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CALIFORNIA INST OF TECH PASADENA GRADUATE AERONAUTIC--ETC F/G 20/4  
EXPERIMENTAL STUDY OF THE DYNAMICS OF VARIABLE-LENGTH CABLE SYS--ETC(U)  
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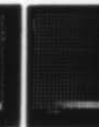
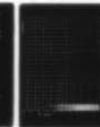
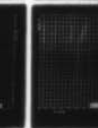
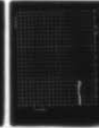
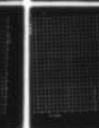
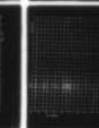
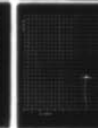
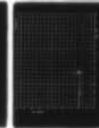
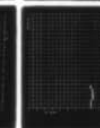
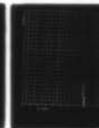
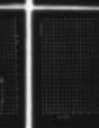
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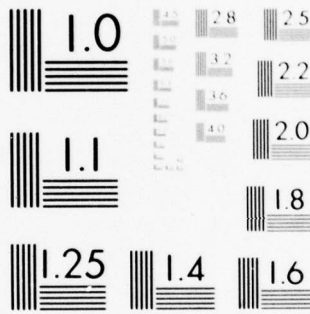
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CIVIL ENGINEERING LABORATORY  
Naval Construction Battalion Center  
Port Hueneme, California

Sponsored by  
NAVAL FACILITIES ENGINEERING COMMAND

EXPERIMENTAL STUDY OF THE DYNAMICS  
OF VARIABLE-LENGTH CABLE SYSTEMS,  
SUPPLEMENT VOLUME III

April 1979

An Investigation Conducted by

GRADUATE AERONAUTICAL LABORATORIES  
CALIFORNIA INSTITUTE OF TECHNOLOGY  
Pasadena, California

N68305-76-C-0033

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17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)			
18. SUPPLEMENTARY NOTES			
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Anchor; cable; hydrodynamics; variable length; oscillations; laboratory experiments; measurements; dynamics			
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Laboratory experiments on the dynamics of variable length cable systems are described. The prototype situation that these experiments simulate is the deployment of retrieval of a heavy object at sea. A winching mechanism attached to an electro-mechanical oscillator was mounted over a 65 ft. (20 m) deep tank of water. A mass suspended by elastic and inelastic cables was			

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Block 20. Cont'd

payed-out and reeled-in at specified velocities and accelerations while being oscillated in the vertical plane. Cable tension data are provided as a function of cable direction, length, velocity, acceleration, and the frequency and amplitude of the oscillator.

