Westinghouse

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U.S. Nuclear Regulatory Commission
ATTENTION: Document Control Desk
Washington, D.C. 20555

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Direct fax: 412-374-5005
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Your ref: Docket No. 52-006
Our ref: DCP/NRC1679

February 6, 2004

SUBJECT: Transmittal of Revised Responses to AP1000 DSER Open Items

REFERENCE: 1. Westinghouse Letter to U.S. NRC, DCP/NRC1678, February 2, 2004

This letter transmits a Westinghouse revised response to Reference 1 for an Open Item in the AP1000 Design Safety Evaluation Report (DSER). A list of the revised DSER Open Item response transmitted with this letter is Attachment 1. The non-proprietary response is transmitted as Attachment 2.

Please contact me at 412-374-4728 if you have any questions concerning this submittal.

Very truly yours,

R. P. Vijuk, Manager
Passive Plant Engineering
AP600 & AP1000 Projects

/Attachments

1. List of the AP1000 Design Certification Review, Draft Safety Evaluation Report Open Item Responses transmitted with letter DCP/NRC1679
2. Non-Proprietary AP1000 Design Certification Review, Draft Safety Evaluation Report Open Item Responses dated February 6, 2004

D063

February 6, 2004

Attachment 1

List of

Non-Proprietary Responses

Table 1 "List of Westinghouse's Responses to DSER Open Items Transmitted in DCP/NRC1679"	
*21.5-2: Appendix 8, Revision 1 *See email message in the attachment for transmittal time.	

DCP/NRC1679
Docket No. 52-006

February 6, 2004

Attachment 2

AP1000 Design Certification Review
Draft Safety Evaluation Report Open Item Non-Proprietary Responses

Conway, Elizabeth M. (Alfieri)

February 6, 2004

Subject: FW: Revised FLOAD4 Calc

From: Vijuk, Ronald P.
Sent: Friday, February 06, 2004 10:00 AM
To: 'John Segala'; 'Jennifer Uhle'; 'Joseph Colaccino'
Cc: Gagnon, Andre F.; Cummins, Ed; Ohkawa, Katsuhiro; Frepoli, Cesare; Schulz, Terry L.
Subject: Revised FLOAD4 Calc

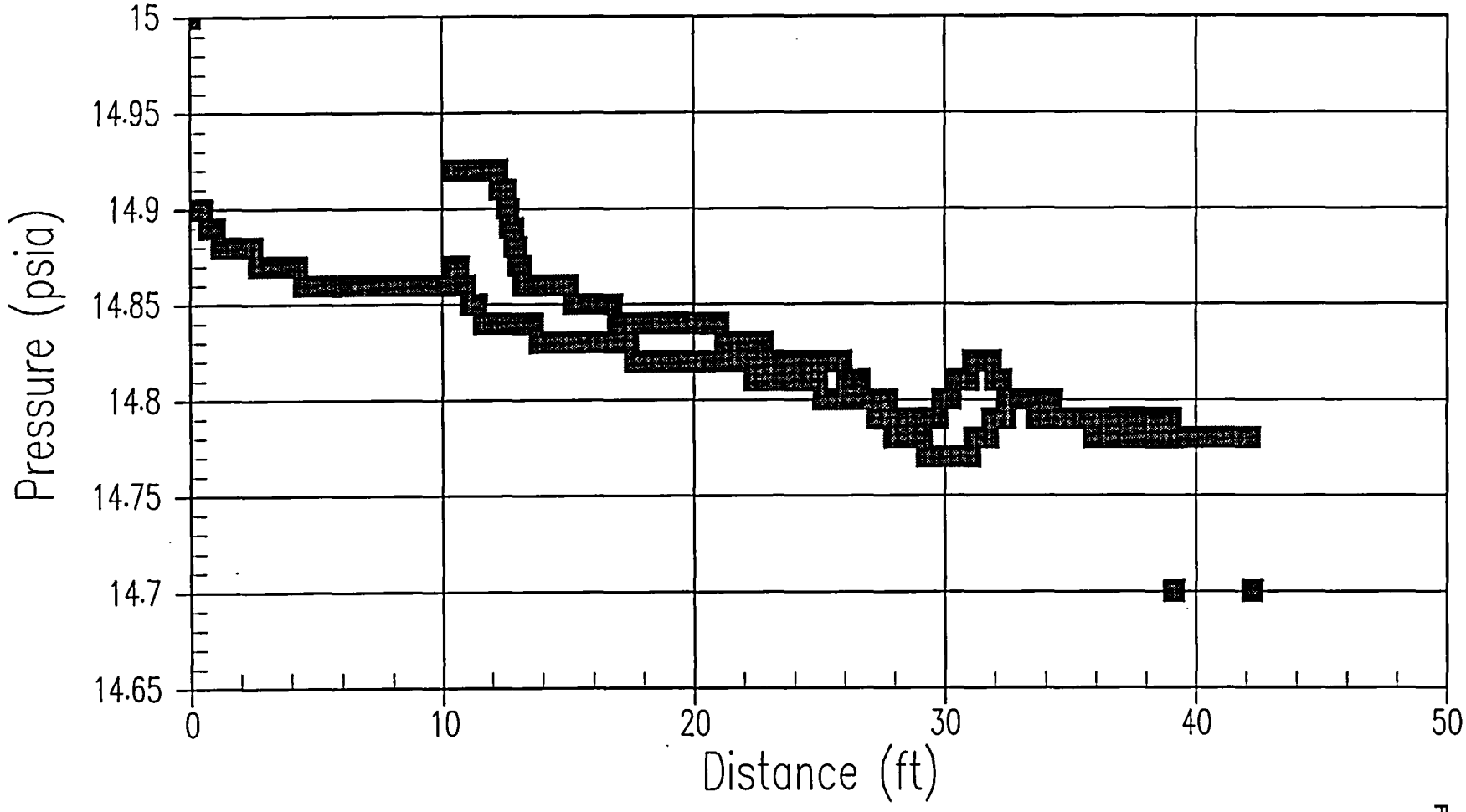
John, Jennifer, Joe,

We have revised the FLOAD4 calculation of ADS4 flow versus hot leg pressure and quality. We discovered that the original calculation was not properly distributing the losses along the pipe. The result is ~5-10% lower vapor flow for a given pressure and quality. The adjustment we make to NOTRUMP resistance to match FLOAD4 does not change for the DEDVI 20 psia case, but increases in the 14.7 psia cases (from 1.7 to ~1.85) to account for this new FLOAD4 calculation, and we will revise the DCD and PRA 14.7 psia analyses to reflect this. This is a small correction compared to the form factor sensitivity study we ran where adjustment to NOTRUMP was increased from 1.7 to 2.56, so there will be little effect on the 14.7 psia cases. The file below provides the revised FLOAD4 results that replace those in Appendix 8 of our 2/2/04 submittal (DCP/NRC 1678). We will use these results for the ACRS presentation.

