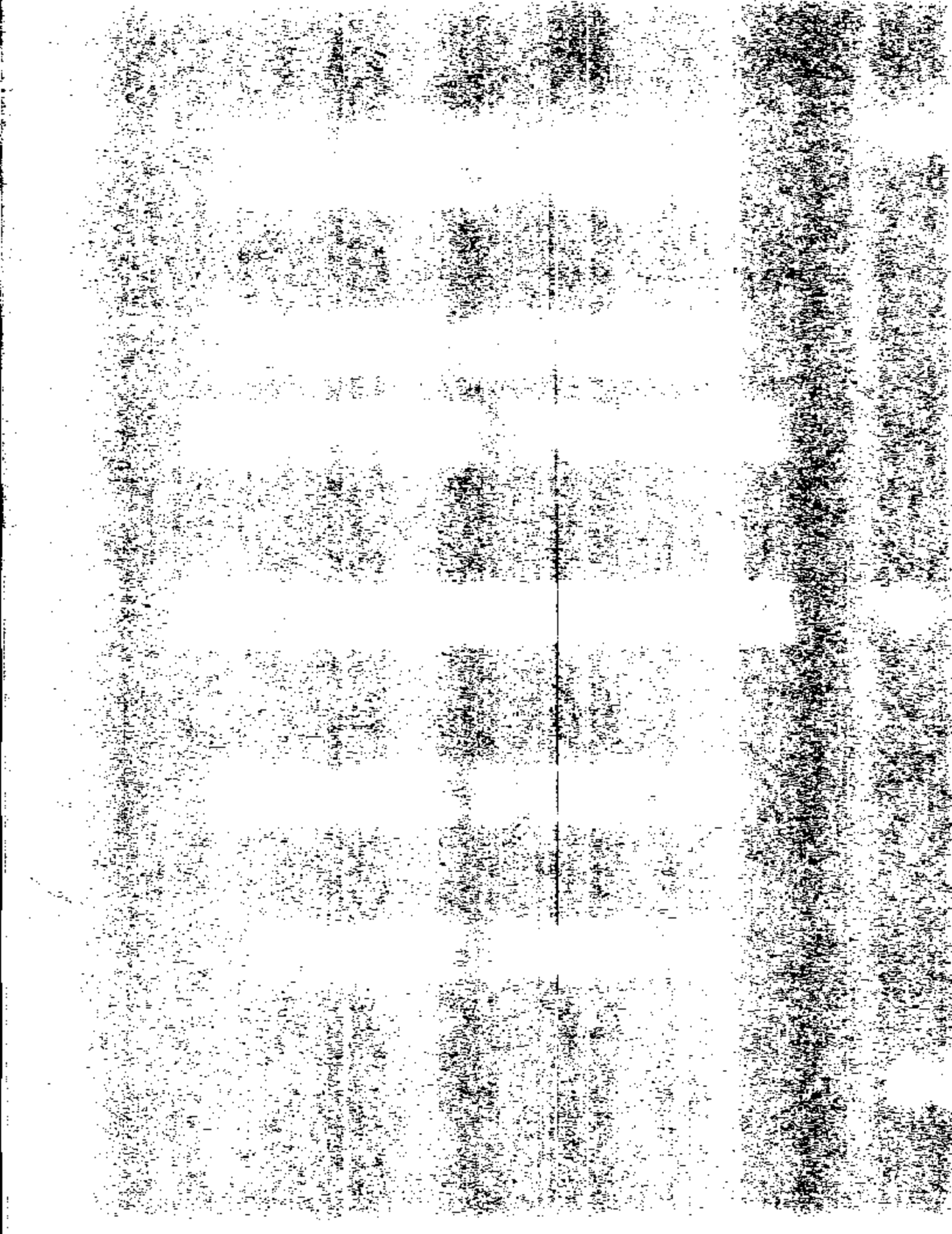


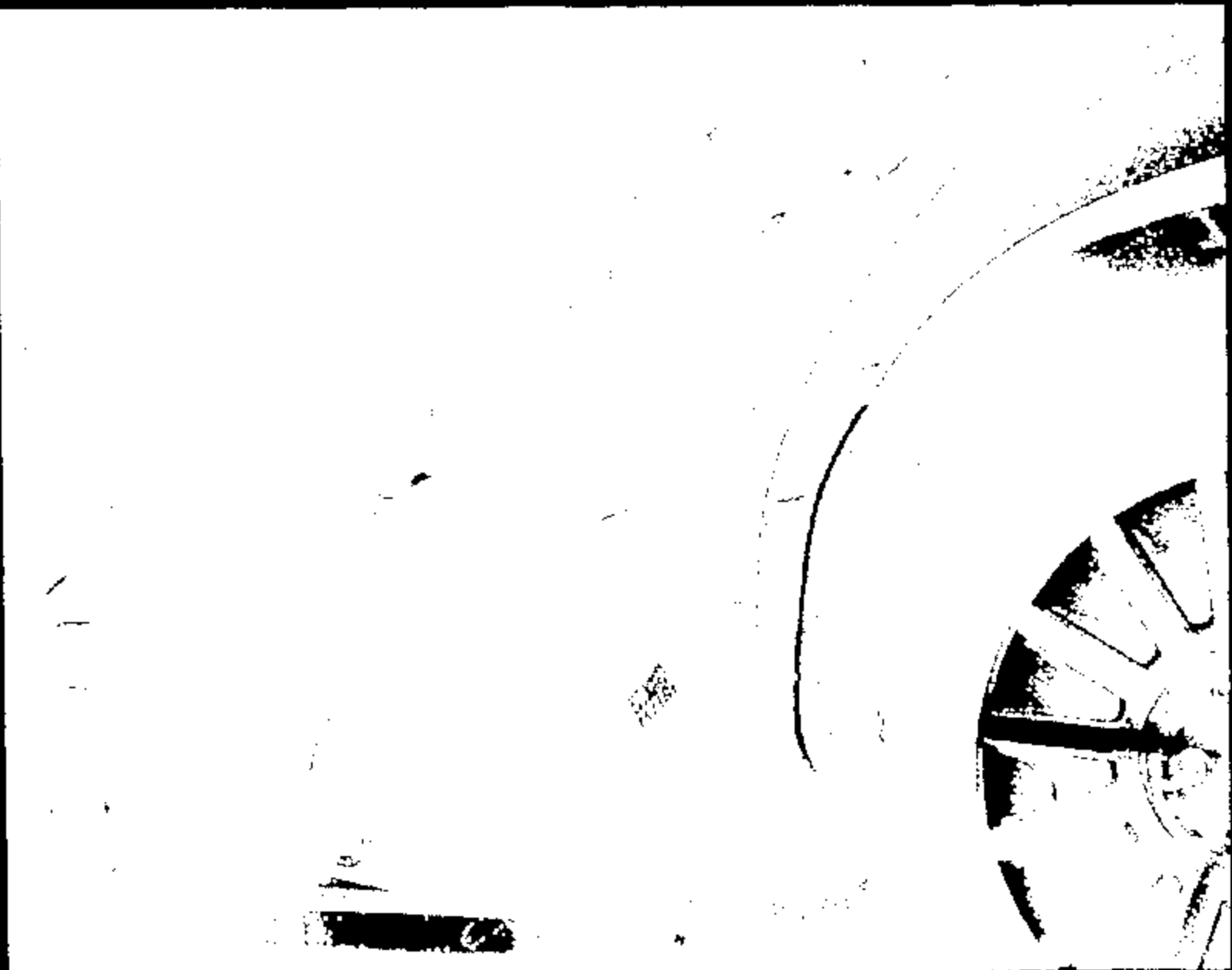




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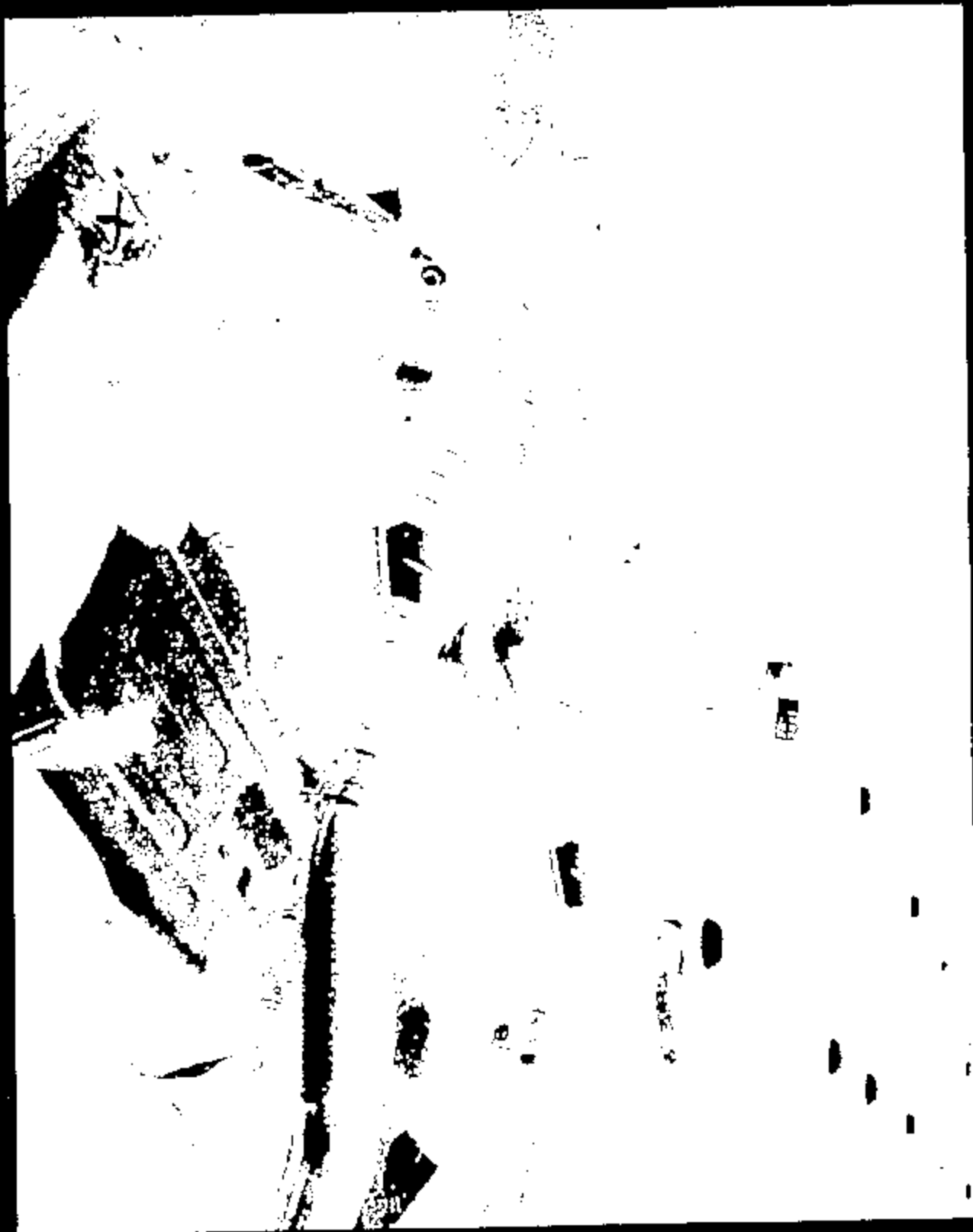
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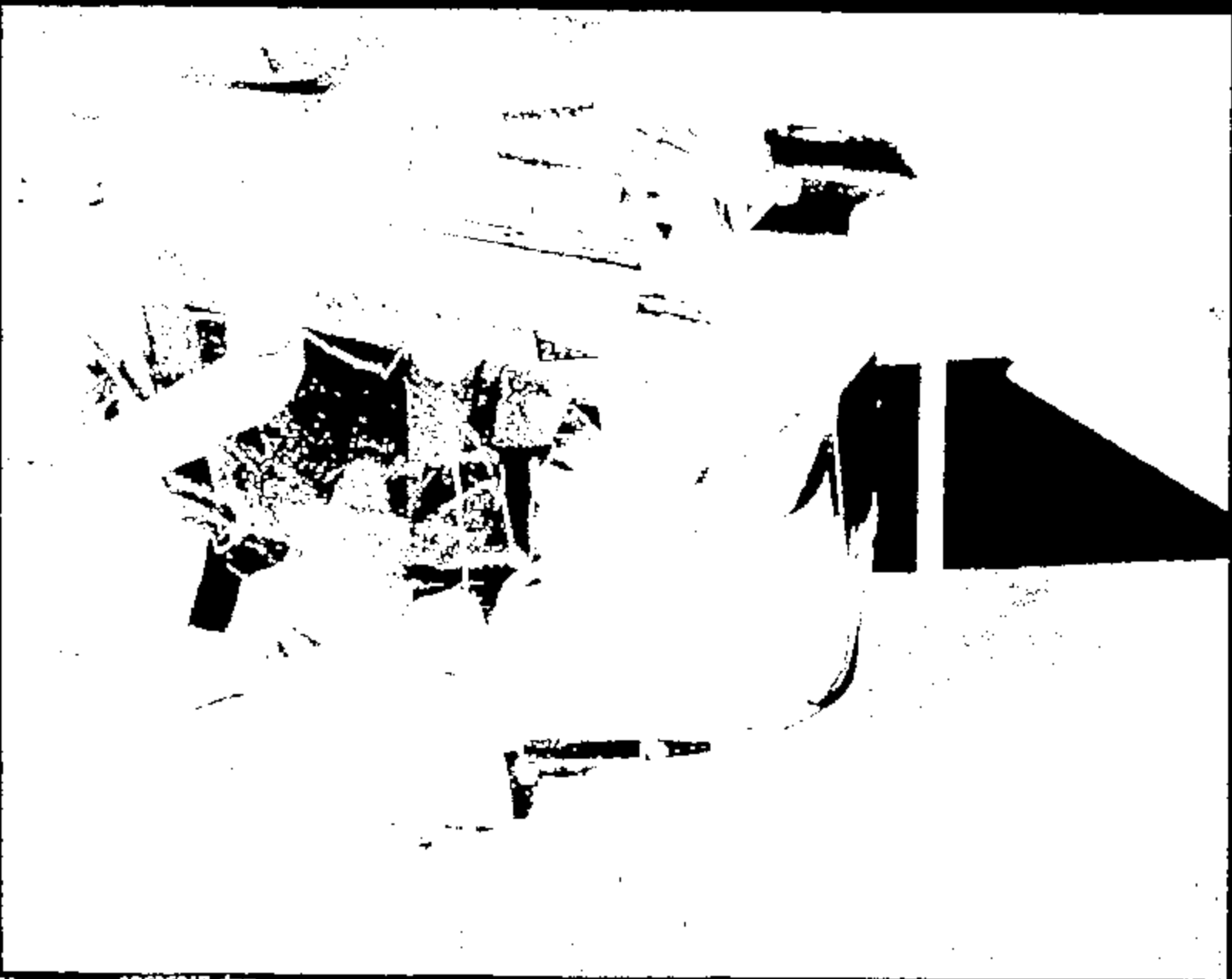
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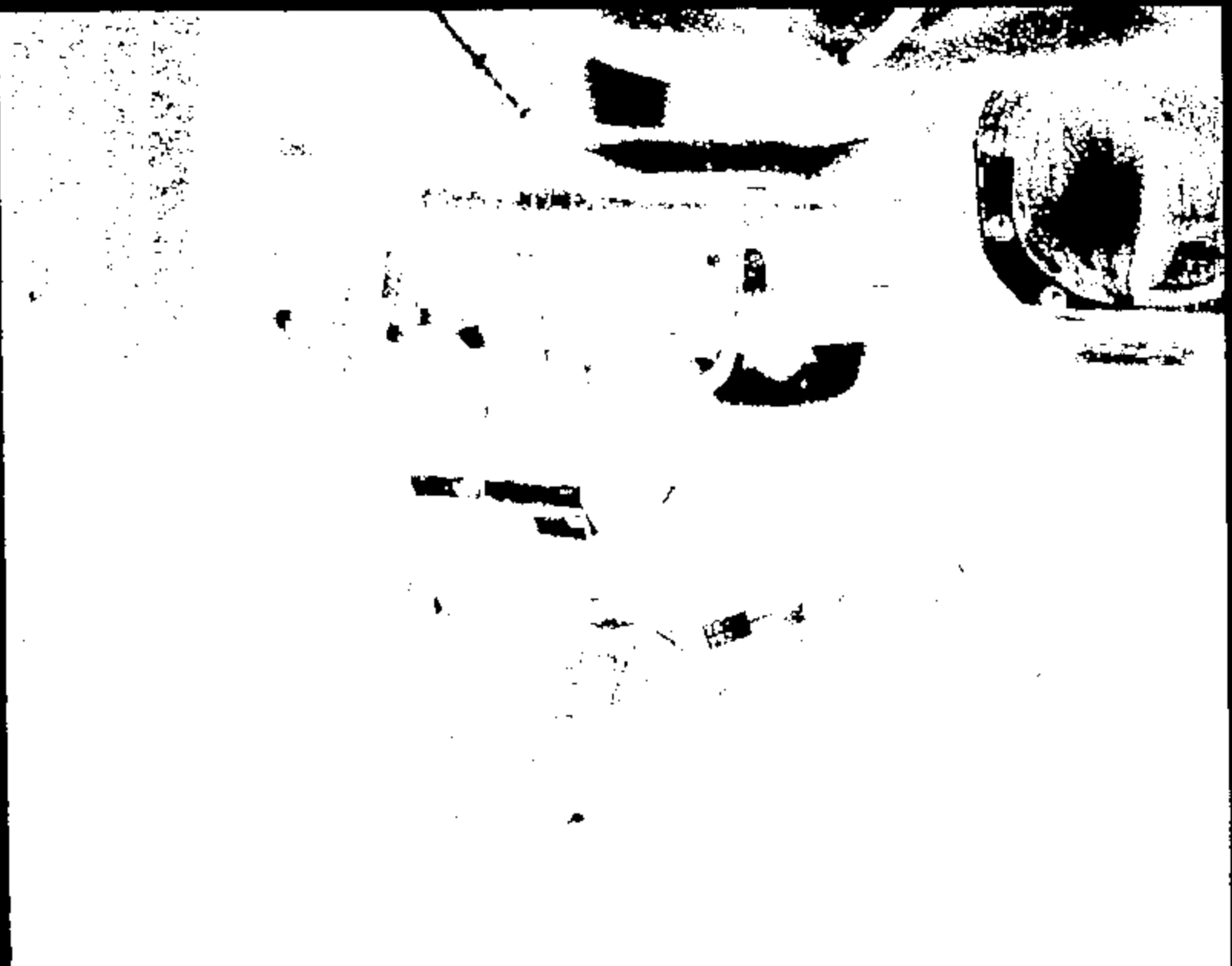
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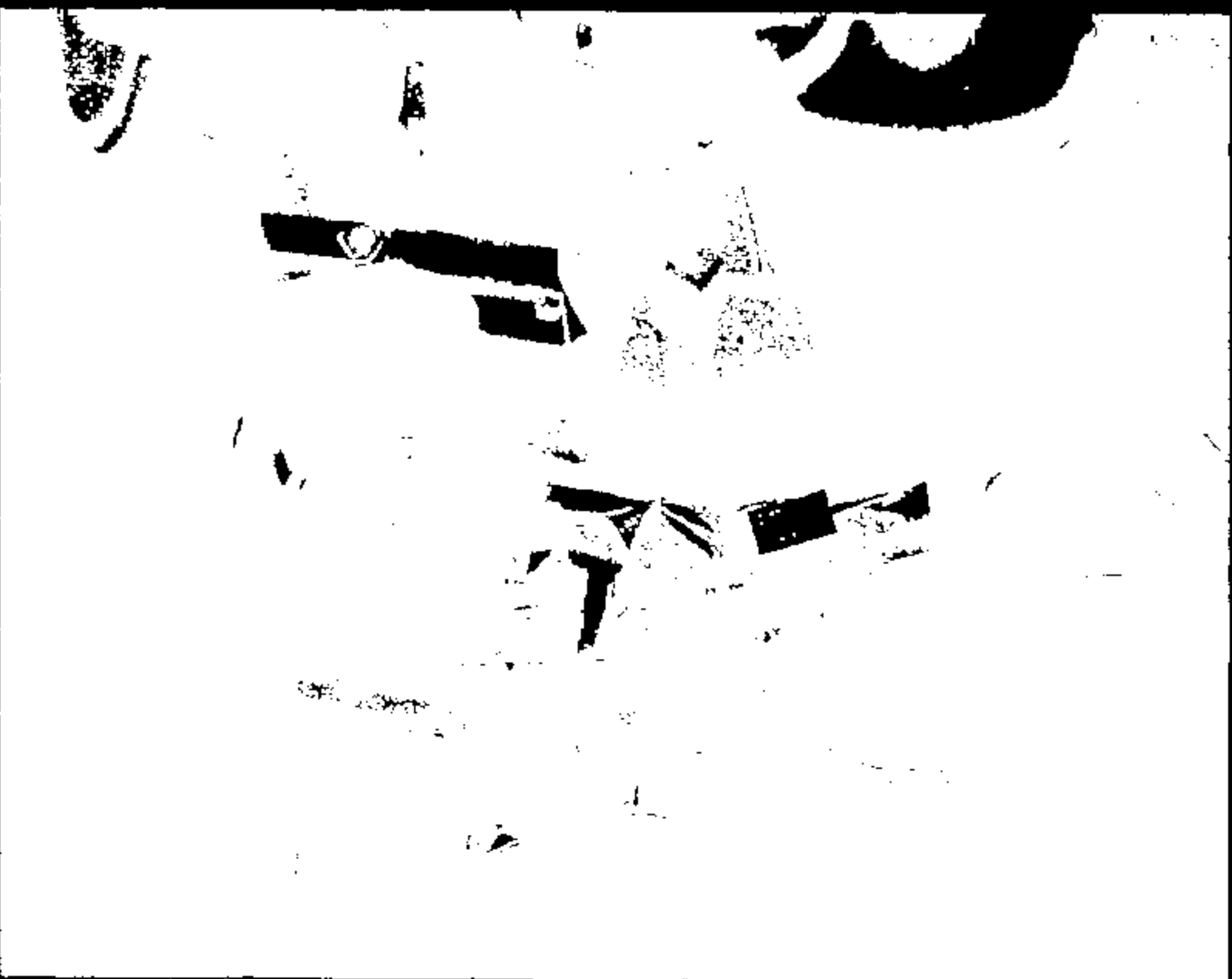
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12606049.jpg

CRTS 0012606



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CRTS 0012606



12606051.jpg

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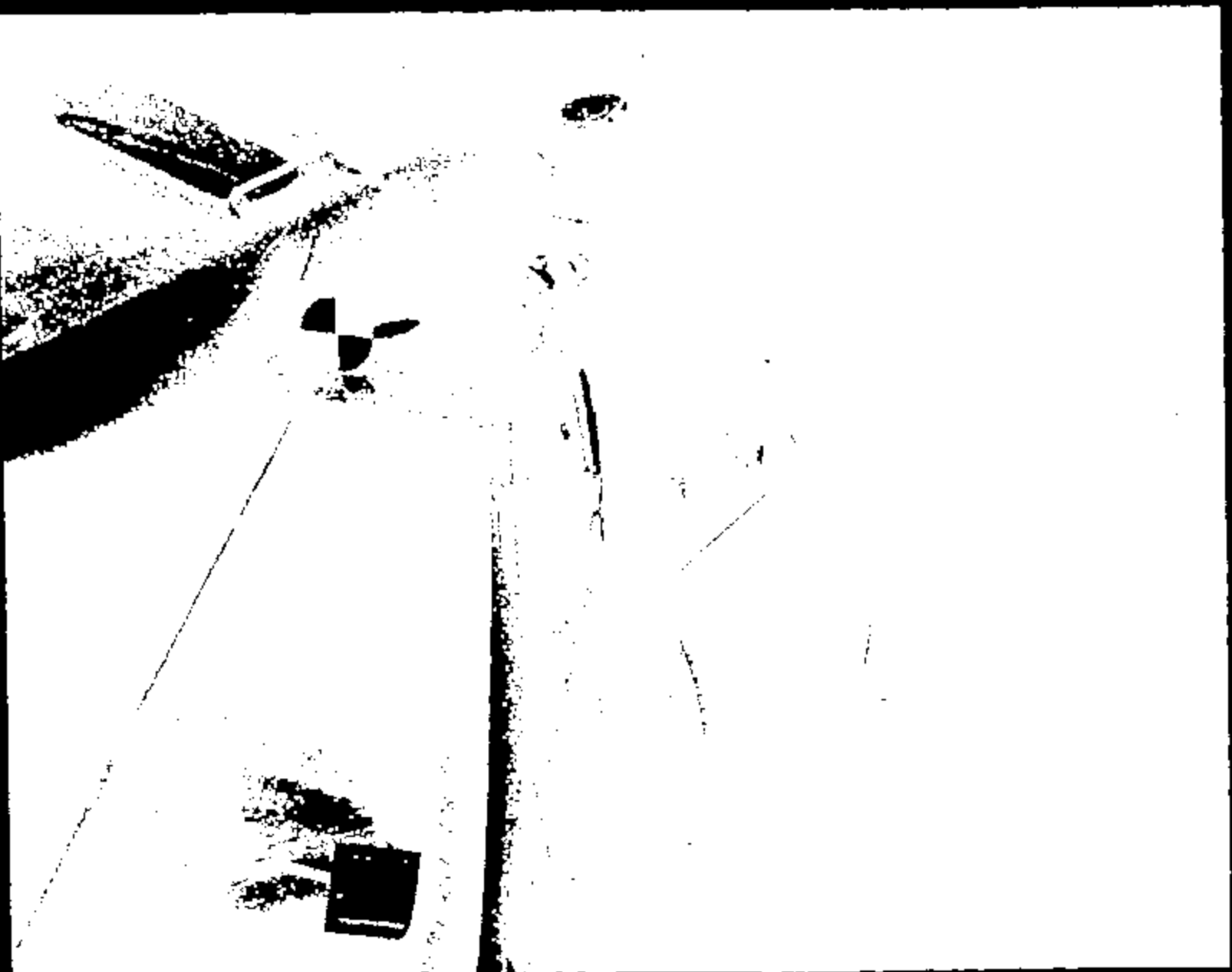
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12605052.jpg

CRTS 0012606



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12606053 .jpg

CRIS 0012606



12606054.jpg

TEST AUTHORIZATION				TEST AUTHORIZATION NUMBER: JB2421			
TO: Safety Lab Department		REQUEST DATE: 10/2/01		REQUESTED COMPLETION DATE: 10/11/01			
CC: K. Arthur		REQUEST NUMBER: n/a		PROBLEM NUMBER: n/a			
		REQUESTING ACTIVITY: Vehicle Crash Safety					
TITLE OF TEST: 800S FN145 (speed) 13 mph (test description) LH Side Pole (10") Use Rollers		PARTS DUE DATE: n/a					
TYPE OF TEST: [X] VEHICLE [] BENCH [] LABORATORY [] OTHER		VIN # or IDENTIFICATION: YC380014 - 8421088 1LN588TWS1Y380014		VEHICLE MODEL & YEAR: 2003 FN145		PROD. OR ENG. LETTER: n/a	
ENGINE NO. DISPL. CARS: 4.0L 2V		TRANS / DRIVE TRAIN: 4R70W		AXLE RATIO: n/a		DISPOSITION OF PARTS: n/a	
TYPE OF FUEL: NONE		CONVERTER: n/a		IGNITION TIMING: n/a		COMPLIANCE WITH GOV. REGULATIONS: Yes [X] No	
CRANKCASE OIL AND CAPACITY (L): n/a		TIRE SIZE: P225/60R16		TIRE PRESSURE (psi): FRONT 32 REAR 32		PROCUREMENT REQ 7 () YES [X] NO IF YES, GIVE CODE	
VEHICLE TEST WEIGHT: FRONT 2622 BEAR 2672 TOTAL 4894		TIRE PRESSURE (psi): FRONT 32 REAR 32		REPORT CATEGORIES: [X] ENGINEERING [X] DATA [X] RAW DATA		MAIL REPORT TO: BLDG: Schuster Ct. 1 MAIL DROP: ADDRESS: 1AP11	
1. OBJECT OF TEST 2. TEST PROCEDURE 3. ITEMS TO BE TESTED (NAME, NUMBER, QUANTITY) 1) Conduct: (speed) 13 mph (year) 2003 (vehicle) FN145 (level) CP (mode) LH Side Pole (10") Use Rollers 2) Velocity At Impact: 13 mph BATT 10/10/01 SET: 00.1 - 809-05 3) Vehicle Year: 2003 Vehicle Line: FN145 Vehicle Level: CP Dummy Positioning Procedure: GT-45PMVSB 201 for Pole Test Procedure: Positioning Test Requester: (name) Benjamin Frank (phone) 72583 (page number) BENJ Build Coordinator: John Chasak 53975 JCIE Additional Contacts: Chris Jackson 57890 GJAC Estimated test cost: \$20,000.00 Test Dev. Engineer							
REQUESTING SECT. NO: 61001512	WORK ORDER WORK TASK: JSA	ISSUED BY: Benjamin Frank	PHONE: 72583	APPROVAL: K. Arthur	TEST TYPE: n/a	RISK: n/a	SIGN OFF DATE: n/a
COMPLETE THE FOLLOWING TWO QUESTIONS AS INDICATED: (Check appropriate boxes) (Check appropriate boxes) 1 - Rational for not replacing this test by CAE analysis: ☐ No CAE Methodology or process available ☐ No CAE Correlation ☐ Insufficient confidence in CAE. ☐ To obtain basic data for CAE ☐ Replacement or improvement of existing Test. ☐ Testing is quicker. ☐ Mandatory or Regulatory ☐ Certification ☐ Development test for R&D ☐ Not applicable. ☒ Other: Sensor Validation 2 - What is the expected Test Outcome: ☒ Results will meet DVP/MCR requirements. ☐ System Component will not meet Test specification. ☐ Unknown. ☐ Above is Based on CAE? ☐ Other: OK 10/8/01 O.K. m 10-8-20							

General Request Information

TAM: JB2421

Test Mode

13 mph
LH Side Pole (10") Use Rollers

Test Objectives: Cert (C) Verif (V) Dev (D) Audit (A)

REGULATORY:

_____ FMVSS 201 - Head Impact
 _____ FMVSS 214 - Side Impact
 _____ FMVSS 301 - Fuel System Integrity
 _____ Rollover
 _____ Pressure Check
 _____ FMVSS 303 - NGV Fuel System Integrity
 _____ ECE 94 Fuel System Integrity
 _____ ECE 95 Step II 300mm Barrier Side Impact - Occupant Performance
 _____ 98/27/EC - Side Impact

FORD AUTOMOTIVE OPERATIONS SAFETY DESIGN GUIDELINES:

_____ Side Impact Protection FAO Safety Design Guidelines

OTHER:

_____ D Sensor Development
 _____ Other, Specify: _____

Primary Test Vehicle Information

Use (Target/Built):	Target
Model Year:	2003
Vehicle Program:	PN148
Vehicle Name:	Town Car
Body / Cab Style:	Sedan
Build Number:	VC880014
Tag Number:	888H954
VIN Number:	1LNHM81W61Y838085
Fuel System Rated Capacity (Gal):	18.5
Prototype Level:	CP
Drive Side:	LH

<<< <<< END OF SHEET >>> >>>

Special Prep/Build Instructions Primary Vehicle

TAF: JB2421

Special Build Instructions

☐ Remove Side View Mirrors
☐ Remove Headrests
☐ Remove Hood
☐ Remove Arm rest
☐ Stripe Seal Belts
☐ Remove Bottom of Bumper Cover
☐ Cut Off Brake & Clutch Pedal
☐ Color Contrast Under Hood Components

Other, Specify:

☒ Confirm driver's front window is down
☒ Grind through service tabs on #3 frame cross-member
☒ Check with Rick Dolloff x05703 to see if he wants to update fuel inertia switch

Pyro Restraints Usage

☐ Left Front Air Bag
☐ Right Front Air Bag
☒ Left Front Side Air Bag
☐ Right Front Side Air Bag
☐ Left Rear Side Air Bag
☐ Right Rear Side Air Bag
☐ Left Side Curtain
☐ Right Side Curtain
☐ Left Pyro Retractor
☐ Left Pyro Buzze
☐ Right Pyro Retractor
☐ Right Pyro Buzze

Other, Specify:

☒ Live sensor deploy test

☐ Remote Fire Time:
 (No fire time listed if sensor fired OR if no pyro restraints are used)
☐ Remote back-up Fire Time:

Special Pre-Test Preparation

Other, Specify:

☐
☐

<<< <<< END OF SHEET >>> >>>

Occupant / ATD Request Primary Vehicle

TA#: JB2421

Occupant 1

Occupant 2

Type	SID w/ Hybrid III Head and Neck	N/A
Instrumentation Level*	Dev. Instrumented	N/A
In-Vehicle Location	Left Front	N/A
Verify: Seat Position Long	Mid track travel	N/A
Seat Position Vert	Full down	N/A
Seat Back Angle**	29 degrees <i>37.5 (10)</i>	N/A
Positioning Procedure	ST-16/FMVSS 201 for Pole	ST-16/FMVSS 201 for Pole
Use Foot Rest	N/A	N/A
Take Seat Track Video	N/A	N/A
Special Positioning Instructions		
Dummy Adjustment (arm angle)	N/A	N/A
Occupant Belted	Yes	N/A

*See instrumentation request for detailed instrumentation information.

** Seat Backs Will Not Be Cut on Seats With Side Airbags.

Requesters are responsible for providing the process for determining the seat back angles. Please State Process Below:

☐ Measure Angle From Headrest Support Post
☐ Direct Measure of Frame Angle Through Seat Back Fabric
☐ Measure Angle From Alignment Holes in Pivot Mechanism
☐ Remove Hard Backpanel
☐ Seat Back May be Cut at Inboard Frame
☐ Seat Back May be Cut at Requester Defined Location
☐ Description:
☒ Other: record headrest angle which corresponds to 29 deg seat back angle

<<< <<< END OF SHEET >>> >>>

Test Conditions - Final Prep

TAP: JB2421

Final Prep Contacts

ONE of these MUST be present during weigh-up & final prep

Test Engineer	Request Engineer	Build Coordinator
Name: _____	Benjamin Frank	John Clelak
Phone: _____	72083	53975
Pager: _____	BENJ	JCLE

Test Weight

Minimum Option Weight	GVWR: _____
33% Option Weight	Wheelbase: _____
Maximum Option Weight	

Tire Pressure

Front: 32. psi	Rear: 32. psi
----------------	---------------

Fuel System

Fuel Tank & System to Contain: none

N/A	N/A %	x	10.5 gallons
Fill Level	%	x	Capacity

Weight Targets

If required weight distribution is UNACHIEVABLE, please note allowable variances.

Curb Weight	Requested Test Weight	Acceptable Test Weight Variance		Actual Test Weight
		High (+)	Low (-)	
Front: _____	2,522 lbs	Front: 18 lbs	0 lbs	Front: 2592
Rear: _____	2,472 lbs	Rear: 18 lbs	0 lbs	Rear: 2467
Total: _____	4,994 lbs	Total: 26 lbs	0 lbs	Total: 4999

Rated Luggage Load: 0 lbs

Simulate/Verify at Weigh-Up

Dummy Weight

On Board Camera Count

Weight Addition (Restrictions)

Do NOT place any weight in the following locations:

☐ Air Cleaner	☐ Engine	☒ Doors
☐ Battery	☐ Fan Shroud	☒ Foot Wells - Front
☐ Bottle - Coolant	☐ Headlamp Oings	☒ Foot Wells - Rear
☐ Bottle - Washer	☐ Radiator	☒ Quarter Panels
		☐ Trunk Floor

Other: _____

Ride Heights

Measure @ Test Weight

Front: 738 mm

Rear: 726 mm

Measure

Front: Wheel-to-opening

To: Ground

WHEEL UP FOR REAR &
SEAL LEVEL FOR FNT

Additional Remarks

DO NOT fill tank with standard UNL weigh-up

<<< END OF SHEET >>>

Dimensional Analysis Request Primary Vehicle

TAR: JB2421

Line Impacts

X	404	Control Points (CAR)	Exterior
	406	Control Points (TRUCK)	Exterior
	409	Body Targets & Orientation Points (Wheel Lips)	Exterior
	411	A.B.C. Pillars	Interior
	417	Pre-Crash Lateral Seat CL's, H-Pts, etc	Exterior/Interior
	418	NHTSA Barrier face Profiles (Mid-Bumper; Mid-Stack; Top of Barrier)	Exterior
	419	European Barrier face Profiles (Mid-Bumper; Mid-Stack; Top of Barrier)	Exterior
X	421	Roof line exterior section	Exterior
X	423	Belts line exterior section (1st 50mm Body line below glass/weather strip)	Exterior
X	425	Mid-line exterior section (plan view @ 800 mm Body line)	Exterior
X	427	Character line exterior section (plan view @ 600 mm Body line)	Exterior
X	429	Bottom of door exterior section	Exterior
X	431	Roof line exterior section (1st 10 mm Body line below door opening)	Exterior
X	433	Roof line interior section	Interior
X	435	Belts line interior section	Interior
X	437	H-P line interior section	Interior
X	438	Hinge Pillar exterior section (1st 50mm Body line forward of Hinge plane)	Exterior
X	439	2500 mm Body line interior and exterior sections	Exterior/Interior
X	440	Front H-Point Mid-Seat Location interior and exterior sections (per package)	Exterior/Interior
X	441	B-Pillar interior and exterior sections (1st 50mm Body line rearward of striker)	Exterior/Interior
X	442	Rear H-Point Location interior and exterior sections (per package)	Exterior/Interior
		MD8: Position MD8 centerline at left front seat SGRP (X = 3042mm)	
		Strike windshield & backside @ left front seat centerline (y = -370mm)	
		Mark left front seat frame pivot point	
		Pre-crash accelerometer locations	
		Mark OSCAR & EuroSID H-points on exterior of left front door	

Film Analysis & Photographic Services Request

TA#: JB2421**Impact Film Analysis**

☒ Impact Speed
☐ Impact Angle
☒ Dummy Head wrt Vehicle Lateral
☒ Dummy Head wrt Vehicle Vertical
☒ Dummy Head wrt Vehicle Resultant
☐ Cart wrt Vehicle Impact Point
☒ Dummy Chest wrt Vehicle
☐ Cart wrt Vehicle Intrusion (overhead)
☒ Vehicle wrt Pole Intrusion (overhead)
☒ Dummy Head wrt Pole

Other, Specify:

Still Photography

☒ Pre Test Documentation Photographs
☒ Post Test Documentation Photographs

High Speed Photographic Requirements

☐ 1 Copies of High Speed Film Required
☐ Copies of High Speed Film Required in VHS Format
☒ Digitization of Driver/ Passenger Kinematics
☐ Format

High Speed Cameras for Side Impact**On-Board Vehicle**

1-2
 1-2
☒ Front Dummy from Vehicle Hood (High)
☒ Front Dummy from Vehicle Hood (Low)
☒ Front Dummy from Opposite Window Opening
☐ Front Dummy Over Shoulder from Decklid (right)
☐ Front Dummy Over Shoulder from Decklid (left)
☒ View of Front Seat to Show Dummy Interaction w/Trim from Rear (trunk left)
 1-2
 1-2
☒ Fiberscopic of Front dummy to air bag

Secondary Vehicle Coverage

____ ON BOARD CART, Cart Centerline - View of Impact

TAN: JB2421

Floor Coverage

☒ Full Left View of Impact
☒ Full Right View of Impact
☒ Front 3/4 View of Impact
☒ Rear 3/4 View of Impact
____ View of Cart for Velocity determination

PIR Coverage

____ Cart contact - view of impacted side of vehicle with cart contact
____ Cart contact - overlap view of impacted side of vehicle with cart contact
☒ View of impacted side of vehicle with pole

Overhead Coverage

☒ Overall view of impacted vehicle side including pole
____ View of impacted vehicle side focus on front door opening area

All Other High Speed Photography

Instrumentation and Data Processing Request

TA#: JB2421

Primary Vehicle Structural Instrumentation - Side Impact

ACCELEROMETERS:

		Long	Vert	Lat
---	L/A-PILLAR_INSIDE @ ROCKER	---	---	---
---	L/A-PILLAR_INSIDE @ HINGE	---	---	---
---	R/A-PILLAR_INSIDE @ HINGE	---	---	---
-X	L/F_DOOR @ BELTLINE MID	---	---	X
-X	L/F_DOOR @ BELTLINE REAR	---	---	X
-X	L/F_DOOR_OVERLAP/NEST	---	---	X
-X	L/F_DOOR_REAR_OF_SEAT_HPT	---	---	X
-X	L/F_DOOR_SPEAKER_HOLE	---	---	X
-X	L/B-PILLAR_INSIDE @ ROOF	---	---	X
-X	L/B-PILLAR_INSIDE @ BELTLINE	---	---	X
-X	L/B-PILLAR_INSIDE @ ROCKER	---	---	X
-X	L/R_DOOR @ BELTLINE MID	---	---	X
-X	L/R_DOOR_OVERLAP/NEST	---	---	X
-X	L/ROCKER @ FRONT SEAT MID	X	X	X
-X	L/ROCKER @ REAR SEAT MID	X	X	X
-X	R/ROCKER @ FRONT SEAT MID	X	X	X
-X	R/ROCKER @ REAR SEAT MID	X	X	X
---	FRONT_FLOOR_PAN @ CL	---	---	---
---	FLOOR_XMR @ L/F SEAT CL	---	---	---
---	FLOOR_XMR @ R/F SEAT CL	---	---	---
---	CL_TUNNEL @ FRONT SEAT	---	---	---
---	REAR_FLOOR_PAN ABOVE AXLE	---	---	---
-X	Near Fuel Inertia Switch	X	X	X
-X	L/Rocker @ B-Pillar	X	X	X
-X	R/Rocker @ B-Pillar	X	X	X

OTHER STRUCTURAL ACCELS:

	Long	Vert	Lat
---	L/A-PILLAR @ FUEL INERTIA SWITCH	---	---
---	L/B-PILLAR INSIDE @ HARNESS	---	---
---	L/B-PILLAR INSIDE @ Z-850mm	---	---
---	R/B-PILLAR INSIDE @ ROCKER	---	---
---			X
---			X
---			X

BAP 10/19/01
 -X L/S B-PILL @ striker
 -X R/S B-PILL @ Belt
 -X R/S B-PILL @ striker

-X Monitor squib voltage and current for L/S side airbag

Secondary Vehicle Structural InstrumentationTAP: J82421**ACCELS:**

_____ MDB_CENTER_OF_GRAVITY
 _____ MDB_LEFT_FRAME_RAIL
 _____ MDB_RIGHT_FRAME_RAIL
 _____ MDB_REAR_HONEYCOMB_@_C-L
 _____ MDB BUMPER_FACE_@_C-L
 _____ MDB BUMPER_FACE_@_L-S
 _____ MDB BUMPER_FACE_@_R-S

Long

Vert

Lat

_____ Left Rocker Panel at "A" Pillar
 _____ Right Rocker Panel at "A" Pillar
 _____ Left Rocker Panel at "B" Pillar
 _____ Right Rocker Panel at "B" Pillar

Long

Vert

Lat

OTHER SECONDARY VEHICLE ACCELS:

Long

Vert

Lat

Primary Vehicle Systems InstrumentationTA#: JB2421

SENSOR ACCELS:

 X See Sensor Map

Long

Vert

Lat

FUEL SYSTEM:

- X Inertia Fuel System Cut-Off Switch

VEHICLE STRING POTS

OTHER VEHICLE SYSTEM INSTRUMENTATION

MONITOR LEFT SIDE AIRBAG SQUIB VOLTAGE

MONITOR LEFT SIDE AIRBAG SQUIB CURRENT

Side Dummy Instrumentation - Internal

TAB: JB2421

*** Note: NO BACK-UP ACCELS ON BIOSID OR EUROSID DUMMIES**

BID w/ Hybrid III Head and Neck

LF

ACCELS:

☒ LIF_DUMMY_HEAD_G.O.
☐ LIF_DUMMY_T1
☐ LIF_DUMMY_T11
☒ LIF_DUMMY_T12
☒ LIF_DUMMY_T12V
☒ LIF_DUMMY_PELVIS
☒ LIF_DUMMY_PELVISV
☒ LIF_DUMMY_THORAX/REARUP
☐ LIF_DUMMY_THORAX/REARV
☒ LIF_DUMMY_THORAX/REARLOV

☒ Long	☒ Vert	☒ Lat
☐ Long	☐ Vert	☐ Lat - R
☐ Lat - L		
☒ Long	☒ Vert	
☒ Lat - FRT		☒ Lat - REAR
☒ Long	☒ Vert	
☒ Lat - L		☒ Lat - REAR
☒ Lat - FRT		☒ Lat - REAR
☐ Lat - FRT		☐ Lat - REAR
☒ Lat - FRT		☒ Lat - REAR

LOAD CELLS:

☒ LIF_NECK_UPPER_LOAD (NO EURO)
☒ LIF_NECK_UPPER_MOMENT (NO EURO)
☐ LIF_NECK_LOWER_LOAD (NO EURO)
☐ LIF_NECK_LOWER_MOMENT (NO EURO)
☐ LIF_DUMMY_ABDOMEN_LOAD_FRONT (EURO)
☐ LIF_DUMMY_ABDOMEN_LOAD_MID (EURO)
☐ LIF_DUMMY_ABDOMEN_LOAD_REAR (EURO)
☐ LIF_DUMMY_THORACIC_SPINE_LOAD
☐ LIF_DUMMY_THORACIC_SPINE_LOAD
☐ LIF_DUMMY_LUMBAR_SPINE_LOAD
☐ LIF_DUMMY_LUMBAR_SPINE_LOAD
☐ LIF_DUMMY_PUBIS_LOAD (EURO)

☒ Fx	☒ Fy	☒ Fz
☒ Mx	☒ My	☒ Mz
☐ Fx	☐ Fy	☐ Fz
☐ Mx	☐ My	☐ Mz
	☐ Fy	
	☐ Fy	
	☐ Fy	
☐ Fx	☐ Fy	☐ Fz
☐ Mx	☐ My	
☐ Fx	☐ Fy	☐ Fz
☐ Mx	☐ My	
	☐ Fy	

POTENTIOMETERS:

☐ LIF_DUMMY_CHEST_DEFLECTION (BID)
☐ LIF_DUMMY_THORAX/REAR/UPDISP (EURO)
☐ LIF_DUMMY_THORAX/REAR/DOISIP (EURO)
☐ LIF_DUMMY_THORAX/REAR/LODISP (EURO)

☐ Disp
☐ Disp
☐ Disp
☐ Disp

OTHER INTERNAL DUMMY INSTRUMENTATION:

☐
☐

Dummy Instrumentation - External**CONTACT SWITCHES:**

☒ LIF_DUMMY_HEAD_SW
☐ LIF_DUMMY_ARM_SW (NOT ON BID)
☐ LIF_DUMMY_THORAX_SW
☐ LIF_DUMMY_ABDOMEN_SW
☐ LIF_DUMMY_H-POINT_SW
☐ LIF_DUMMY_THIGH_SW

