



**US Army Corps
of Engineers**
Waterways Experiment
Station

Technical Report HL-93-3
June 1993

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Demonstration Erosion Control Project Monitoring Program

Fiscal Year 1992 Report

Volume II: Appendix A

Hickahala-Senatobia Watershed Profiles and Cross Sections

*by Terry N. Waller, Lisa C. Hubbard
Hydraulics Laboratory*

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Prepared for U.S. Army Engineer District, Vicksburg

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by Terry N. Waller, Lisa C. Hubbard
Hydraulics Laboratory

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3909 Halls Ferry Road
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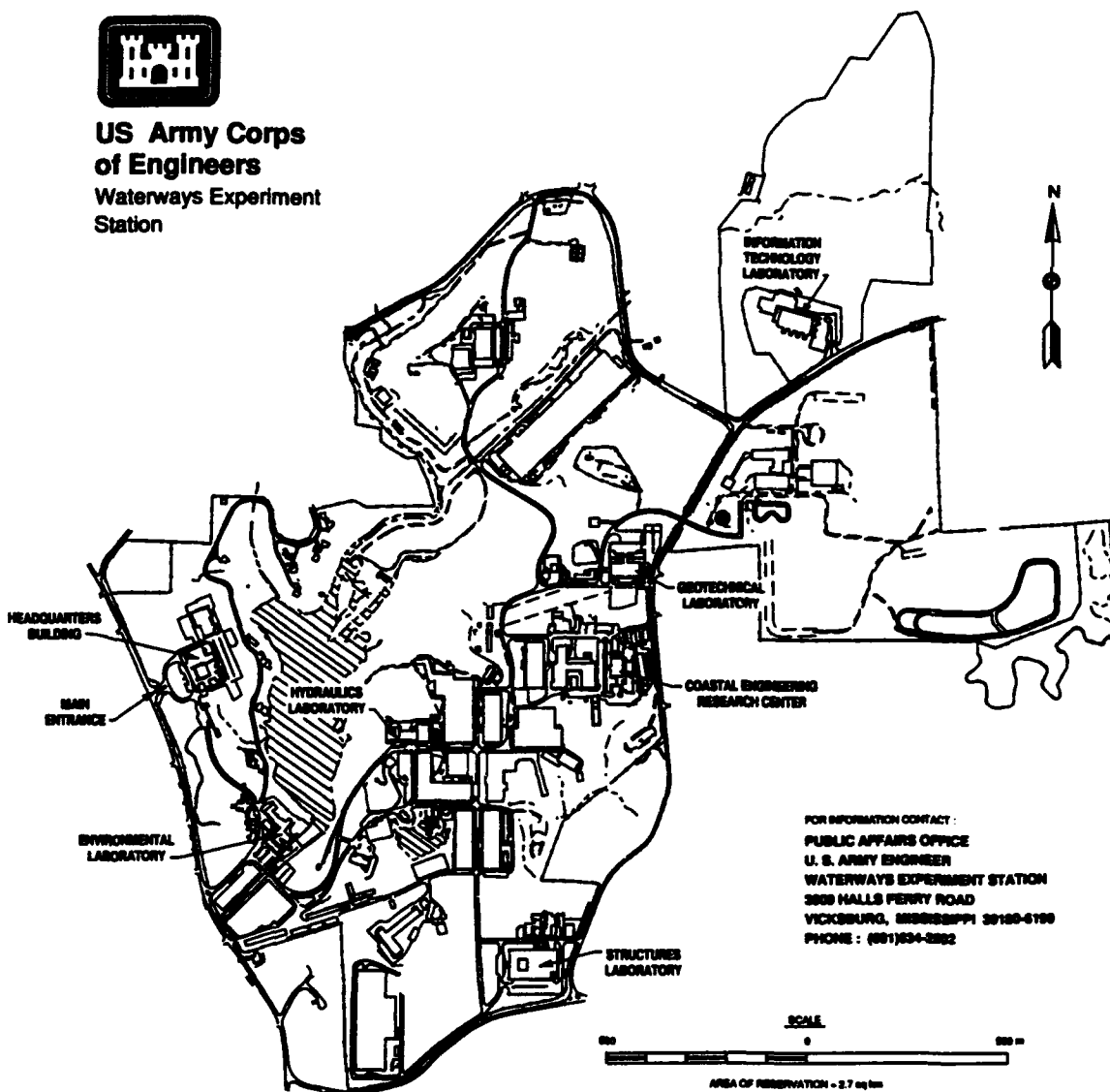
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Appendix A

Hickahala-Senatobia

Watershed Profiles and Cross Sections

Channel Profiles

Comparison plots of channel profiles in the Hickahala-Senatobia watershed from 1985 and 1991 are shown in Plates A1-A34. The channels represented in these profile plots are as follows:

Creek	Plate
Thornton	A1
Steammill	A2
Basket	A3-A4
James Wolf	A5-A7
Martin Dale	A8
Whites	A9
Beards	A10-A11
Catheys	A12
South Fork Hickahala	A13
Senatobia	A14-A17
Mattic	A18-A19
Tolbert Jones	A20
Nelson	A21-A22
Hickahala	A23-A29
Billys	A30
West Ditch Creek	A31-A33
Southwest Fork Hickahala	A34

Channel Cross Sections

Comparisons plots of channel cross sections in the Hickahala-Senatobia watershed from 1985 and 1991 are shown in Plates A35-A215. The channels represented in these cross-section plots are as follow:

Creek	Plate
Thornton	A35-A38
Steammill	A39-A42
Basket	A43-A52
James Wolf	A53-A76
Martin Dale	A73-A76
Whites	A77-A82
Beards	A83-A89
Catheys	A90-A95
South Fork Hickahala	A96-A100
Senatobia	A101-A126
Mattic	A127-A134
Tolbert Jones	A135-A141
Nelson	A142-A152
Hickahala	A153-A185
Billys	A186-A195
West Ditch	A196-A215

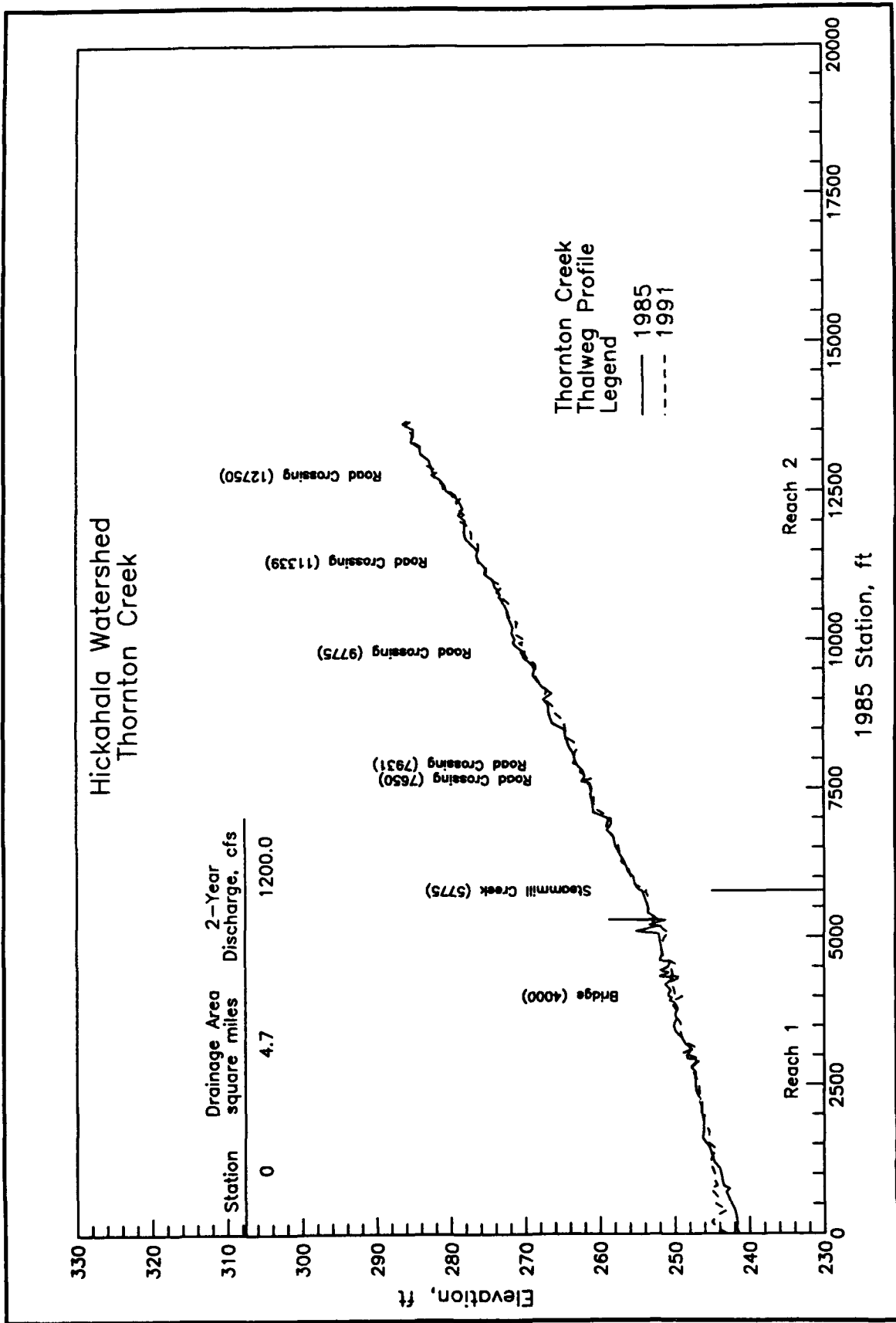


PLATE A1

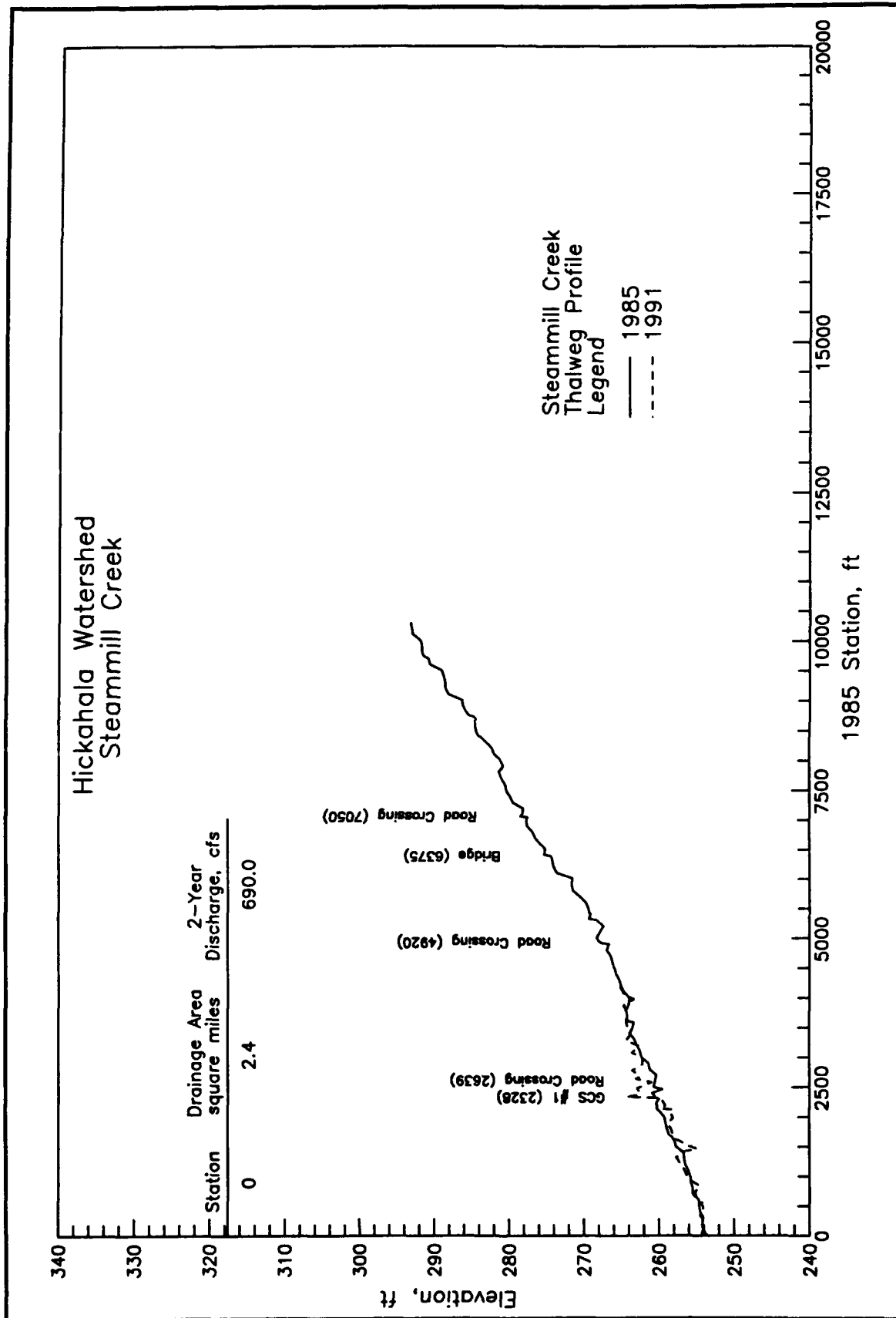
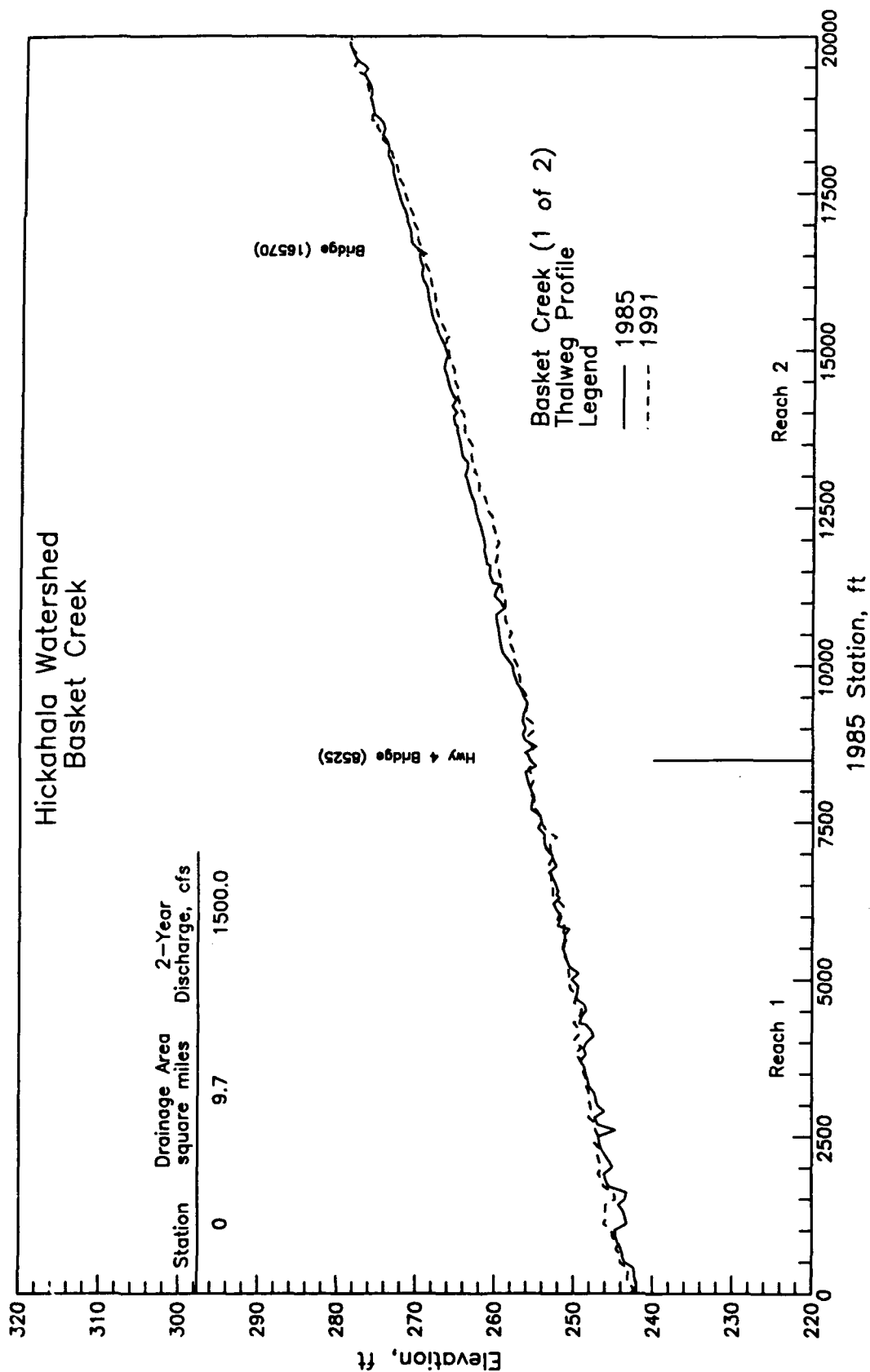


PLATE A2

Hickahala Watershed Basket Creek

Station	Drainage Area square miles	2-Year Discharge, cfs
0	9.7	1500.0



Basket Creek (1 of 2)
Thalweg Profile
Legend

— 1985
- - - 1991

Bridge (16570)

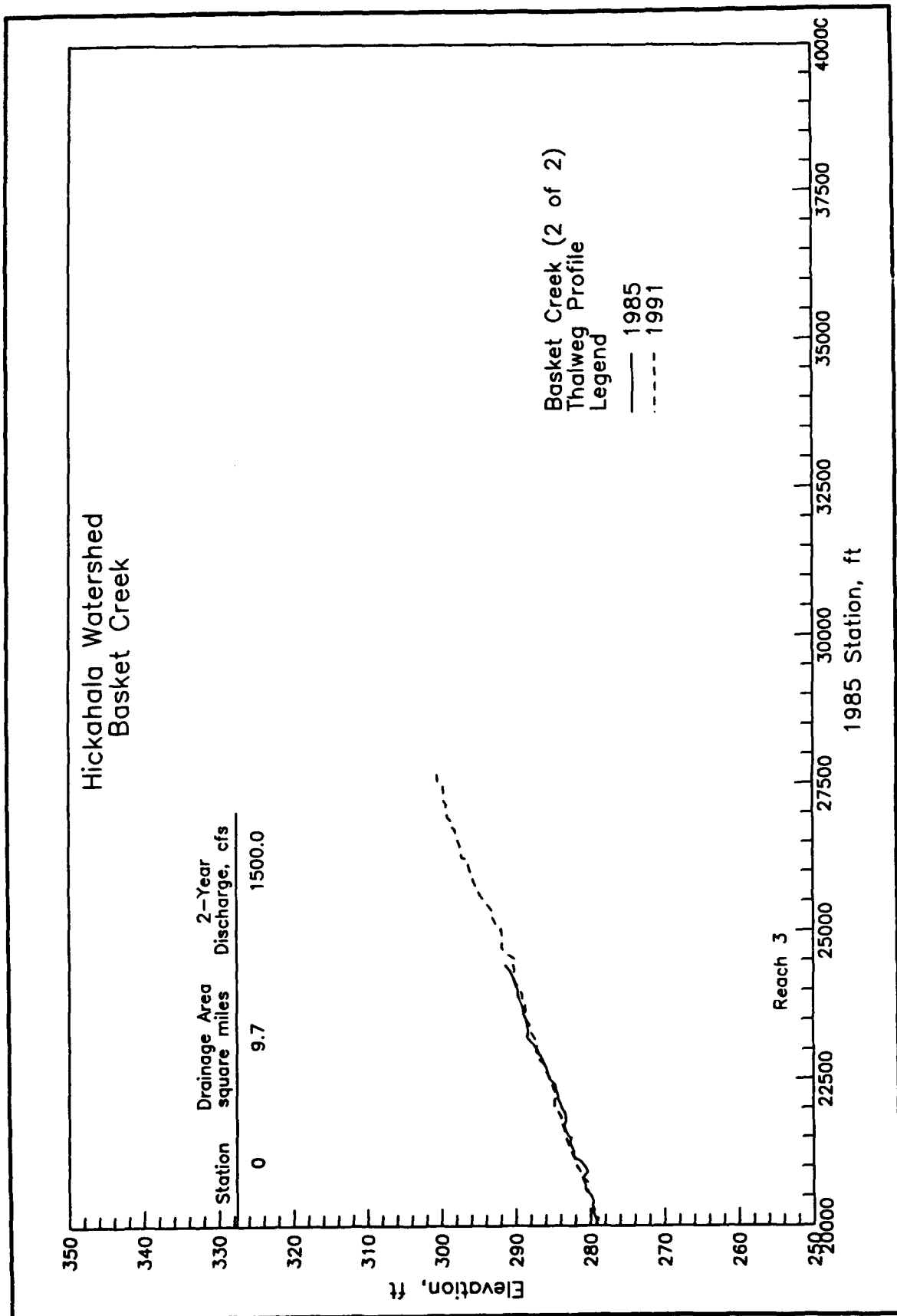
Hwy + Bridge (8525)

Reach 2

Reach 1

1985 Station, ft

PLATE A4



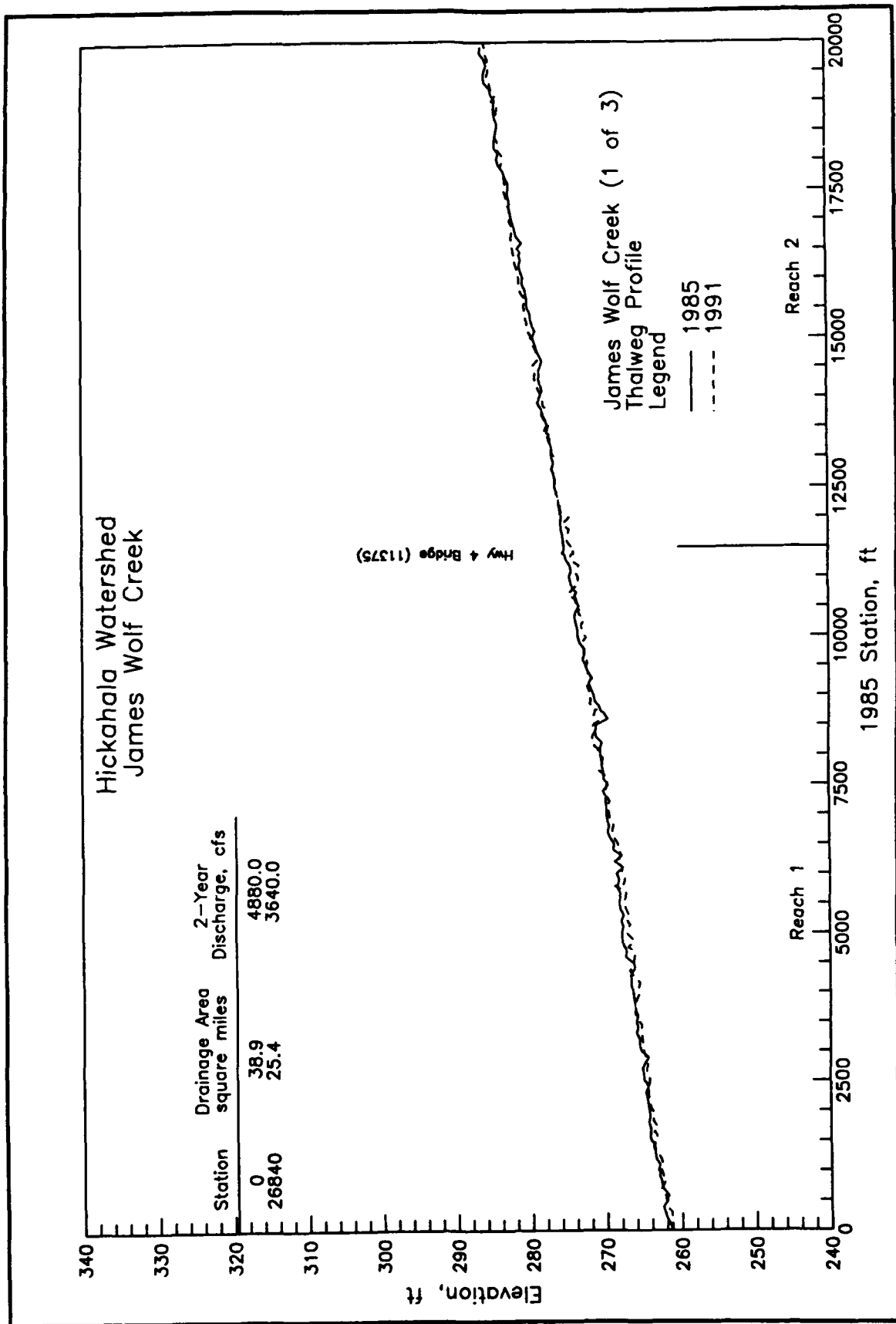


PLATE A5

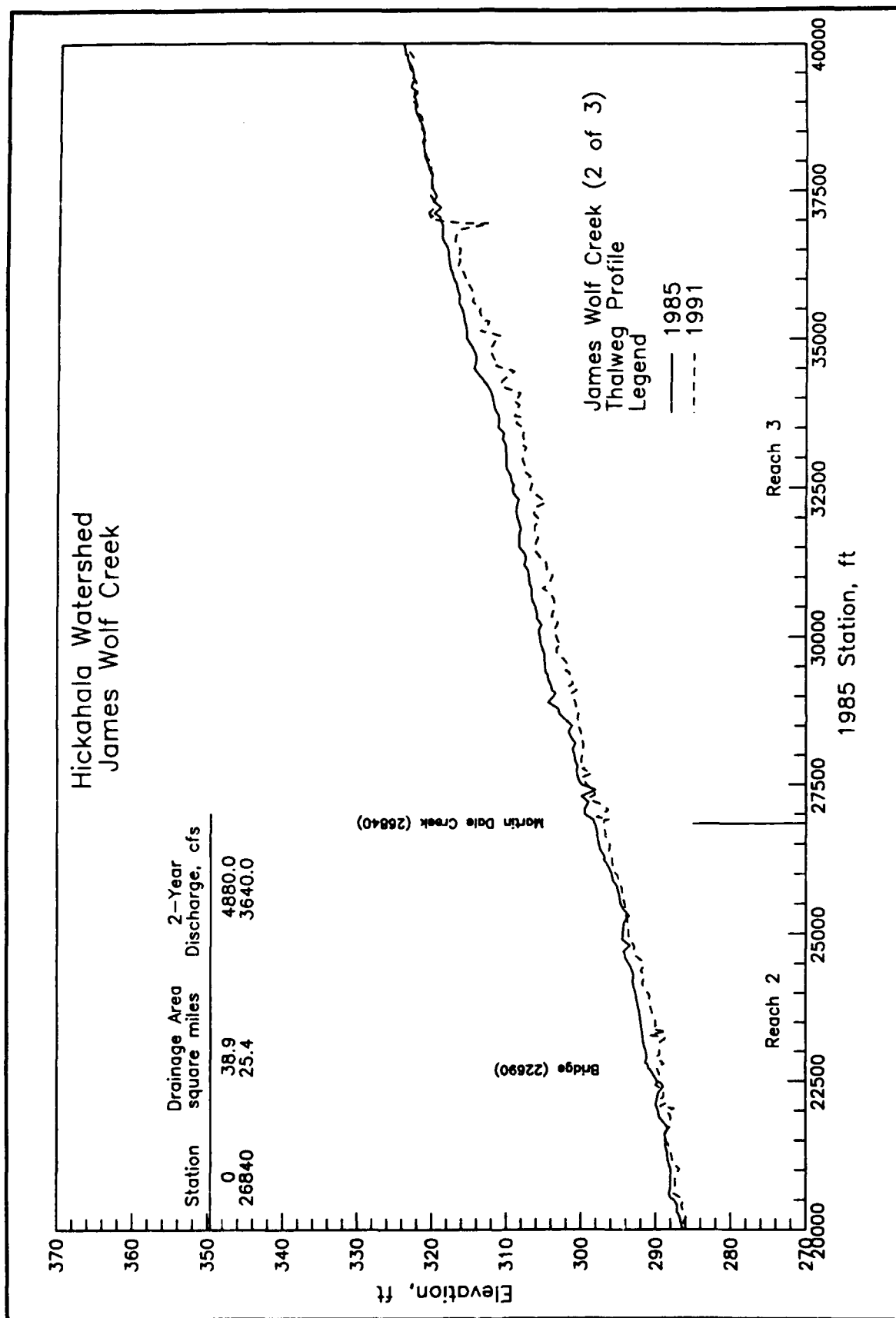
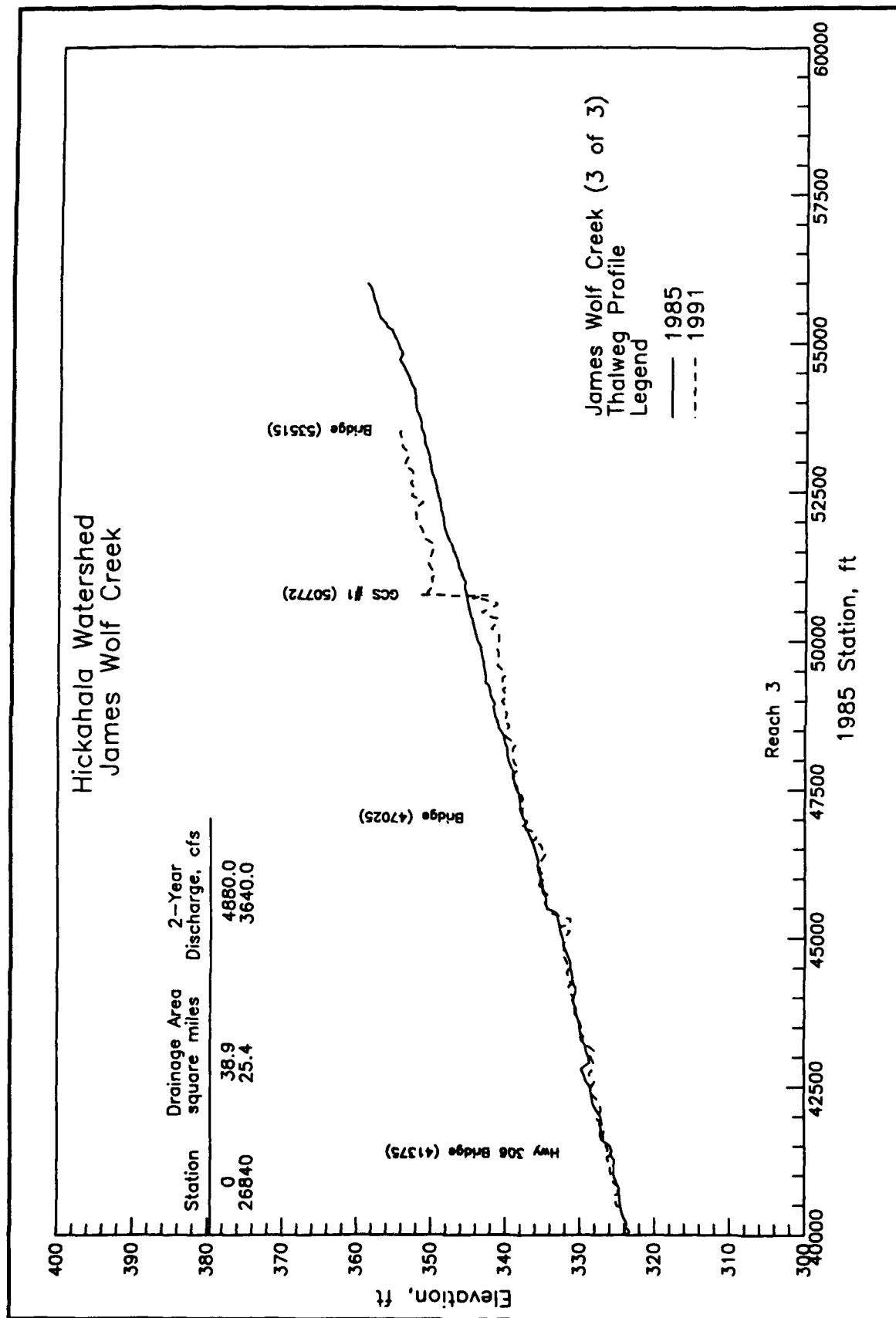


PLATE A6



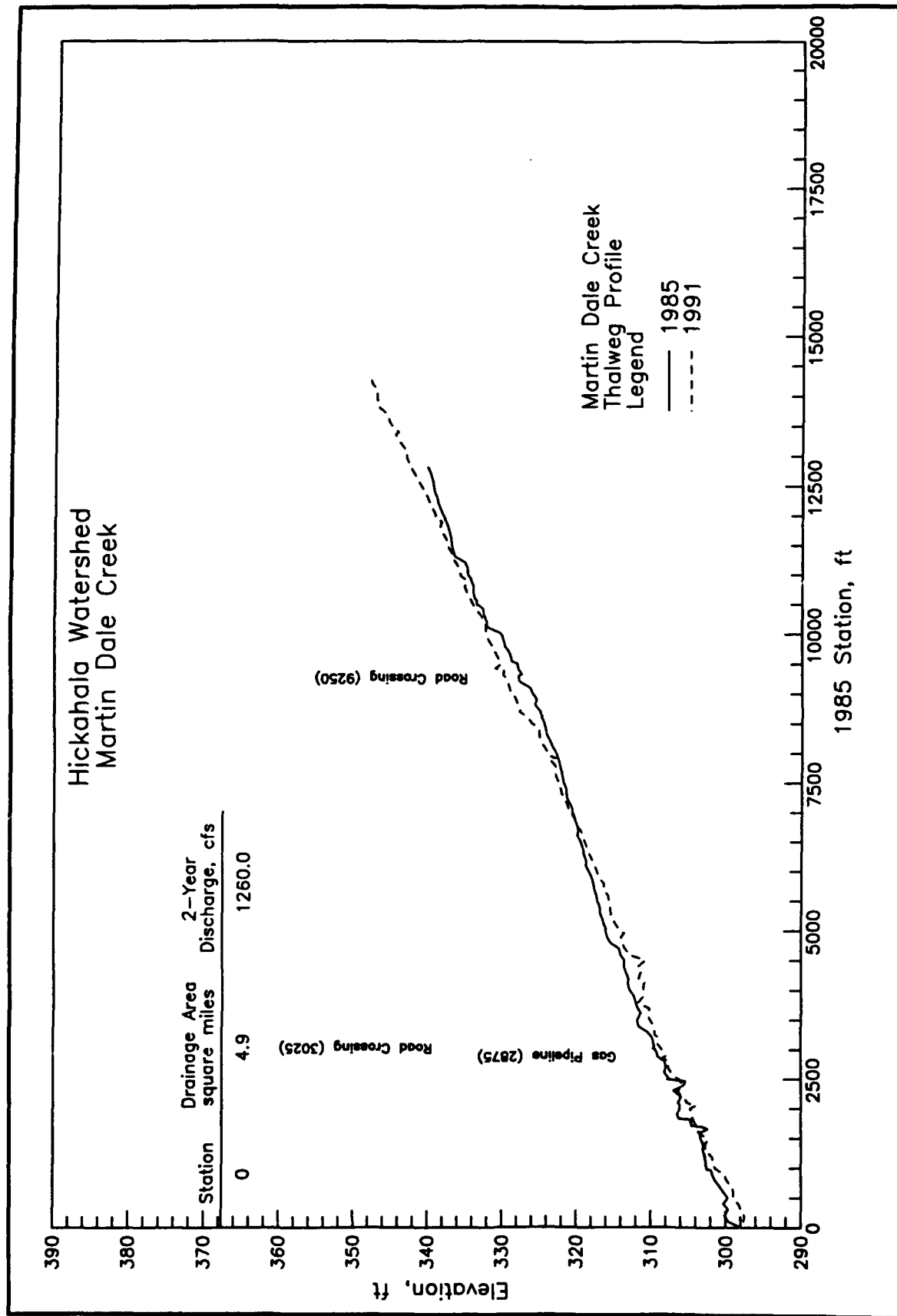


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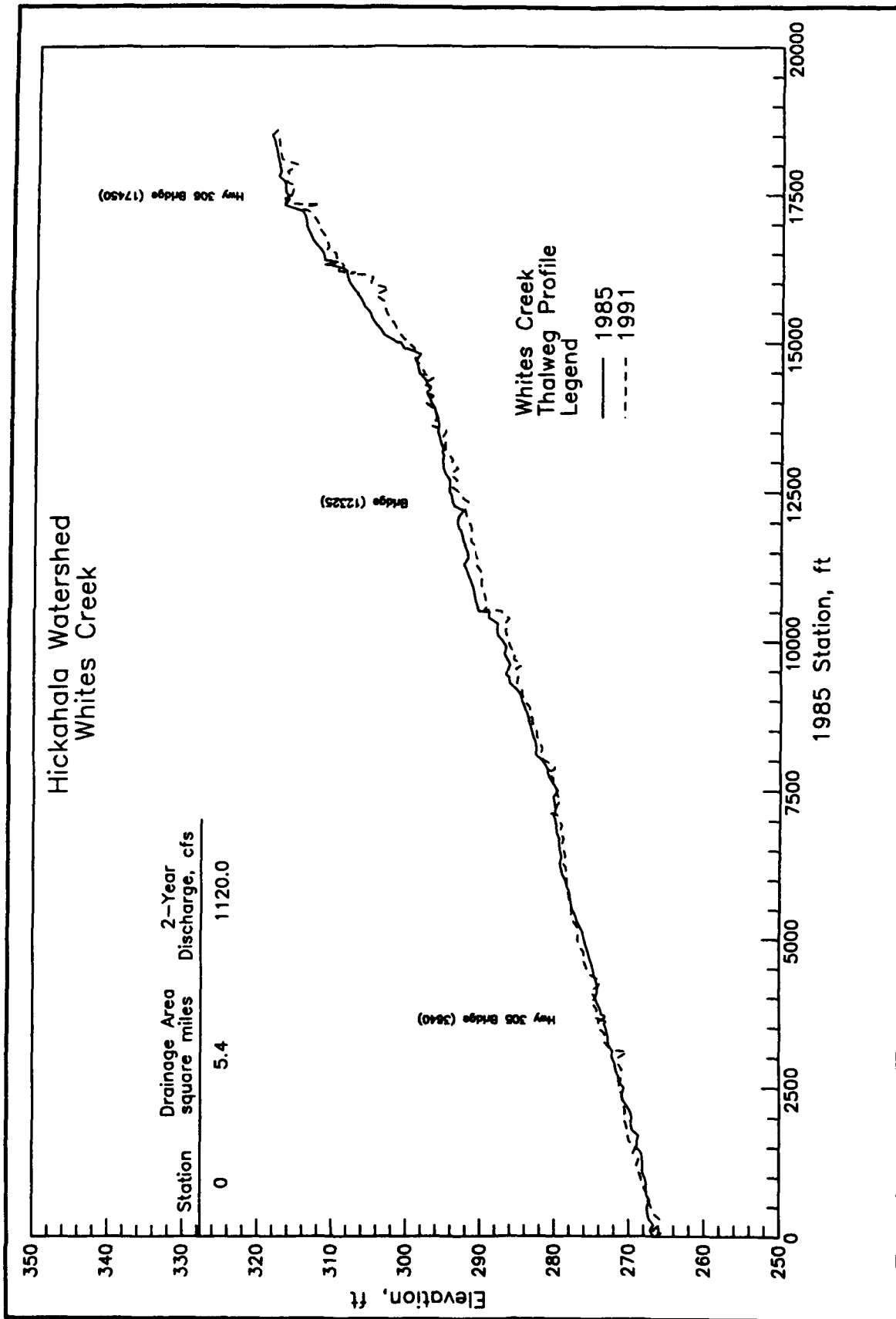


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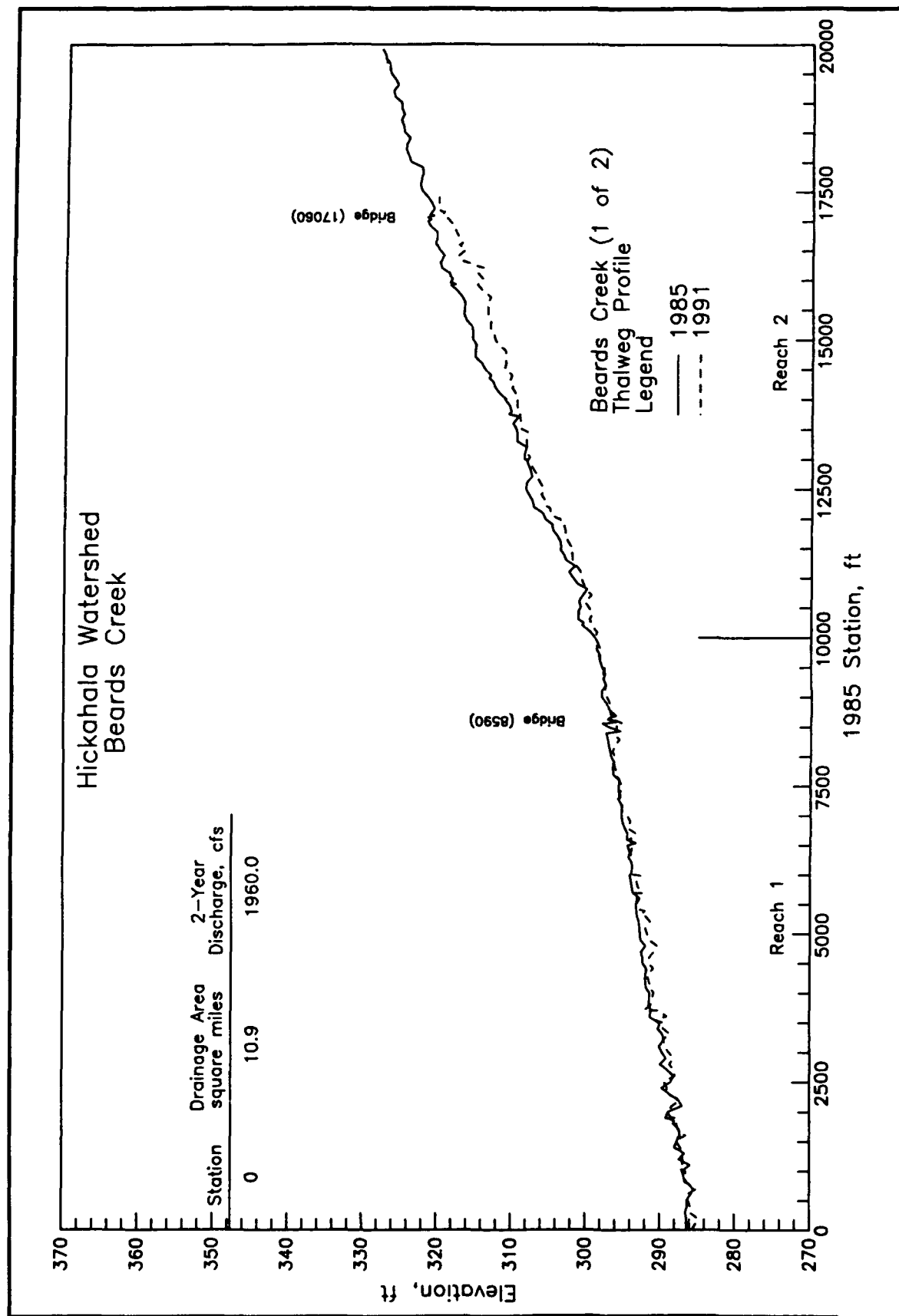
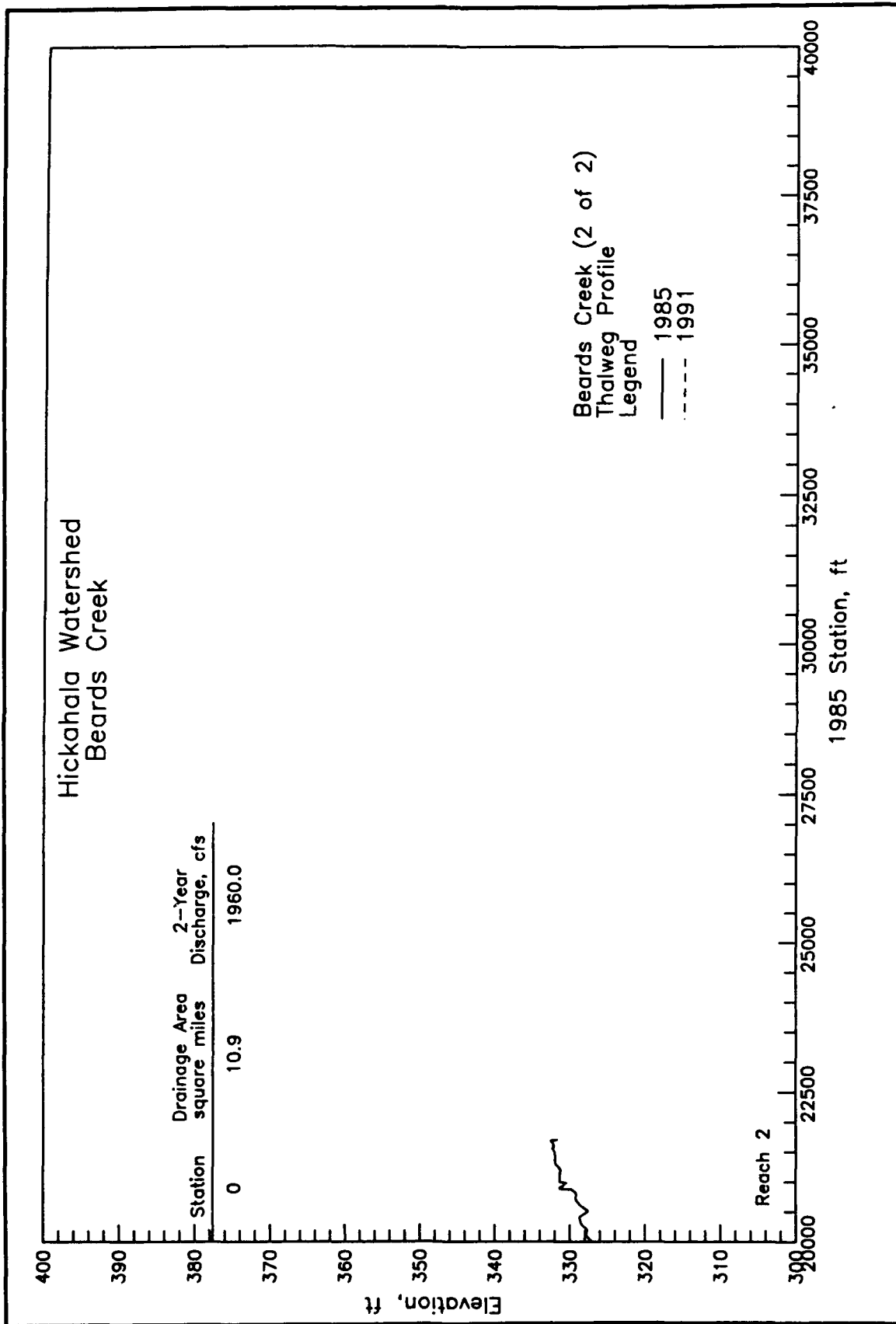


