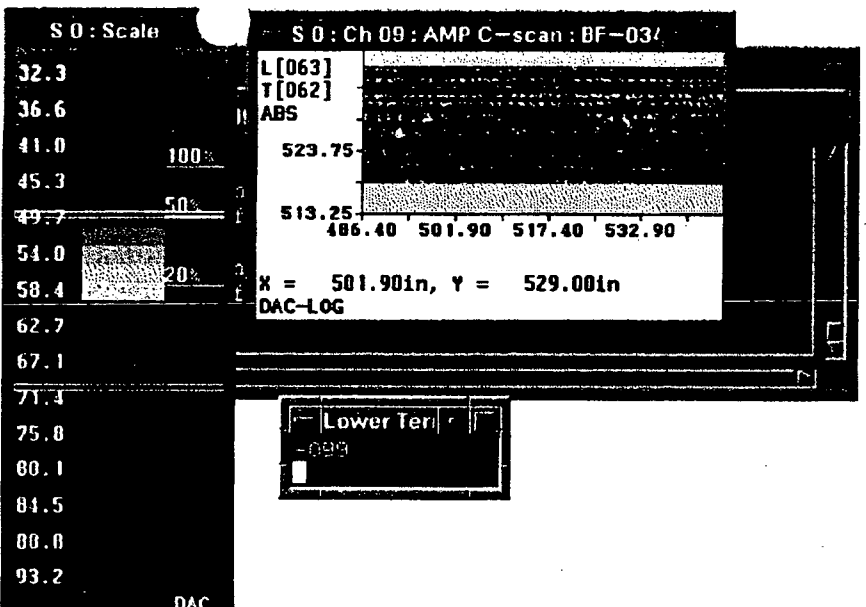


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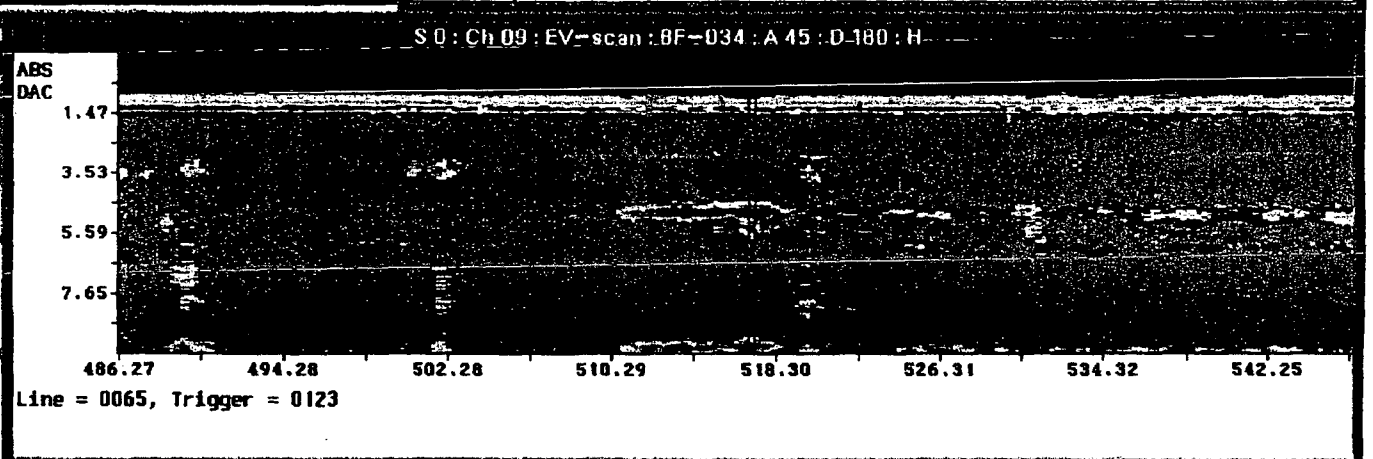
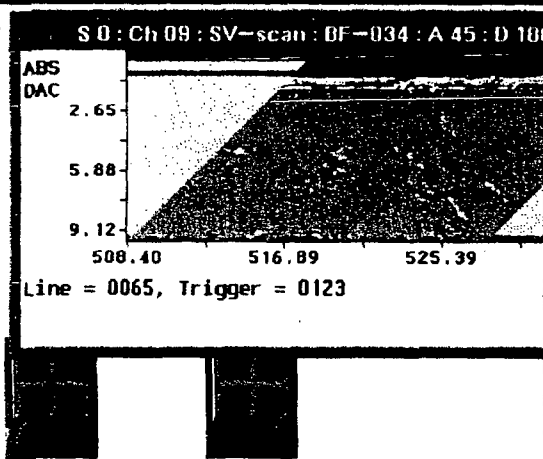
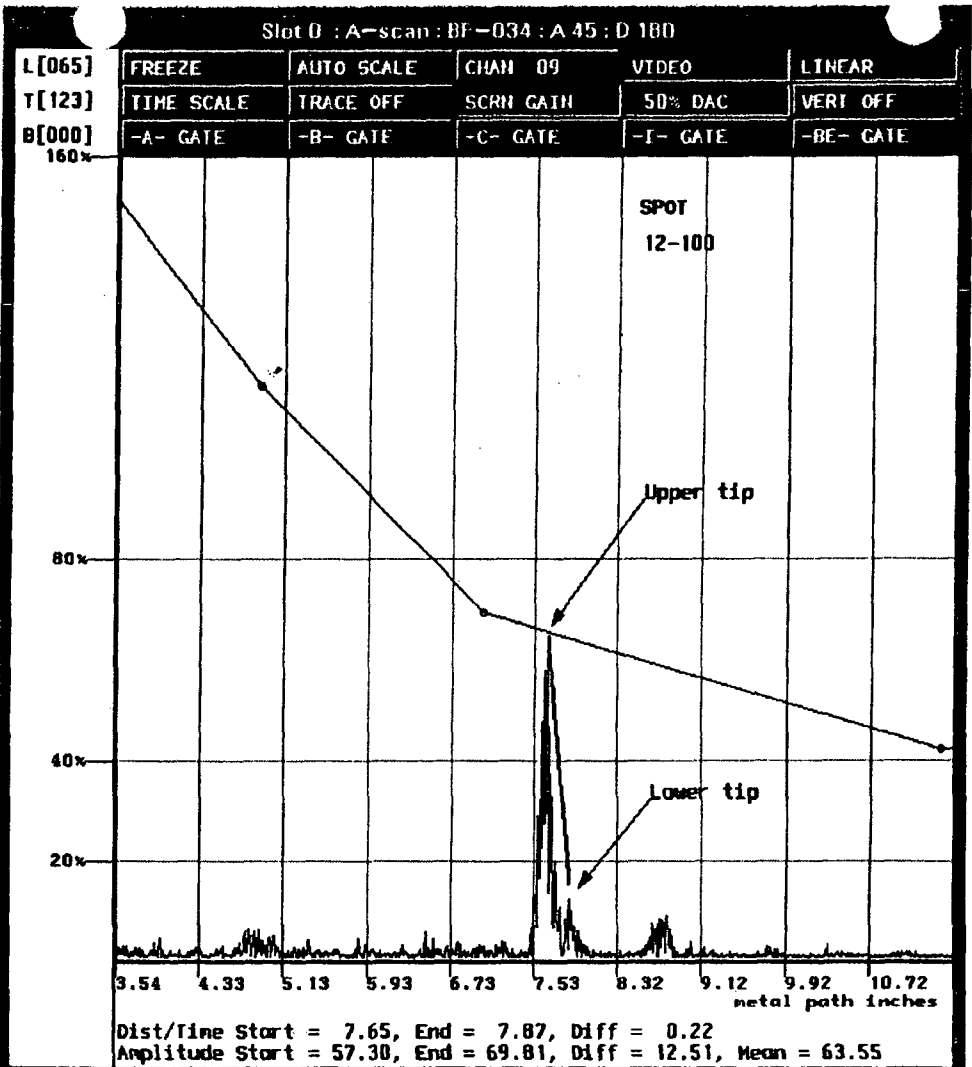
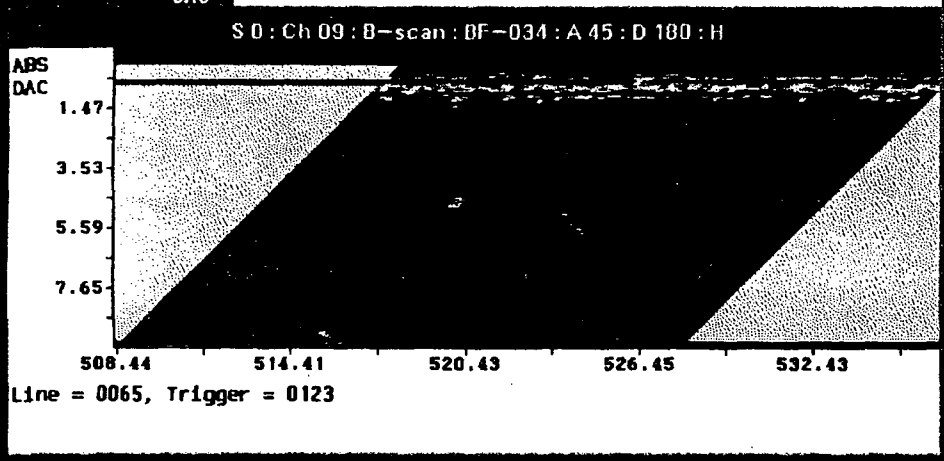
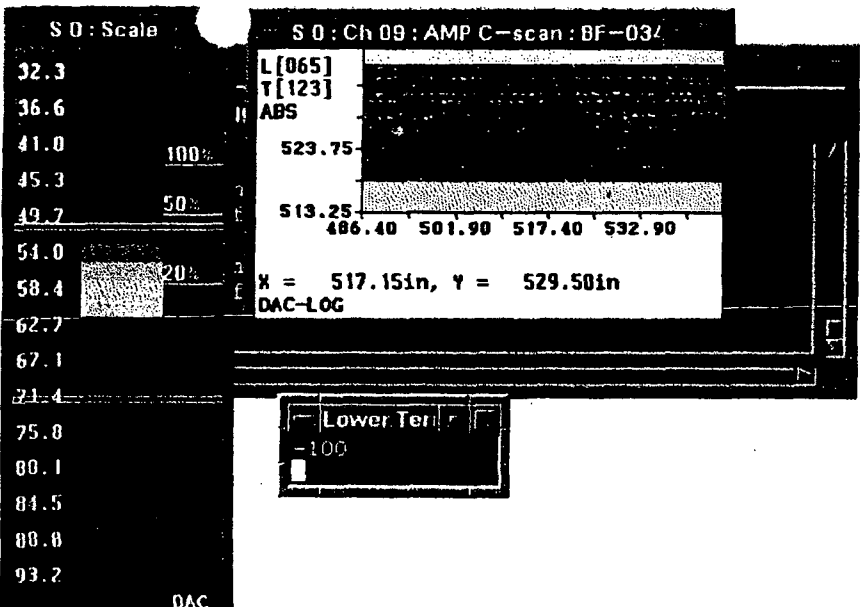
21153



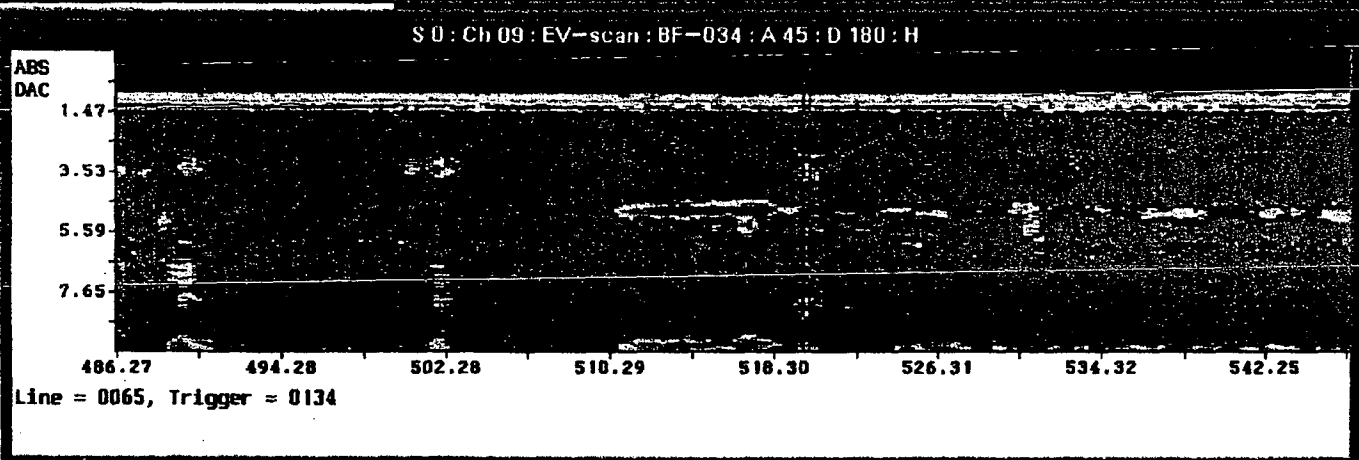
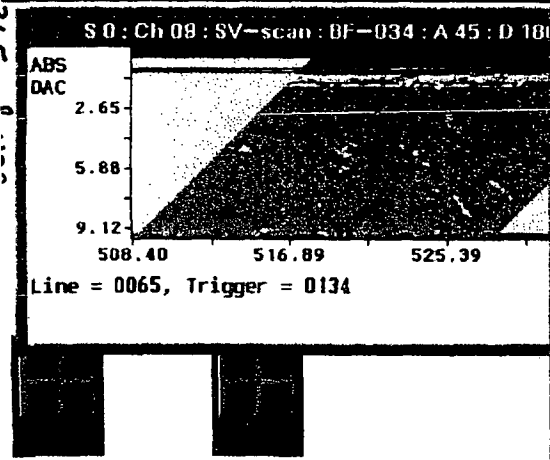
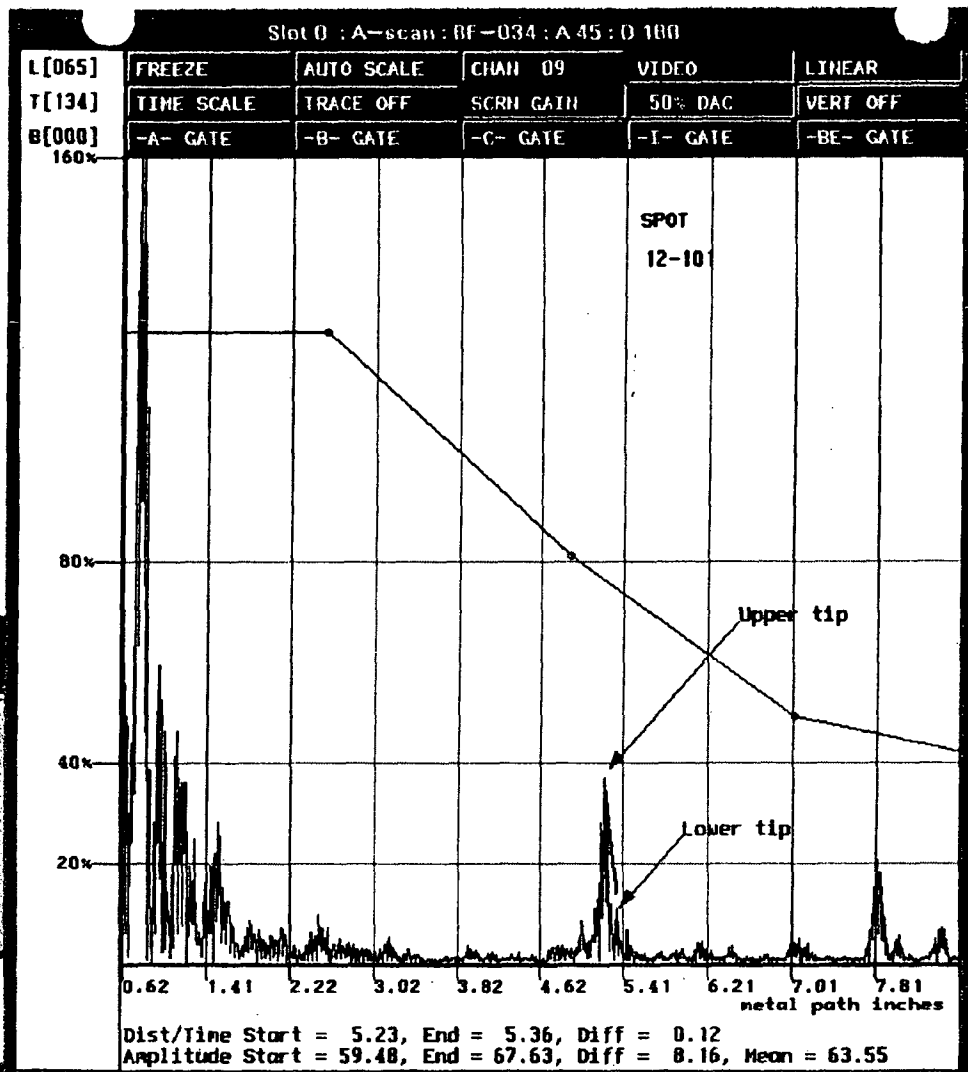
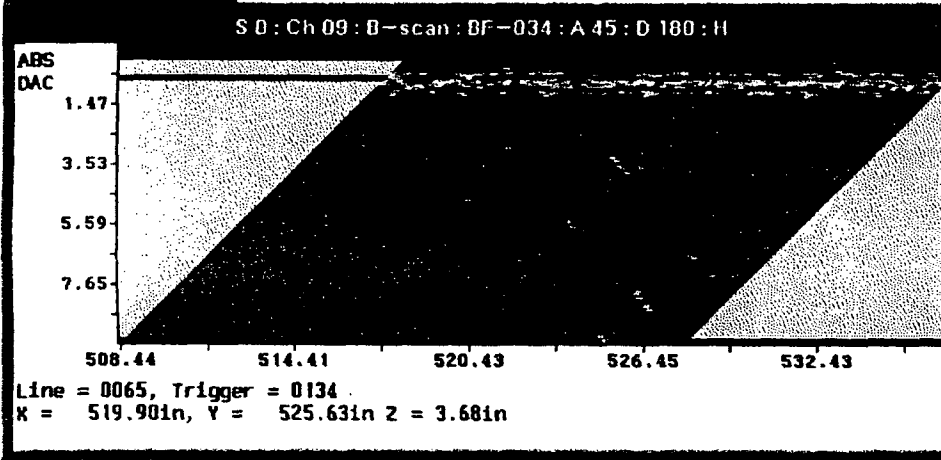
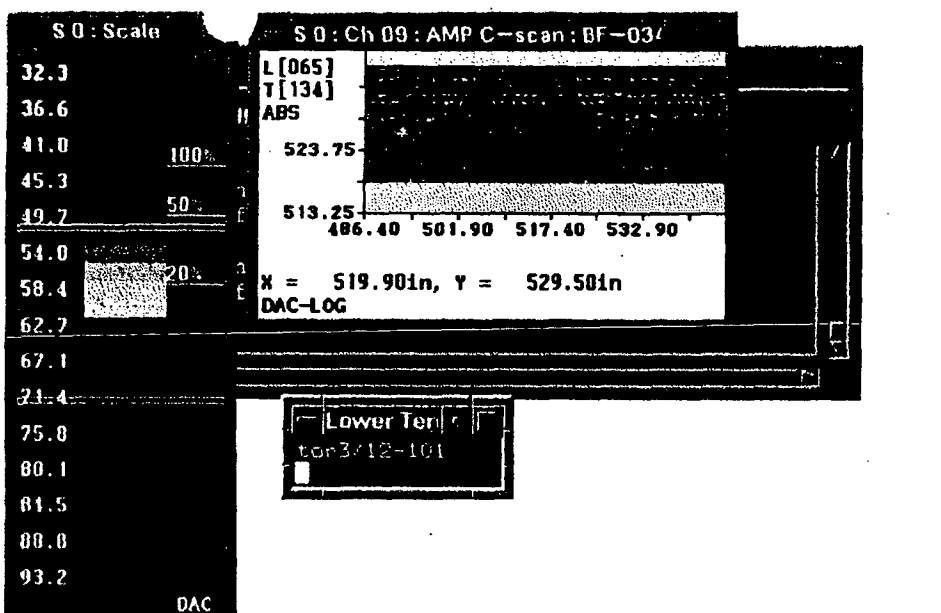
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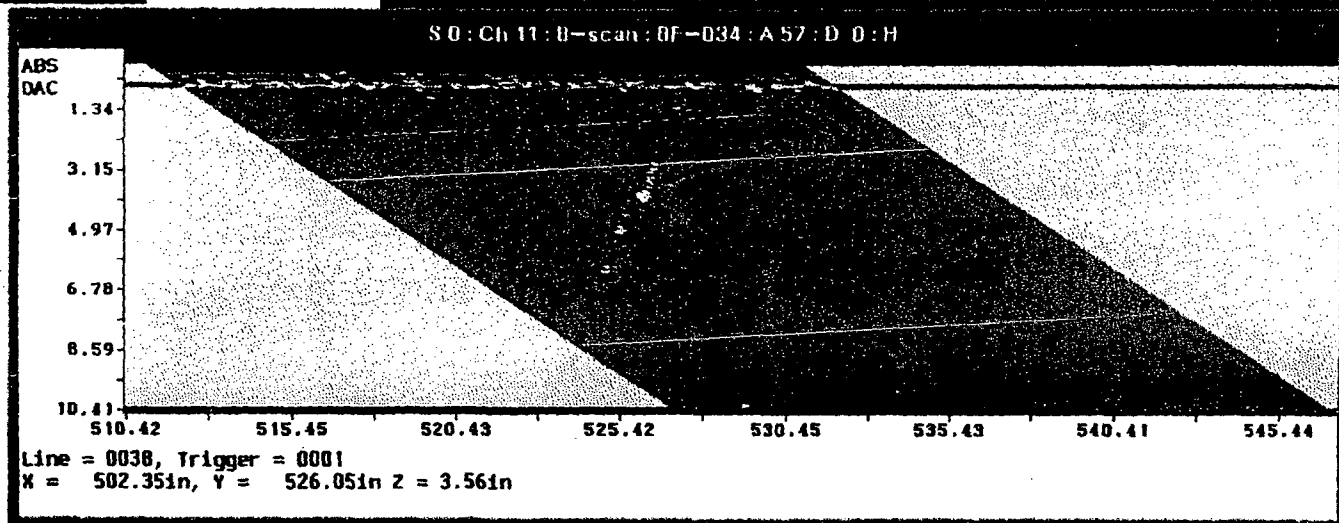
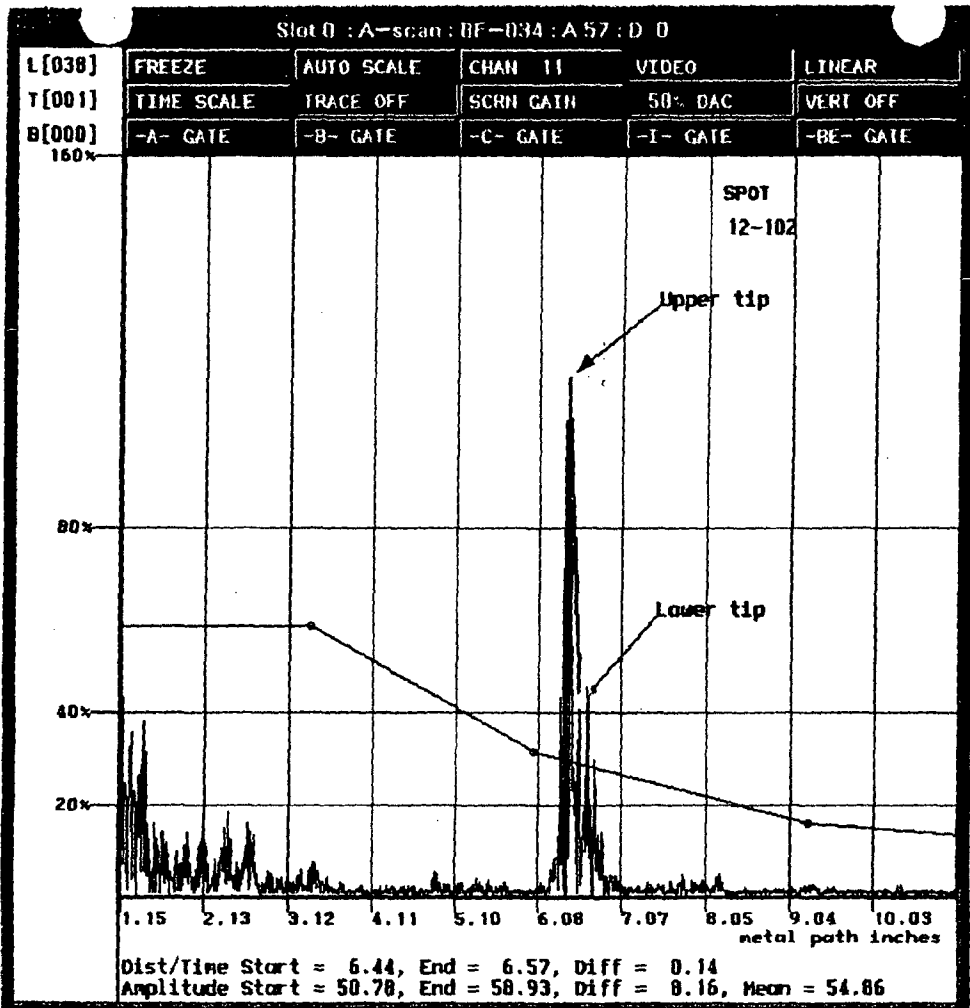
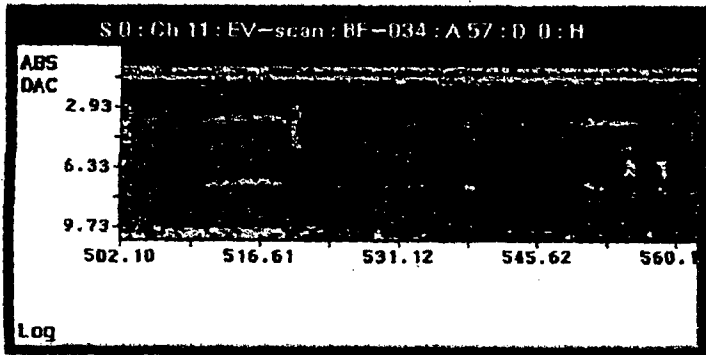
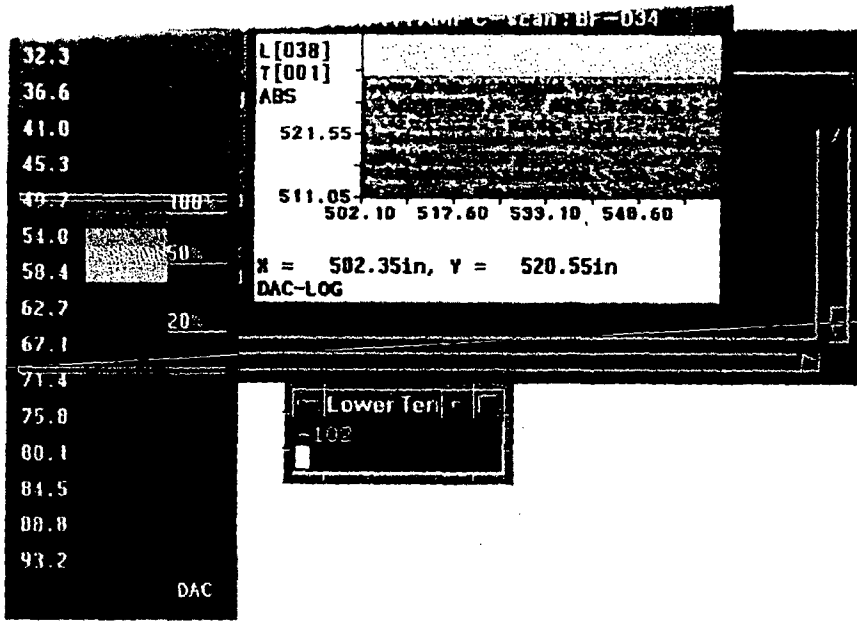
R1153



R1153



21153



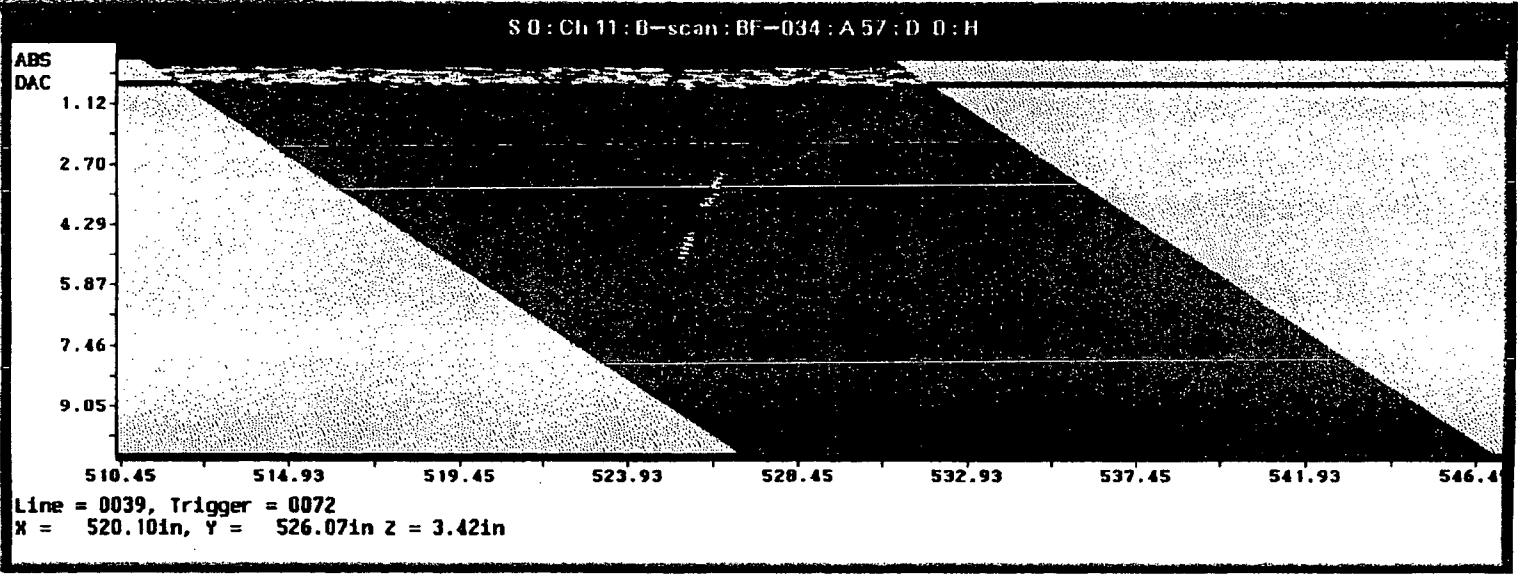
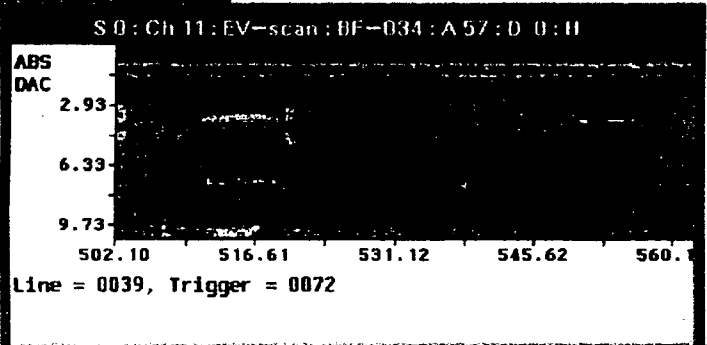
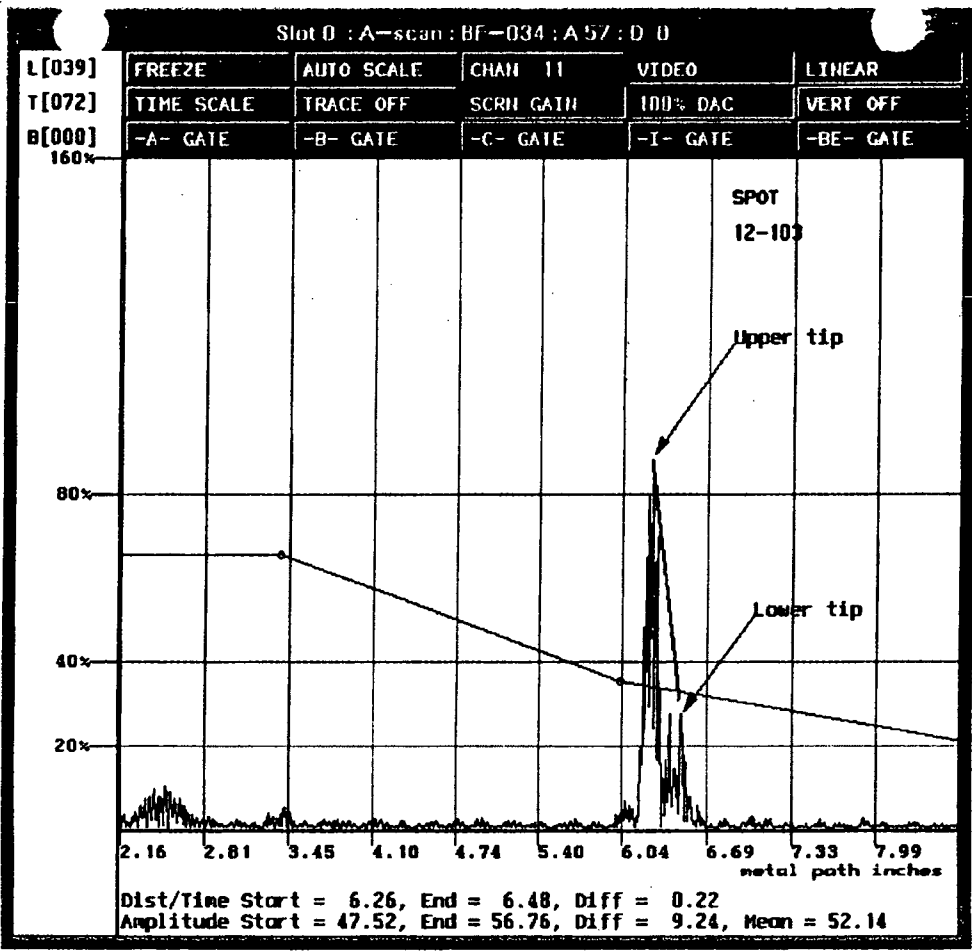
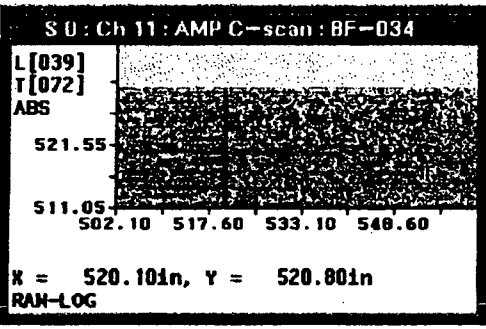
211 0.1120

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R1153

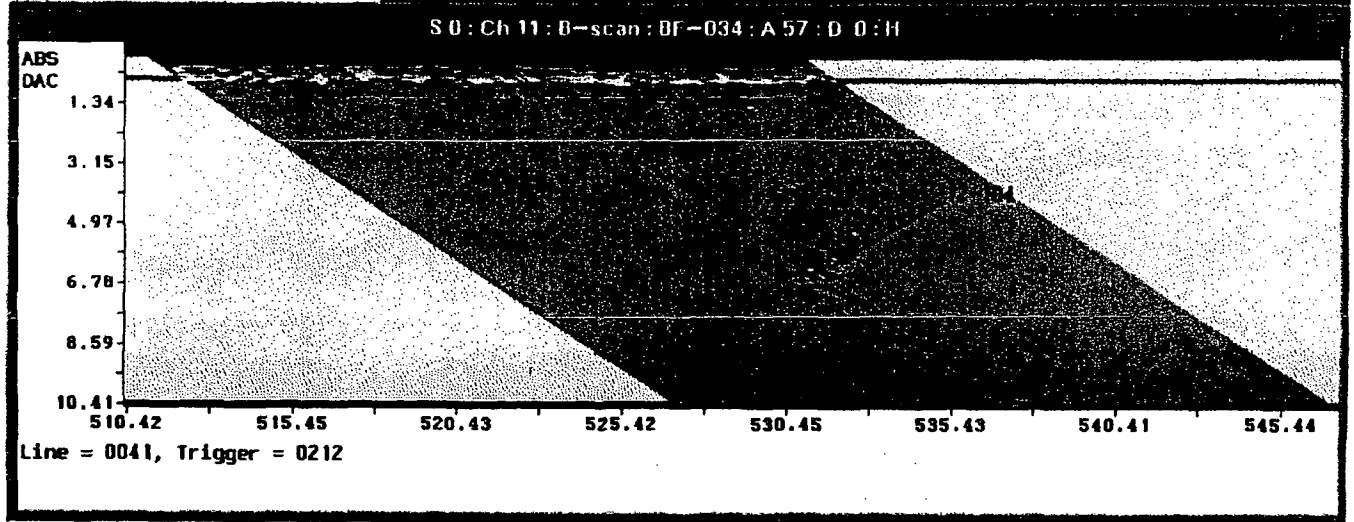
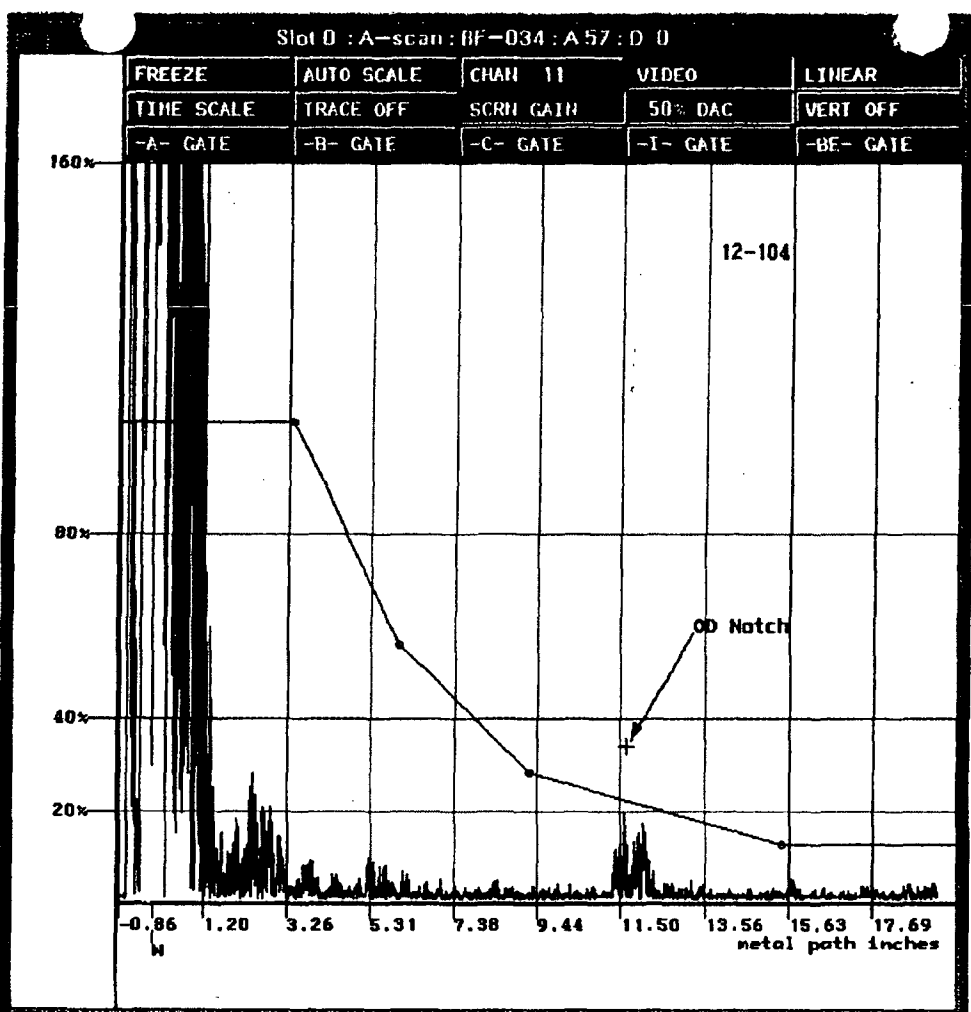
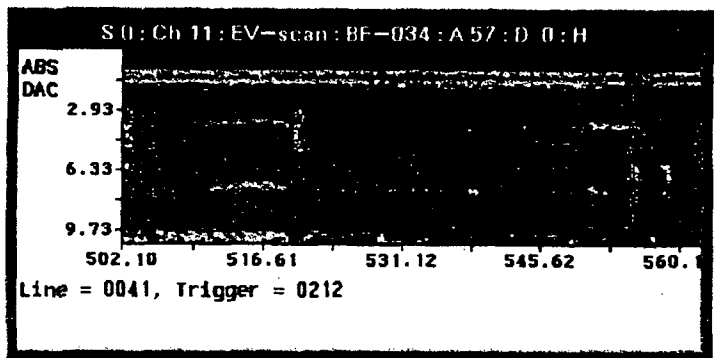
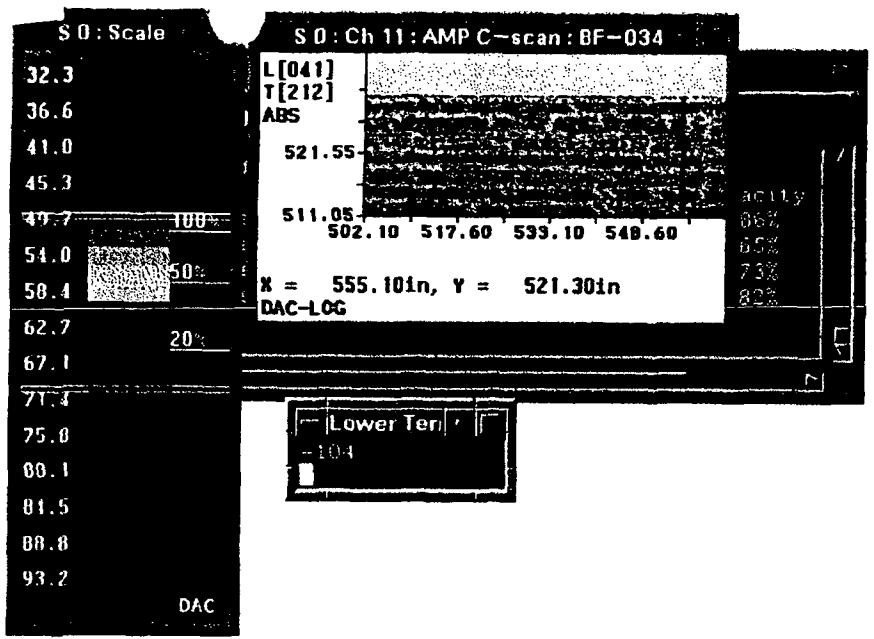
S 0 : Scale

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



2153

2153



R1153

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

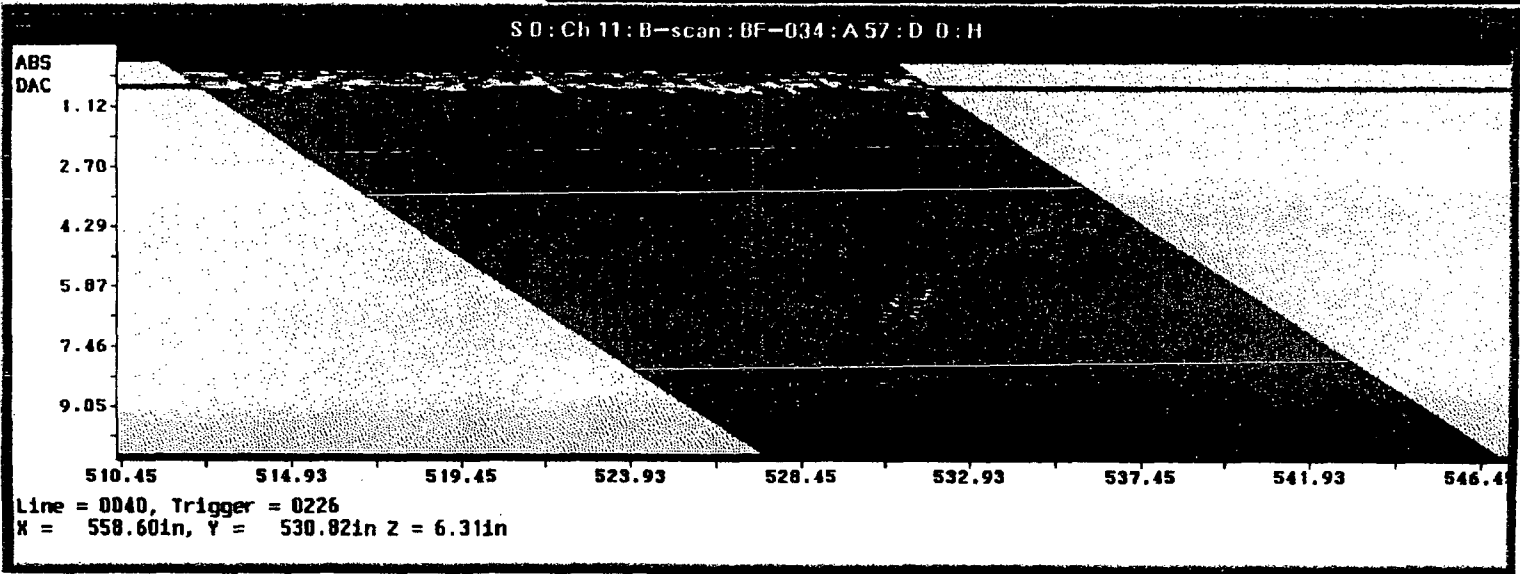
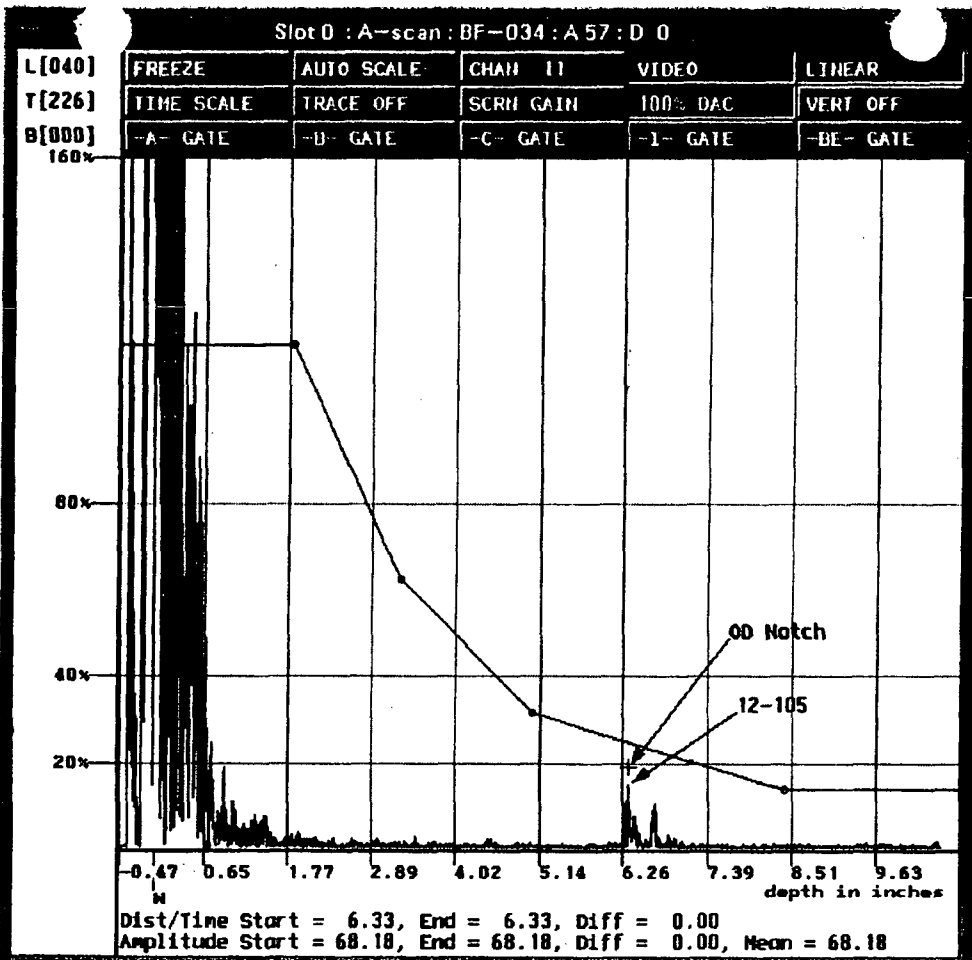
S 0 : Ch 11 : AMP C-scan : BF-034

L[040]
T[226]
ABS

521.55
511.05
502.10 517.60 533.10 548.60

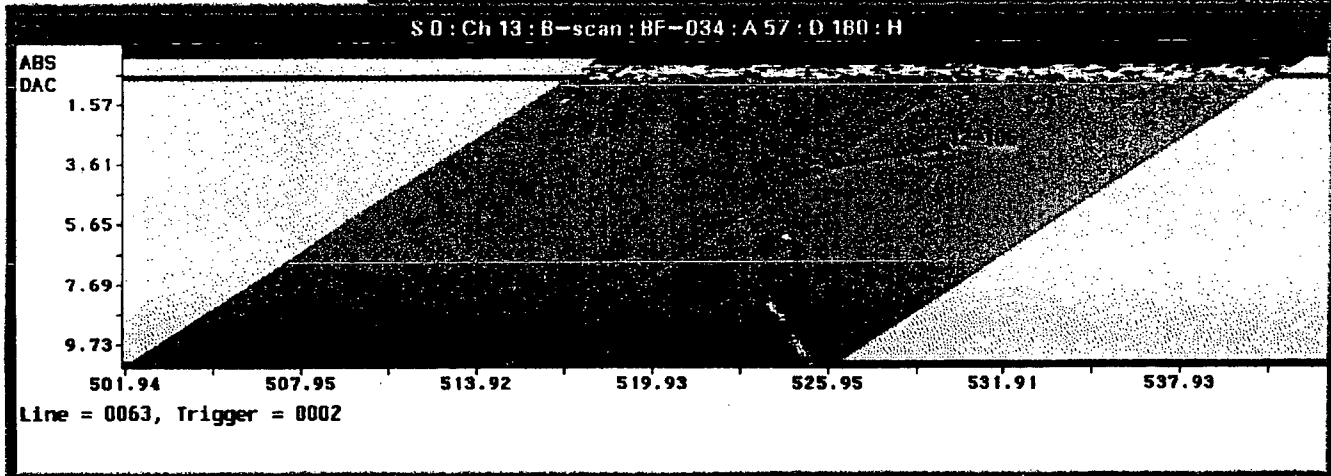
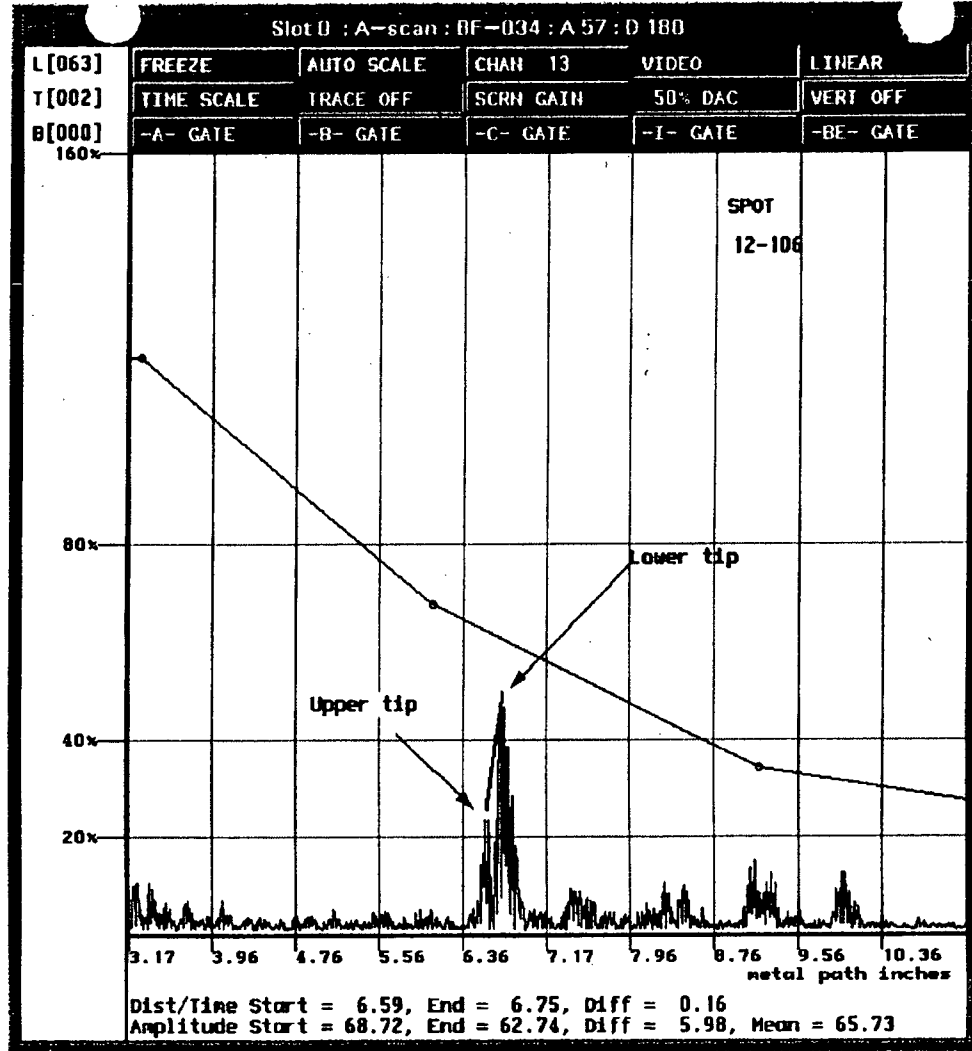
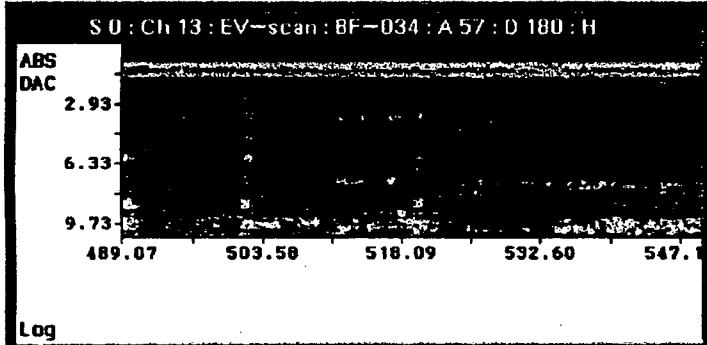
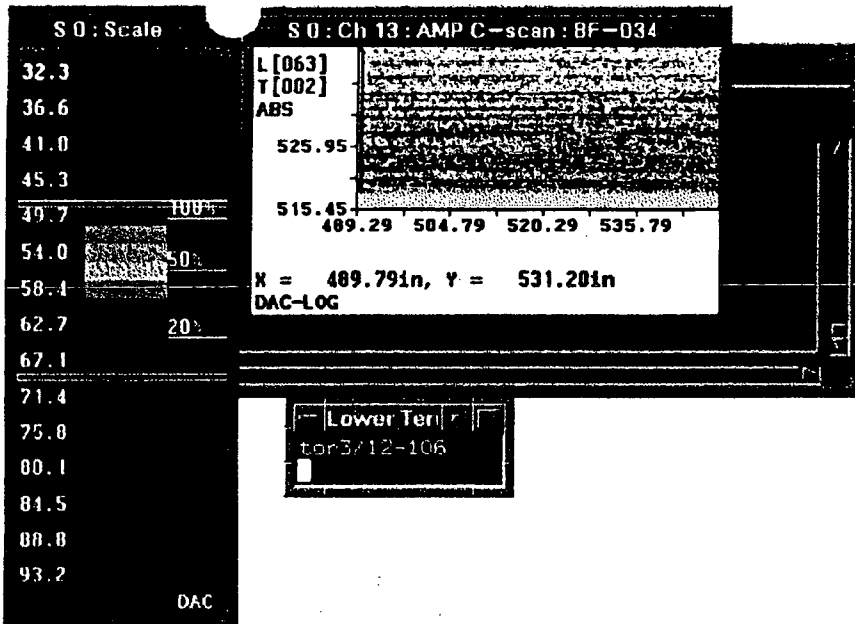
X = 558.60in, Y = 521.05in
RAM-LOG

Top Terminal
curly[geris]/local/
sel/test>dump

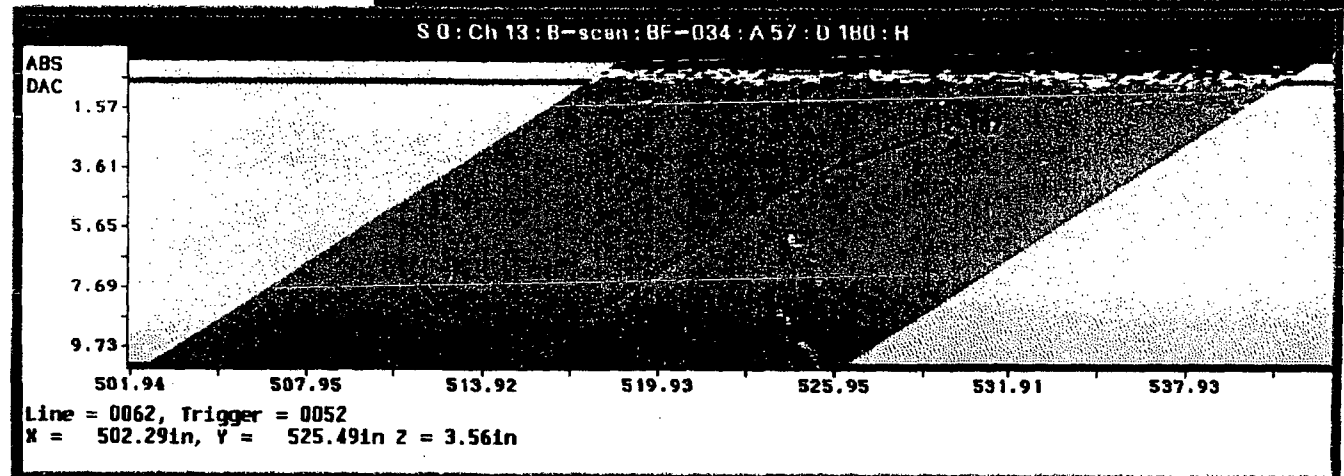
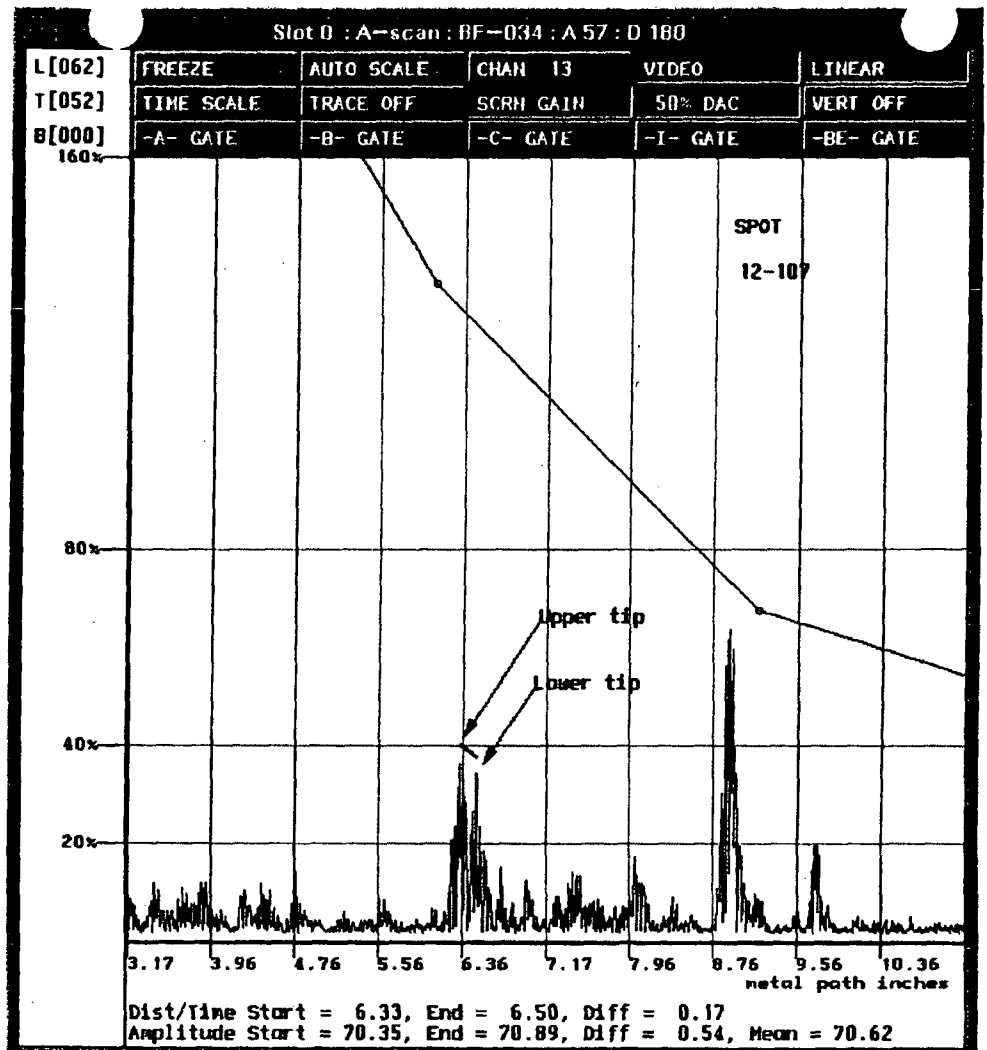
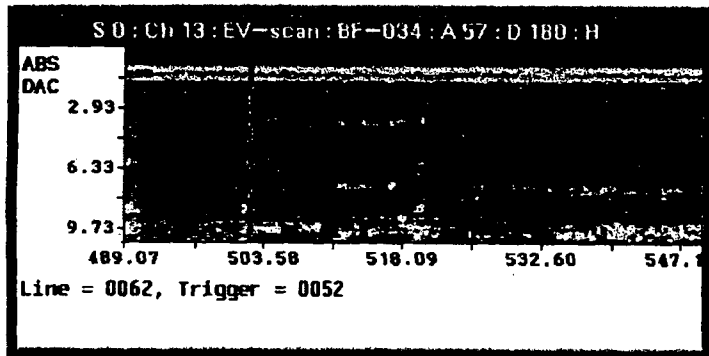
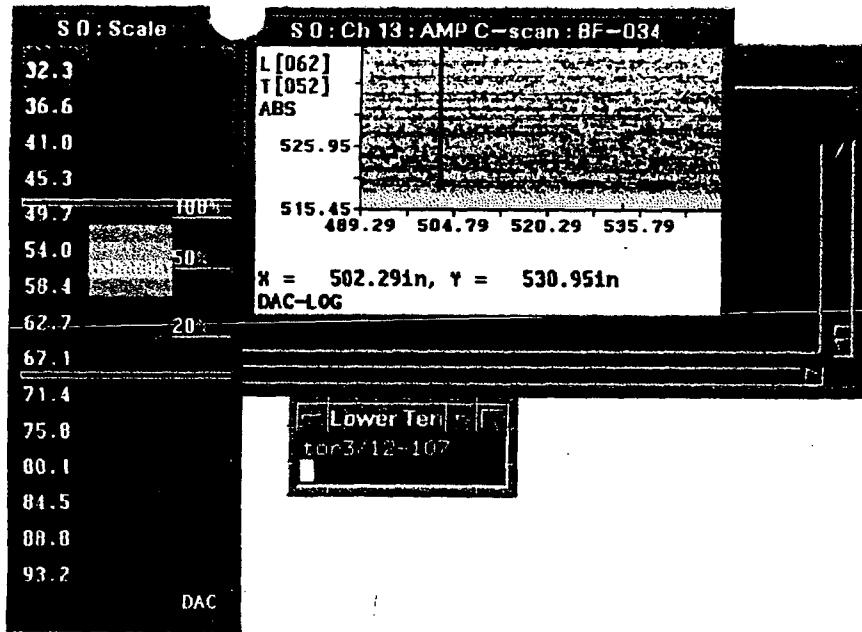


210-A-1120

2153



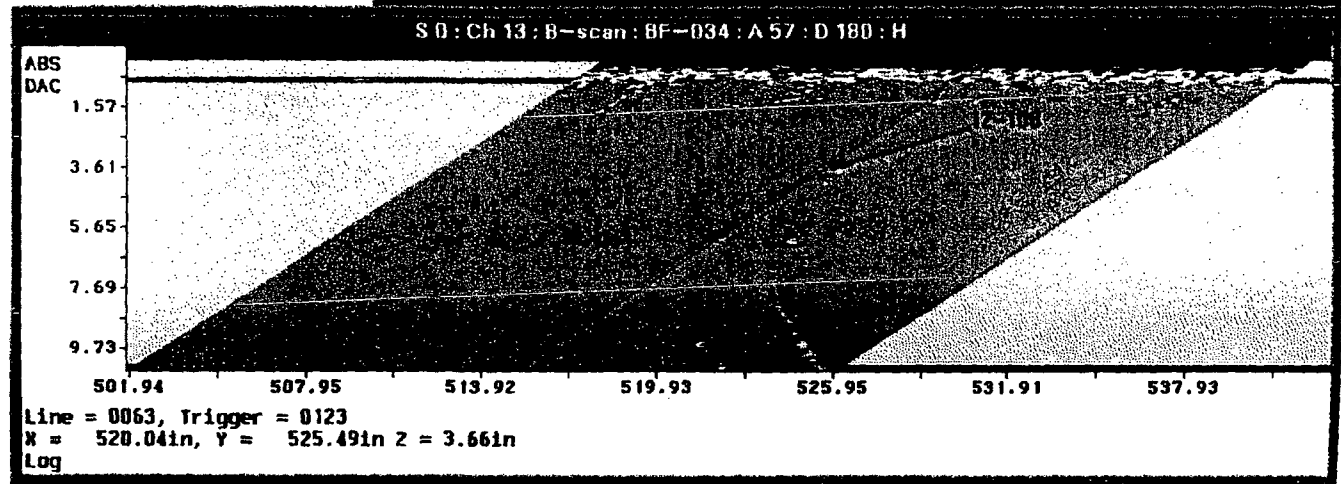
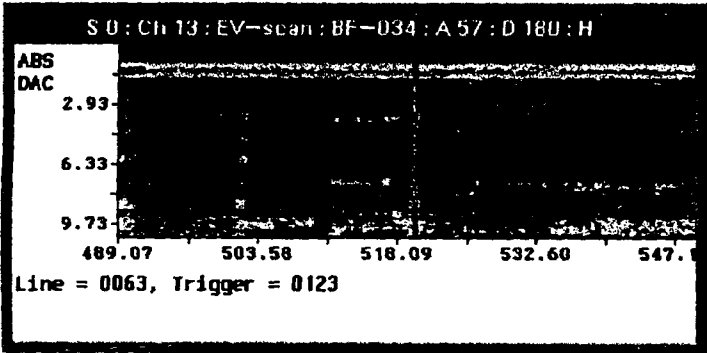
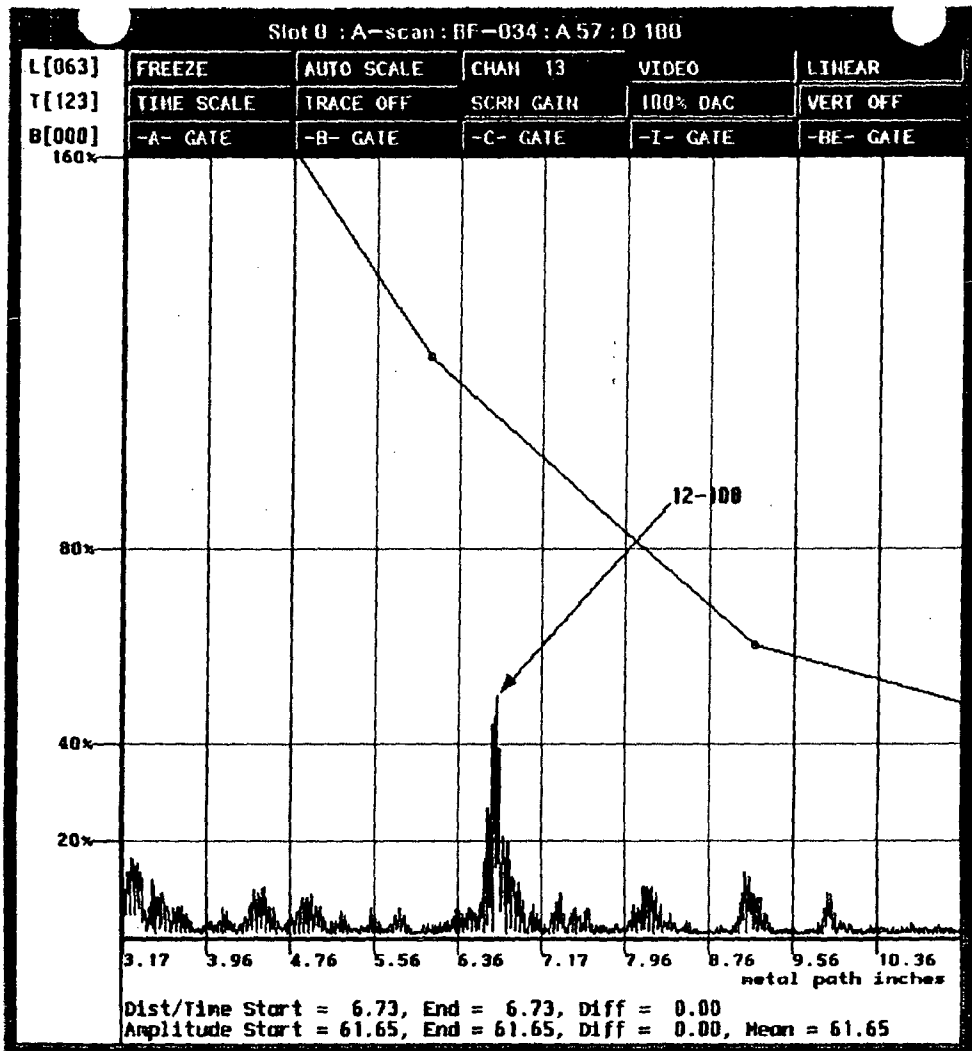
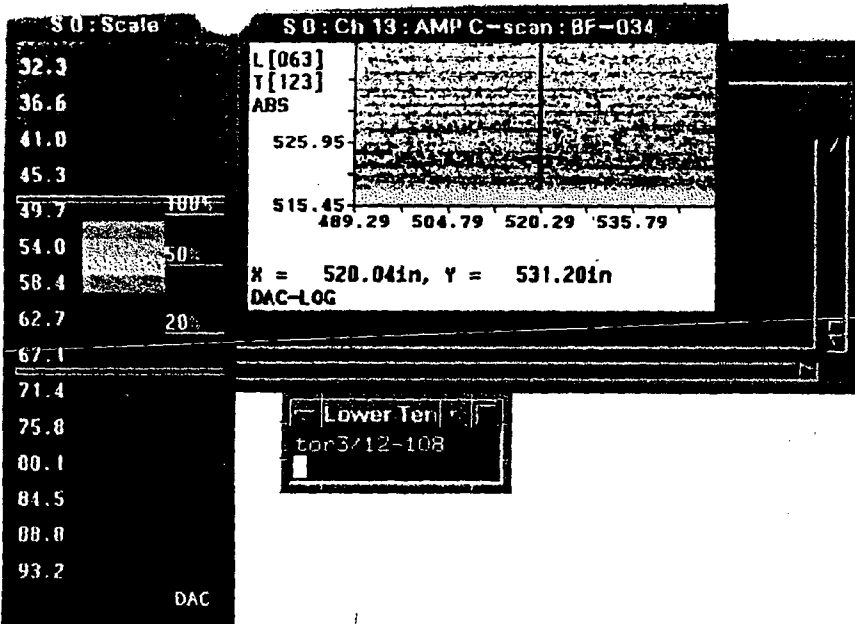
2153