List of Test Contacts

TA#: J82421

	Last name	Phone	Pager	Profs
Requestor	Benjamin Frank	72883	BENJ	bfrank
Approving supervisor	K. Arthurs	05168	KART	karthurs
Build coordinator	John Cieleski	63376	JCIE	jcieleski
Test engineer				
Sensor Engineer	Sean West	44212		swest10
Other				

	Last name	Phone	Pager	Profs
Seats				
Instrument panel				
Restraints				
Air bag (driver)				
Air bag (passenger)				
Steering column				

CRIS 0012606

Originator: G. Williams
J82421 FM CP Side Pole

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Date Issued: 9/13/1998
Date Revised: 10/2/01

ENTIRE PAGE CONFIDENTIAL

Revisions List

TAG: JB2421

DATE	AUTHORIZATION	DESCRIPTION	PAGE #s

TAF: JB2421

DATE	MODEL	YEAR	CARLINE	WORK ORDER NO.
10/2/01	FN145	2003	Town Car	JB2421
ENGINEER		PHONE	DEPT#	WORK TASK
Benjamin Frank		72883	5100L512	J24
COORDINATOR		PHONE	TEST MODE	
John Cieslak		53375	LH Side Pole (10") Use Rollers	
VIN NUMBER		VEHICLE NO.	TAG NUMBER	
1LNHM81W61Y638065		VC390014	565H858	
TYPE OF SEAT		TA NUMBER	DATE CLOSED	
		JB2421		
SEAT POSITION				
BGRP	FULL FORWARD	MID POINT	X	FULL REAR
VERTICLE POSITION	FULL UP	MID	FULL DOWN	X
SEATS TO BE CHECKED				
LH FRT	X	CENTER FRT		RH FRT
LH REAR		CENTER REAR		RH REAR
SEAT CHECK INFORMATION				
SEAT FRAME ANGLE		29 deg		
LOCATION WHERE SEAT FRAME ANGLE TO BE MEASURED				
H-POINT COORDINATES FOR BGRP		X=3169, Y=394, Z=698		
H-POINT COORDINATES FOR TEST POSITION		X=3104, Y=394, Z=703		
MANIKIN BACK ANGLE				
ANY QUESTIONS CONTACT:				
CAROLYN HAAS		PETER J. SIMONE		
PHONE: (313) 32-20826 / (313) 32-27333		PHONE: (313) 59-48809		
PAGER: 313-851-1397		PAGER: (313) 706-9253		
DESCRIPTION OF JOB TO BE PERFORMED:				
Record headrest angle that corresponds to seat back angle of 29 degrees				
BGRP location is 84mm forward from the full rearward position, full down				

Originator: B. Williams
JDD-181 FM GP Side Pole

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Page 16 of 16

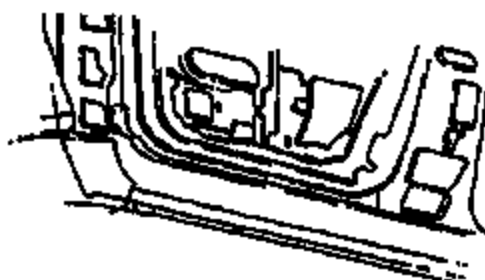
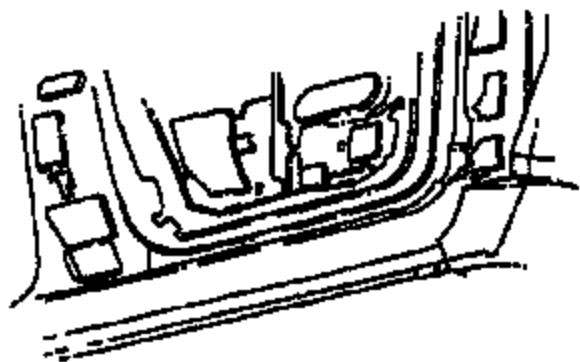
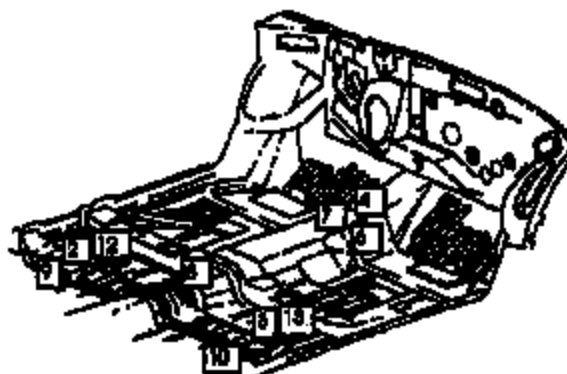
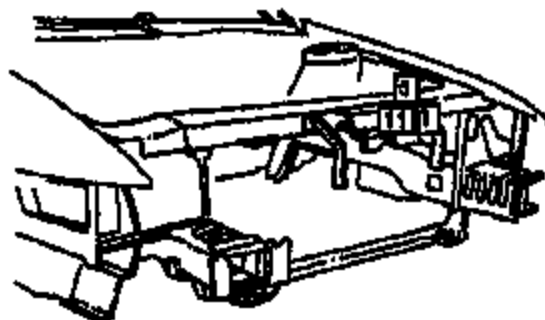
Date Issued: 3/15/1999
Date Revised: 10/20/01

CRTS 0012606

Program: 2003 EN7/PN
Vehicle ID: 555H555
Build level: CP FN145
at Mode: 18mph 10" pole side

SENSOR MAP T89421

Engineer: Sean West
Phone #: 594-4212
Date: 10/13/01
Time: 8:30 AM



Location Name	Type	Output	Sensor Channels only	
			Normal (V)	Max (in) Serial #
1 L/C FRONT RAD SUPPORT_SM		Sensor	Takata PCS No ODAS output	
2 L/F FLOOR PAN @ #2 XMER CTR_SM		Sensor	Takata BCS No ODAS output	
3 R/F FLOOR PAN @ #2 XMER CTR_SM		Sensor	Takata BCS No ODAS output	
4 CTR TUNNEL @ DASH_LSM	ccool	TRAX	Near RCM	
5 L/C FRONT RAD SUPPORT_SM	ccool	LONG	Near PCS sensor on sheet metal	
6 CTR TUNNEL @ DASH_RCM	ccool	TRAX	On RCM	
7 C/L IN BETWEEN F/SEATS	ccool	TRAX		
8 L/F FLOOR PAN @ #2 XMER CTR_SM	ccool	TRAX	Near Takata BCS Sensor	
9 R/F FLOOR PAN @ #2 XMER CTR_SM	ccool	TRAX	Near Takata BCS Sensor	
10 L/C FRONT RAD SUPPORT_FCS	ccool	LONG	On FCS sensor	
11 L/F FLOOR PAN @ #2 XMER CTR_BCS	ccool	LAT		On BCS Sensor
12 R/F FLOOR PAN @ #2 XMER CTR_BCS	ccool	LAT		On BCS Sensor

Contact: Ford: Sean West 594-4212
Takata: Mike McHale 333-5421

Side Impact Dummy Positioning Sheet

Crash Number	12805	
T.O.	J22431	
Test Date	10/28/01	
Test Mode (Ls, 201, 214, Euro, LINGAP, etc)	L201	
Model Year	2002	
Program Name	FN146	
Duty Location (L/F, R/F, etc)	L/F	
Dummy Serial Number	182	
Seatback Angle - Pig Lab (Degrees)	39.0	
Seatback Angle - Actual (Degrees)	39.8	
Dummy to Interior/door H-pt Long (+/- 0.5 inch required) (inch)	1.8	
Dummy to Interior/door H-pt Vert (+/- 0.5 inch required) (inch)	-0.3	
H-Point to Door Striker Long (inch)	8.5	
H-Point to Door Striker Vert (inch)	4.5	
H-Point to Ground (vertical) (inch)	23.0	
Pelvic Angle (Degrees)	24.5	
Head to Upper Steering/ Headrest (shortest) (inch)	14.2	
Head C.G. to Striker Long (inch)	3.5	
Head C.G. to Striker Vert (inch)	22.2	
Head C.G. to roof side rail (shortest) (inch)	5.2	
Head C.G. to window (internal) (inch)	9.7	
L/Hips to W/Seatback (shortest) (inch)	2.5	
R/Hips to W/Seatback (shortest) (inch)	2.7	
Abdomen to lower steering/seatback (horizontal) (inch)	1.6	
Pelvic centerline to Vehicle centerline (lateral) (inch)	15.0	
Chest centerline to Vehicle centerline (lateral) (inch)	15.1	
Seat centerline to Vehicle centerline (lateral) (DA) (inch)	15.0	
Chest to Beltline (lateral, shortest) (inch)	4.3	
Pelvis to H-Point (lateral) (inch)	6.2	
Pelvis to nearest lateral hand point (lateral) (inch)	5.1	
L/F Wheel lip height (vertical to ground) (mm)		
R/F Wheel lip height (vertical to ground) (mm)		
L/R Wheel lip height (vertical to ground) (mm)		
R/R Wheel lip height (vertical to ground) (mm)		
Top of Barrier to Ground (inch)		
Impact Mark Relative to Target Front (X) (mm)		
Impact Mark Relative to Target Front (Z) (mm)		
Impact Mark Relative to Target rear (X) (mm)		
Impact Mark Relative to Target rear (Z) (mm)		

QAT Report for Run Number: 1206

Run Number	Channel	Location Description	Axis	Transducer	Bridge	Cable 2	Cable 1	DAS Unit	DAS Chan	Sw	PO Number
12606	24	FUEL SHUT OFF (IMMORTA) SW		51000	1		YGS-1	1606	205	5	J82421

No Data From: -76 ms To: 546 ms Data is Good Cause: Switch Did Not Trigger No Fault

12606	32	L/R DOOR BEAM ON SEAT H-PT ACCEL	LAT	40542	1		BSC-4	2216	28	0	J82421
-------	----	----------------------------------	-----	-------	---	--	-------	------	----	---	--------

Data Dropout From: 66 ms To: 546 ms Data is Unstable Cause: Transducer failure No Fault Details: Open, possible cut cable

CRIS 0012606



ENTIRE PAGE CONFIDENTIAL	
Module No.	7-7-12
Valid Until	2022

FINAL TEST REPORT

CONFIDENTIAL

**Vehicle Evaluation and Verification
Research and Vehicle Technology**

TO: B. Frank

Test Order No. 1-B3000
Work Task W.O. No. 124
Test Dates 4/9/02
Date Reported 9/13/02
Sheet 1 of 4

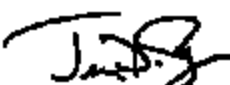
SUBJECT: Crash Test 12837 (90° Left Side Fixed Pole Impact at 12.8 ± 0.4 mph, 20.6 ± 0.6 km/h) - 2003 Lincoln Town Car (FN-145) 4-Door Sedan

REQUESTED BY: Vehicle Crash Safety Department, Research and Vehicle Technology - B. Frank

OBJECT: To obtain development data relative to air bag system sensors.

**SUMMARY OF
TEST RESULTS:** See Section 1 for air bag system sensor data.


R. Oda
Engineering Technologist


Concurred: J. Ng
Section Supervisor
Operations Engineering Section

CRTS 0012837

VEHICLE DATA

Make and Model	2003 Lincoln Town Car (FN-145) 4-Door Sedan (Confirmation Prototype)	
ID Number	1LNHM484W61Y638031, 563-H-663, VC390028	
Power Train	4.6L, EFI, Automatic (4R70W) Transmission	
Fuel Tank(s)	Usable Capacity: 19.0 gal (71.9L) Test Condition: Empty	
Front Seat(s)	Type: 40/20/40 Split Bench Cover: Leather Tracks/Position: Power/Mechanical Mid and Down Seat Backs/Position: Adjustable/24.0° Rear of Vertical Head Restraints/Position: Adjustable/Up	
Restraint System	LP: 3-Point Continuous Loop Active Belt Seatbelt remains latched during impact.	
Occupants	LP: SII/Hybrid III Instrumented Dummy	
Test Weight	Front: 2650 lb (1202 kg) Rear: 2337 lb (1069 kg) Total: 5007 lb (2271 kg)	
Tires	Front: P225/60R17 Rear: P225/60R17 Spare: P225/60R17	32 psi (221 kPa) 32 psi (221 kPa) 32 psi (221 kPa)
Spare Tire Mounting	Location: In Trunk	
Significant Control or Accessories	Air Conditioning, Power Steering, Power Brakes, Tilt Steering Wheel	

GENERAL TEST COMMENTS:**1. Test Procedures**

The test was performed according to the following regulations, test protocols and the Corporate test procedure's:

- Non-regulator crash test procedure, CHP-3 dated April 16, 1998.
- FMVSS 201 Occupant Protection in Interior Impact, dated December 14, 1999.

1.1 Deviations

The fuel system did not contain standard.

1.2 Vehicle Alignment

The test vehicle impacted an 10 inch diameter steel pole structure, rigidly attached to the barrier face. The vertical steel pole was aligned so that the point of vehicle impact was near the test dummy's left front head corner of gravity.

2. Remarks

Crash movies, pre- and post-crash still images of the test vehicle and copies of this report are available through the Operations Engineering Section, Safety Laboratories Department, VEV. The crash still images are stored and archived on CD ROMs. The file names of the still images are listed under crash number and a three digit sequence number which are 12837001 through 12837046.

TEST RESULTS:**1. Sensor Development**

Time histories of the dummy instrumentation are archived on a storage media under the crash number/and or the test authorization number.

Time histories of the dummy dynamic displacements obtained from Film Analysis are archived on a storage media under the crash number/and or the test authorization number.

Time histories of the air bag/sensor(s) are archived on a storage media under the crash number/and or the test authorization number.

Time histories of any requested derived data (i.e. integrations, etc.) were given to the requesting activity and are not included in this report.

2. Vehicle Displacement and Instrumentation Data

Time histories of the vehicle/cart accelerations and other instrumentation are archived on a storage media under the crash number/and or the test authorization number.

Time histories of vehicle dynamic displacements obtained from Film Analysis are archived on a storage media under the crash number/and or the test authorization number.

Static displacements of various body points obtained by Dimensional Analysis are included in this report.

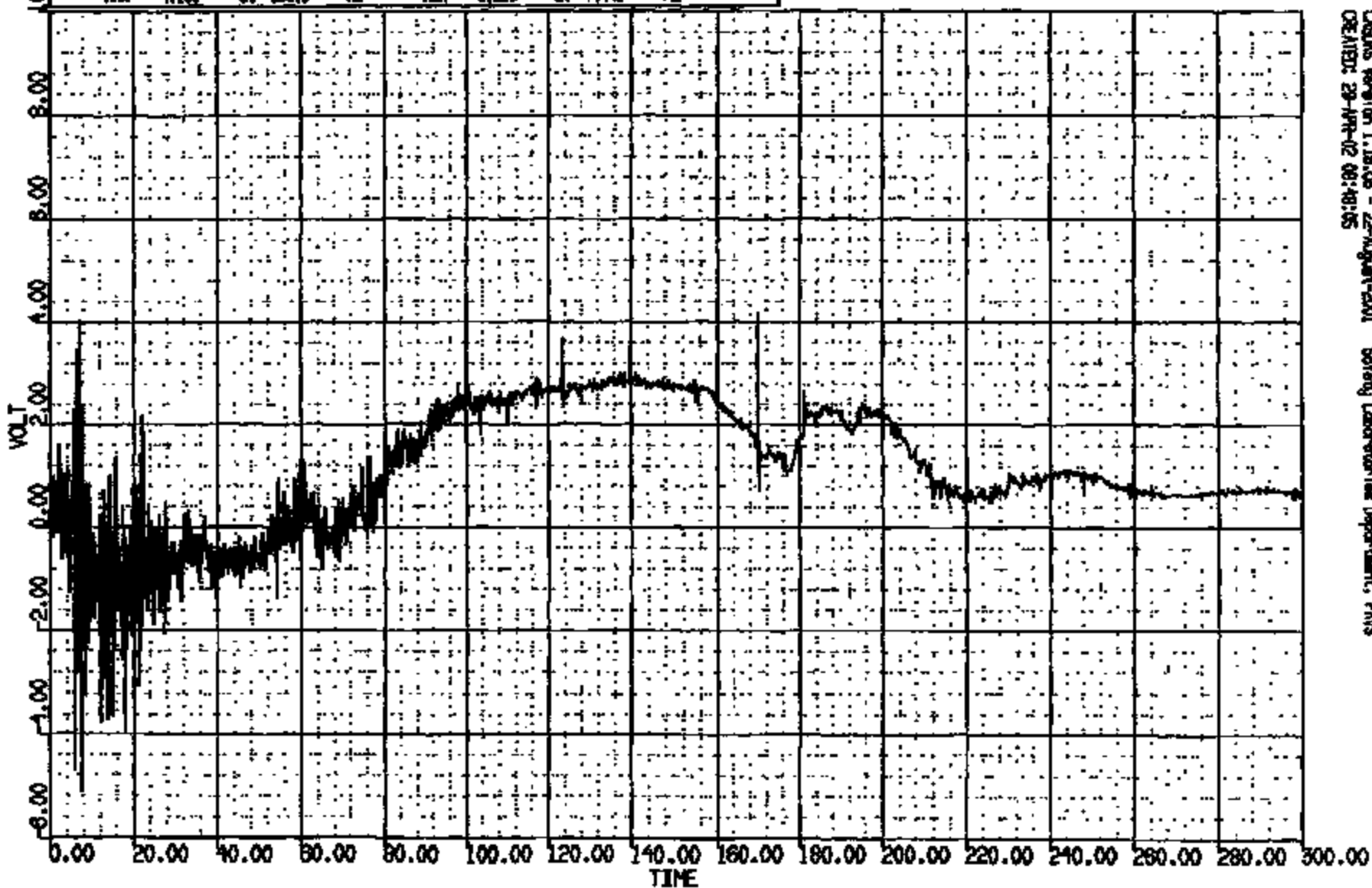
Time histories of any requested derived data (i.e. integrations, etc.) were given to the requesting activity and are not included in this report.

CR R: 12837 TO: JES000 DATE: 08-APR-2002 10:08:55
2002 FN145

(53) CR12837/T TIME ZERO TAKATA TAK 14 #38 4000C

MAX = 4.163 at 189.9 NS MIN = -5.115 at 7.410 NS

AXIS 1



CRJMS Version 1.18.03 - 23-August-2001 Safety Laboratories Department, PMS
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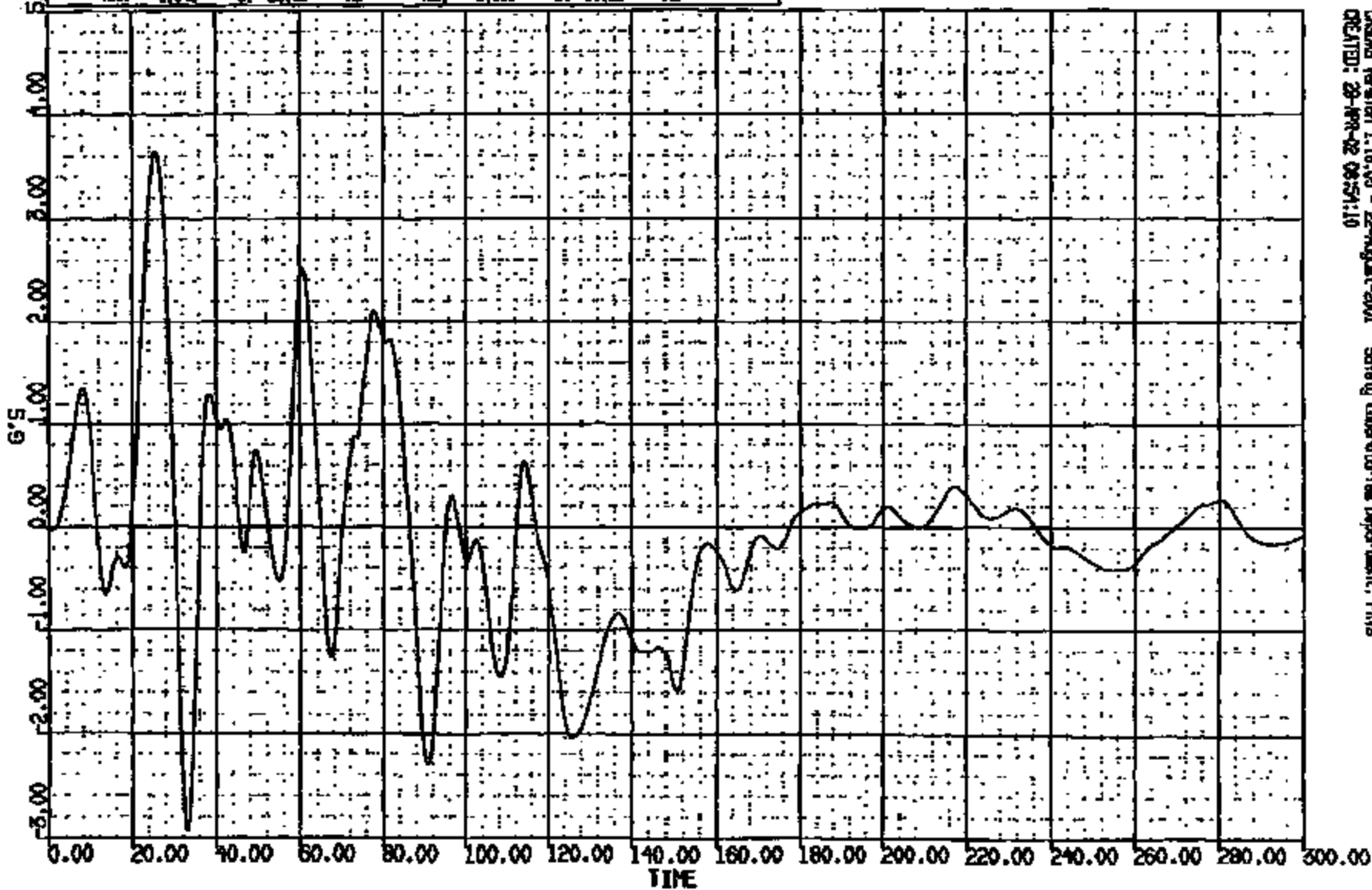
CRIS 0012837

CR R: 12837 TO: JB5000 DATE: 06-APR-2002 10:08:55
2003 FN145

(68) CR12837T C/L TUNNEL BTM SEATS #10 LONG 60M

MAX = 3.615 at 25.52 MS MIN = -2.935 at 33.12 MS

AXIS 1



CASINS Version 1.18.03 - 22-August-2001 Safety Laboratories Department, PMS
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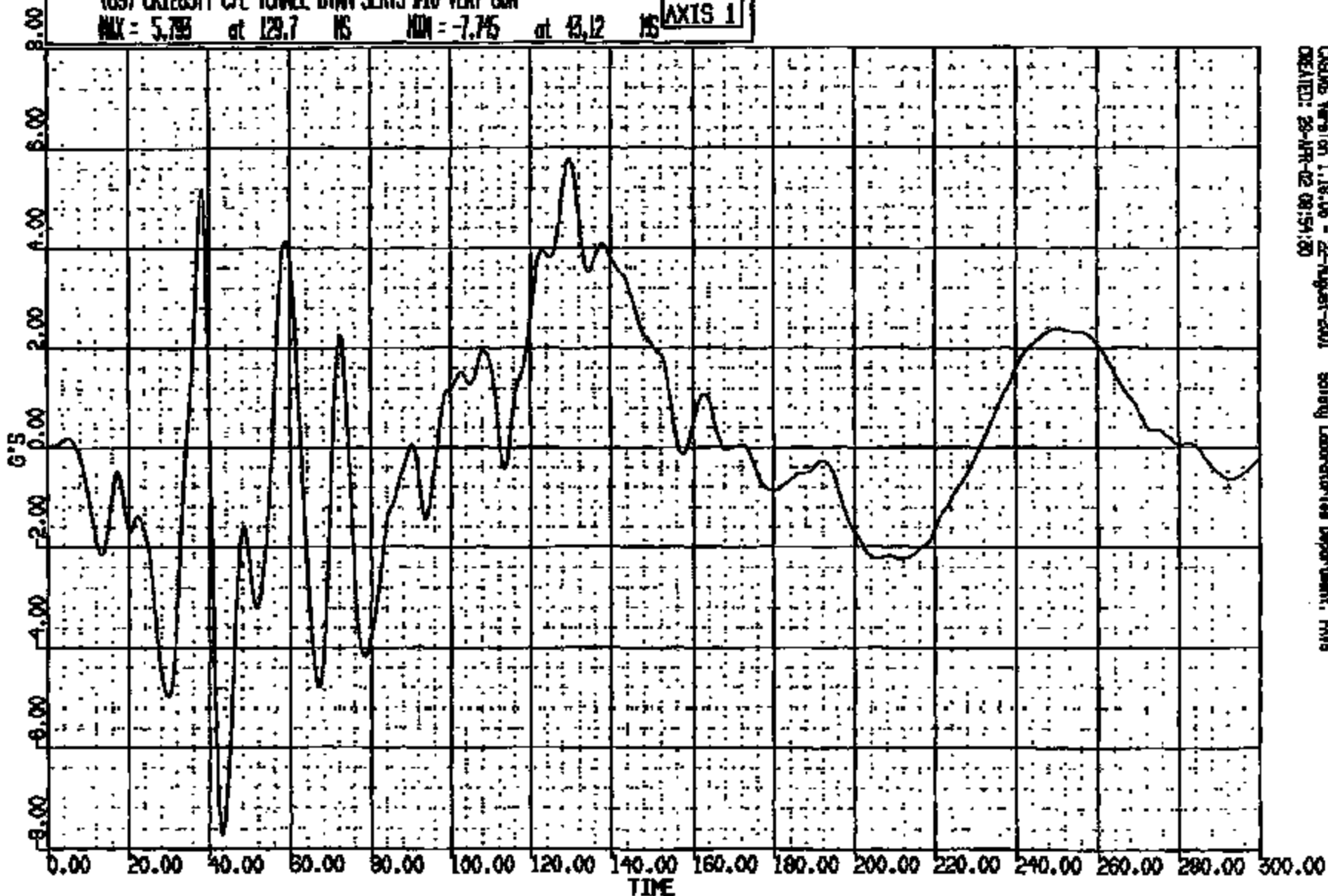
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CR R: 12837 TO: JB5000 DATE: 09-APR-2002 10:08:55
2008 FN146

(69) CR12837T CA TUNNEL BINN SEATS #10 VERT GCM

MAX = 5.795 at 129.7 MS MIN = -7.745 at 43.12 MS

AXIS 1



CASME Version 1.18.05 - 22-August-2001 Safety Laboratories Department, PWS
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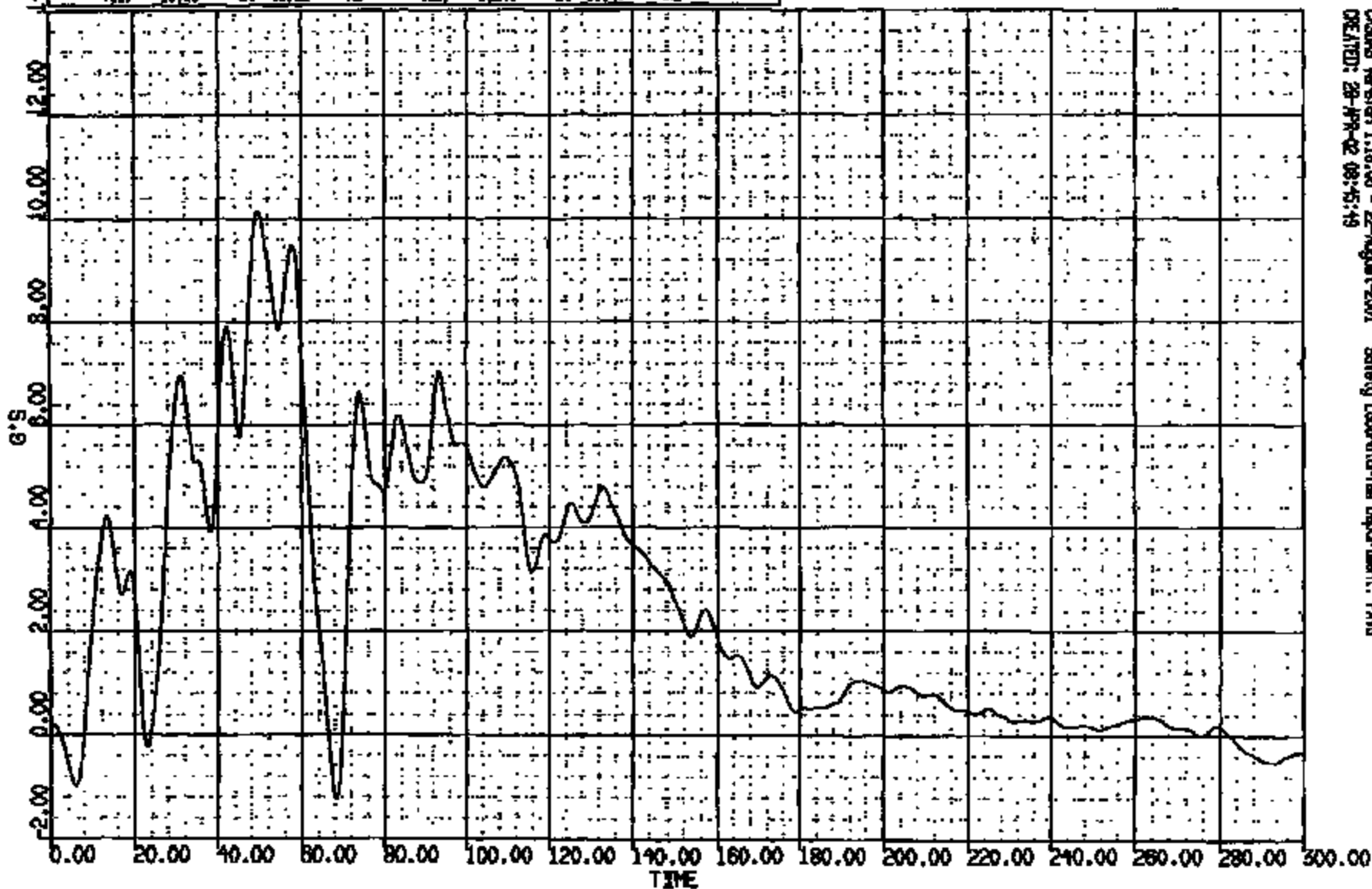
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2003 FN145

(47) CR128371 C TUNNEL @ DASH ROM #6 LAT 60N

MAX = 10.15 at 49.52 NS MIN = -1.25 at 68.40 NS

AXIS 1



CRSIS Version 1.18.08 - 22-August-2001 Safety Laboratories Department, PMS
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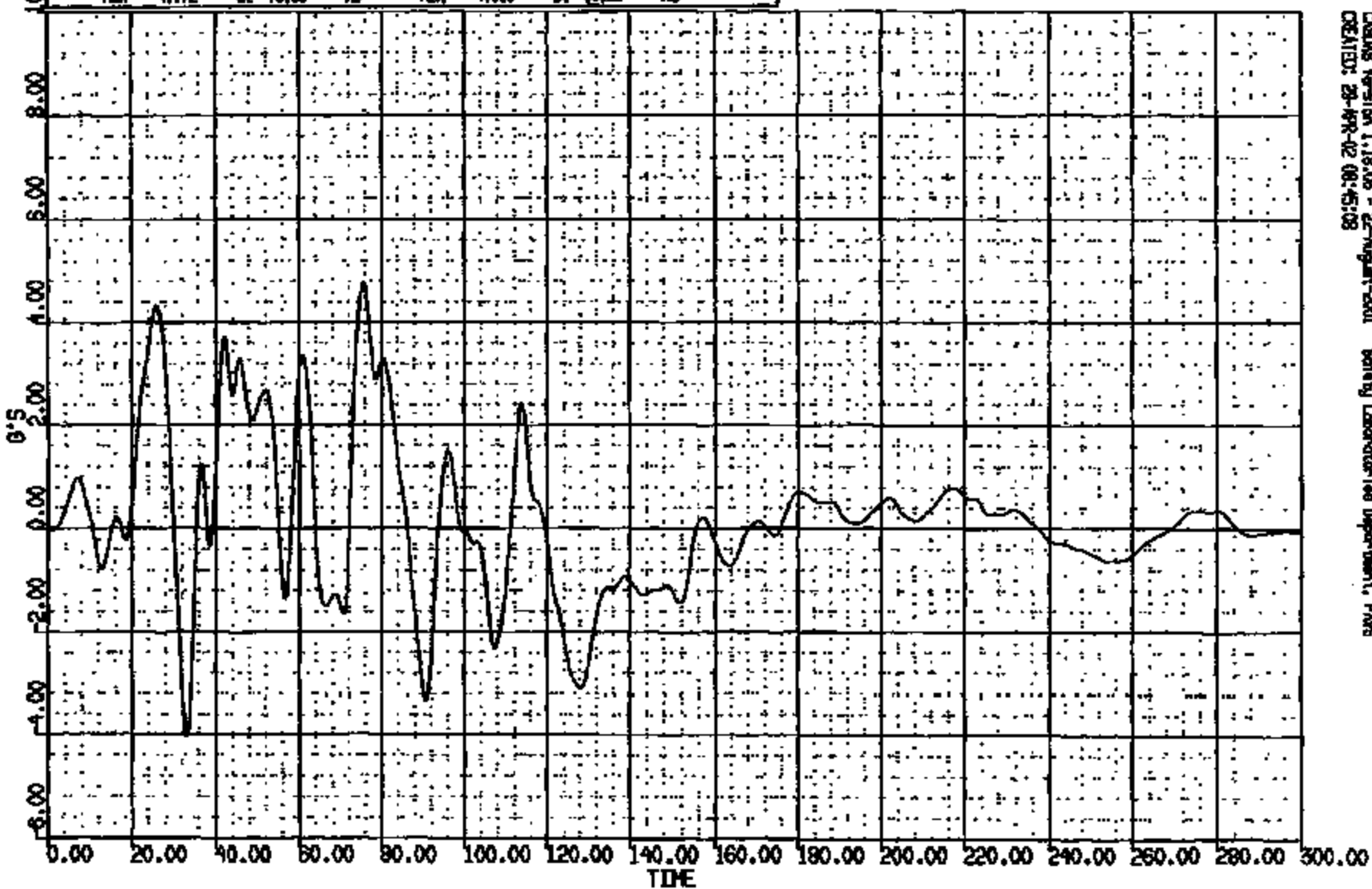
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CR R: 12837 TO: JB5000 DATE: 02-APR-2002 10:08:55
2002 FN145

(45) CR128377 C TUNNEL @ DASH RCH #6 LONG 60N

MAX = 4.772 at 75.08 NS MIN = -4.080 at 33.20 NS

AXIS 1



CADMS Version 1.18.05 - 22-August-2001 Safety Laboratories Department, PHS
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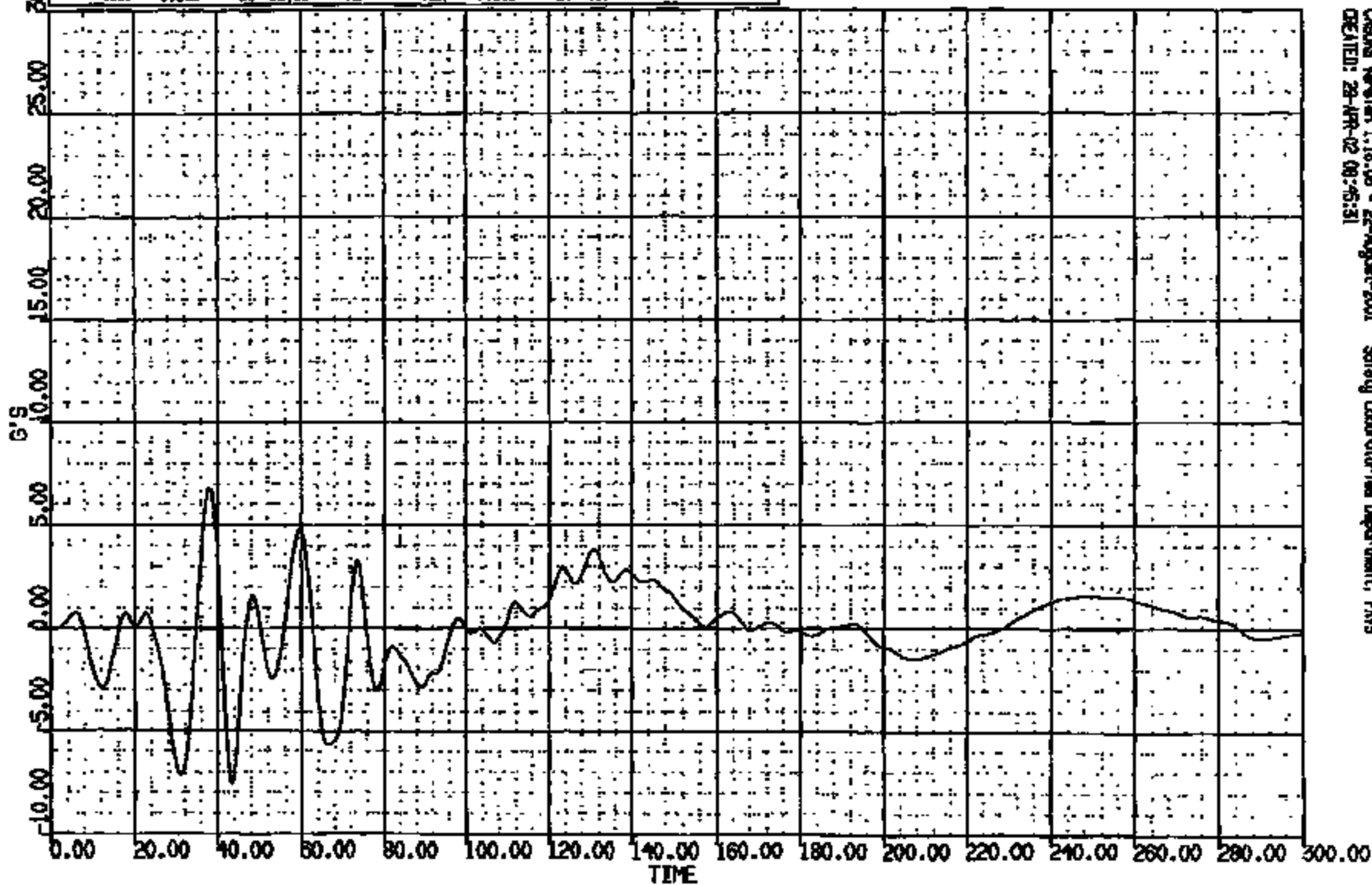
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2003 FN145

(46) CR12837T C TUNNEL @ DASH RGN NS VERT 60M

MAX = 6.905 at 38.08 NS MIN = -7.555 at 43.44 NS

AXIS 1



CASDAS Version 1.18.05 - 22-August-2001 Safety Laboratories Department, PMS
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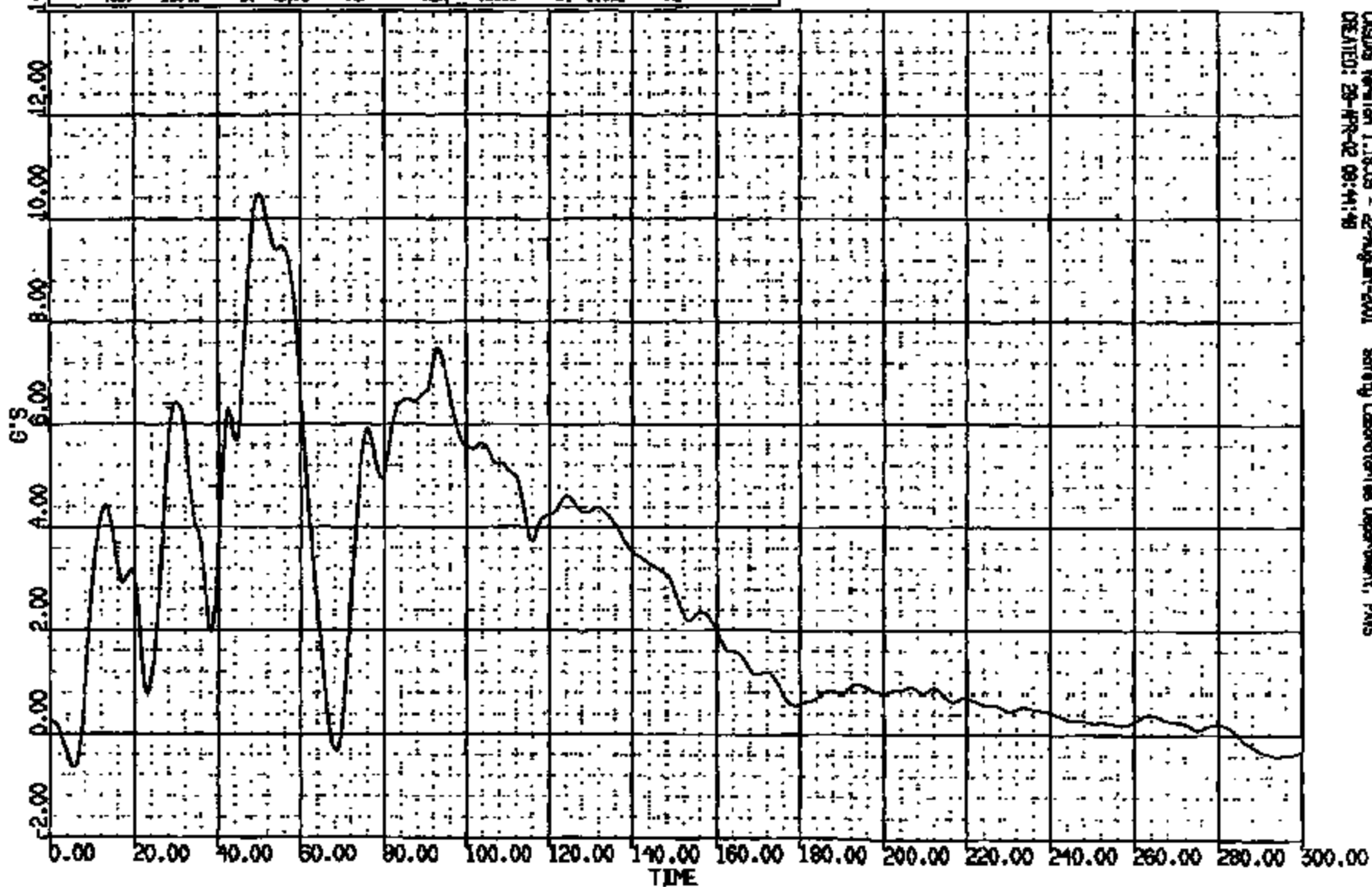
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2003 FN145

(44) CR12837 C TUNNEL @ DASH SH JS LAT 60N

MAX = 10.48 at 49.36 MS MIN = -0.655 at 5.300 MS

AXIS 1



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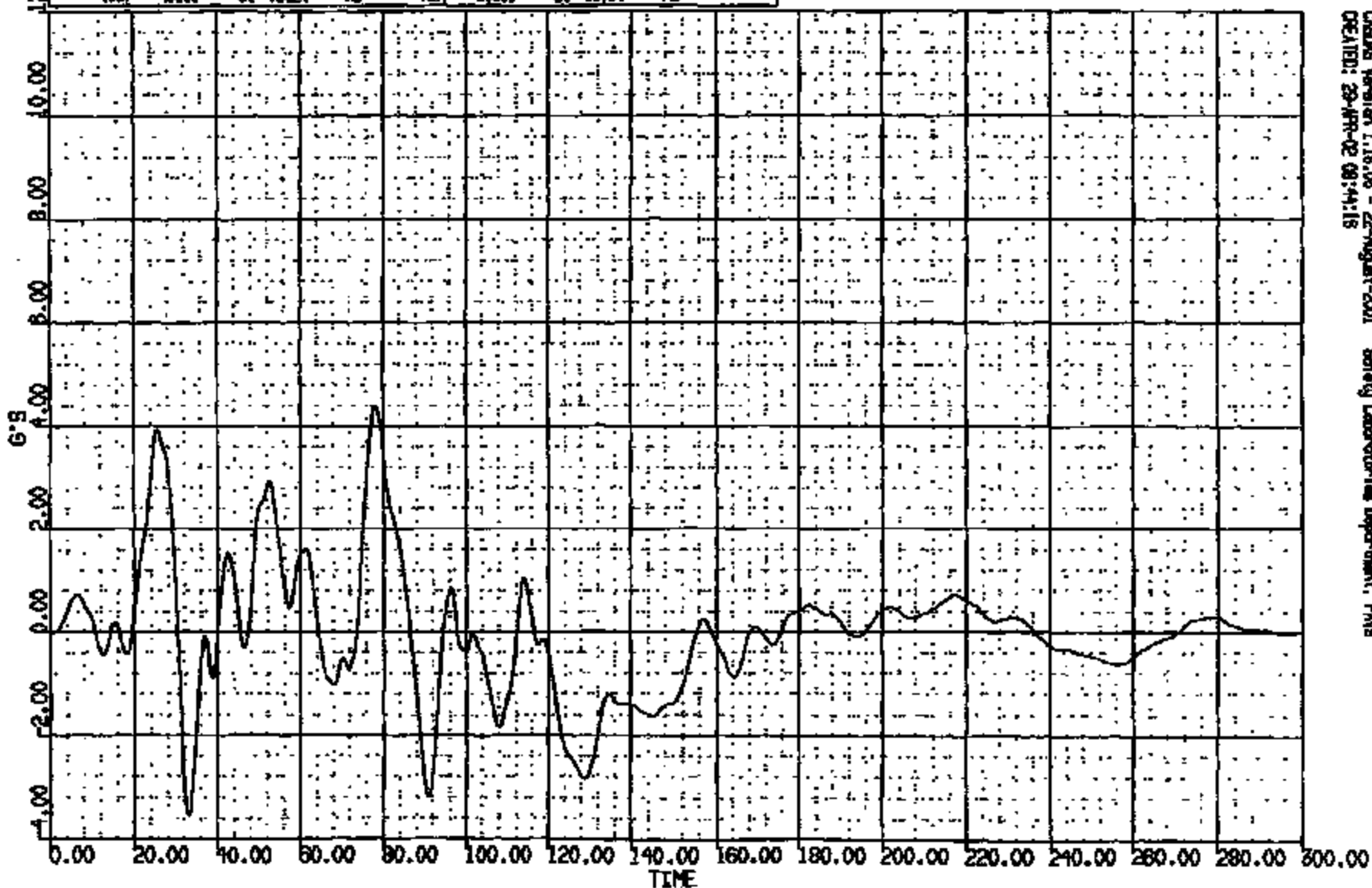
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2002 FN145