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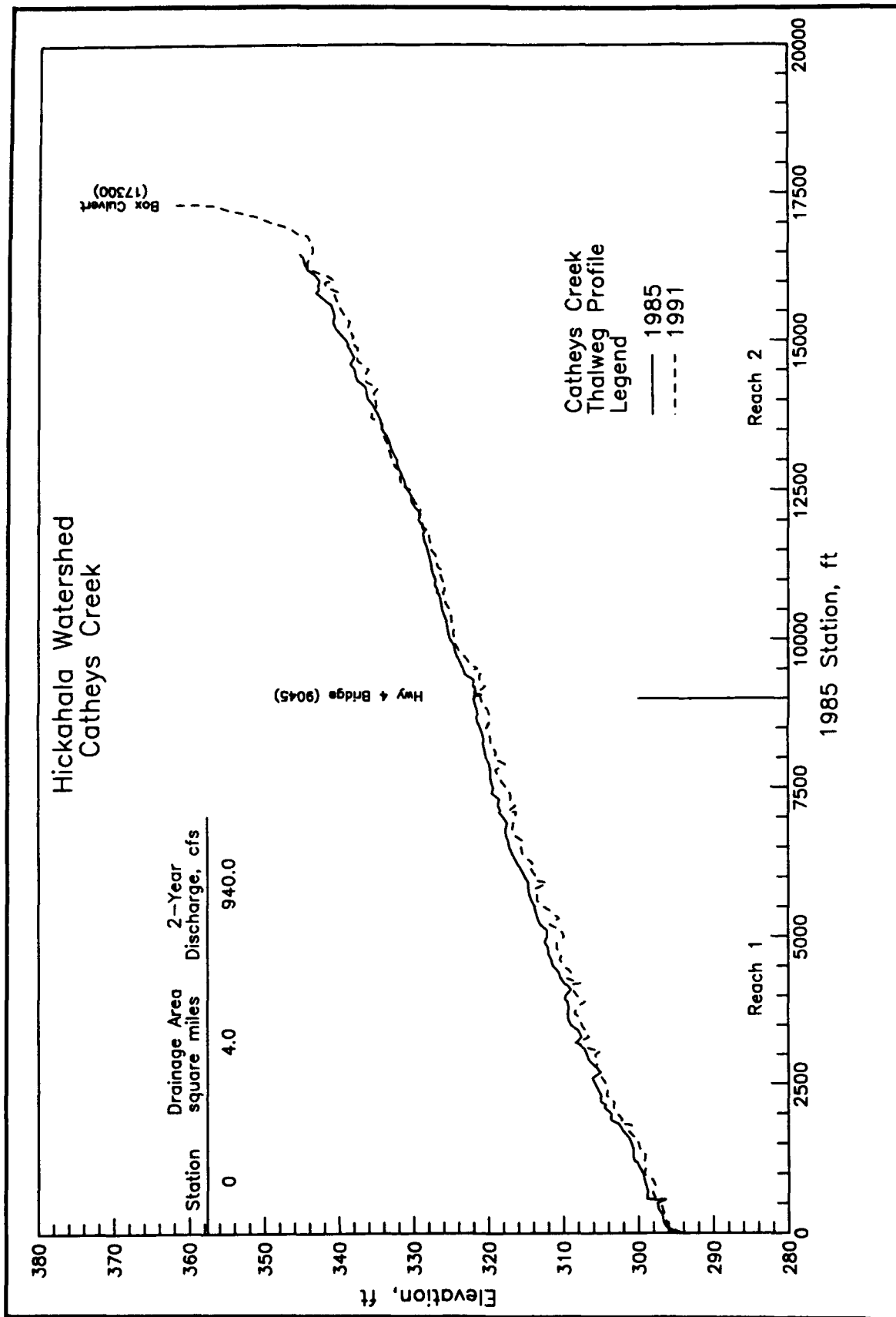


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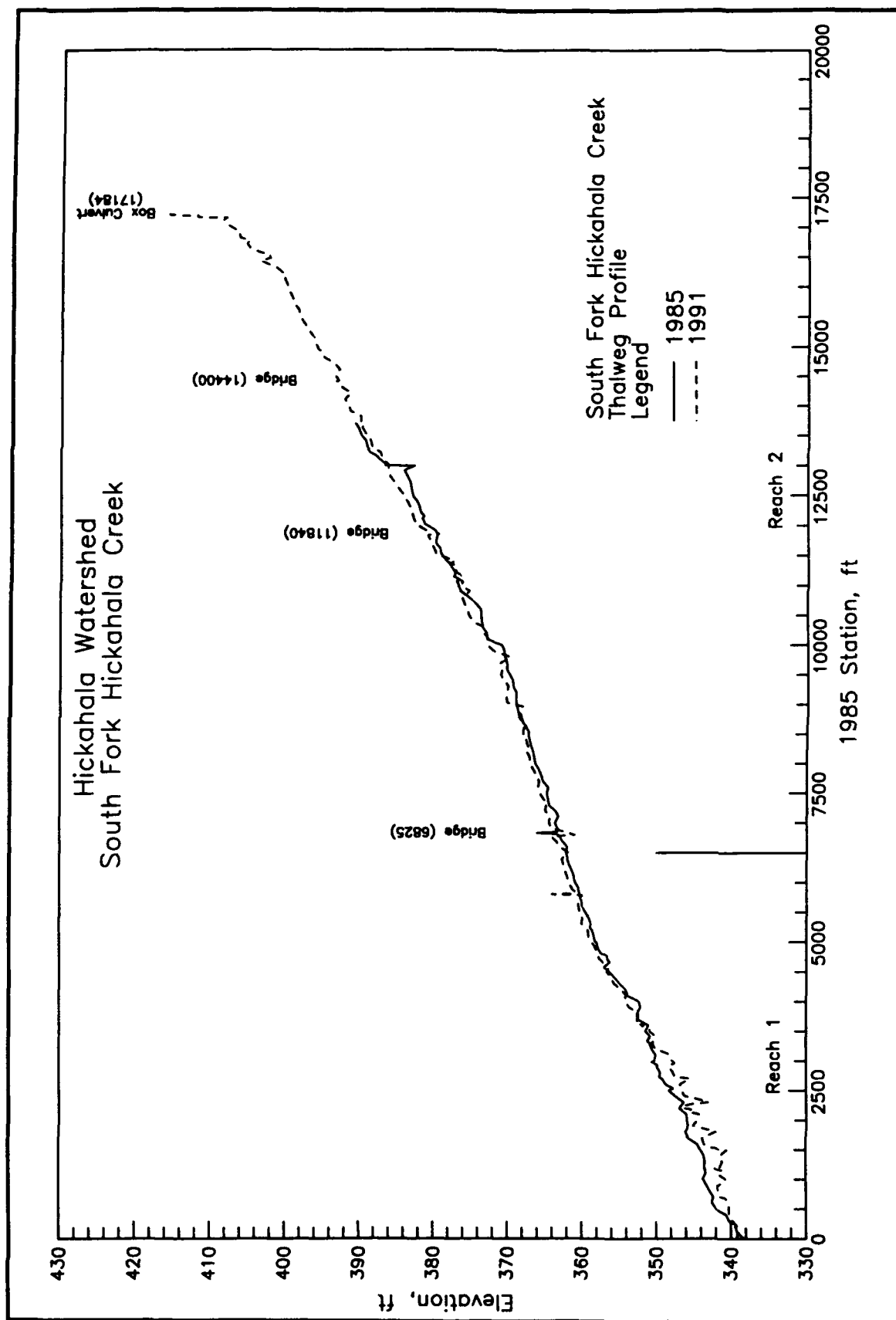
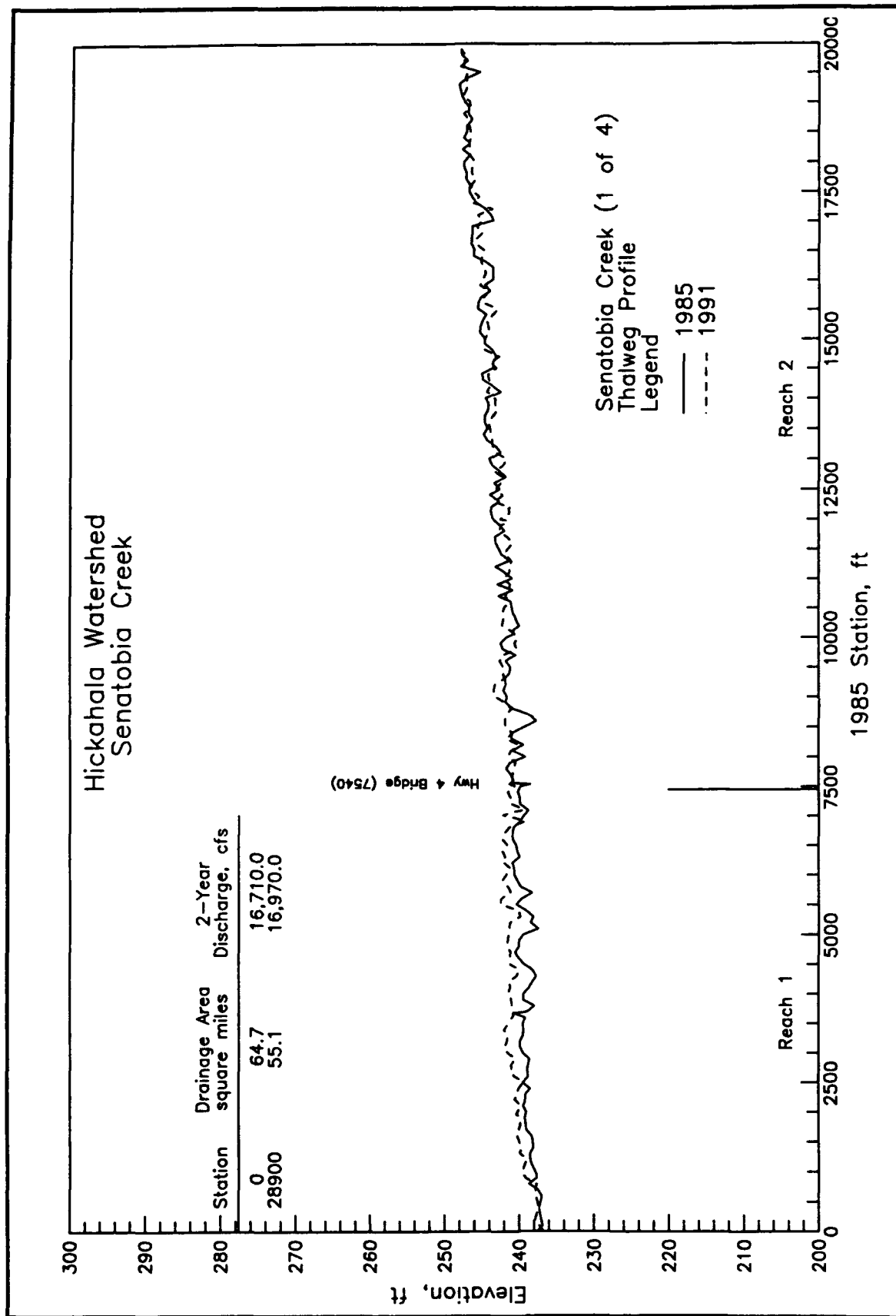


PLATE A13



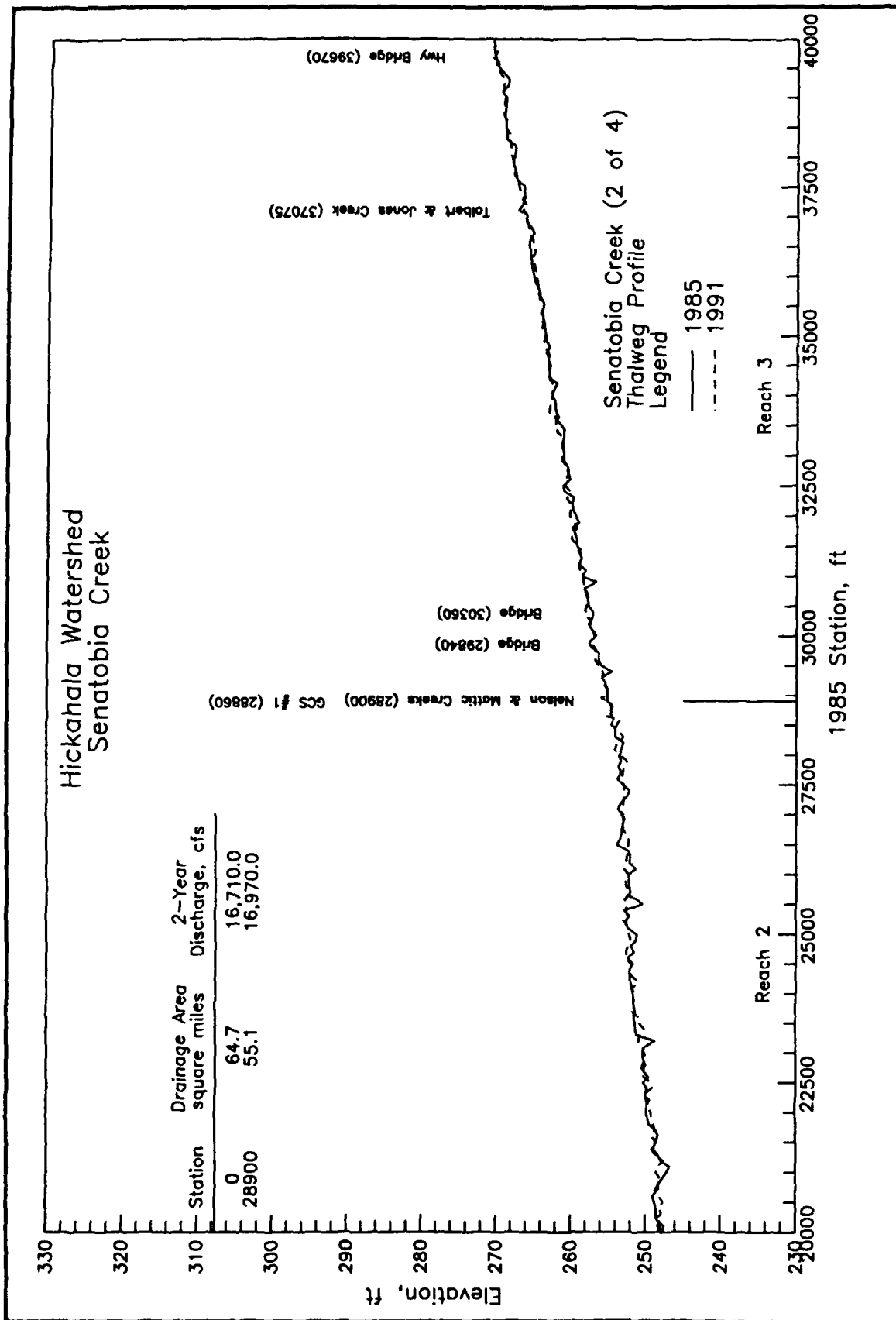
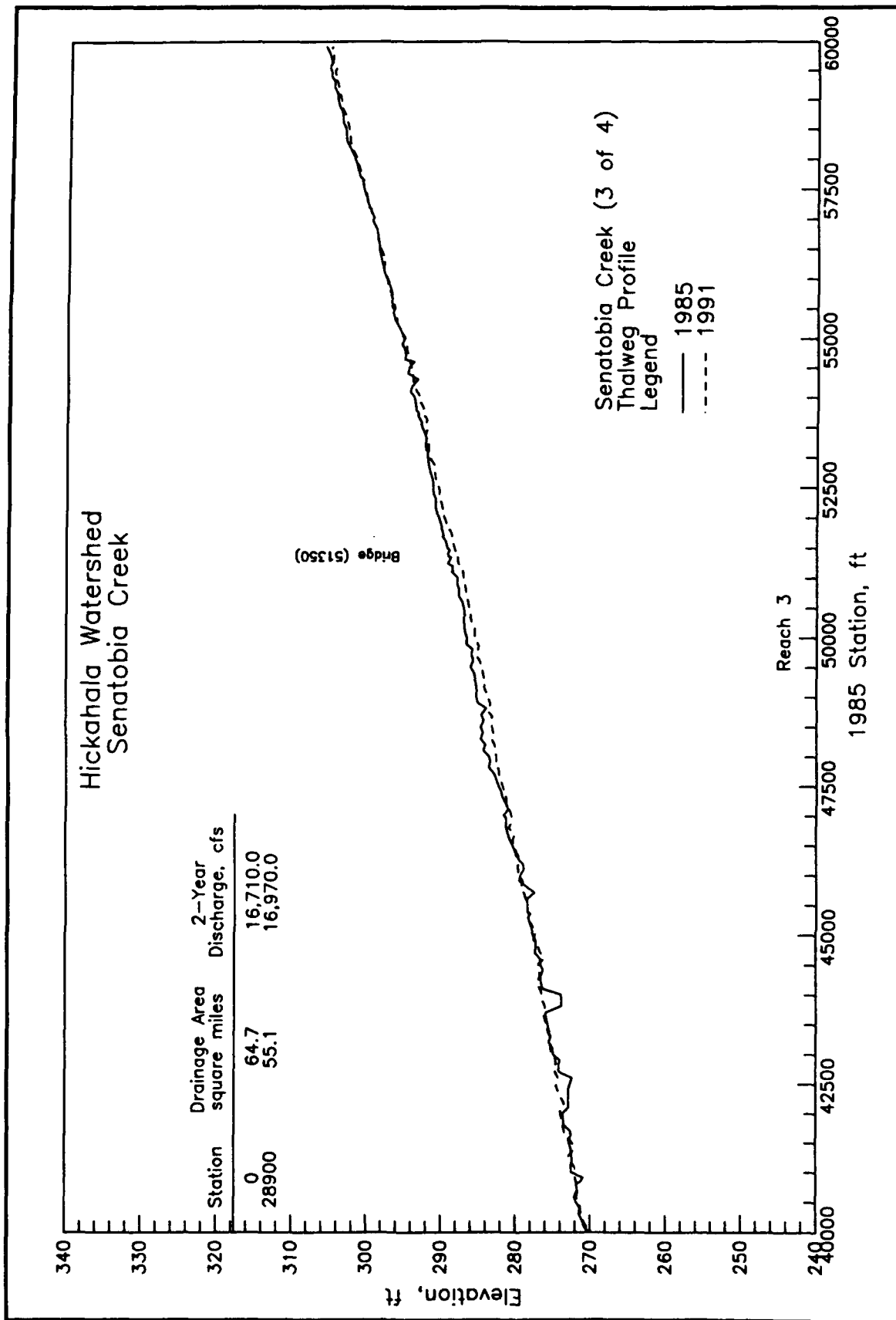


PLATE A16



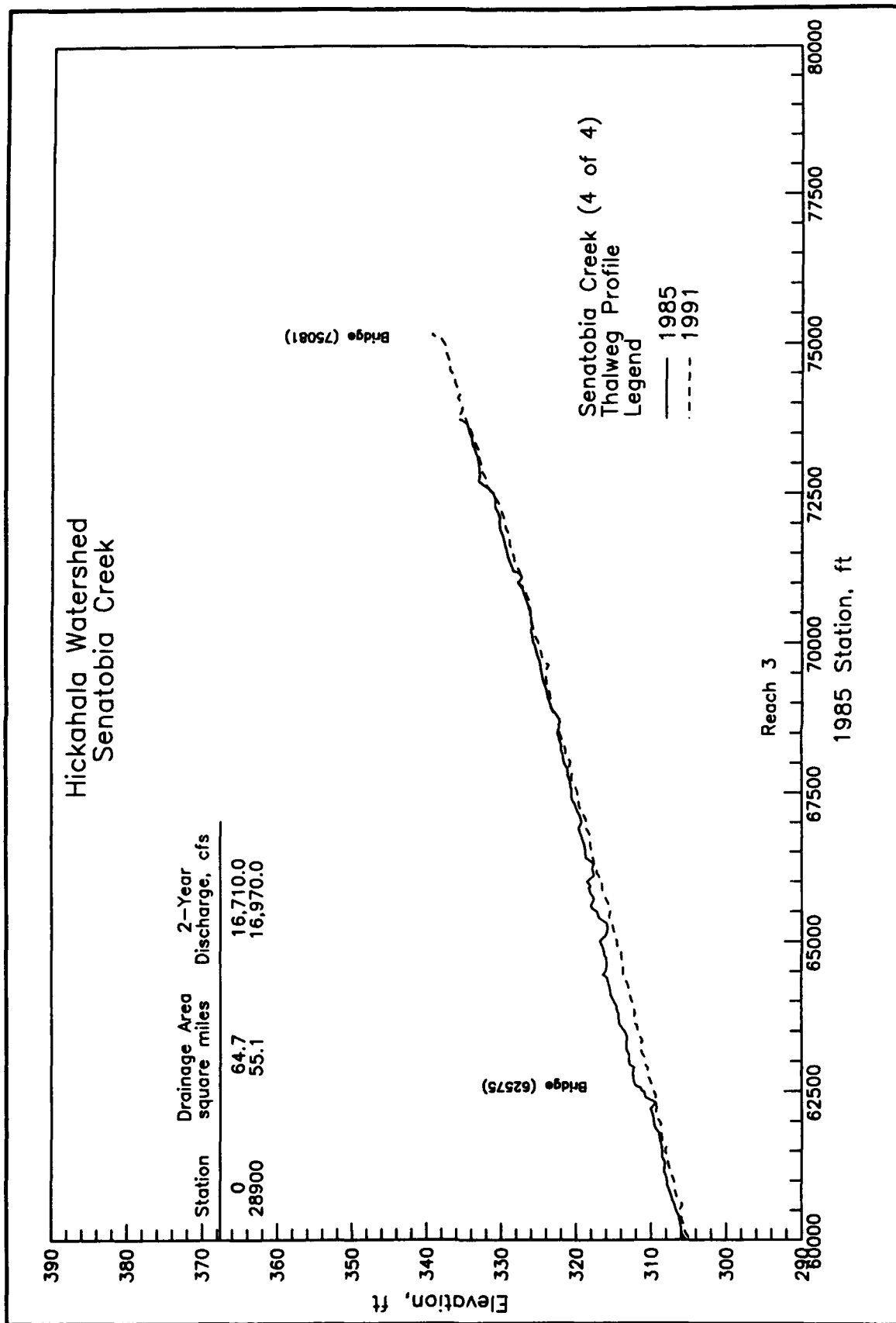
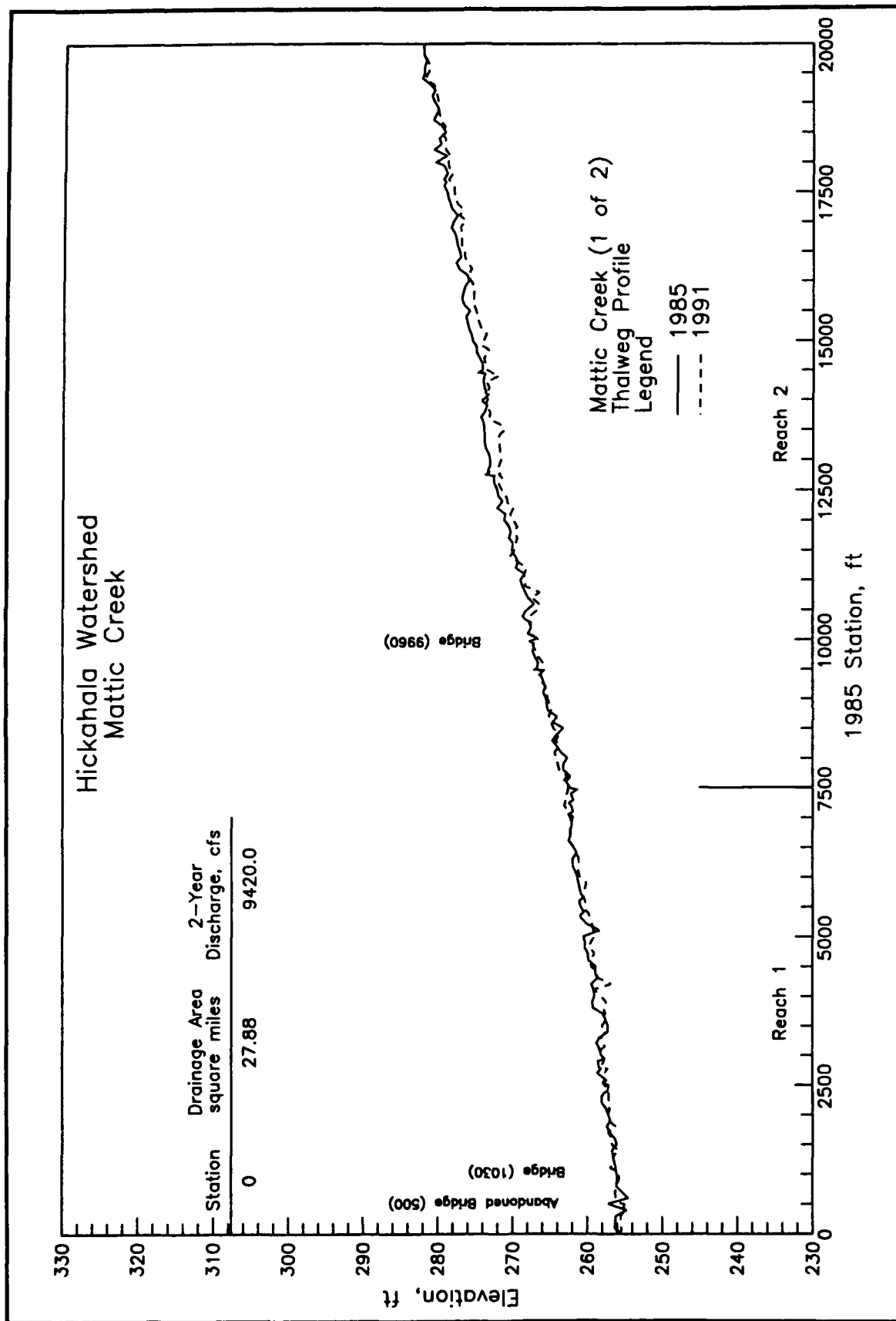
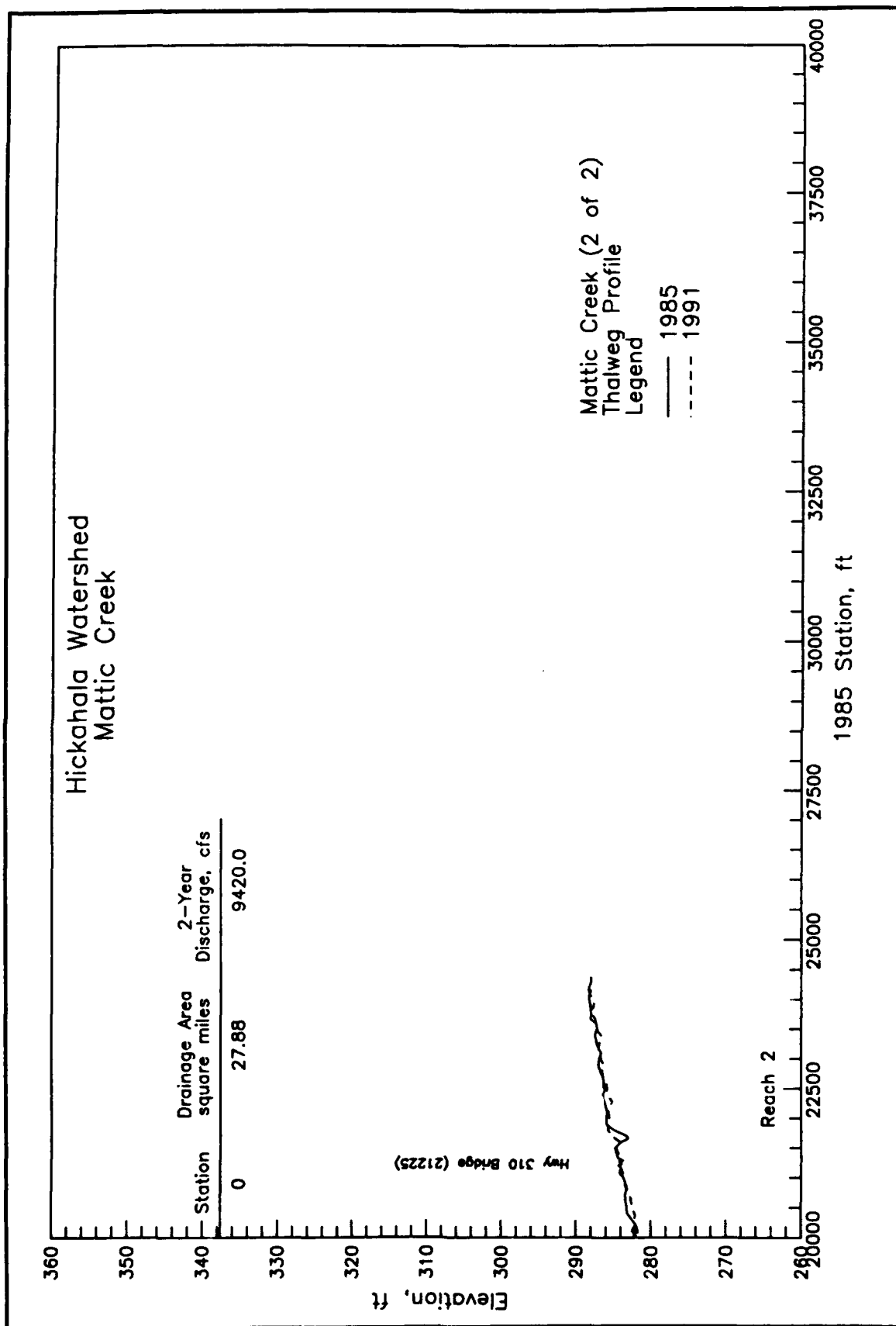


PLATE A18





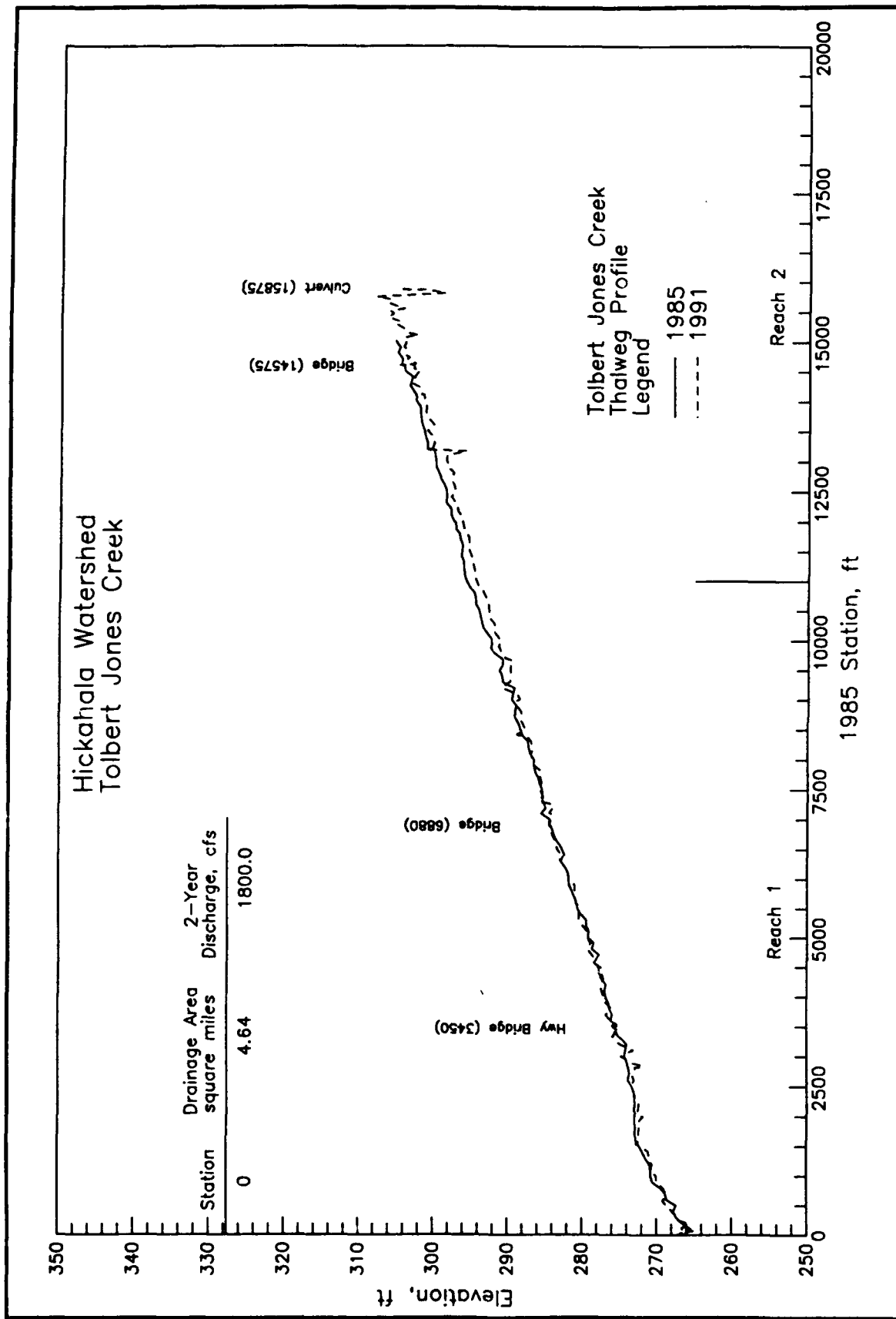


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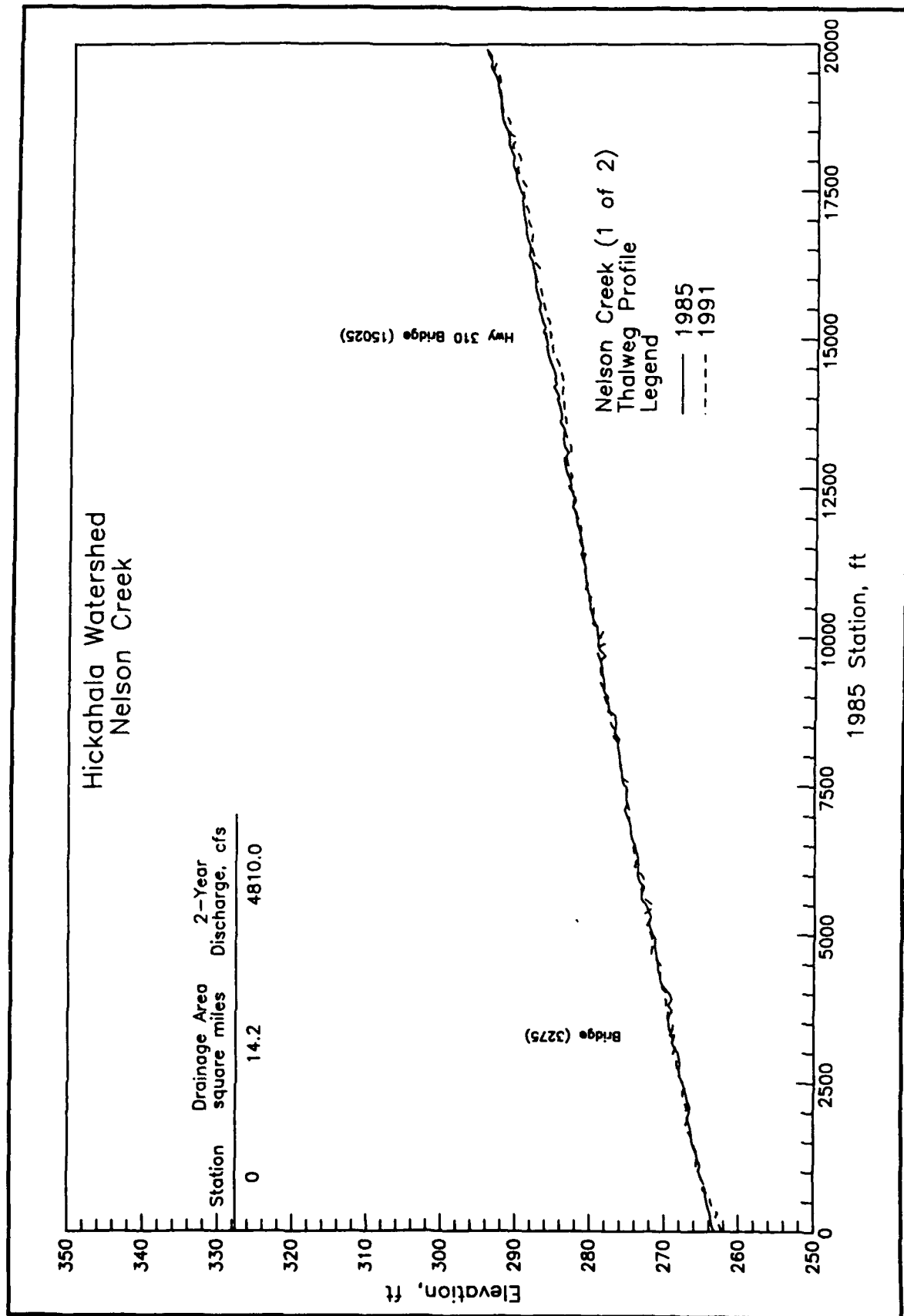


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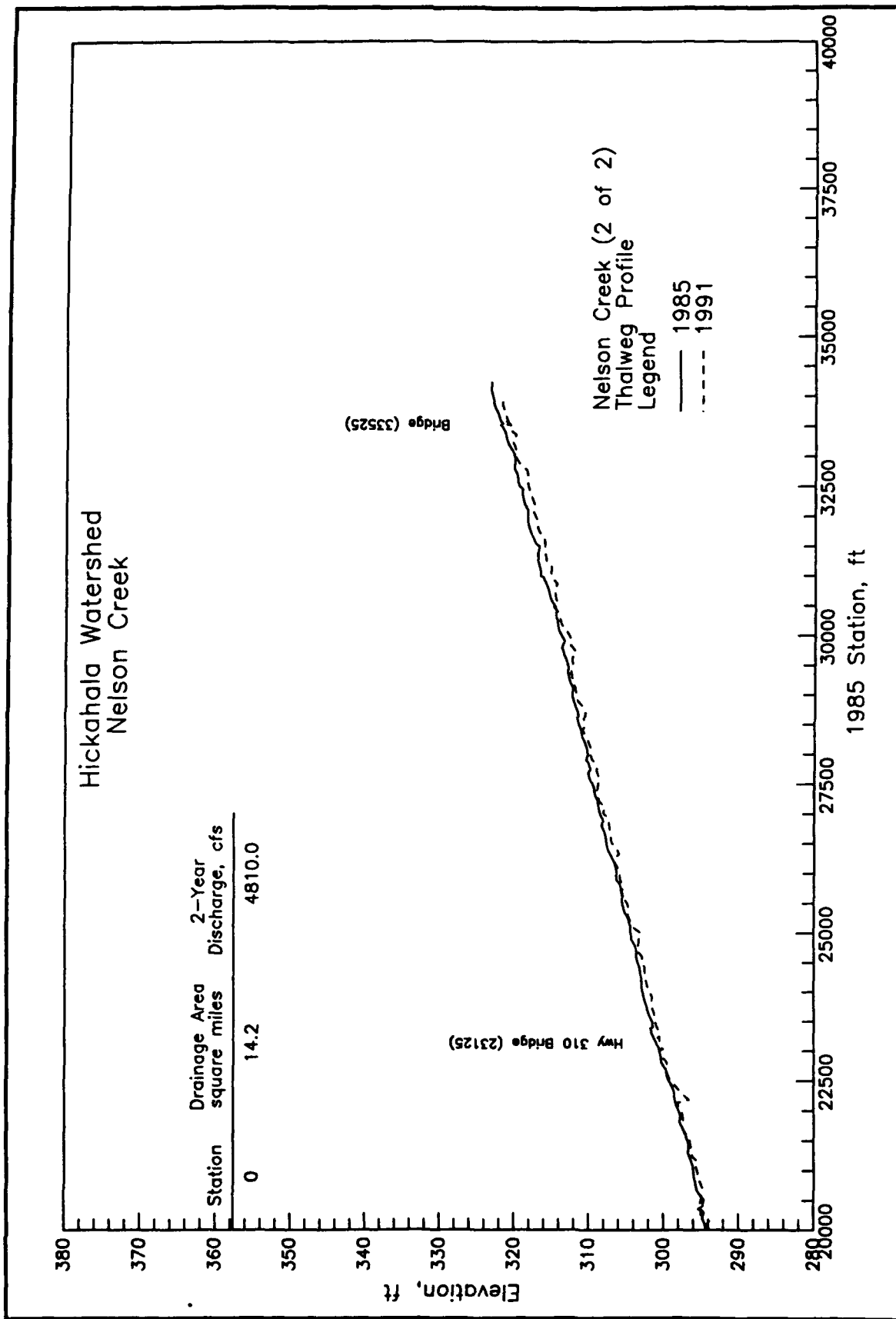
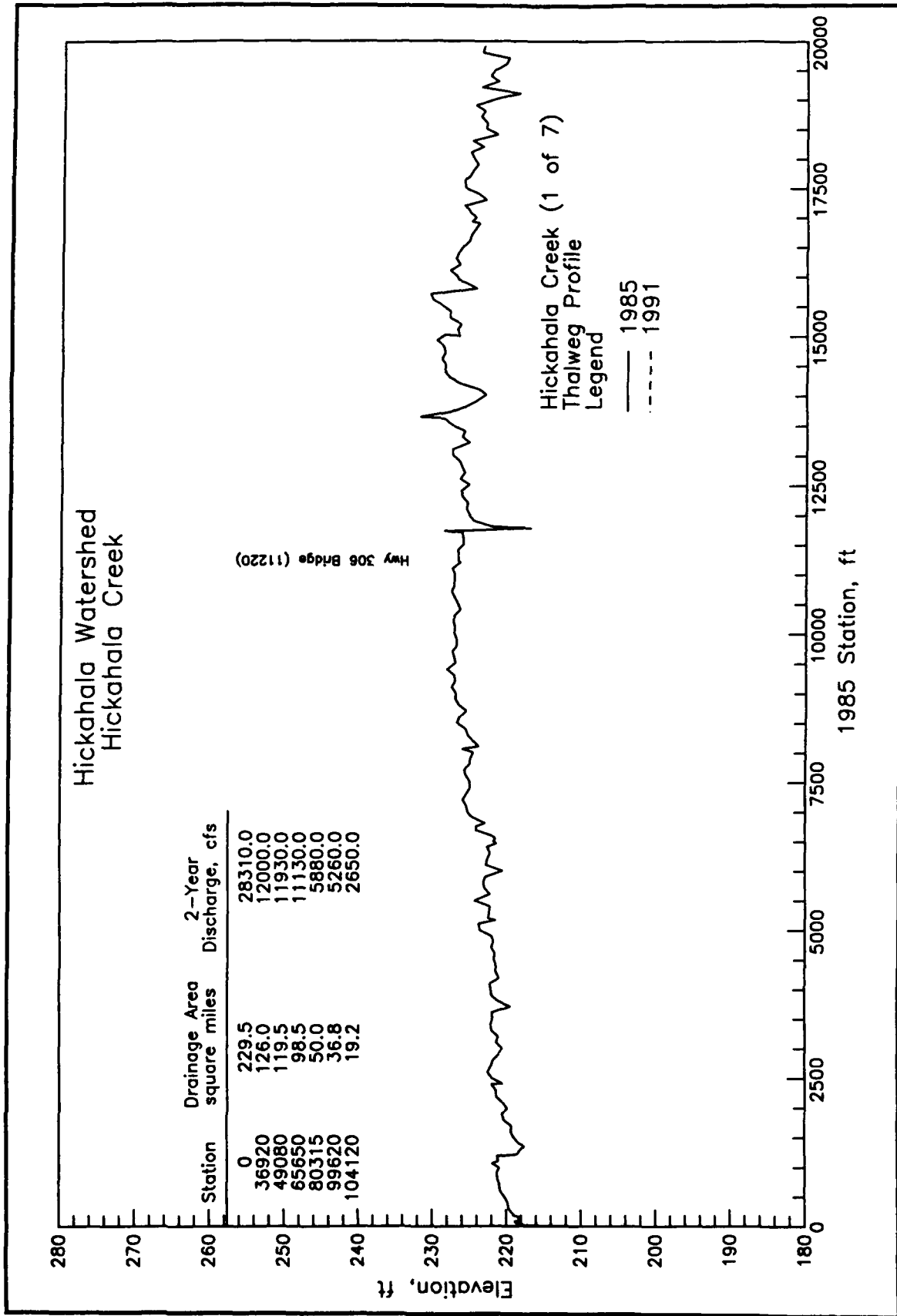