20000 20000

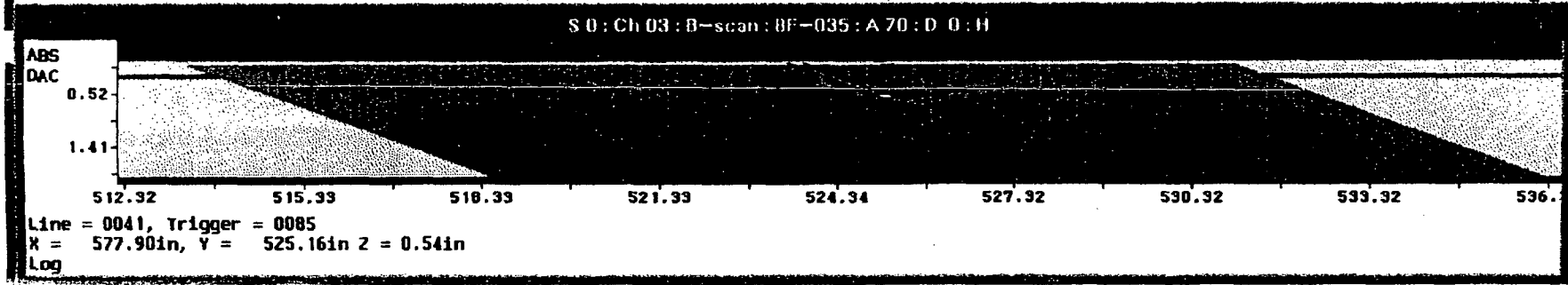
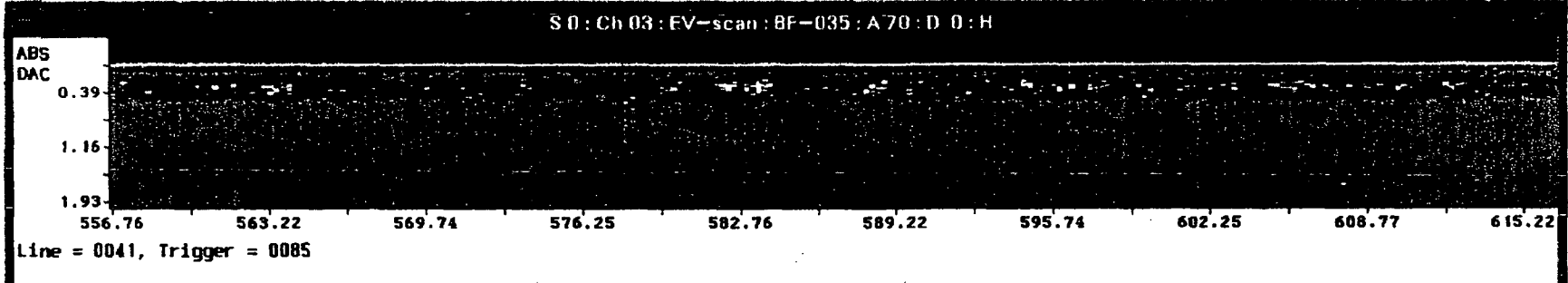
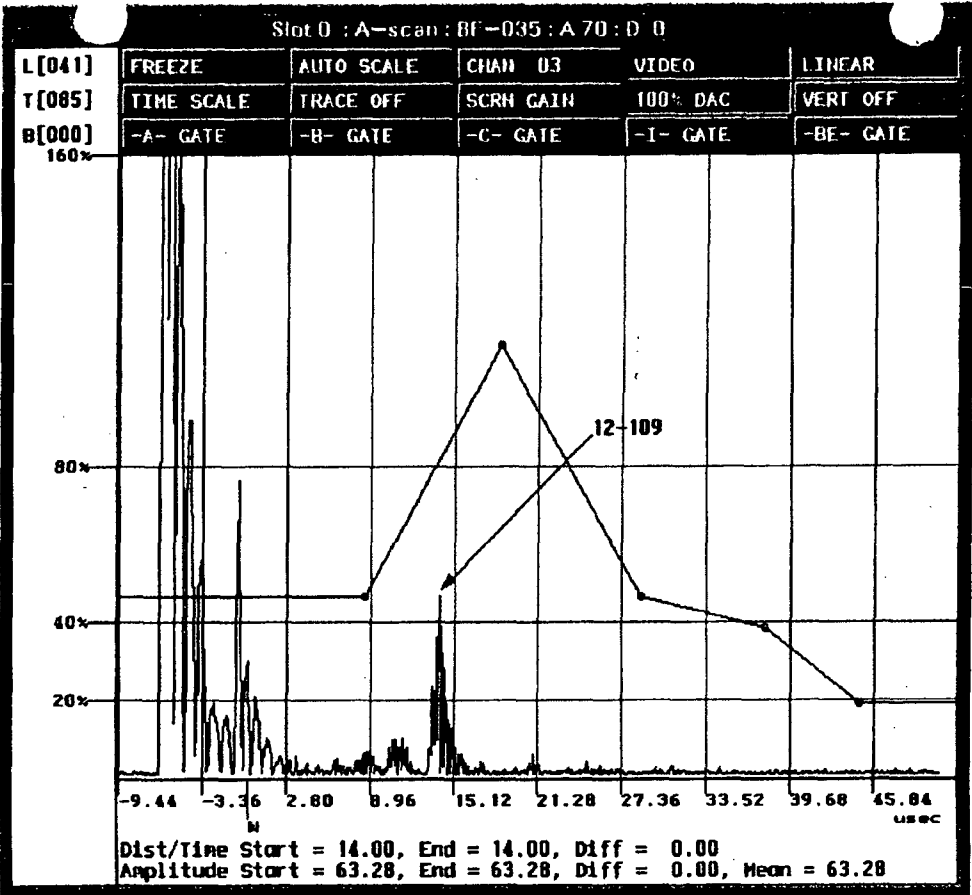
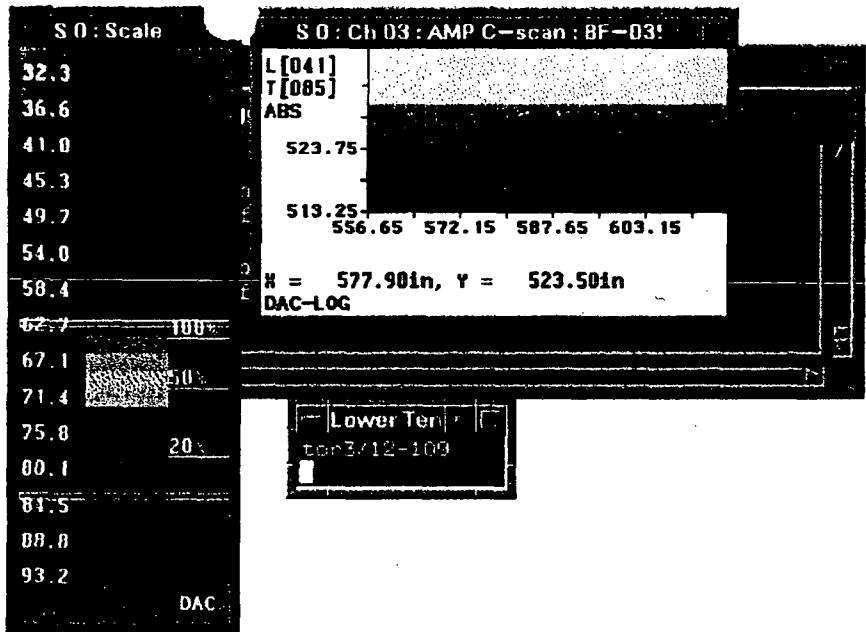
2153

271 J 12



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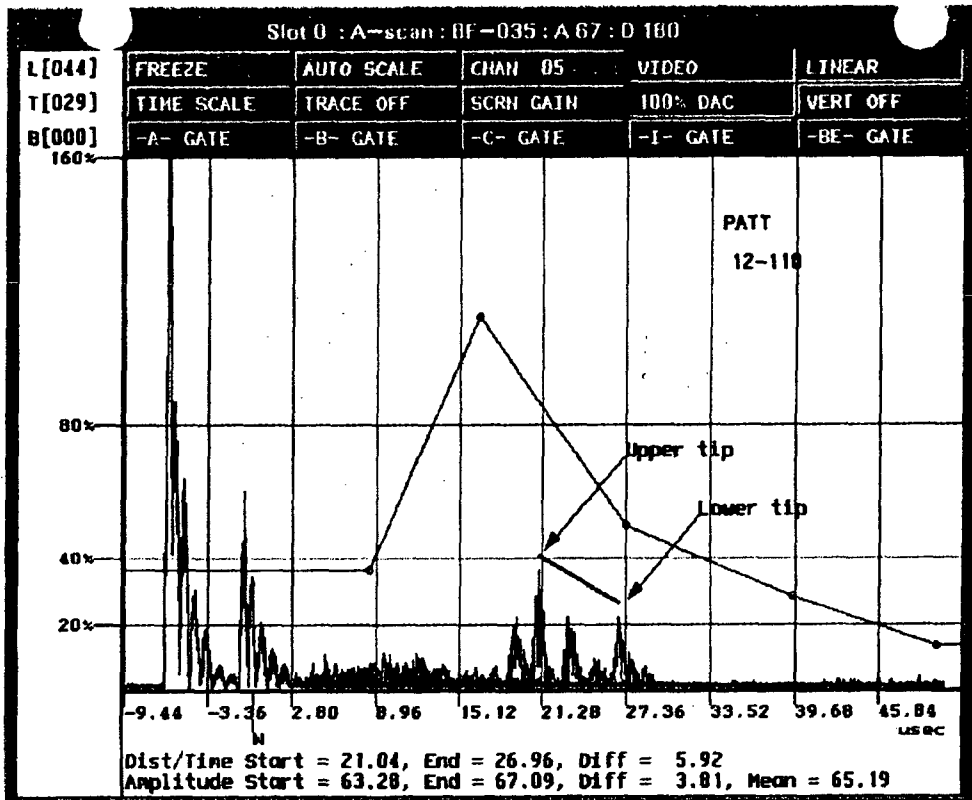
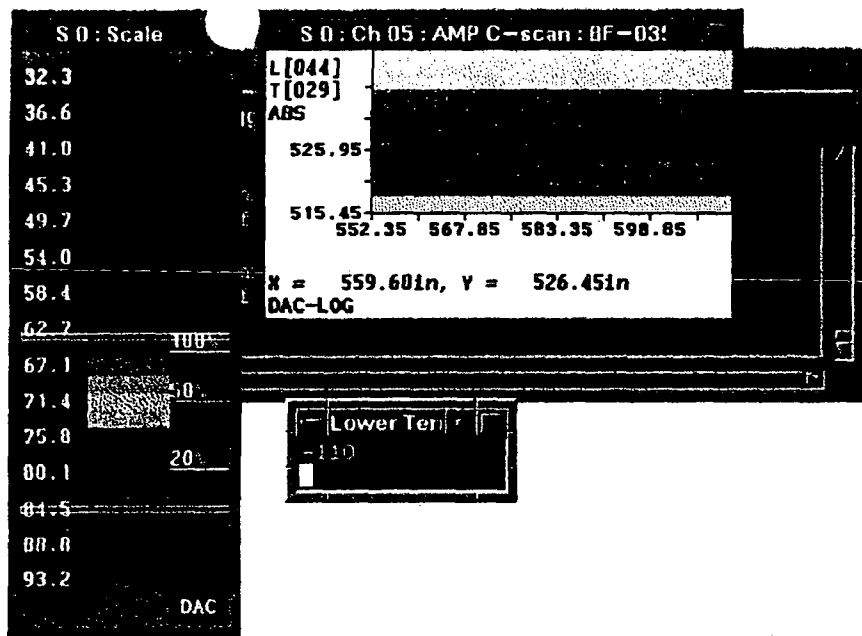
12153



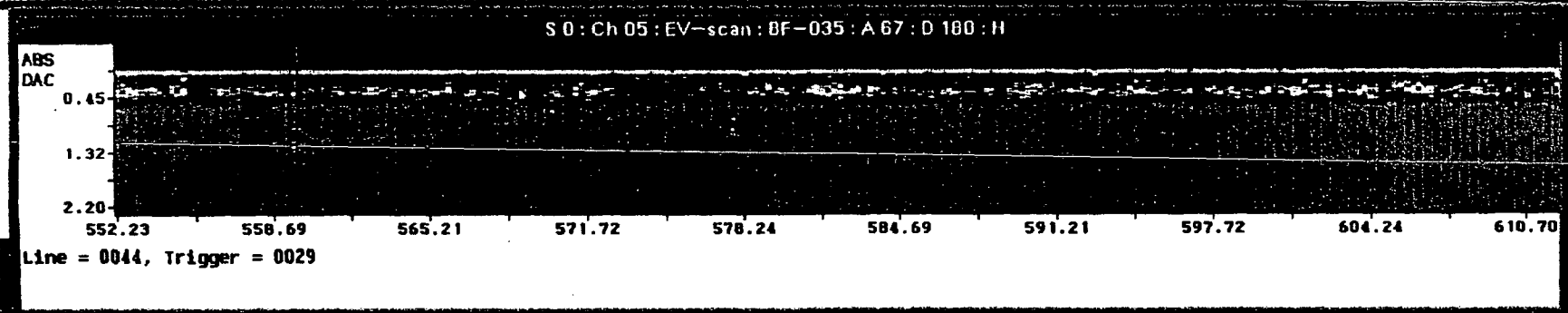
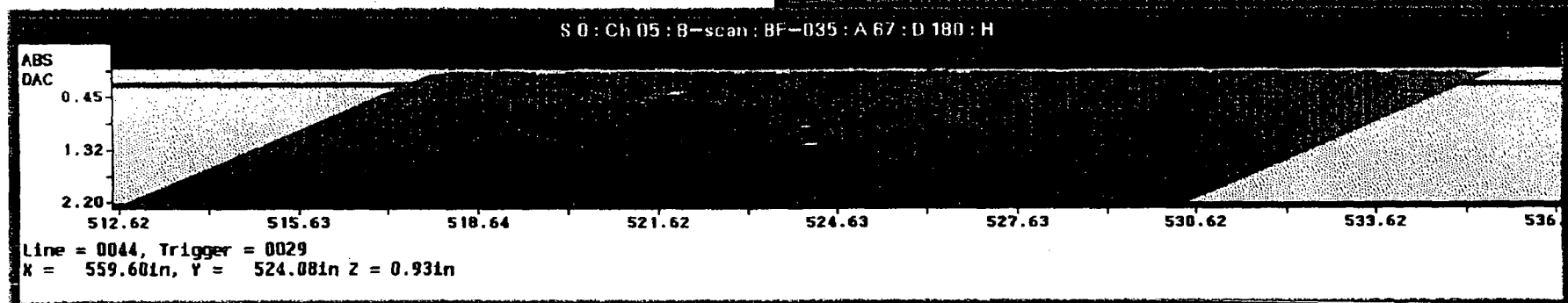
b7h jo ELE

00000 20000

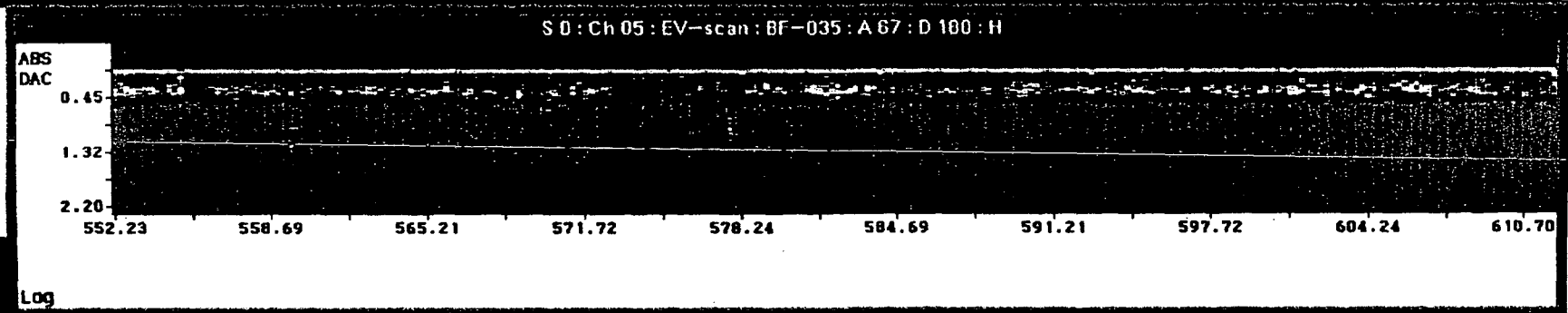
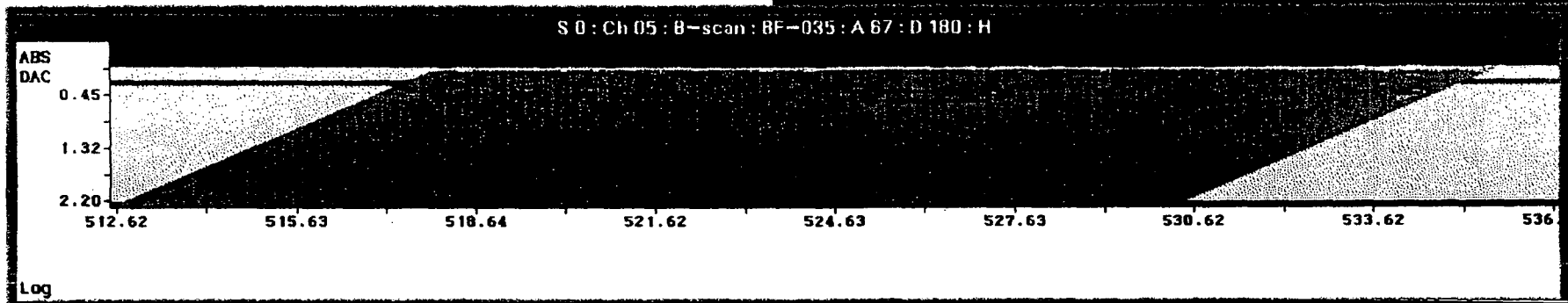
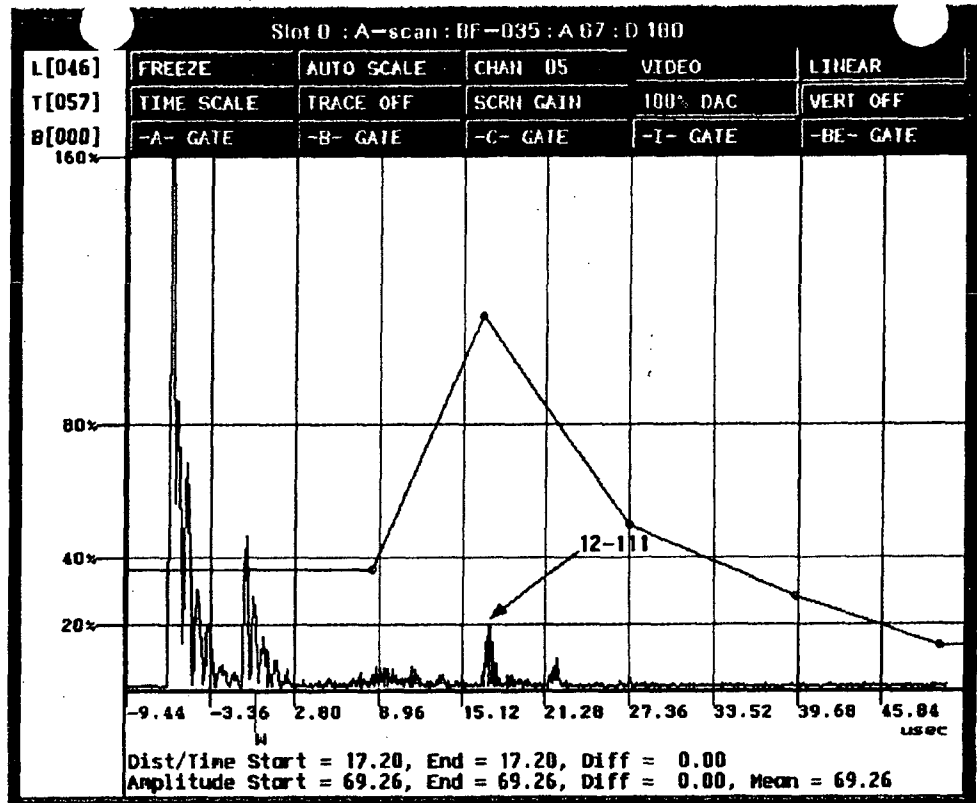
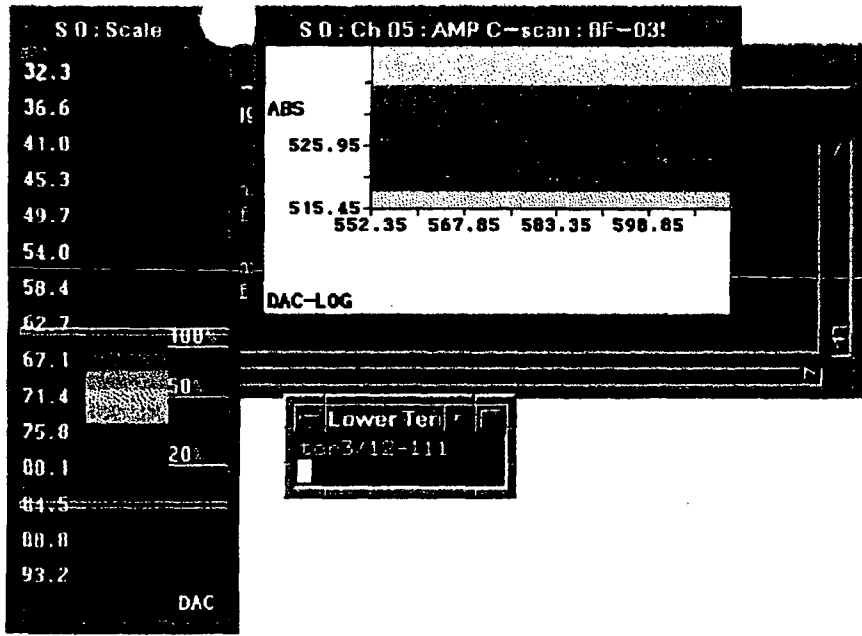
2153



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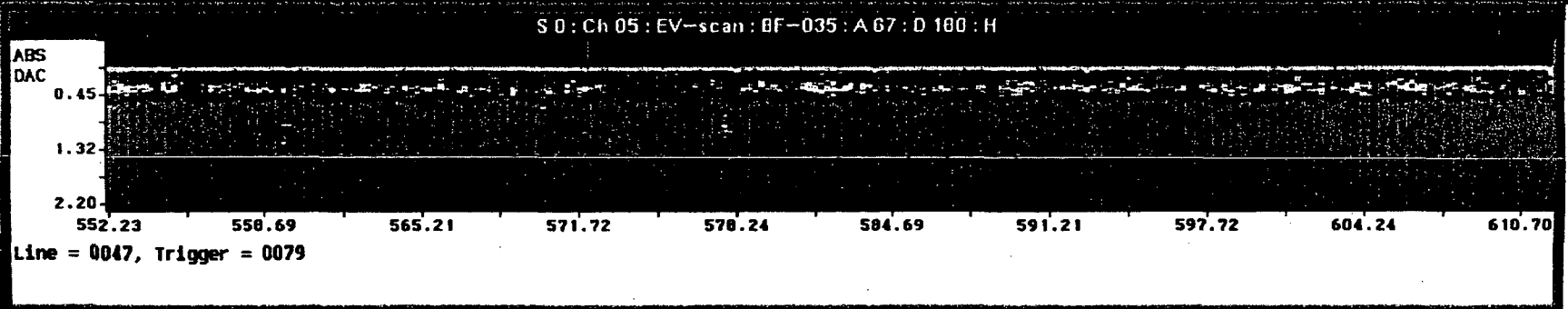
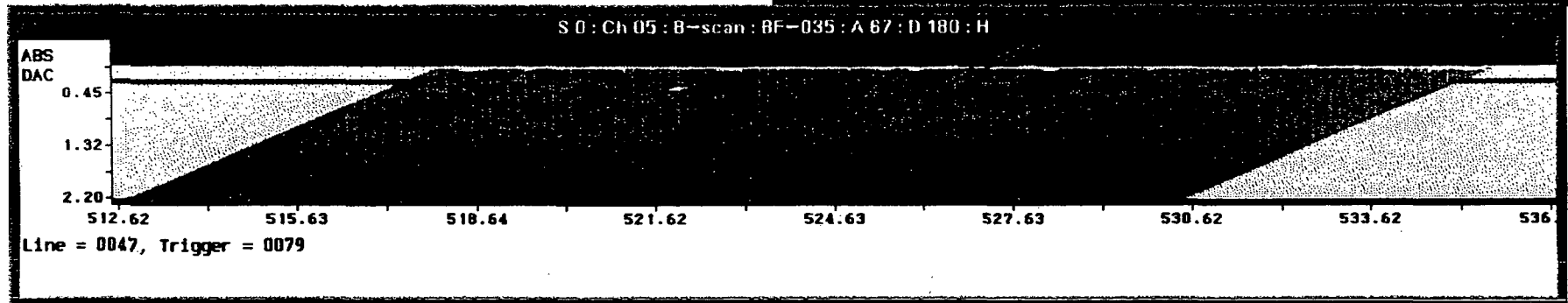
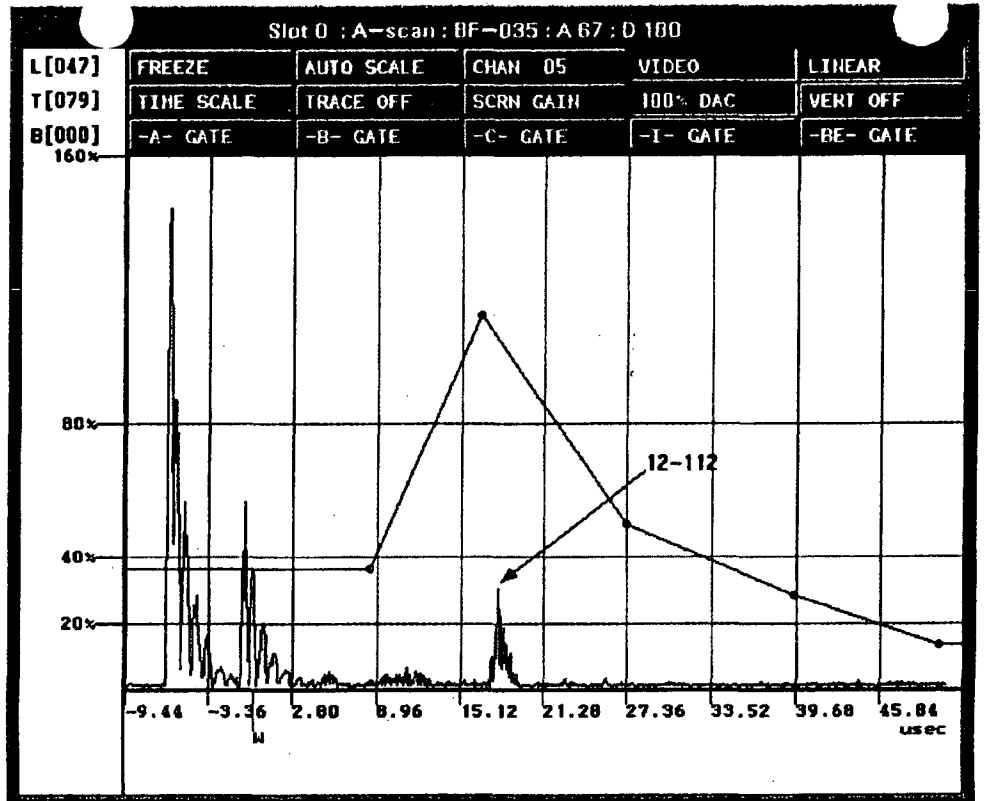
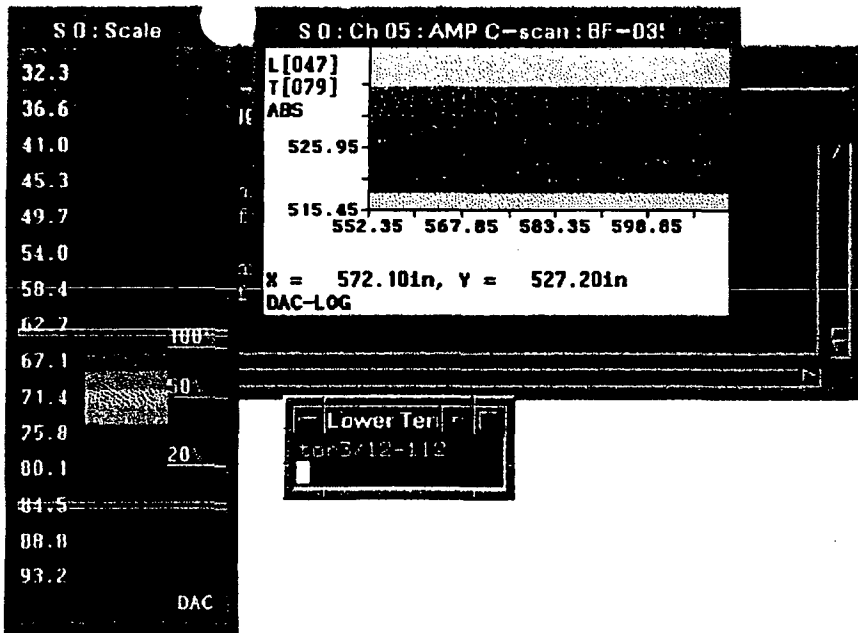


R1153



R1153

276-0422

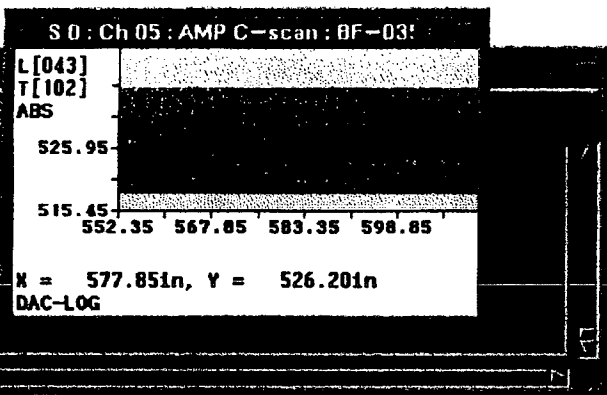


S 0 : Scale

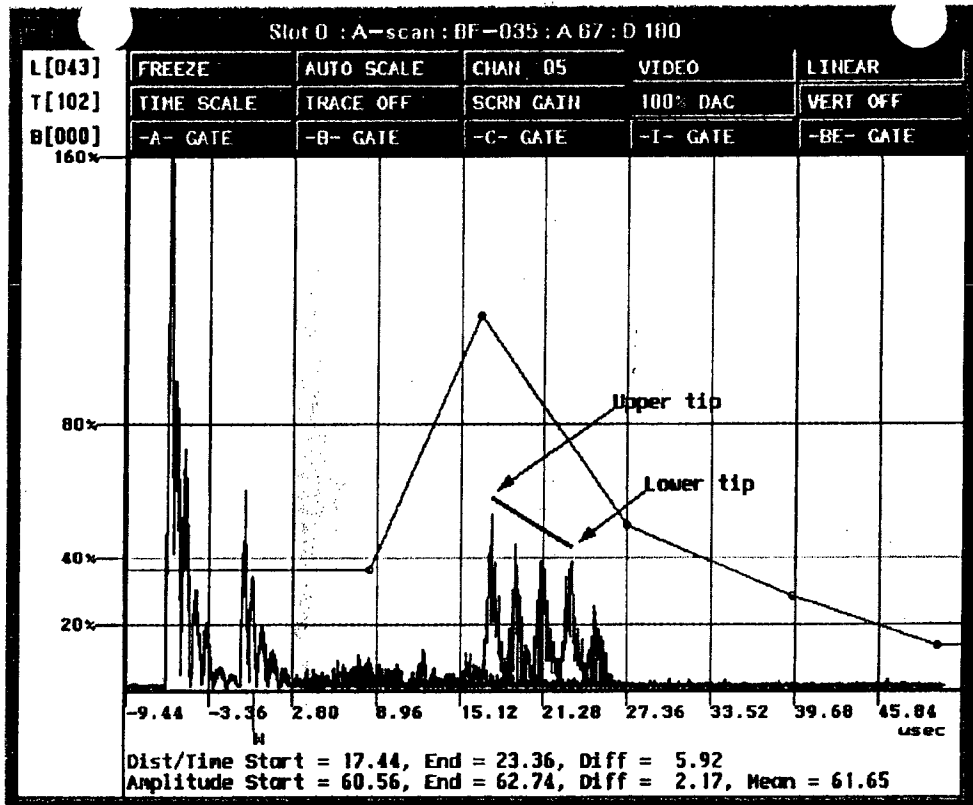
45.3
49.7
54.0
58.4
62.7
67.1
71.4
75.8
80.1
84.5
88.8
93.2

100%
50
20

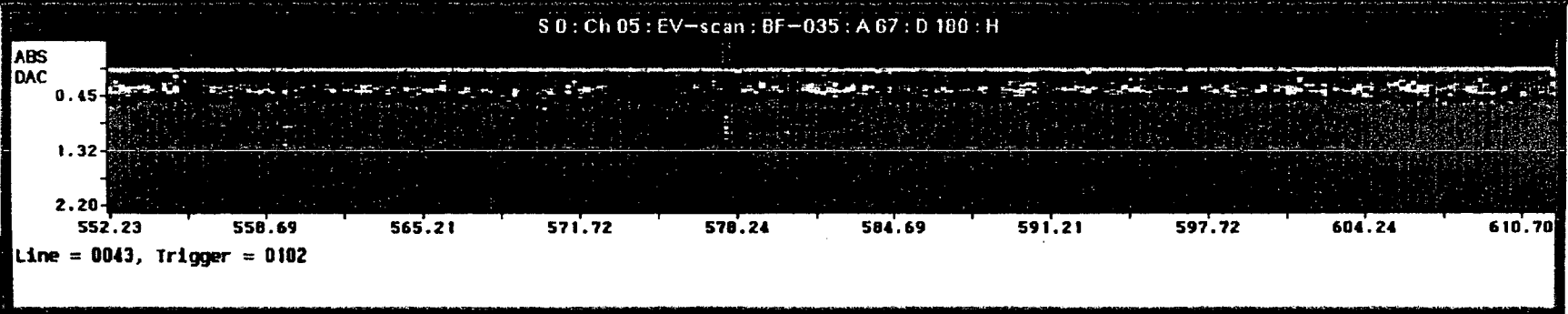
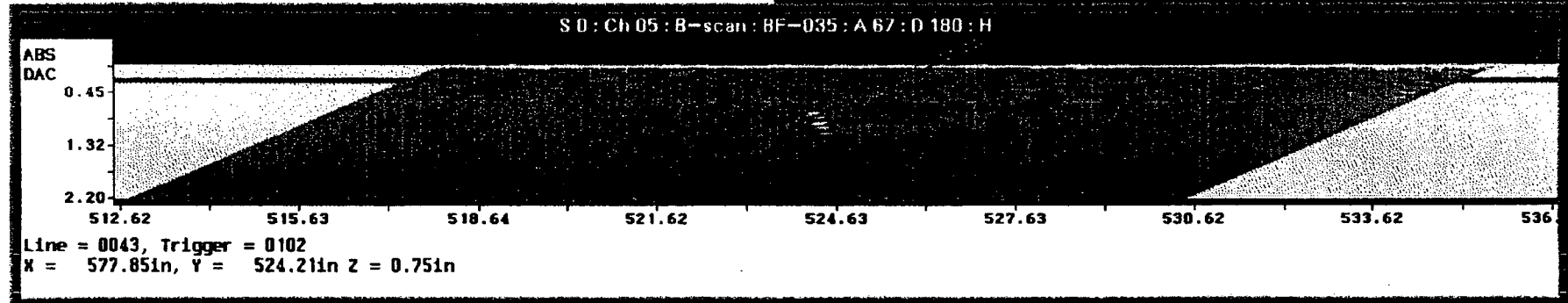
DAC



Lower Ter
tor3/12-113



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R1153

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

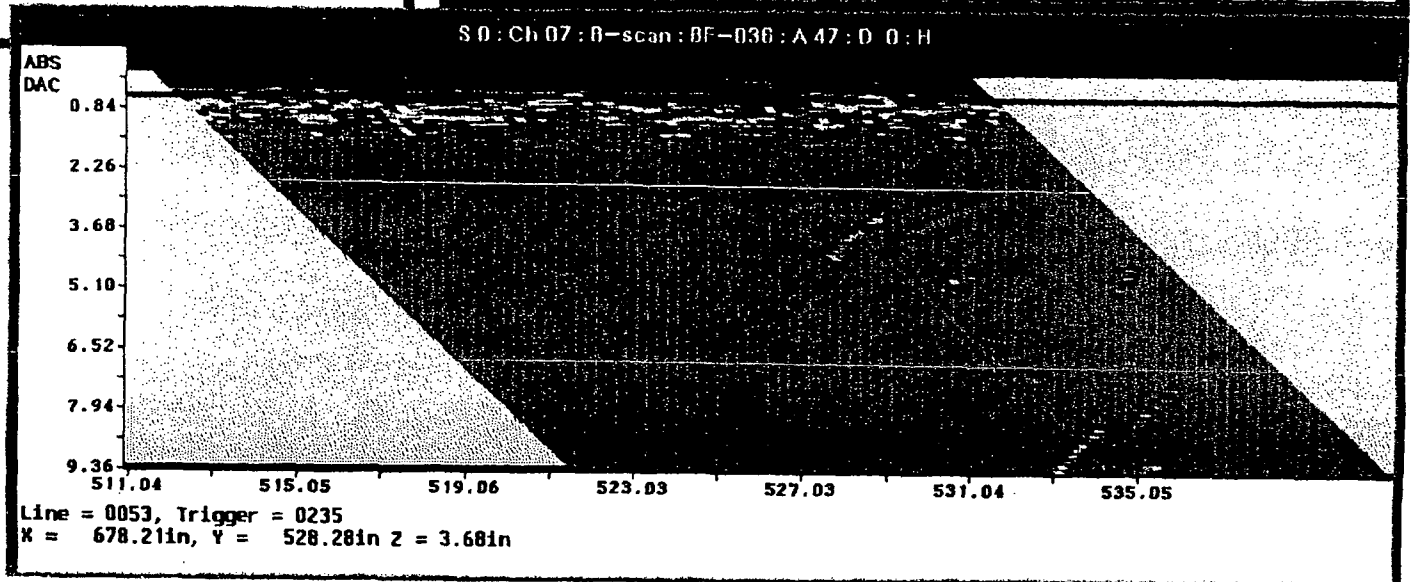
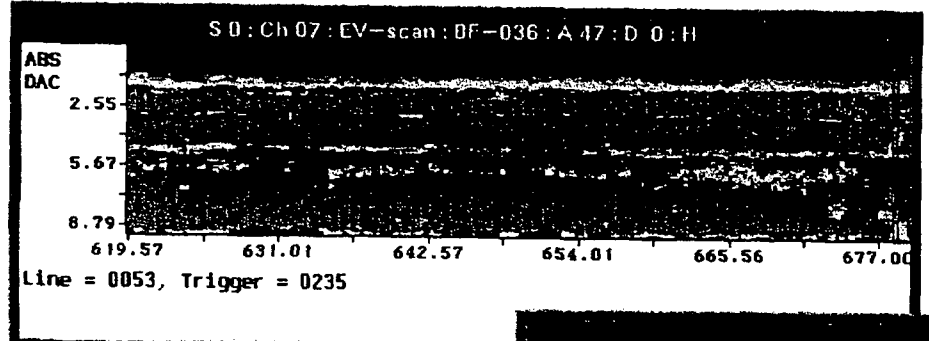
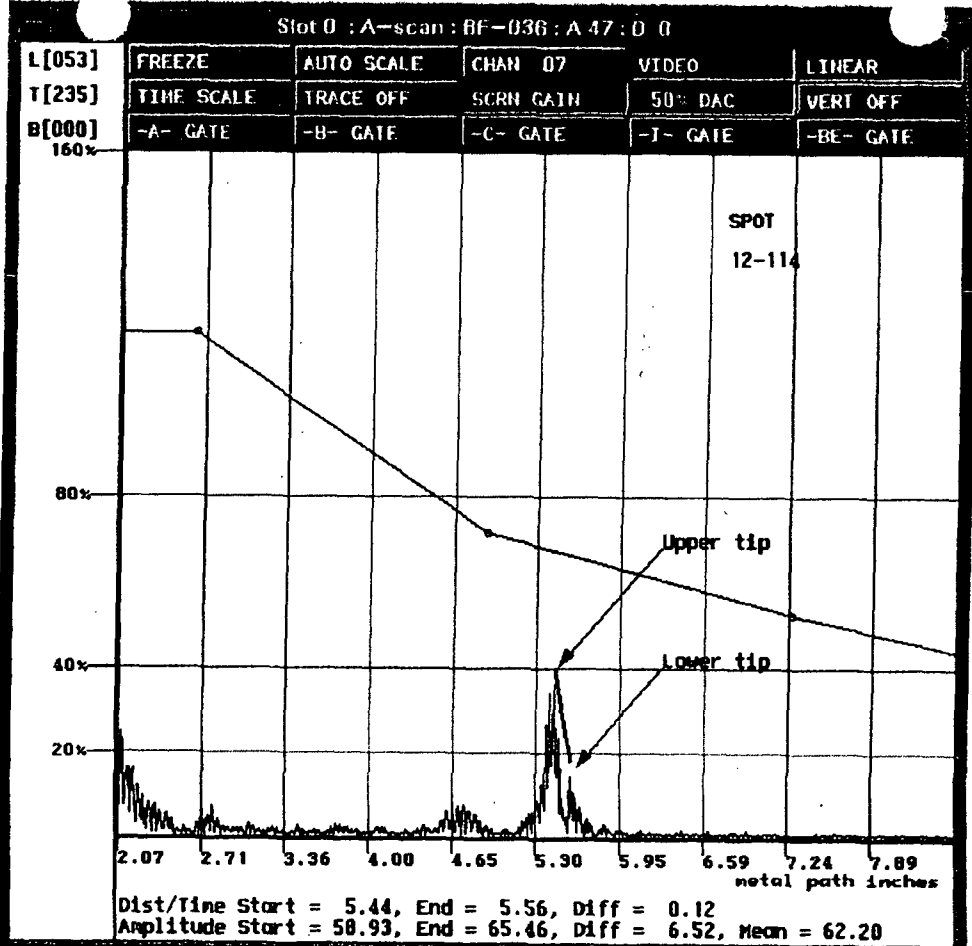
S 0 : Ch 07 : AMP C-scan : BF-031

L[053]
T[235]
ABS

521.55
511.05
619.46 634.96 650.46 665.96

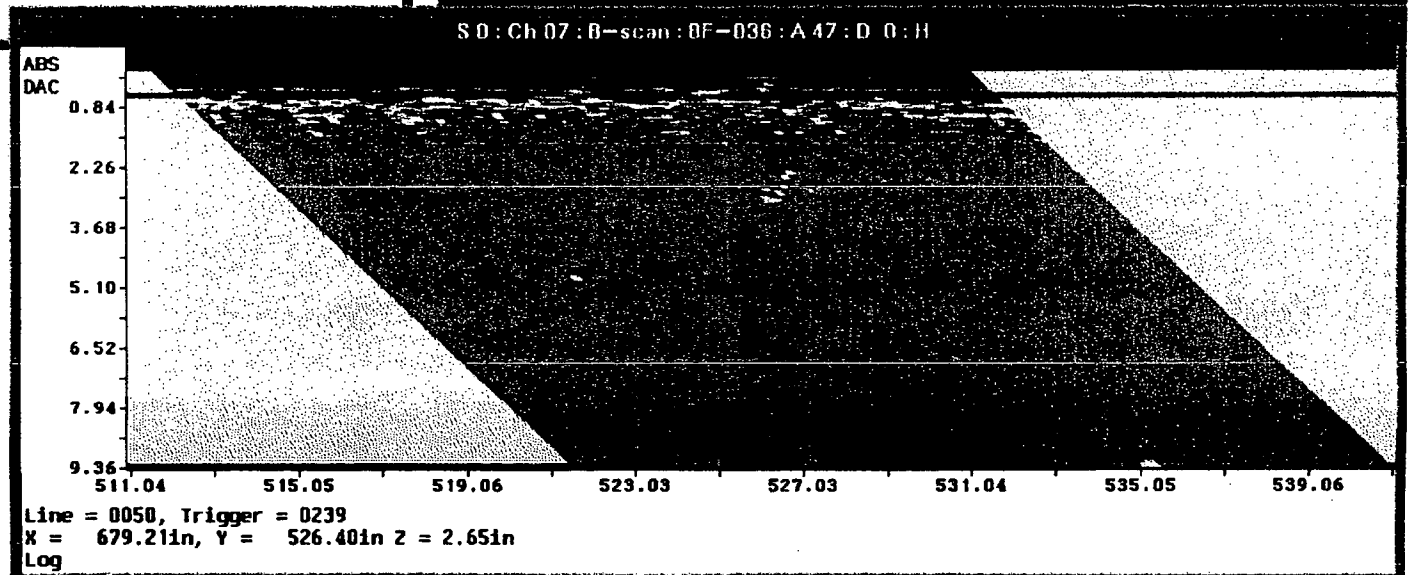
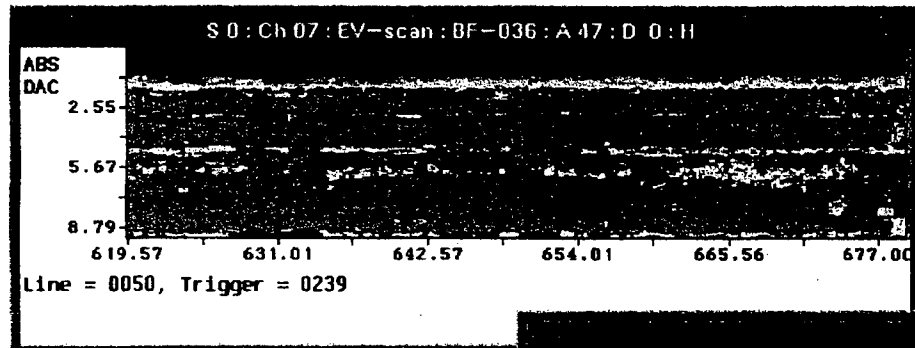
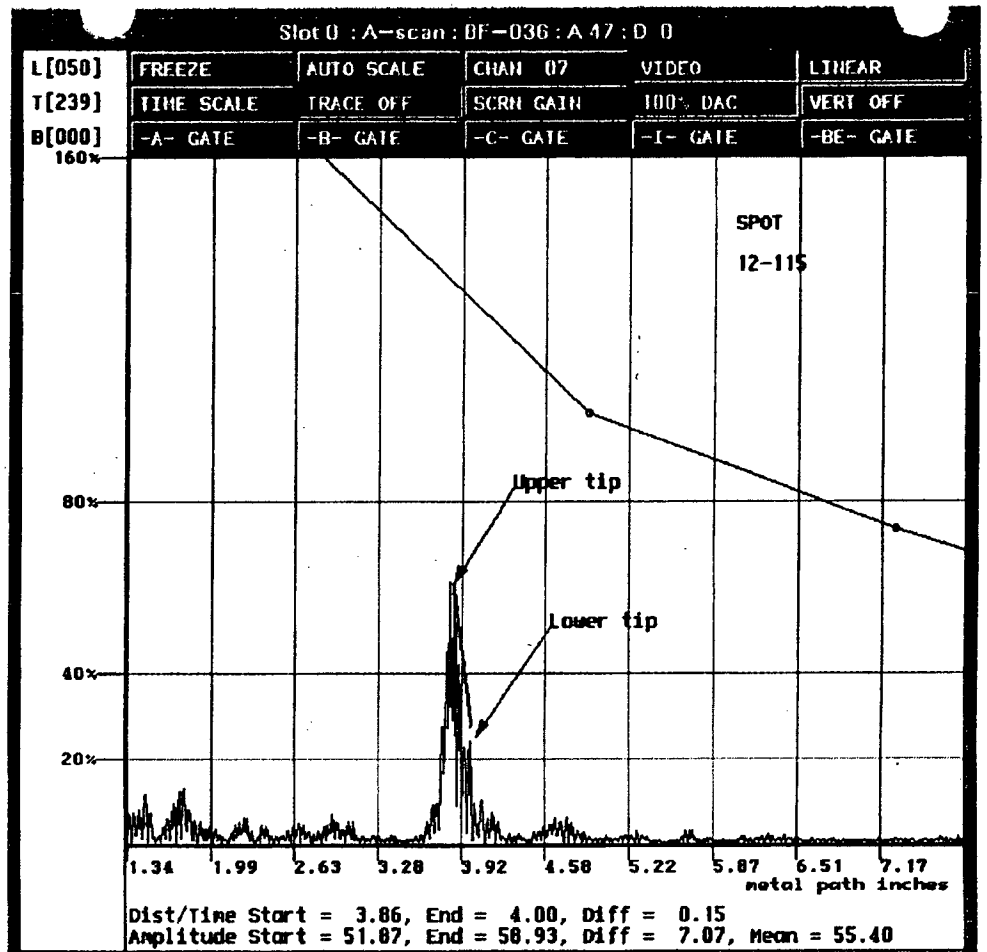
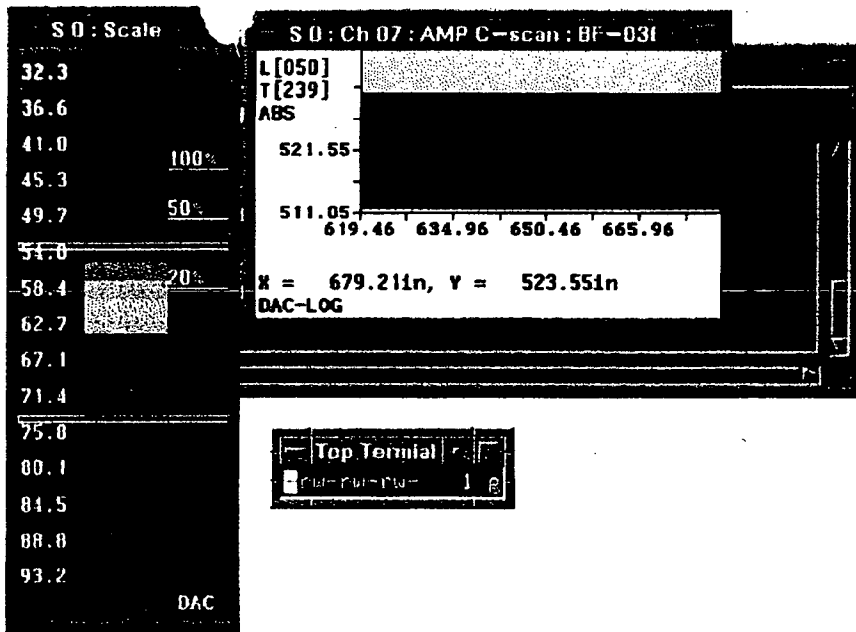
X = 678.21in, Y = 524.30in
DAC-LOG

Top Terminal



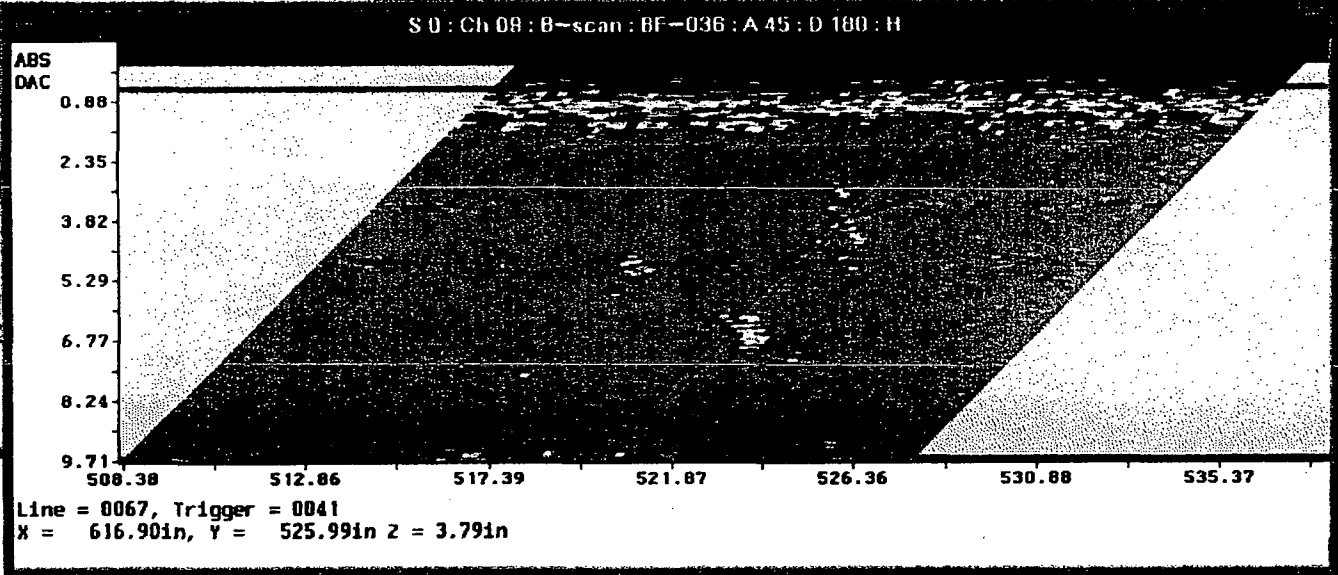
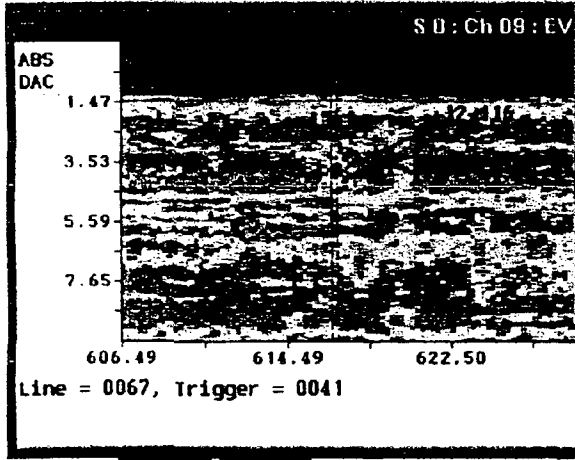
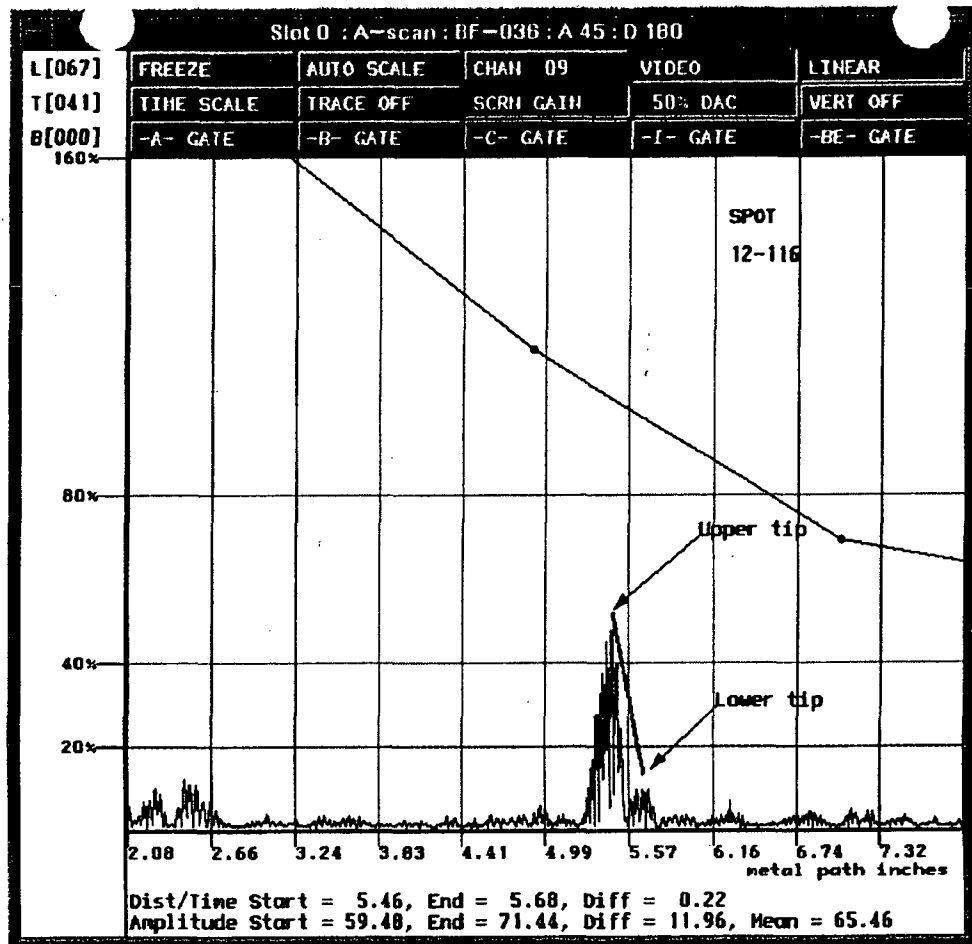
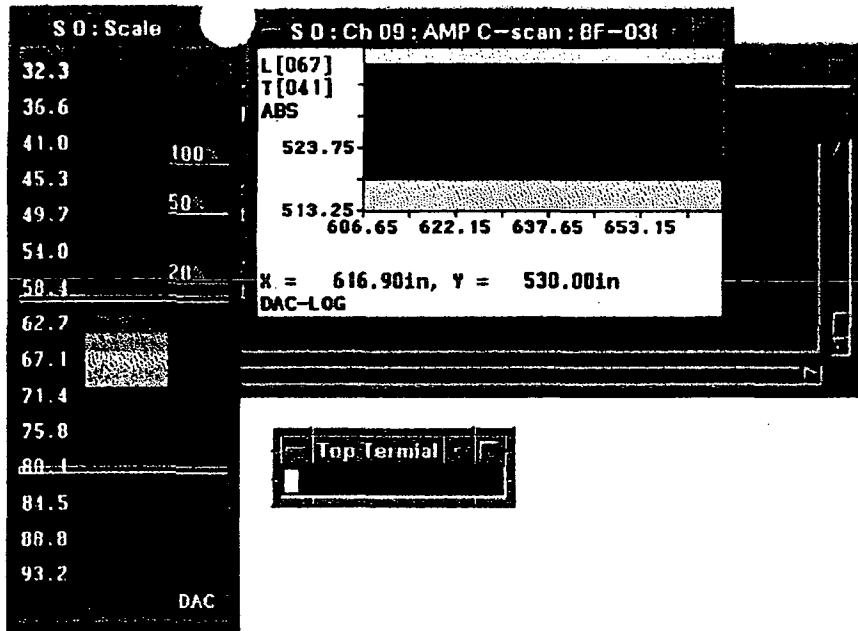
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R1153



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R1153



000000 200000

21153

S 0 : Scale

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

100%
50%
20%

DAC

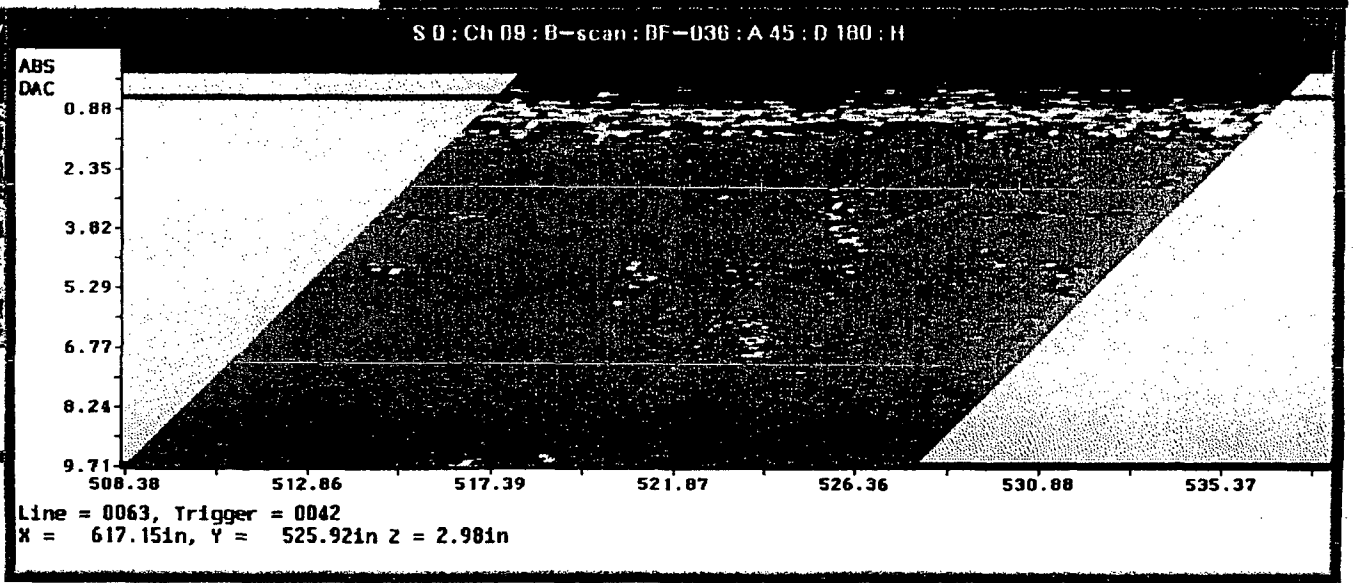
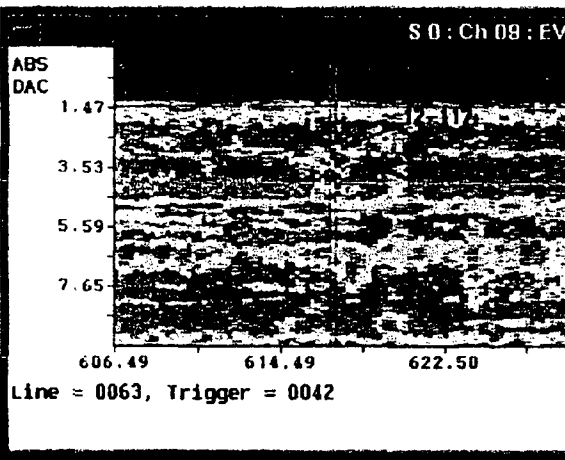
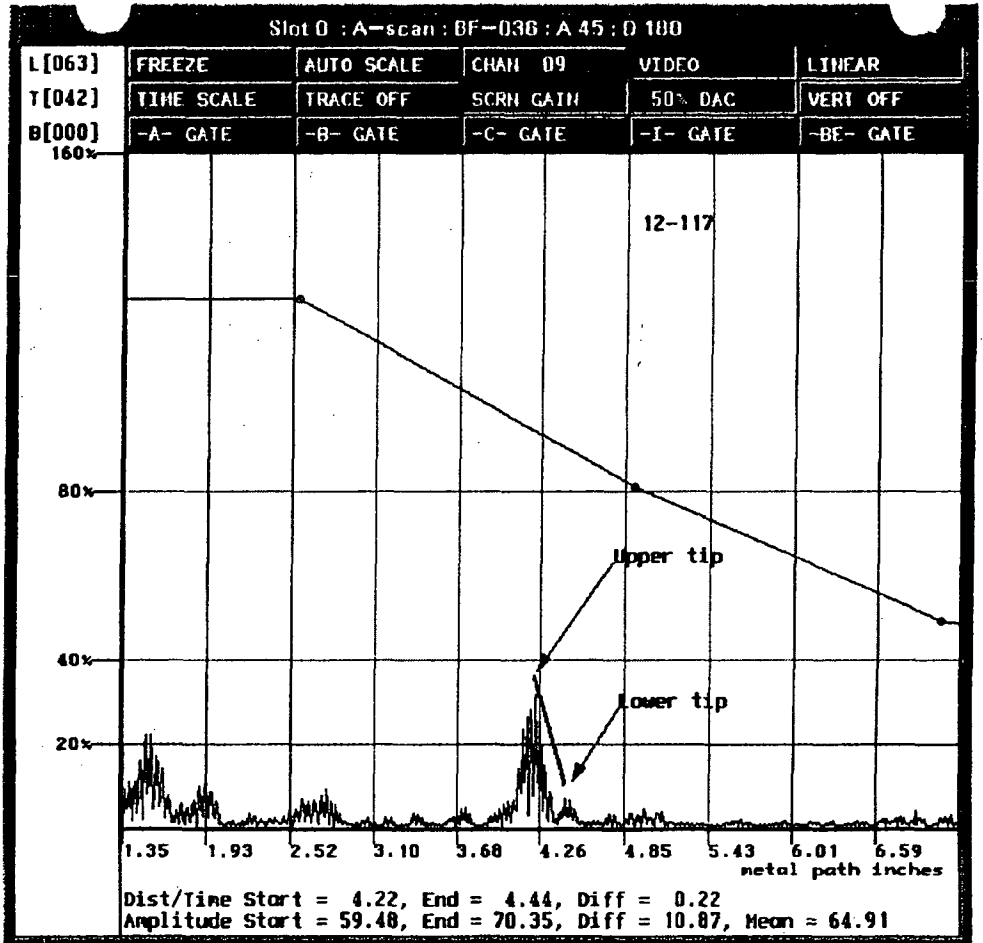
S 0 : Ch 09 : AMP C-scan : BF-036

L[063]
T[042]
ABS

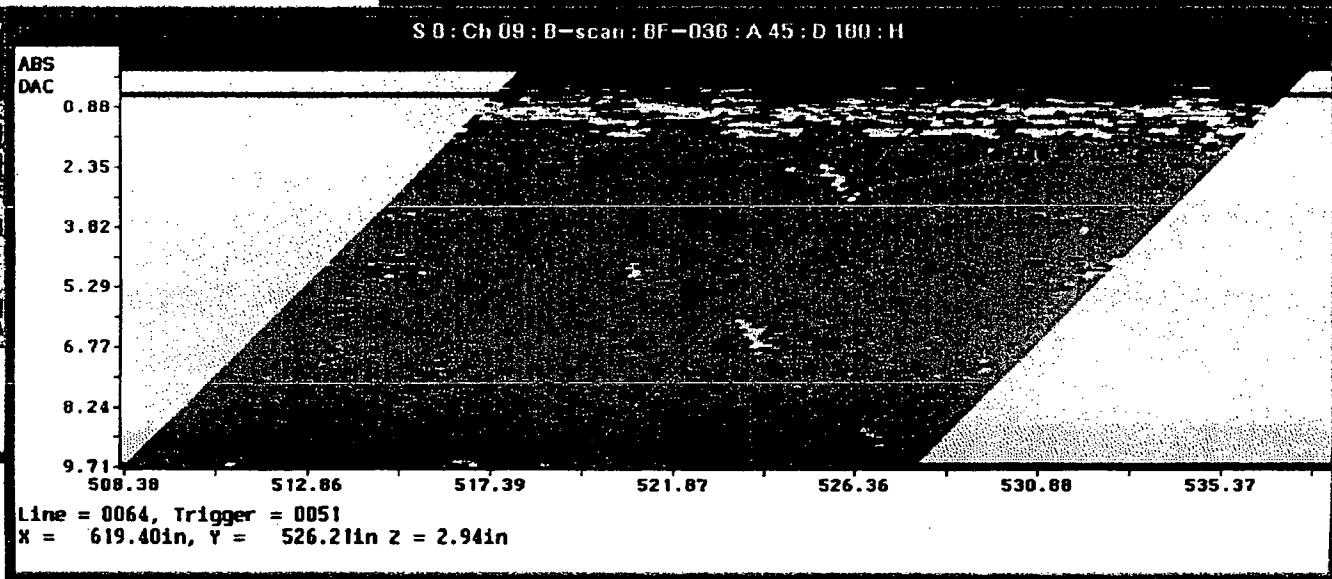
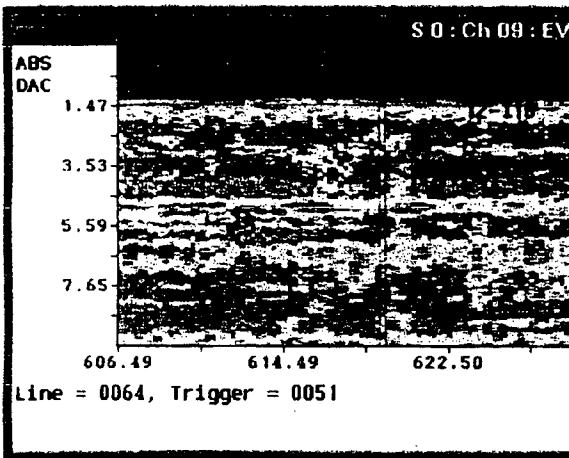
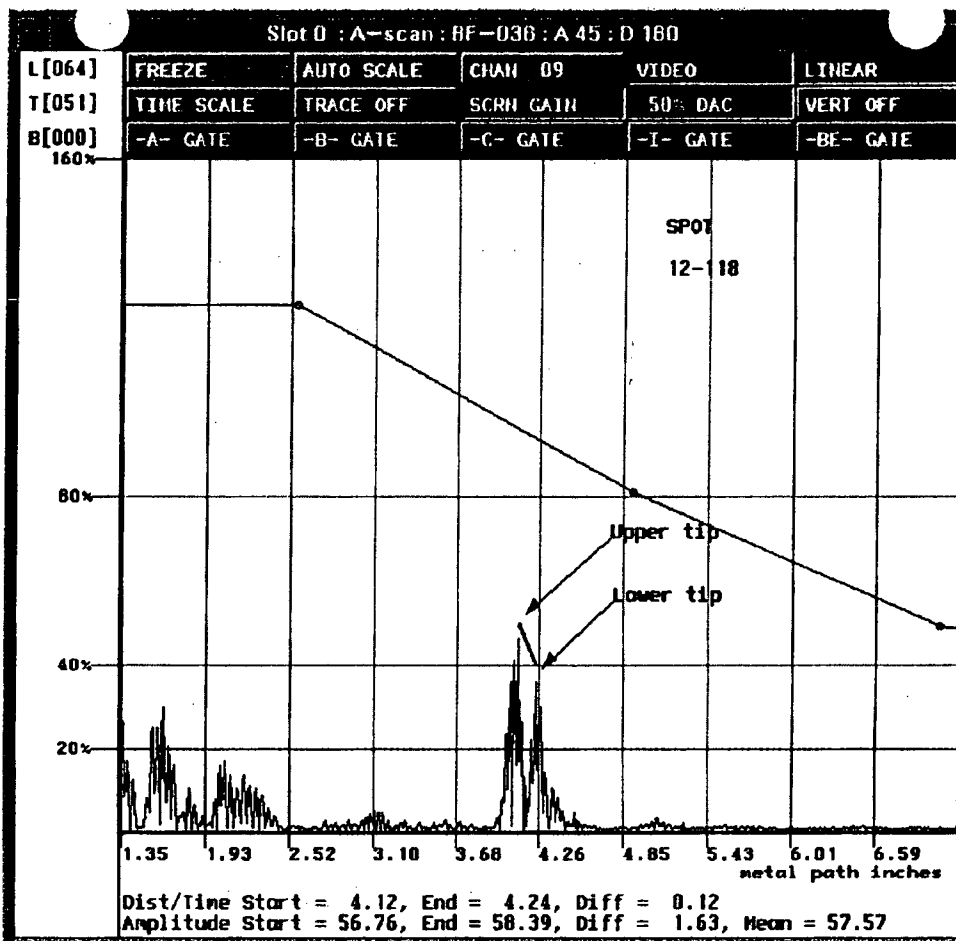
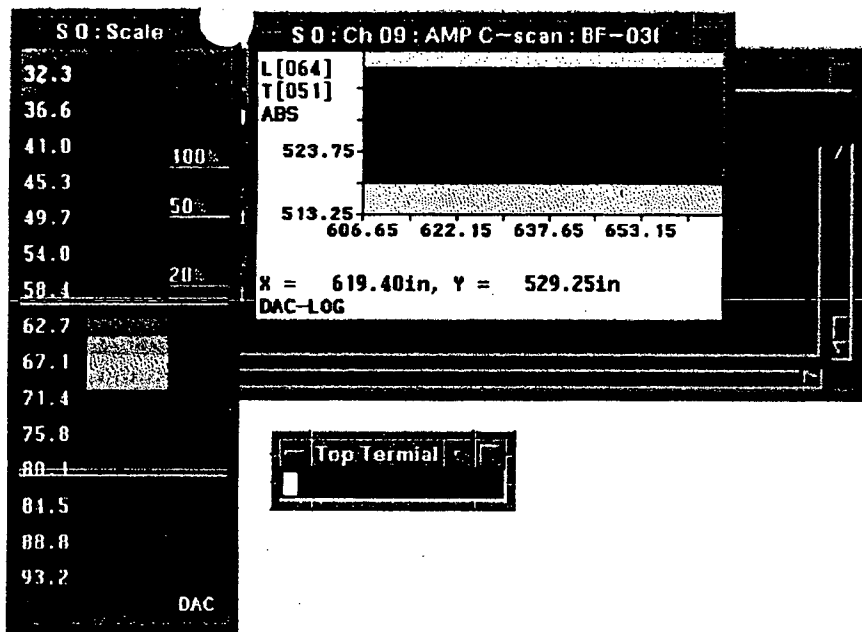
523.75
513.25
606.65 622.15 637.65 653.15