(42) CR12837 C TUNNEL @ DASH SH #5 LONG CON

MAX = 4.300 at 78.21 MS MIN = -3.550 at 33.04 MS

AXIS 1



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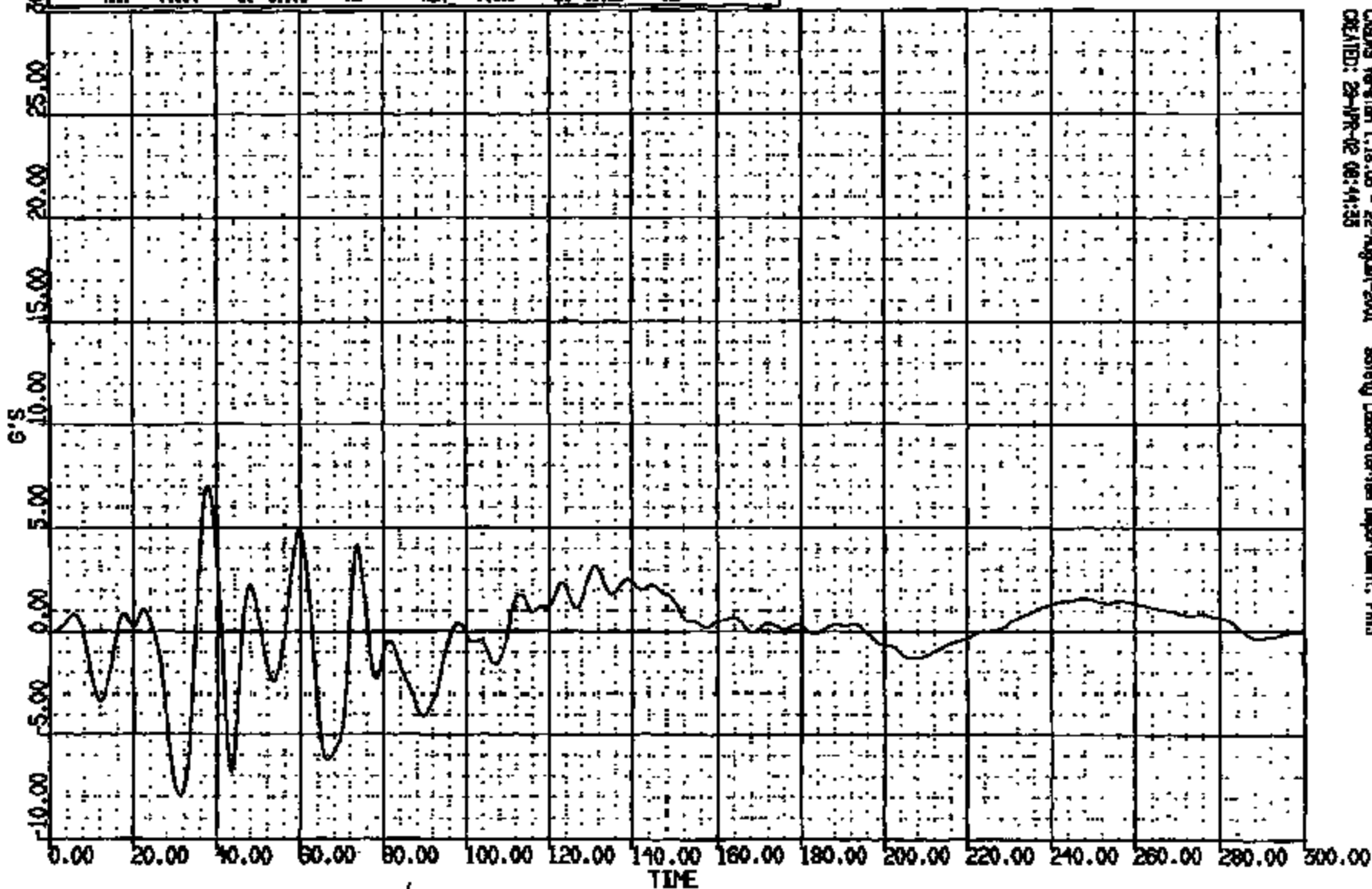
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CR R: 12837 TO: JB5000 DATE: 09-APR-2002 10:08:55
2008 FN145

(43) CR12837 C TUNNEL @ DASH SM JS VERT GUN

MAX = 7.004 at 37.75 NS MIN = -7.936 at 31.28 NS

AXIS 1



CASIX Version 1.18.05 - 22-August-2001 Safety Laboratories Department, PANS
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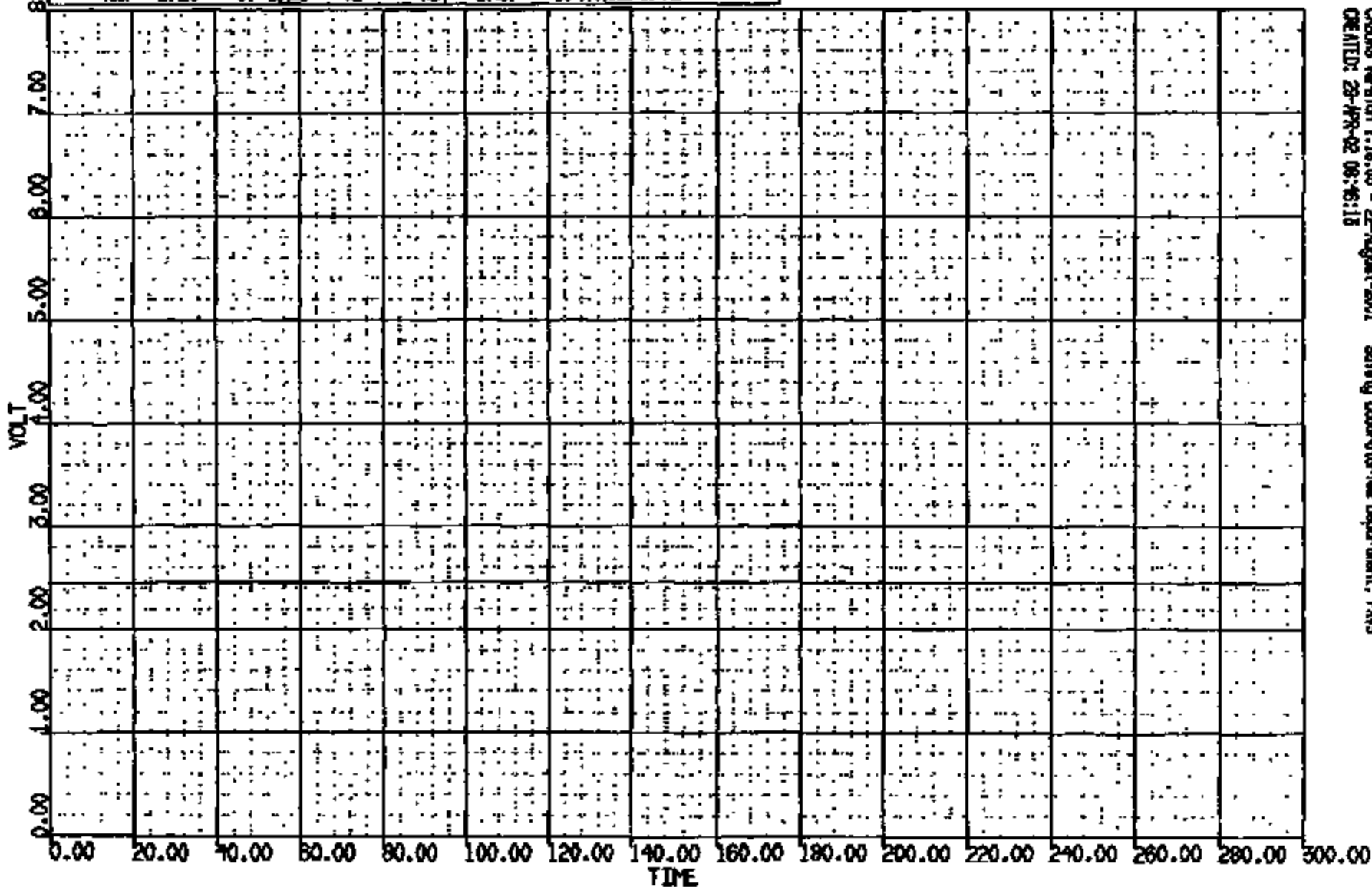
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2003 FN145

(48) CR12837T C TUNNEL BUSH TAKI JSA 4000C

MM = 2.45 at 25.28 HG MM = 2.450 at 0.000E+00 HG

AXIS 1



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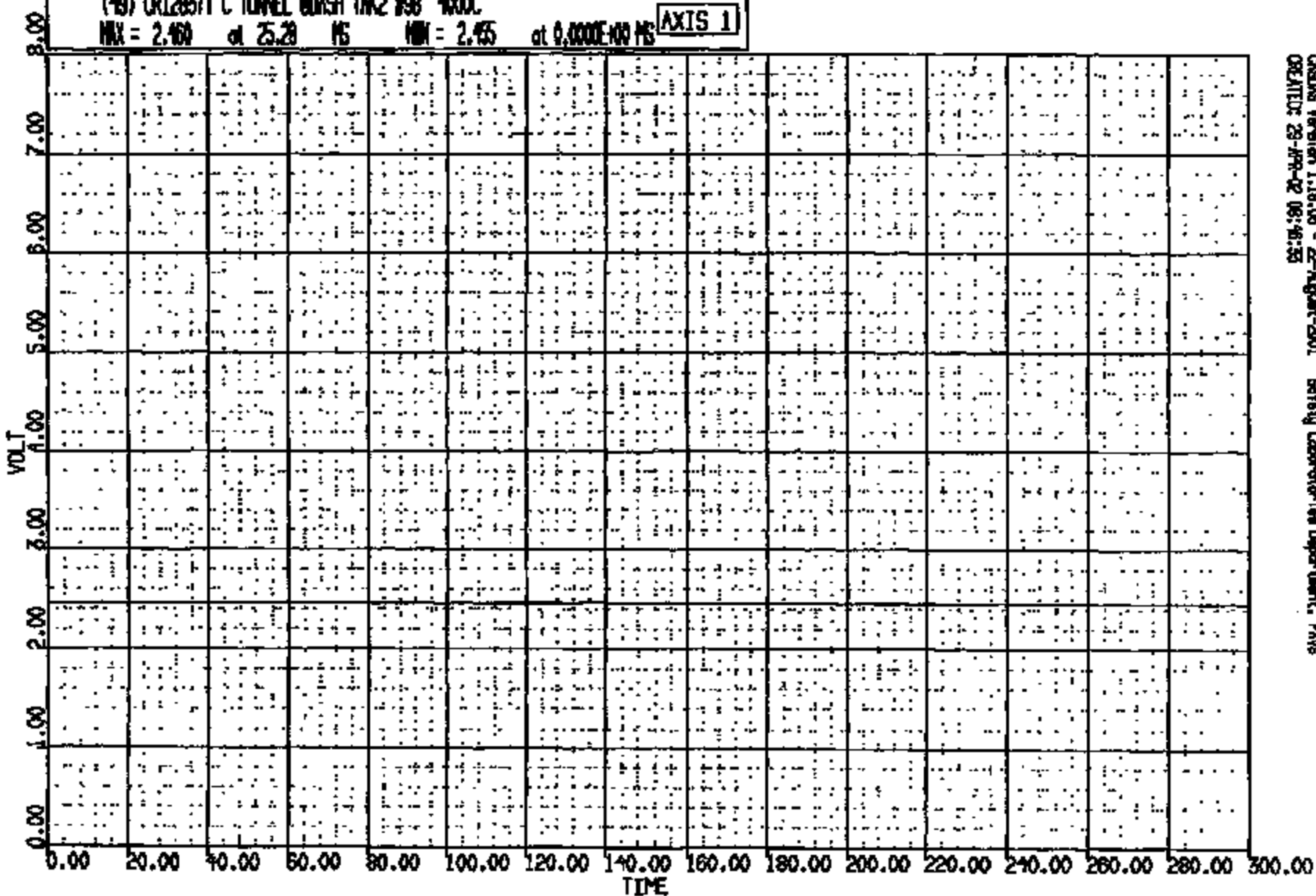
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2002 FN145

(40) CR12837T C TUNNEL DASH TAK2 #38 4000C

MAX = 2.400 at 25.28 MS MIN = 2.455 at 0.000E+00 MS

AXIS 1



CASING Version 1.18.05 - 22-August-2001 Safety Laboratories Department, PMS
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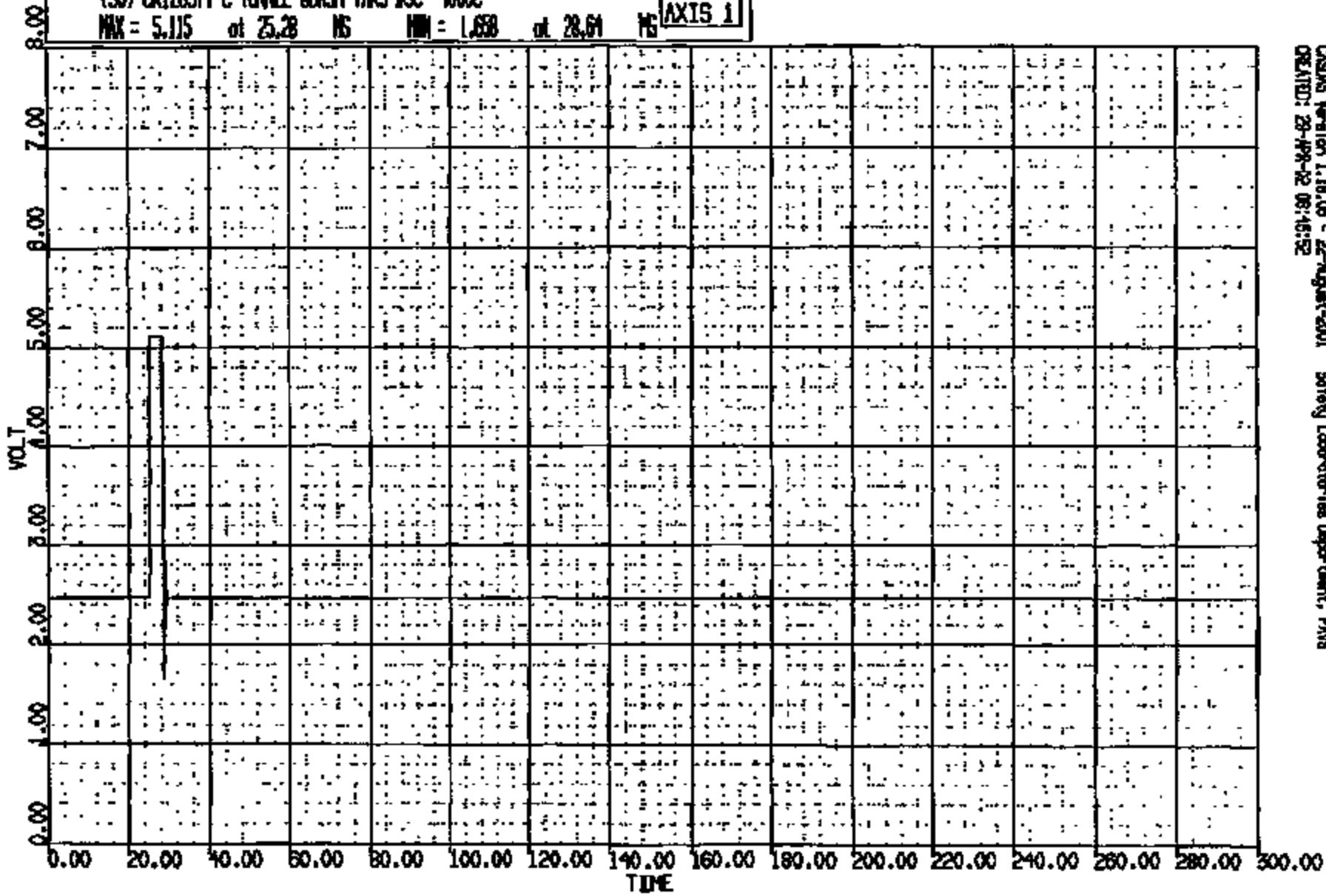
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2005 FN145

(50) CR12837T C TUNNEL BODASH TAK3 MSC 4000C

MAX = 5.115 at 25.28 MS MIN = 1.658 at 28.61 MS

AXIS 1



CSDMS Version 1.18.05 - 22-August-2001 Safety Laboratories Department, PHS
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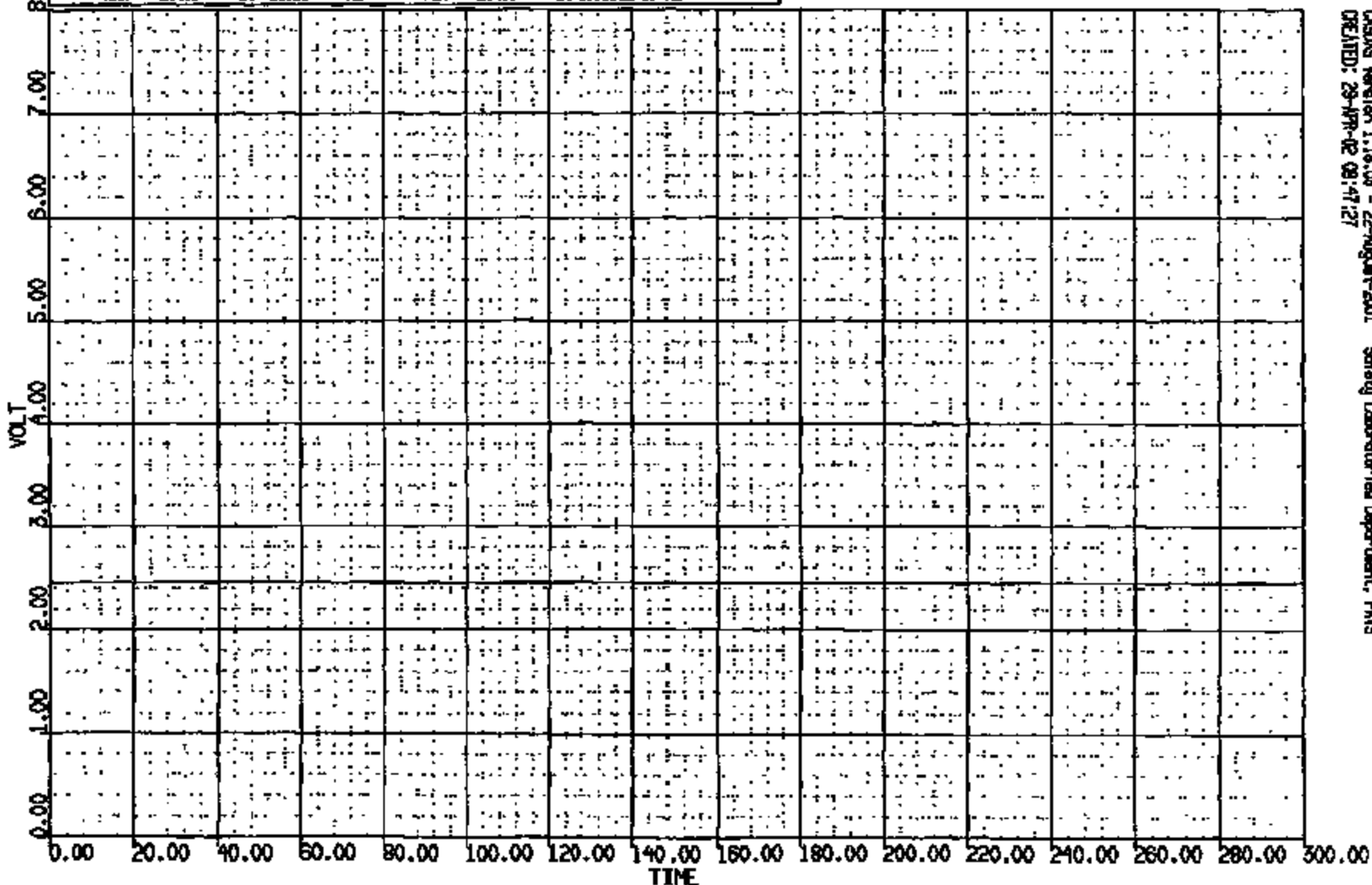
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2005 FN146

(51) CR12837 C TUNNEL GDNASH TAK4 #90 4000C

MAX = 2.461 at 25.28 NS MIN = 2.436 at 0.000E+00 NS

AXIS 1



CASDAS Version 1.18.03 - 22-August-2001 Safety Laboratories Department, PMS
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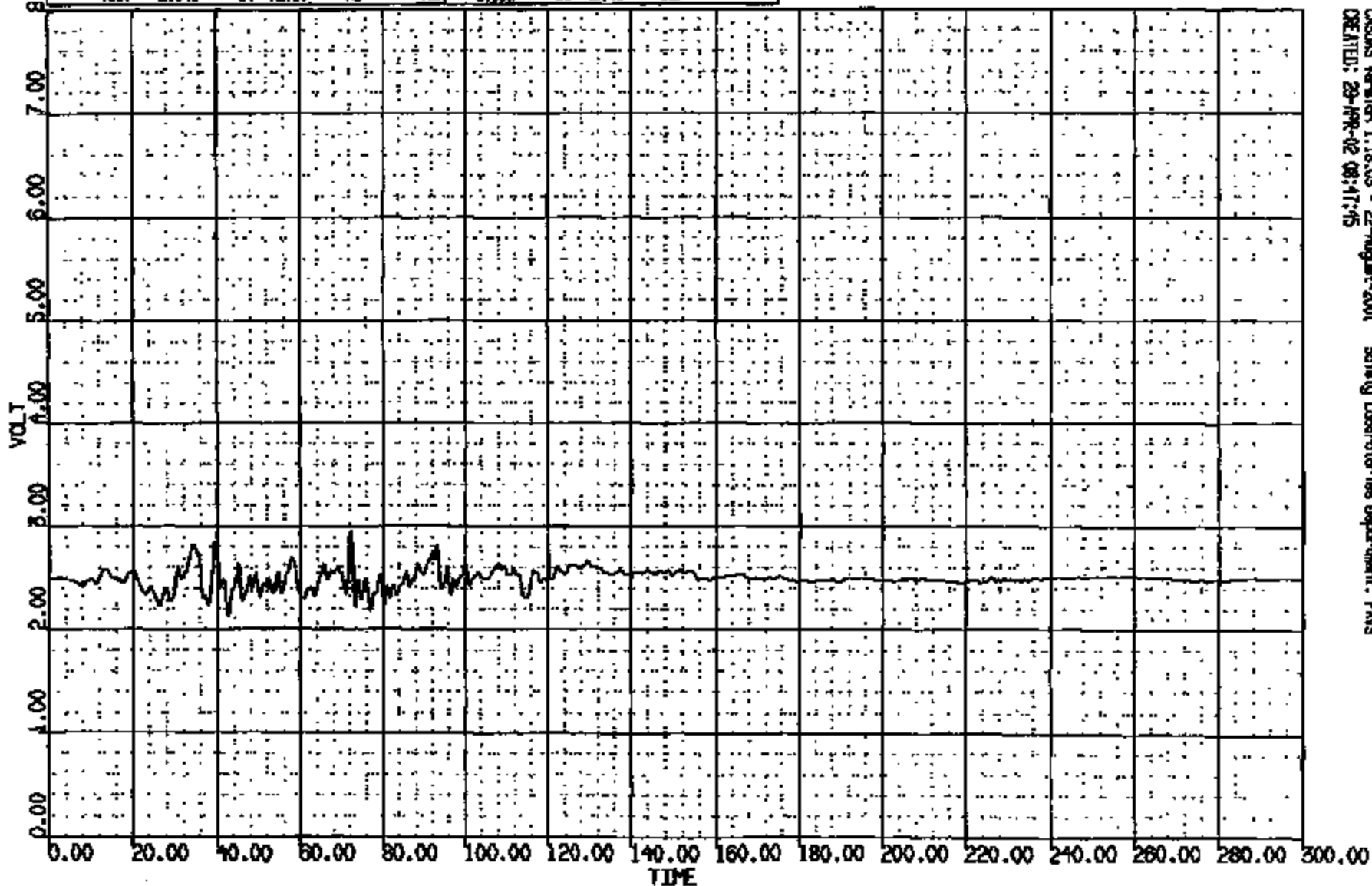
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2003 FN145

(52) CR12837 C TUNNEL @ DASH TAGS #7A 4000C

MAX = 2.90 at 72.16 MS MIN = 2.122 at 12.48 MS

AXIS 1



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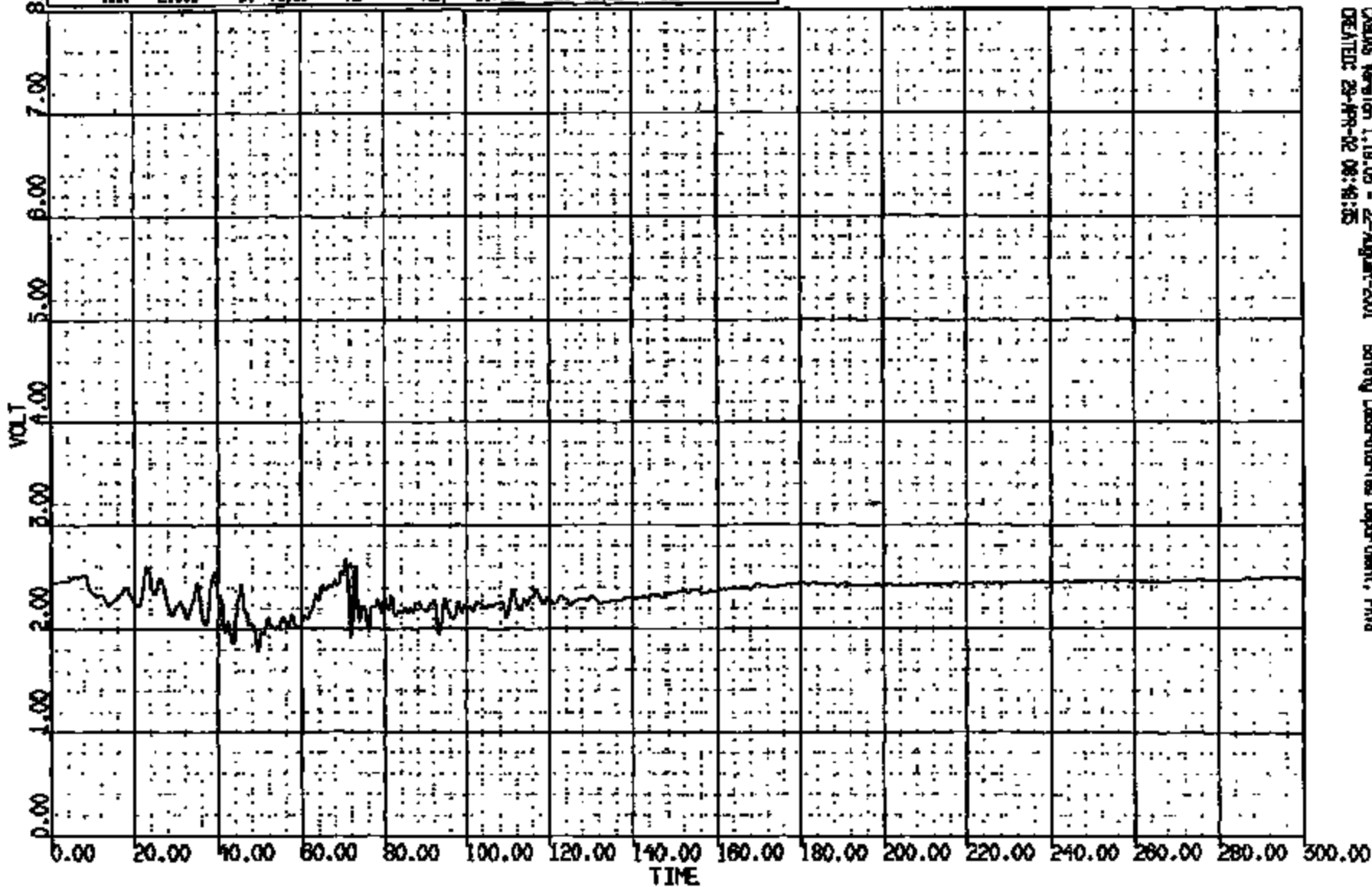
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2003 FN145

(57) CR12837T C TUNNEL @ DASH TAK7 #7B 4000C

MAX = 2.668 at 70.56 MS MIN = 1.779 at 119.28 MS

AXIS 1



CRASIS Version 1.19.05 - 22-August-2001 Safety Laboratories Department, PMS
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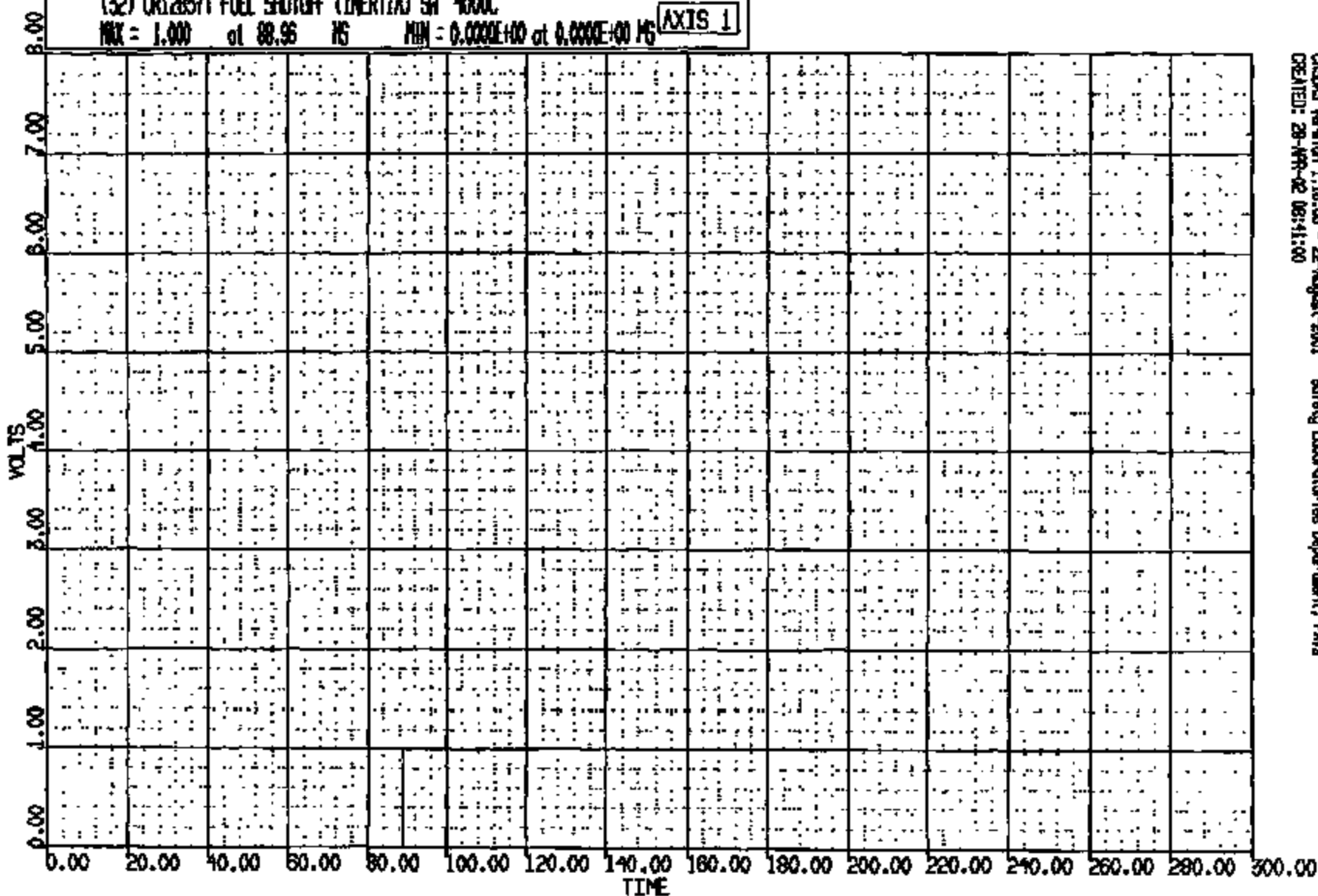
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CR R: 12837 TO: JB5000 DATE: 08-APR-2002 10:09:55
2002 FN145

(32) CR12837 FUEL SHUTOFF (INERTIA) SH 4000C

MAX = 1.00 at 88.96 HS MIN = 0.000E+00 at 0.000E+00 HS

AXIS 1



OSDMS Version 1.18.05 - 22-August-2001 Safety Laboratories Department, PMS
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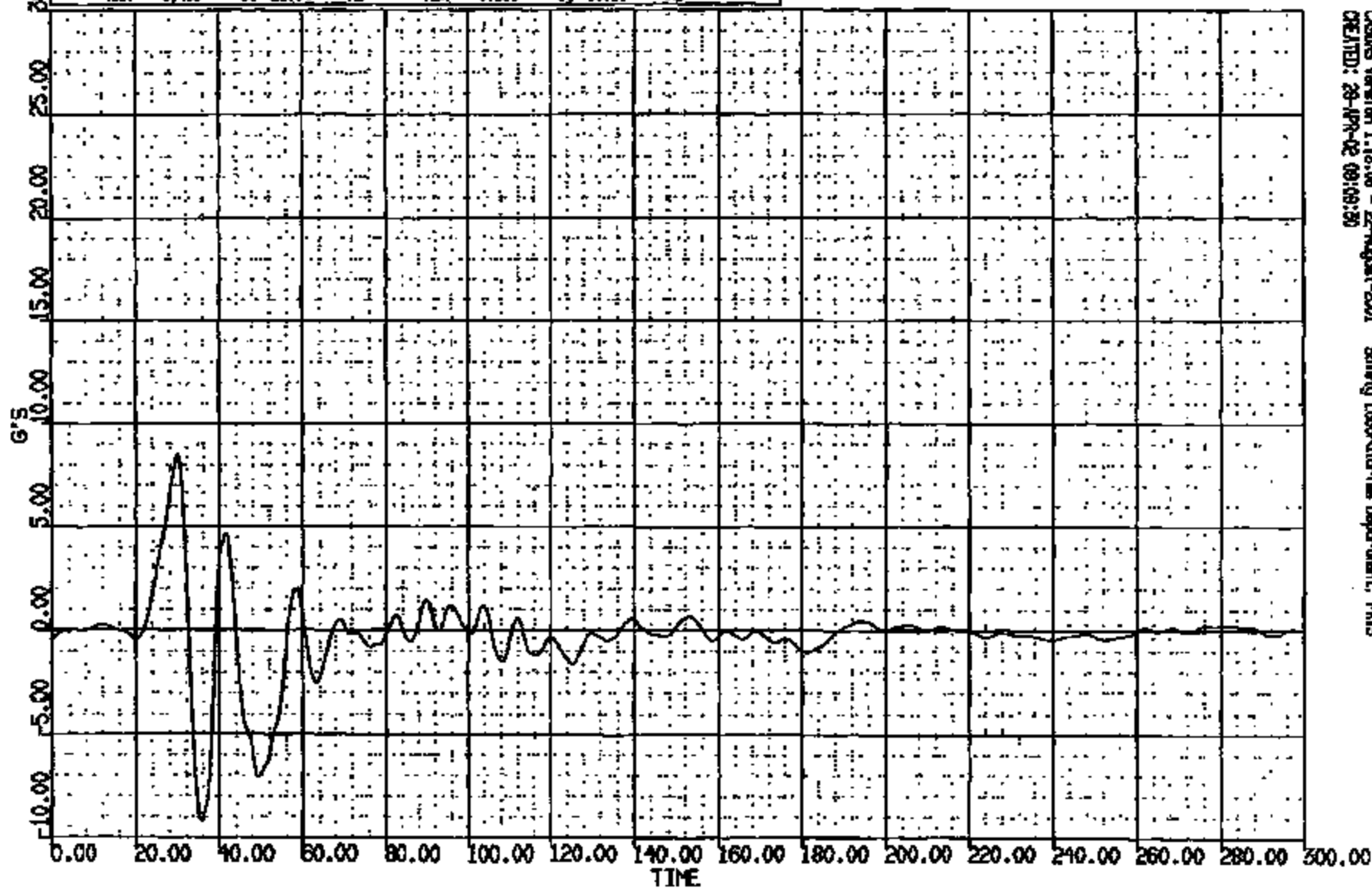
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CR R: 12837 TO: J85000 DATE: 09-APR-2002 10:08:55
2003 FN145

(103) CR12837T L/H1 FRM XM TB CR CAN #35A LONG 60N

MAX = 8.488 at 29.81 MS MIN = -9.136 at 35.60 MS

AXIS 1



CASINS Version 1.18.06 - 22-August-2001 Safety Laboratories Department, PMS
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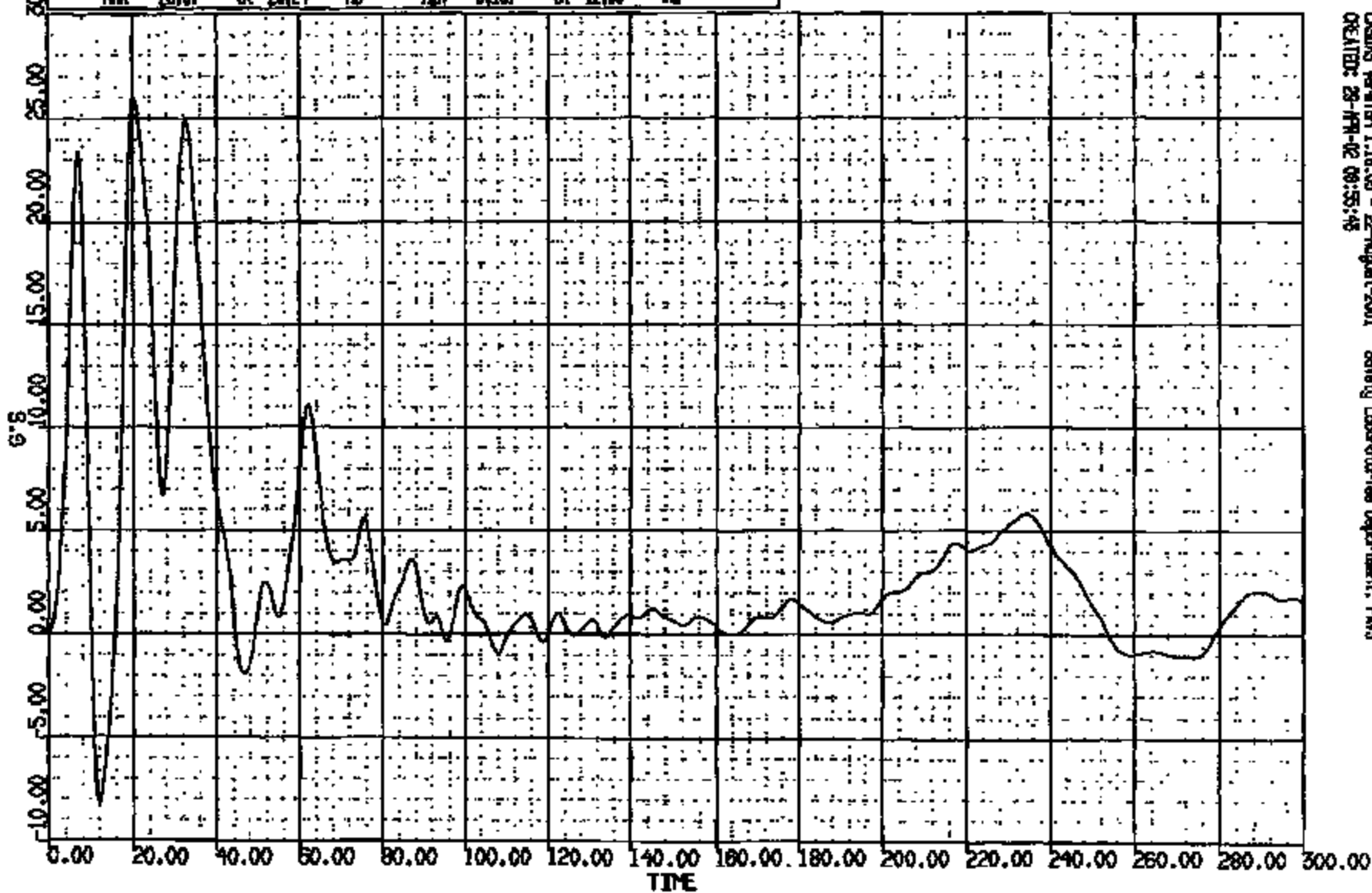
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CR R: 12837 TO: J95000 DATE: 09-APR-2002 10:08:55
2002 FN145

(72) CR12837 L/O-PLR IN 0 BELTLINE LAT 60N

MAX = 25.97 at 20.24 NS MIN = -8.157 at 12.00 NS

AXIS 1



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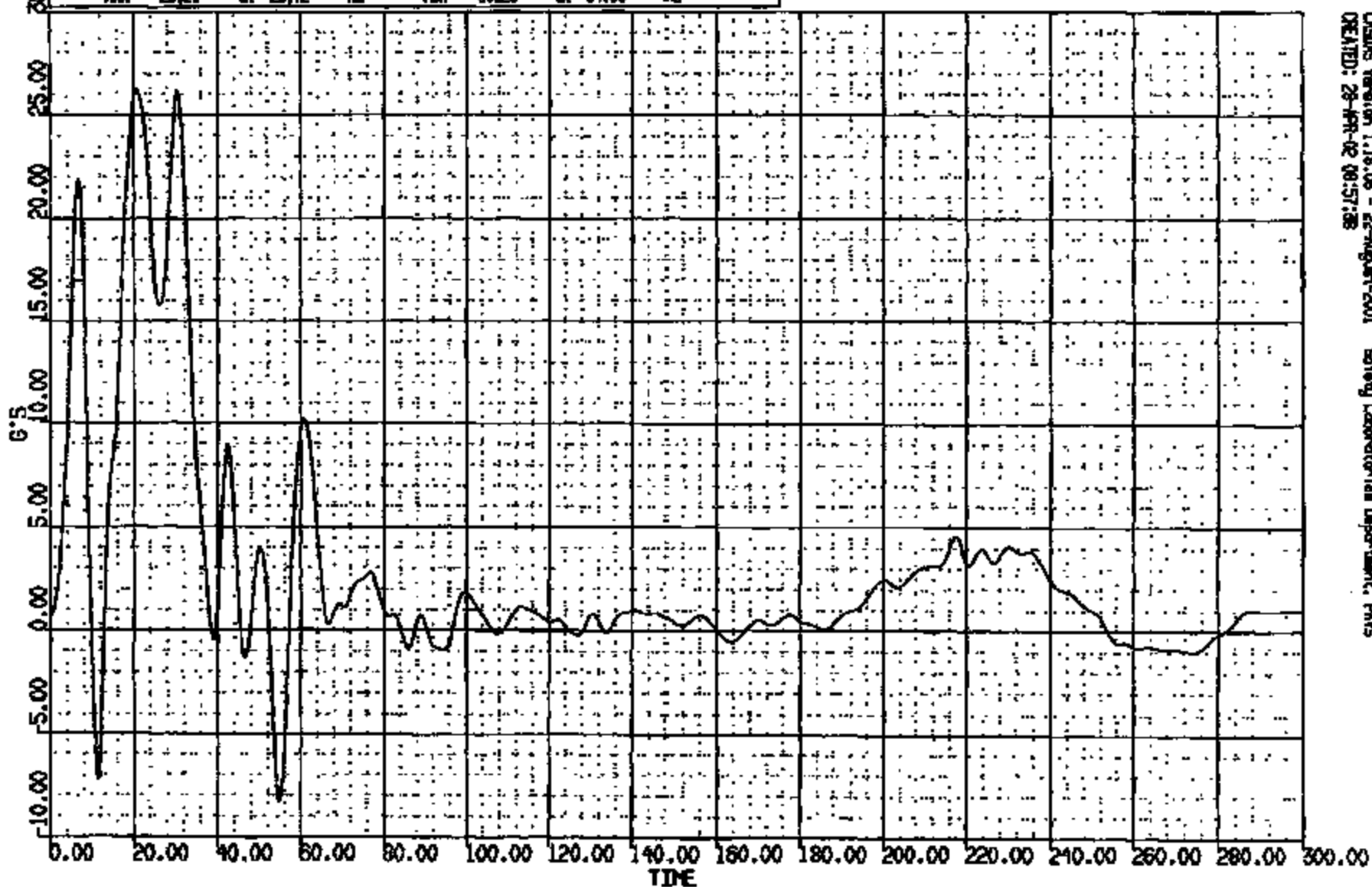
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CR R: 12837 TO: J95000 DATE: 08-APR-2002 10:08:55
2003 FN145

(76) CR12837 L/B-PLR IN @ MID SCS #28 LAT 60N

MAX = 26.20 at 20.72 NS MIN = -9.320 at 54.08 NS

AXIS 1



CASUS Version 1.18.08 - 22-August-2001 Safety Laboratories Department, PHS
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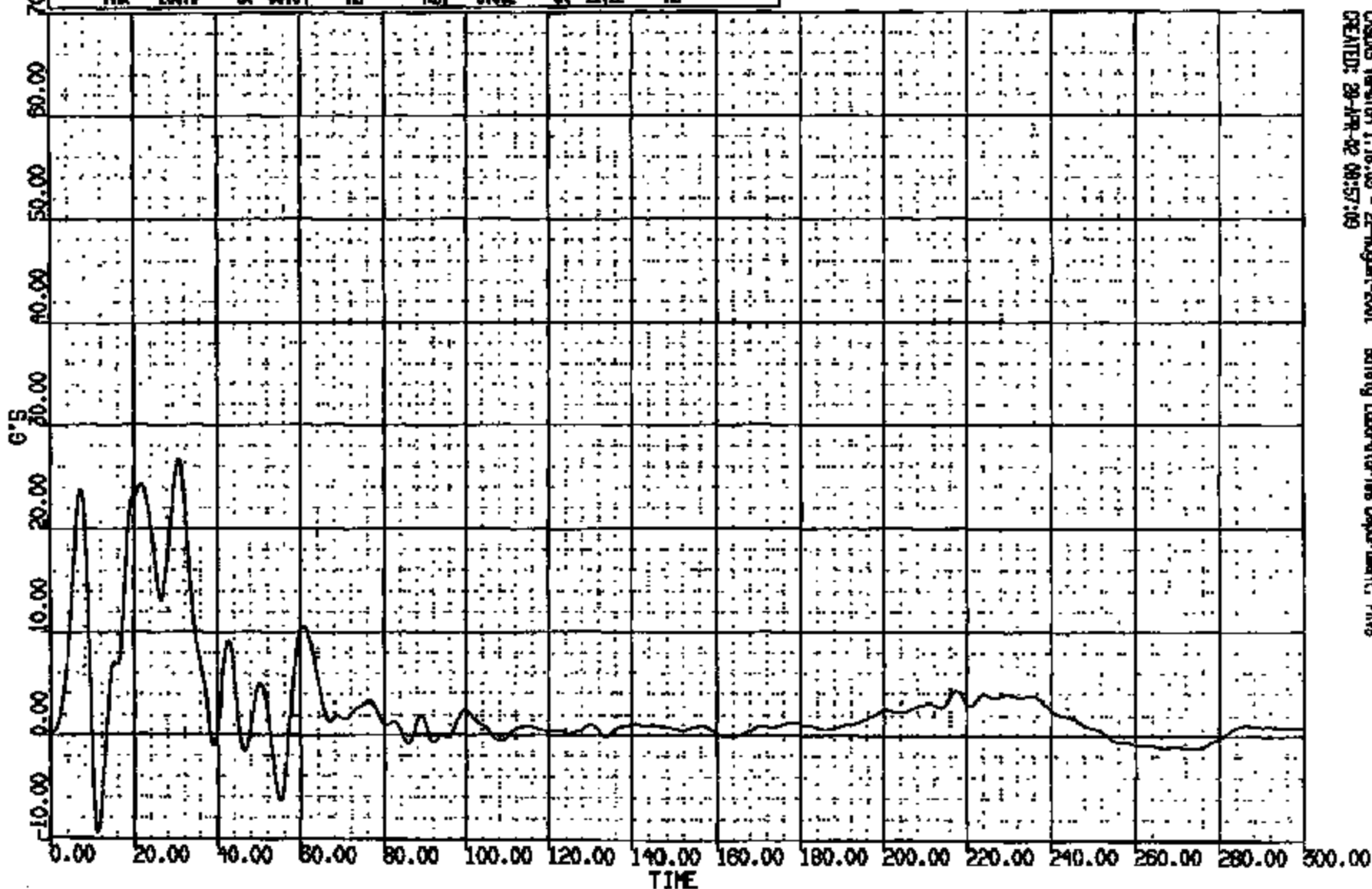
CRTS 0012837