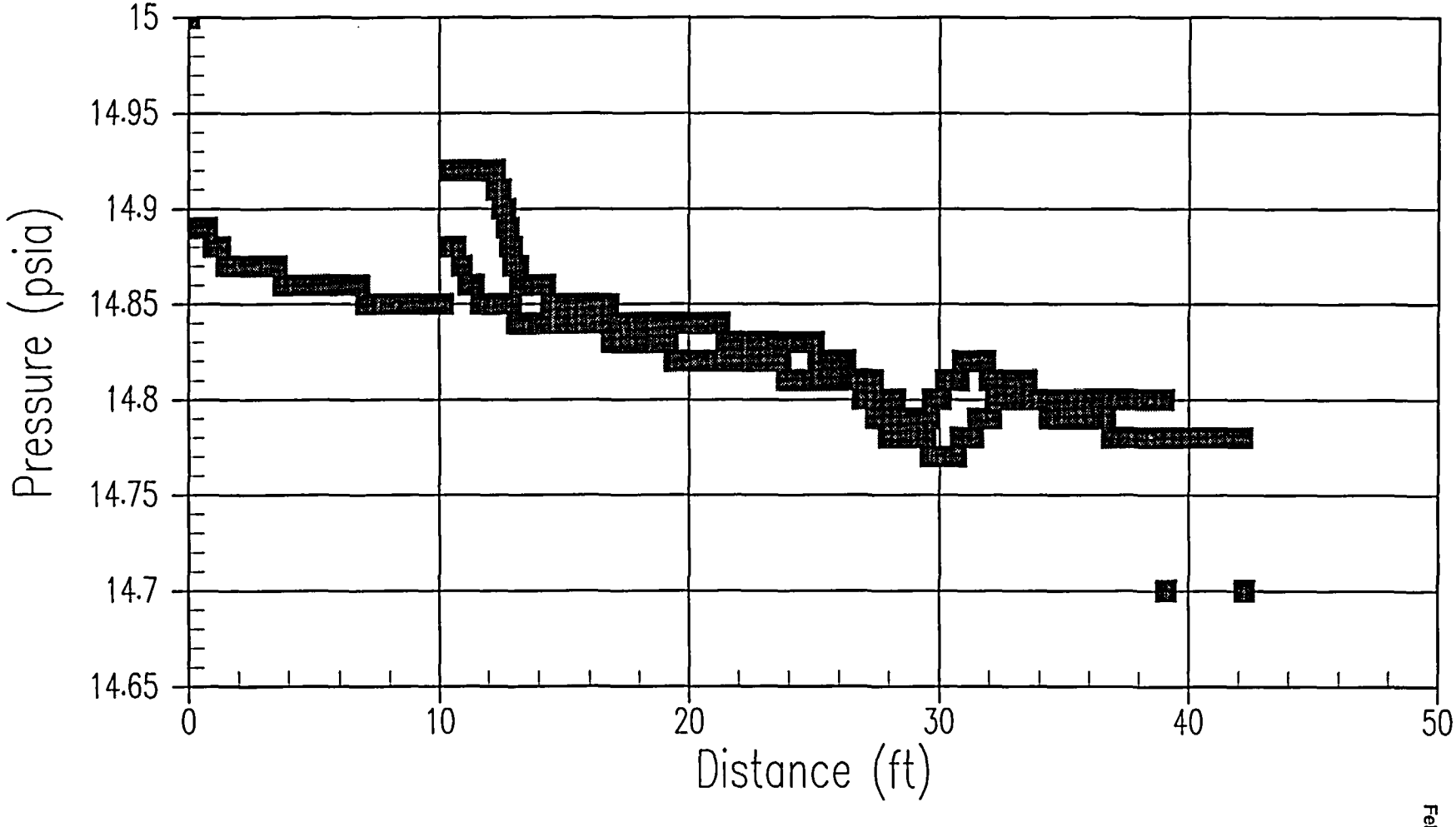
flood4.psc.pdf

Ron

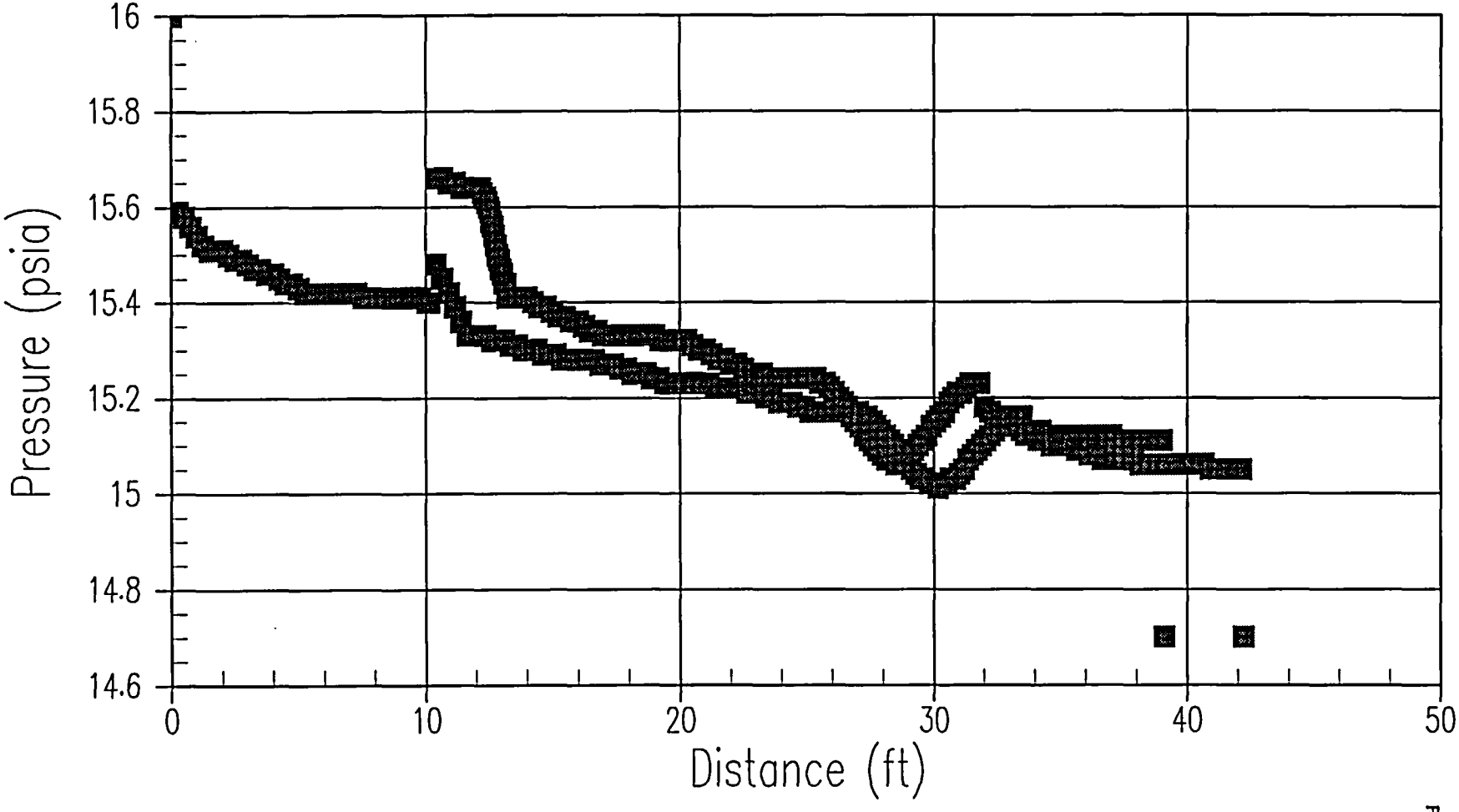
AP1000 15-psi, 90 quality



AP1000 15-psi, 100 quality



AP1000 16-psi, 90 quality



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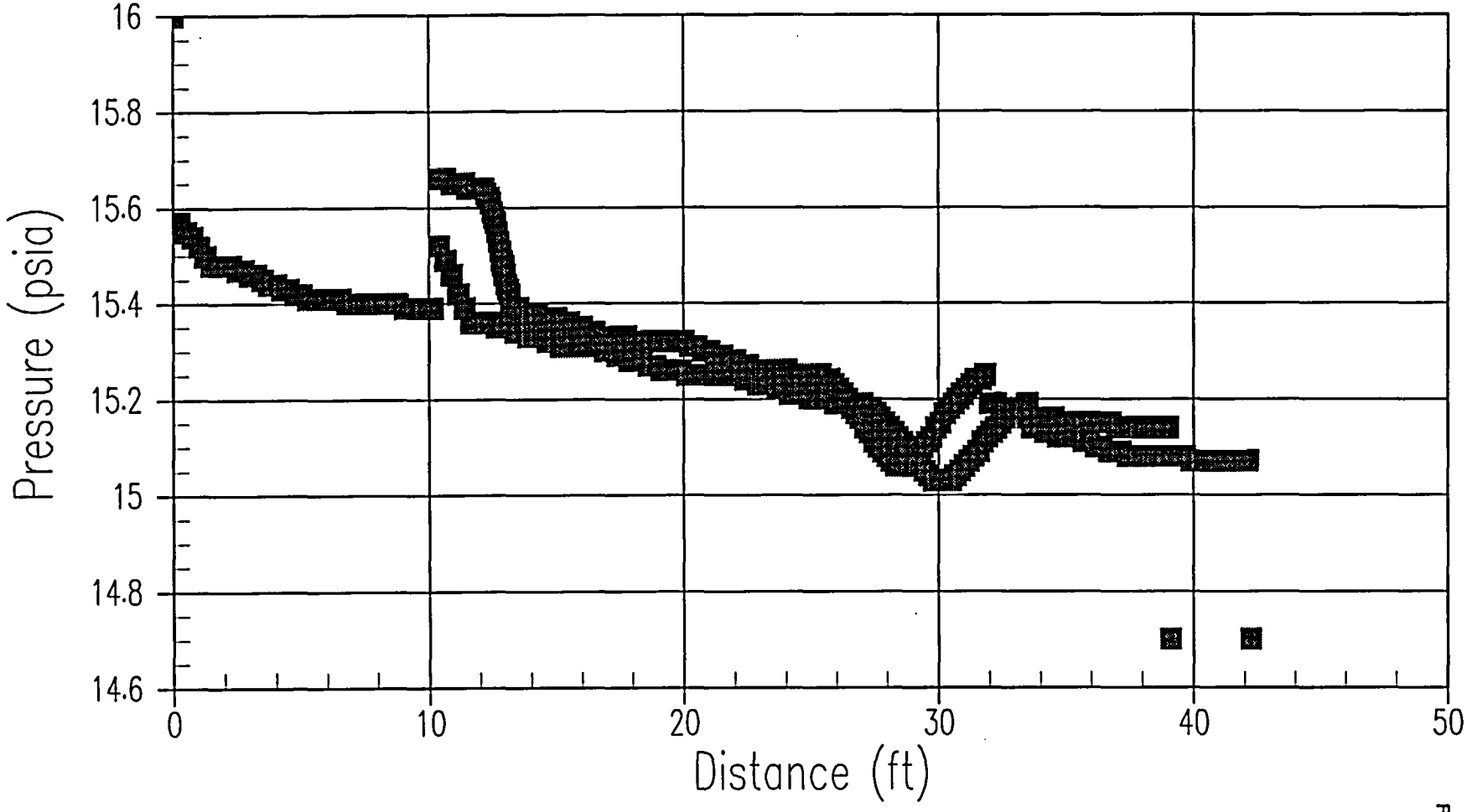