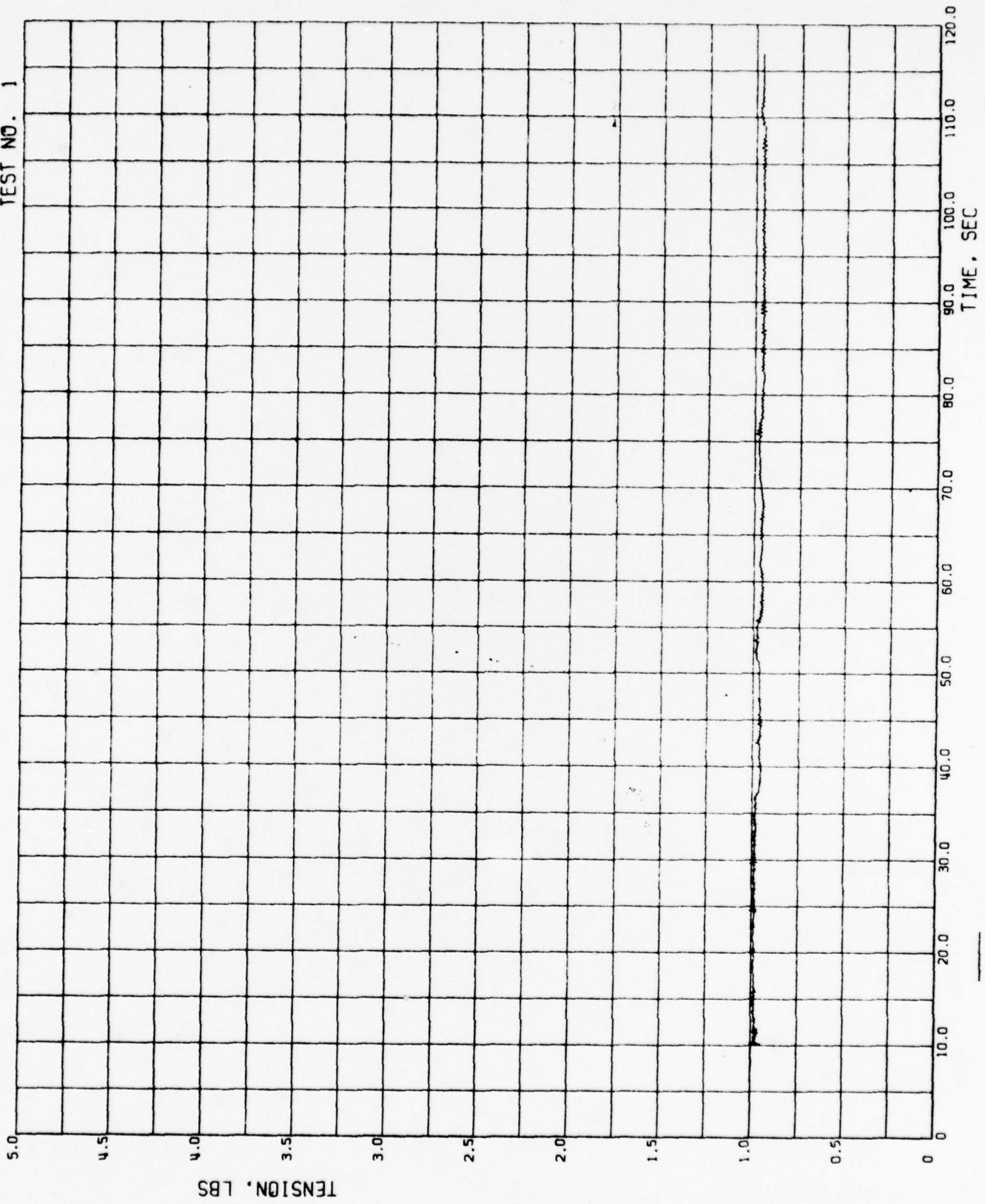
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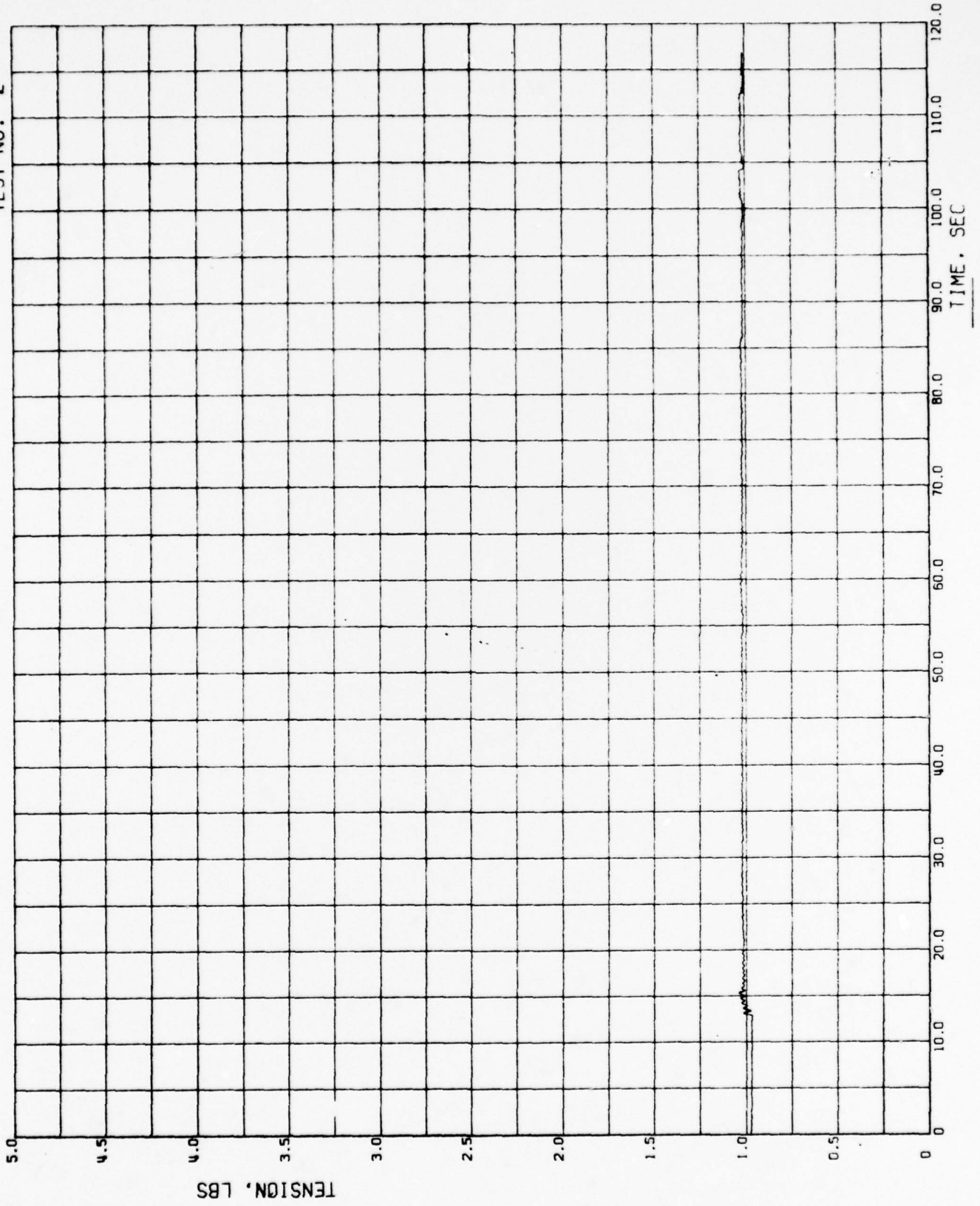
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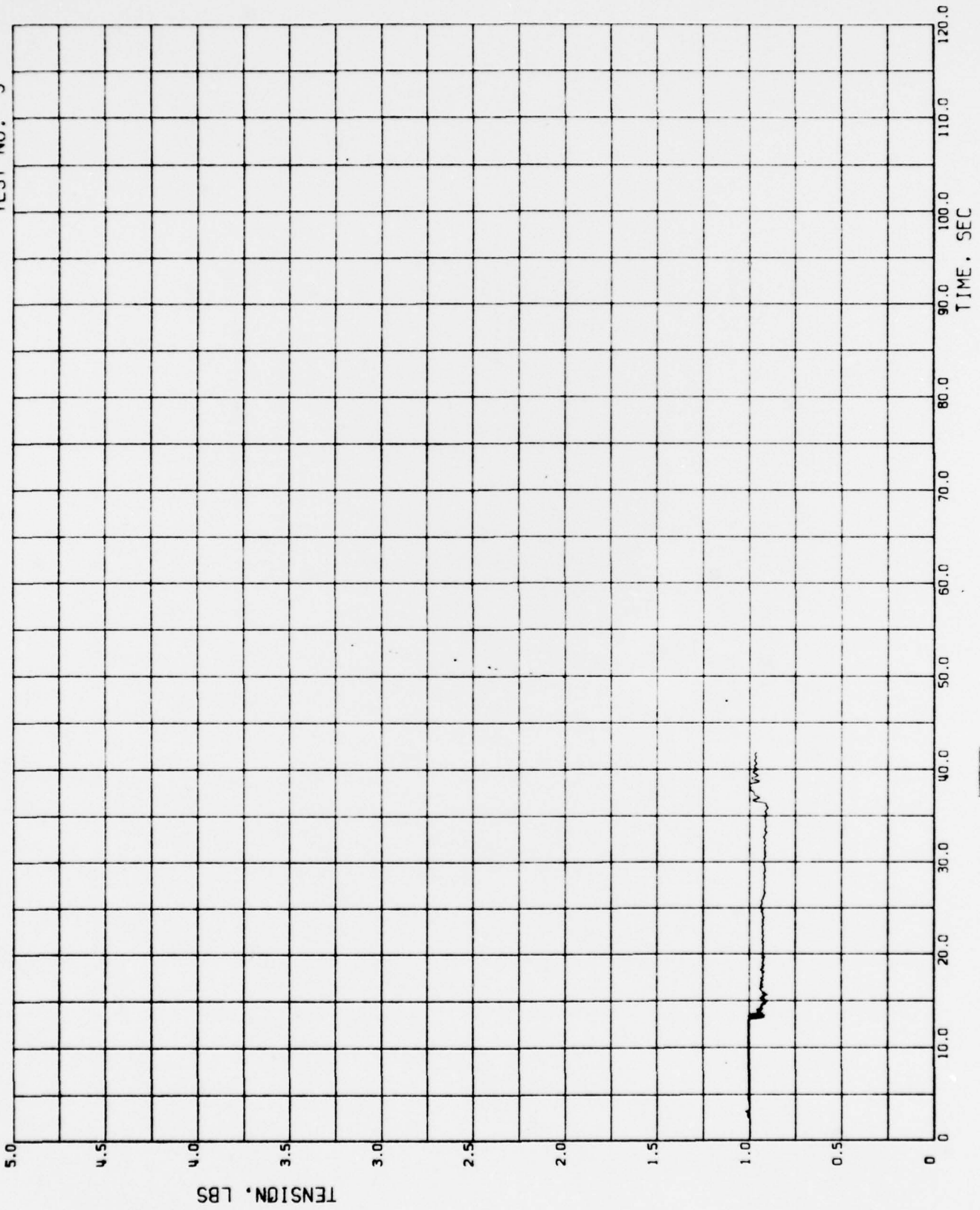
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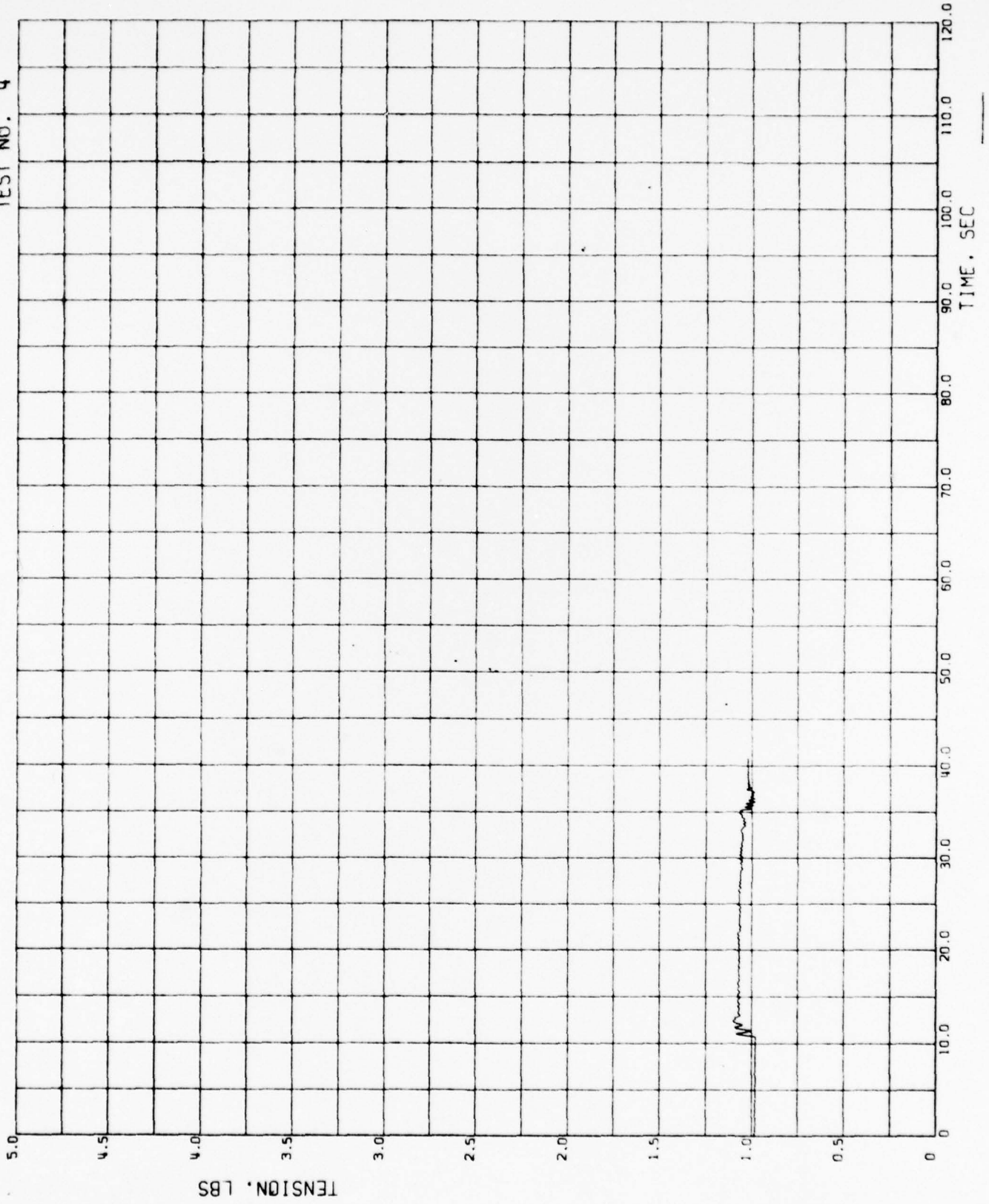
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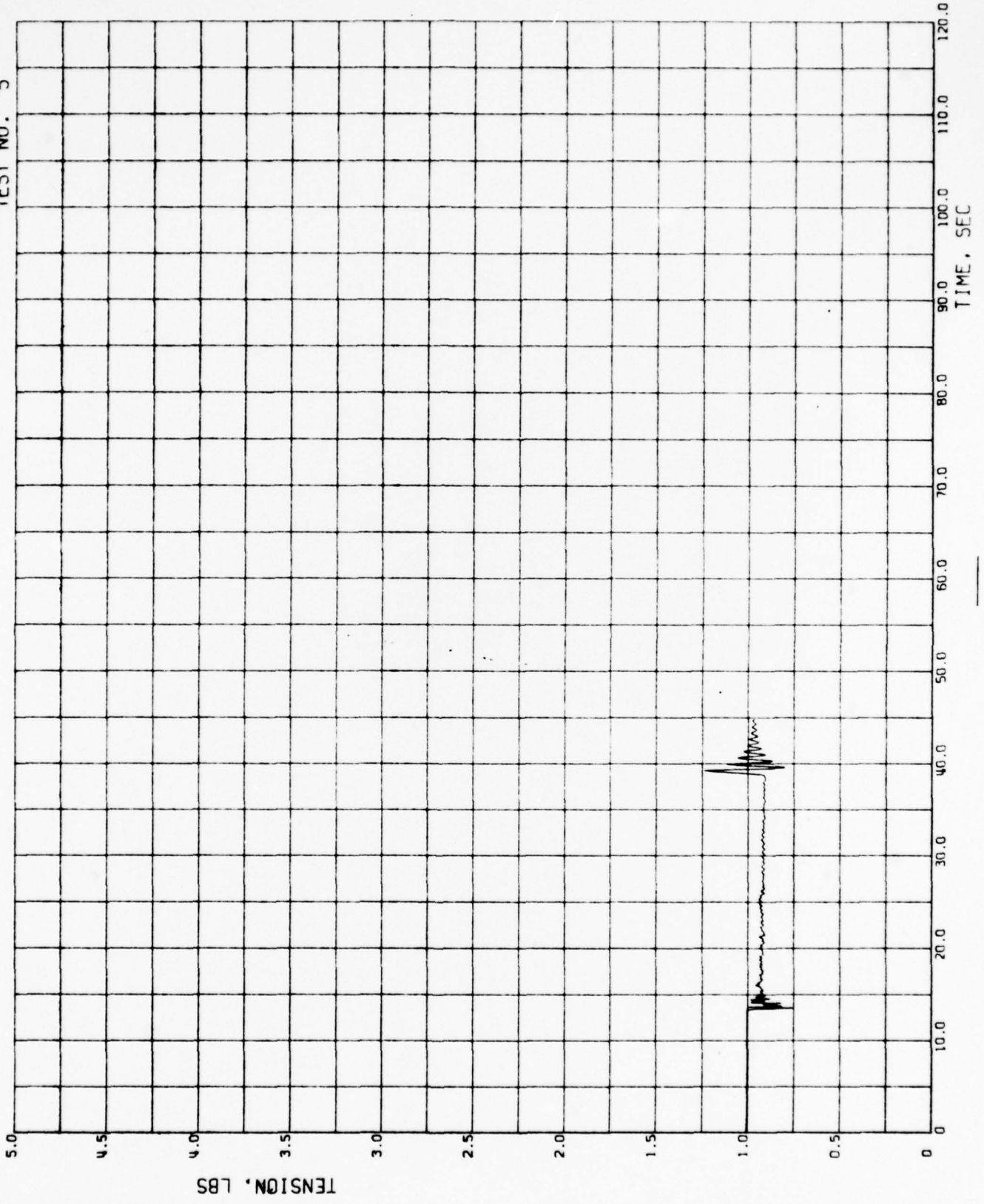
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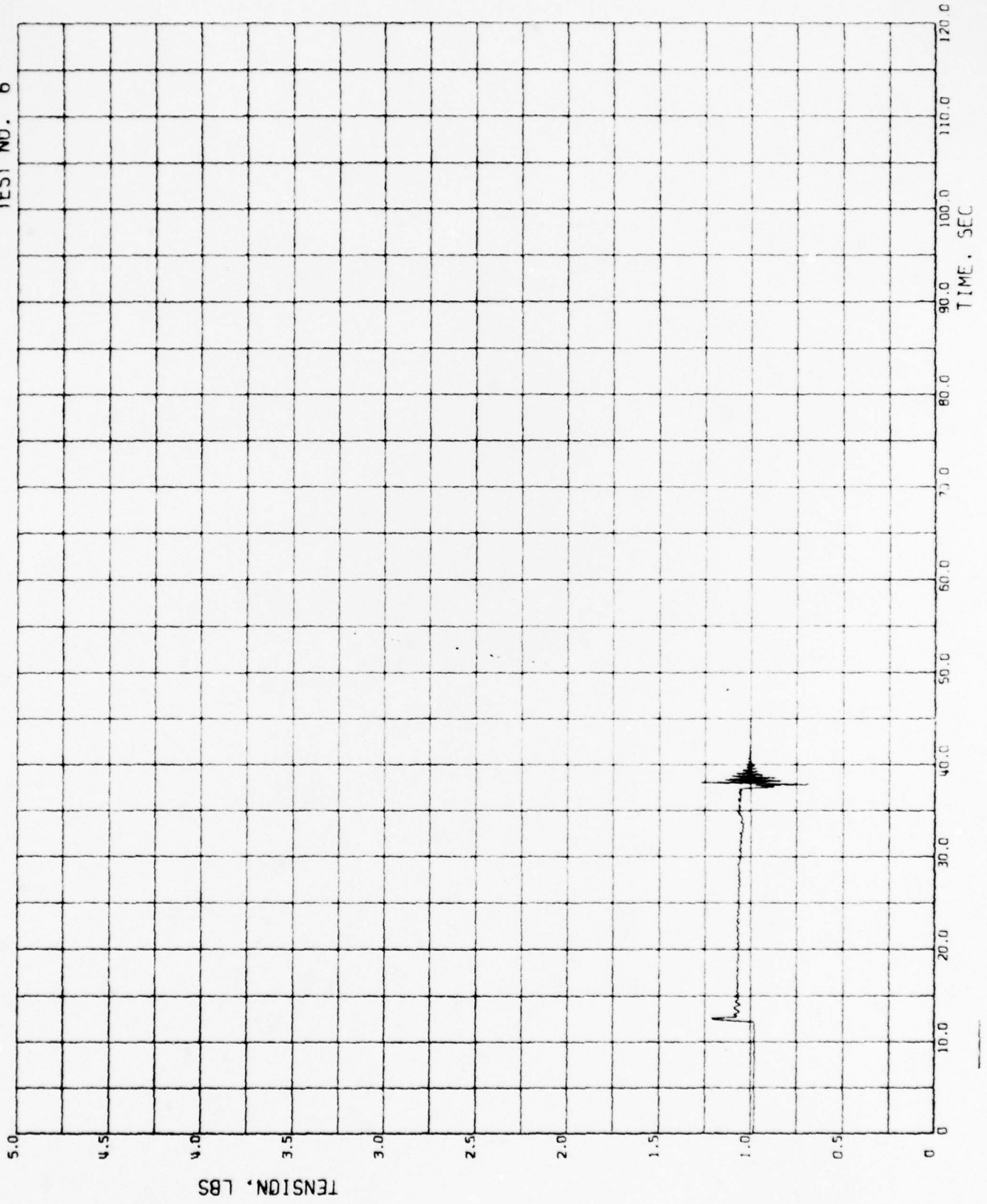
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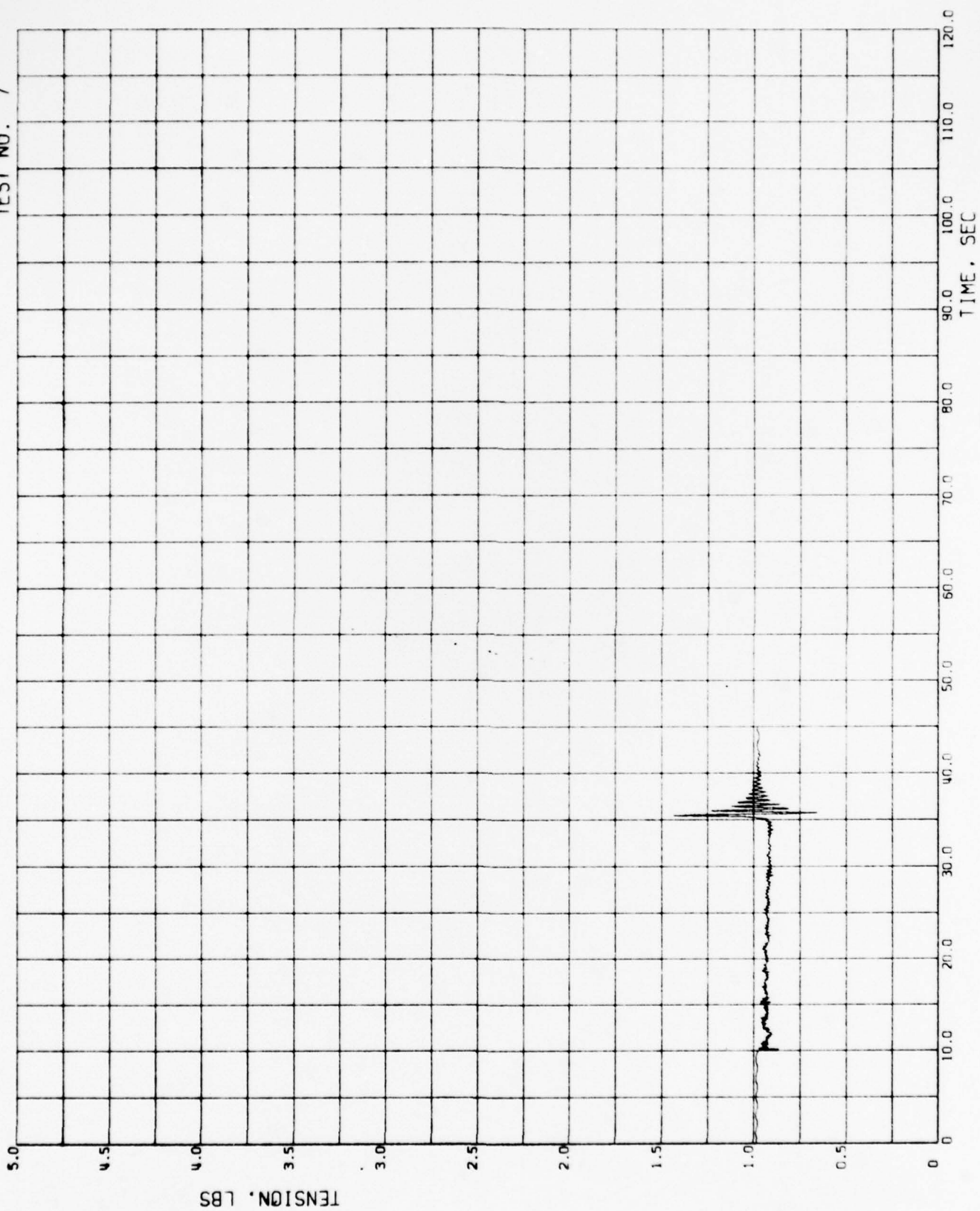
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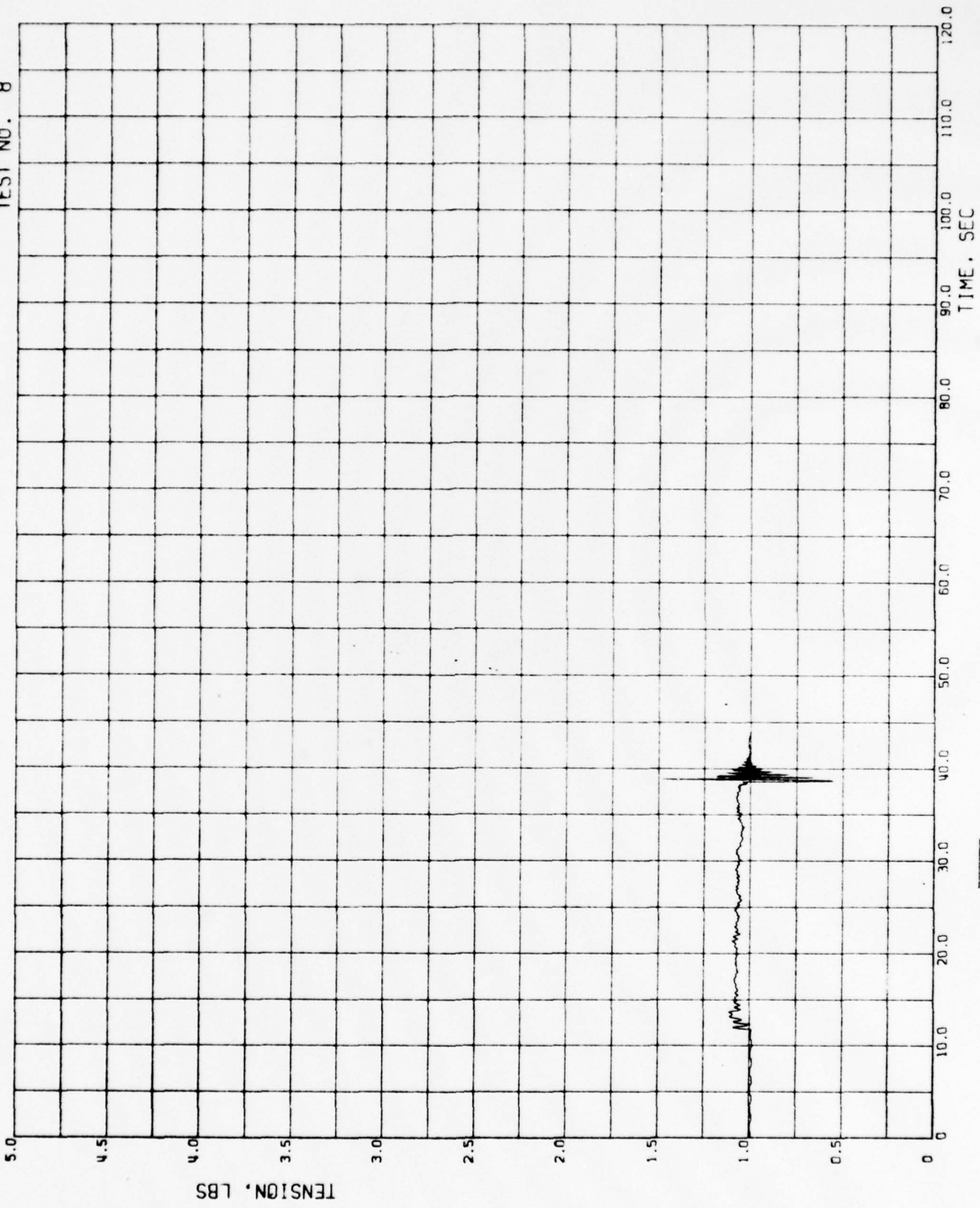
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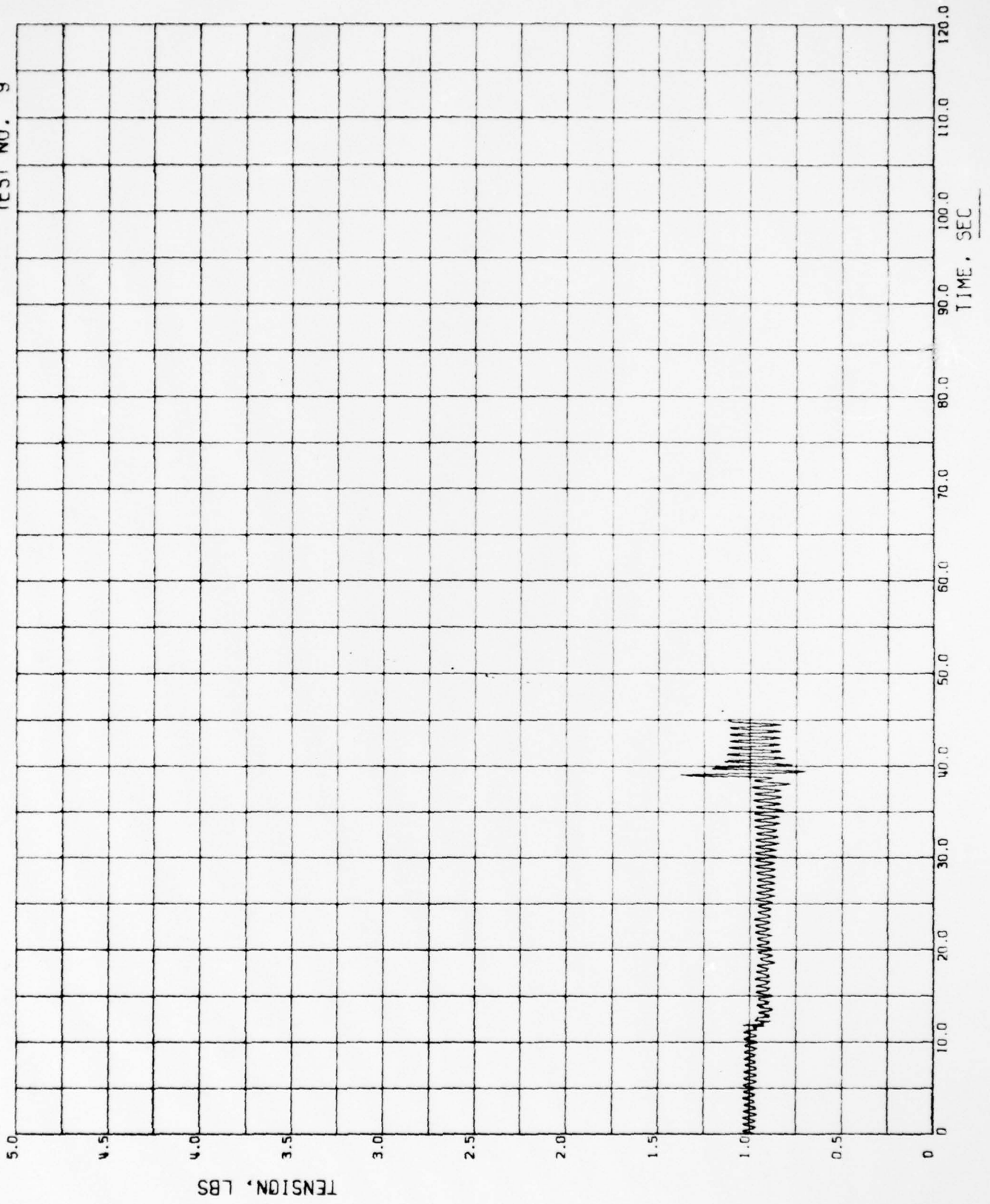
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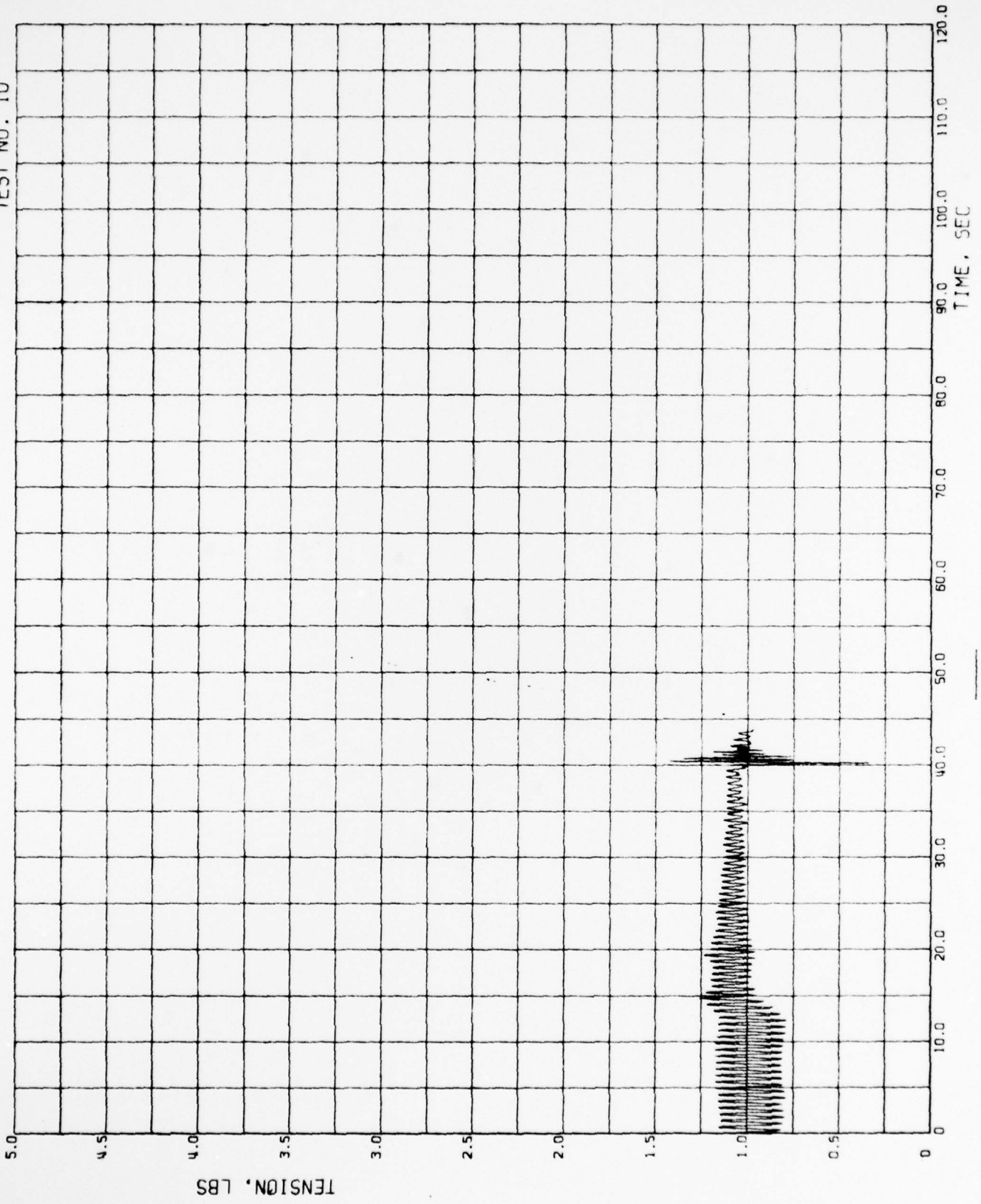
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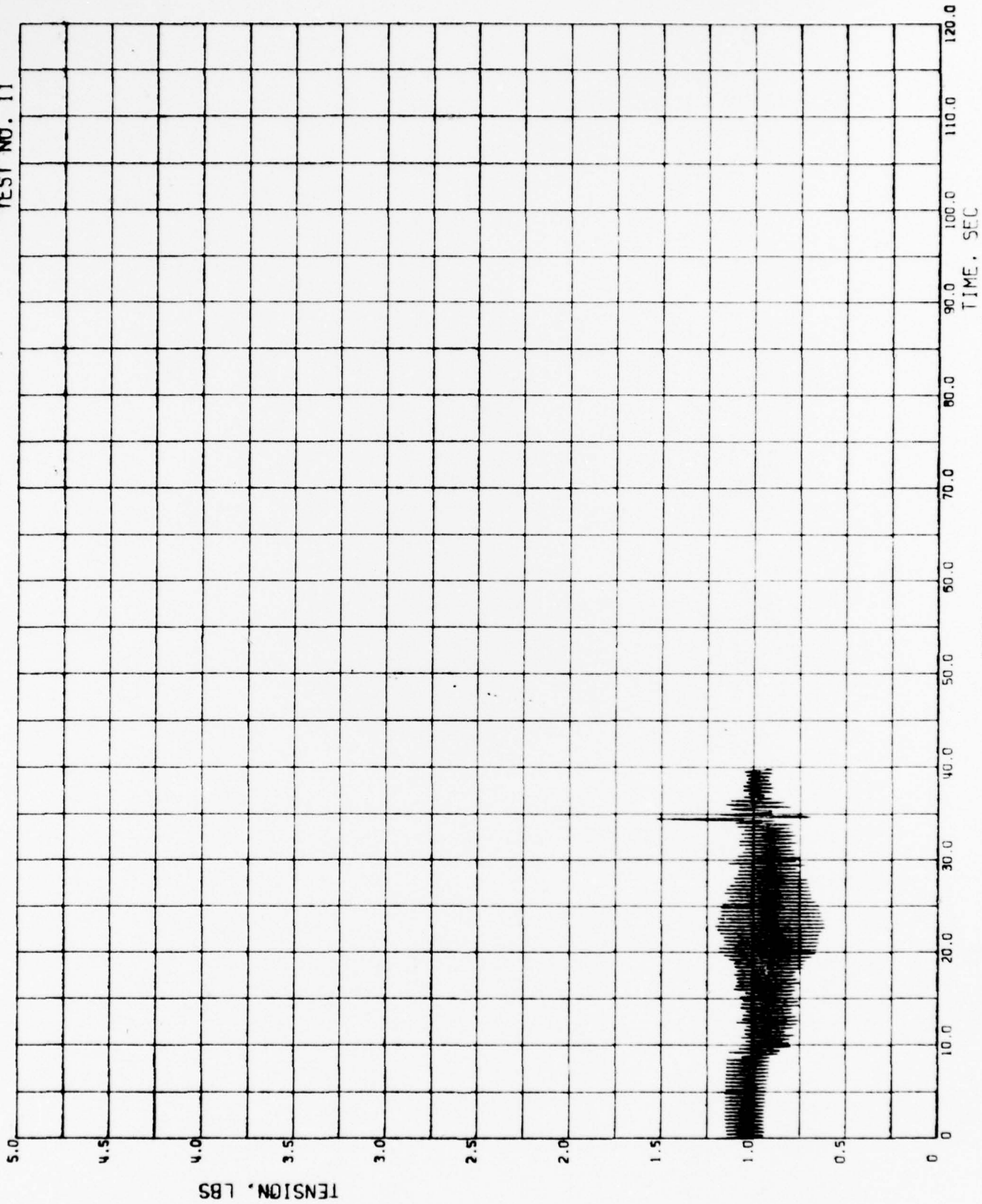
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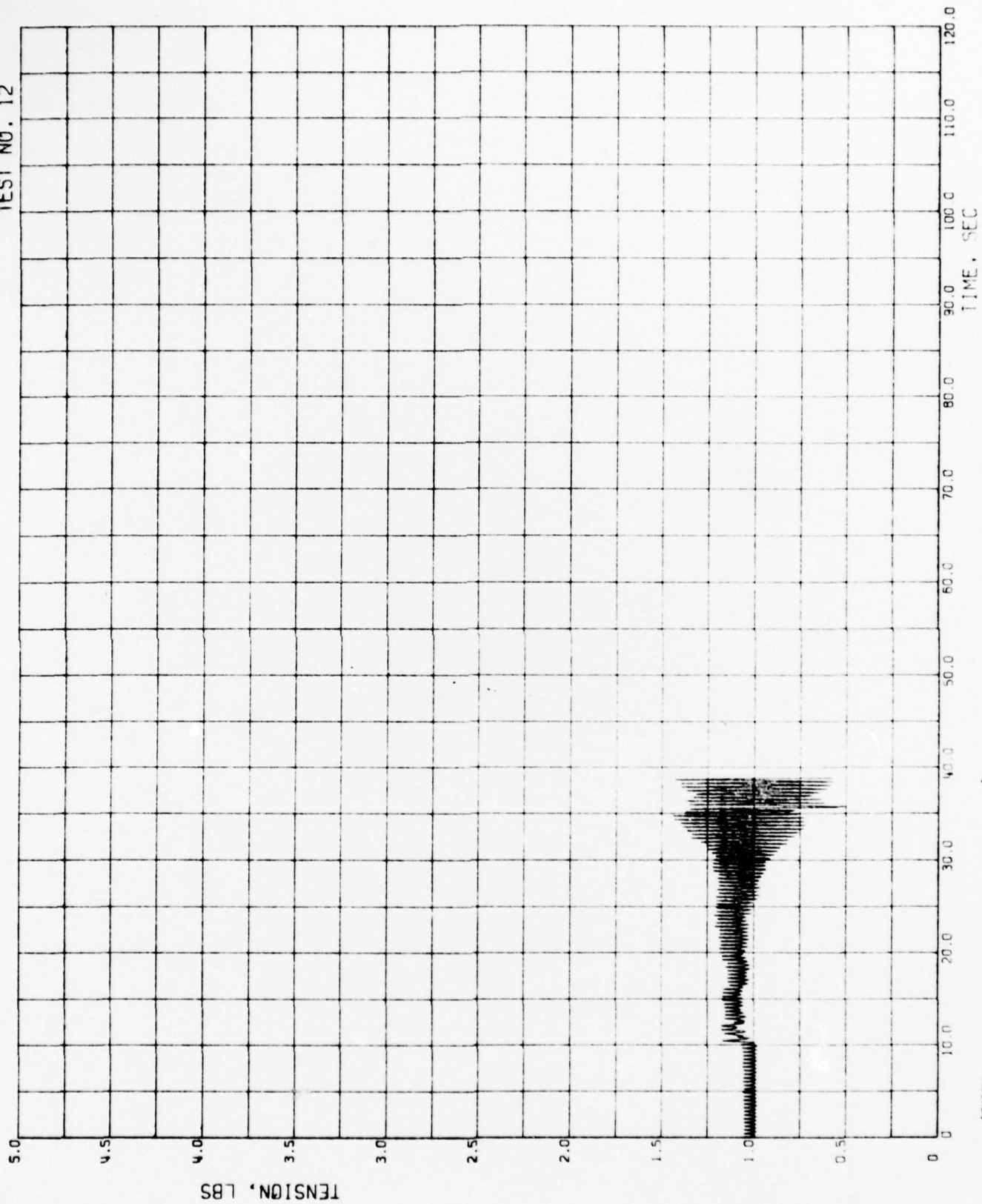
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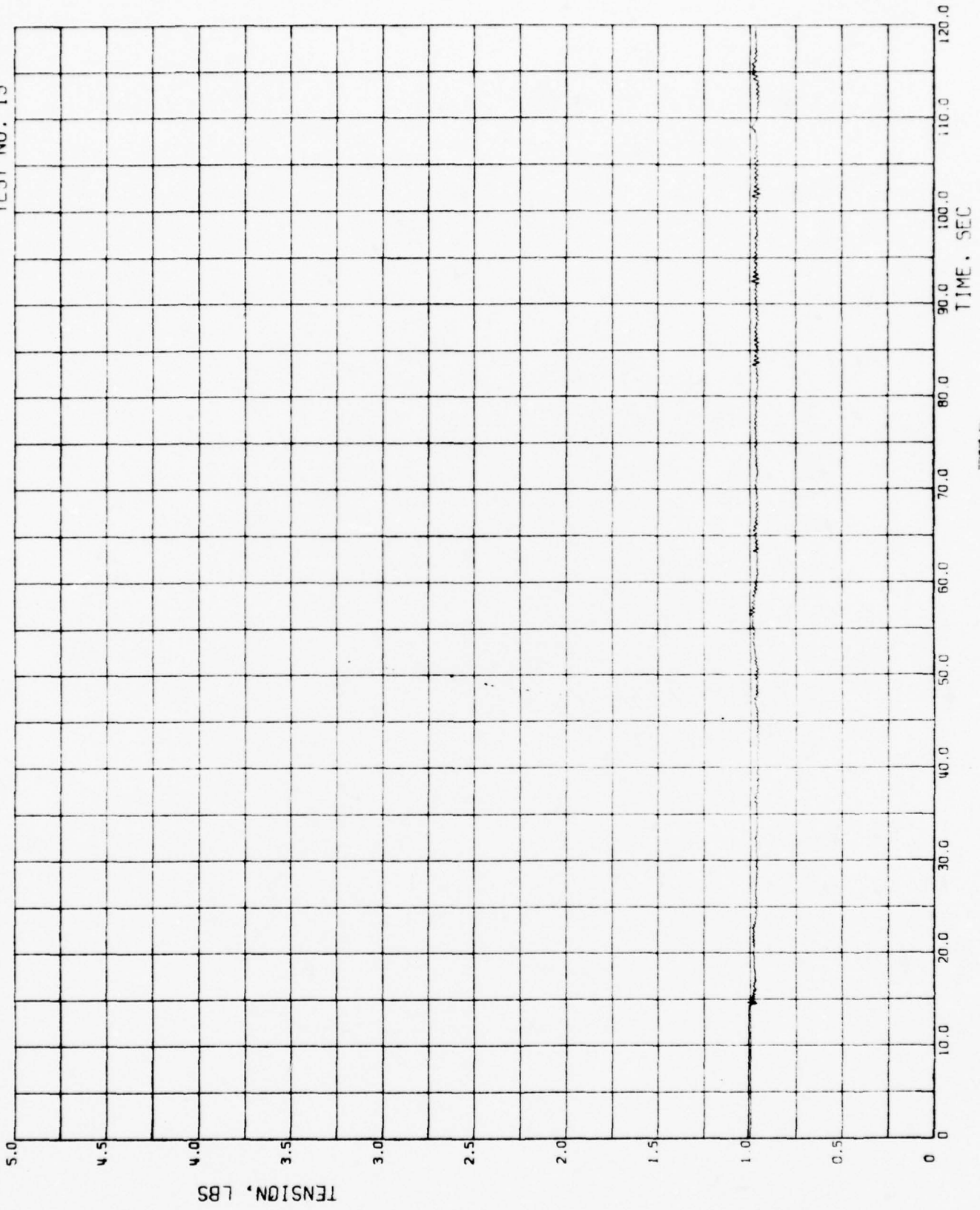