CR R: 12827 TO: JB5000 DATE: 09-APR-2002 10:08:55
2002 FN148

(75) CR12837T L8-PLR IN @ MID SH #27 LAT 60N

MAX = 26.70 at 30.61 NS MIN = -9.502 at 11.12 NS

AXIS 1



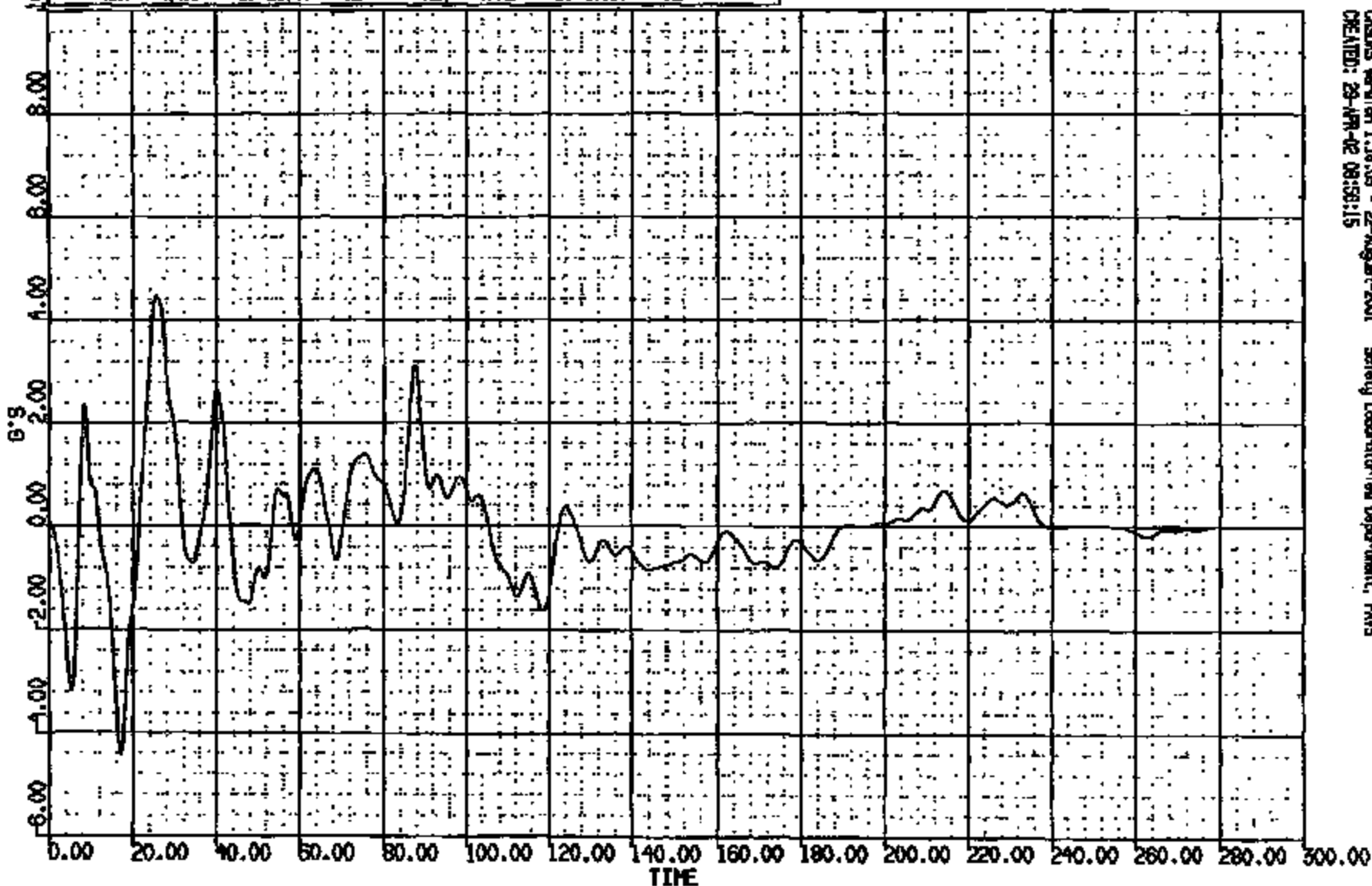
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2002 FN145

(75) CR12837 L/O-PLR IN @ MID SH #27 LONG 60N

MAX = 1.175 at 25.41 NS MIN = -1.441 at 17.04 NS

AXIS 1



CR12837 Ver 1.18.05 - 22-August-2001

CREATED: 29-APR-02 08:58:15

Safety Laboratory Department, PMS

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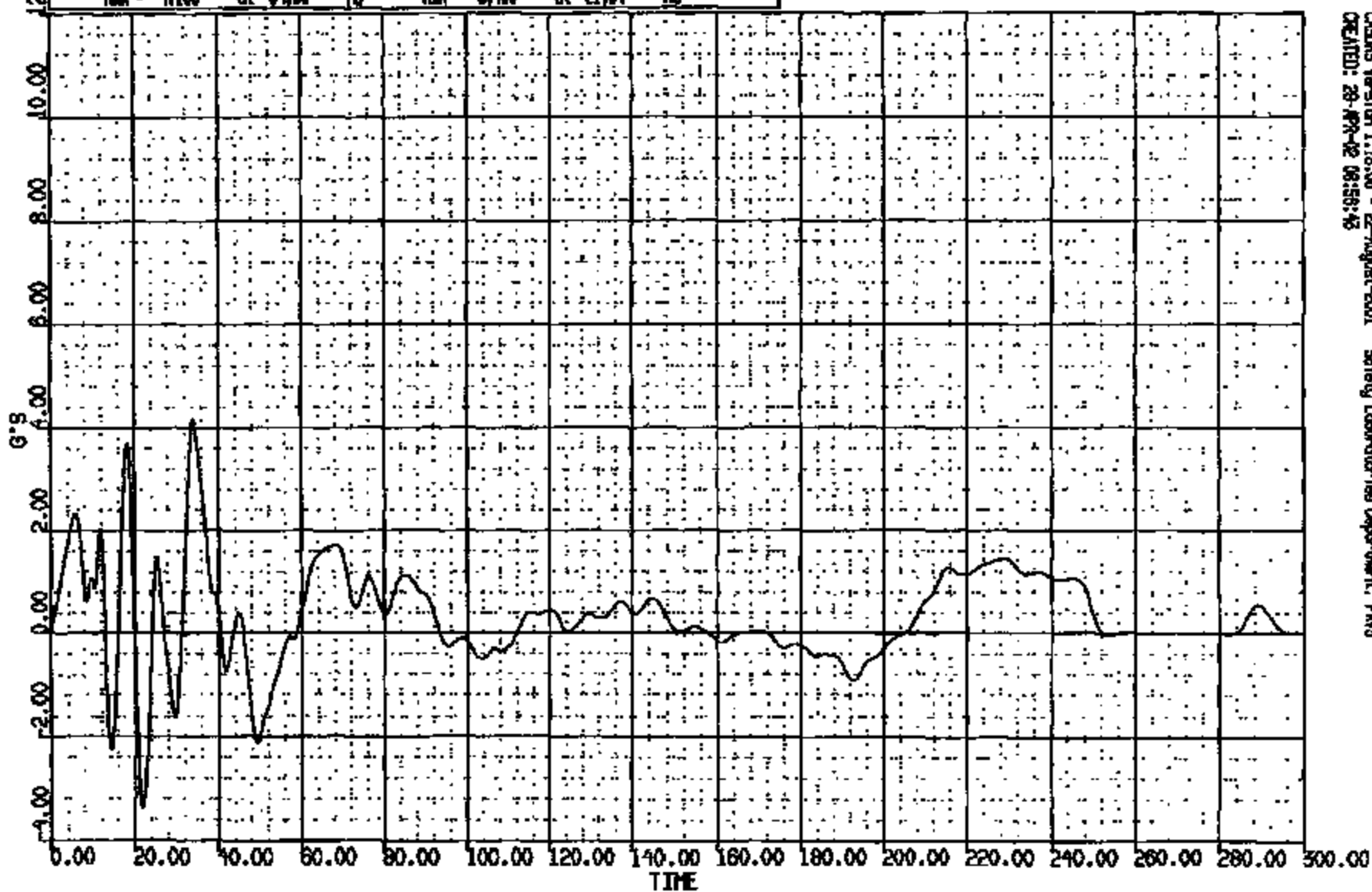
CR12837

CR R: 12837 TO: JB5000 DATE: 08-APR-2002 10:08:55
2003 FN145

(74) CR12837 L/B-PLR IN 8 MID SH #27 VERT 60N

MAX = 4.158 at 34.00 MS MIN = -3.403 at 21.84 MS

AXIS 1



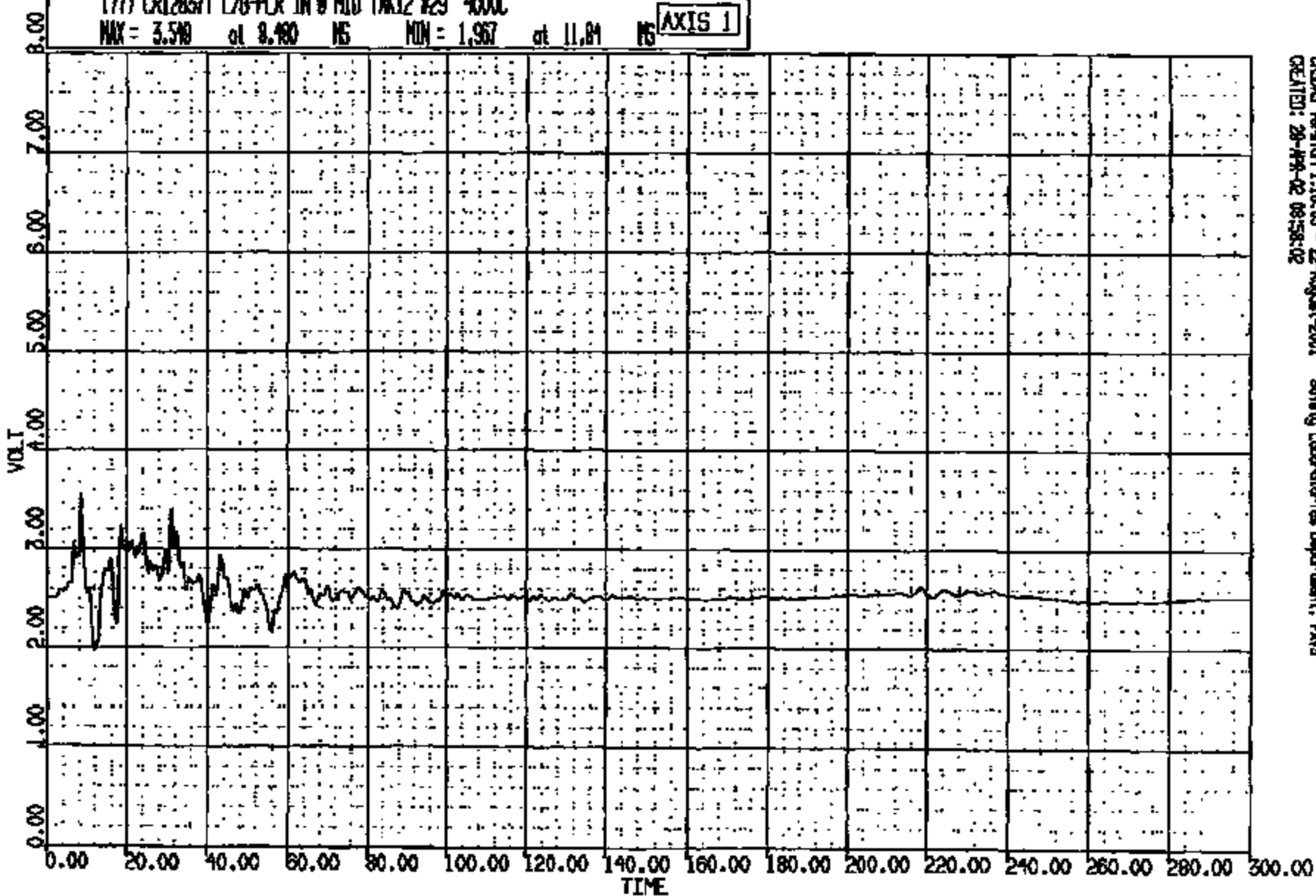
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CR R: 12837 TO: JB5000 DATE: 09-APR-2002 10:08:58
2003 FN145

(77) CR12837 L/O-PLR IN @ MID TAK12 #29 4000C

MAX = 3.540 at 8.480 NS MIN = 1.957 at 11.84 NS

AXIS 1

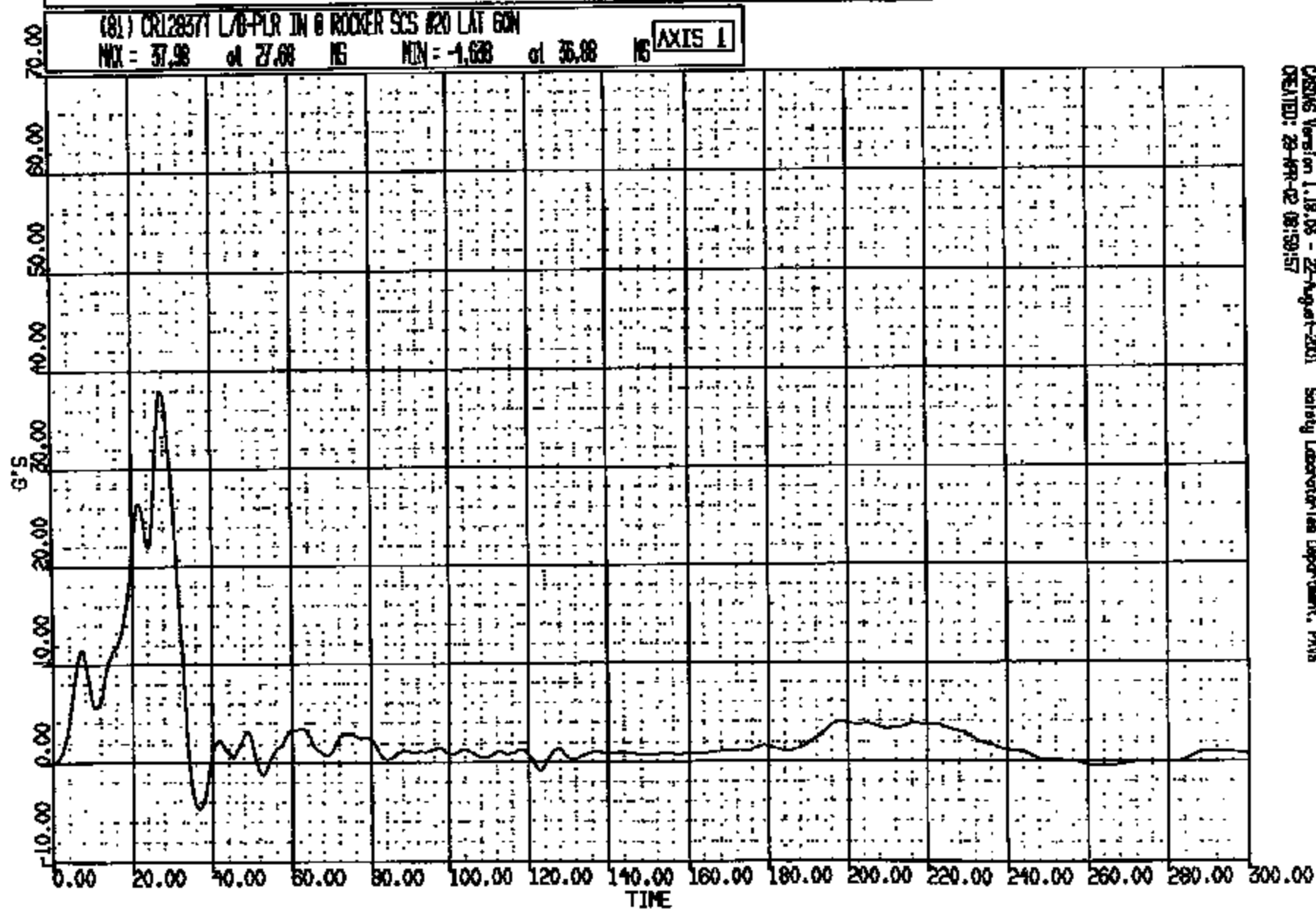


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CRIS 0012837

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2005 FN145



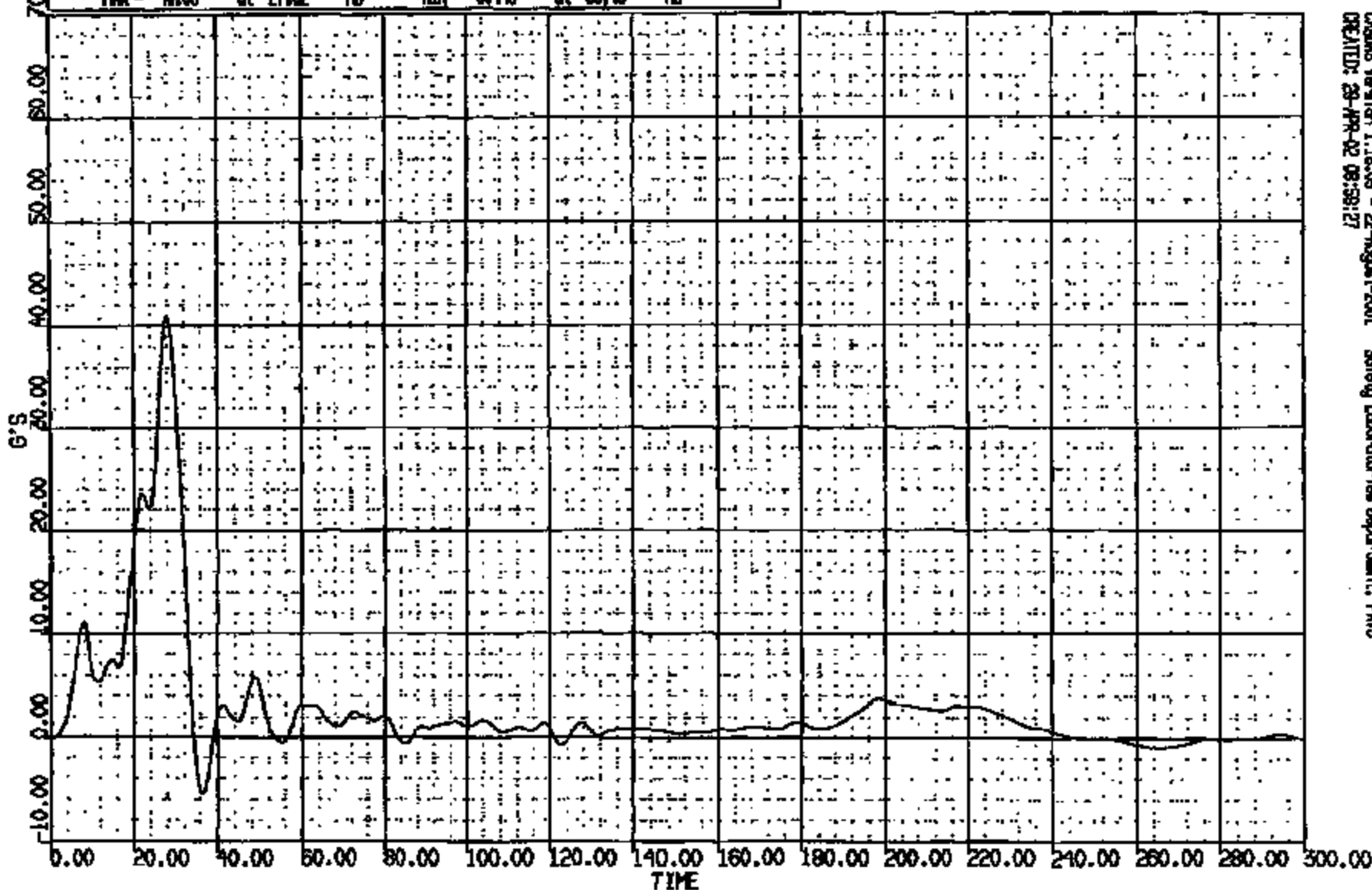
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CR R: 12837 TO: J85000 DATE: 08-APR-2002 10:08:55
2003 FN145

(80) CR12837T L/O-PLR IN 0 ROCKER SH #19 LAT 60N

MAX = 40.95 at 27.92 MS MIN = -5.446 at 35.40 MS

AXIS 1



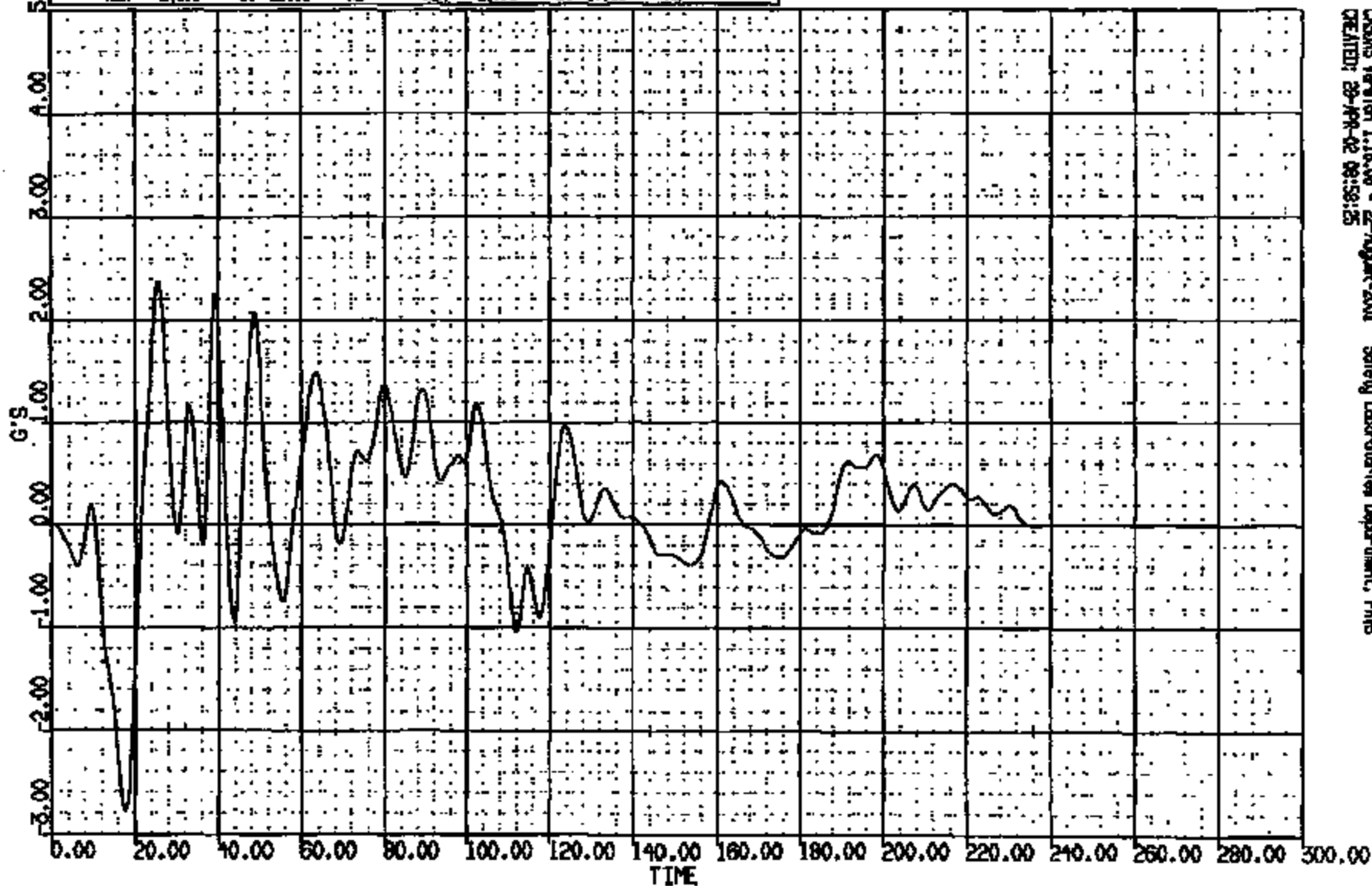
CR12837

CR R: 12837 TO: JB5000 DATE: 08-APR-2002 10:08:55
2003 FN148

(78) CR12837T LAG-PLR IN @ ROCKER SH #19 LONG 60N

MAX = 2.376 at 25.60 HS MIN = -2.778 at 17.60 HS

AXIS 1



CHSAS Version 1.18.08 - 22-August-2001 Safety Laboratories Department, PAMS
CREATED: 28-APR-02 09:58:25

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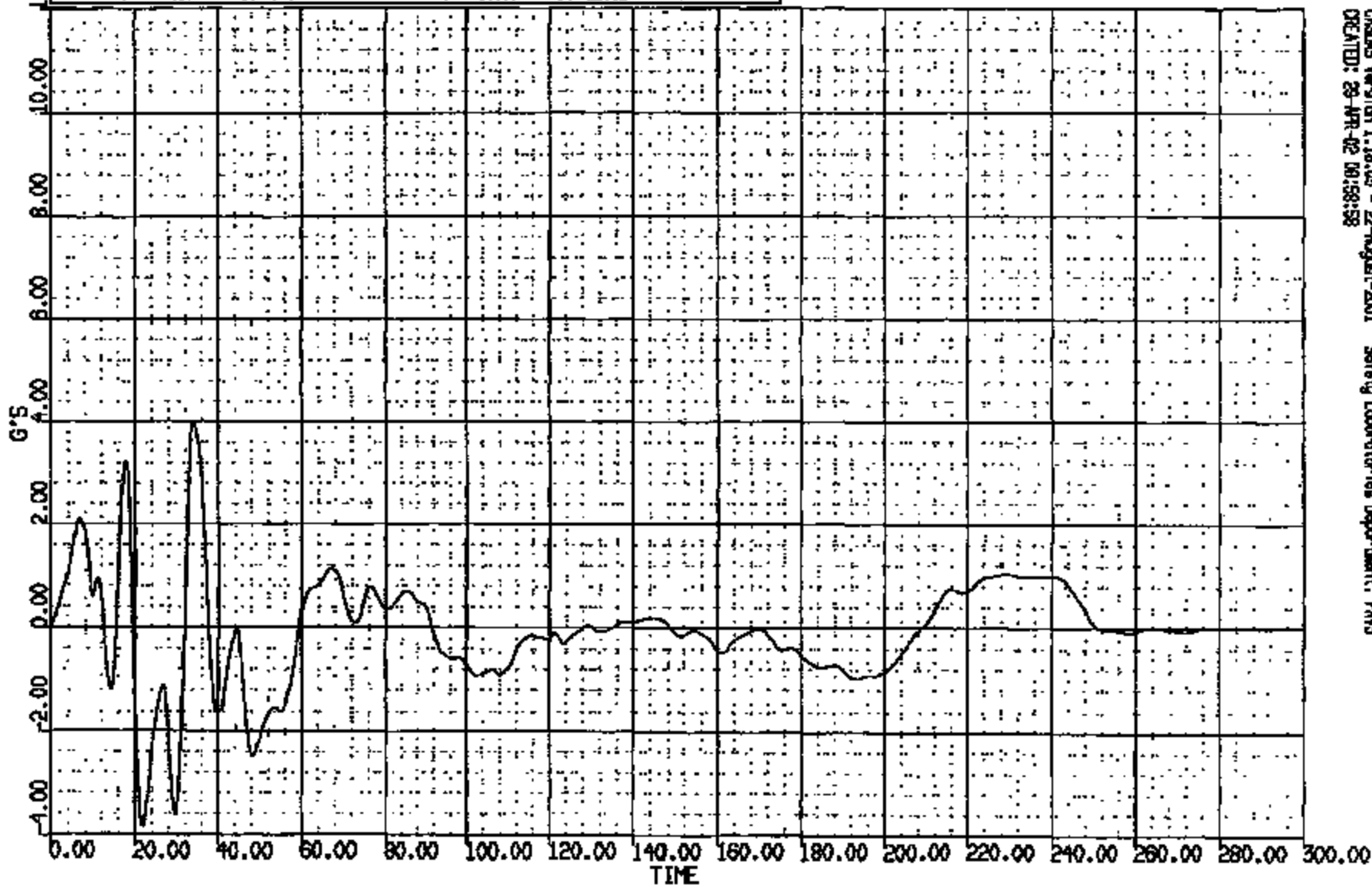
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CR R: 12837 TO: J85000 DATE: 09-APR-2002 10:09:55
2002 FN145

(79) CR12837T LAB-PLR IN @ ROCKER SH #19 VERT GUN

MAX = 3.977 at 33.76 MS MIN = -3.868 at 21.92 MS

AXIS 1



CASAS Version 1.18.03 - 22-August-2001 Safety Laboratories Department, PWS
CREATED: 29-APR-02 00:58:58

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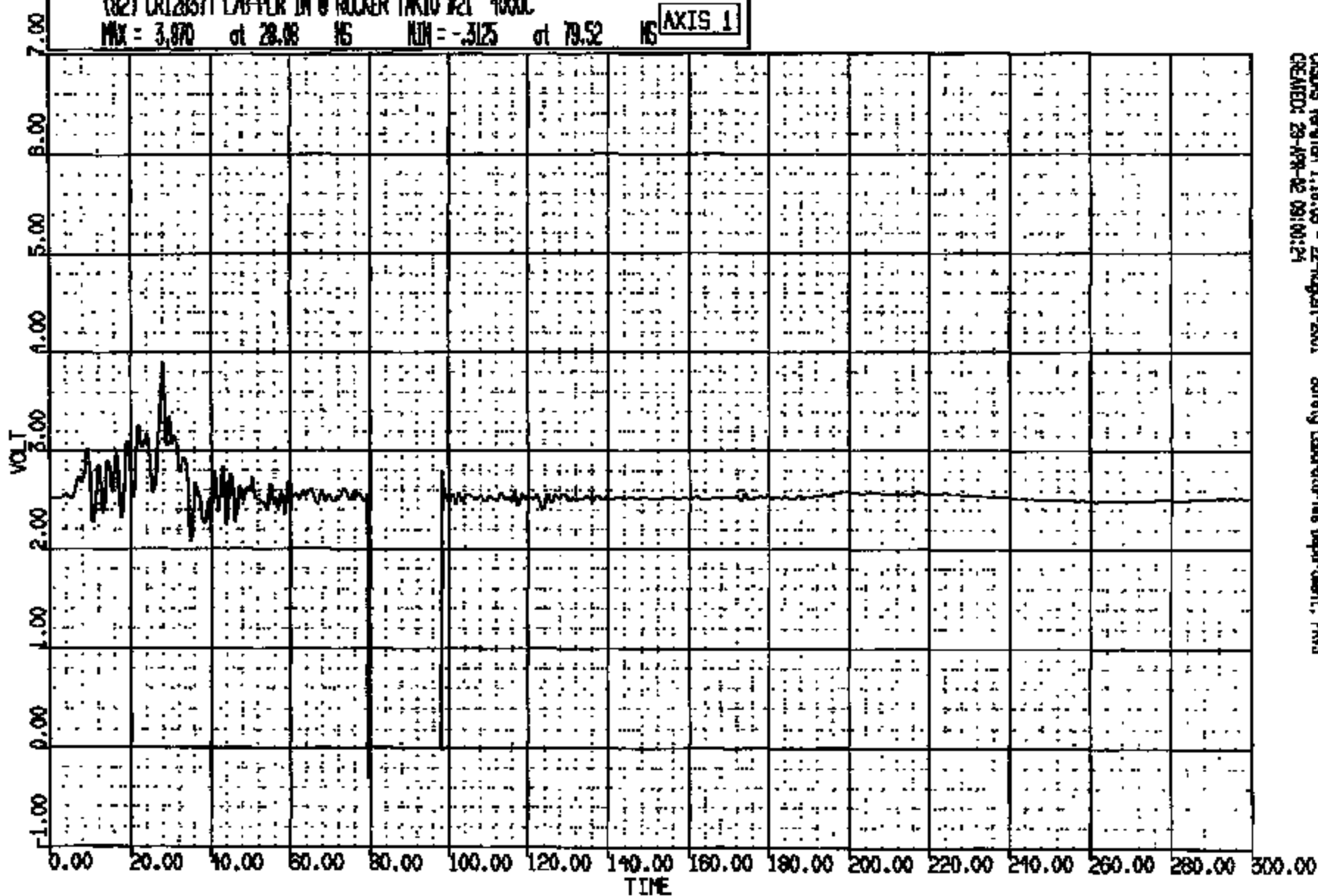
CRTS 0012837

CR R: 12837 TO: J85000 DATE: 02-APR-2002 10:08:55
2003 FN145

(82) CR12837T LAB-PLR IN @ ROCKER TAKIO #21 4000C

MAX = 3.870 at 28.08 15 MIN = -3.125 at 79.52 15

AXIS 1



CASDS Version 1.18.05 - 22-August-2001 Safety Laboratories Department, PMS
CREATED: 29-APR-02 09:00:24

ENTIRE PAGE CONFIDENTIAL

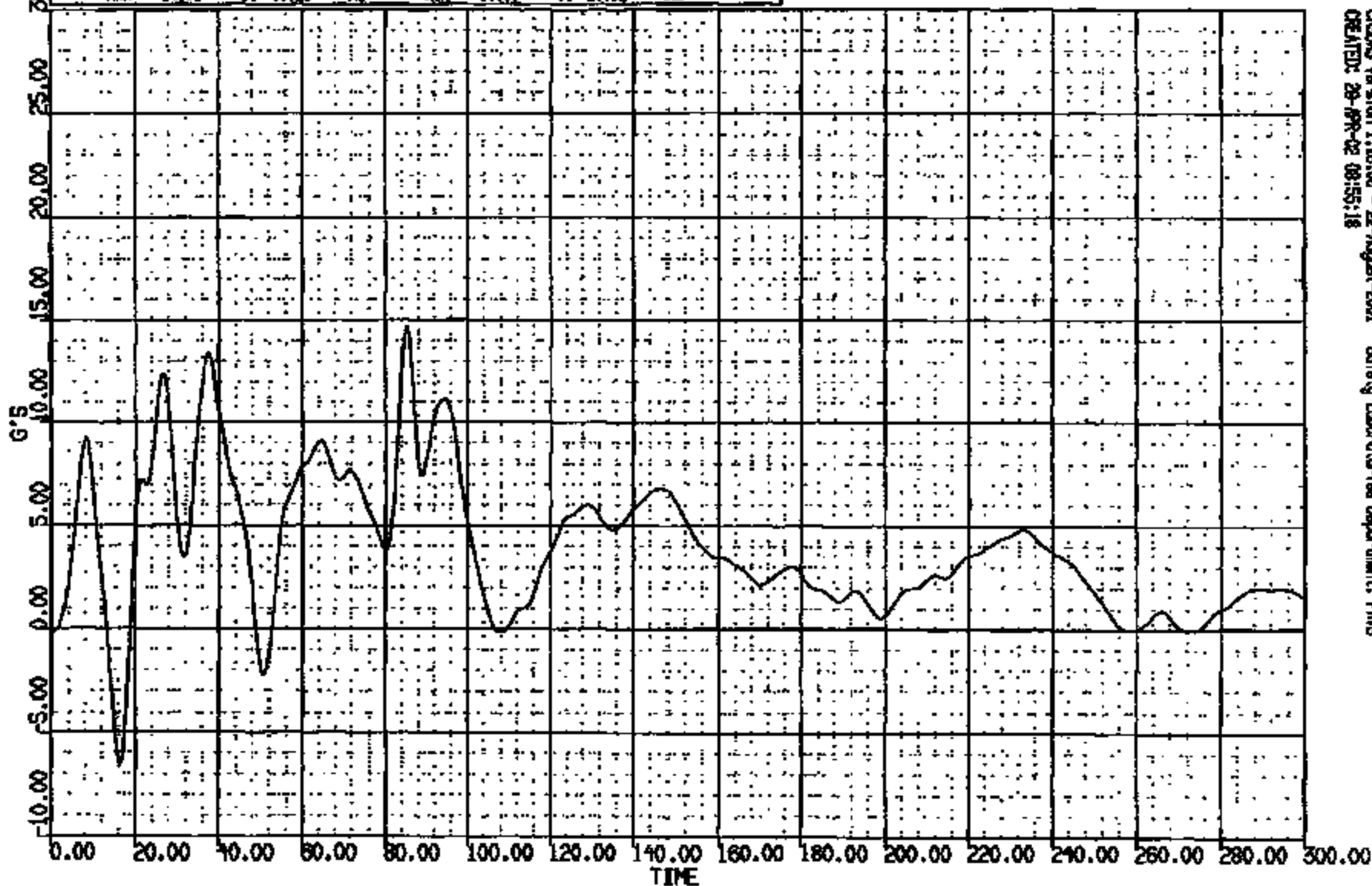
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CR R: 12837 TO: JB5000 DATE: 09-APR-2002 10:08:55
2002 FN145

(71) CR12837 L/B-PLR IN @ ROOF LAT 60N

MAX = 14.71 at 05.20 NS MIN = -6.501 at 16.32 NS

AXIS 1

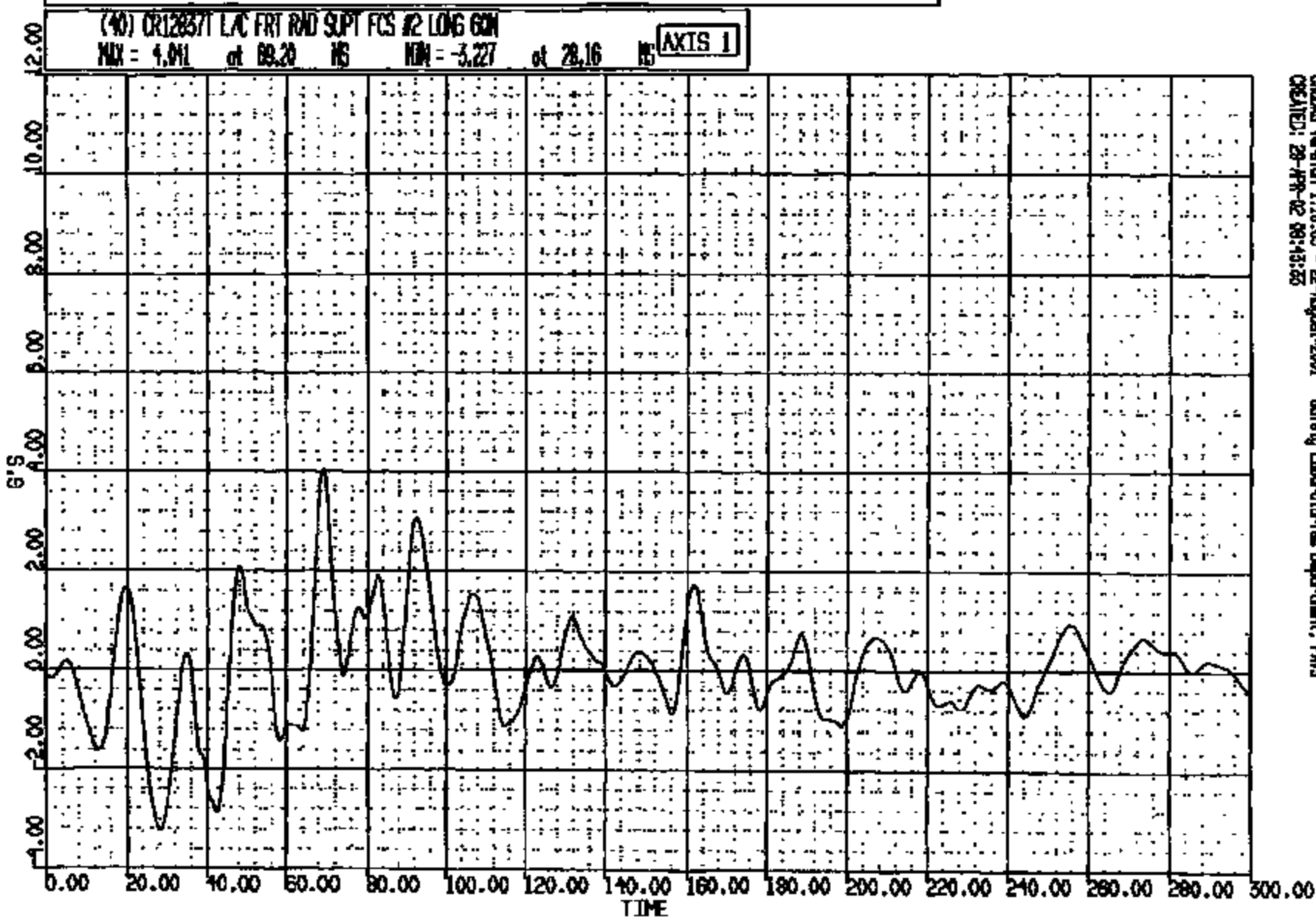


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2003 FN145



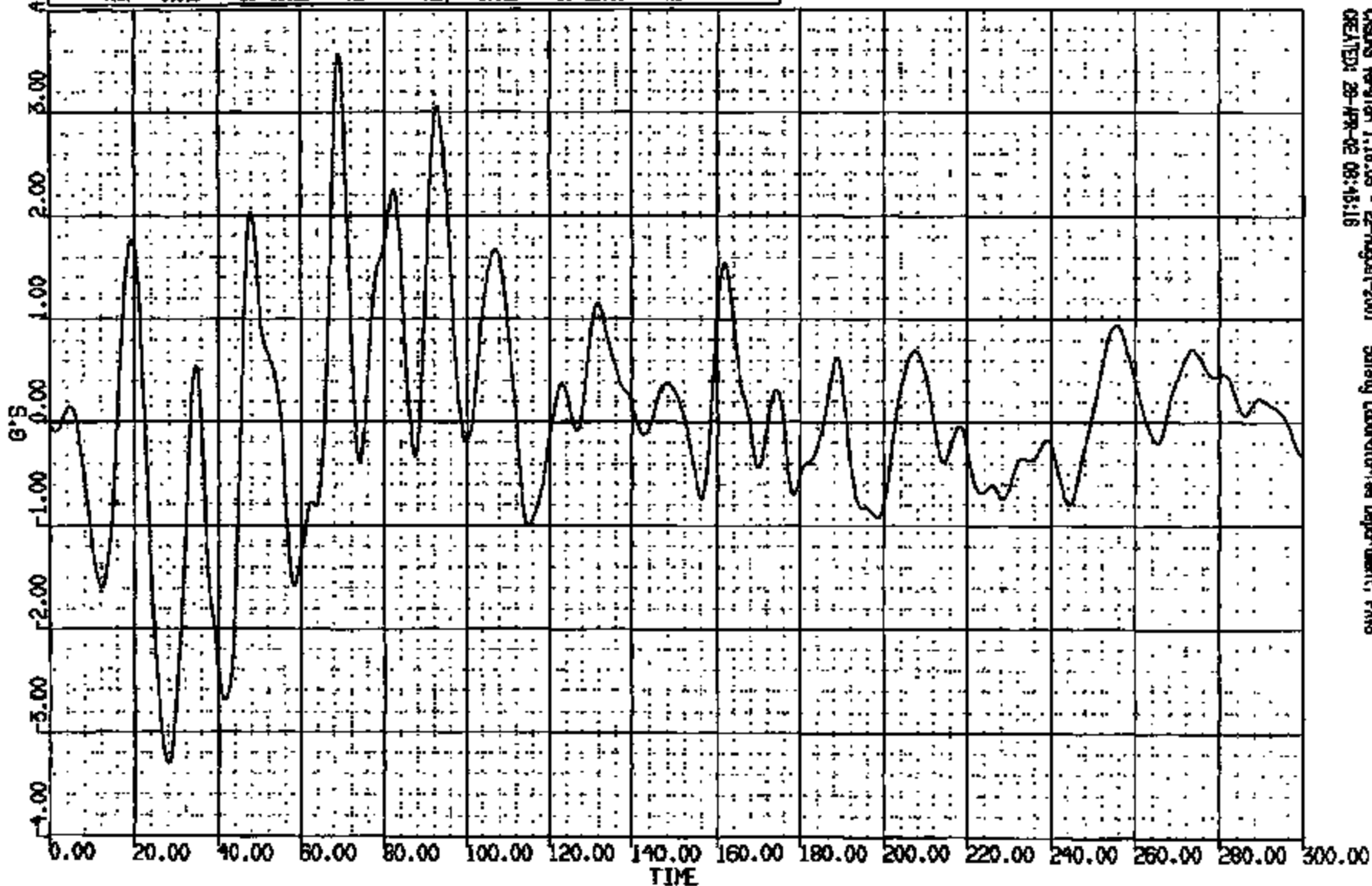
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2003 FN145