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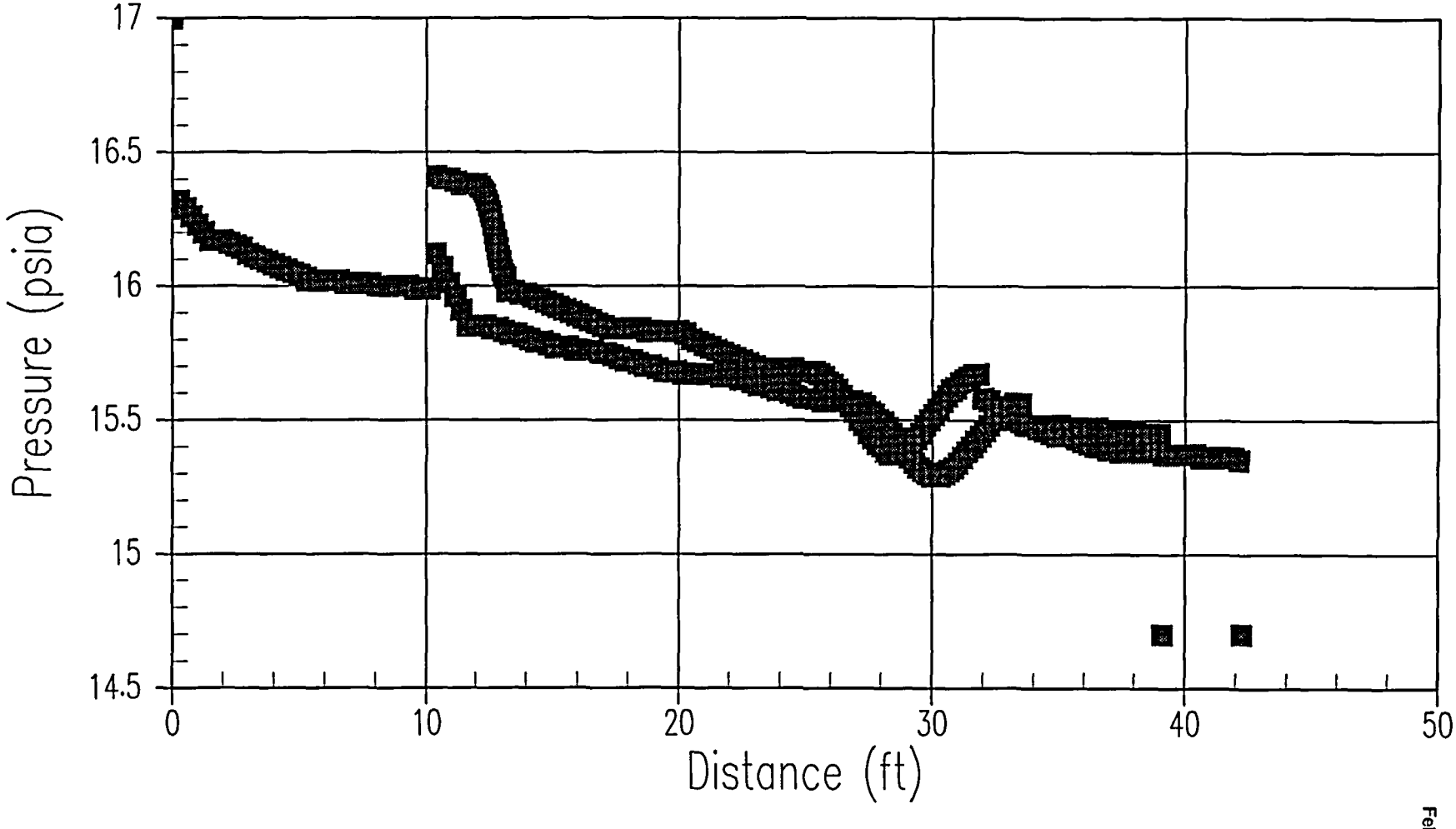

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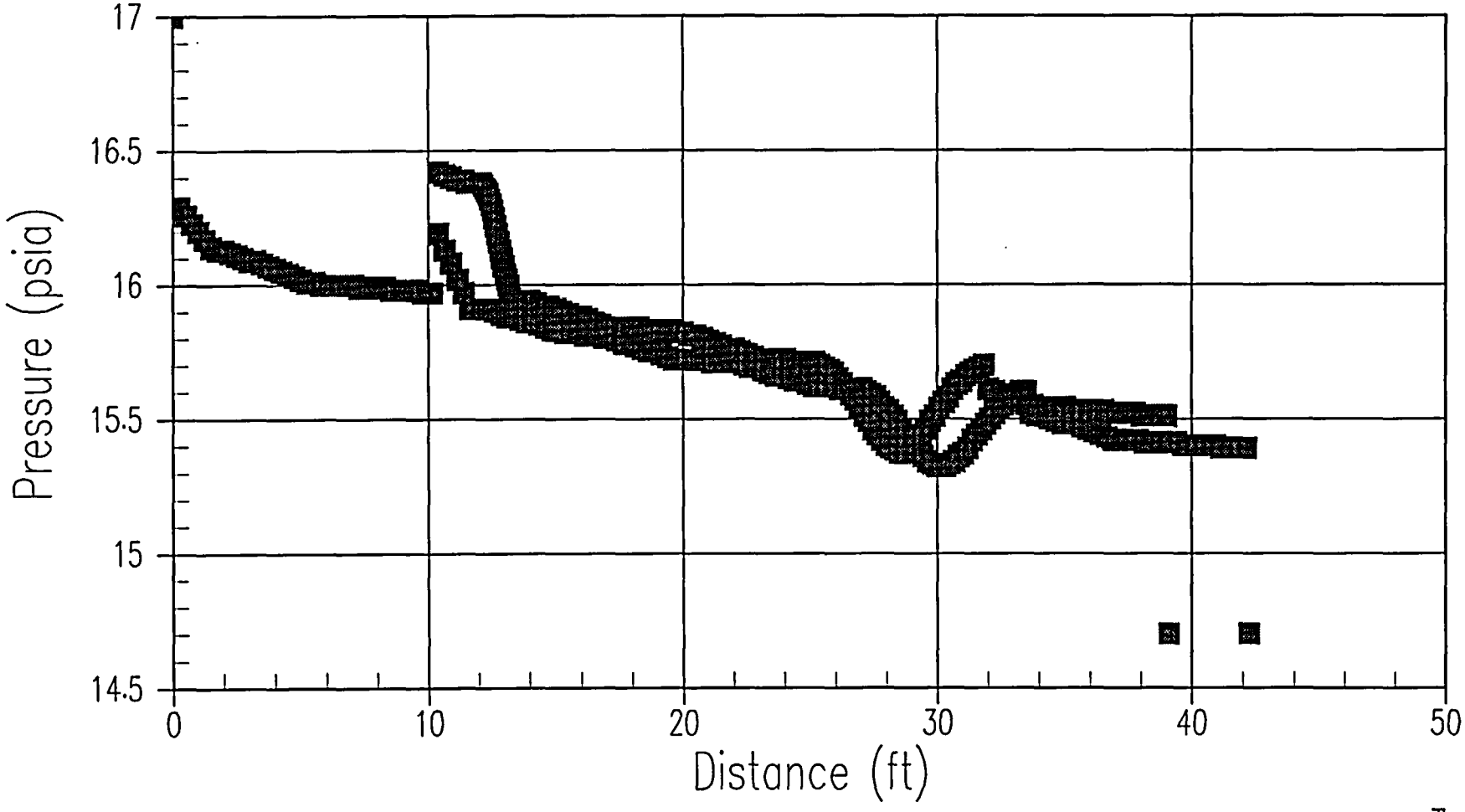