X = 617.151in, Y = 529.001in
DAC-LOG

Top Terminal



21153



0000 2100

R1153

202 420

S 0 : Scale

S 0 : Ch 09 : AMP C-scan : BF-031

L [066]
T [106]
ABS

523.75

513.25

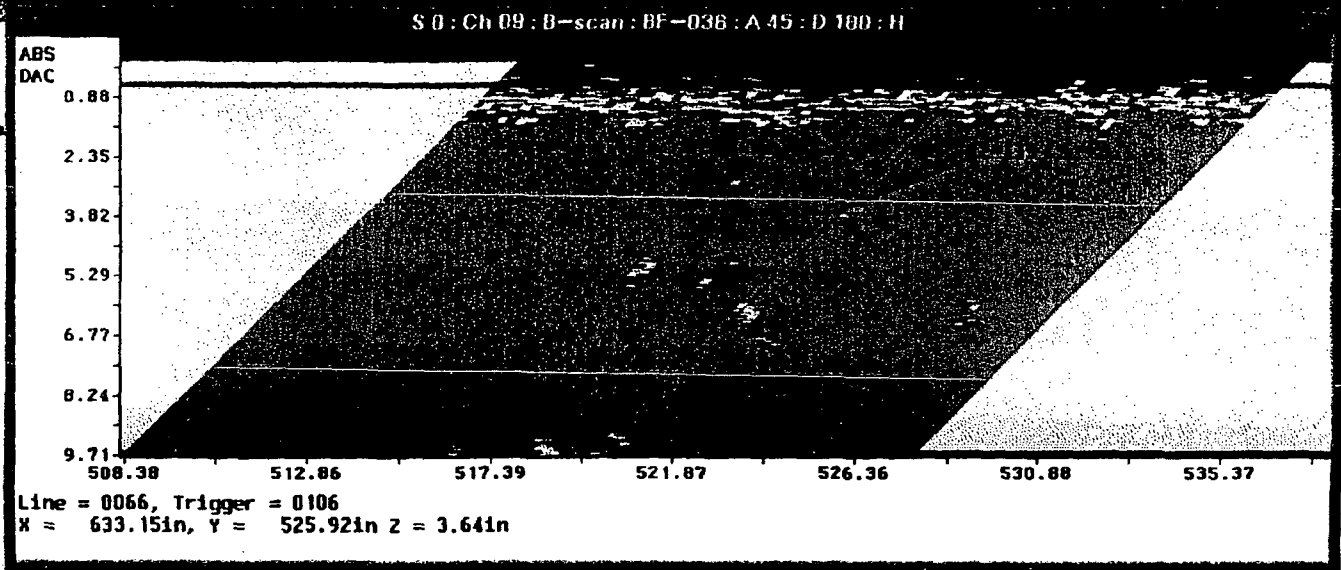
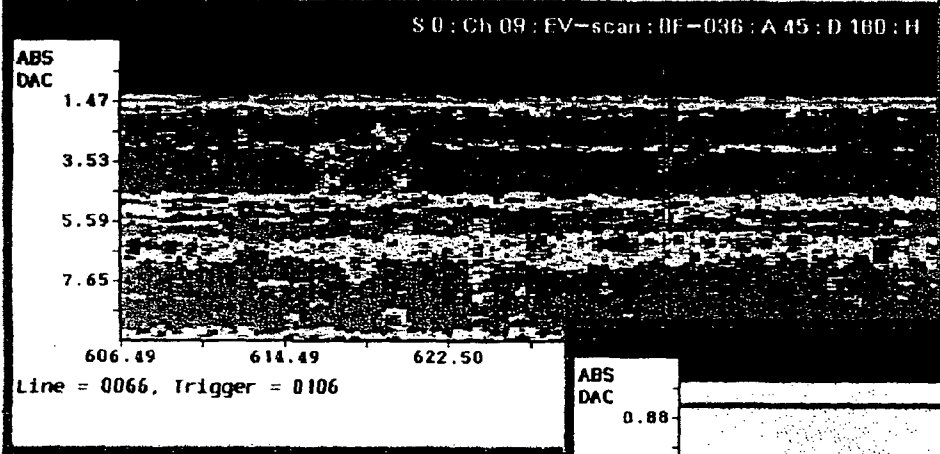
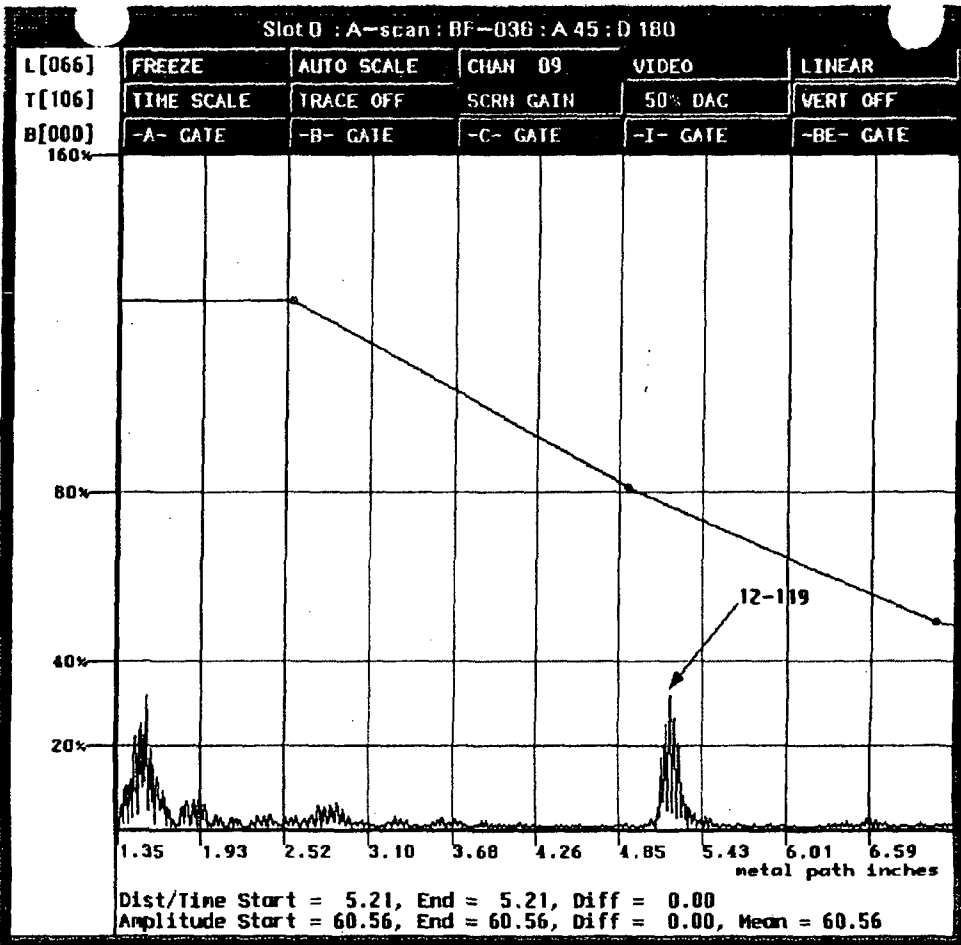
606.65 622.15 637.65 653.15

X = 633.15in, Y = 529.75in
DAC-LOG

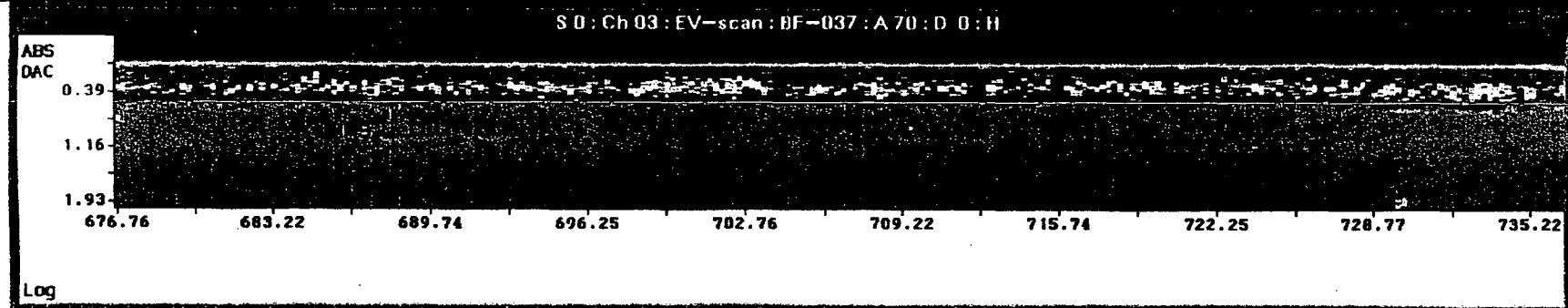
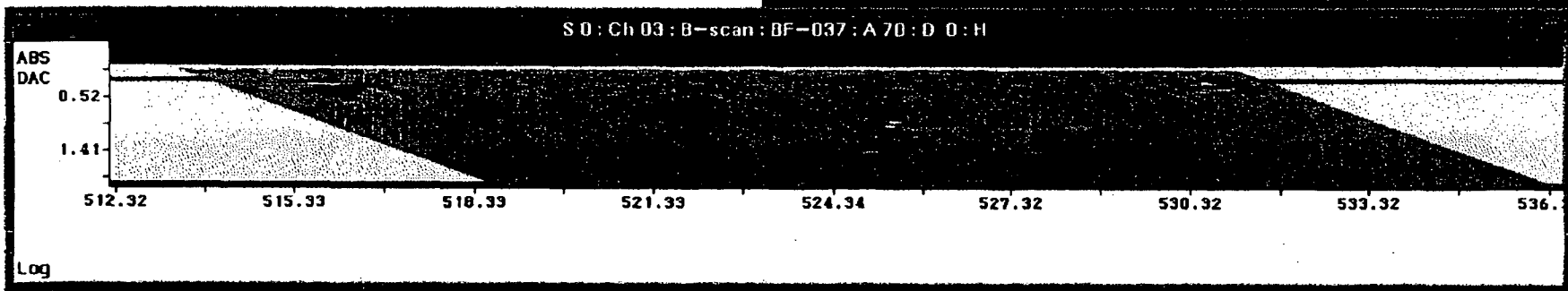
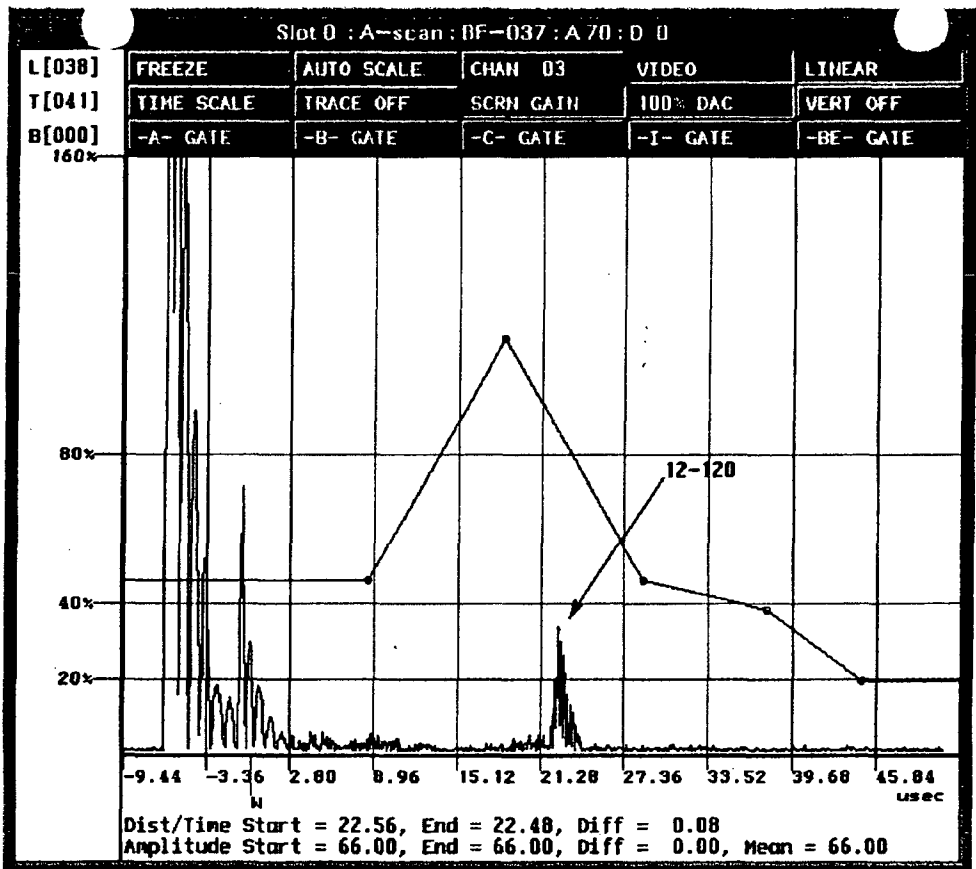
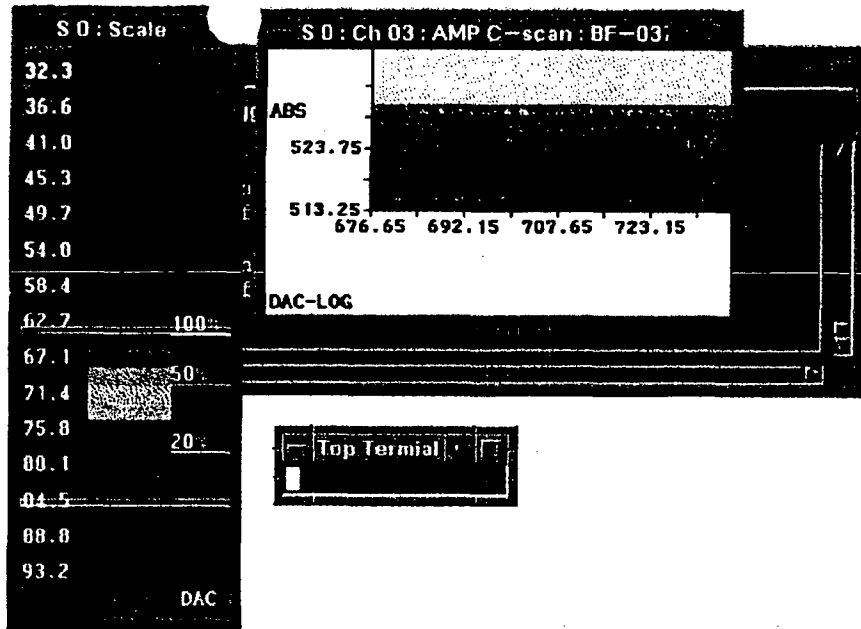
Top Terminal

DAC

32.3
36.6
41.0
45.3
49.7
54.0
59.4
62.7
67.1
71.4
75.0
80.1
84.5
88.8
93.2



21153



21153

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

DAC

GERIS 2000 Utilities

iger Patch Setup Print

anel 05
find by file.

anel 03
find by

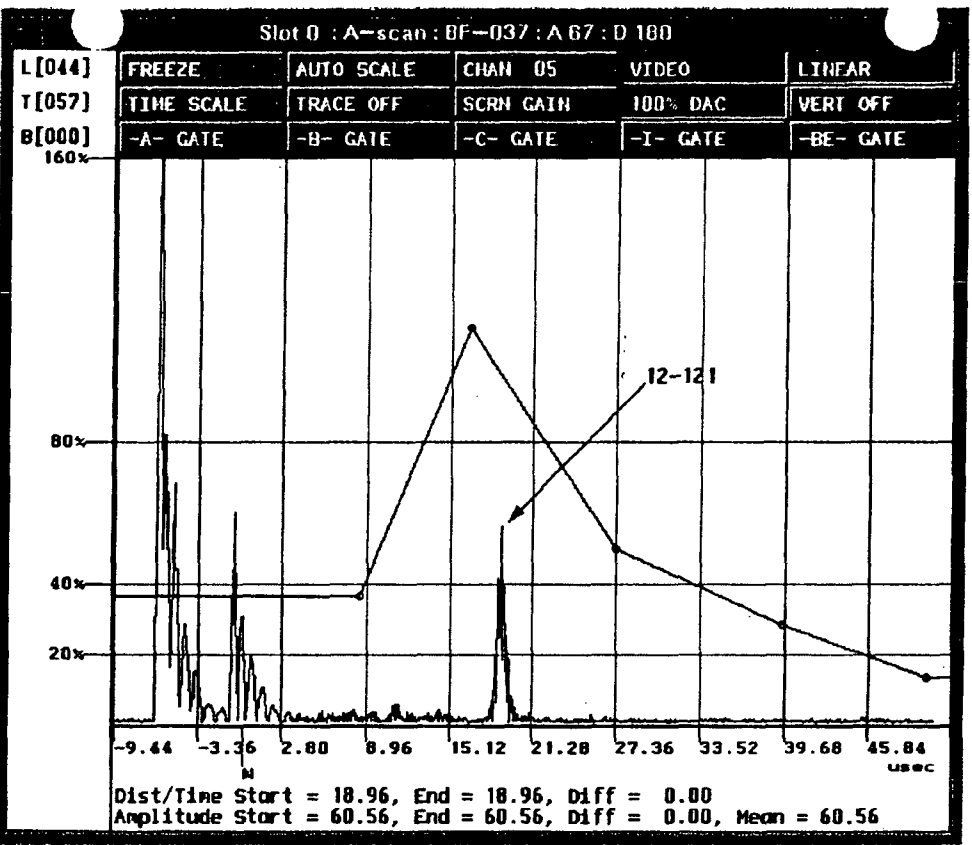
S 0 : Ch 05 : AMP C-scan : BF-03 :

L[044]
T[057]
ABS

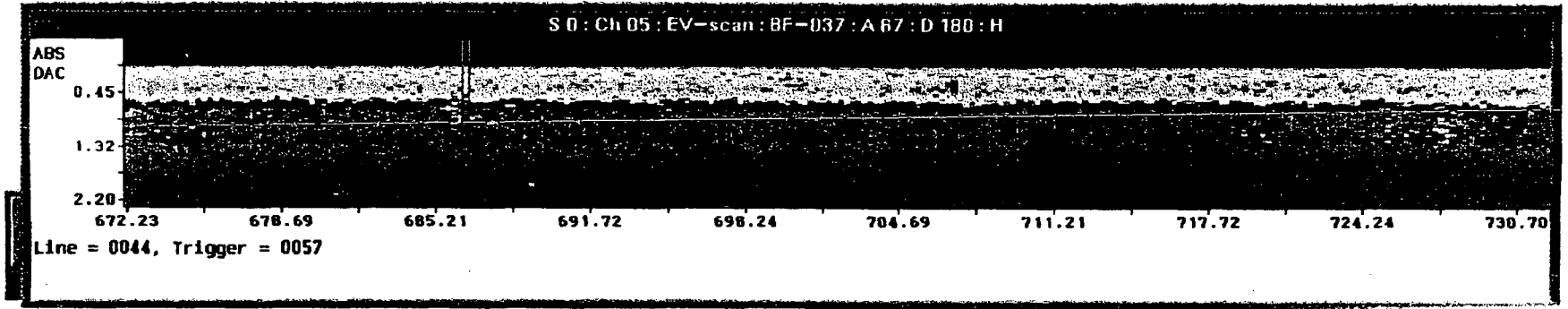
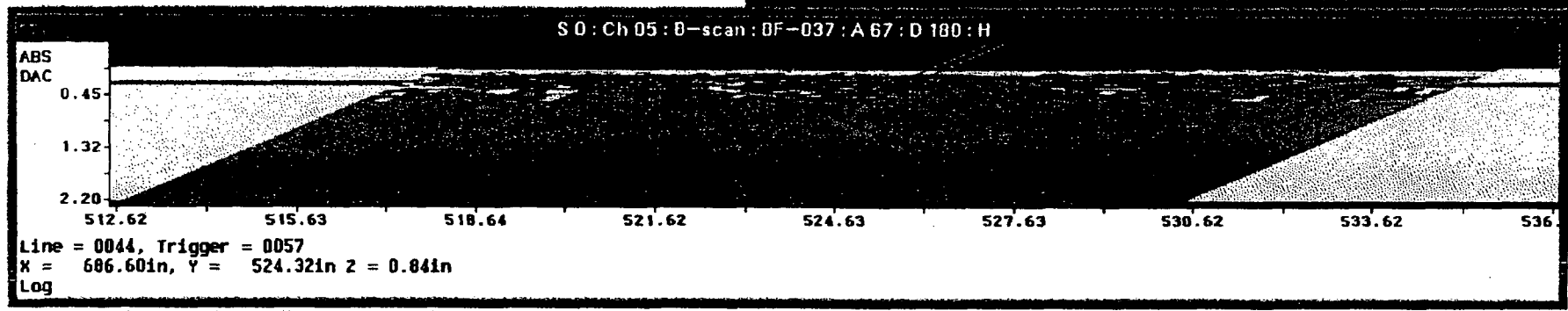
525.95
515.45
672.35 687.85 703.35 718.85

X = 686.60in, Y = 526.45in
DAC-LOG

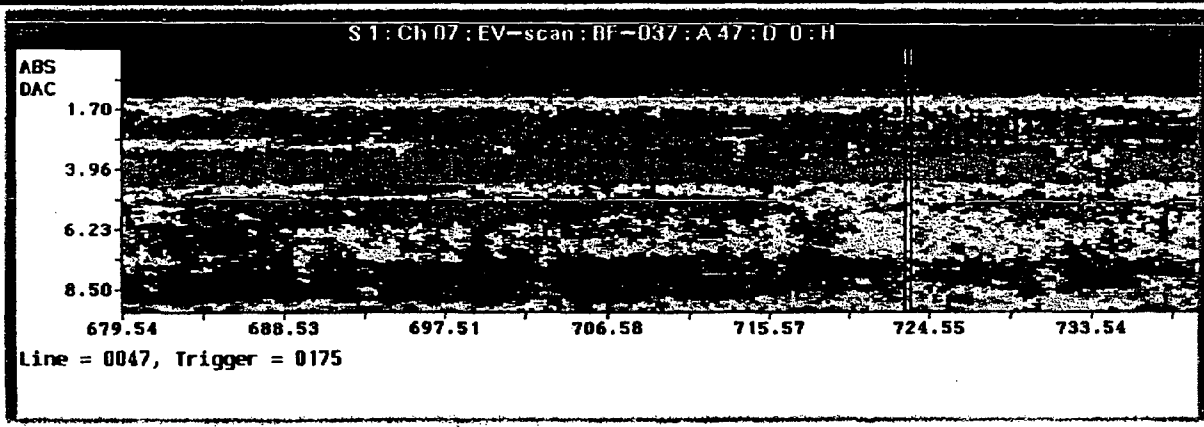
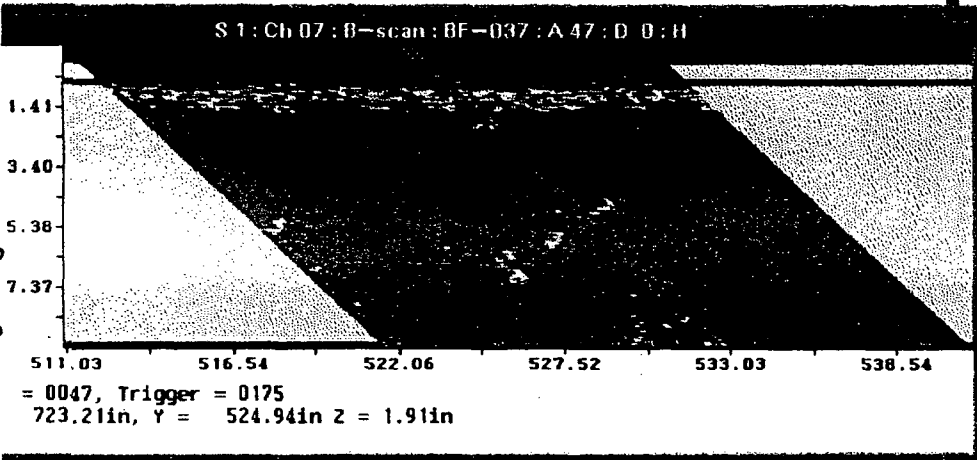
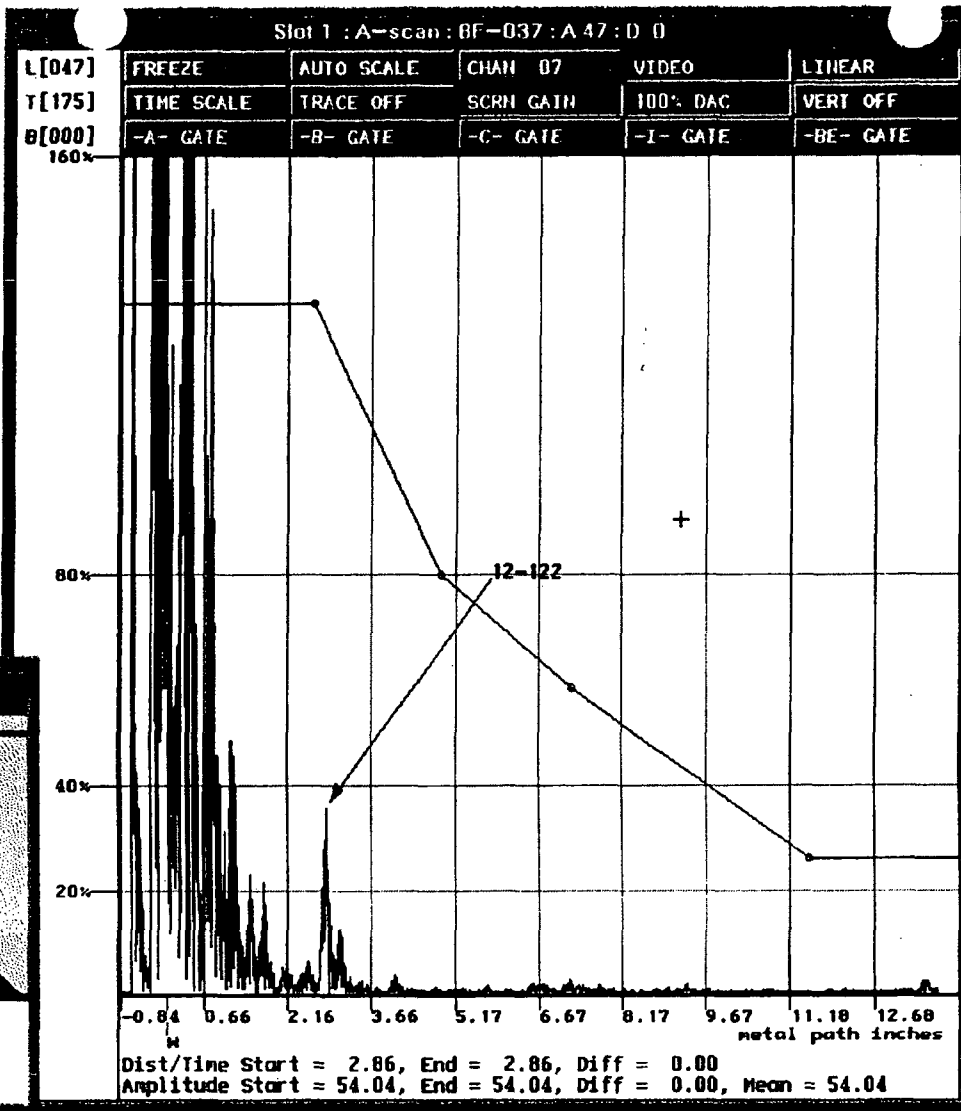
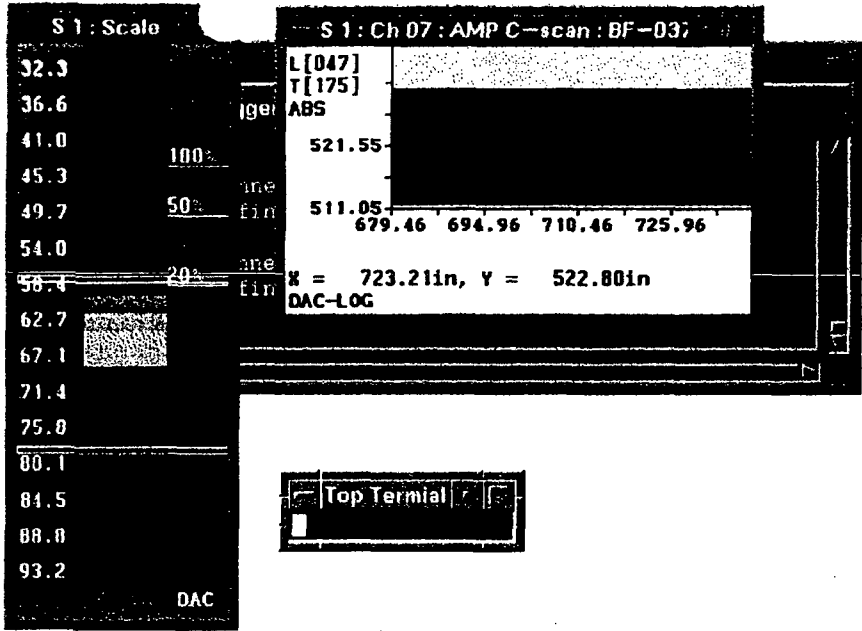
Top Terminal



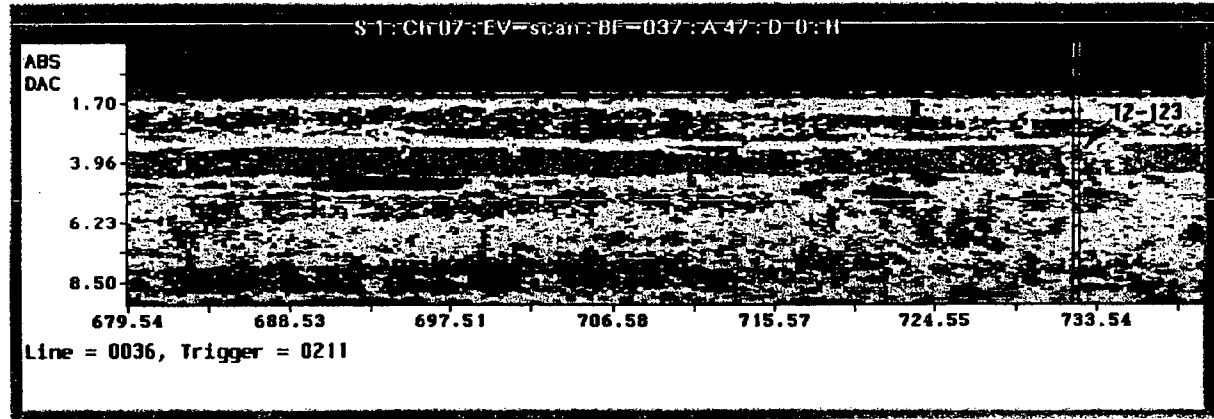
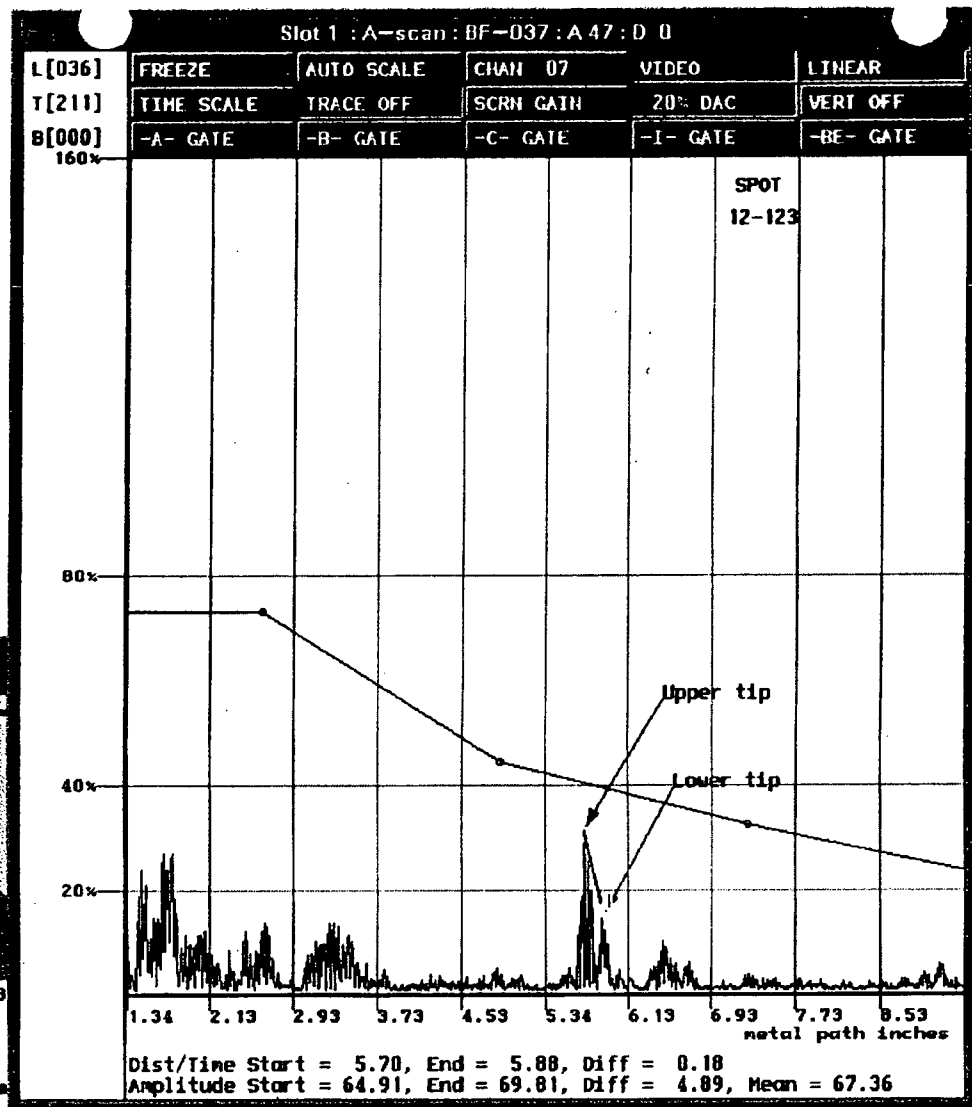
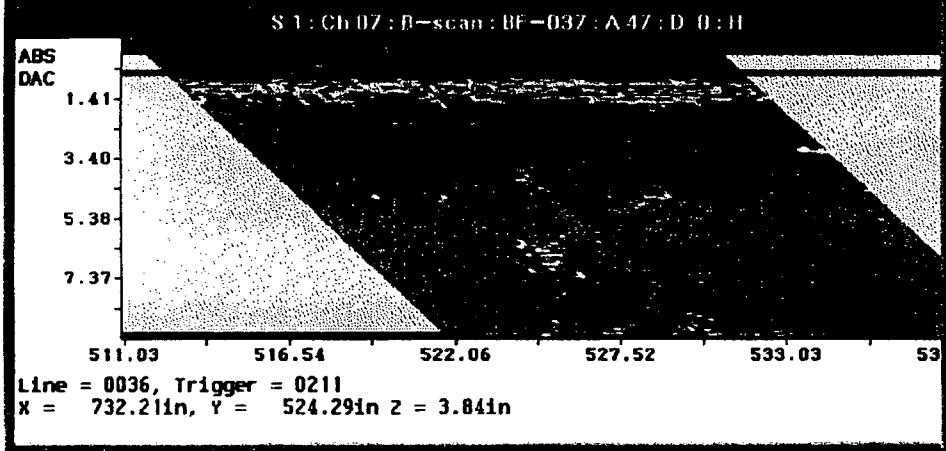
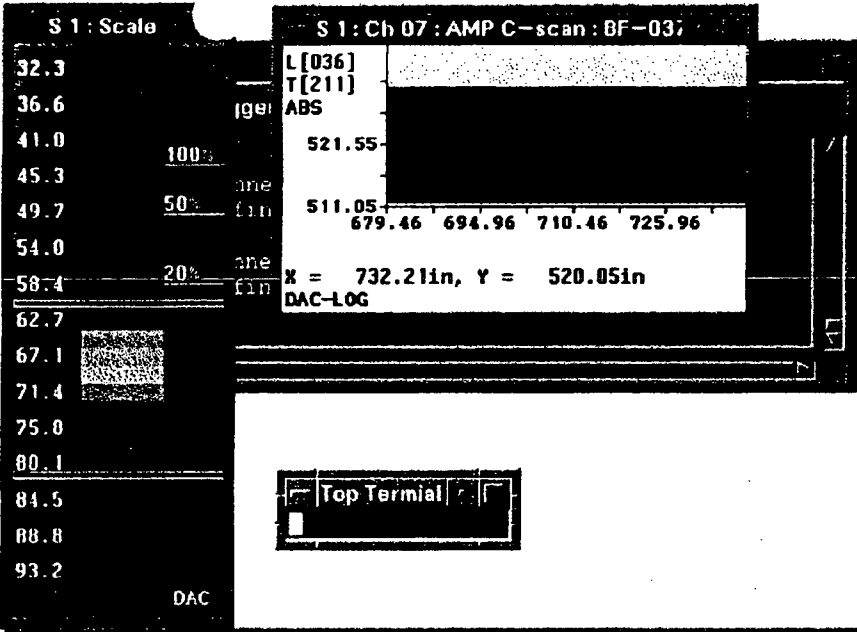
0.0000 0.0000 0.0000



21153



21153



21153

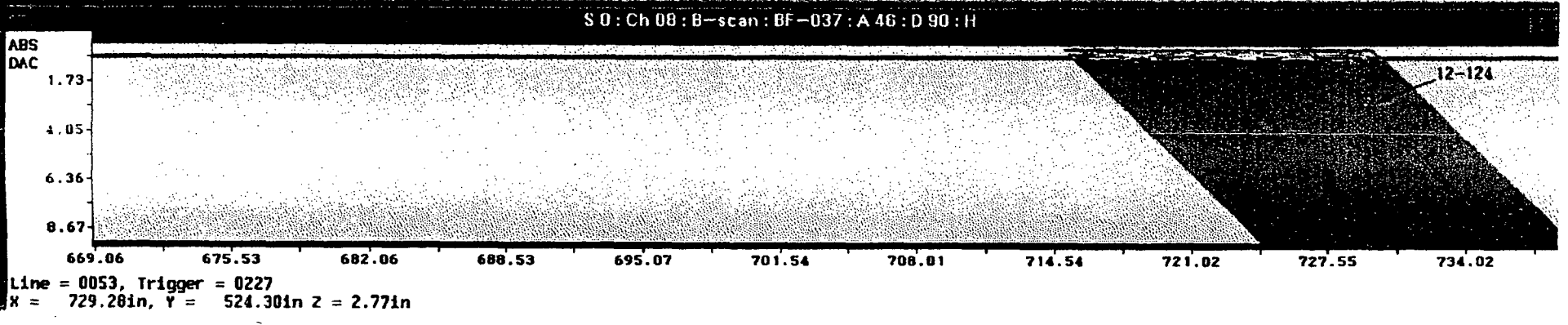
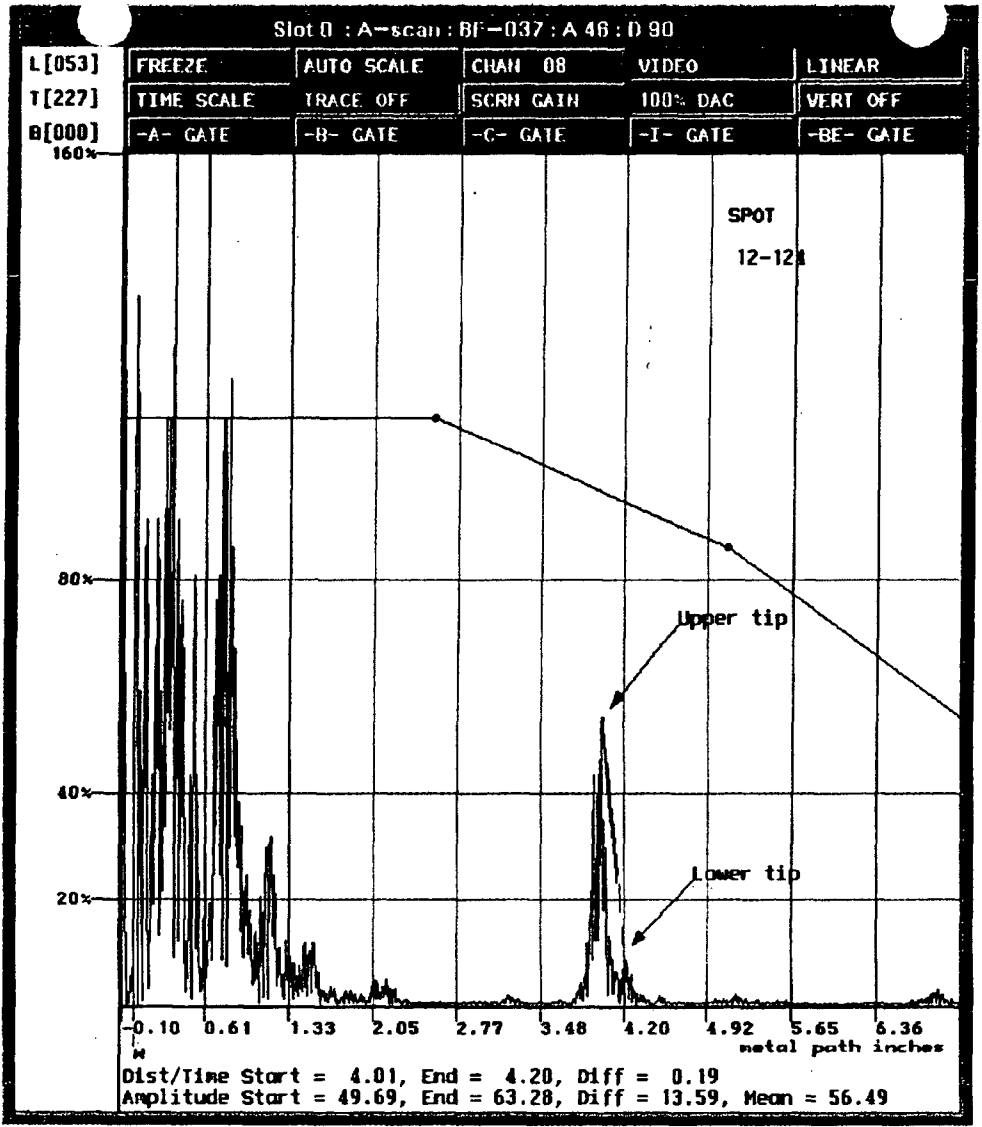
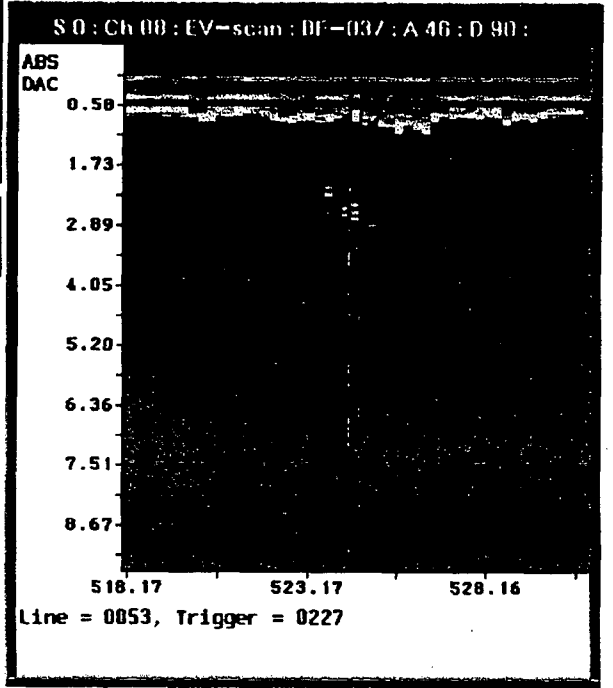
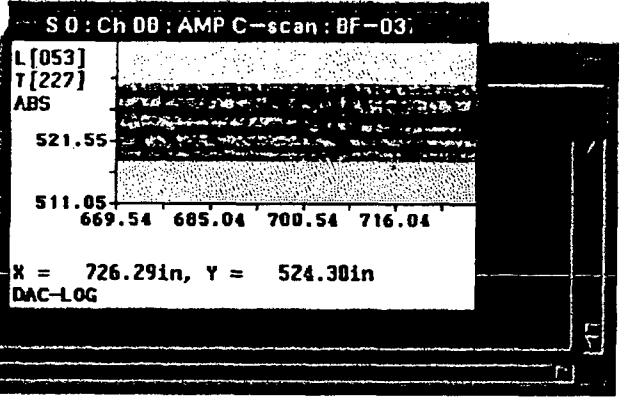
S 0 : Scale

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

Top Terminal



21153

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 12 : AMP C-scan : BF-037

L[044]
T[227]
ABS

523.75
513.25
669.54 685.04 700.54 716.04

X = 726.29in, Y = 524.25in
DAC-LOG

S 0 : Ch 12 : EV-scan : BF-037 : A !

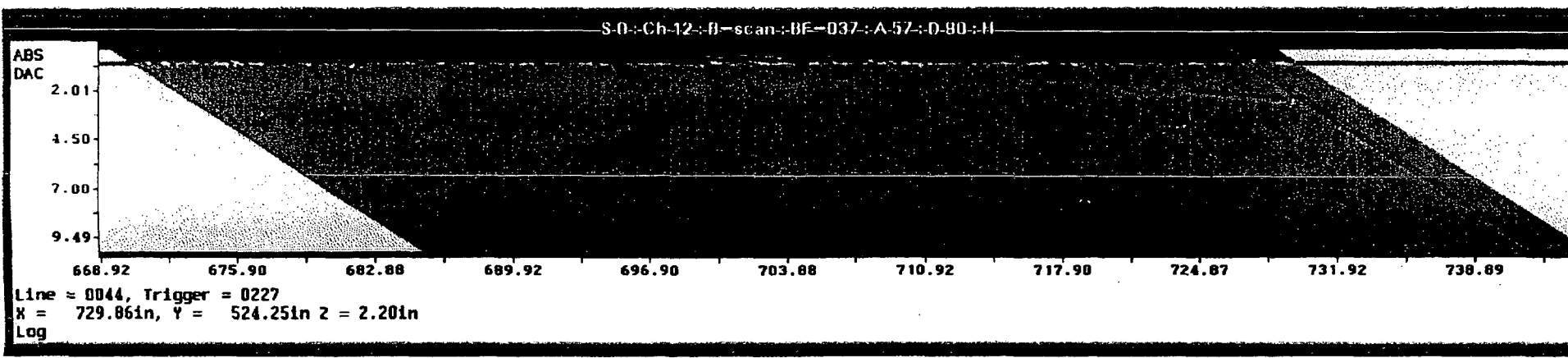
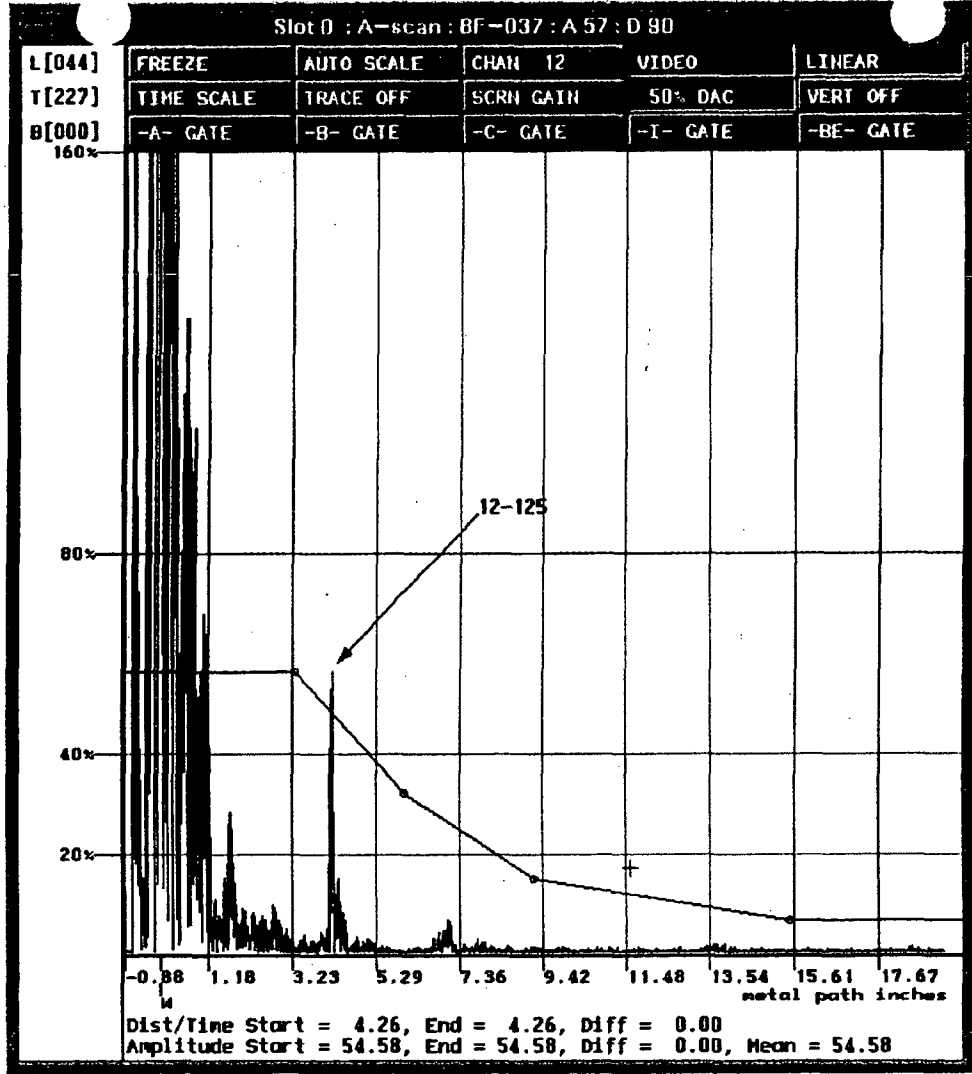
ABS
DAC

0.65
1.78
2.92
4.05
5.18
6.32
7.45
8.58
9.71

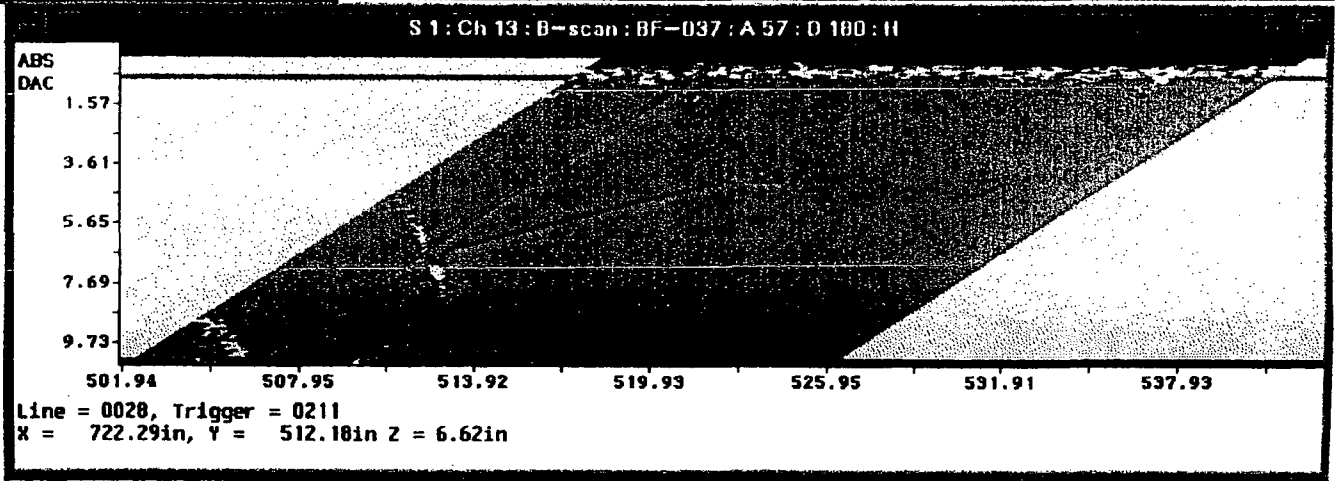
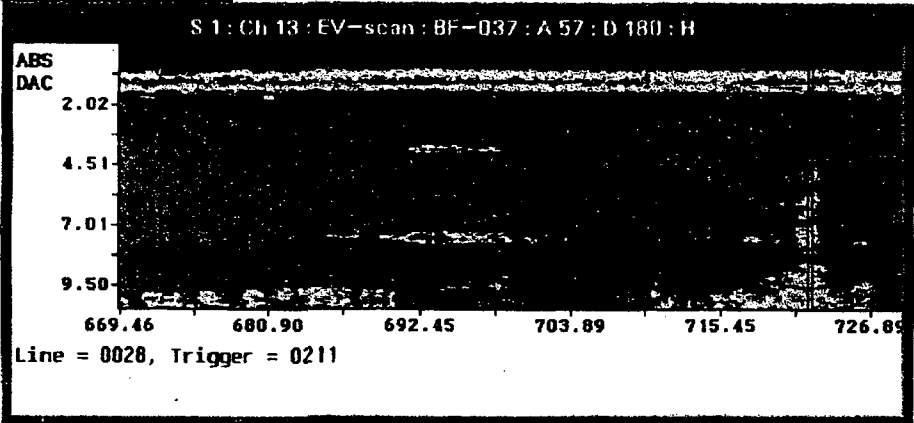
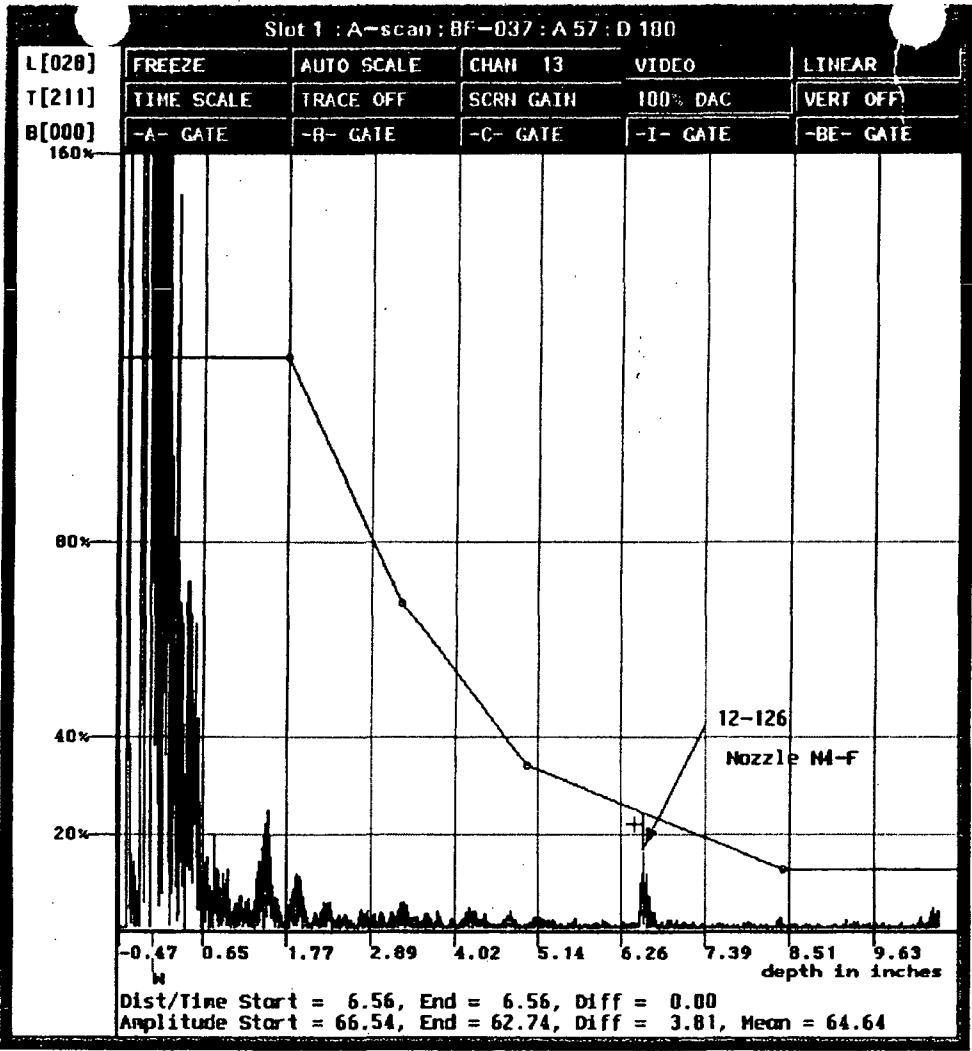
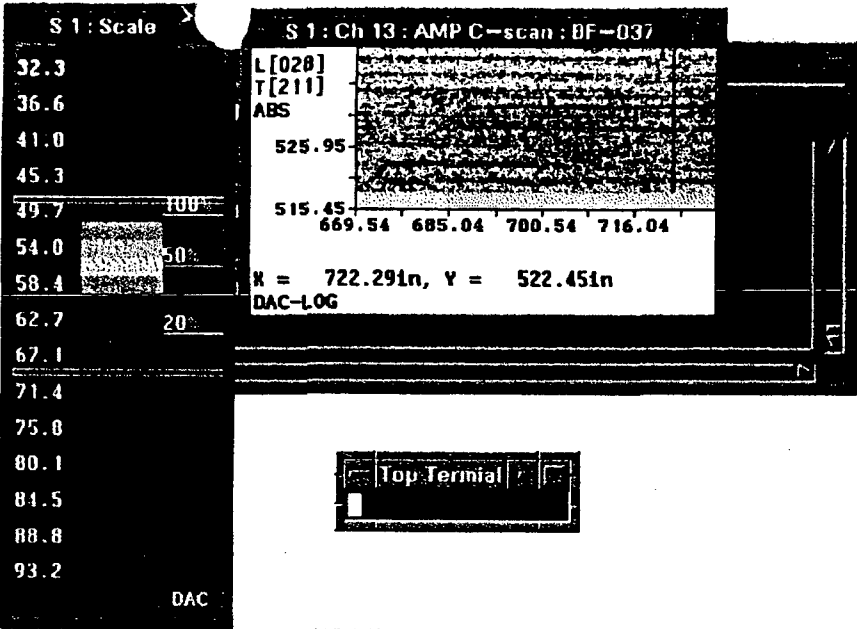
518.95 524.33 530.3

Line = 0044, Trigger = 0227

Top Terminal



21153



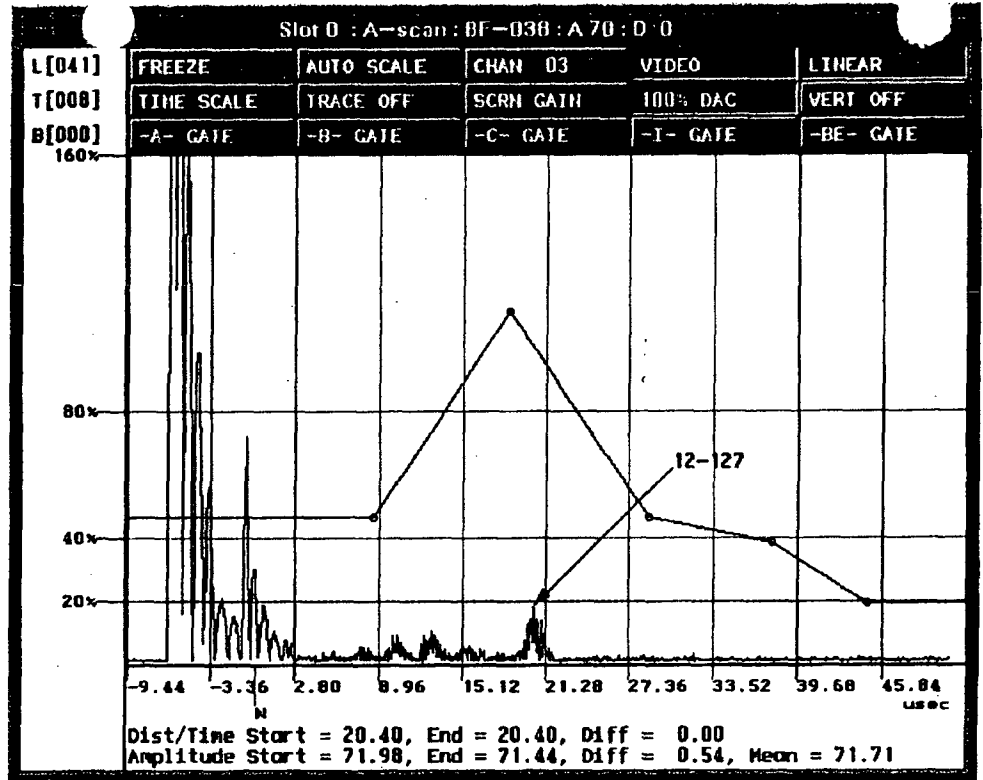
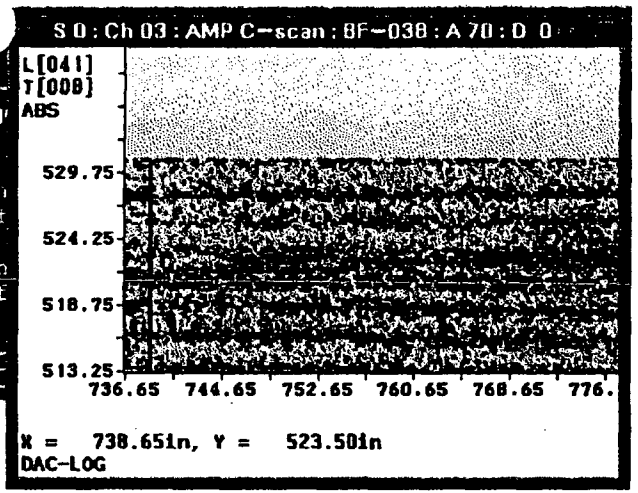
21153

S 0 : Scale

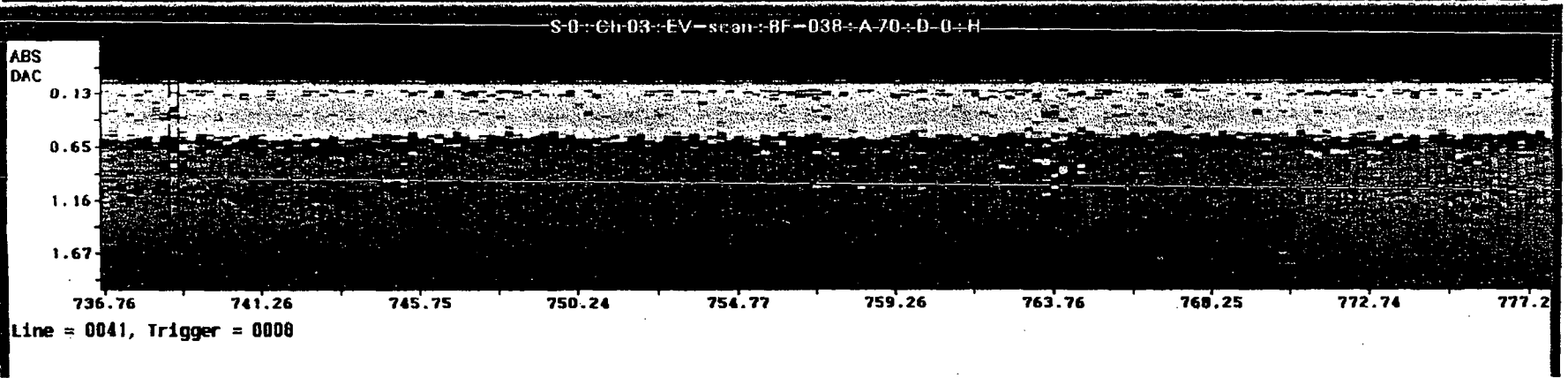
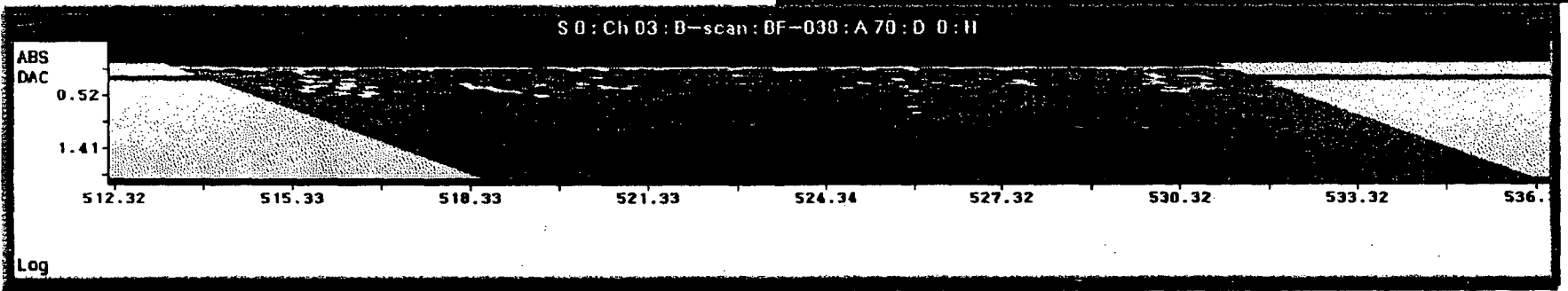
32.3
36.6
41.0
45.3
49.7
54.0
58.4
62.7
67.1
71.4
75.0
80.1
84.5
88.0
93.2

100
50
20

DAC



391 20 439

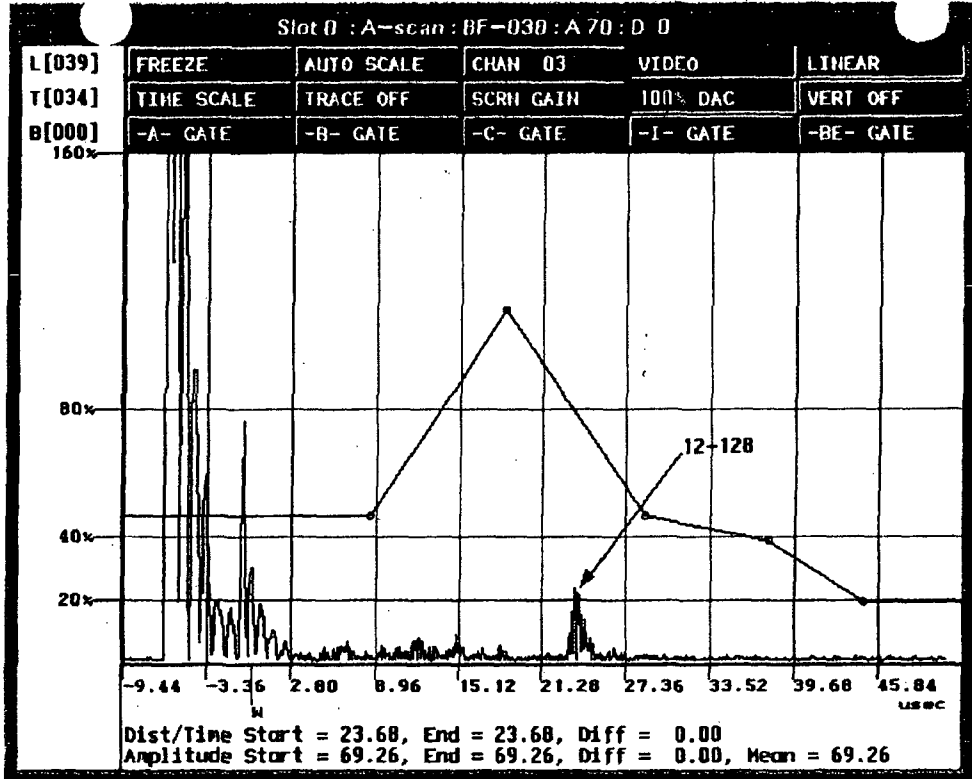
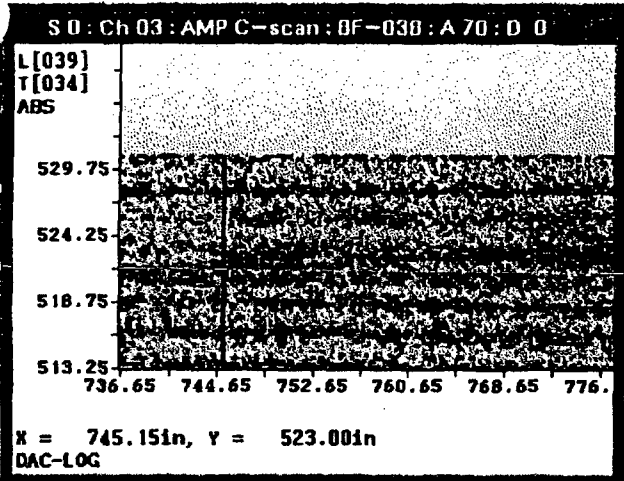


21153

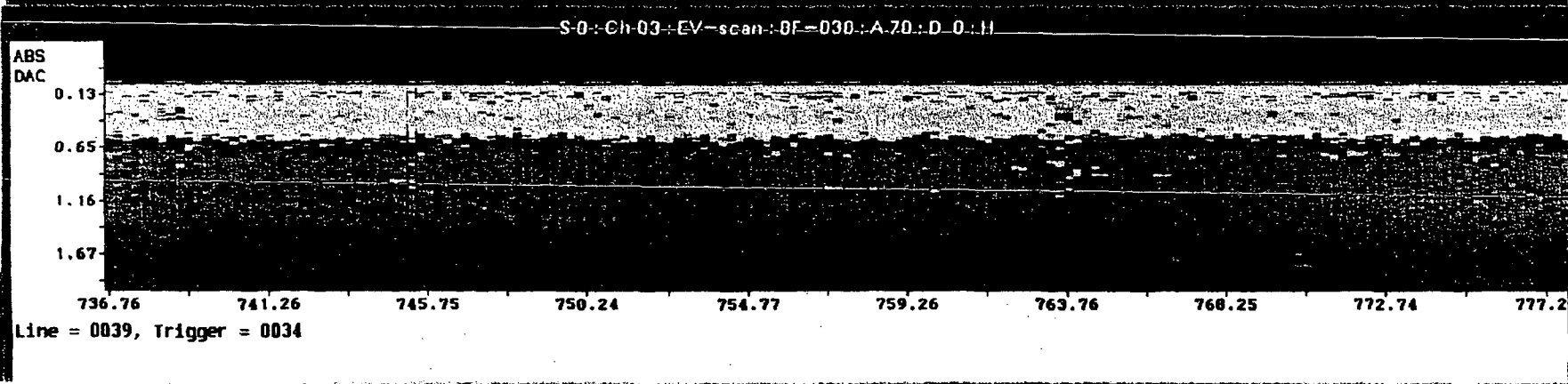
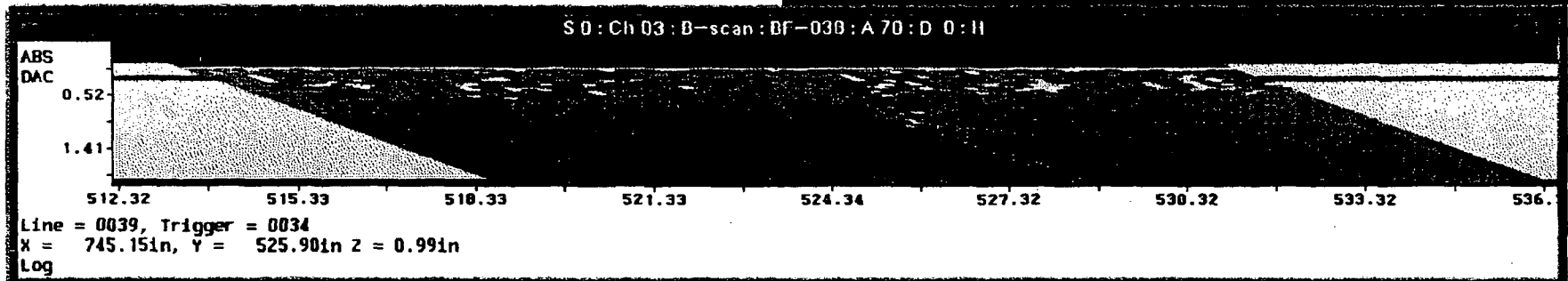
S 0 : Scale

32.3
36.6
41.0
45.3
49.7
54.0
58.4
62.7 100%
67.1 50%
71.4
75.8
80.1 20%
84.5
88.0
93.2

DAC



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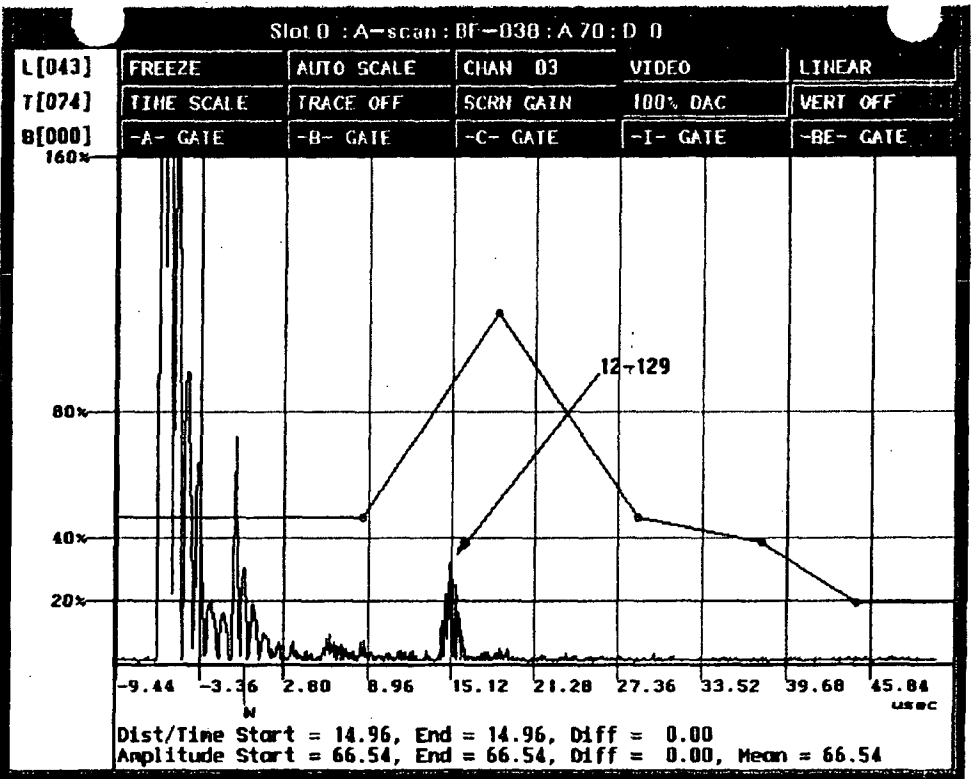
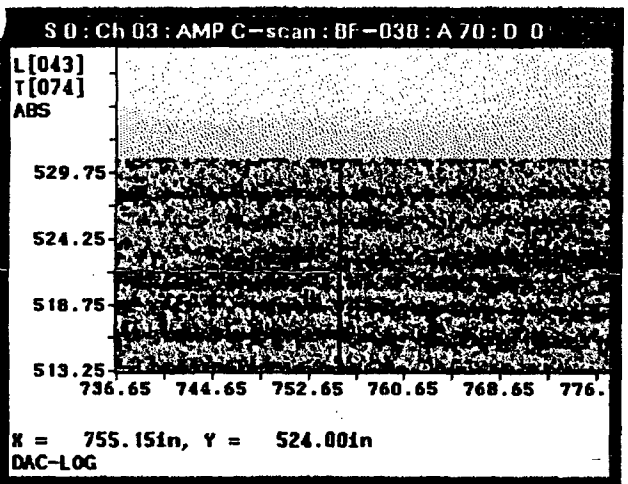
R1153