(39) CR12837 L/C FRT RD SPT SH #1 LONG 60N

MAX = 3.501 at 69.12 MS MIN = -3.302 at 28.00 MS

AXIS 1



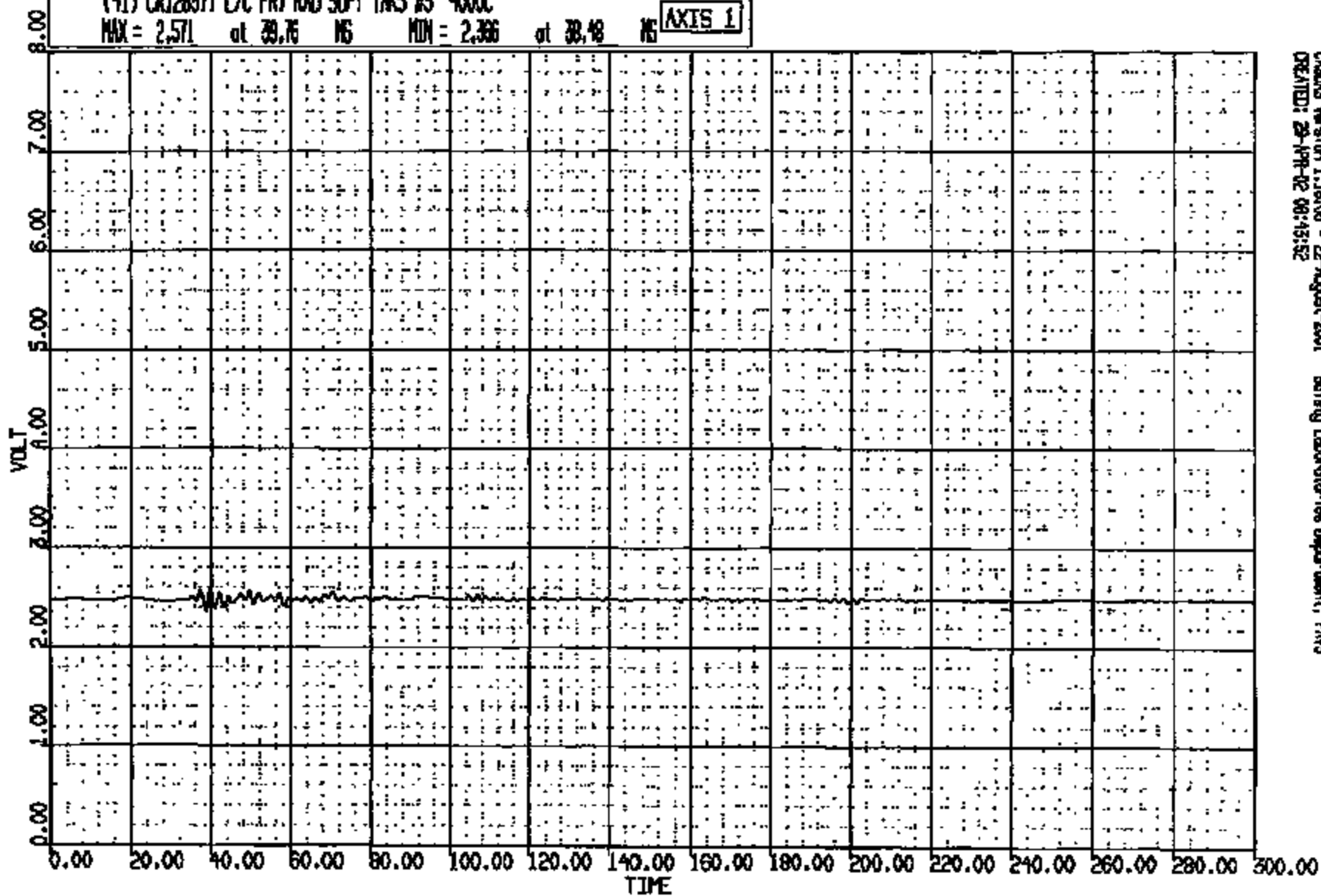
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2005 FN145

(41) CR12837T L/C FRT RAD SUP TMS #3 4000C

MAX = 2.571 at 39.76 NS MIN = 2.366 at 38.48 NS

AXIS 1



CRIS 0012837

CASUS Version 1.18.08 - 22-August-2001 Safety Laboratories Department, PMS
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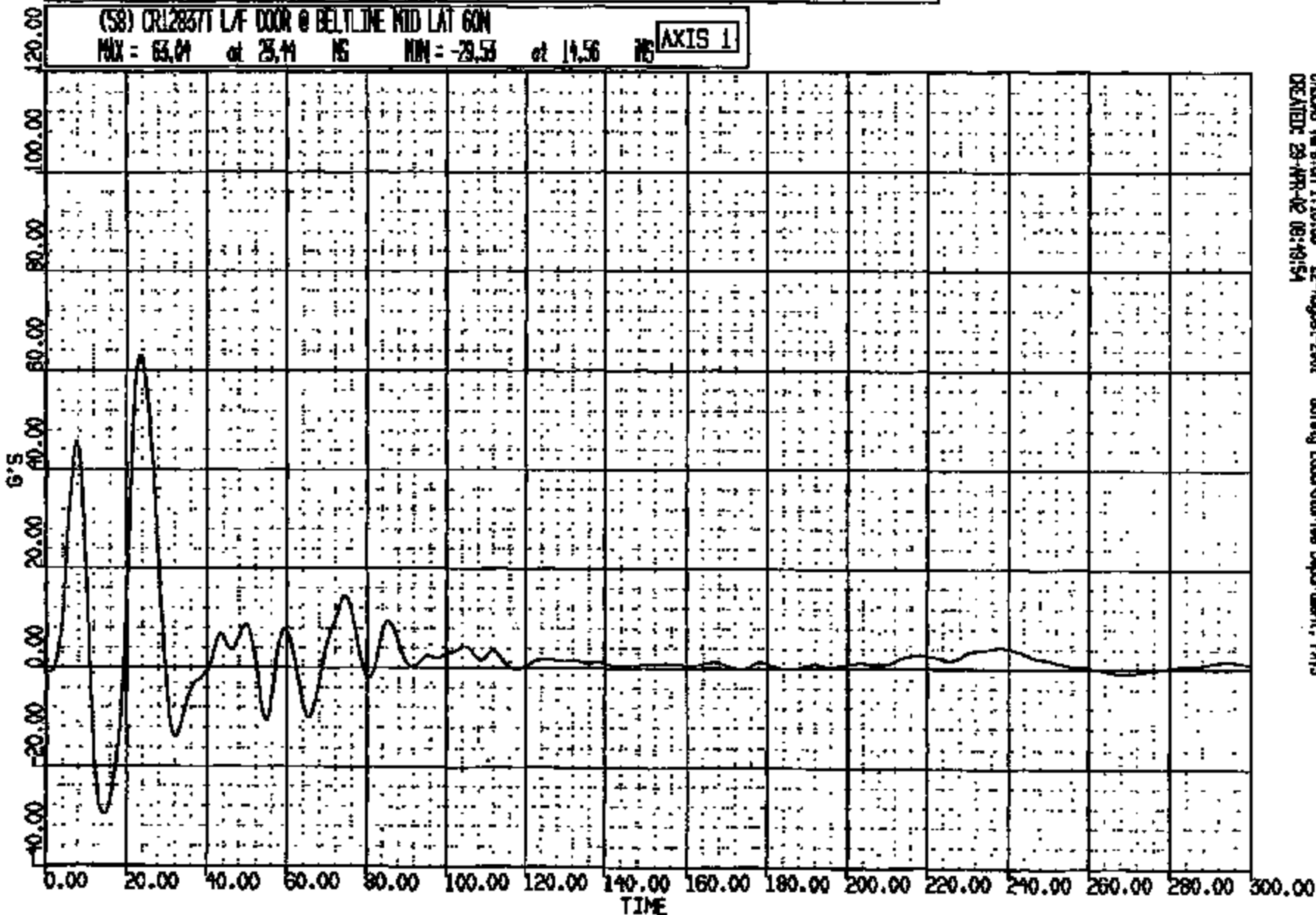
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2002 FN145

(58) CR12837T L/F DOOR @ BELT LINE MID LAT 60N

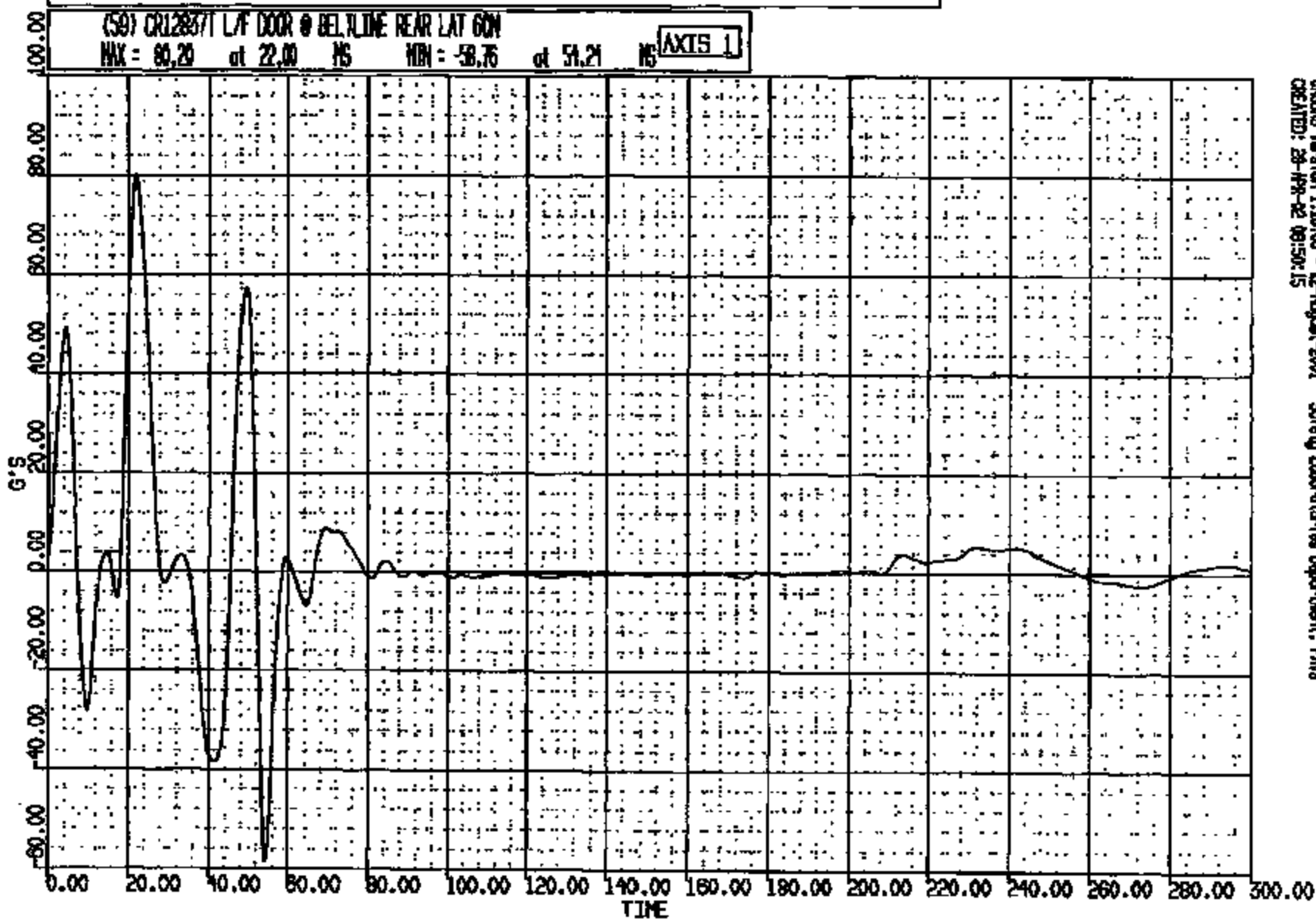
MAX = 63.04 at 23.44 NS MIN = -29.53 at 14.56 NS

AXIS 1



CRIS 0012837

CR#: 12837 TO: J55000 DATE: 09-APR-2002 10:08:55
2005 FN146



CRS016 Version 1.18.08 - 22-August-2001 Safety Laboratories Department, PHS
CREATED: 28-APR-02 09:50:15

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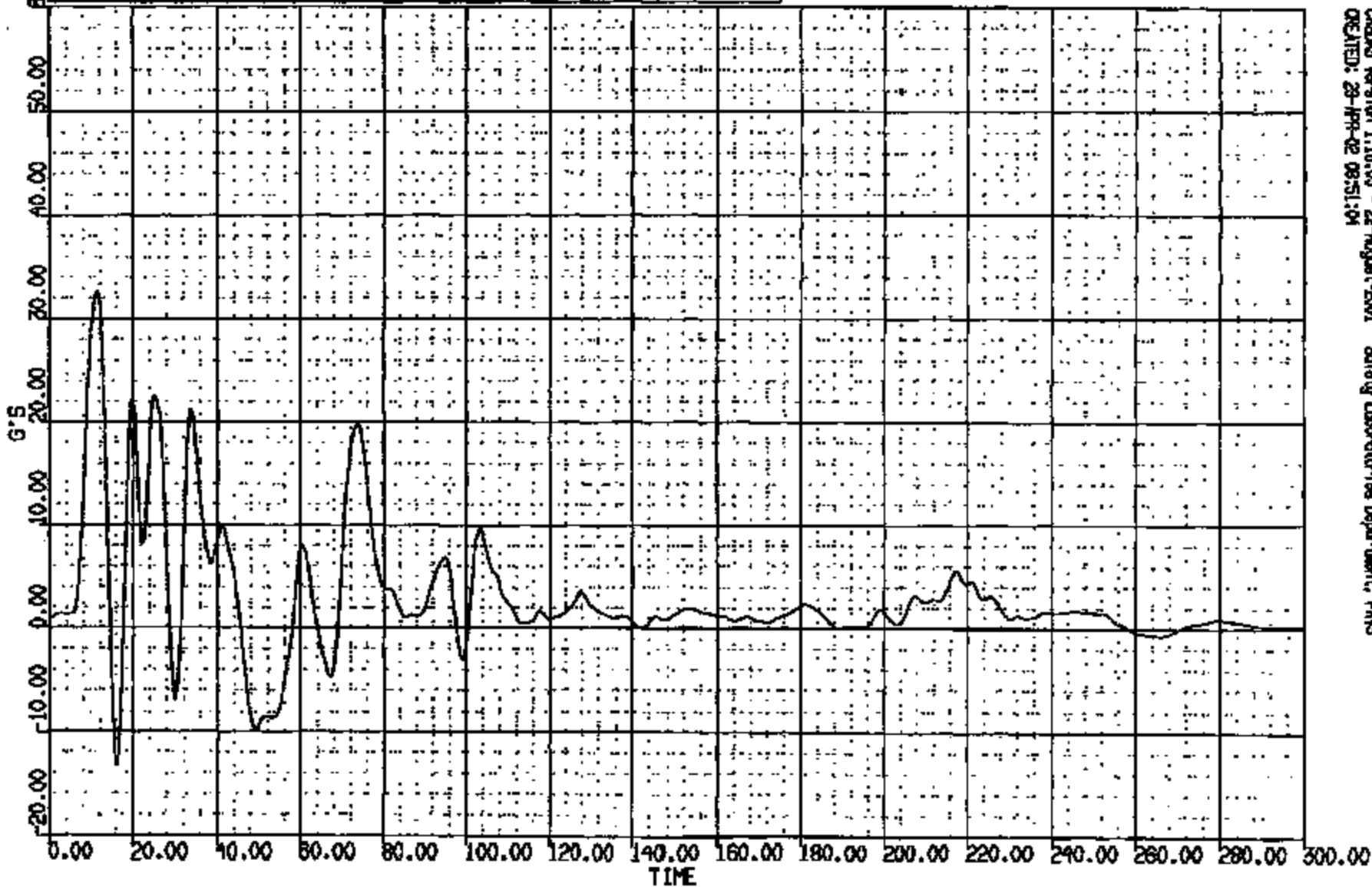
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CR R: 12837 TO: JB5000 DATE: 02-APR-2002 10:06:55
2005 FN146

(61) CR12837T L/F DOOR OVER ARREST LAT GON

MAX = 32.64 at 11.28 NS MIN = -13.37 at 16.08 NS

AXIS 1

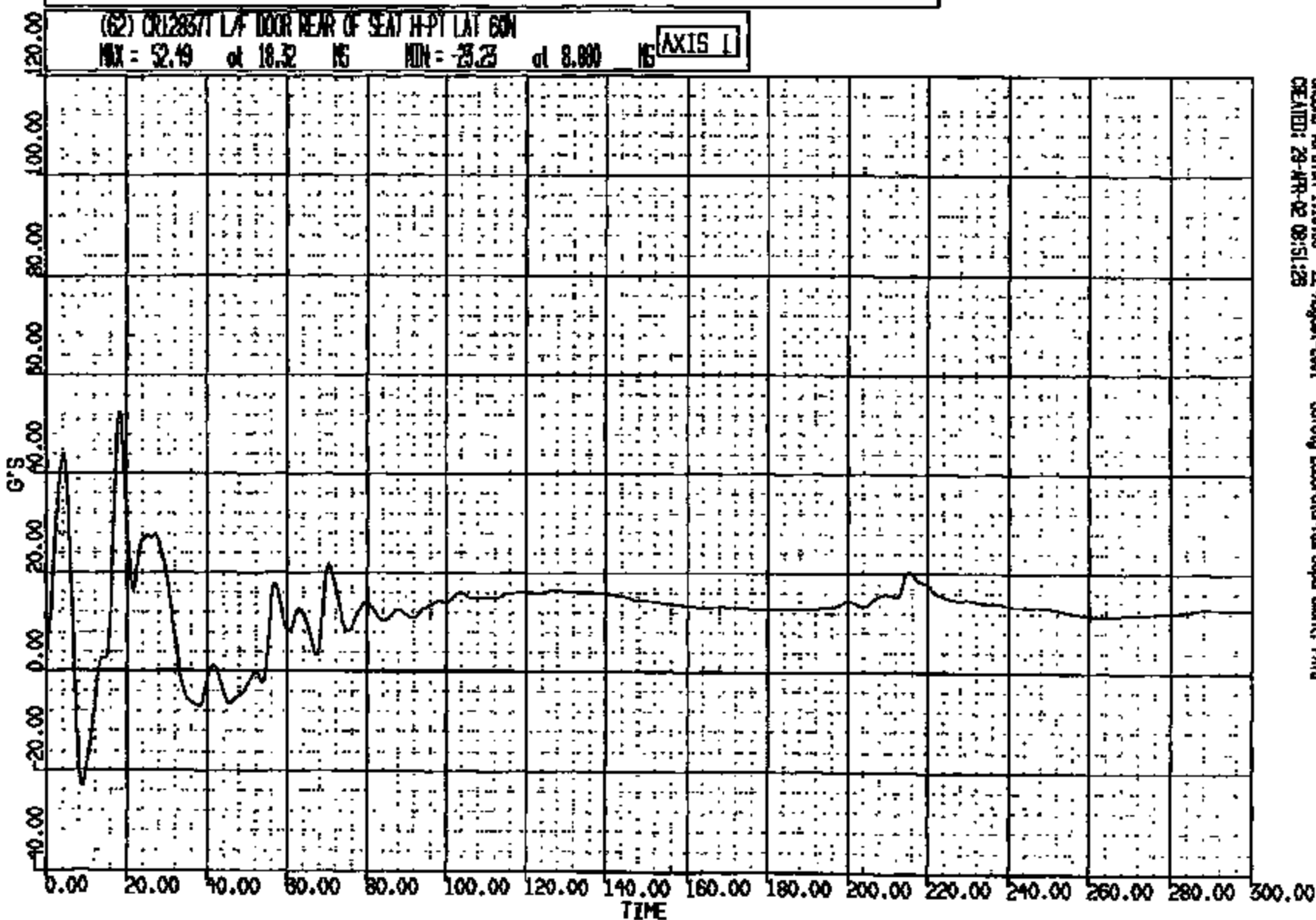


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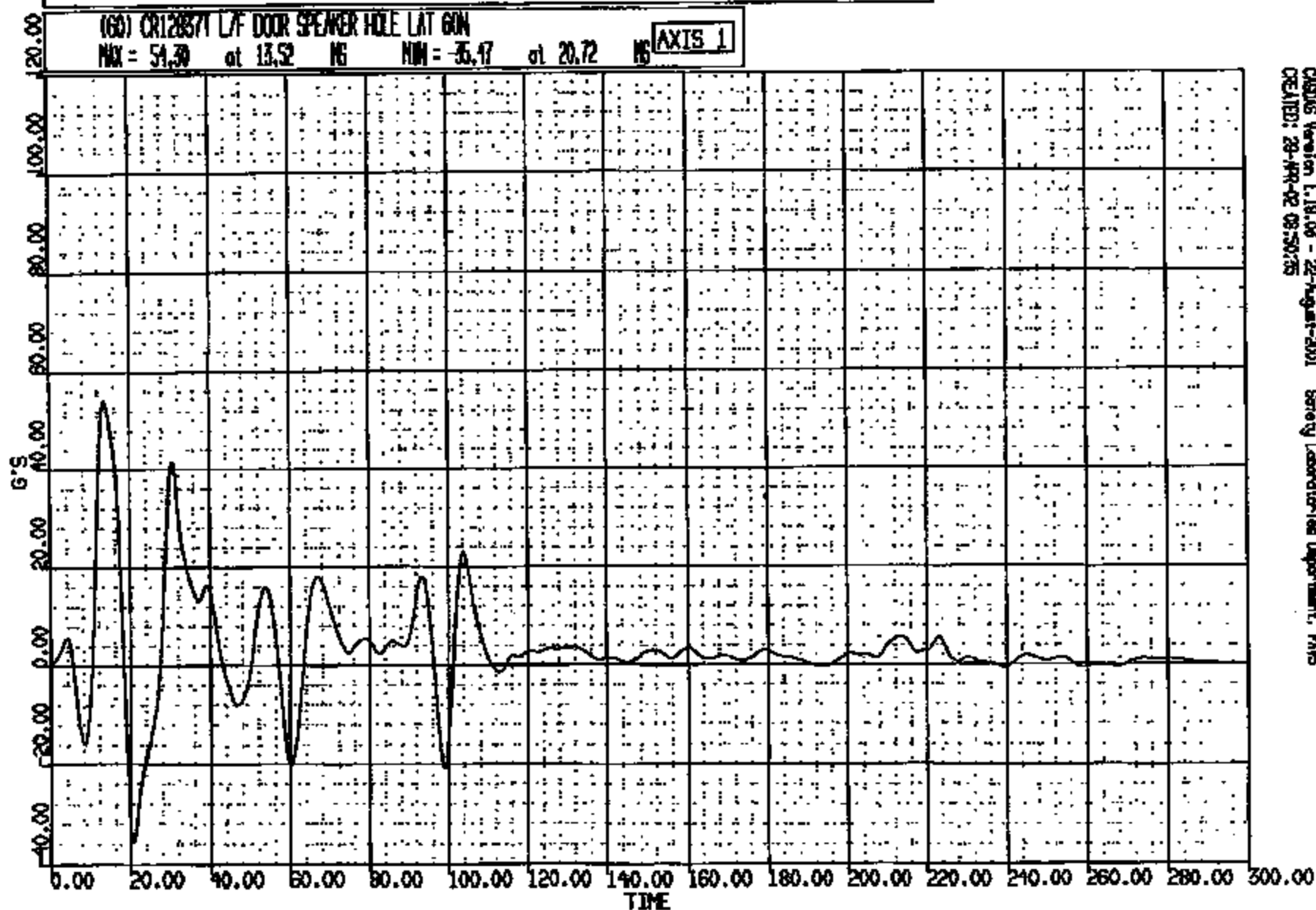


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2002 FN145



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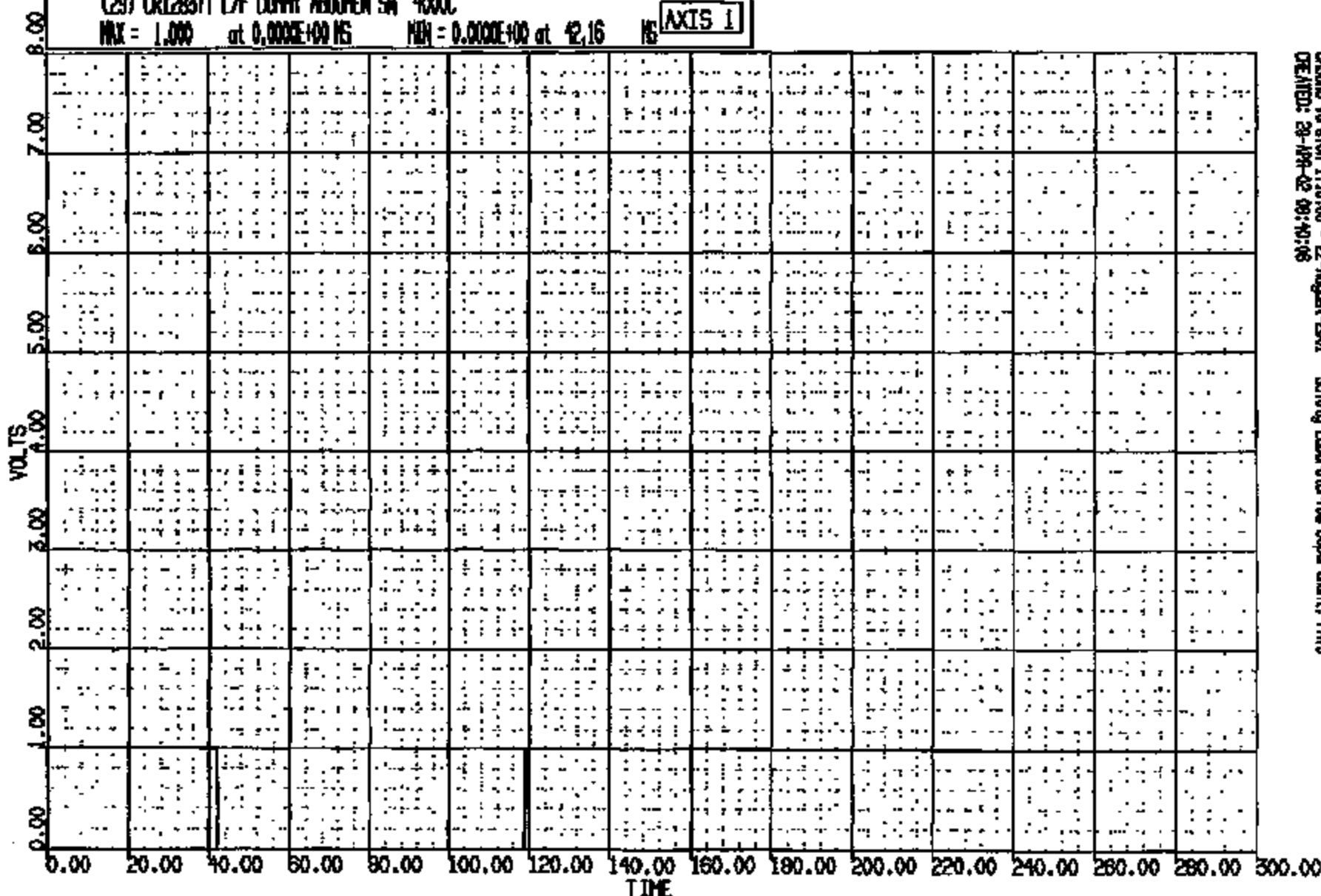
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2003 FN145

(29) CR12837 LAF DUMPPY ABDOMEN SM 4000C

MAX = 1.000 at 0.000E+00 NS

MIN = 0.000E+00 at 42.16 NS

AXIS 1



CDMS Version 1.18.03 - 22-August-2001 Safety Laboratory Department, PHS
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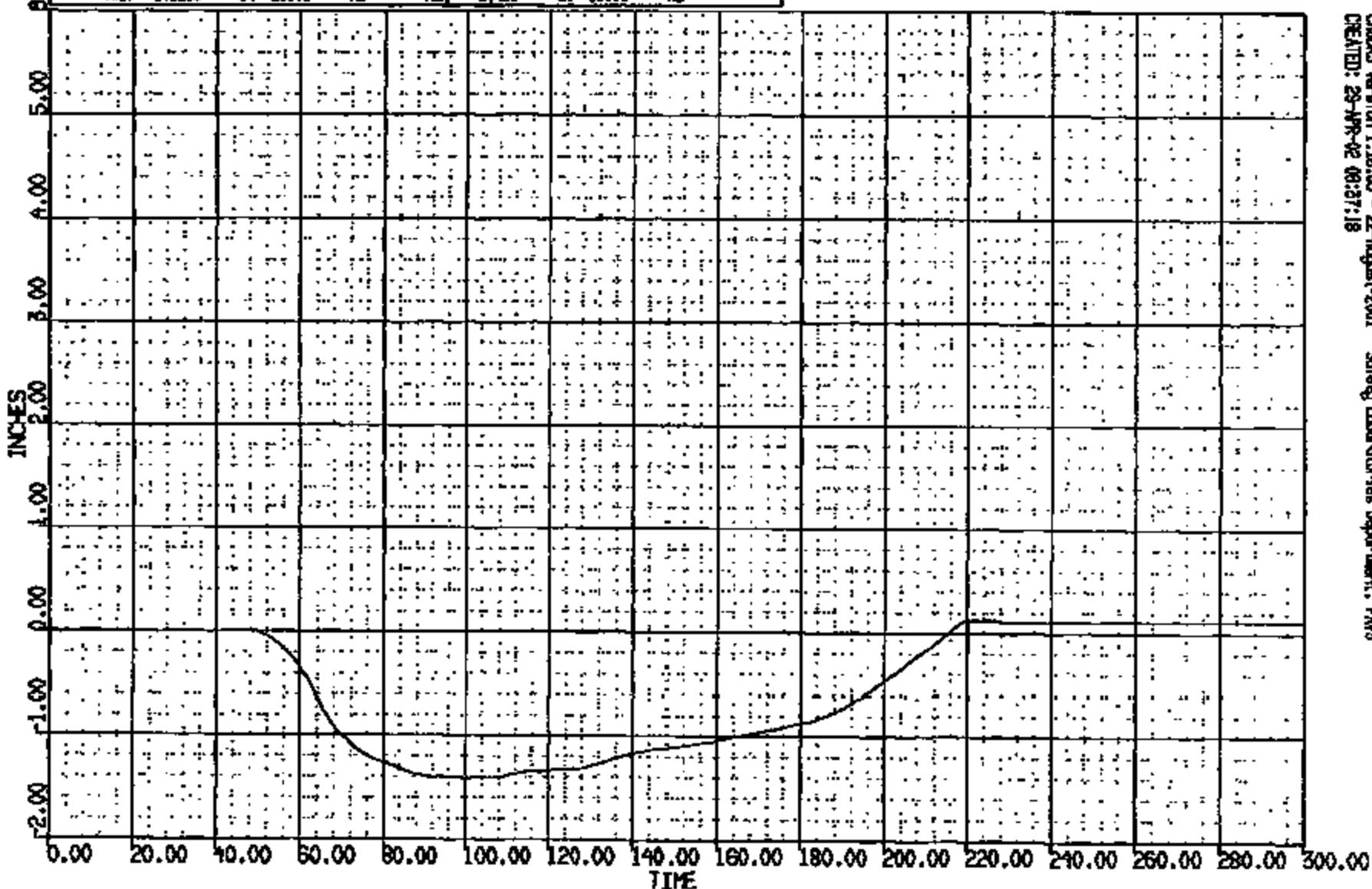
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2003 FN145

(18) CR12837 L/F DUMMY CHEST DEFLECTION 180N

MAX = 0.1265 at 219.9 MS MIN = -1.418 at 100.1 MS

AXIS 1



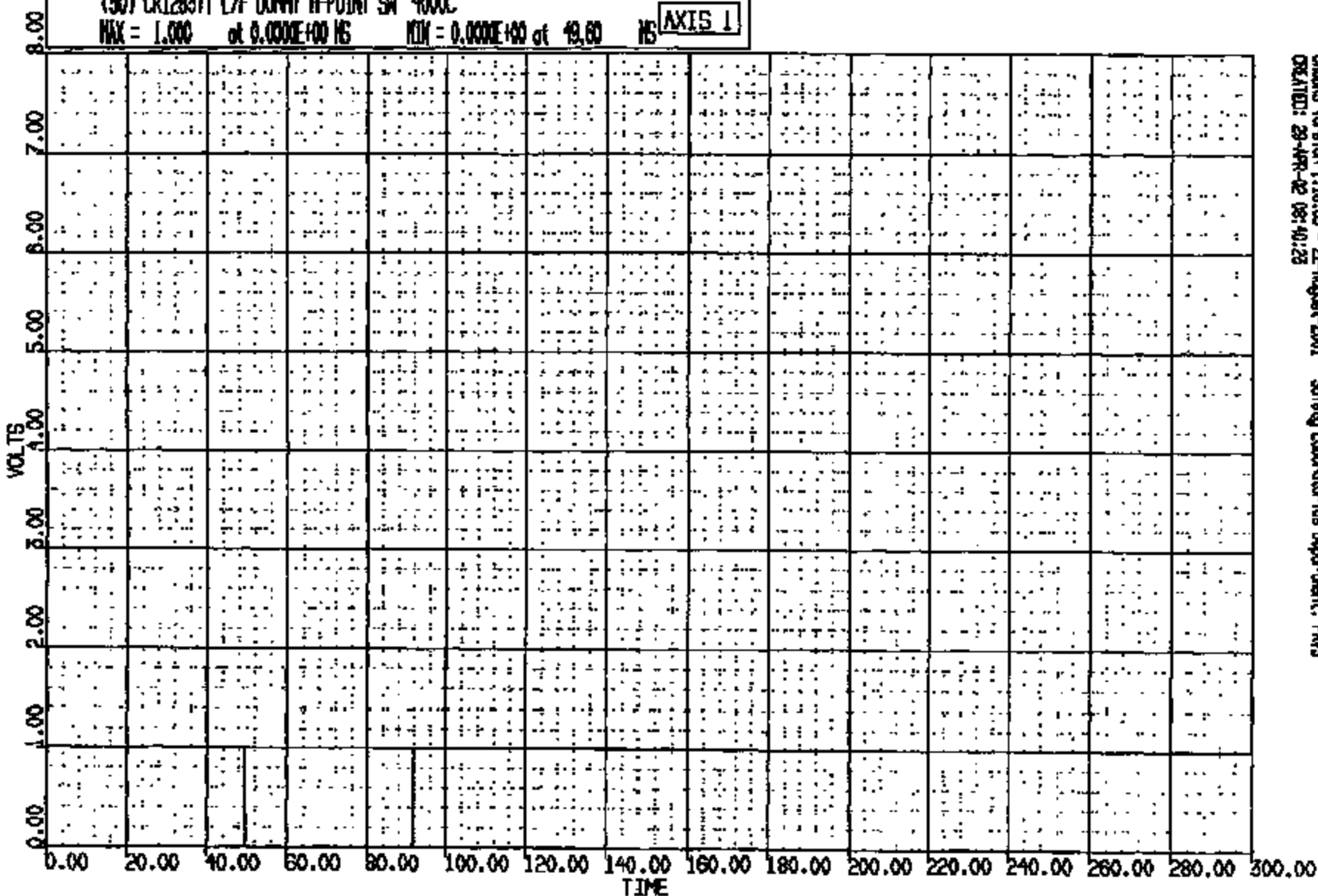
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2002 FN145

(30) CR12837T L/F DUMMY H-POINT SW 4000C

MAX = 1.000 at 0.000E+00 HS MIN = 0.000E+00 at 19.60 HS

AXIS 1



CASMS Version 1.18.05 - 22-August-2001 Safety Laboratories Department, PHS
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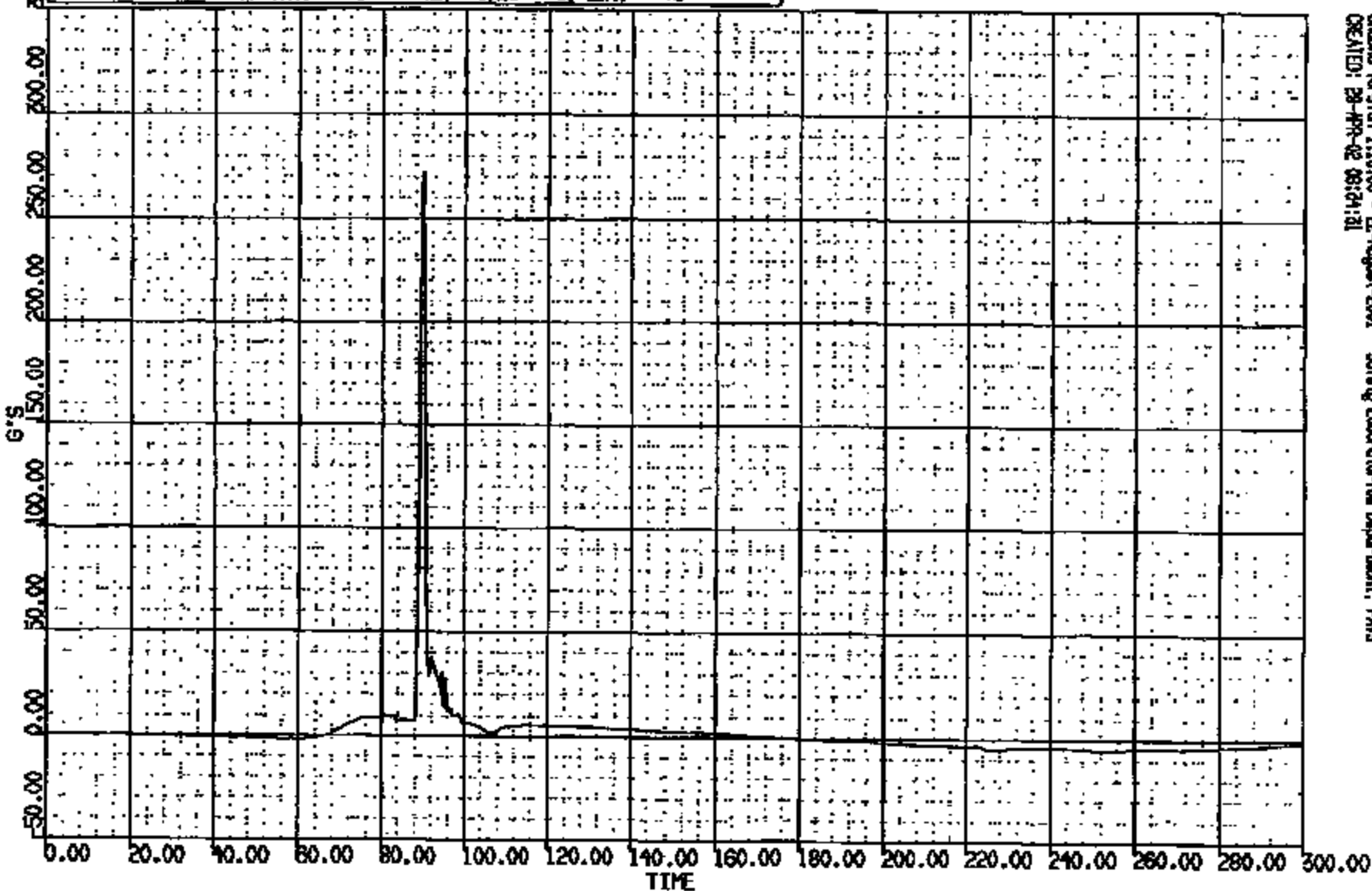
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CR RI 12837 TO: JB8000 DATE: 08-APR-2002 10:08:55
2003 FN145

(3) CR12837T L/F DUMMY HEAD C.G. LAT 1000M

MAX = 272.6 at 09.68 NS MIN = -5.01 at 227.0 NS

AXIS 1



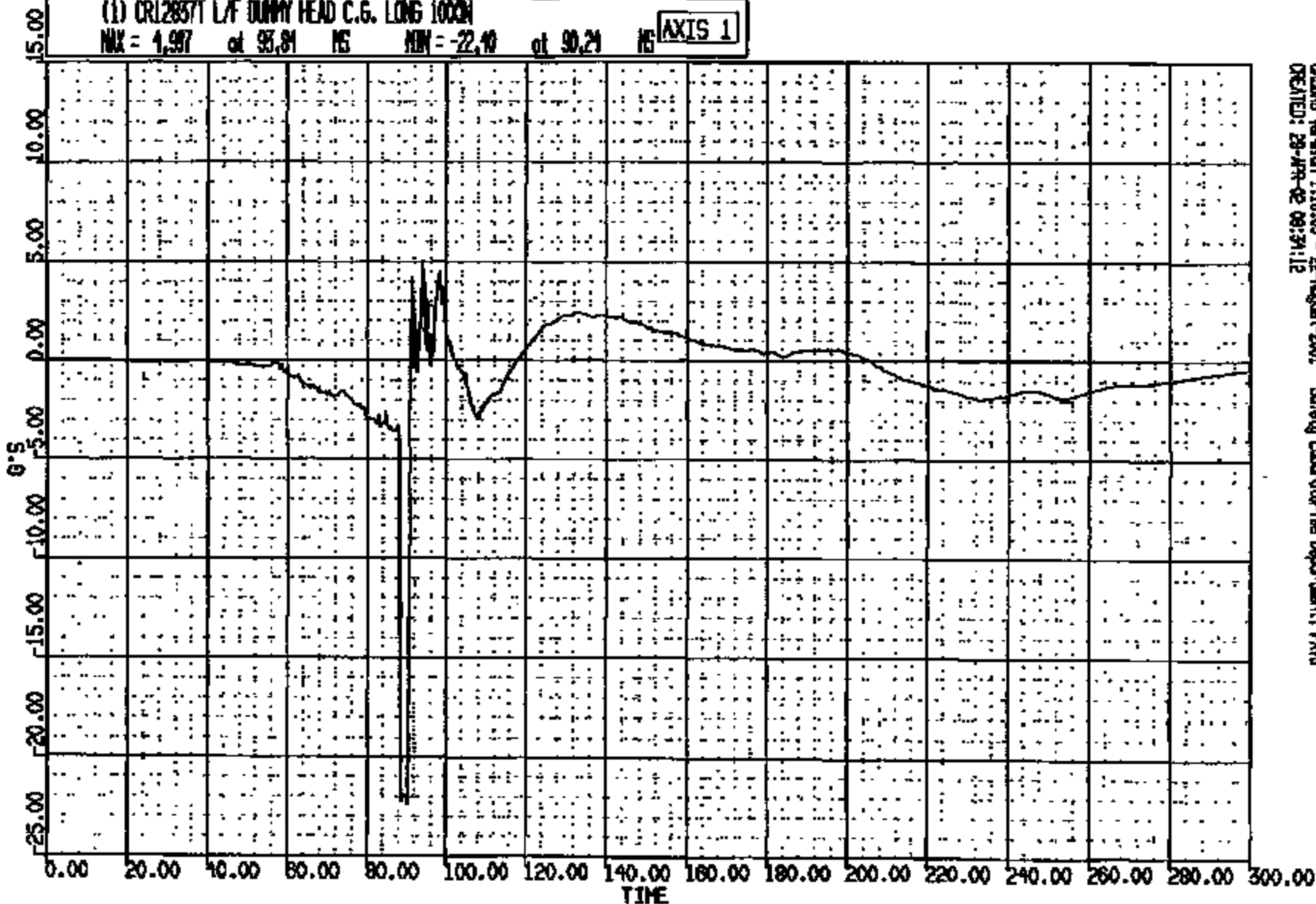
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2005 FN145

(1) CR128571 L/F DUMMY HEAD C.G. LONG 1000N

MAX = 4.997 at 93.81 MS MIN = -22.40 at 90.24 MS

AXIS 1



CHS Version 1.10.05 - 22-August-2001 Safety Laboratories Department, PHS
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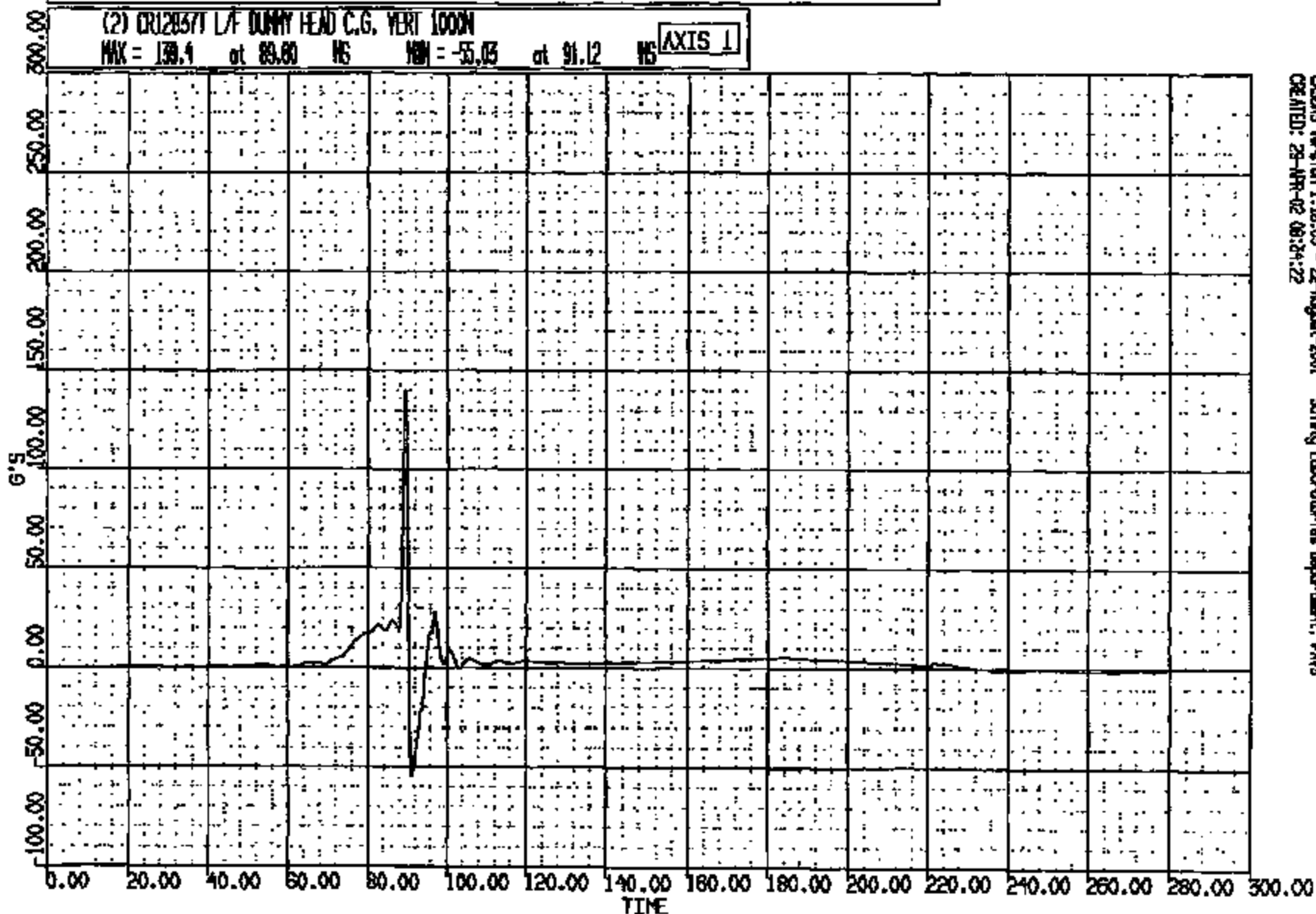
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2002 FN145