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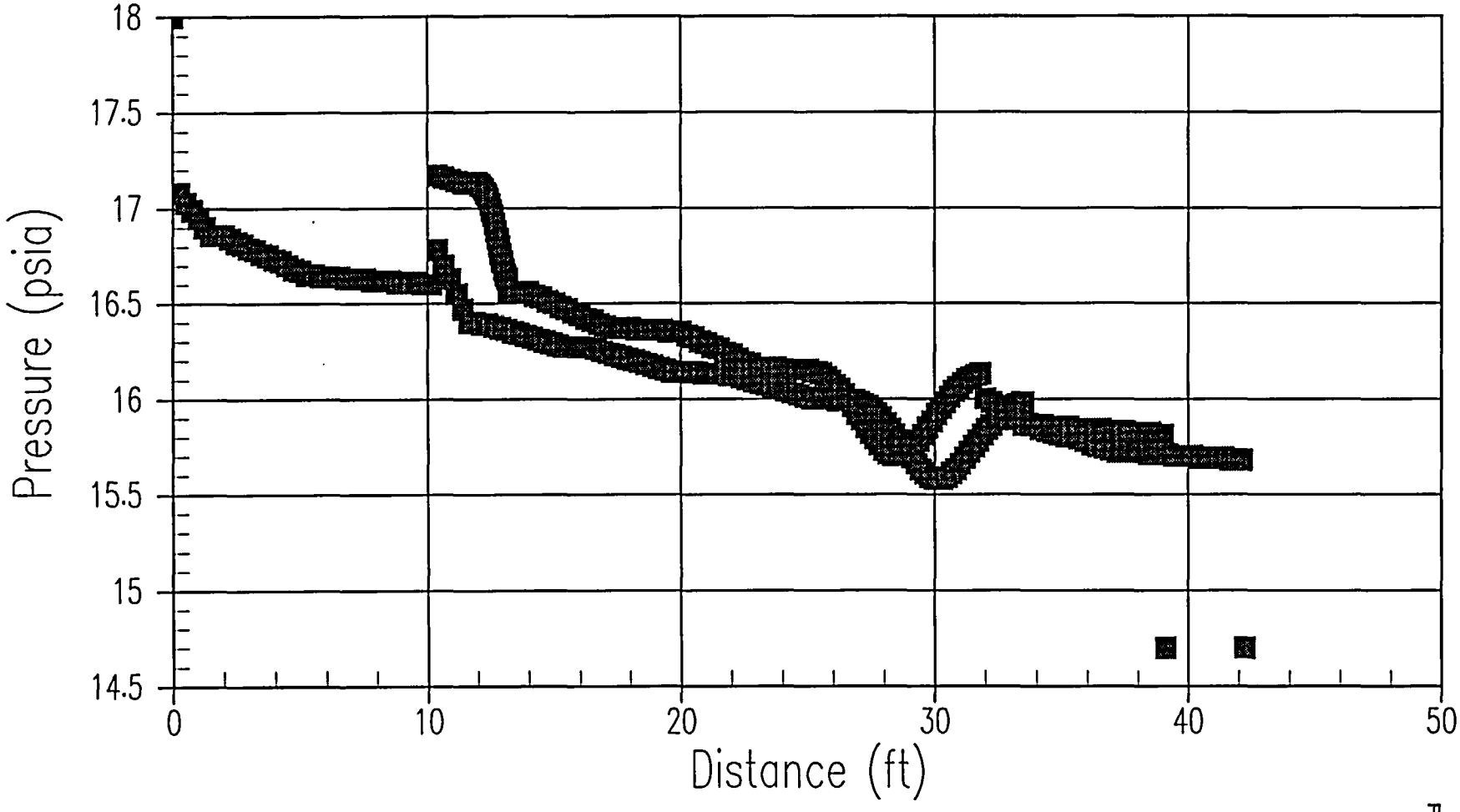
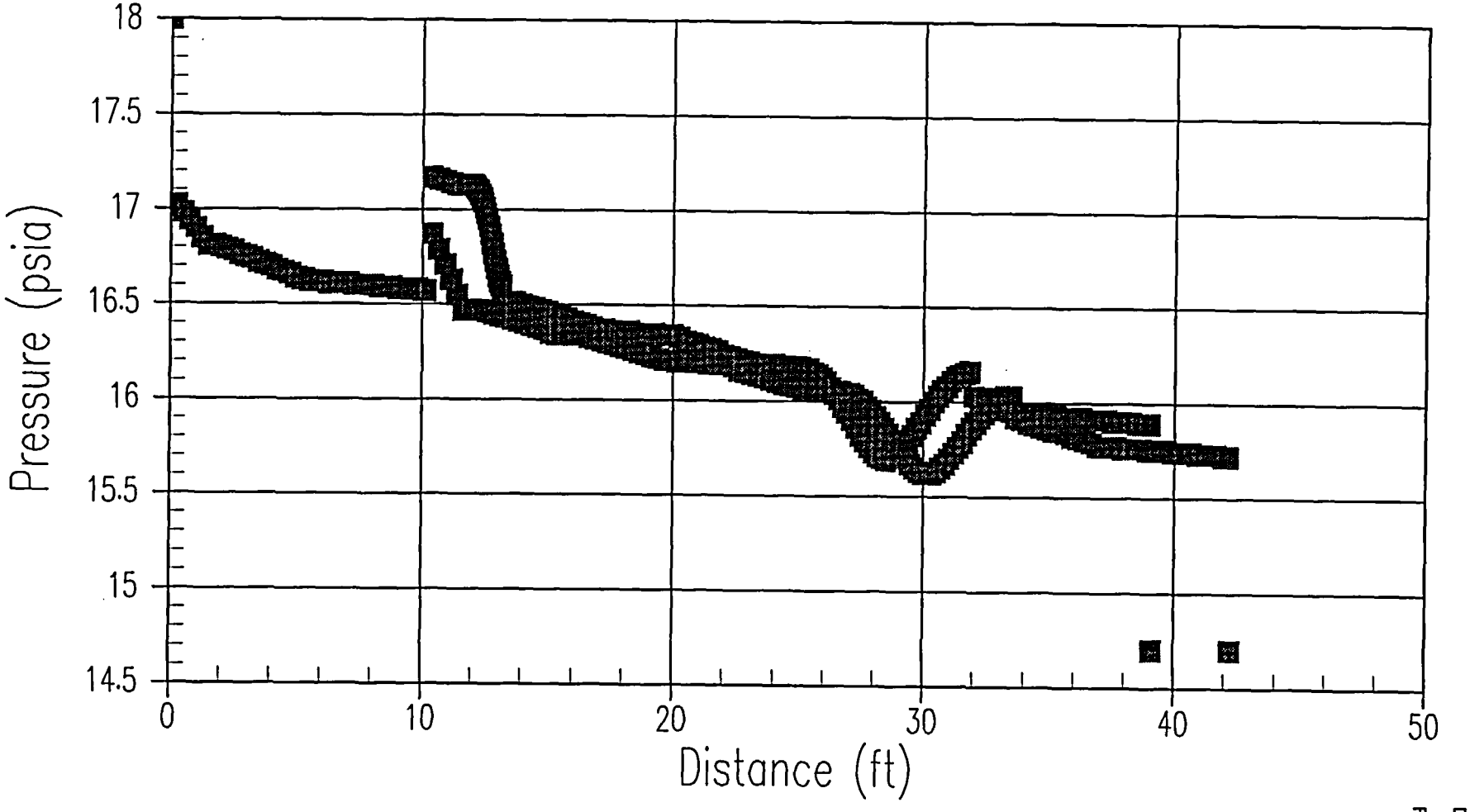
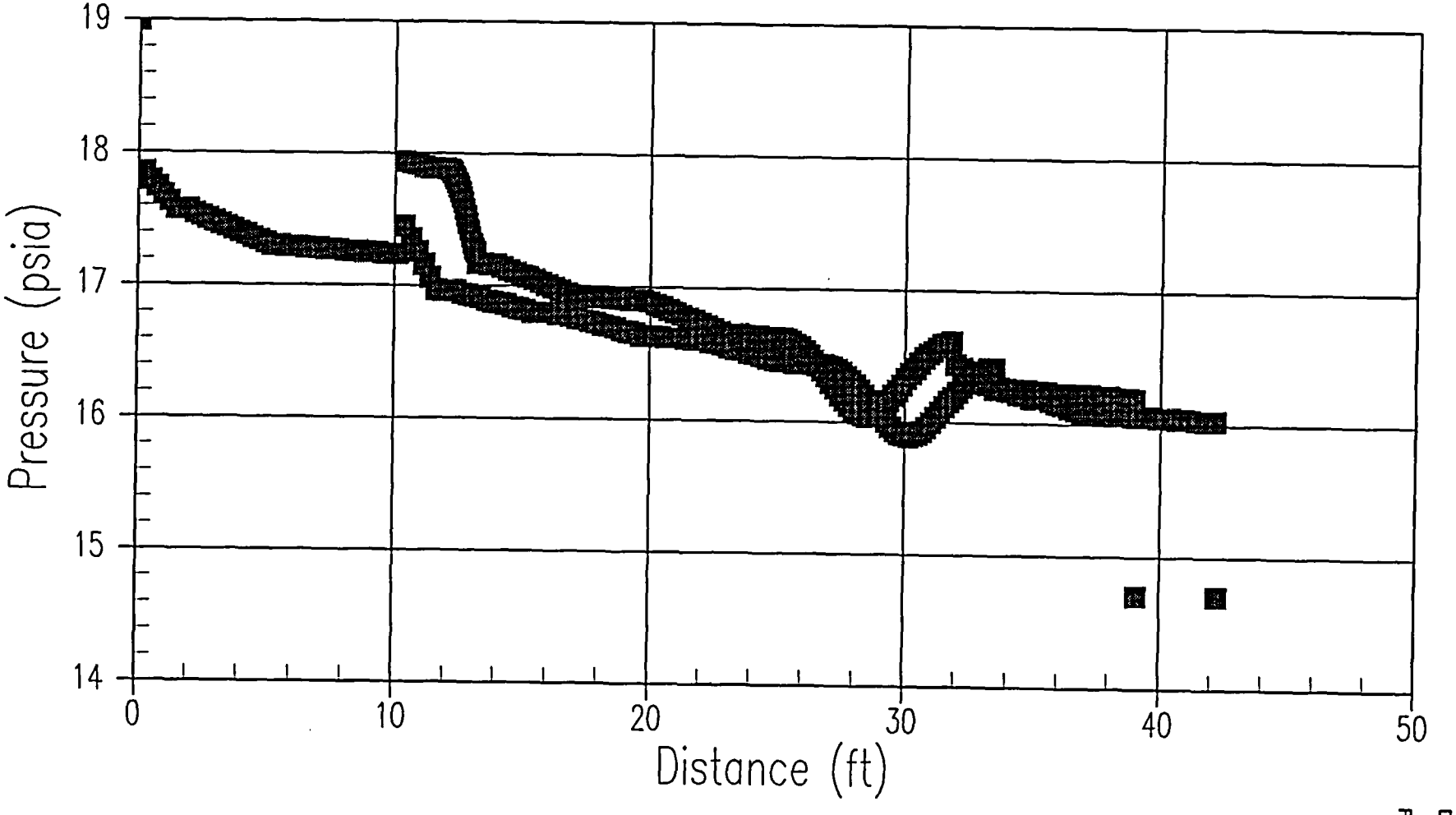