S 0 : Scale

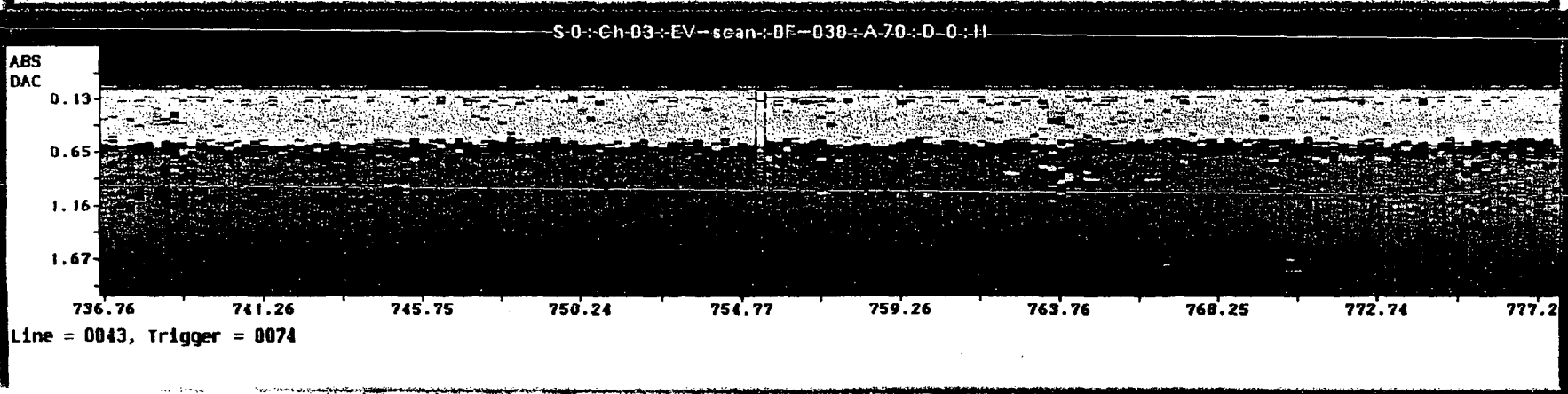
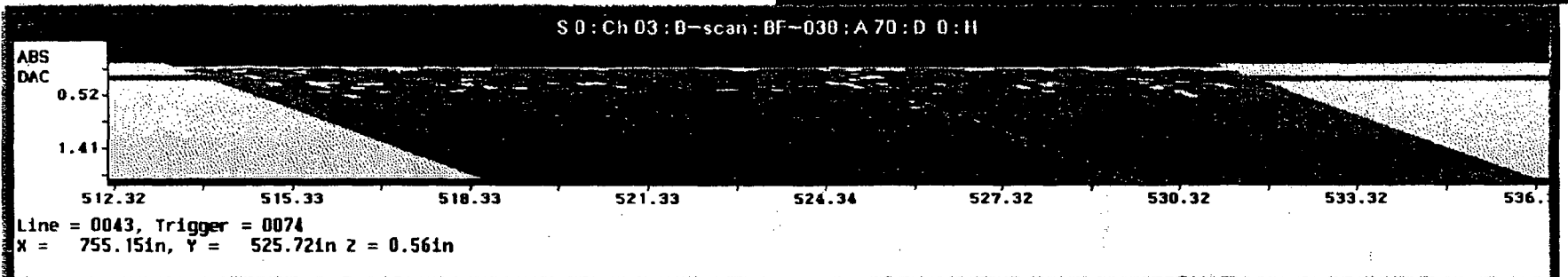
32.3
36.6
41.0
45.3
49.7
54.0
58.4
62.7
67.1
71.4
75.8
80.1
84.5
88.0
93.2

100%
50%
20%

DAC



202 of 479

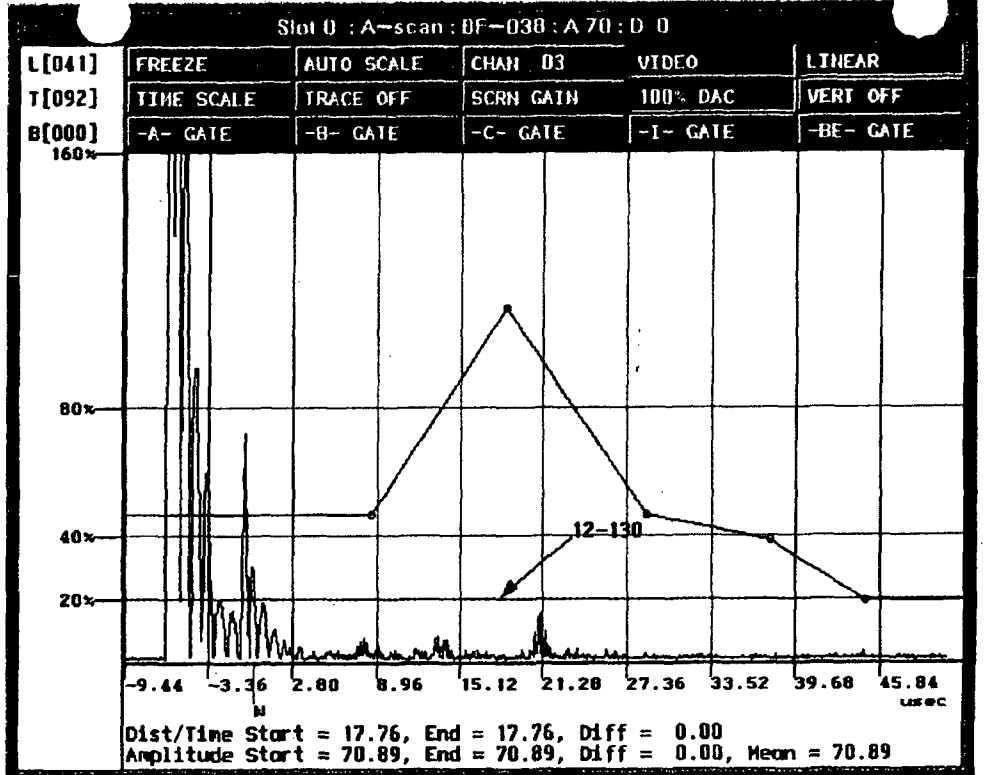
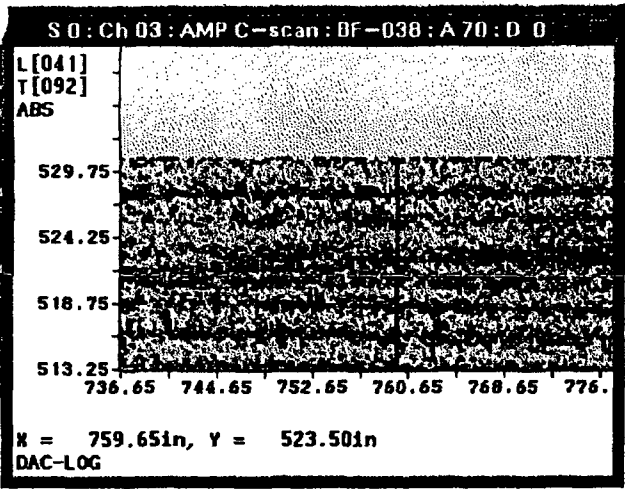


R1153

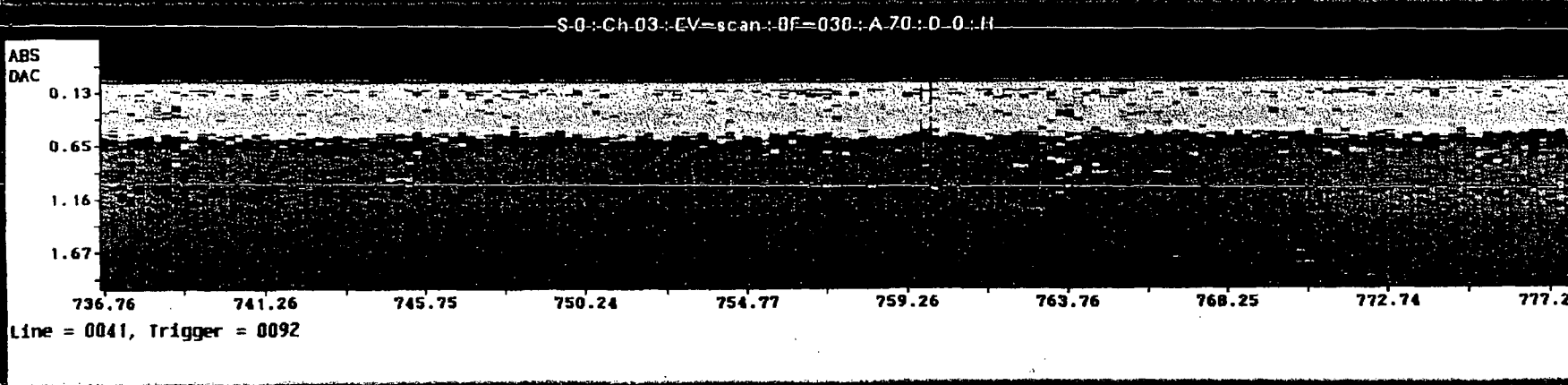
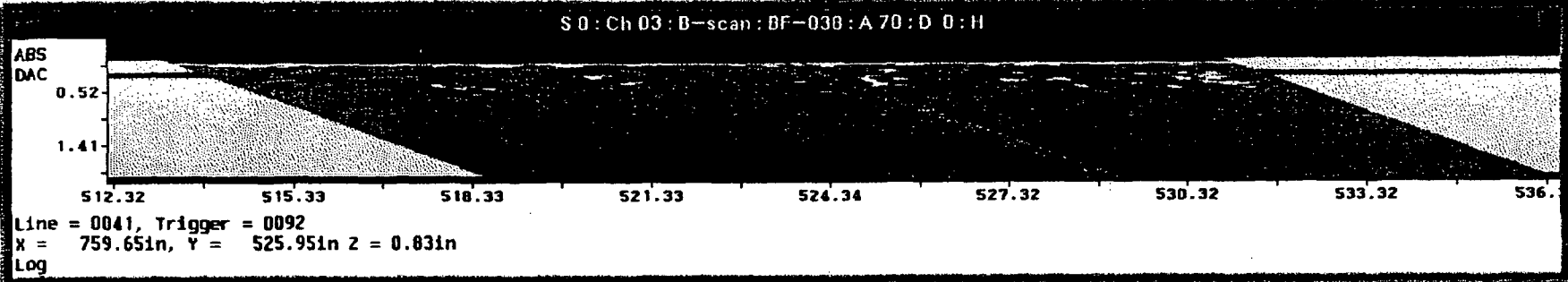
S 0 : Scale

32.3
36.6
41.0
45.3
49.7
54.0
58.4
62.7 100%
67.1 50%
71.4
75.8 20%
80.1
84.5
88.0
93.2

DAC



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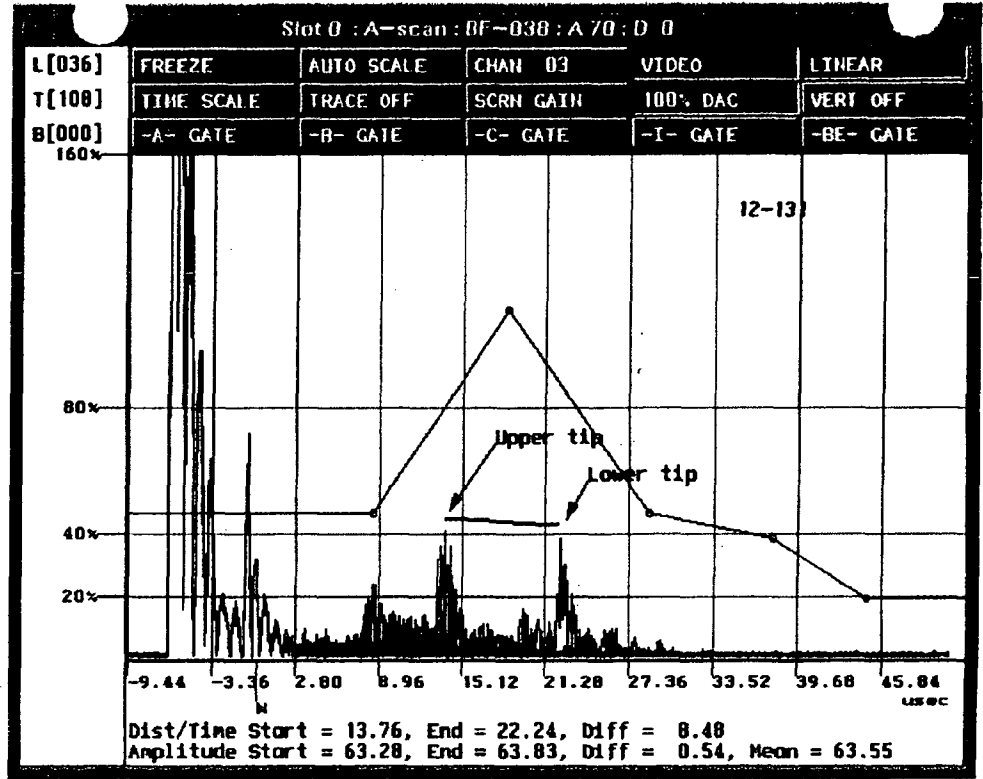
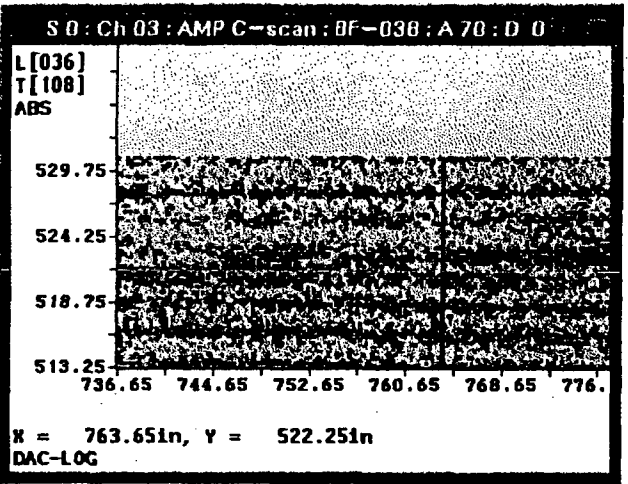
R1153

S 0 : Scale

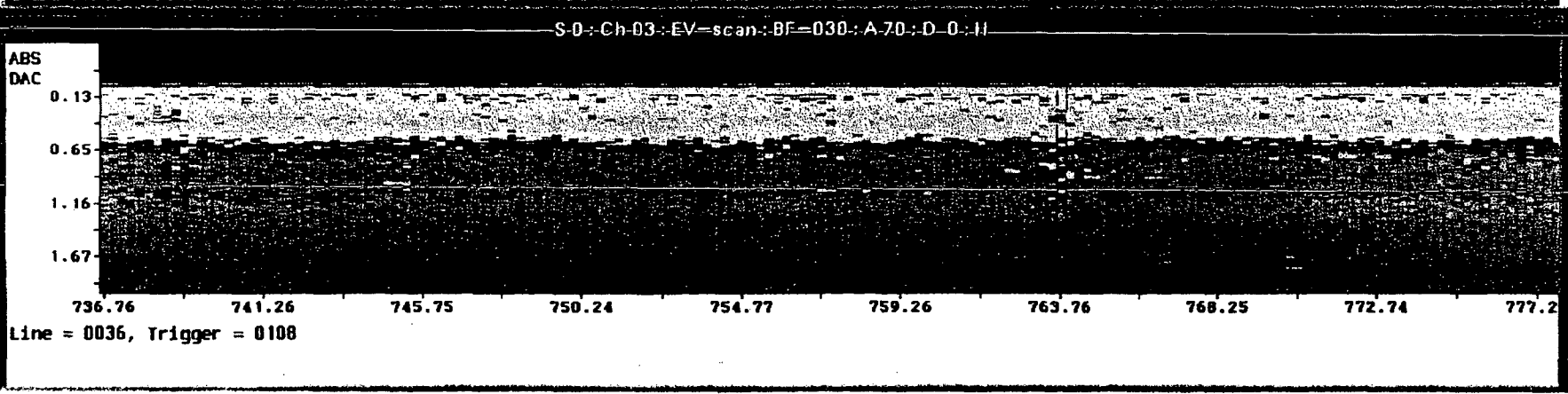
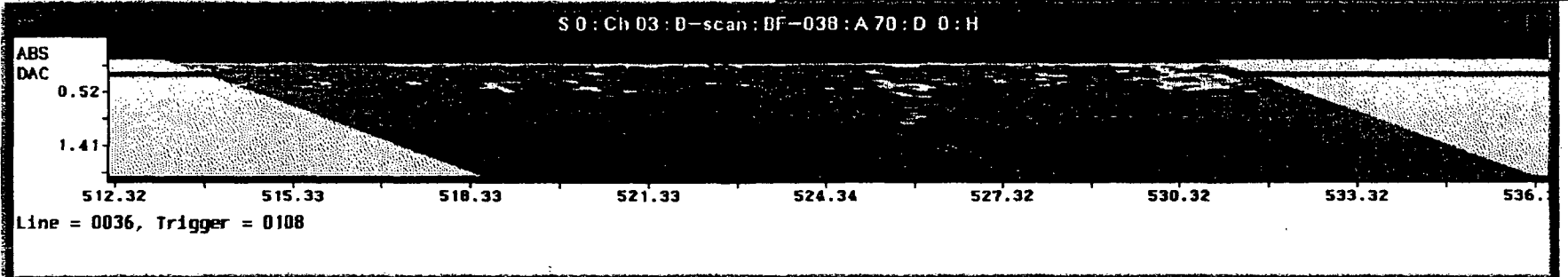
32.3
36.6
41.0
45.3
49.7
54.0
58.4
62.7
67.1
71.4
75.8
80.1
84.5
88.9
93.2

100%
50%
20%

DAC



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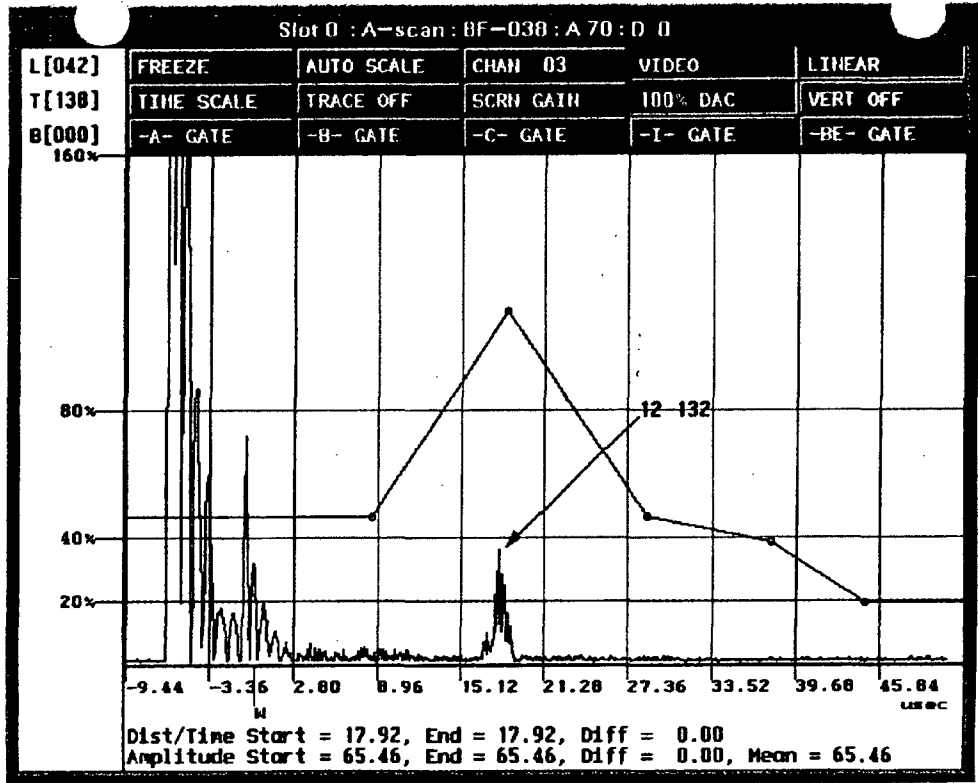
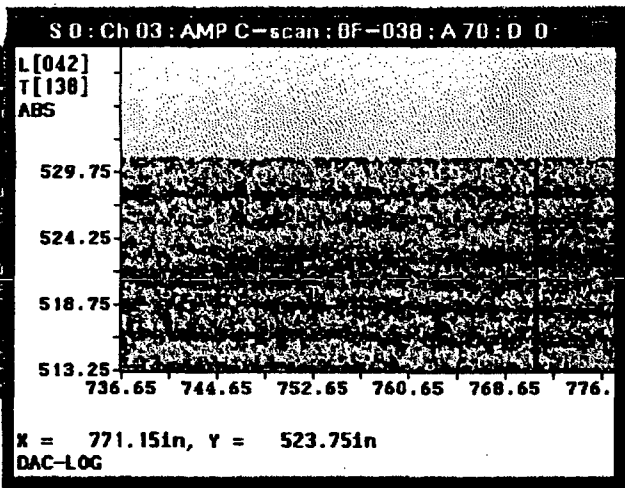


2153

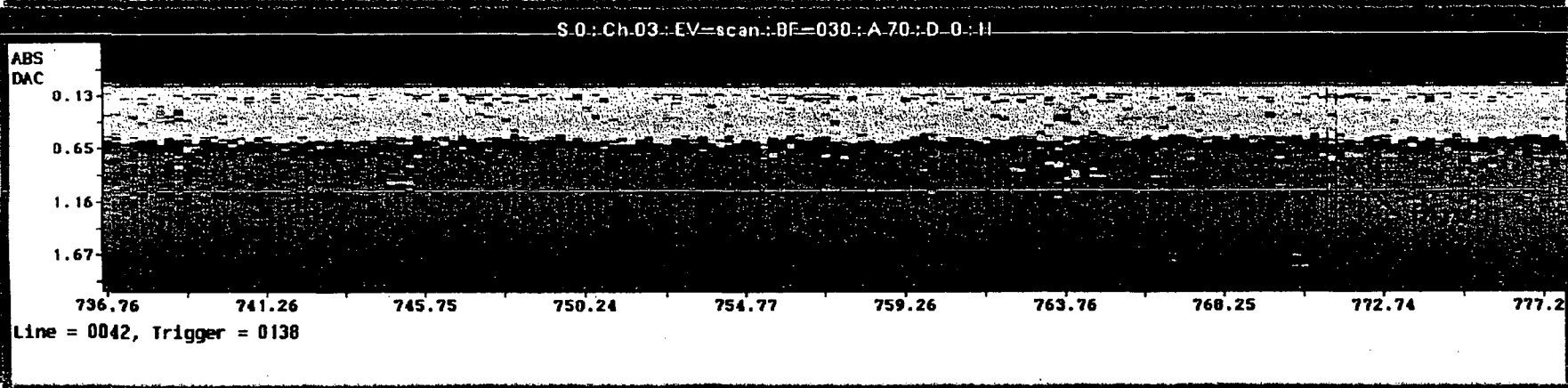
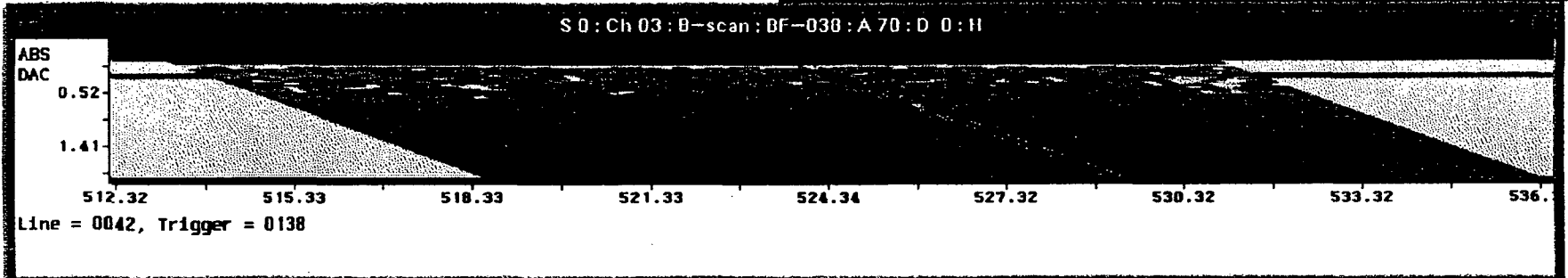
S 0 : Scale

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

DAC



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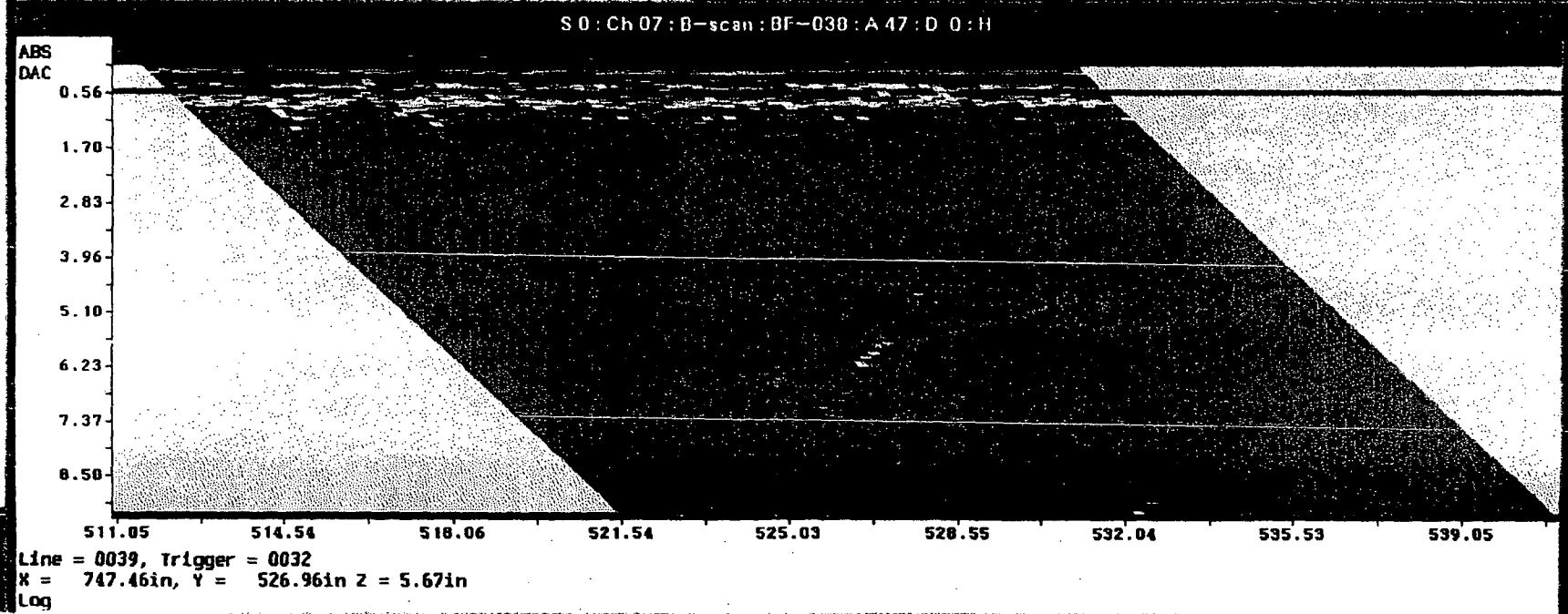
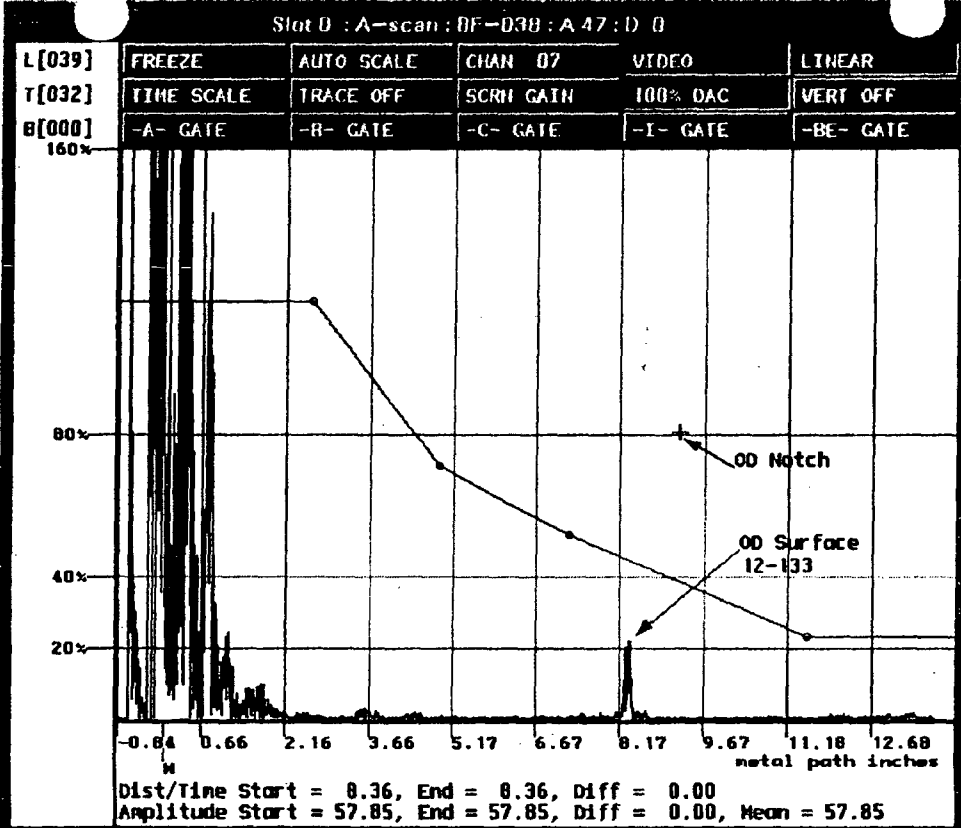
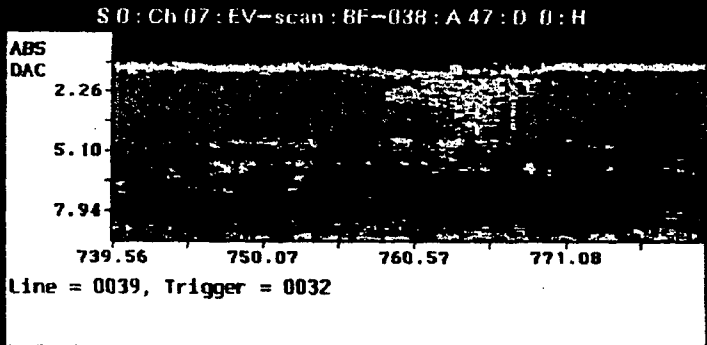
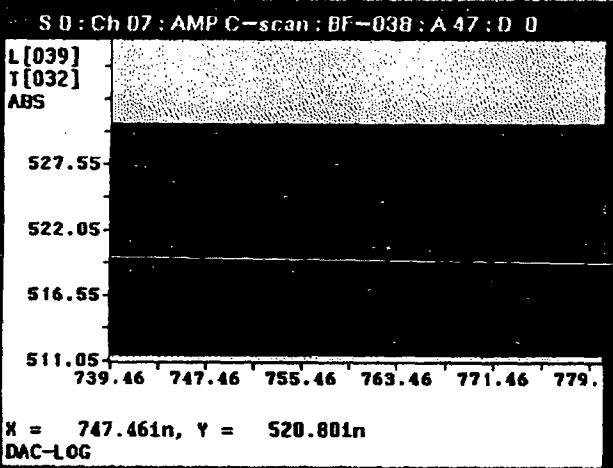
R1153

S D : 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



207 D 430

21153

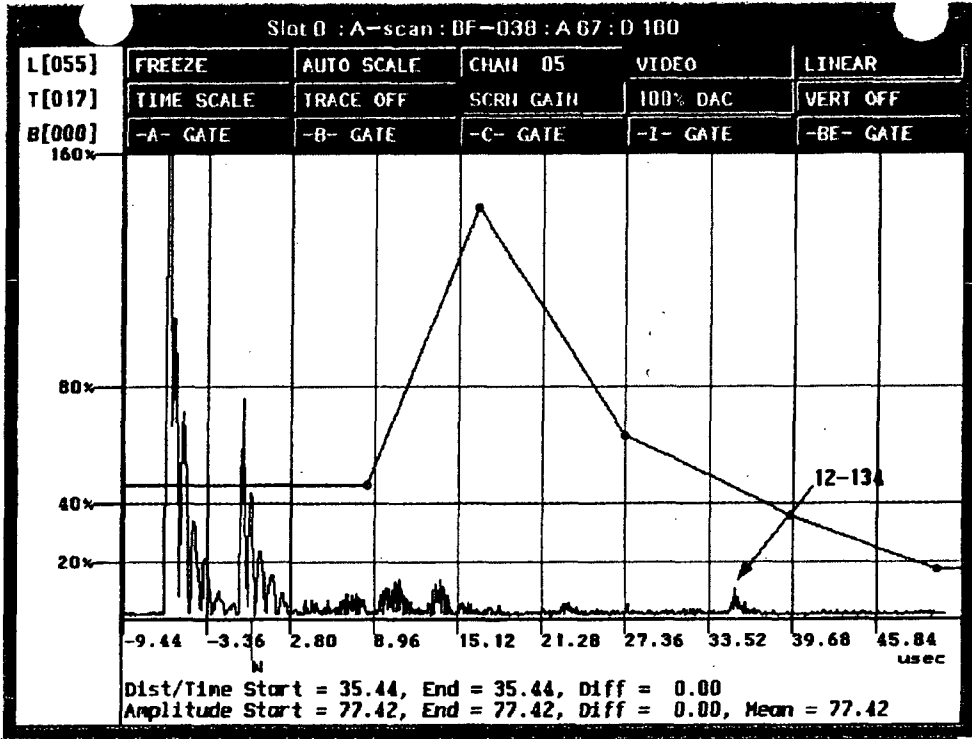
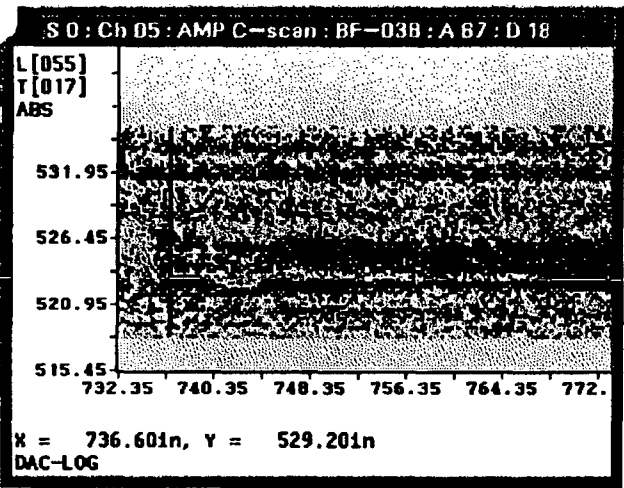
S 0 : Scale

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

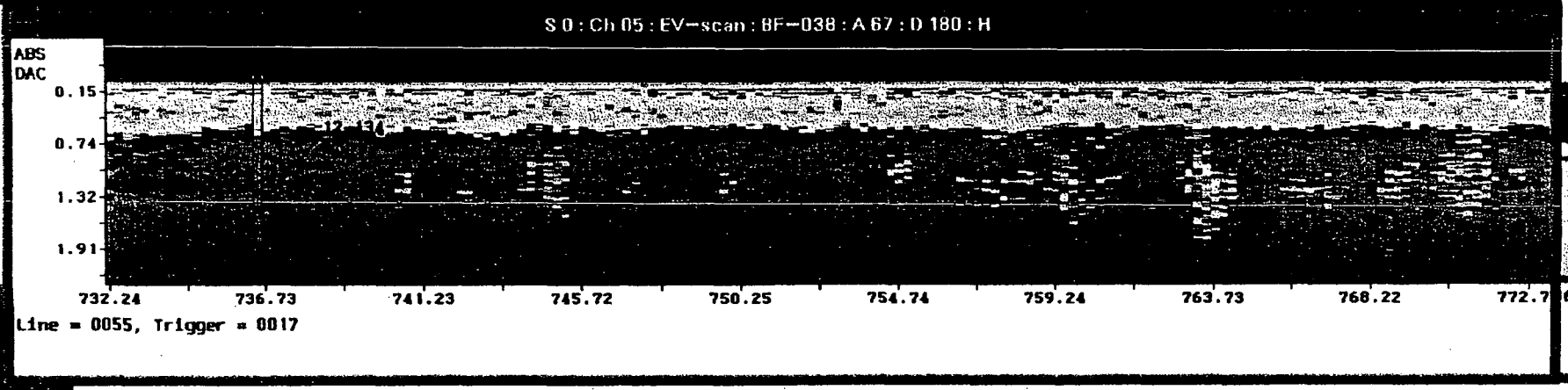
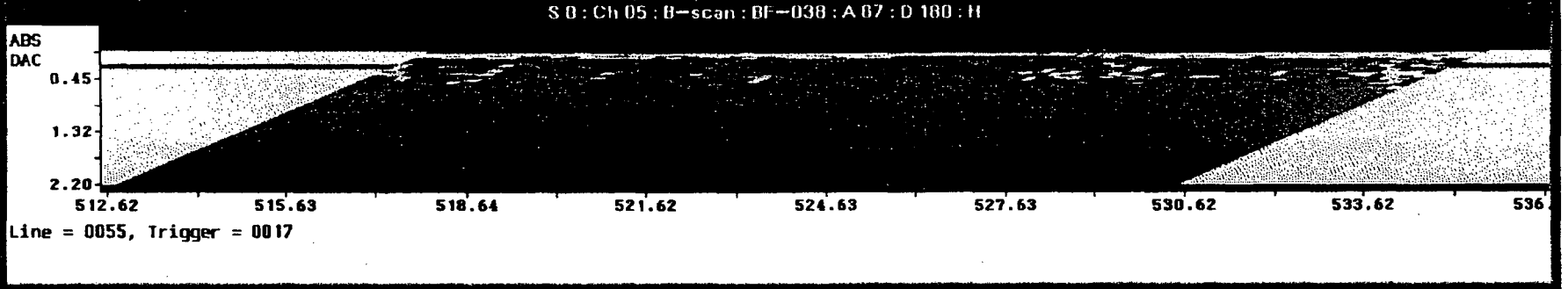
100%
50%
20%

DAC

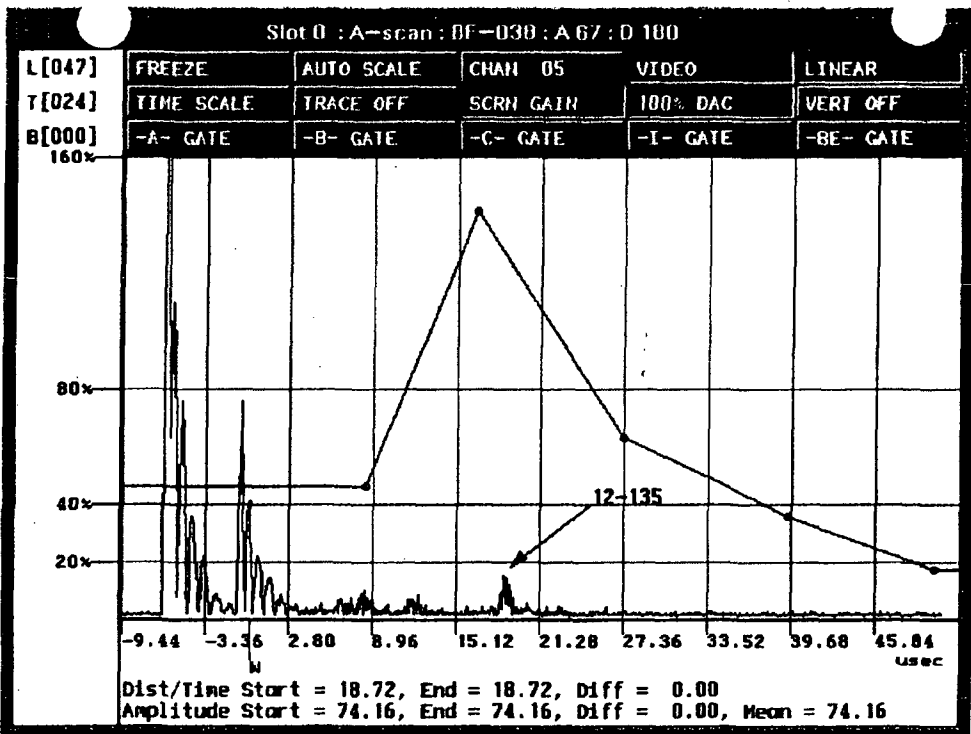
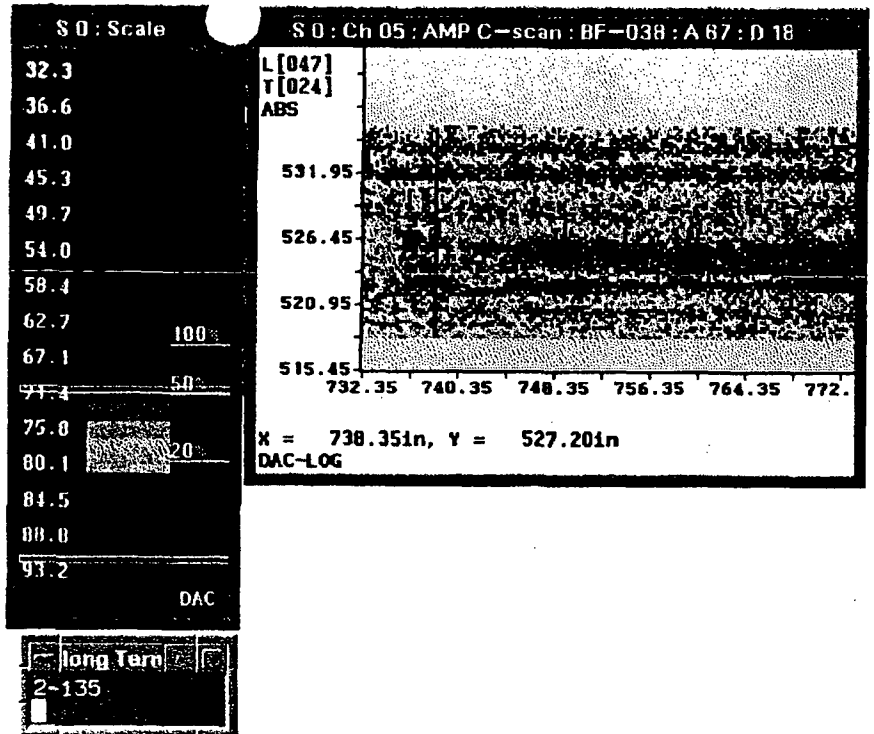
long Term
xtor3/12-134



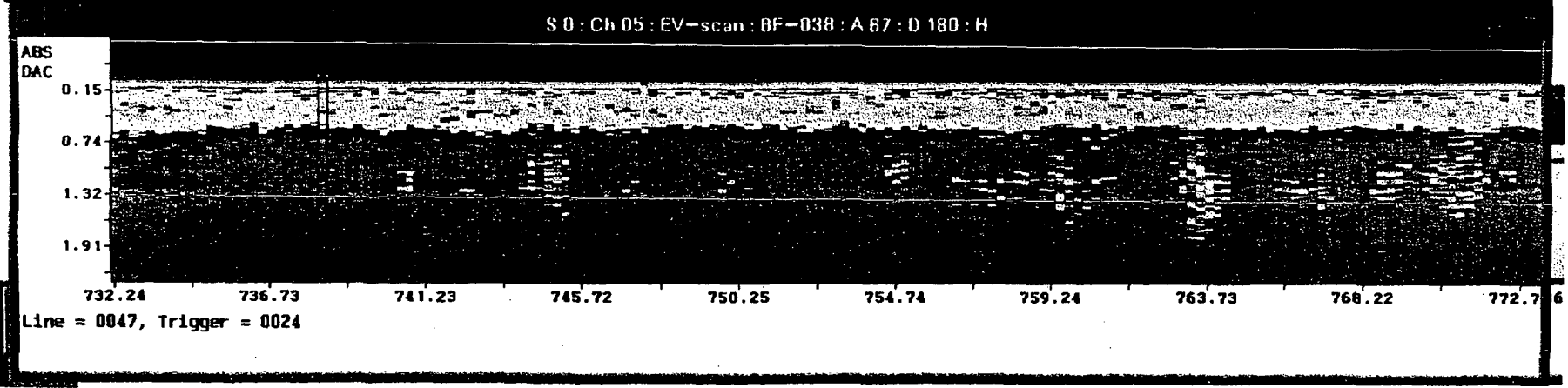
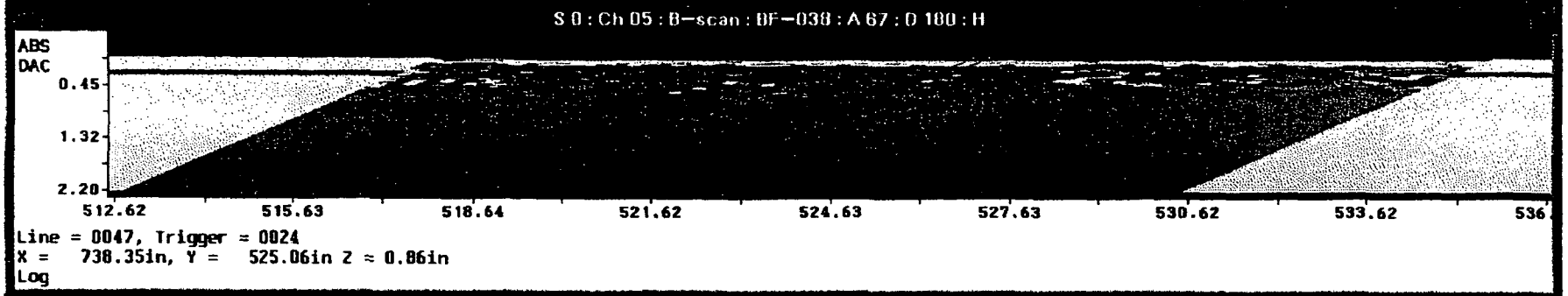
sen D 002



21153



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R1153

S 0 : Scale

S 0 : Ch 05 : AMP C-scan : BF-038 : A 67 : D 18

L[049]
T[034]
ABS

531.95
526.45
520.95
515.45

732.35 740.35 748.35 756.35 764.35 772.0

X = 740.851n, Y = 527.701n
DAC-LOG

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

100%
50%
20%

DAC

long Term
xtor3/12-136

Slot 0 : A-scan : BF-038 : A 67 : D 180

L[049]	FREEZE	AUTO SCALE	CHAN 05	VIDEO	LINEAR
T[034]	TIME SCALE	TRACE OFF	SCRIP GAIN	100% DAC	VERT OFF
B[000]	-A- GATE	-B- GATE	-C- GATE	-I- GATE	-BE- GATE

160%

80%
40%
20%

Upper tip
Lower tip

PATT
12-136

-9.44 -3.36 2.80 8.96 15.12 21.28 27.36 33.52 39.68 45.84
u sec

Dist/Time Start = 19.52, End = 23.36, Diff = 3.84
Amplitude Start = 70.89, End = 68.72, Diff = 2.17, Mean = 69.81

bed of vuh

S 0 : Ch 05 : B-scan : BF-038 : A 67 : D 180 : H

ABS
DAC

0.45
1.32
2.20

512.62 515.63 518.64 521.62 524.63 527.63 530.62 533.62 536.0

Line = 0049, Trigger = 0034
X = 740.851n, Y = 525.091n Z = 1.041n

S 0 : Ch 05 : EV-scan : BF-038 : A 67 : D 180 : H

ABS
DAC

0.15
0.74
1.32
1.91

732.24 736.73 741.23 745.72 750.25 754.74 759.24 763.73 768.22 772.7

Line = 0049, Trigger = 0034

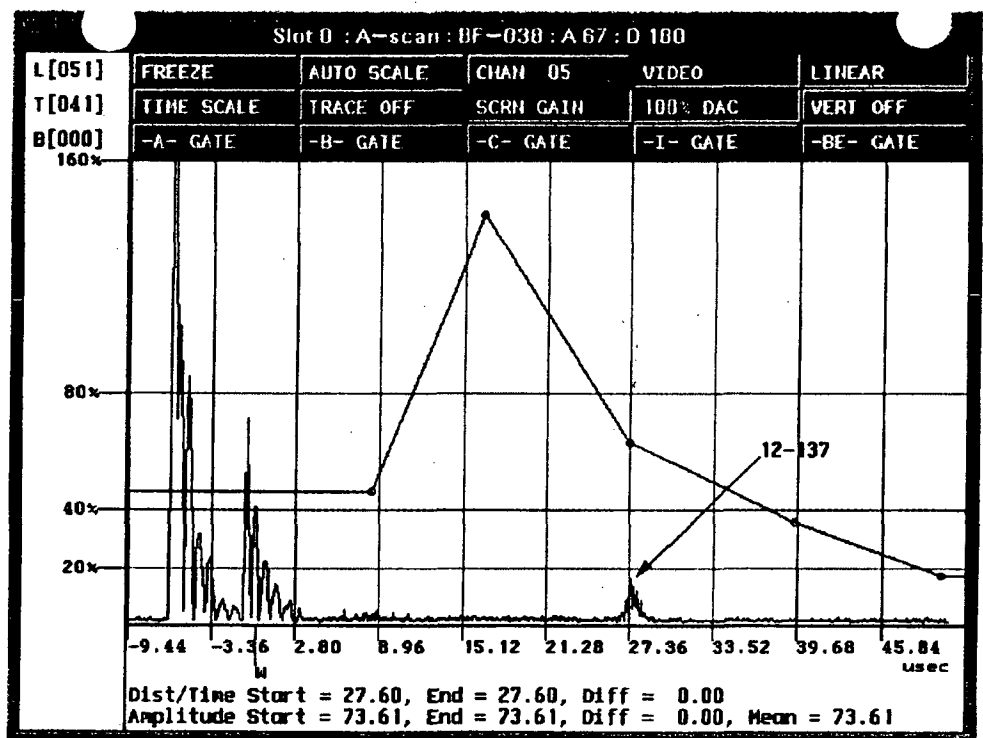
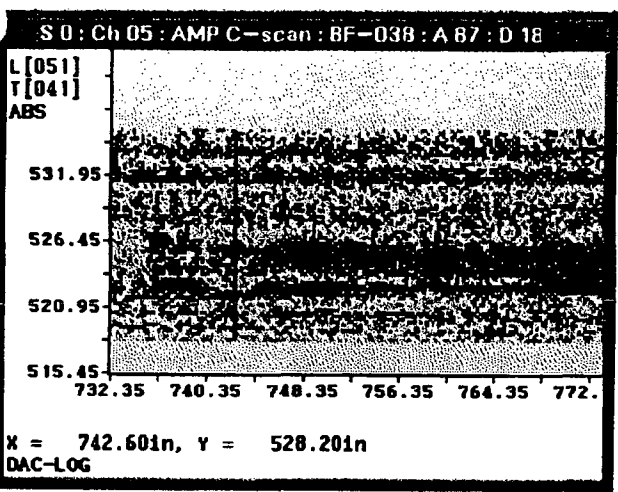
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S 0 : Scale

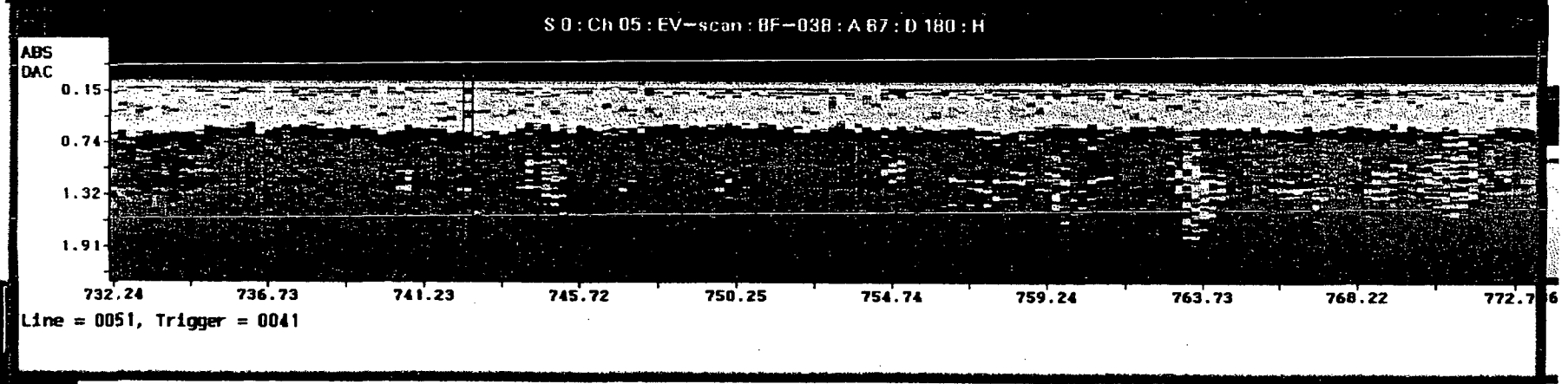
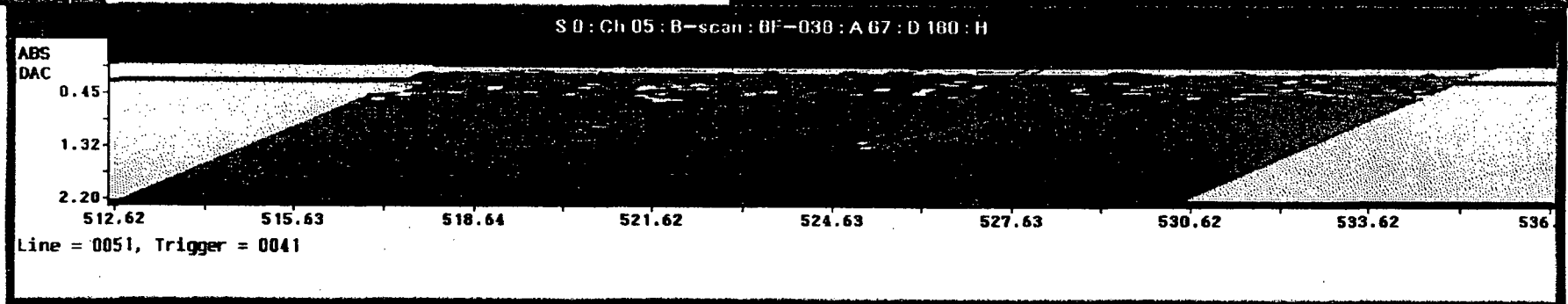
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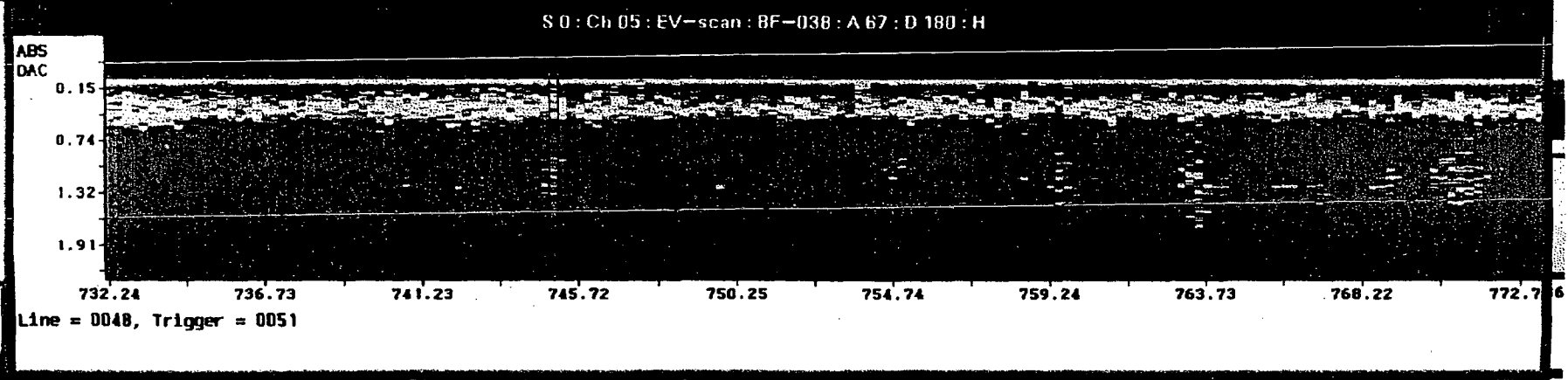
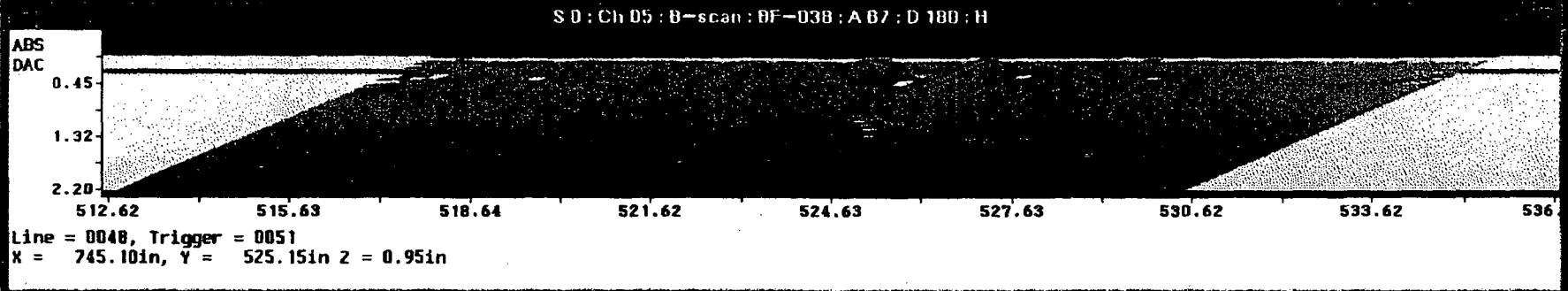
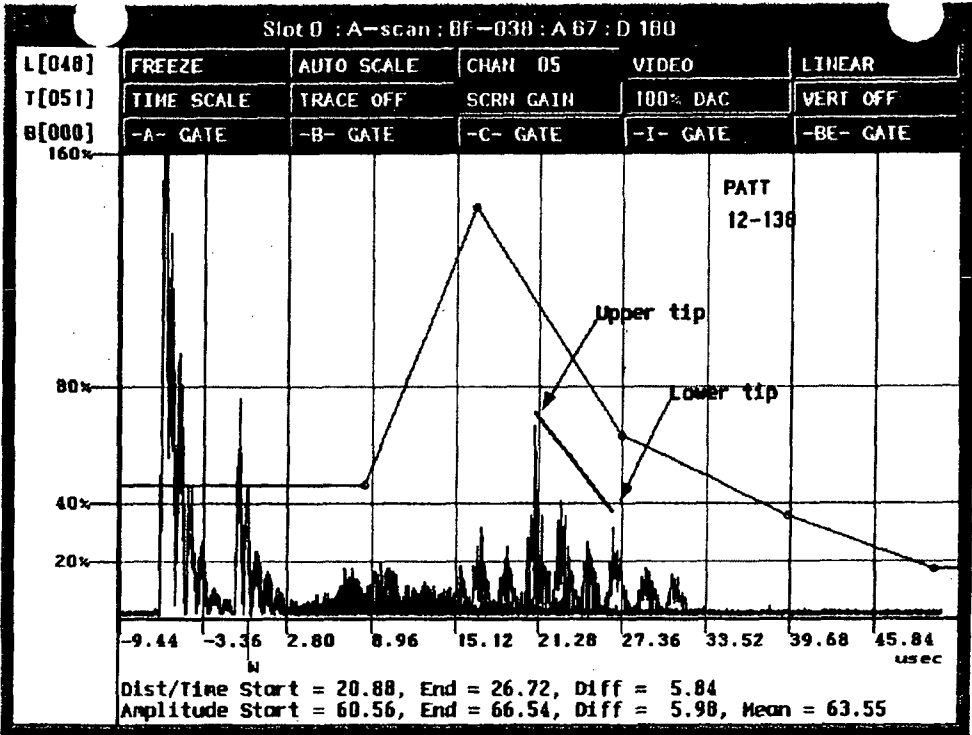
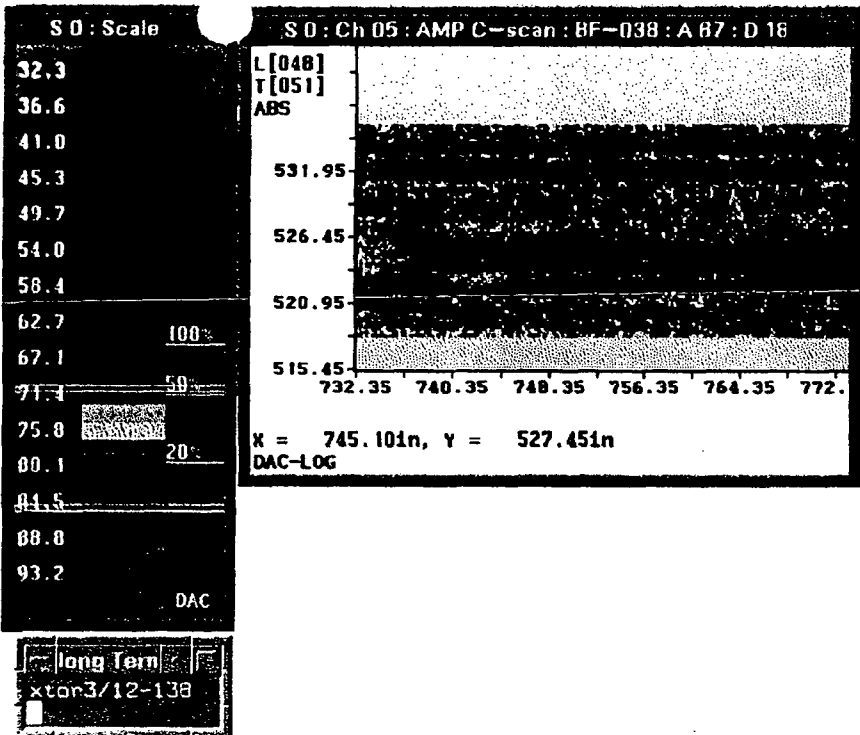
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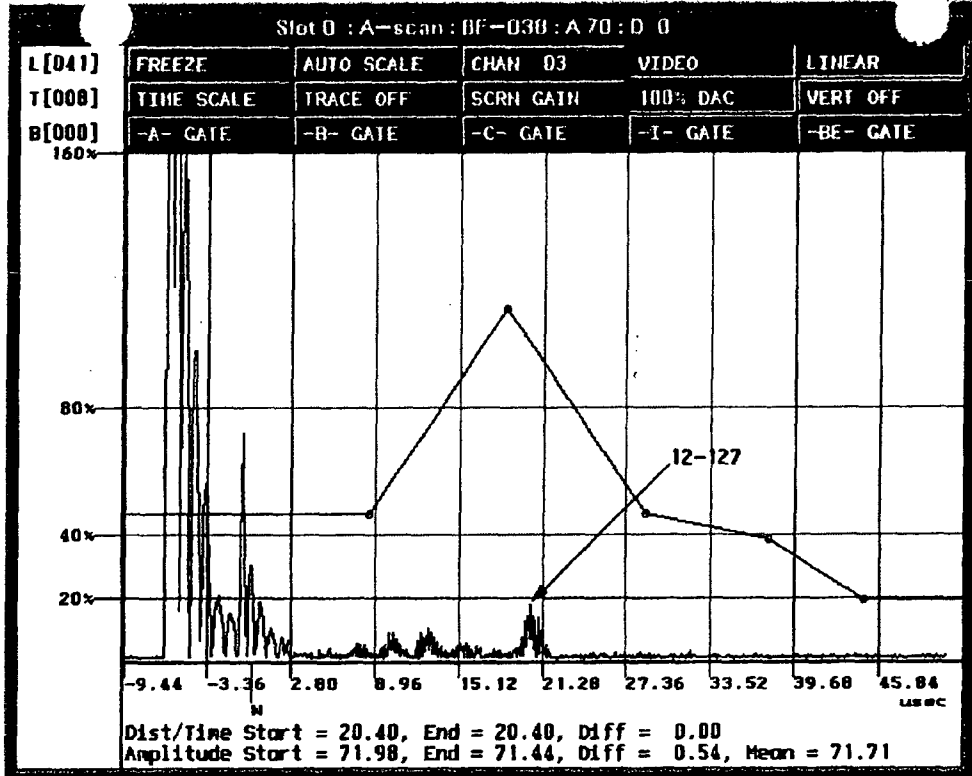
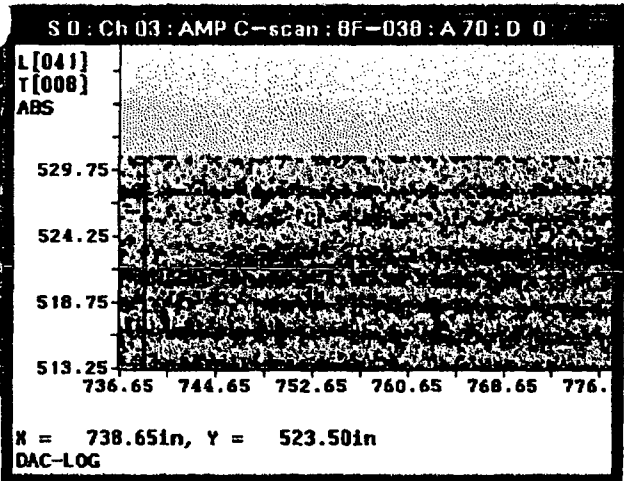
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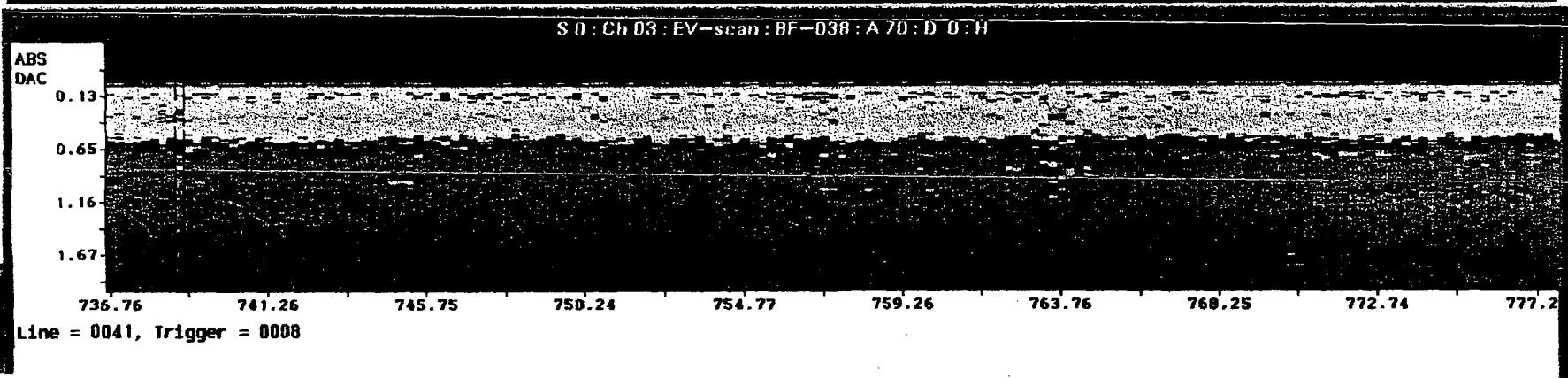
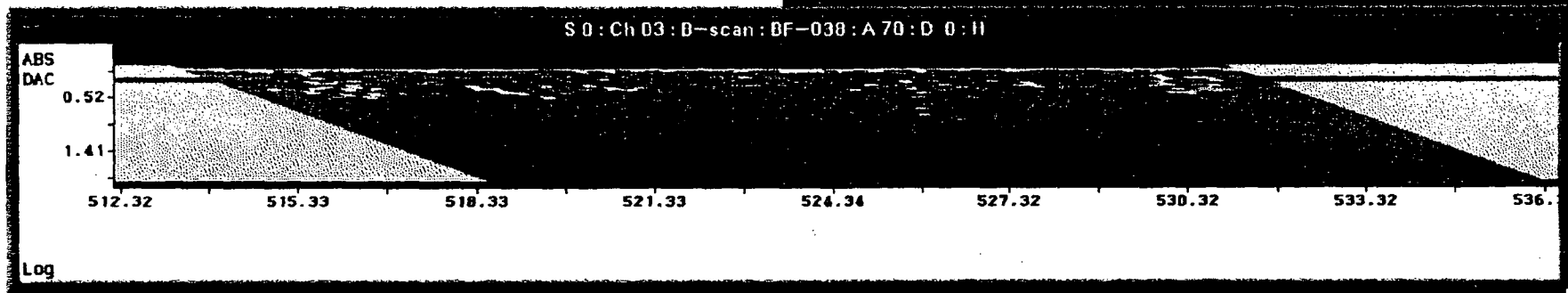
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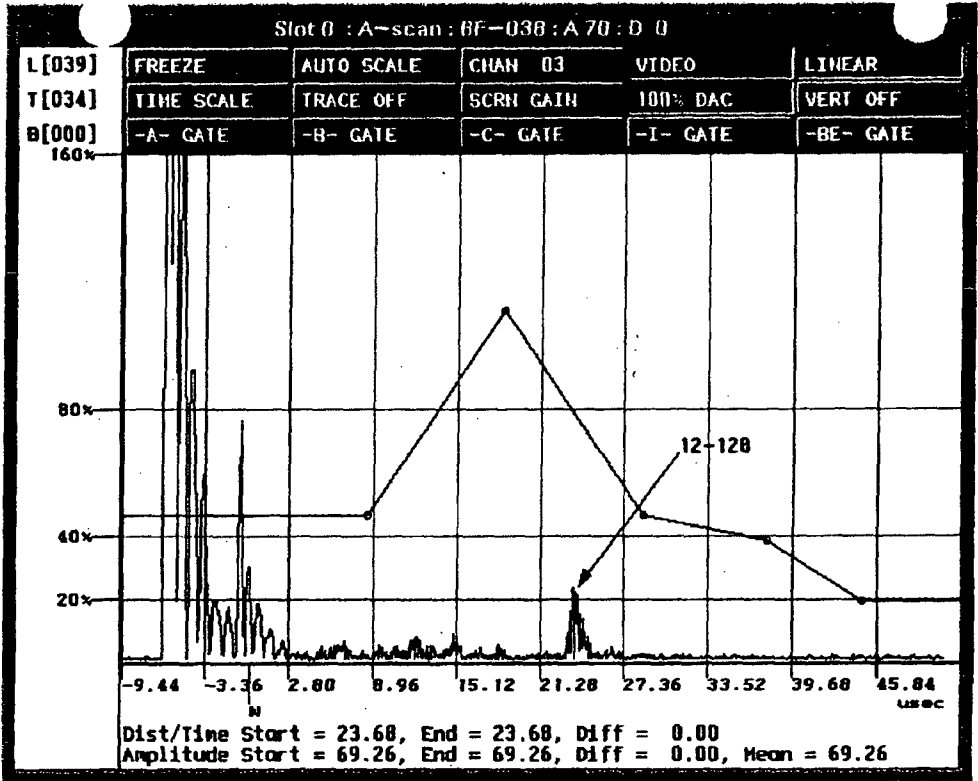
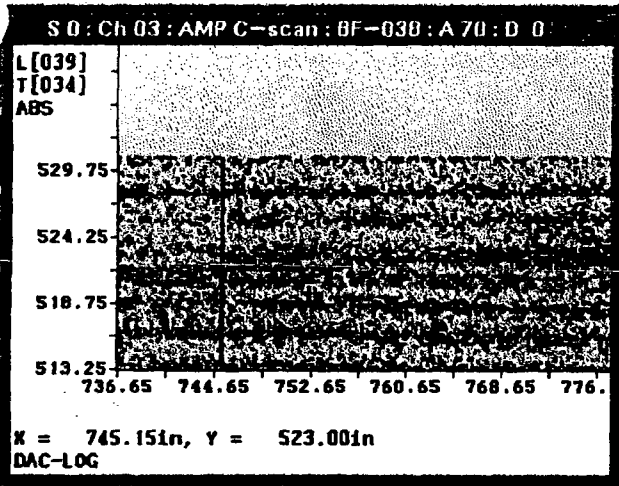