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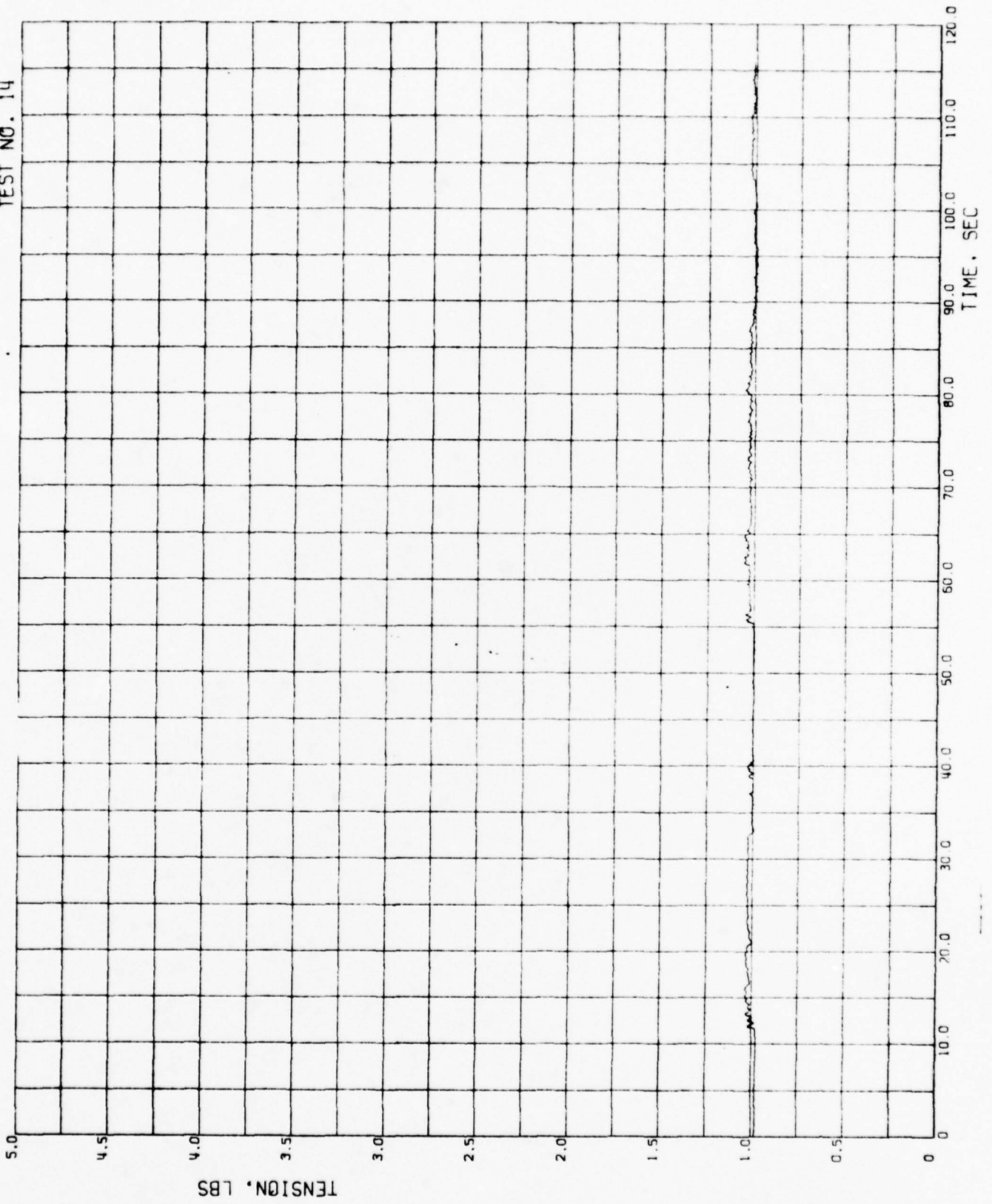
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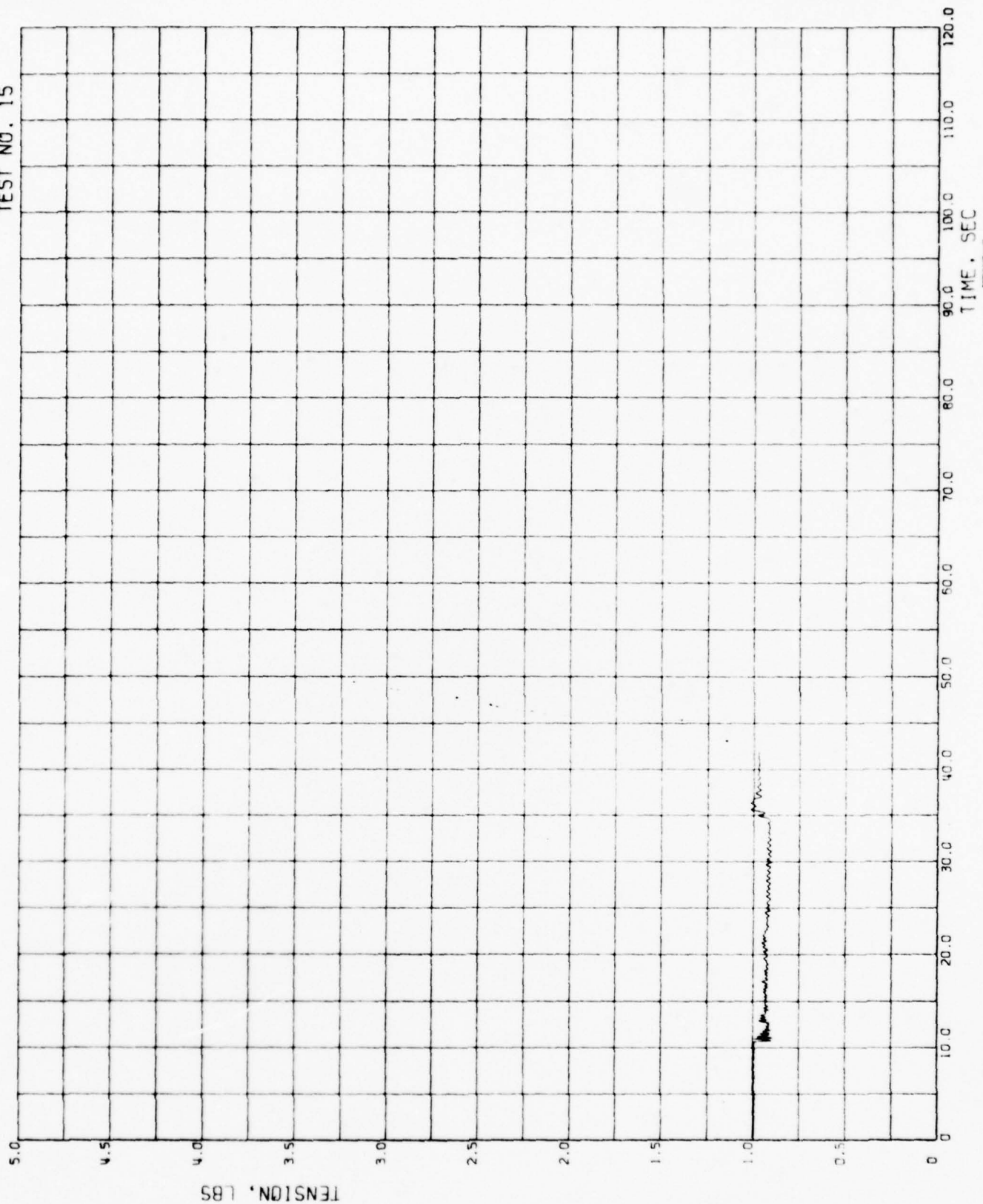
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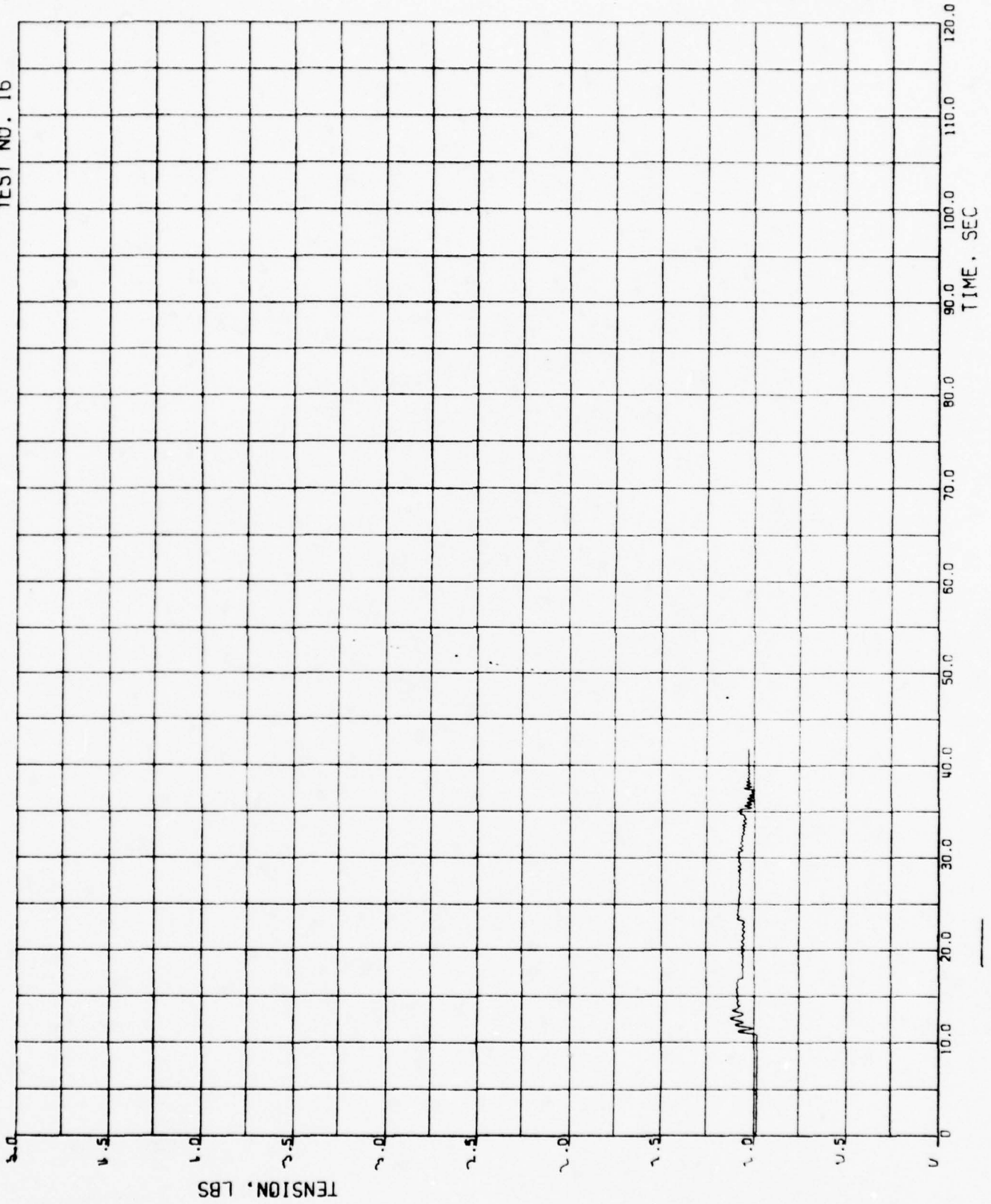
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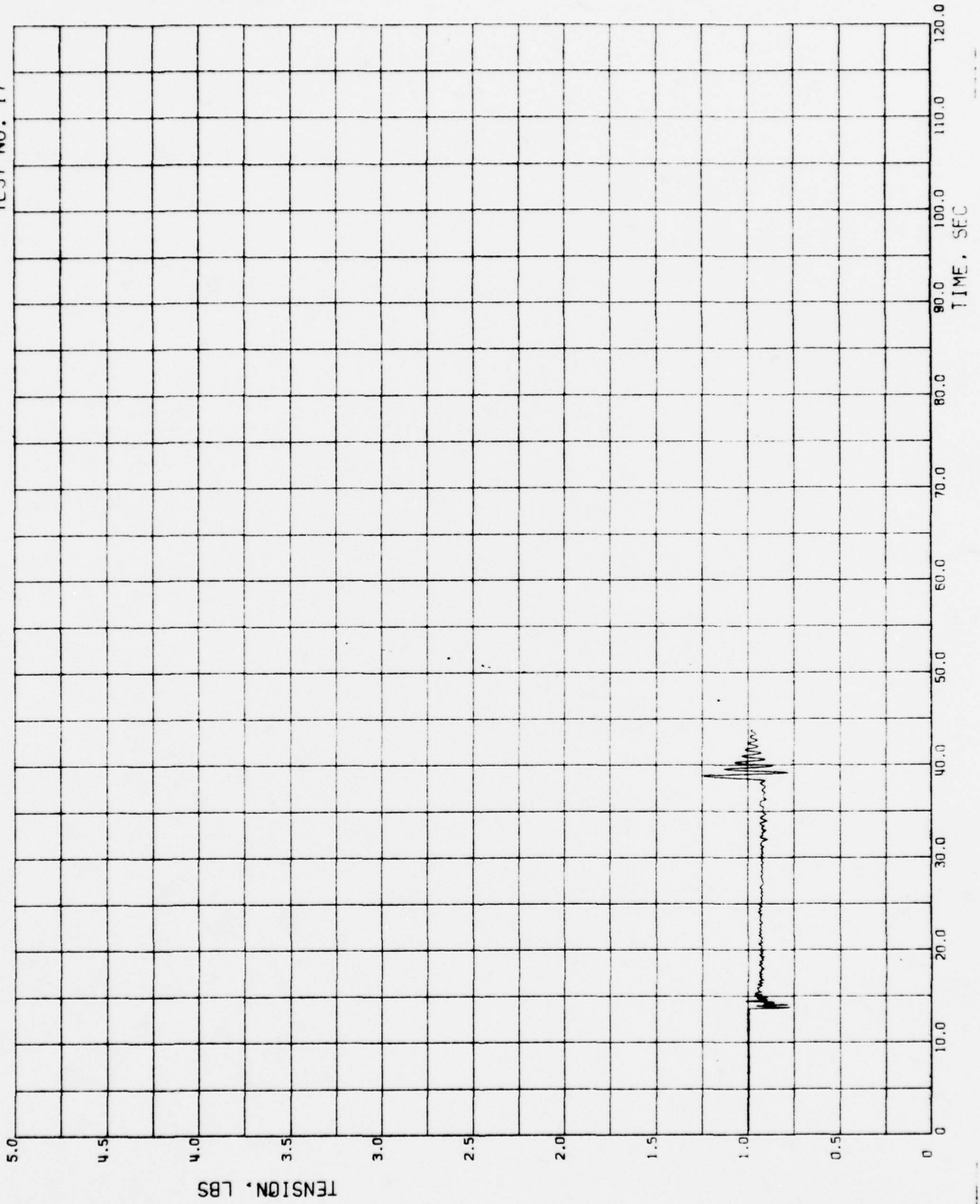
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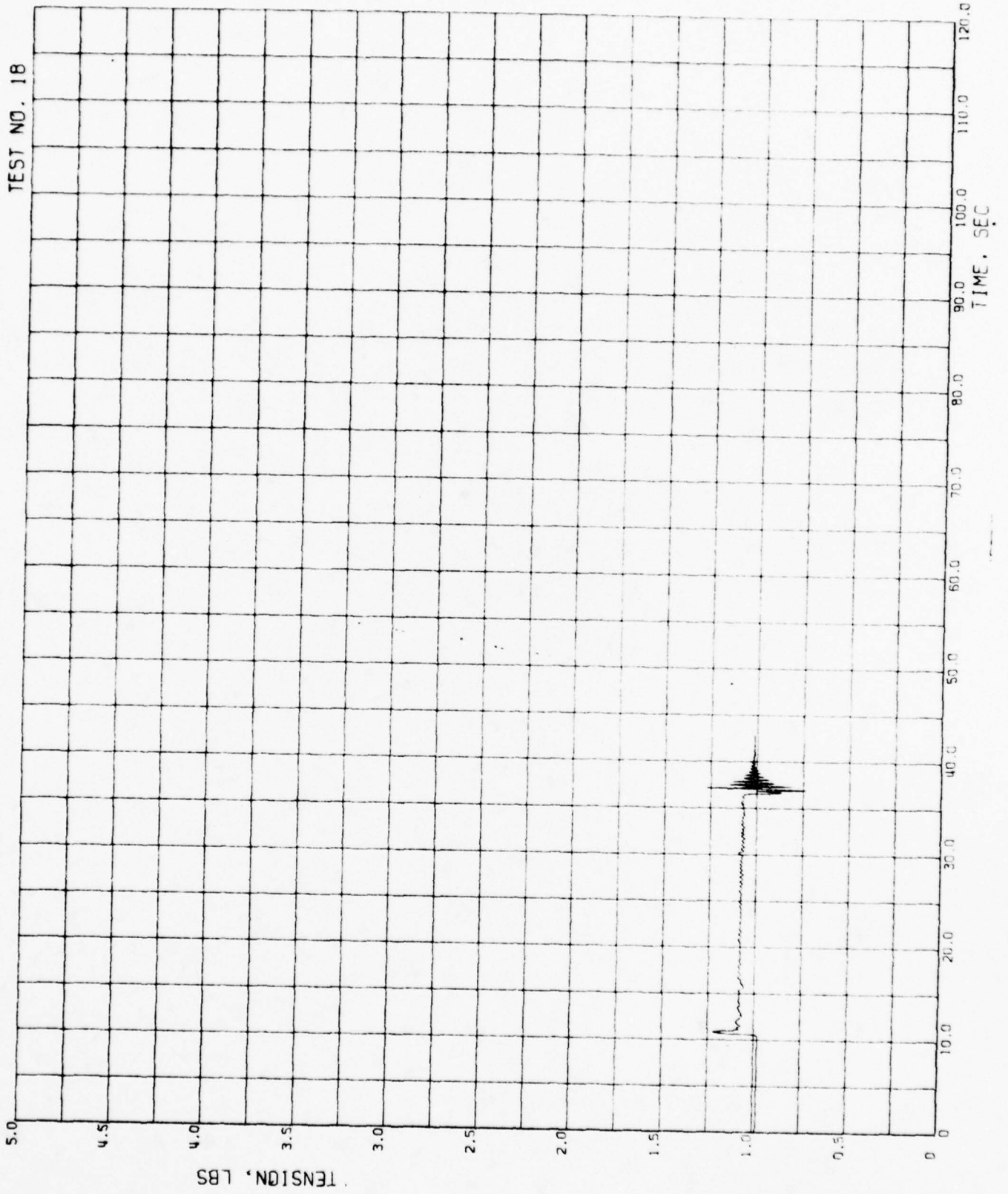
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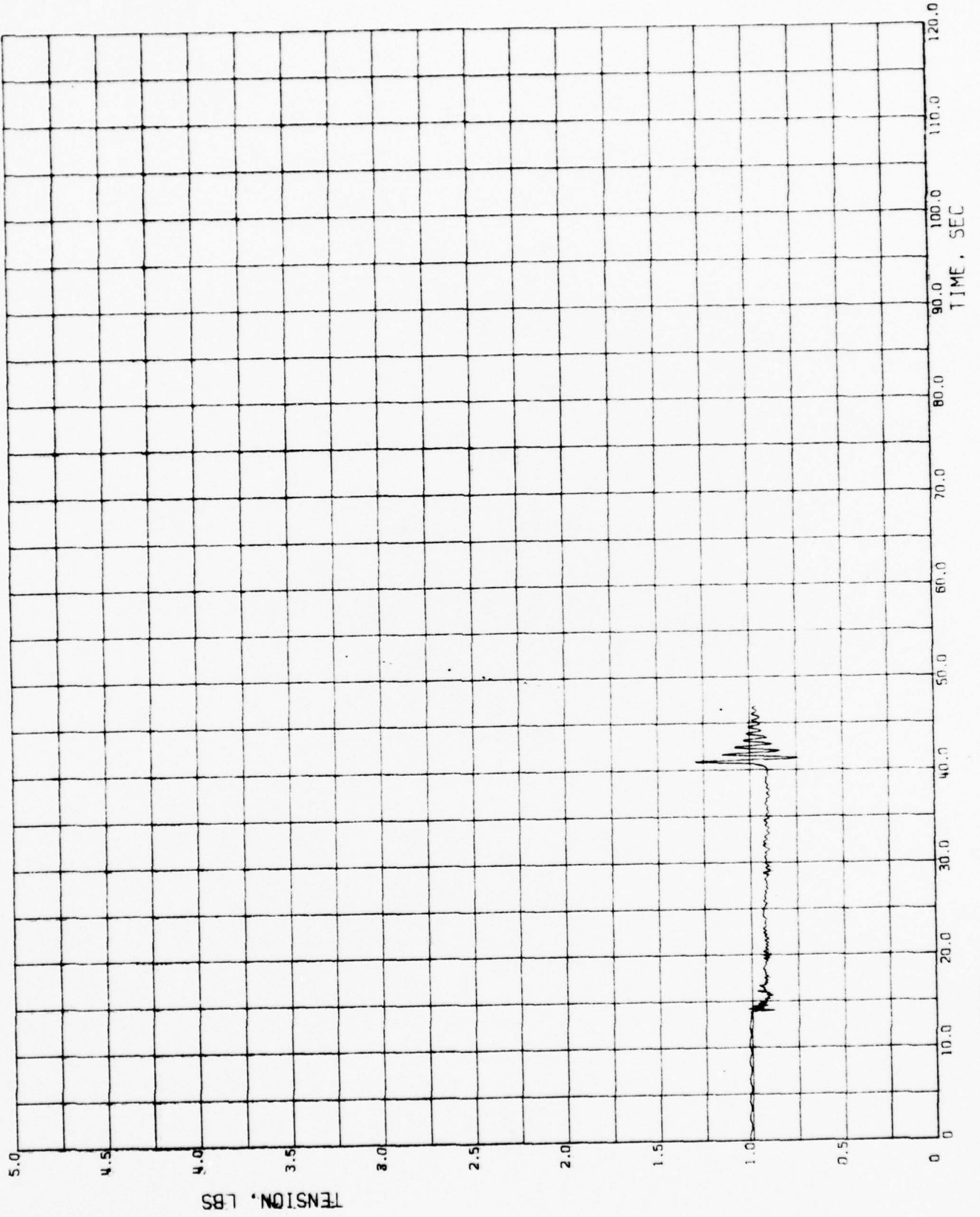
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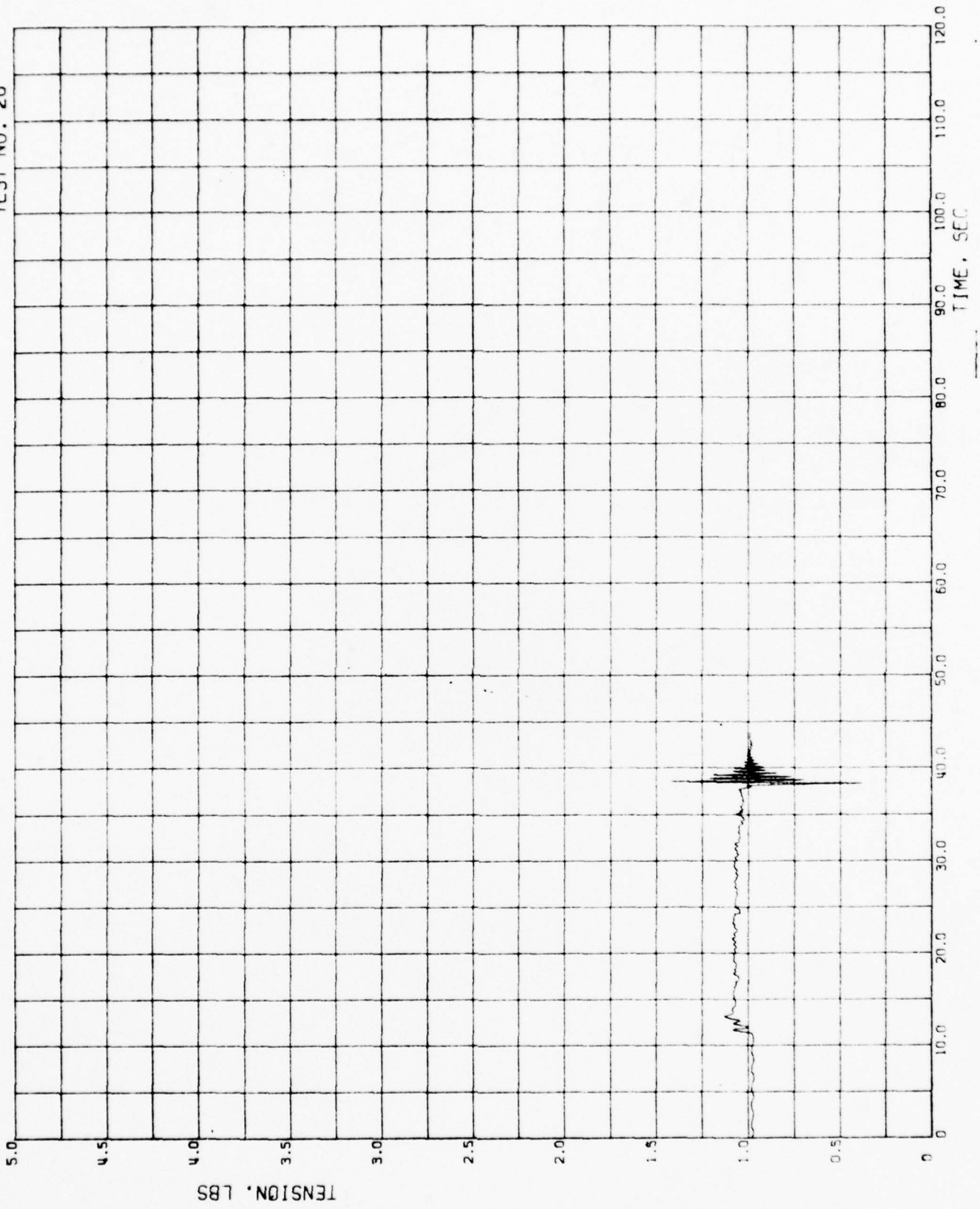
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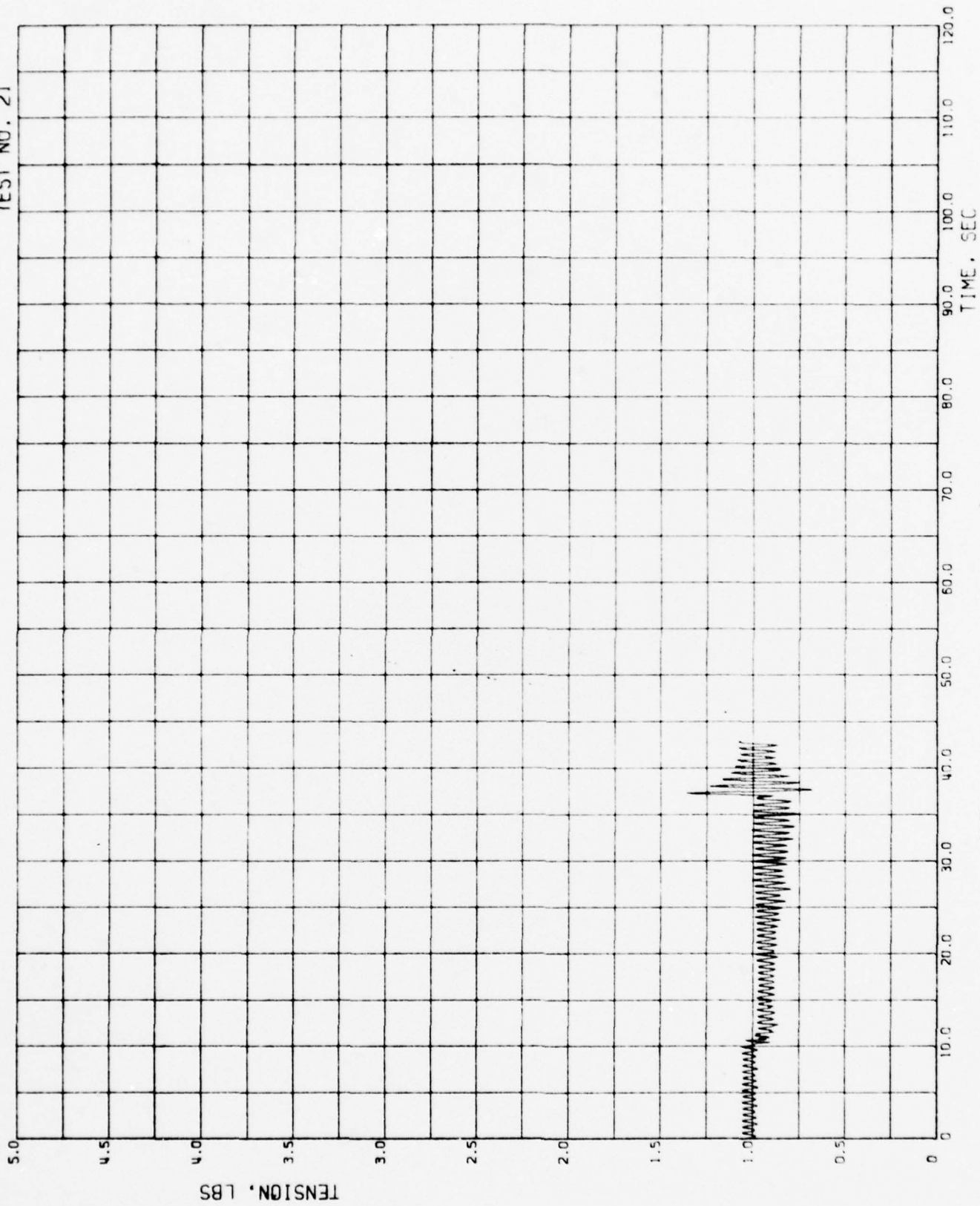
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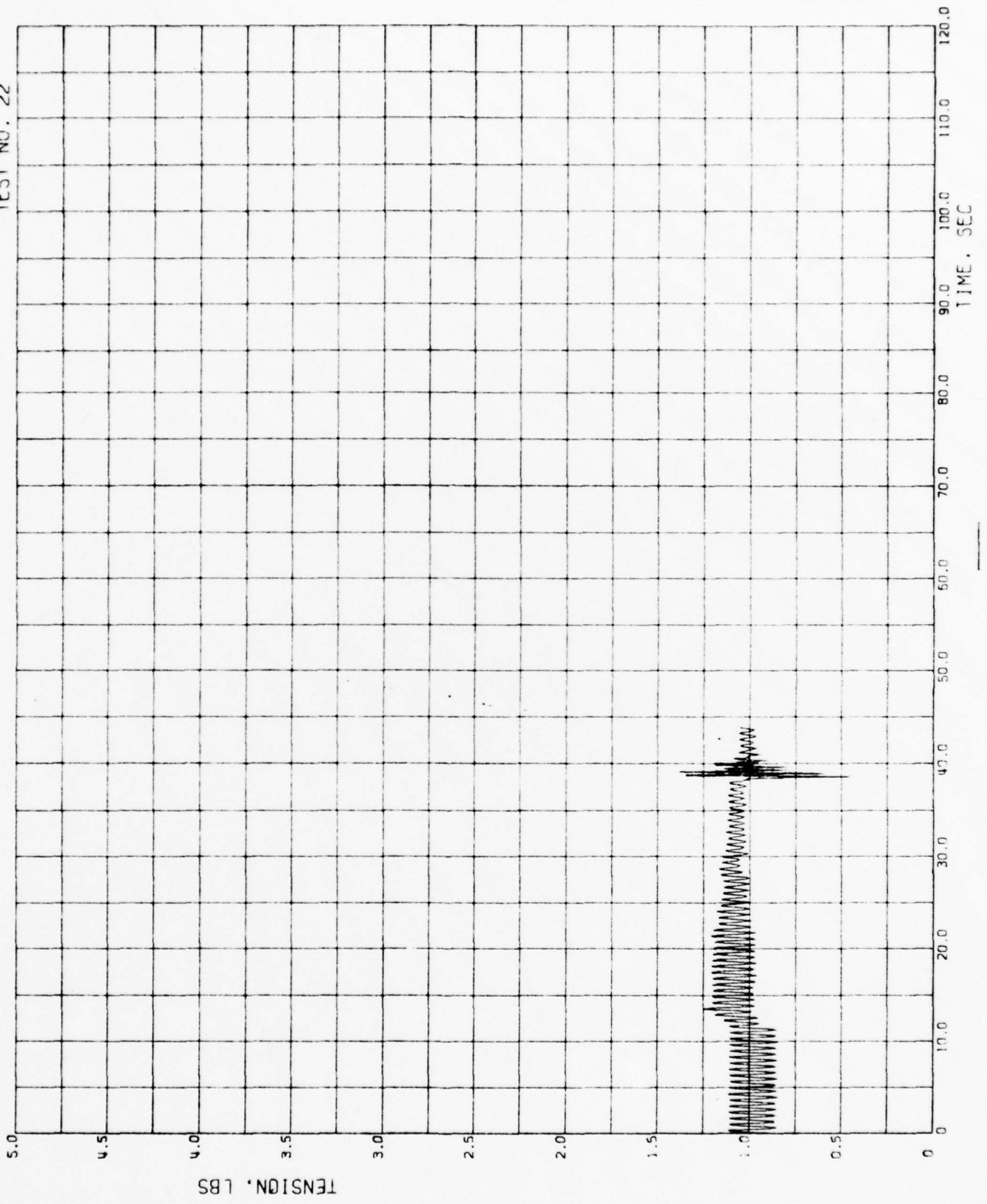
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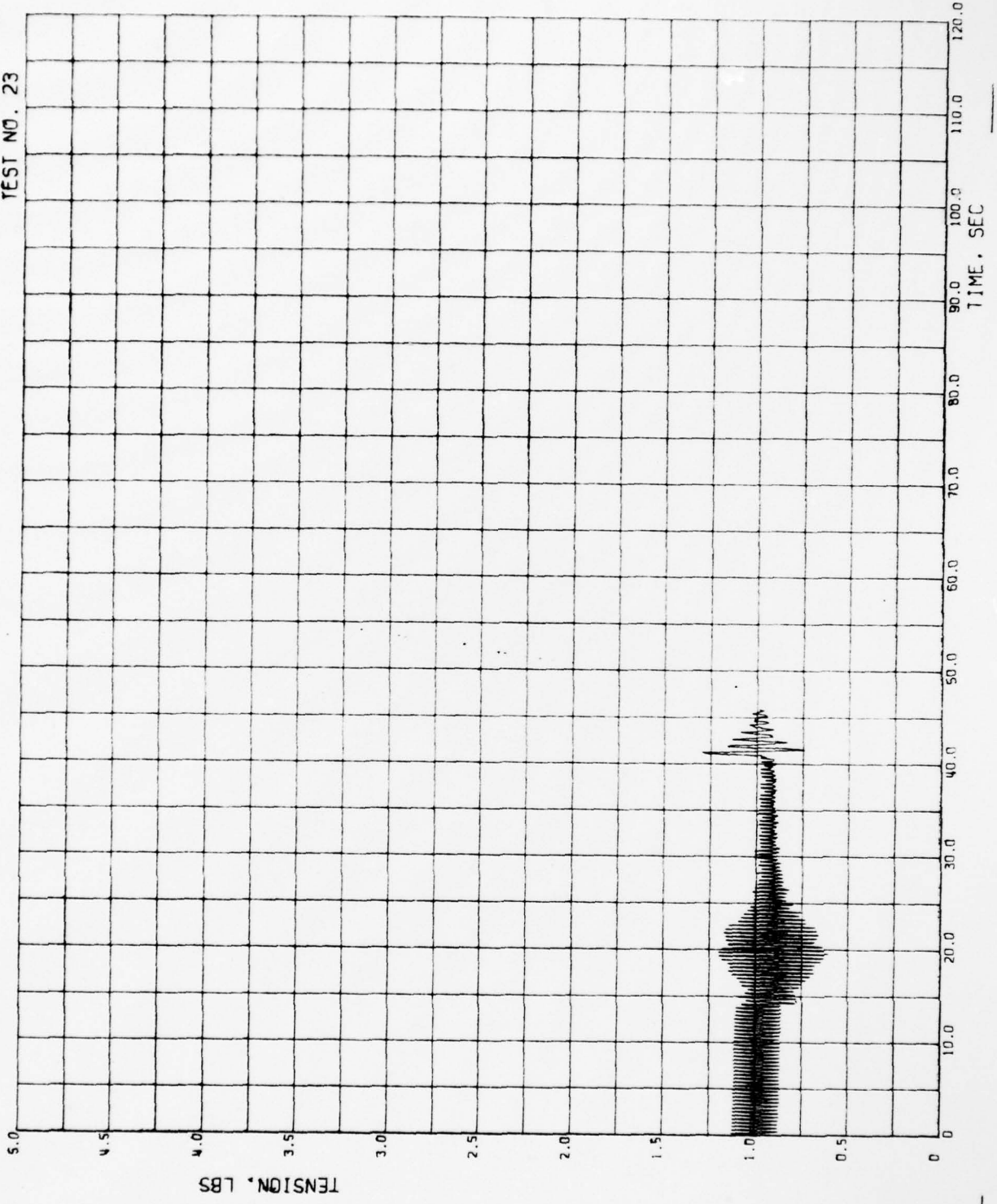
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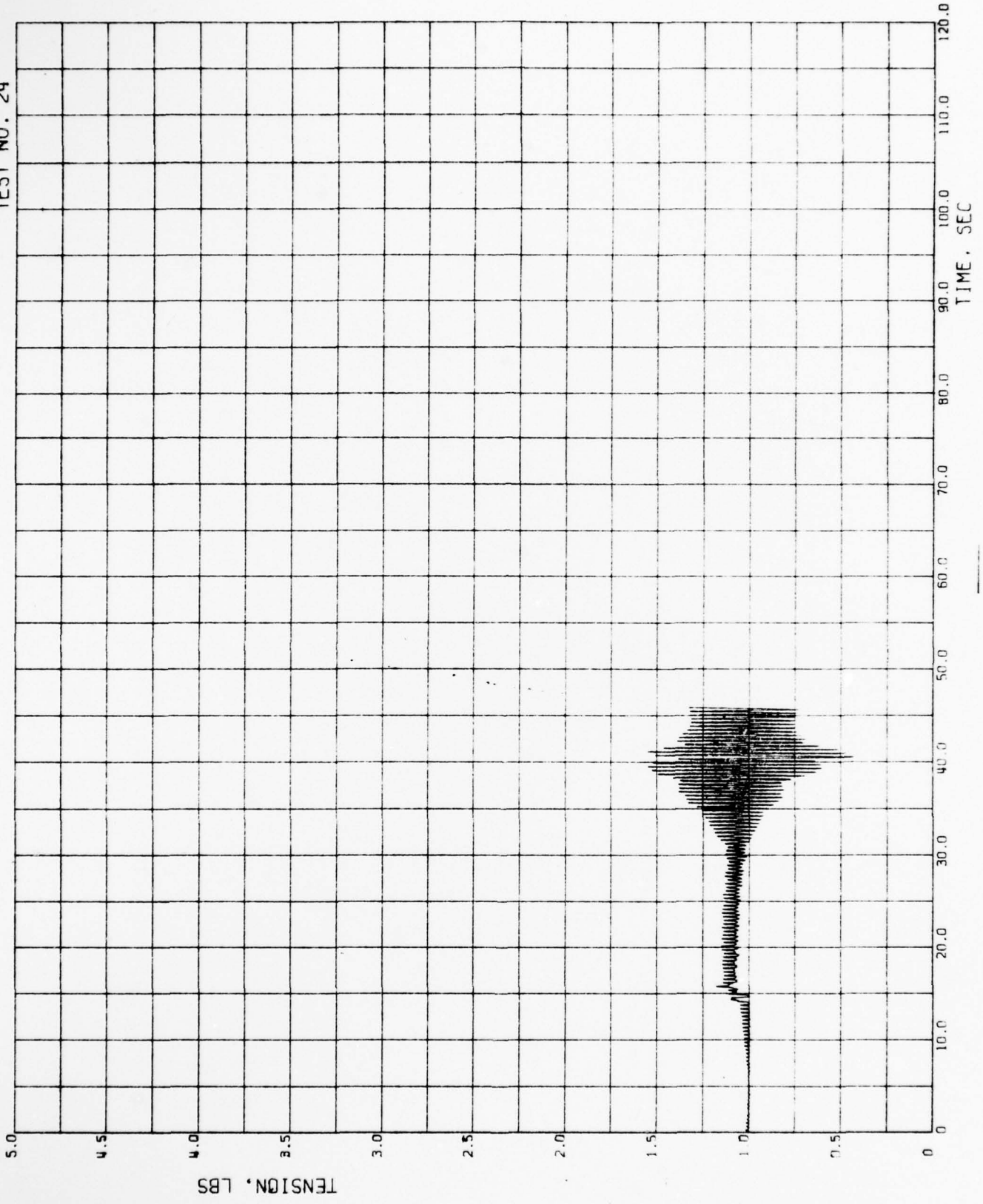
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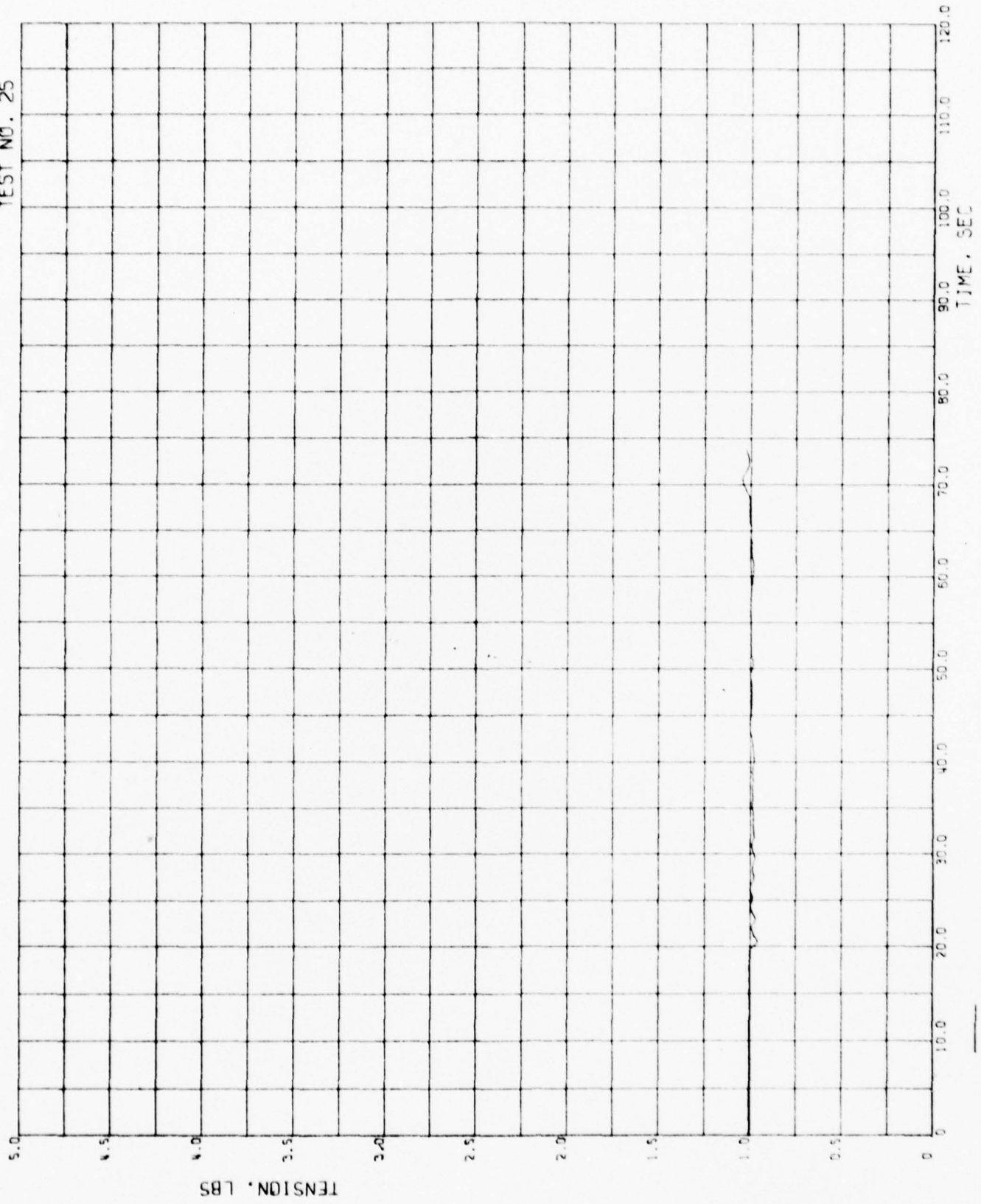
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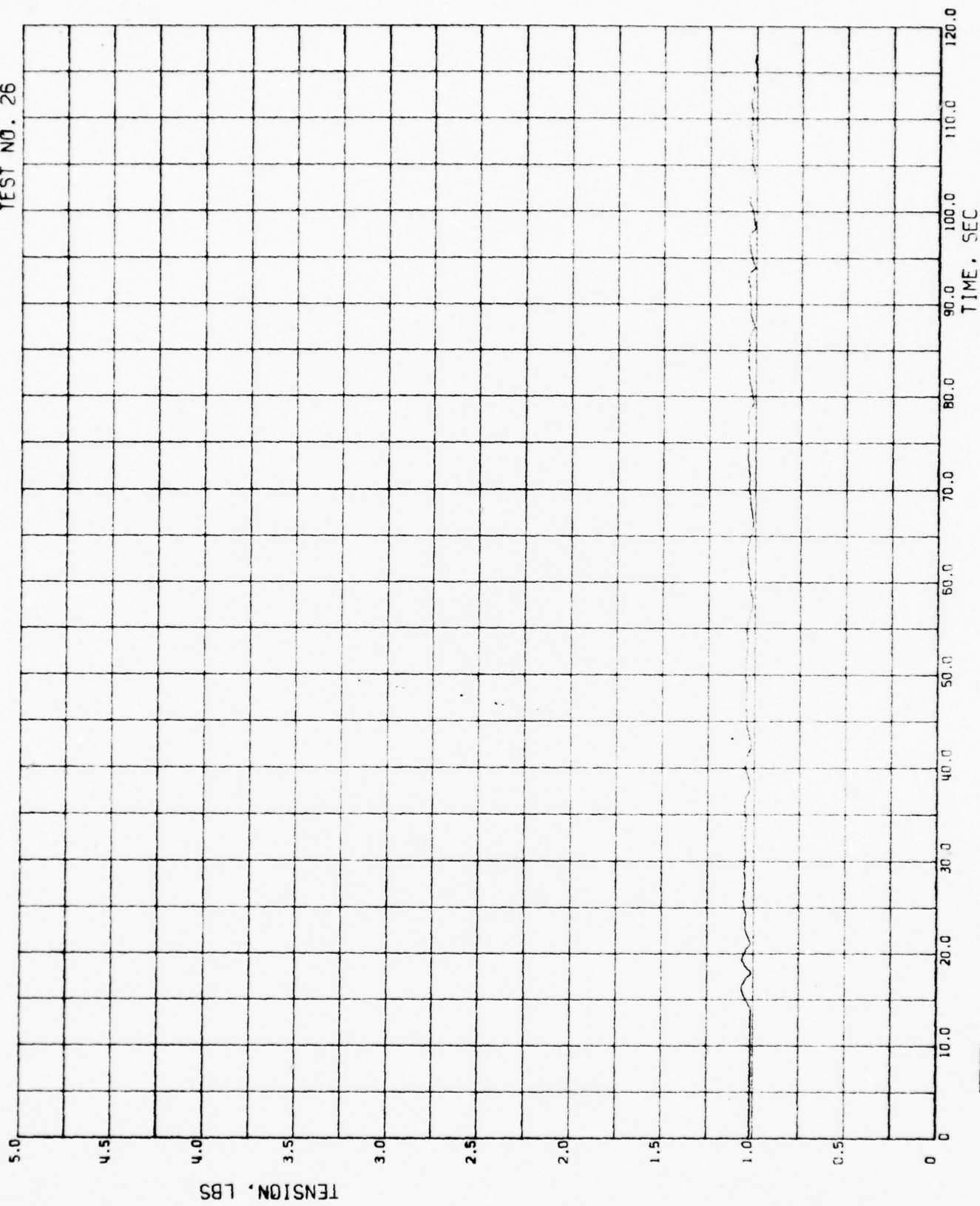