(2) CR12837 L/F DUMMY HEAD C.G. VERT 1000N

MAX = 139.1 at 89.00 NS MIN = -55.03 at 91.12 NS

AXIS 1



OSIMS Version 1.18.03 - 23 August 2001 Safety Laboratories Department, PWS
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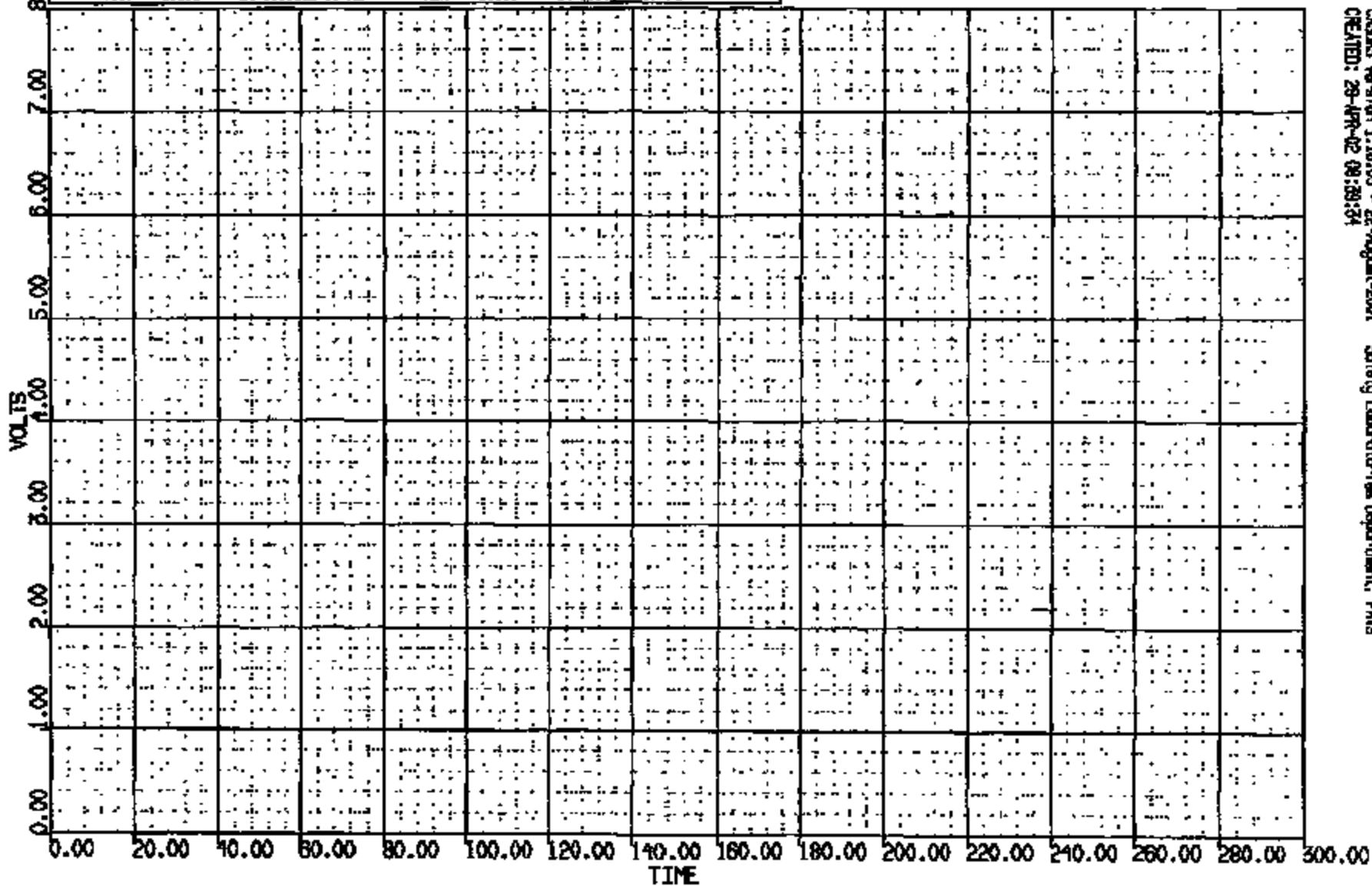
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2003 FNI45

(27) CR12837T L/F DUMMY HEAD SW 4000C

MAX = 1.000 at 0.000E+00 MS MIN = 1.000 at 0.000E+00 MS

AXIS 1



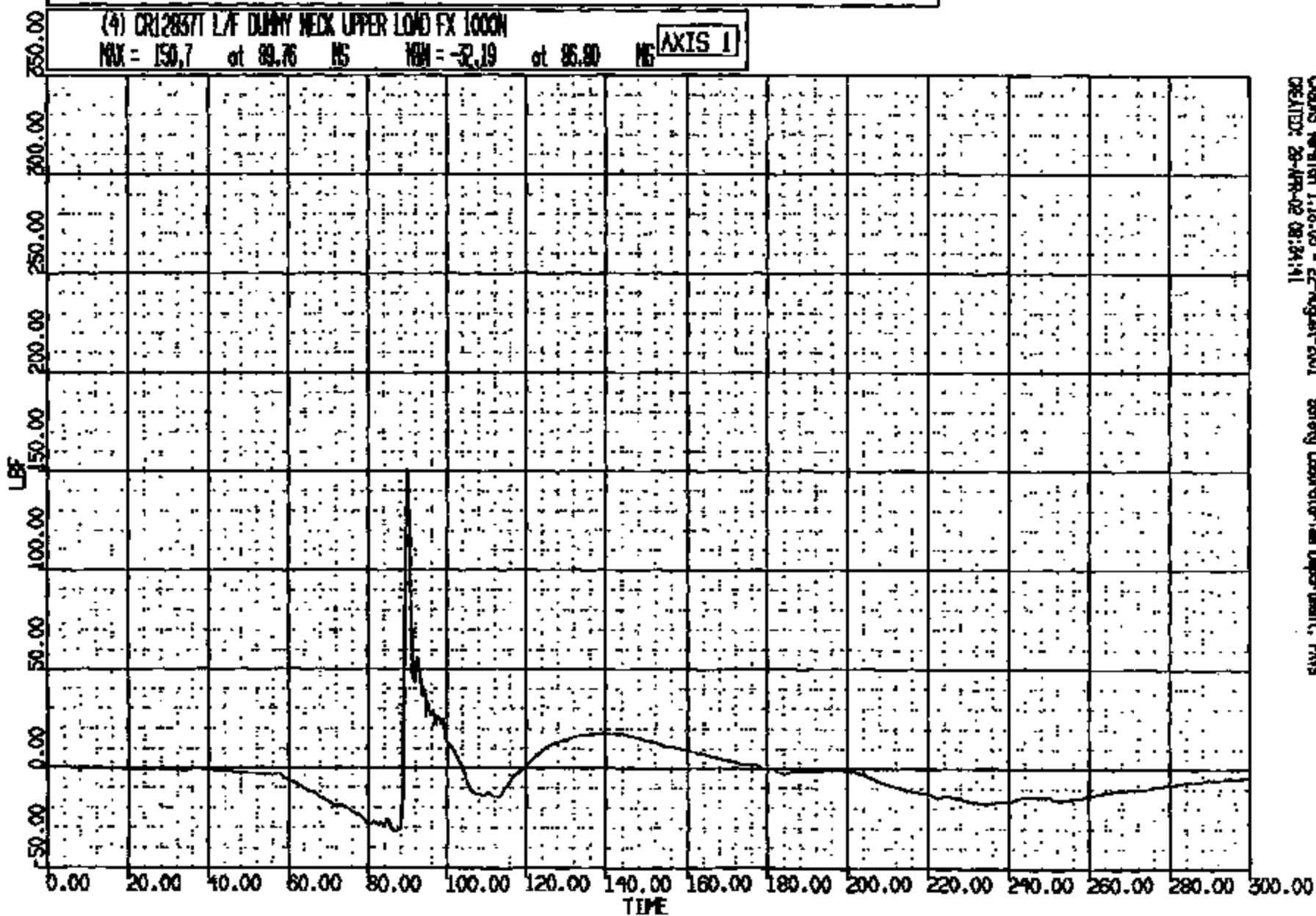
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2003 FN145

(4) CR12837T L/F DUMMY NECK UPPER LOAD FX 1000N

MAX = 150.7 at 89.76 MS MIN = -32.19 at 95.80 MS

AXIS 1



CASMS Version 1.18.03 - 22-August-2001 Safety Laboratory Department, PWS
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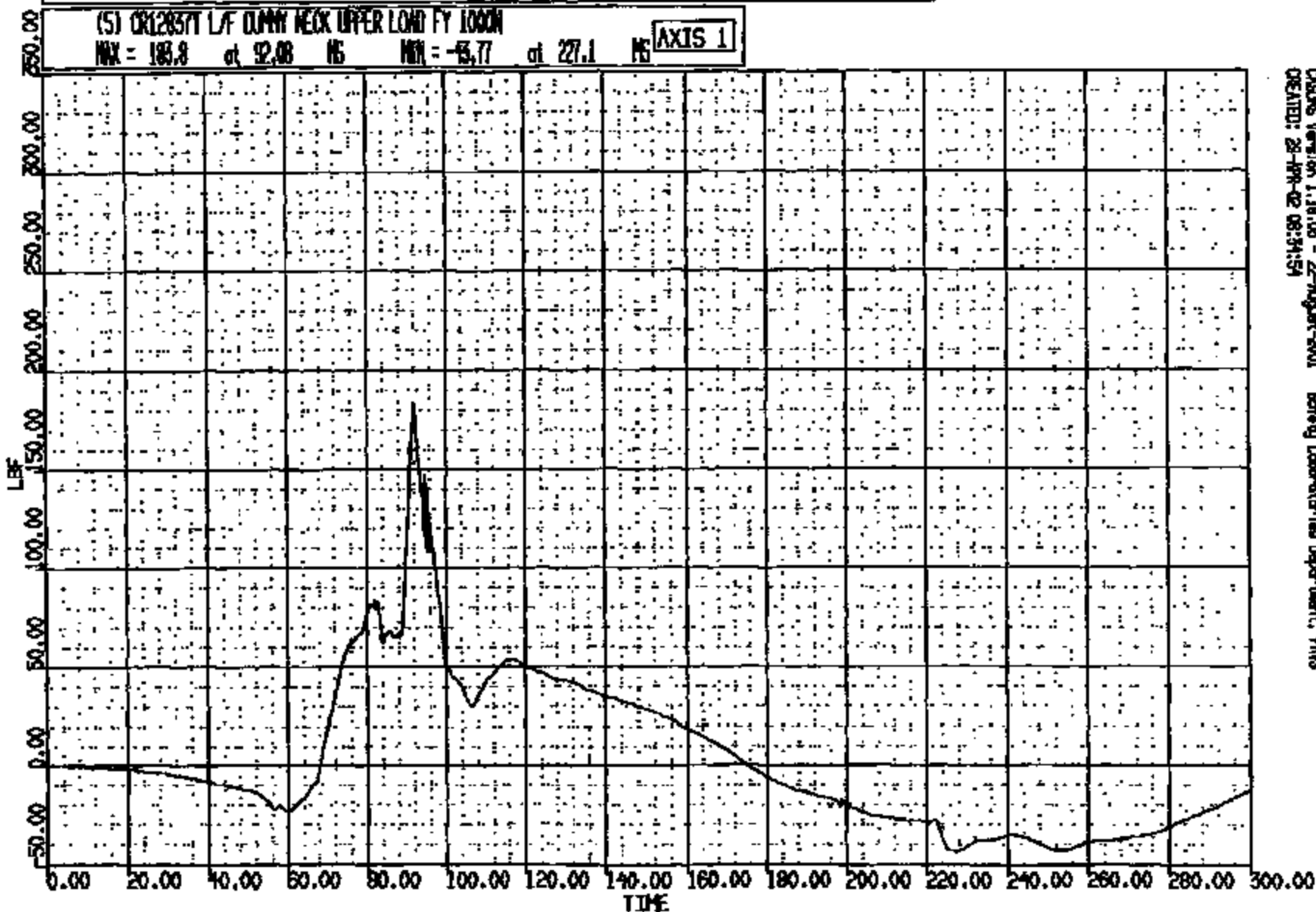
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2005 FN145

(5) CR12837T L/F DUMMY NECK UPPER LOAD FY 1000N

MAX = 183.8 at 92.08 MS MIN = -43.77 at 227.1 MS

AXIS 1



CASUS Version 1.18.05 - 22-August-2001 Safety Laboratories Department, PHS
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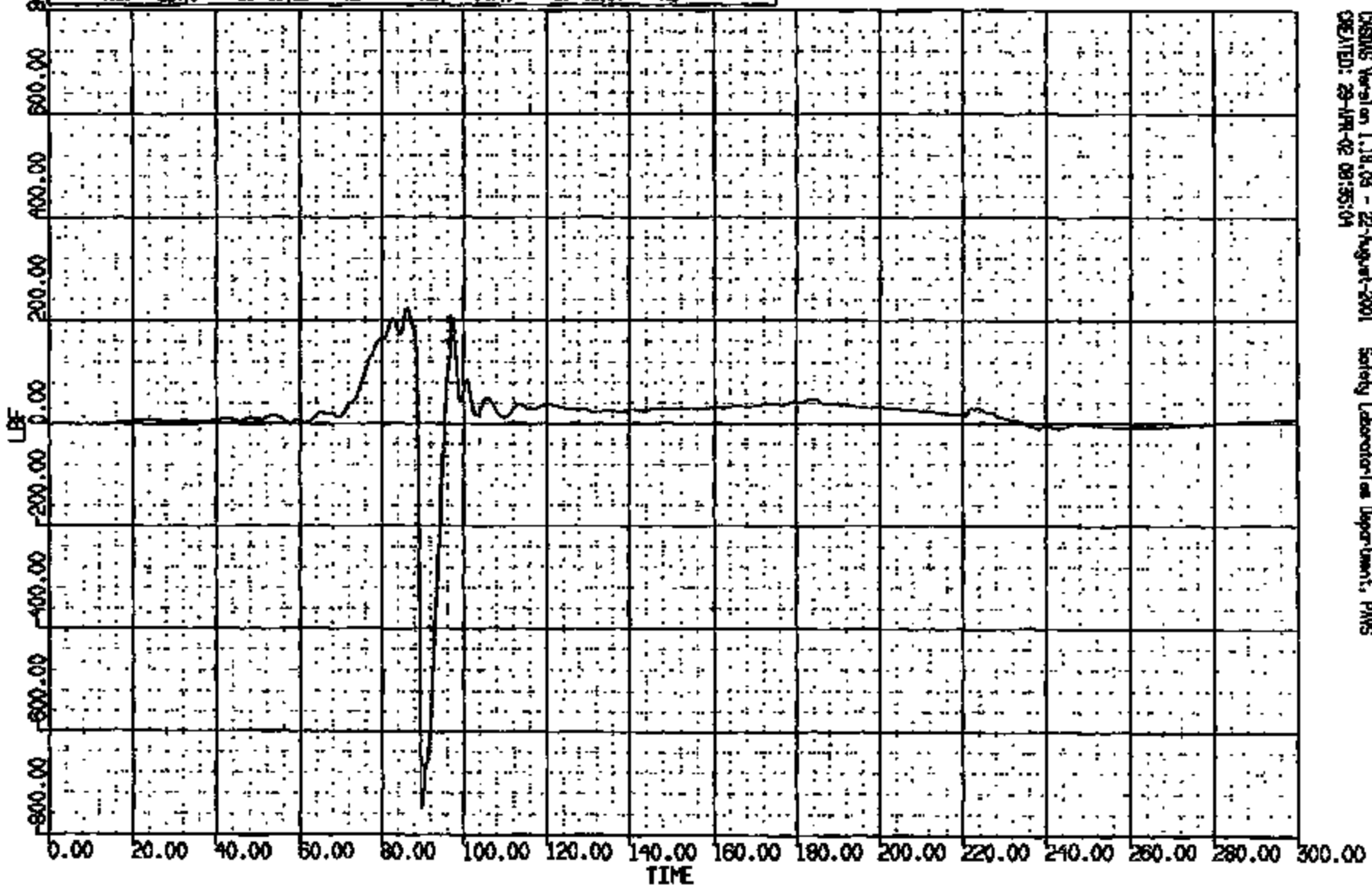
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2002 FN145

(6) CR12837T L/F DUMMY NECK UPPER LOND FZ 1000W

MAX = 221.9 at 86.32 MS MIN = -747.7 at 89.81 MS

AXIS 1



CASIMS Version 1.18.03 - 22-August-2001 Safety Laboratory as Department, PMS
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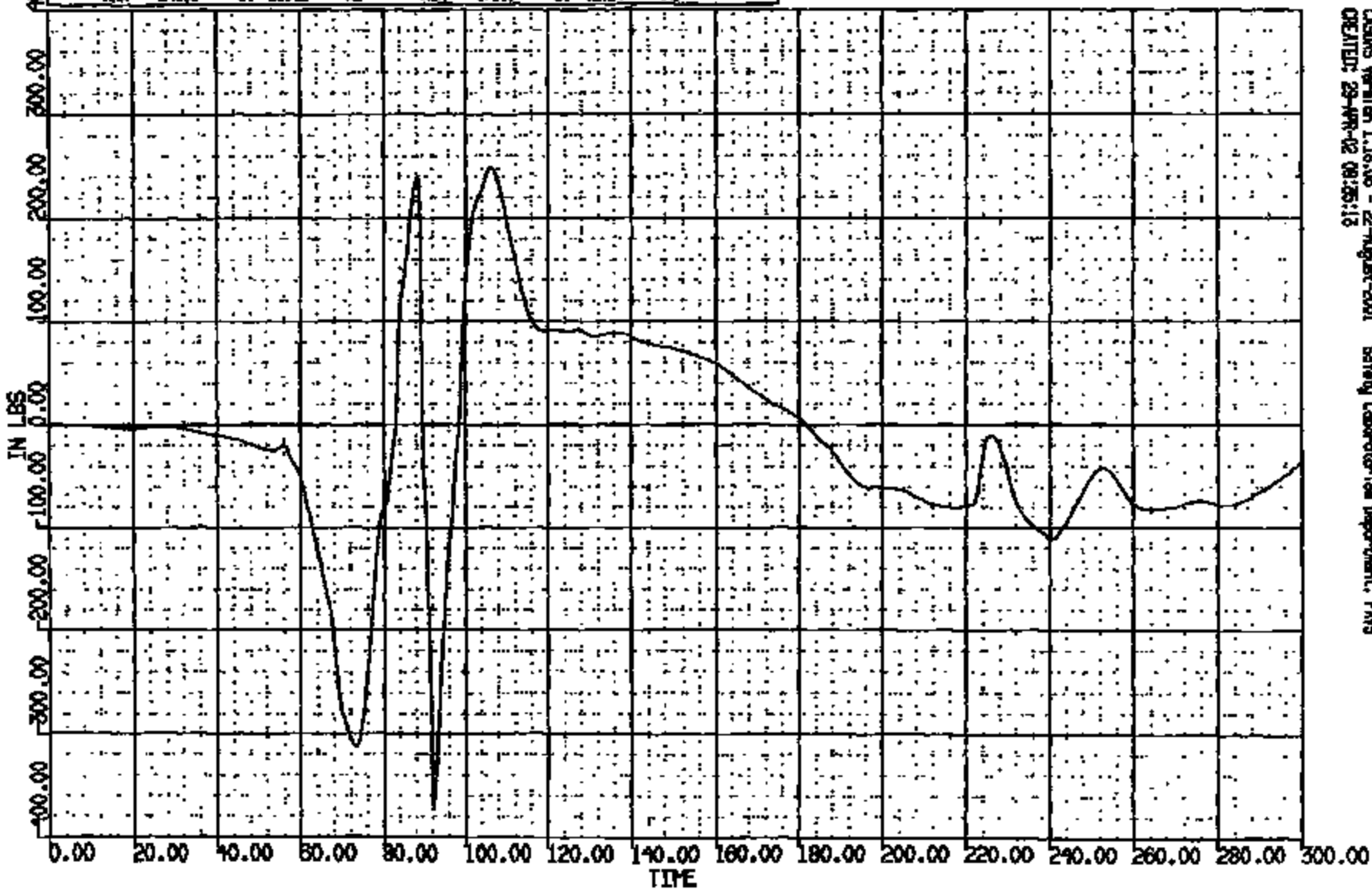
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CR #: 12837 TO: JB5000 DATE: 09-APR-2002 10:06:55
2005 FN145

(7) CR12837T L/F DUMMY NECK UPPER LOAD NX 600N

MAX = 248.9 at 106.2 MS MIN = -373.5 at 92.21 MS

AXIS 1



CASMS Version 1.18.03 - 22-August-2001 Safety Laboratories Department, PARS
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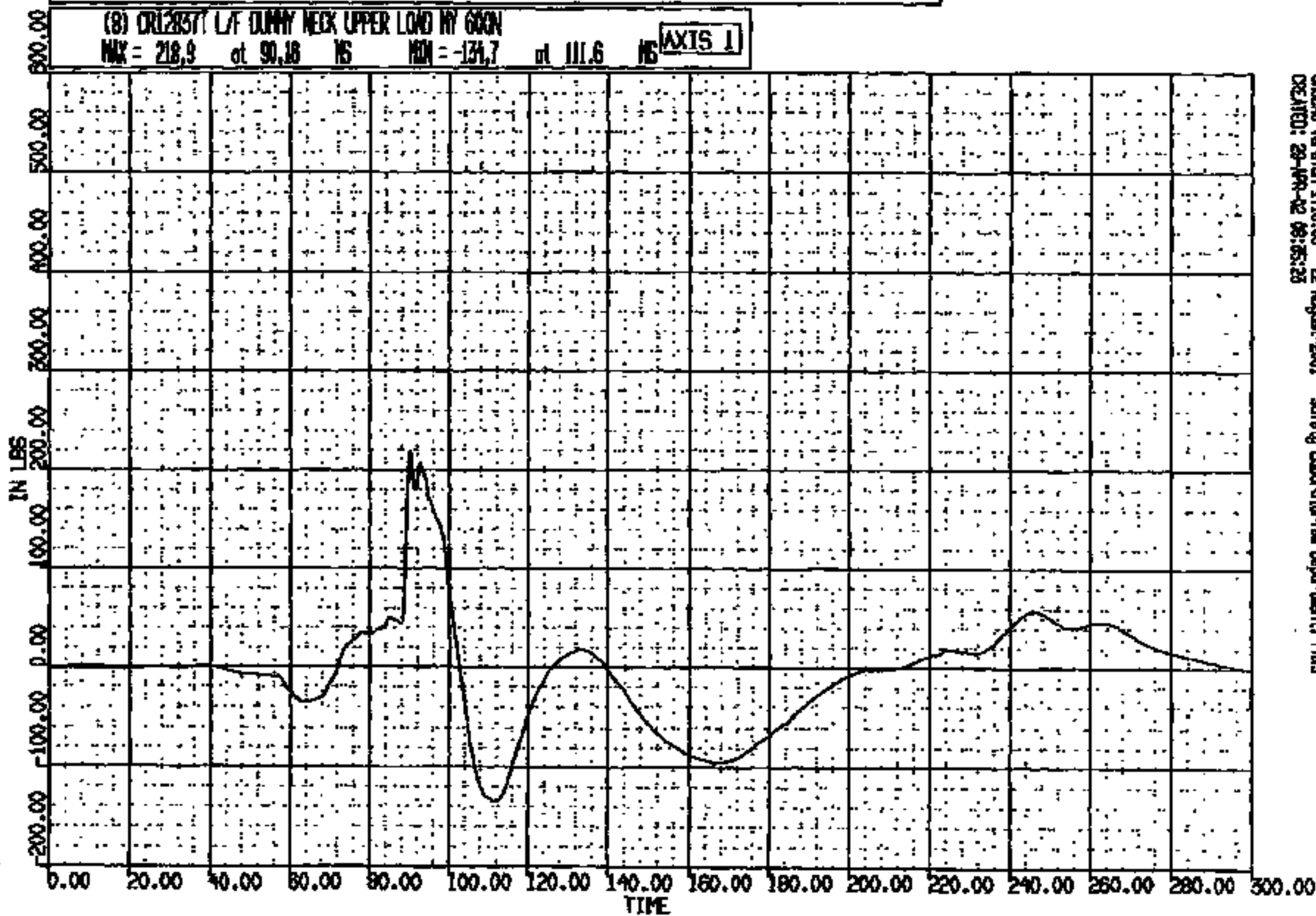
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2002 FN148

(8) CR12837 L/F DUMMY NECK UPPER LOAD BY GUN

MAX = 218.9 at 90.18 MS MIN = -134.7 at 111.6 MS

AXIS 1



CASUS Version 1.18.05 - 22-August-2001 Safety Laboratories Department, PHS
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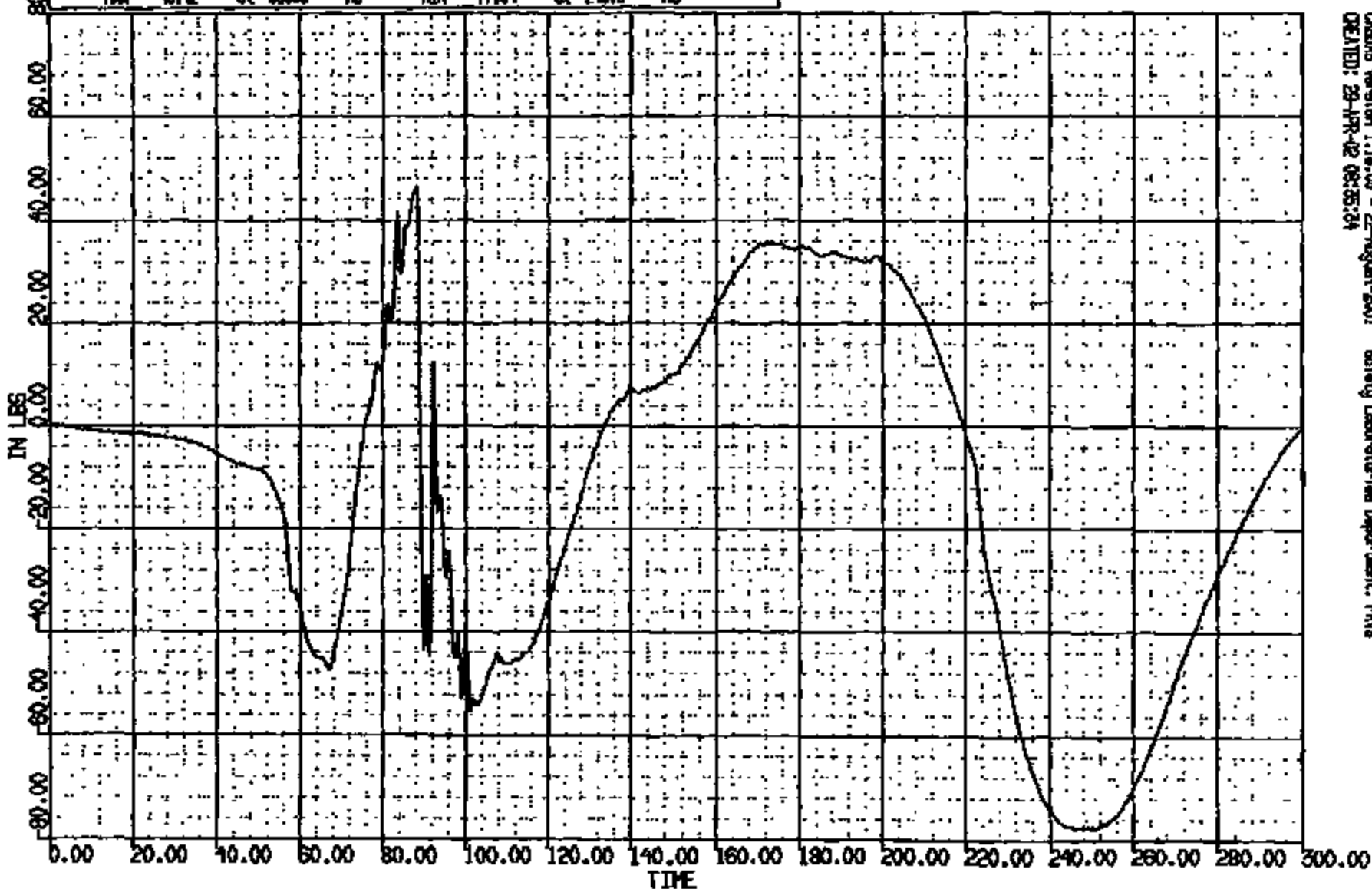
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2003 FN145

(9) CR12837T L/F DUNNY NECK UPPER LOAD NZ 600N

MAX = 46.42 at 88.08 NS MIN = -77.94 at 249.8 NS

AXIS 1



CASINS Version 1.18.03 - 22-August-2001 Safety Laboratories Department, PMS
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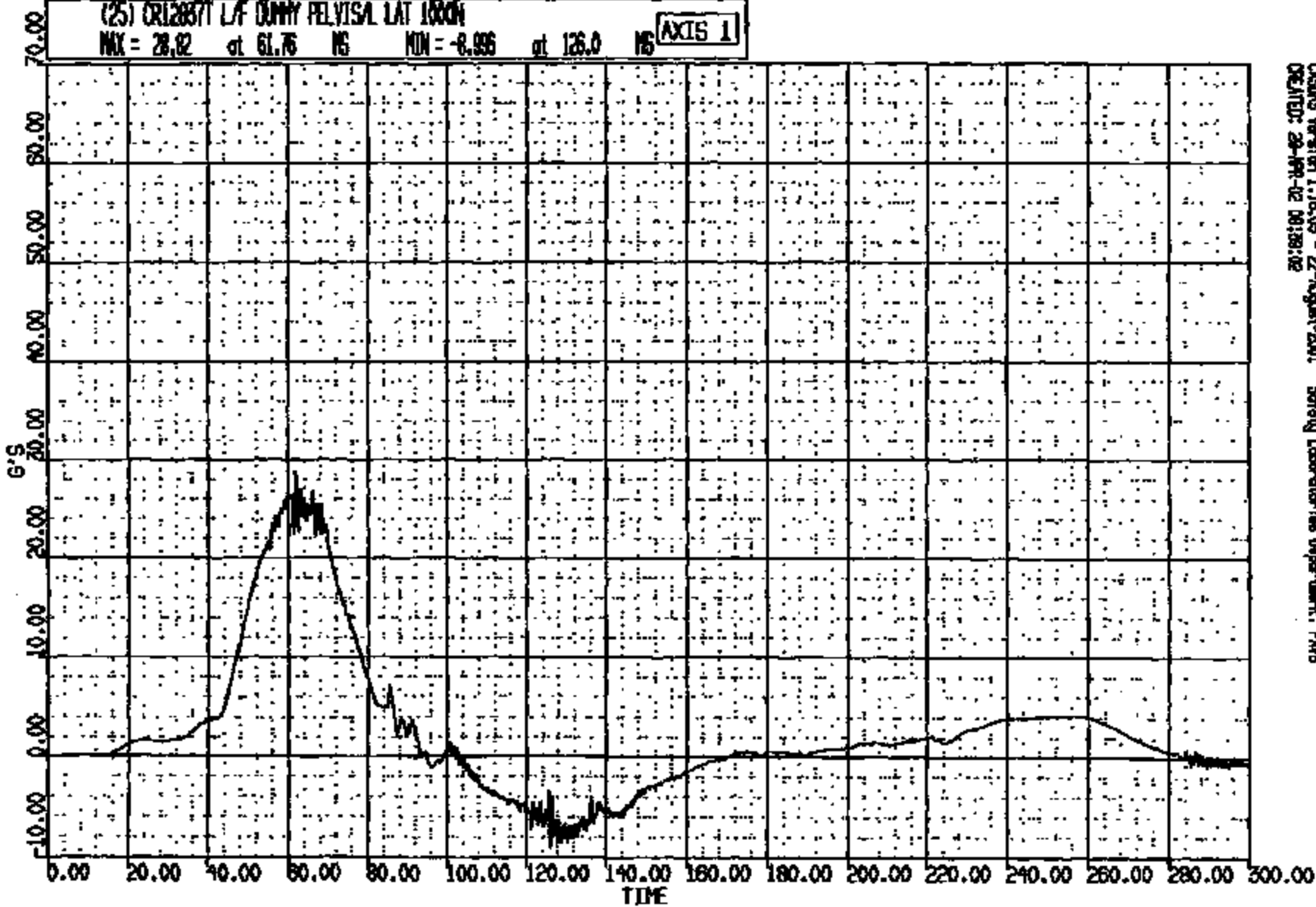
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2002 FN145

(25) CRT2837 L/F DUMMY PELVIS LAT 1000N

MAX = 28.82 at 61.75 NS MIN = -8.996 at 126.0 NS

AXIS 1



CASAS Version 1.18.03 - 22-August-2001 Safety Laboratories Department: PMS
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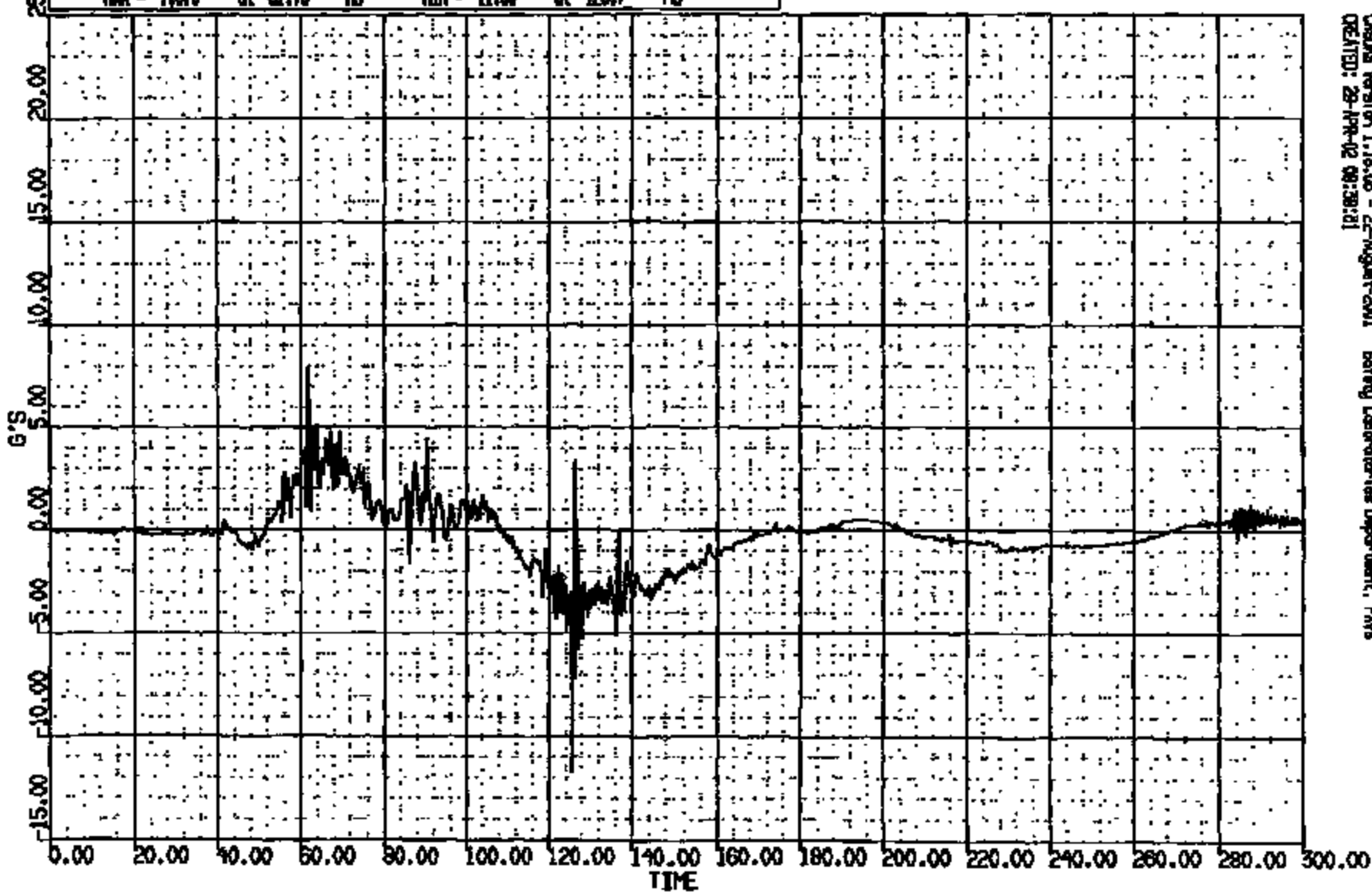
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2005 FN145

(25) CR12837 L/F DUMMY PELVIS LONG 1000N

MAX = 7.875 at 61.75 MS MIN = -11.80 at 125.7 MS

AXIS 1



CASDA Version 1.18.05 - 22-August-2001 Safety Laboratories Department, PWS
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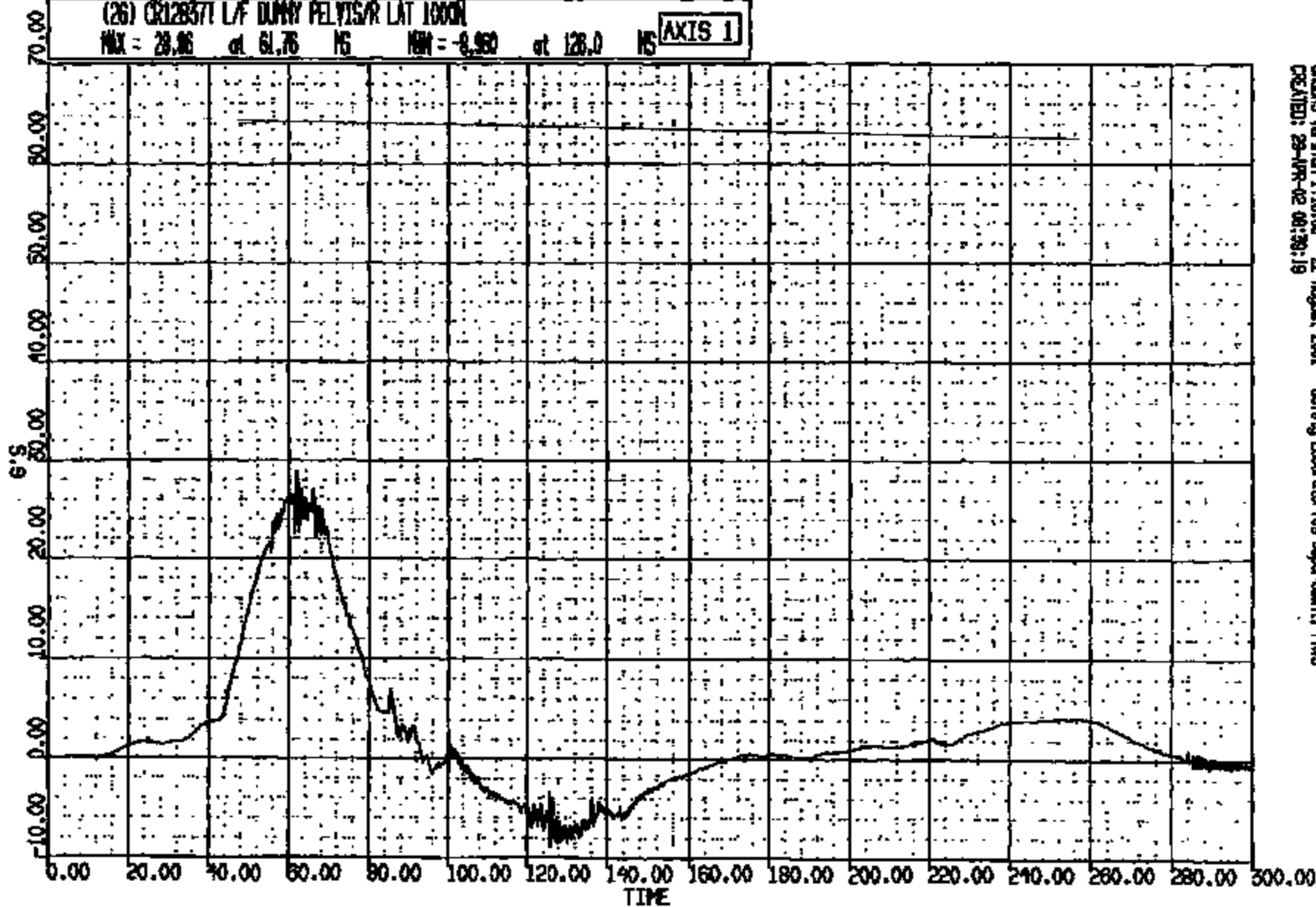
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2003 FN145

(26) CR12837 L/F DUNN PELVIS/R LAT 100MM

MAX = 28.86 at 61.76 NS MIN = -8.960 at 126.0 NS

AXIS 1



CAS/MS Version 1.18.02 - 22-August-2001 Safety Laboratories Department, PMS
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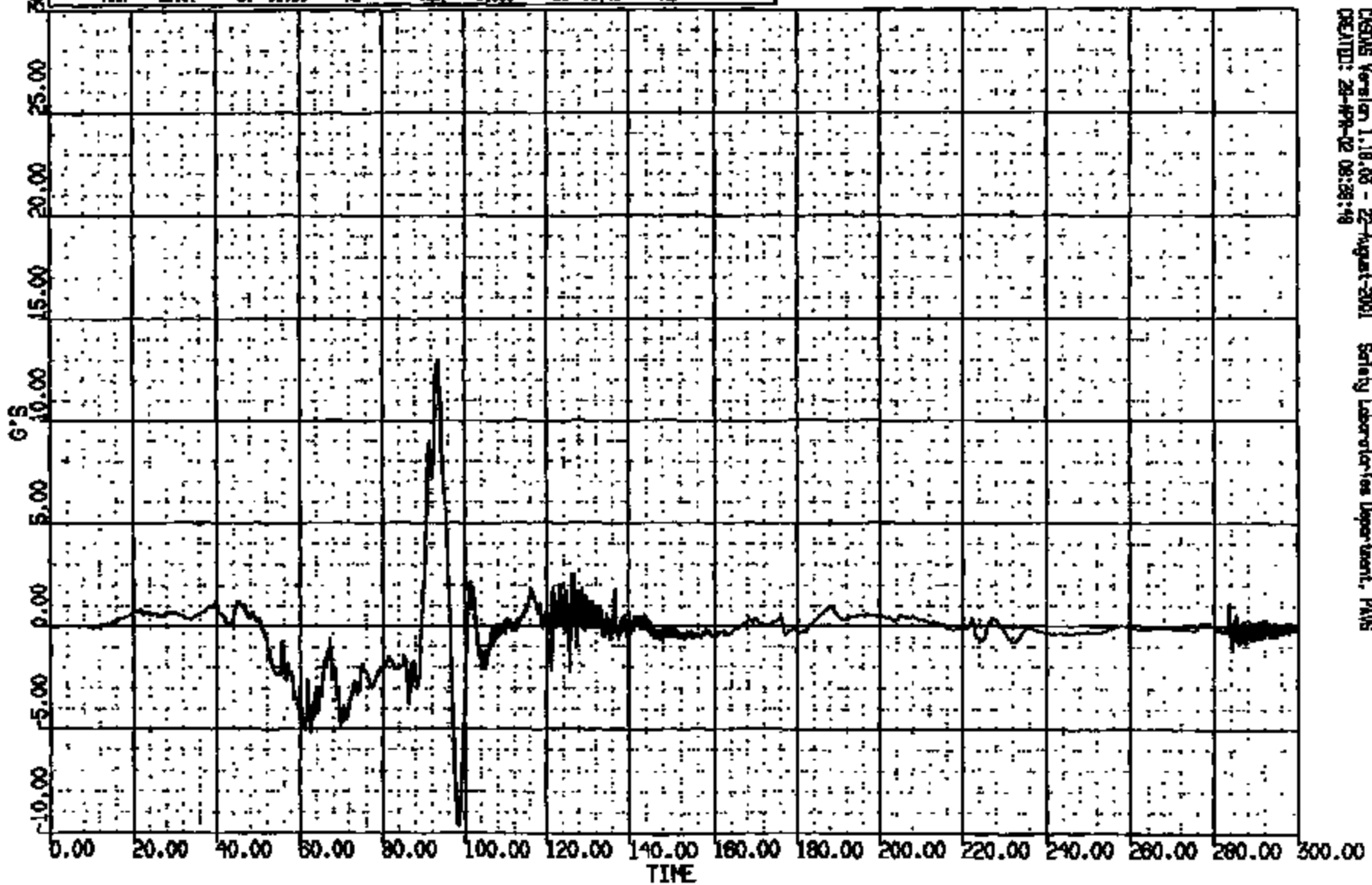
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2003 FN145

(24) CR12837T L/F DUMMY PELVIS VERT 1000N

MAX = 12.97 at 95.60 MS MIN = -9.600 at 93.48 MS

AXIS 1



CASIM Version 1.10.03 - 22-August-2001 Safety Laboratories Department, PHS
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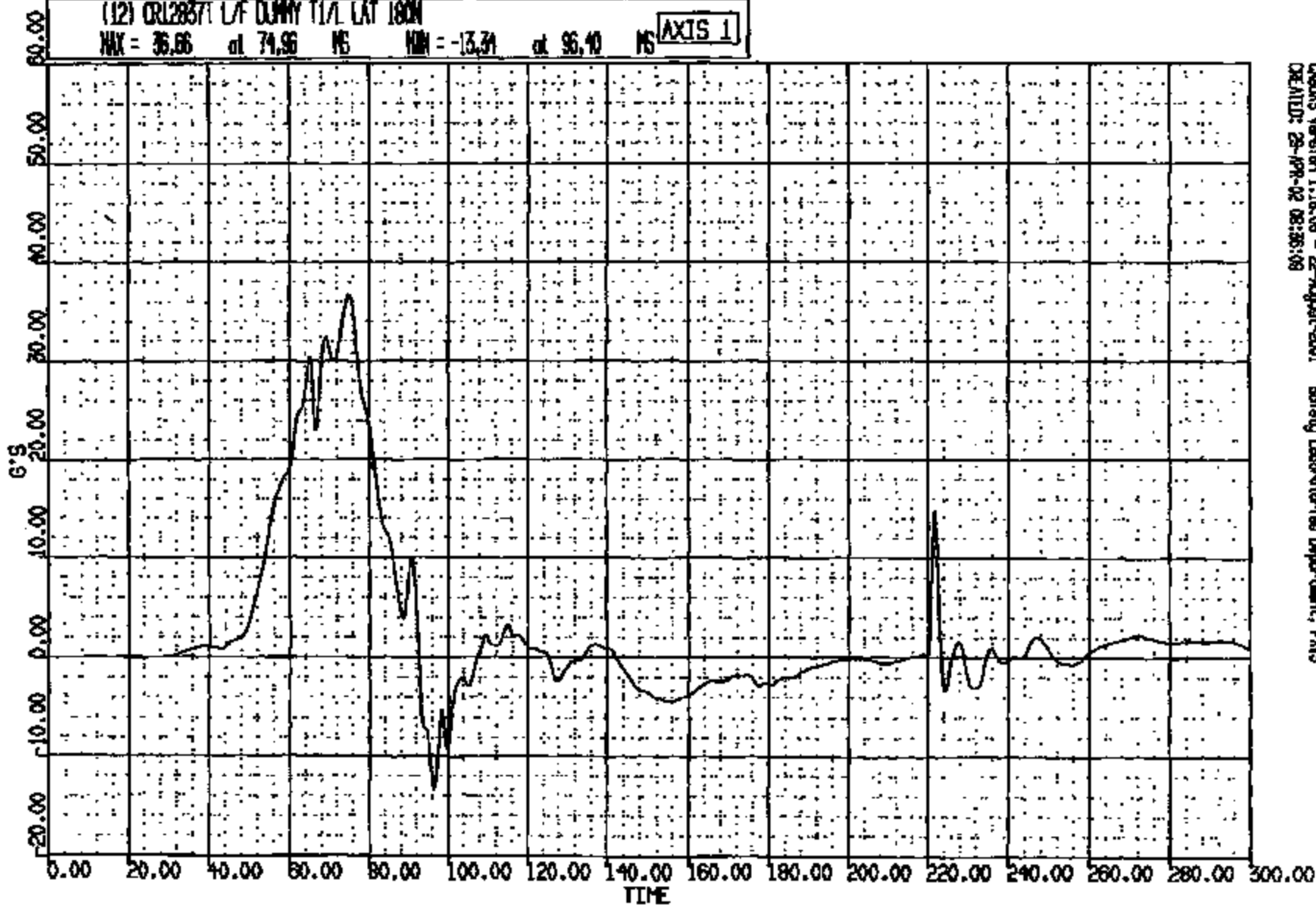
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2005 FN145