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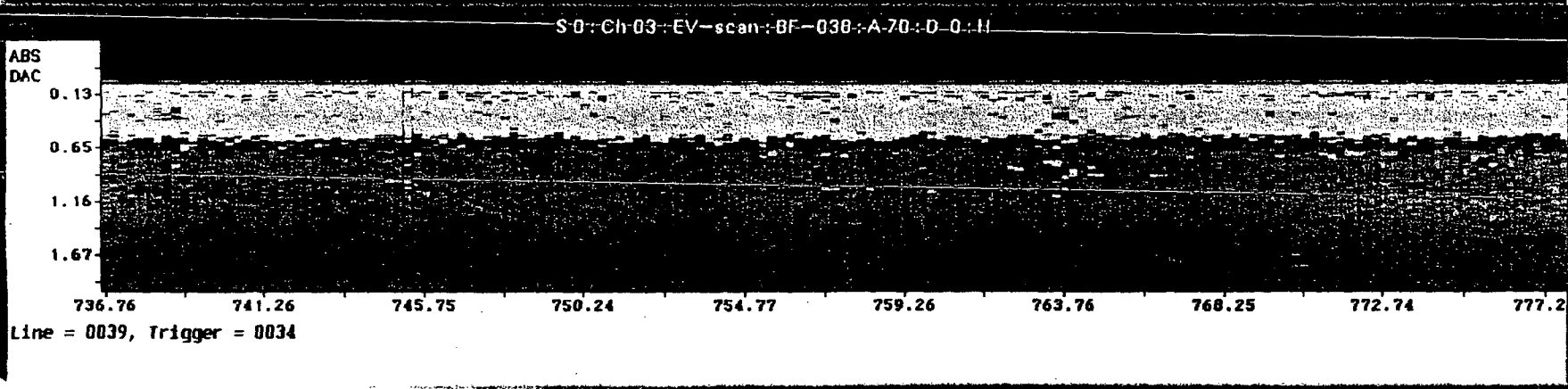
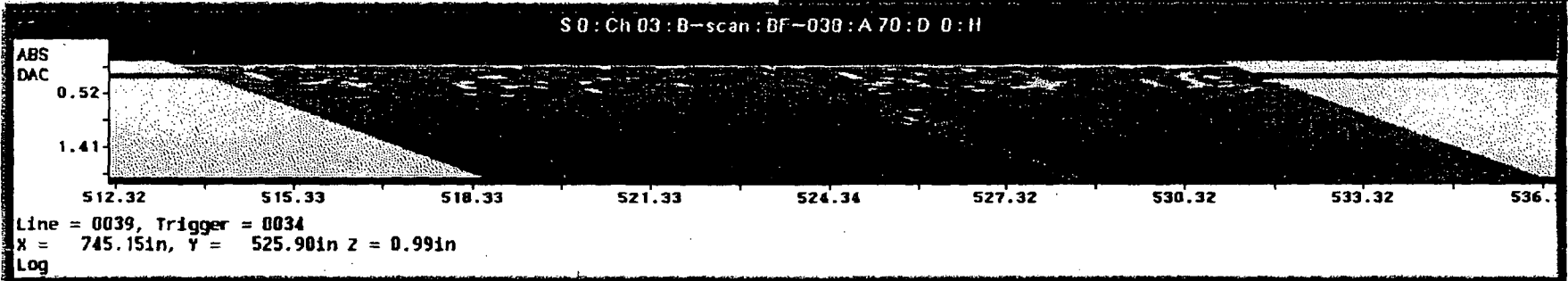
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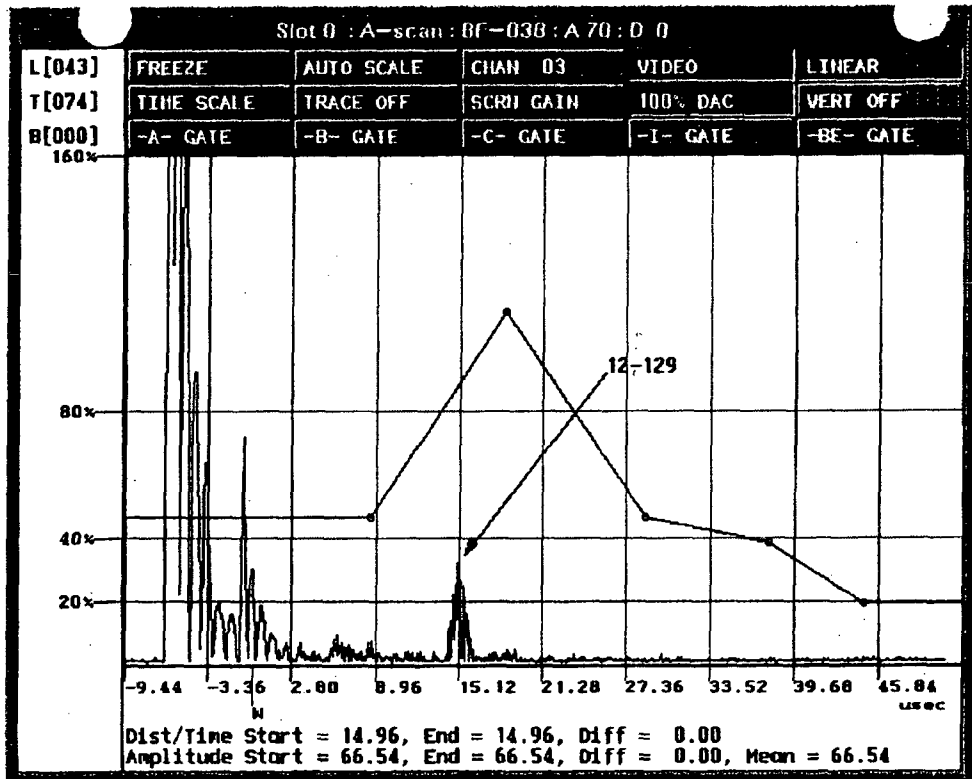
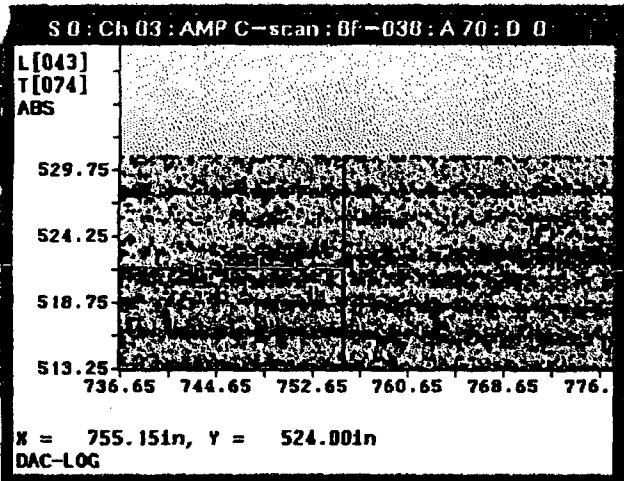


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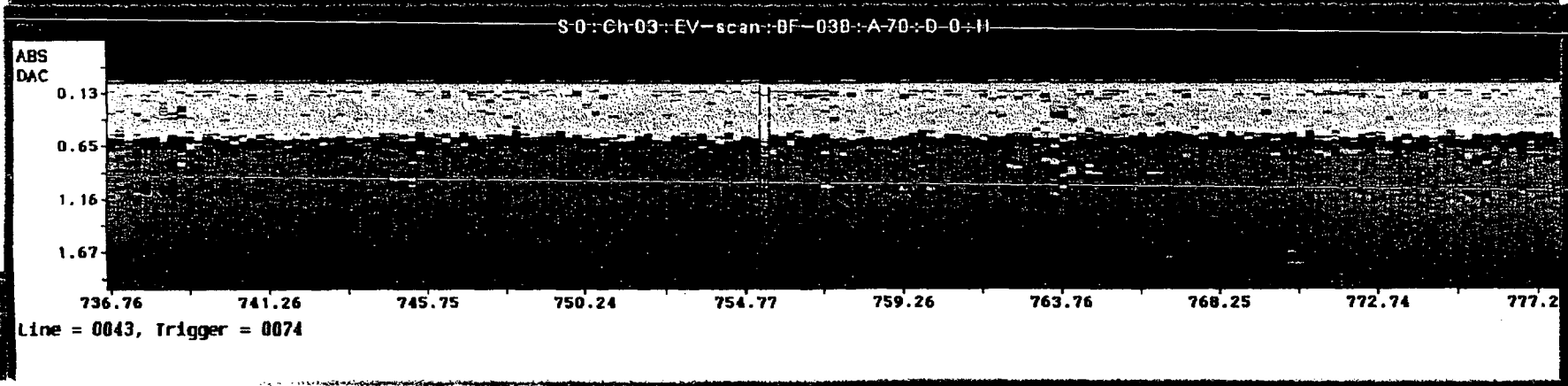
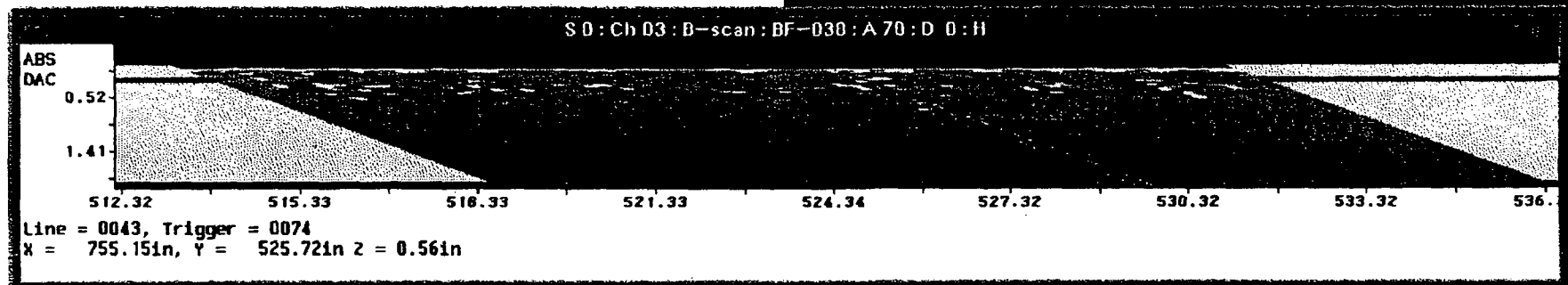
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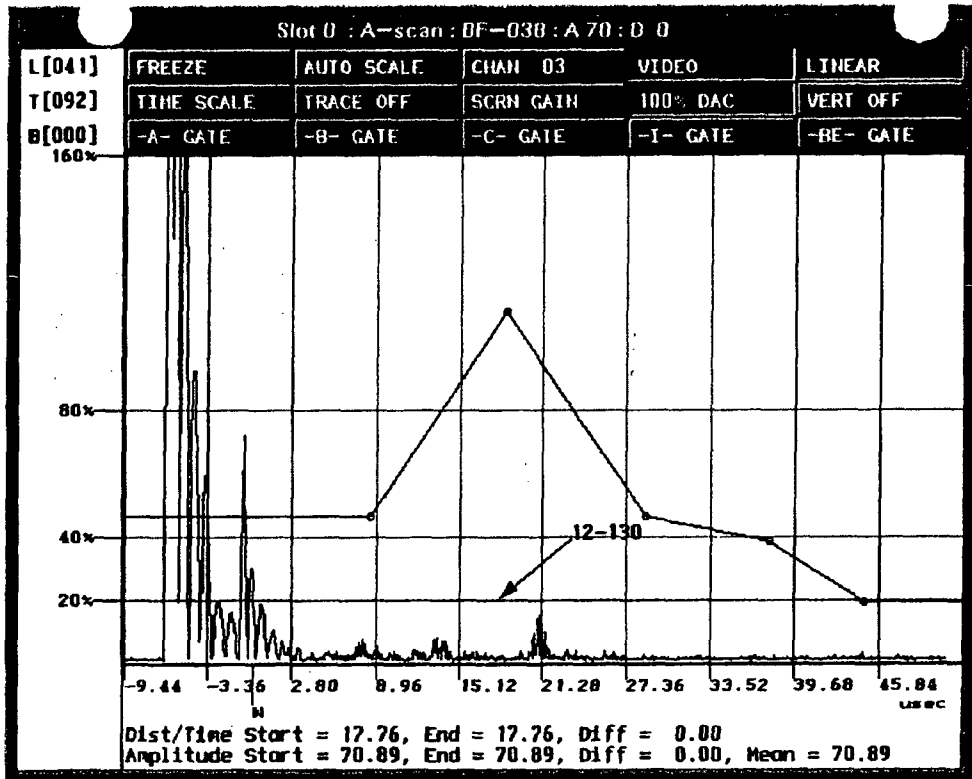
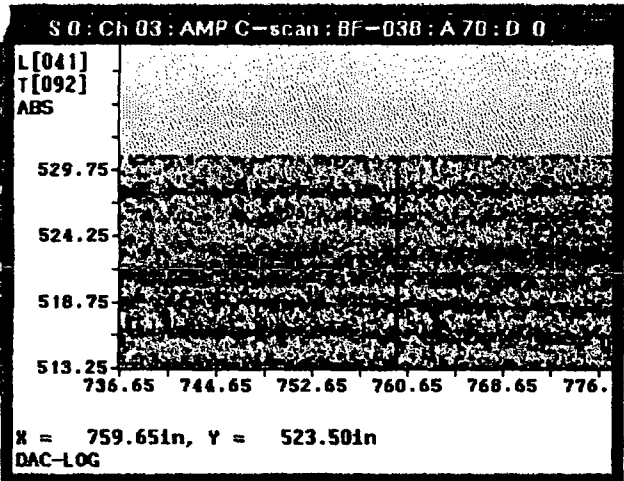


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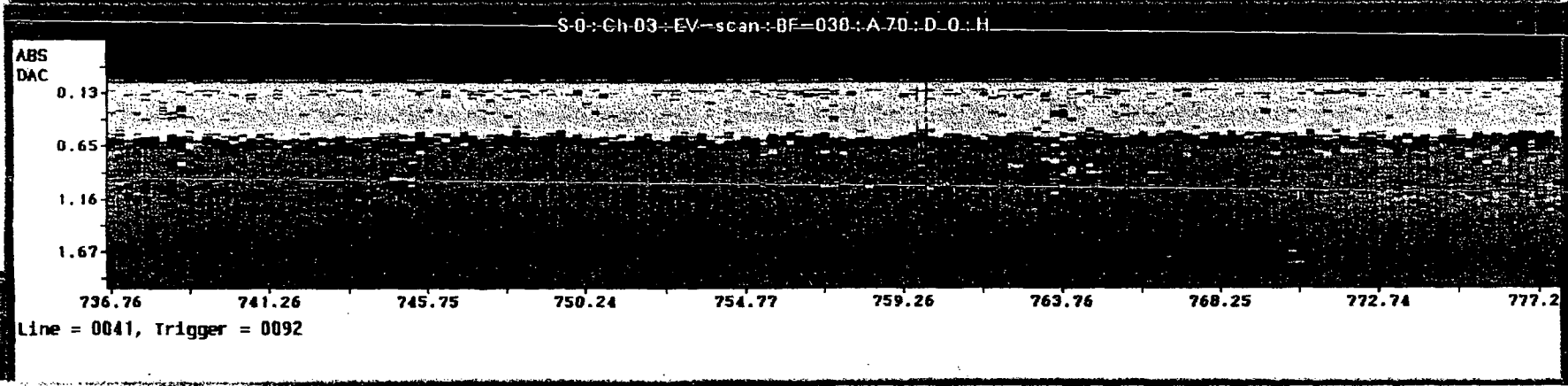
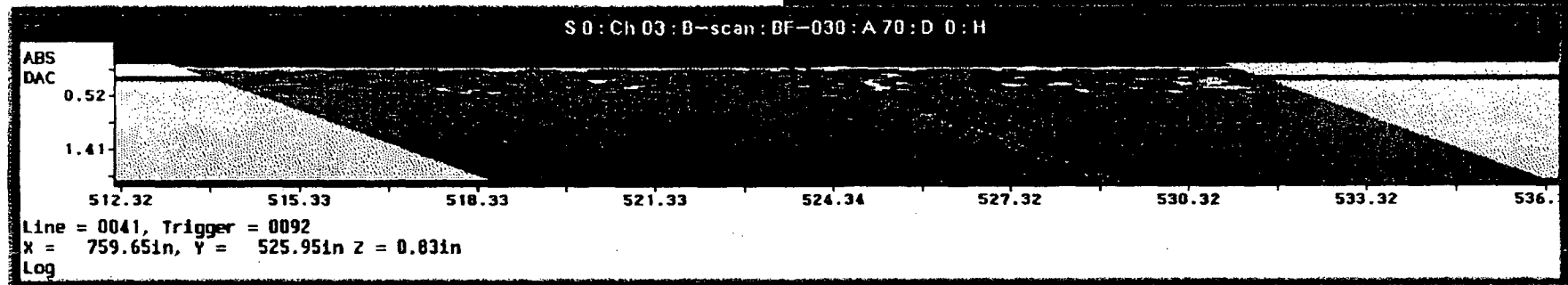
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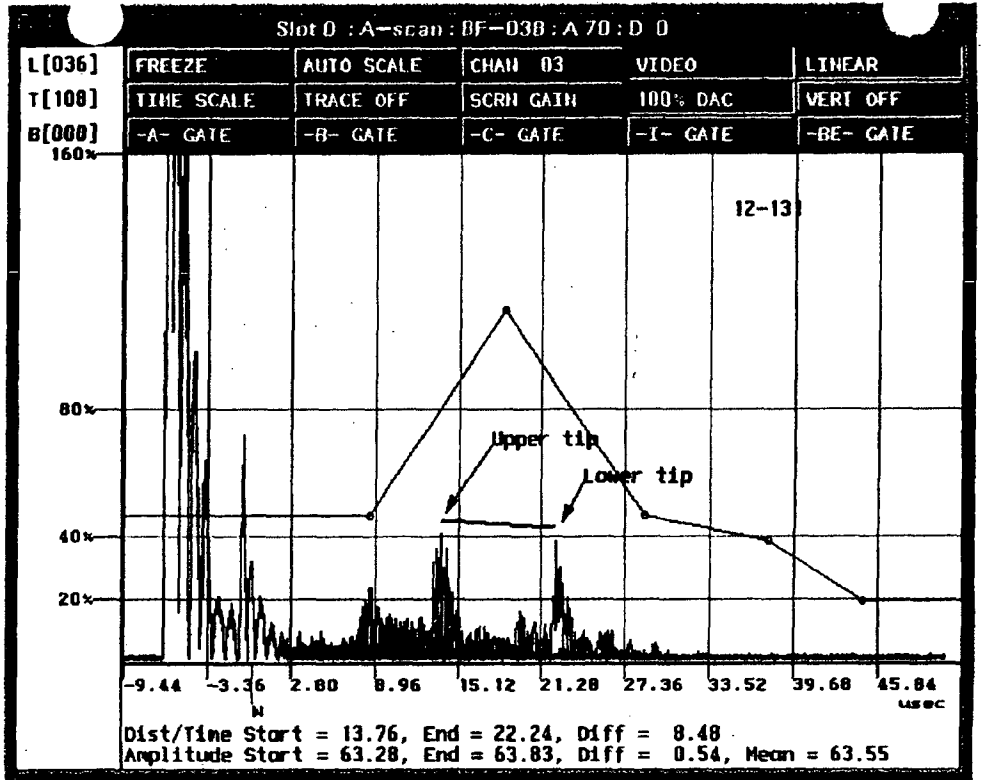
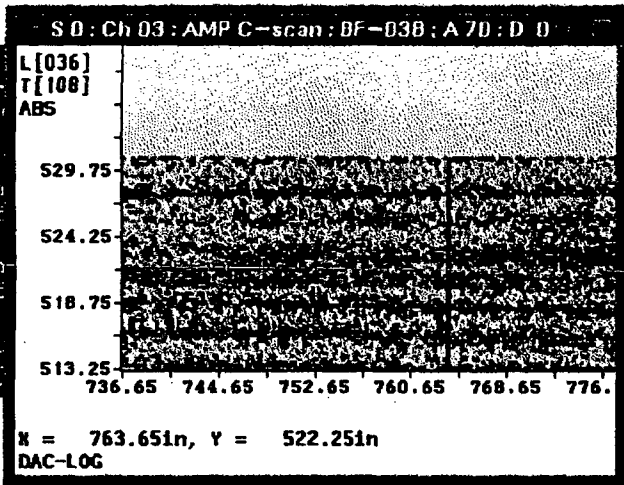


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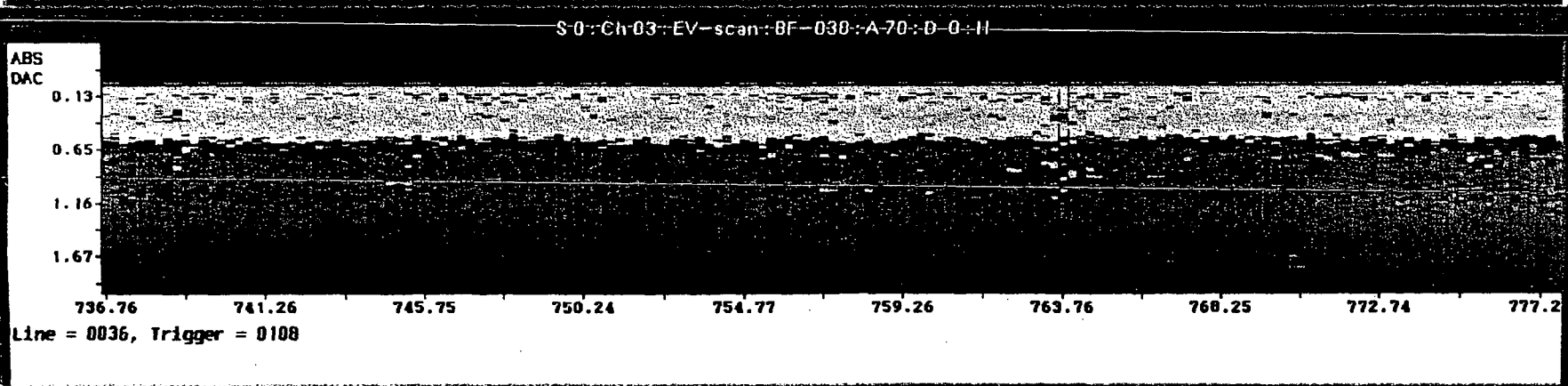
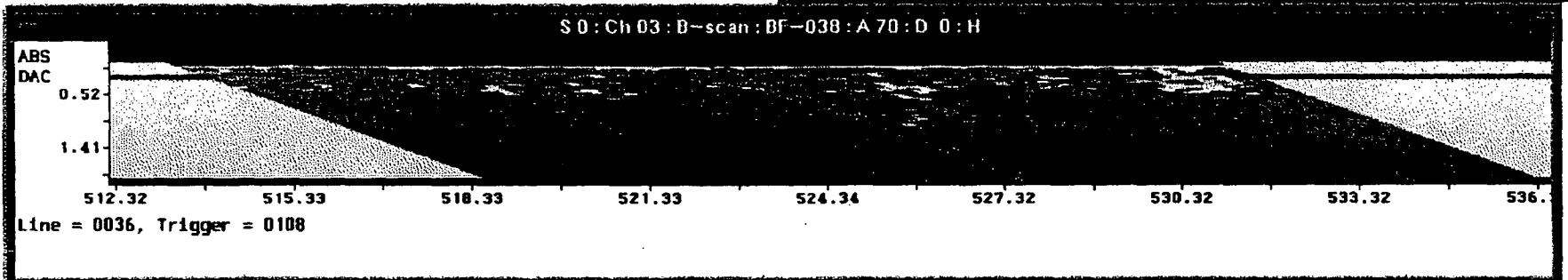
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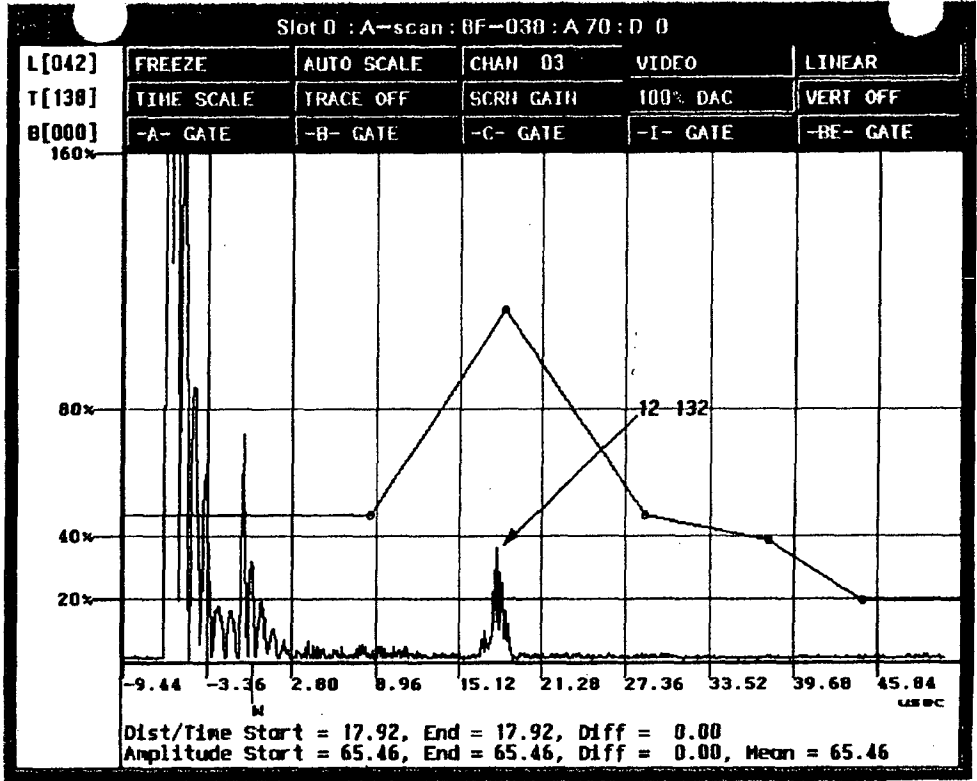
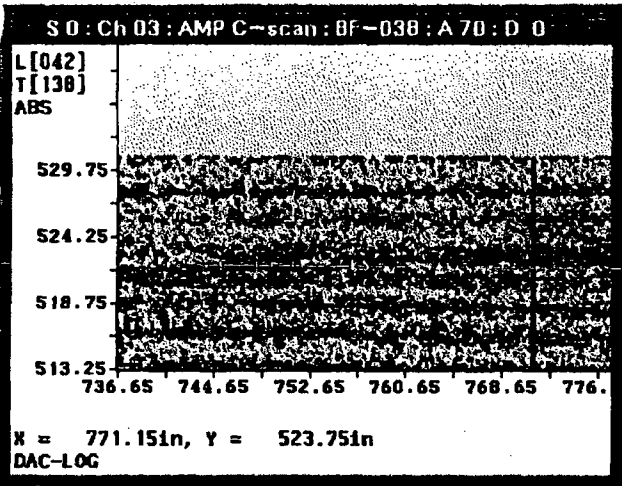
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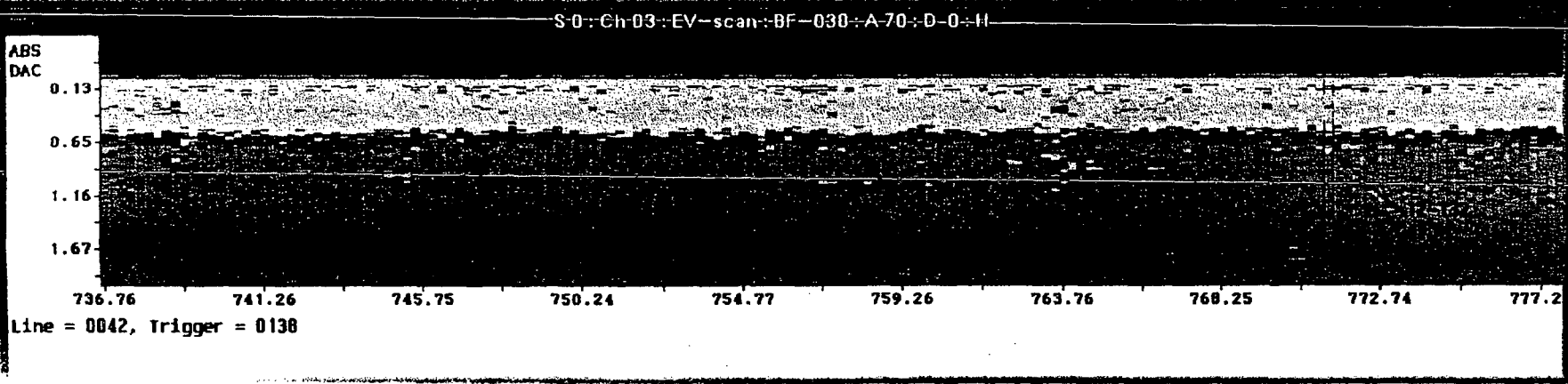
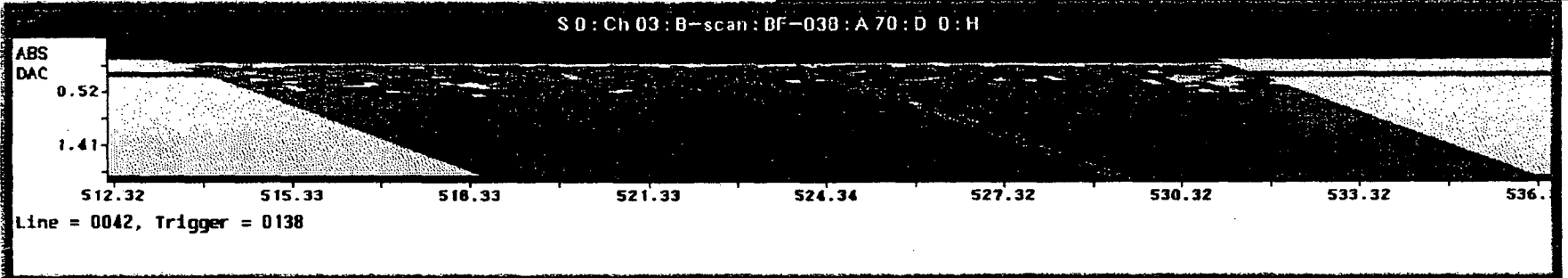
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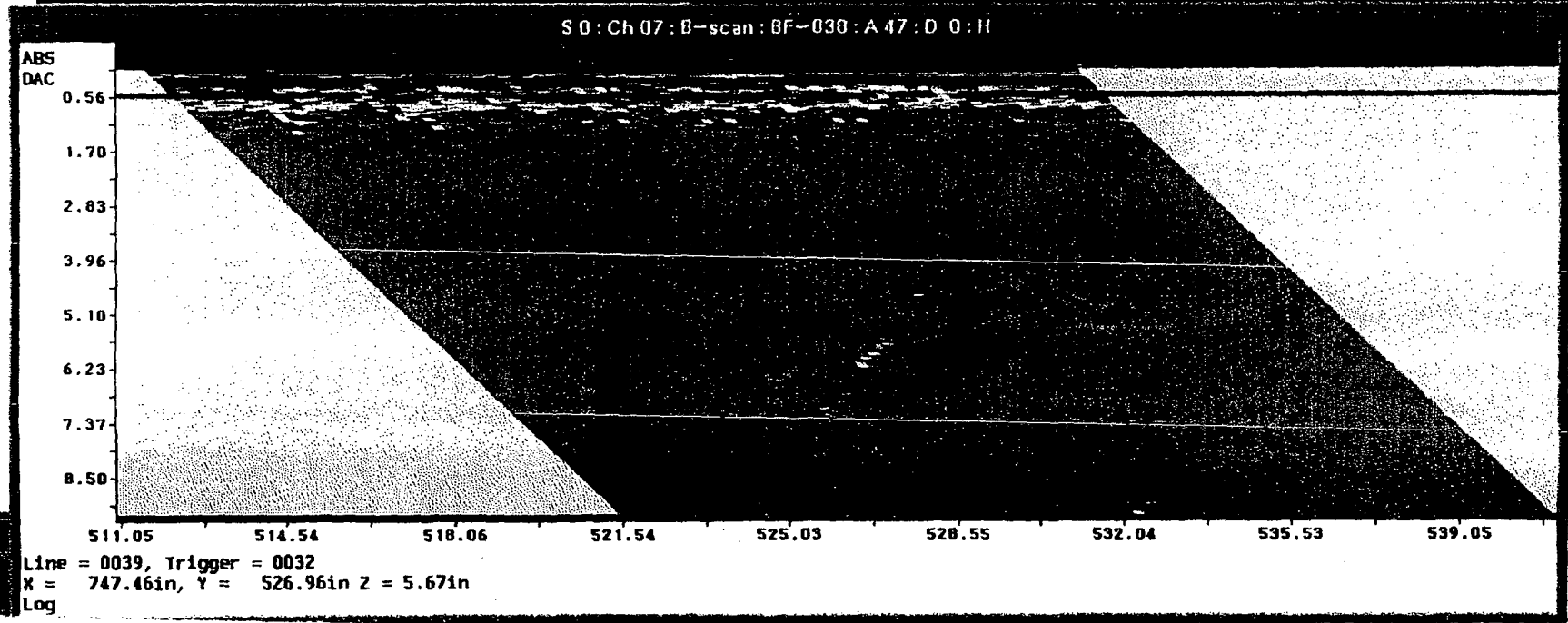
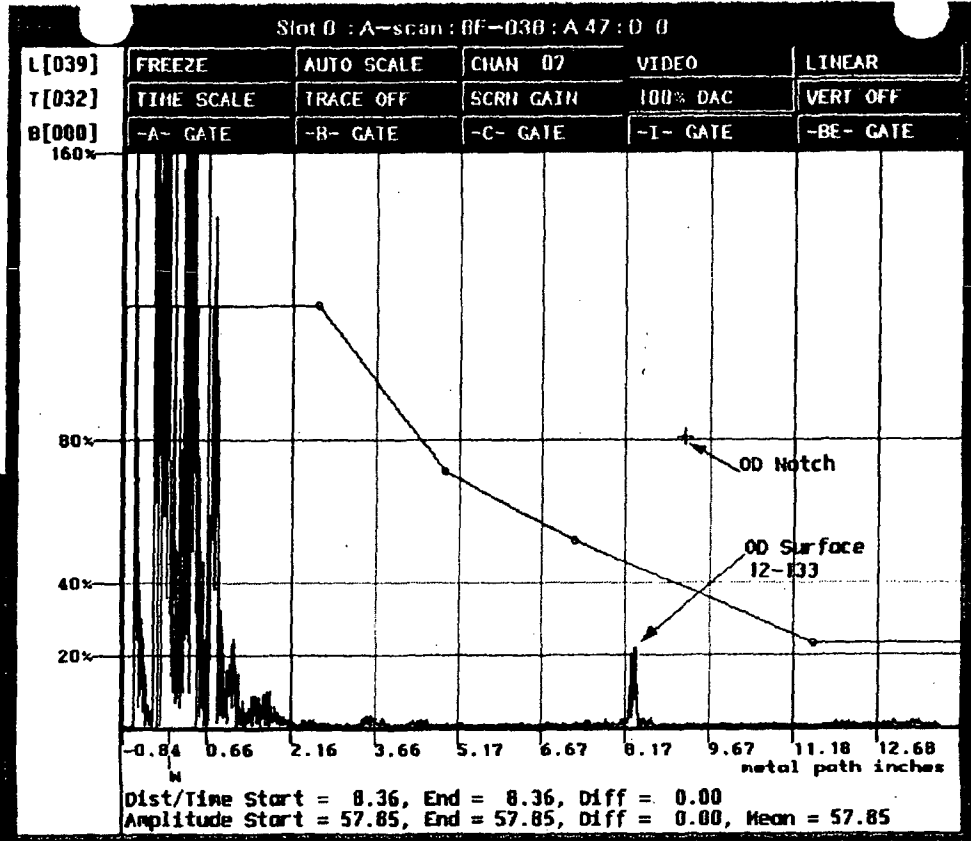
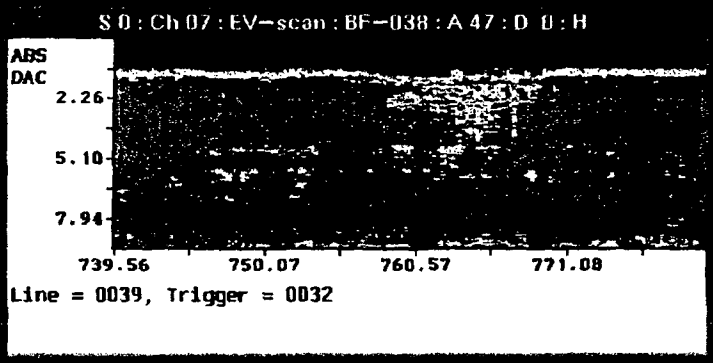
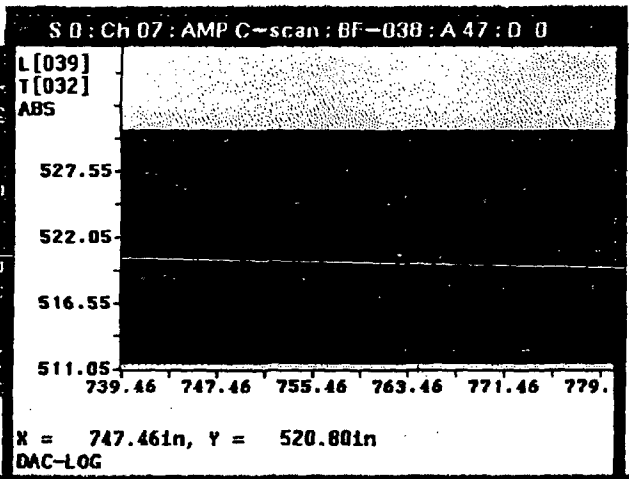
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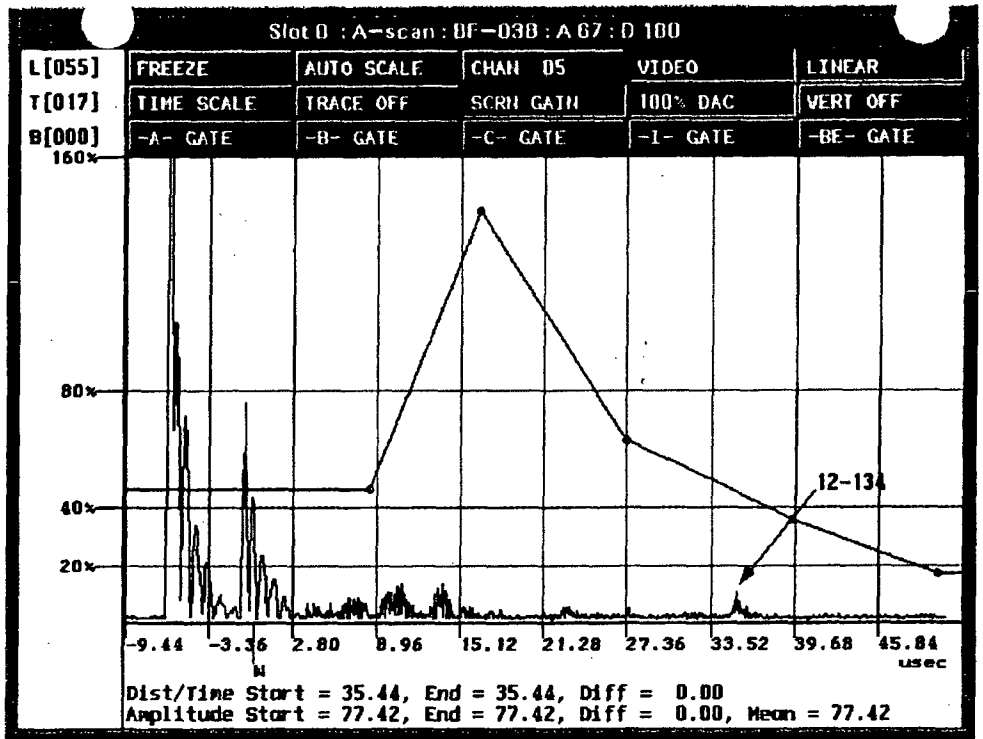
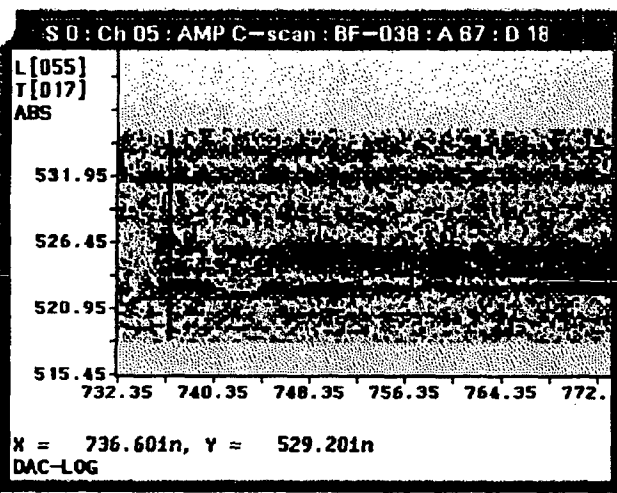
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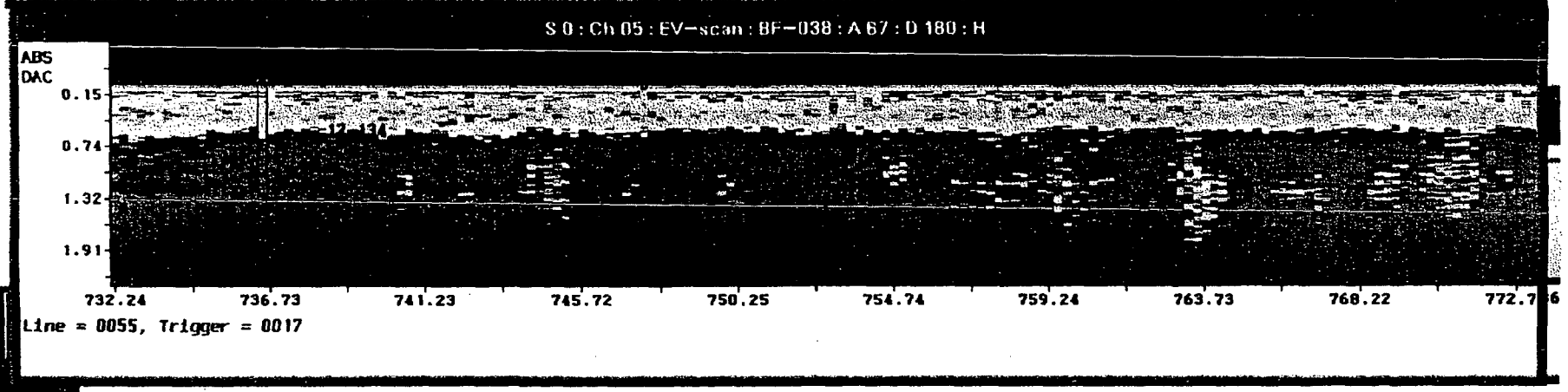
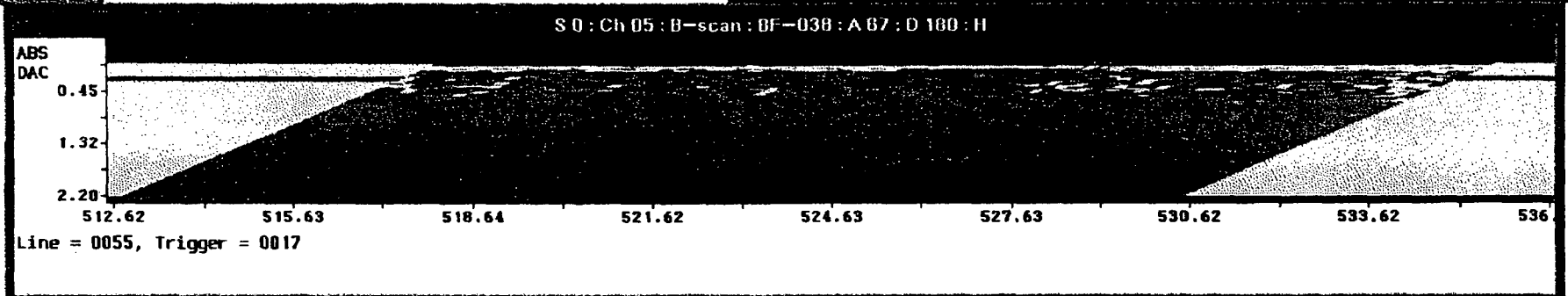
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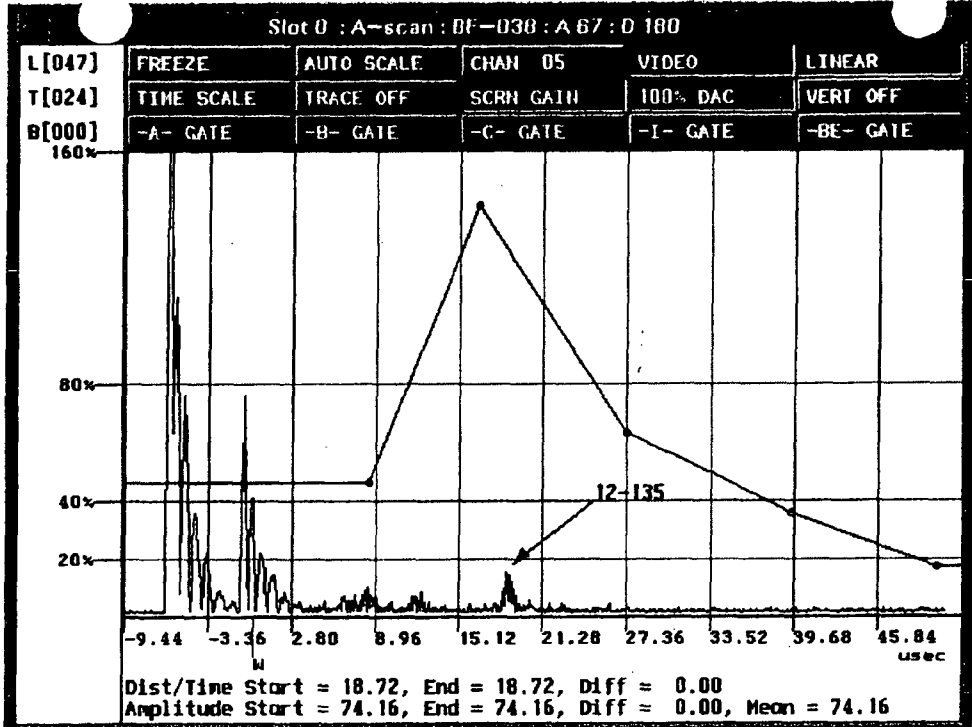
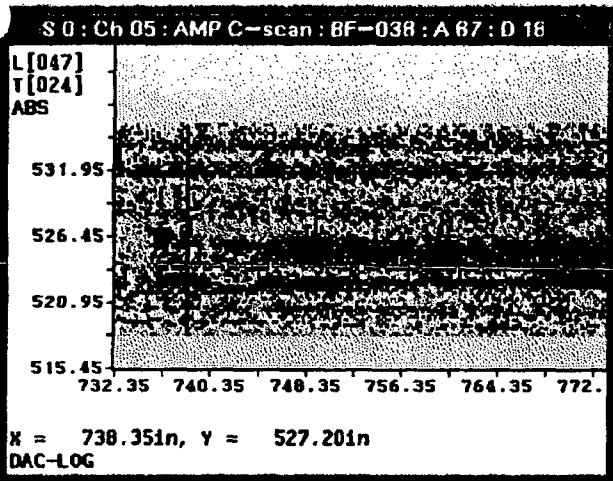
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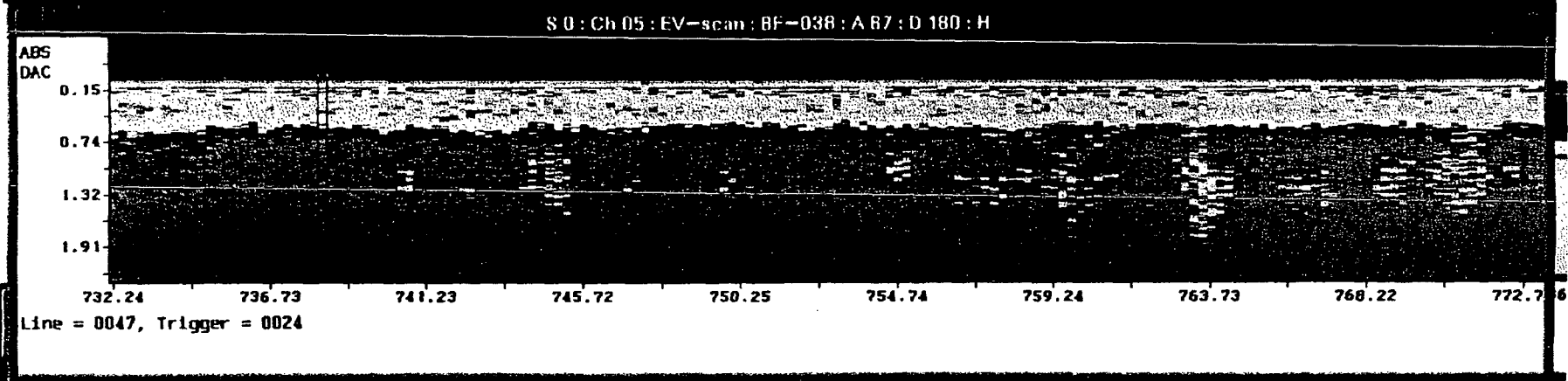
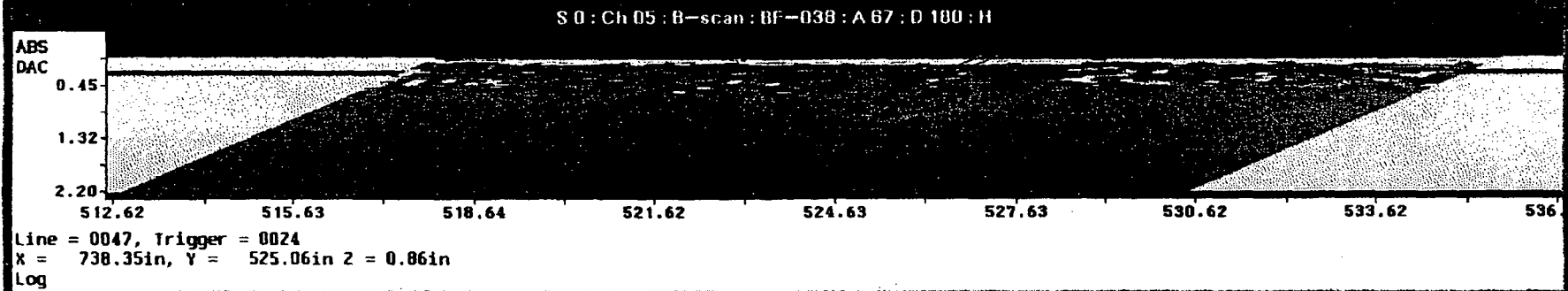
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399 of 439



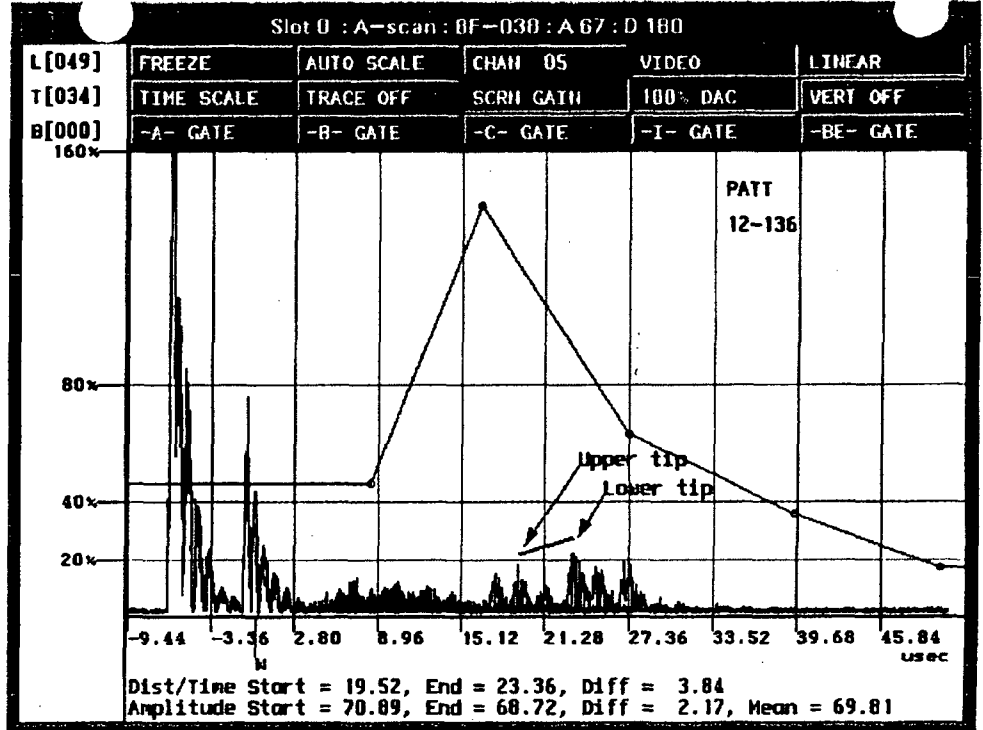
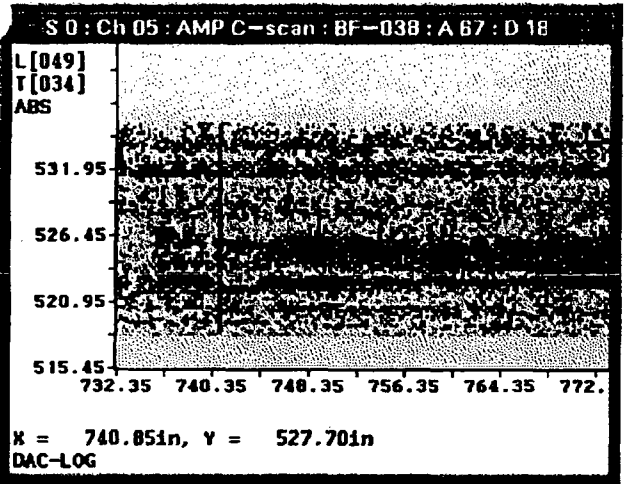
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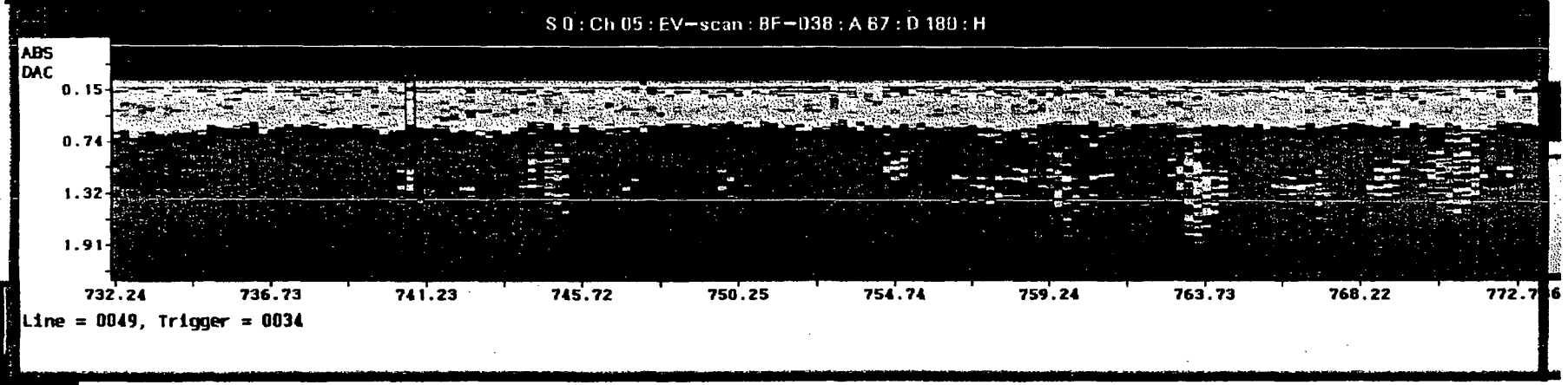
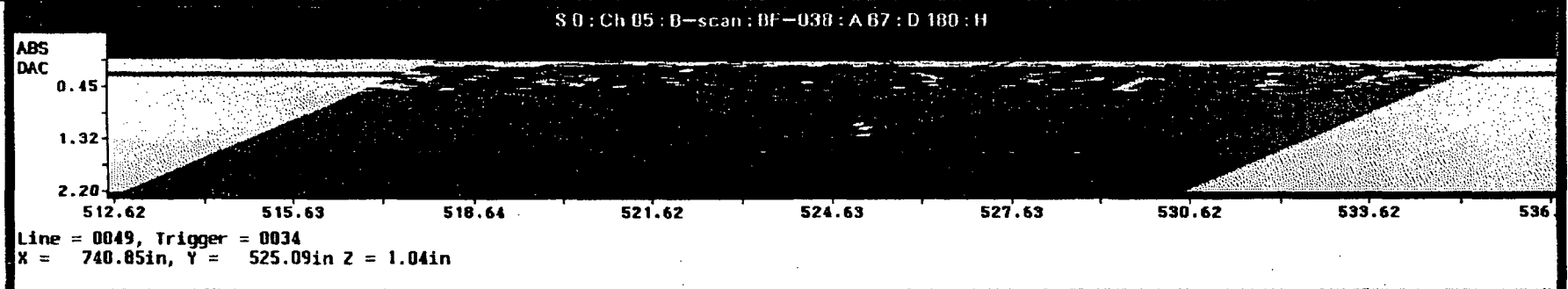
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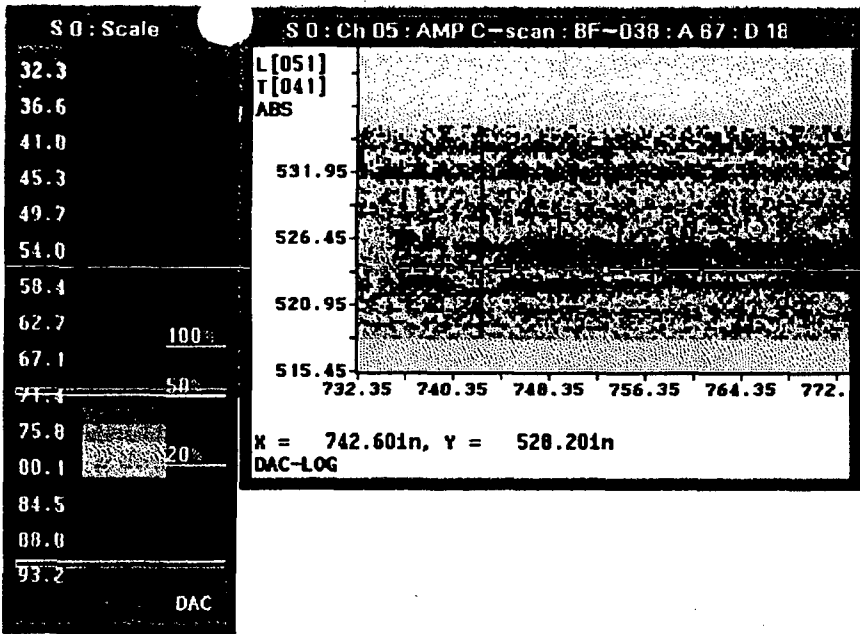
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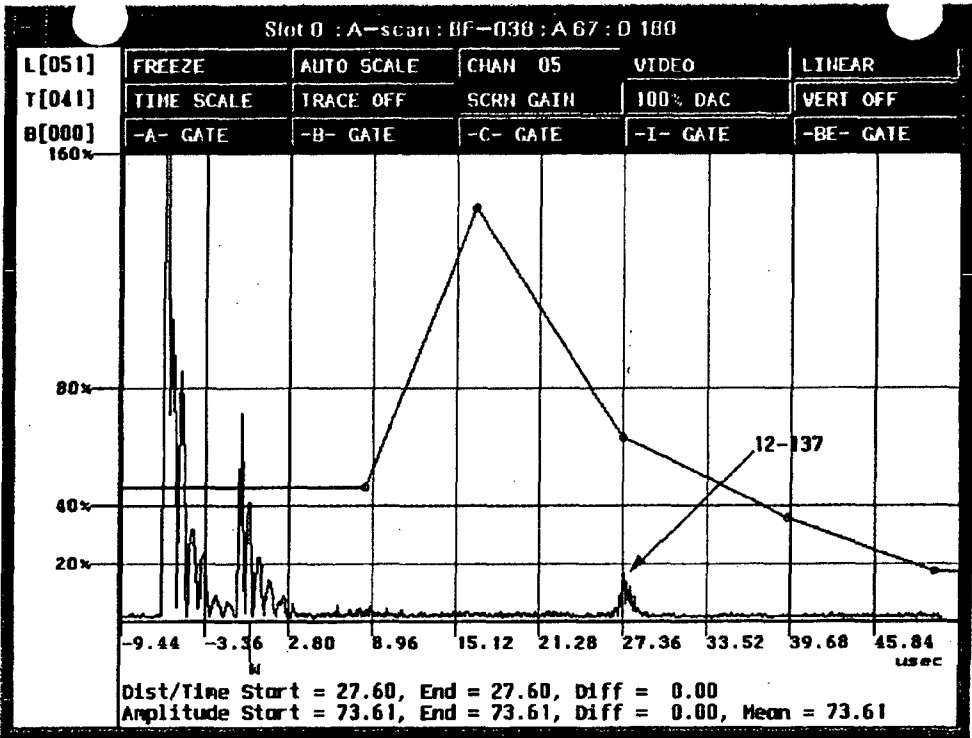
400 of 499