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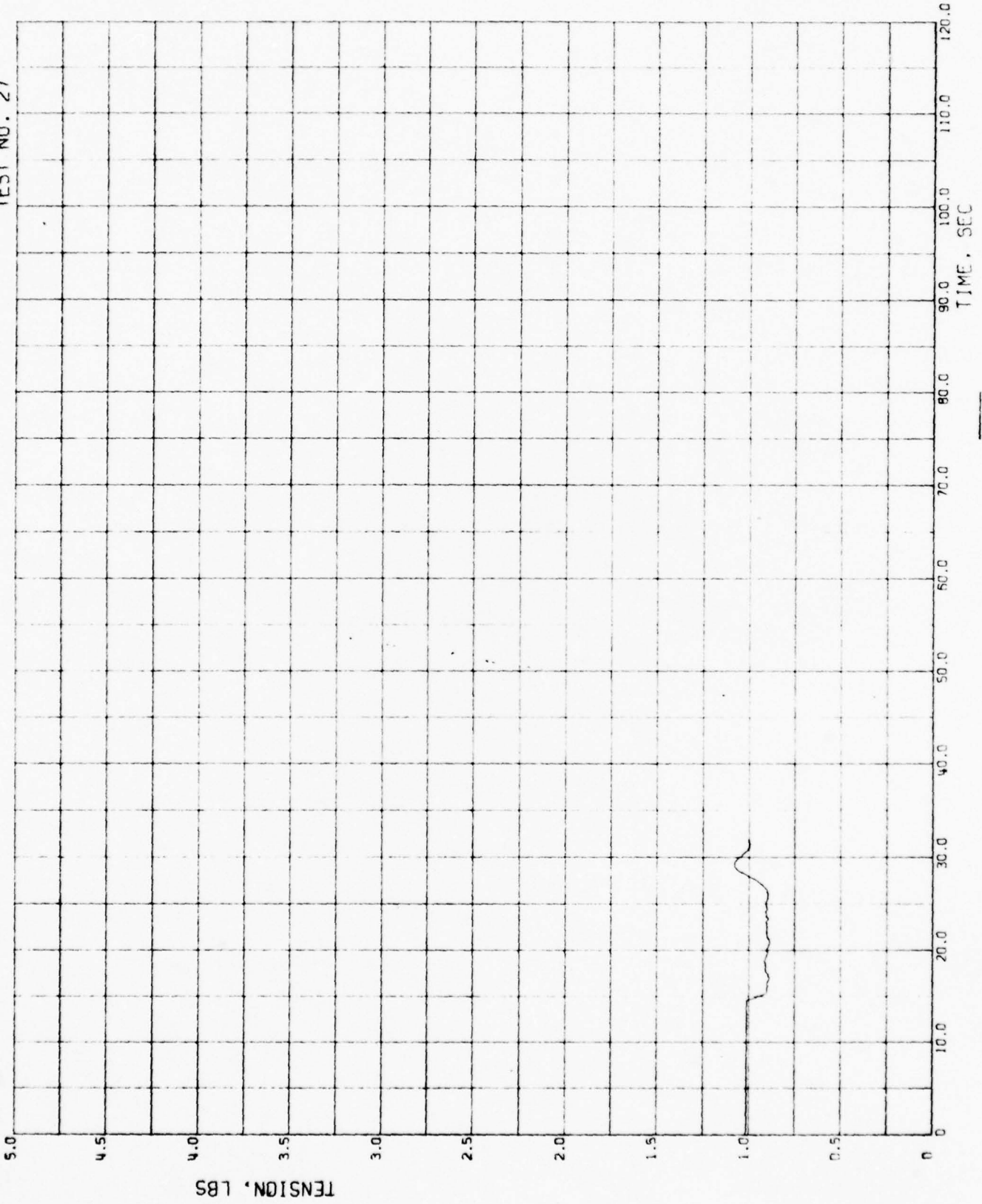
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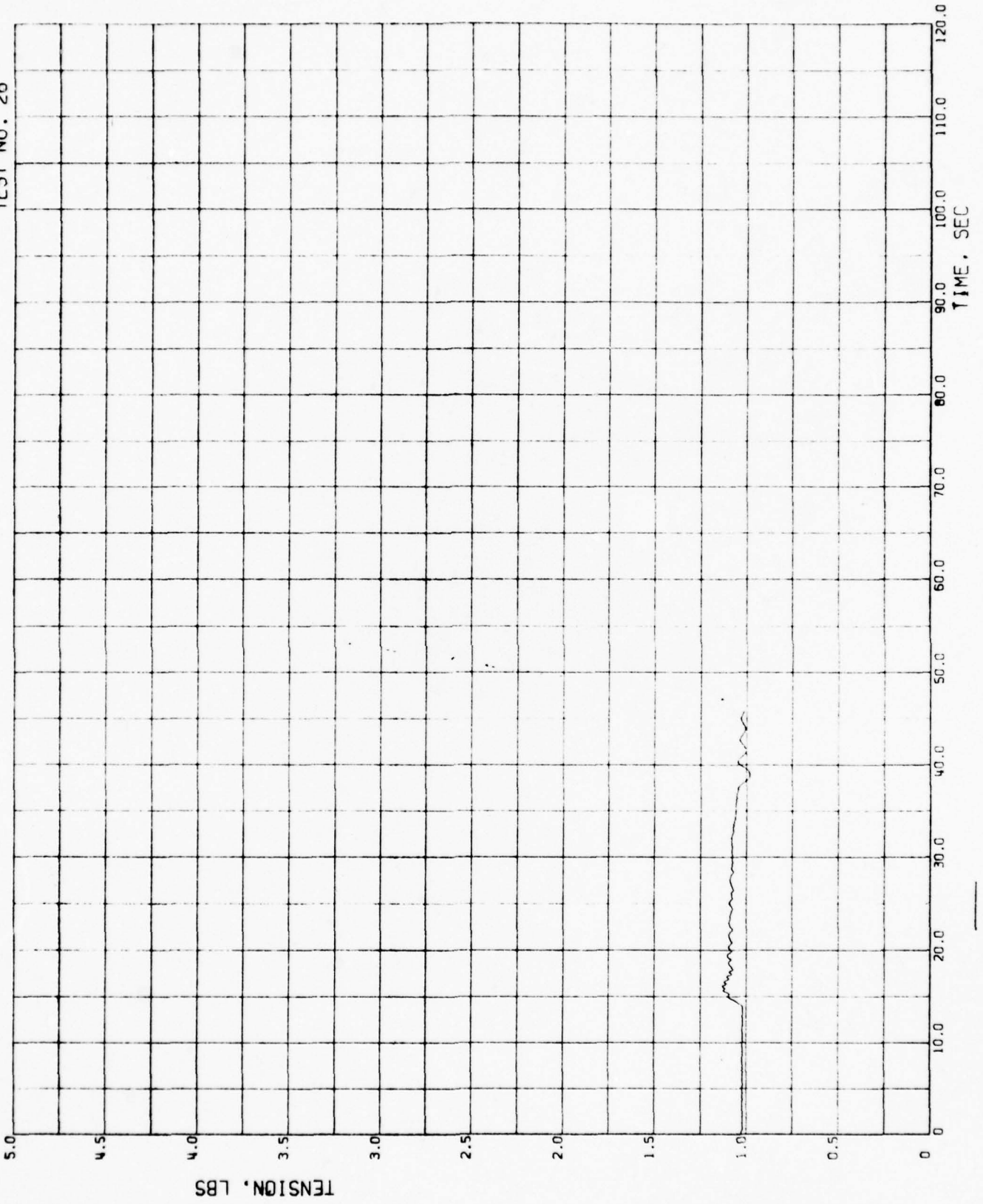
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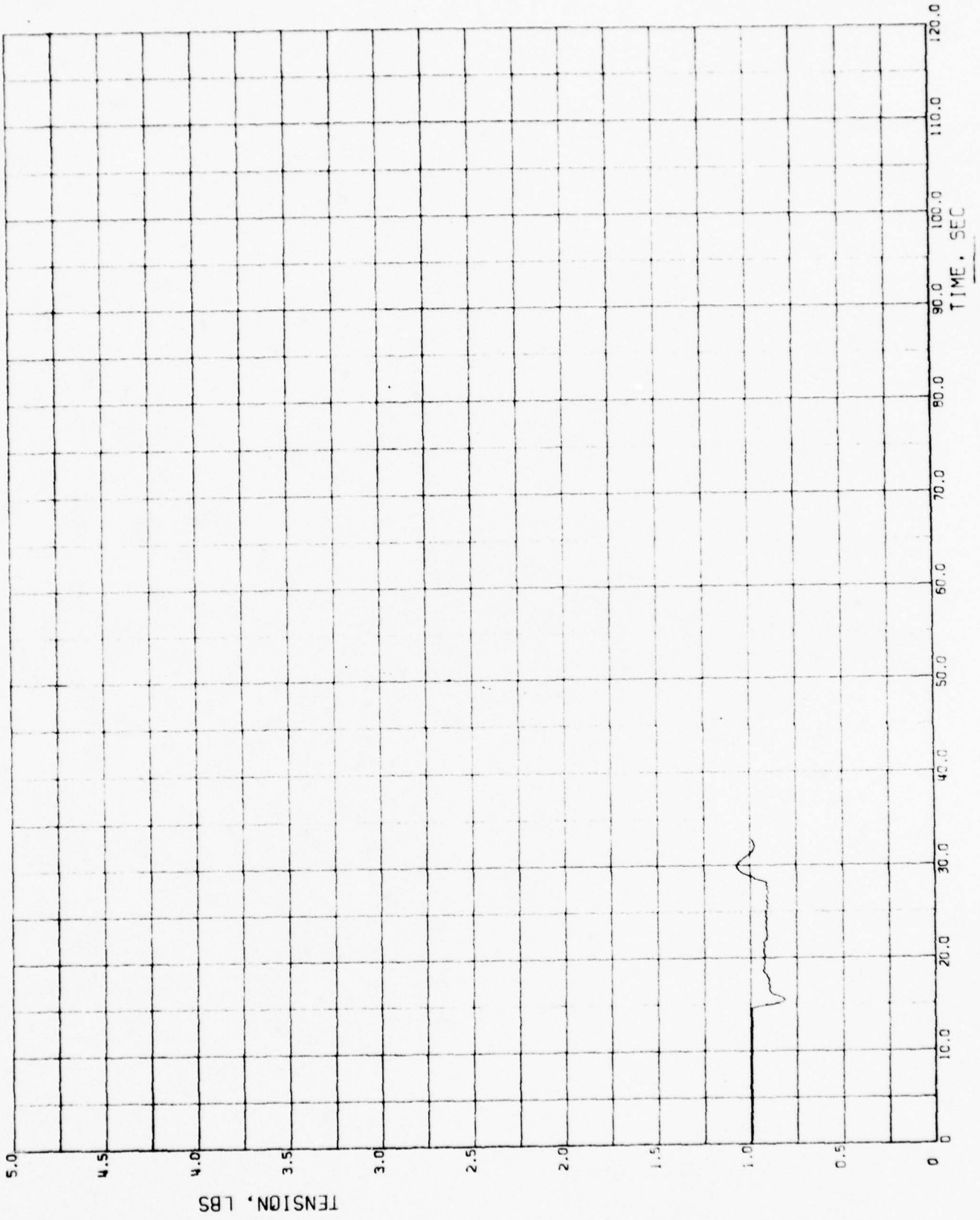
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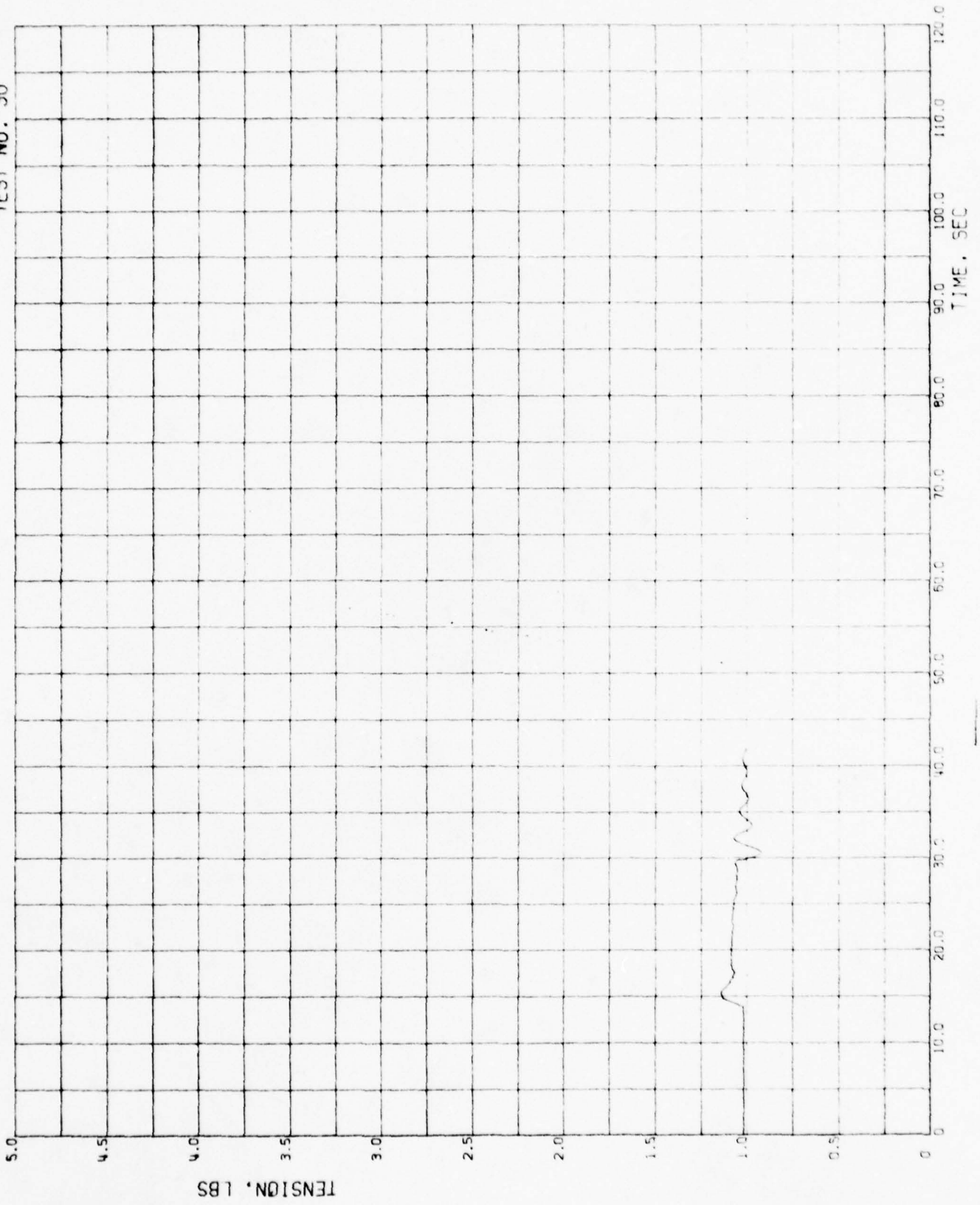
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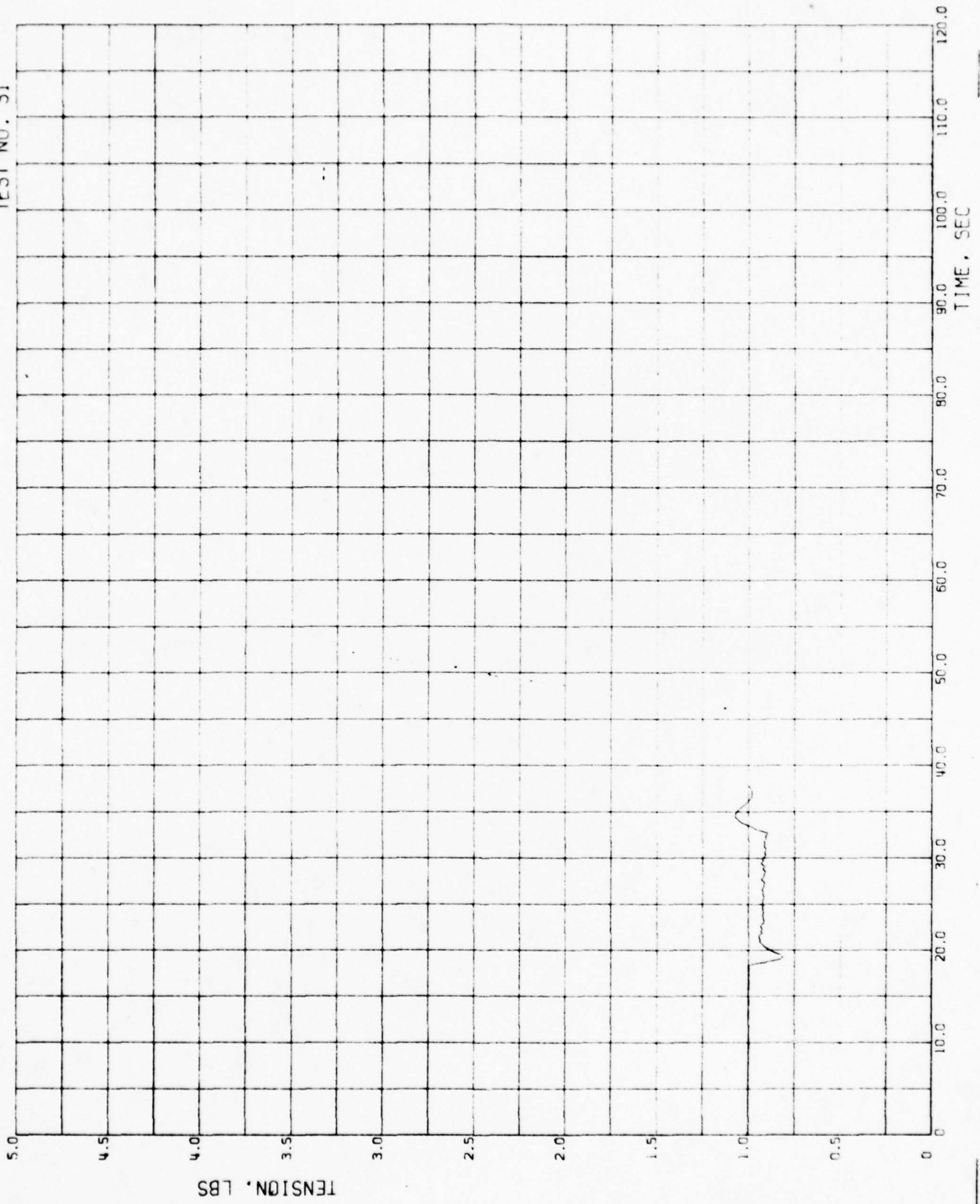
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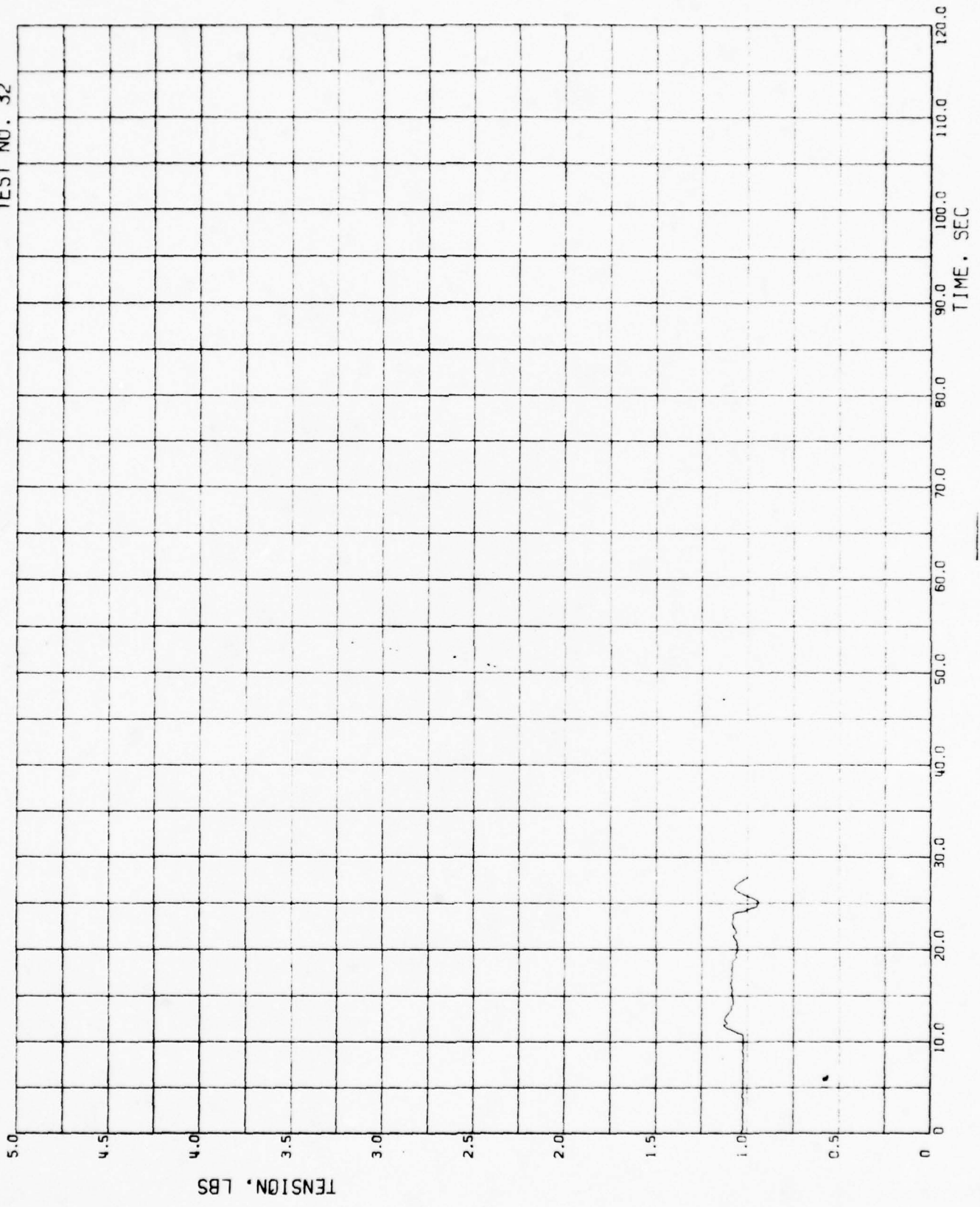
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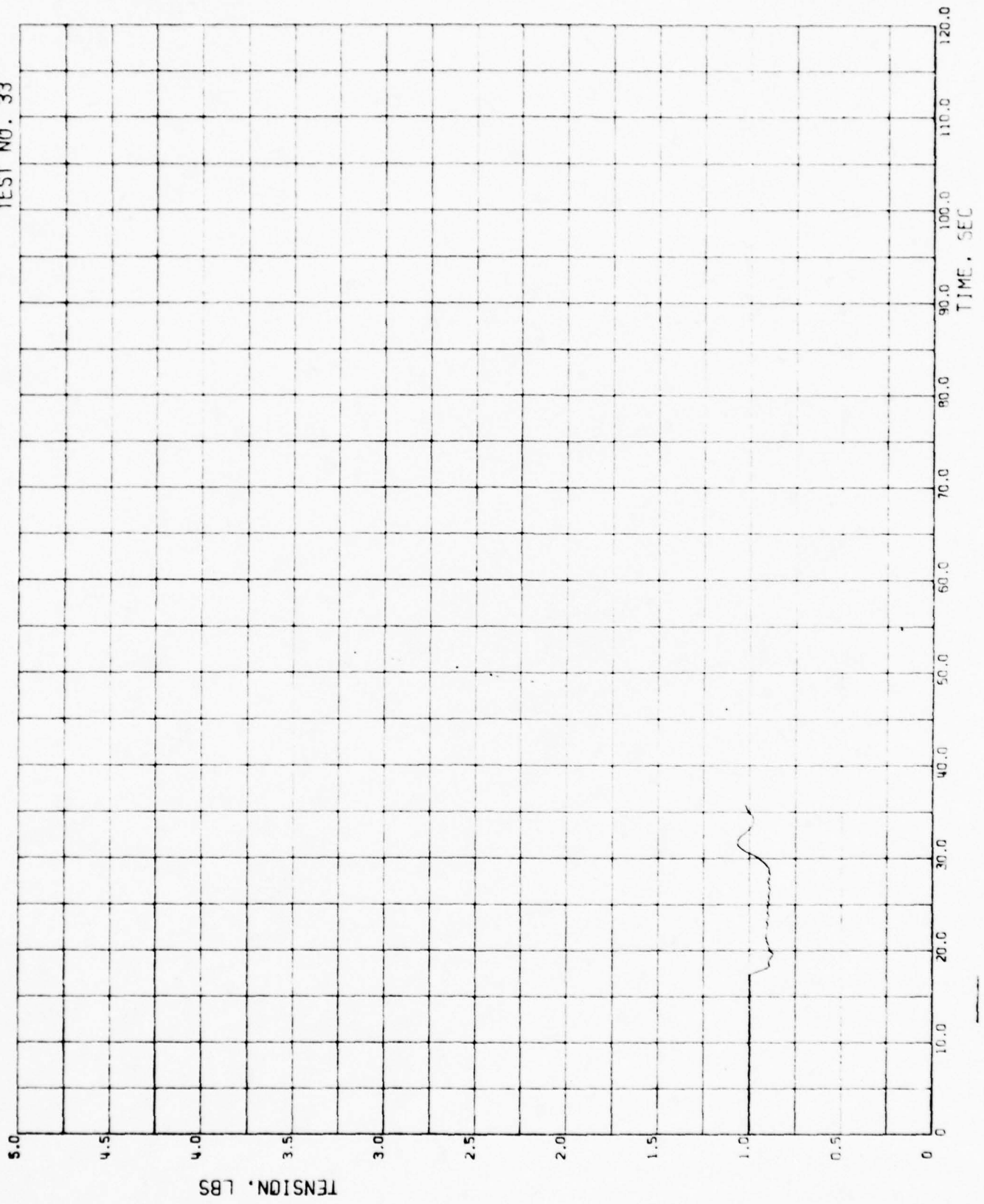
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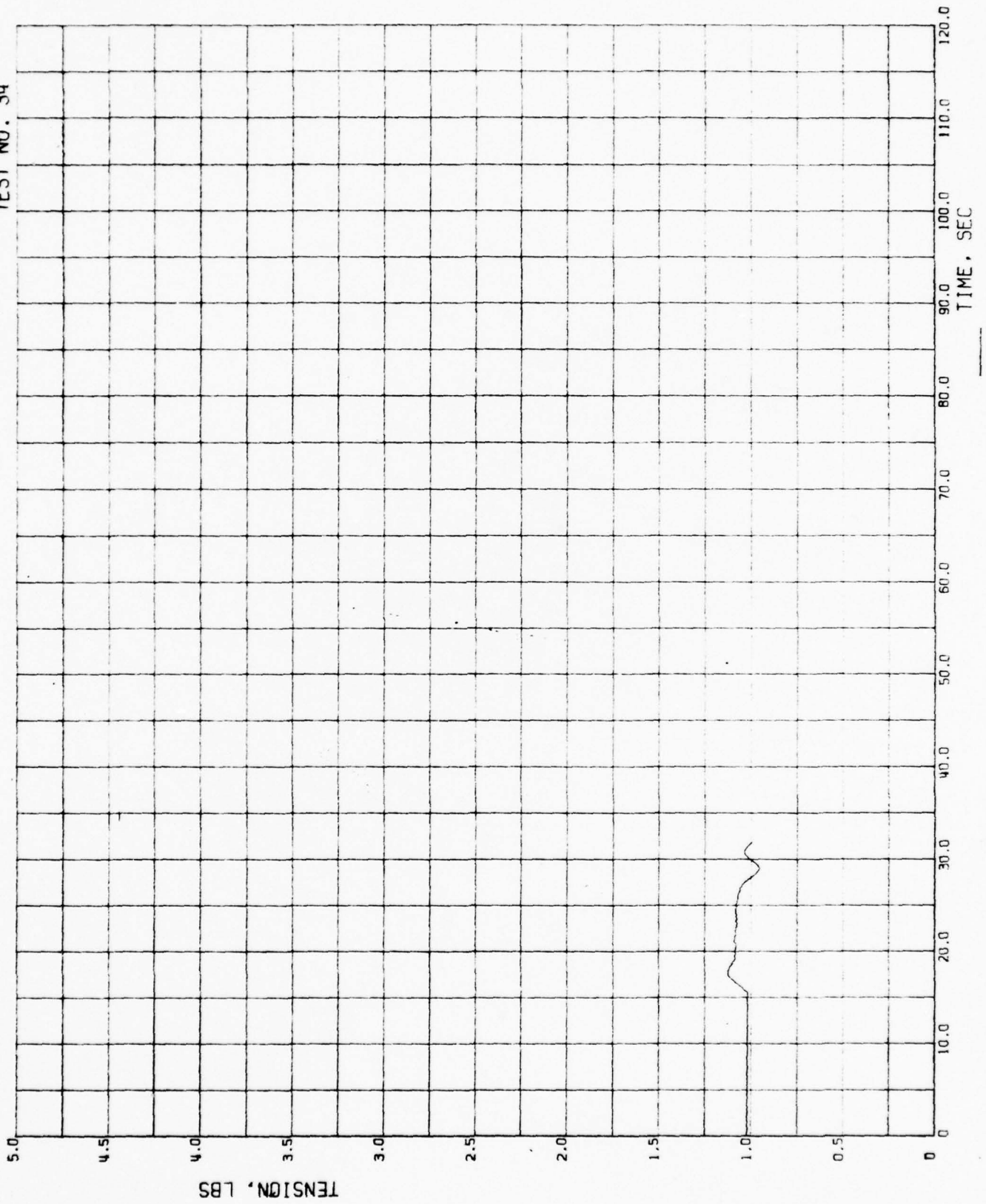
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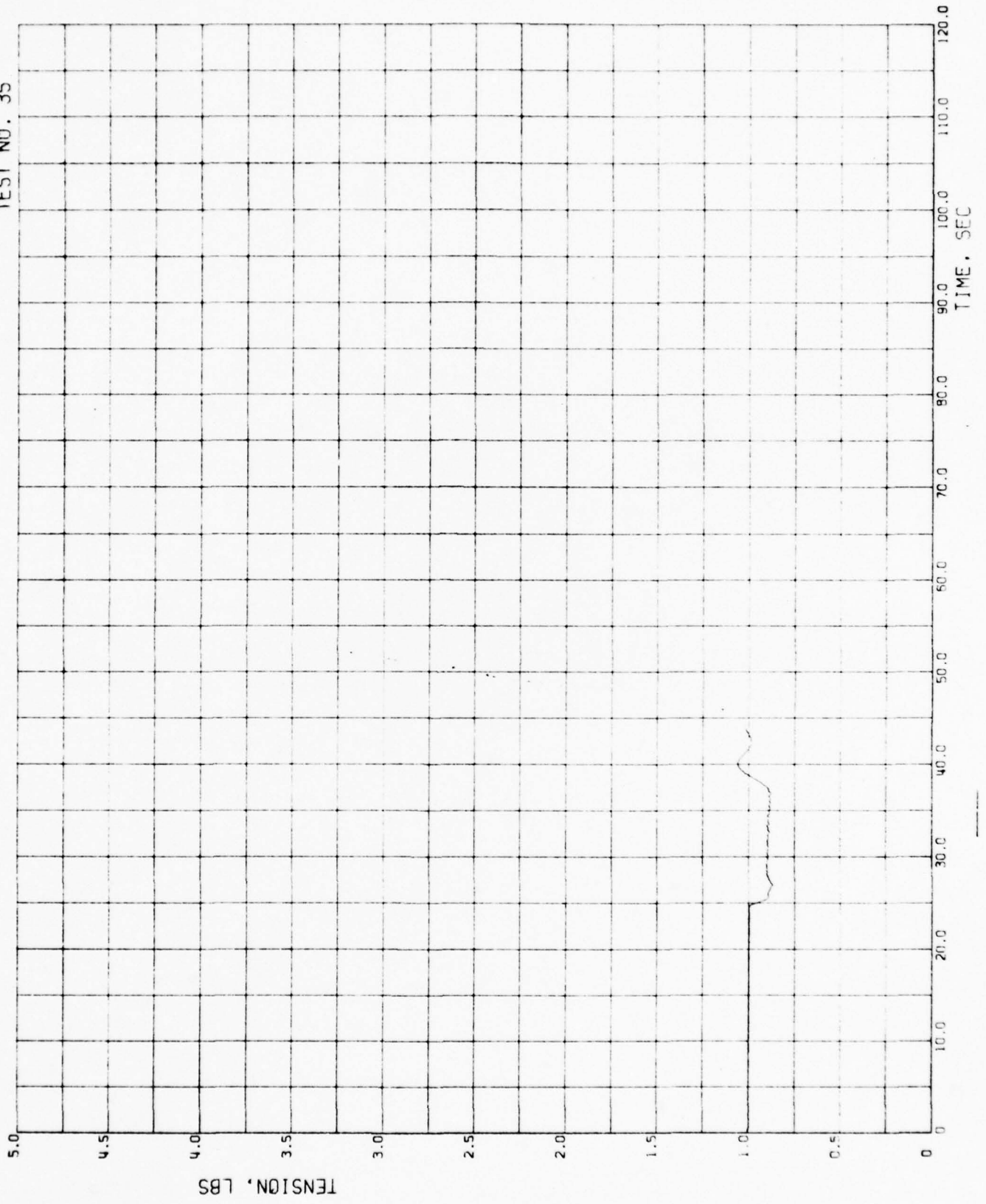
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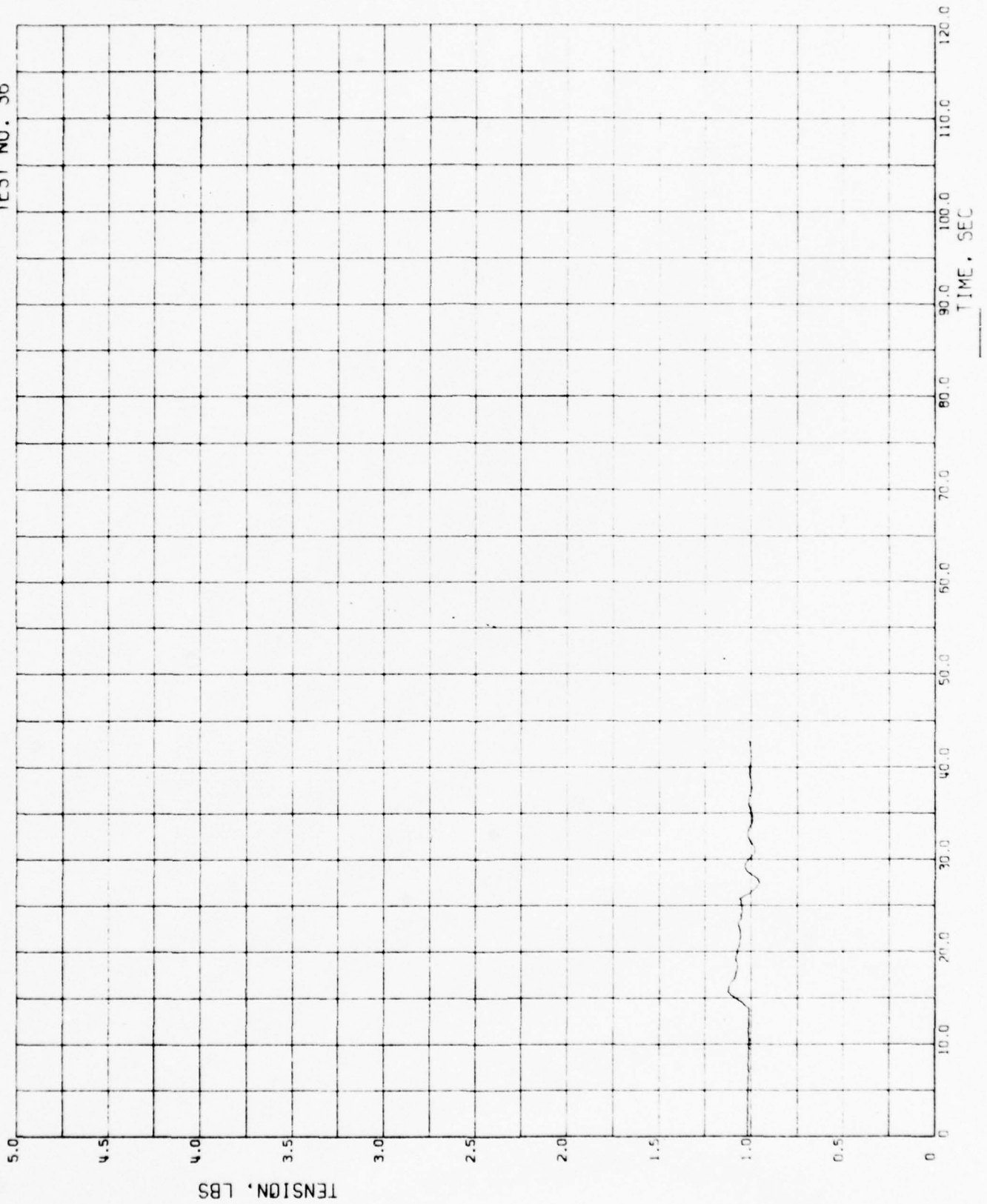
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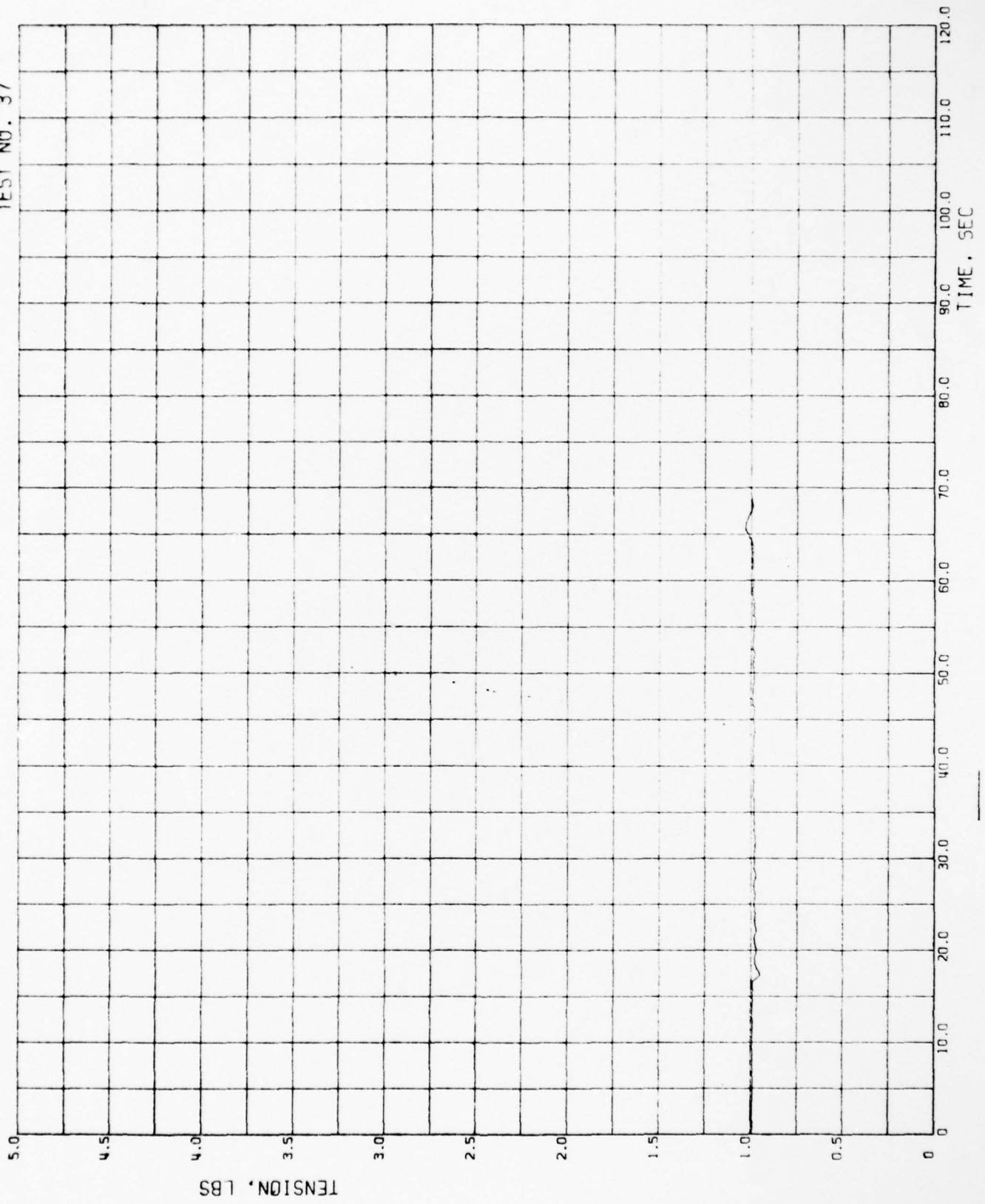
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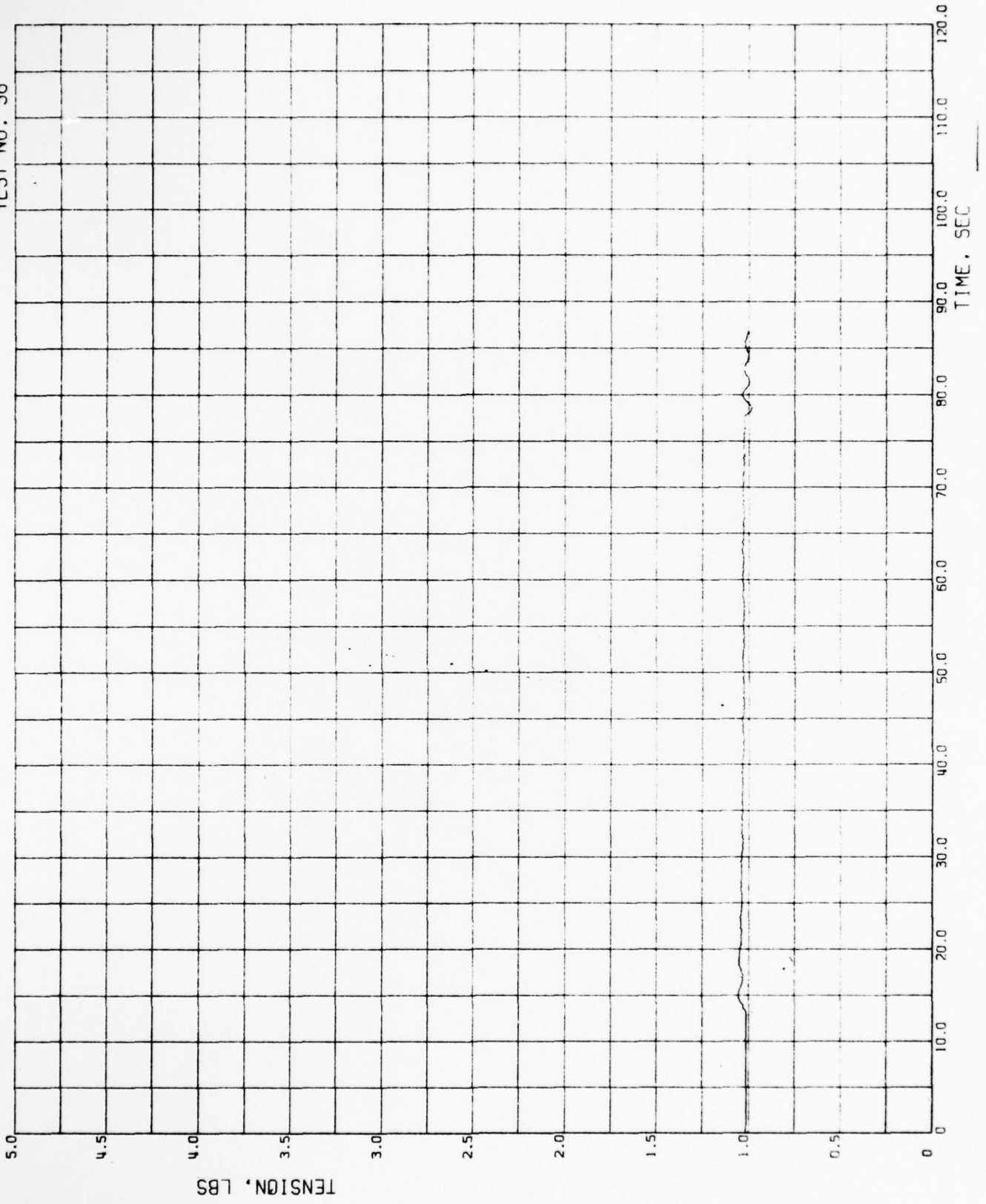