AP1000 18-psi, 100 quality



AP1000 19-psi, 90 quality



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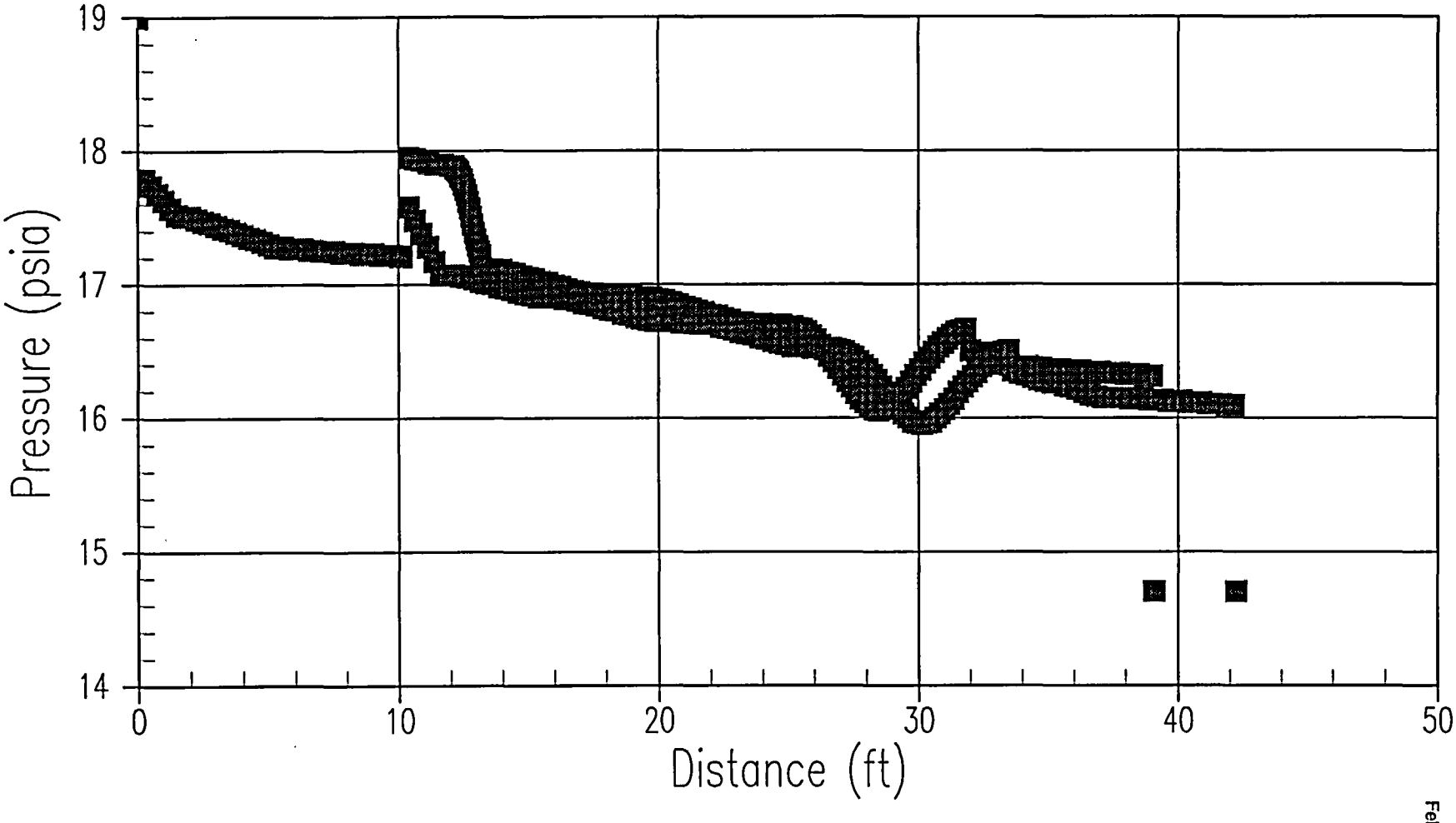