(12) CR128371 L/F DUMMY T1/L LAT 180N

MAX = 36.66 at 74.96 MS MIN = -13.34 at 96.40 MS

AXIS 1



CASAS Version 1.18.05 - 22-Aug-2001 Safety Laboratories Department, PMS
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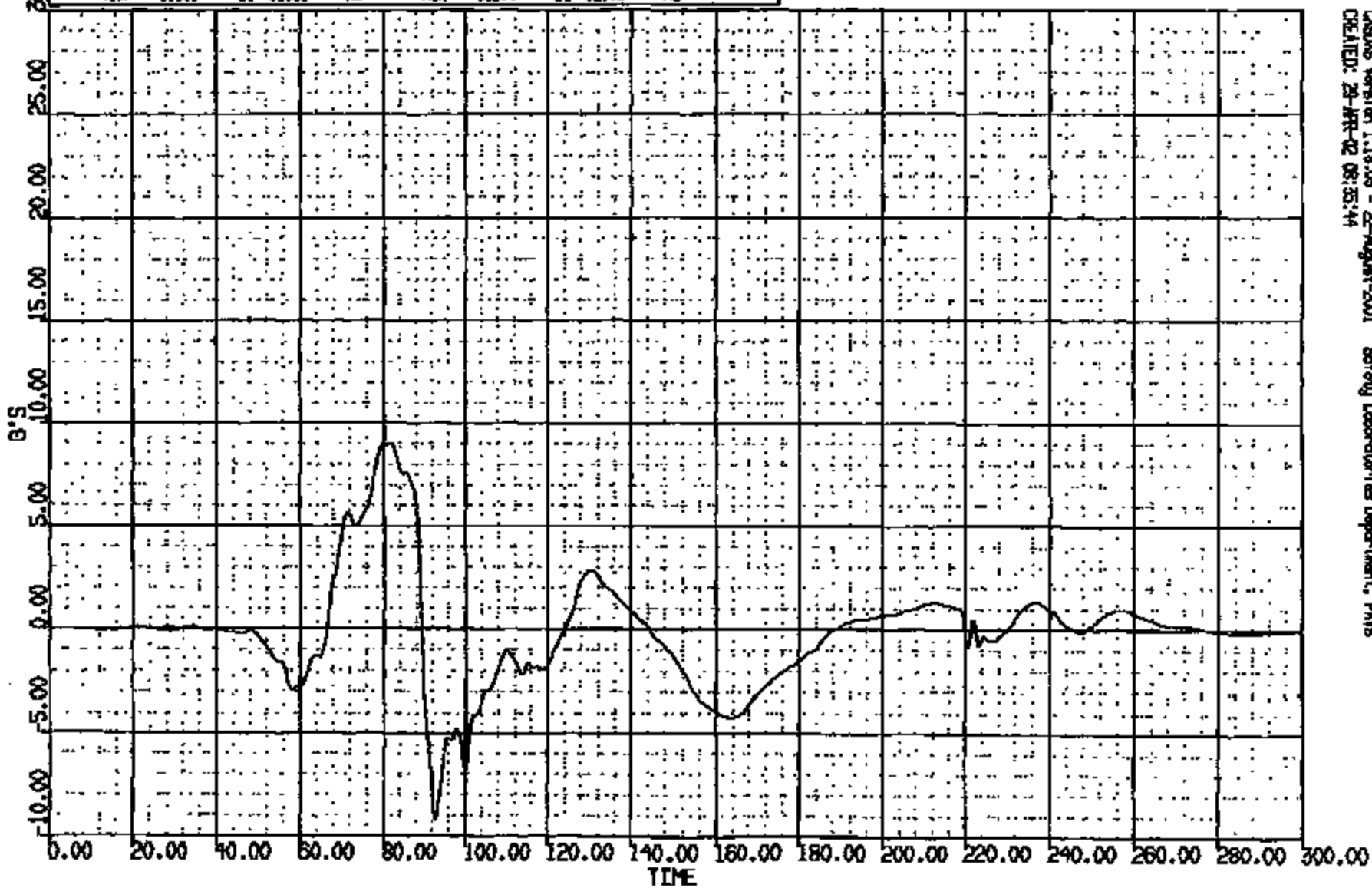
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2003 FN145

(10) CR12837T L/F DUMMY TI LONG 180N

MAX = 9.685 at 81.68 MS MIN = -9.234 at 92.00 MS

AXIS 1



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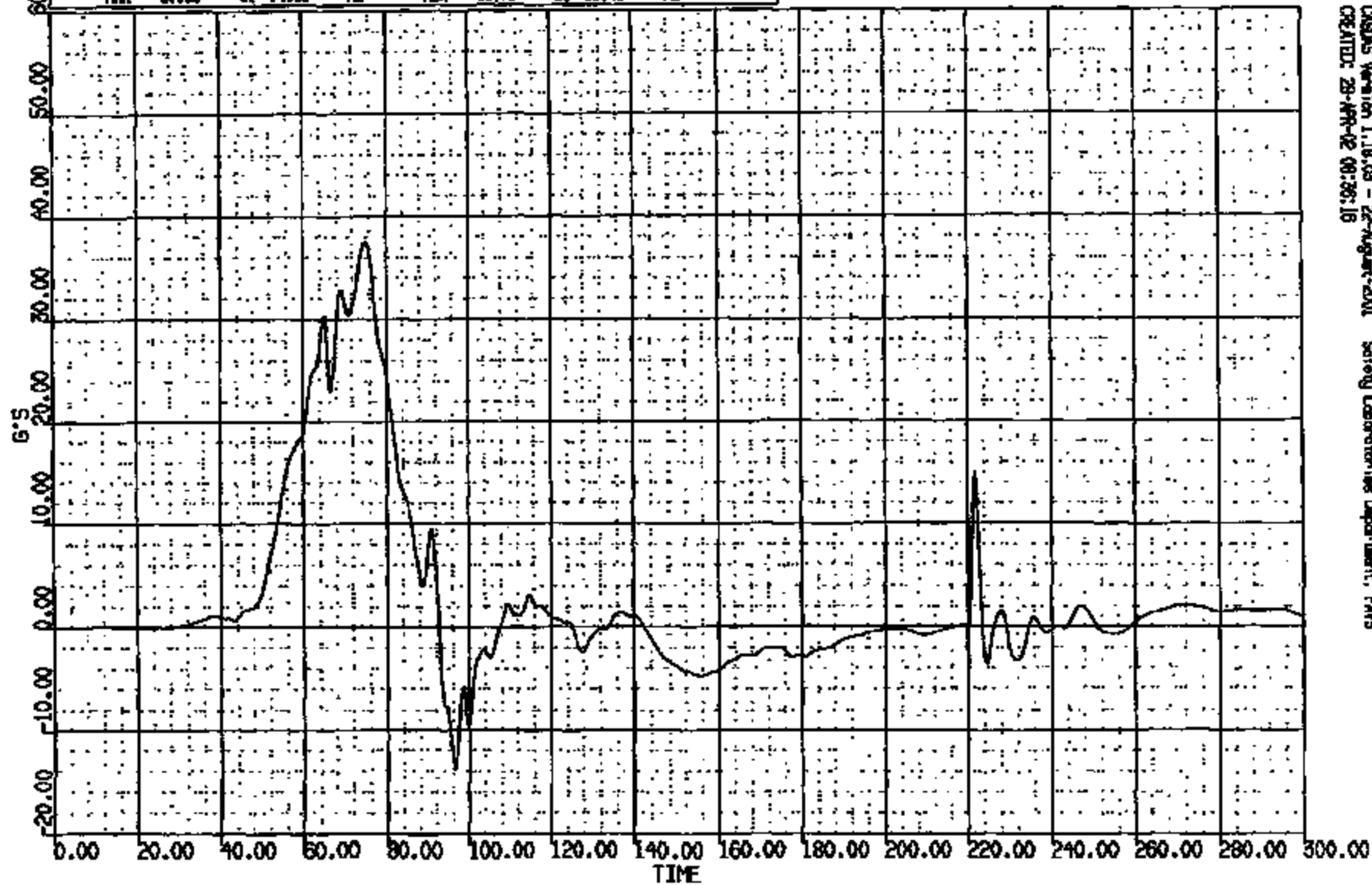
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2002 FN145

(13) CR12837/LF DUNNY T1/R LAT 180N

MAX = 37.53 at 74.95 MS MIN = -13.78 at 95.40 MS

AXIS 1



CASAS Version 1.18.03 - 22-August-2001 Safety Laboratories Department, PAVS
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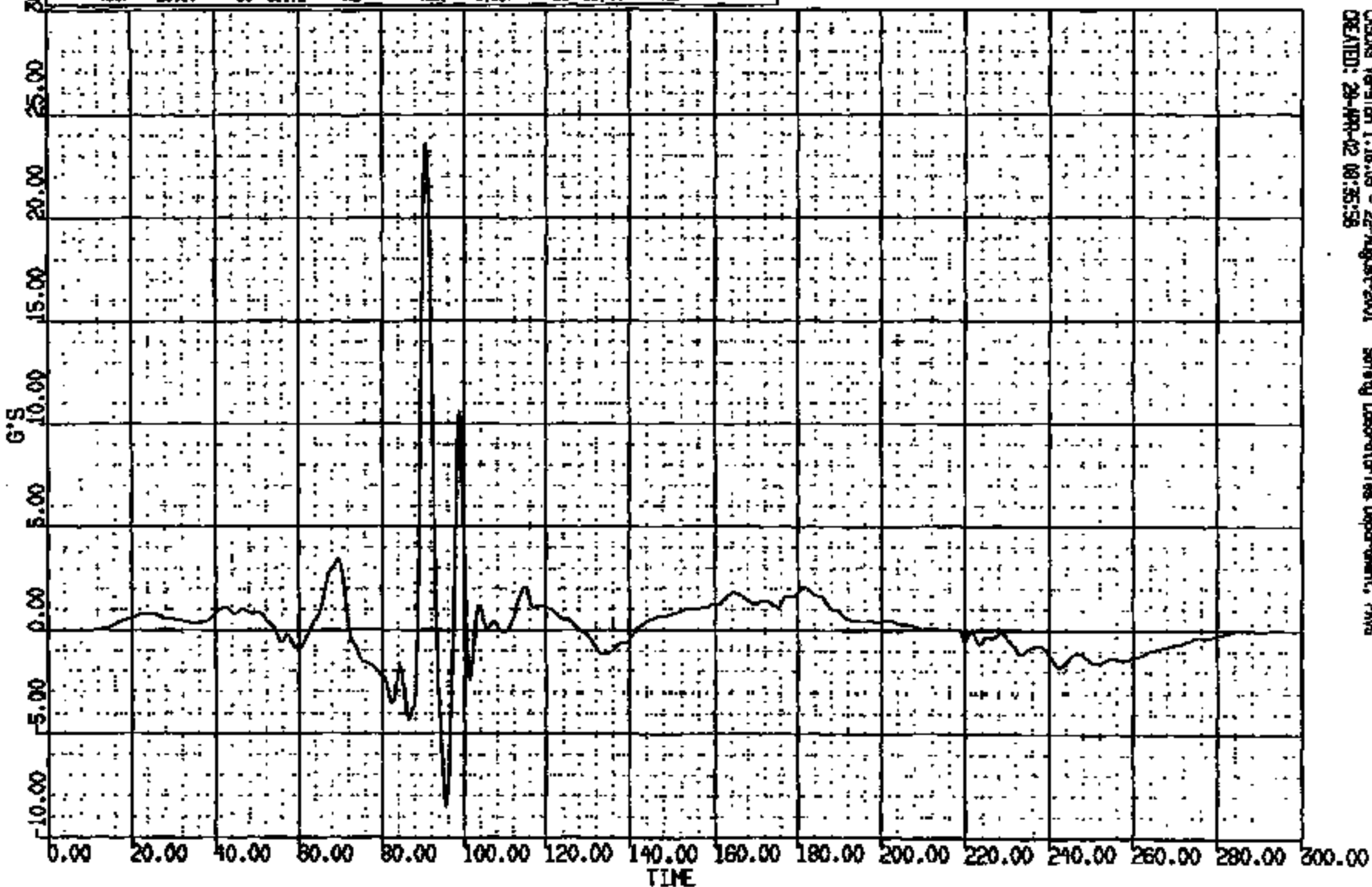
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2003 FN145

(11) CR128371 L/F DUMMY TL VERT 180N

MAX = 23.53 at 90.72 MS MIN = -8.507 at 95.44 MS

AXIS 1



CASING Version 1.18.05 - 23-August-2001 Safety Laboratories Department, PHMS
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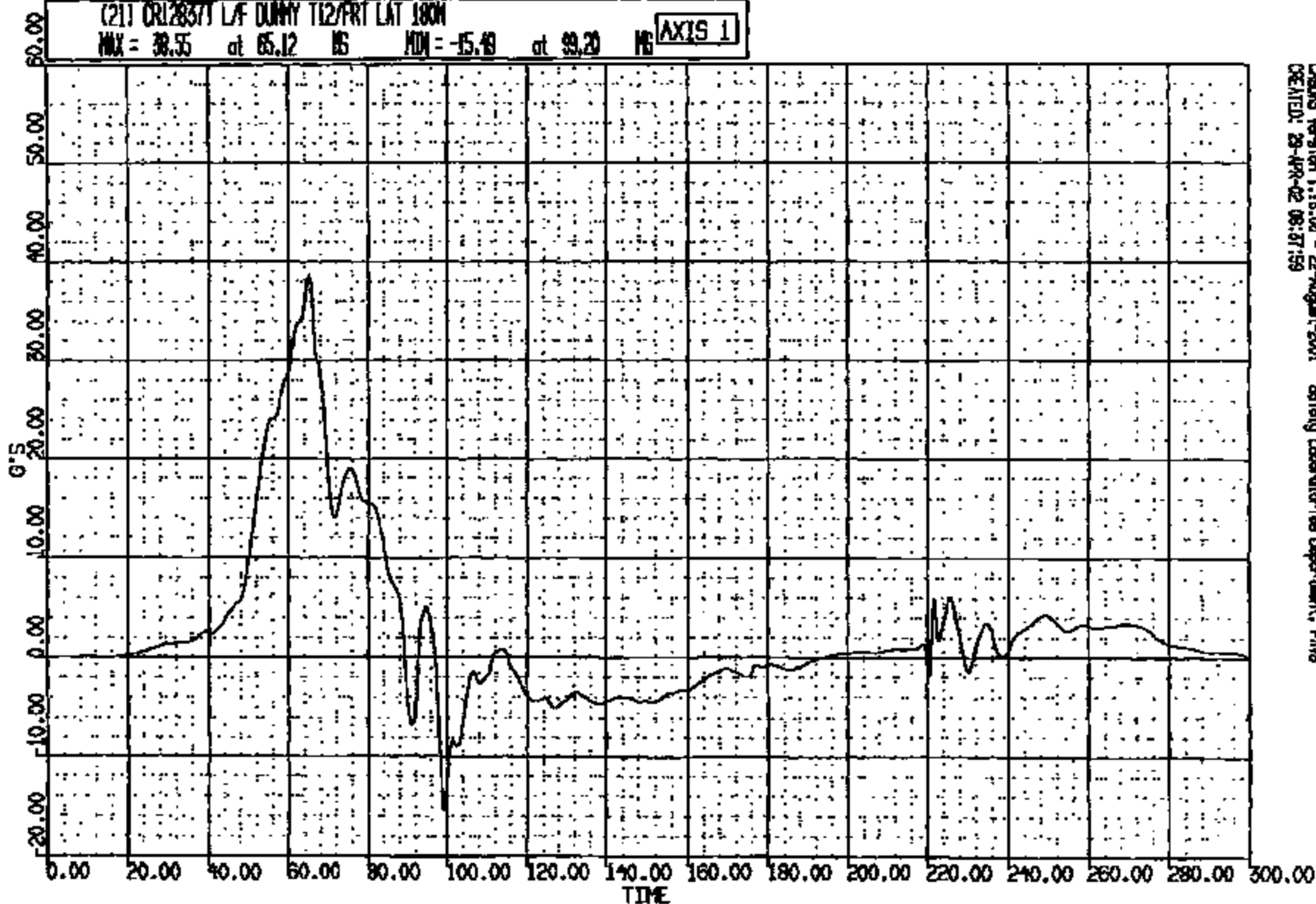
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2003 FN145

(211 CR12837) L/F DUNNY T12/PRT LAT 100N

MAX = 38.55 at 65.12 MS MIN = -15.49 at 99.20 MS

AXIS 1



CRJ005 Version 1.18.00 - 22-August-2001 Safety Laboratories Department, PMS
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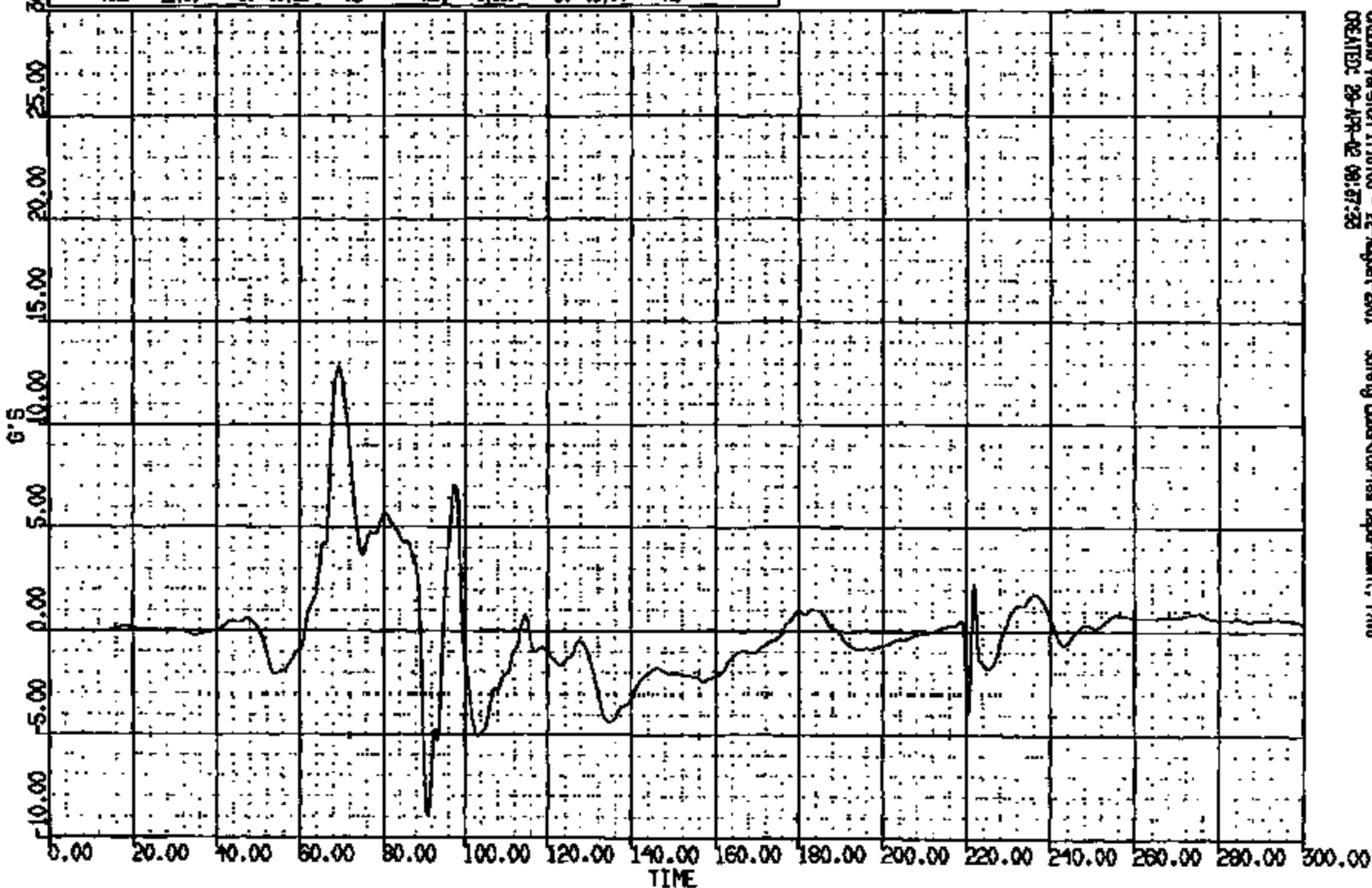
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2002 FZ145

(19) CR12837T L/F DUMMY T12 LONG 180N

MAX = 12.80 at 69.52 NS MIN = -9.907 at 91.04 NS

AXIS 1



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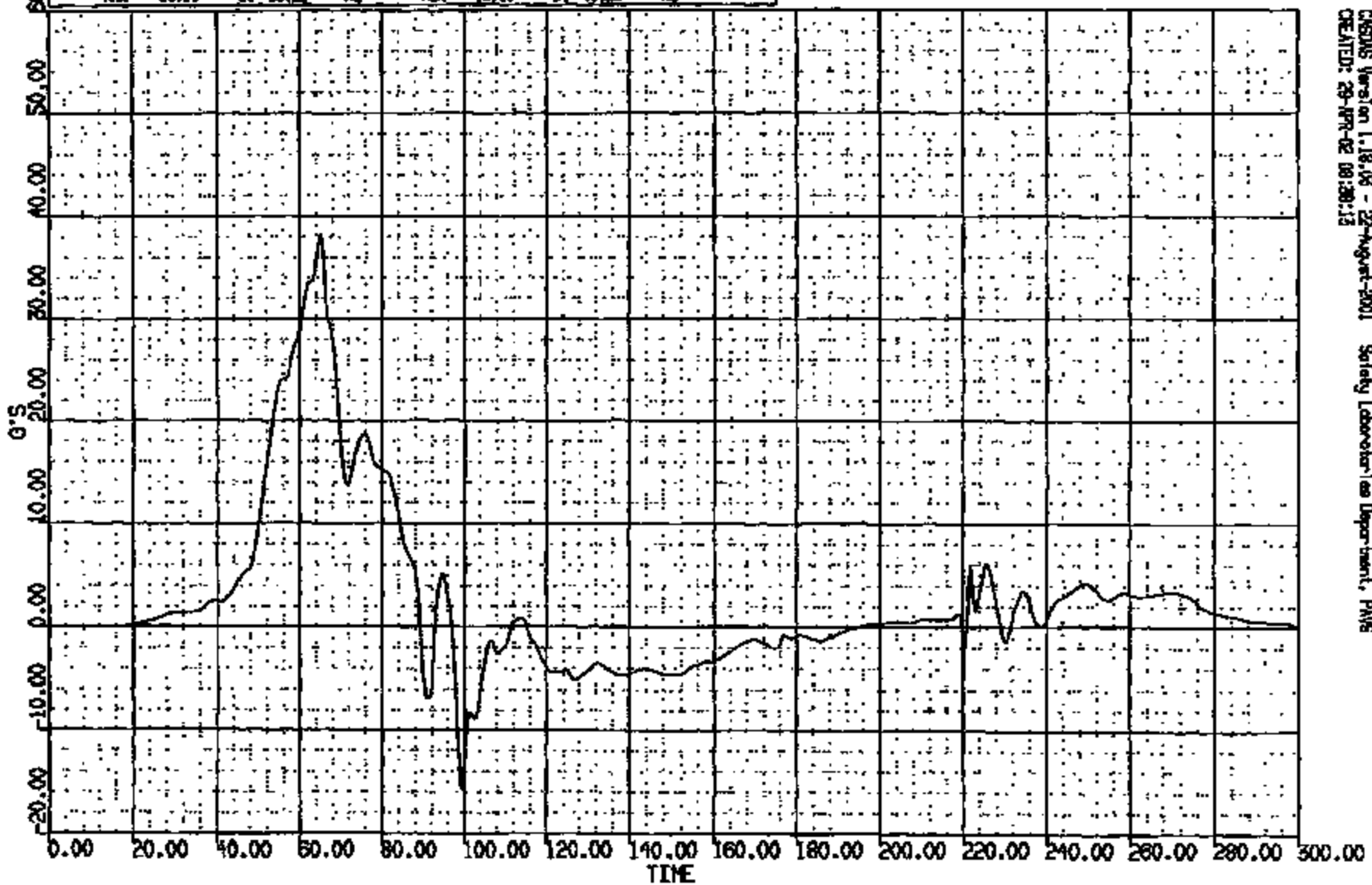
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CRIS 0012837

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2003 FN145

(22) CR128371 LAF DUMMY T12/REAR LAT 180N
MAX = 30.18 at 65.12 MS MIN = -15.68 at 90.20 MS

AXIS 1



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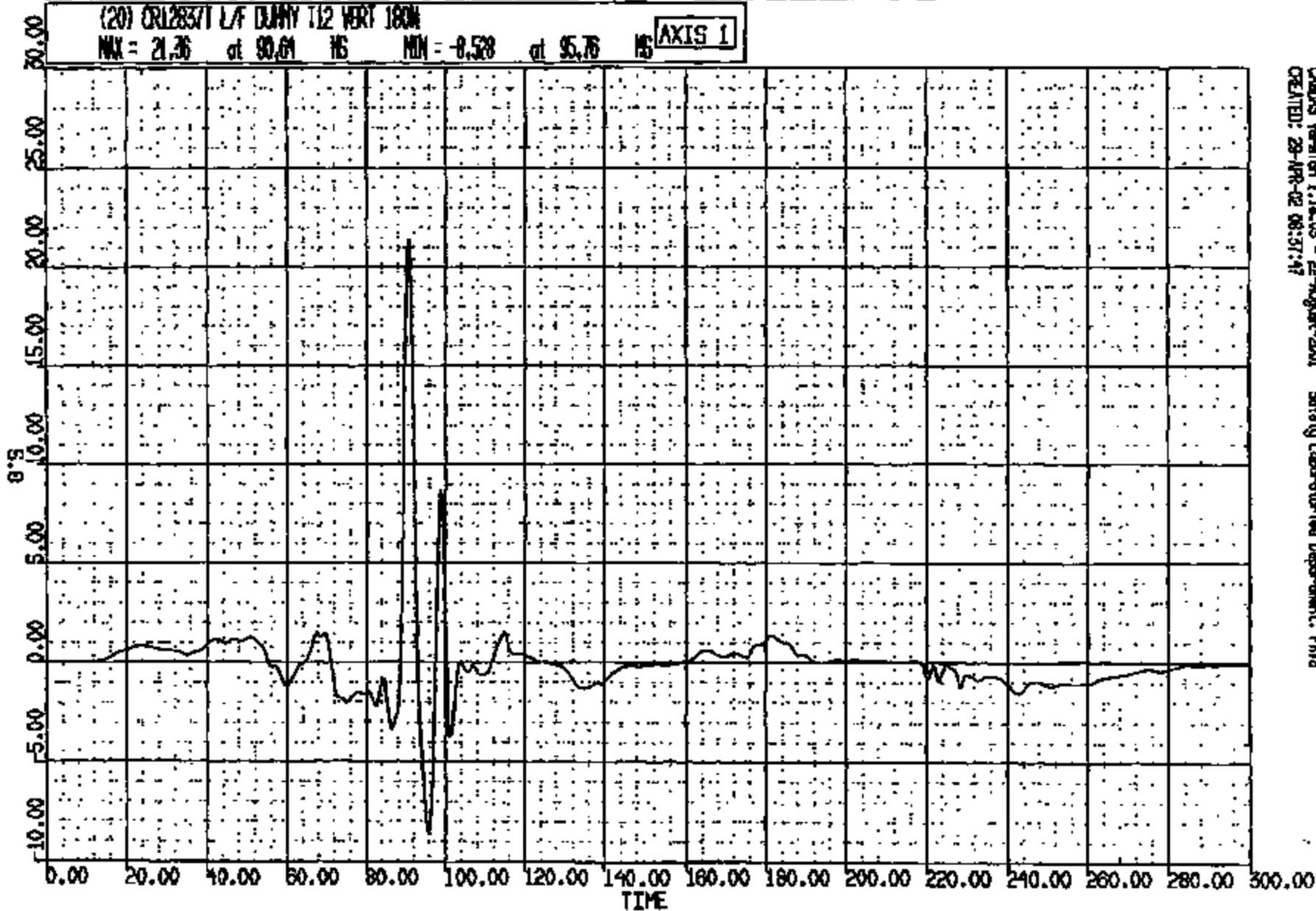
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2005 FN145

(20) CR128371 L/F DUNN T12 VERT 180M

MAX = 21.36 at 90.61 HS MIN = -8.528 at 95.76 HS

AXIS 1



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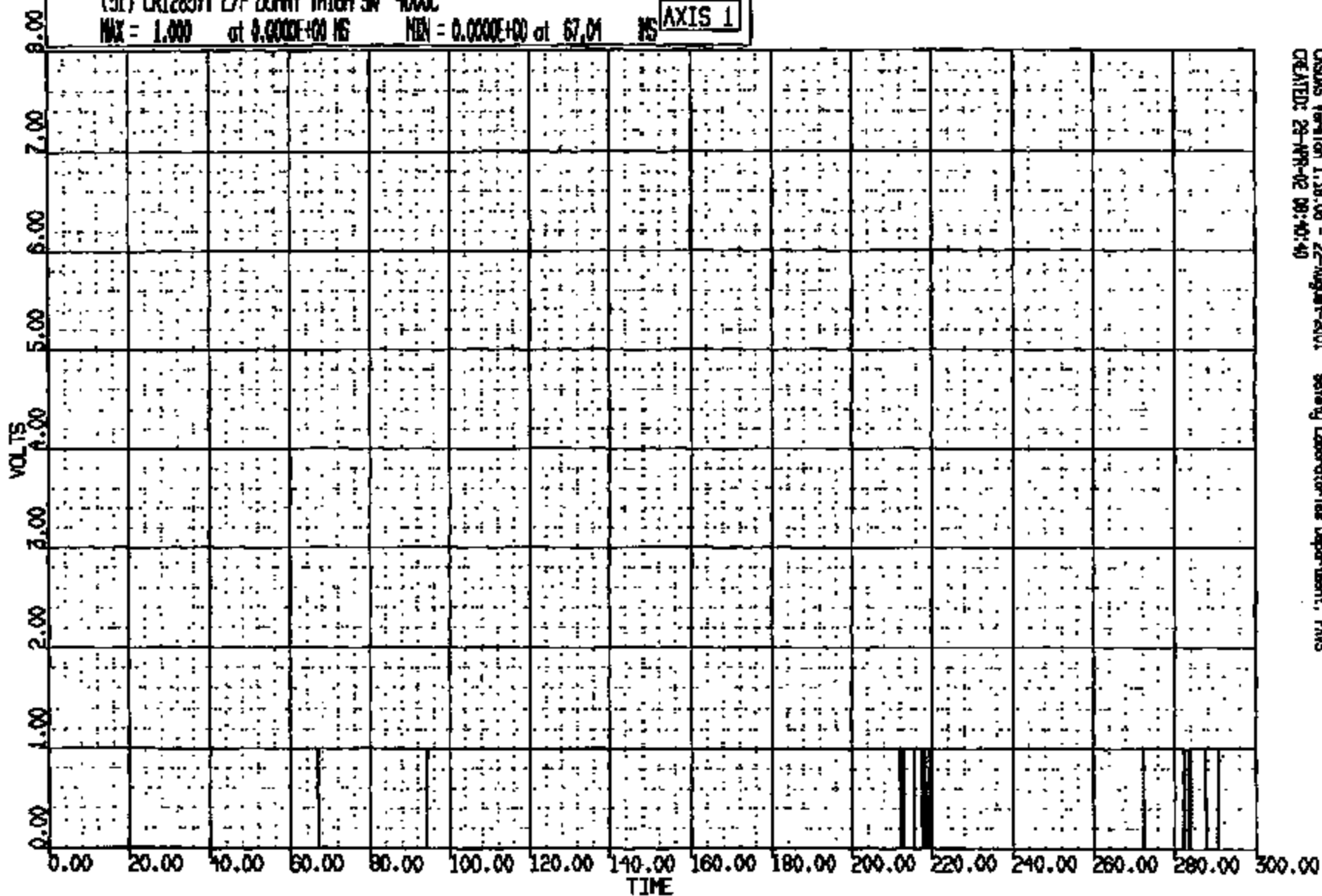
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2003 FN145

(31) CR12837T L/F DUNNY THIGH SM 4000C

MAX = 1.00 at 0.000E+00 NS MIN = 0.000E+00 at 67.01 NS

AXIS 1



OSDAS Version 1.18.08 - 22-August-2001 Safety Laboratories Department, PWS
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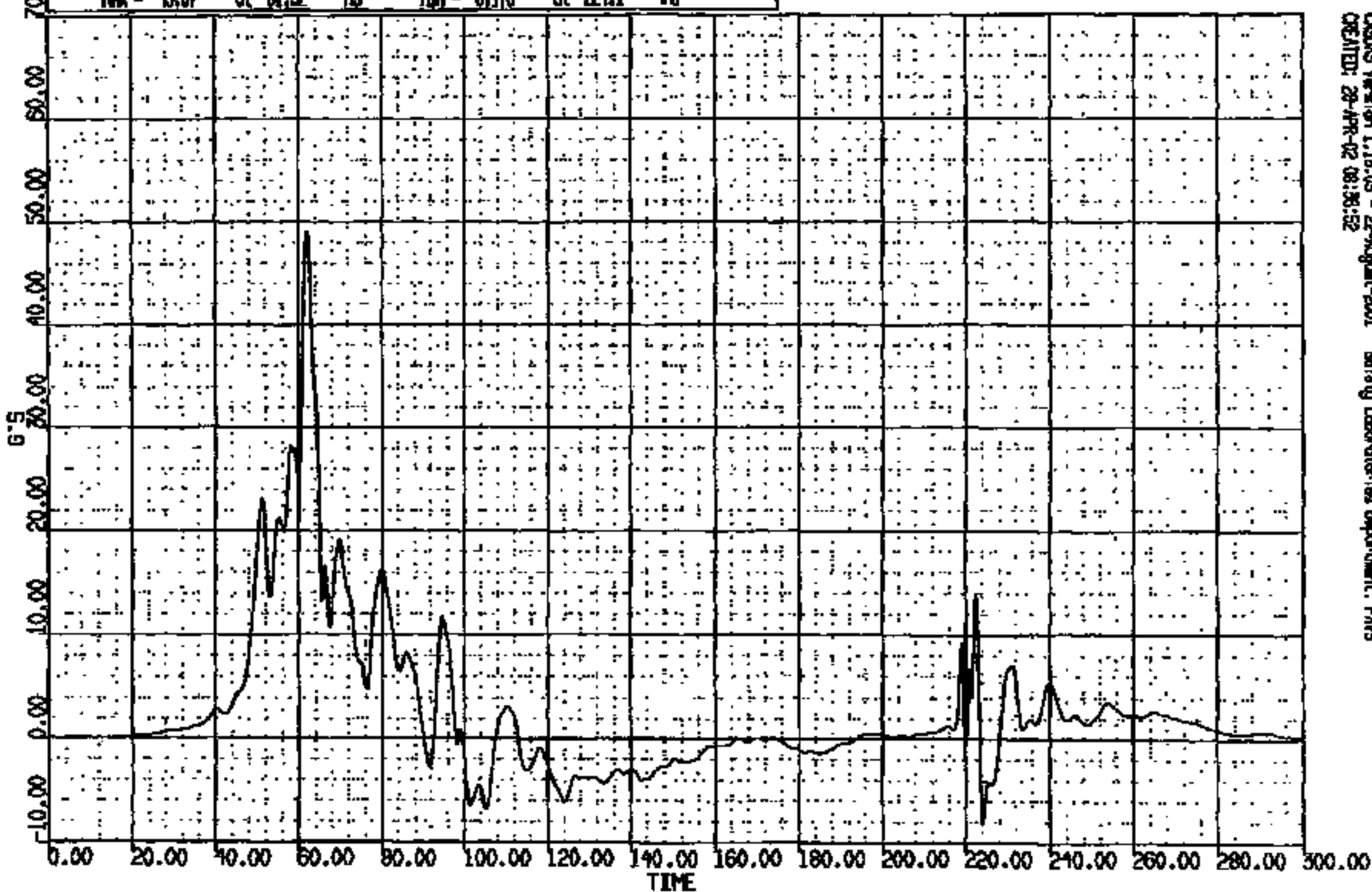
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2003 FN145

(16) CR12837 L/F DUNN THORAX/RIB/D/RT LAT 180N

MAX = 49.07 at 61.92 MS MIN = -8.175 at 224.1 MS

AXIS 1



CRSUS Version 1.18-05 - 22-August-2001 Safety Laboratories Department, PWS
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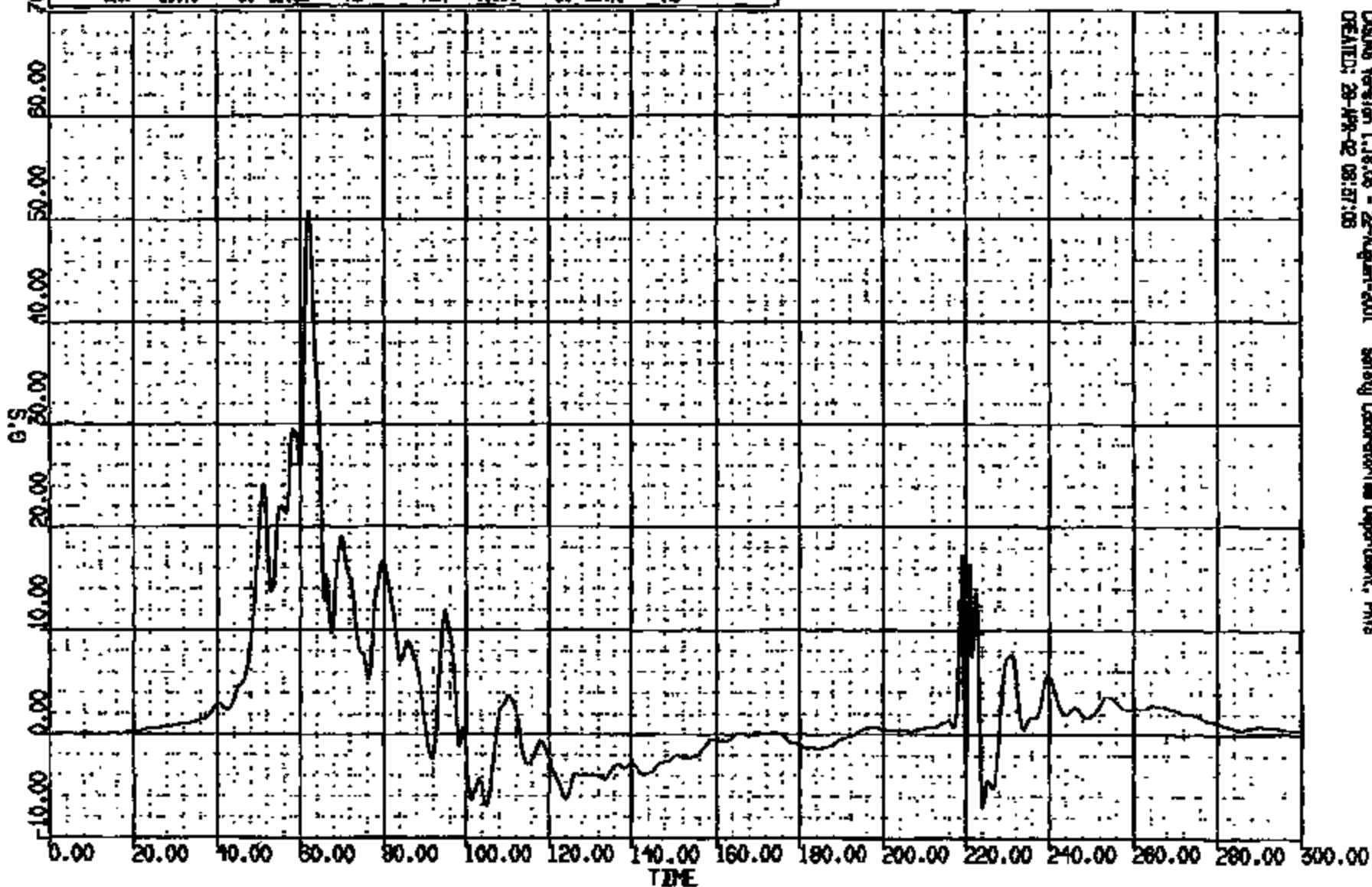
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2002 FN145

(17) CR12837T L/E DUMMY THORAX/ROB/LOWEAR LAT 180N

MAX = 50.78 at 61.92 MS MIN = -7.191 at 224.1 MS

AXIS 1



OSDAS Version 1.18.05 - 28-August-2001 Safety Laboratory Department, PWS
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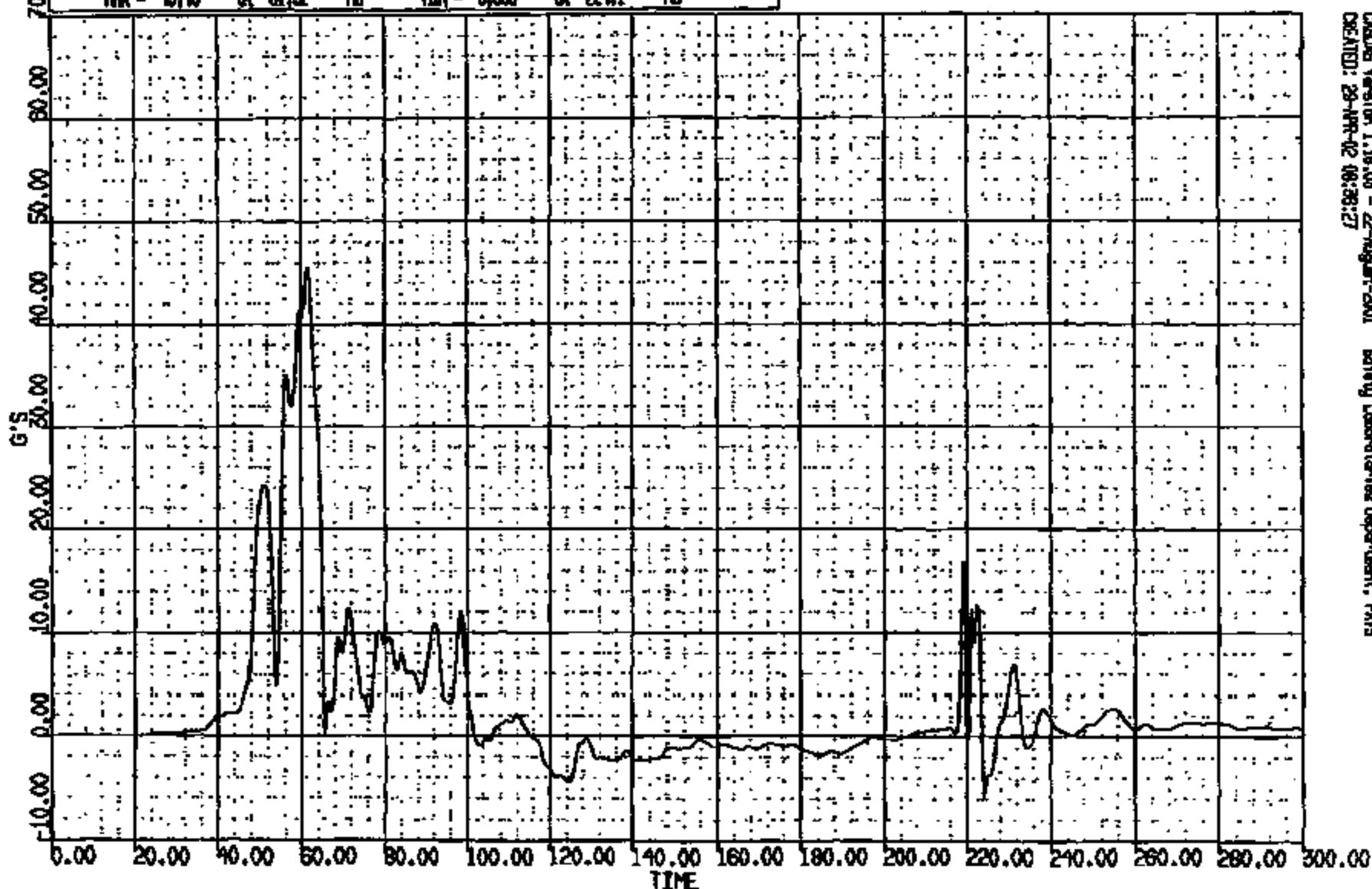
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CR R: 12837 TO: JB5000 DATE: 02-APR-2002 10:08:55
2003 FN145

(14) CR12837 LAF BUNNY THORAX/RIB/UP/RT LAT 180N

MAX = 5.18 at 61.52 NS MIN = -5.685 at 224.1 NS

AXIS 1



CADIAS Version 1.19.05 - 22-August-2001 Safety Laboratories Department, PHS
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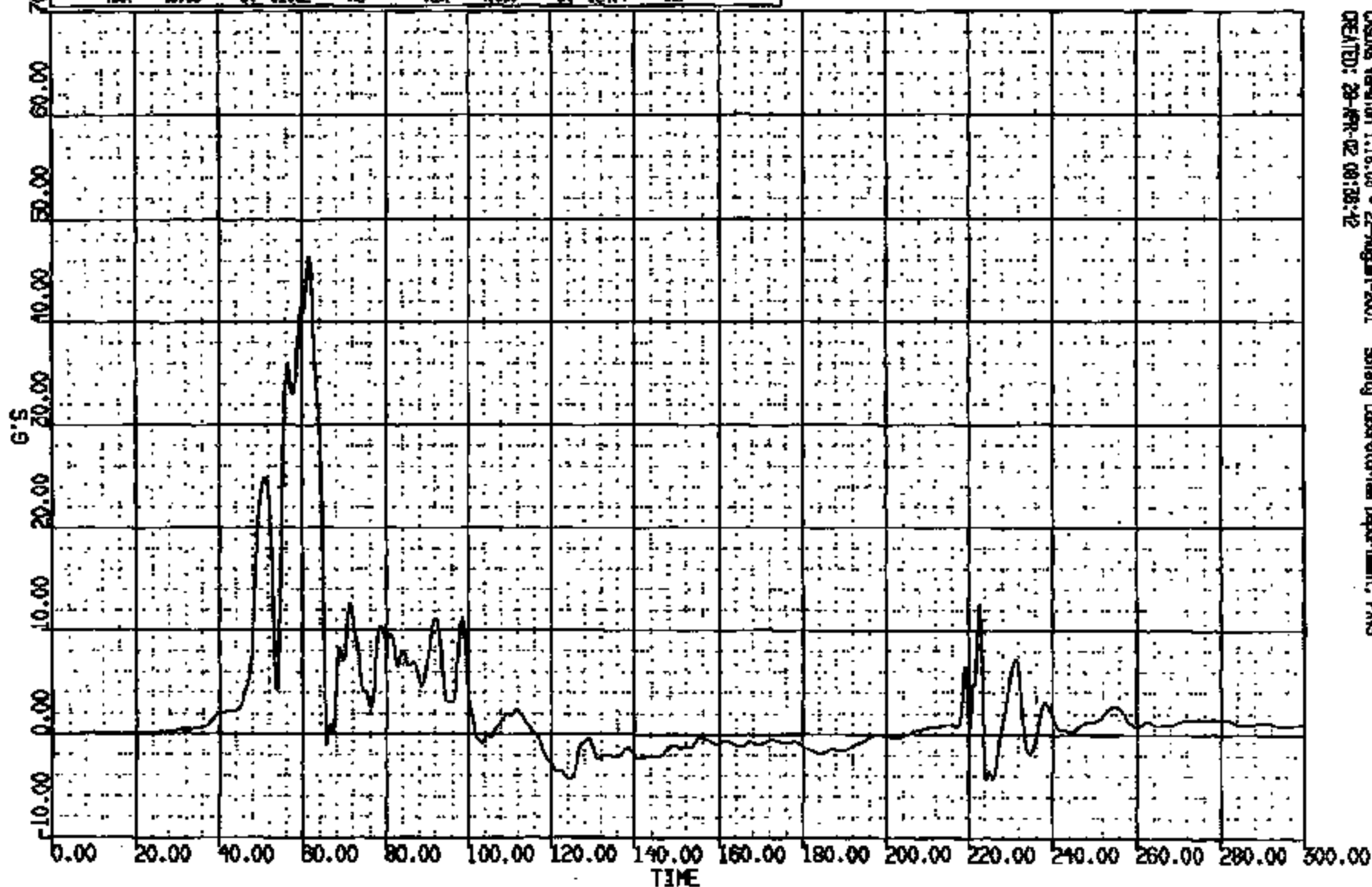
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2002 FN145