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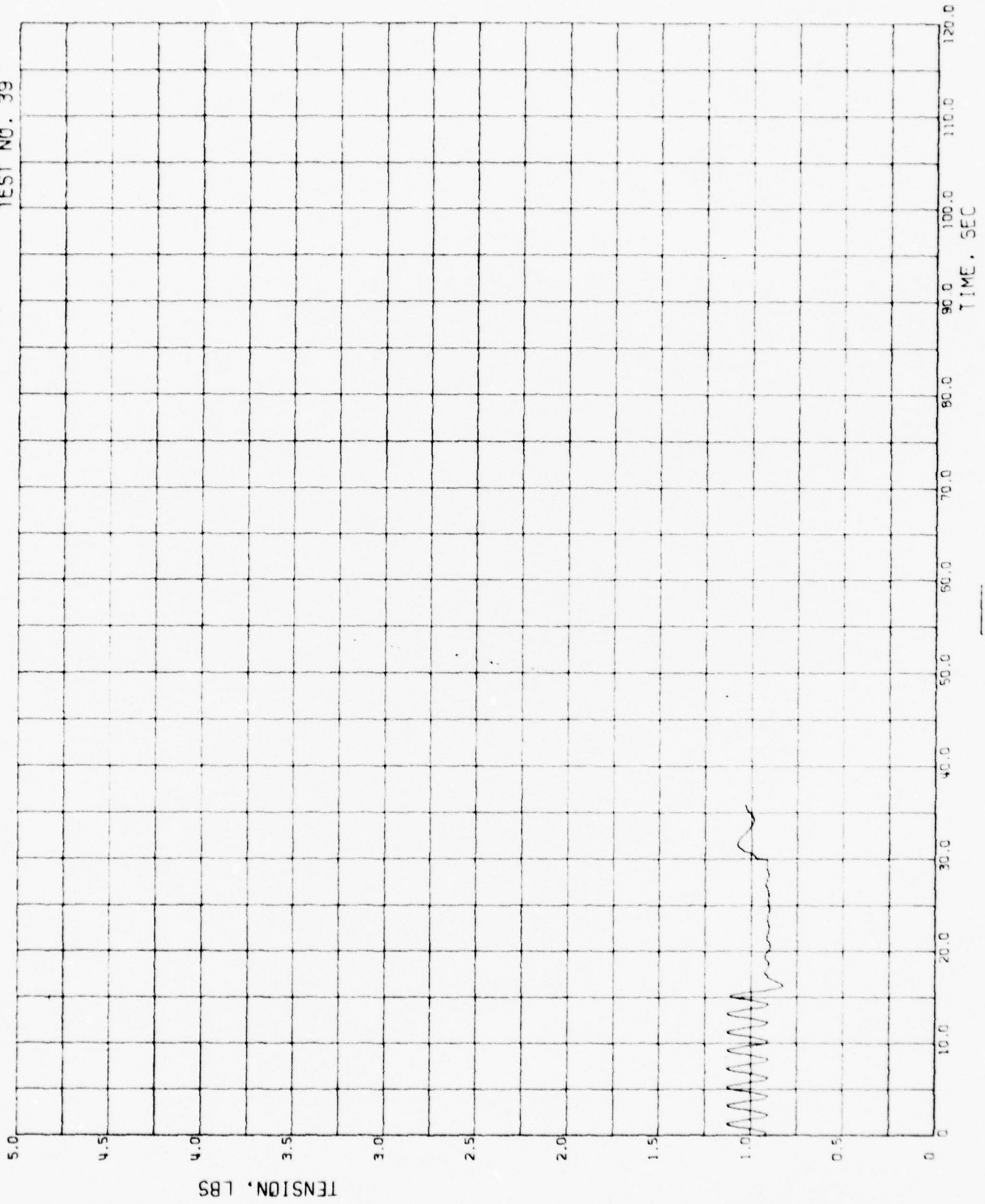
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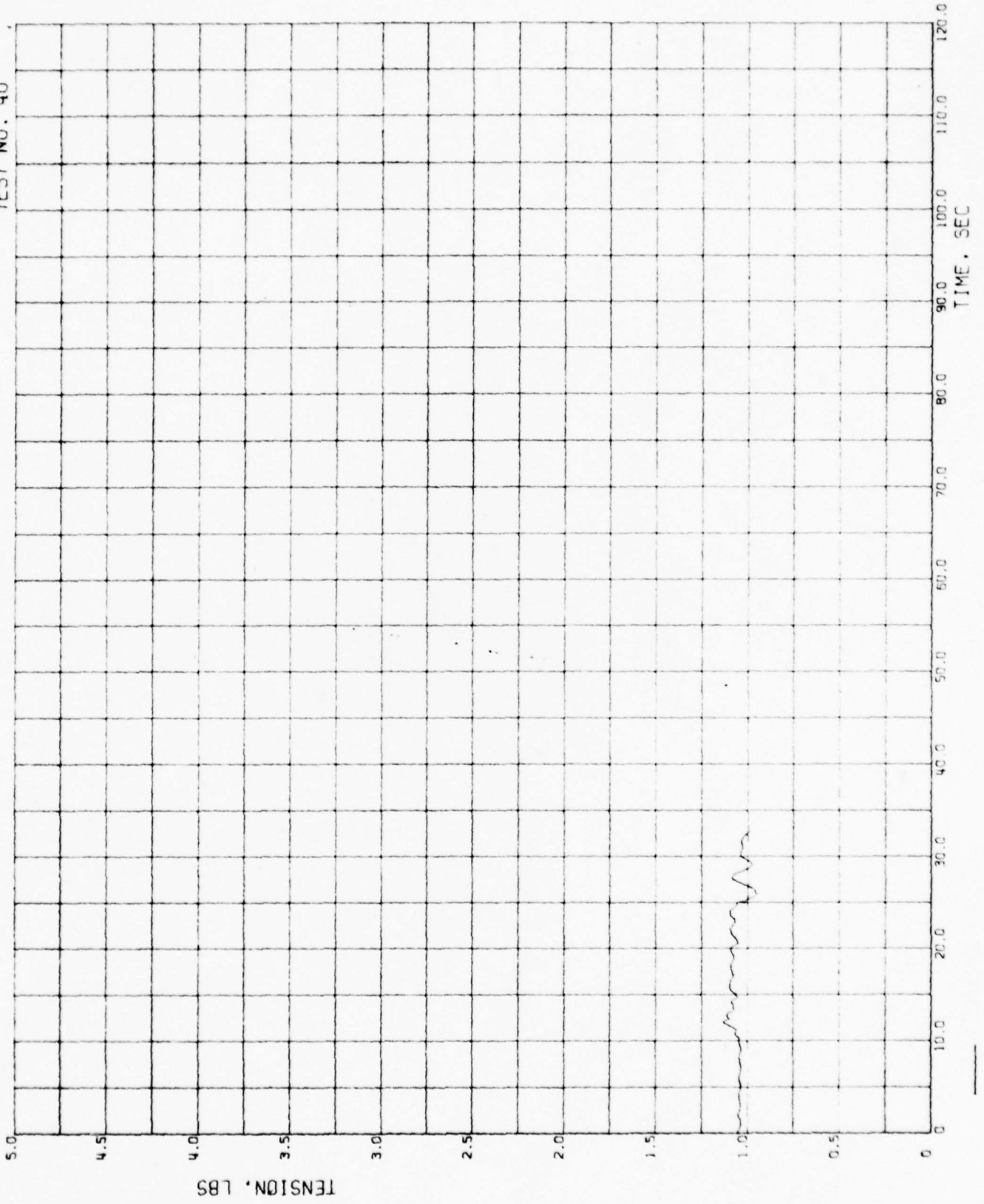
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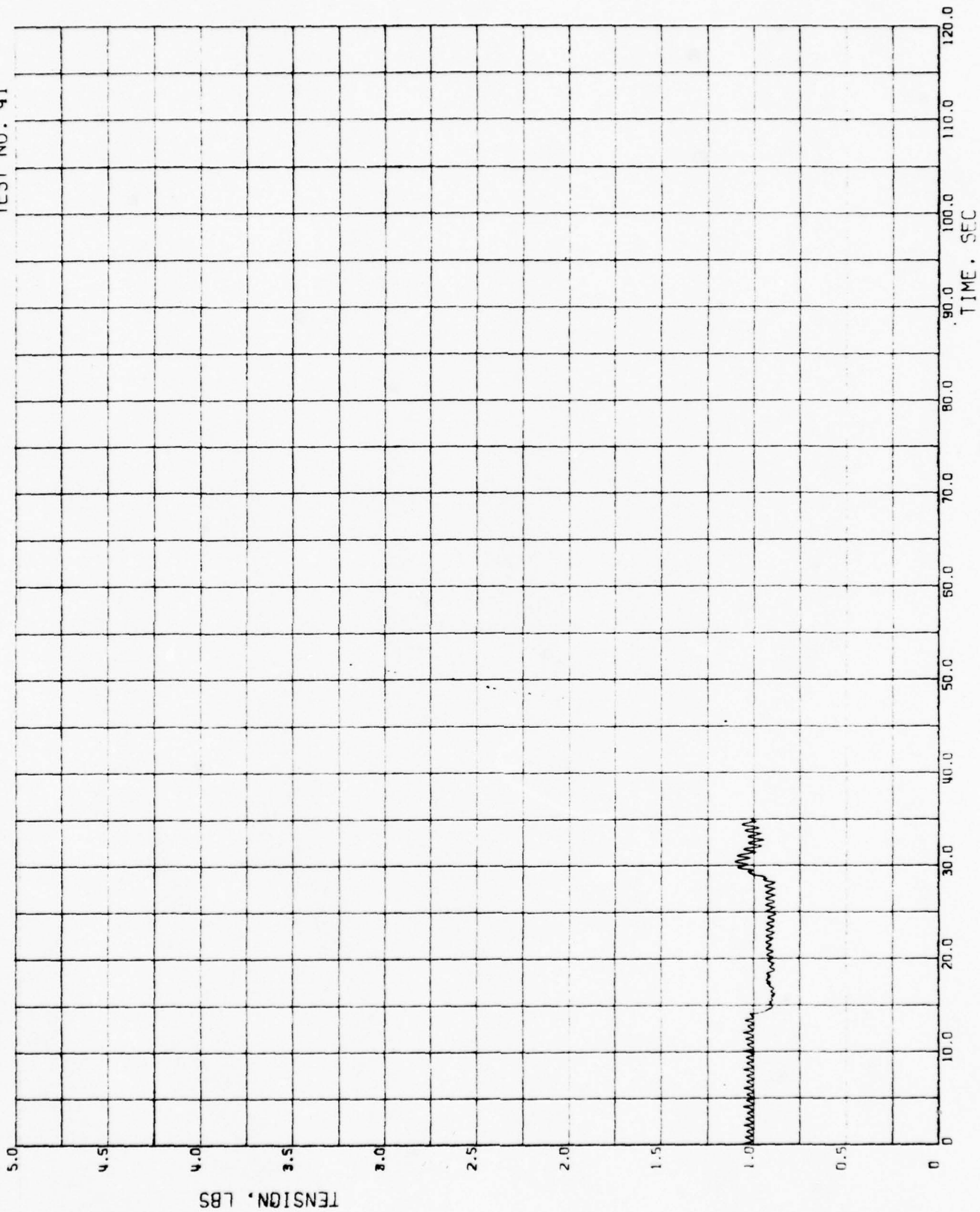
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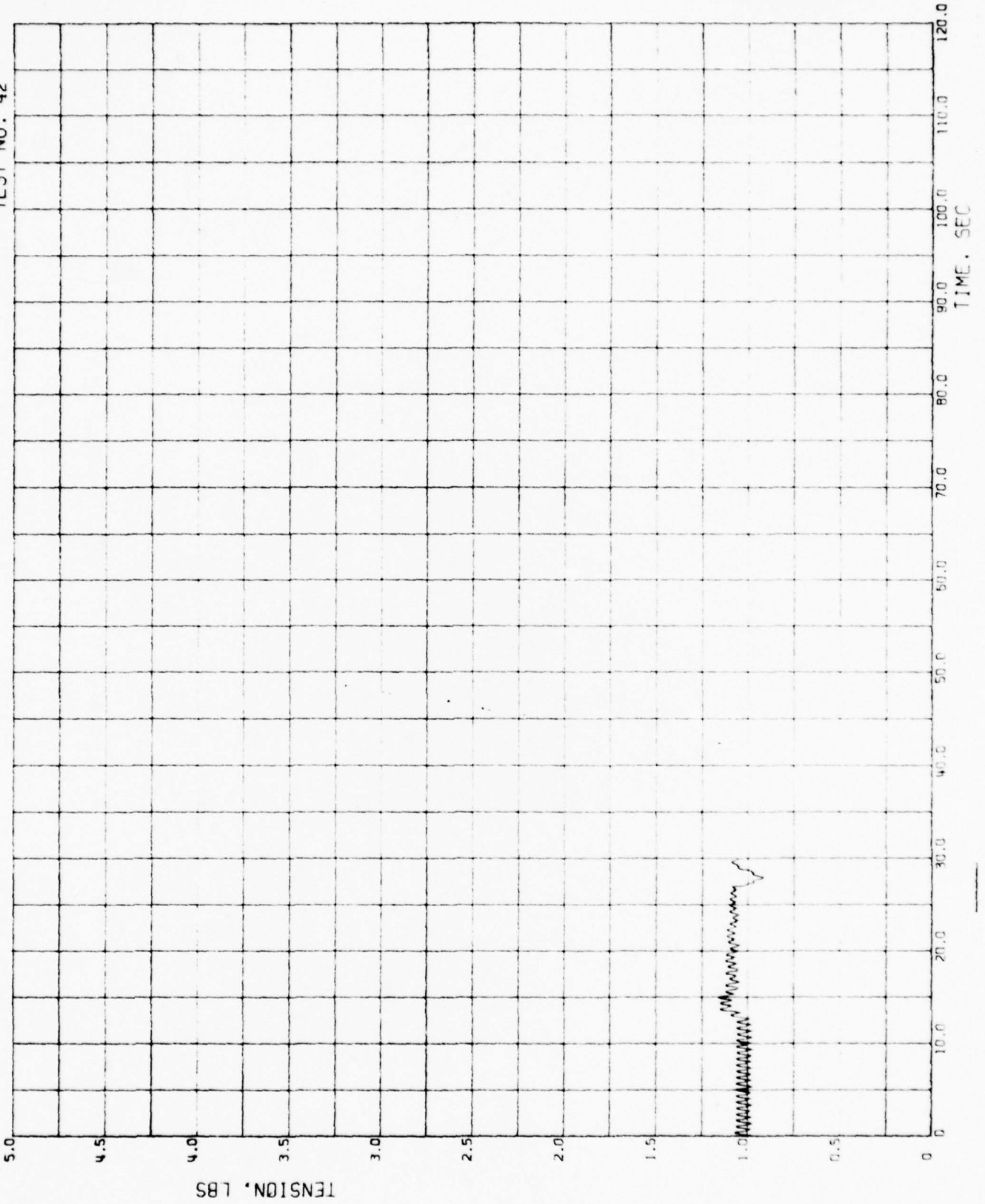
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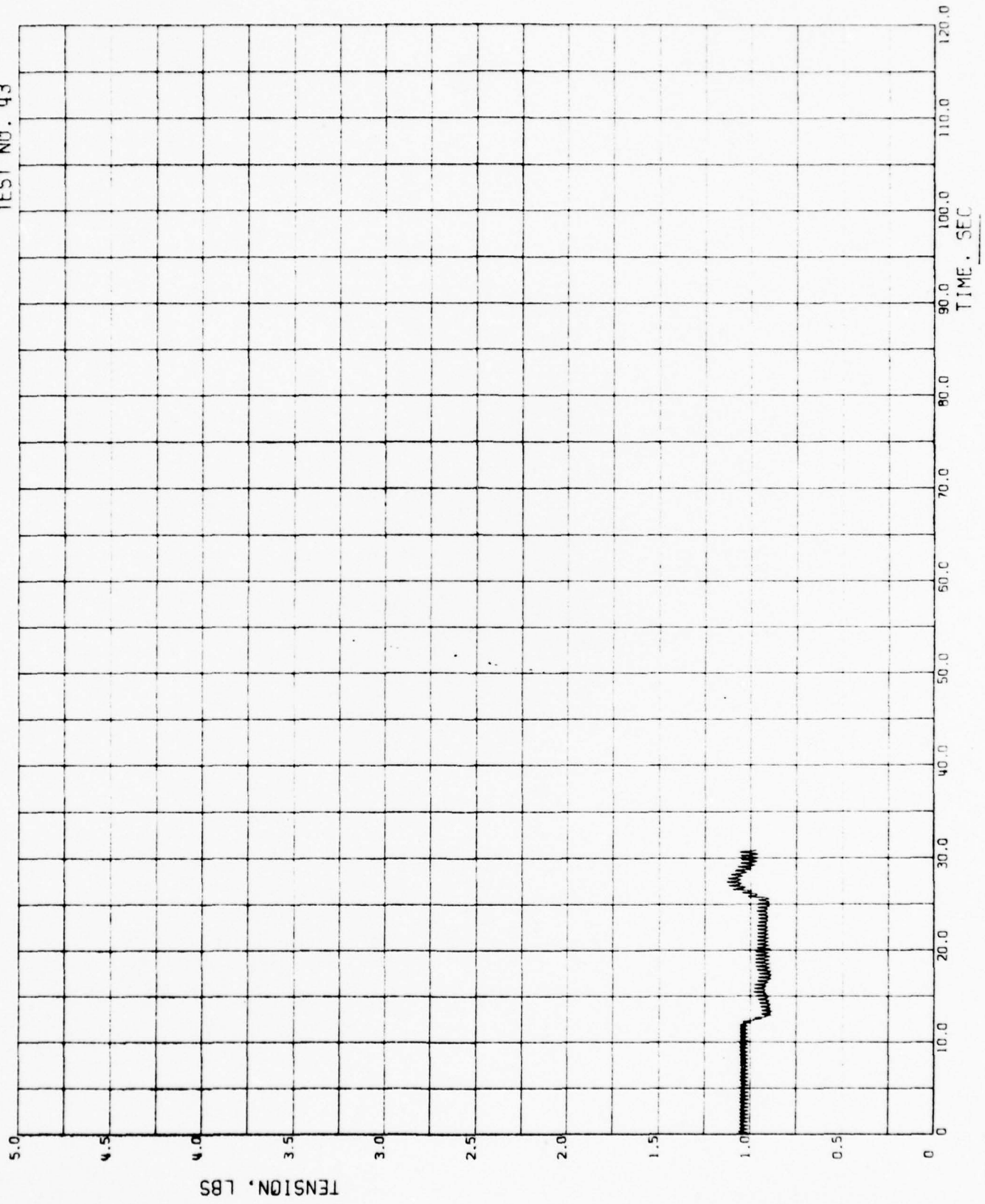
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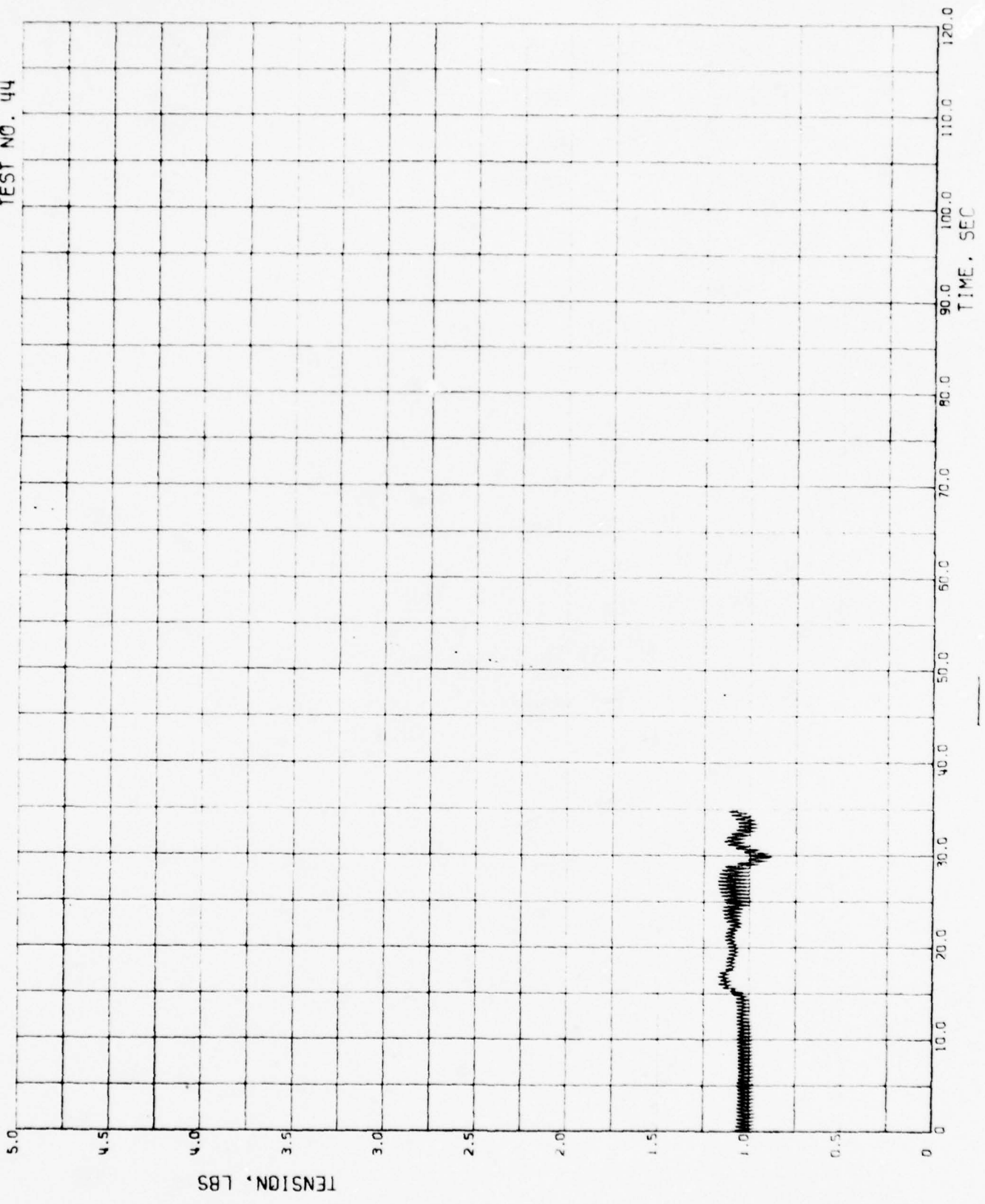
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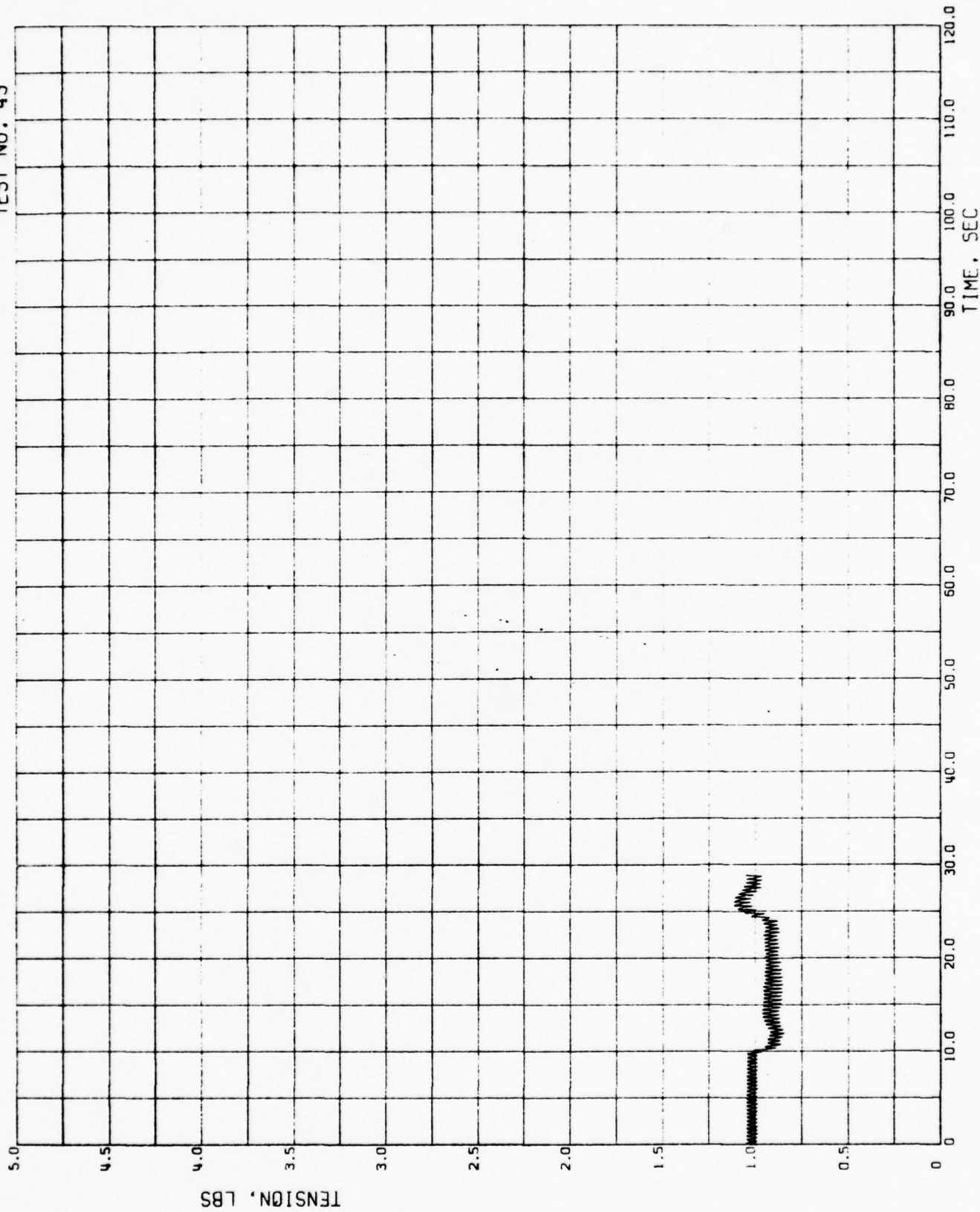
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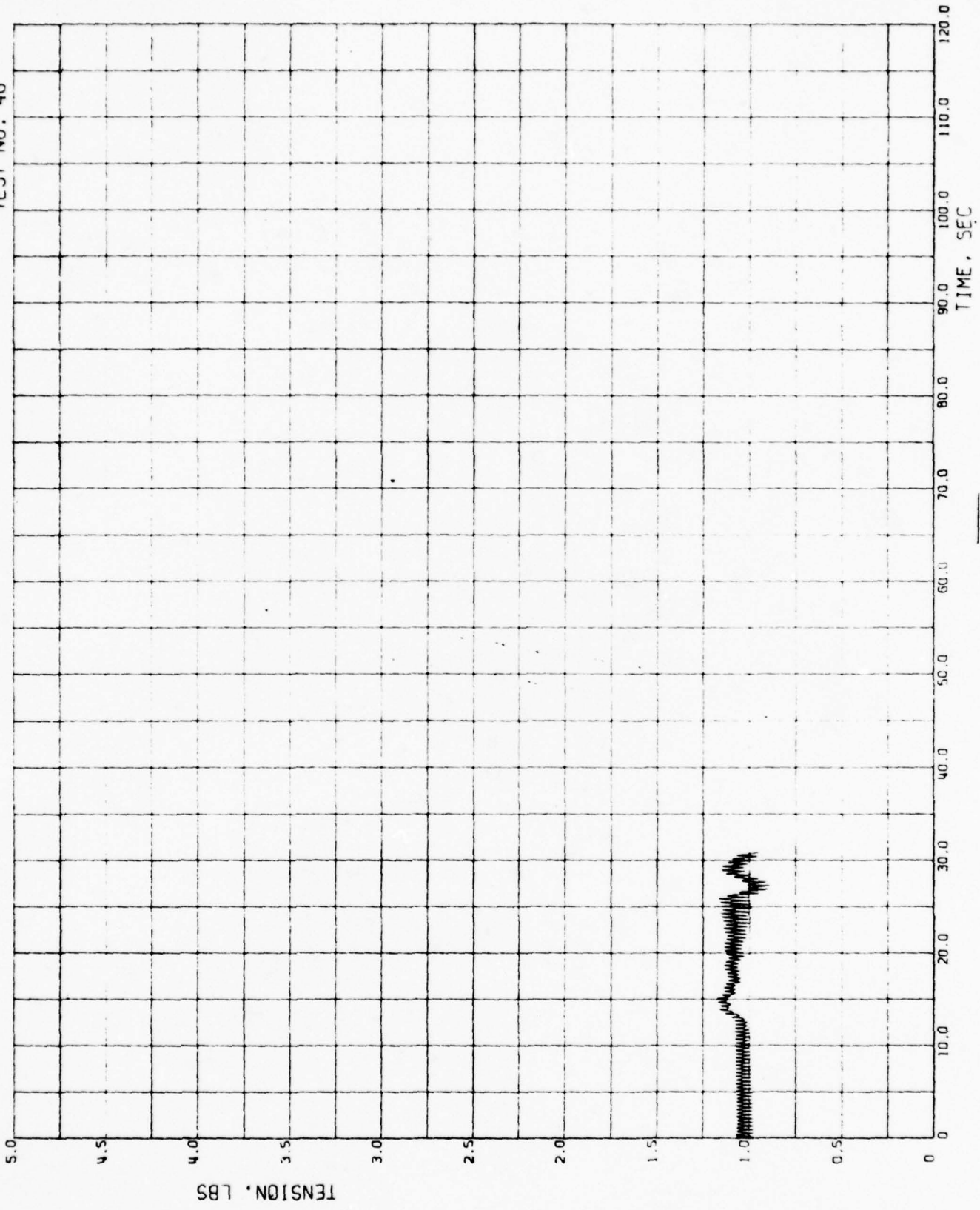
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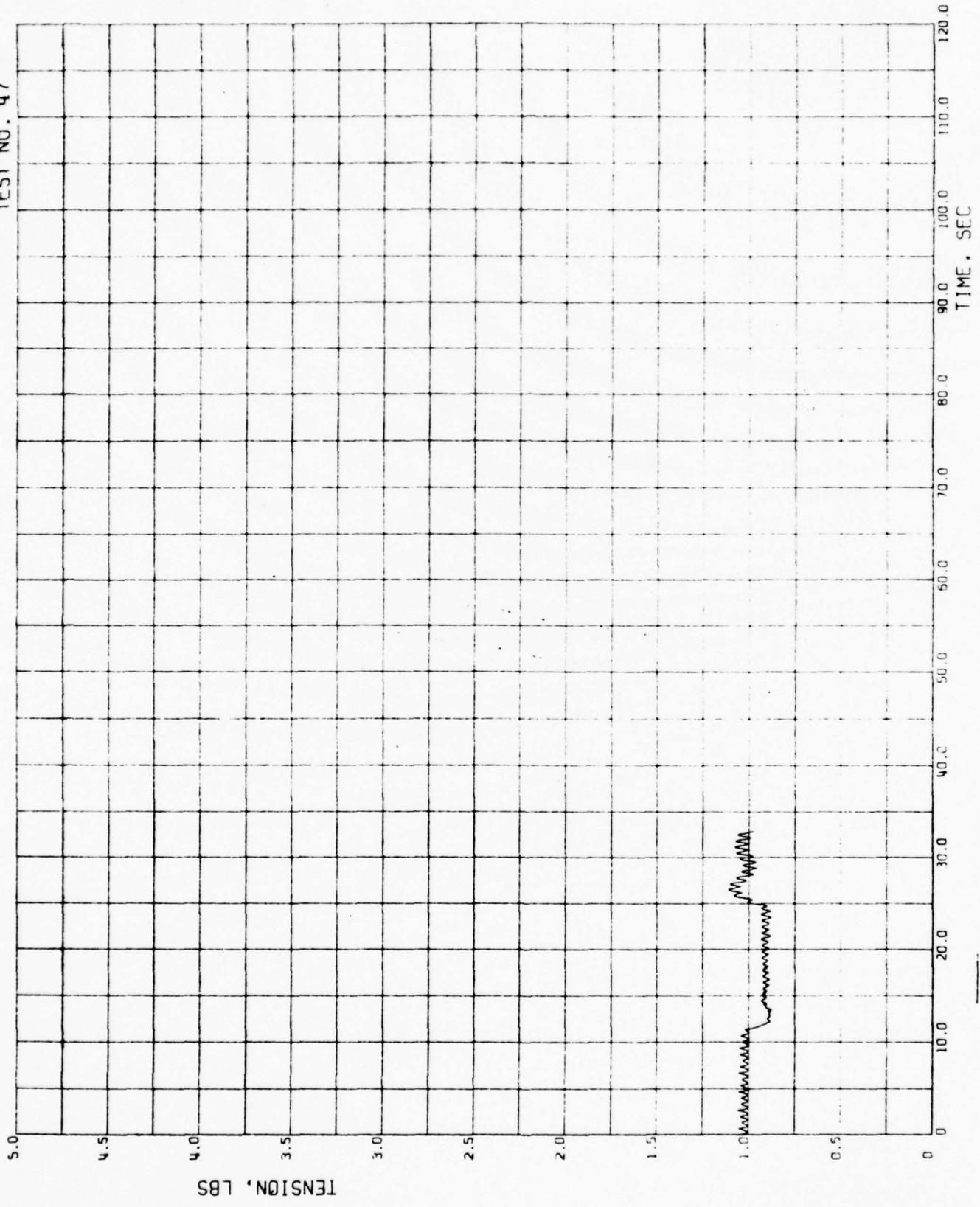
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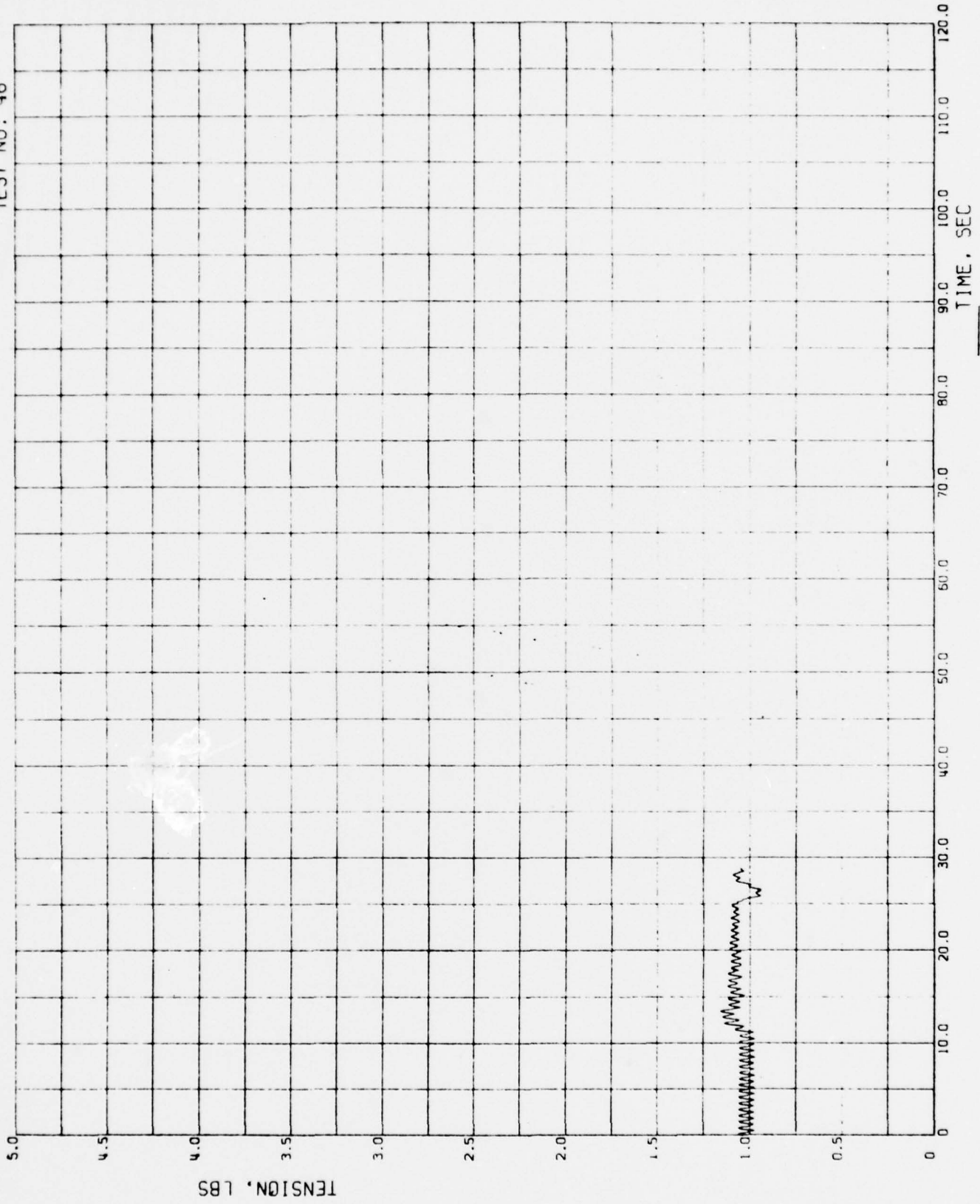
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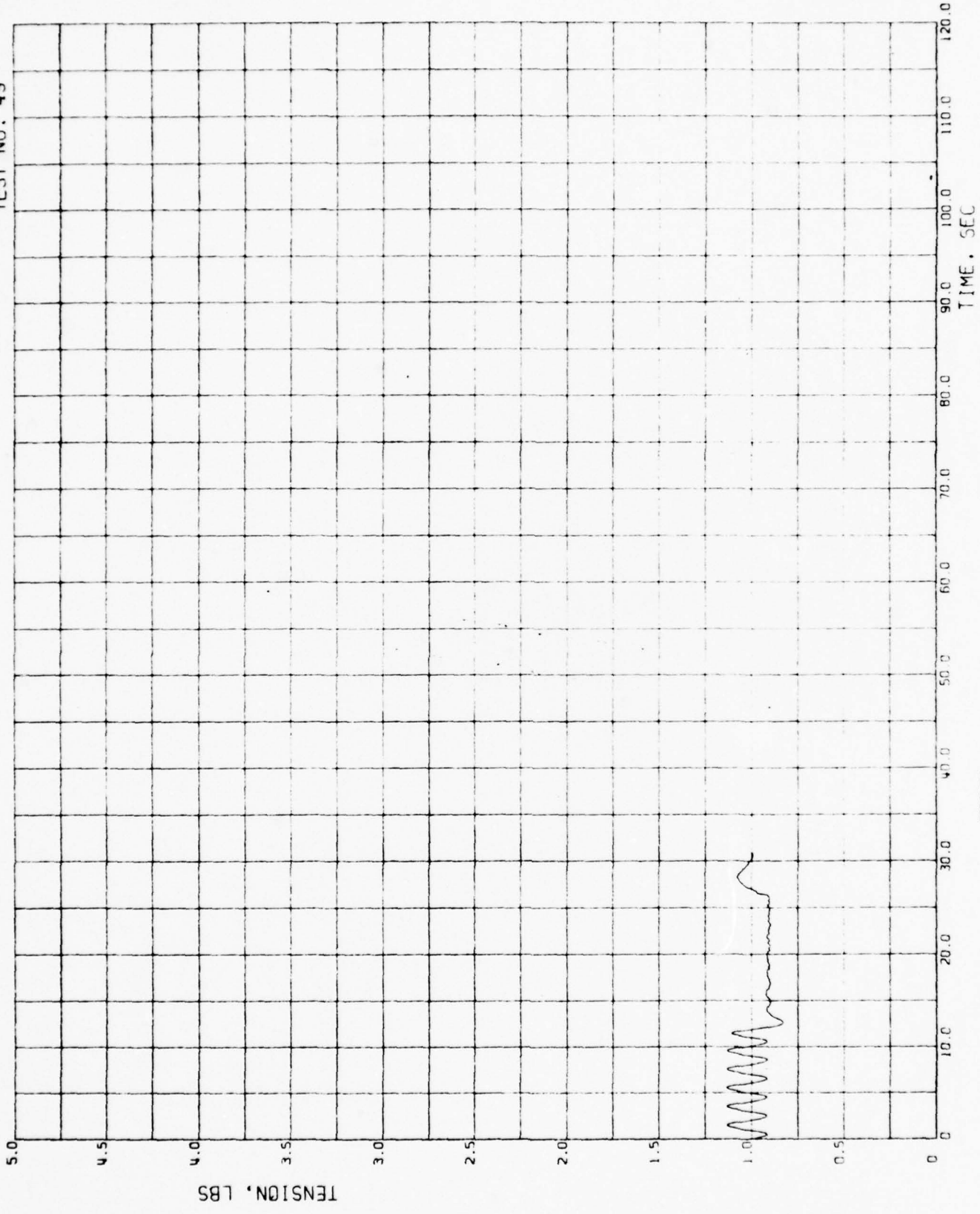
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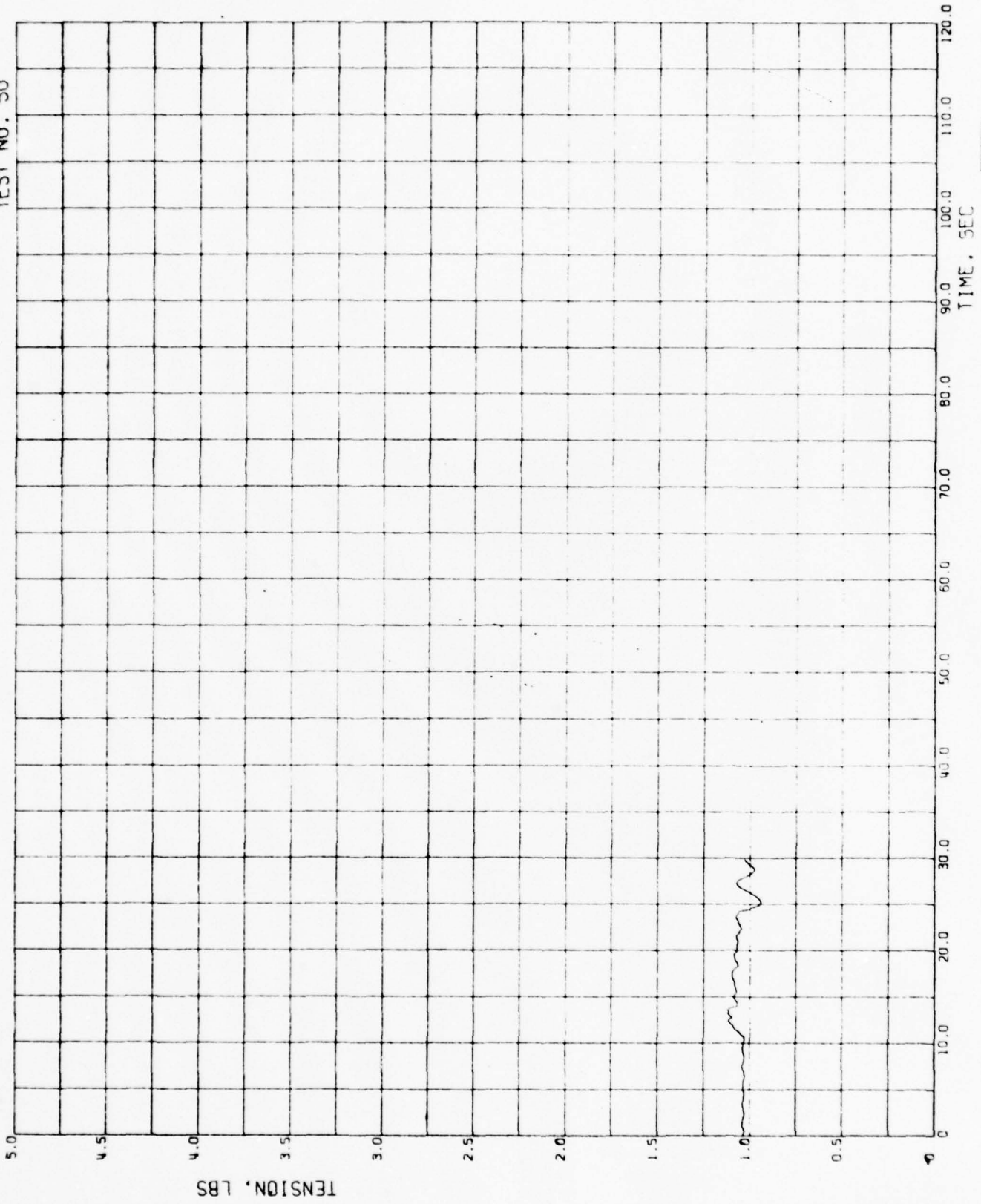
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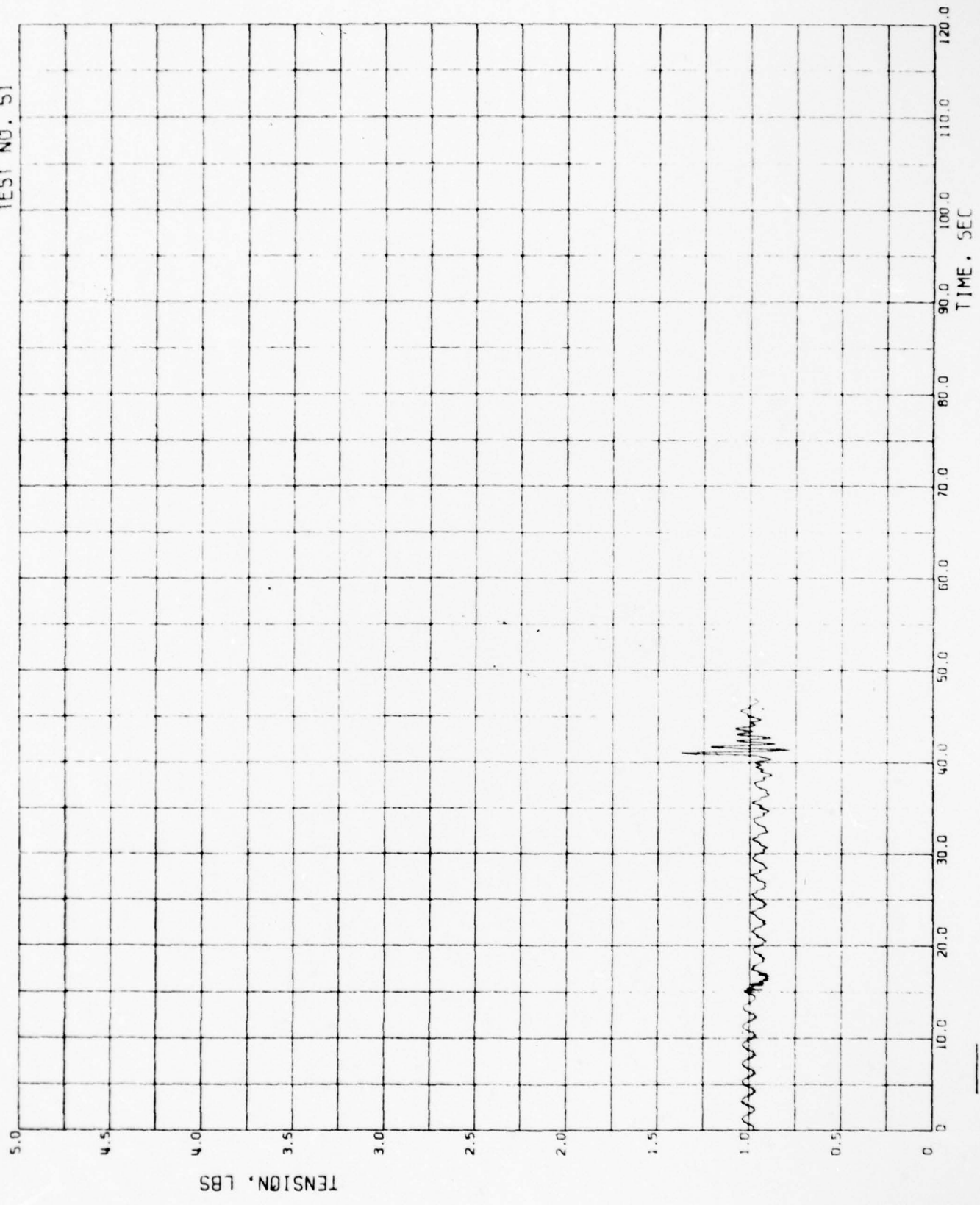