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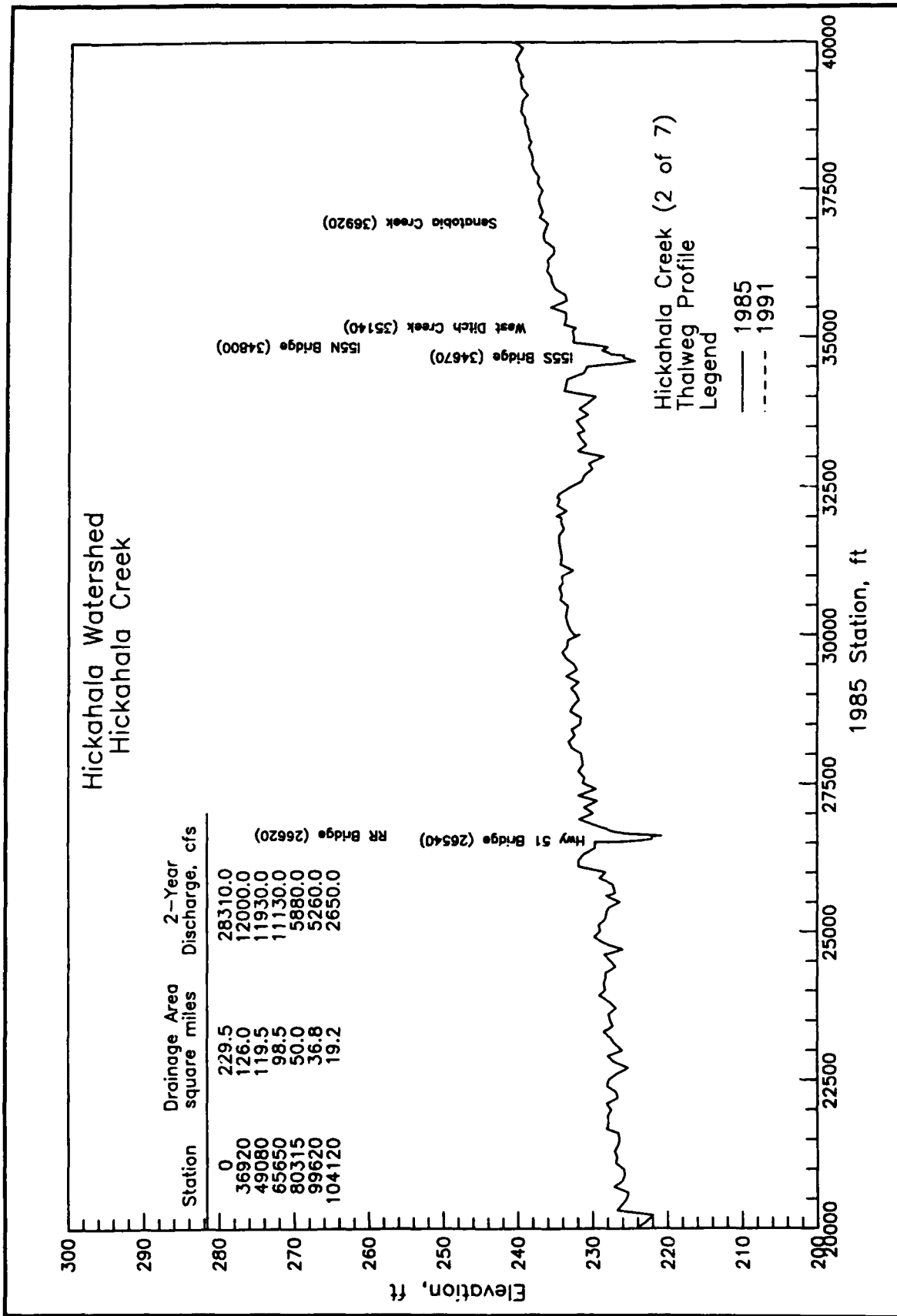
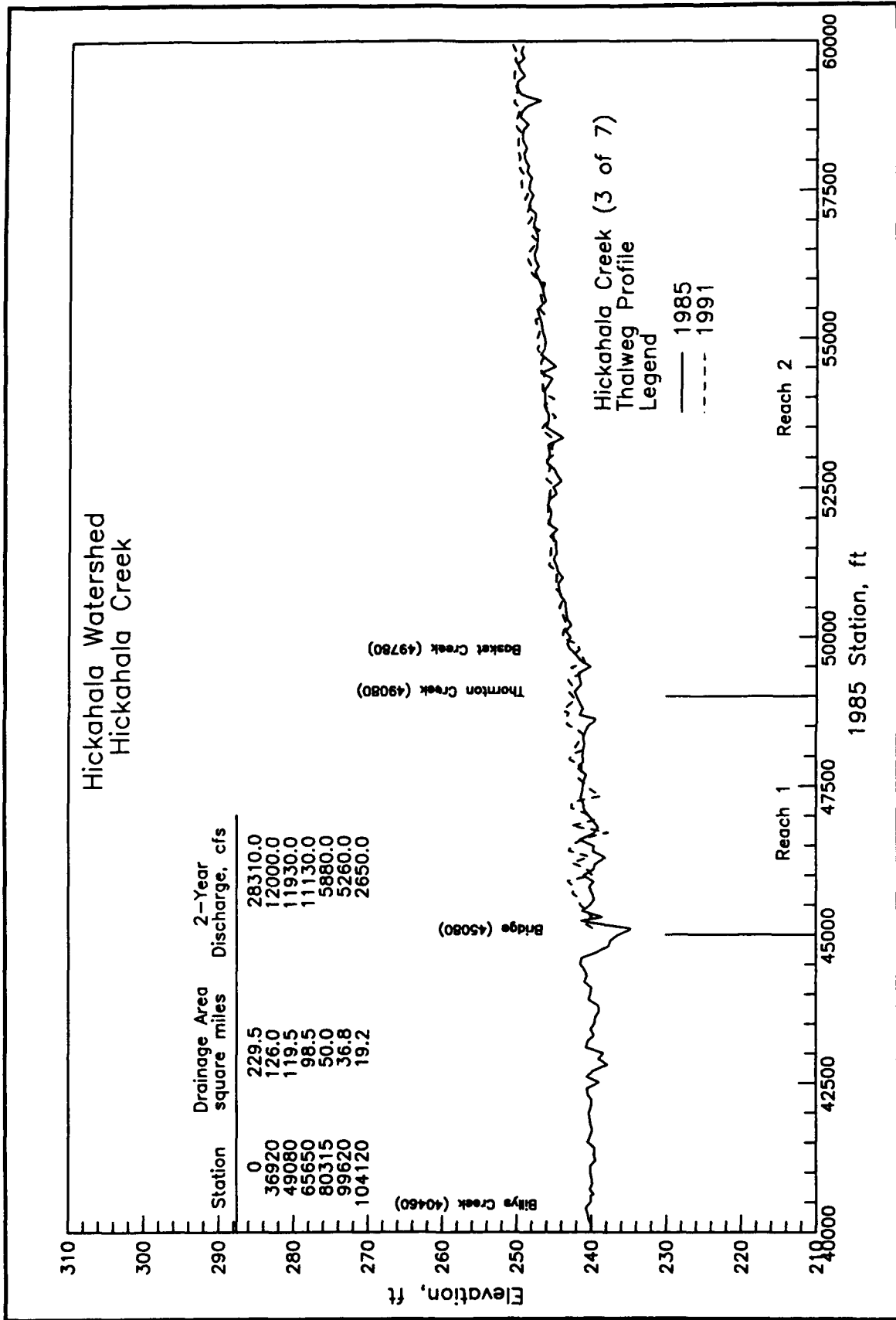
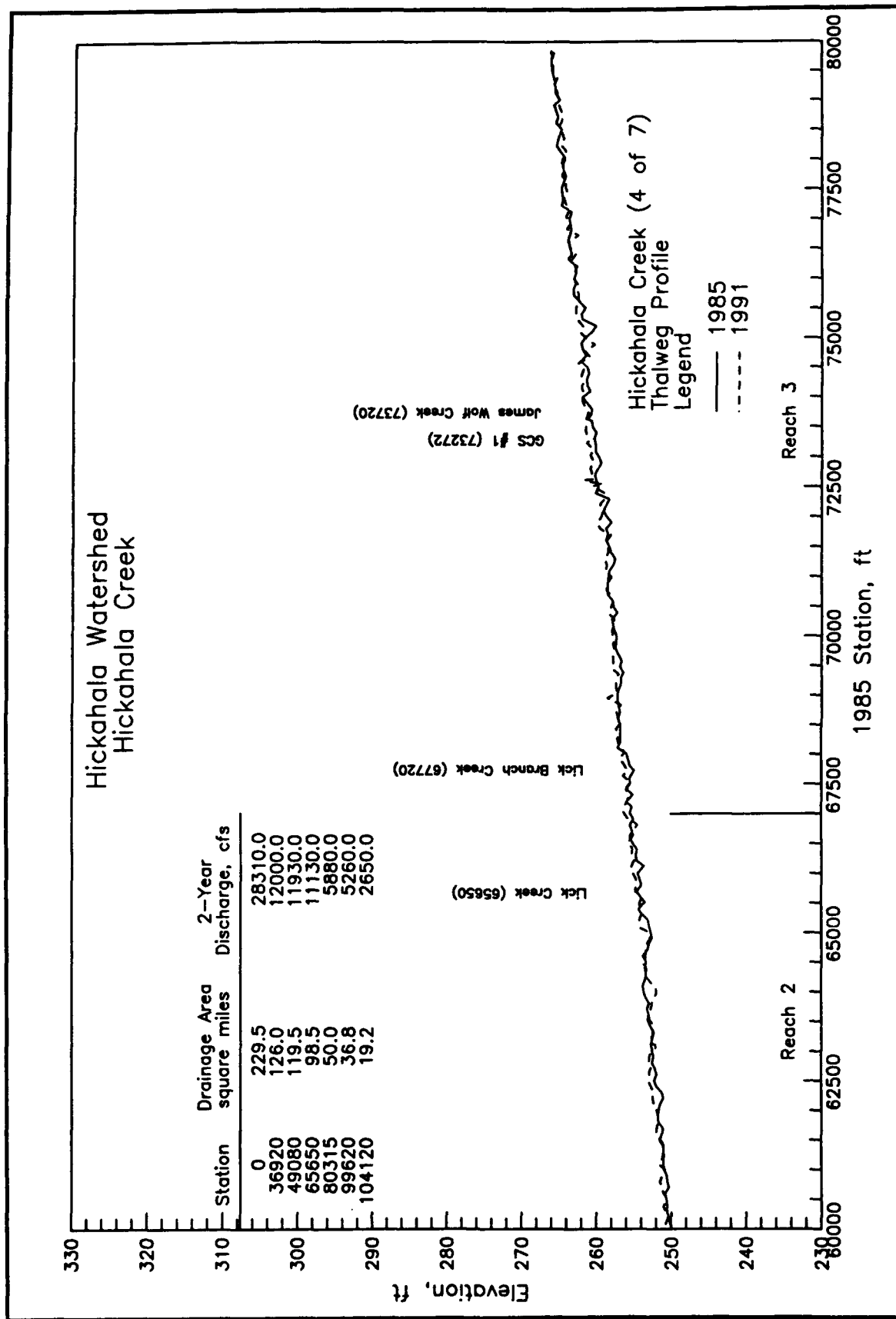
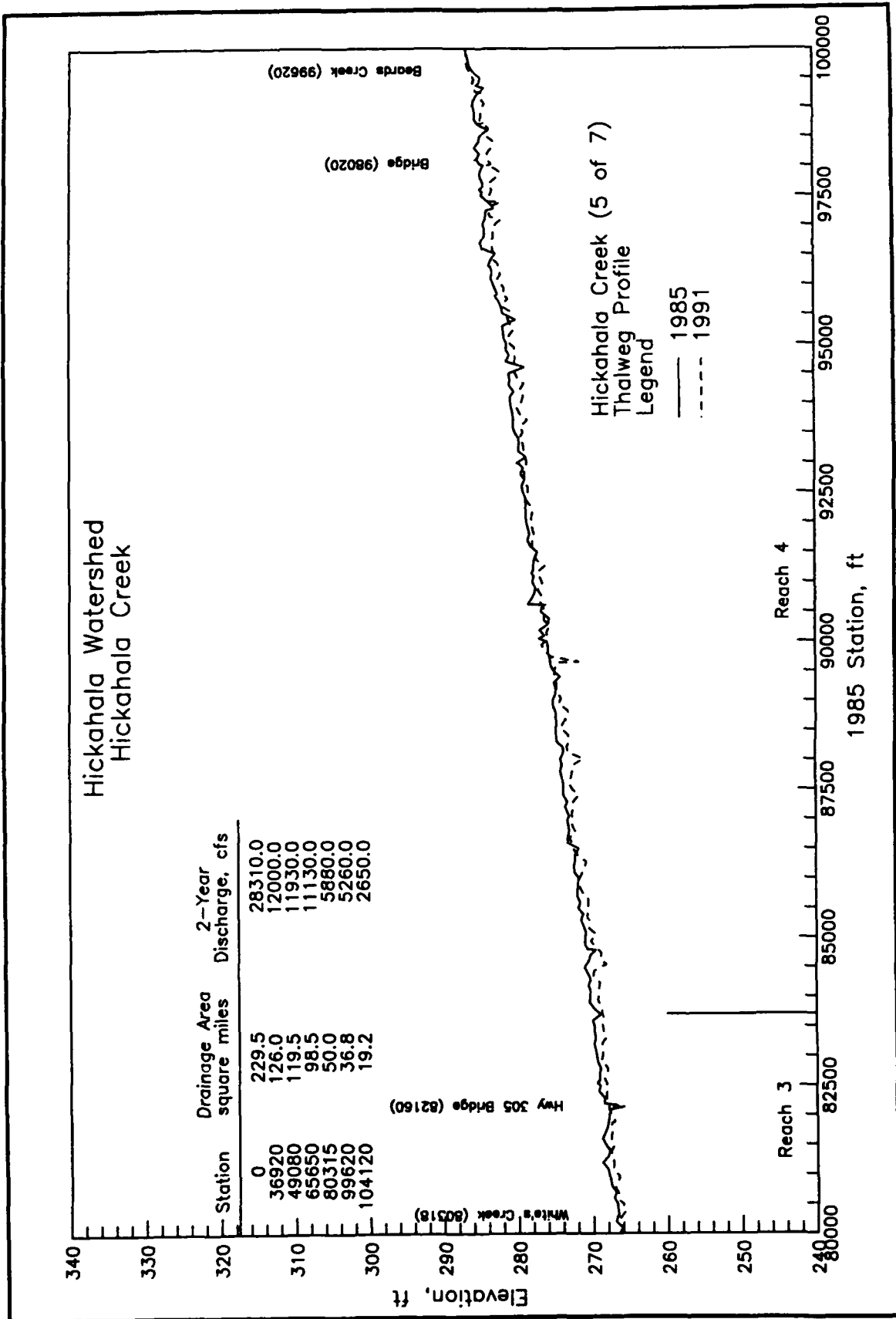
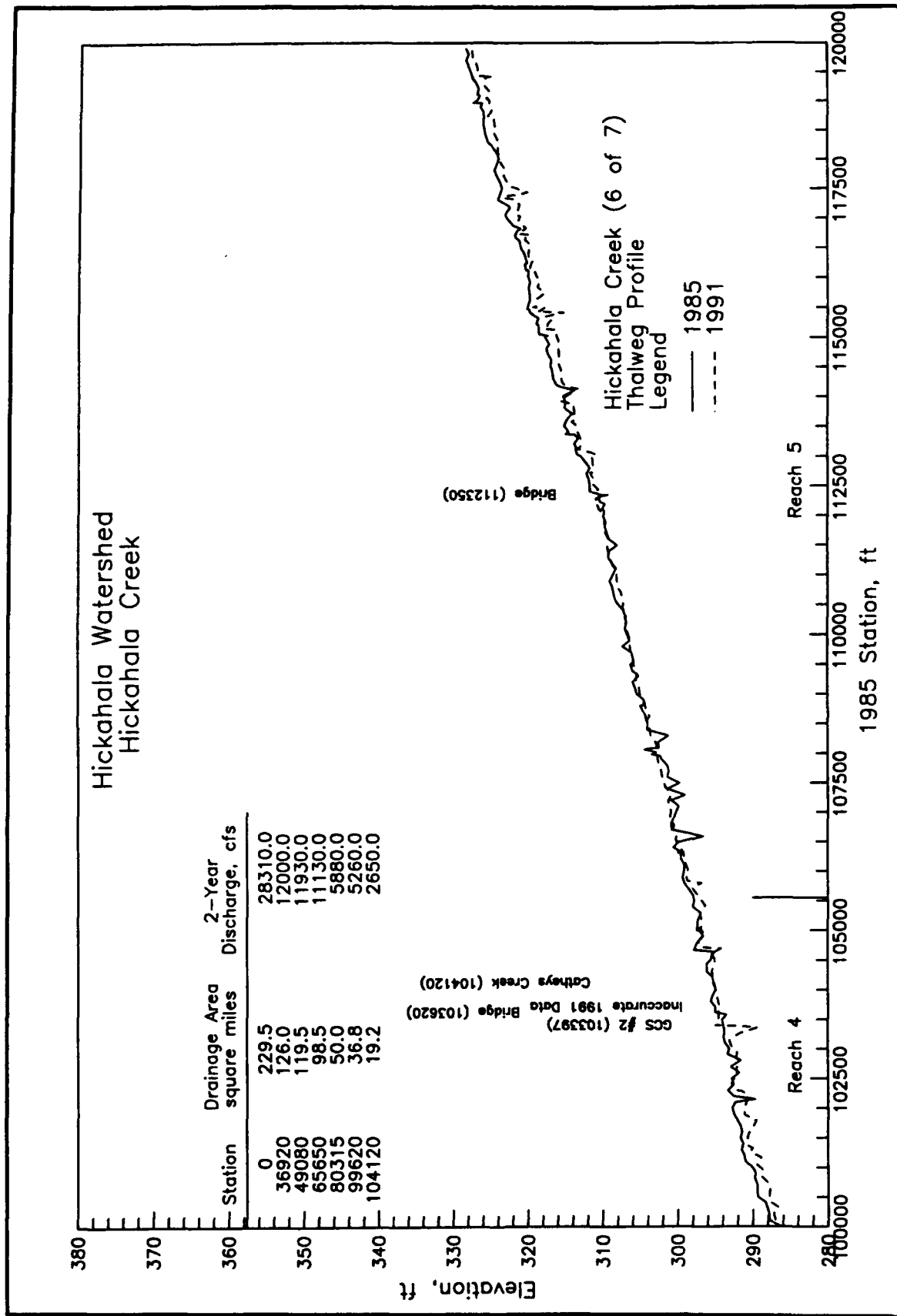


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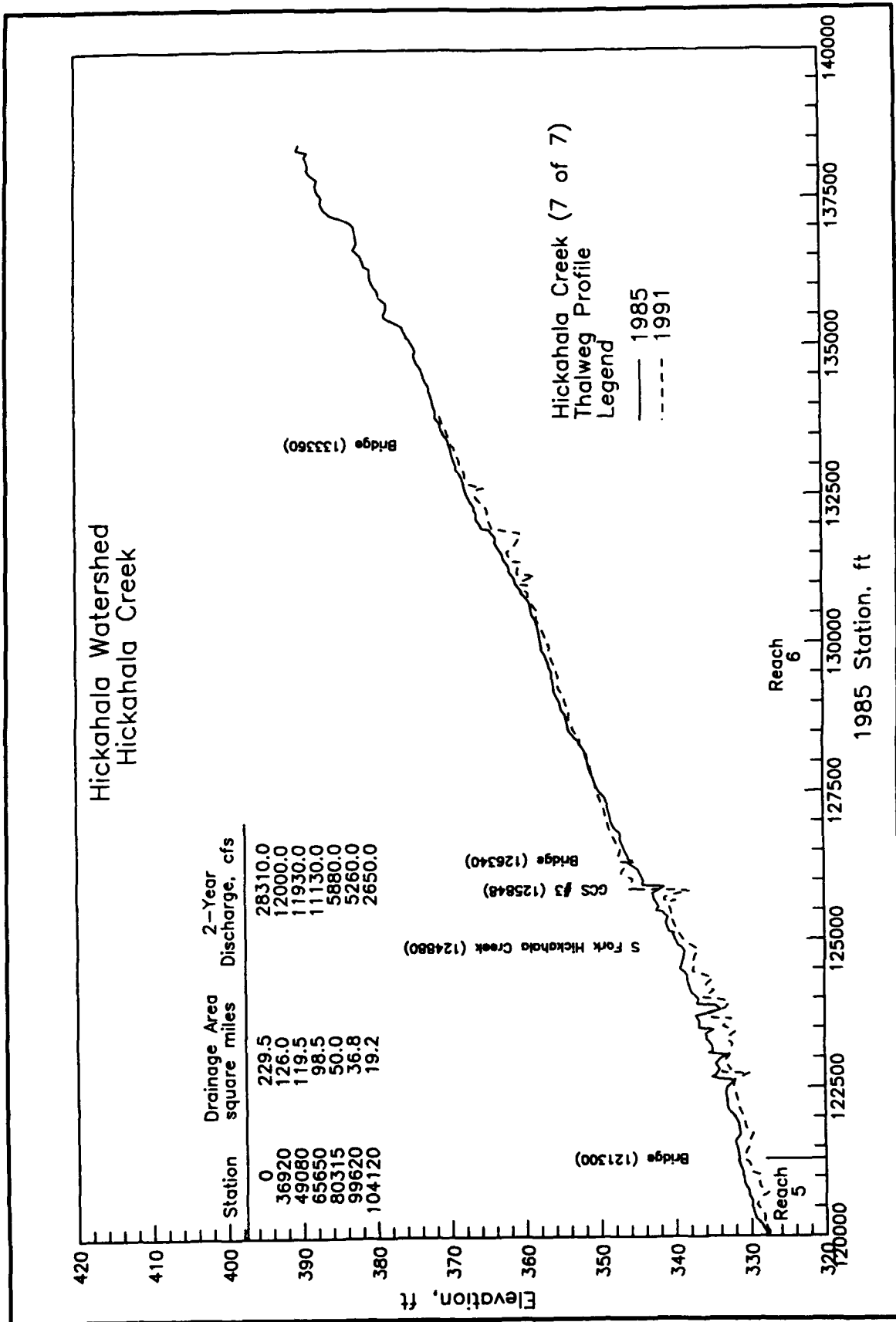
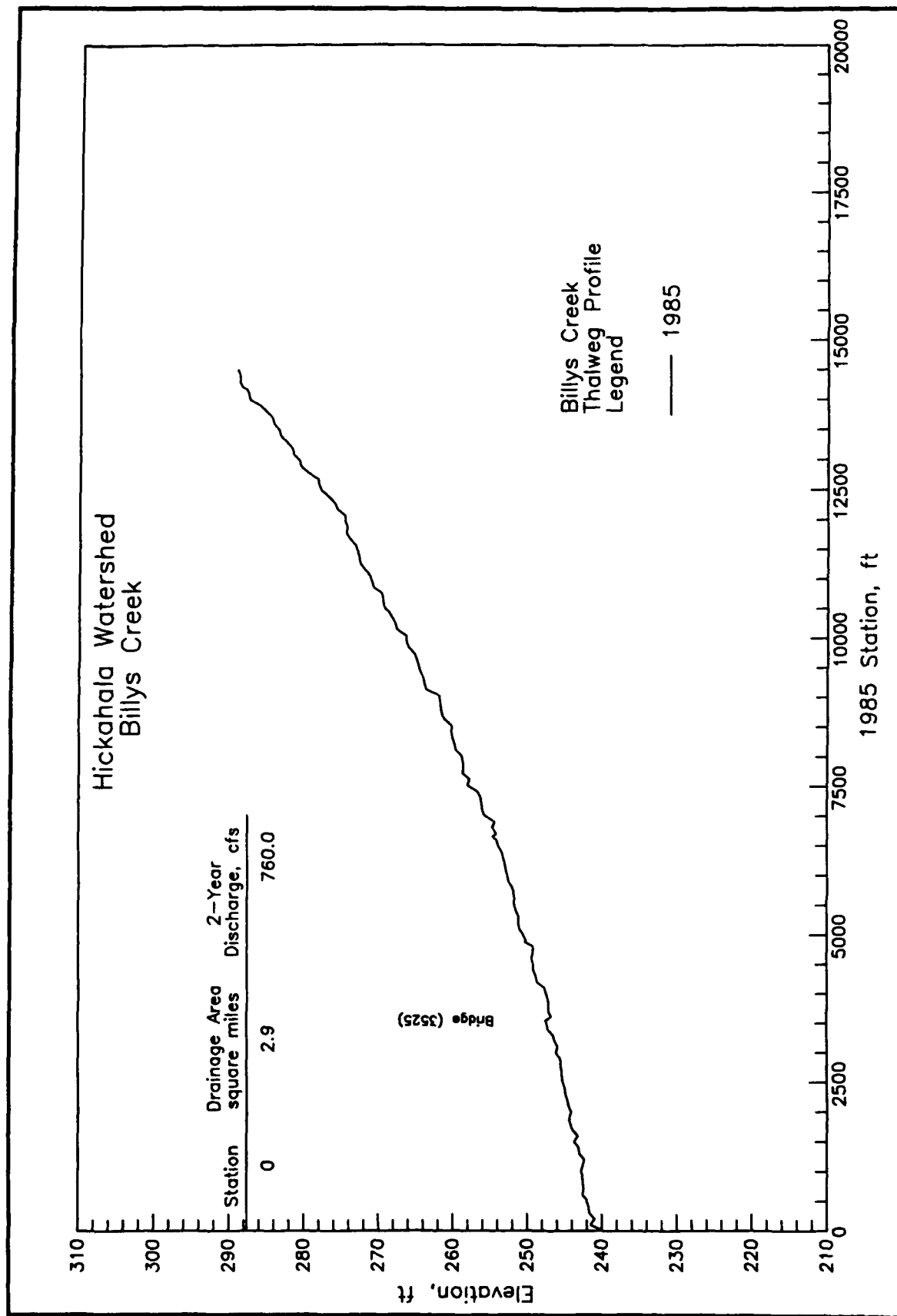


PLATE A29

PLATE A30



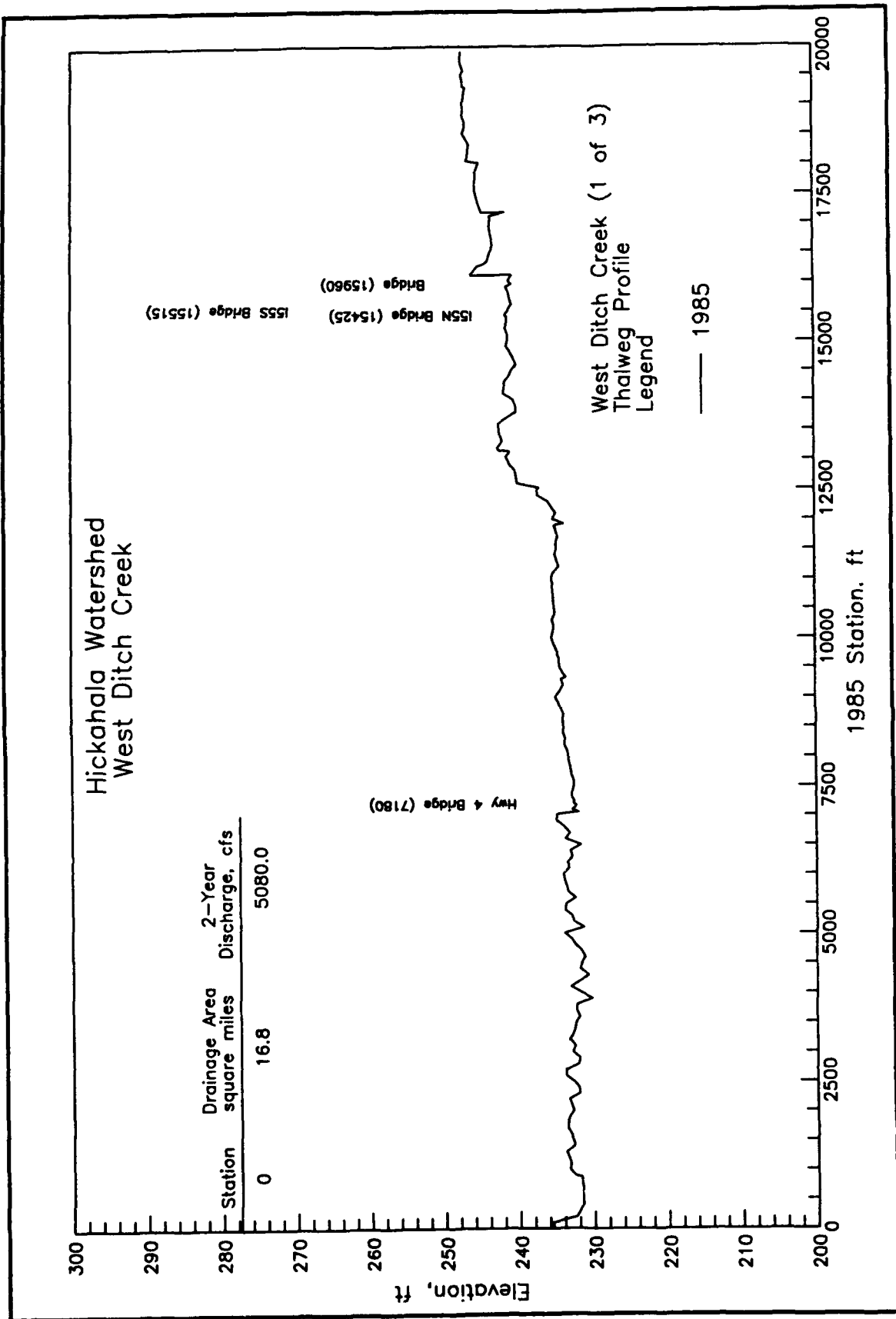
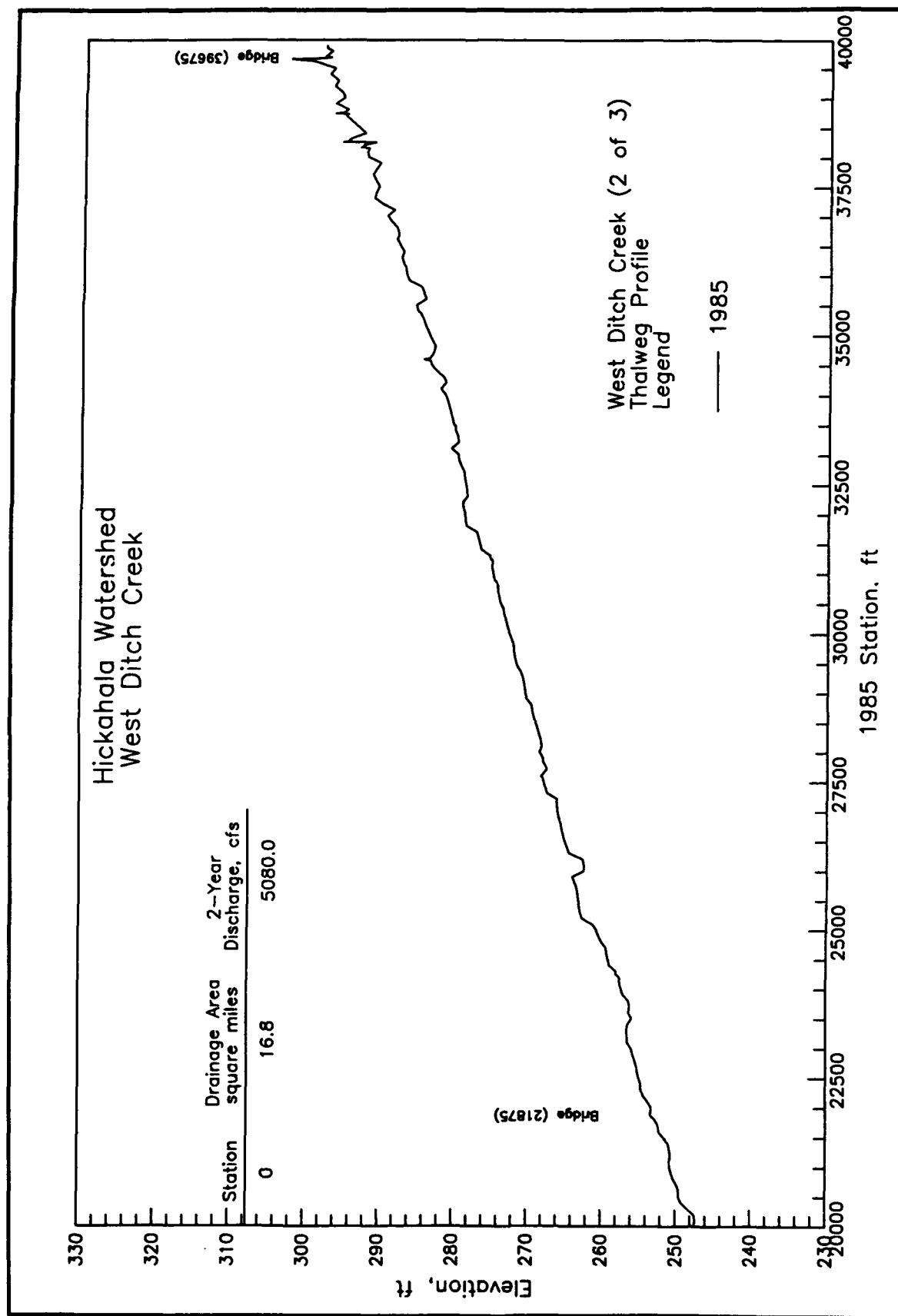


PLATE A31

PLATE A32



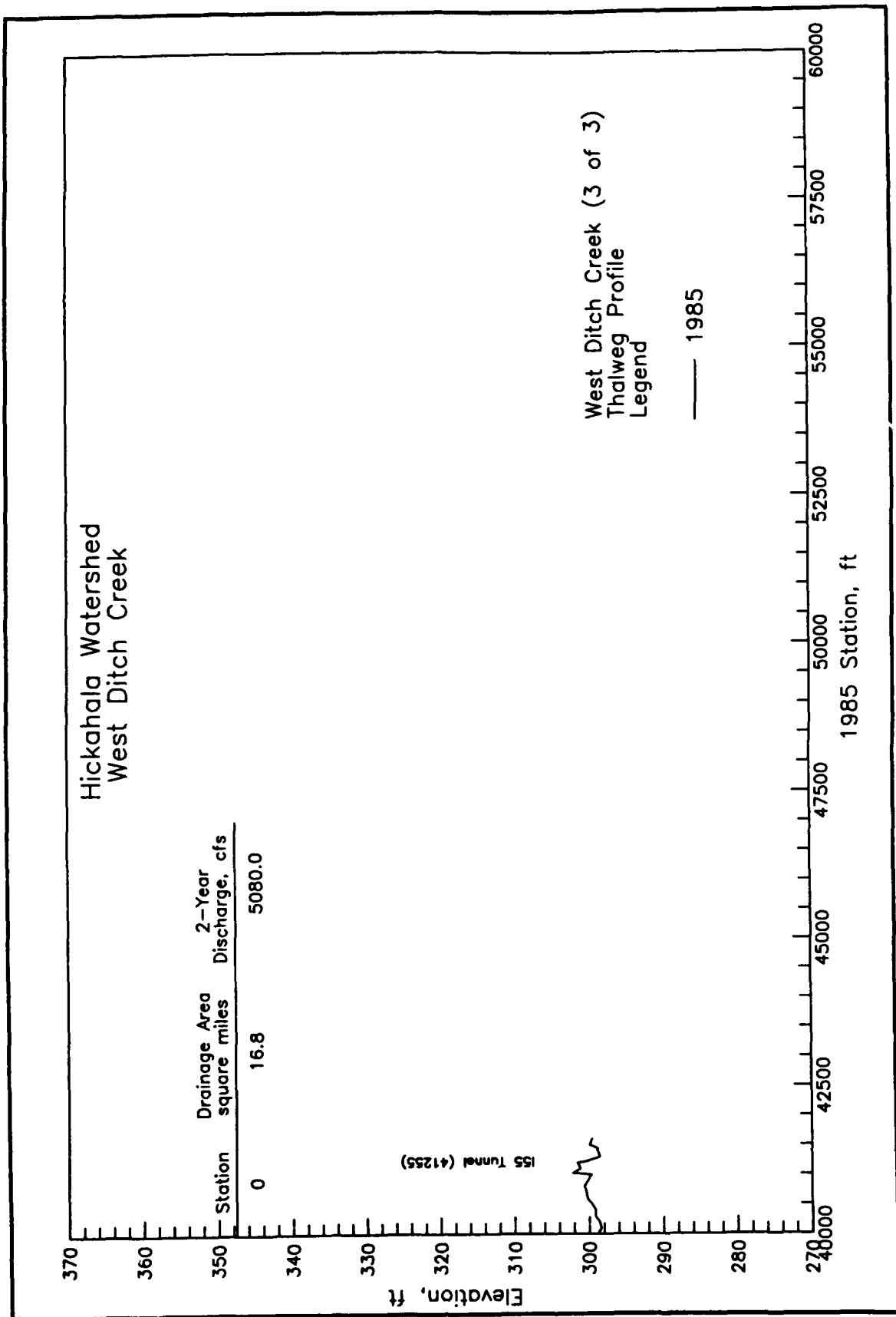
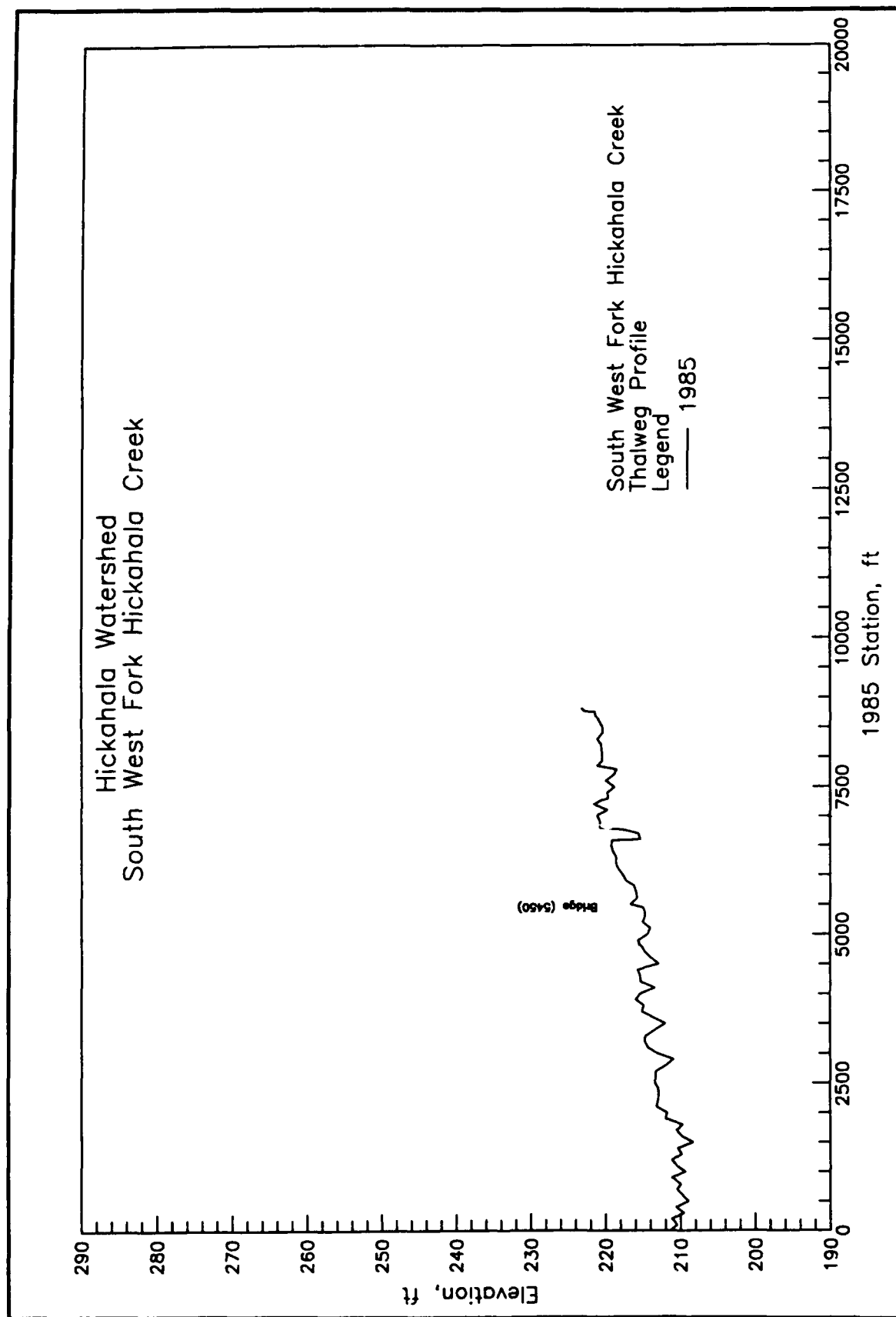
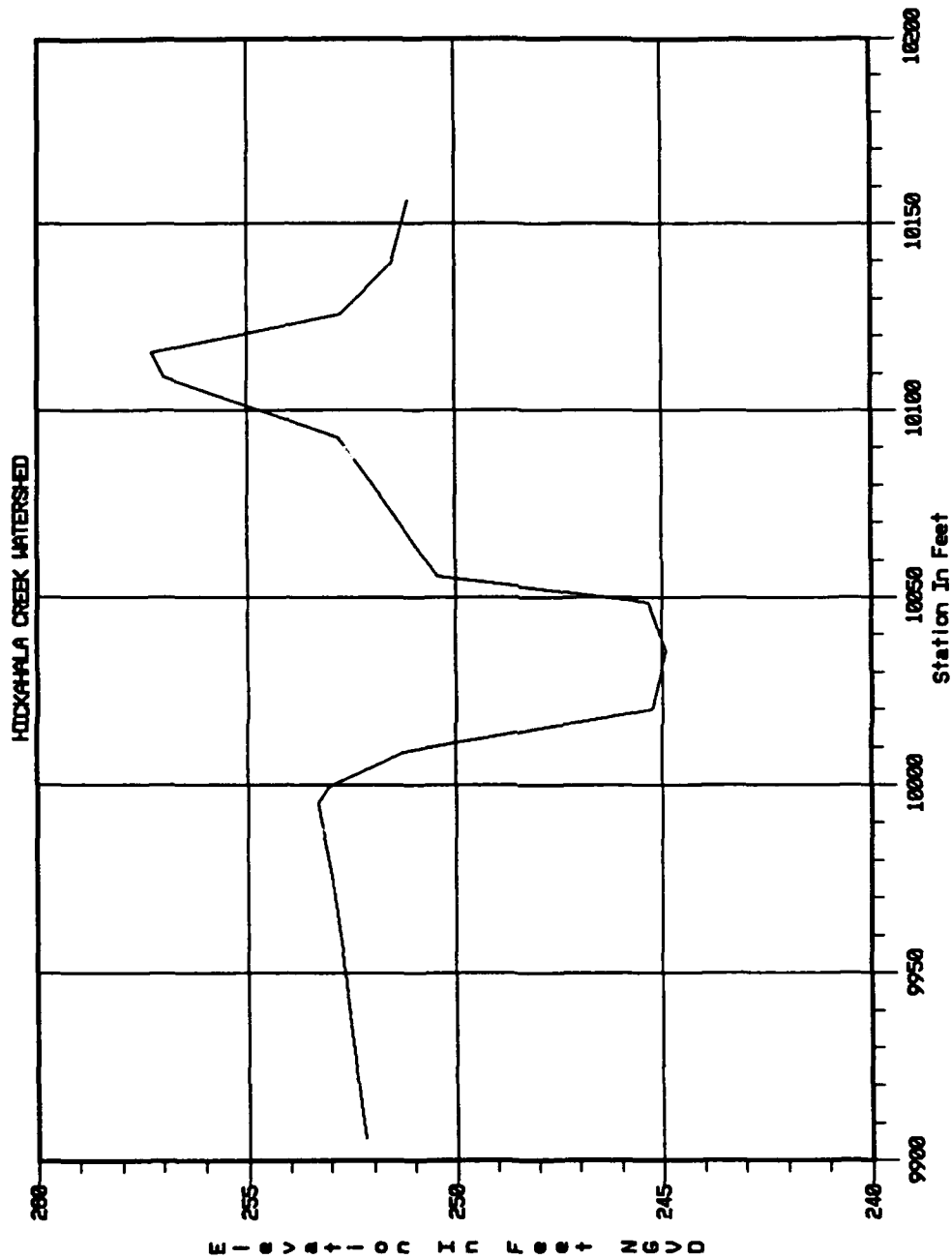