(15) CR12837 LAF DUMMY THORAX/RIB/UP/NEAR LAT 180N

MAX = 45.36 at 61.52 NS MIN = -4.355 at 121.4 NS

AXIS 1



CASINS Version 1.18.02 - 22-August-2001 Safety Laboratories Department, PNS
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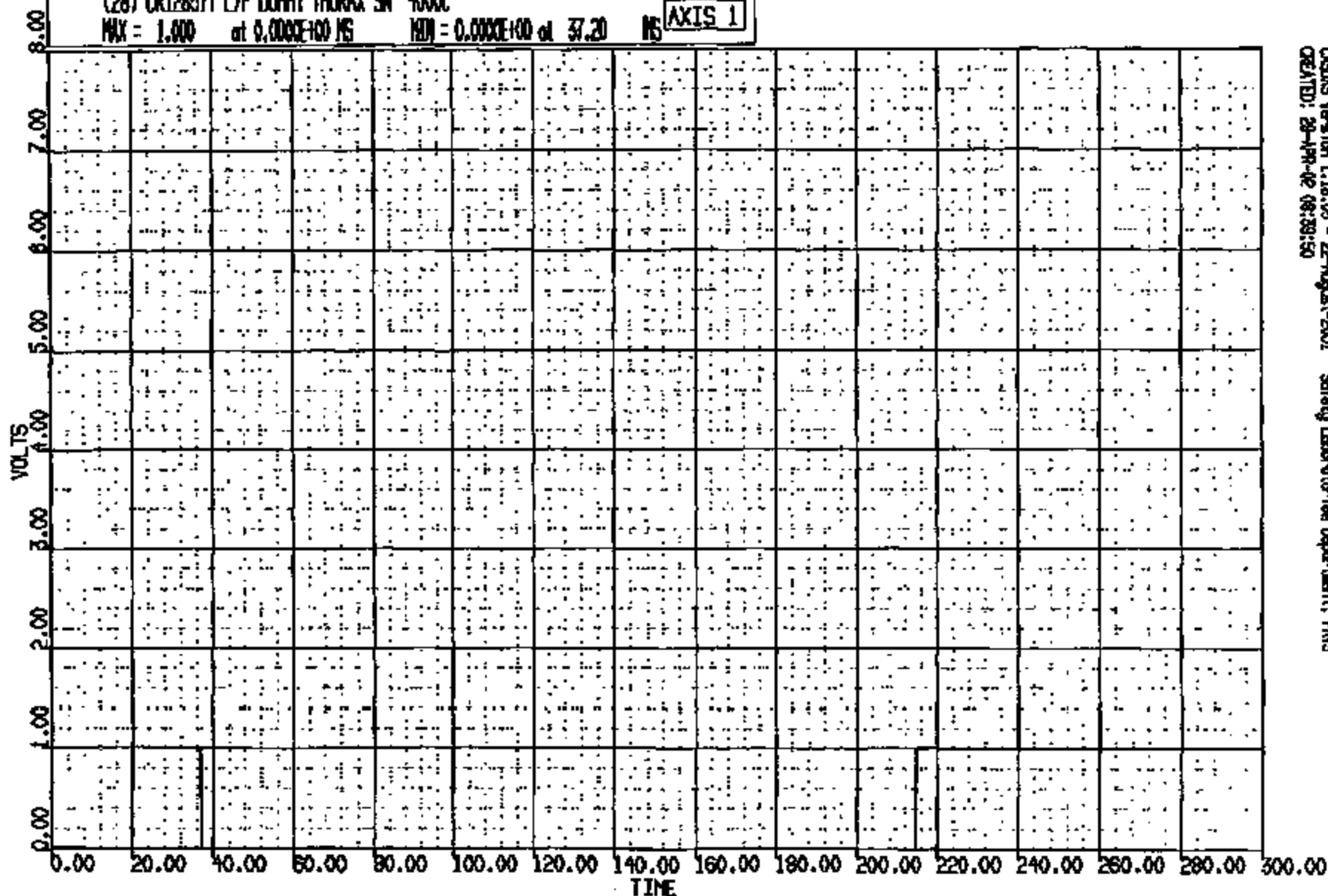
CRIS 0012837

CR R: 12837 TO: JB5000 DATE: 08-APR-2002 10:09:55
2003 FN145

(28) CR12837T L/F DUMMY THORAX SM 4000C

MAX = 1.000 at 0.000E+00 MS MIN = 0.000E+00 at 37.20 MS

AXIS 1



CASIS Version 1.18.05 - 22-August-2001
CREATED: 28-APR-02 08:29:50

Safety Laboratory Department, PHS

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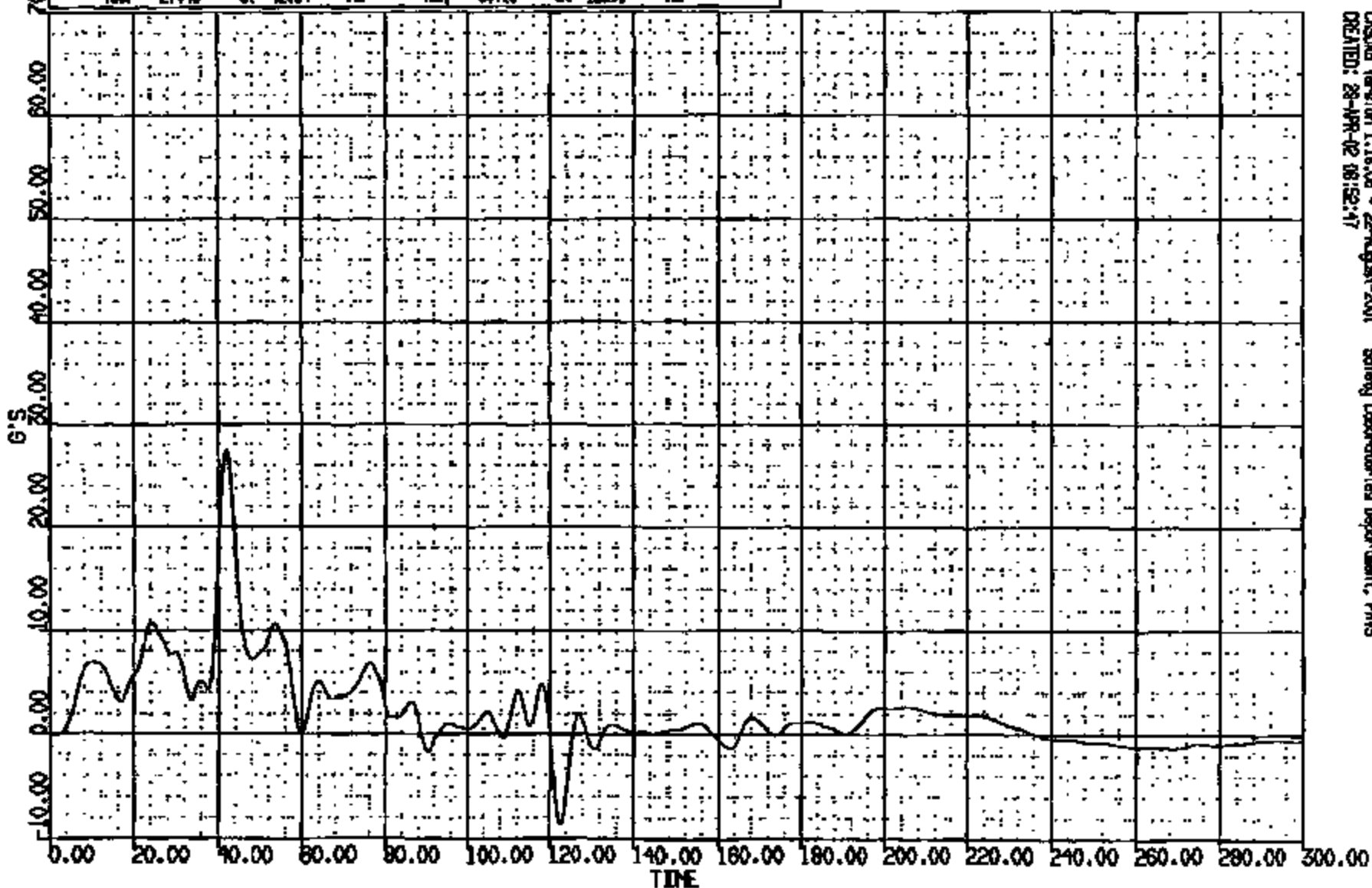
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2002 FN145

(65) CR12837 L/F FLR PAN @ #2 M CTR #11 LAT 60N

MAX = 27.49 at 41.84 MS MIN = -8.715 at 122.6 MS

AXIS 1



CASIS Version 1.18.02 - 22-August-2001 Safety Laboratories Department, PHS
CREATED: 28-APR-02 08:52:47

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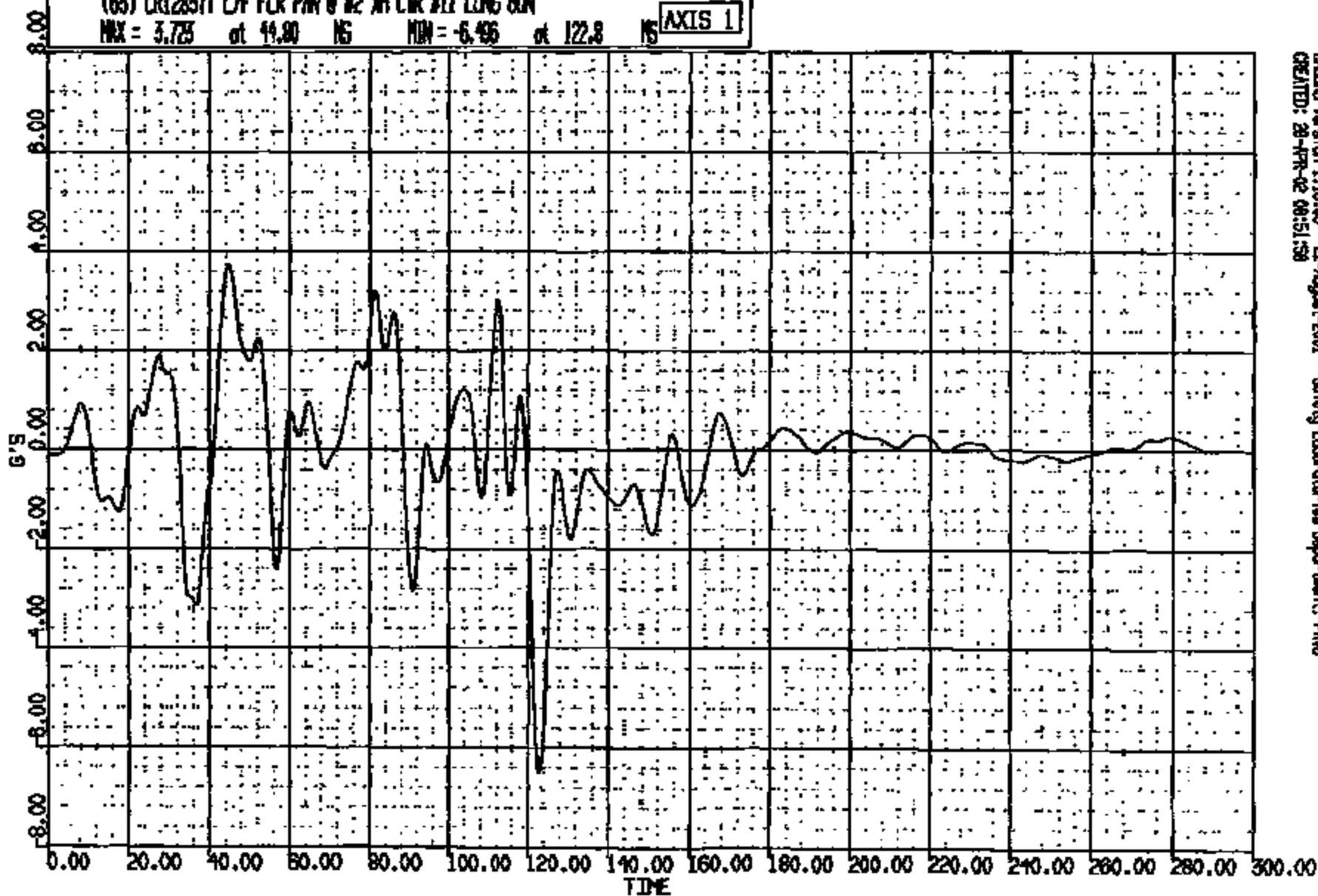
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2003 FN145

(63) CR12837T L4 FOR PAN 0 #2 IN CIR #11 LONG 60N

MAX = 3.725 at 44.80 NS MIN = -5.435 at 122.8 NS

AXIS 1



CRSING Version 1.18.02 - 22-August-2001 Safety Laboratories Department, PMS
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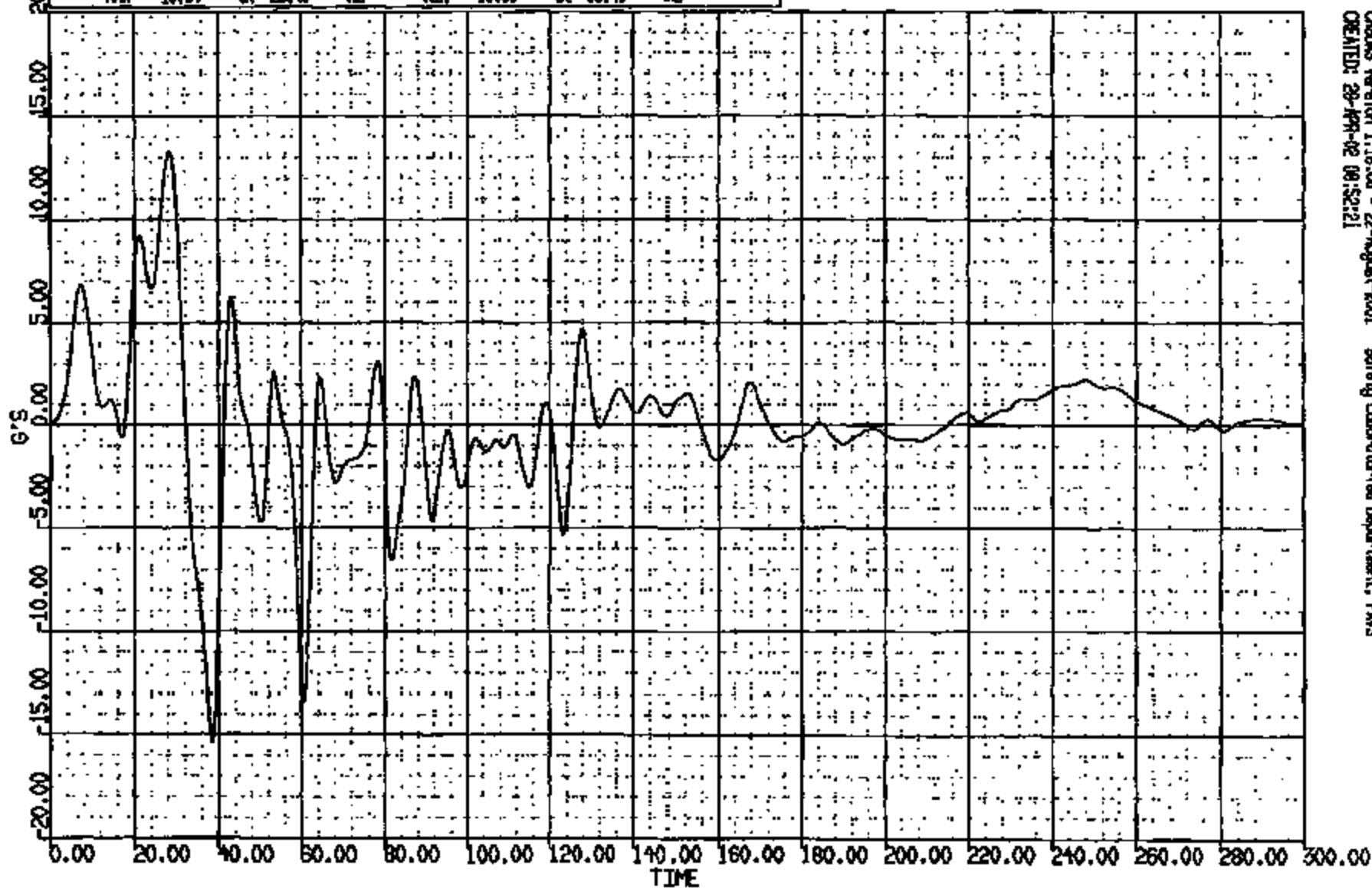
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2003 FN145

(64) CR12837T L/F FLR PNM @ #2 XM CTR #11 VERT 60N

NOX = 13.34 at 28.40 NS MIN = -15.33 at 38.40 NS

AXIS 1



CRIMS Version 1.18.02 - 22-August-2001 Safety Laboratories Department, PMS
CREATED: 28-APR-02 09:52:21

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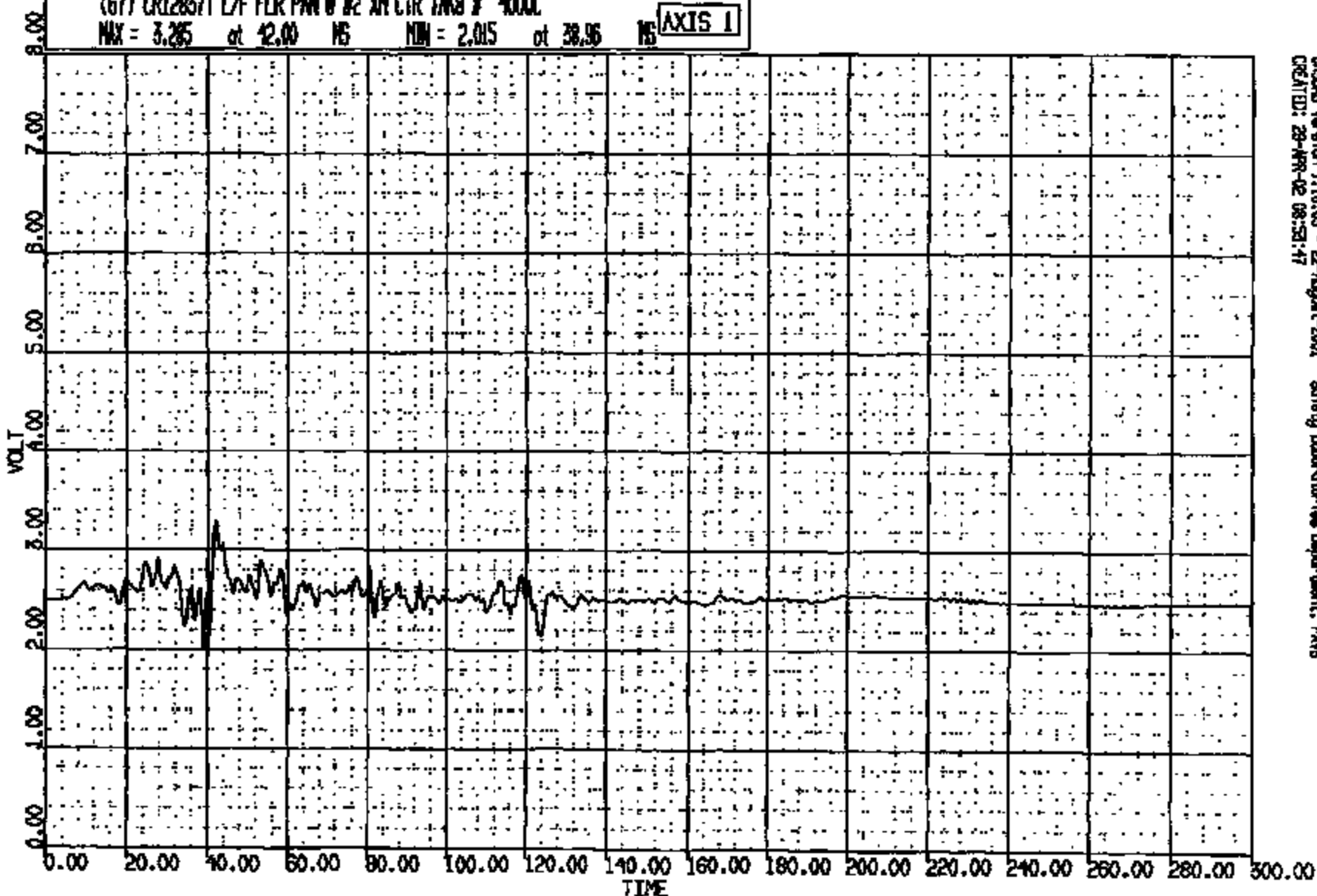
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CR #: 12837 TO: JBS000 DATE: 08-APR-2002 10:08:55
2002 FN145

(67) CR12837T L/F FLR PWR @ #2 X4 CTR TAKS # 4000C

MAX = 3.25 at 42.00 MS MIN = 2.015 at 38.95 MS

AXIS 1



CASDAS Version 3.18.03 - 22-August-2001 Safety Laboratory/166 Department, PMS
CREATED: 28-APR-02 08:58:47

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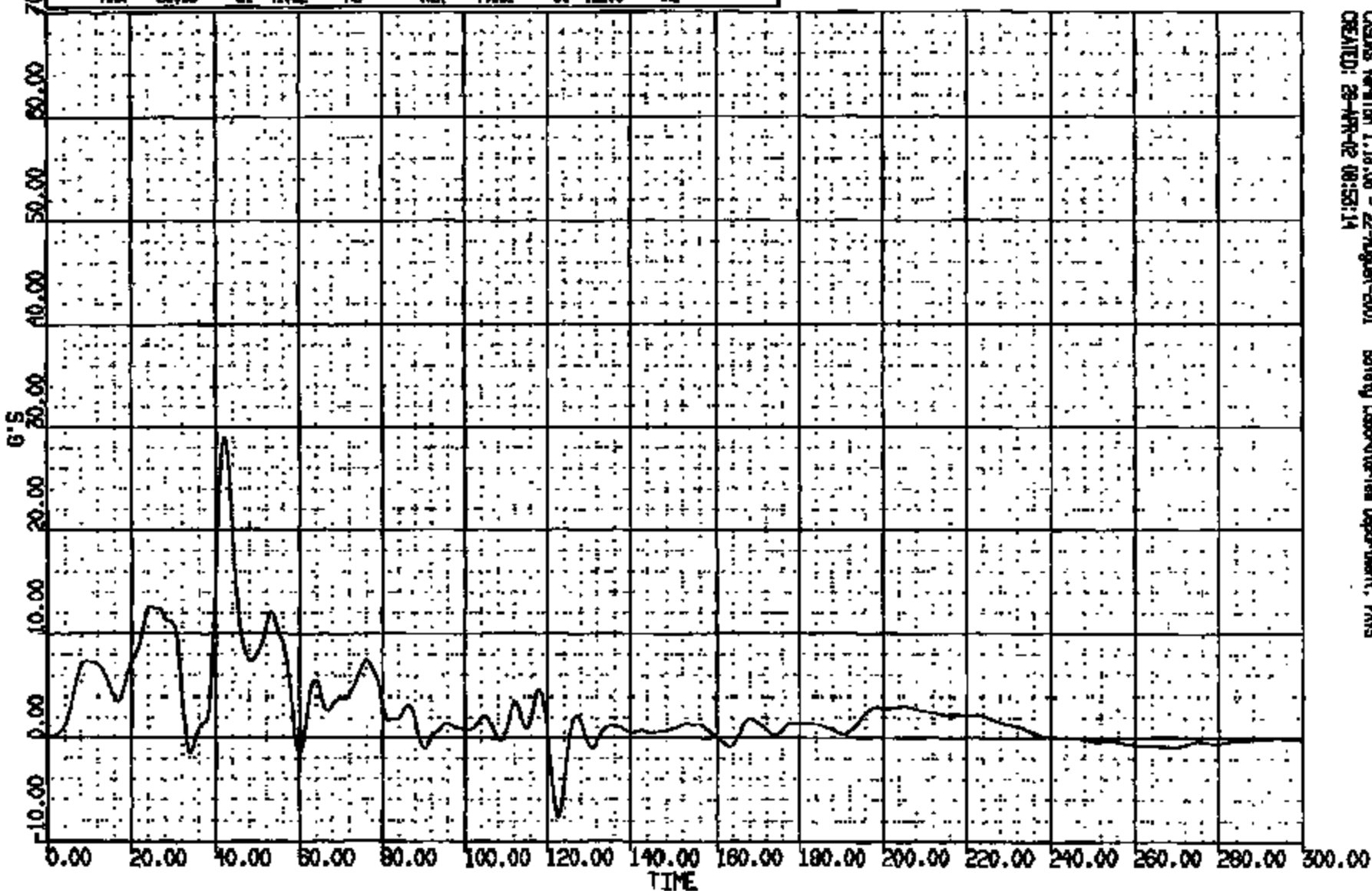
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2002 FN145

(66) CR12837 L/F FLR PAN @ #2 XM SCS #12 LAT 60N

MAX = 28.99 at 41.92 MS MIN = -7.691 at 122.6 MS

AXIS 1



CASUS Version 1.18.05 - 22-August-2001 Safety Laboratories Department, PWS
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ENTIRE PAGE CONFIDENTIAL

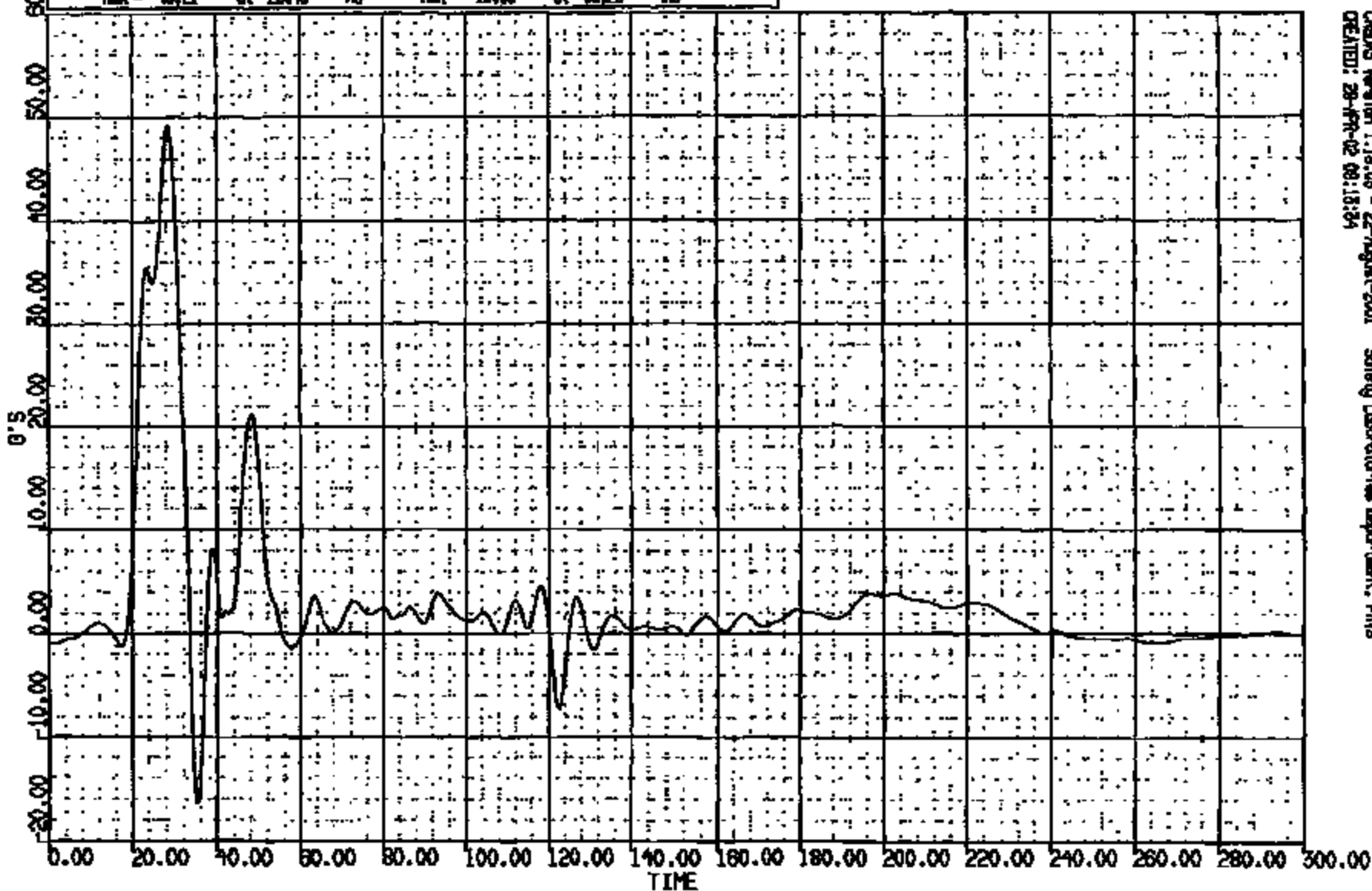
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CR R: 12837 TO: JBS000 DATE: 09-APR-2002 10:08:55
2003 FN145

(112) CR12837T L/FRAME 0 B PILLAR LAT 60N

MAX = 49.21 at 28.48 NS MIN = -16.58 at 35.28 NS

AXIS 1



CASDS Version 1.18.03 - 22-August-2001 Safety Laboratories Department, PHS
CREATED: 28-Apr-02 08:18:24

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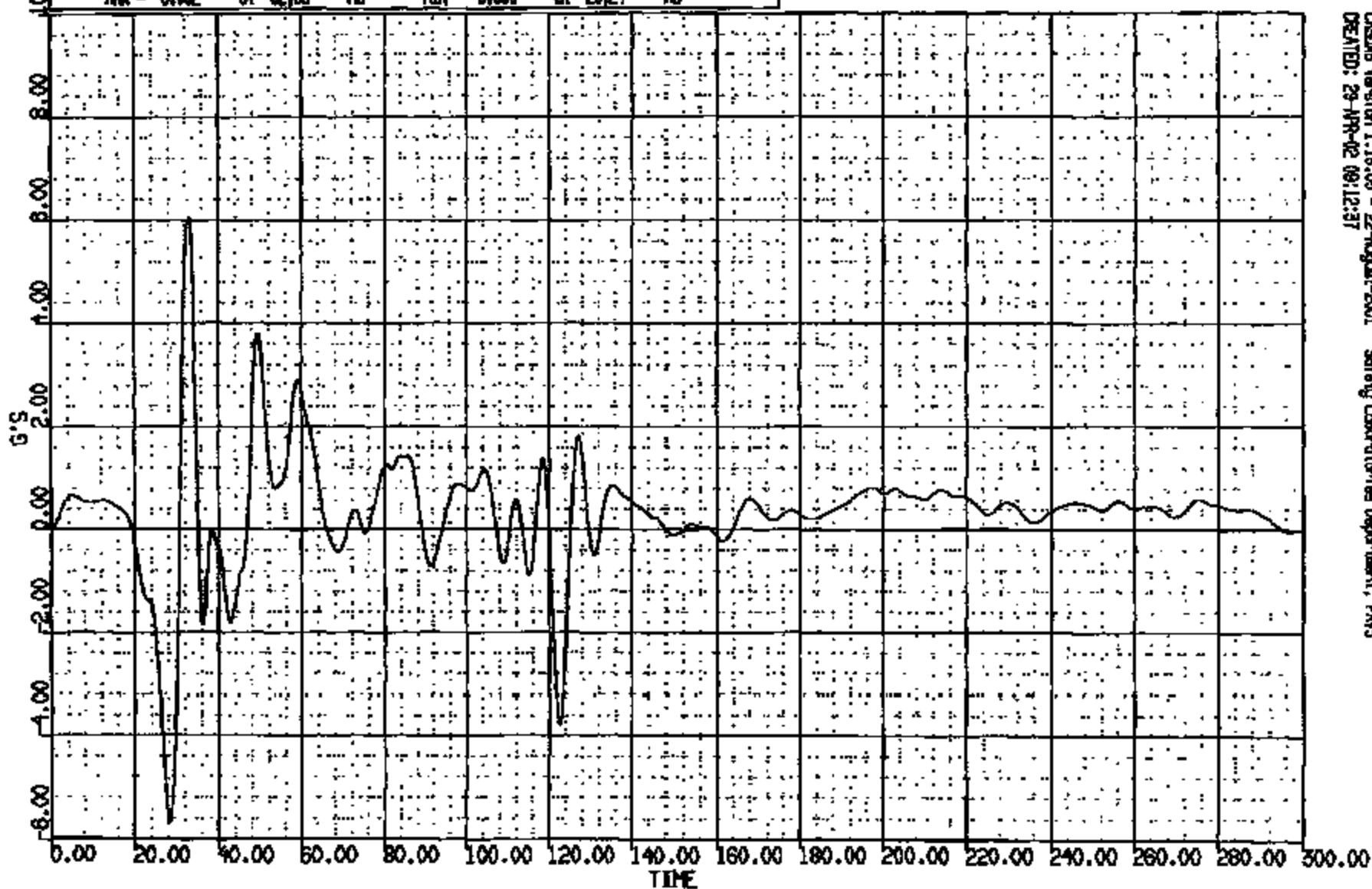
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2002 FN145

(110) CR12837T L-FRAME @ B PILLAR LONG GON

MAX = 6.062 at 32.88 NS MIN = -5.690 at 28.24 NS

AXIS 1



CRSIS Version 1.18.05 - 22-August-2001 Safety Laboratories Department, PMS
CREATED: 29-APR-02 09:12:37

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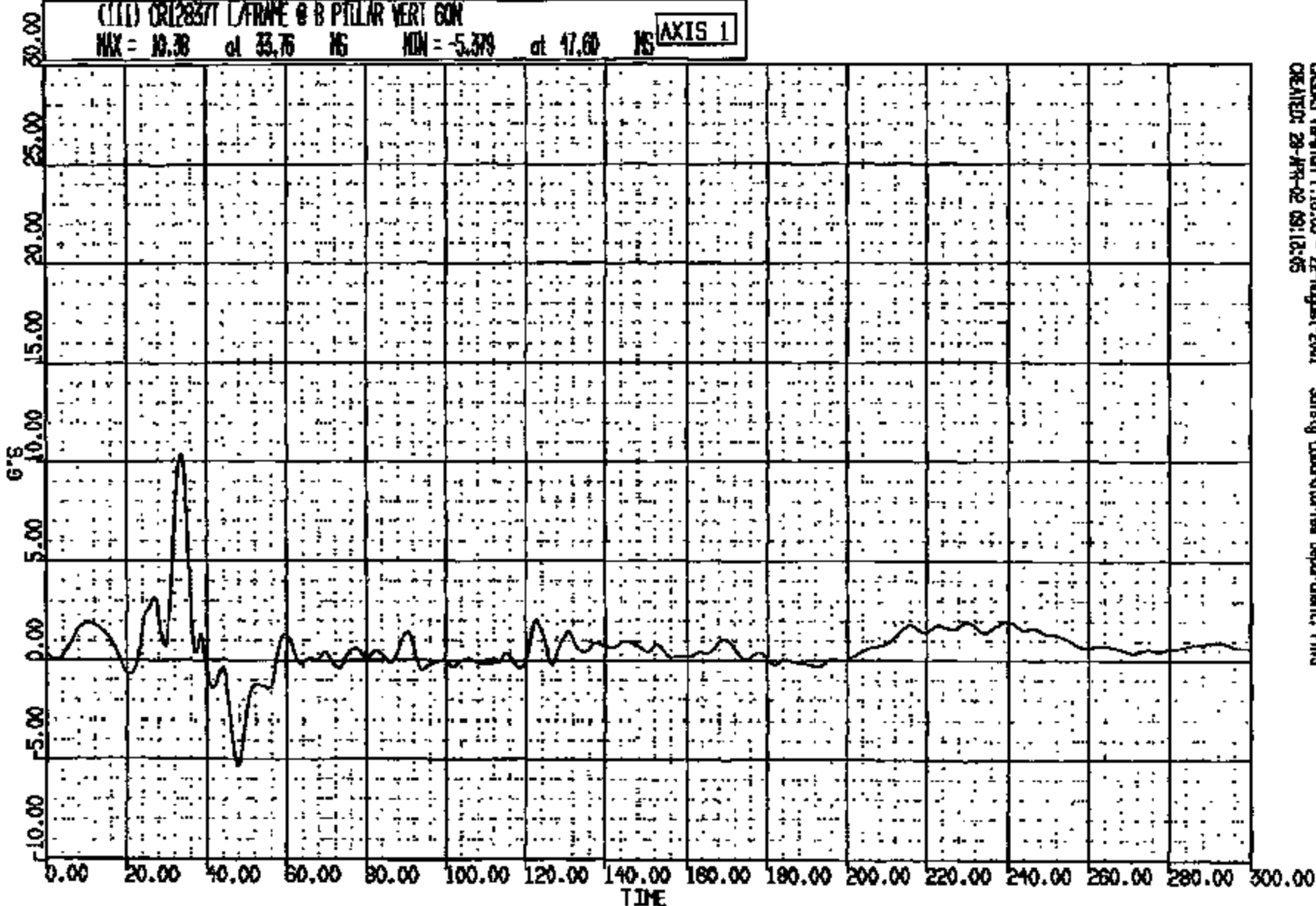
CRIS 0012837

CR R: 12837 TO: JB5000 DATE: 09-APR-2002 10:08:55
2003 FN145

(11) CR12837 / FRAME 8 B PILLAR VERT GON

MAX = 19.38 at 33.76 MS MIN = -5.379 at 47.60 MS

AXIS 1



CASINS Version 1.18.03 - 22-August-2001 Safety Laboratories Department, PMS
CREATED: 28-APR-02 09:13:05

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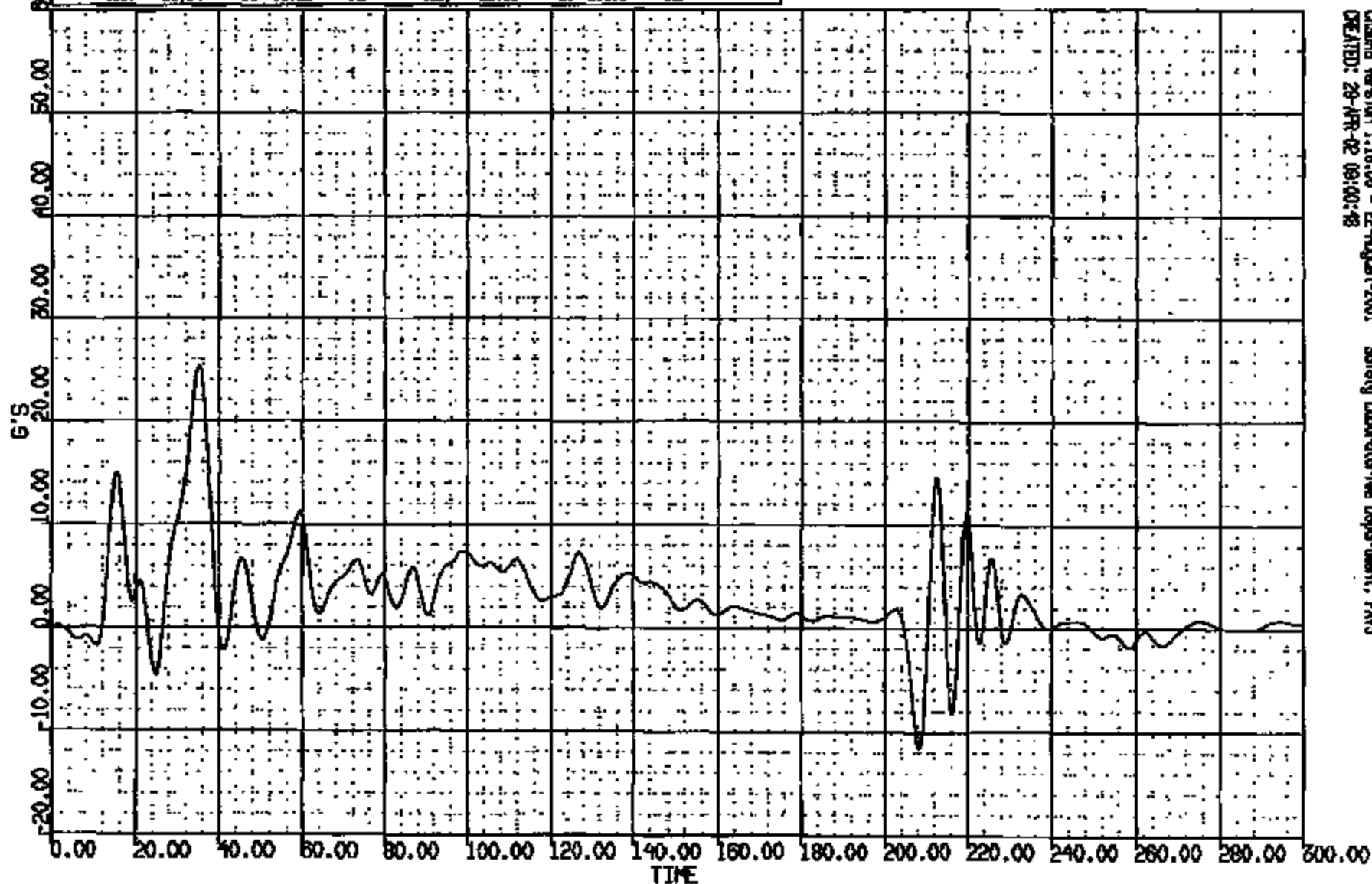
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CR R: 12837 TO: J85000 DATE: 09-APR-2002 10:08:55
2003 FN148

(83) CR12837 L/R DOOR @ BELTLINE MID LAT 6CM

MAX = 25.34 at 35.12 MS MIN = -11.60 at 208.3 MS

AXIS 1



CASIMS Version 1.10.05 - 22-August-2001 Safety Laboratories Department, PHS
CREATED: 29-APR-02 09:00:48

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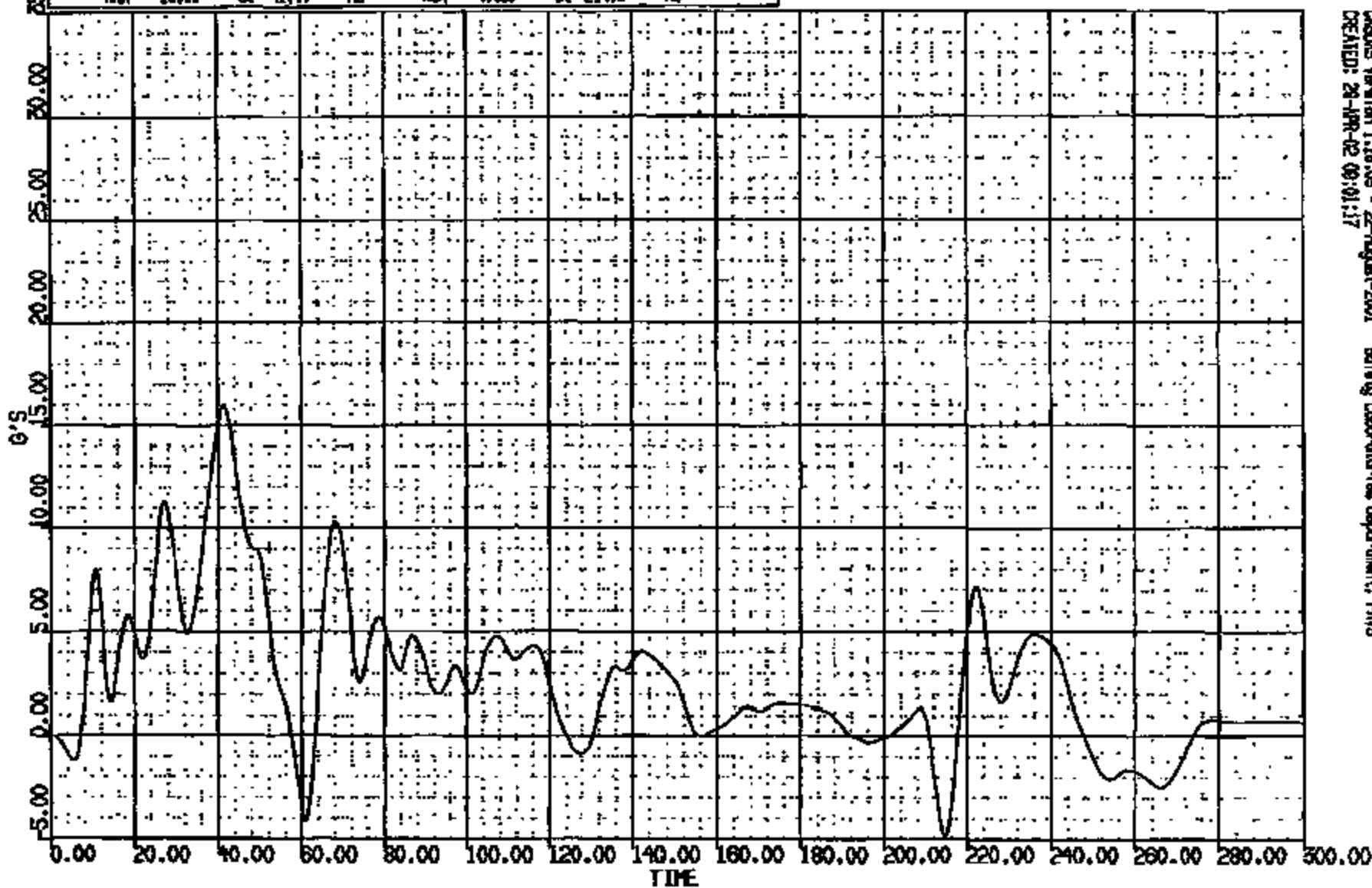
CRIS 0012837

CR R: 12837 TO: JB5000 DATE: 08-APR-2002 10:08:55
2008 FN145

(84) CR12837T L/R DOOR OVER NWEST LAT 60N

MAX = 16.00 at 41.44 NS MIN = -1.886 at 214.5 NS

AXIS 1



CRTS 0012837