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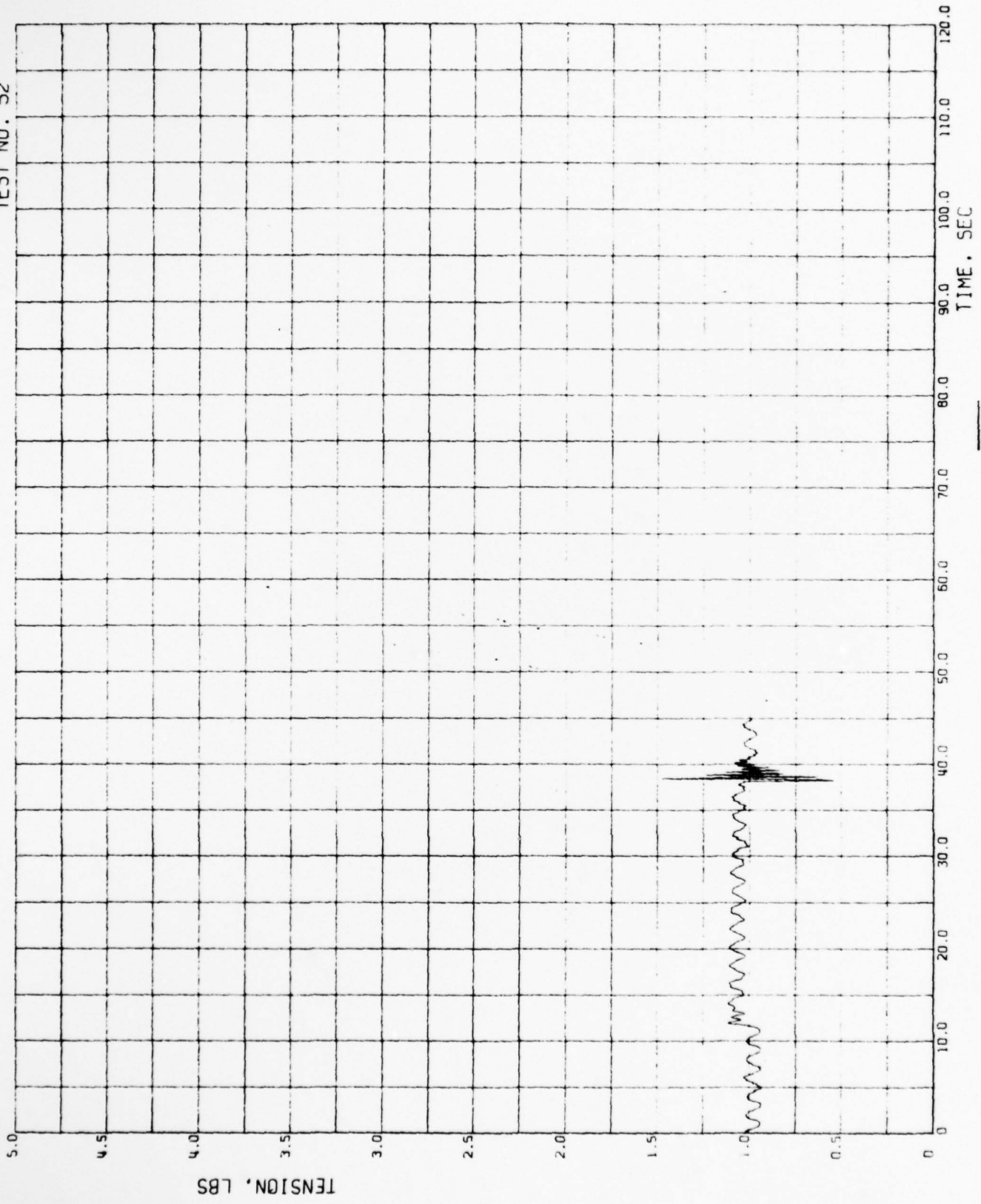
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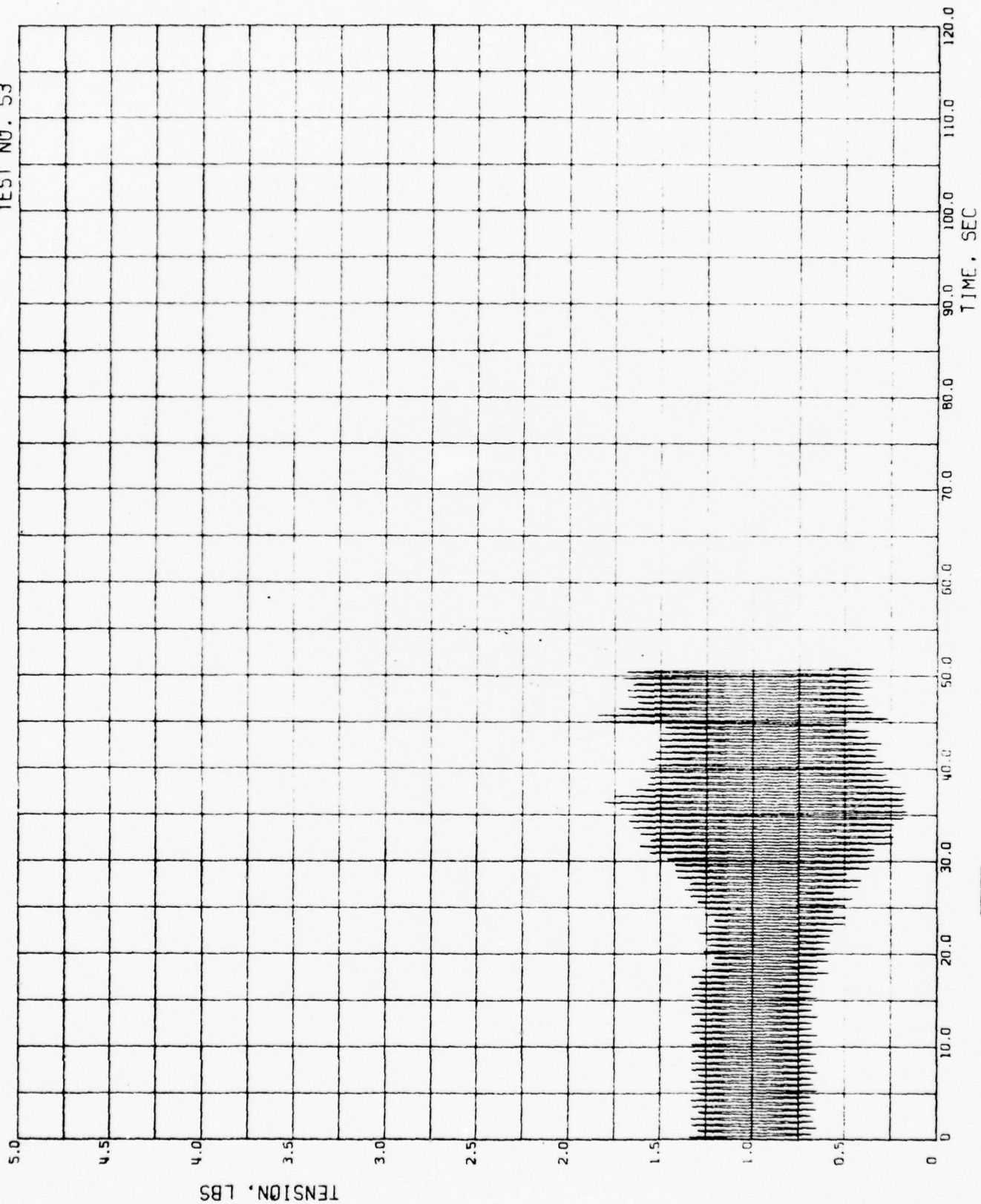
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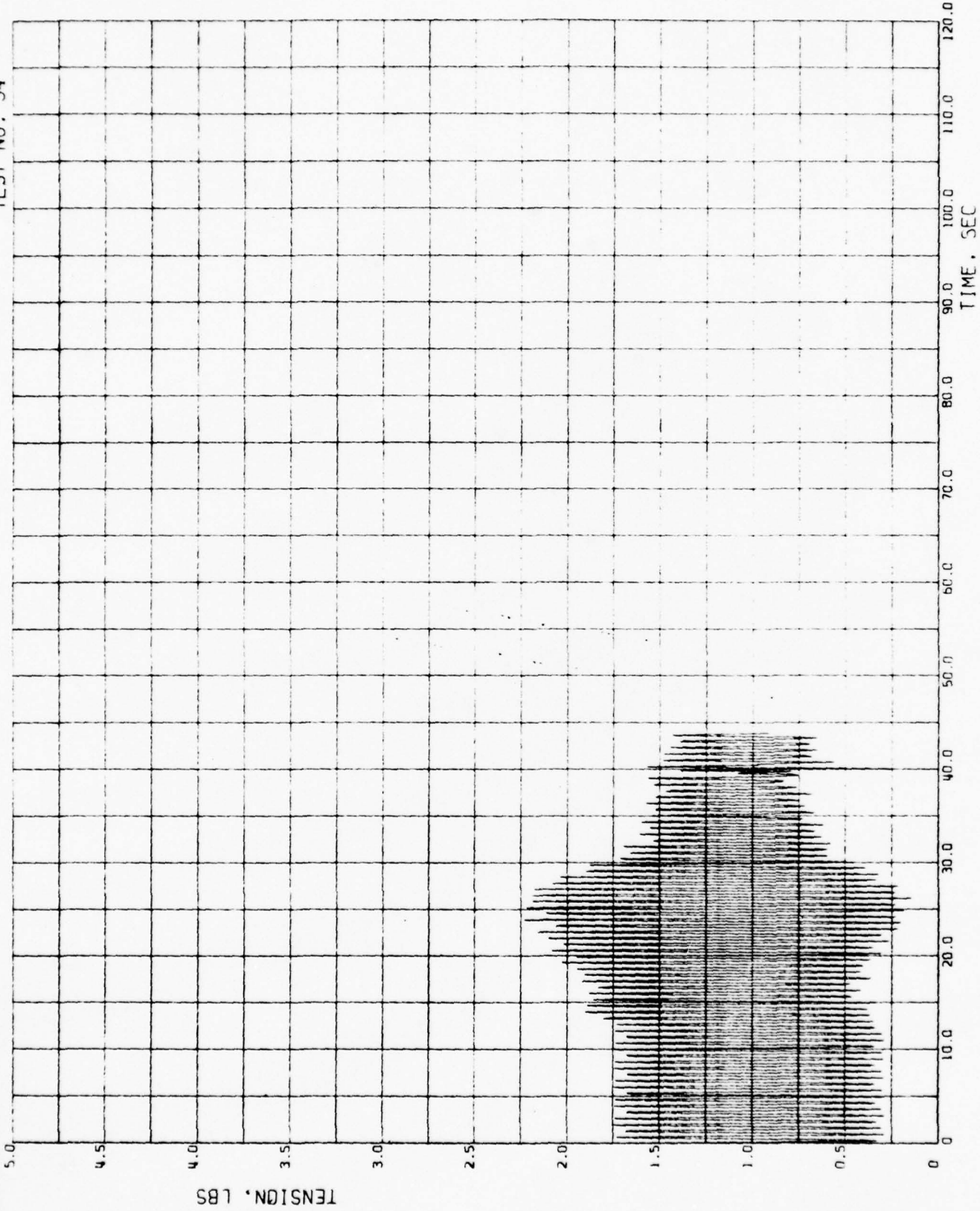
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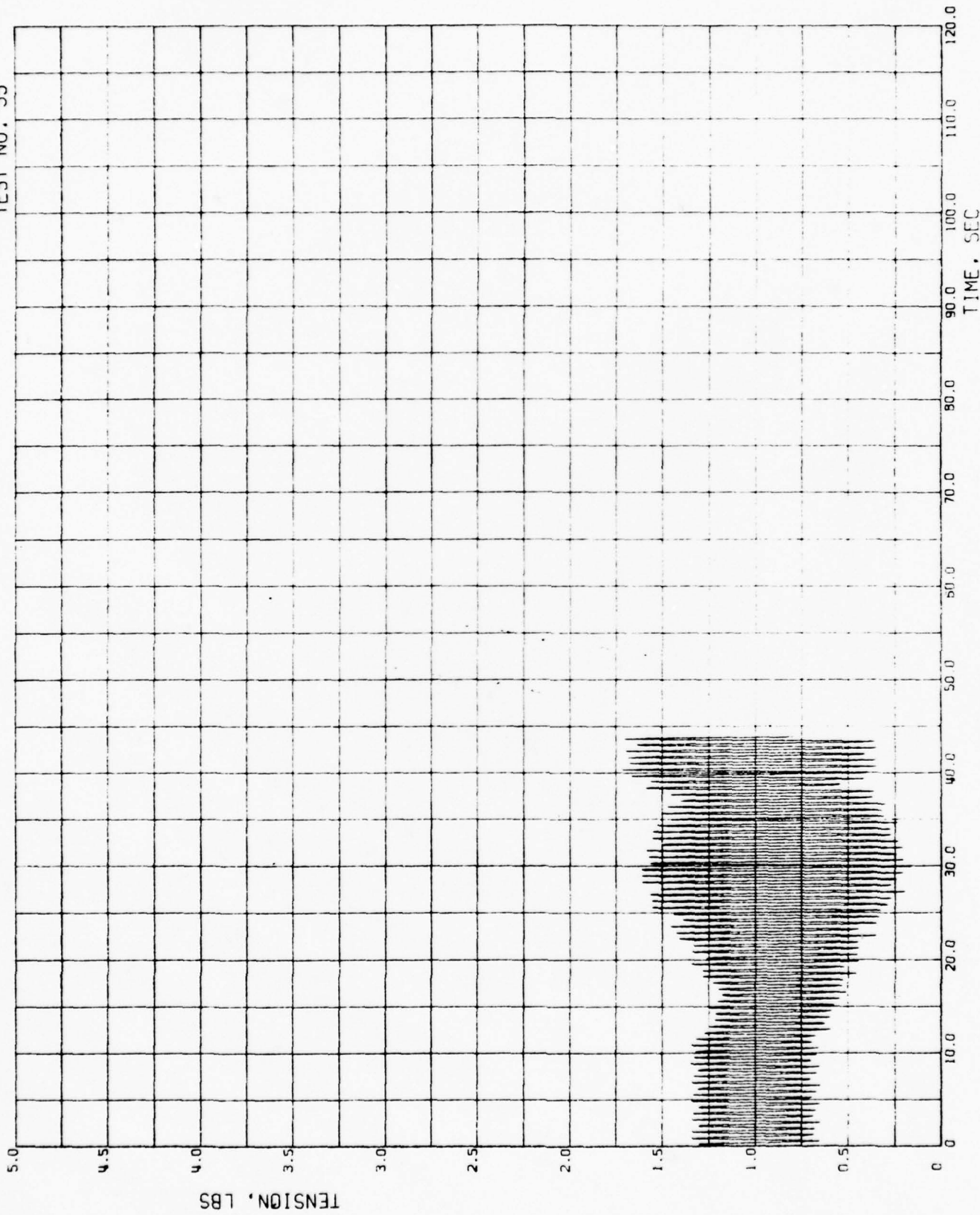
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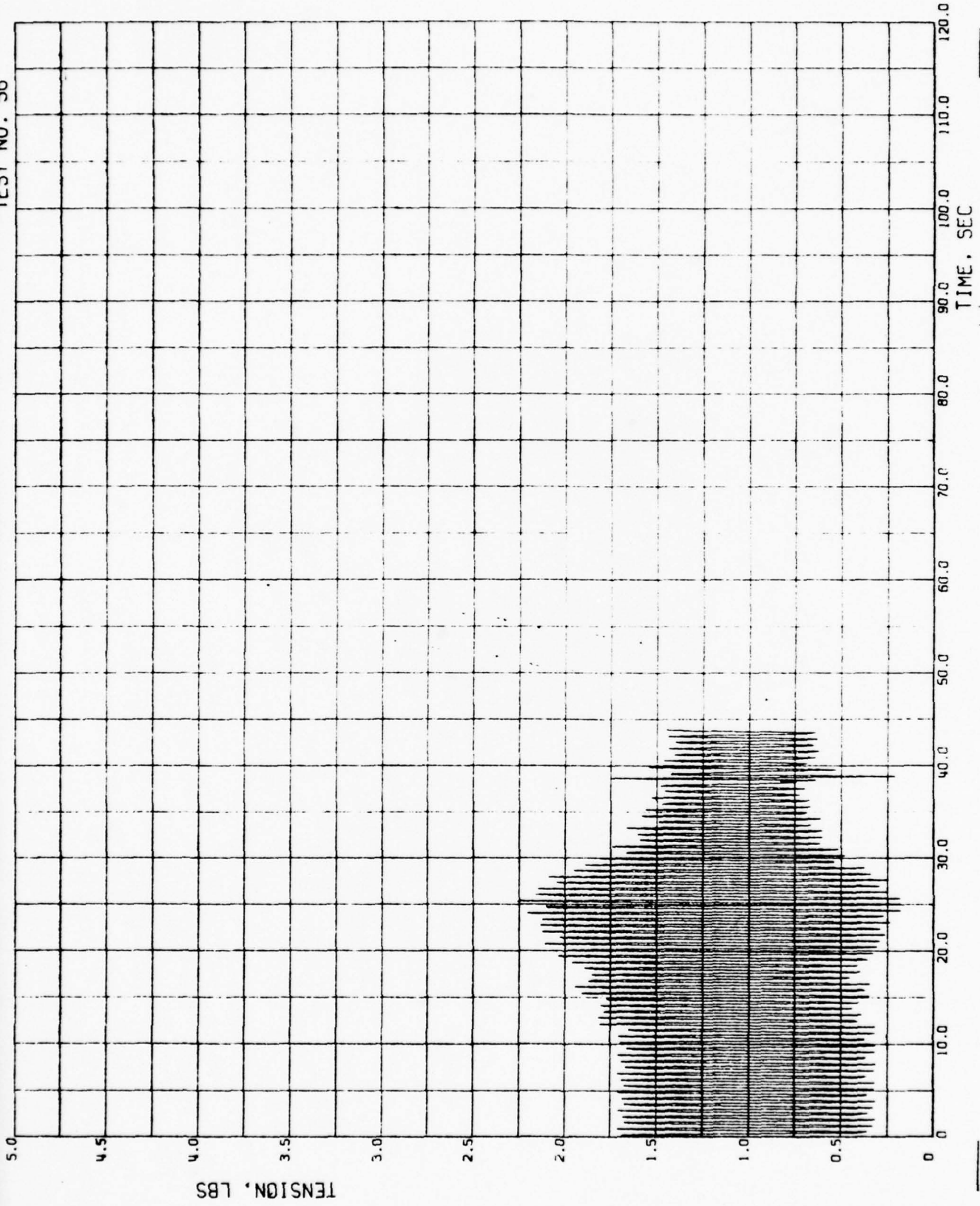
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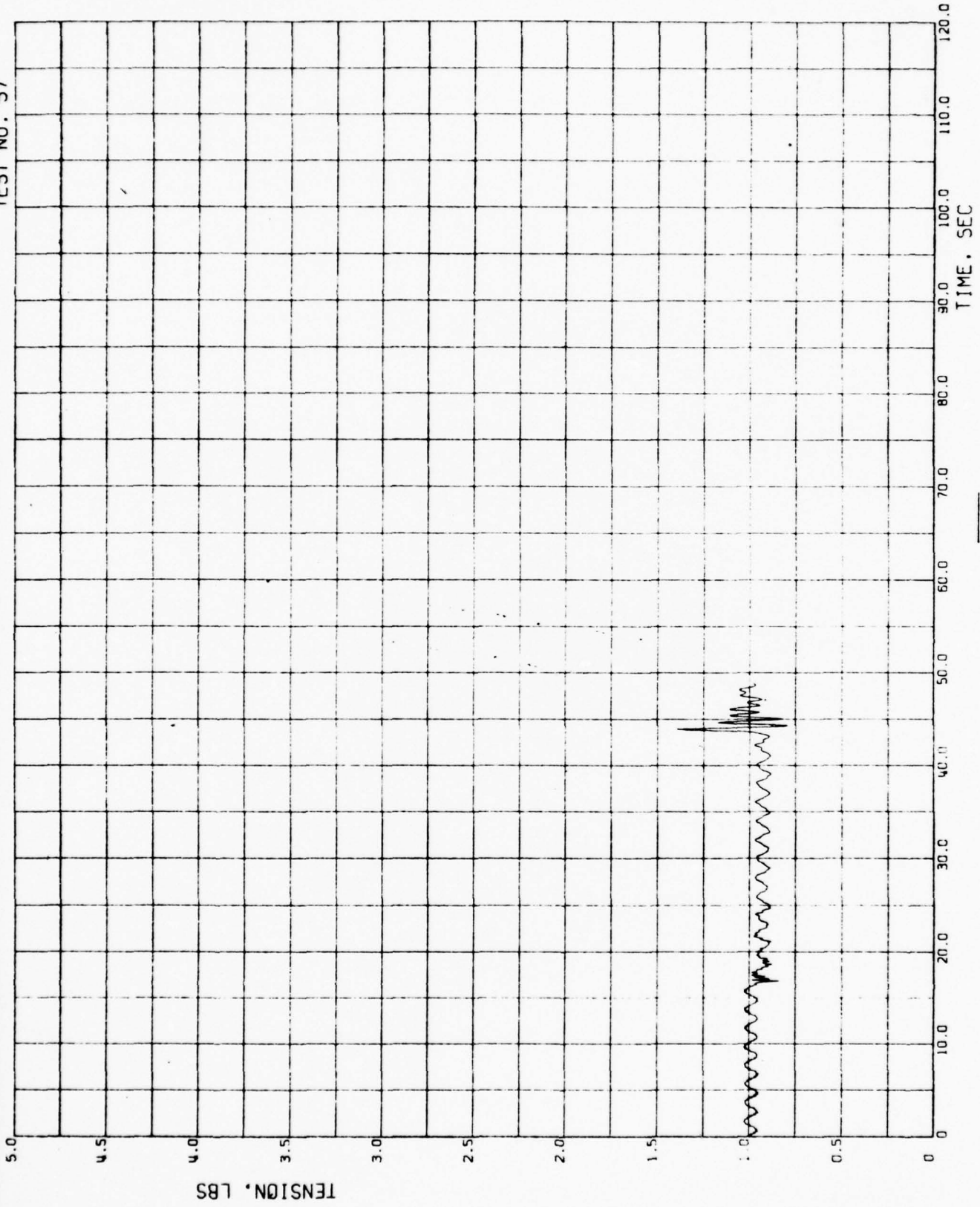
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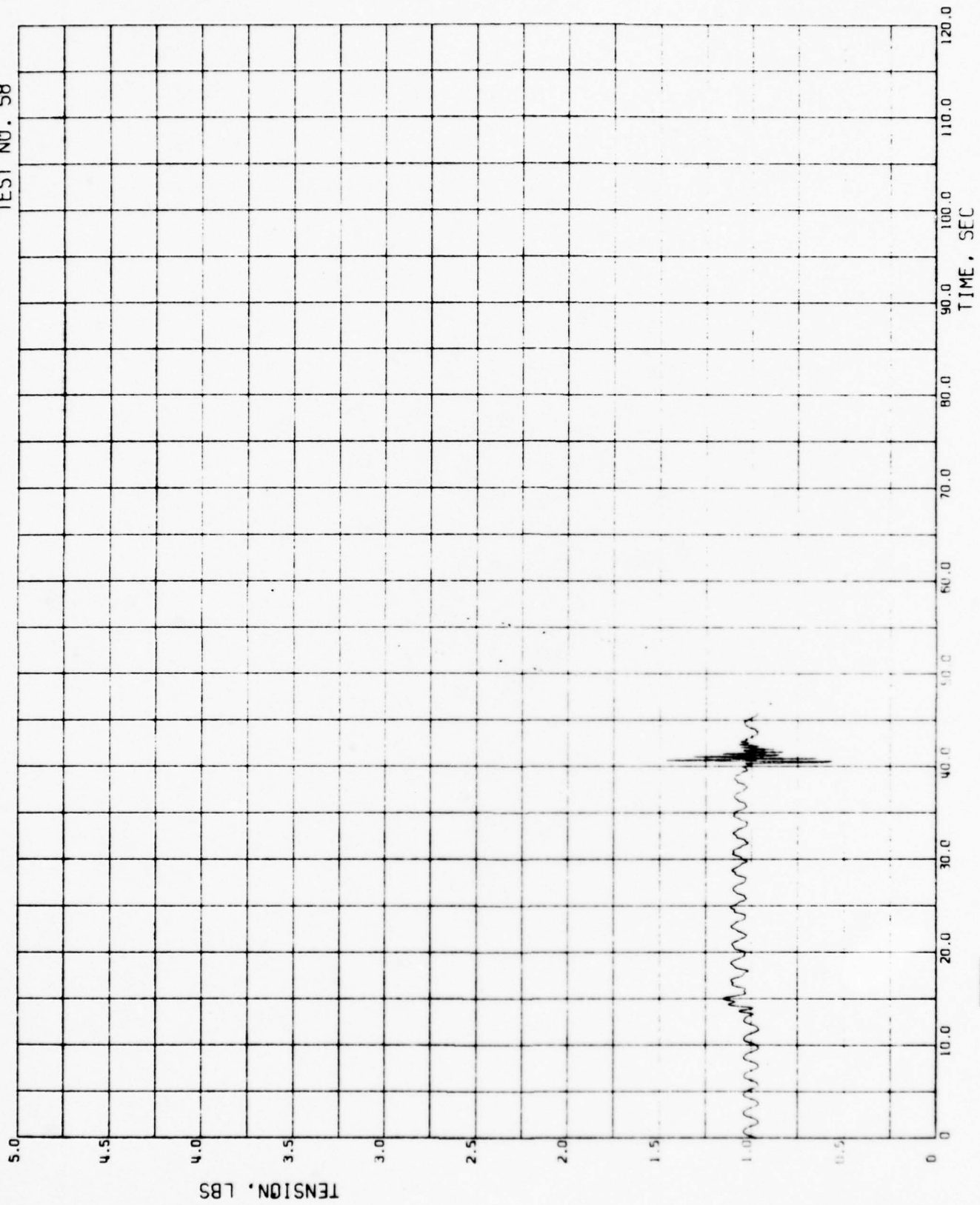
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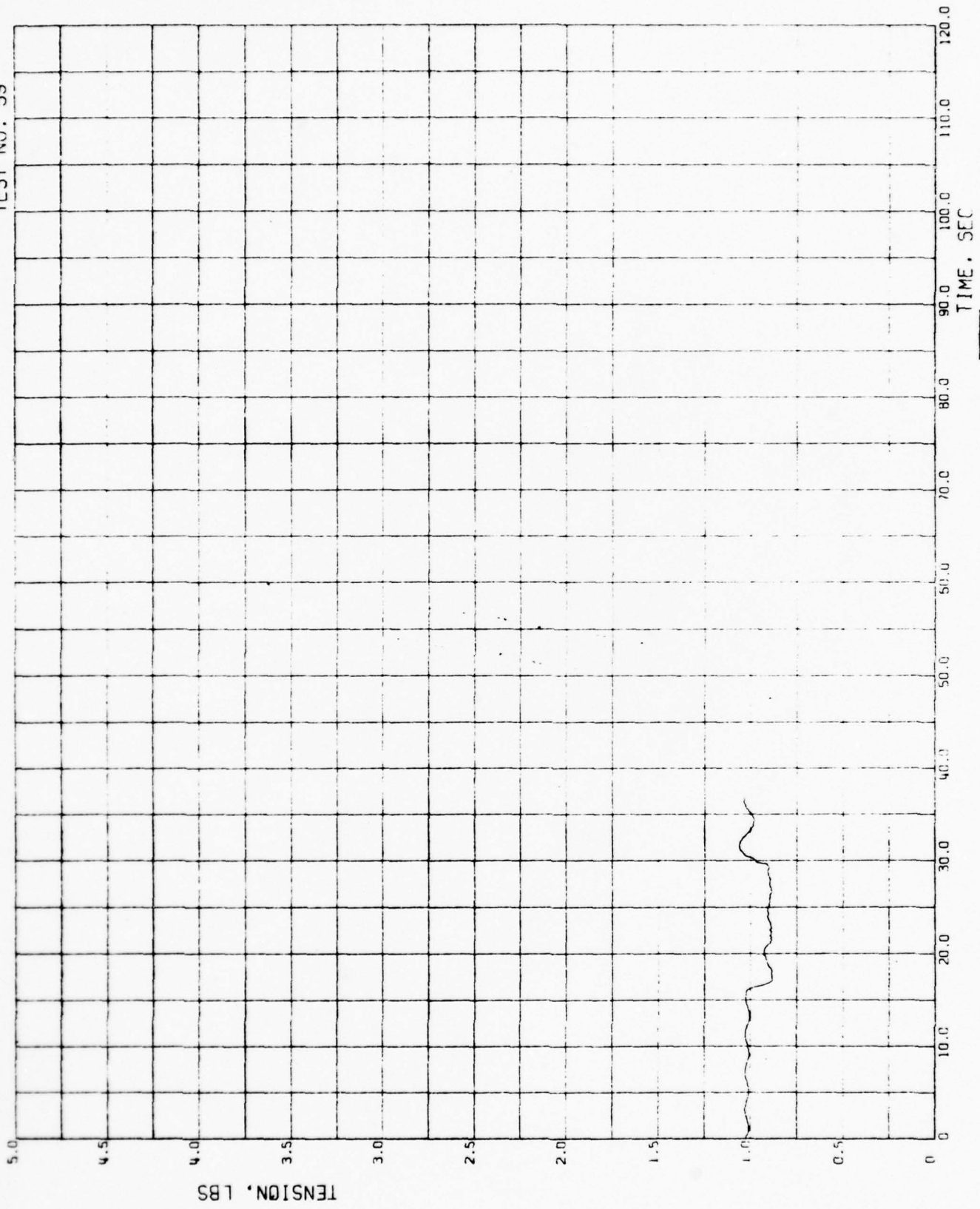
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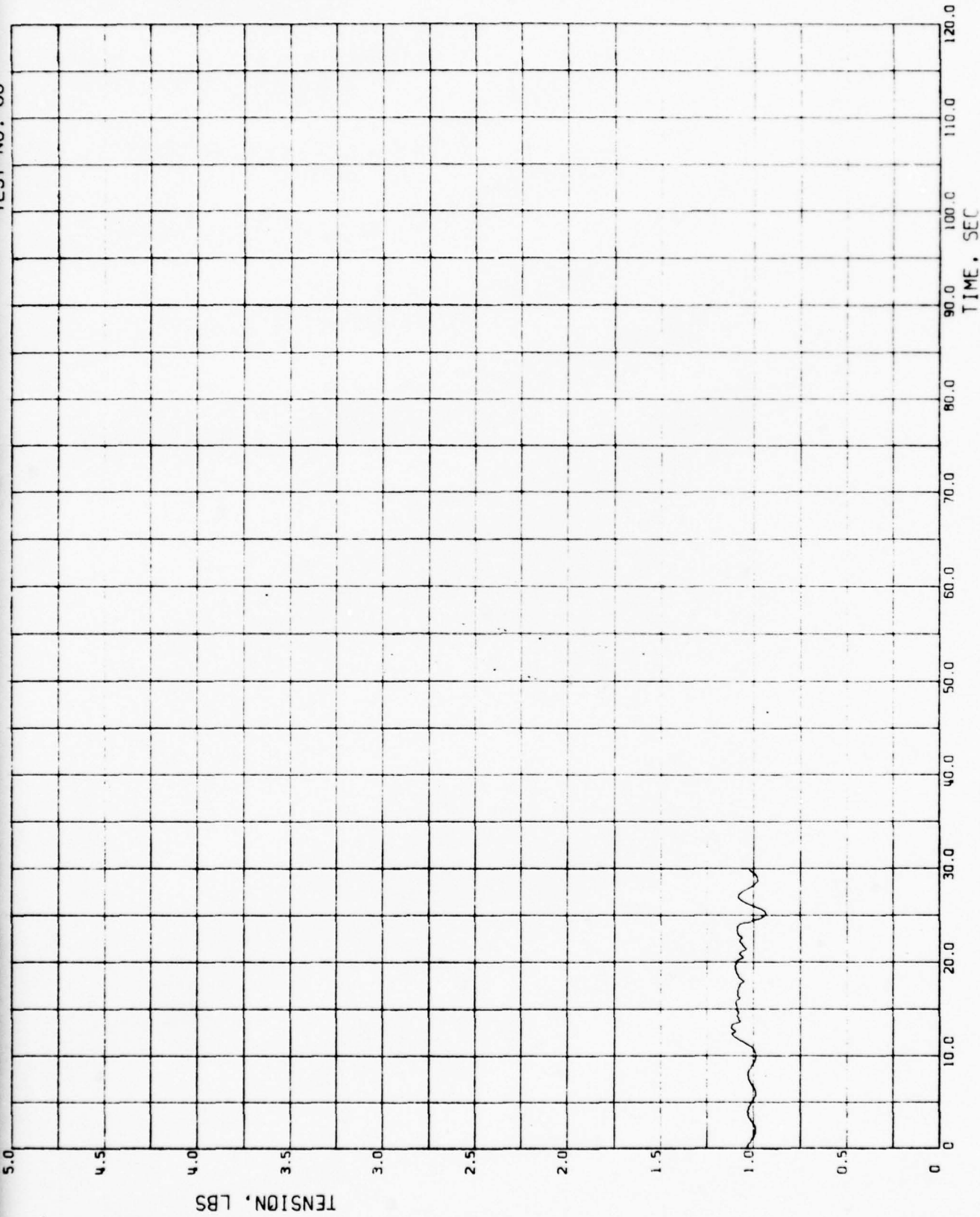
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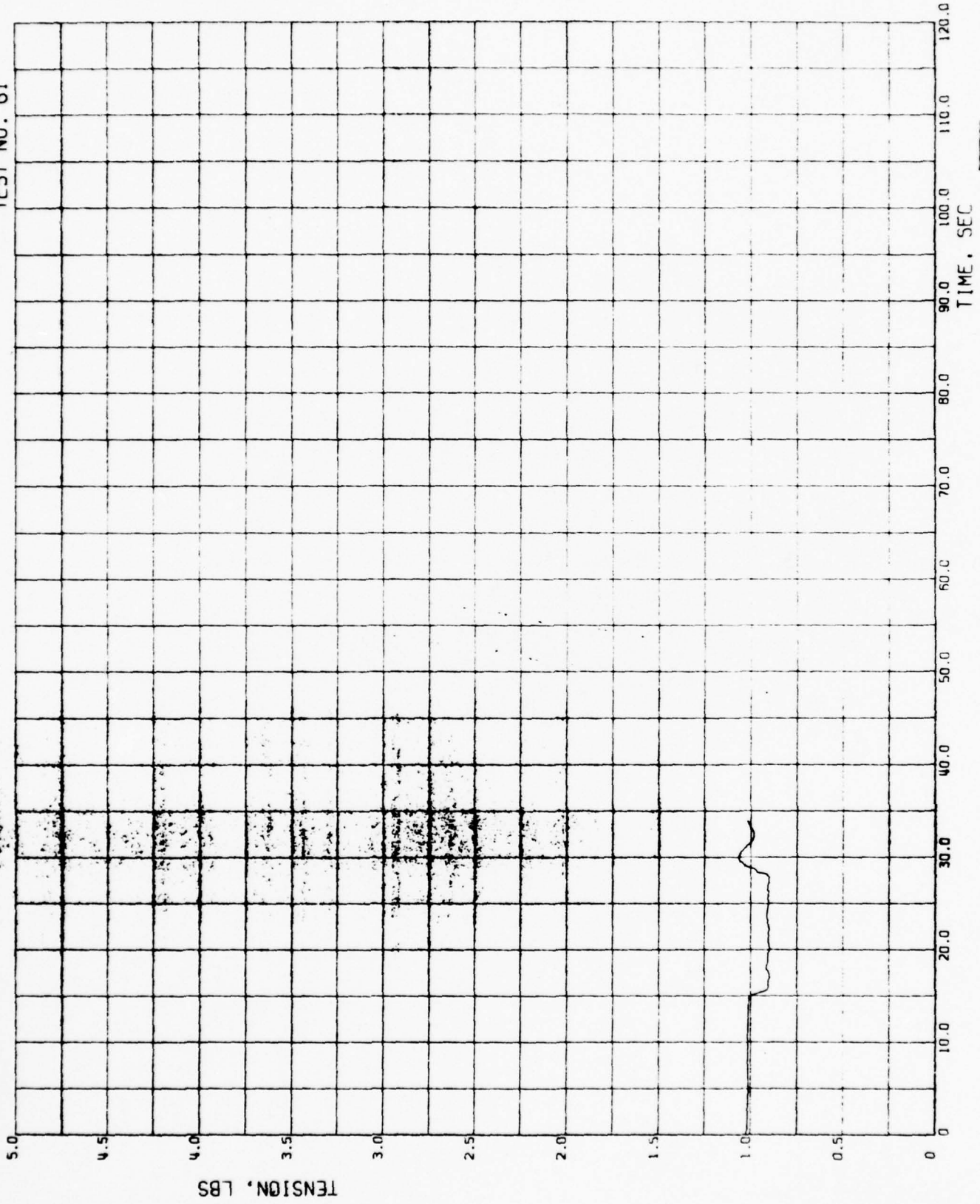
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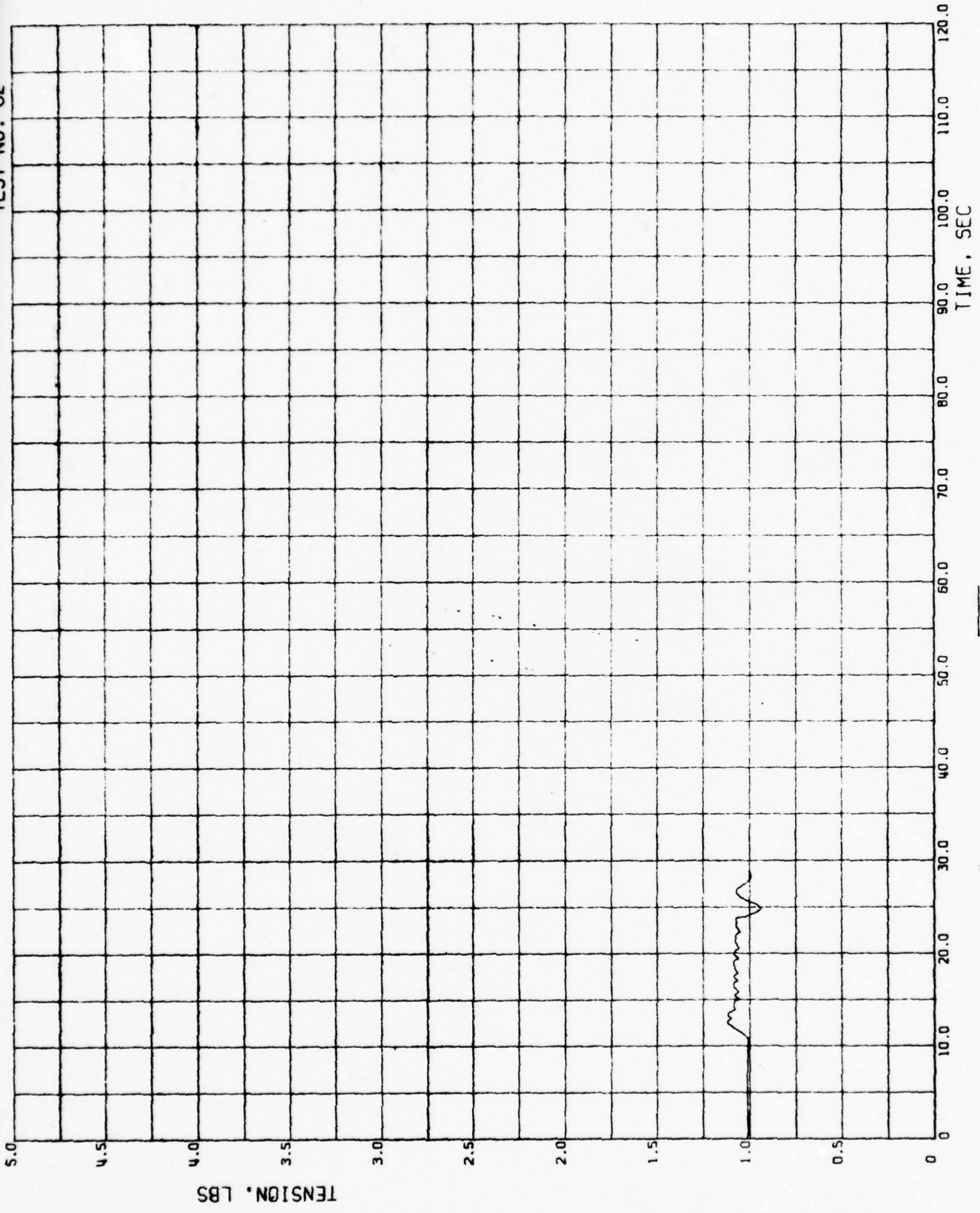
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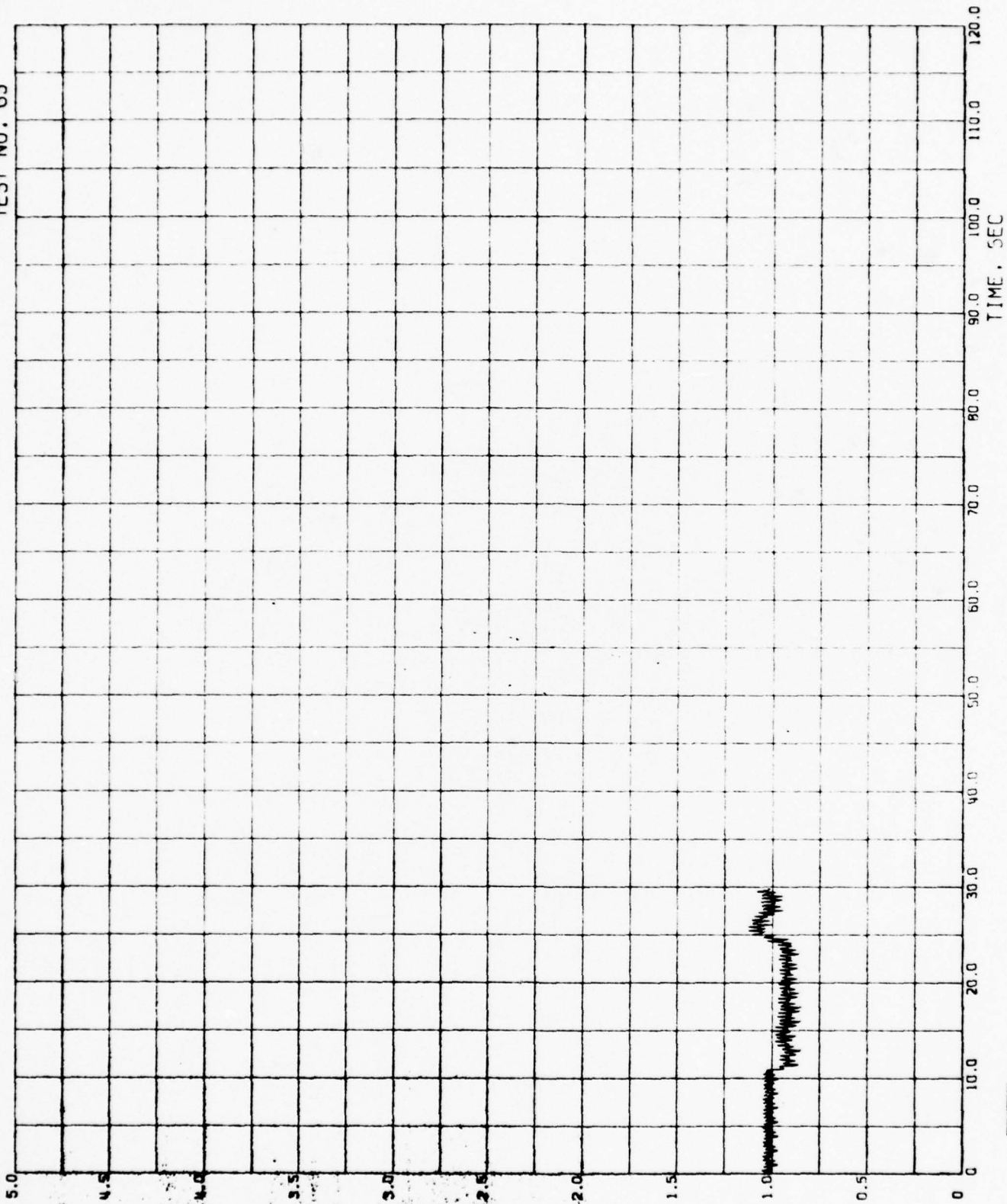
TEST NO. 61