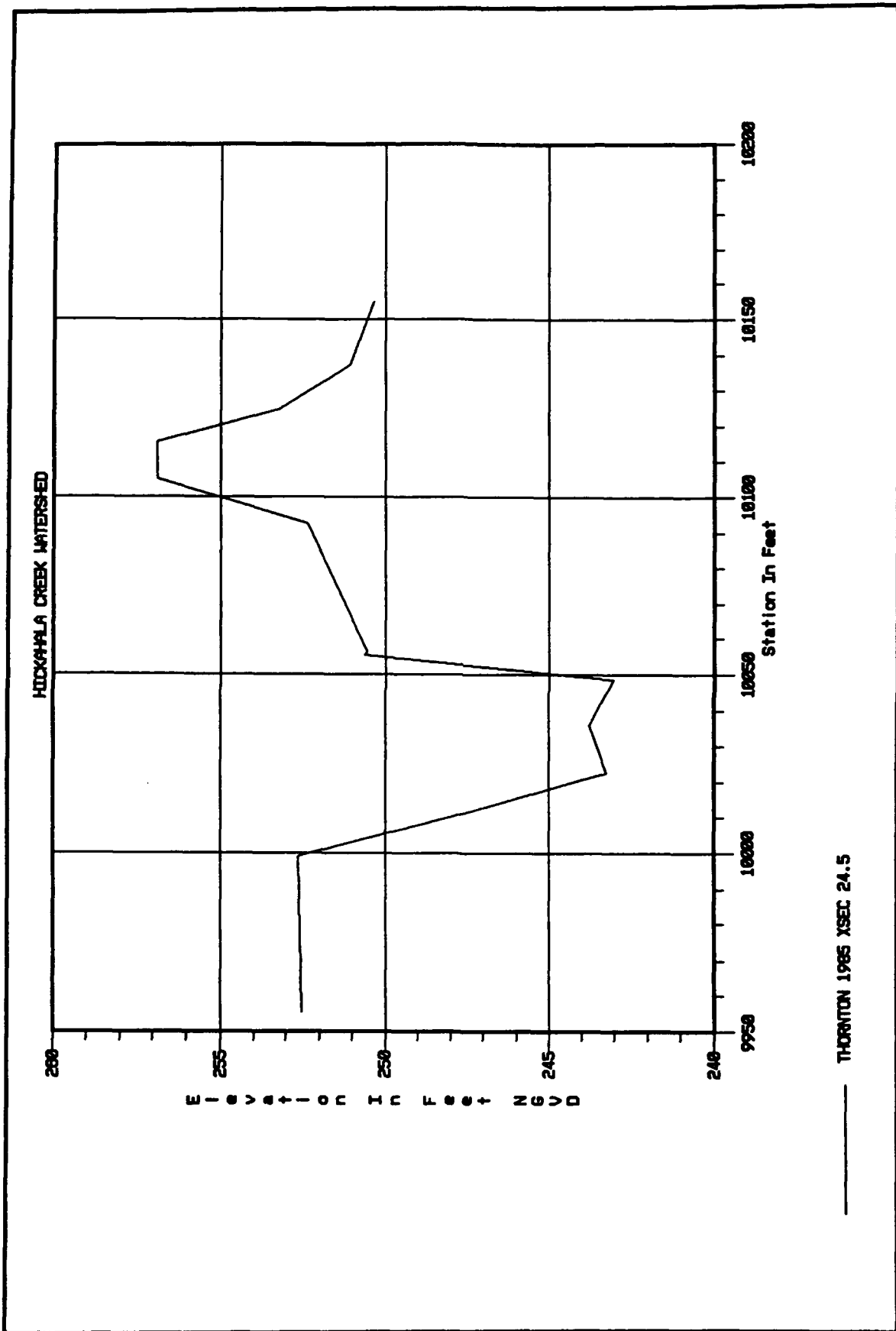
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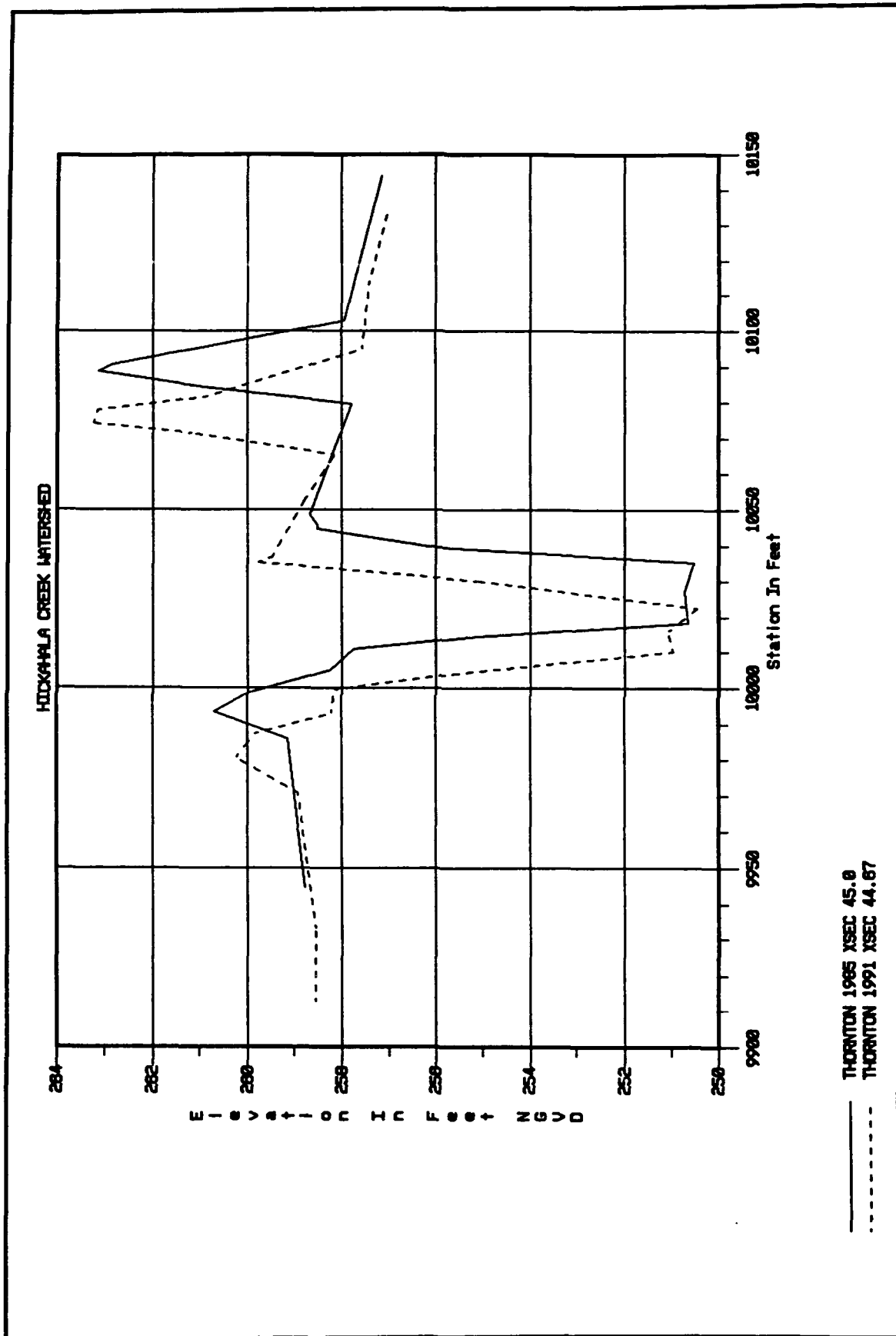
PLATE A34





THORNTON 1991 XSEC 7.64





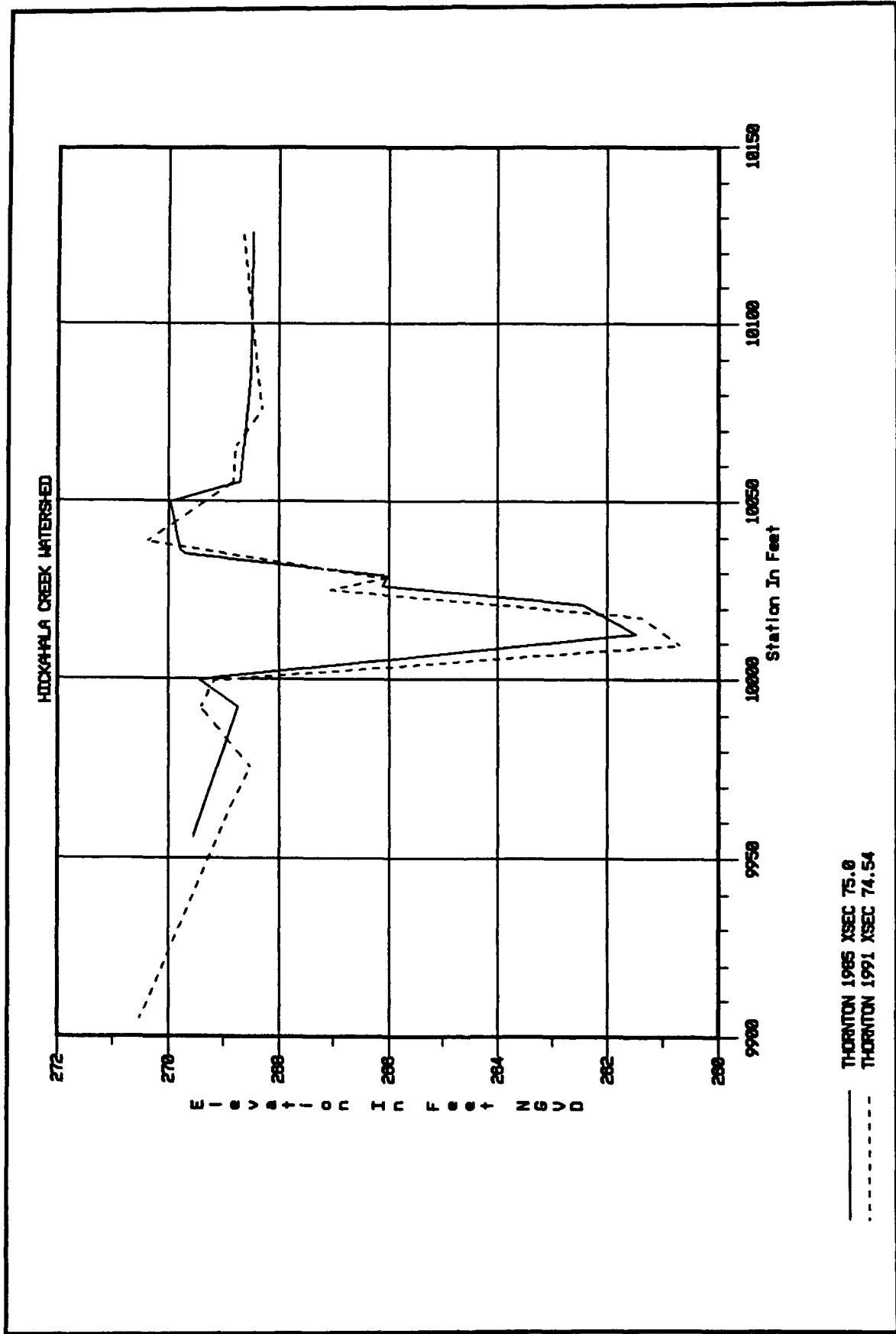
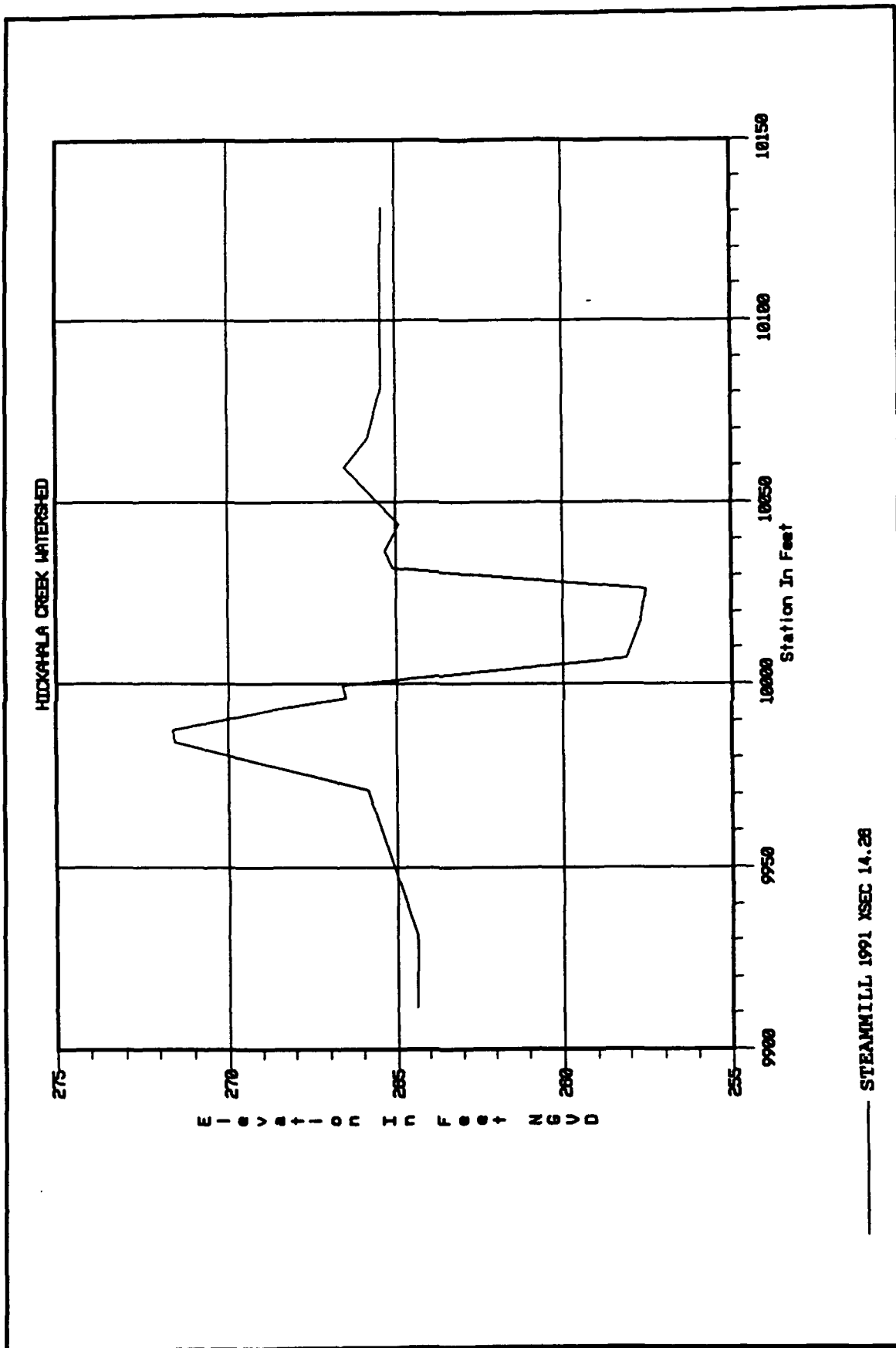
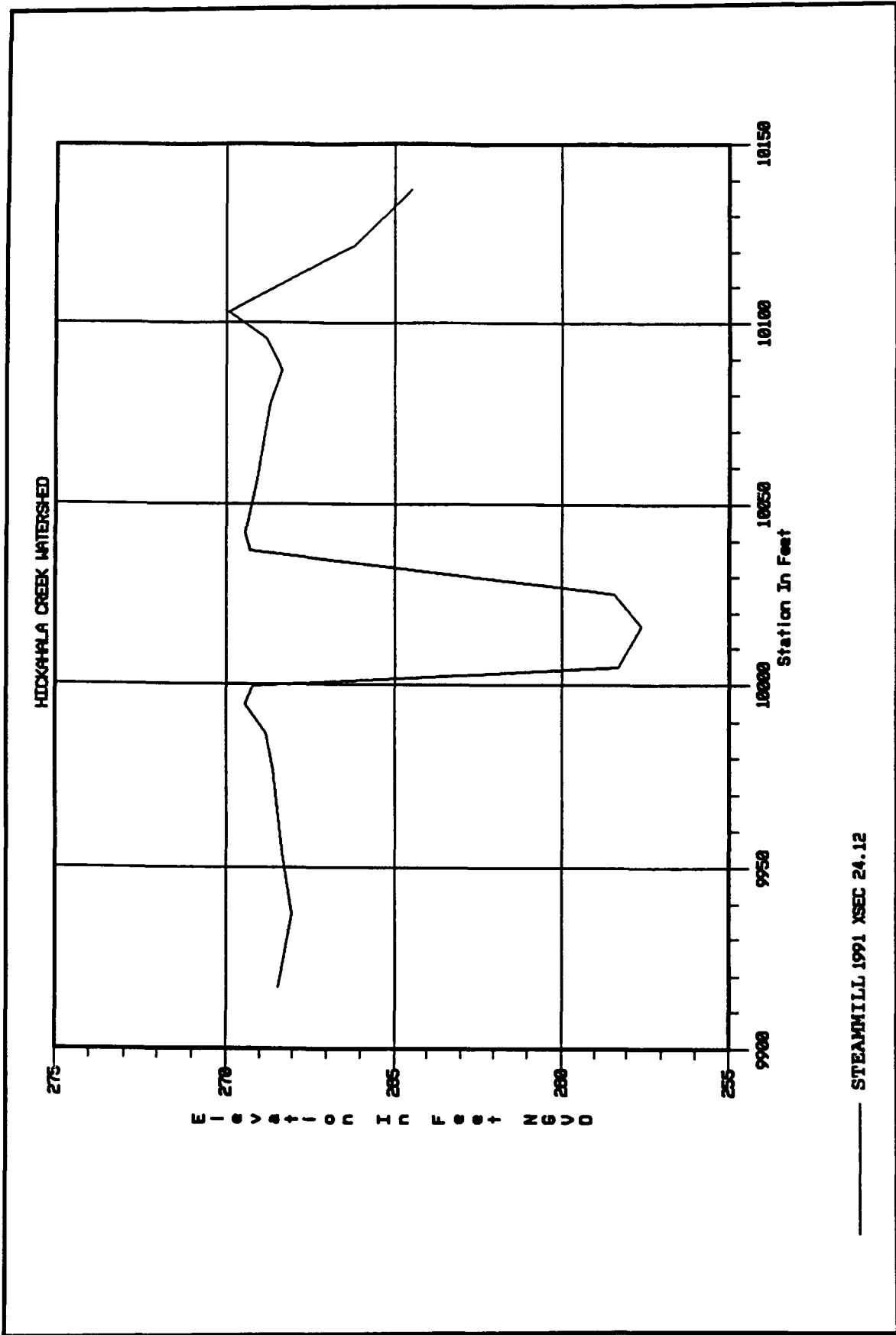
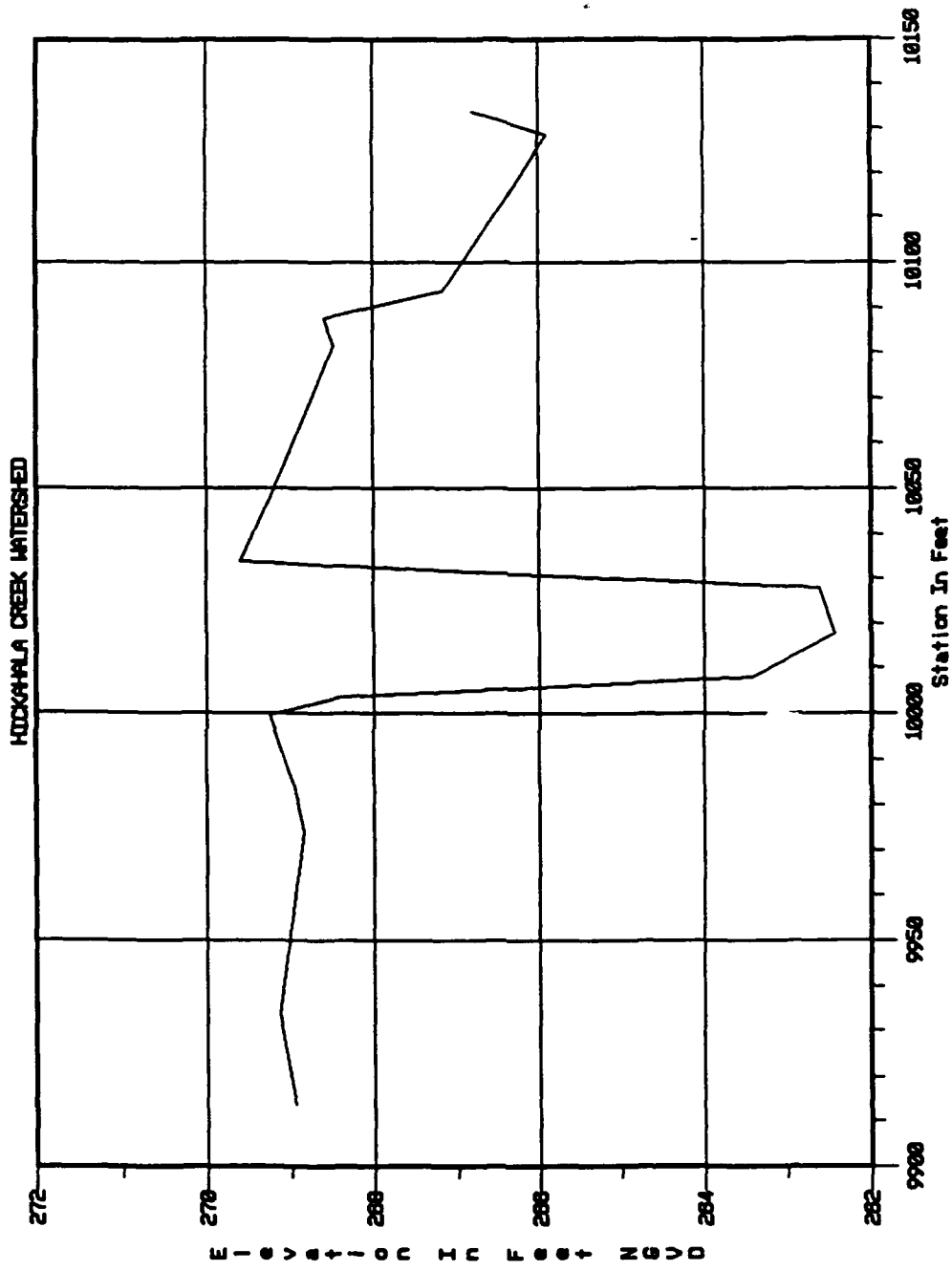


PLATE A38







STEAMHILL 1991 XSEC 25.33

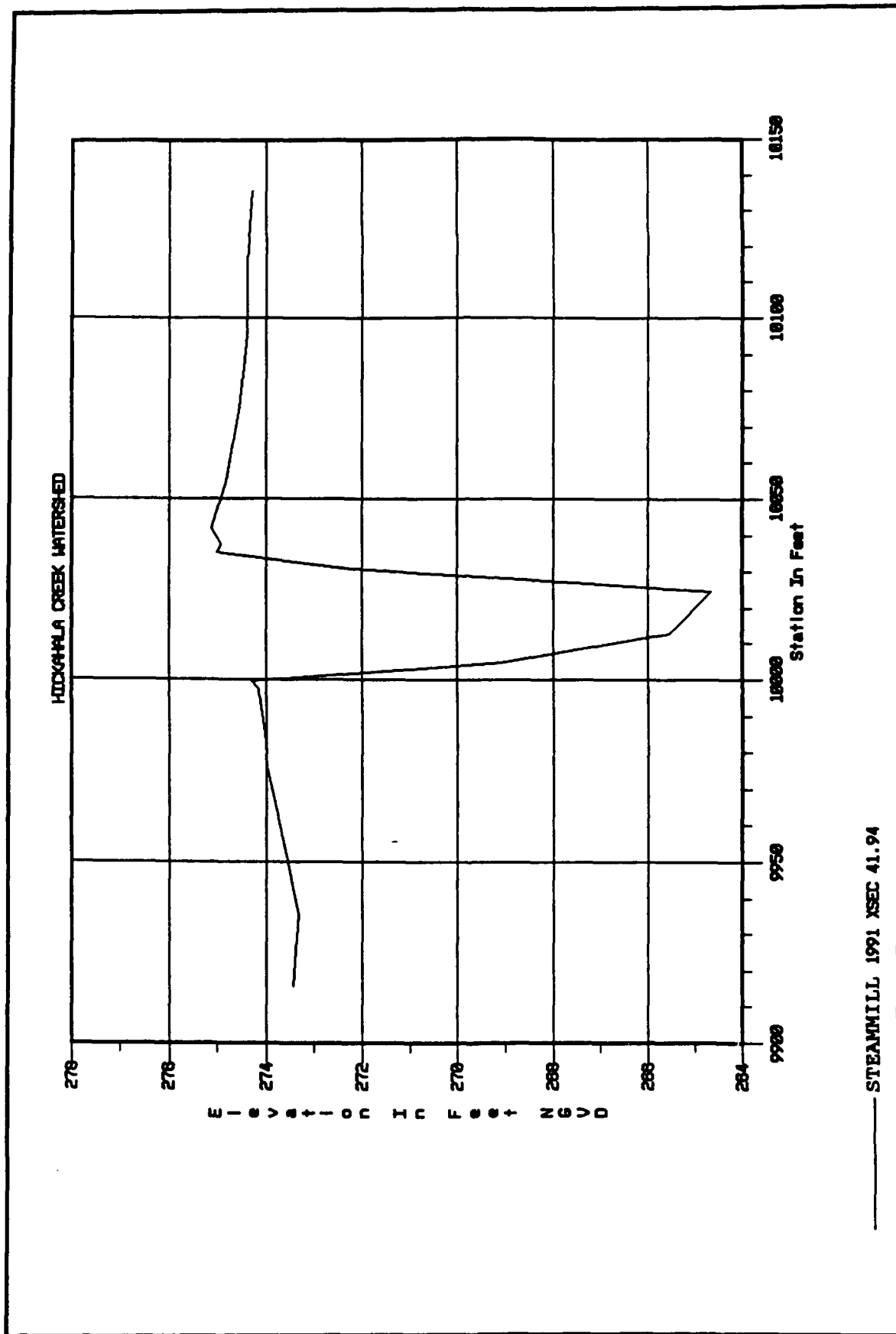


PLATE A42

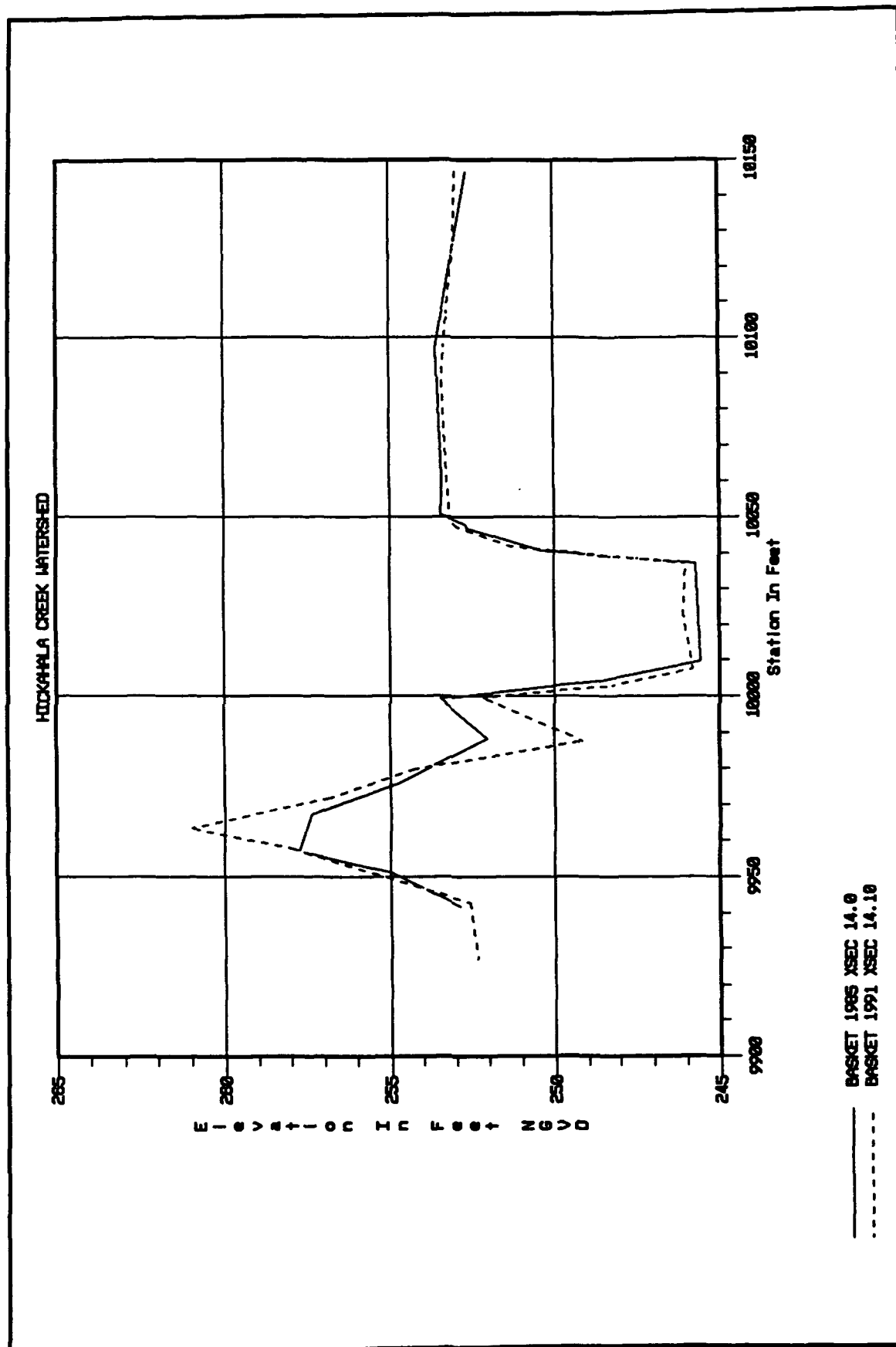


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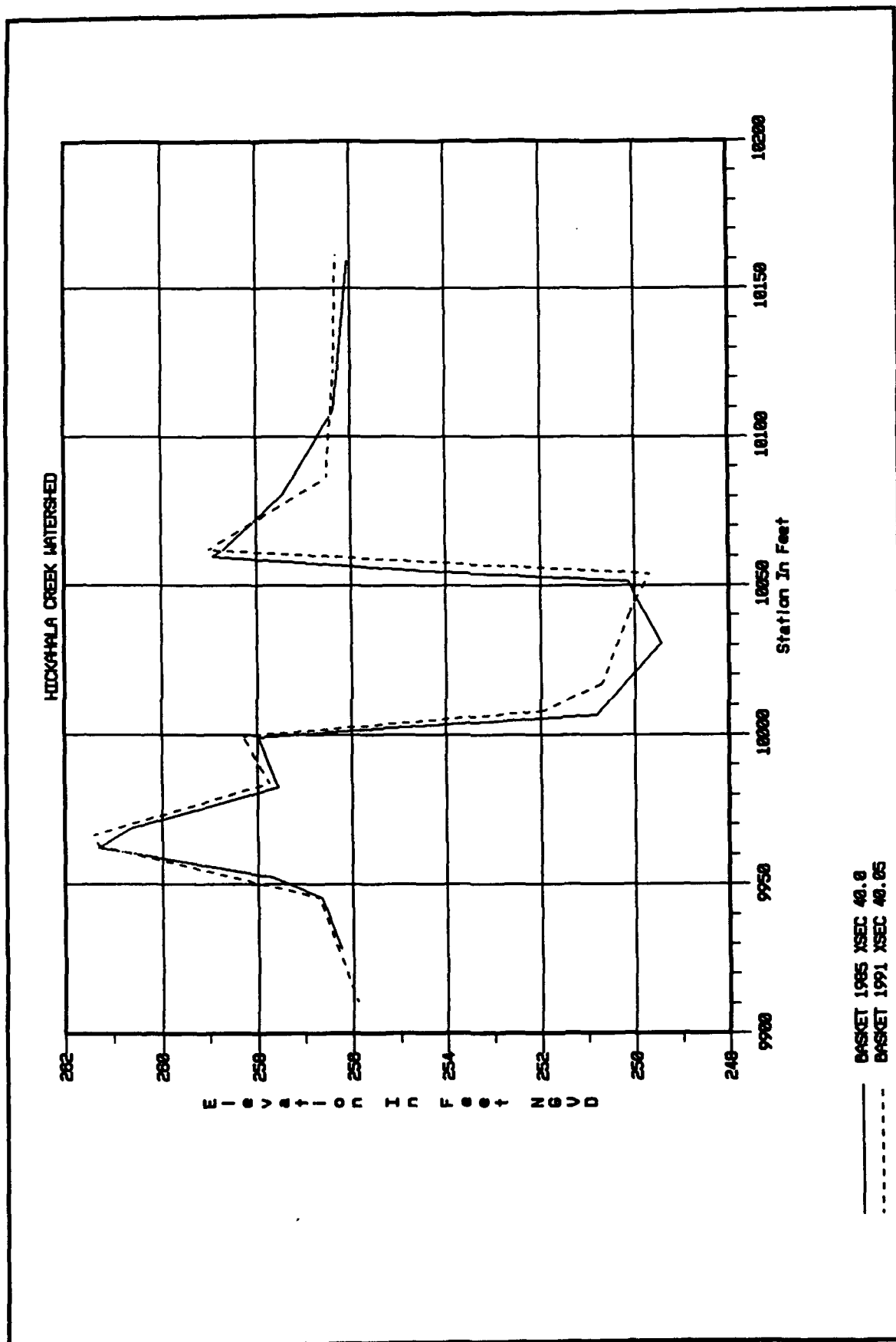
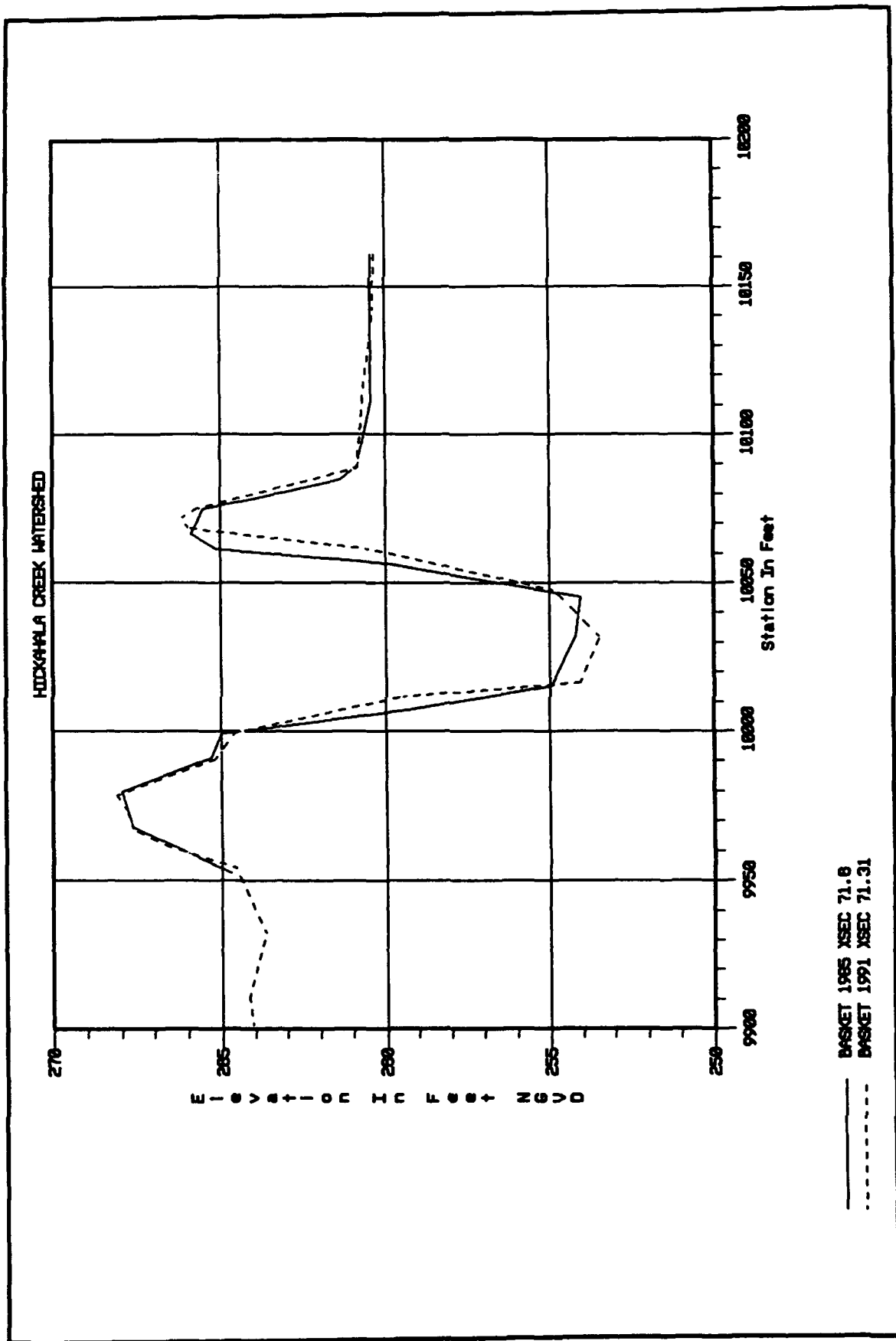


PLATE A44



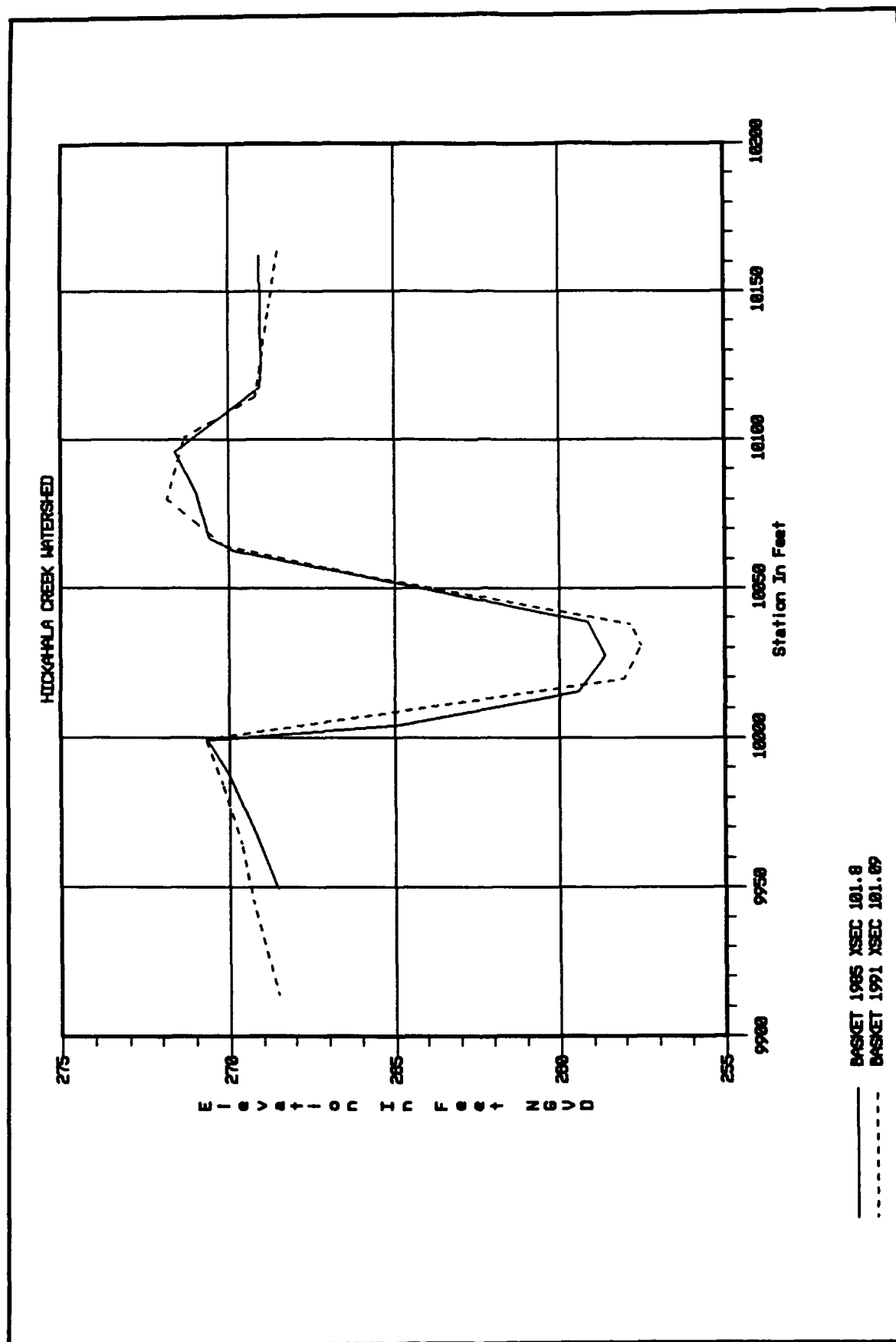
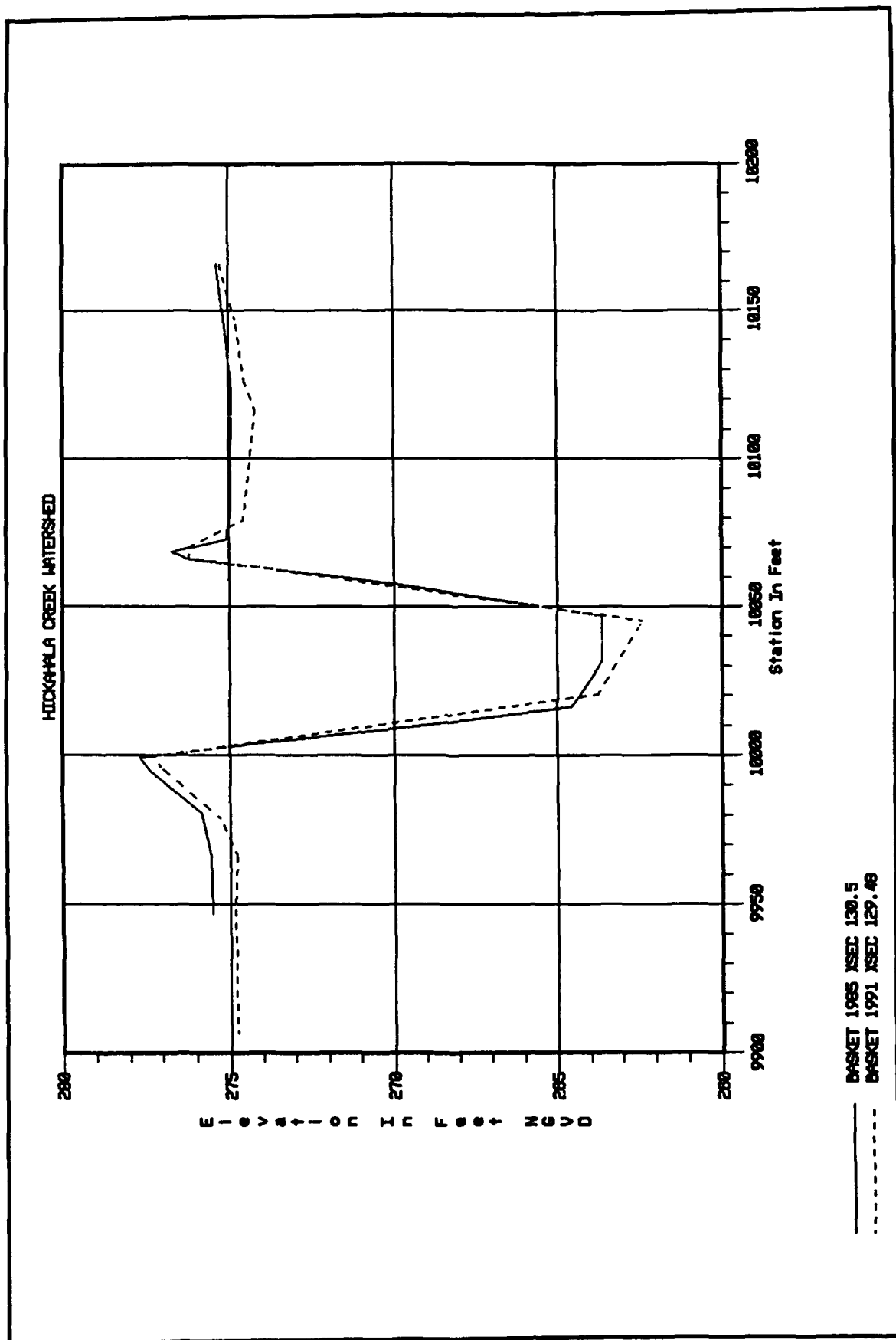