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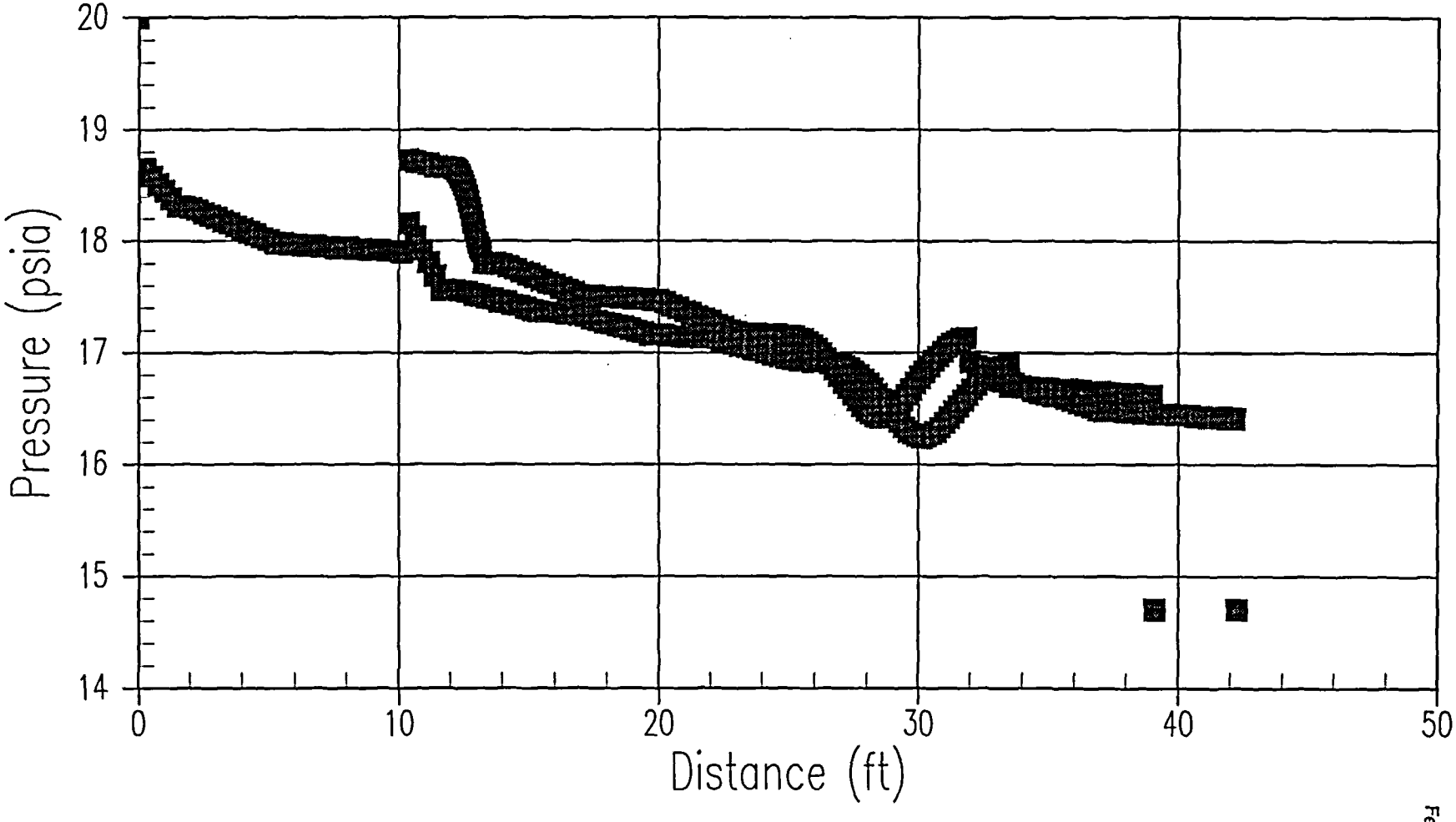

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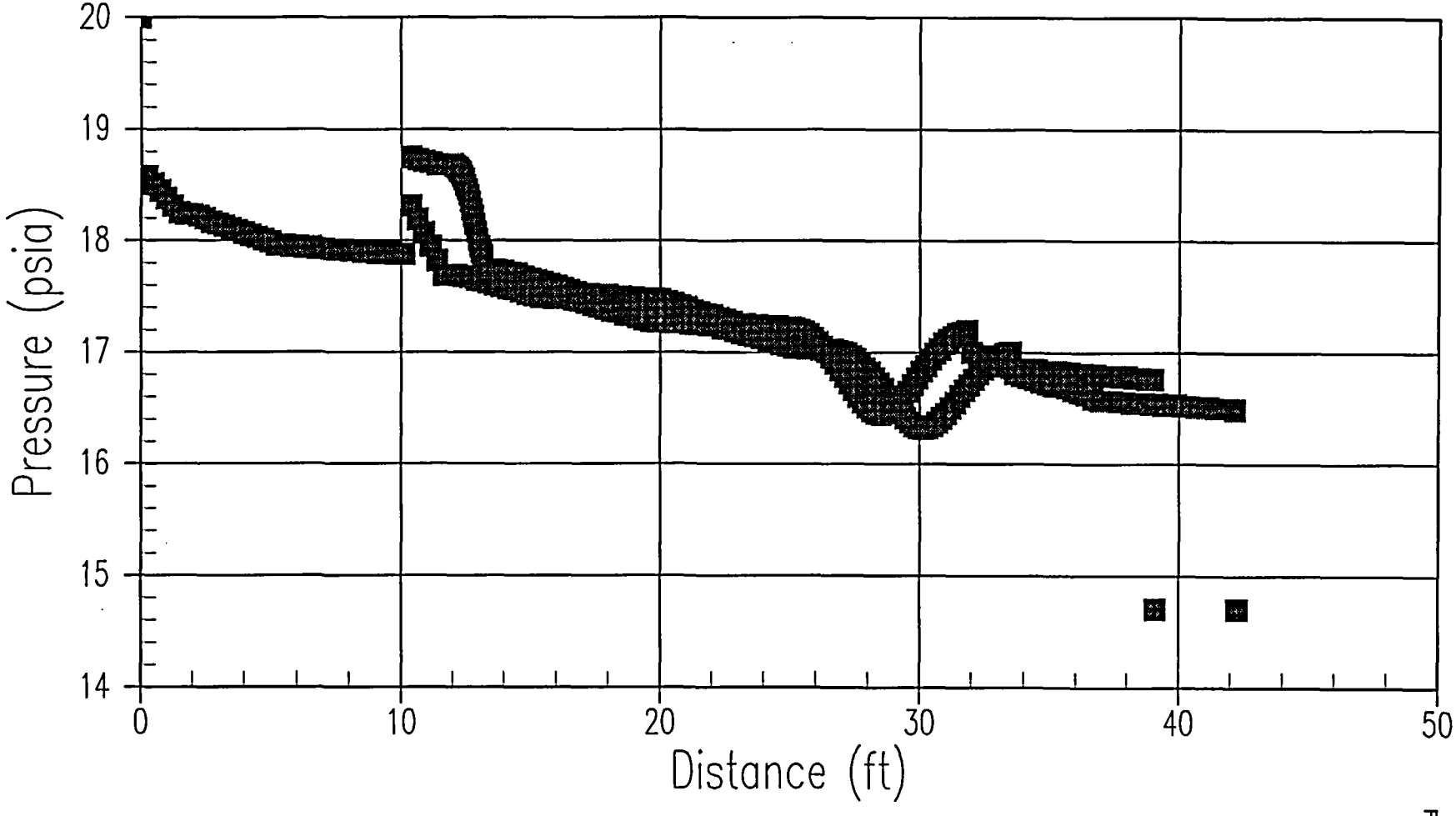

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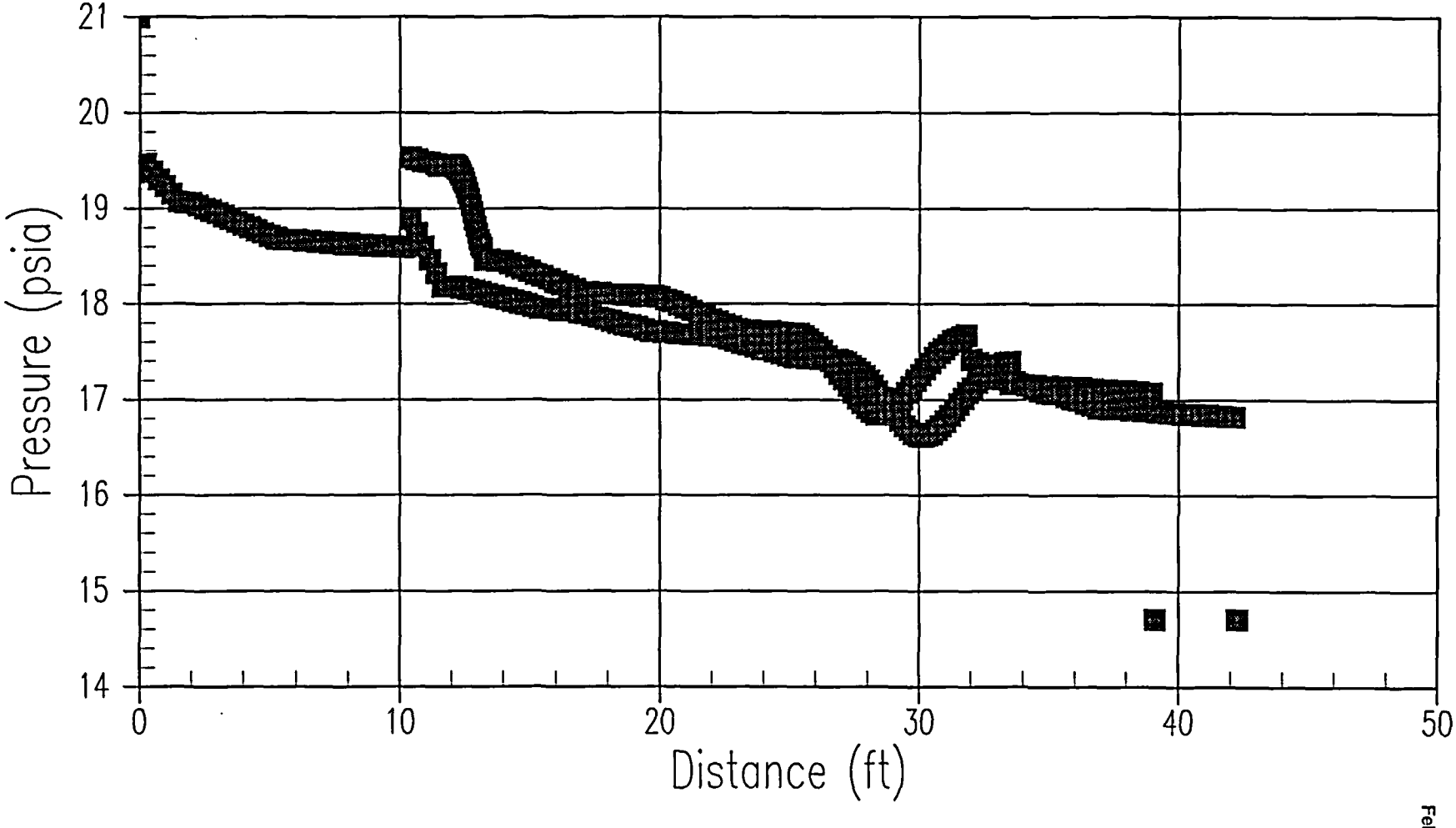