TEST NO. 62



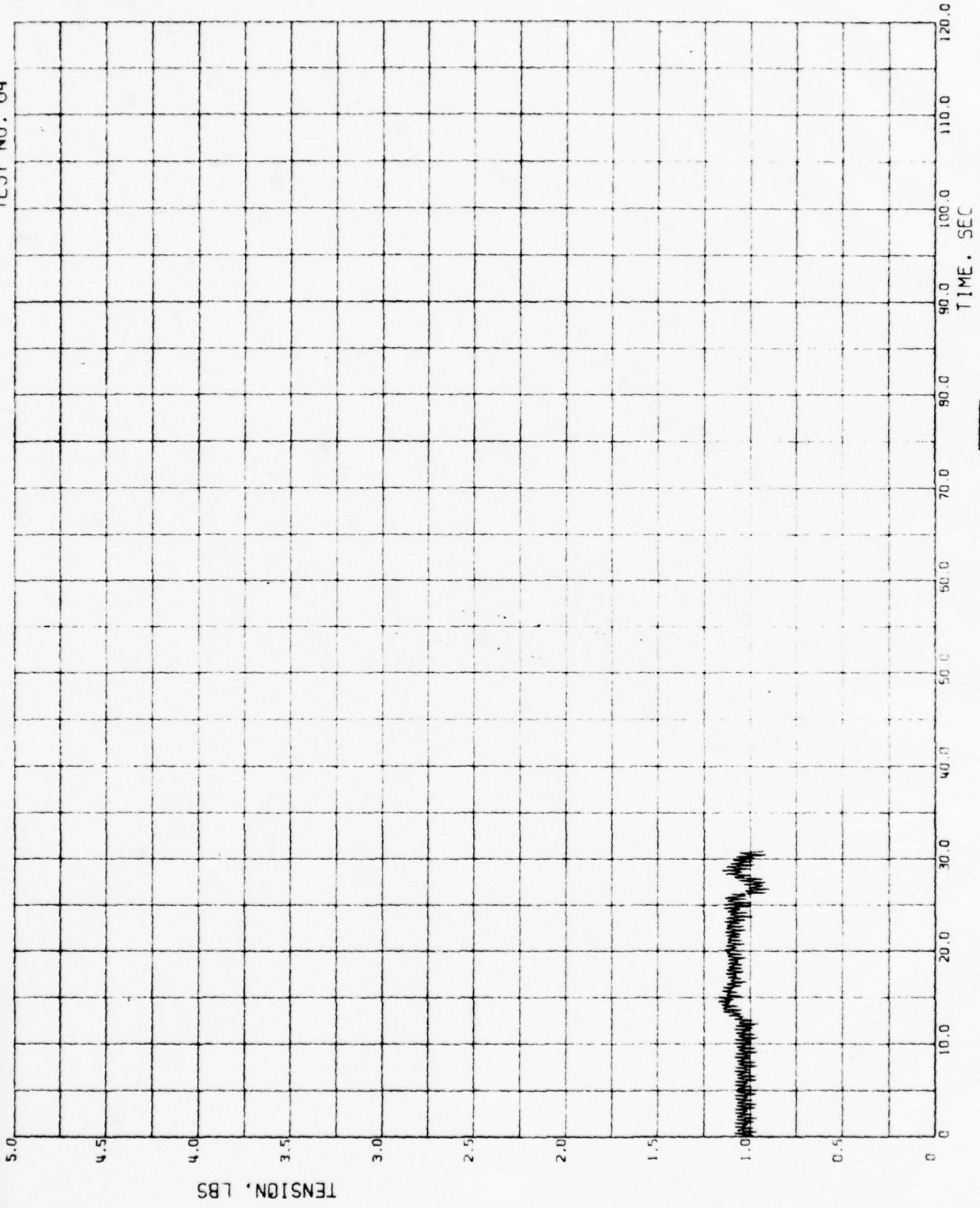
TEST NO. 63



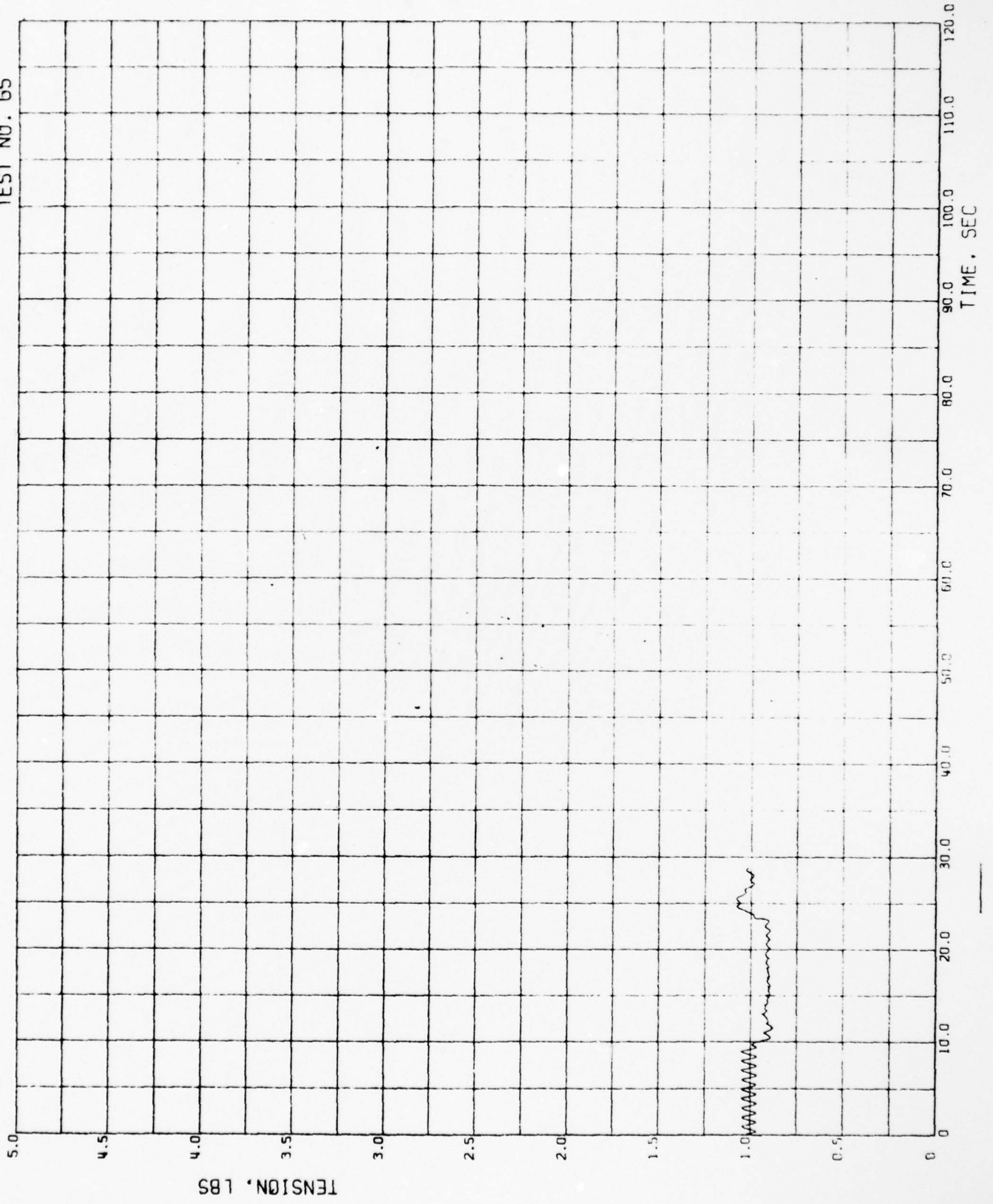
TENSION, LBS

TIME, SEC

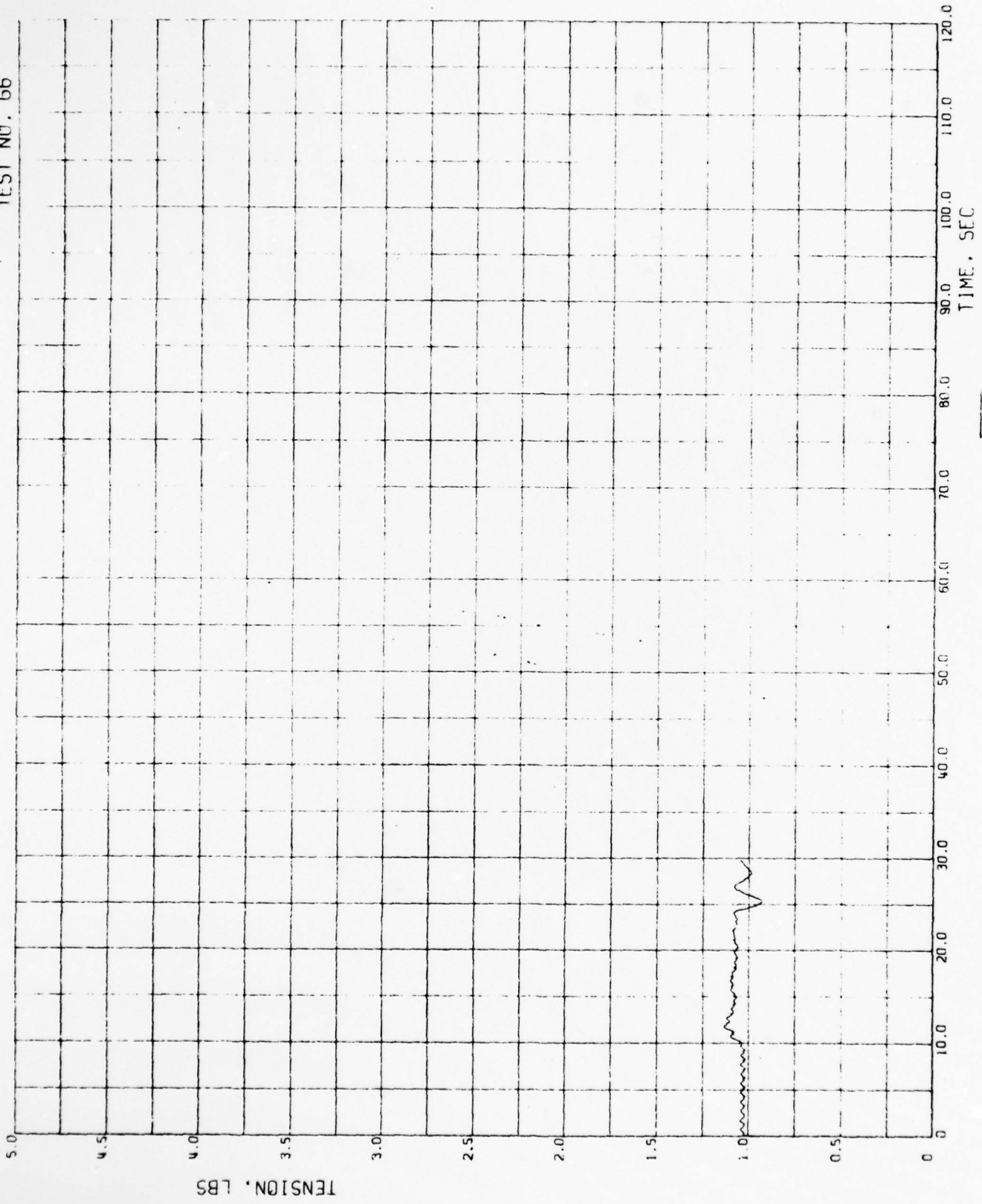
TEST NO. 64



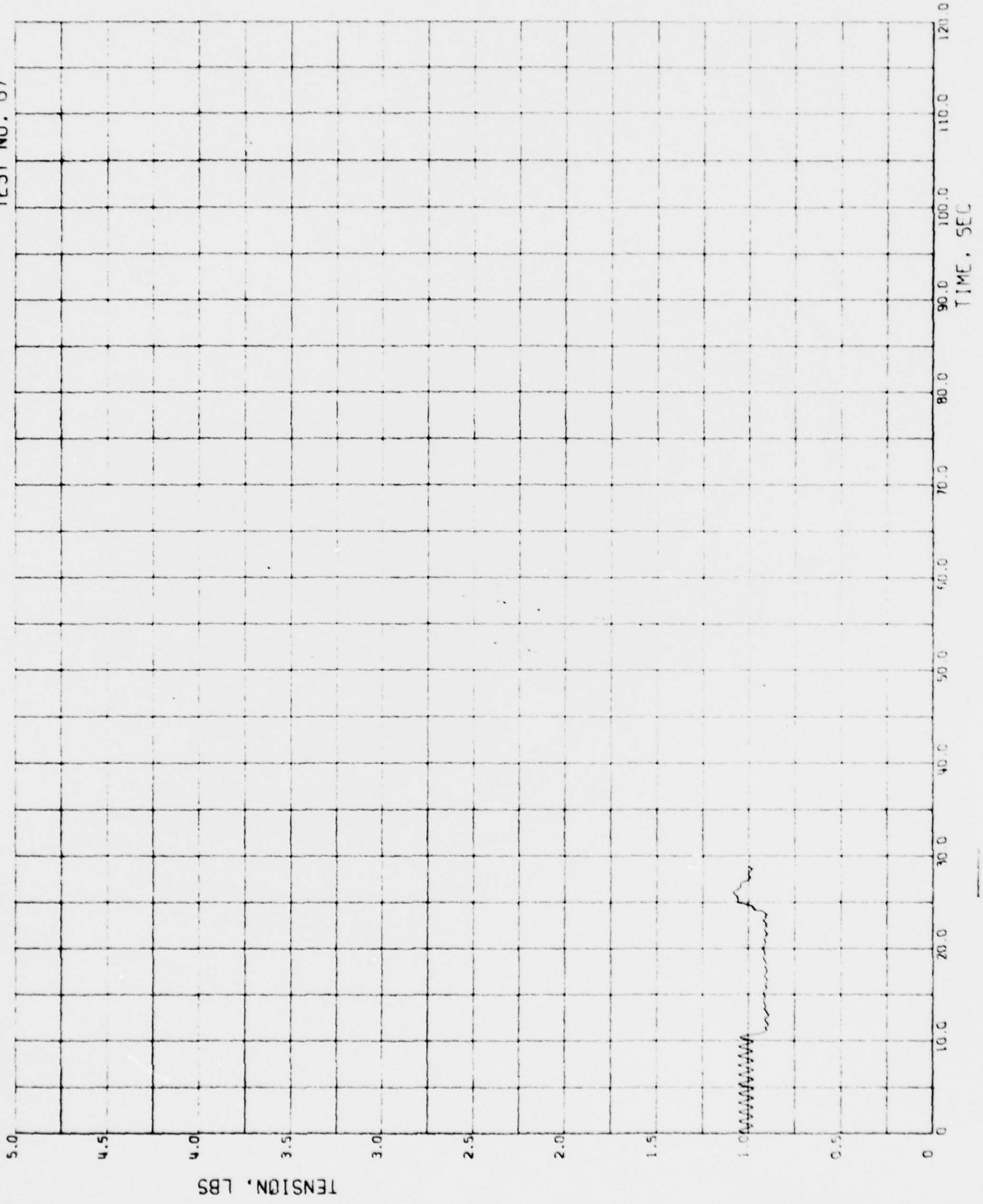
TEST NO. 65



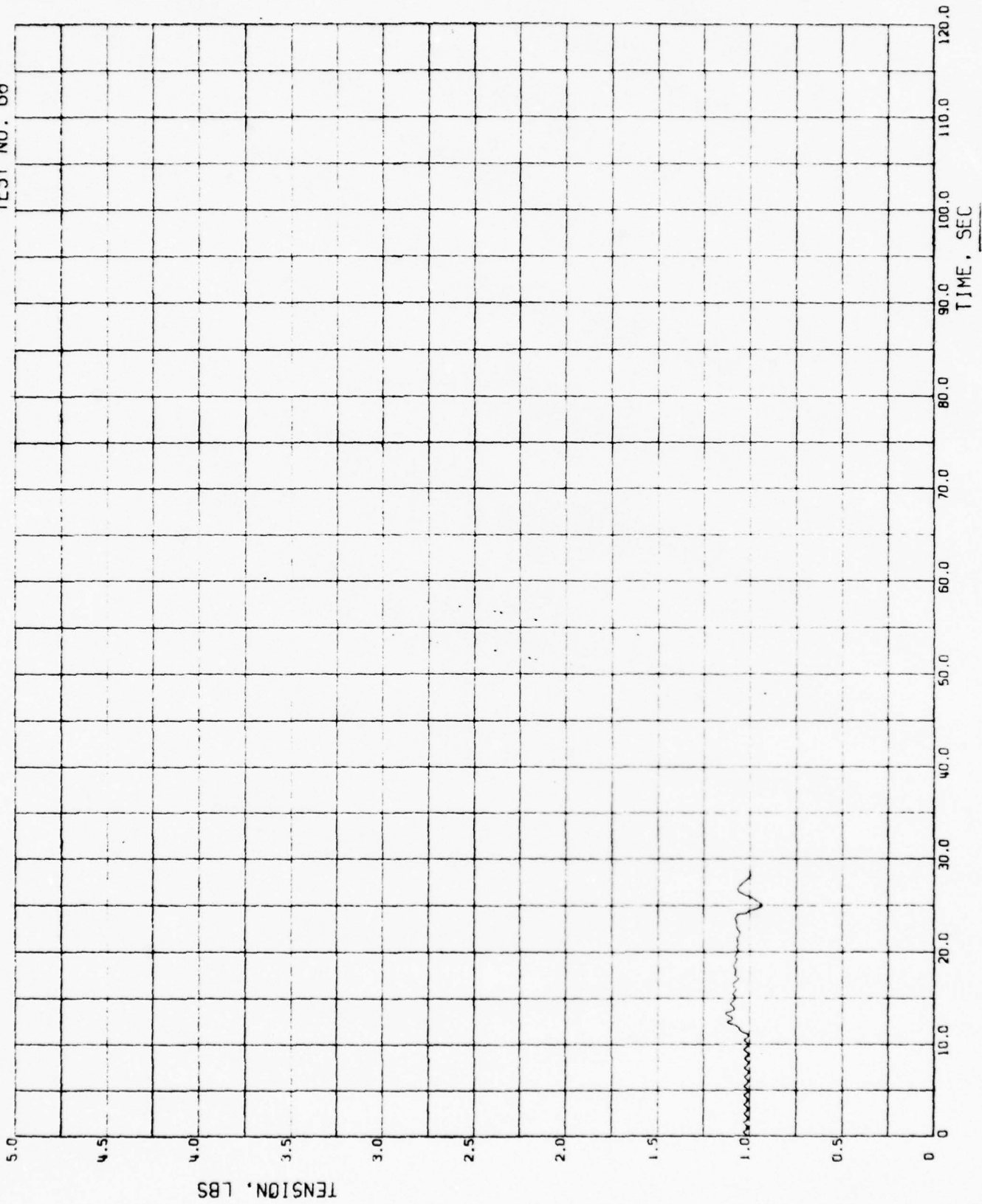
TEST NO. 66



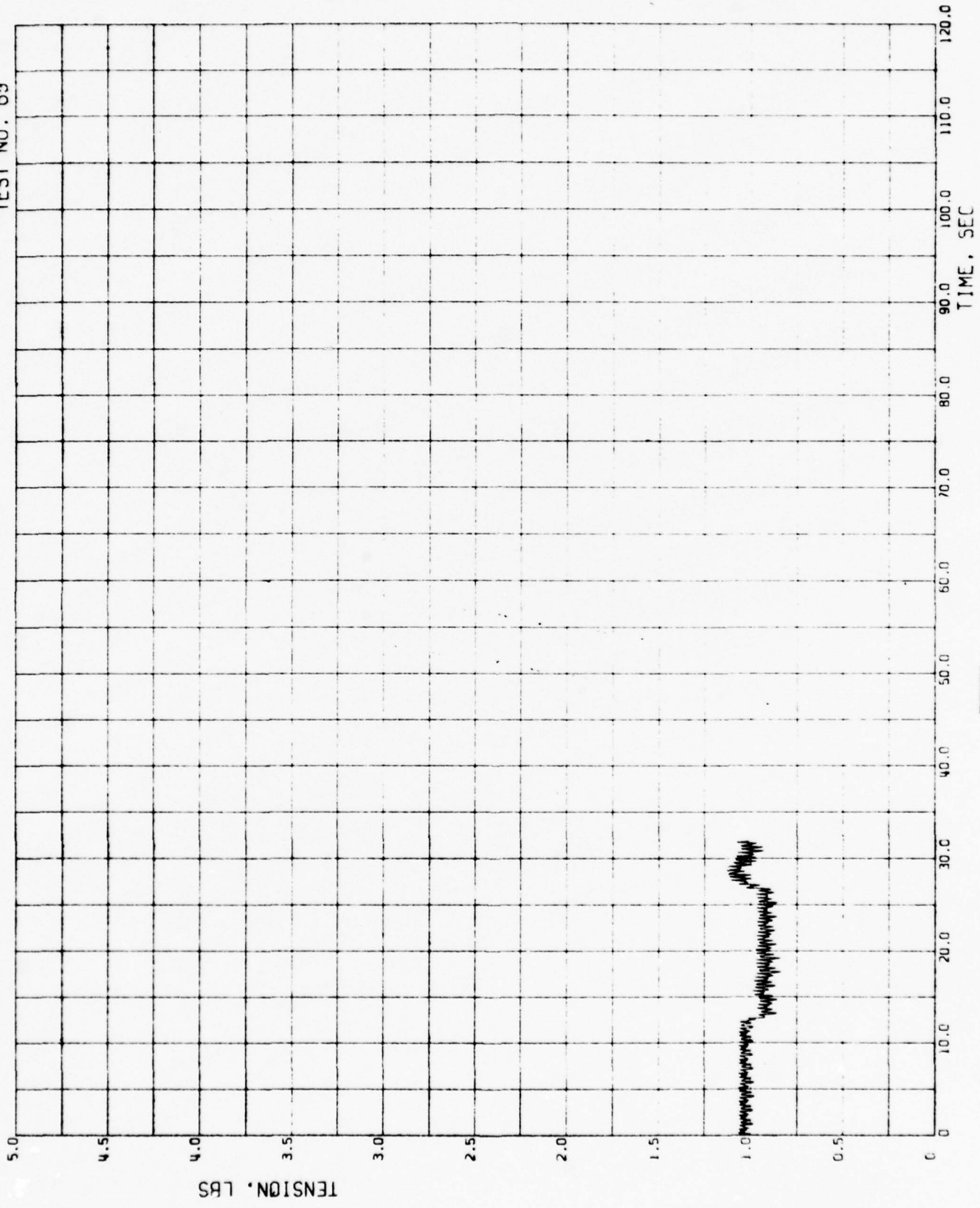
TEST NO. 67



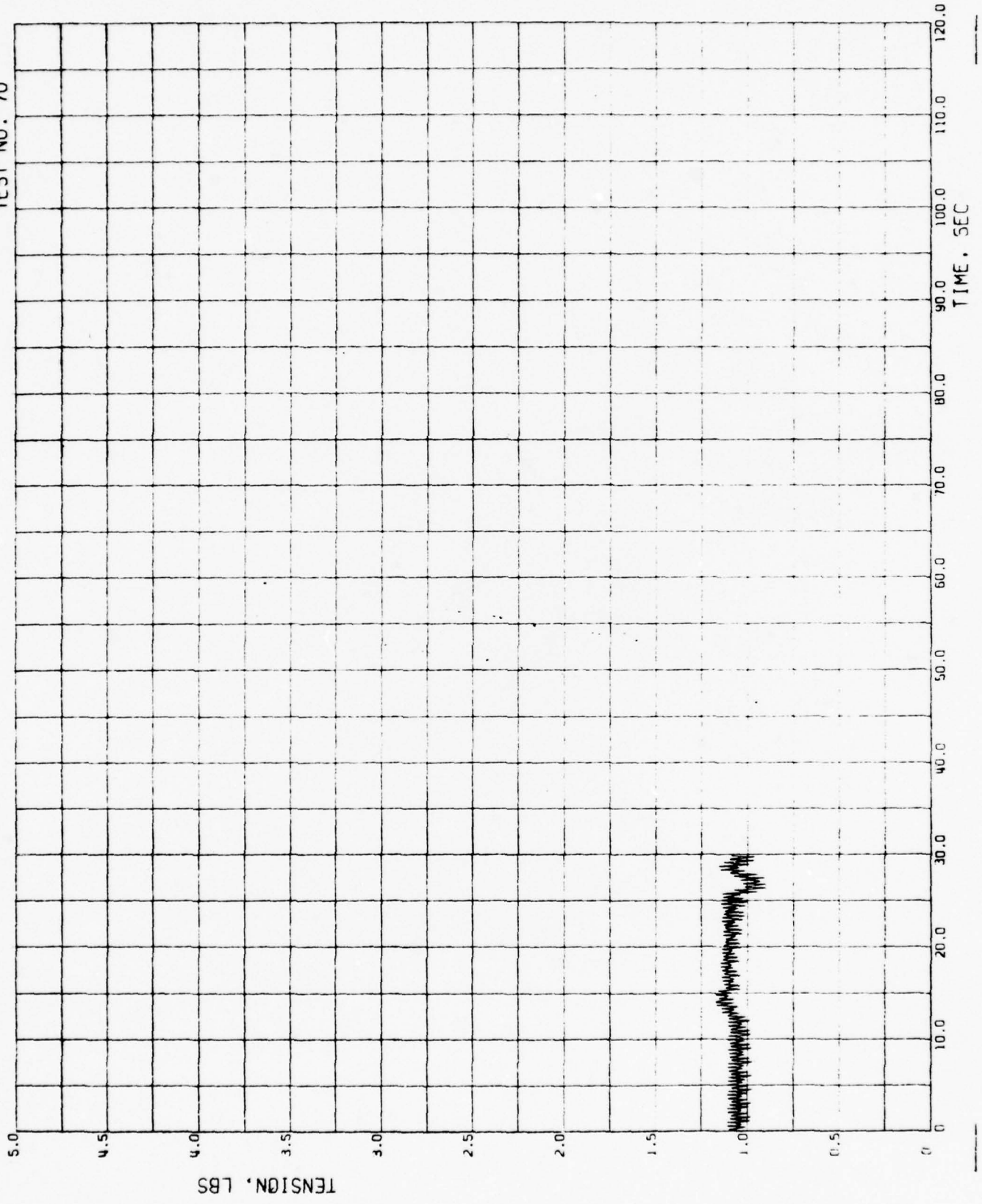
TEST NO. 68



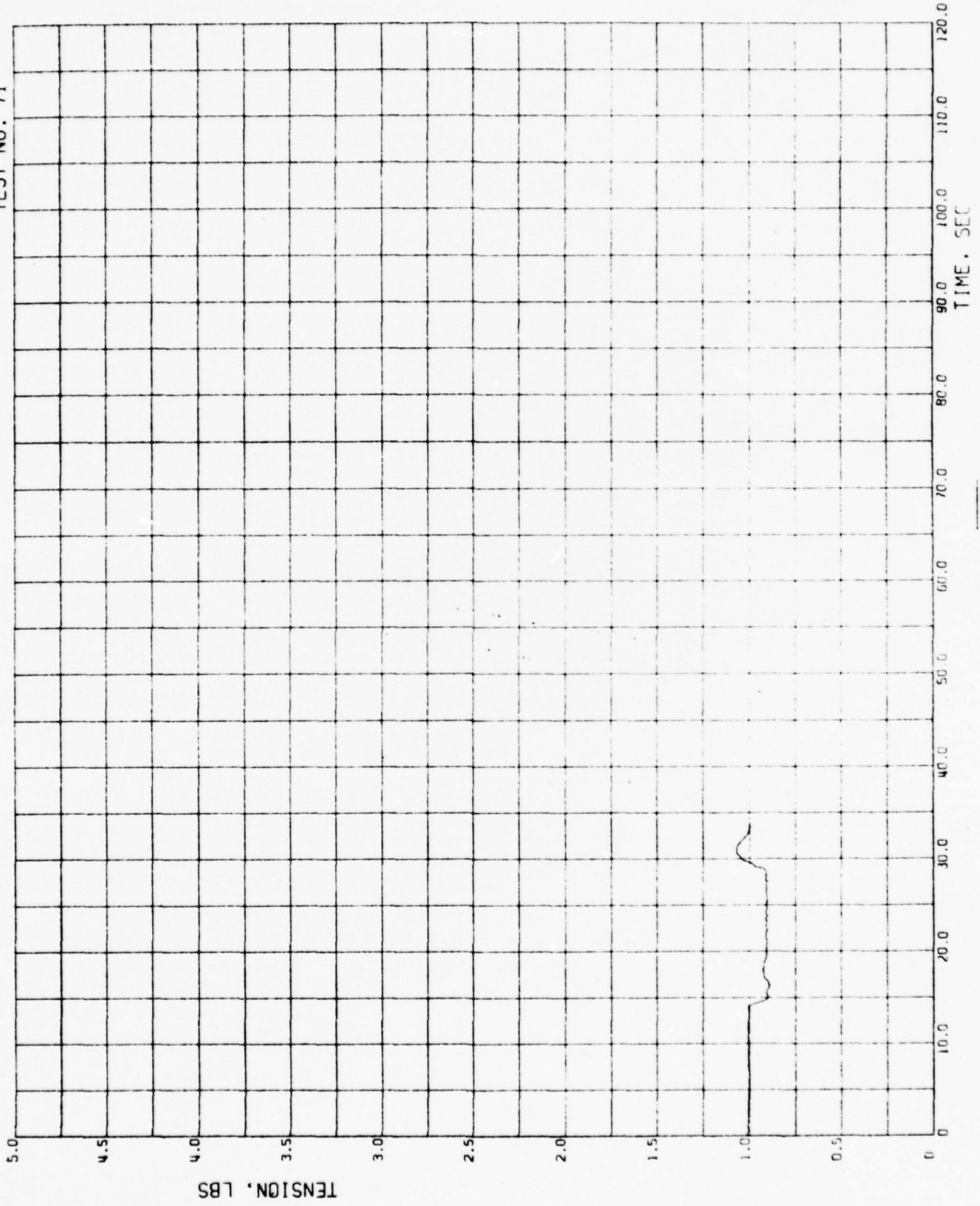
TEST NO. 69



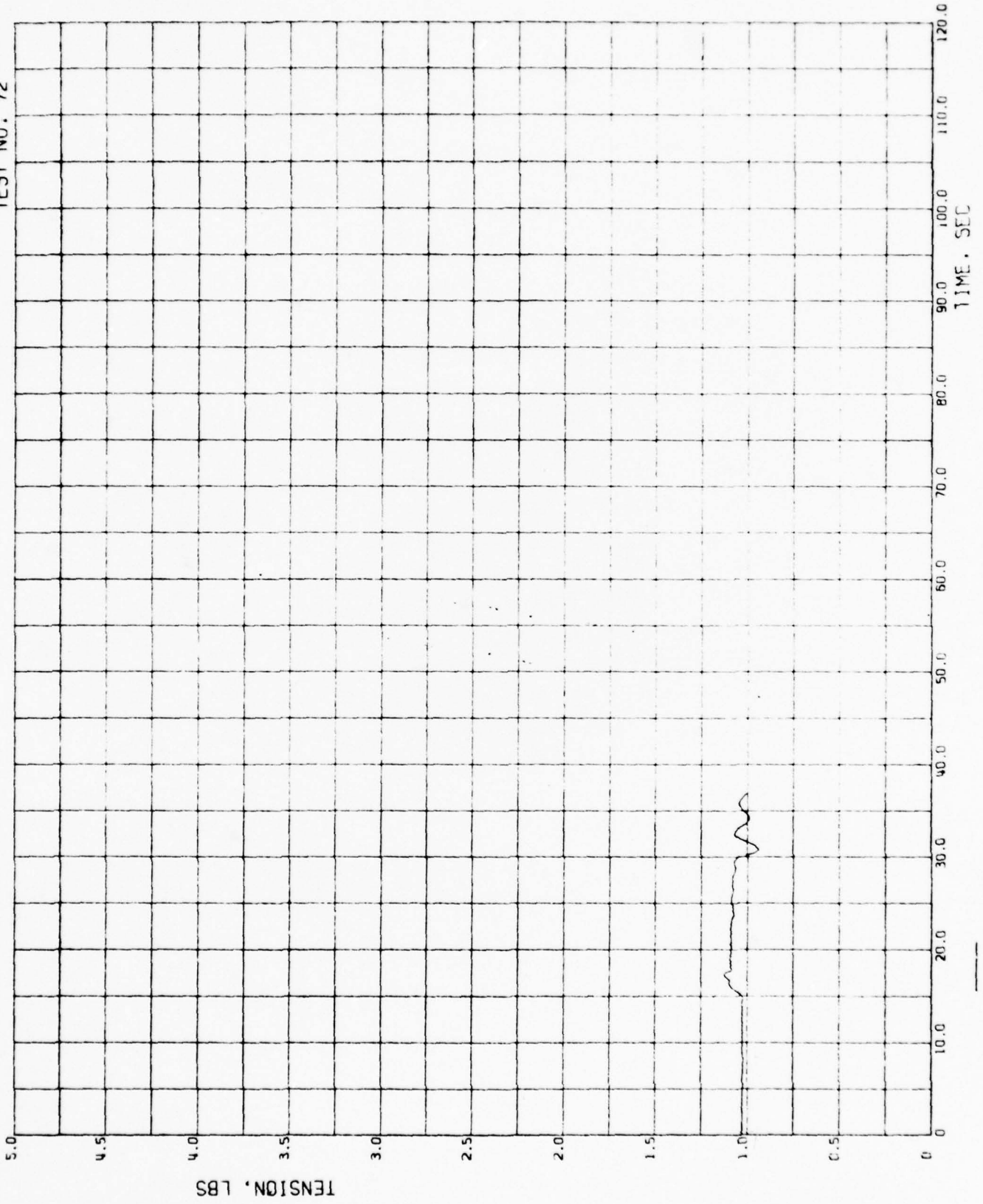
TEST NO. 70



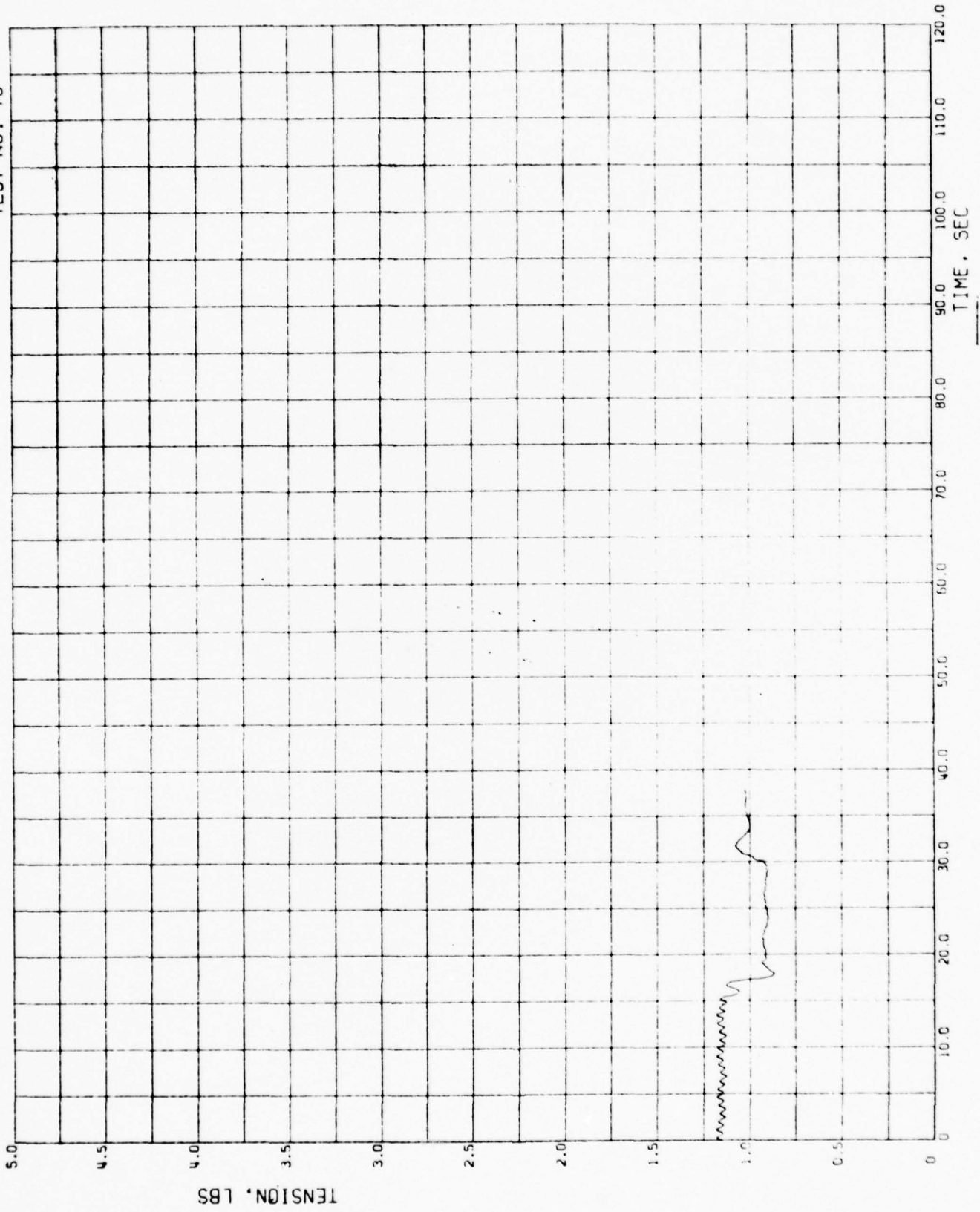
TEST NO. 71



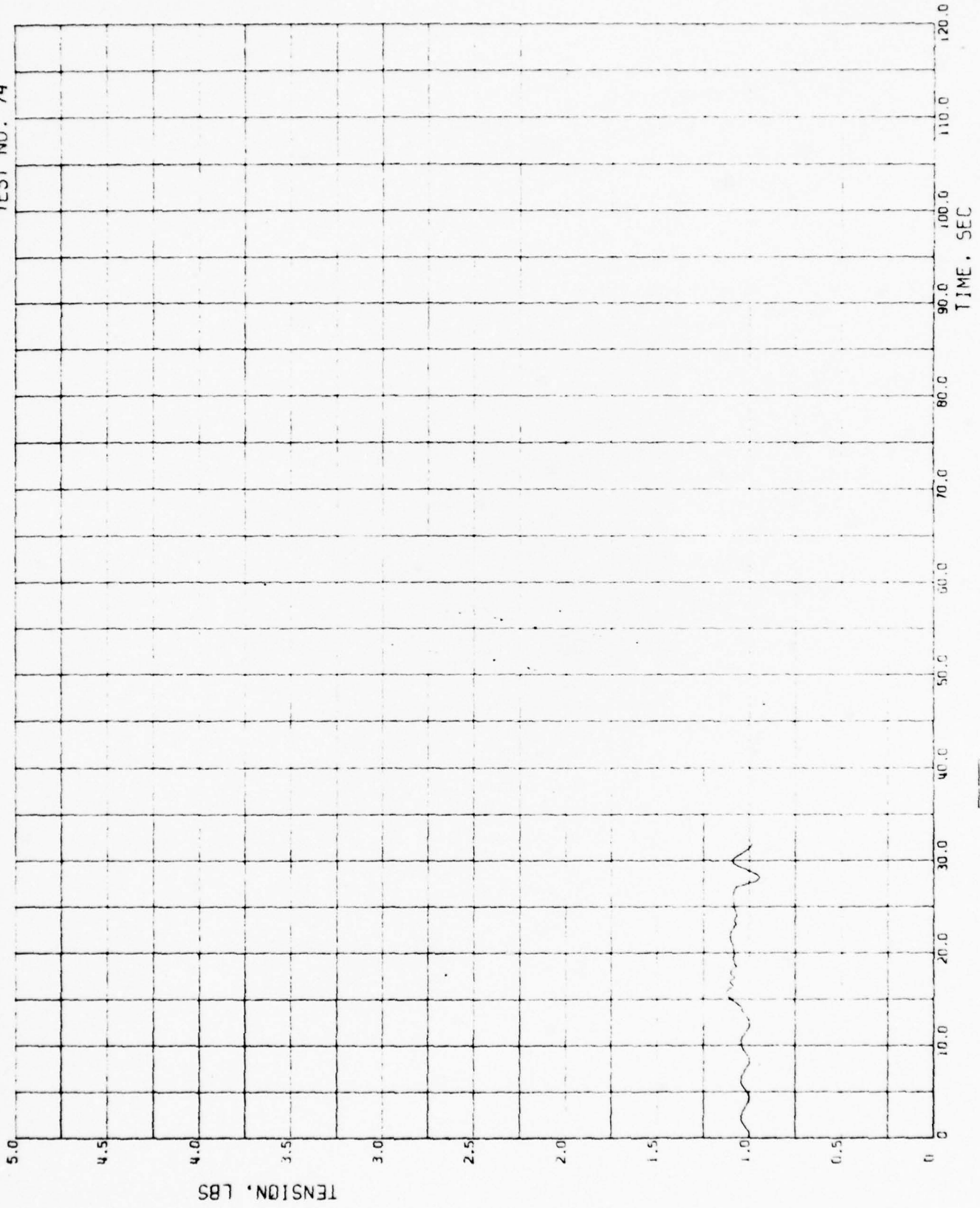
TEST NO. 72



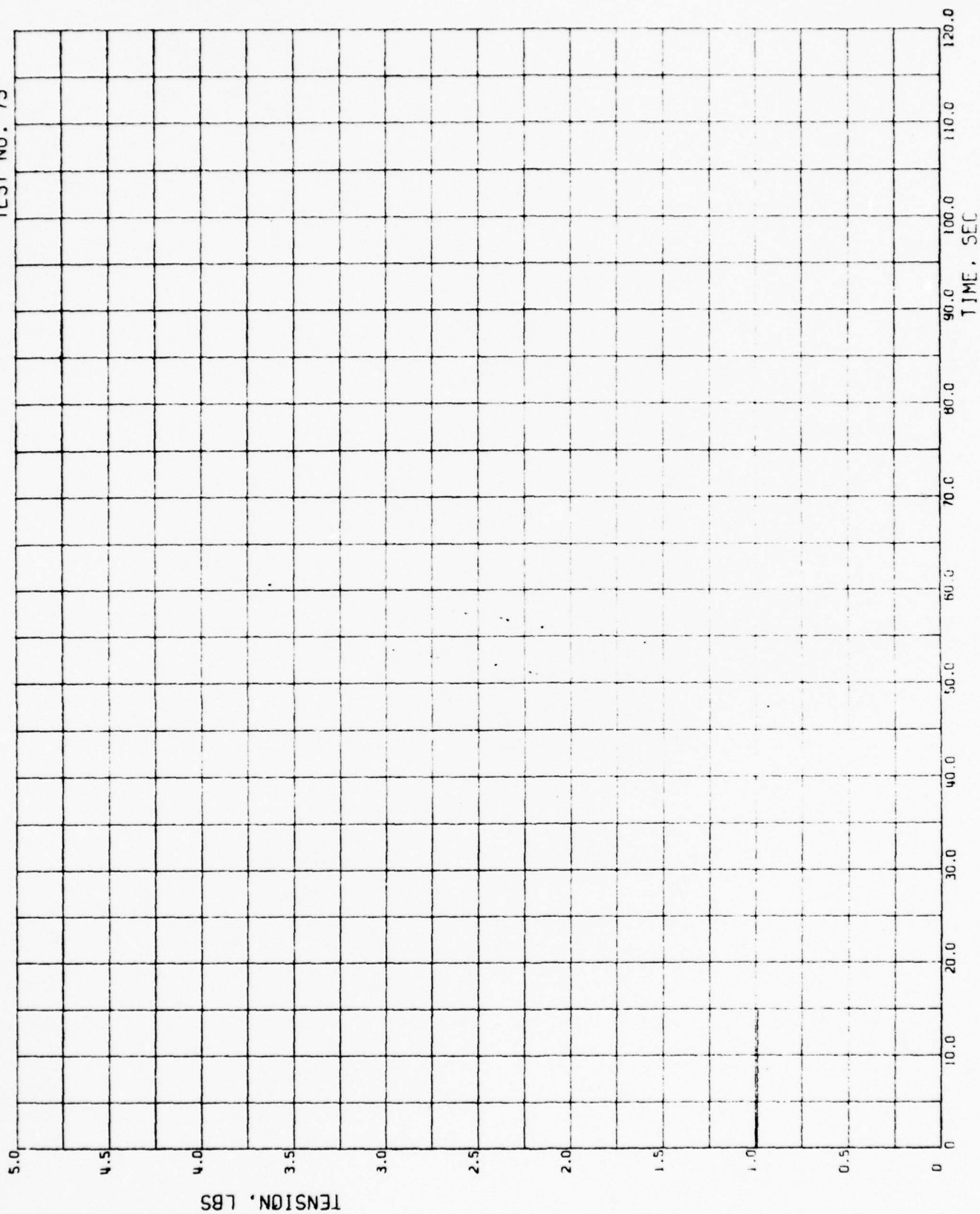
TEST NO. 73



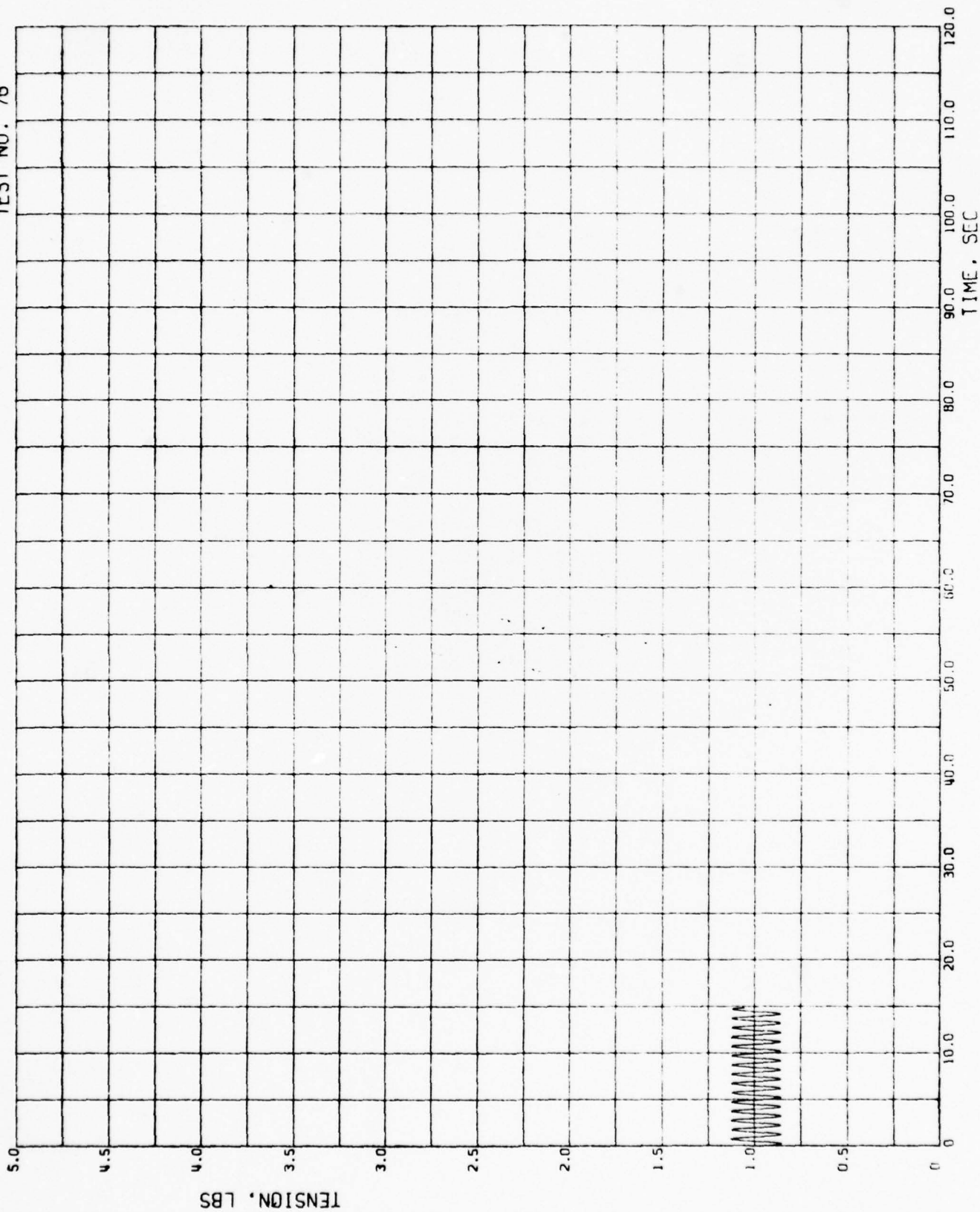
TEST NO. 74



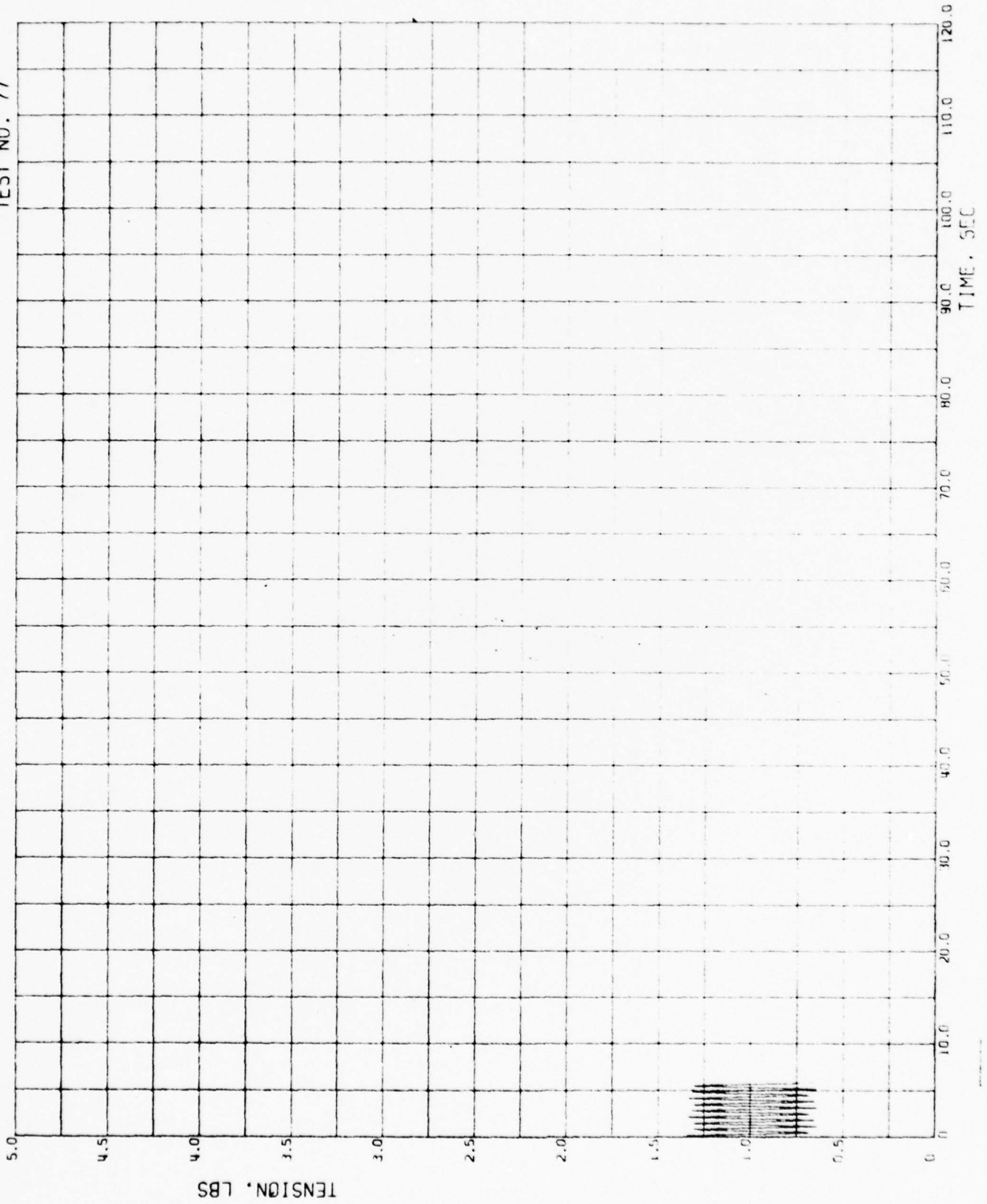
TEST NO. 75



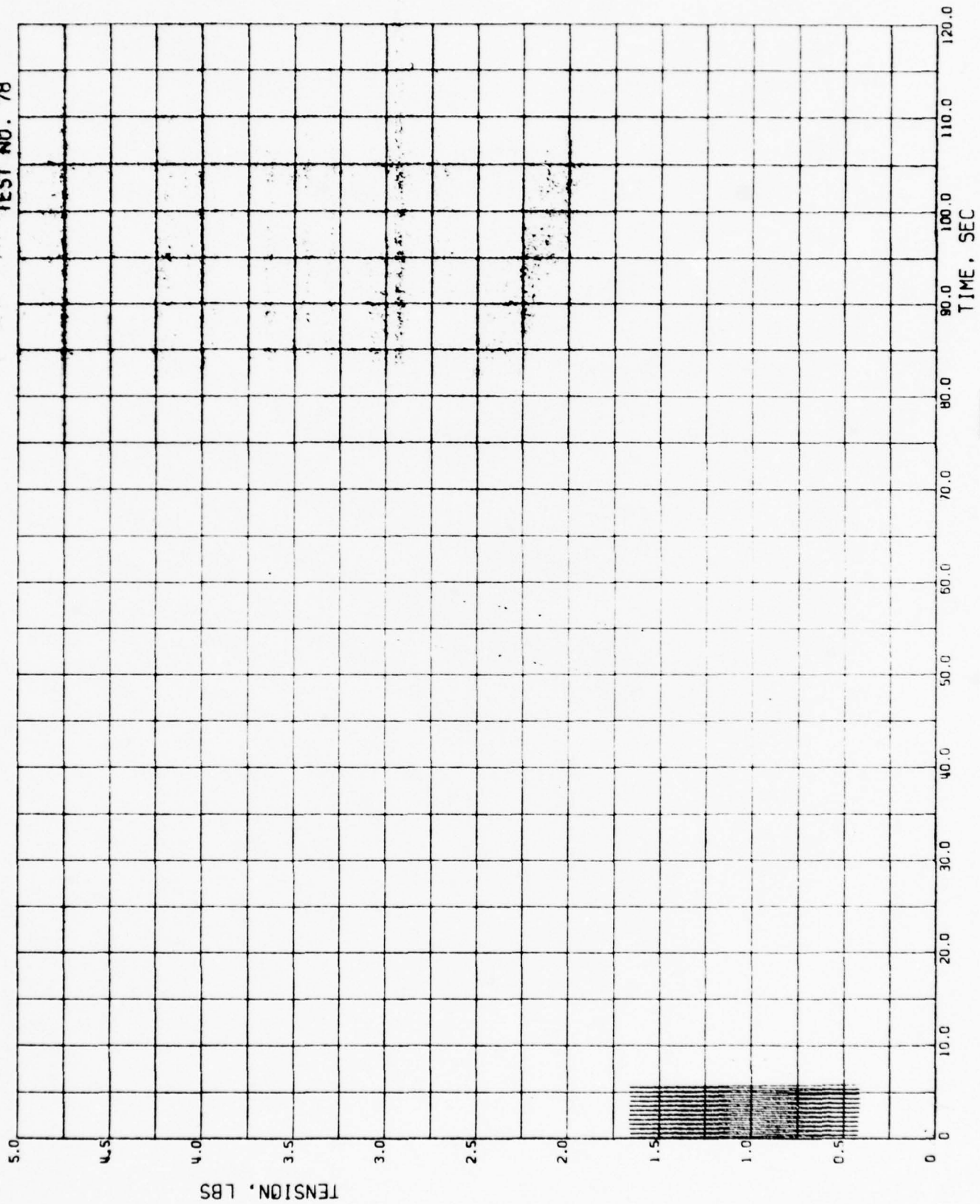
TEST NO. 76



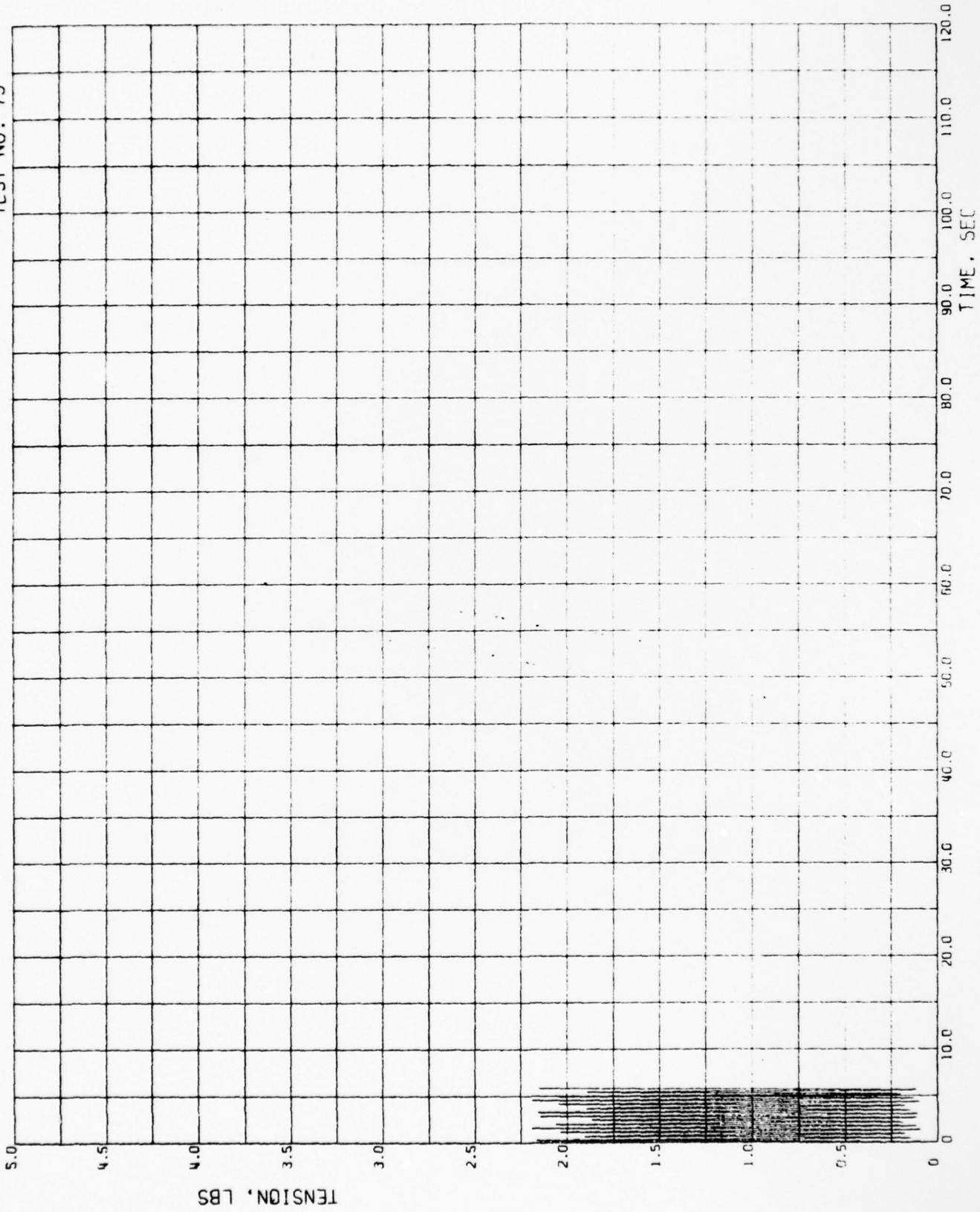
TEST NO. 77



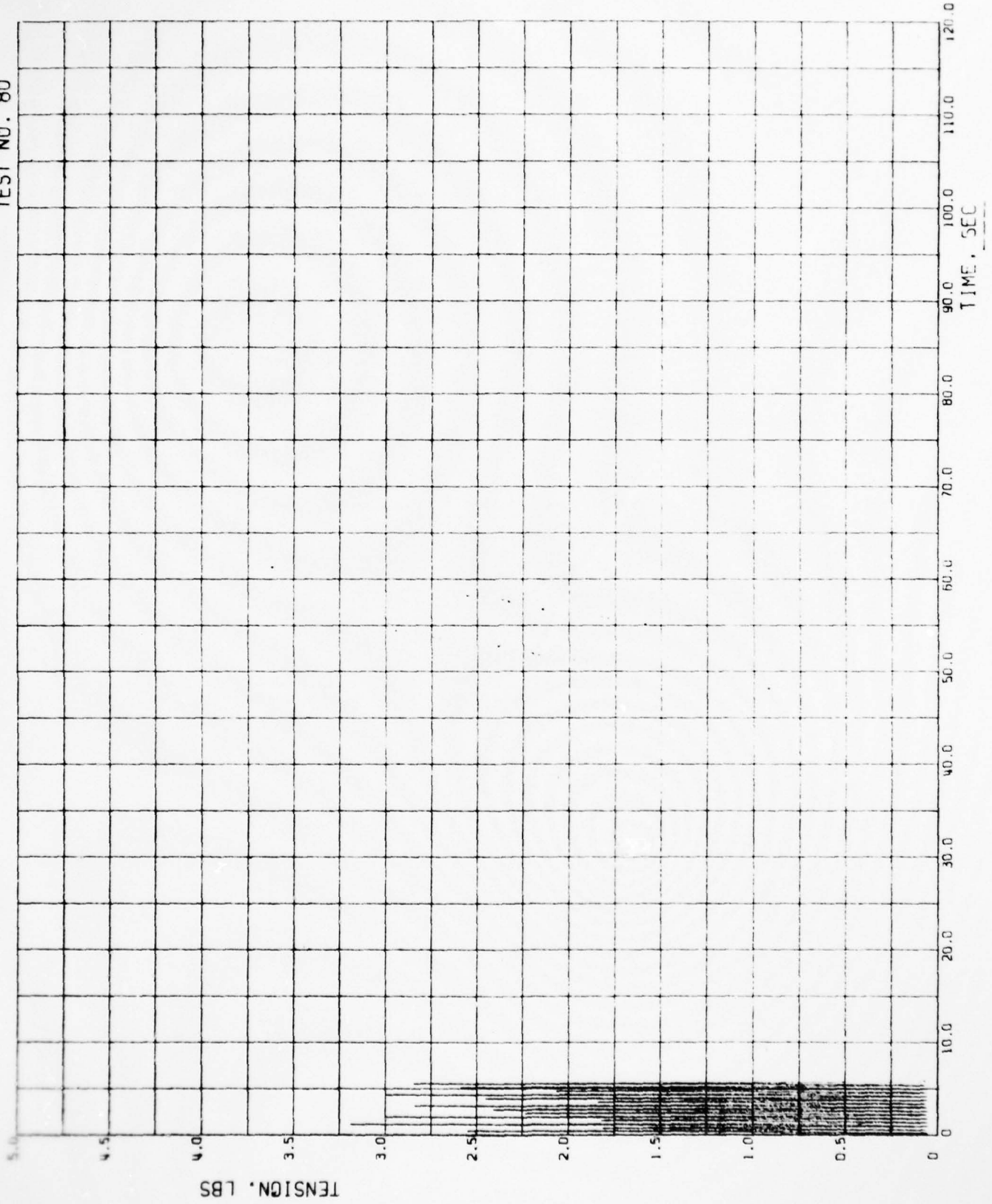
TEST NO. 78



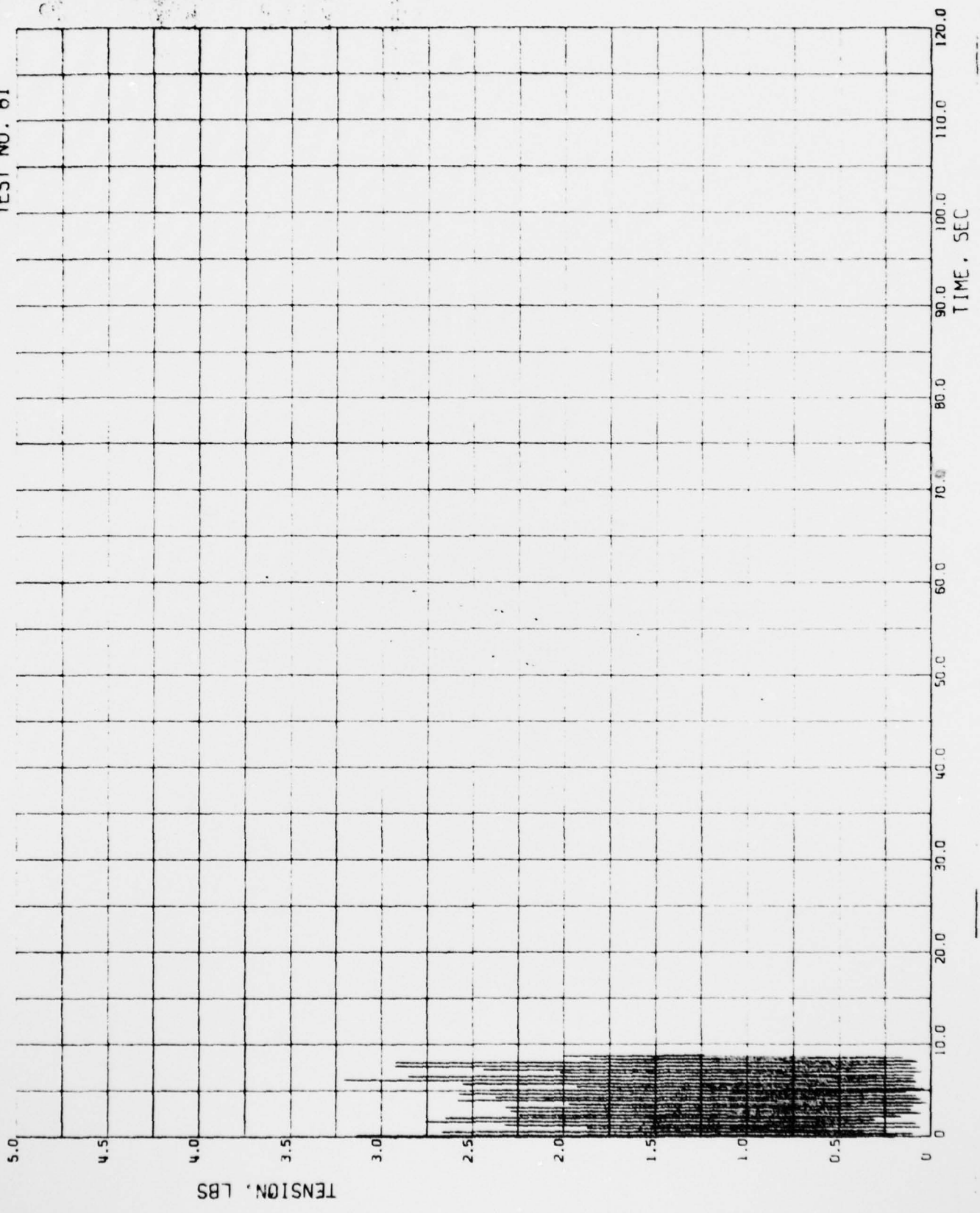
TEST NO. 79



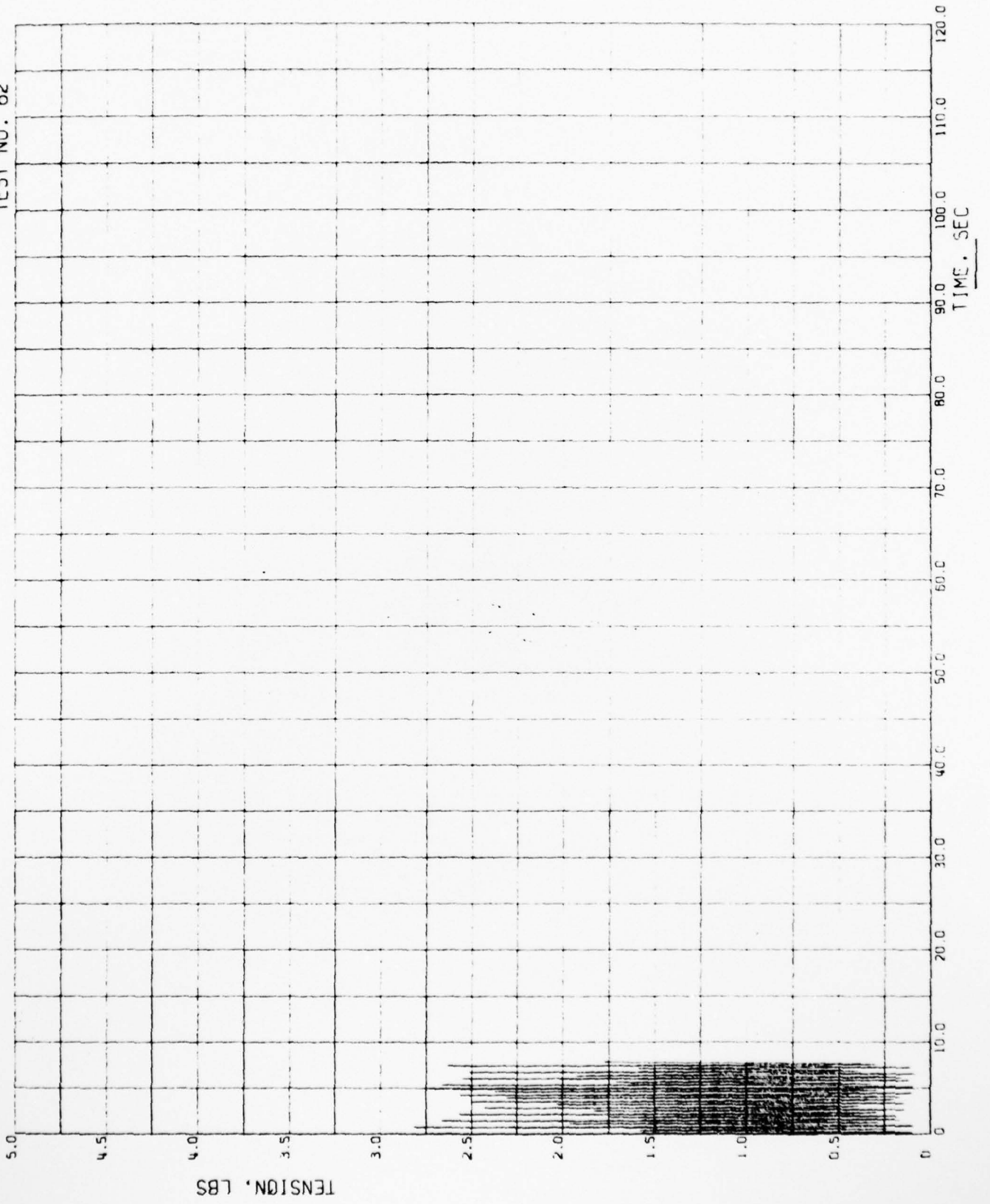
TEST NO. 80



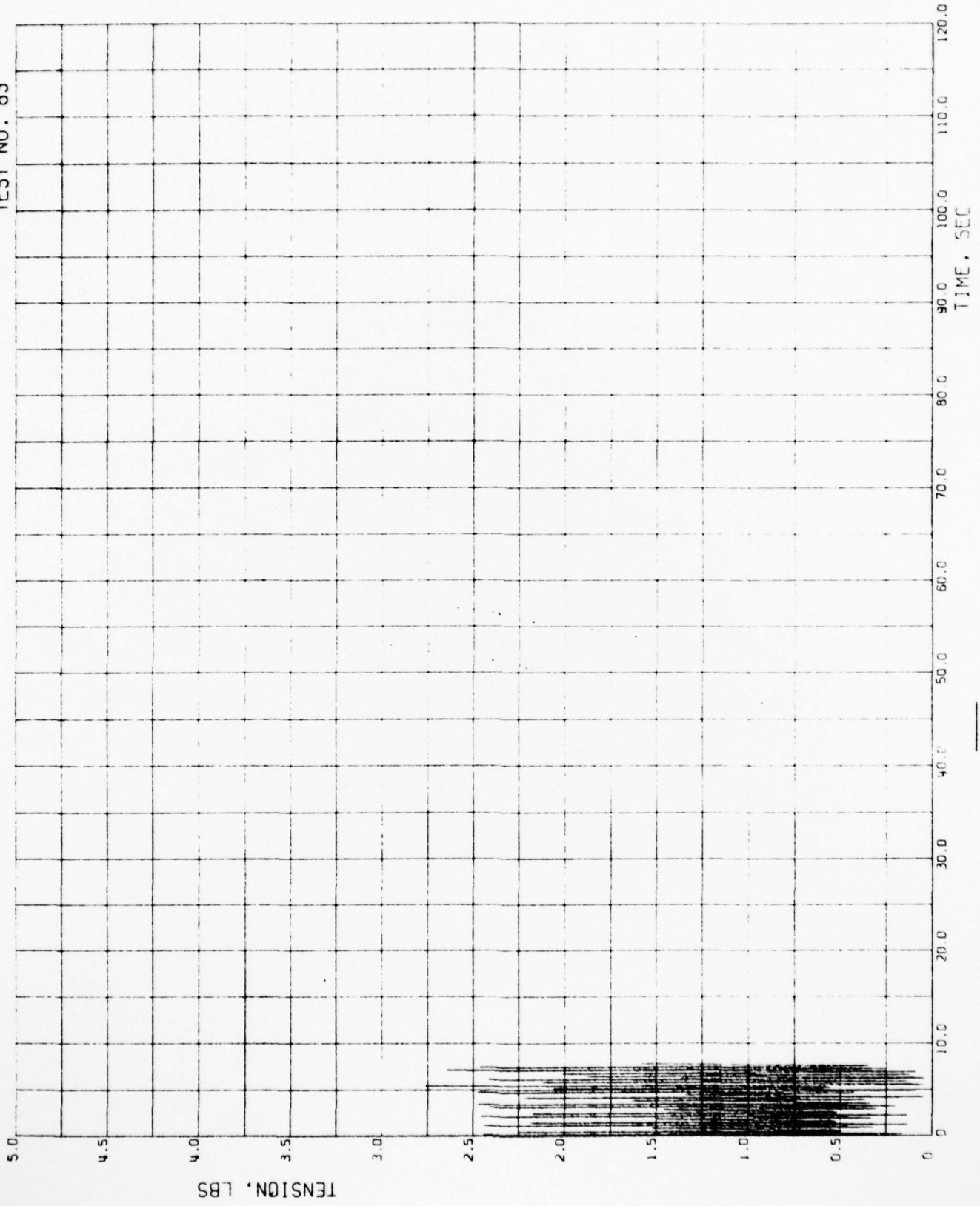
TEST NO. 81



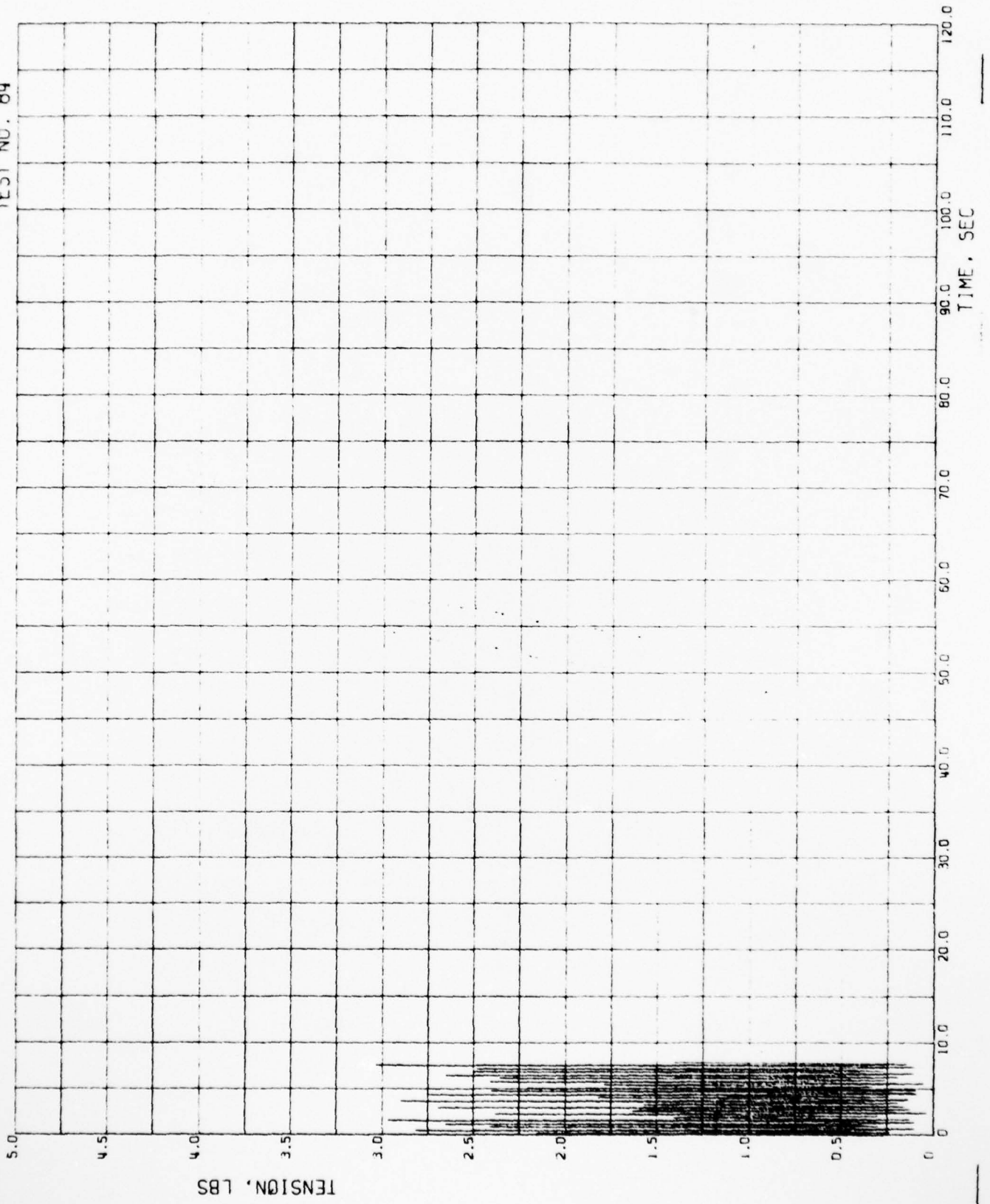
TEST NO. 82



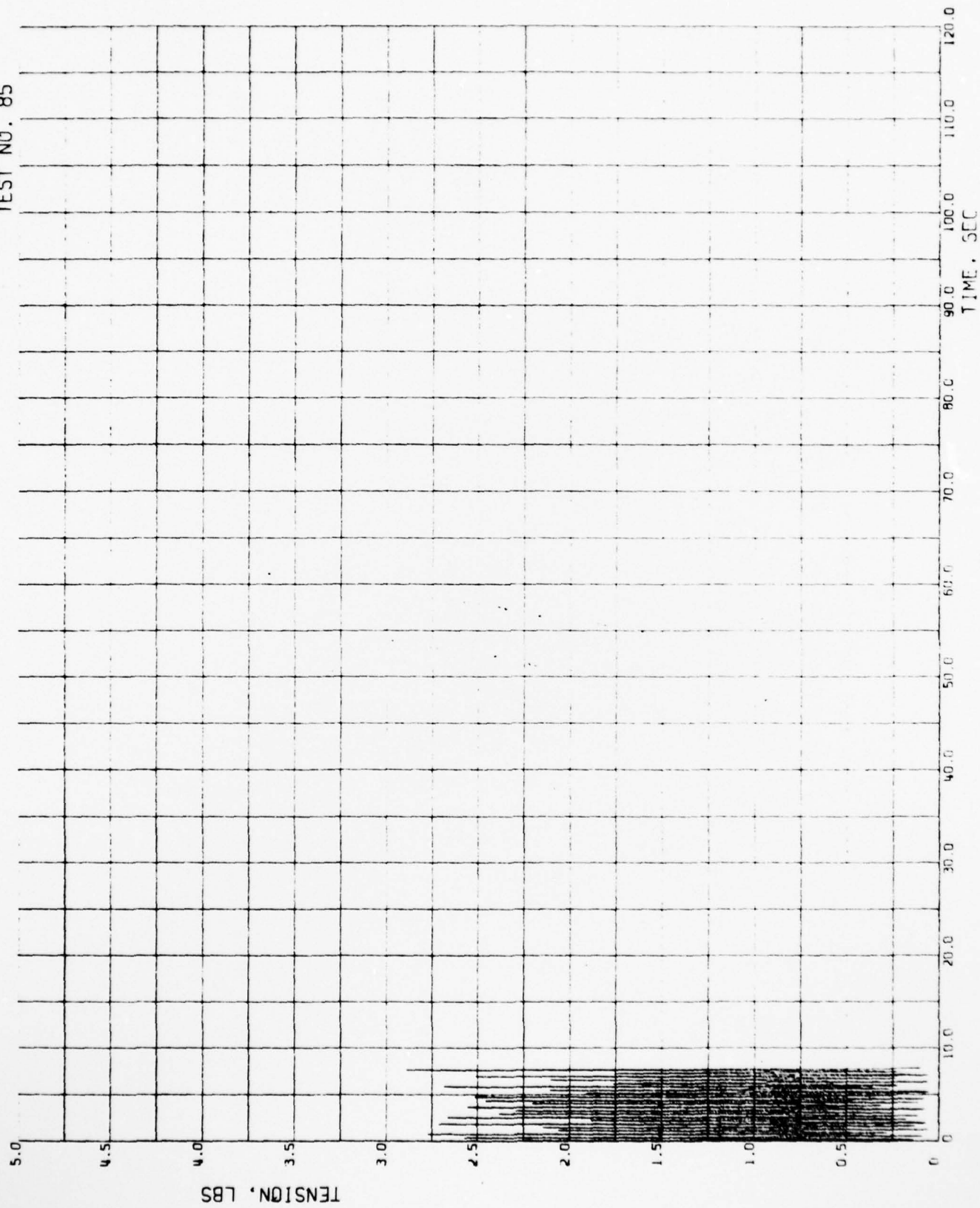