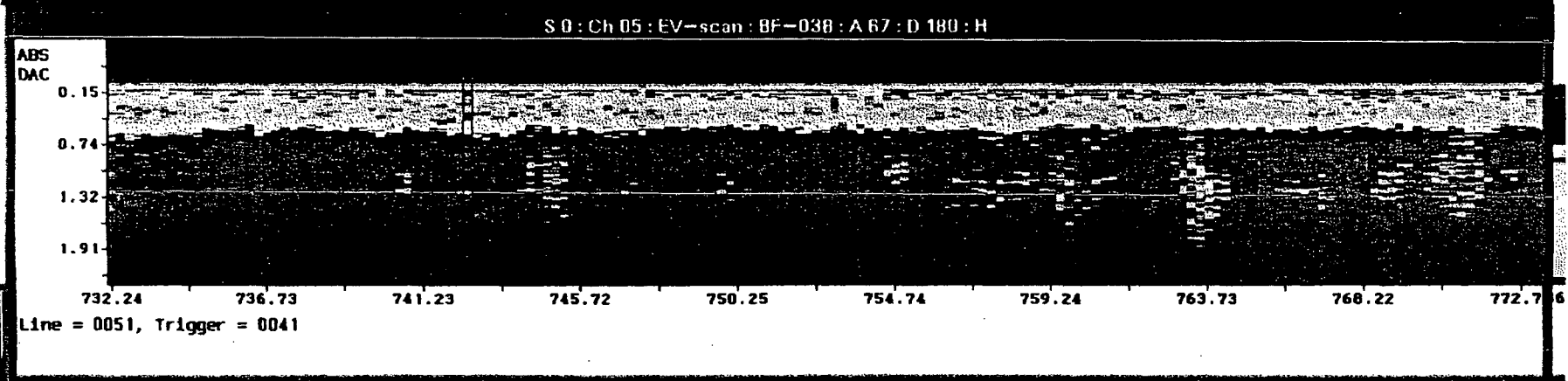
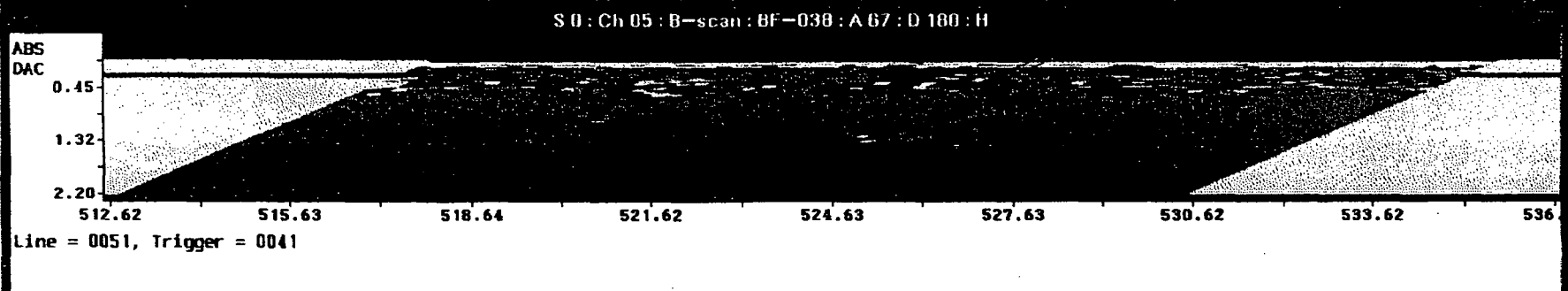
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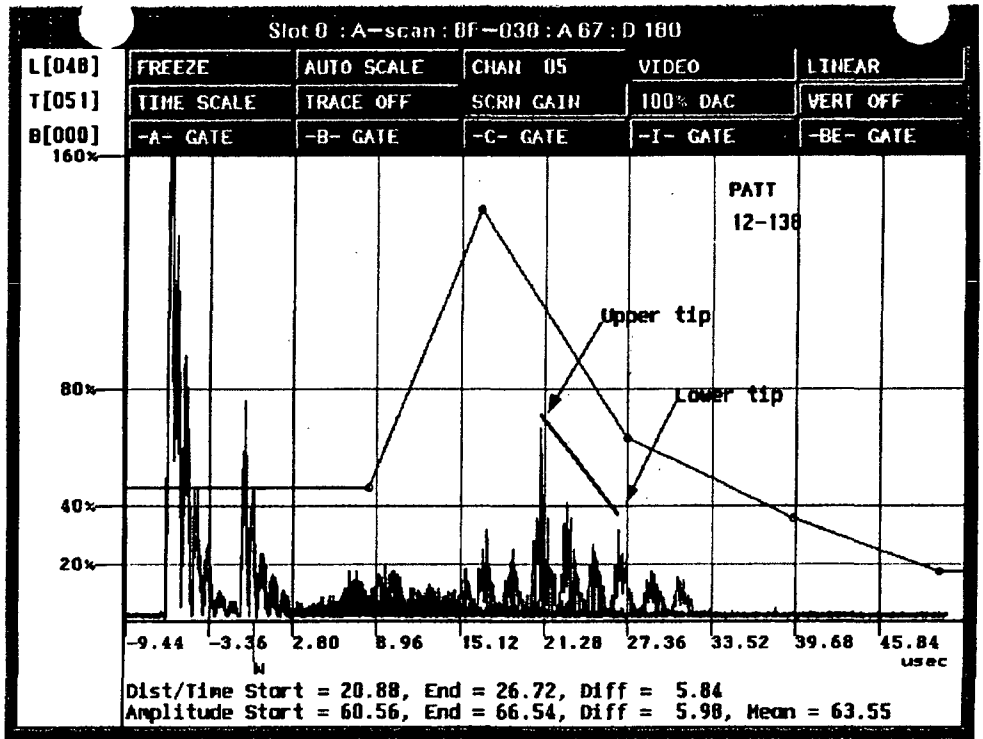
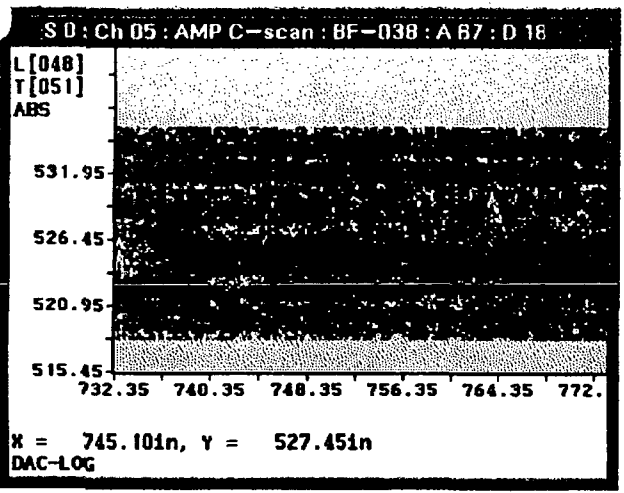
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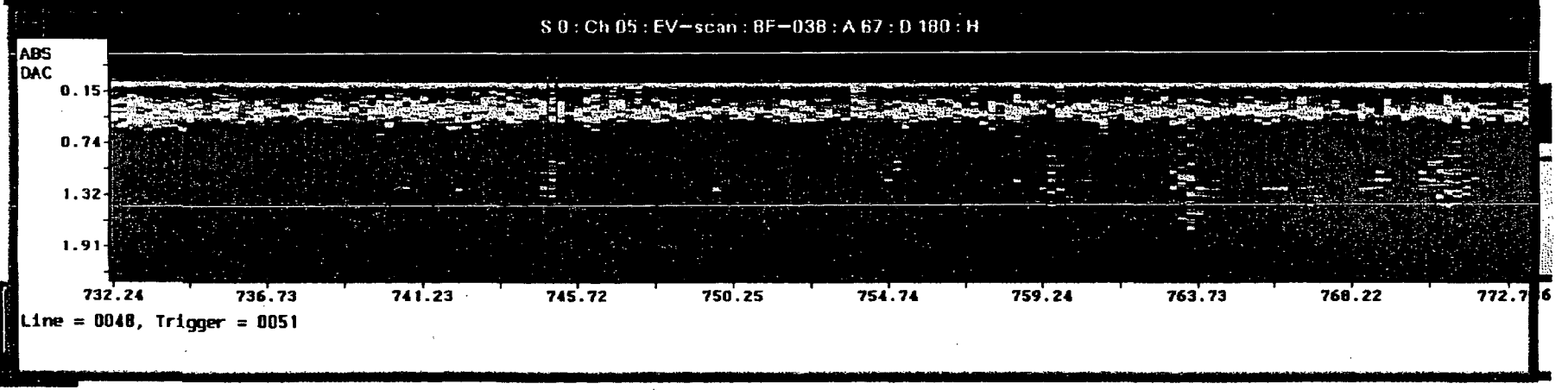
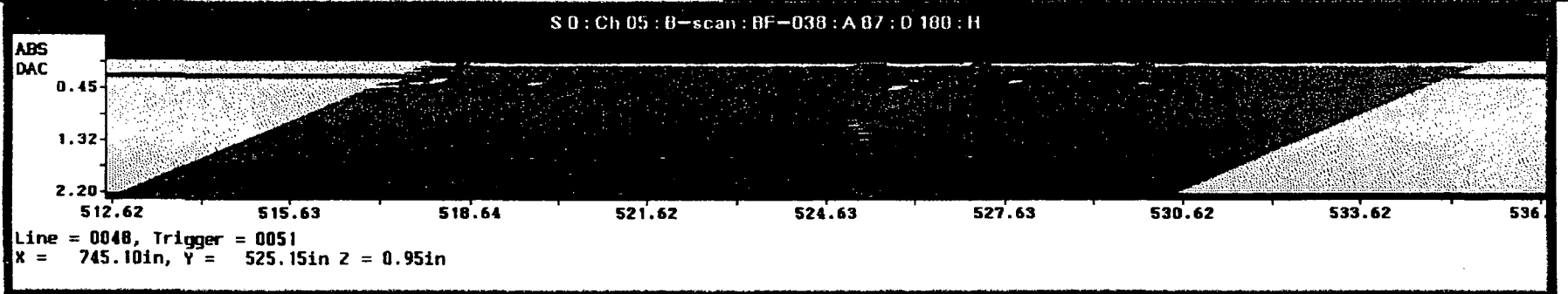
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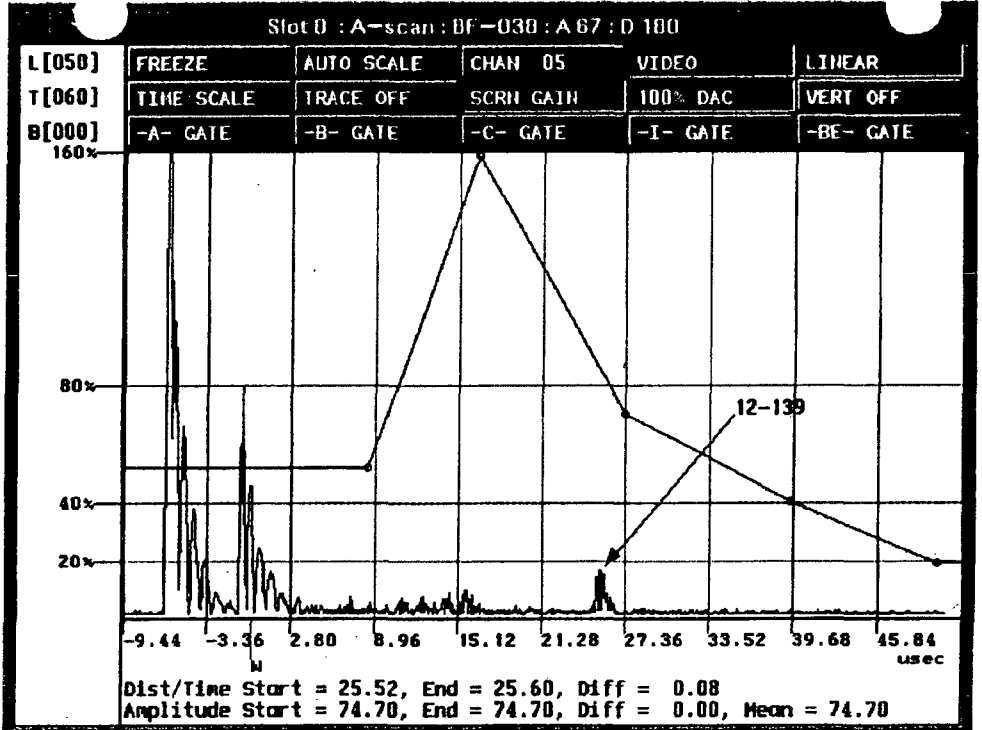
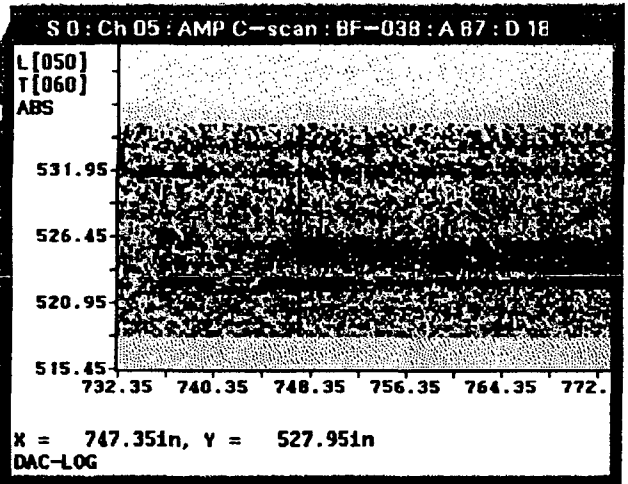
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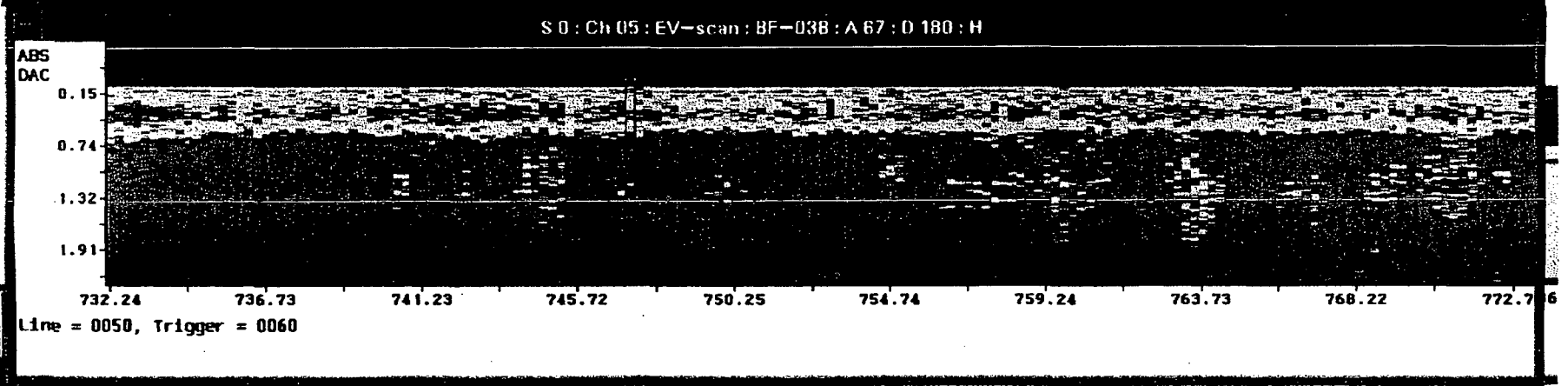
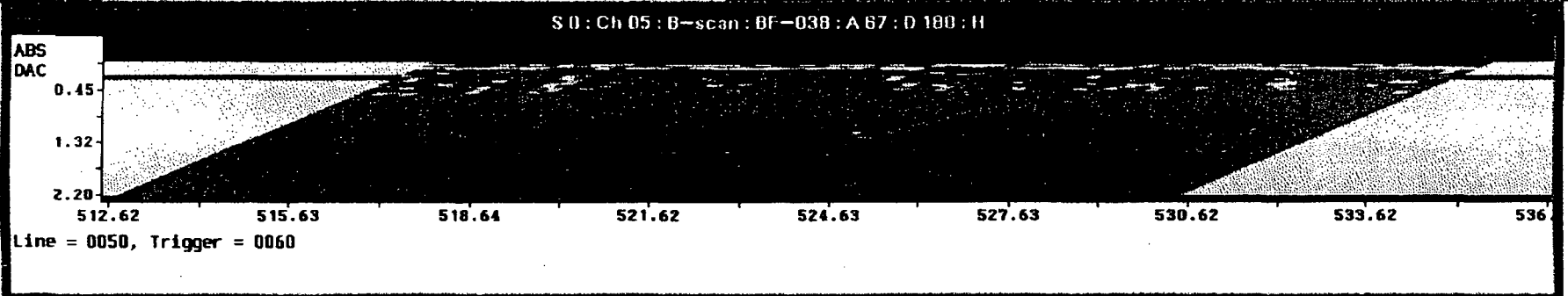
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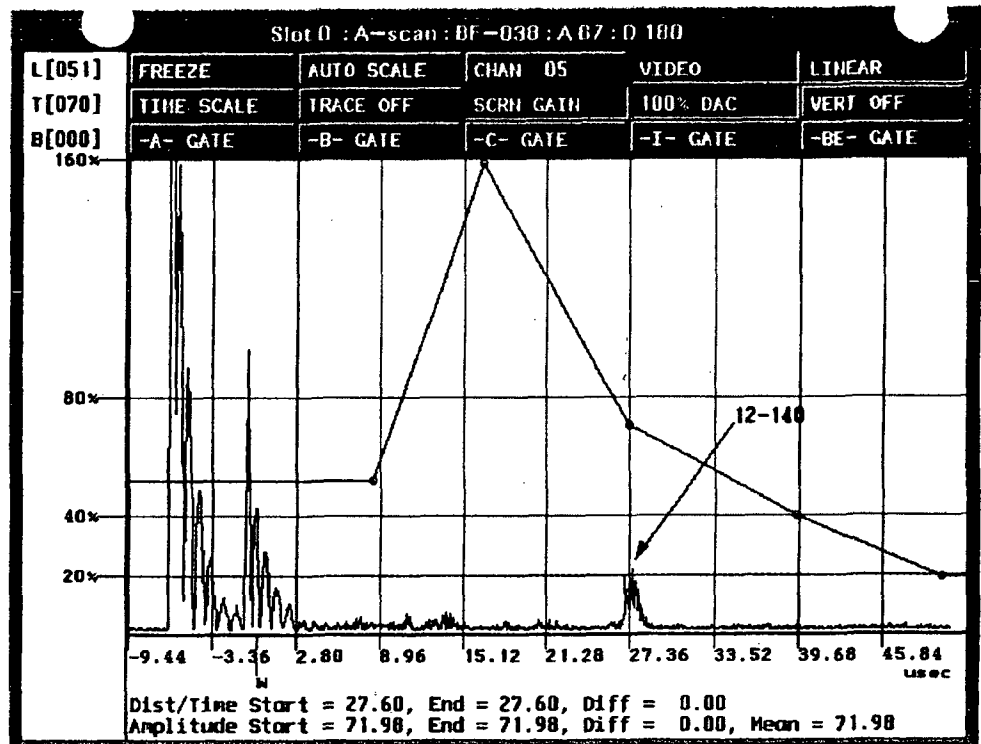
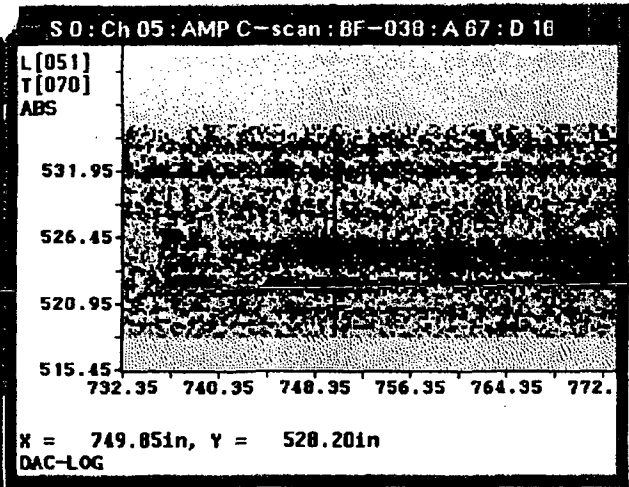
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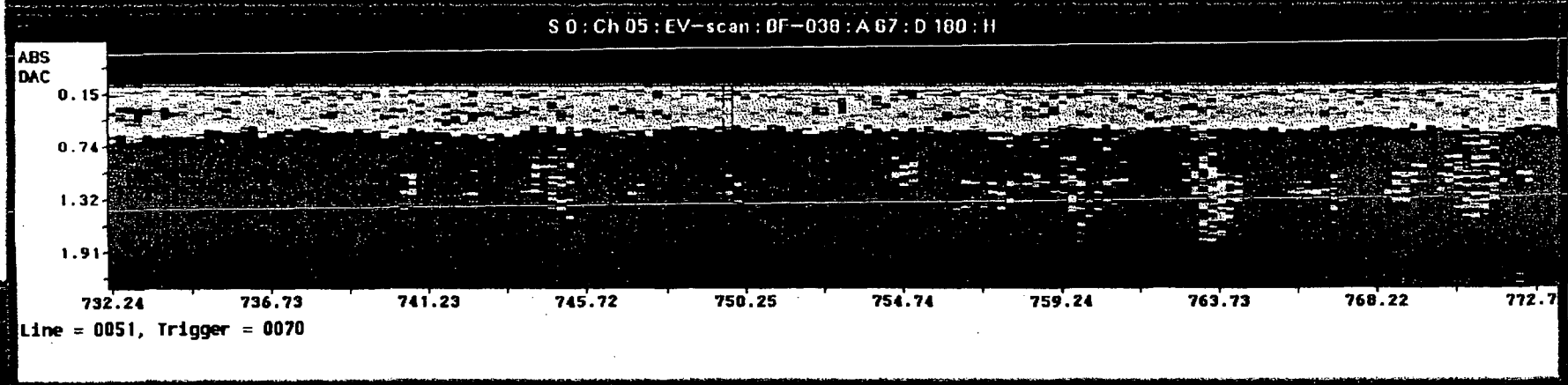
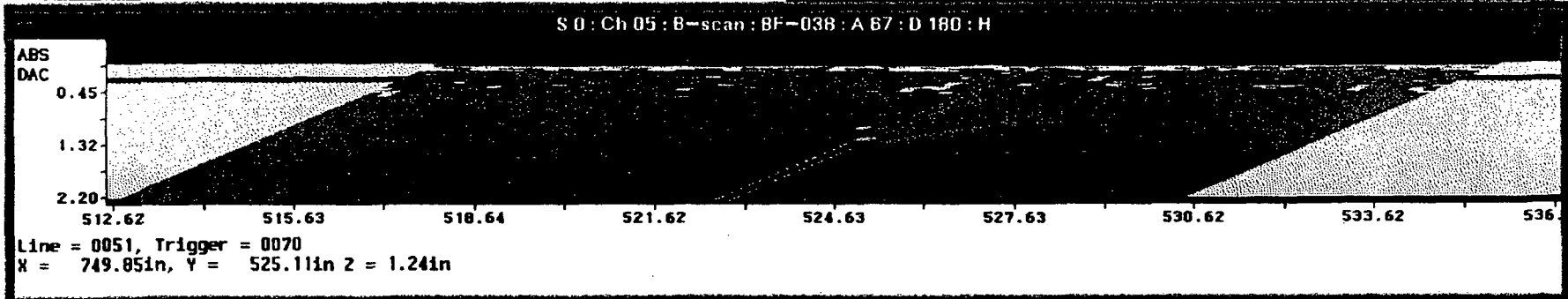
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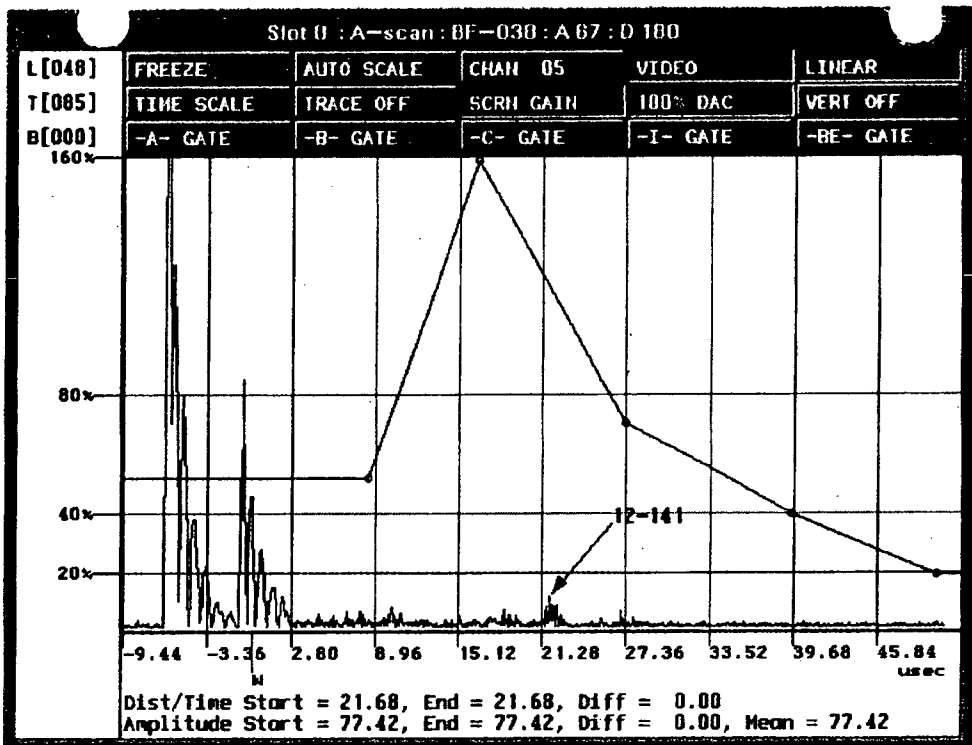
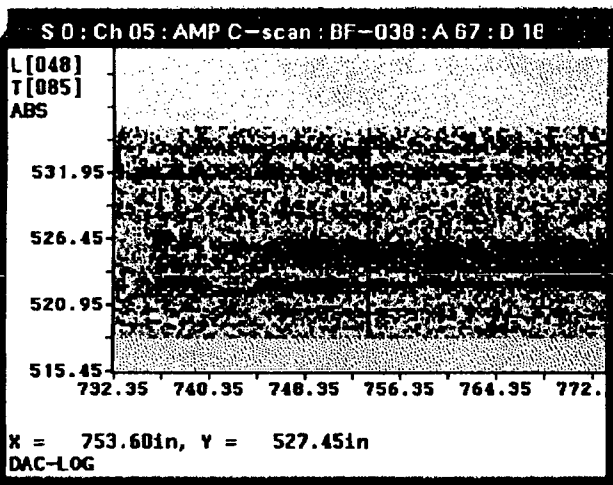
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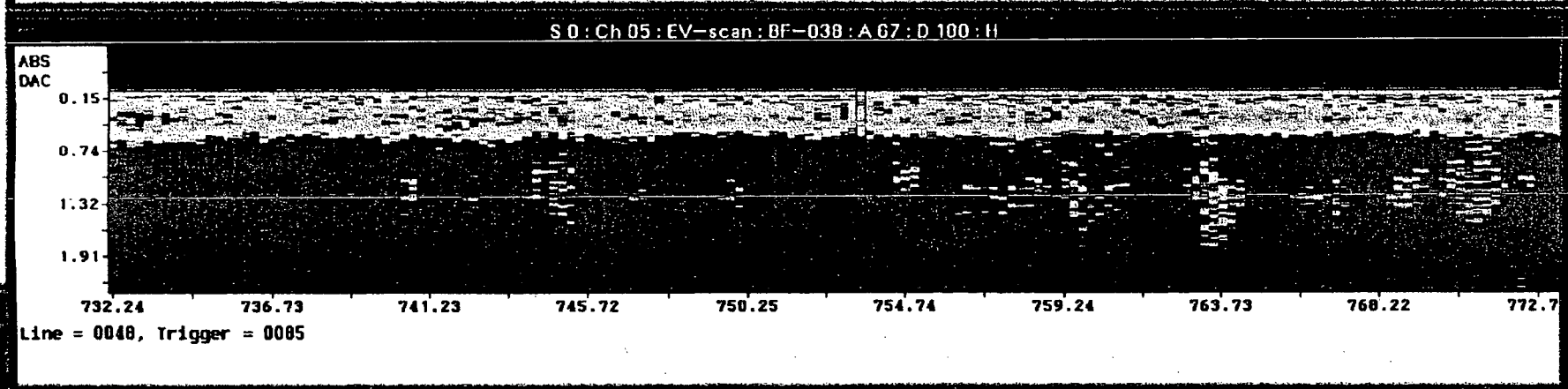
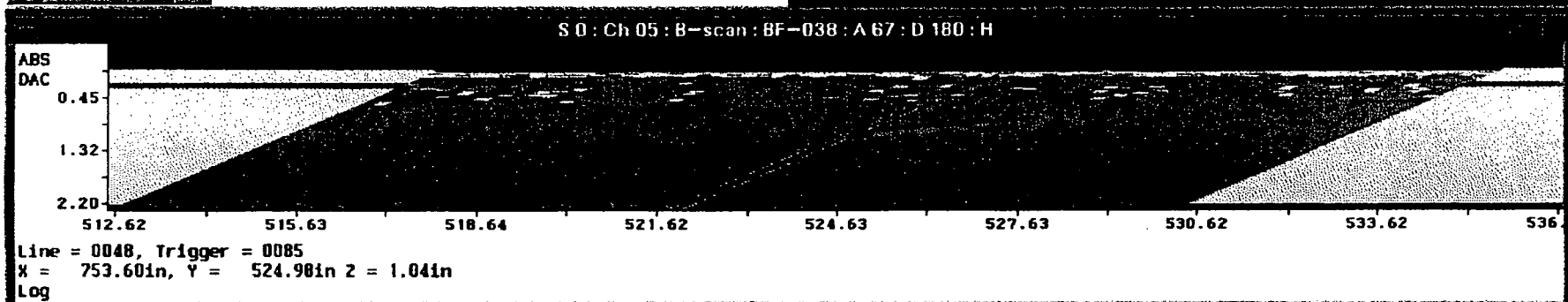
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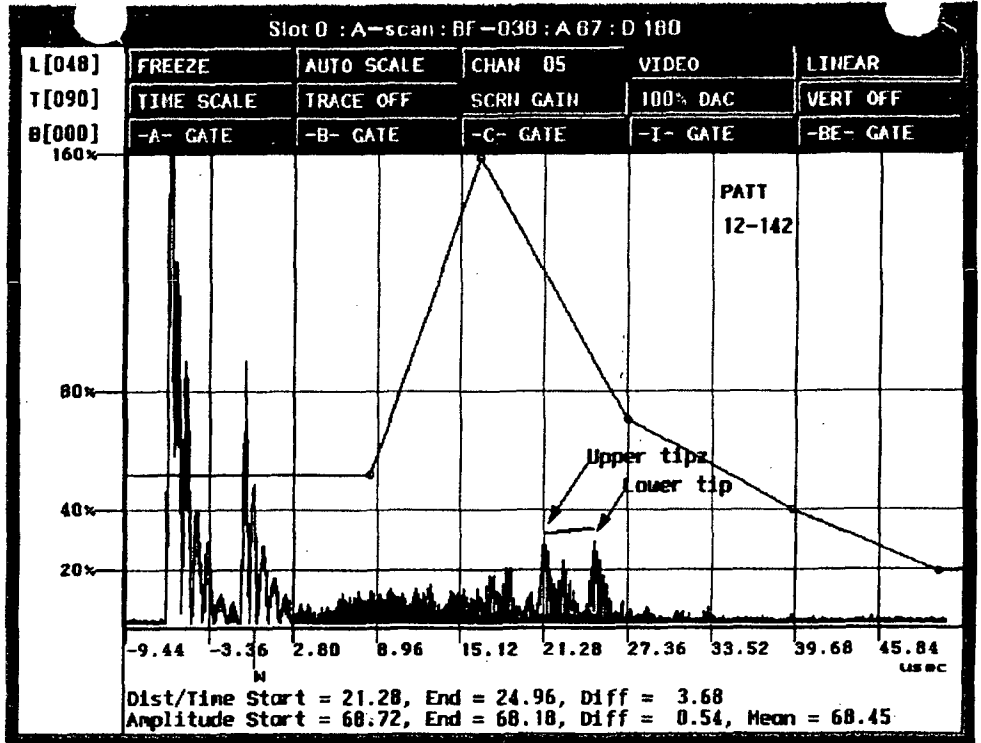
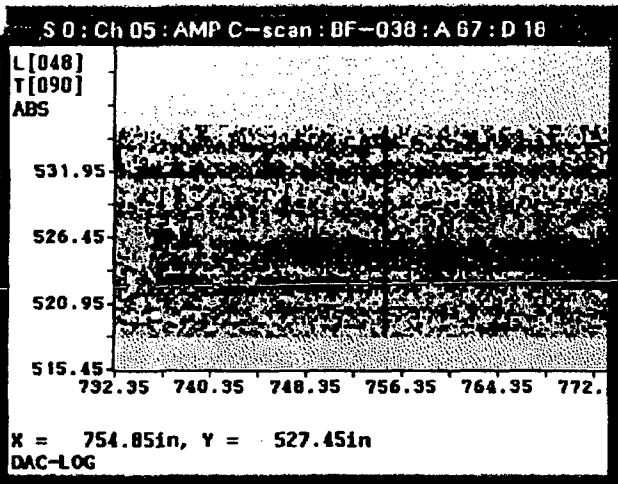
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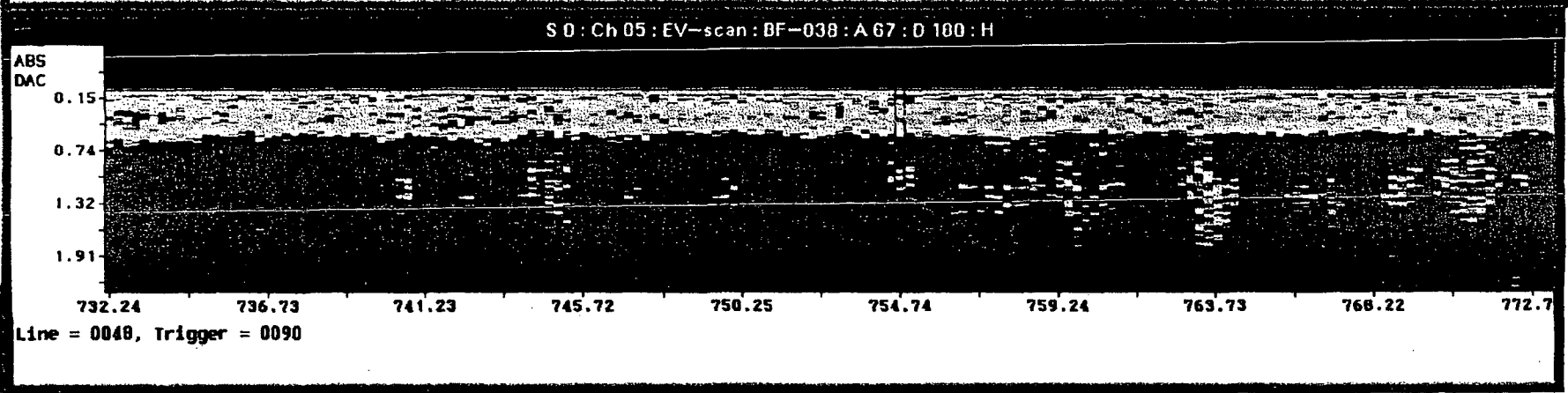
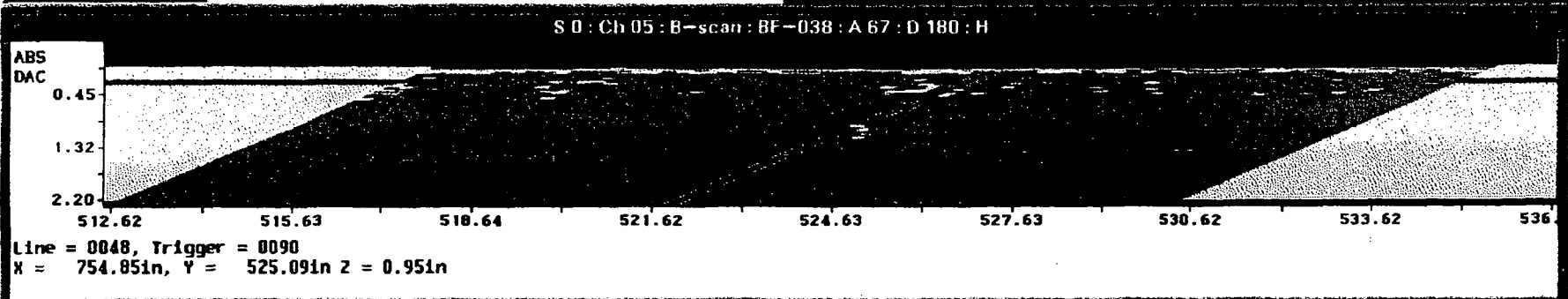
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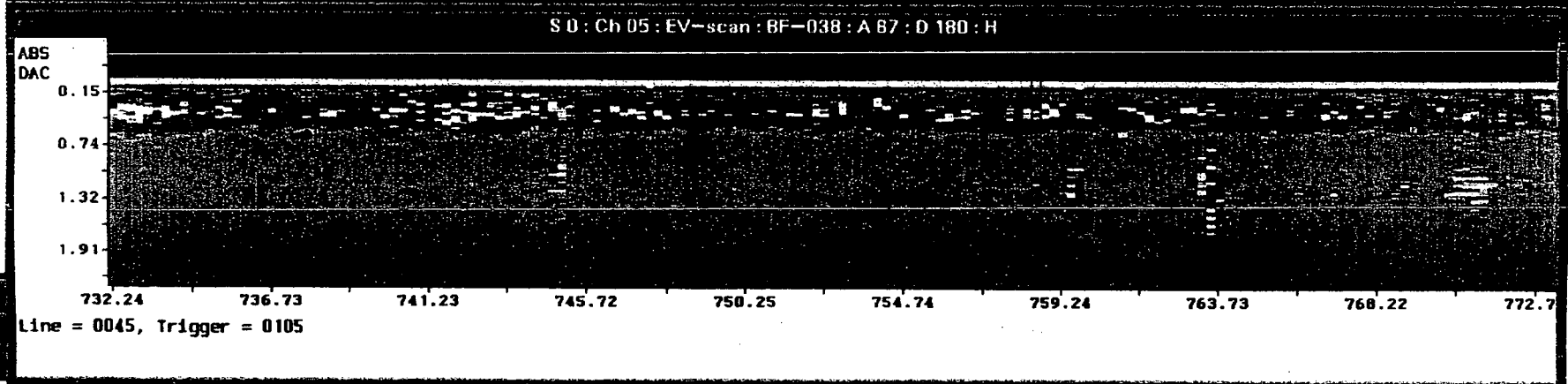
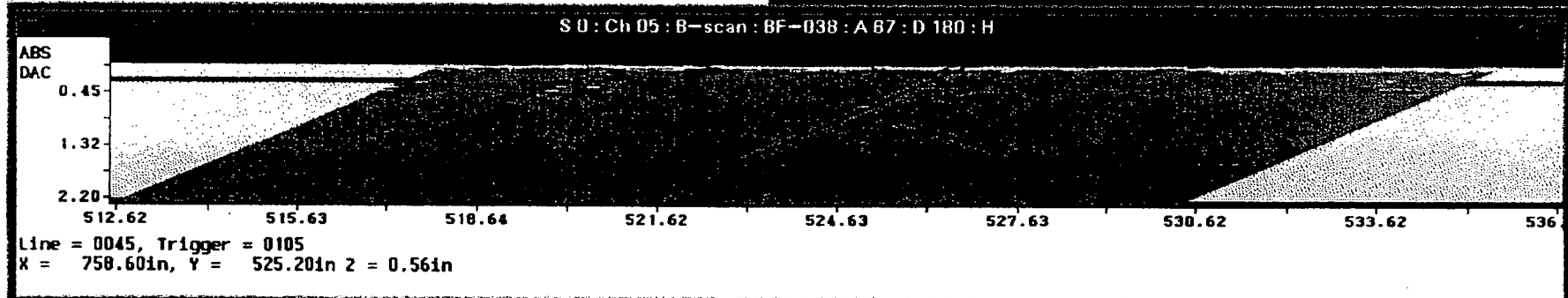
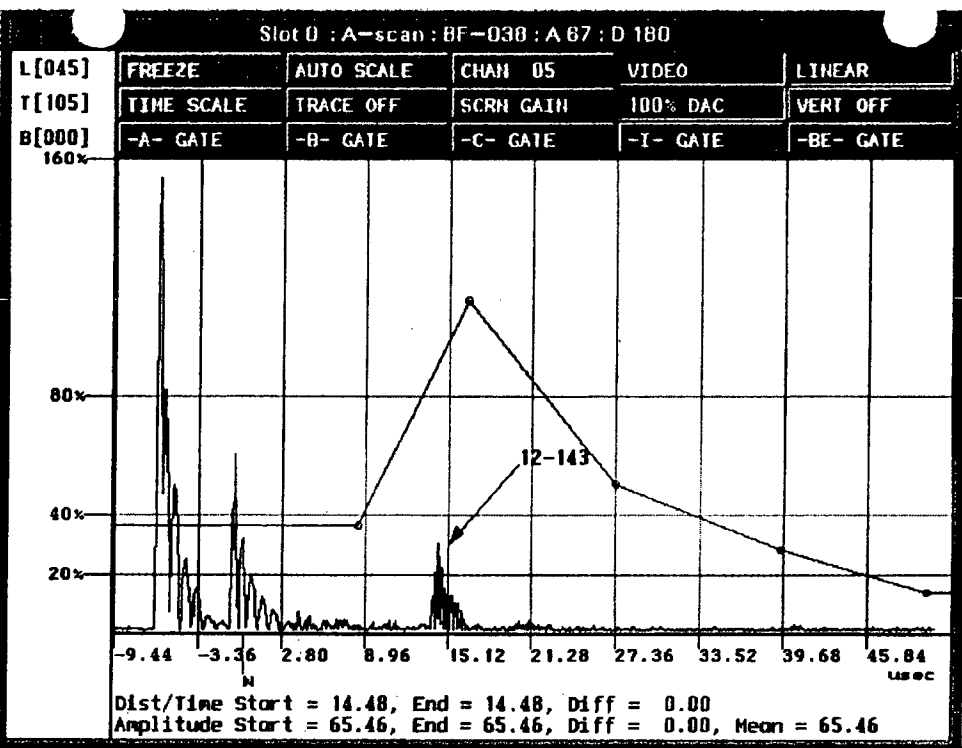
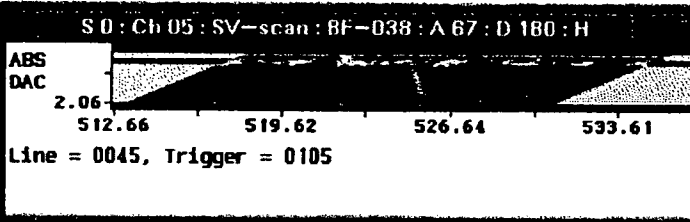
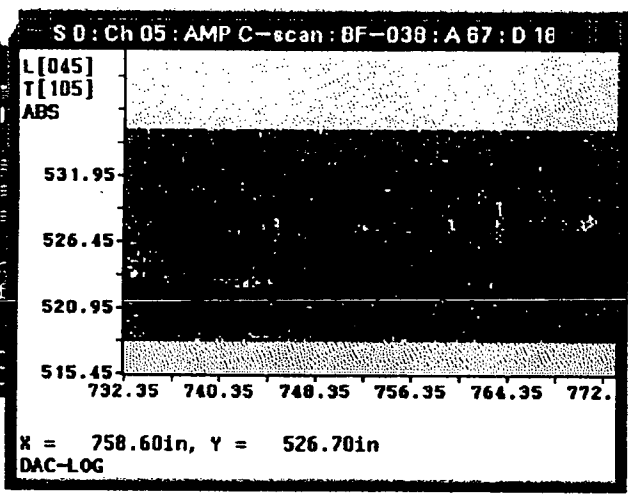
S 0 : Scale

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%

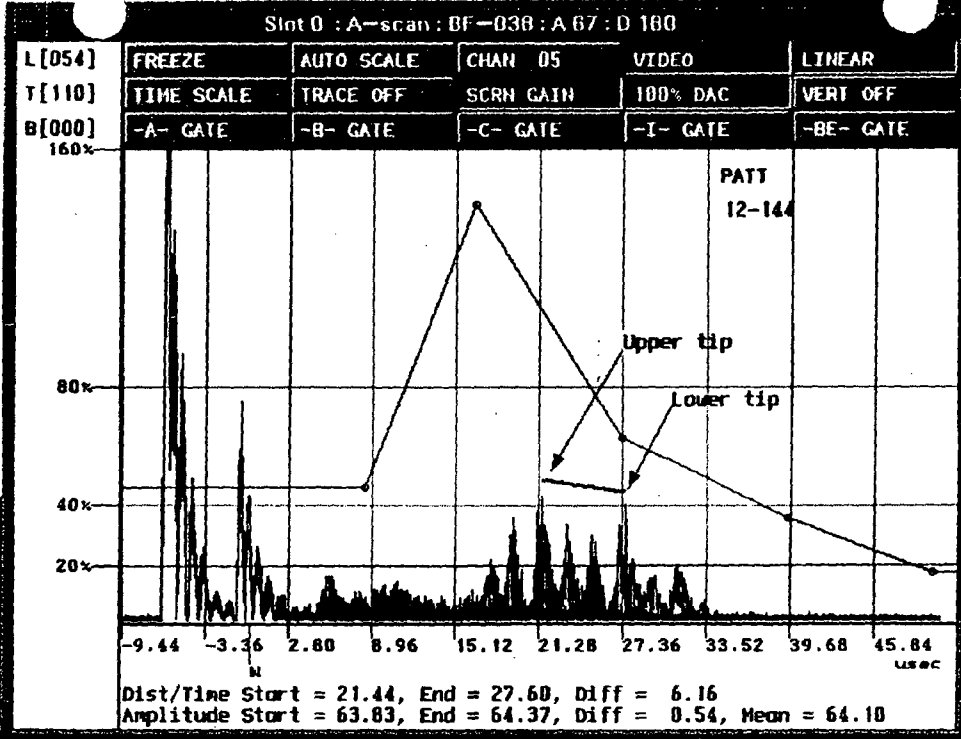
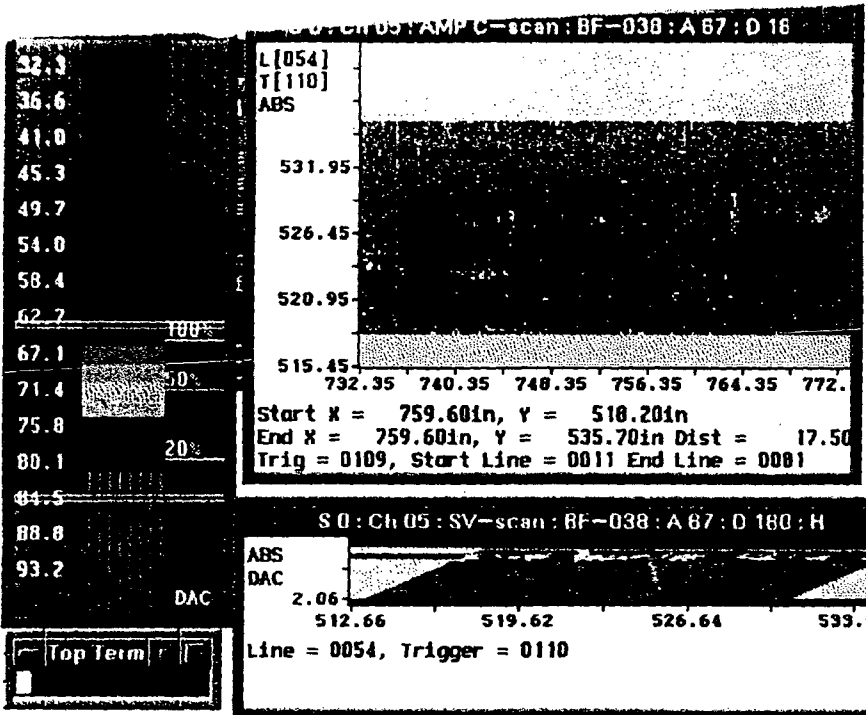
DAC

Top Term

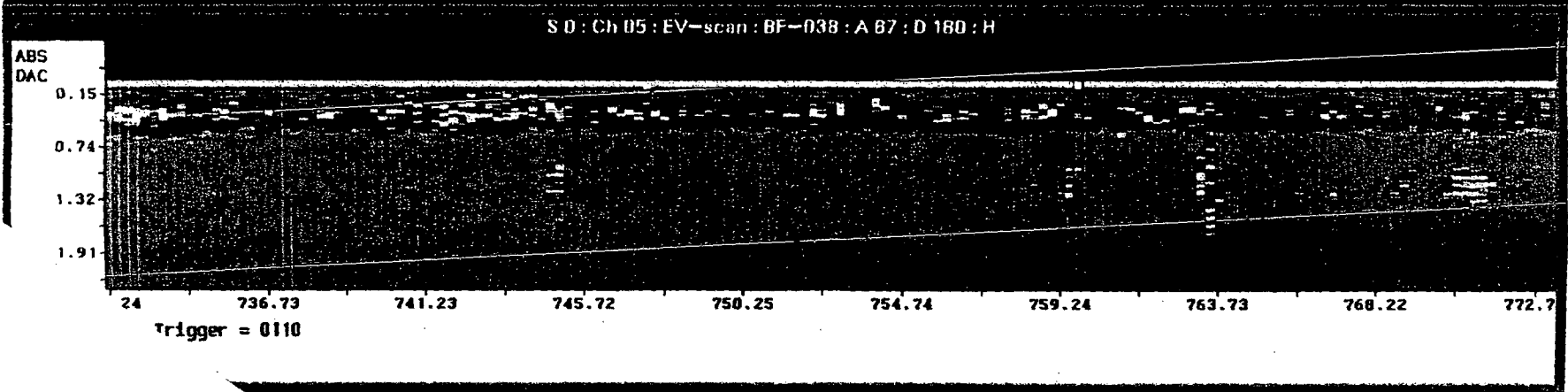
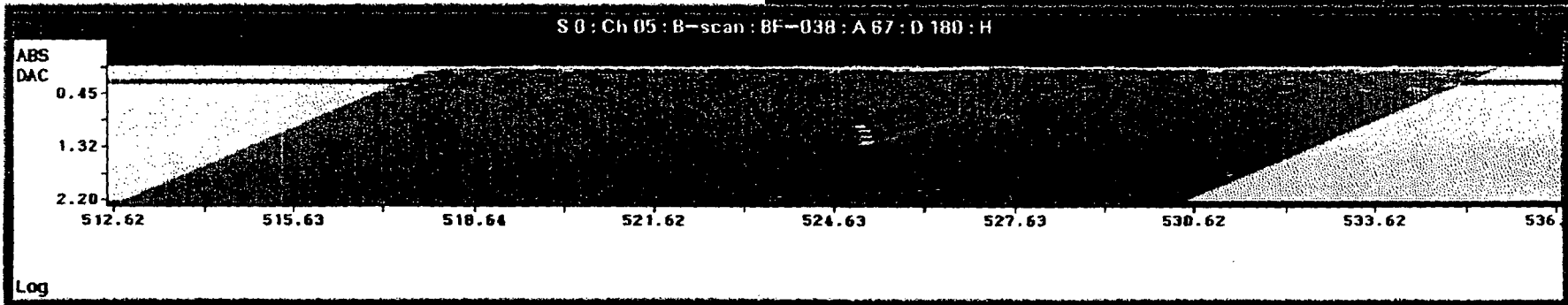


4th to 6th

R1153



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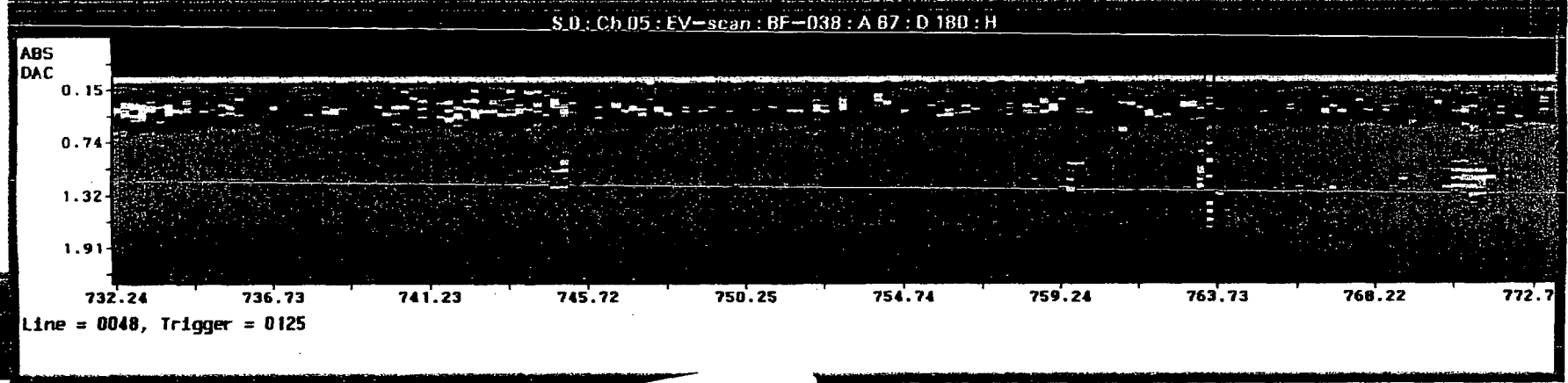
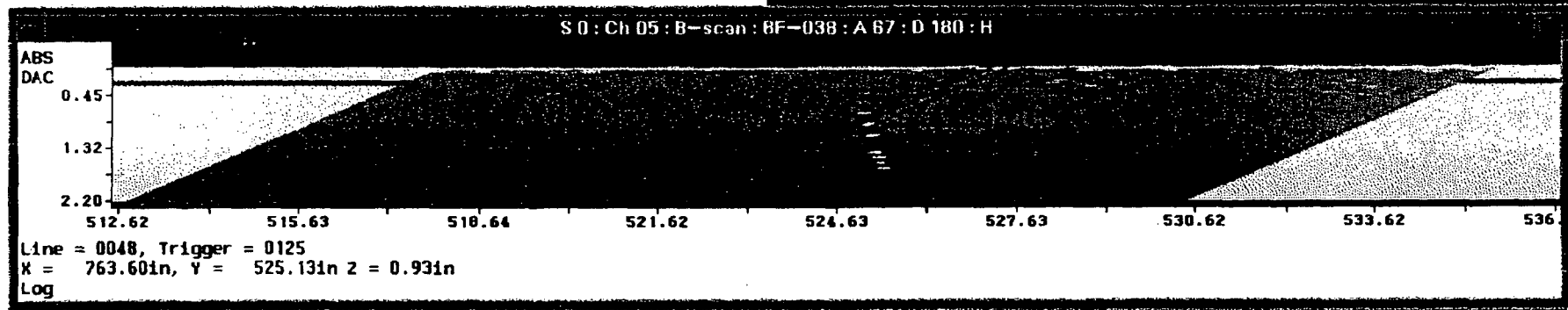
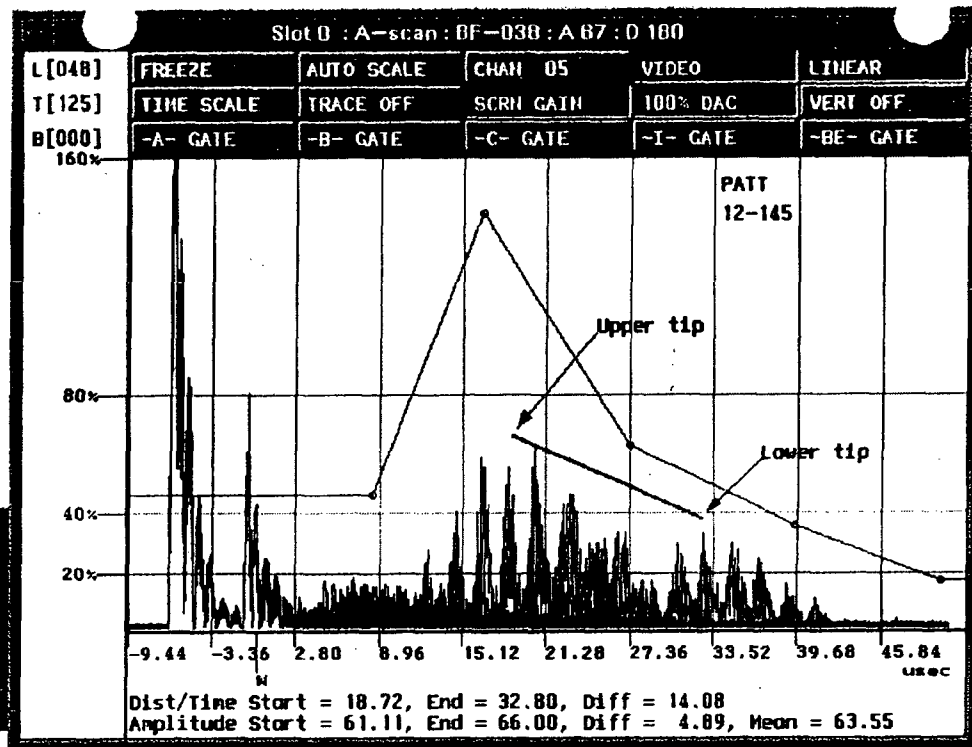
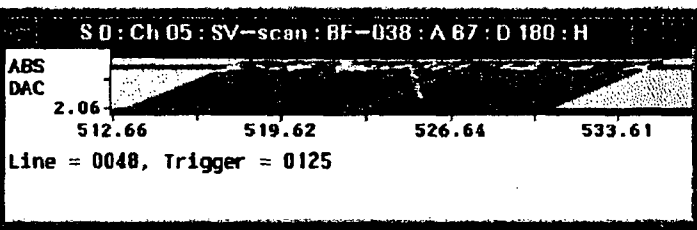
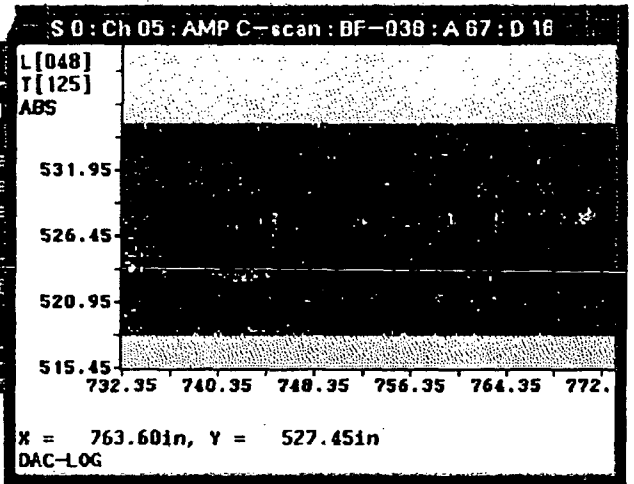
R153

S 0 : Scale

2.3
6.6
1.0
5.3
9.7
4.0
8.4
2.7
180°
67.1
50°
71.4
20°
75.0
80.1
84.5
88.8
93.2

DAC

Top Term



R153

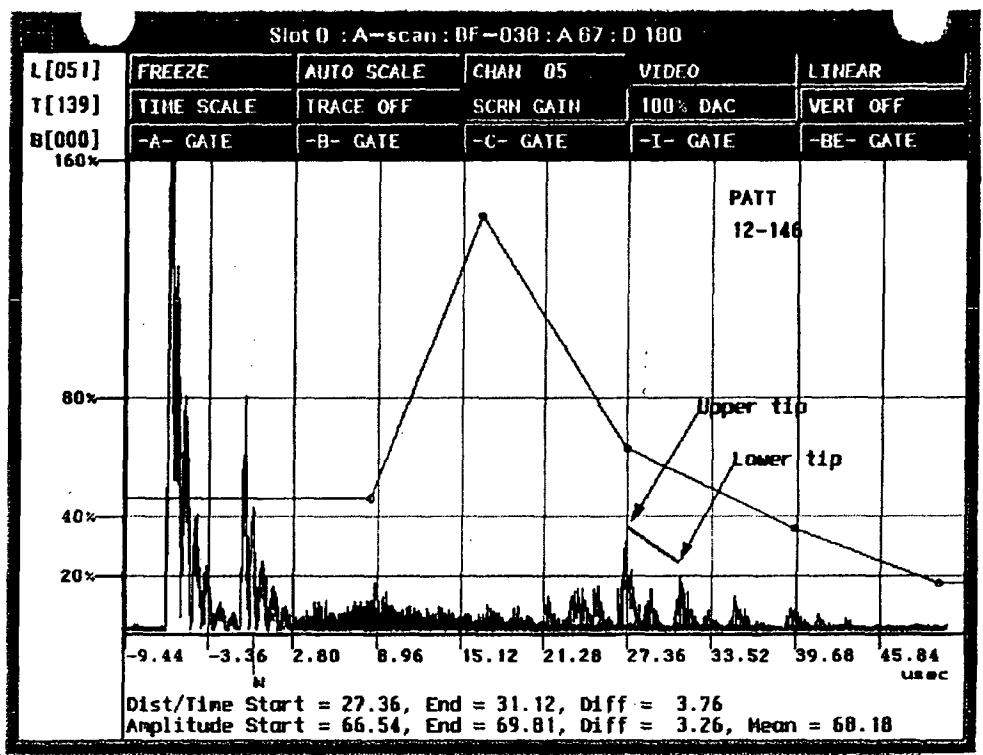
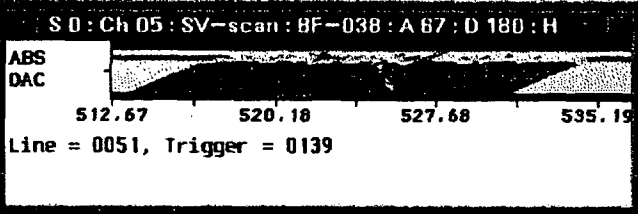
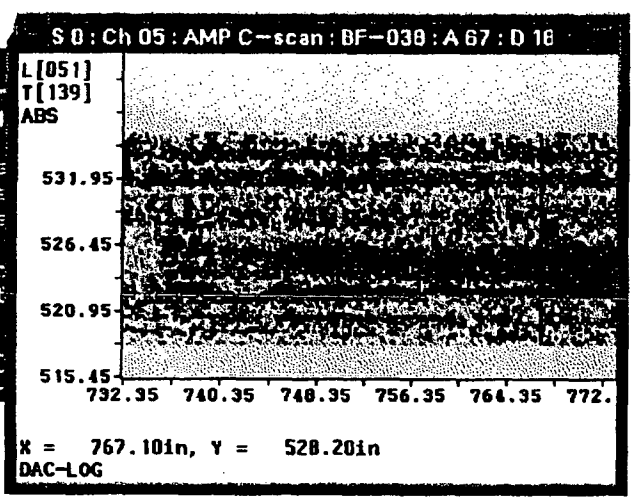
S 0 : Scale

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

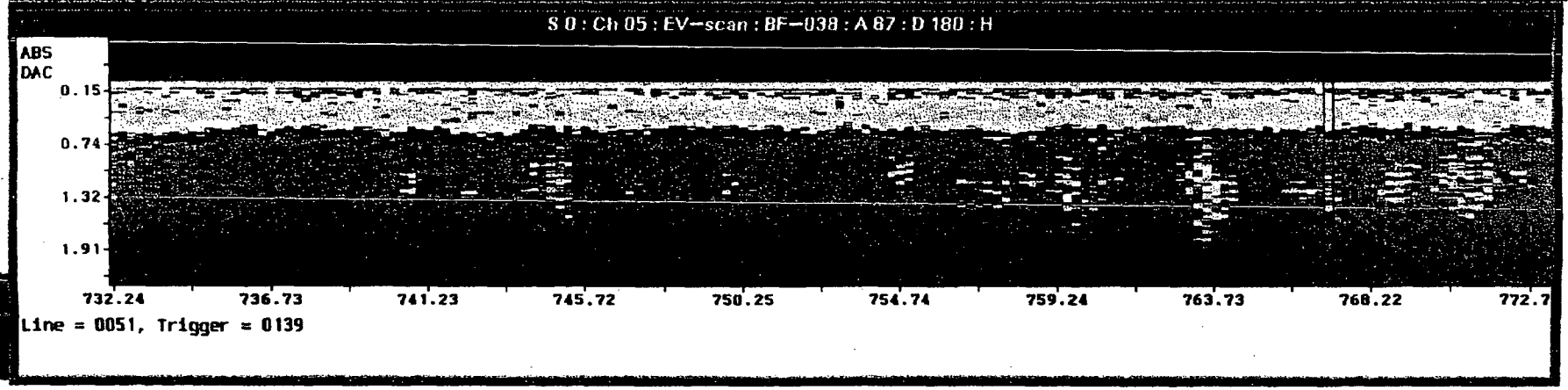
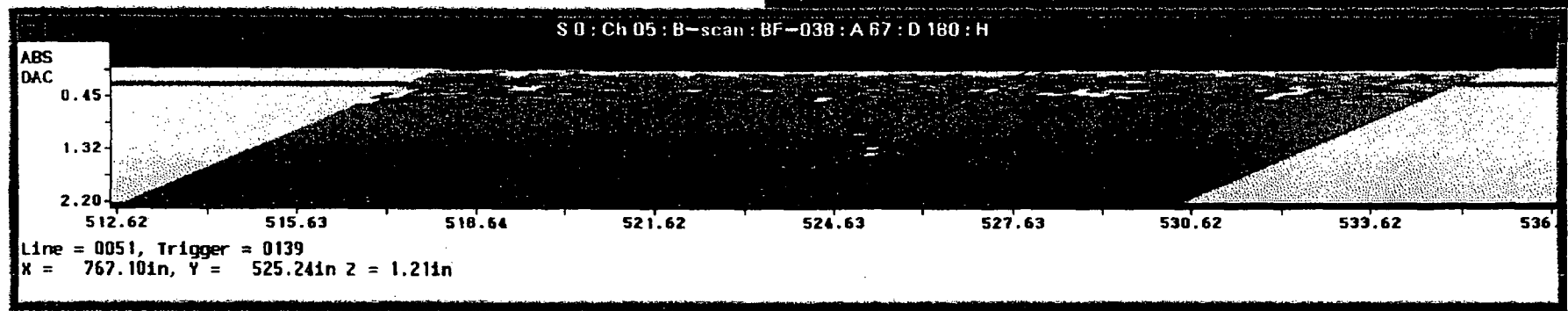
100%
50%
20%

DAC

Top Term



b2h fo vth



R1153

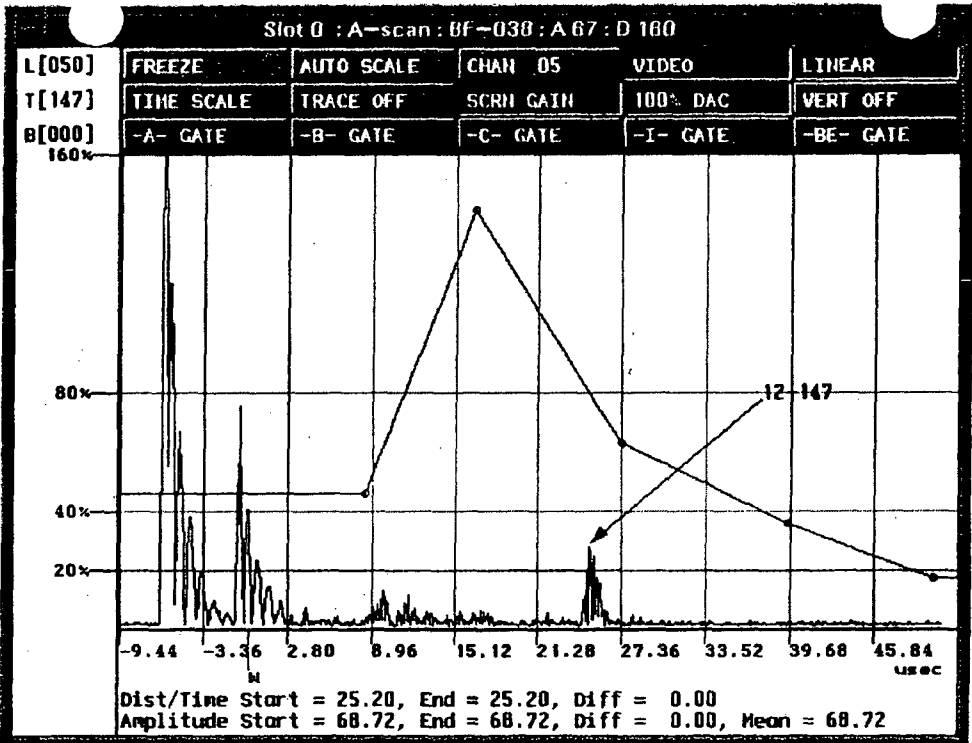
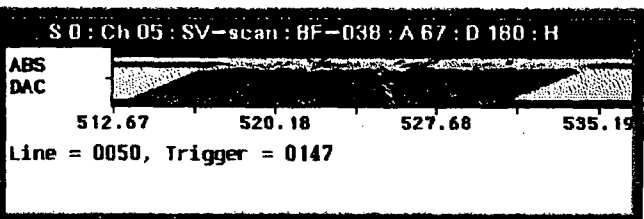
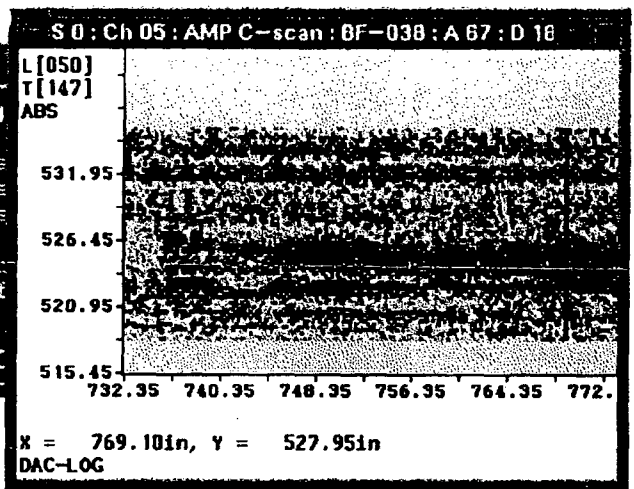
S 0 : Scale

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

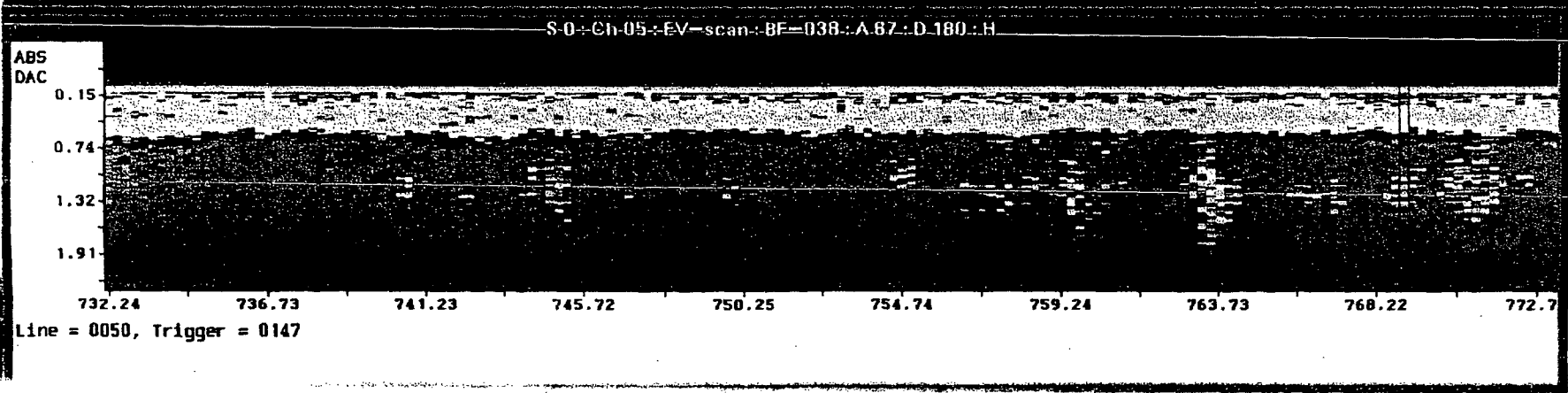
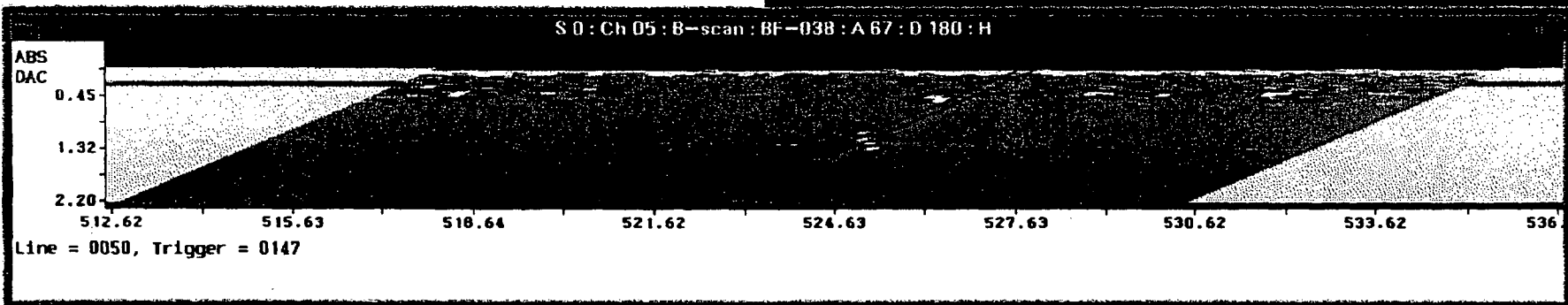
100%
50%
20%

DAC

Top Term



664 for 117



R1153

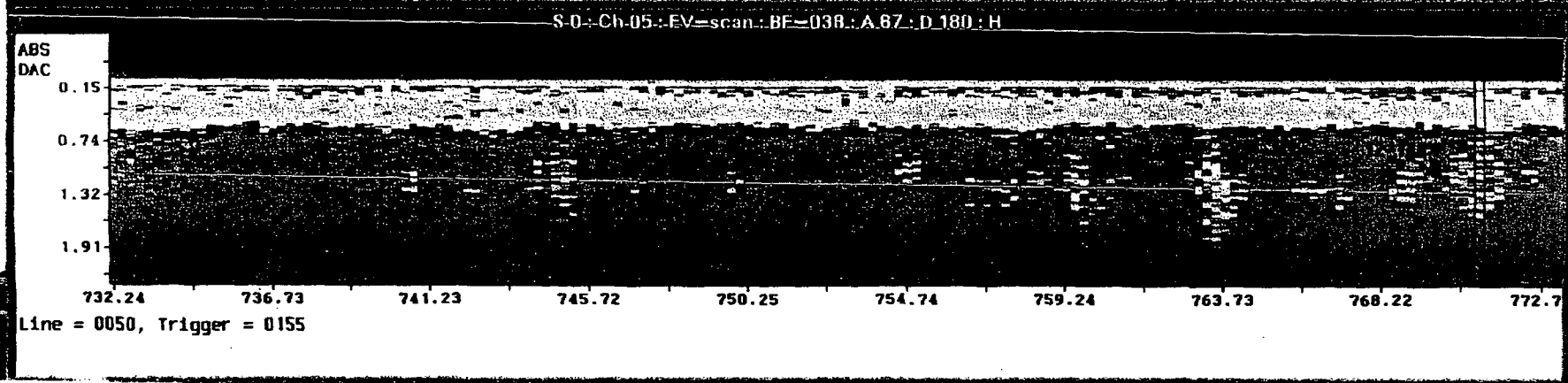
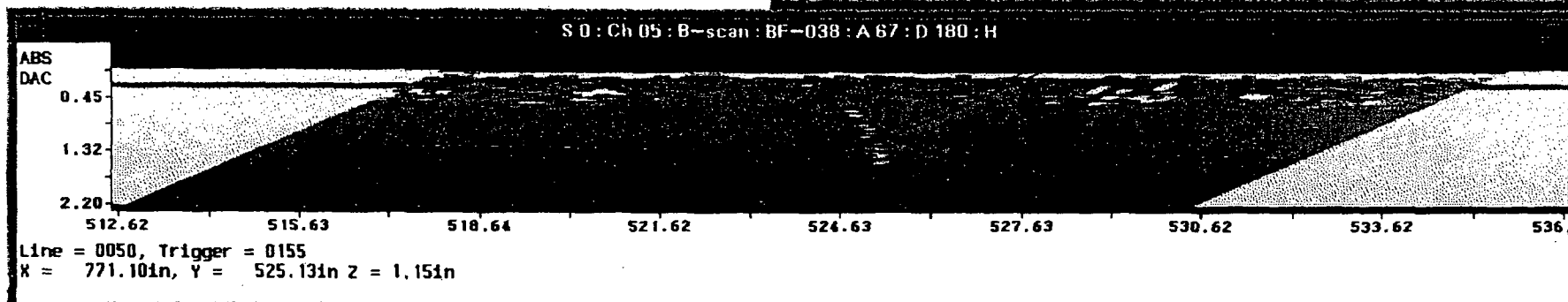
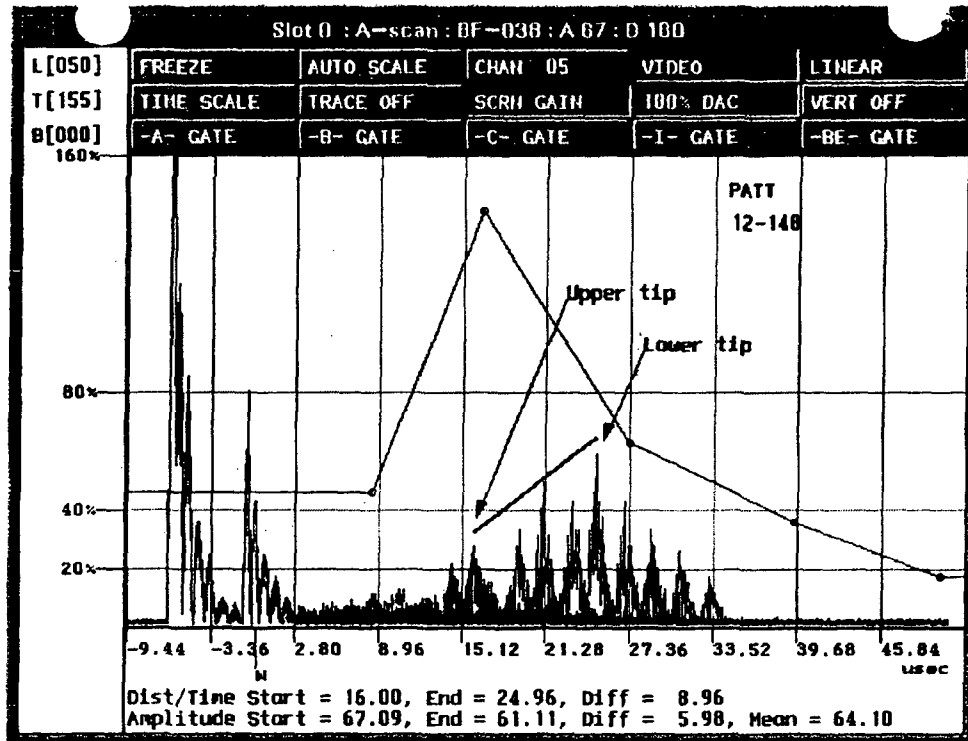
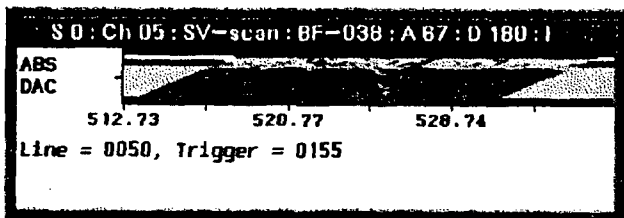
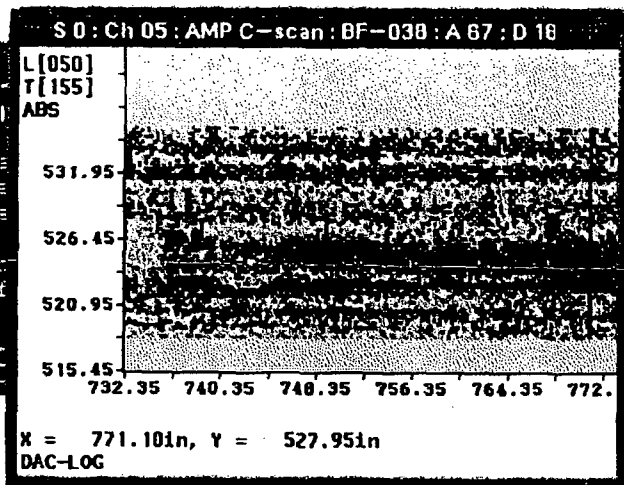
S 0 : Scale

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%

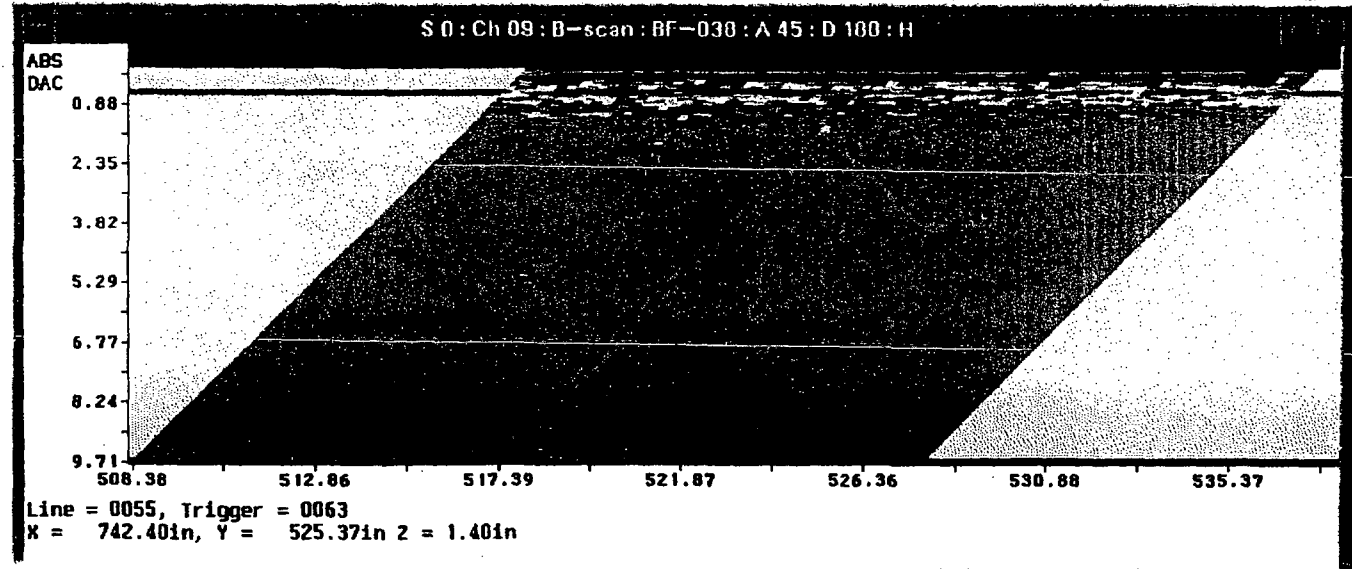
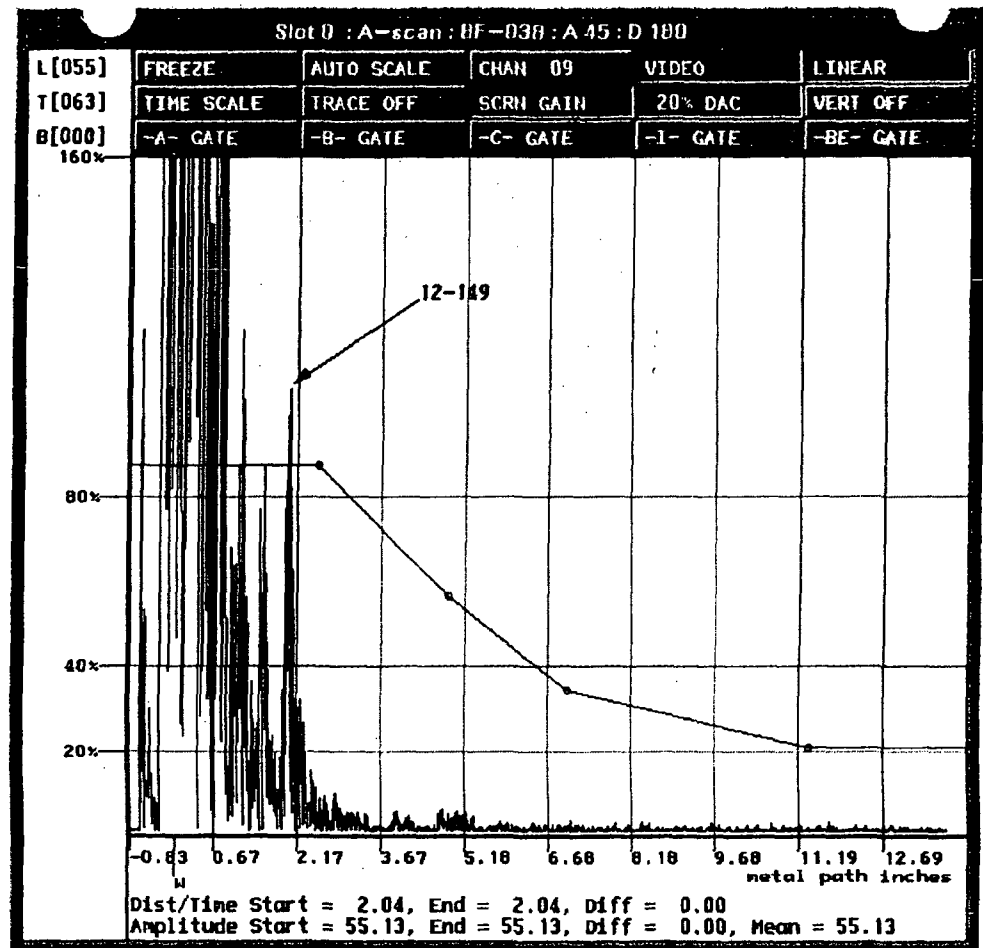
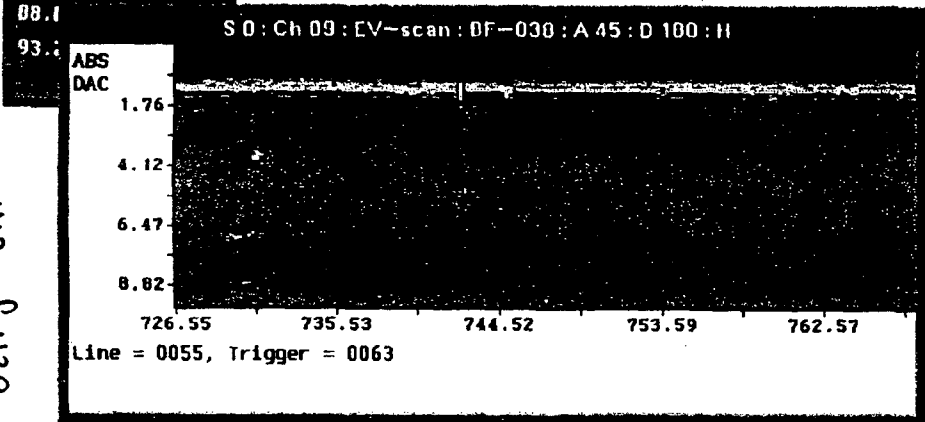
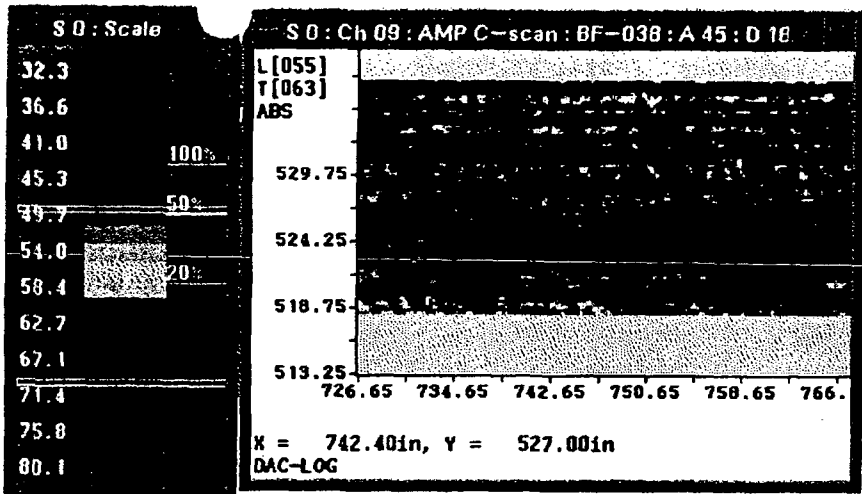
DAC