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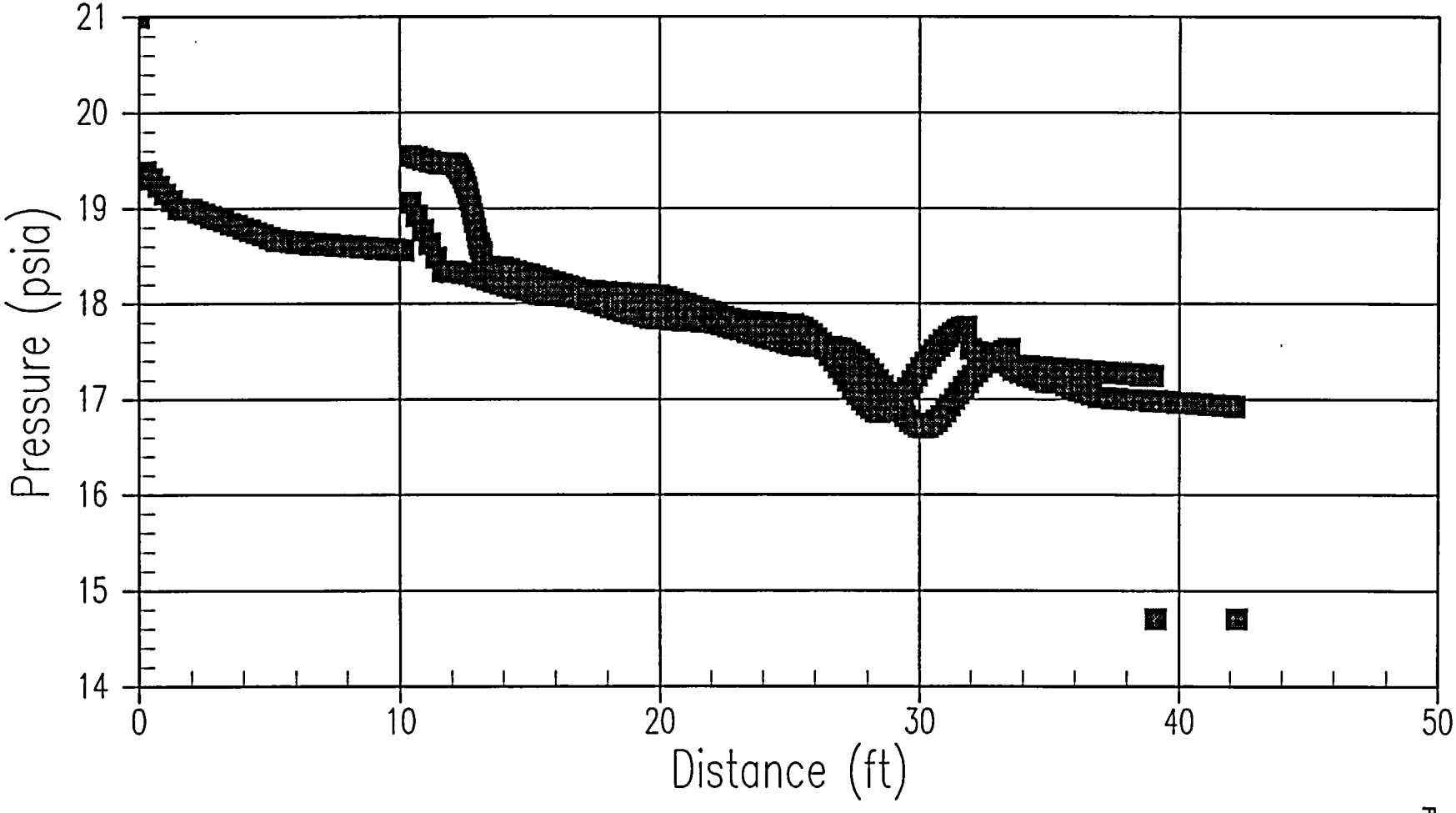