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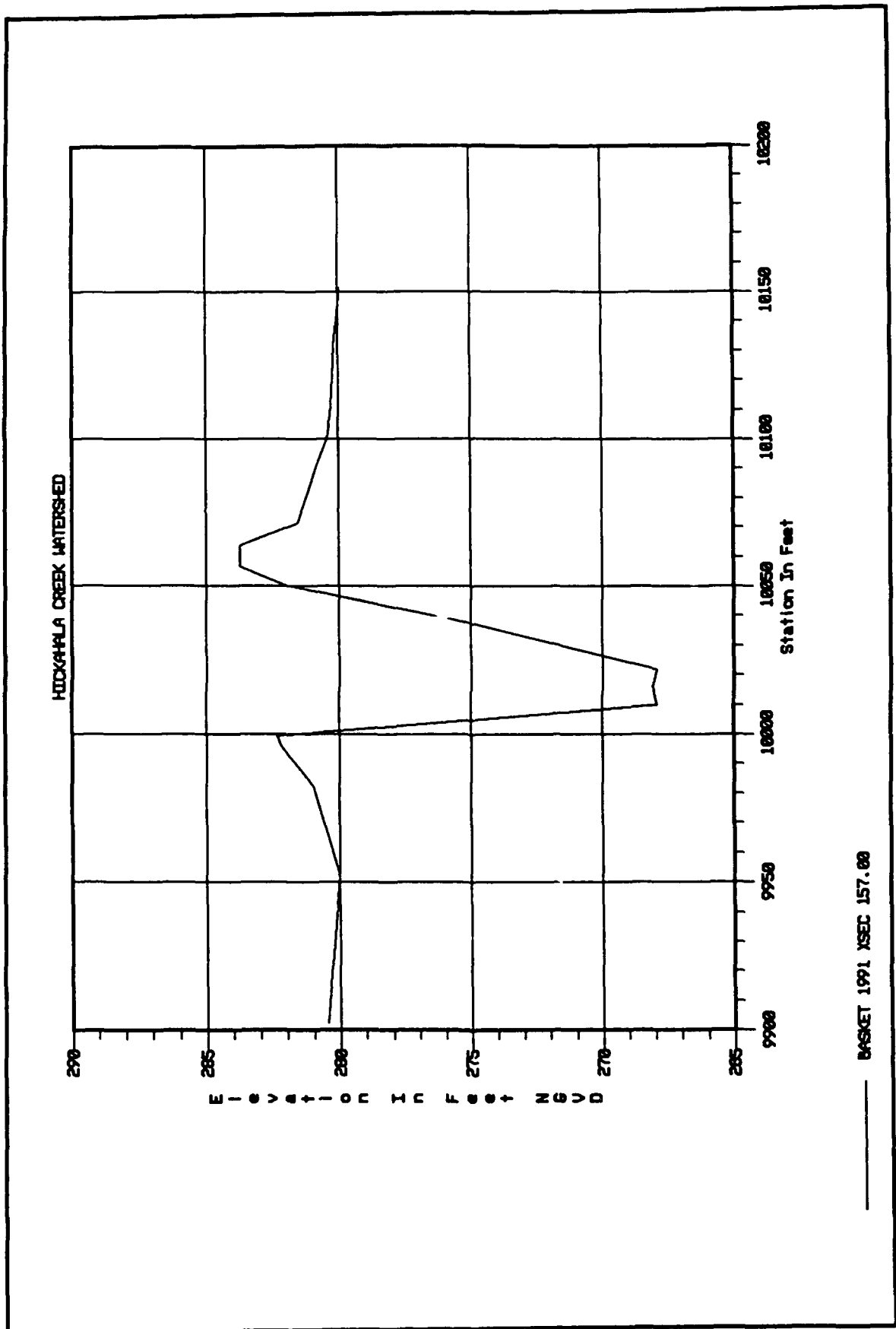
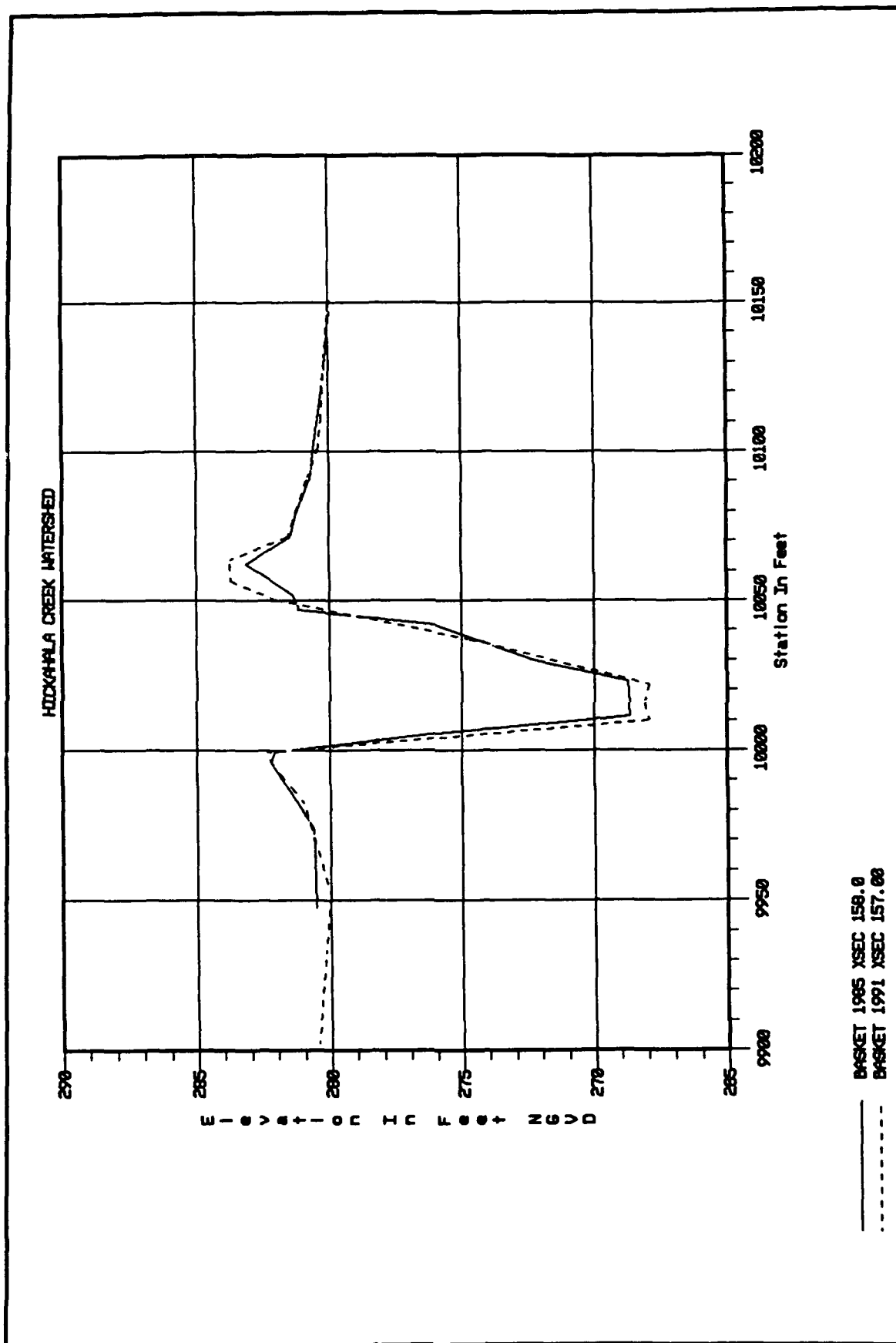
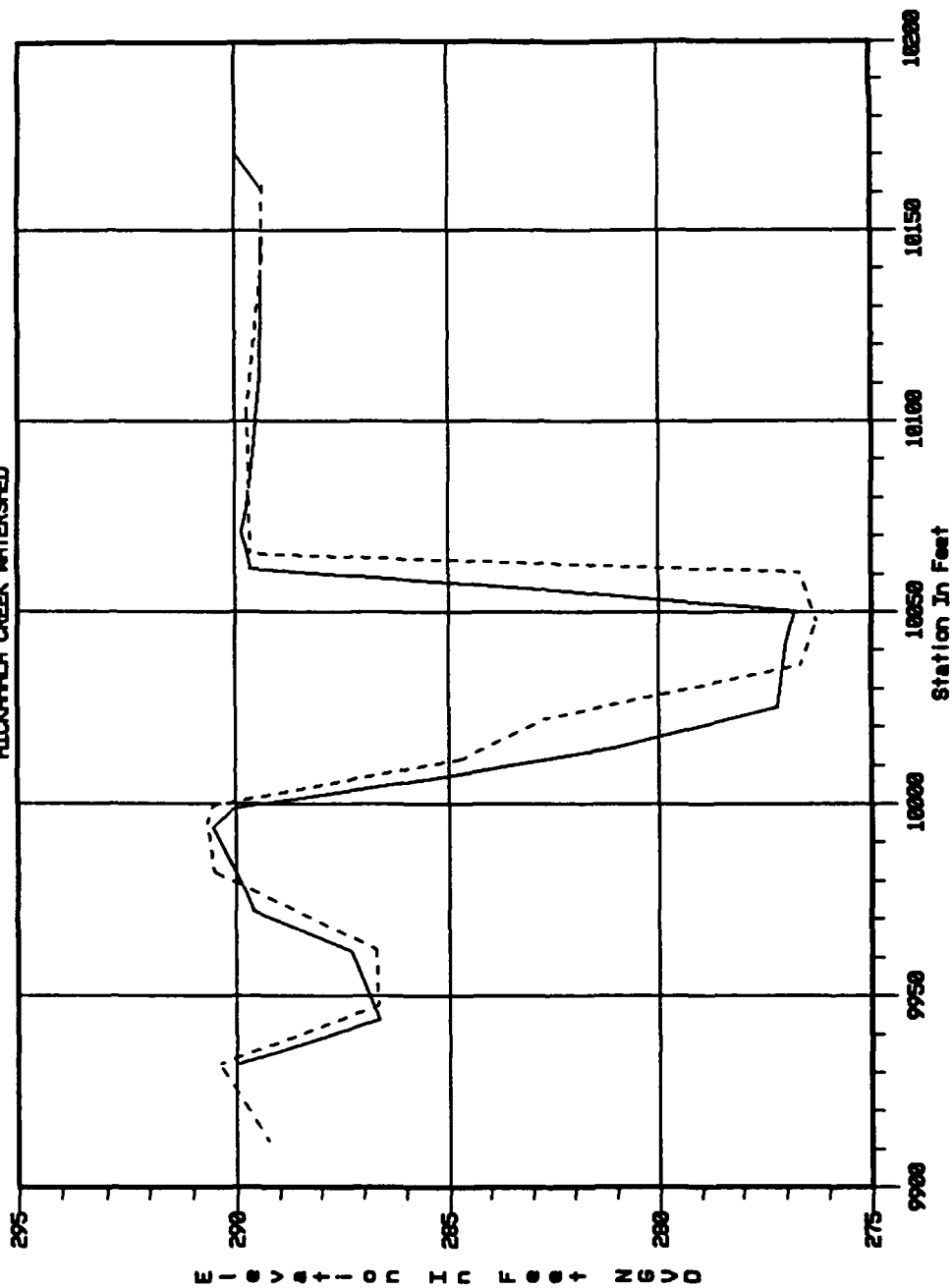


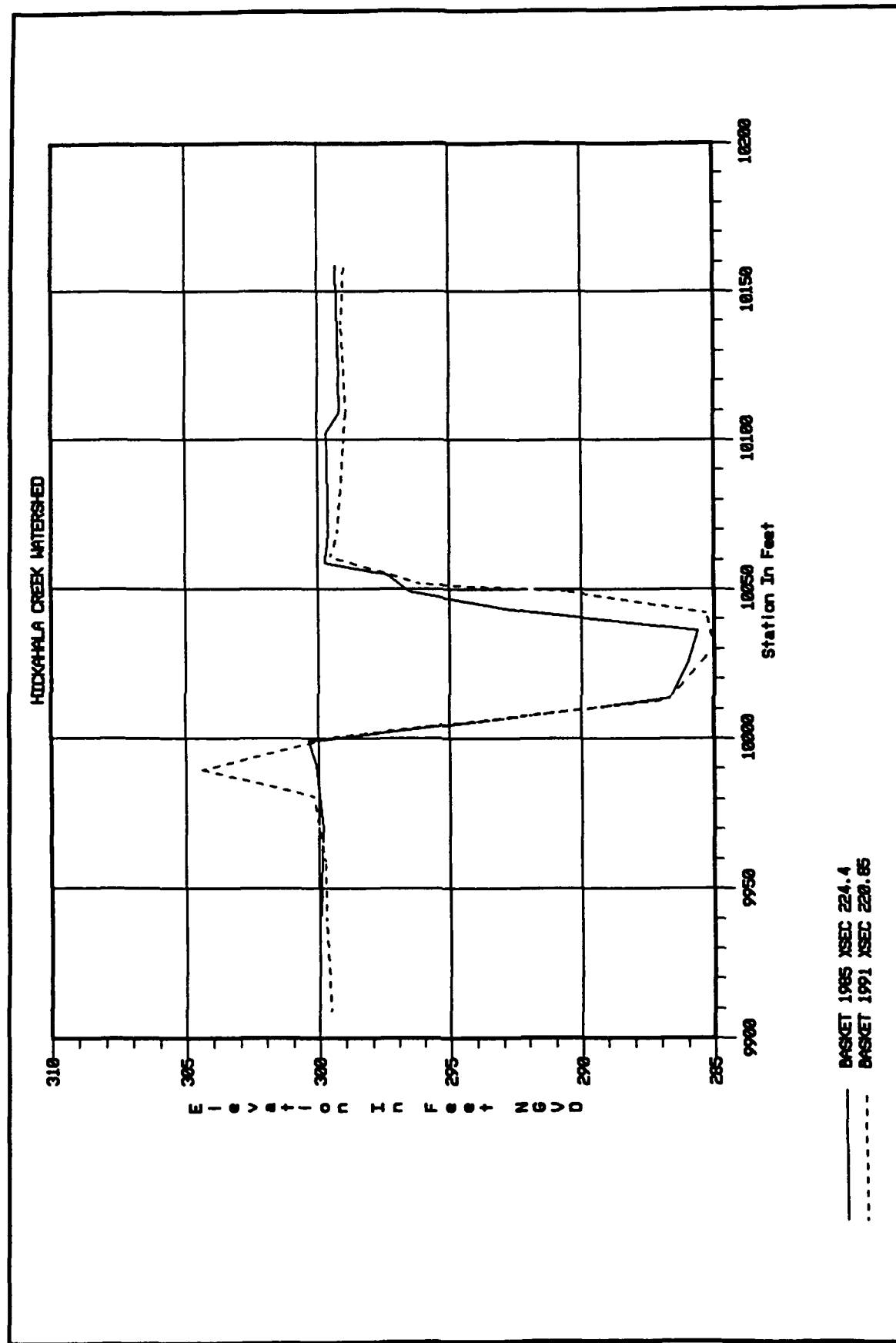
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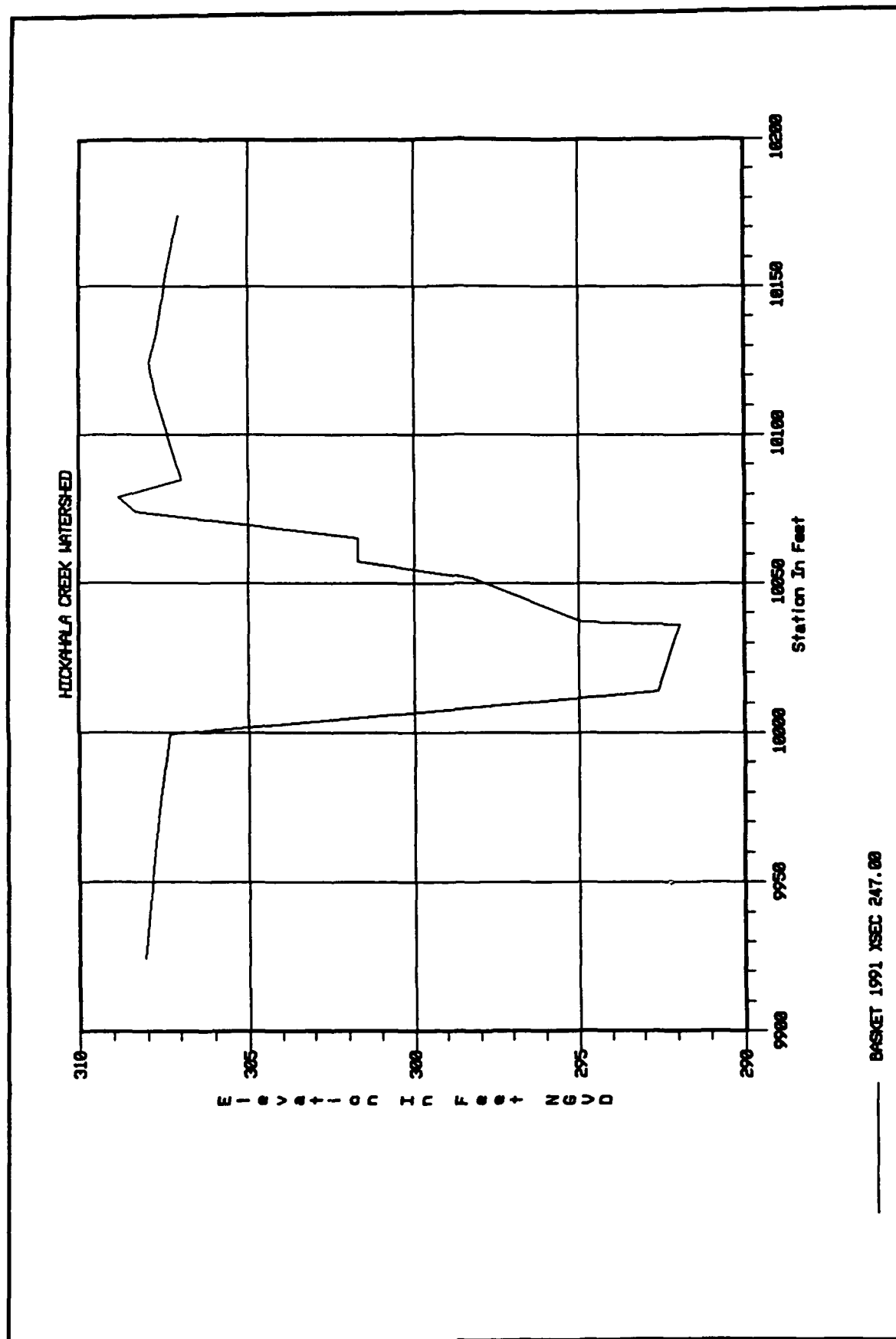


HICKAHALA CREEK WATERSHED

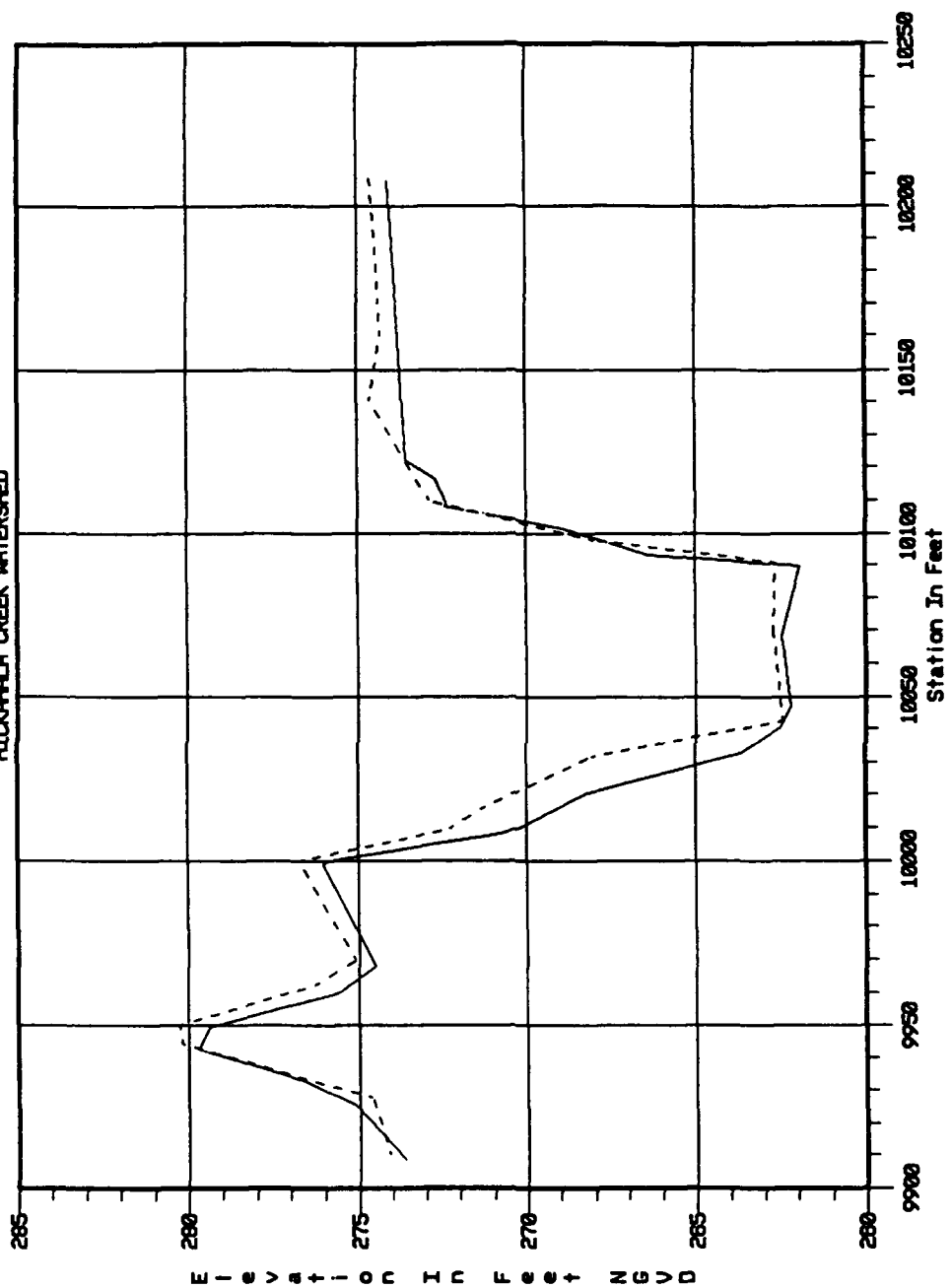


— BASKET 1985 XSEC 190.5
 - - - BASKET 1991 XSEC 187.40





HICKAHALA CREEK WATERSHED



— JAMES WOLF 1985 XSEC 5.5
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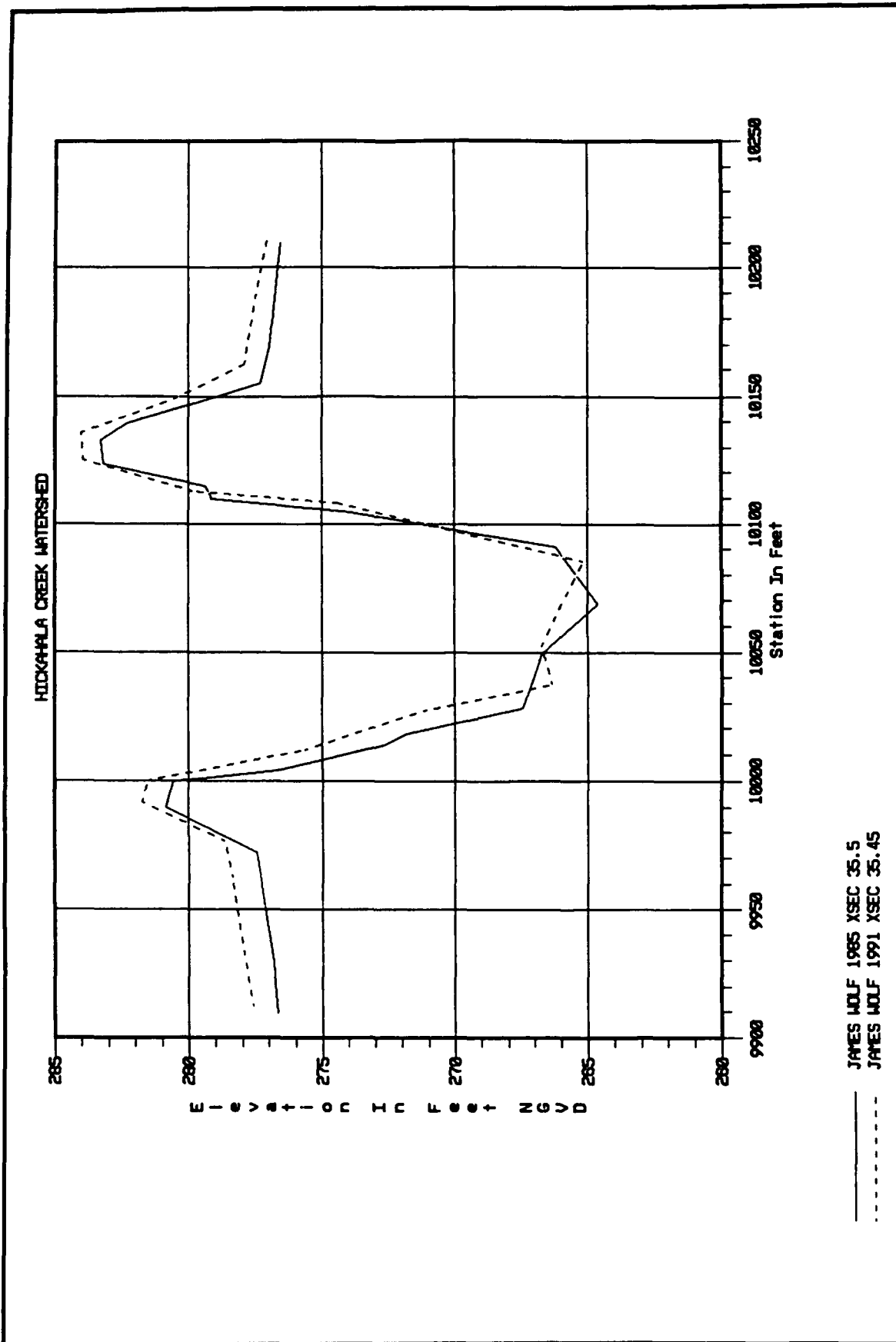
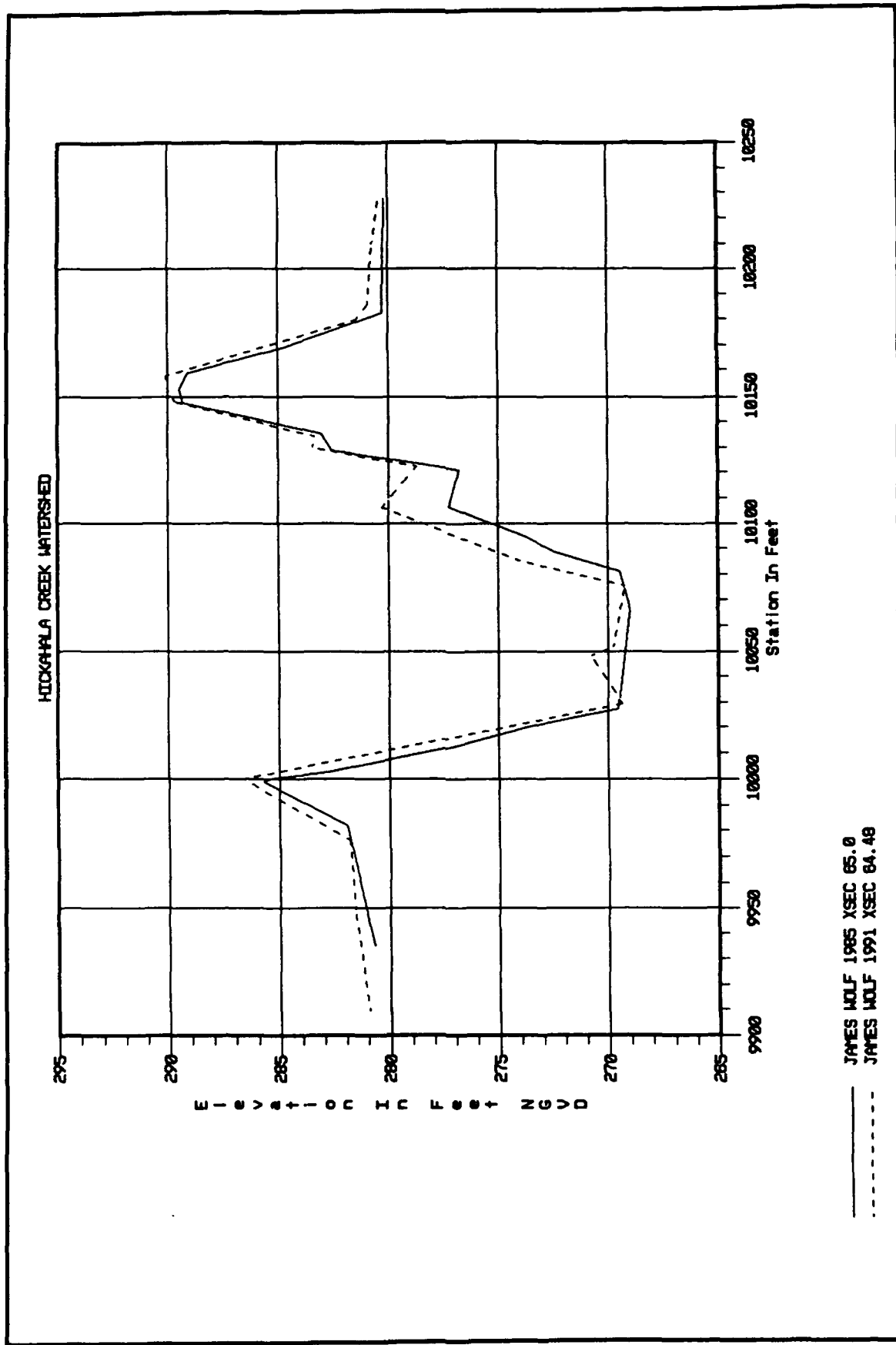


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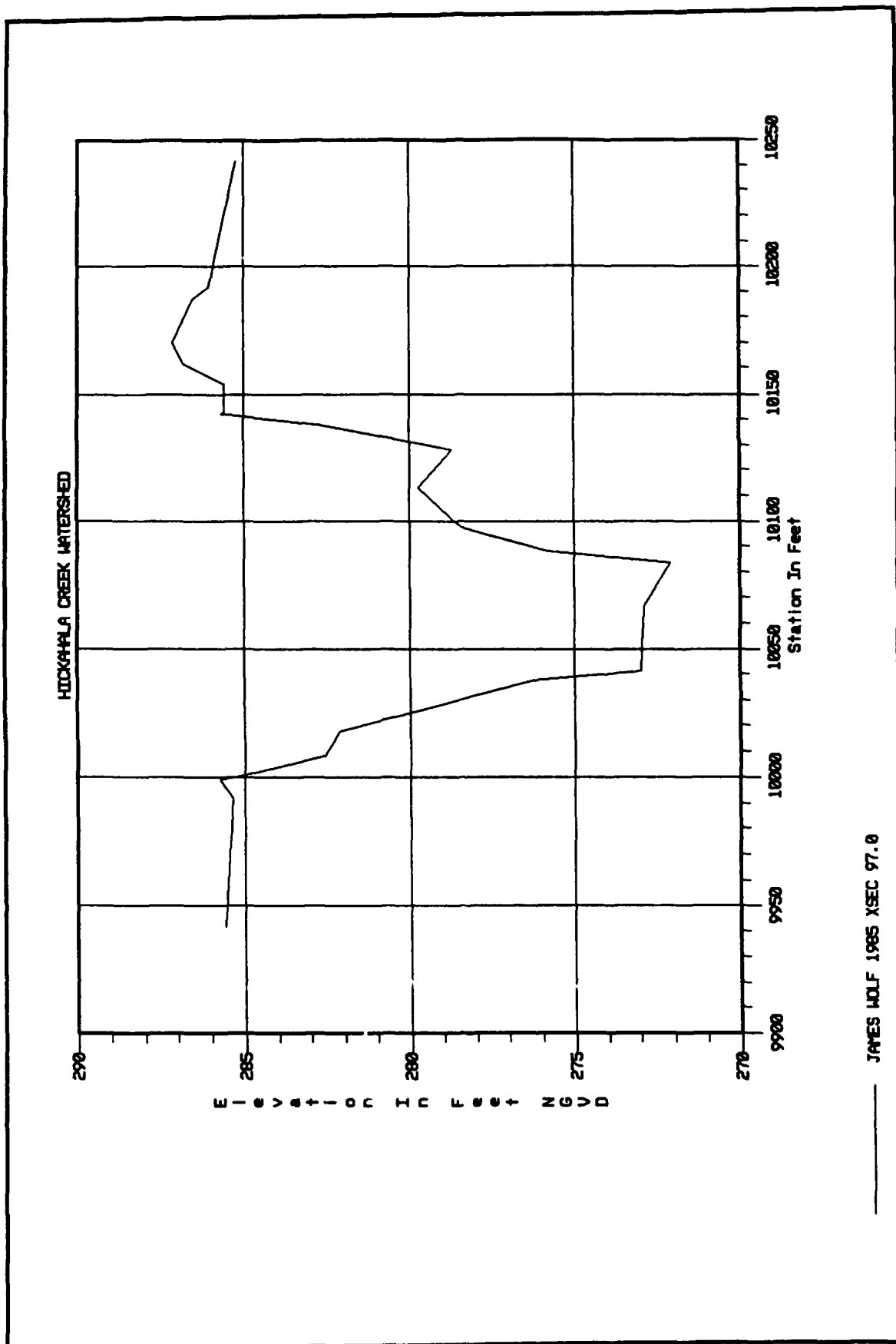
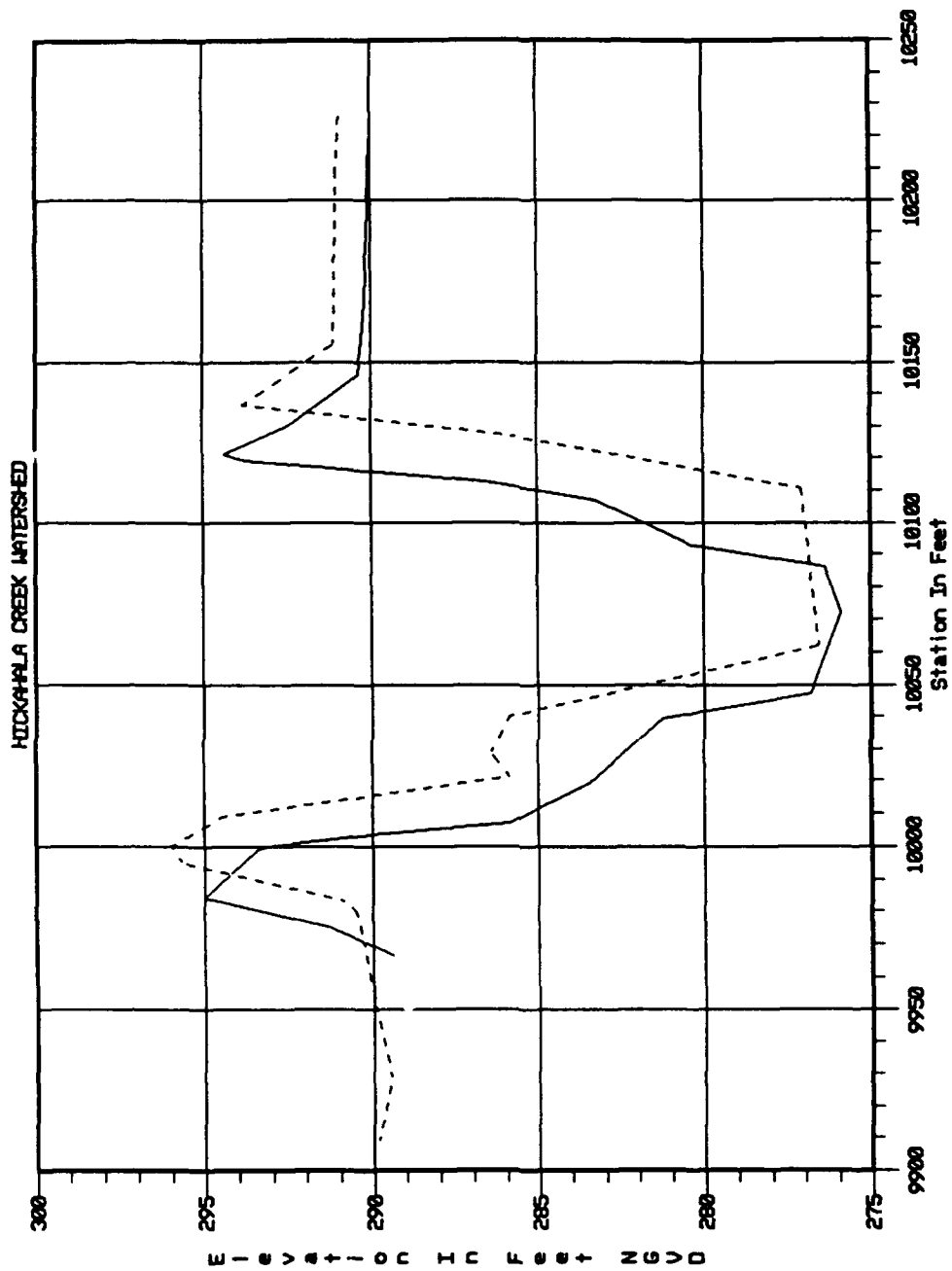
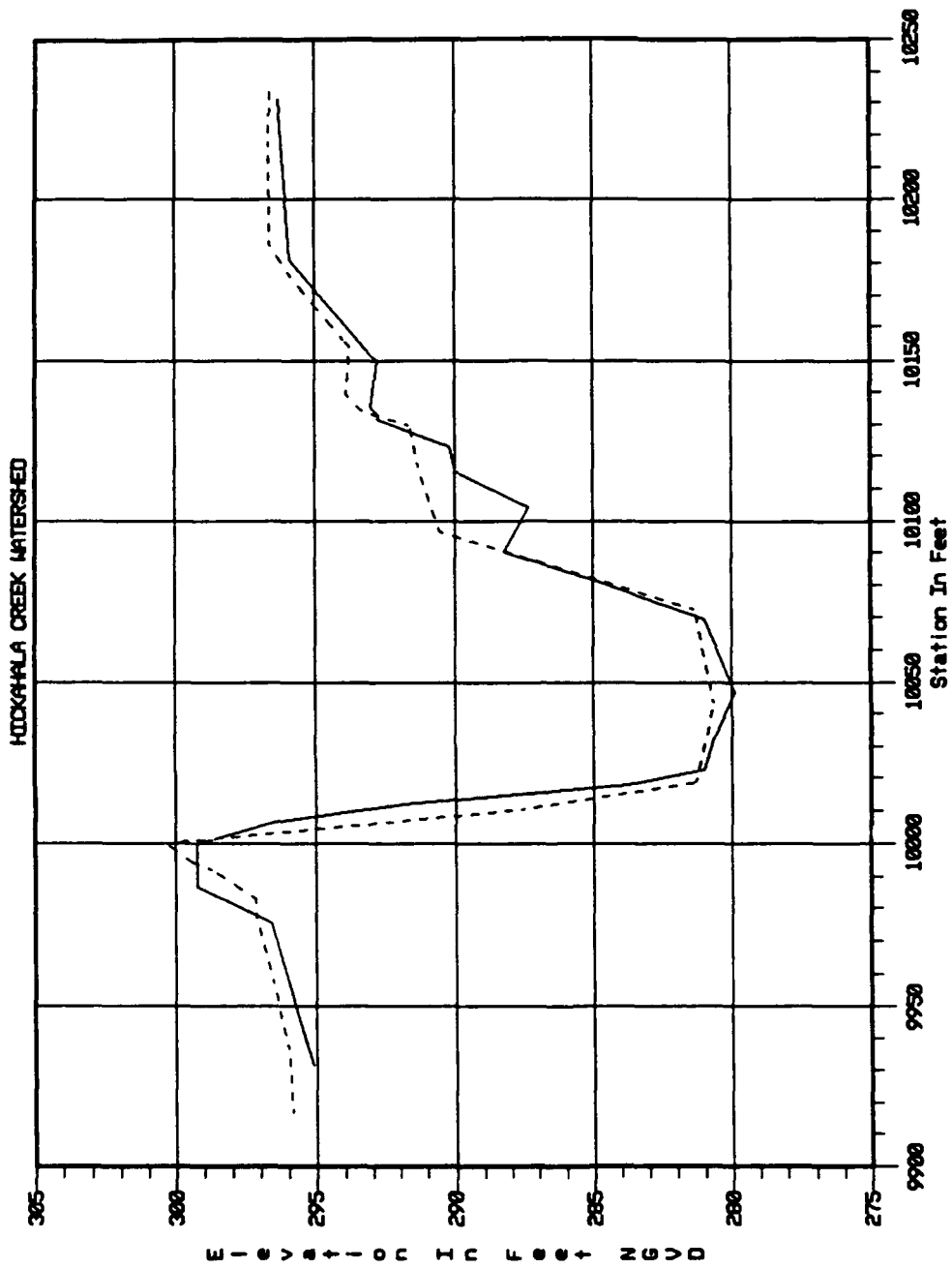