Tap Term

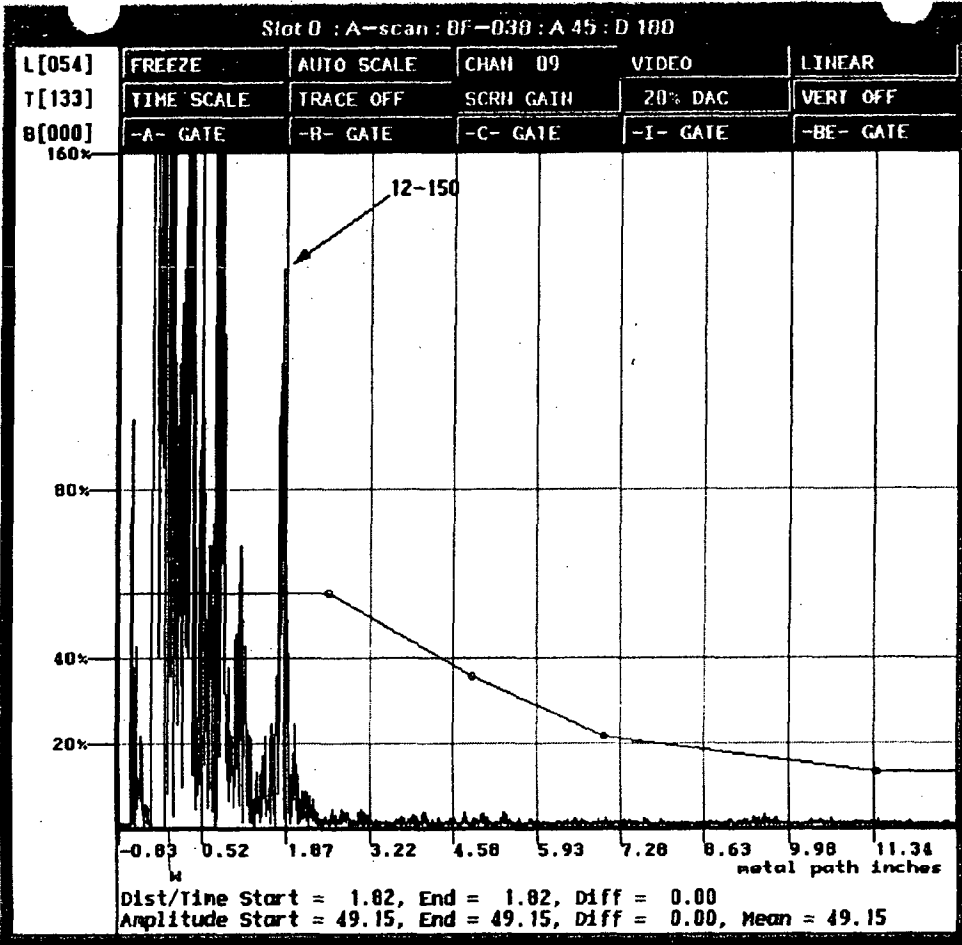
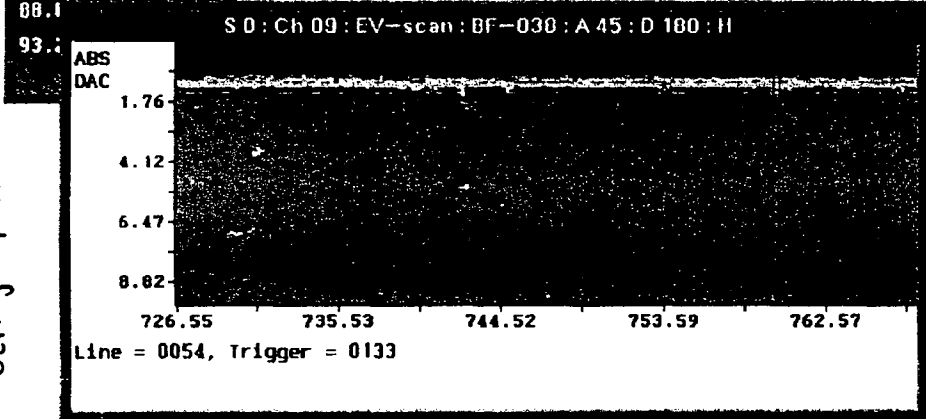
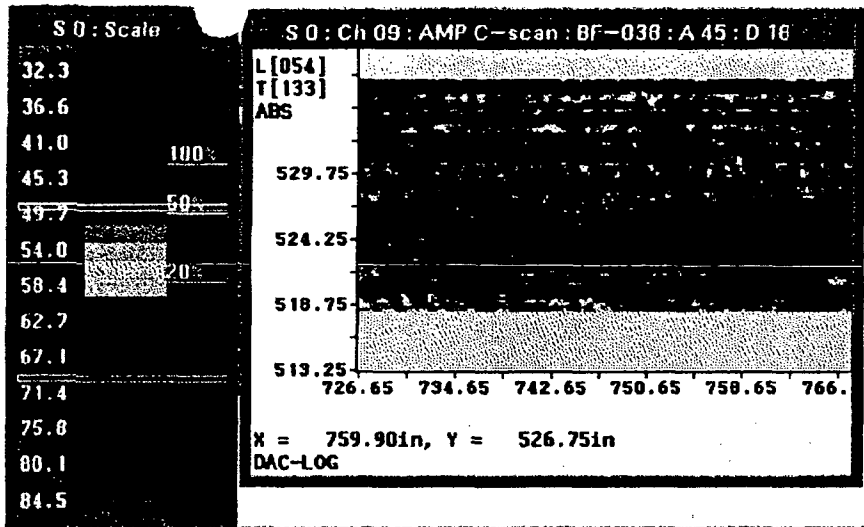


65h of 439

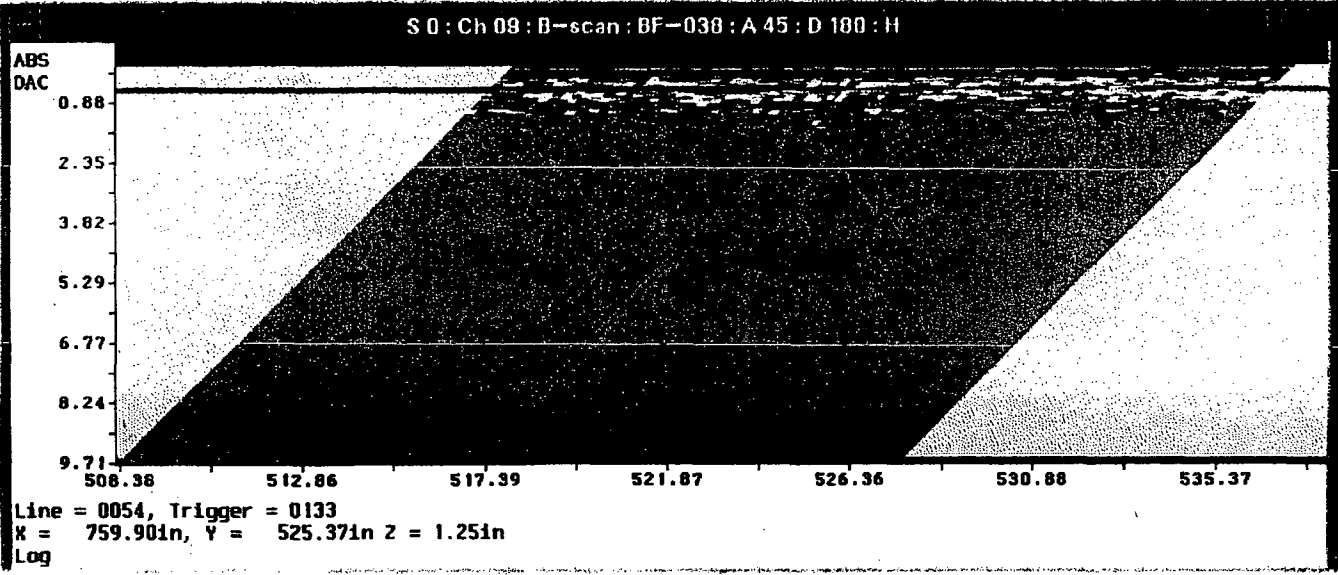
21-03



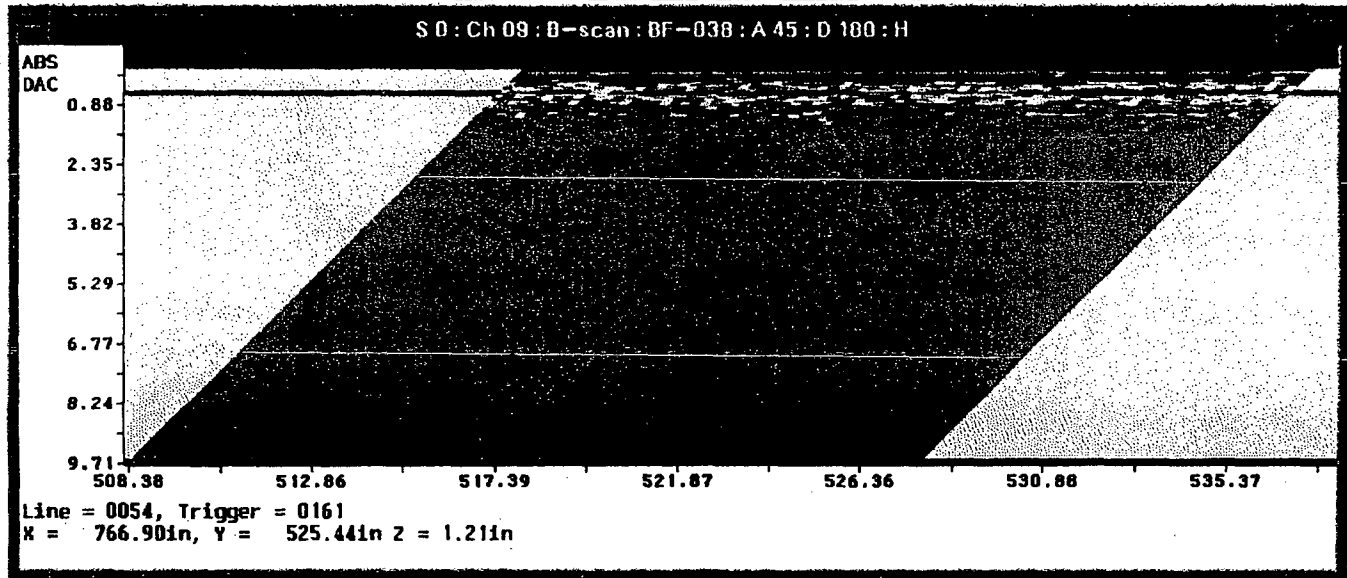
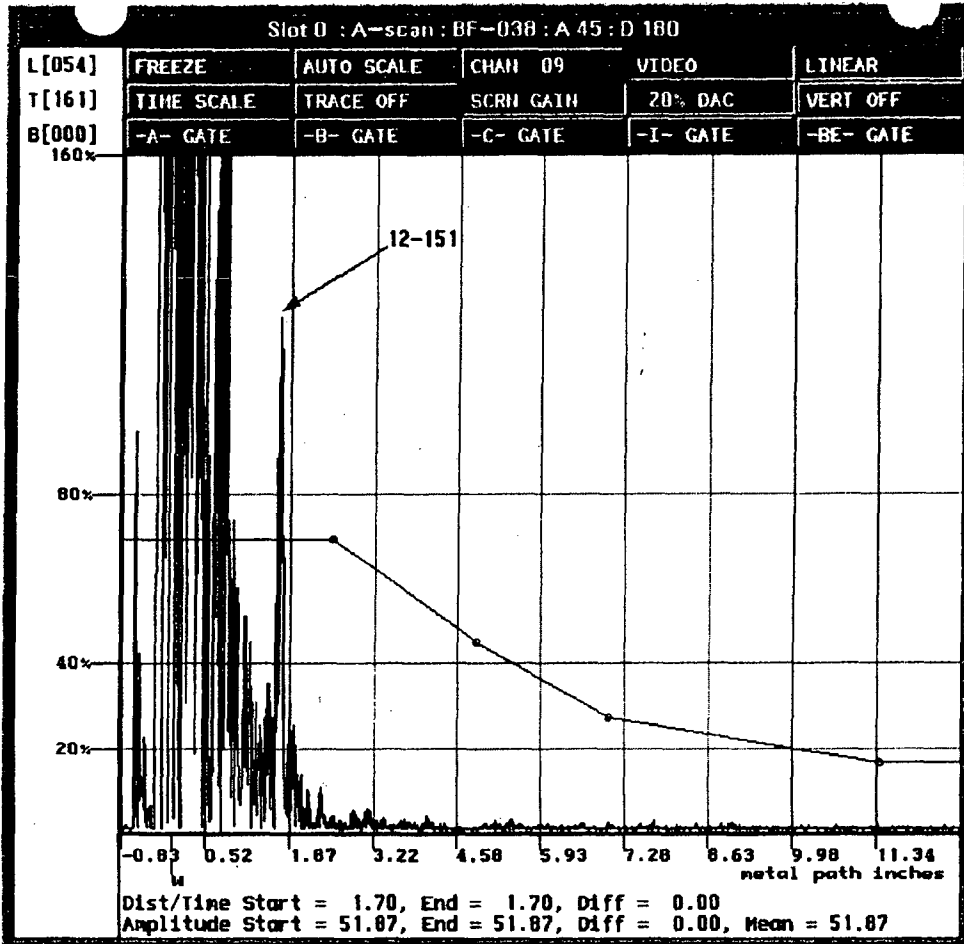
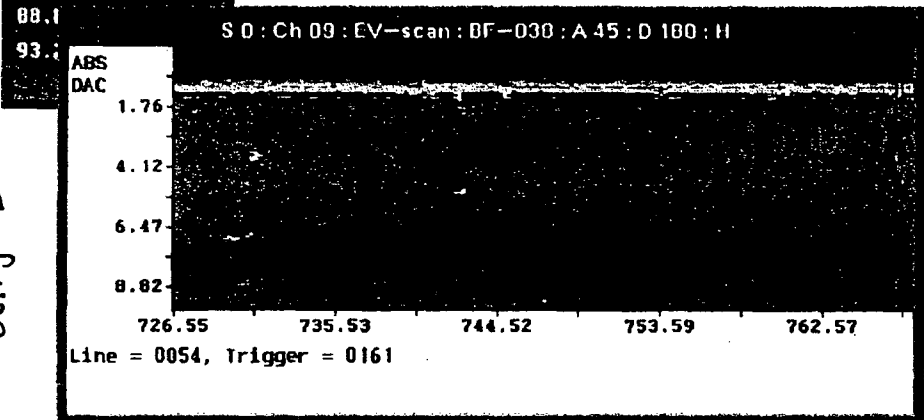
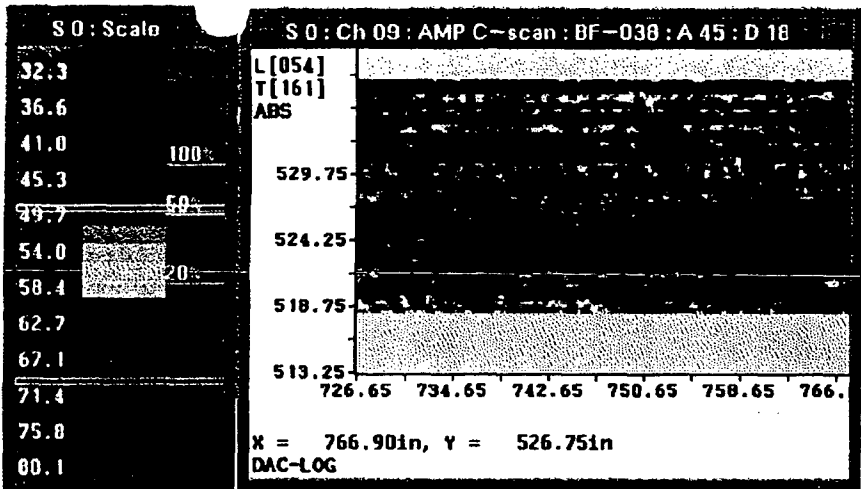
R1153



Top Term



R1153



DATA

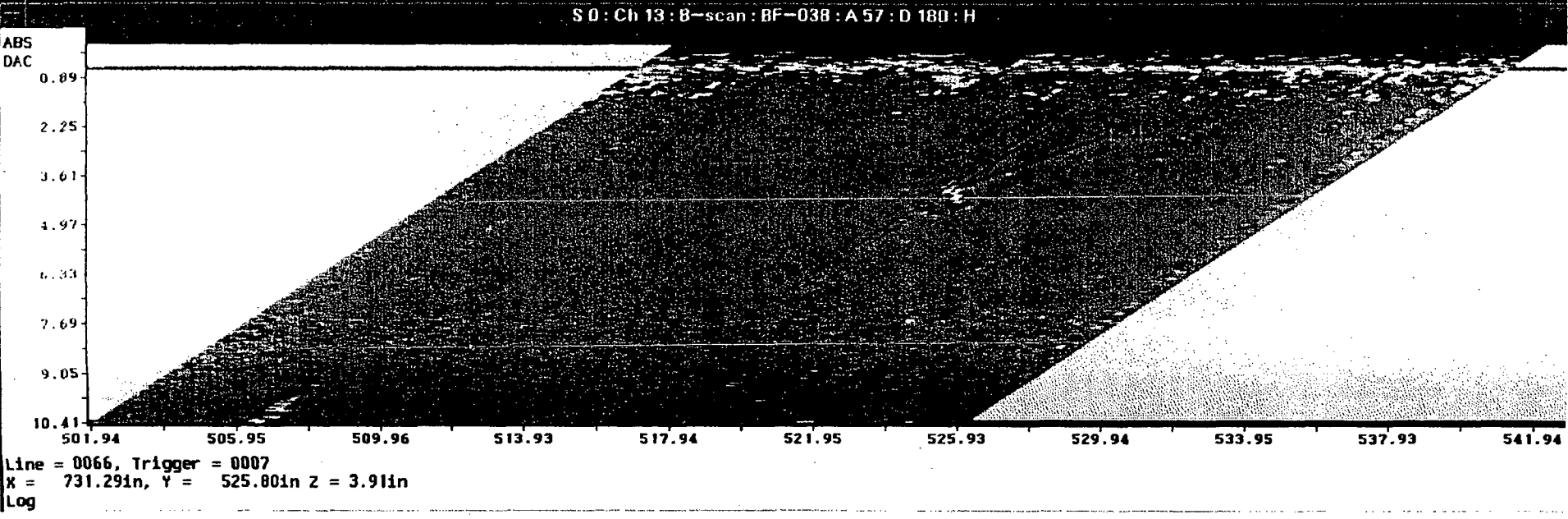
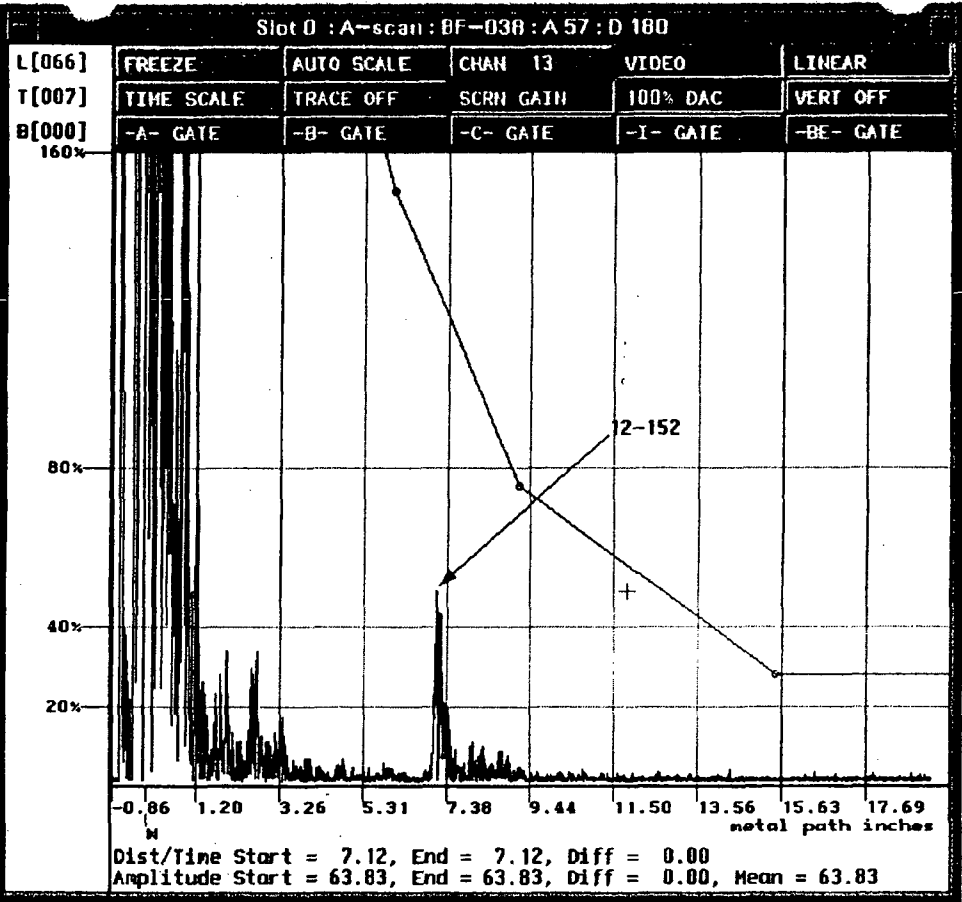
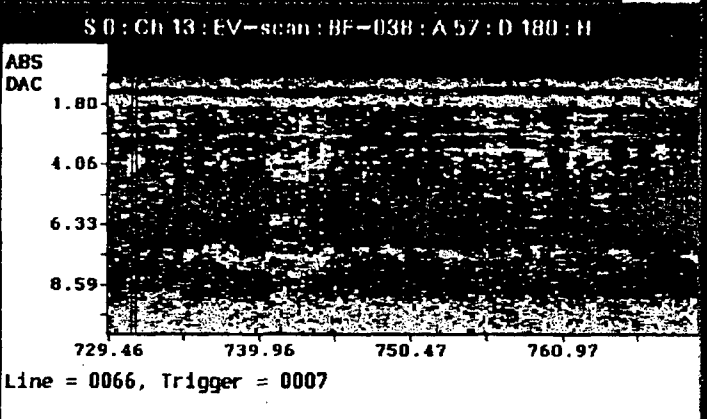
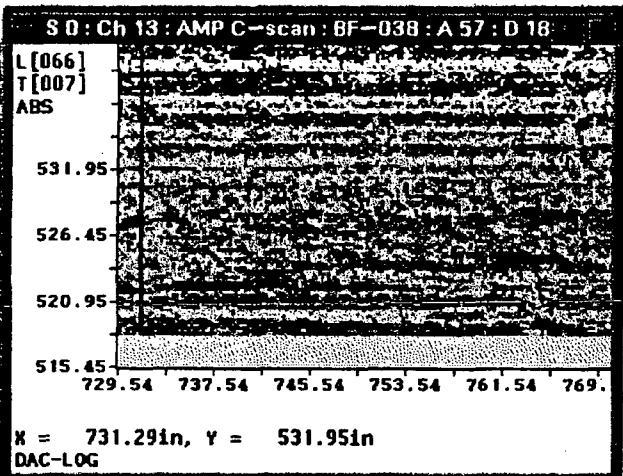
R153

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

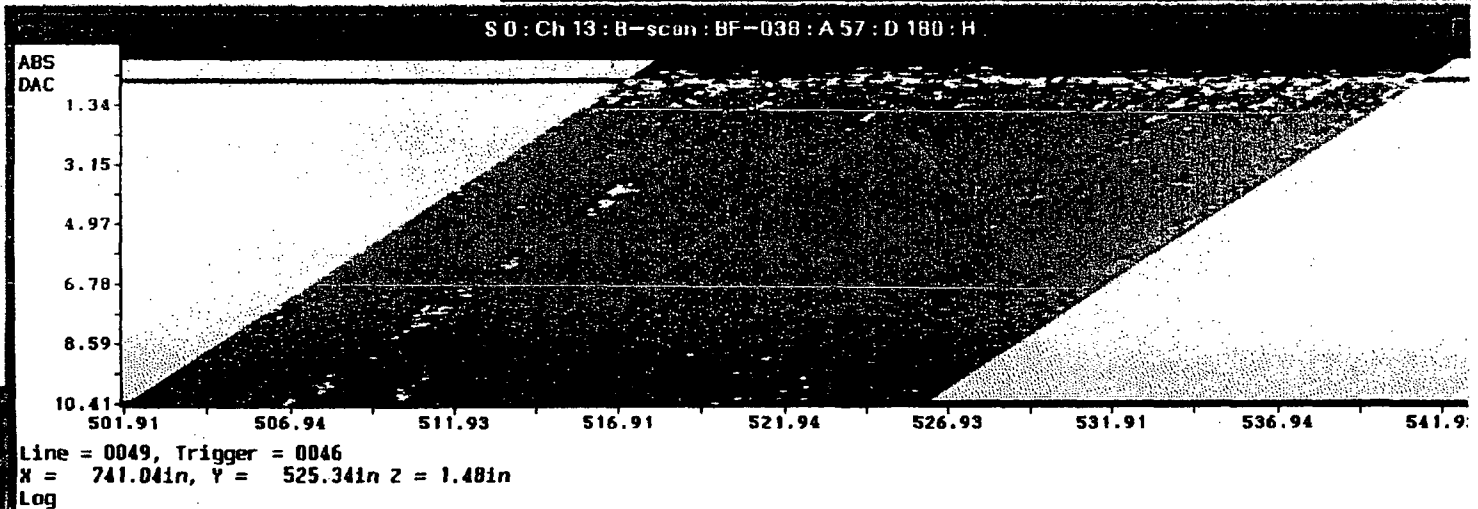
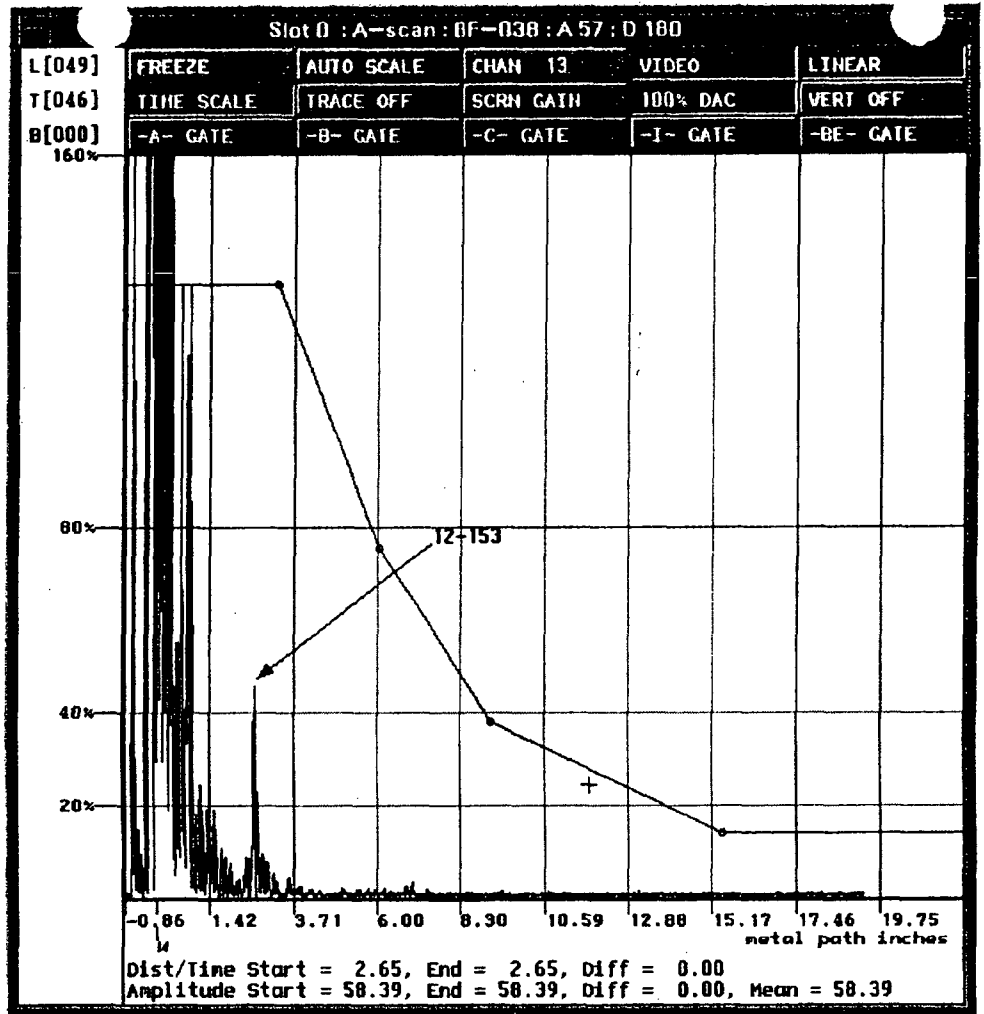
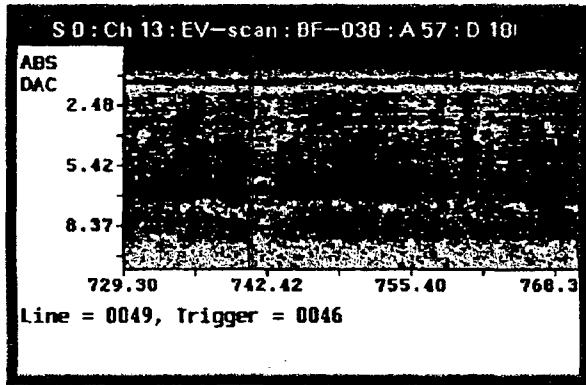
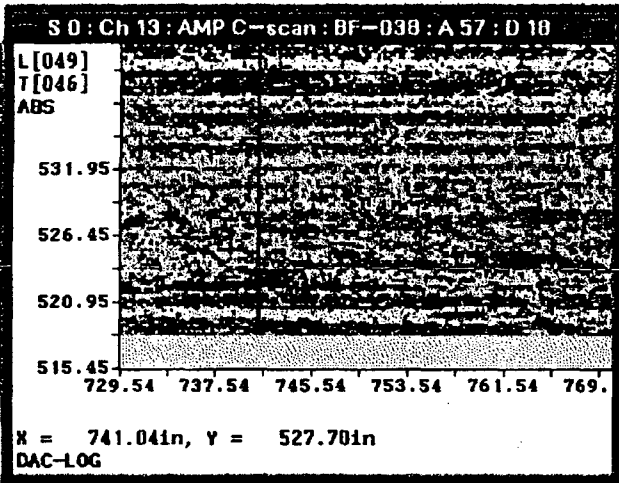


2-152

S 0 : Scale

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

DAC



ben by LIT

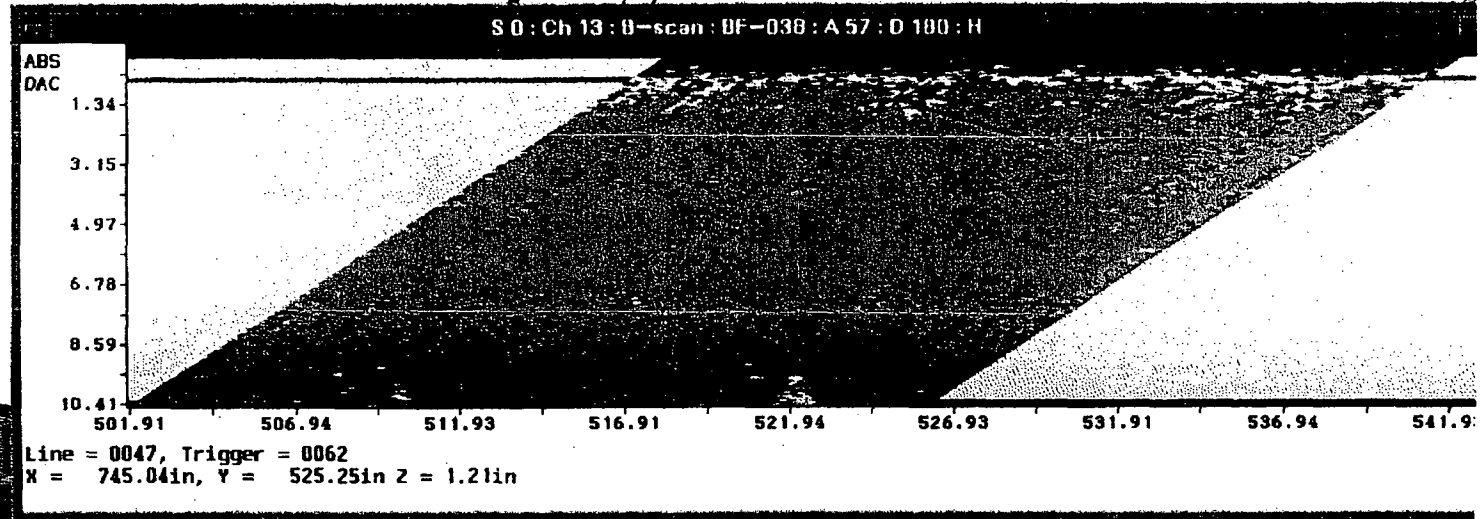
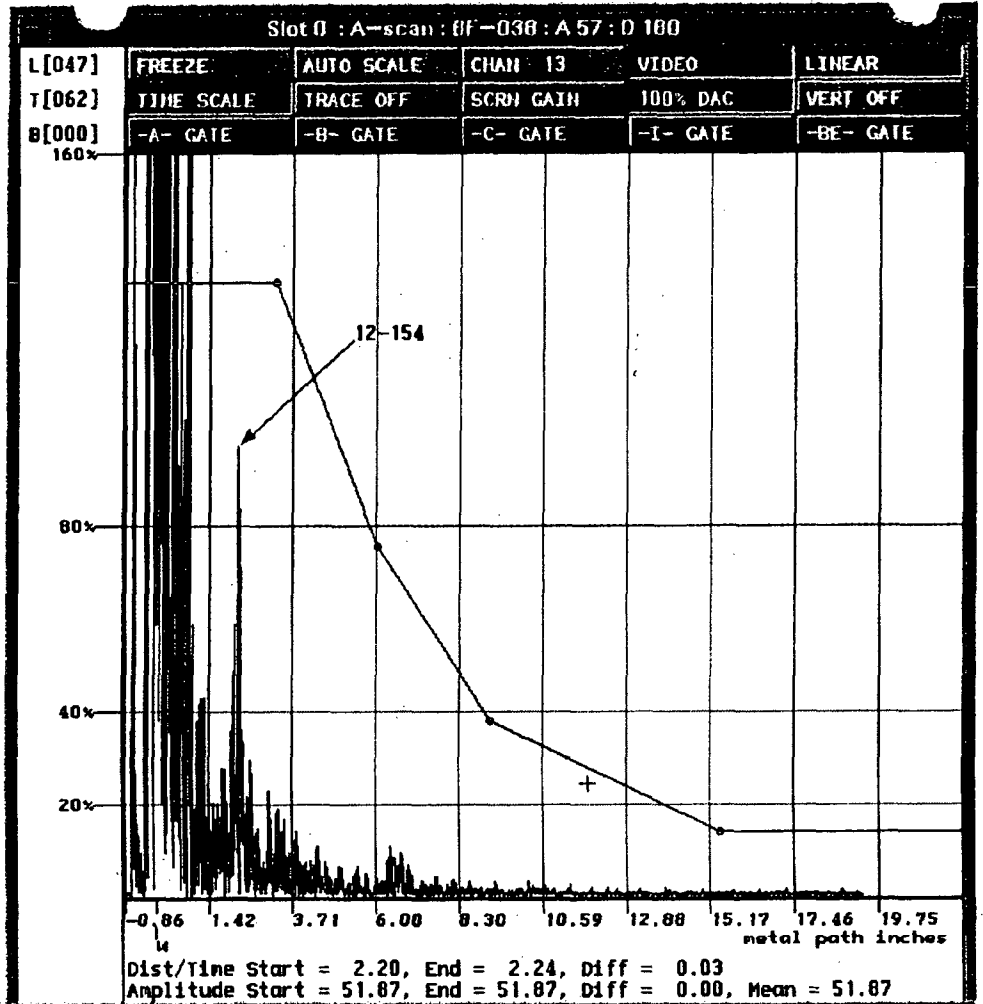
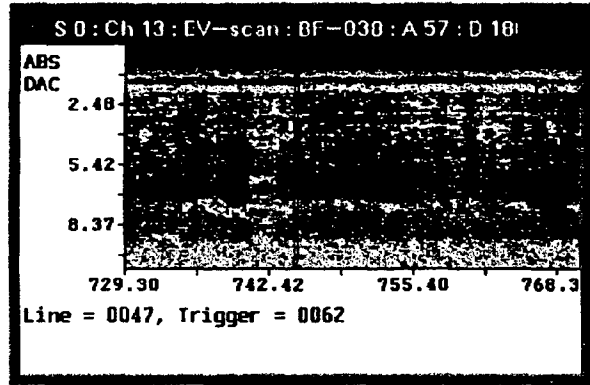
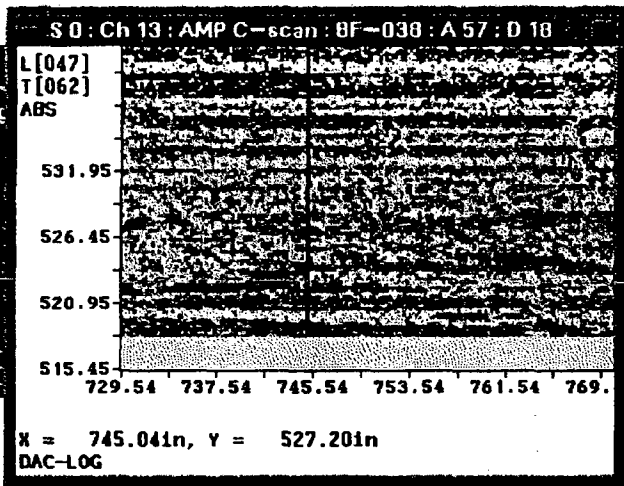
R1153

S 0 : Scale

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

100%
50%
20%

DAC



Lower Te
xtor3/12-154

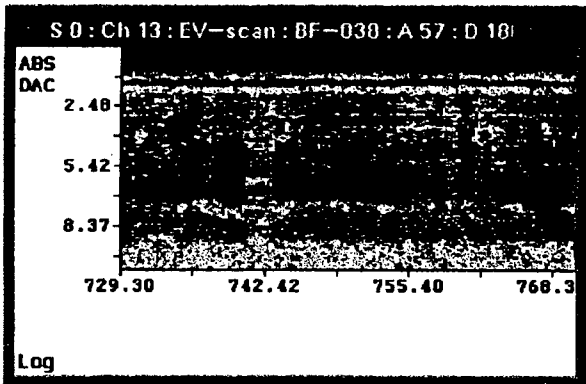
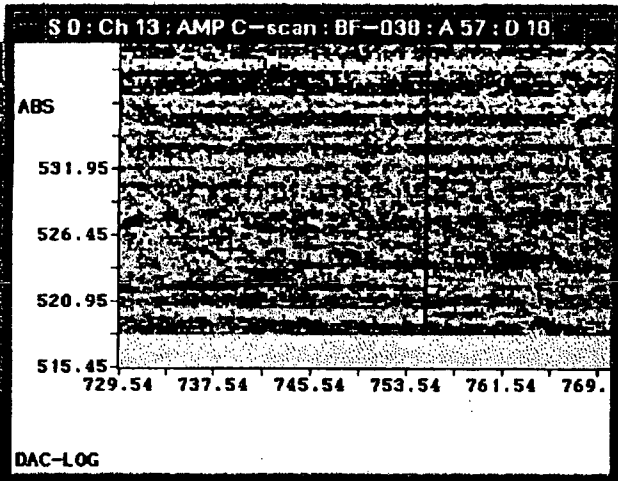
418 of 439

R153

S D : Scale

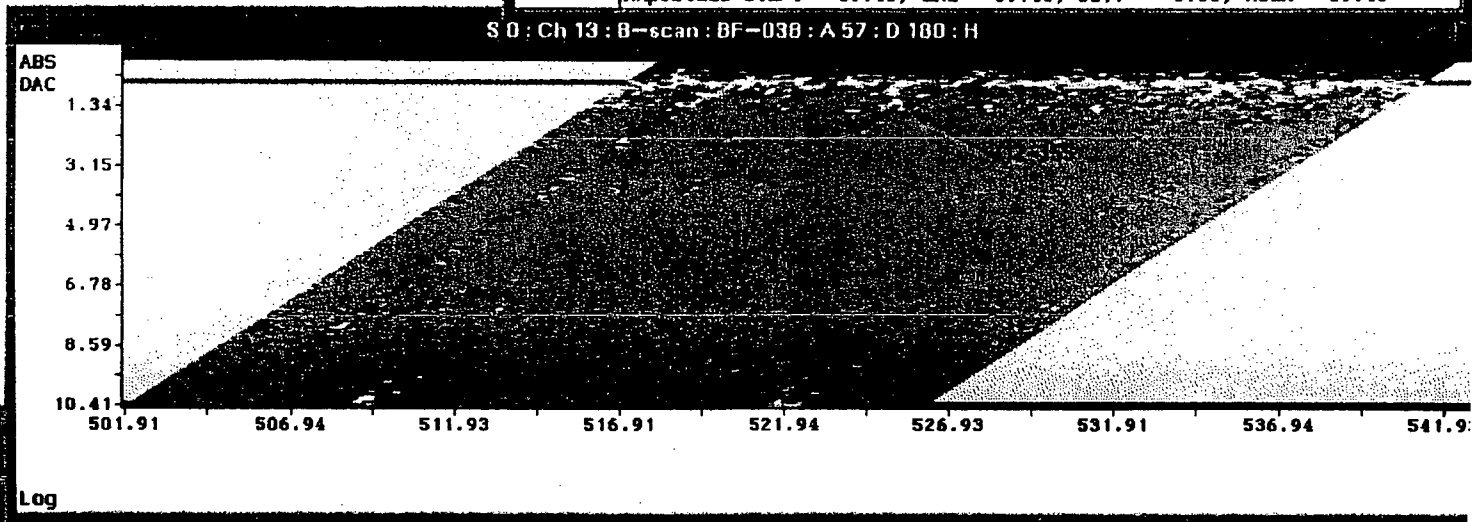
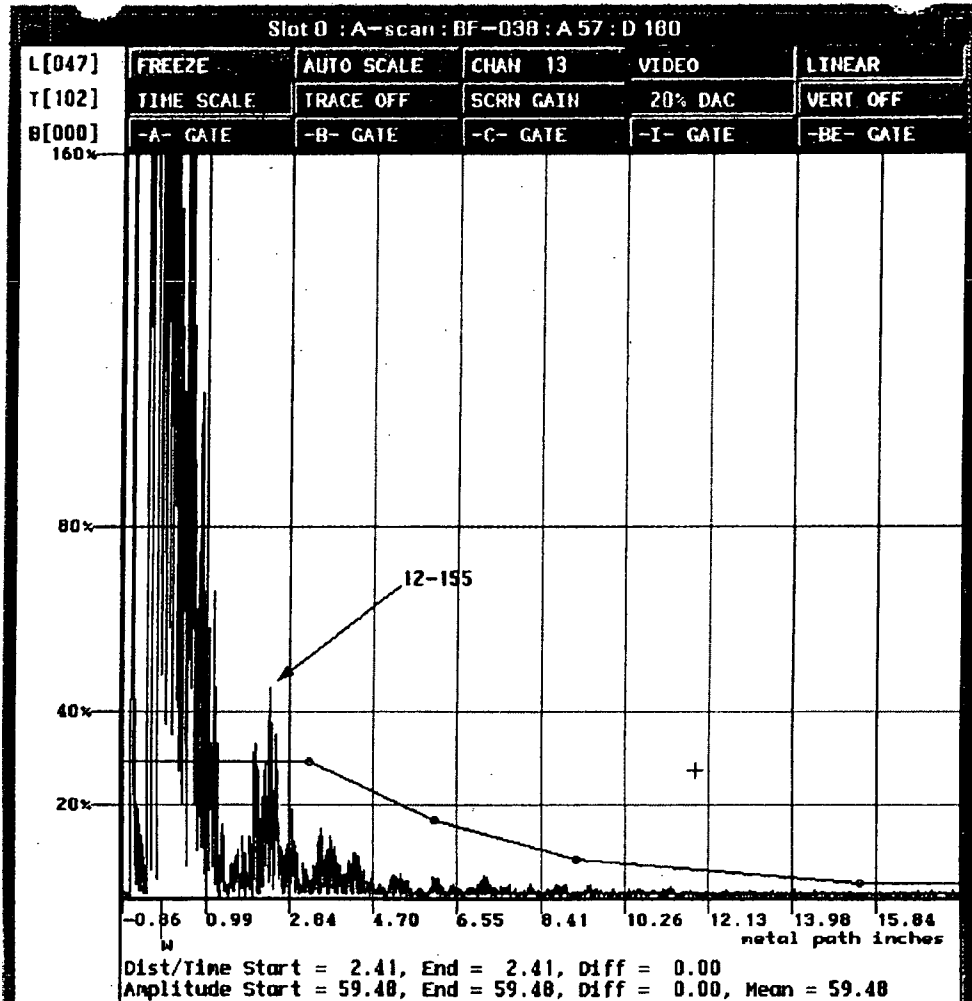
37.3
36.6
41.0
45.3
49.7 100%
54.0 50%
58.4
62.7 20%
67.1
71.4
75.8
80.1
84.5
88.8
93.2

DAC



Lower Temp
xtor3/12-155

62h 30 61h

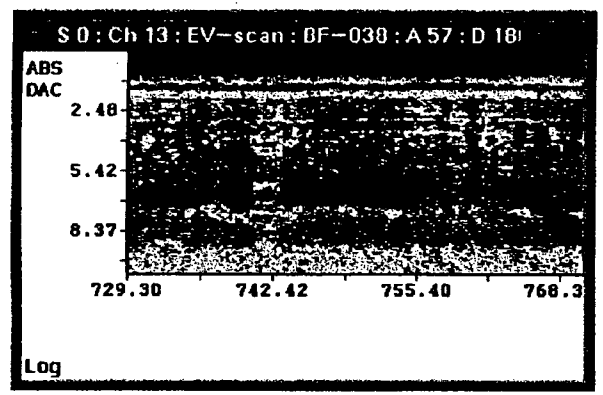
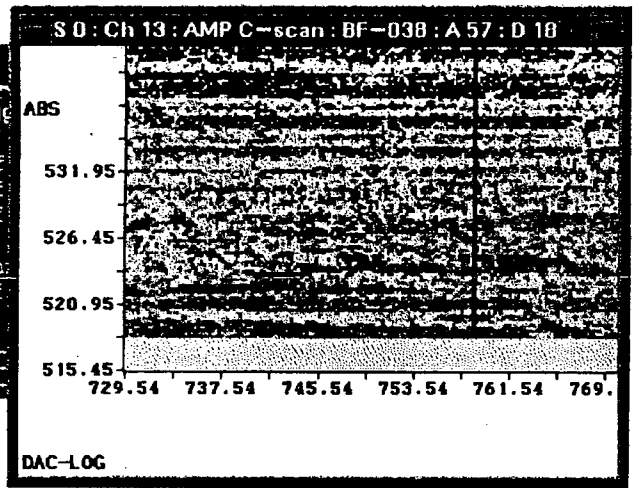


R1153

S 0 : Scale

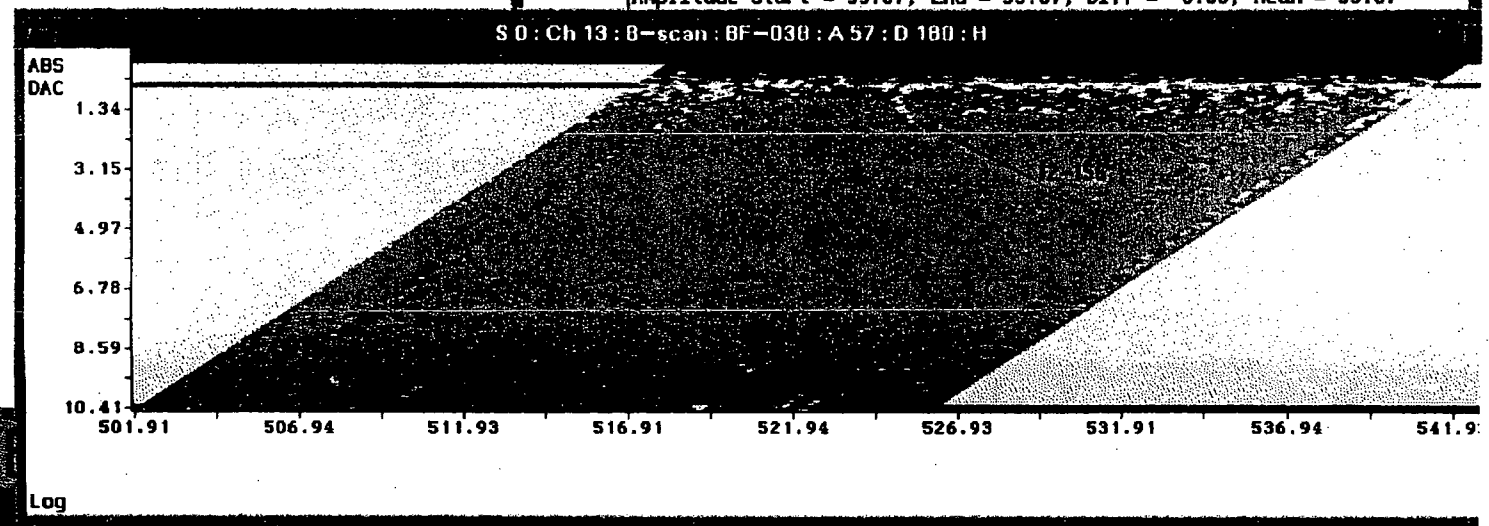
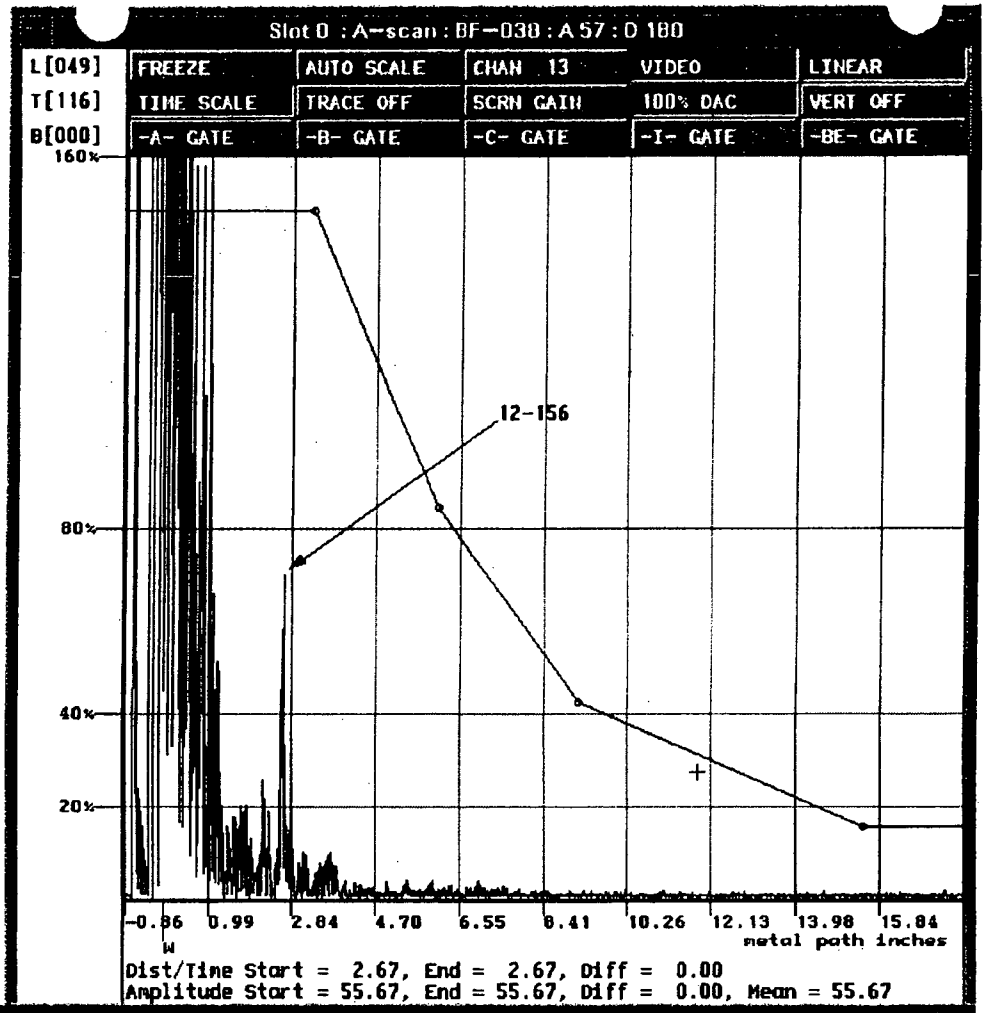
32.3
36.6
41.0
45.3
49.7 100%
54.0 50%
58.4
62.7 20%
67.1
71.4
75.8
80.1
84.5
88.8
93.2

DAC



Lower Te
xtor3/12-156

best for 02th



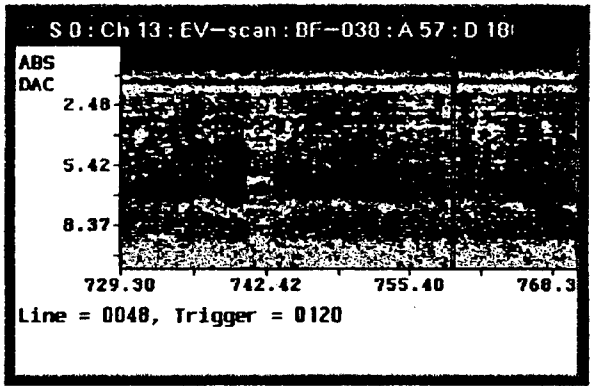
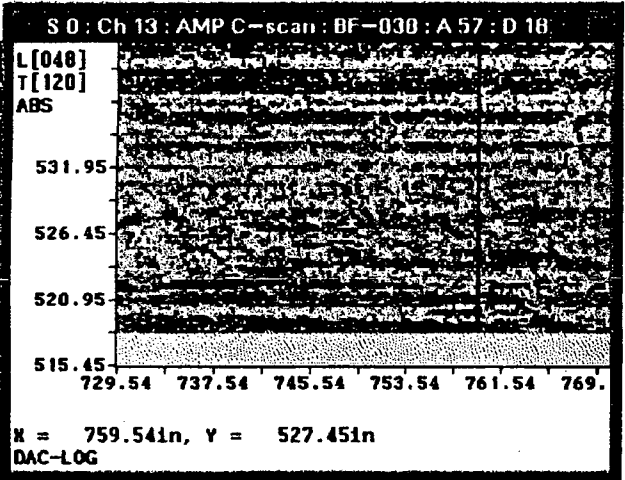
R1153

S 0 : Scale

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

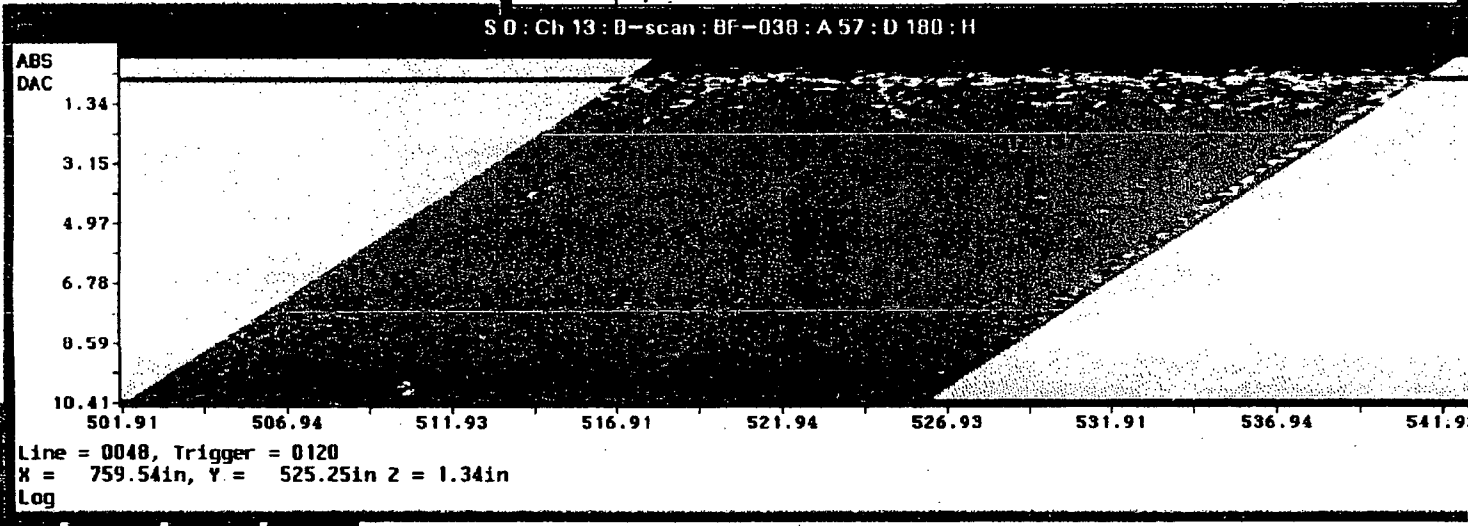
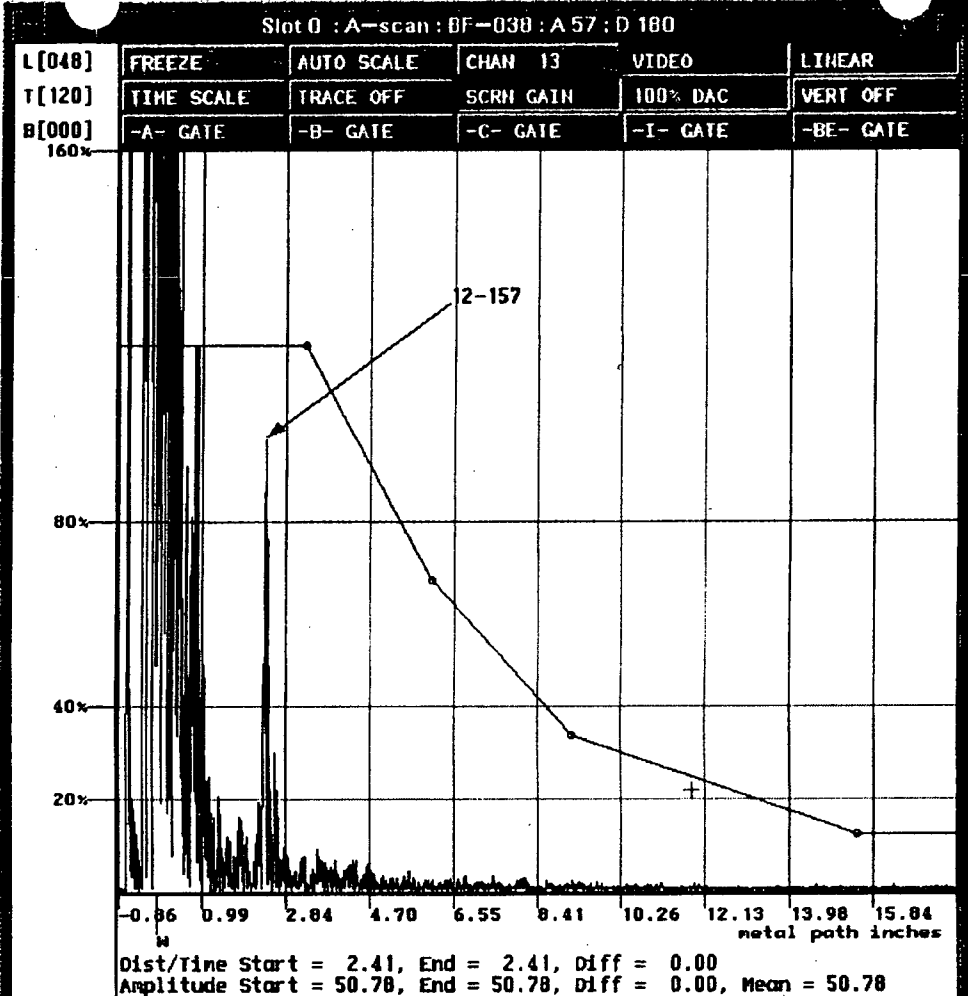
100%
50%
20%

DAC



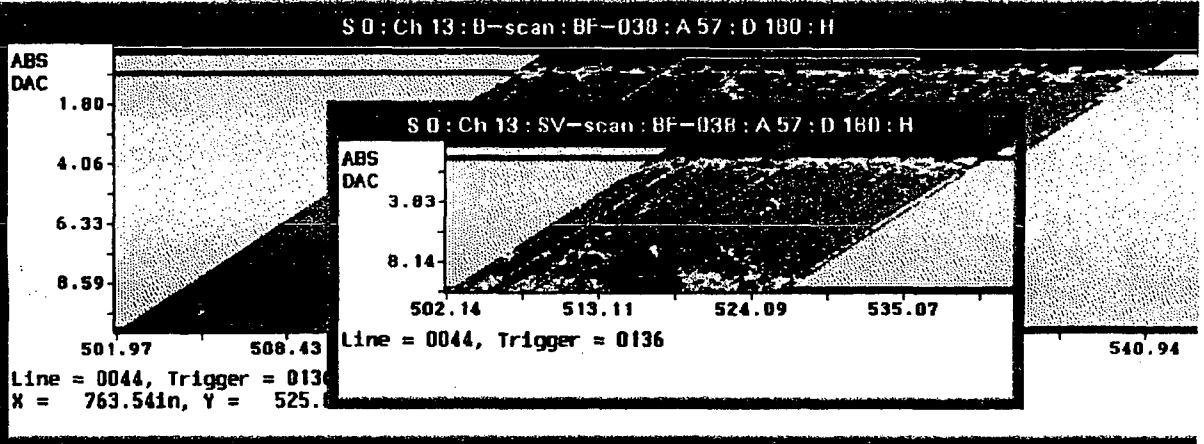
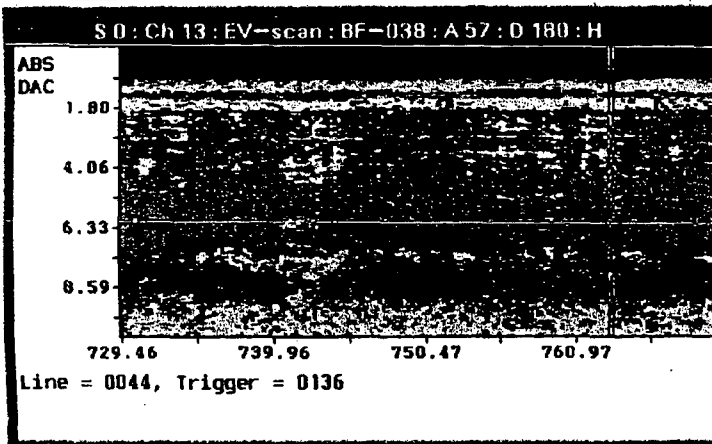
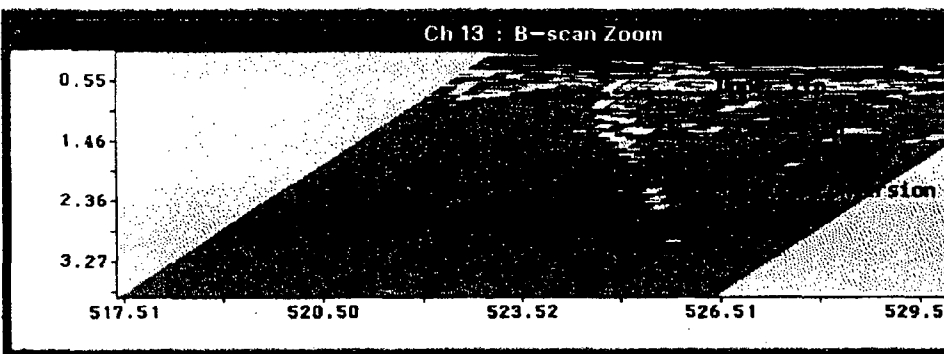
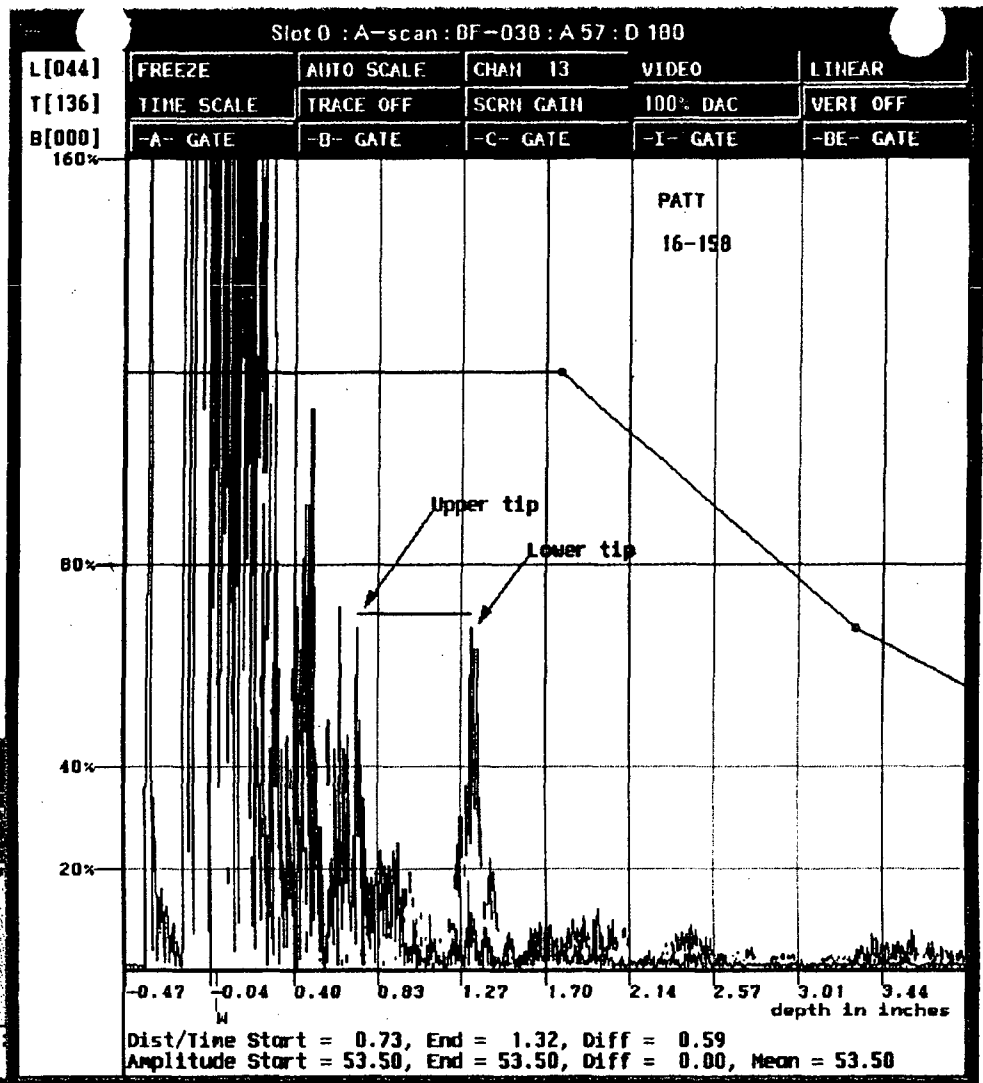
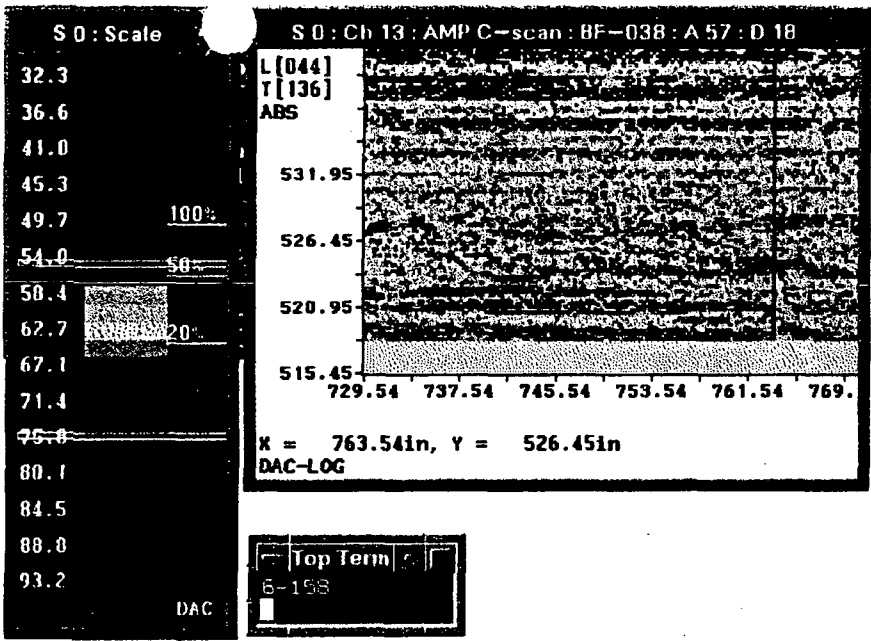
Lower Te
xtor3/12-157

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R153

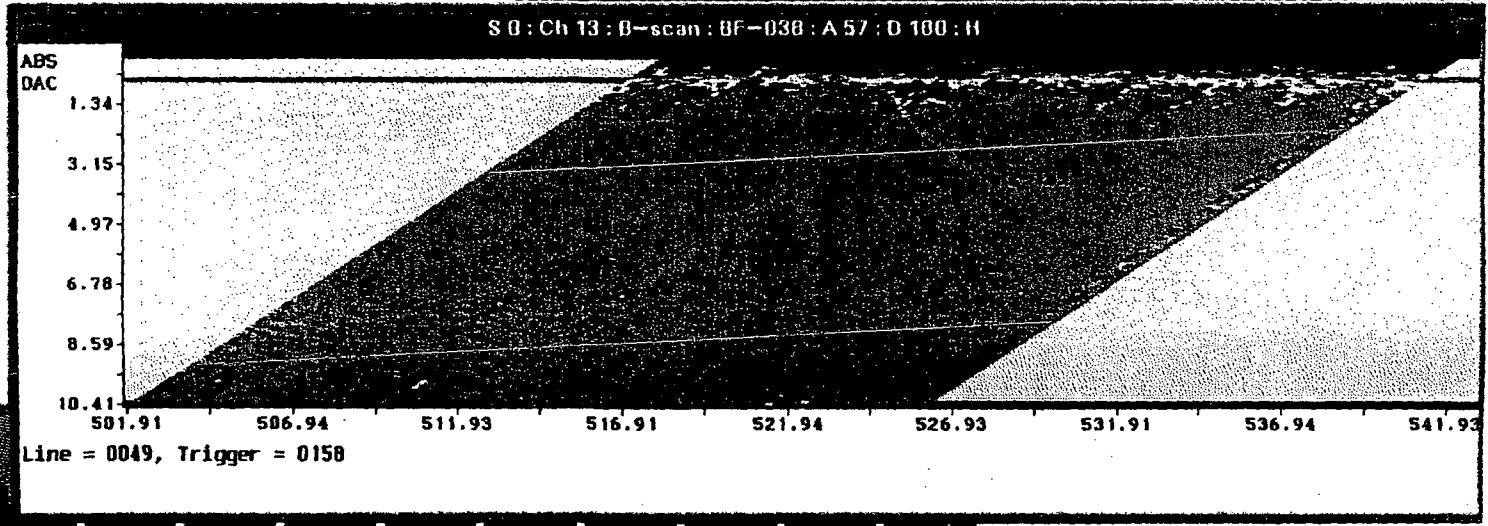
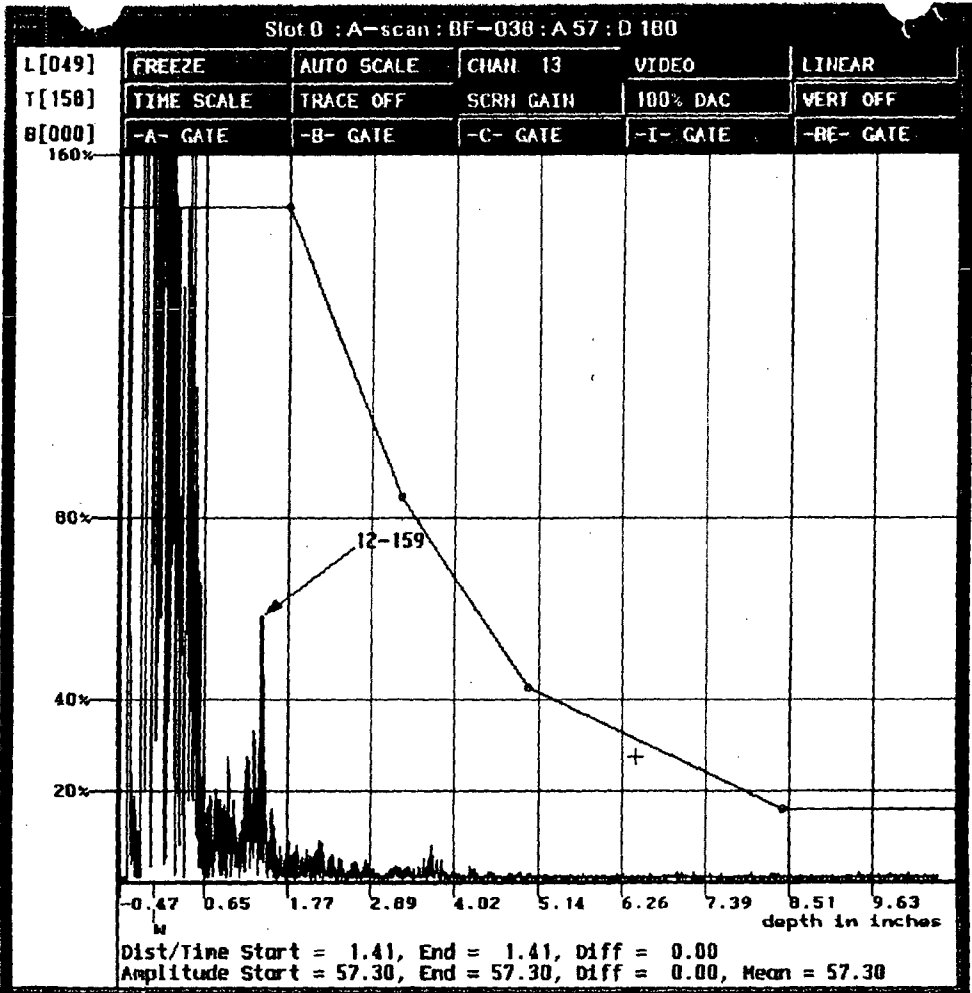
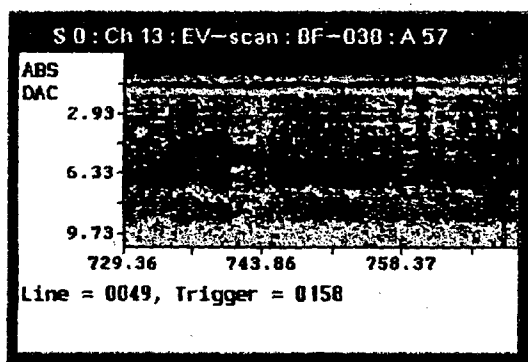
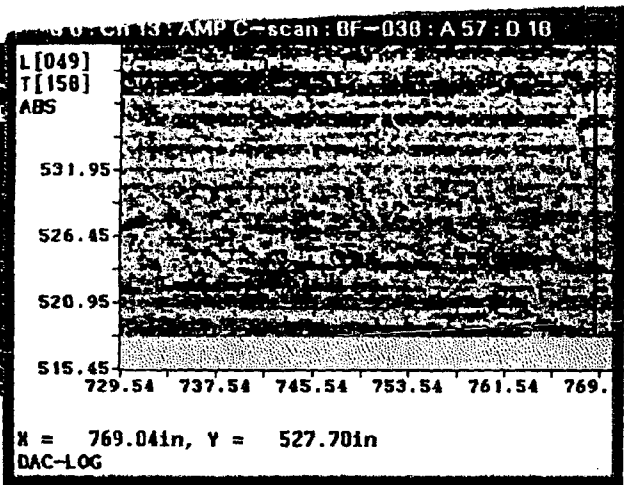