TEST NO. 83



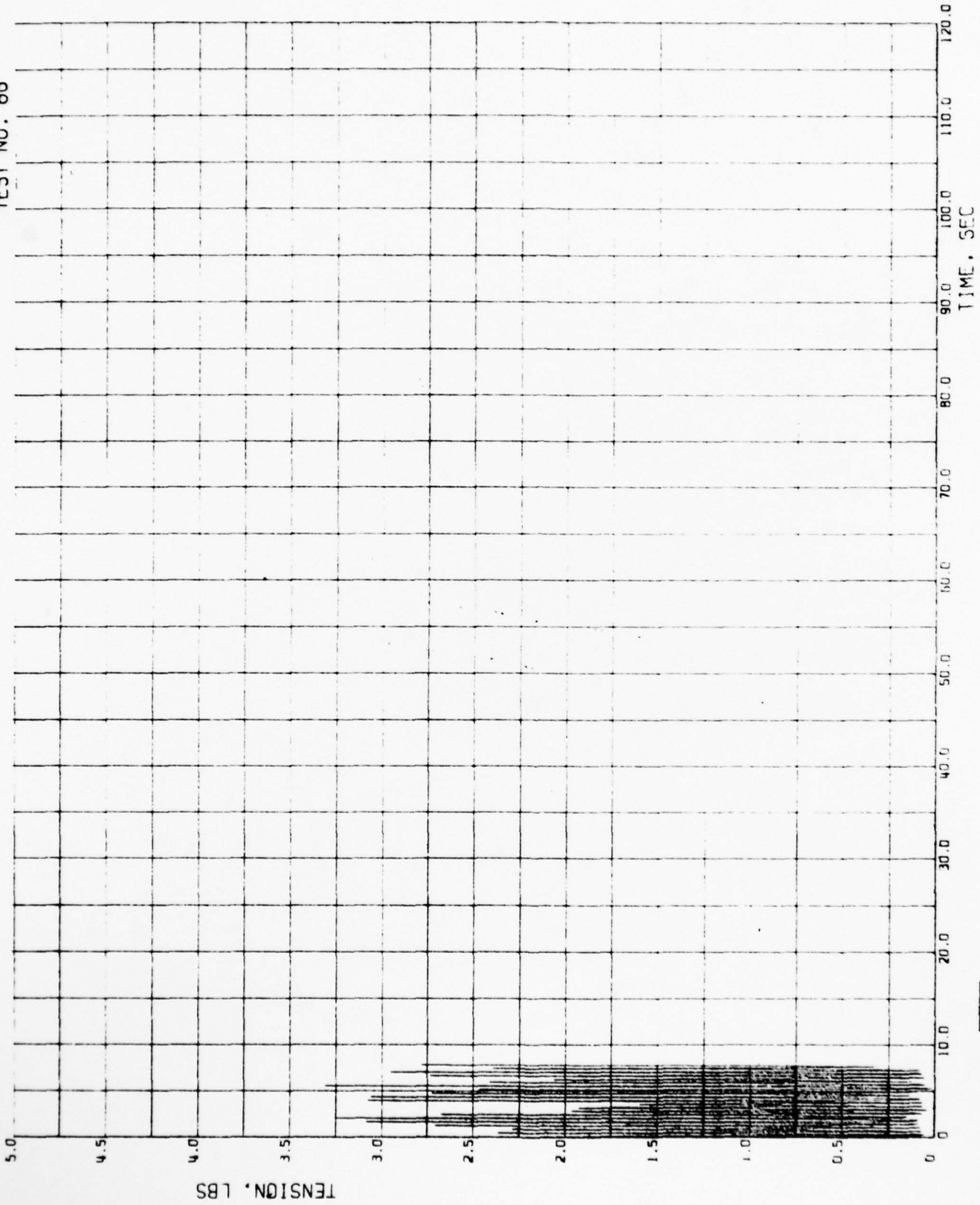
TEST NO. 84



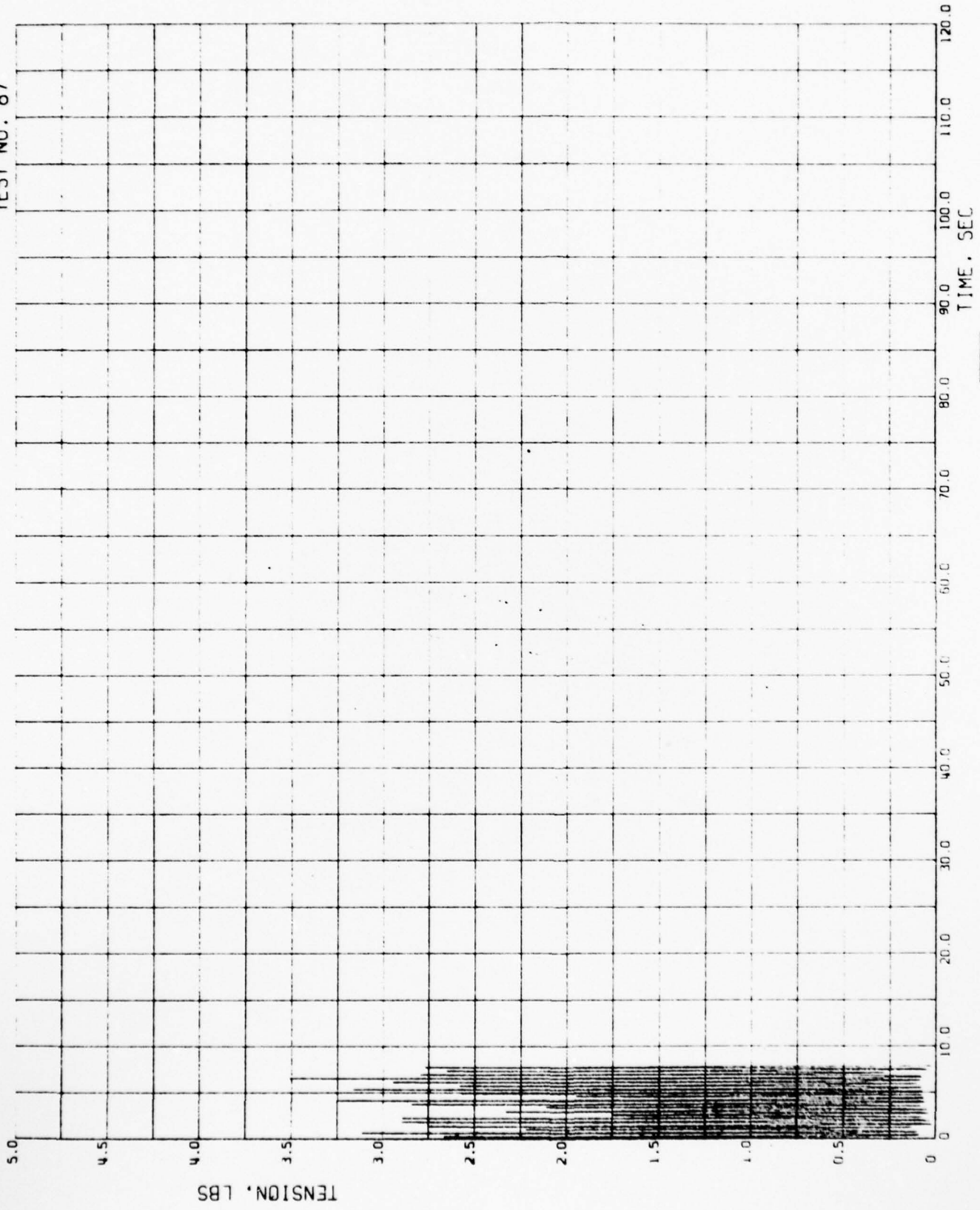
TEST NO. 85



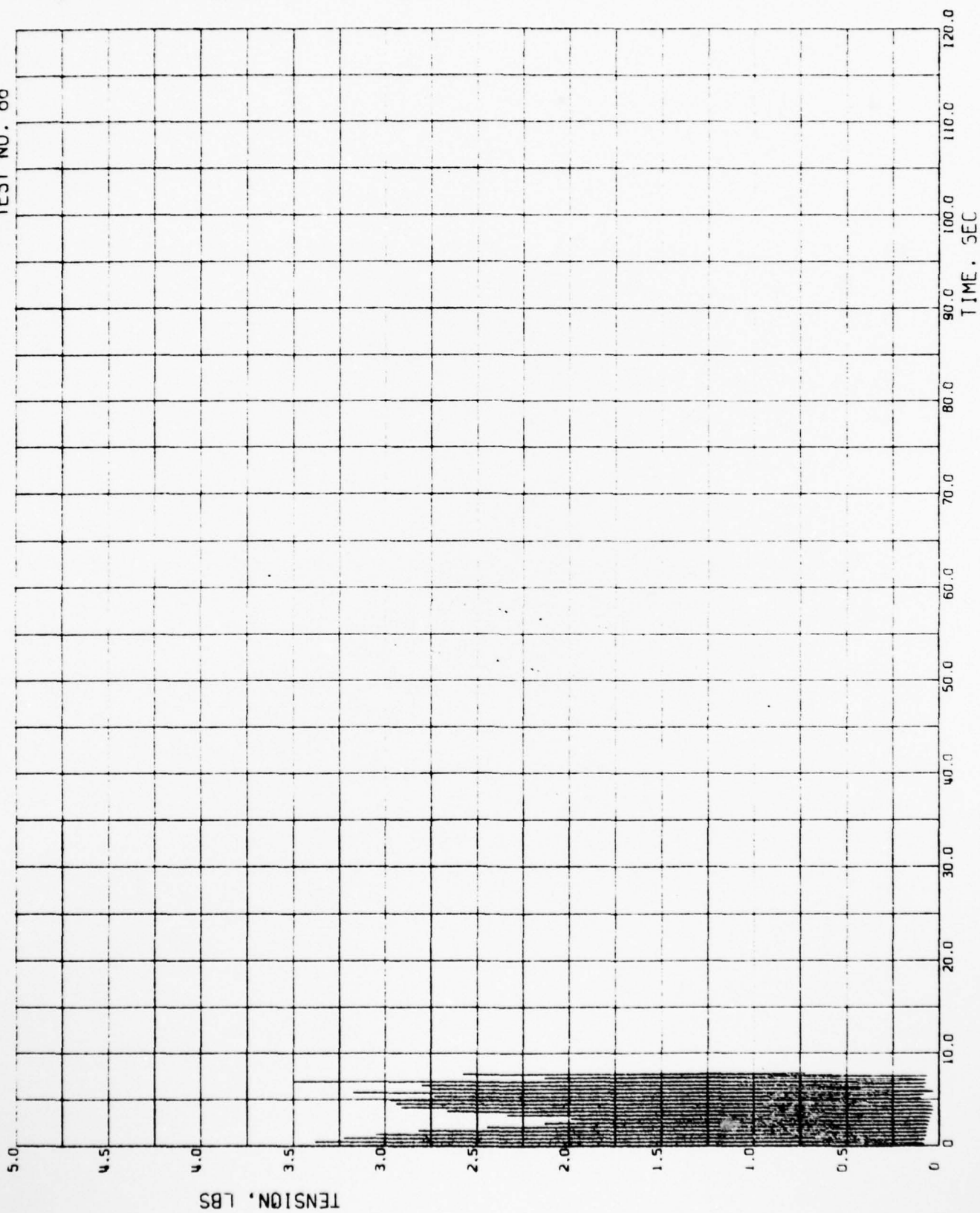
TEST NO. 86



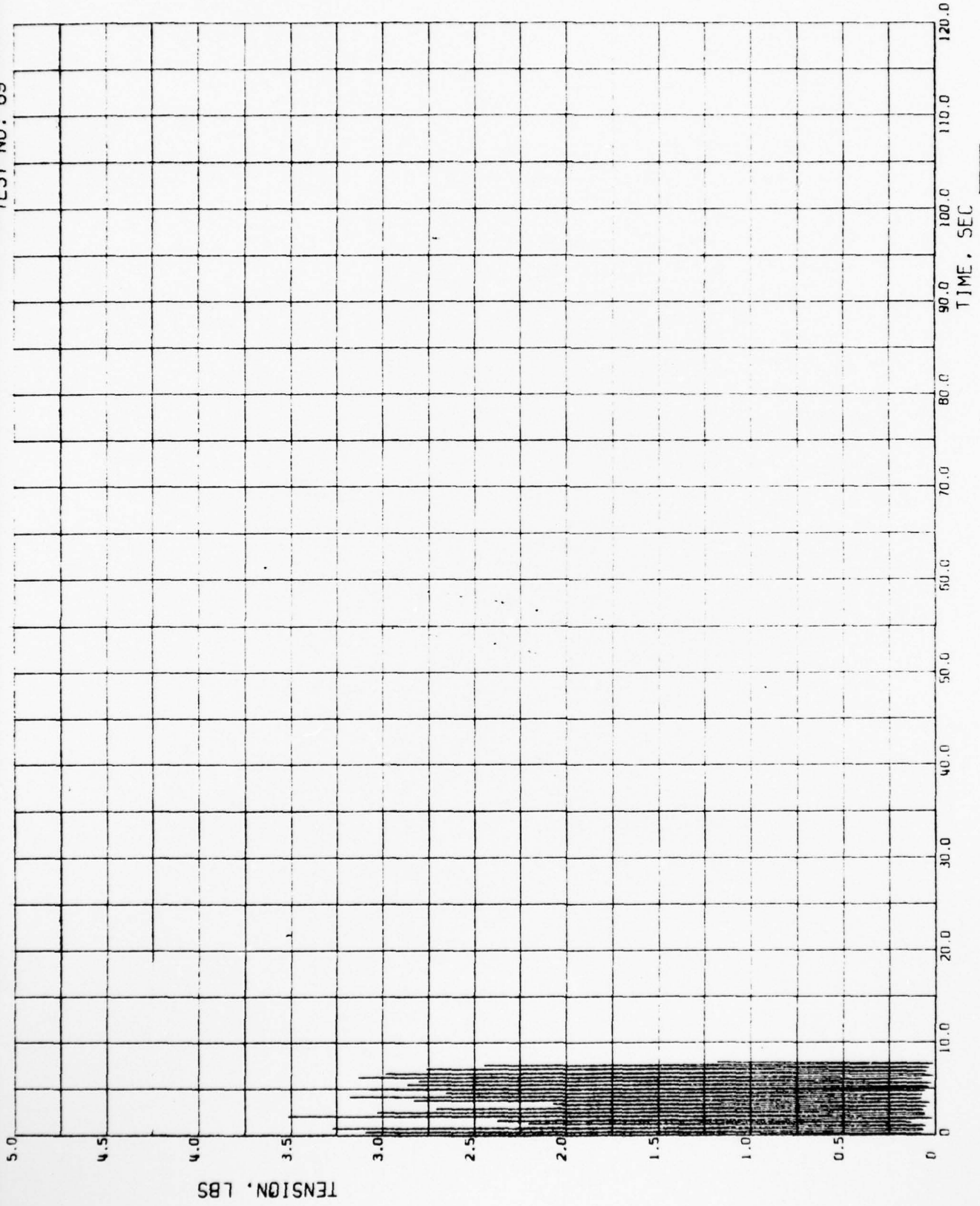
TEST NO. 87



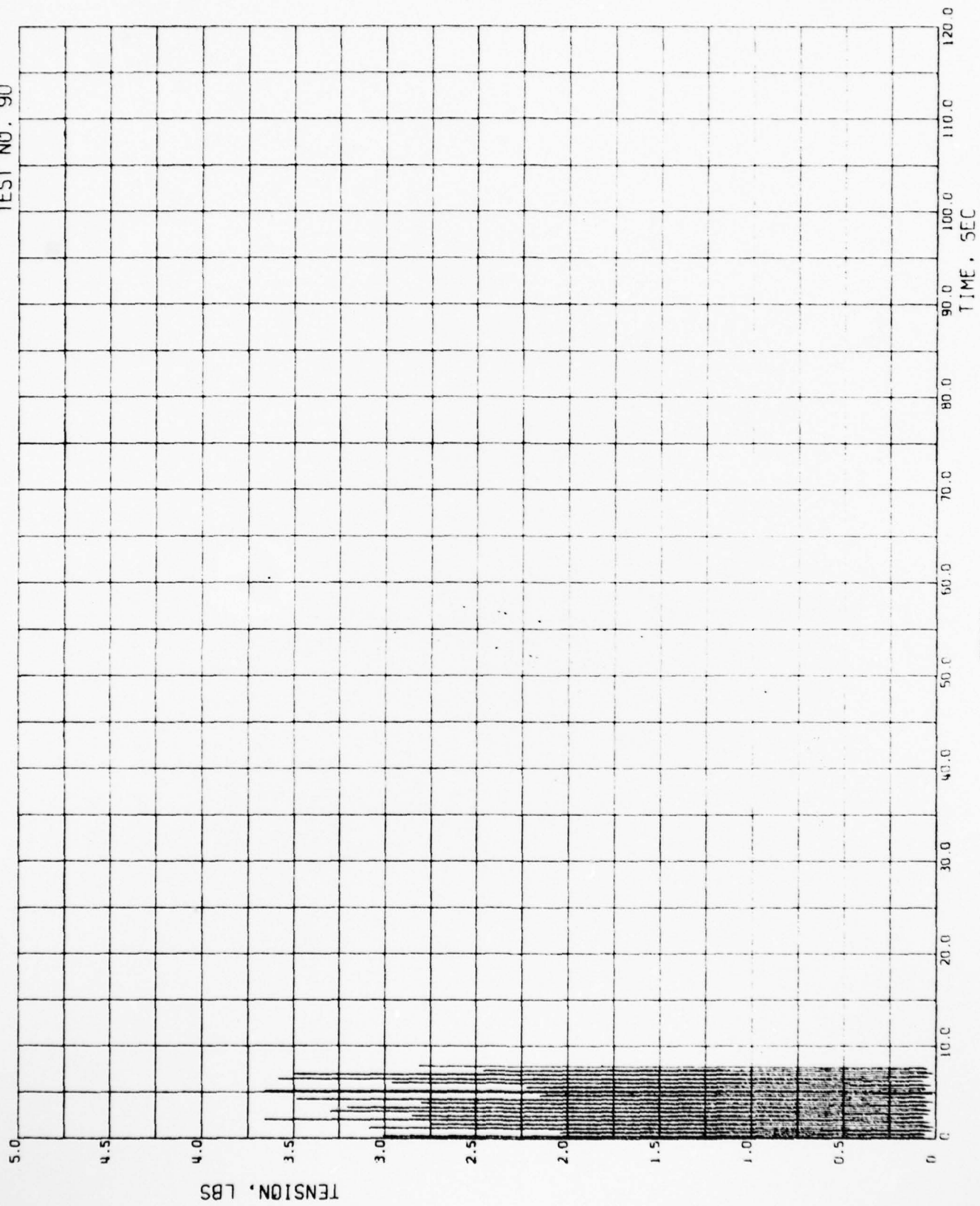
TEST NO. 88



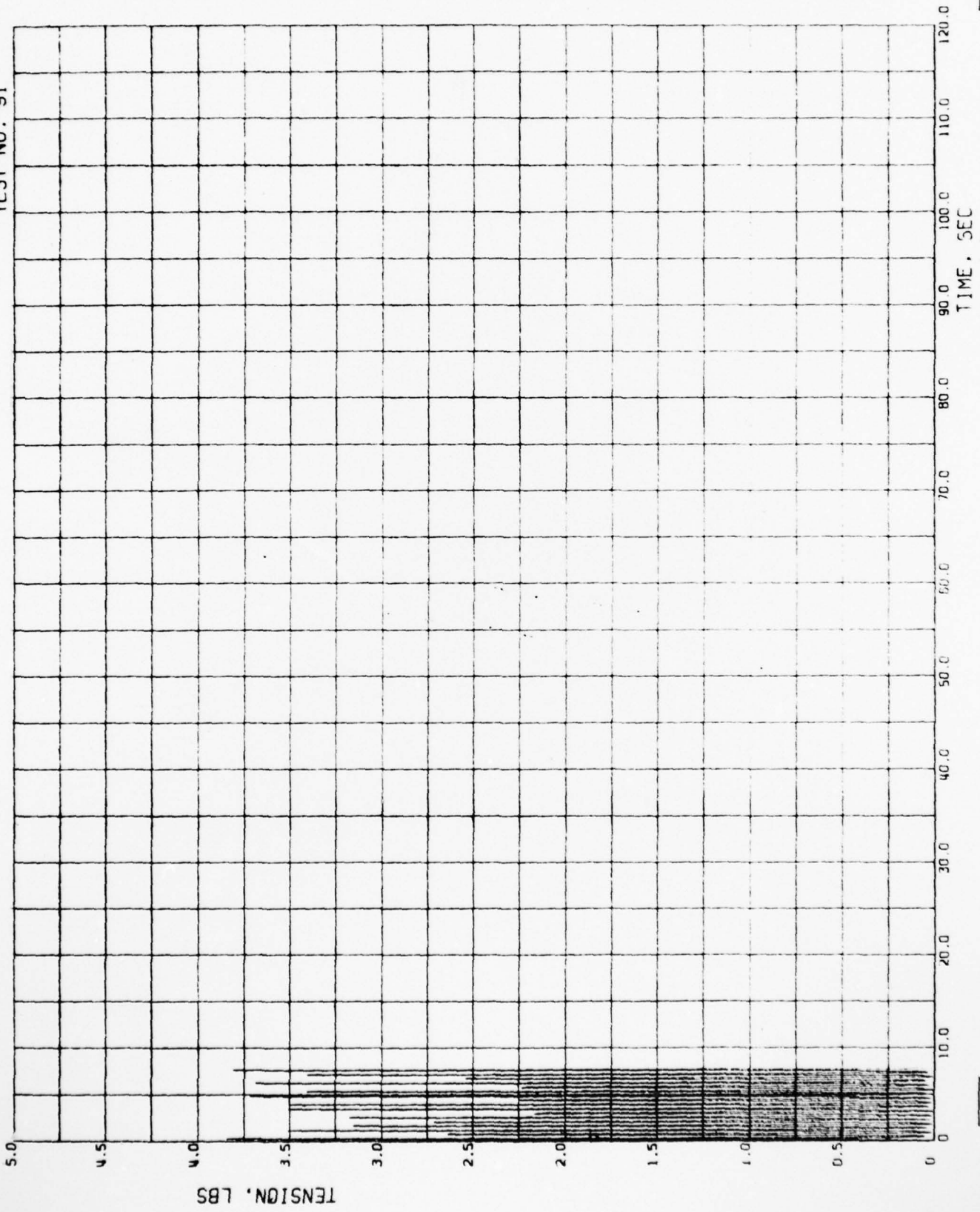
TEST NO. 89



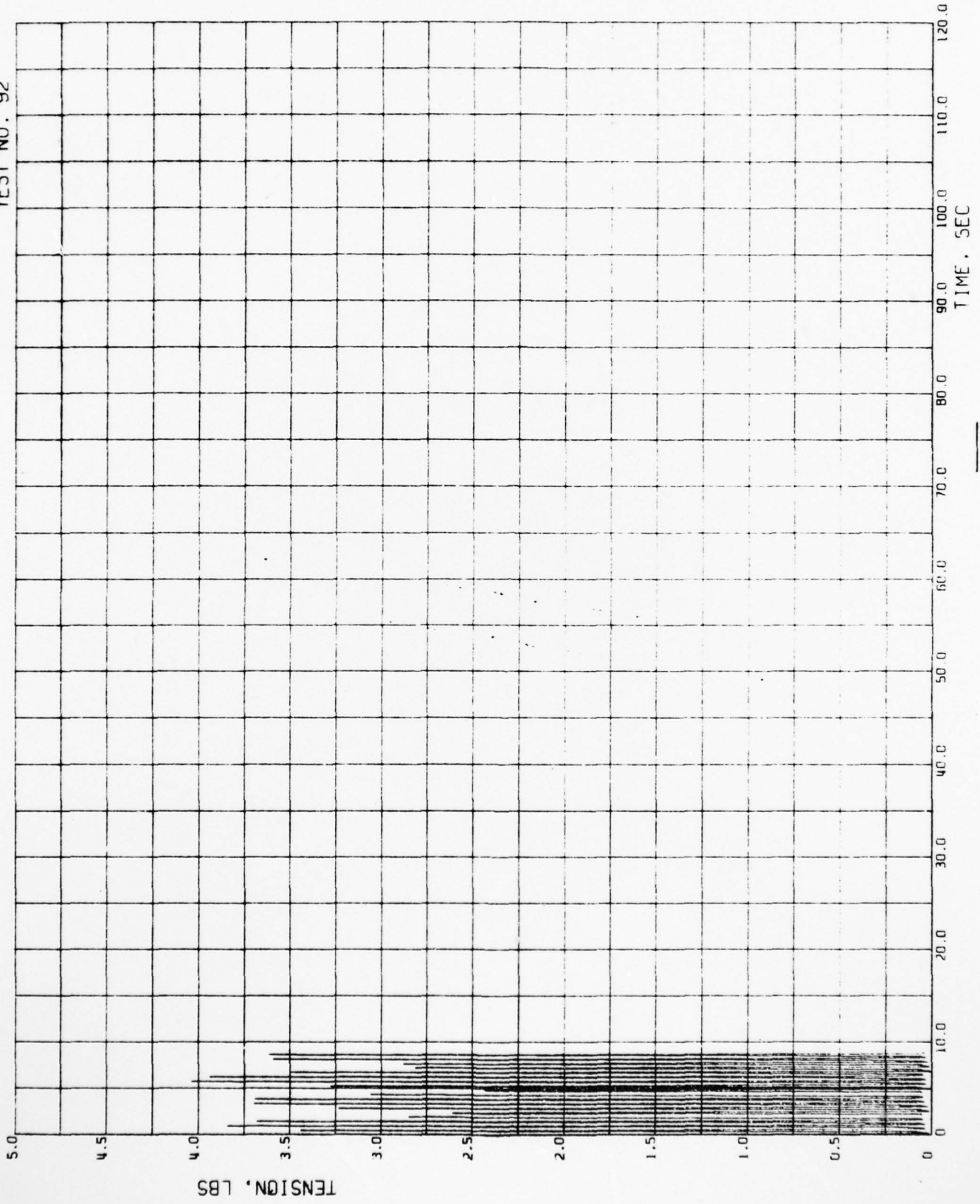
TEST NO. 90



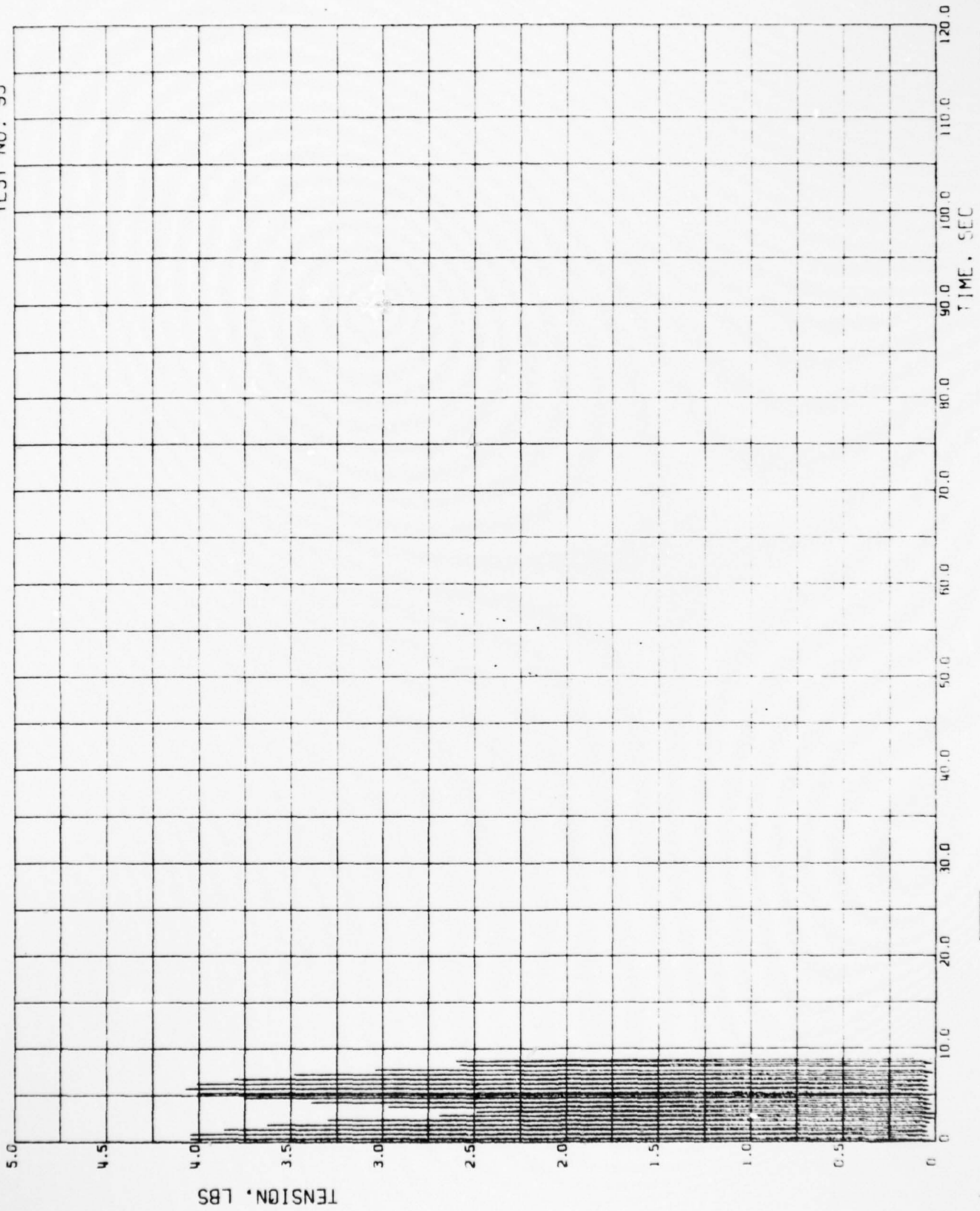
TEST NO. 91



TEST NO. 92



TEST NO. 93



AD-A068 691

CALIFORNIA INST OF TECH PASADENA GRADUATE AERONAUTIC--ETC F/G 20/4  
EXPERIMENTAL STUDY OF THE DYNAMICS OF VARIABLE-LENGTH CABLE SYS--ETC(U)  
APR 79 T M WARD N68305-76-C-0033

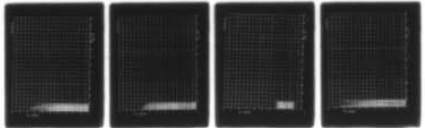
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GALCIT-HSWT-1129-VOL-3

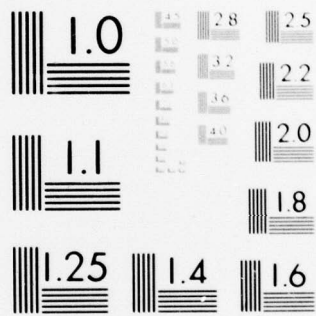
CEL-CR-79.009

NL

2 OF 2  
AD  
A068691

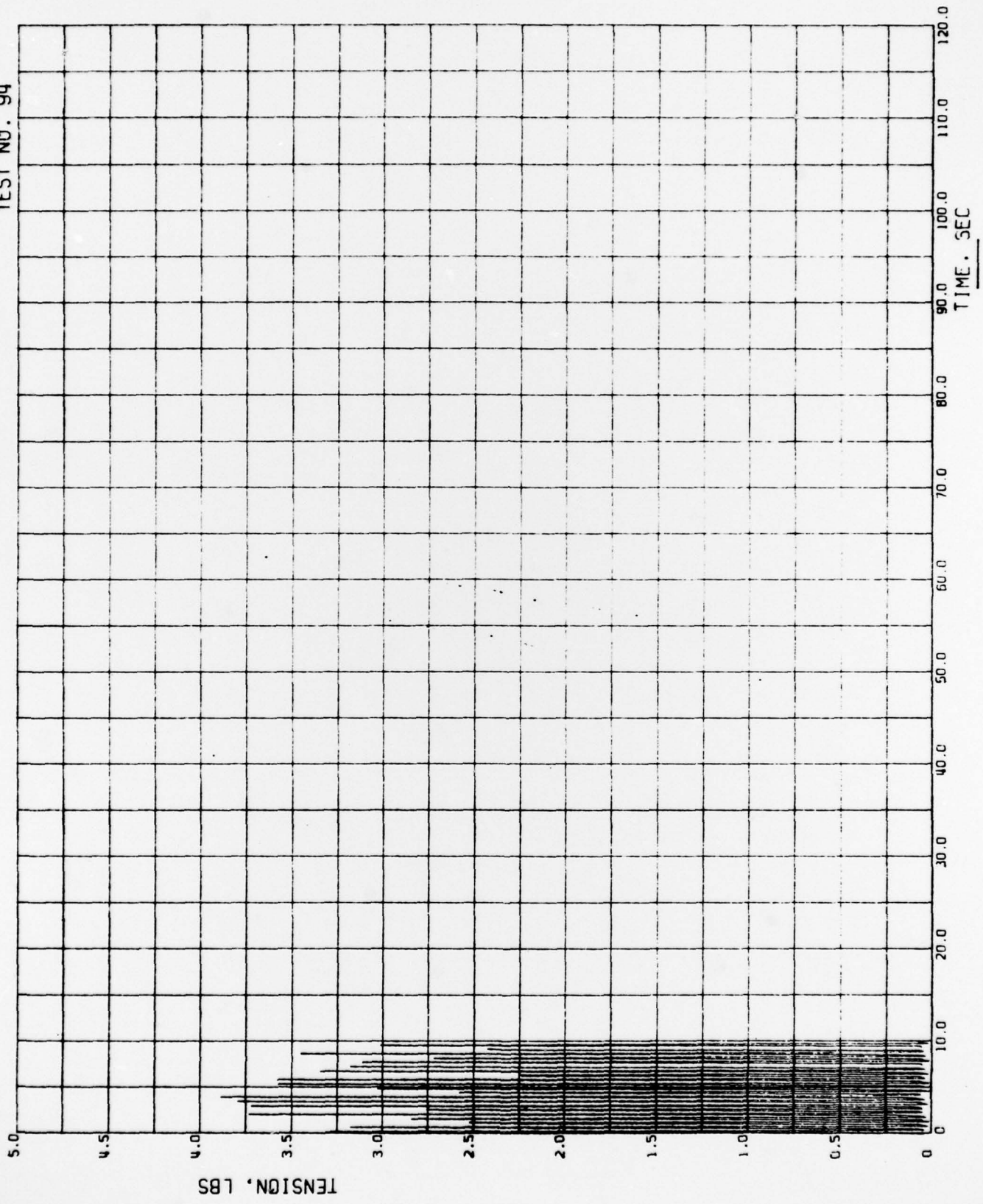


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DATE  
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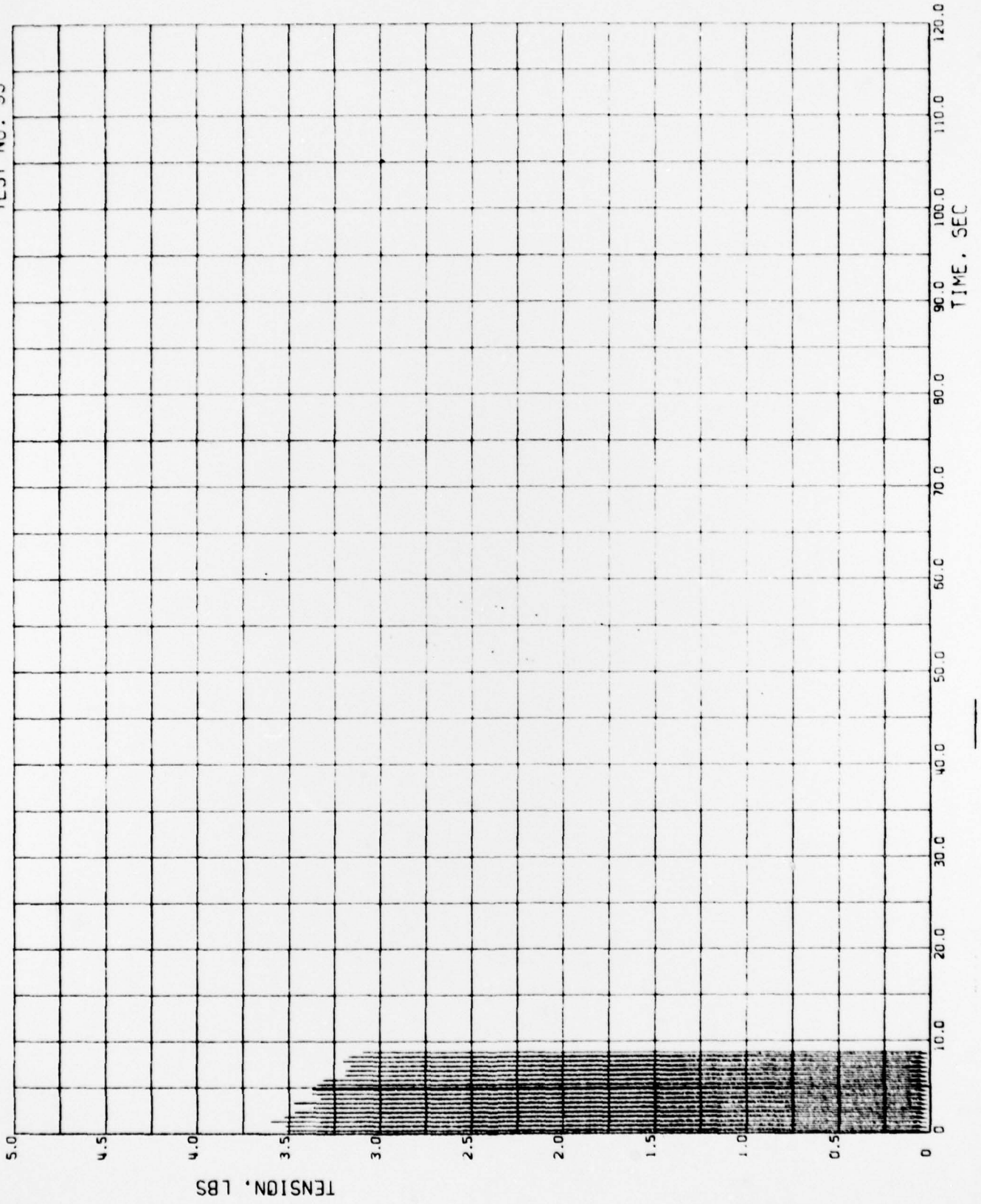


MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A

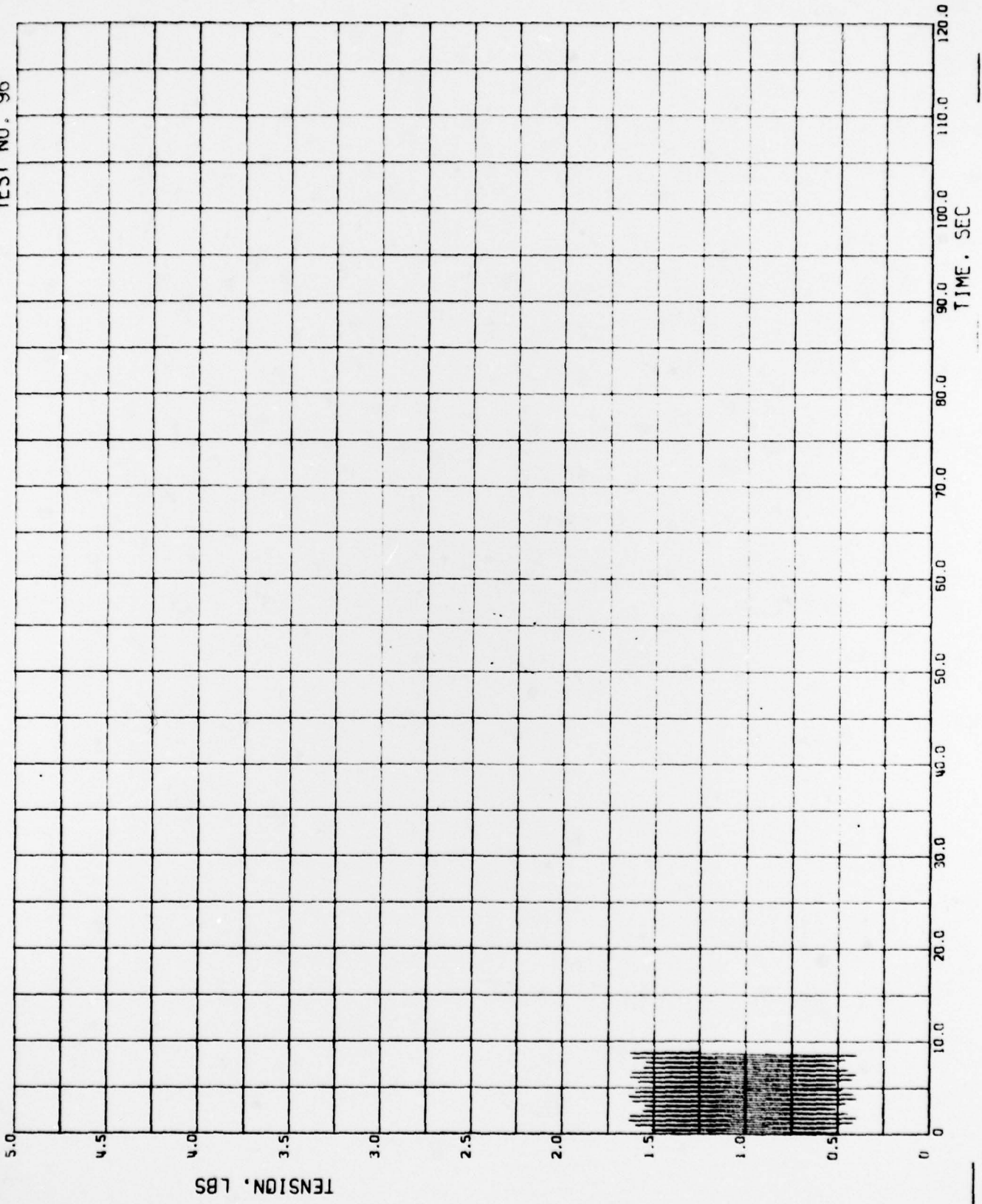
TEST NO. 94



TEST NO. 95



TEST NO. 96



TEST NO. 97