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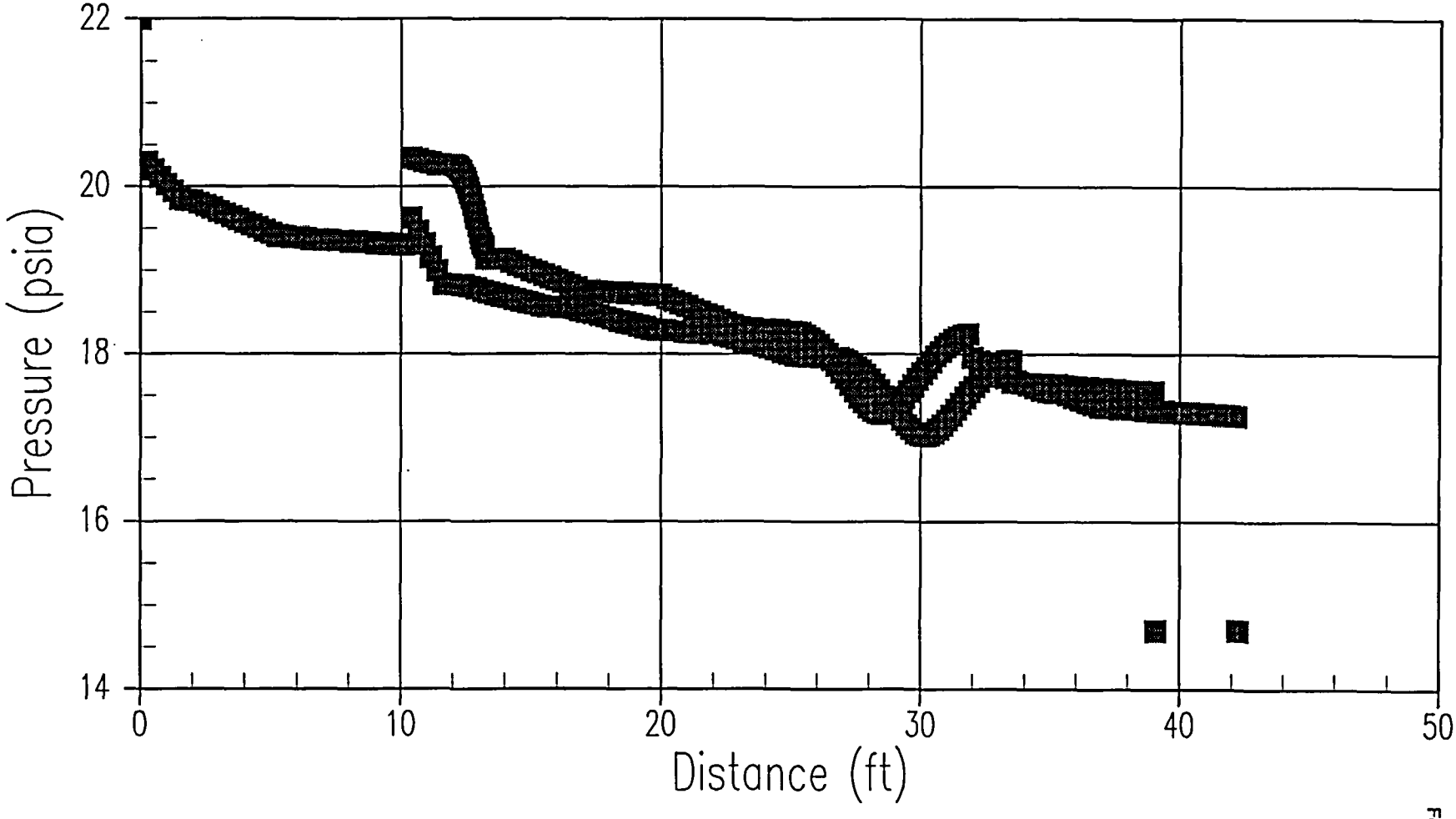
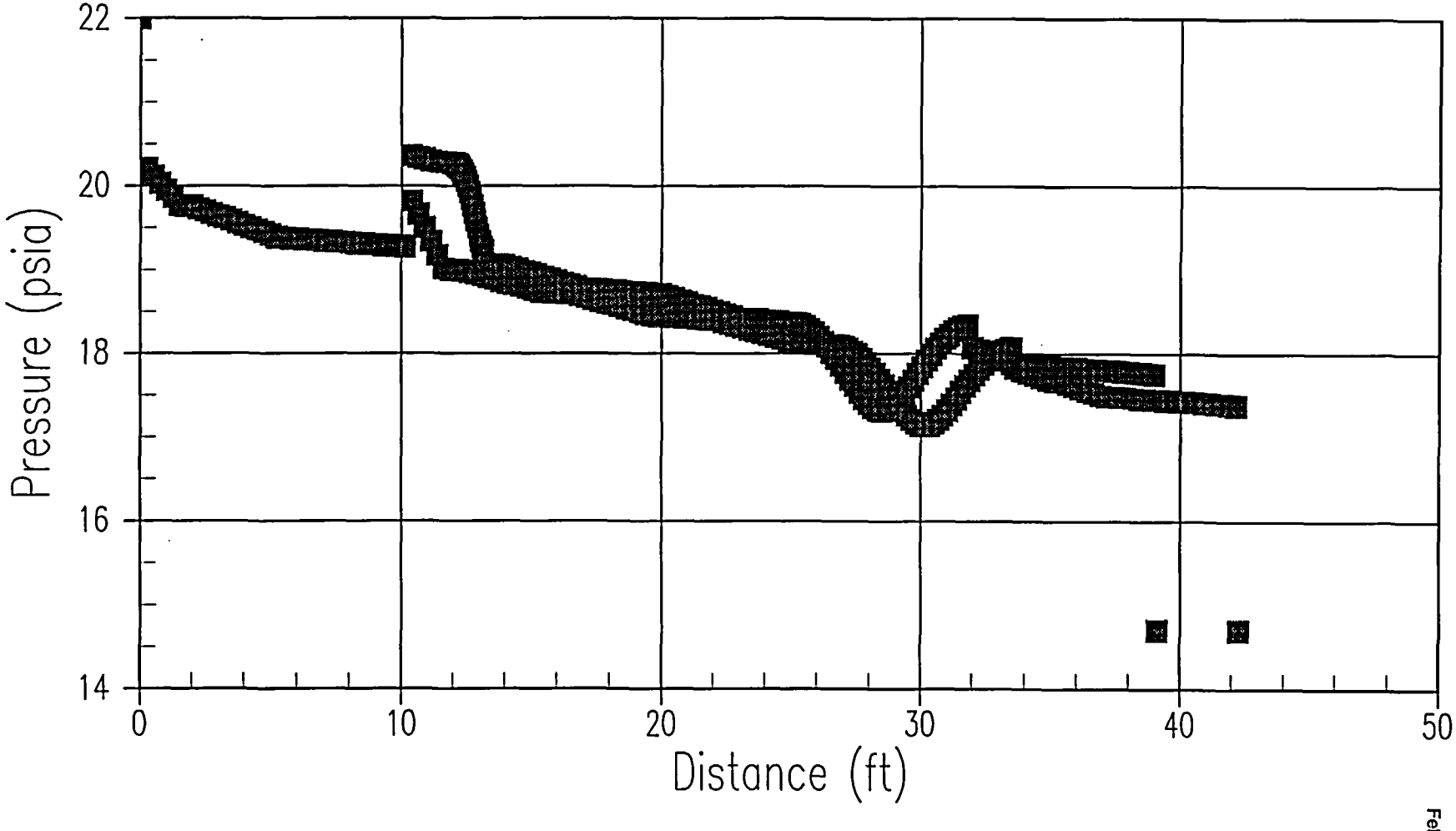
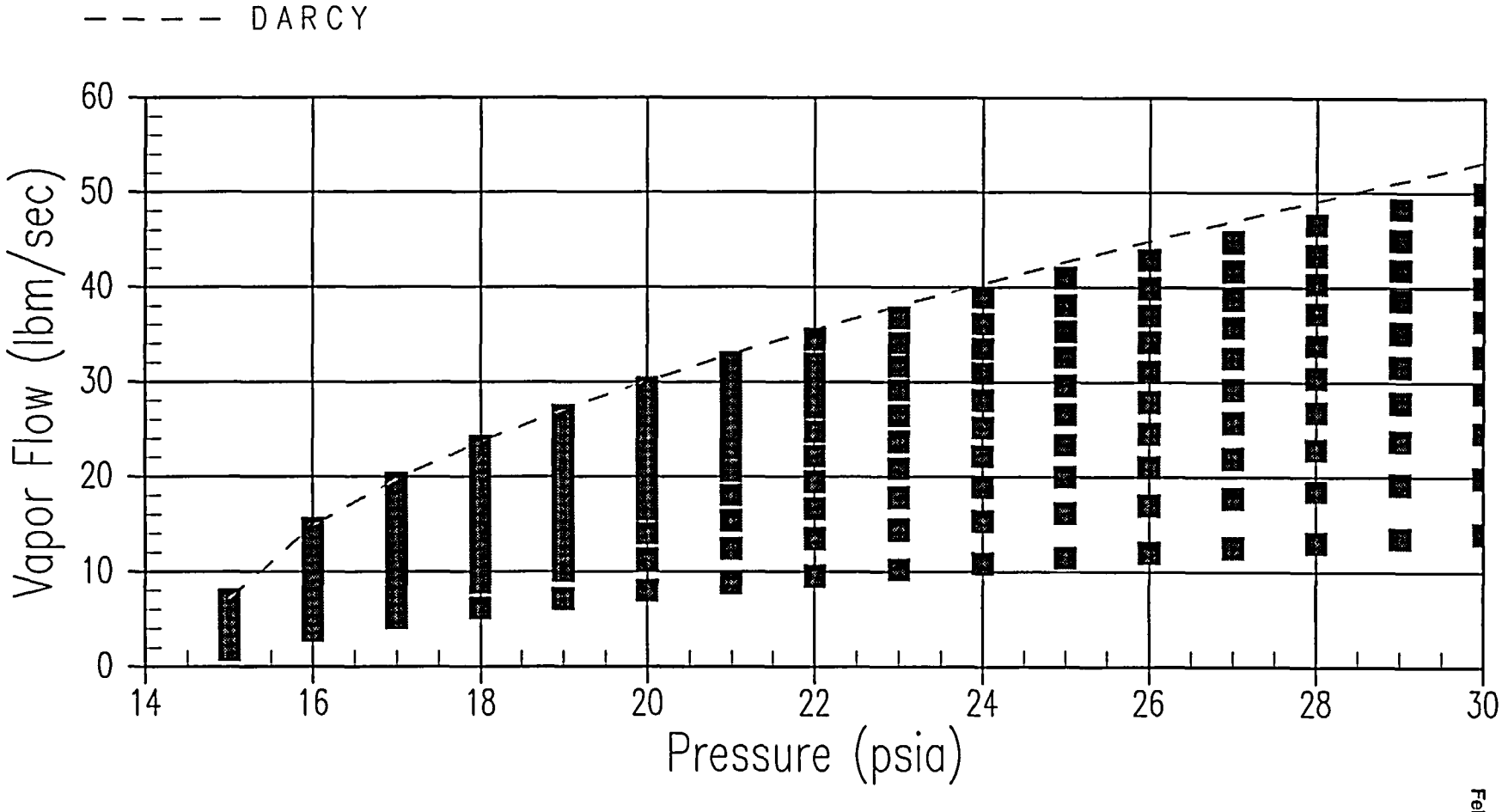


AP1000 22-psi, 100 quality



AP1000 FLOAD4 Simulations As A Function Of Pressure/Quality