R1153

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

100%
50%
20%

DAC



423 of 439

000001 000000

R1153

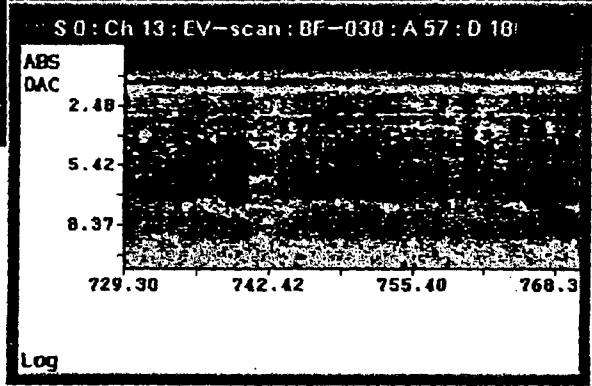
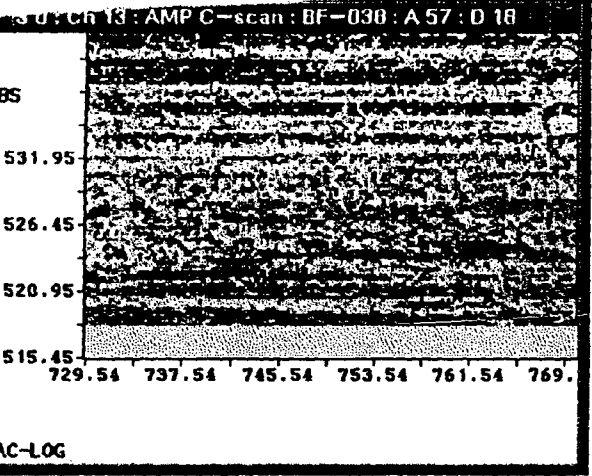
- 32.3
- 36.6
- 41.0
- 45.3
- 49.7
- 54.0
- 58.4
- 62.7
- 67.1
- 71.4
- 75.8
- 80.1
- 84.5
- 88.8
- 93.2

100%

50%

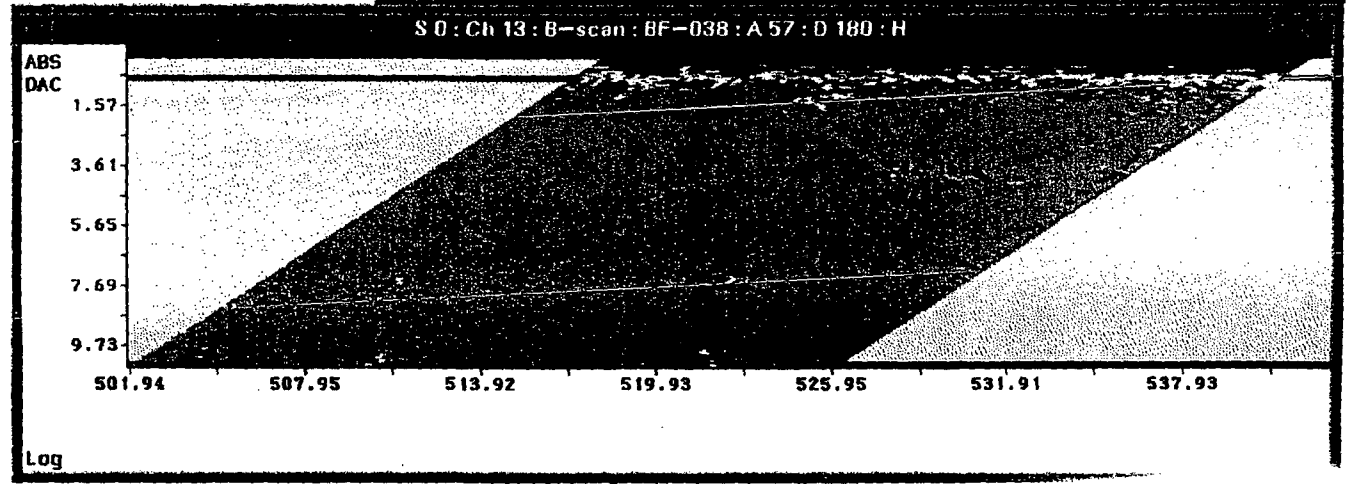
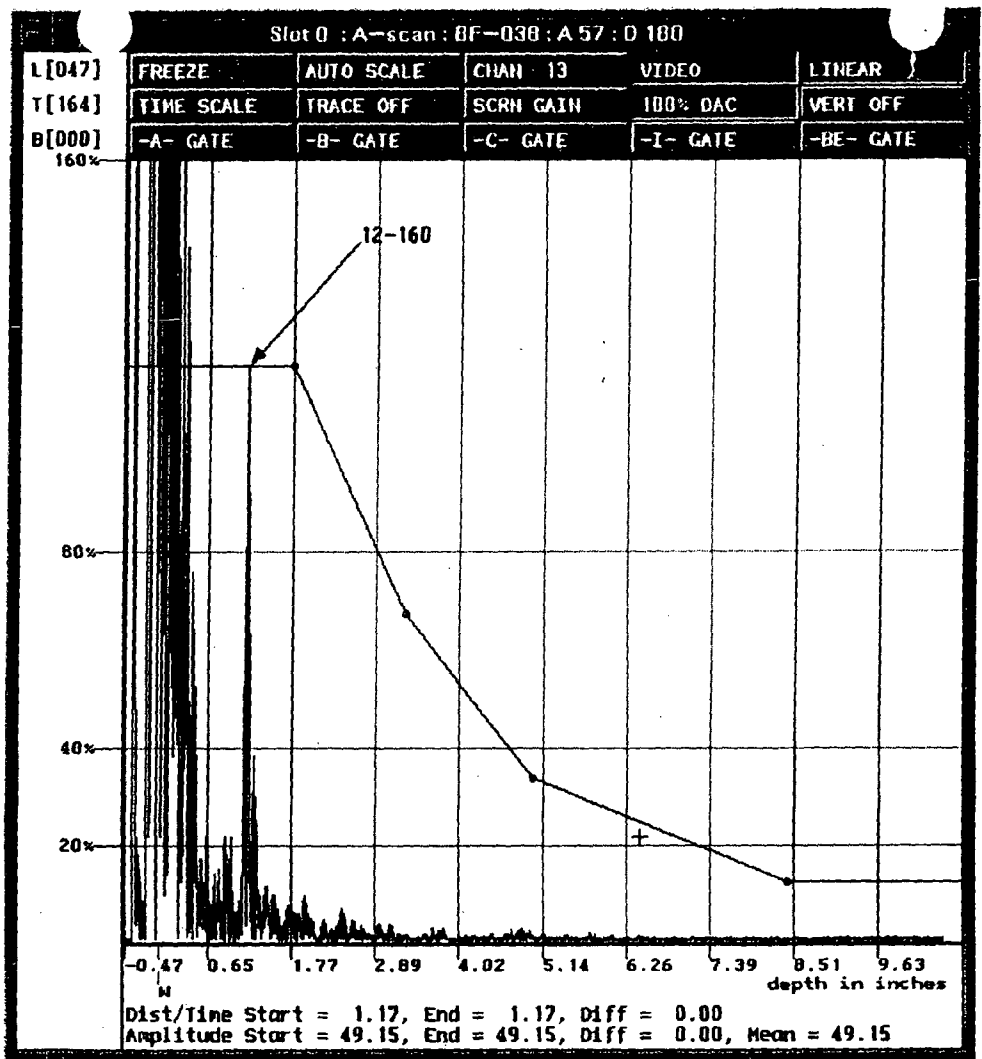
20%

DAC

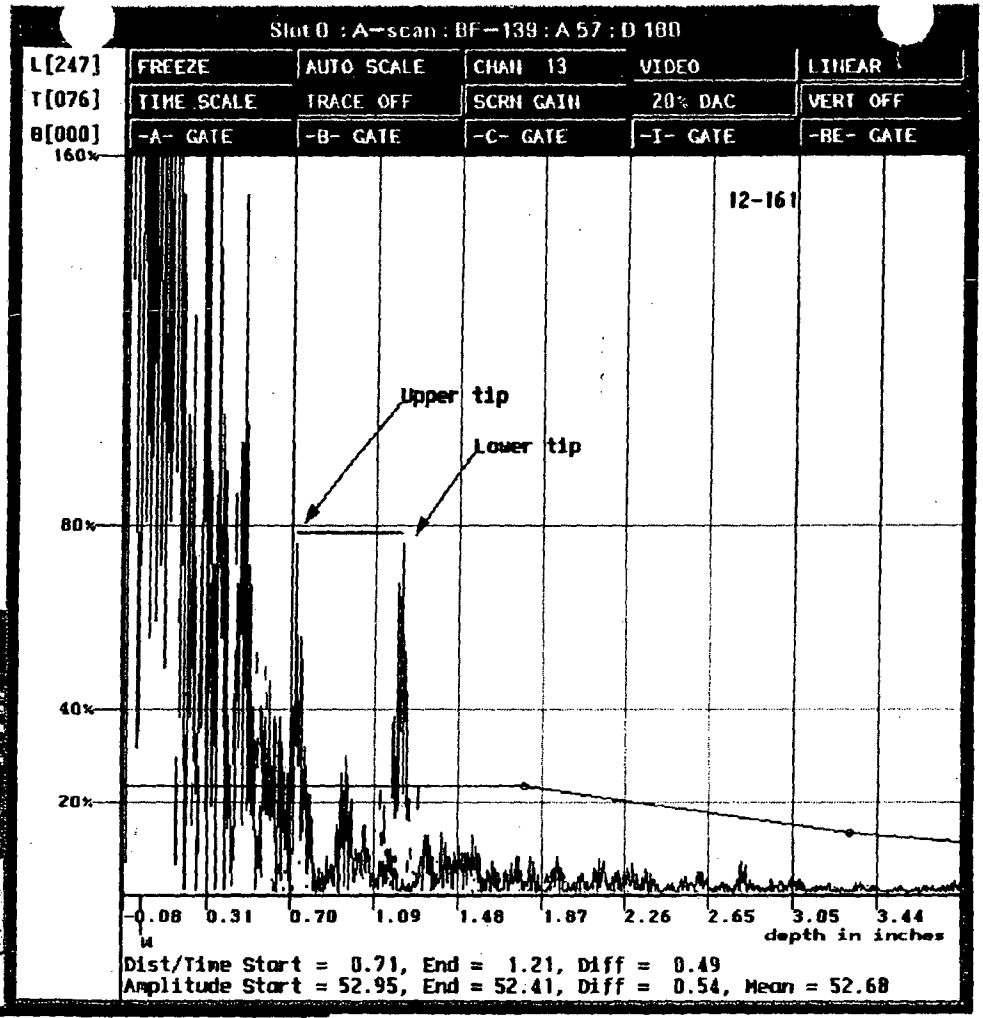
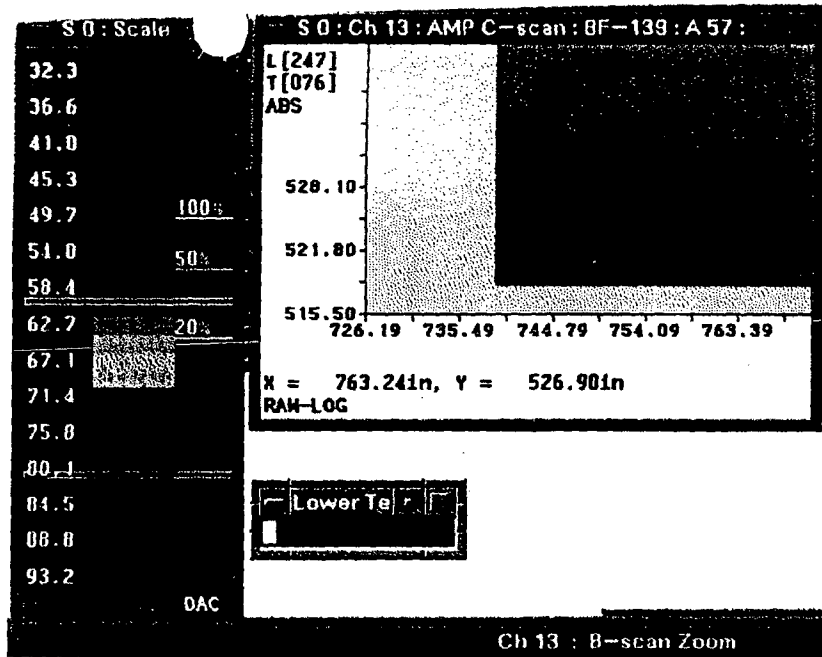


Lower Temp
tor3/12-160

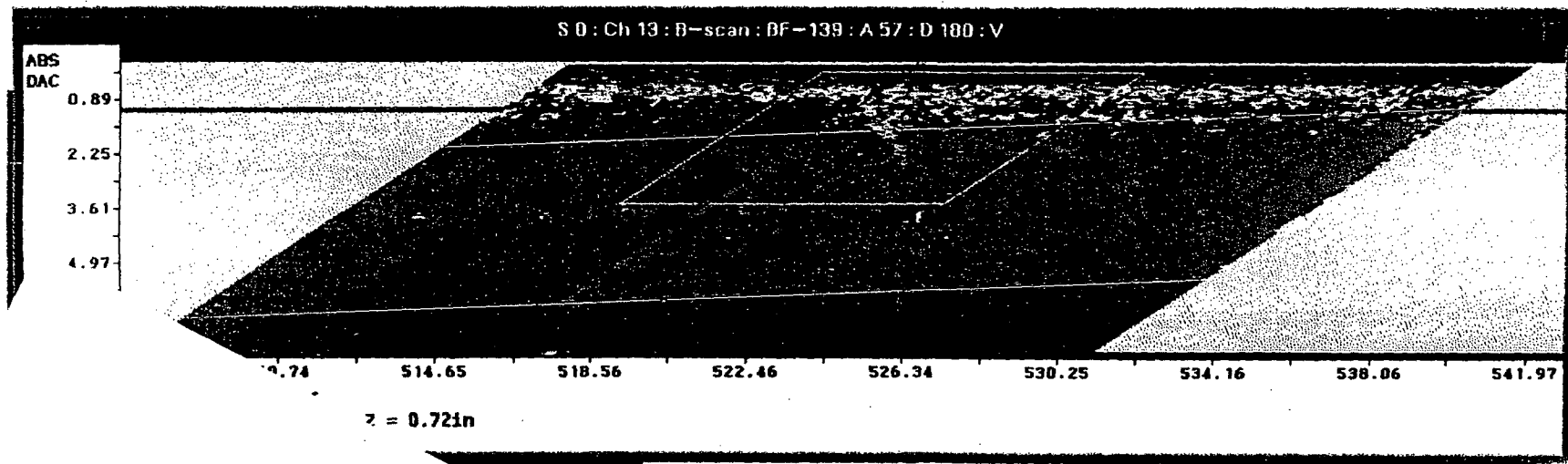
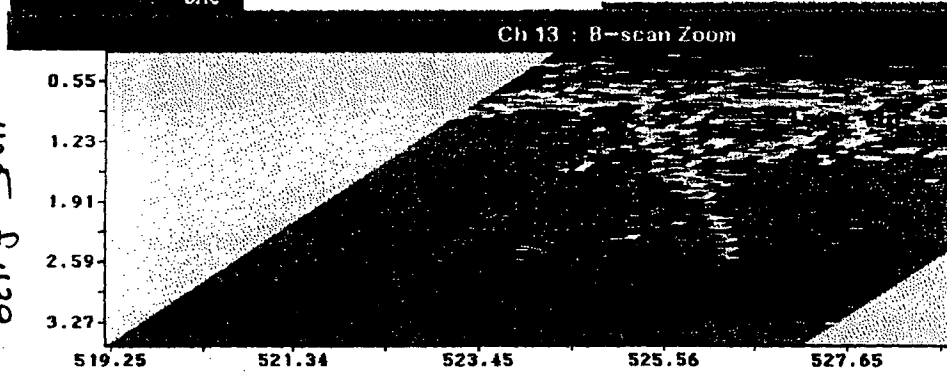
65h of 439



R1153



beh for set



R1153

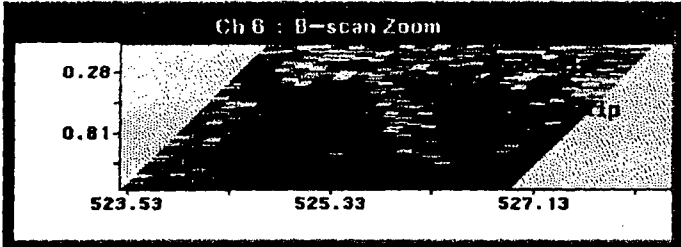
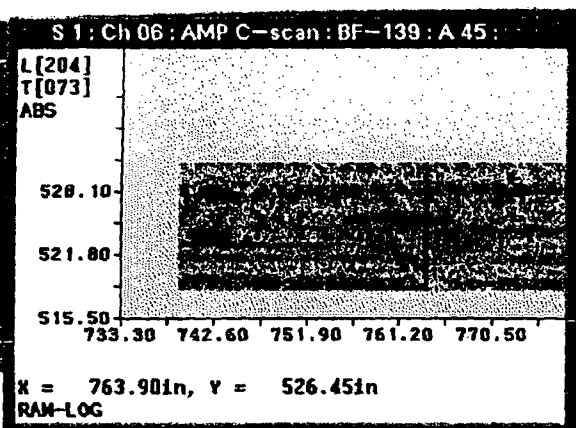
R1153

S 1: Scale

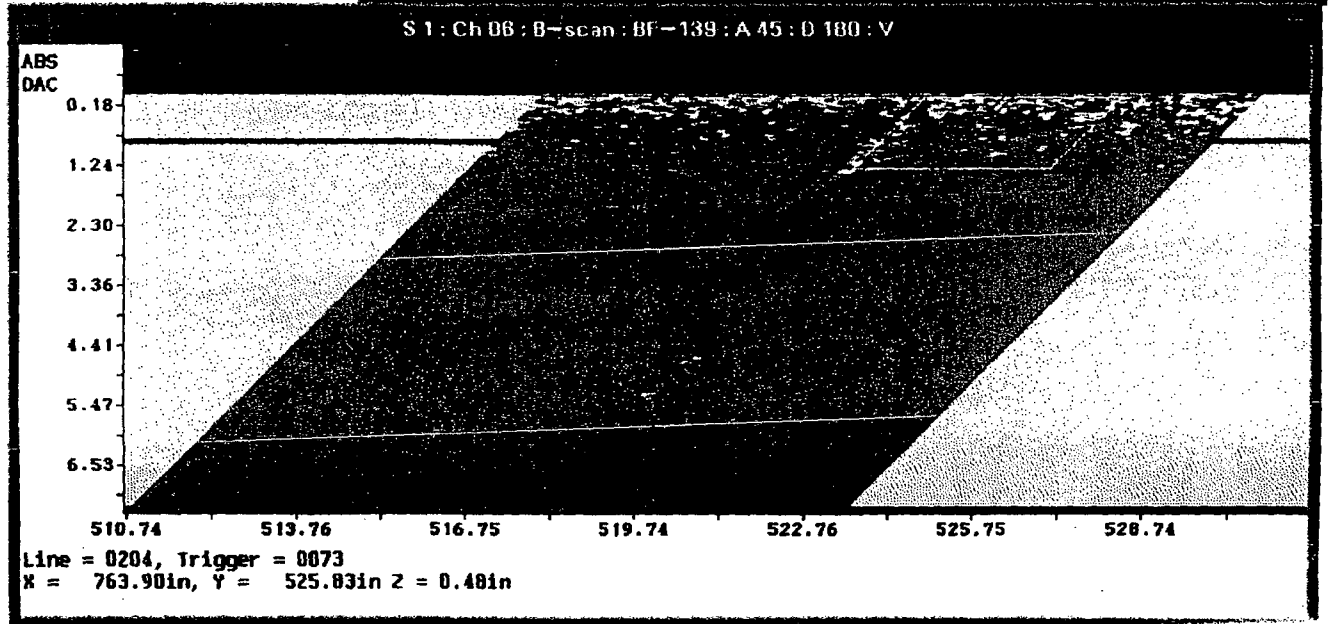
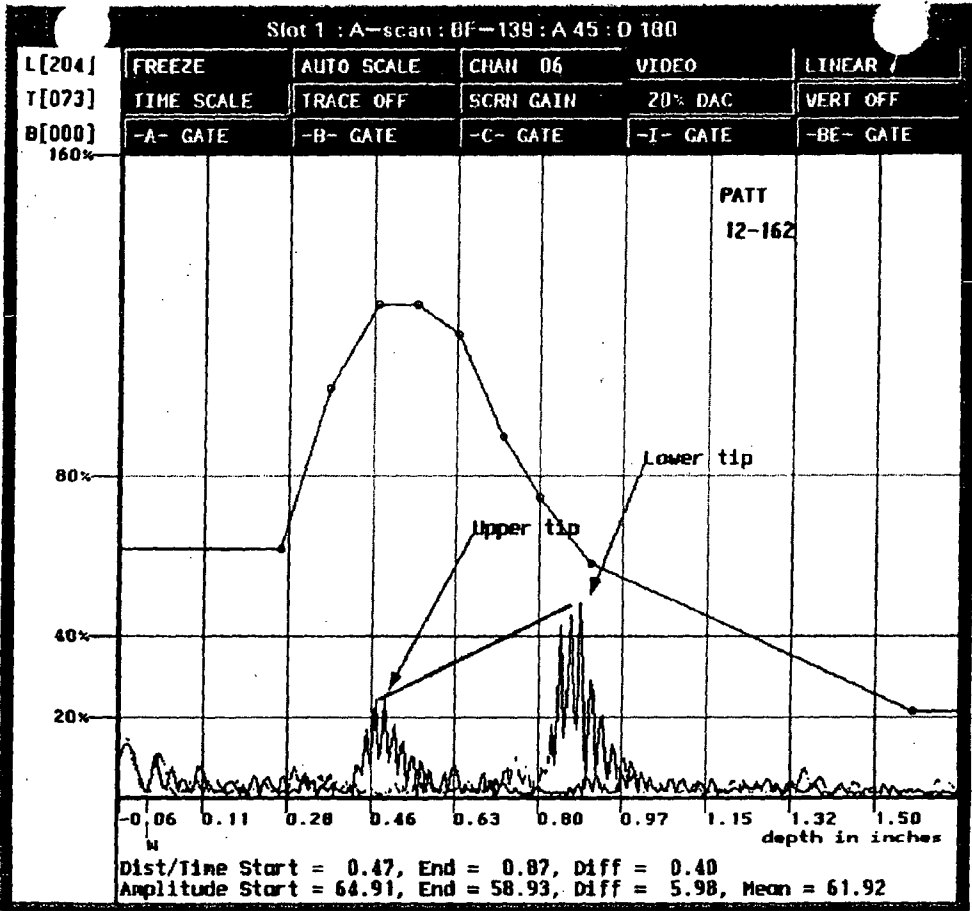
32.3
36.6
41.0
45.3
49.7
54.0
58.4
62.7
67.1
71.4
75.8
80.1
84.5
88.8
93.2

100%
50%
20%

DAC

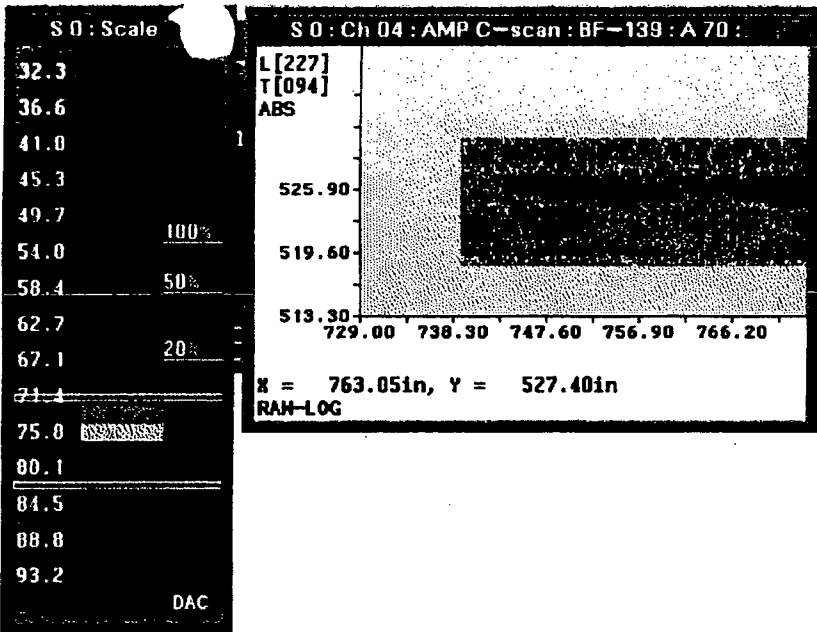


Lower Te

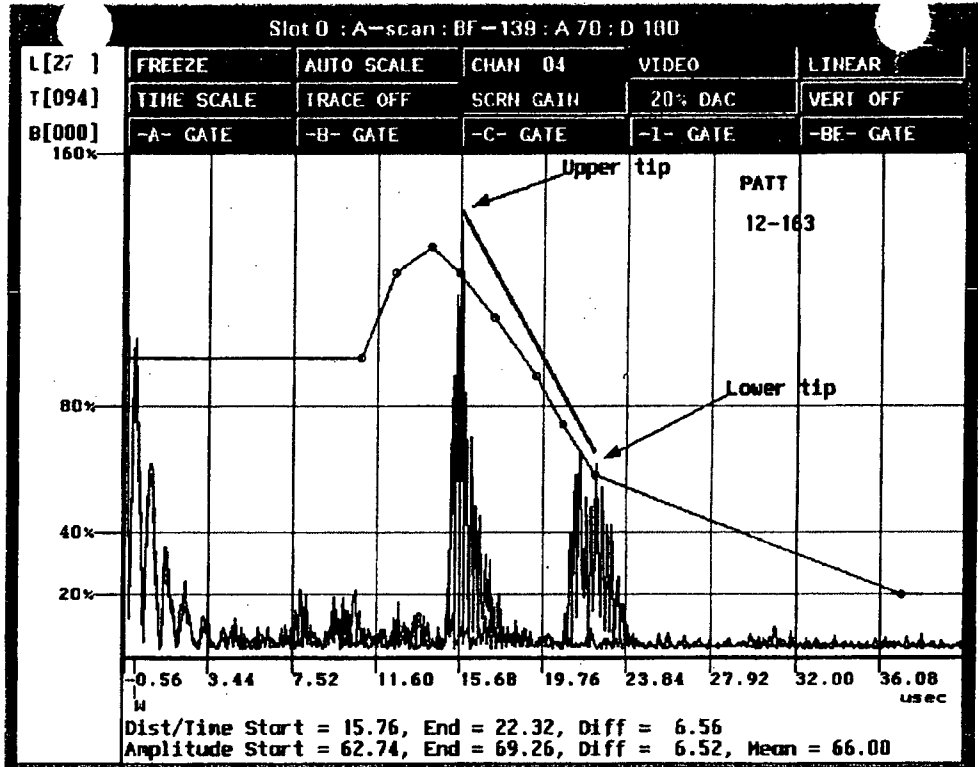


426 of 439

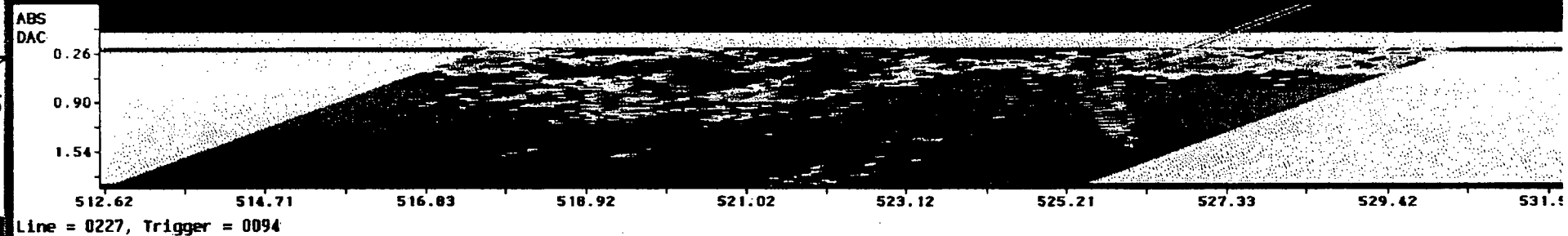
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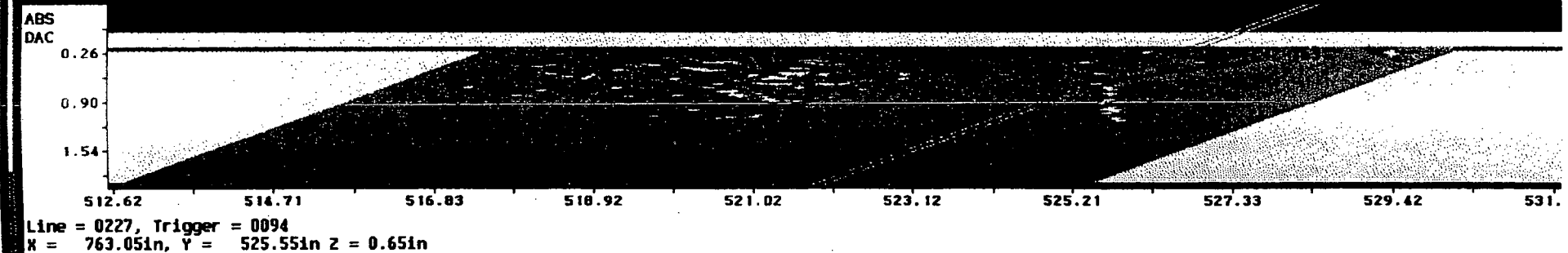
Lower Term
163



S 0 : Ch 04 : SV-scan : BF-139 : A 70 : D 180 : V

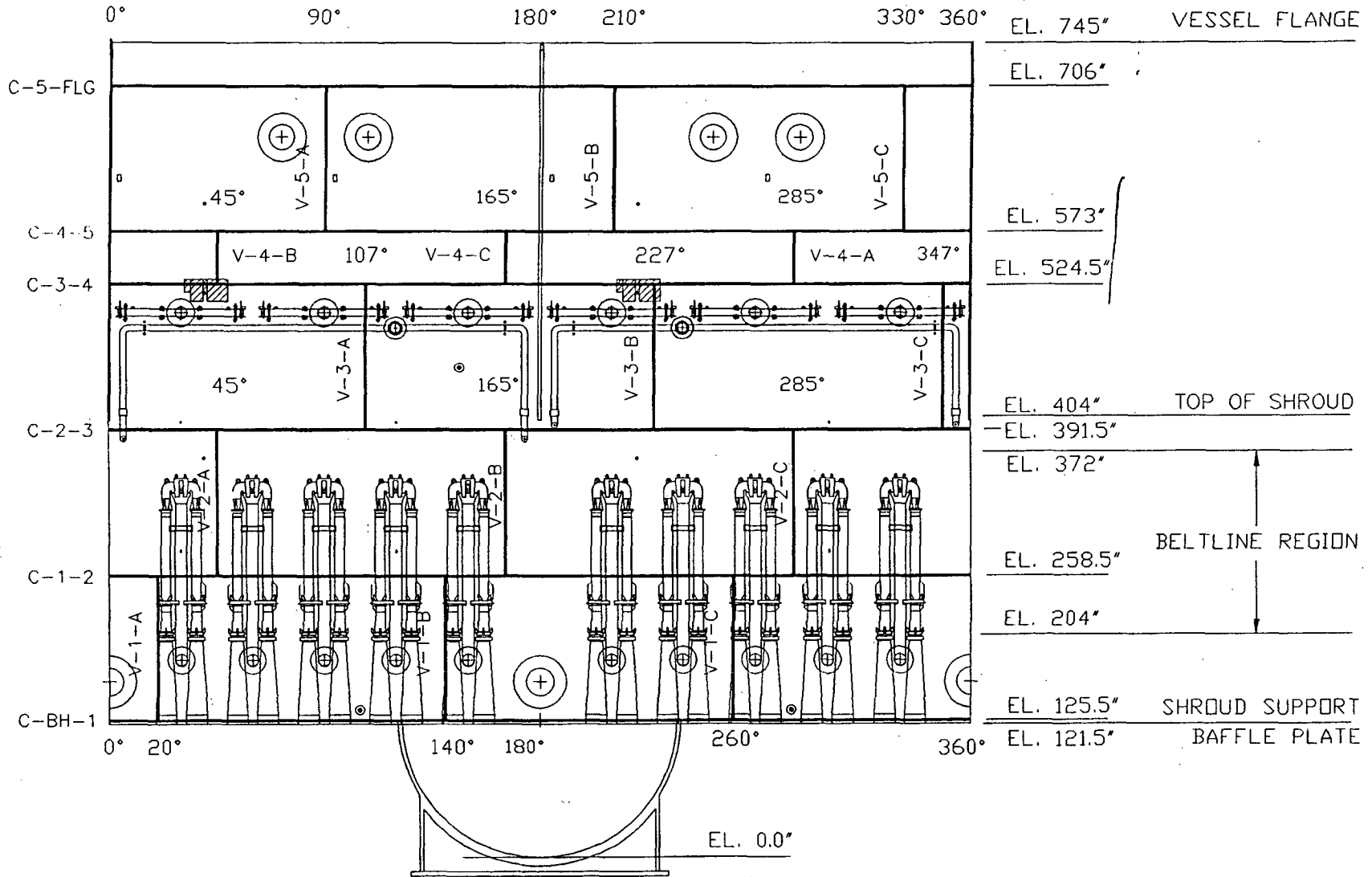


S 0 : Ch 04 : B-scan : BF-139 : A 70 : D 180 : V



R1153

BROWNS FERRY UNIT-3 WELD LOCATIONS



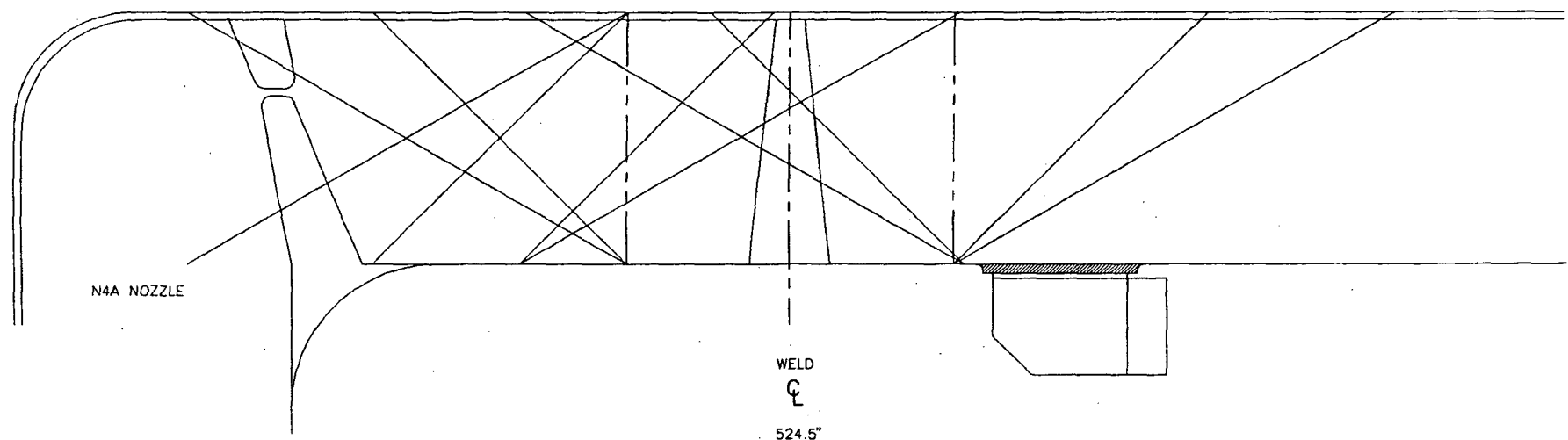
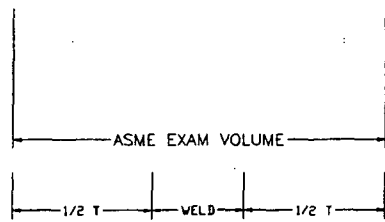
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R1153

R1153

0000 248

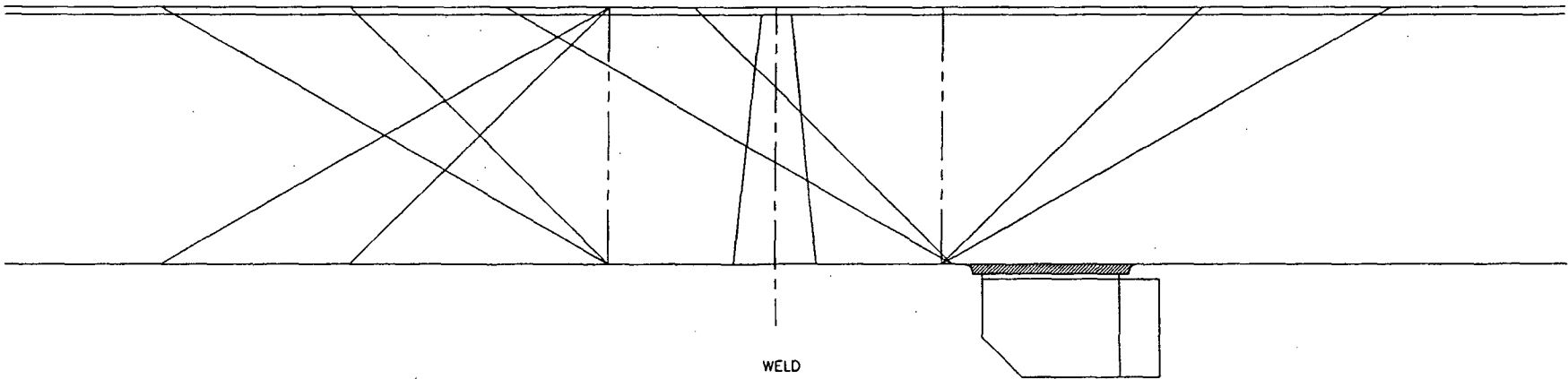
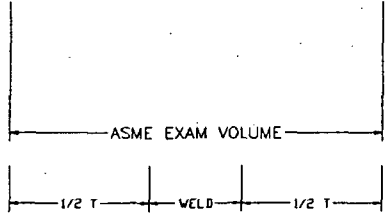
R1153



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

429 of 439

GE NUCLEAR ENERGY	BROWNS FERRY UNIT 3	WELD C-3-4 MANUAL PICKUP	SCALE: NONE	DWG. MANC-3-4	REV. 0
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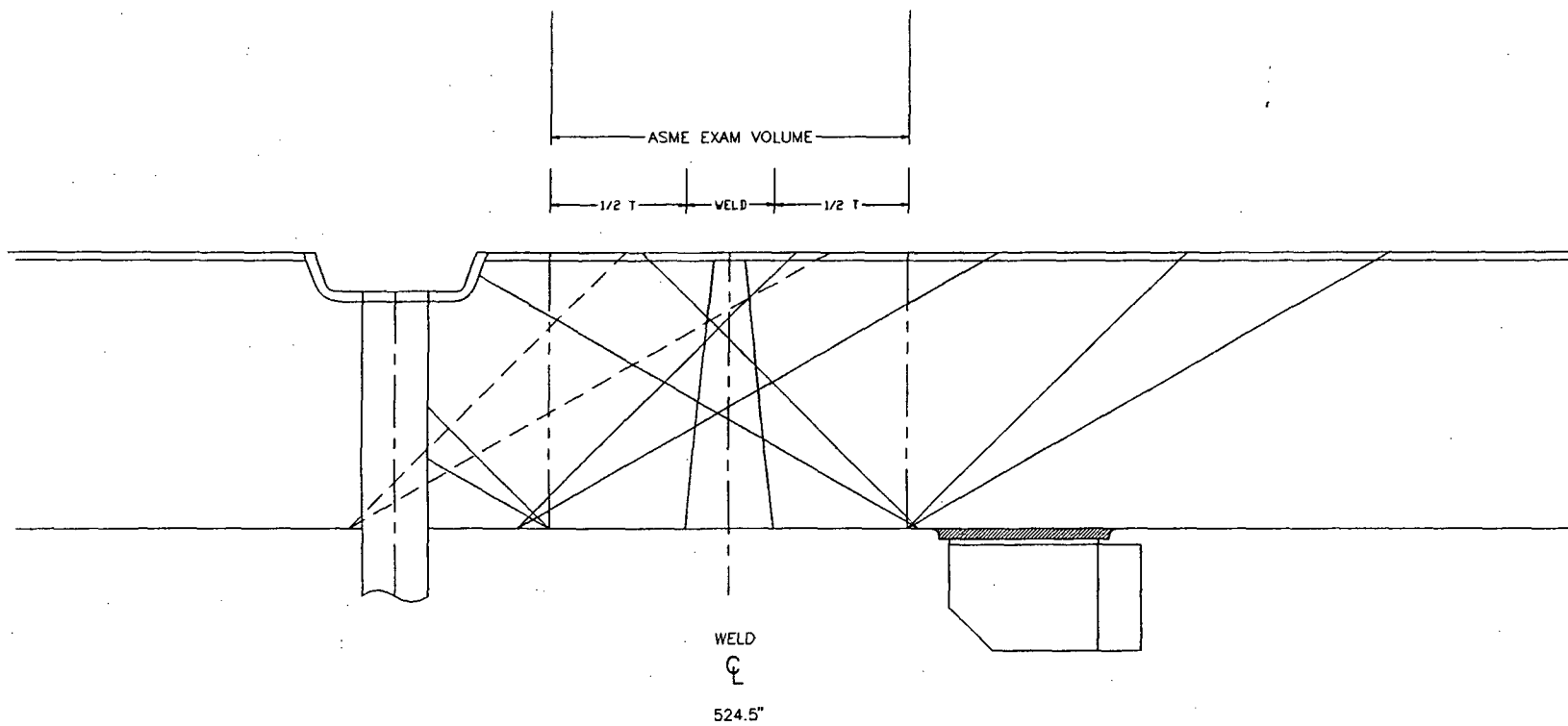
WELD
 Ⓢ
 524.5"

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

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R1153

GE NUCLEAR ENERGY	BROWNS FERRY UNIT 3	WELD C-3-4 MANUAL PICKUP	SCALE: NONE	DWG. MANC-3-4	REV. 0
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Nominal Clad T = 3/16"
 Nominal Base Metal T = 6 3/8"

431 of 432

0000 2000

R1153

GE NUCLEAR ENERGY	BROWNS FERRY UNIT 3	WELD C-3-4 MANUAL PICKUP	SCALE: NONE	DWG. MANC-3-4	REV. 0
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ULTRASONIC EXAMINATION DATA SHEET

(MANUAL RPV VESSEL WELDS)

SITE: BROWNS FERRY

PROCEDURE NO.: GE-UT-300

REPORT NO.: E-12

UNIT: 3

REVISION NO.: 6

DATA SHEET NO.: D-045

PROJECT NO.: 00387

FRR NO.: 004

CALIBRATION SHEET NO.: 0° N/A

45° N/A 60° C-117

SYSTEM: RPV EXAM SURFACE TEMP: 73 °F COUPLANT: Ultragel E EXAM START: 1238

WELD ID: C-3-4 THERMOMETER S/N: L0250CL BATCH NO.: 093011 EXAM END: 1245

BEAM ANGLE: 0° 45° 60° OTHER N/A SURFACE CONDITION: SMOOTH GROUND OTHER N/A

MATERIAL TYPE: CS SS OTHER N/A EXAM SURFACE: ID OD

L₀ REFERENCE VESSEL 0°

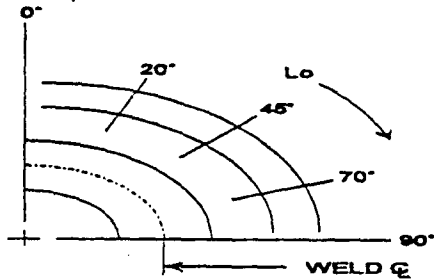
0° SCAN SENSITIVITY N/A dB

W₀ REFERENCE WELD E

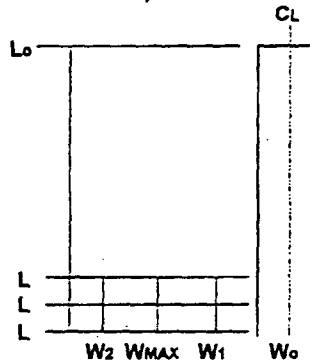
45° SCAN SENSITIVITY N/A dB

60° SCAN SENSITIVITY 7.3 dB

NOZZLE WELD REFERENCE SYSTEM (L₀ AND W₀ ARE INTERCHANGED WHEN SCANNING FOR REFLECTORS TRANSVERSE TO THE WELD)



WELD REFERENCE SYSTEM (L₀ AND W₀ ARE INTERCHANGED WHEN SCANNING FOR REFLECTORS TRANSVERSE TO THE WELD)



L/R	% DAC (MAX)	W ₁ 20% DAC	WF ₁ 50% DAC	W _M MAX DAC	WF ₂ 50% DAC	W ₂ 20% DAC	MP ₁ 20% DAC	MPF ₁ 50% DAC	MP MAX DAC	MPF ₂ 50% DAC	MP ₂ 20% DAC	CONTINUOUS (C) OR SPOT (S) TRANSVERSE (T) OR PARALLEL (P)	CW/CW TOP OR BOTTOM
NO RECORDABLE INDICATIONS													

REMARKS: Examined seam C-3-4 clockwise for a "L" of 5" to 47" from E of N4D. Topside of weld was limited to a "W" of 4.5" due to proximity of non-removable insulation. Bottom side of weld limited to a "W" of 7" from a "L" of 5" to 11" due to configuration of N4D. Bottom side exam also limited from a "L" of 23" to 27" and a "W" of 5" to 9" due to proximity of instrumentation nozzle. Note: ALL "L" measurements taken from E of N4D.

EXAMINED BY: [Signature] LEVEL: 11-493 DATE: 12/20/92
 GE REVIEWED BY: [Signature] DATE:

UTILITY REVIEW: [Signature] DATE: 1/26/94
 ANII REVIEW: DATE:



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ULTRASONIC EXAMINATION DATA SHEET

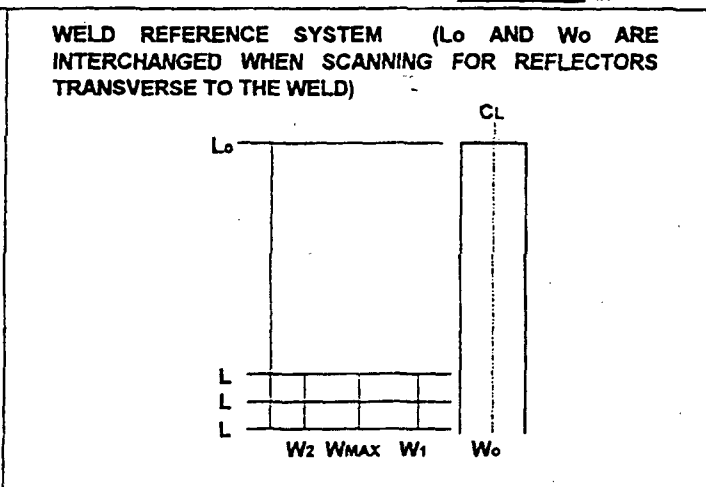
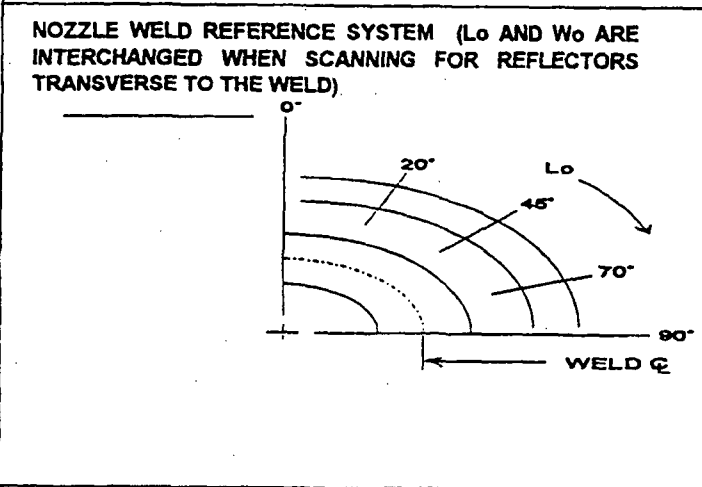
(MANUAL RPV VESSEL WELDS)

SITE: <u>BROWNS FERRY</u>	PROCEDURE NO.: <u>GE-UT-300</u>	REPORT NO.: <u>E-12</u>
UNIT: <u>3</u>	REVISION NO.: <u>6</u>	DATA SHEET NO.: <u>D-040</u>
PROJECT NO.: <u>00387</u>	FRR NO.: <u>004</u>	CALIBRATION SHEET NO.: <u>0° N/A</u> <u>45° C-116</u> <u>60° N/A</u>

SYSTEM: <u>RPV</u>	EXAM SURFACE TEMP: <u>73 °F</u>	COUPLANT: <u>ULTRAGEL II</u>	EXAM START: <u>1229</u>
WELD ID: <u>C-3-4</u>	THERMOMETER S/N: <u>LOZSOCL</u>	BATCH NO.: <u>093011</u>	EXAM END: <u>1235</u>

BEAM ANGLE: <input type="checkbox"/> 0° <input checked="" type="checkbox"/> 45° <input type="checkbox"/> 60° <input type="checkbox"/> OTHER <u>N/A</u>	SURFACE CONDITION: <input checked="" type="checkbox"/> SMOOTH <input type="checkbox"/> GROUND <input type="checkbox"/> OTHER <u>N/A</u>
MATERIAL TYPE: <input checked="" type="checkbox"/> CS <input type="checkbox"/> SS <input type="checkbox"/> OTHER <u>N/A</u>	EXAM SURFACE: <input type="checkbox"/> ID <input checked="" type="checkbox"/> OD

Lo REFERENCE <u>VESSEL D°</u>	0° SCAN SENSITIVITY <u>N/A</u> dB
Wo REFERENCE <u>WELD E</u>	45° SCAN SENSITIVITY <u>65.6</u> dB
	60° SCAN SENSITIVITY <u>N/A</u> dB



L/R	% DAC (MAX)	W1 20% DAC	WF1 50% DAC	WM MAX DAC	WF2 50% DAC	W2 20% DAC	MP1 20% DAC	MPF1 50% DAC	MP MAX DAC	MPF2 50% DAC	MP2 20% DAC	CONTINUOUS (C) OR SPOT (S) TRANSVERSE (T) OR PARALLEL (P)	CW/CW TOP OR BOTTOM
<u>N/D RECORDABLE INDICATIONS</u>													
<u>DEFN4D</u>													

REMARKS: Examined seam C-3-4 clockwise for a "L" of 5" to 47" from E of N/A. TOPSIDE OF WELD WAS LIMITED TO A "W" OF 4.5" DUE TO PROXIMITY OF NON-REMOVABLE INSULATION. BOTTOM SIDE OF WELD LIMITED TO A "W" OF 7" FROM A "L" OF 5" TO 11" DUE TO CONFIGURATION OF N/A. BOTTOM SIDE EXAM ALSO LIMITED FROM A "L" OF 23 TO 27" AND A "W" OF 5" TO 9" DUE TO PROXIMITY OF INSTRUMENTATION NOZZLE. NOTE: ALL "I" MEASUREMENTS TAKEN FROM E OF N/A.

EXAMINED BY: <u>CO</u>	LEVEL: <u>PT</u>	DATE: <u>12/26/93</u>	UTILITY REVIEW: <u>[Signature]</u>	DATE: <u>1-26-94</u>
GE REVIEWED BY: <u>[Signature]</u>	DATE: <u>12/26/93</u>	ANII REVIEW: _____	DATE: _____	PAGE: <u>1</u> OF: <u>1</u>

JK 12-7-93

N4D JK 12-7-93



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ULTRASONIC EXAMINATION DATA SHEET

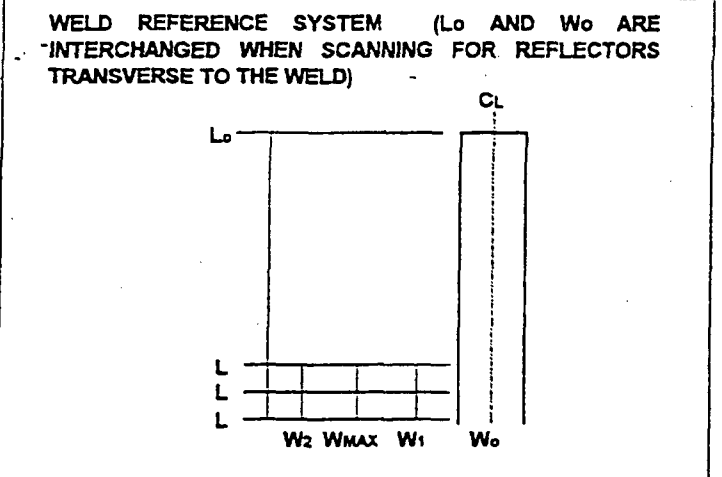
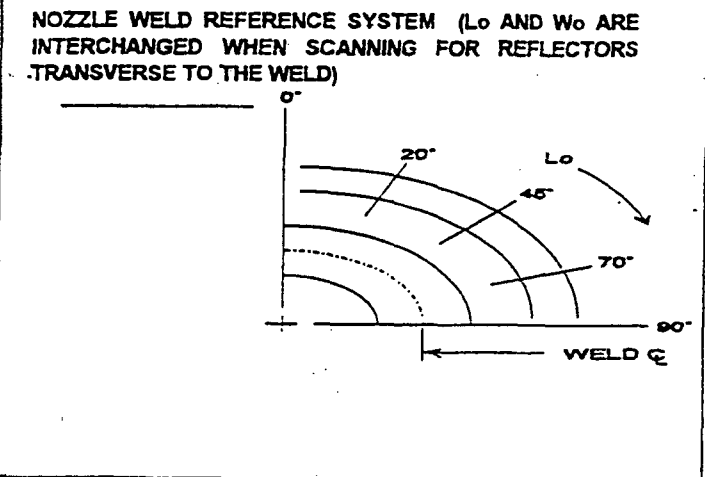
(MANUAL RPV VESSEL WELDS)

SITE: Browns Ferry PROCEDURE NO.: GE-UT-300 REPORT NO.: E-12
 UNIT: 3 REVISION NO.: 6 DATA SHEET NO.: D-037
 PROJECT NO.: 00387 FRR NO.: 004 CALIBRATION SHEET NO.: 0° C-115
 45° N/A 60° N/A

SYSTEM: RPV EXAM SURFACE TEMP: 73° F COUPLANT: Ultrasgel II EXAM START: 1208
 WELD ID: C-3-4 THERMOMETER S/N: L0250CL BATCH NO.: 093011 EXAM END: 1214

BEAM ANGLE: 0° 45° 60° OTHER N/A SURFACE CONDITION: SMOOTH GROUND OTHER N/A
 MATERIAL TYPE: CS SS OTHER N/A EXAM SURFACE: ID OD

L₀ REFERENCE VESSEL 0° 0° SCAN SENSITIVITY 61 dB
 W₀ REFERENCE WELD E 45° SCAN SENSITIVITY N/A dB
 60° SCAN SENSITIVITY N/A dB



LR	% DAC (MAX)	W1 20% DAC	WF1 50% DAC	WM MAX DAC	WF2 50% DAC	W2 20% DAC	MP1 20% DAC	MPF1 50% DAC	MP MAX DAC	MPF2 50% DAC	MP2 20% DAC	CONTINUOUS (C) OR SPOT (S) TRANSVERSE (T) OR PARALLEL (P)	CW/CW TOP OR BOTTOM
NO RECORDABLE INDICATIONS, BASE METAL EXAM													

REMARKS: Examined seam C-3-4 clockwise for a "L" of 5" to 47" from E of N4D. Top side of weld was limited to a "W" of 4.5" due to proximity of non-removable insulation. Bottom side of weld limited to a "W" of 7" from a "L" of 5" to 11" due to configuration of N4D. Bottom side exam also limited from a "L" of 23 to 27" and a "W" of 5" to 9" due to proximity of instrumentation nozzle. Note: All "L" measurements taken from E of N4D.

EXAMINED BY: [Signature] LEVEL: II DATE: 11-4-93 UTILITY REVIEW: [Signature] DATE: 1-26-94
 GE REVIEWED BY: [Signature] DATE: 12/20/93 ANII REVIEW: _____ DATE: _____



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ULTRASONIC EXAMINATION DATA SHEET

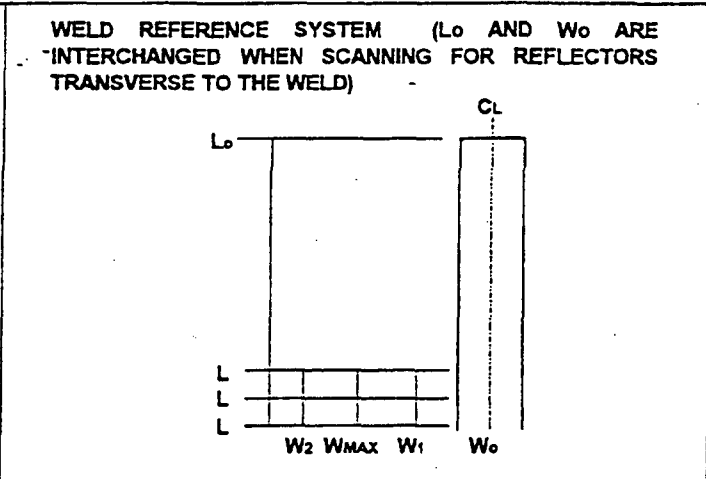
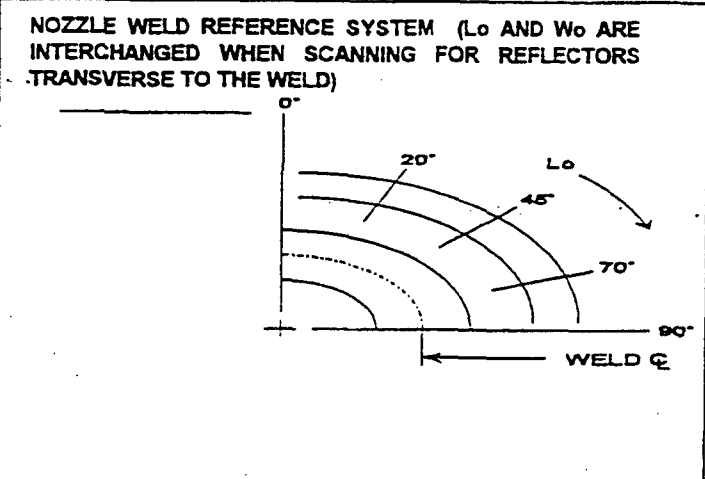
(MANUAL RPV VESSEL WELDS)

SITE: BROWNS FERRY PROCEDURE NO.: GE-UT-300 REPORT NO.: E-12
 UNIT: 3 REVISION NO.: 6 DATA SHEET NO.: D-036
 PROJECT NO.: 00397 FRR NO.: 004 CALIBRATION SHEET NO.: 0° C-115
 45° N/A 60° N/A

SYSTEM: RPV EXAM SURFACE TEMP: 73 °F COUPLANT: Ultracore II EXAM START: 1214
 WELD ID: C-3-4 THERMOMETER S/N: L02506L BATCH NO.: 093011 EXAM END.: 1218

BEAM ANGLE: 0° 45° 60° OTHER N/A SURFACE CONDITION: SMOOTH GROUND OTHER N/A
 MATERIAL TYPE: CS SS OTHER N/A EXAM SURFACE: ID OD

L₀ REFERENCE VESSEL 0° 0° SCAN SENSITIVITY 61 dB
 W₀ REFERENCE WELD E 45° SCAN SENSITIVITY N/A dB
 60° SCAN SENSITIVITY N/A dB



L/R	% DAC (MAX)	W1 20% DAC	WF1 50% DAC	WM MAX DAC	WF2 50% DAC	W2 20% DAC	MP1 20% DAC	MPF1 50% DAC	MP MAX DAC	MPF2 50% DAC	MP2 20% DAC	CONTINUOUS (C) OR SPOT (S) TRANSVERSE (T) OR PARALLEL (P)	CW/CCW TOP OR BOTTOM
NO RECORDABLE INDICATIONS, WELD EXAM													

REMARKS: Examined seam C-3-4 clockwise for a "L" of 5" to 47" from E of N4D. TOP SIDE OF WELD WAS LIMITED TO A "W" OF 4.5" due to proximity of non-removable insulation. BOTTOM SIDE OF WELD LIMITED TO A "W" OF 7" FROM A "L" OF 5" TO 11" due to configuration of N4D. BOTTOM SIDE EXAM ALSO LIMITED FROM A "L" OF 23" TO 47" AND A "W" OF 5" TO 9" due to proximity of instrument top nozzle. NOTE: ALL "L" MEASUREMENTS TAKEN FROM E OF N4D.

EXAMINED BY: [Signature] LEVEL: II DATE: 11-4-93
 UTILITY REVIEW: [Signature] DATE: 1-26-94
 GE REVIEWED BY: [Signature] DATE: 12/27/93
 ANII REVIEW: _____ DATE: _____



GE Nuclear Energy

ULTRASONIC EXAMINATION DATA SHEET

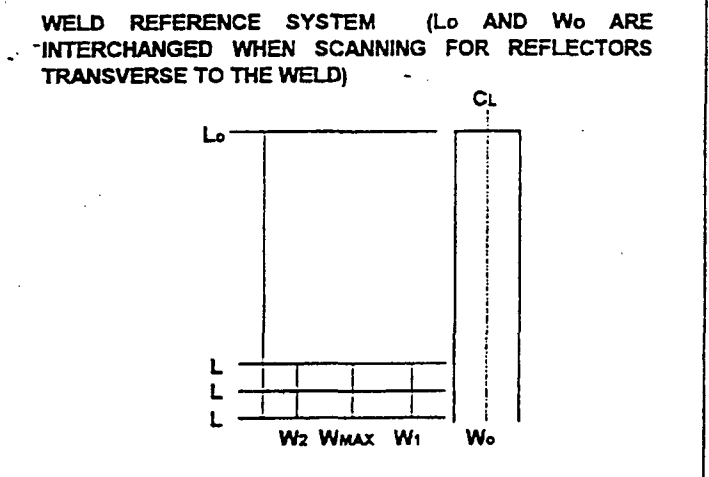
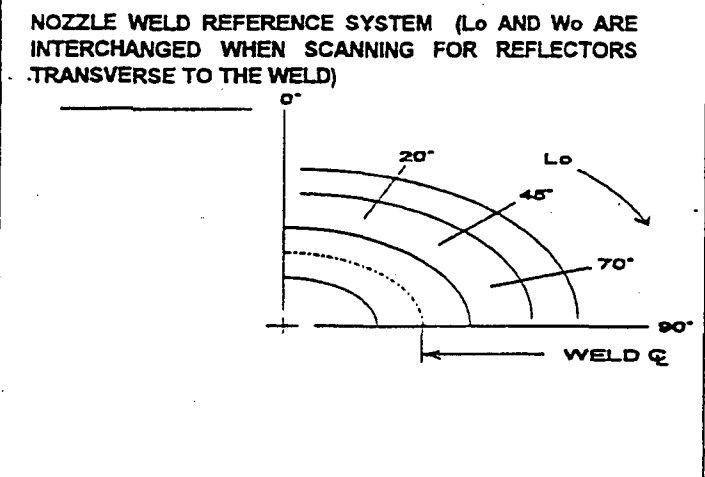
(MANUAL RPV VESSEL WELDS)

SITE: <u>Browns Ferry</u>	PROCEDURE NO.: <u>GE-UT-300</u>	REPORT NO.: <u>E-12</u>
UNIT: <u>3</u>	REVISION NO.: <u>6</u>	DATA SHEET NO.: <u>D-035</u>
PROJECT NO.: <u>00387</u>	FRR NO.: <u>004</u>	CALIBRATION SHEET NO.: <u>0° C-115</u> <u>45° N/A</u> <u>60° N/A</u>

SYSTEM: <u>RPV</u>	EXAM SURFACE TEMP: <u>73 °F</u>	COUPLANT: <u>Ultrasel #</u>	EXAM START: <u>1140</u>
WELD ID: <u>C-3-4</u>	THERMOMETER S/N: <u>L0250CL</u>	BATCH NO.: <u>093011</u>	EXAM END: <u>1146</u>

BEAM ANGLE: <input checked="" type="checkbox"/> 0° <input type="checkbox"/> 45° <input type="checkbox"/> 60° <input type="checkbox"/> OTHER <u>N/A</u>	SURFACE CONDITION: <input checked="" type="checkbox"/> SMOOTH <input type="checkbox"/> GROUND <input type="checkbox"/> OTHER <u>N/A</u>
MATERIAL TYPE: <input checked="" type="checkbox"/> CS <input type="checkbox"/> SS <input type="checkbox"/> OTHER <u>N/A</u>	EXAM SURFACE: <input type="checkbox"/> ID <input checked="" type="checkbox"/> OD

L ₀ REFERENCE <u>VESSEL 0°</u>	0° SCAN SENSITIVITY <u>61</u> dB
W ₀ REFERENCE <u>WELD 0°</u>	45° SCAN SENSITIVITY <u>N/A</u> dB
	60° SCAN SENSITIVITY <u>N/A</u> dB



L/R	% DAC (MAX)	W1 20% DAC	WF1 50% DAC	WM MAX DAC	WF2 50% DAC	W2 20% DAC	MP1 20% DAC	MPF1 50% DAC	MP MAX DAC	MPF2 50% DAC	MP2 20% DAC	CONTINUOUS (C) OR SPOT (S) TRANSVERSE (T) OR PARALLEL (P)	CW/CW TOP OR BOTTOM
N/D RECORDABLE INDICATIONS, BASE METAL EXAM													

REMARKS: Examined seam C-3-4 clockwise for a "L" of 5" to 47" from 0° of N4A. Topside of weld was limited to a "W" of 4.5" due to proximity of non-removable insulation. Bottomside of weld was limited to a "W" of 7" from a "L" of 5" to 11" due to configuration of N4A. Bottomside exam also limited from a "L" of 33" to 47" and a "W" of 5" to 7" due to proximity of instrument fiber nozzle. NOTE: ALL "L" measurements taken from E of N4A.

EXAMINED BY: <u>CEMAS</u>	LEVEL: <u>II</u>	DATE: <u>11-4-93</u>	UTILITY REVIEW: <u>[Signature]</u>	DATE: <u>1-26-94</u>
GE REVIEWED BY: <u>[Signature]</u>	DATE: <u>12/20/93</u>	ANII REVIEW: _____	DATE: _____	PAGE: <u>1</u> OF: <u>1</u>



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ULTRASONIC EXAMINATION DATA SHEET

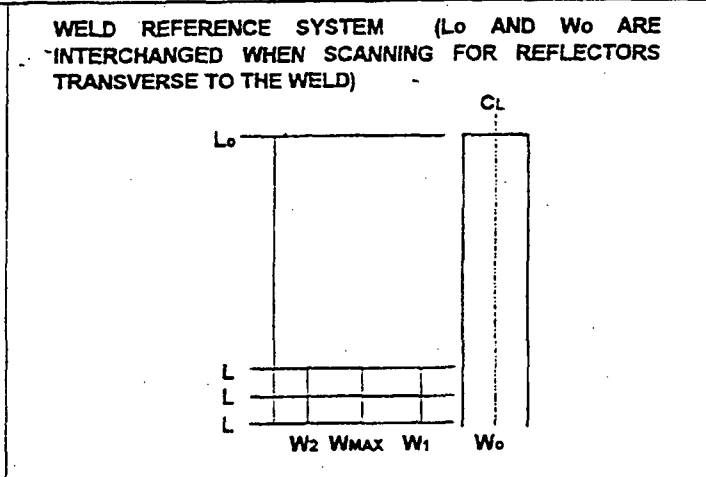
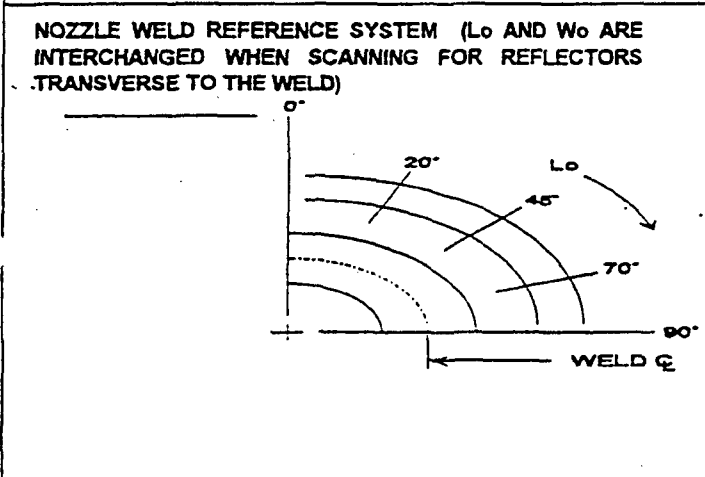
(MANUAL RPV VESSEL WELDS)

SITE: <u>Browns Ferry</u>	PROCEDURE NO.: <u>GE-UT-300</u>	REPORT NO.: <u>E-12</u>
UNIT: <u>3</u>	REVISION NO.: <u>6</u>	DATA SHEET NO.: <u>D-034</u>
PROJECT NO.: <u>00387</u>	FRR NO.: <u>004</u>	CALIBRATION SHEET NO.: <u>0° C-115</u>
		45° <u>N/A</u> 60° <u>N/A</u>

SYSTEM: <u>RPV</u>	EXAM SURFACE TEMP: <u>73 °F</u>	COUPLANT: <u>Ultracel II</u>	EXAM START: <u>1146</u>
WELD ID: <u>C-3-4</u>	THERMOMETER SN: <u>L0250CL</u>	BATCH NO.: <u>093011</u>	EXAM END: <u>1150</u>

BEAM ANGLE: <input checked="" type="checkbox"/> 0° <input type="checkbox"/> 45° <input type="checkbox"/> 60° <input type="checkbox"/> OTHER <u>N/A</u>	SURFACE CONDITION: <input checked="" type="checkbox"/> SMOOTH <input type="checkbox"/> GROUND <input type="checkbox"/> OTHER <u>N/A</u>
MATERIAL TYPE: <input checked="" type="checkbox"/> CS <input type="checkbox"/> SS <input type="checkbox"/> OTHER <u>N/A</u>	EXAM SURFACE: <input type="checkbox"/> ID <input checked="" type="checkbox"/> OD

Lo REFERENCE <u>VESSEL 0°</u>	0° SCAN SENSITIVITY <u>61</u> dB
Wo REFERENCE <u>WELD E</u>	45° SCAN SENSITIVITY <u>N/A</u> dB
	60° SCAN SENSITIVITY <u>N/A</u> dB



L/R	% DAC (MAX)	W1 20% DAC	WF1 30% DAC	WM MAX DAC	WF2 50% DAC	W2 20% DAC	MP1 20% DAC	MPF1 50% DAC	MP MAX DAC	MPF2 50% DAC	MP2 20% DAC	CONTINUOUS (C) OR SPOT (S) TRANSVERSE (T) OR PARALLEL (P)	CW/CCW TOP OR BOTTOM
NO RECORDABLE INDICATIONS, WELD EXAM.													

REMARKS: Examined seam C-3-4 clockwise for a "1" of 5" to 47" from E of N4A. Topside of weld was limited to a "W" of 4.5" due to proximity of non-removable insulation. Bottom side of weld was limited to a "W" of 7" from a "L" of 5" to 11" due to the configuration of N4A. Bottom side exam also limited from a "L" of 23" to 27" and "W" of 5" top due to proximity of instrument riser nozzle. Note: All "L" measurements taken from E of N4A.

EXAMINED BY: <u>Cl M</u>	LEVEL: <u> </u>	DATE: <u>12/20/93</u>	UTILITY REVIEW: <u> </u>	DATE: <u>1-26-94</u>
GE REVIEWED BY: <u> </u>	DATE: <u> </u>	ANII REVIEW: <u> </u>	DATE: <u> </u>	PAGE: <u>1</u> OF: <u>1</u>