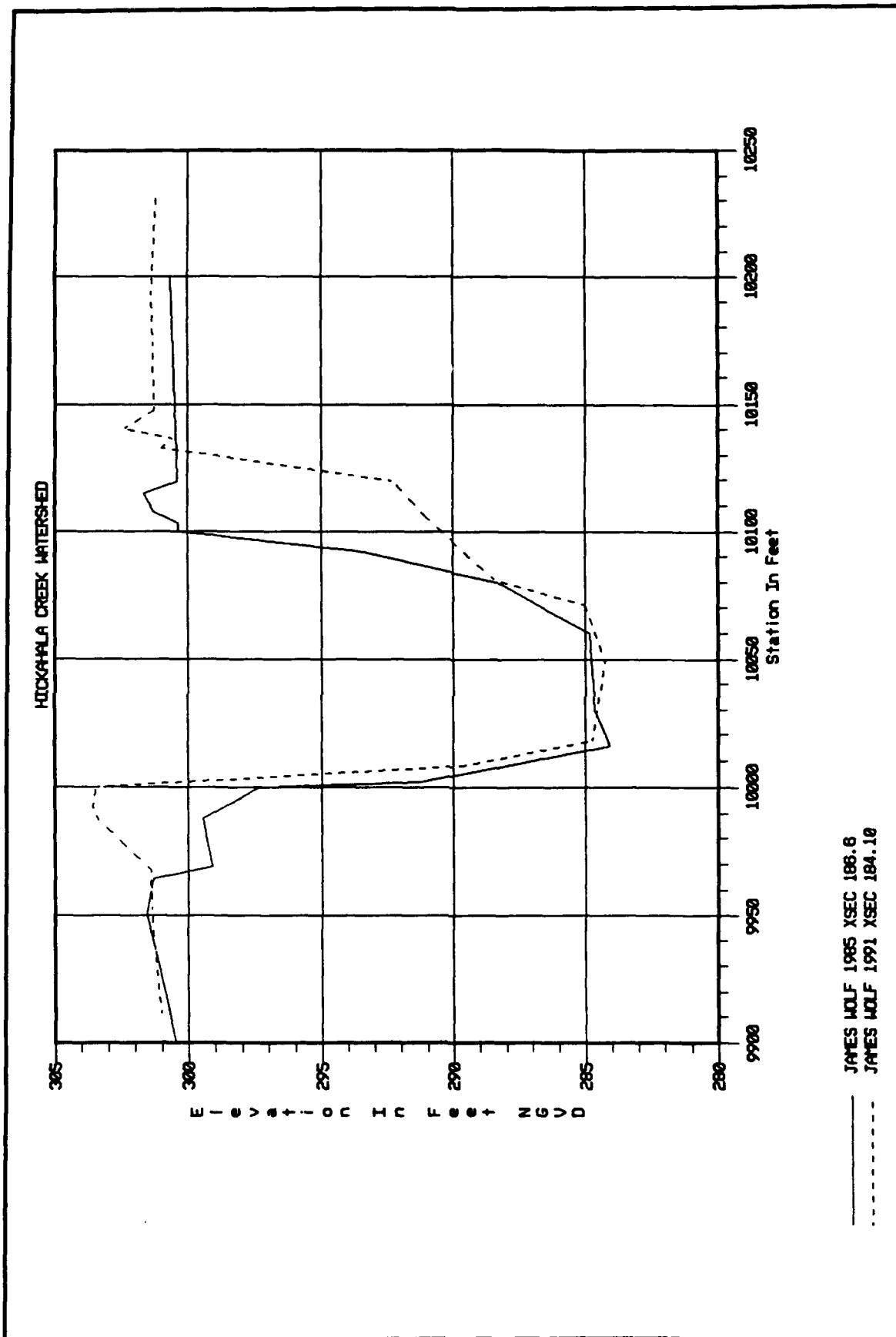
PLATE A56



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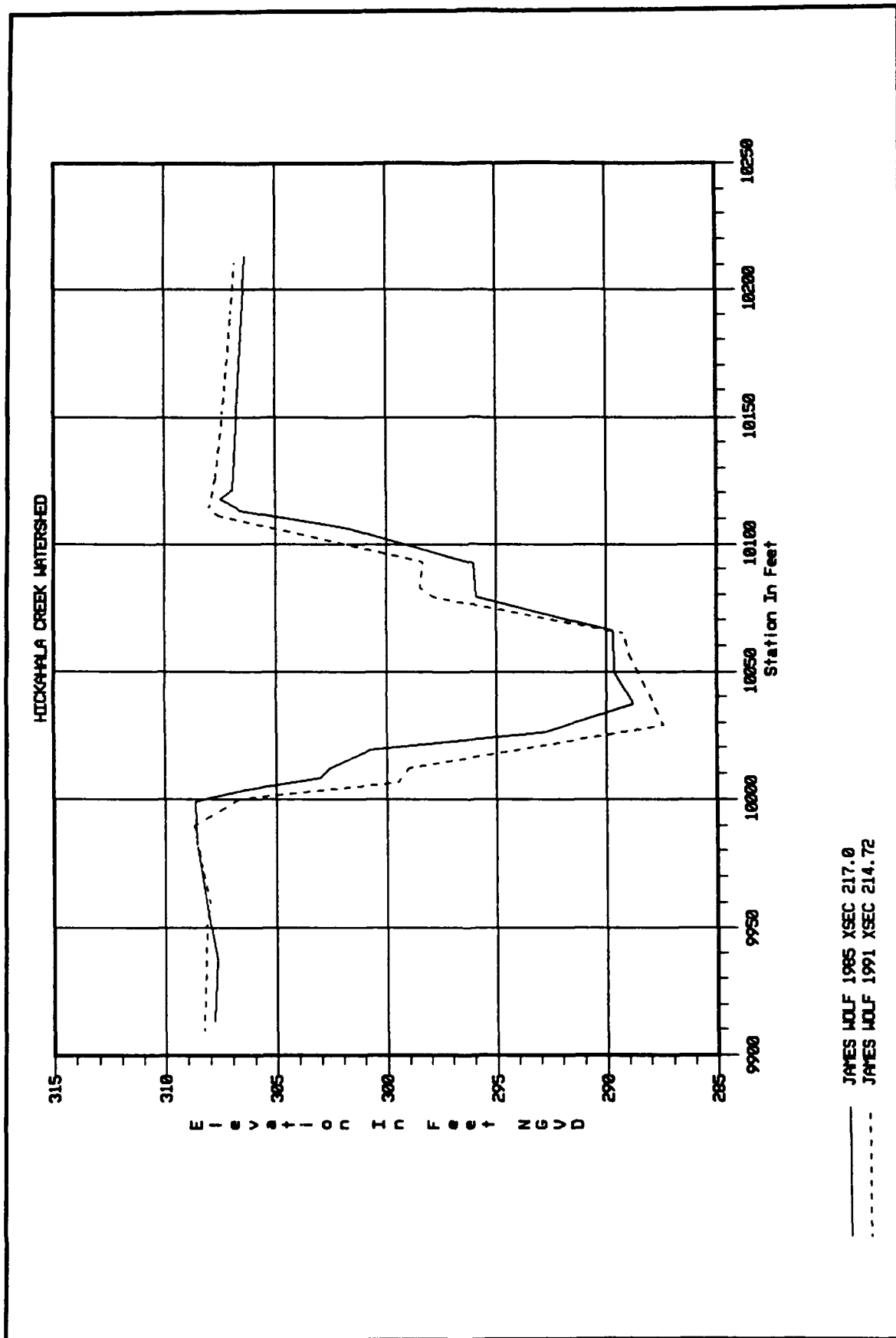


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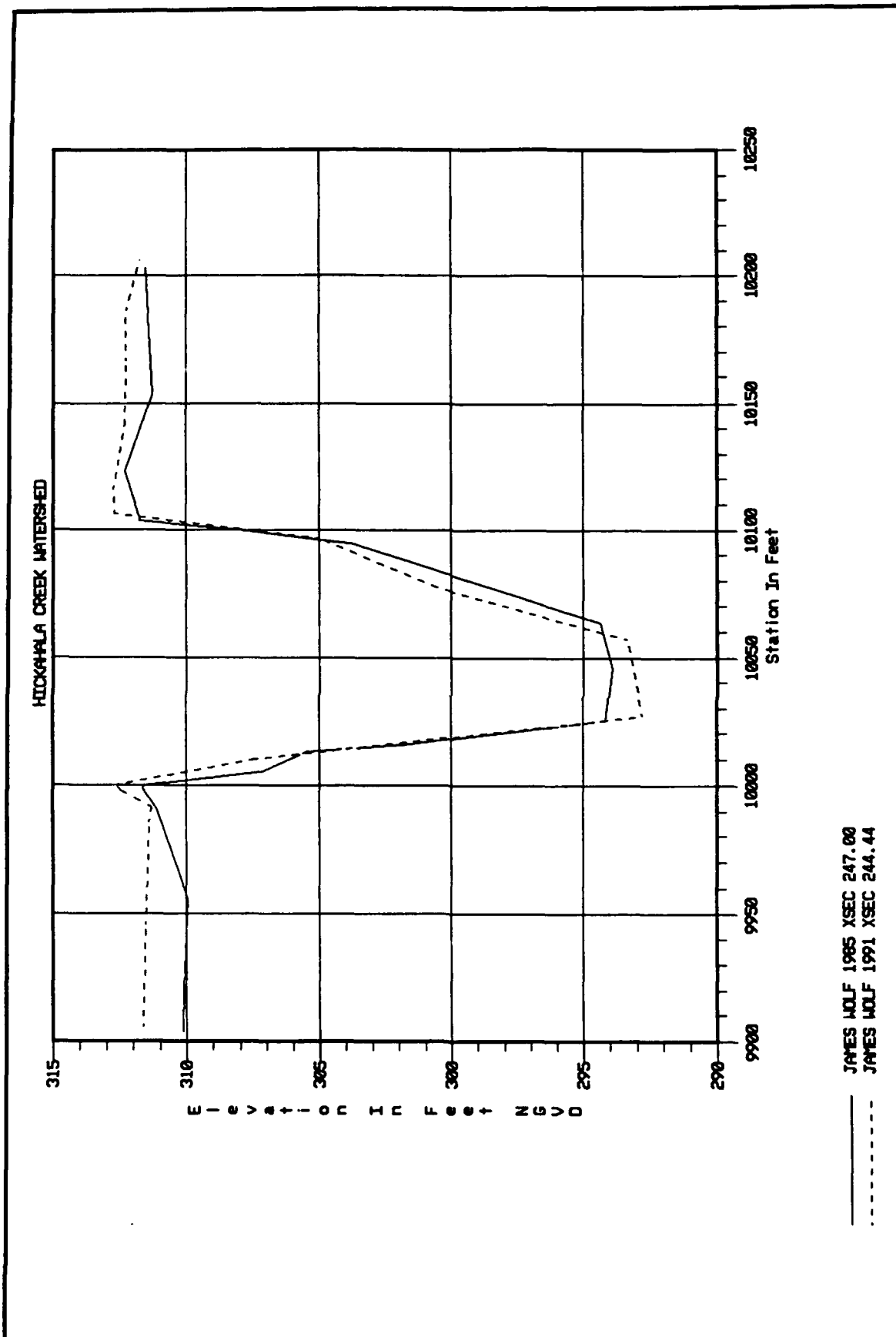


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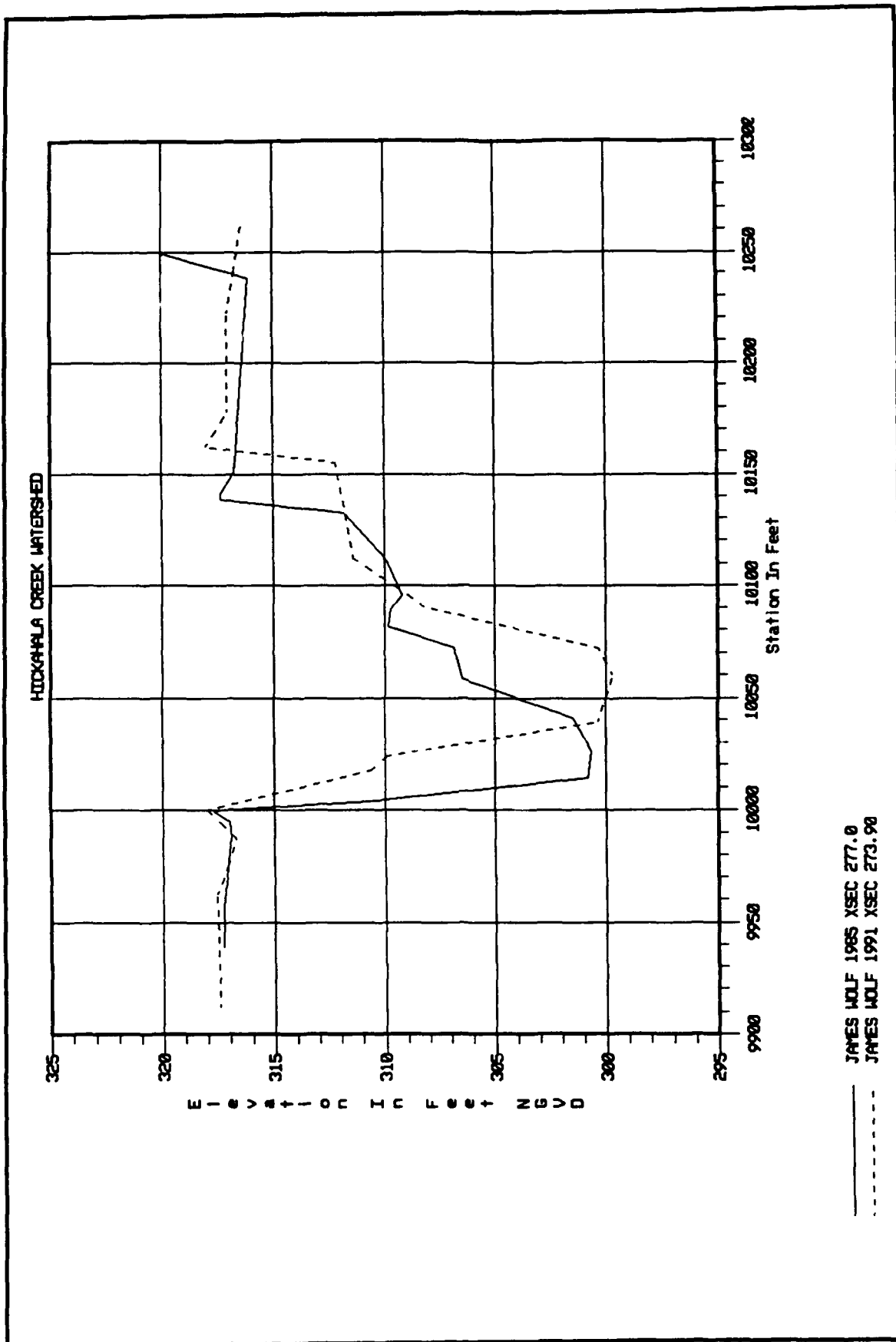


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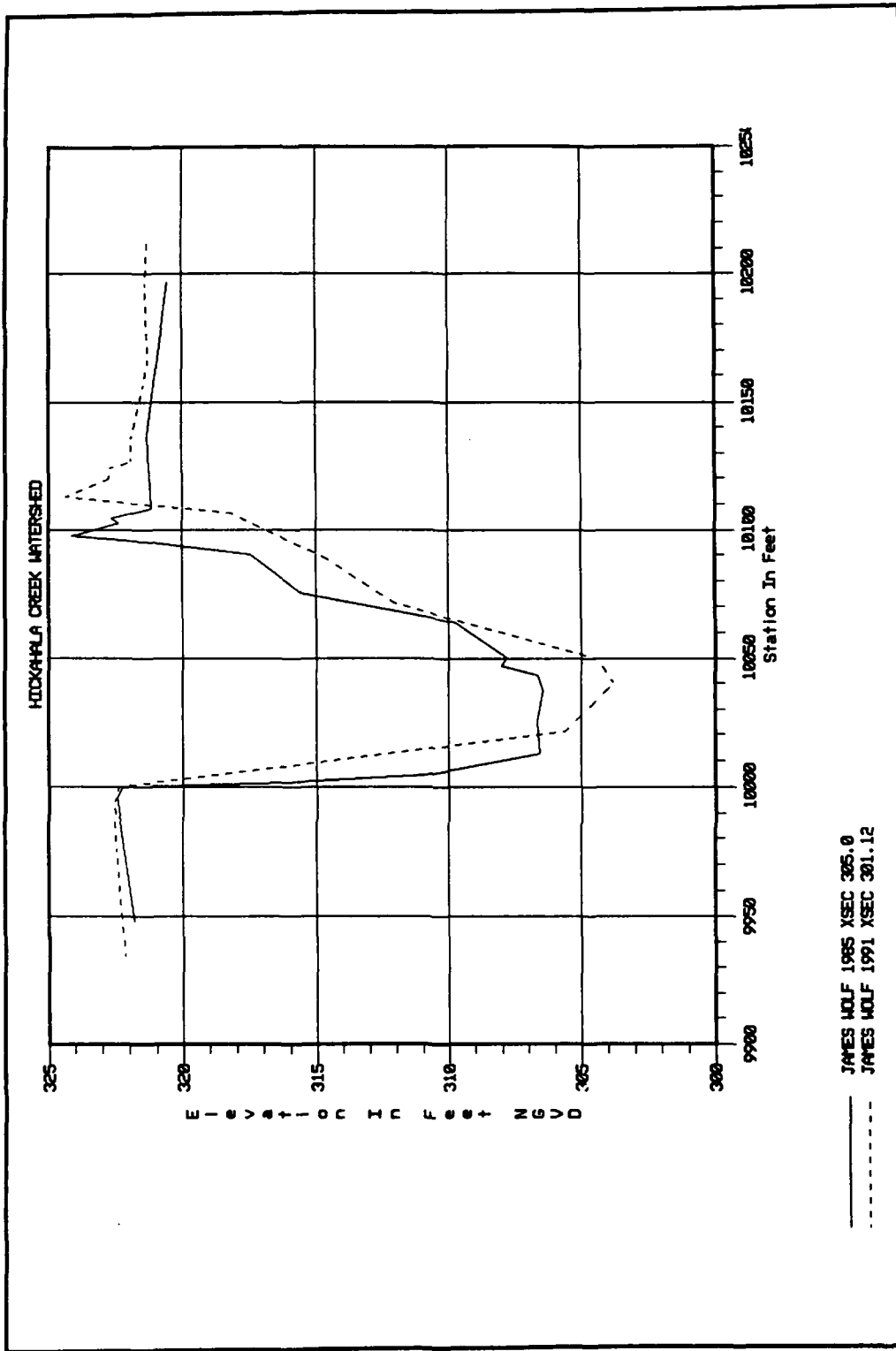


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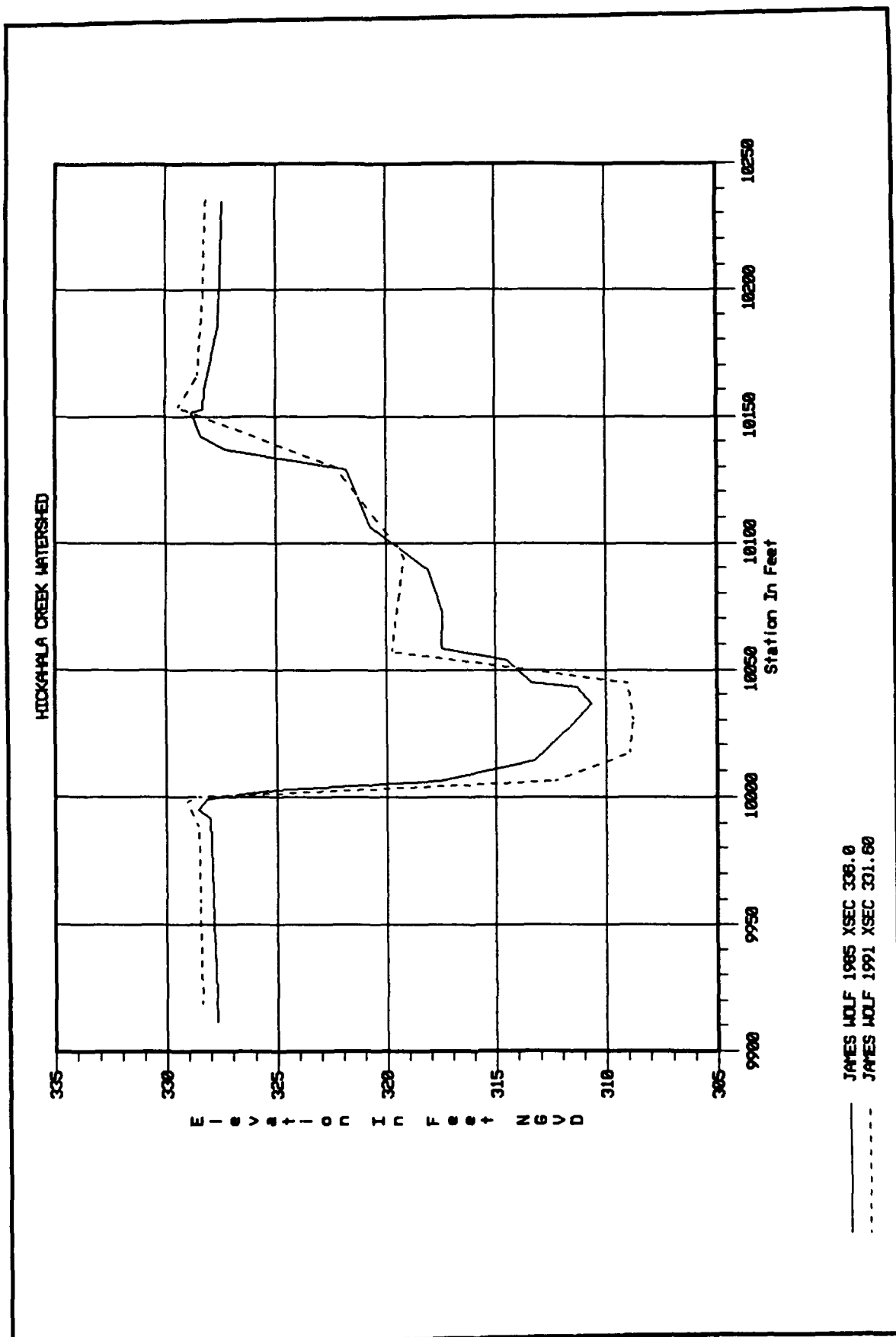


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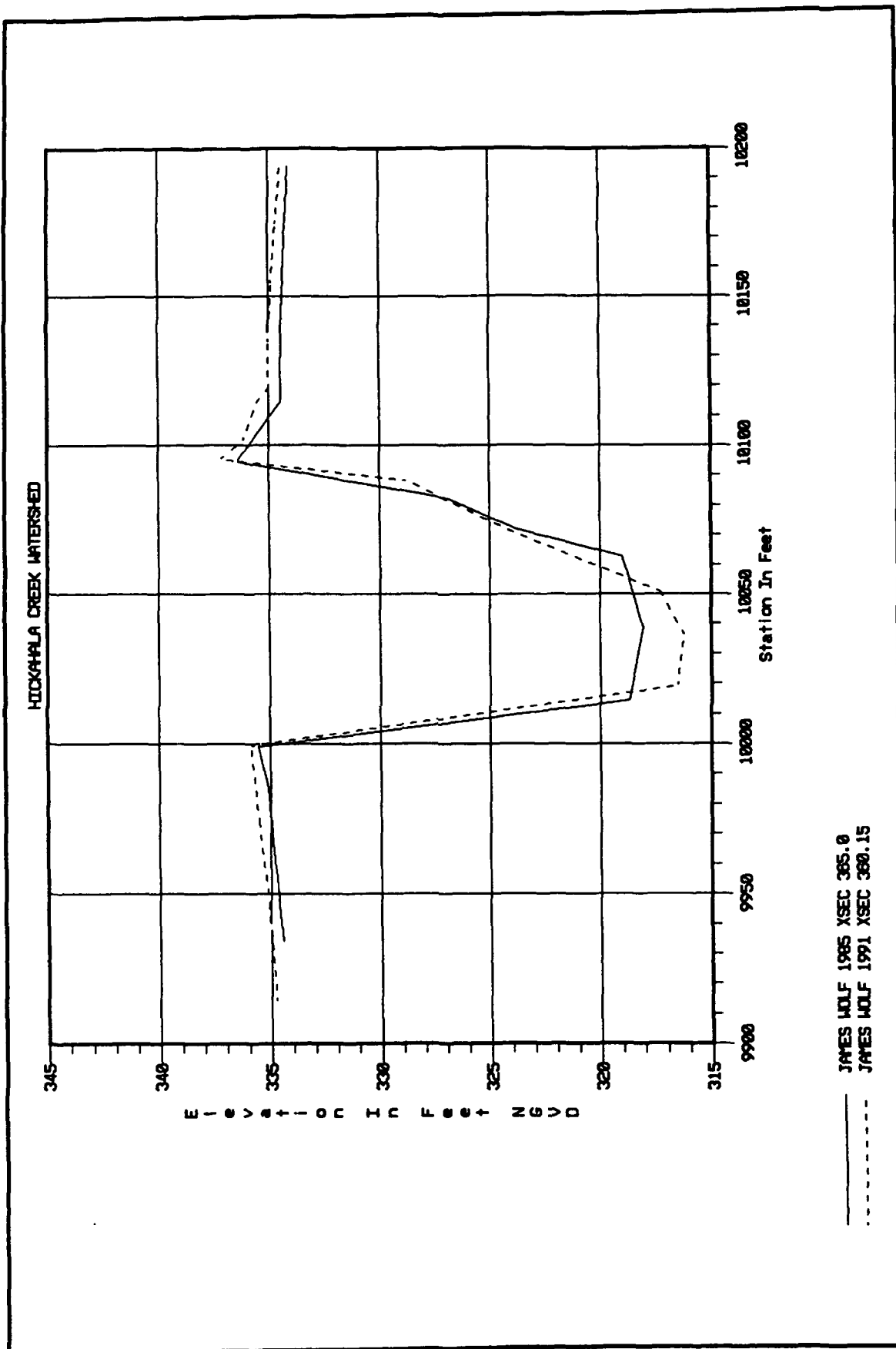


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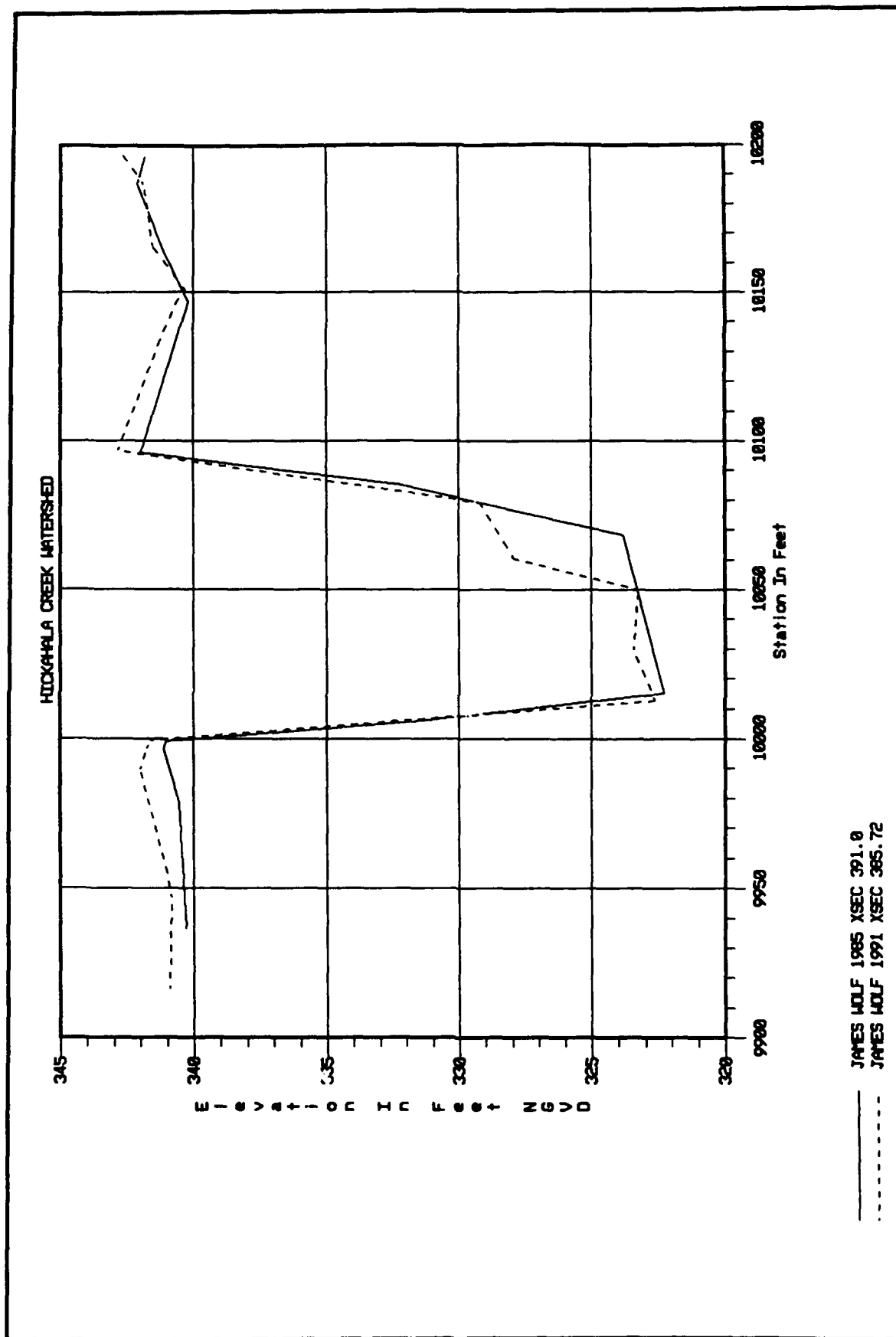
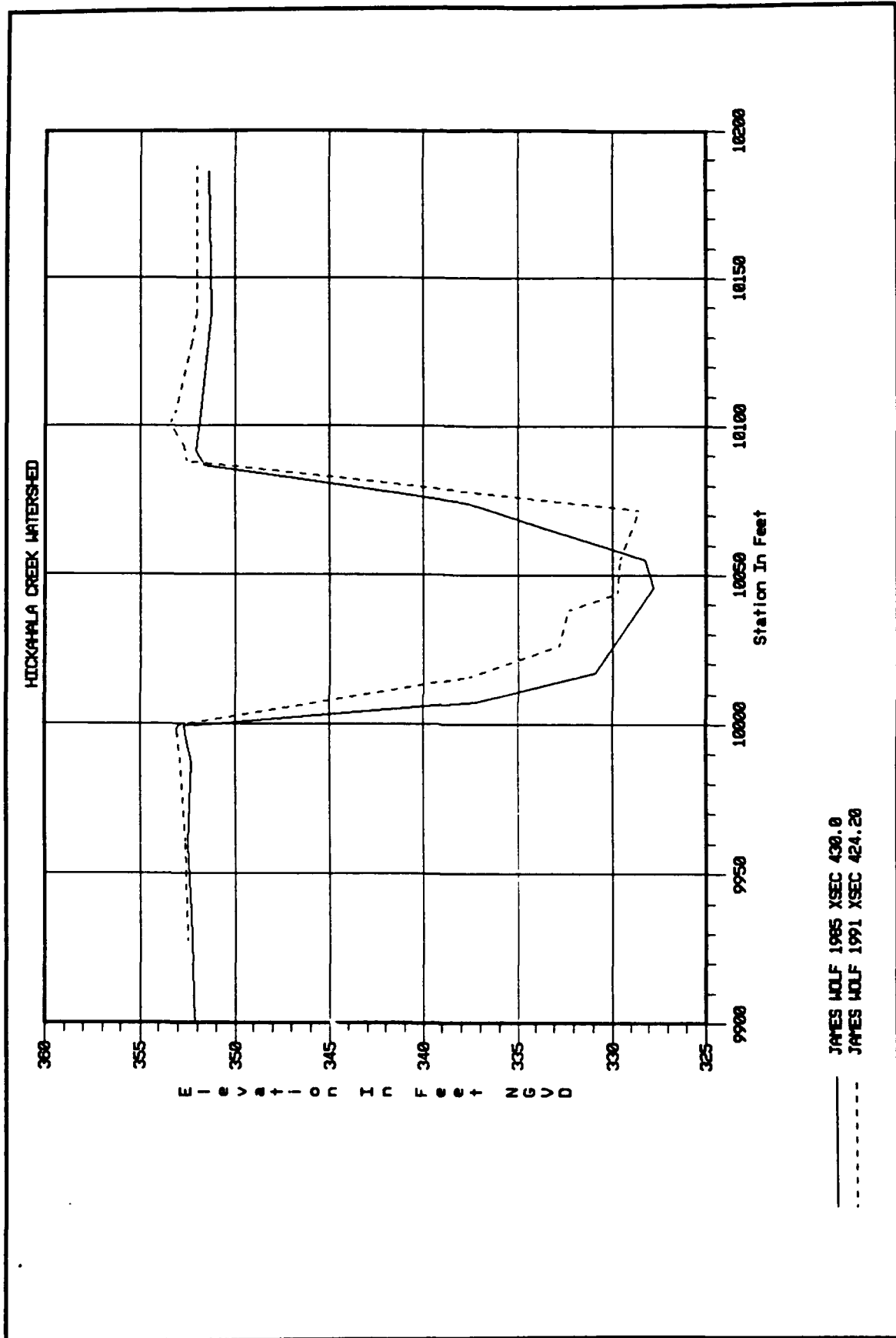


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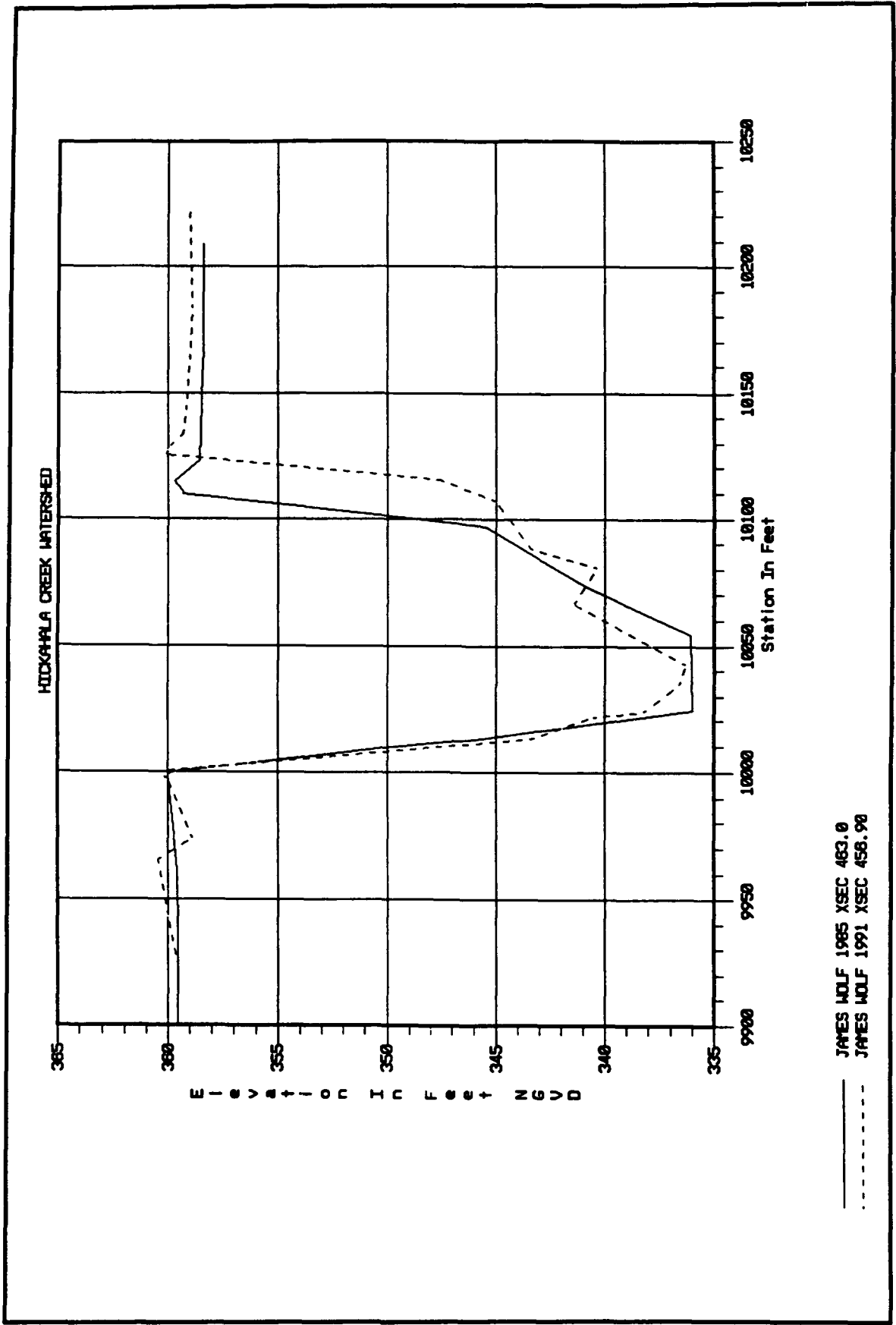
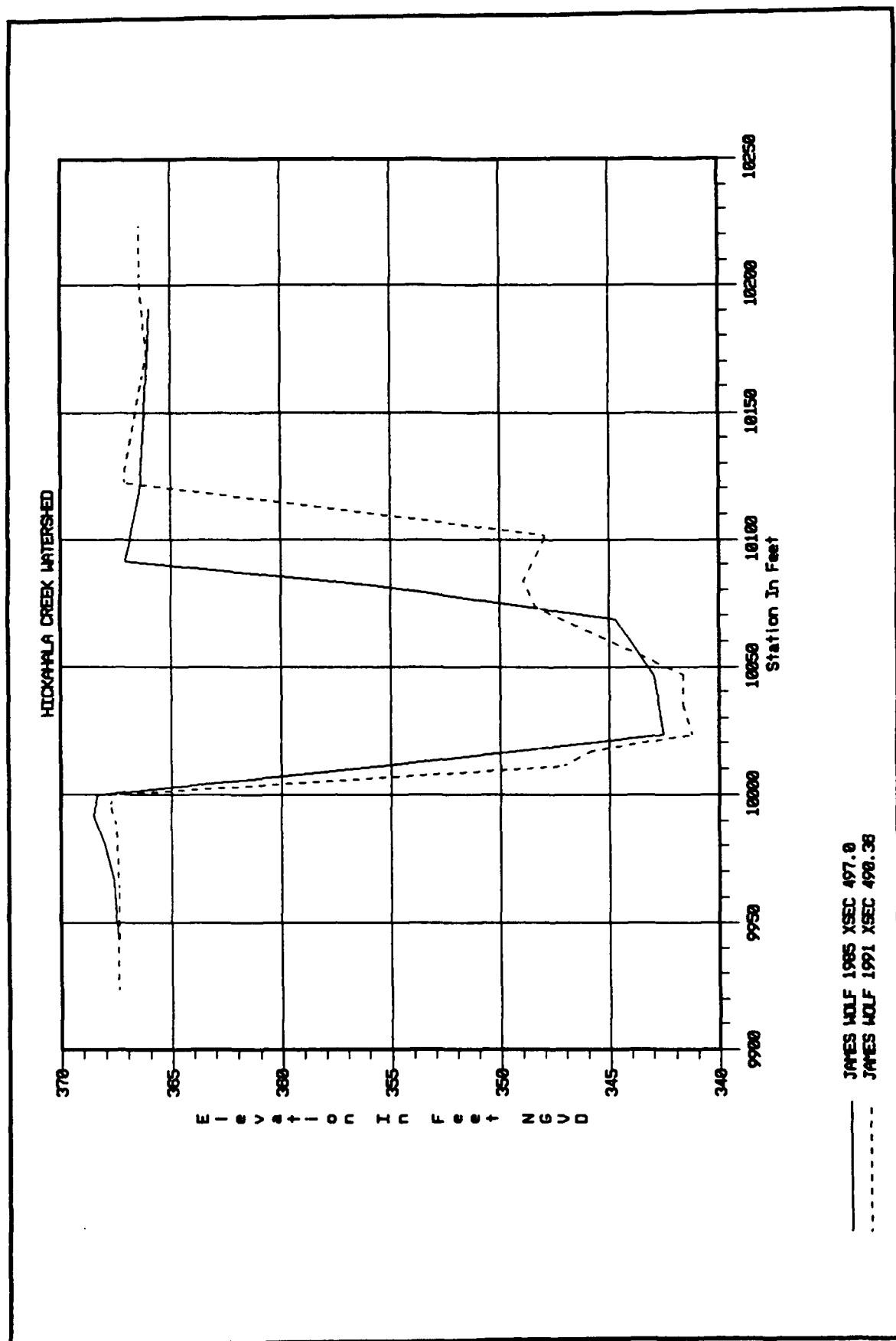
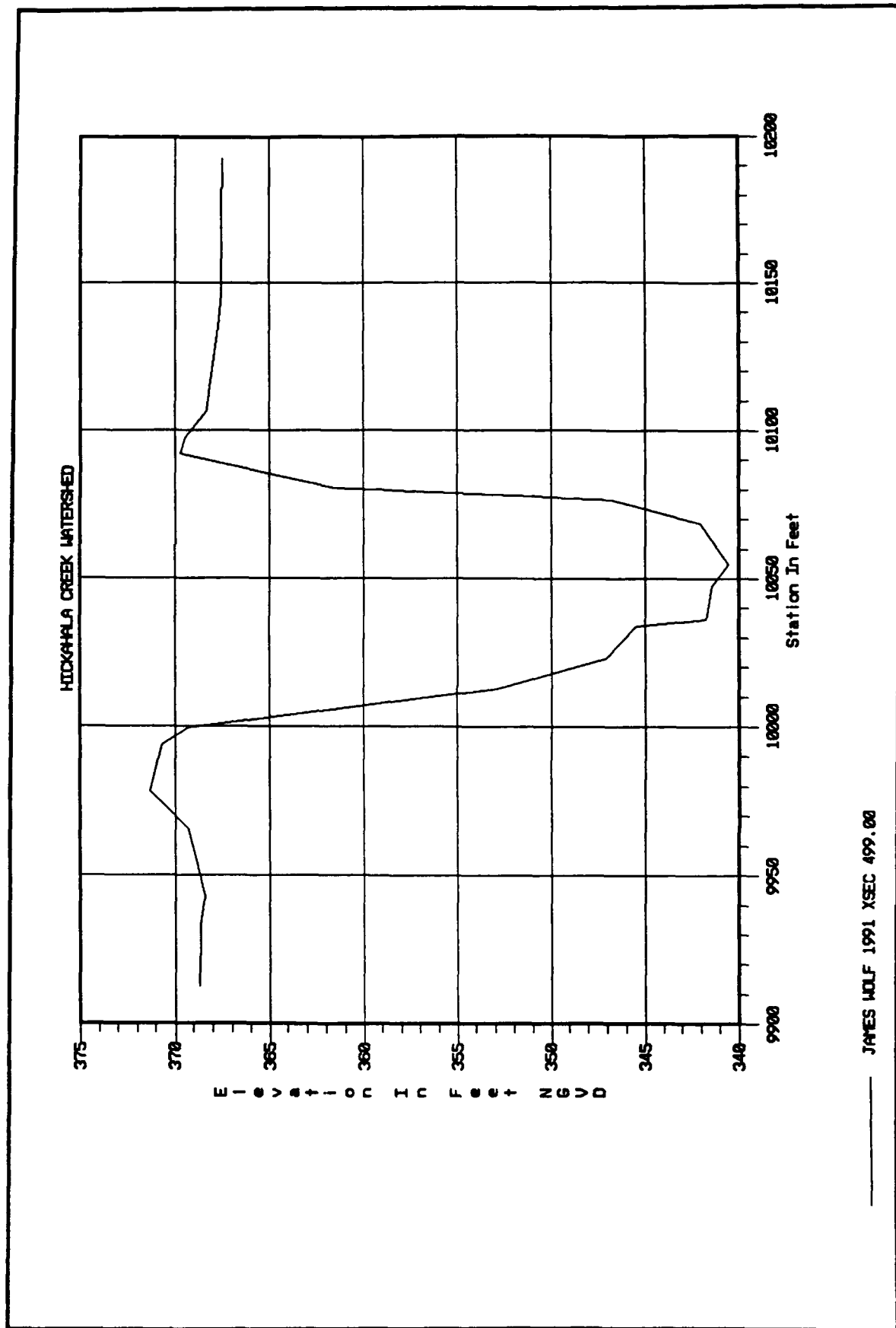
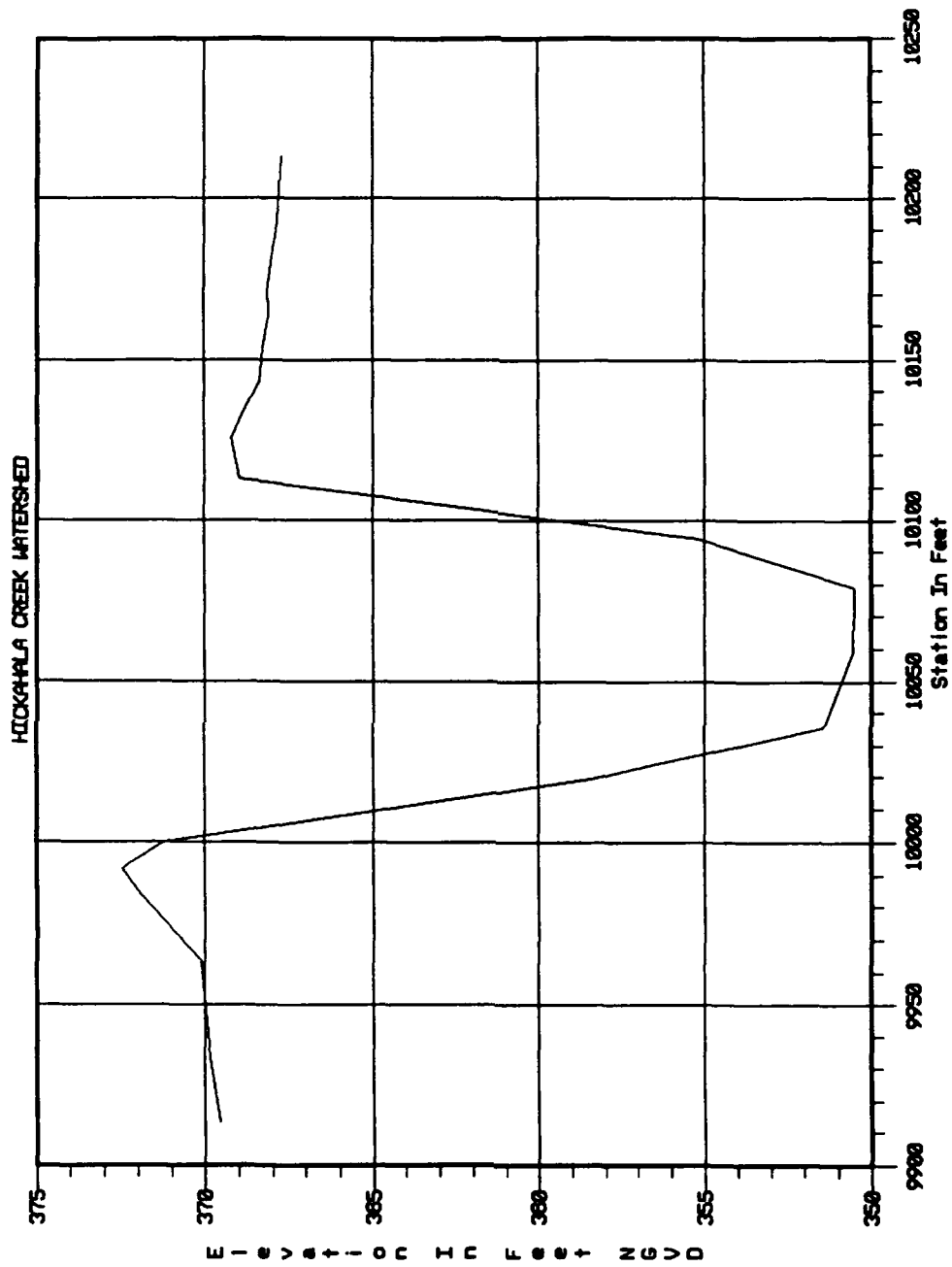


PLATE A68







— JAMES WOLF 1991 XSEC 501.12

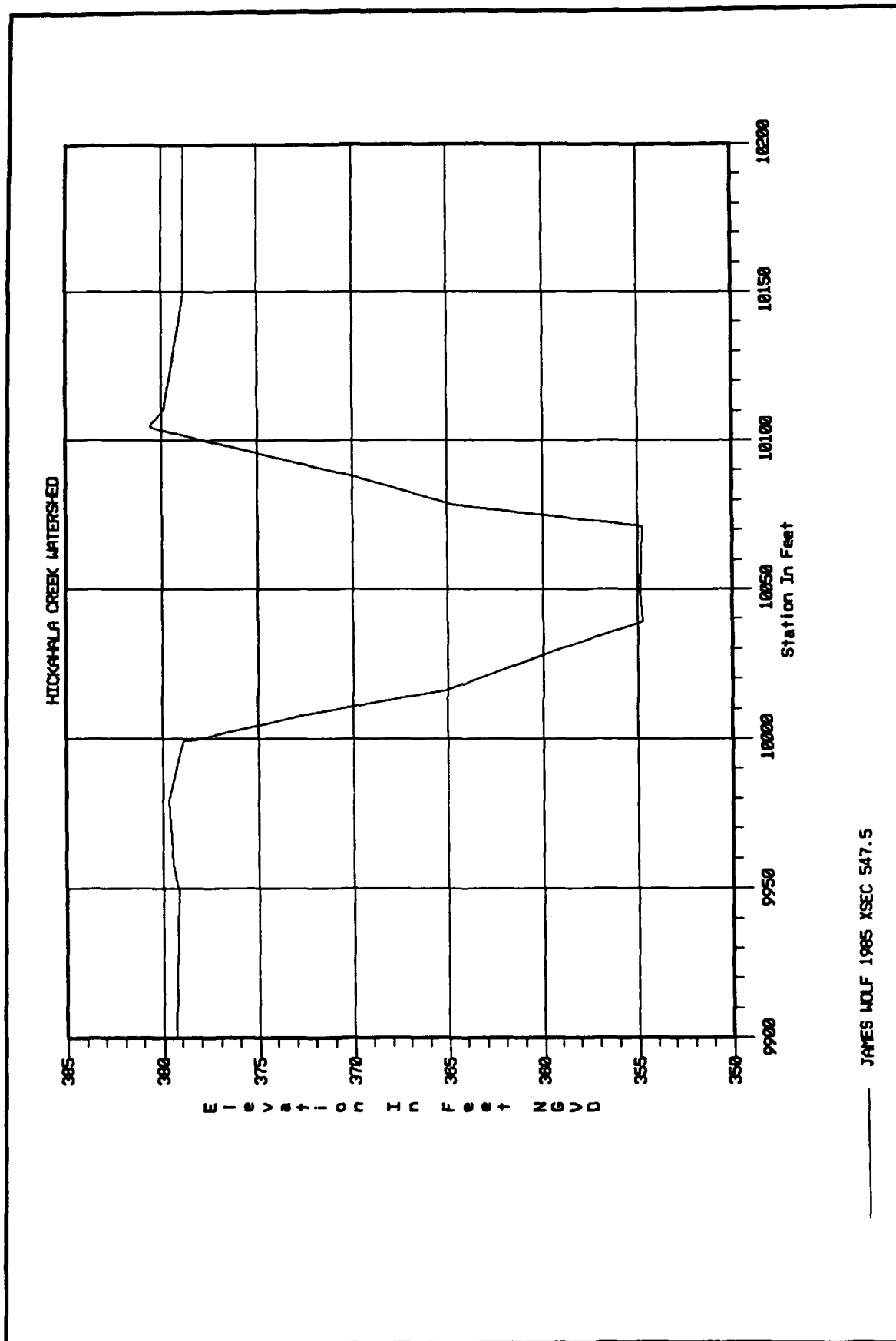
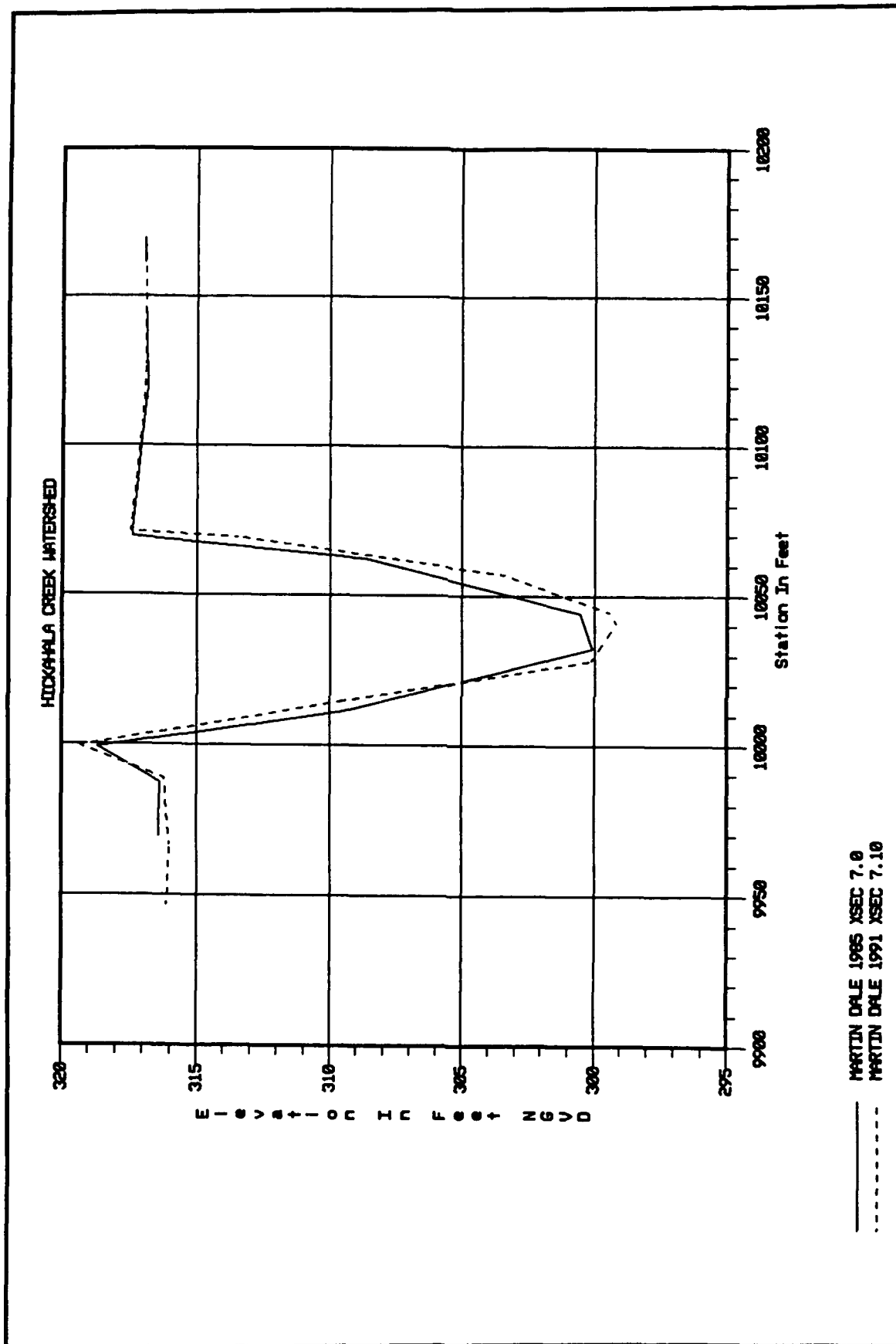


PLATE A72



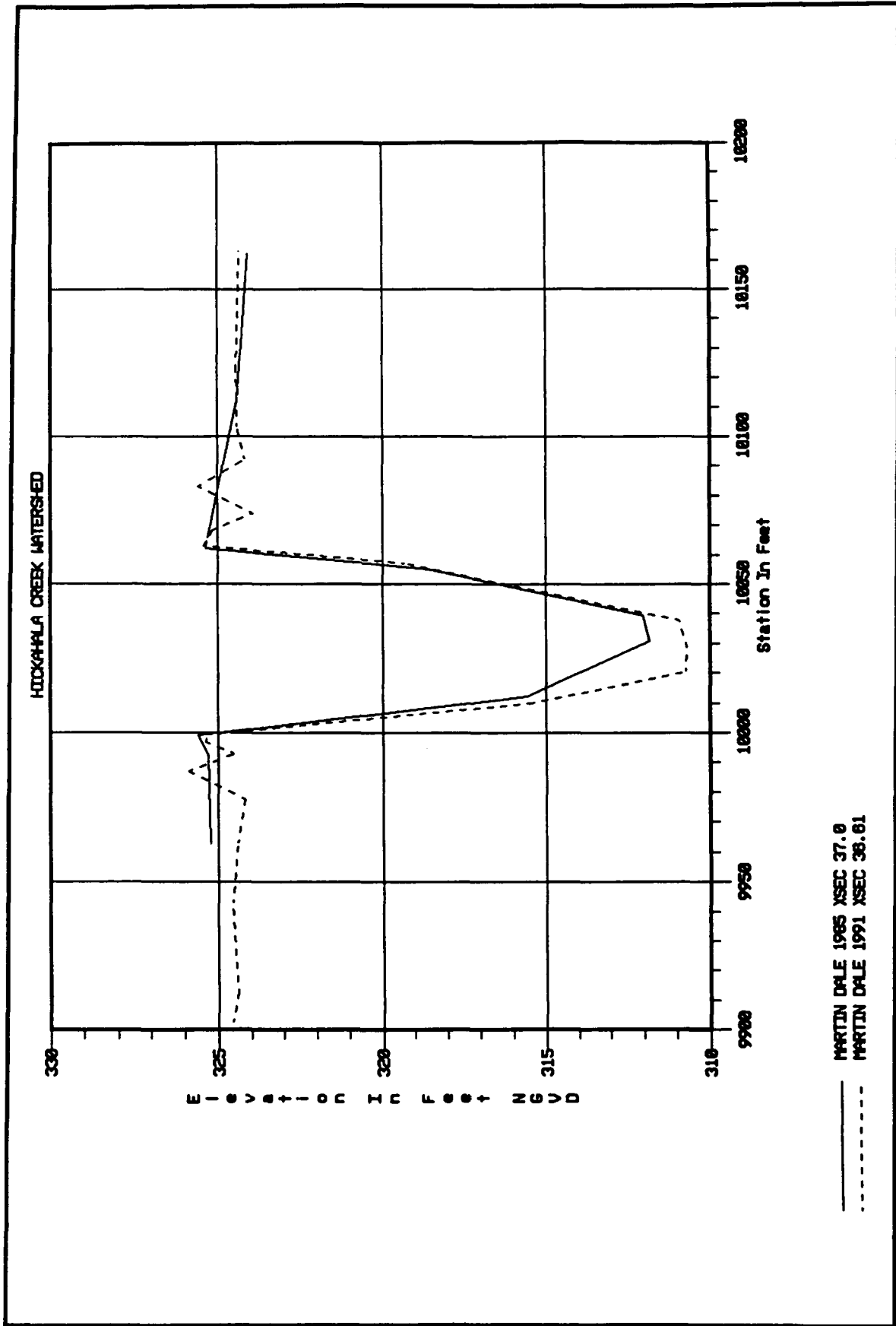
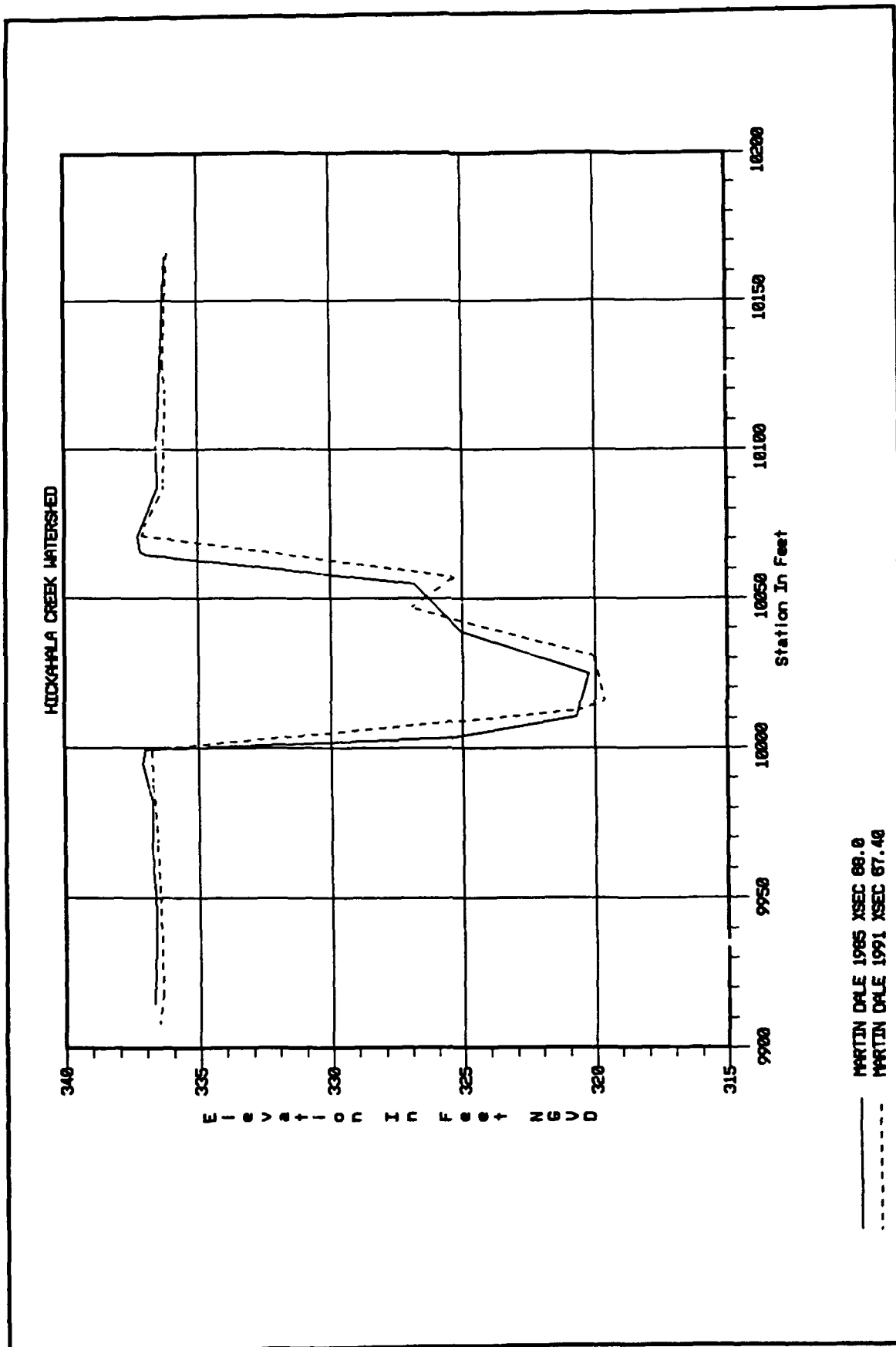


PLATE A74



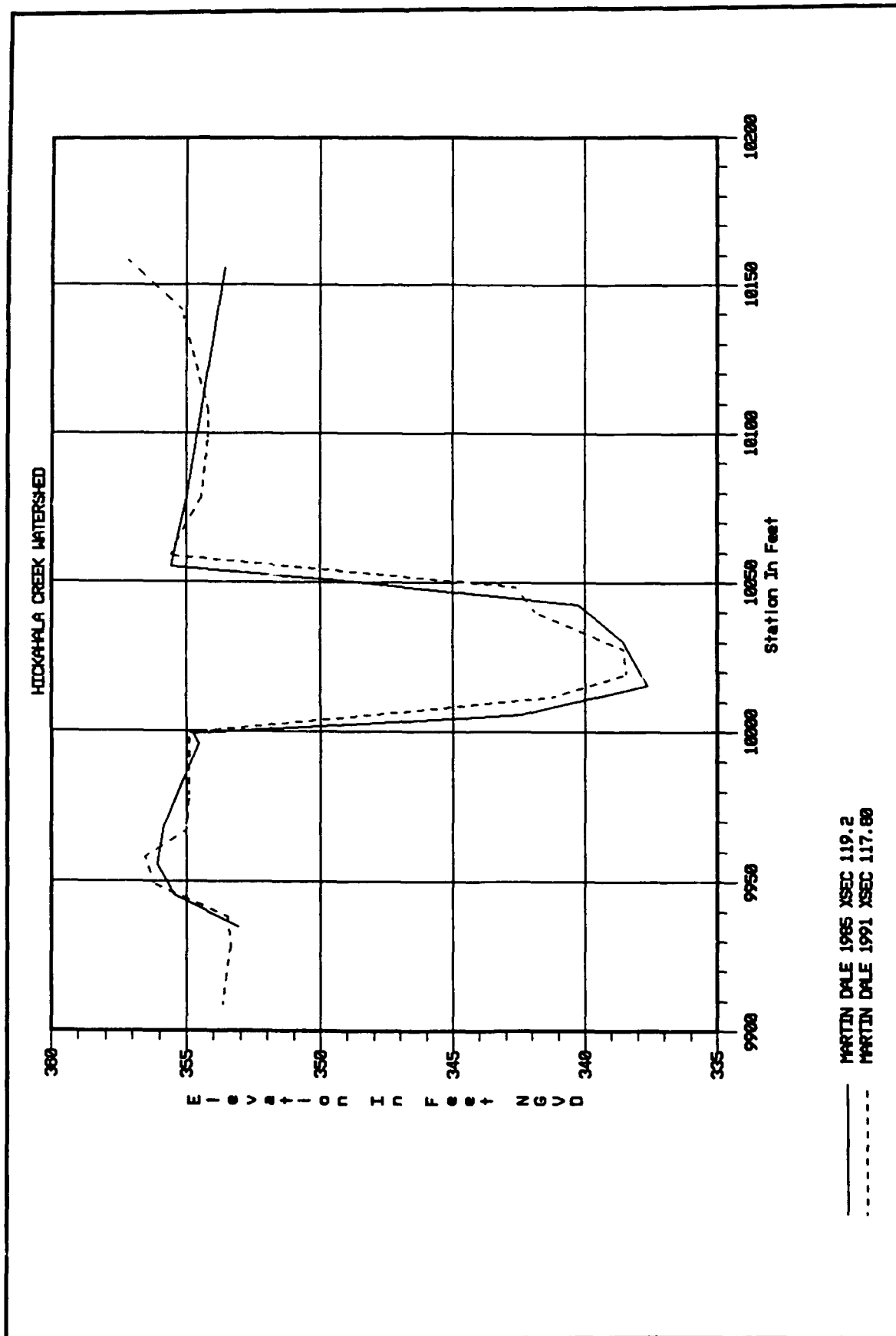


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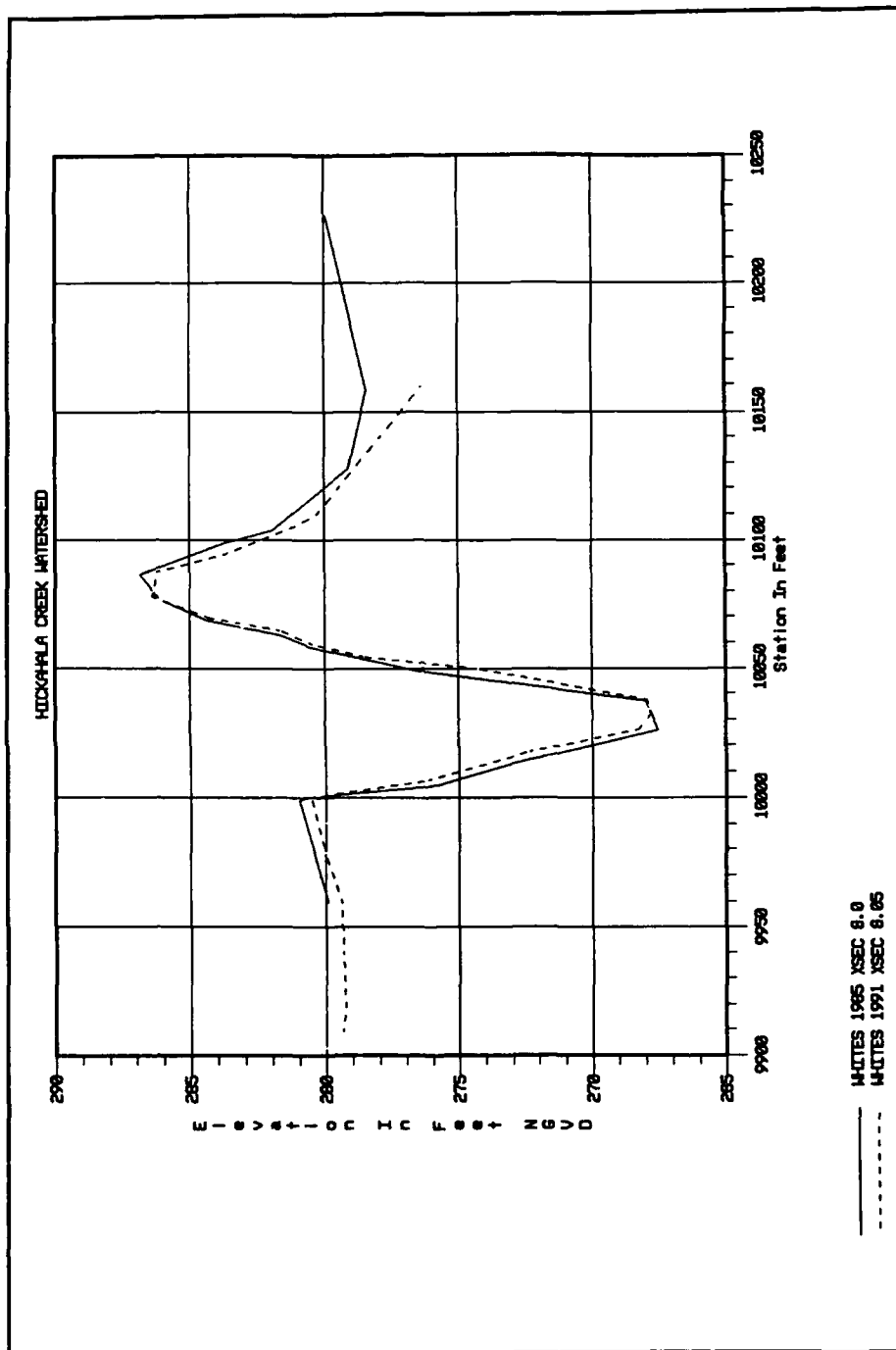


PLATE A77

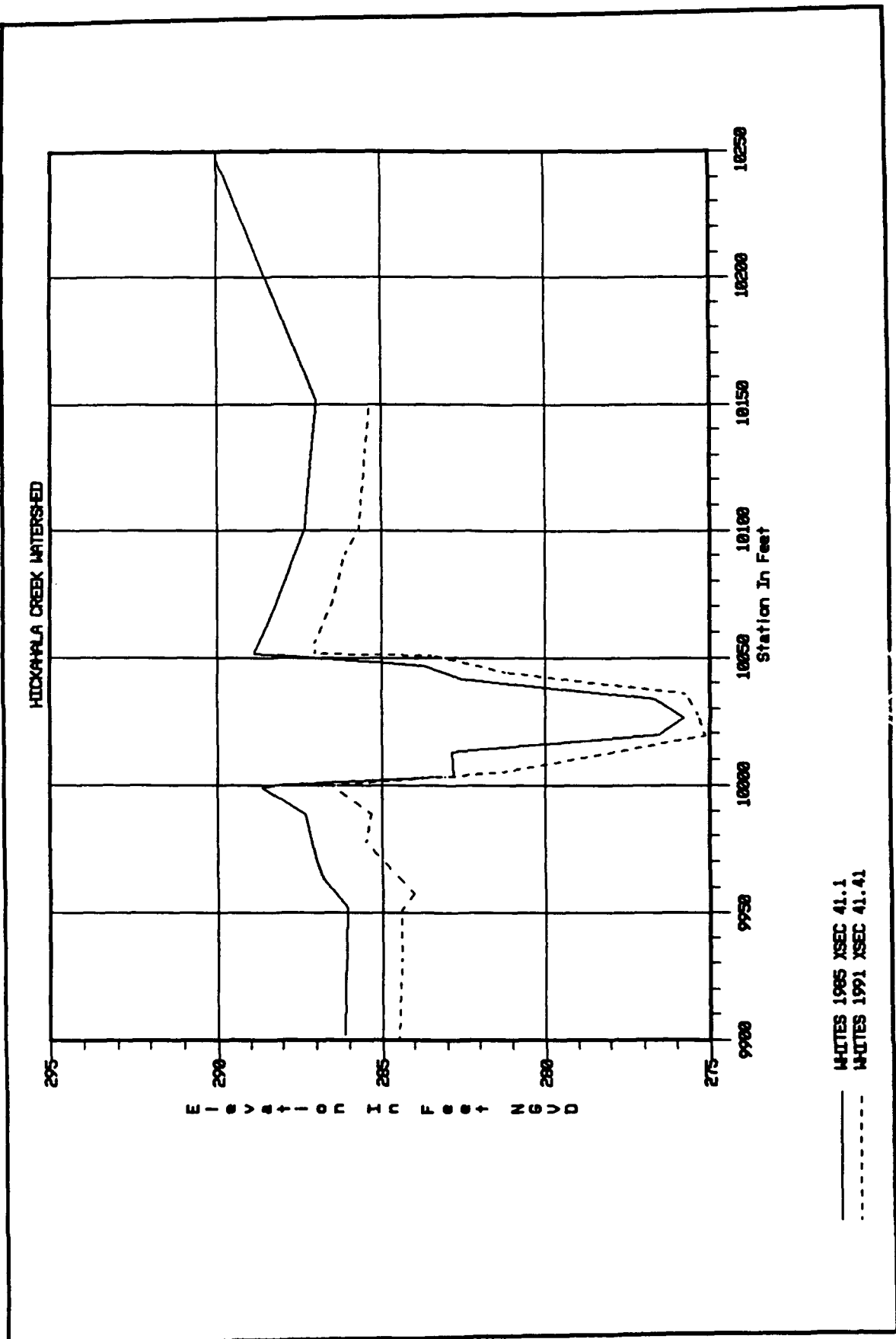
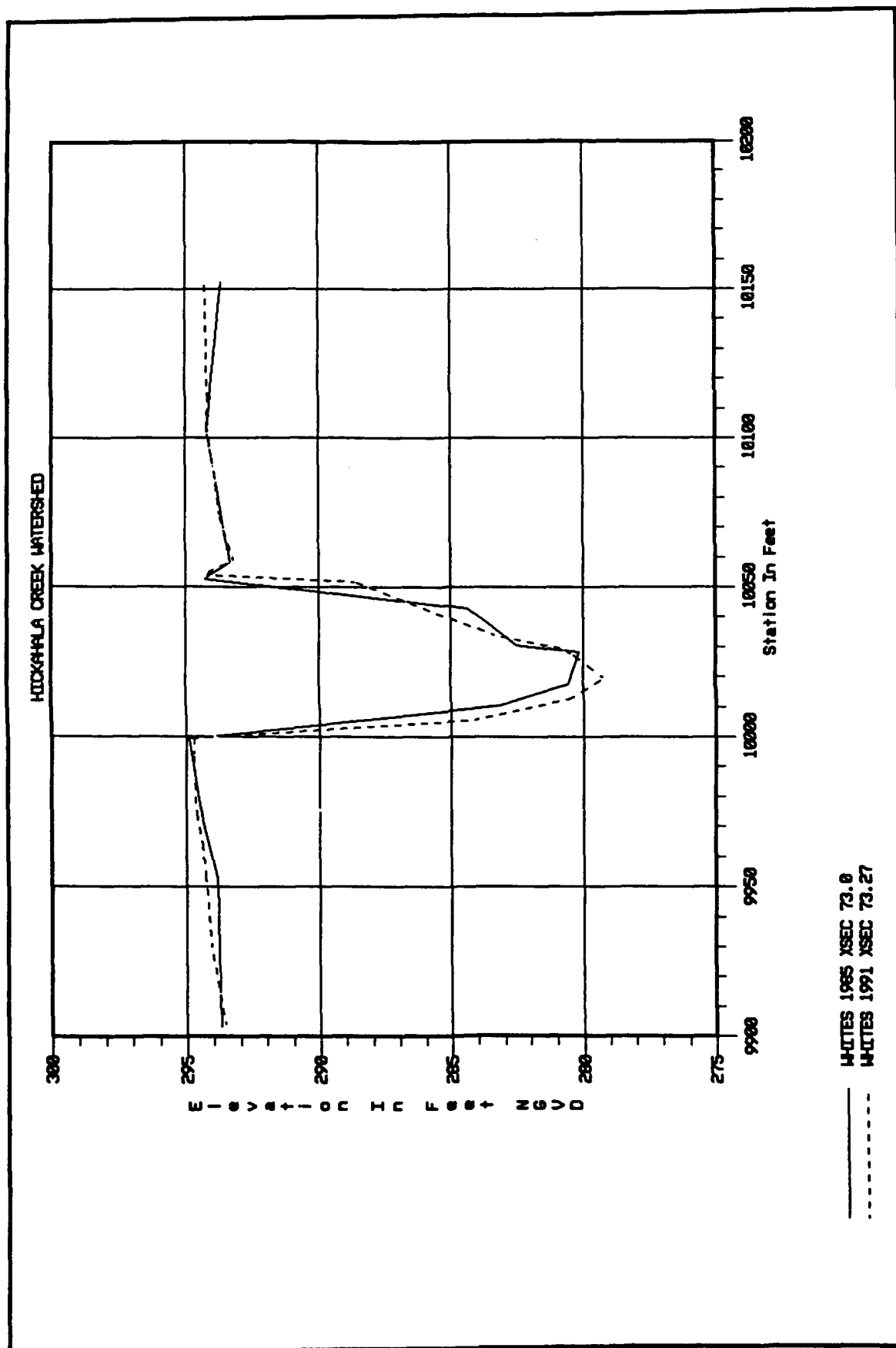


PLATE A78



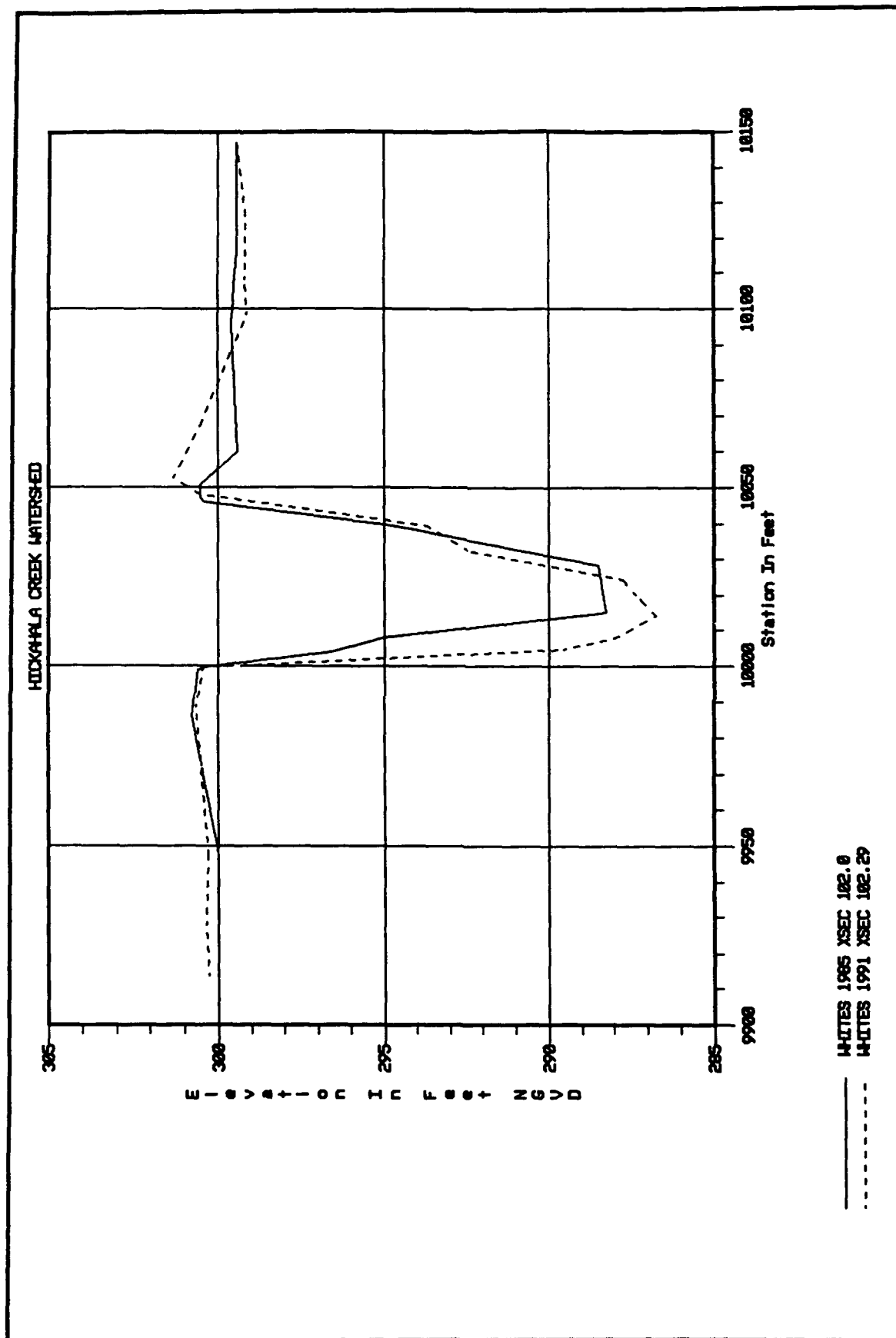
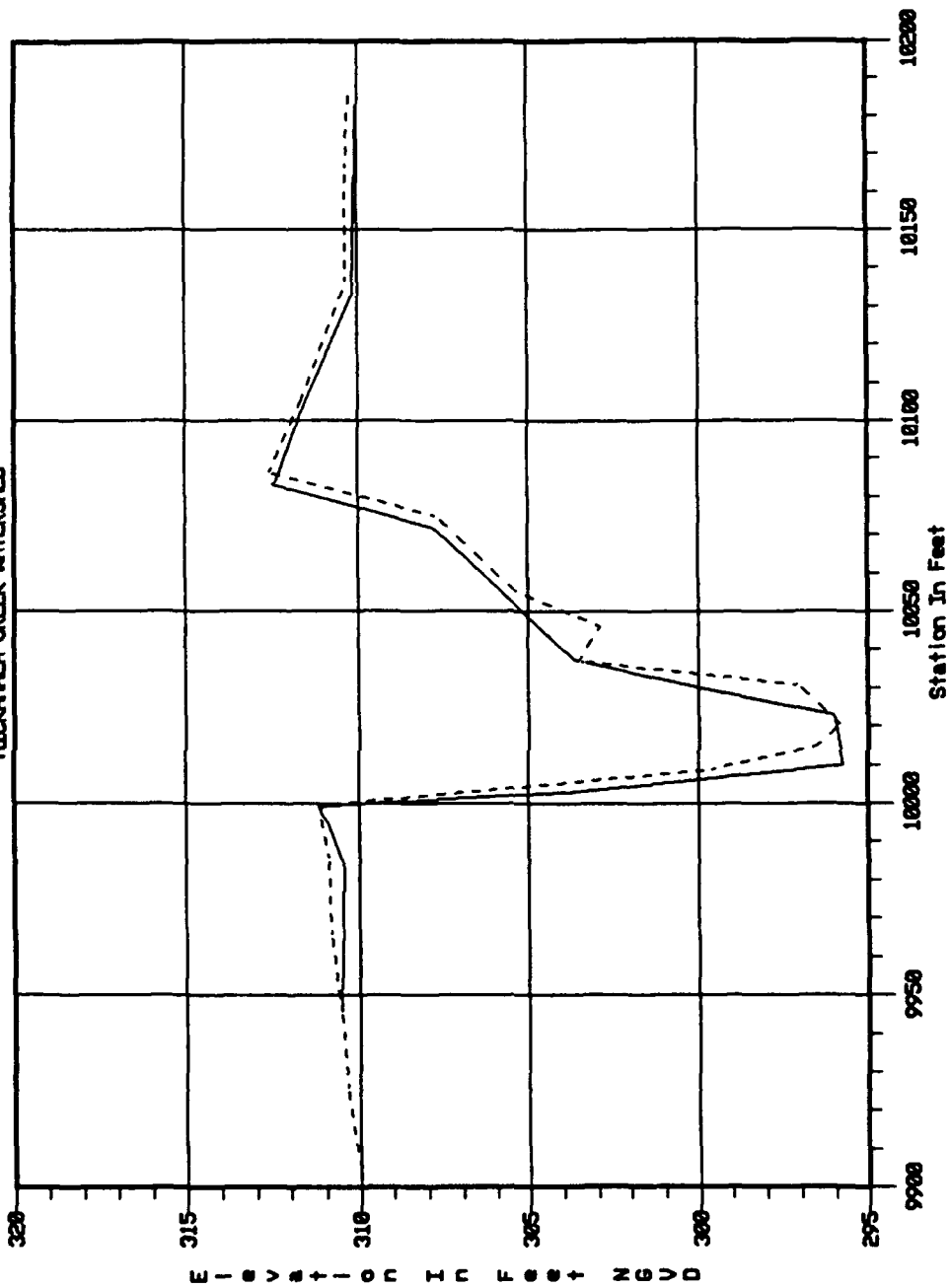
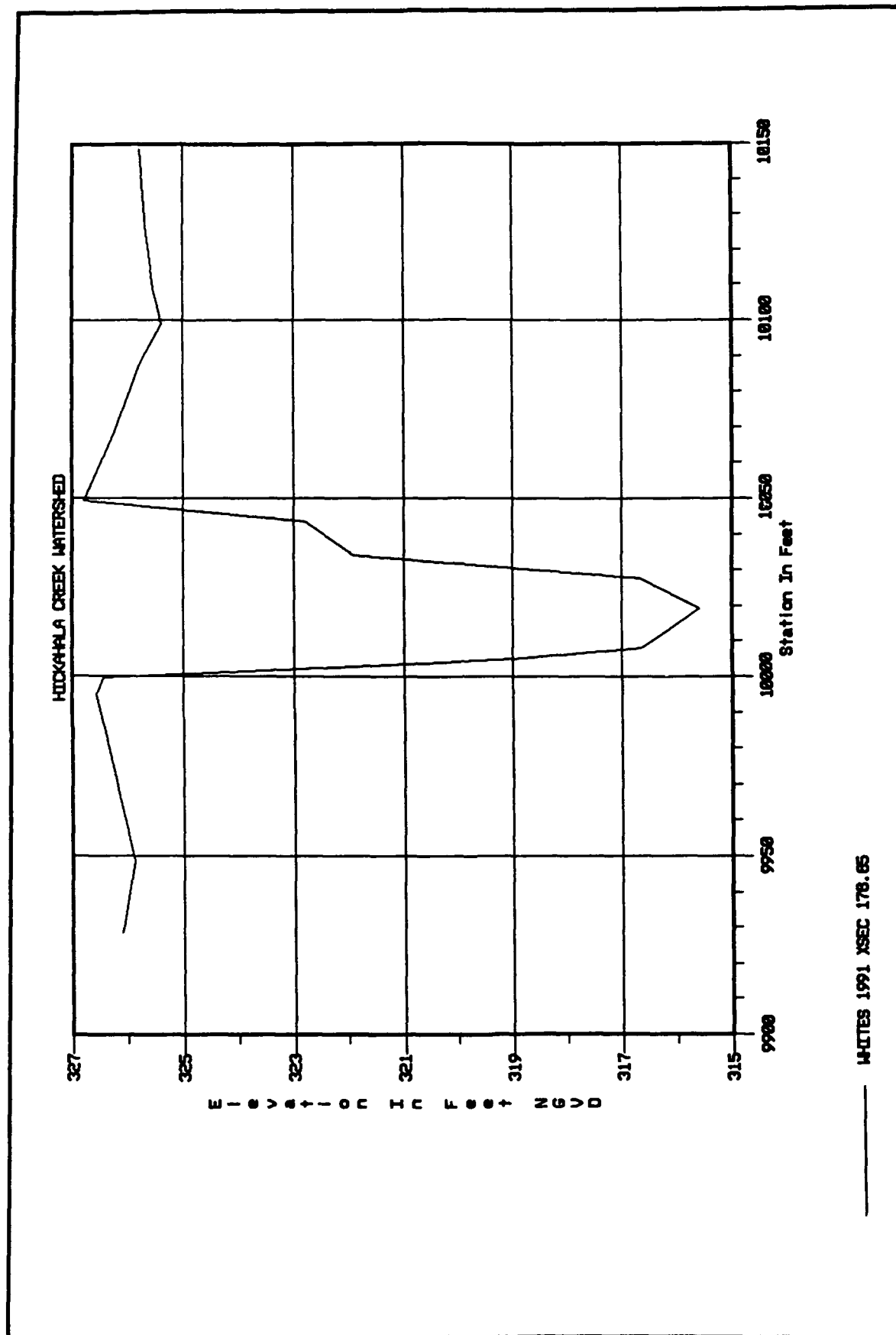


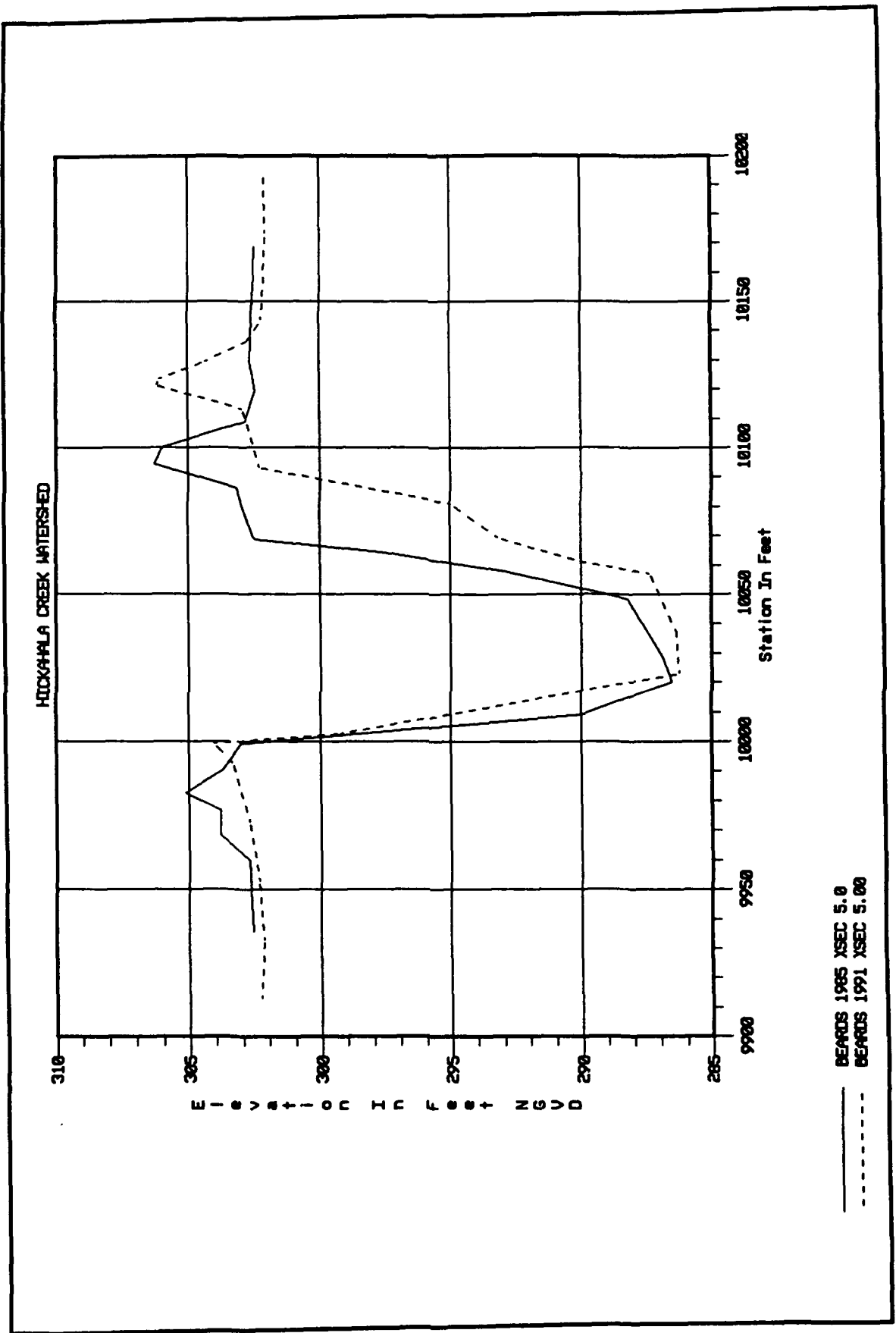
PLATE A80

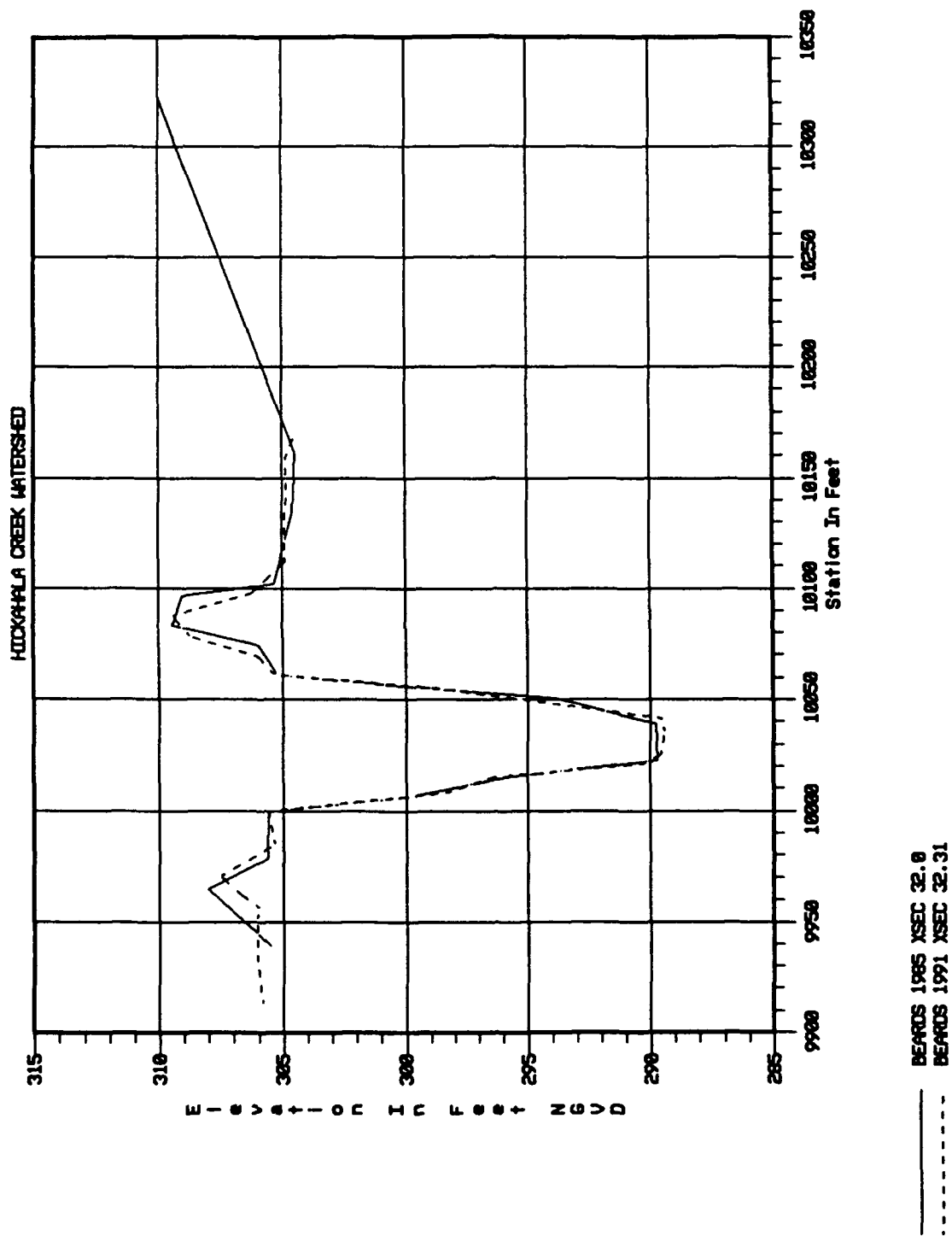
HICKAHALA CREEK WATERSHED



— 1985 XSEC 135.0
 - - 1991 XSEC 135.18







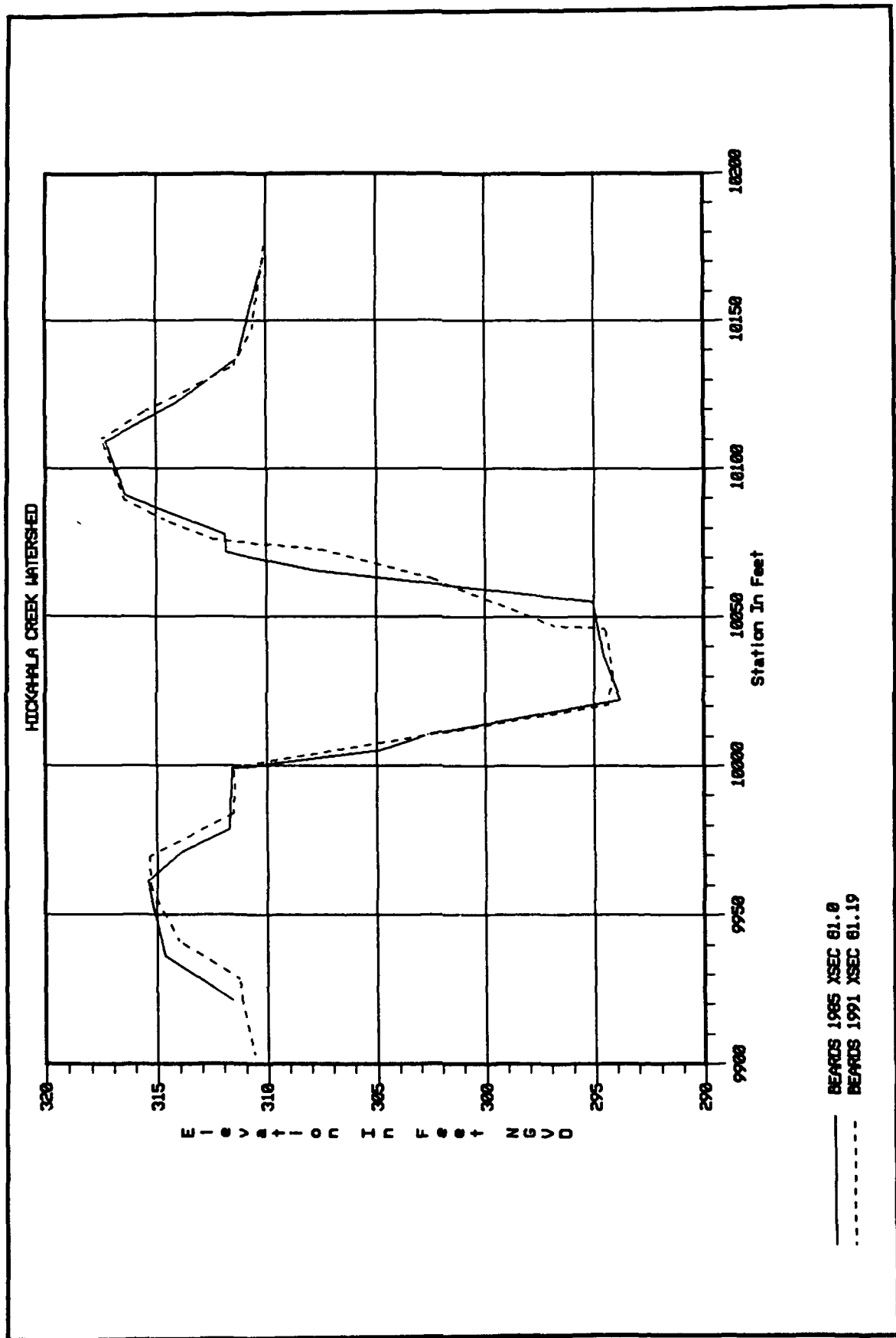
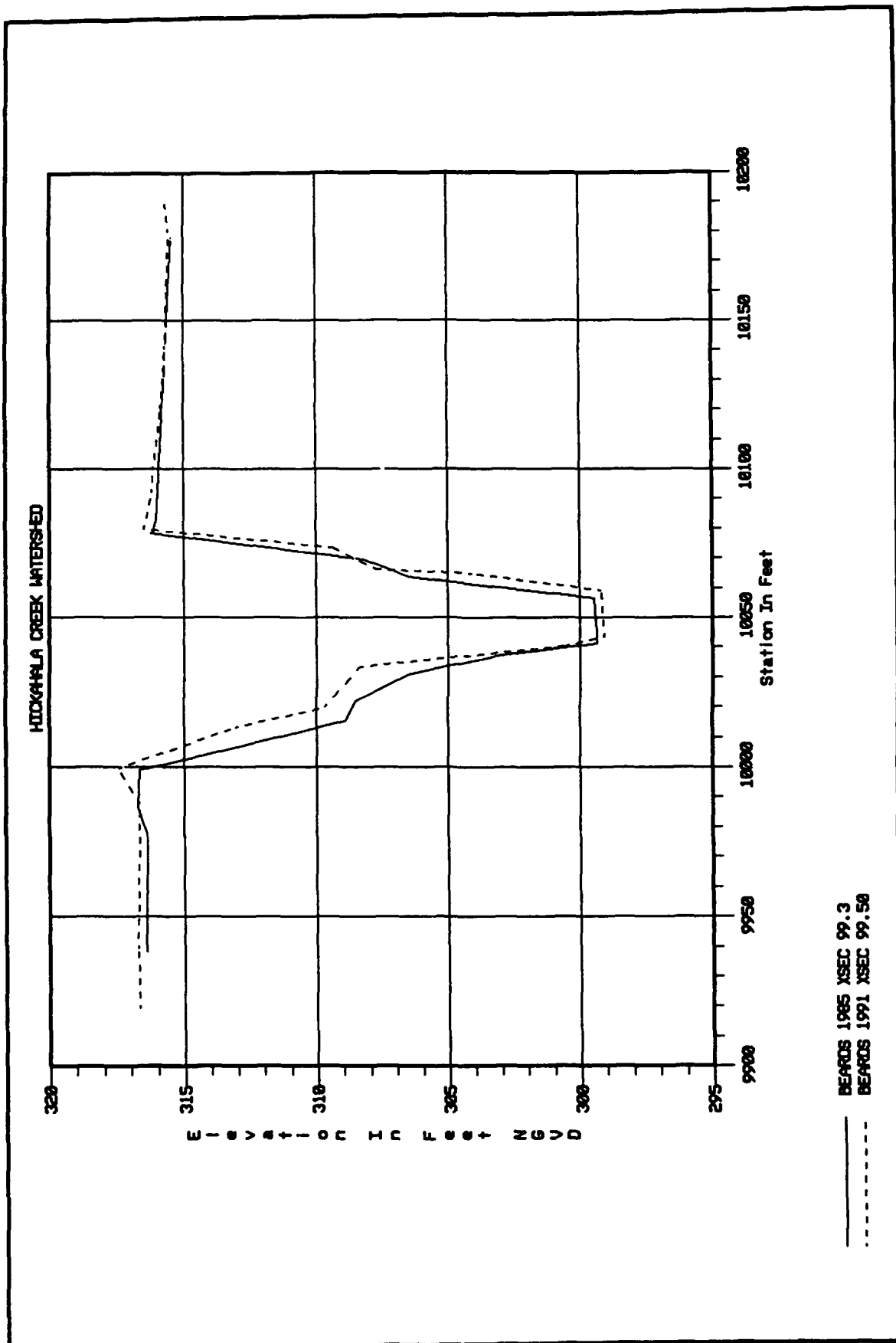
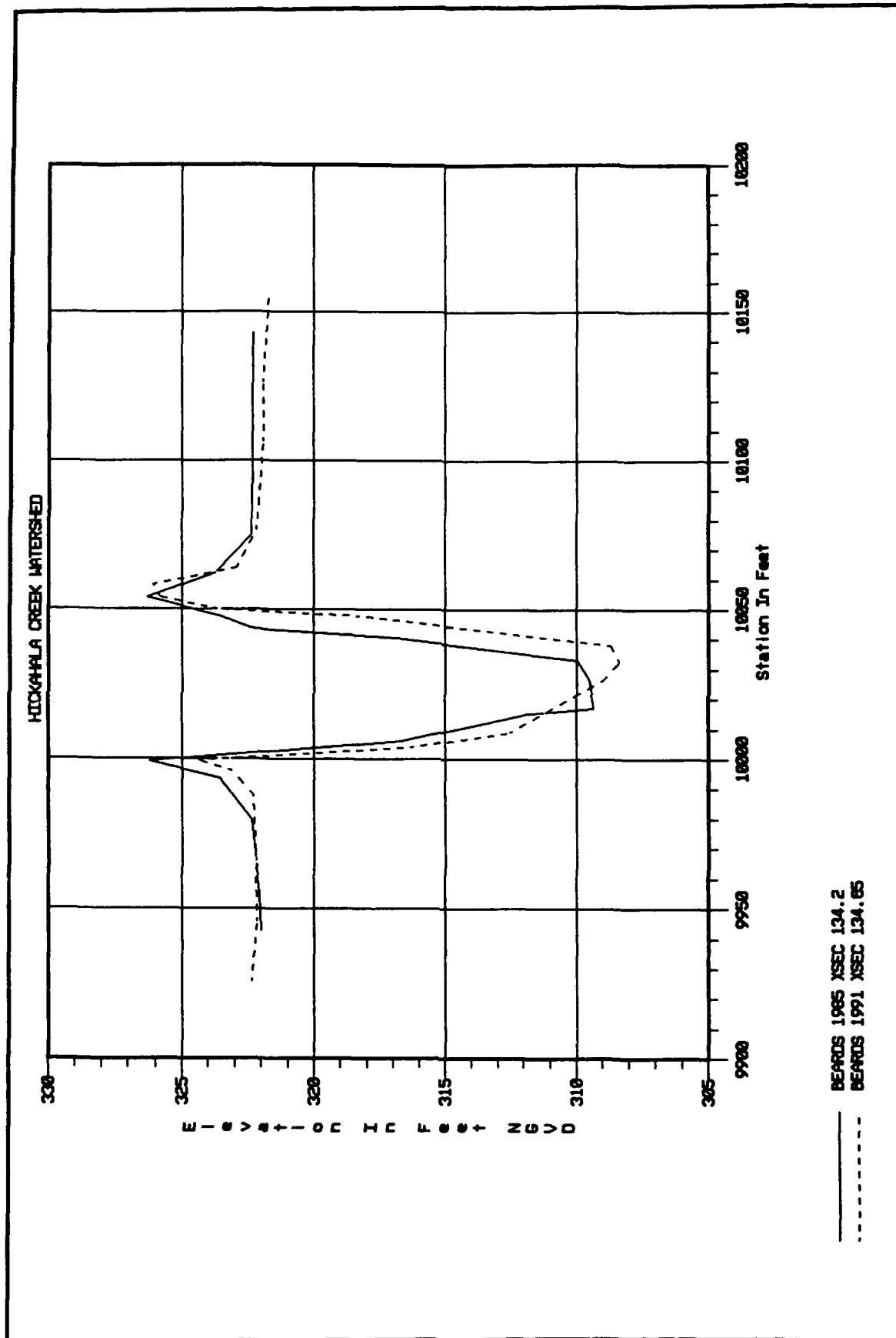


PLATE A86





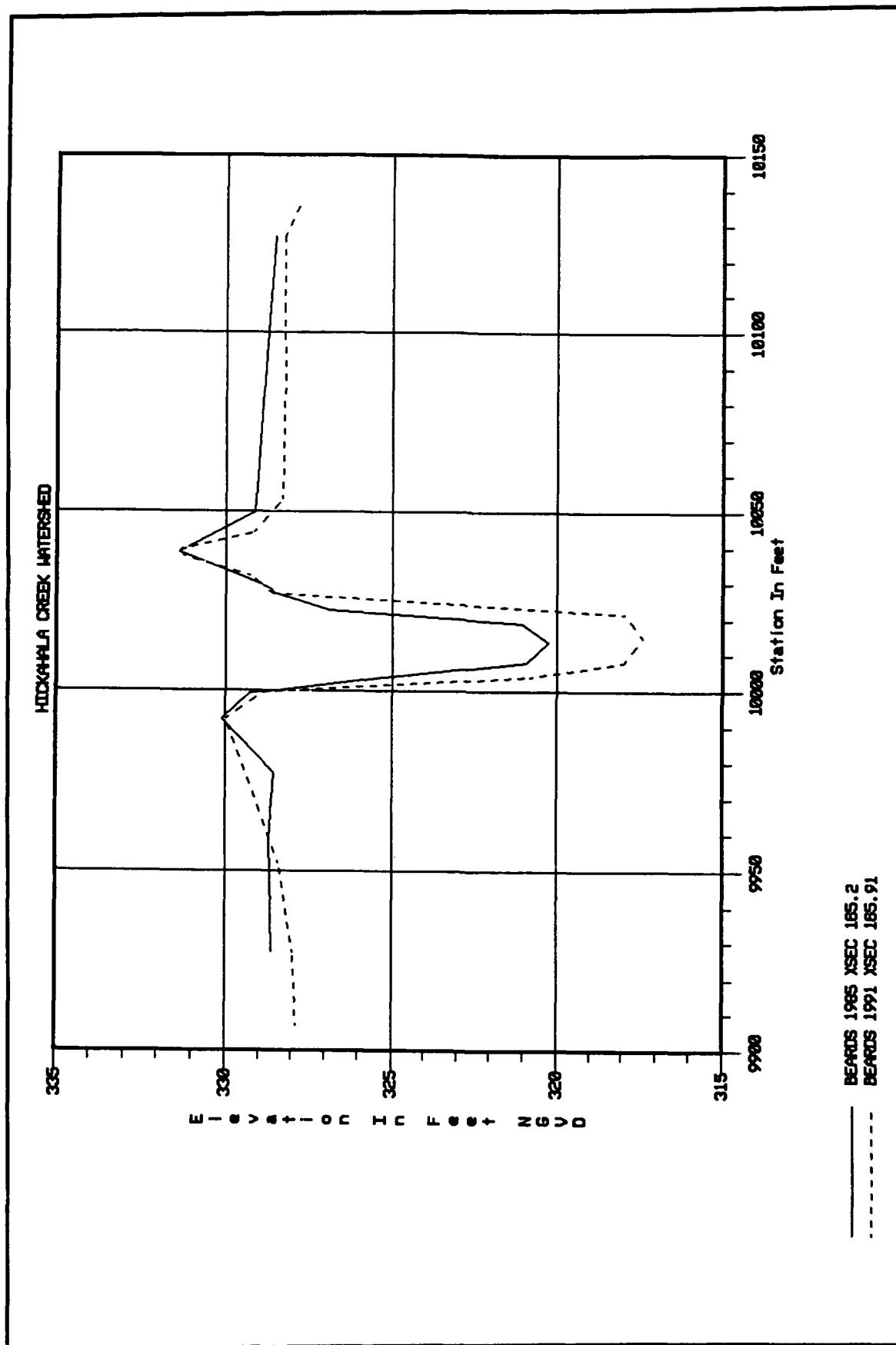
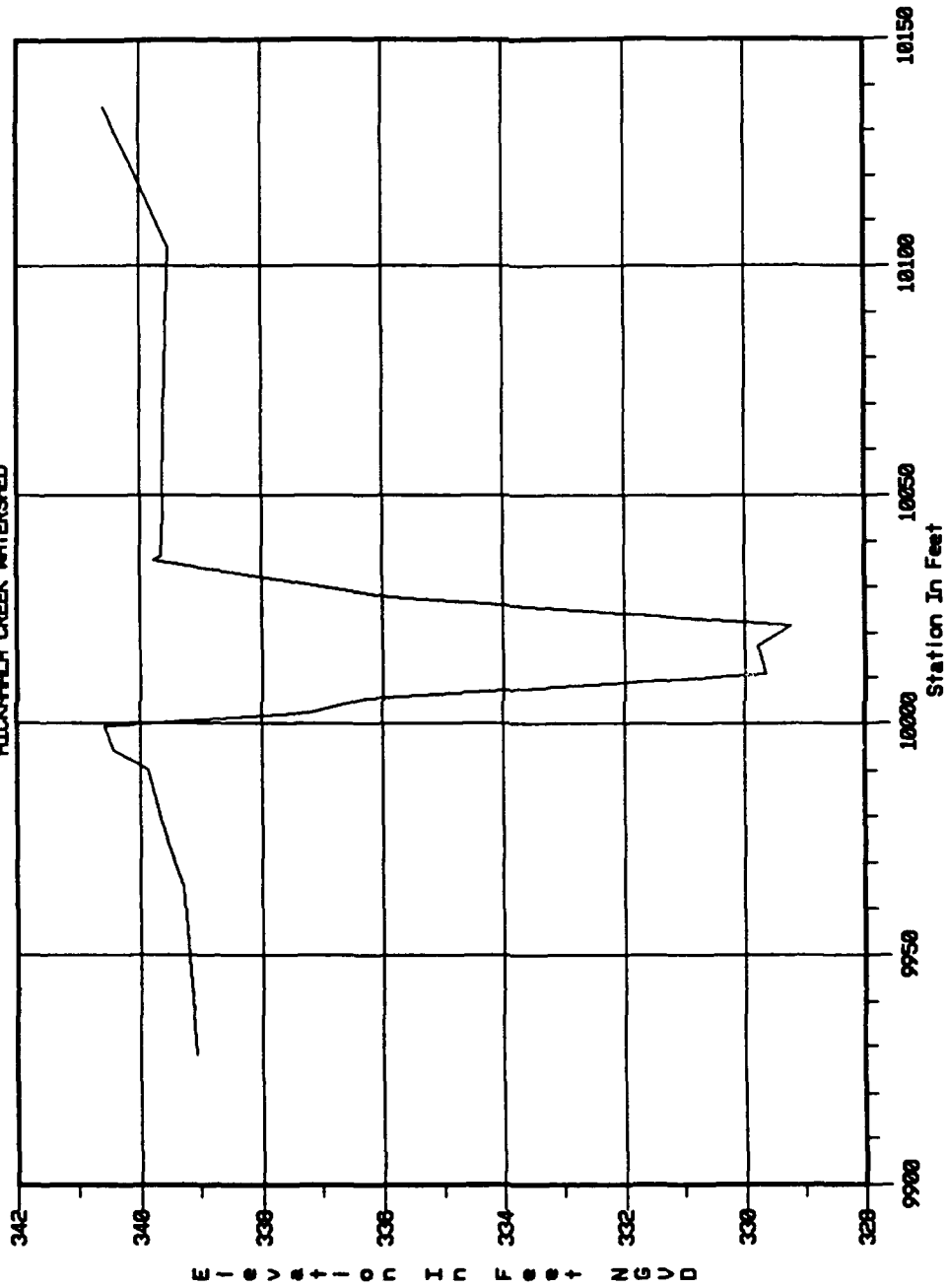


PLATE A88

HICKNAPLA CREEK WATERSHED



BEARDS 1985 XSEC 208.5

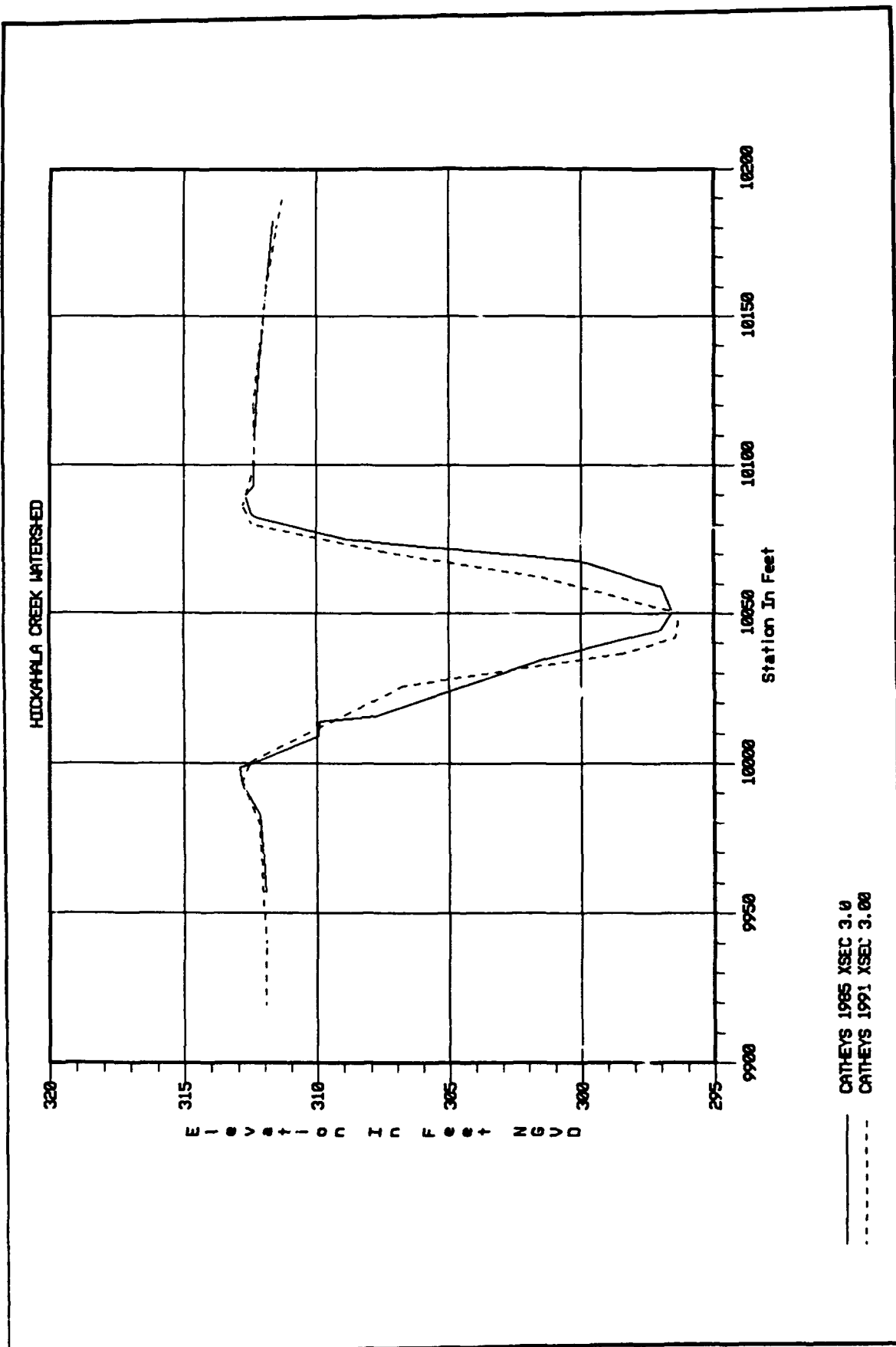
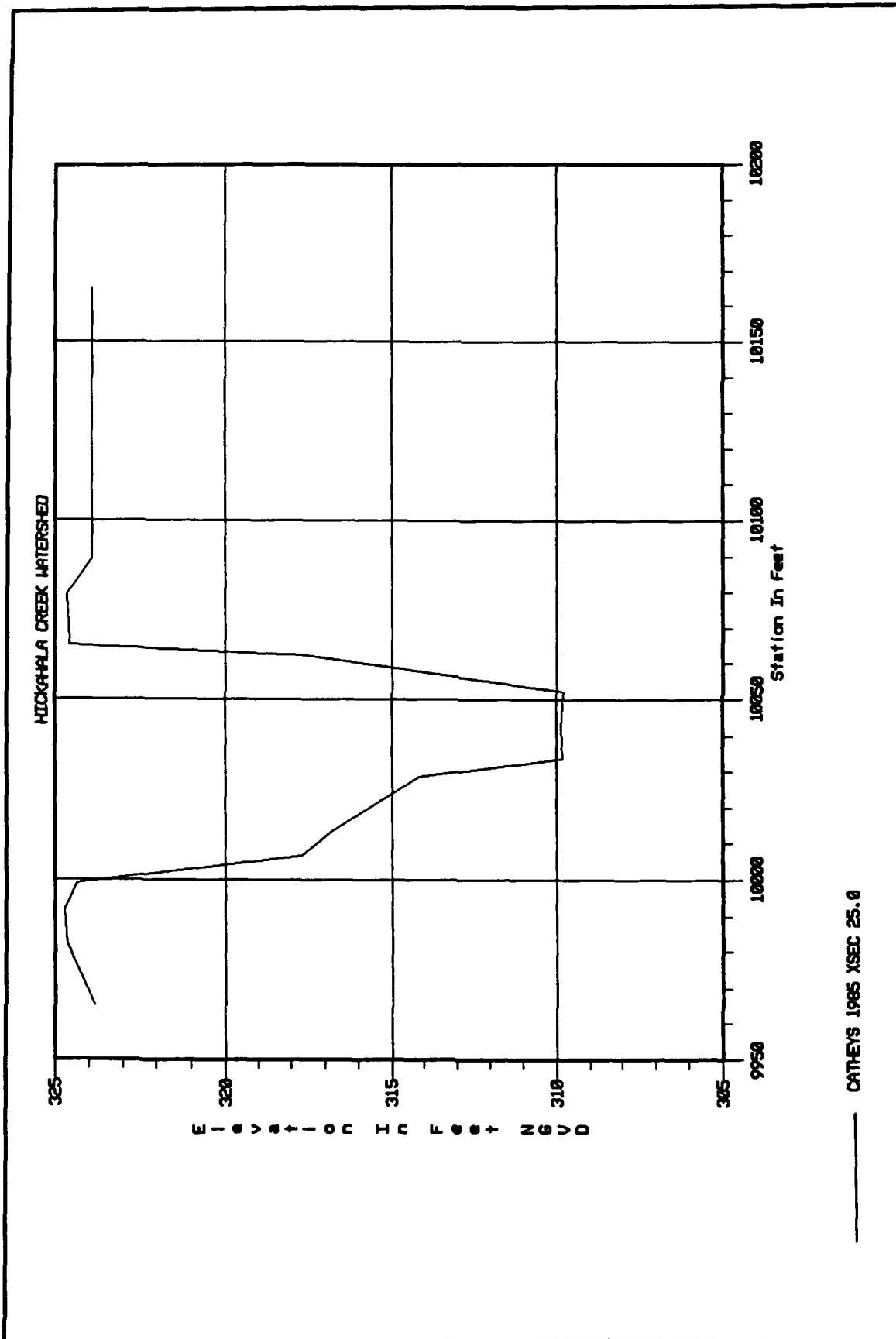


PLATE A90



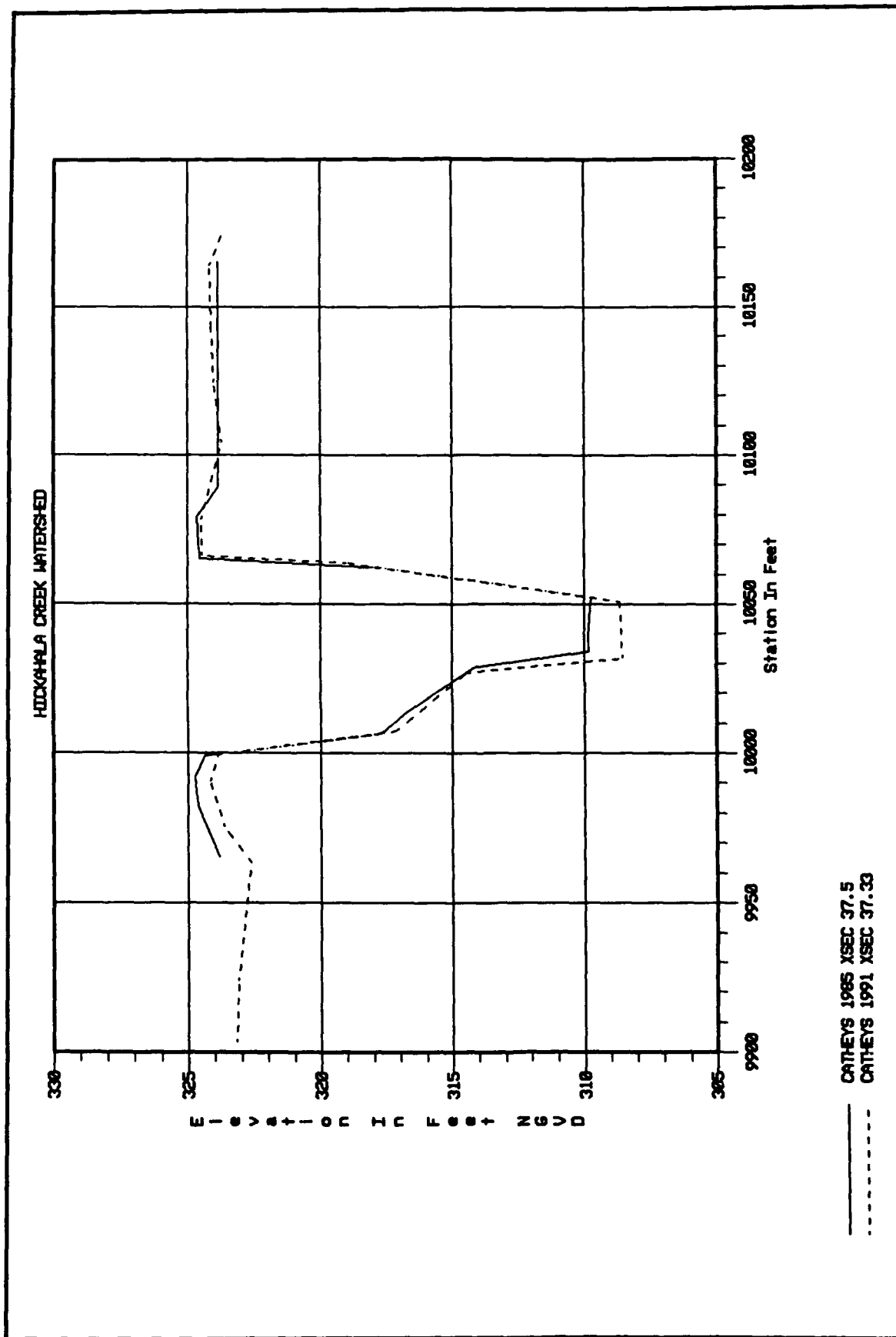
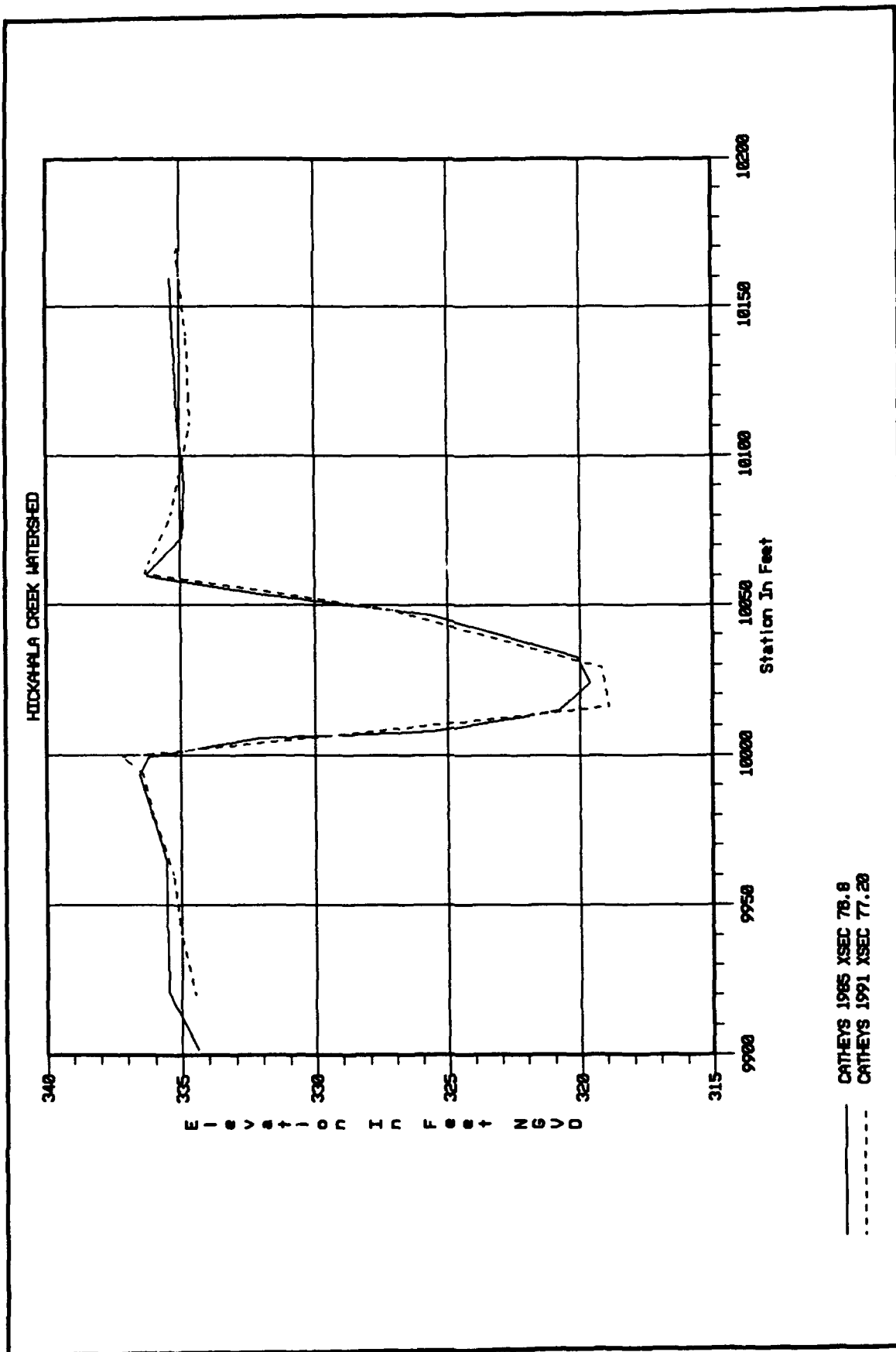
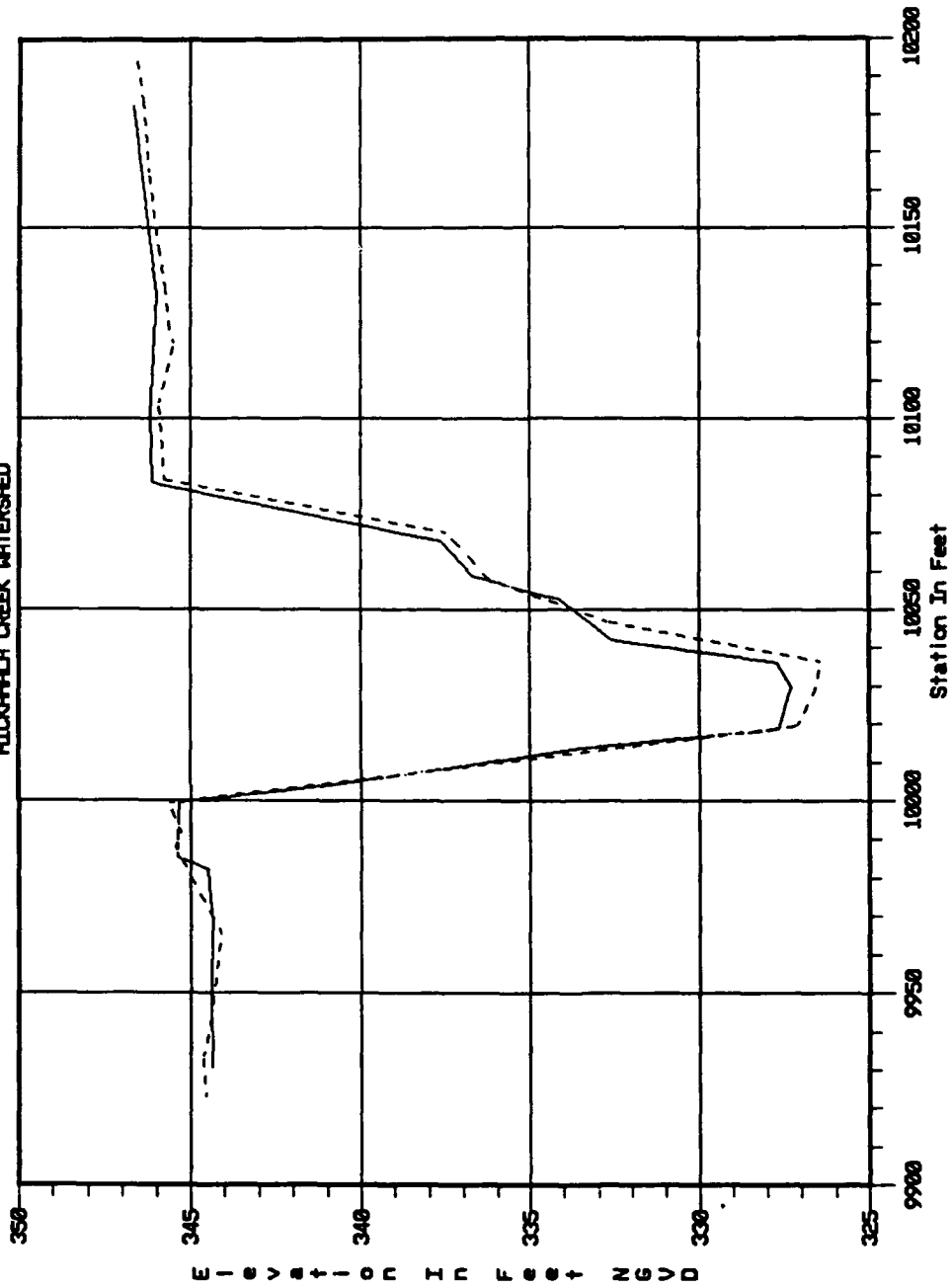


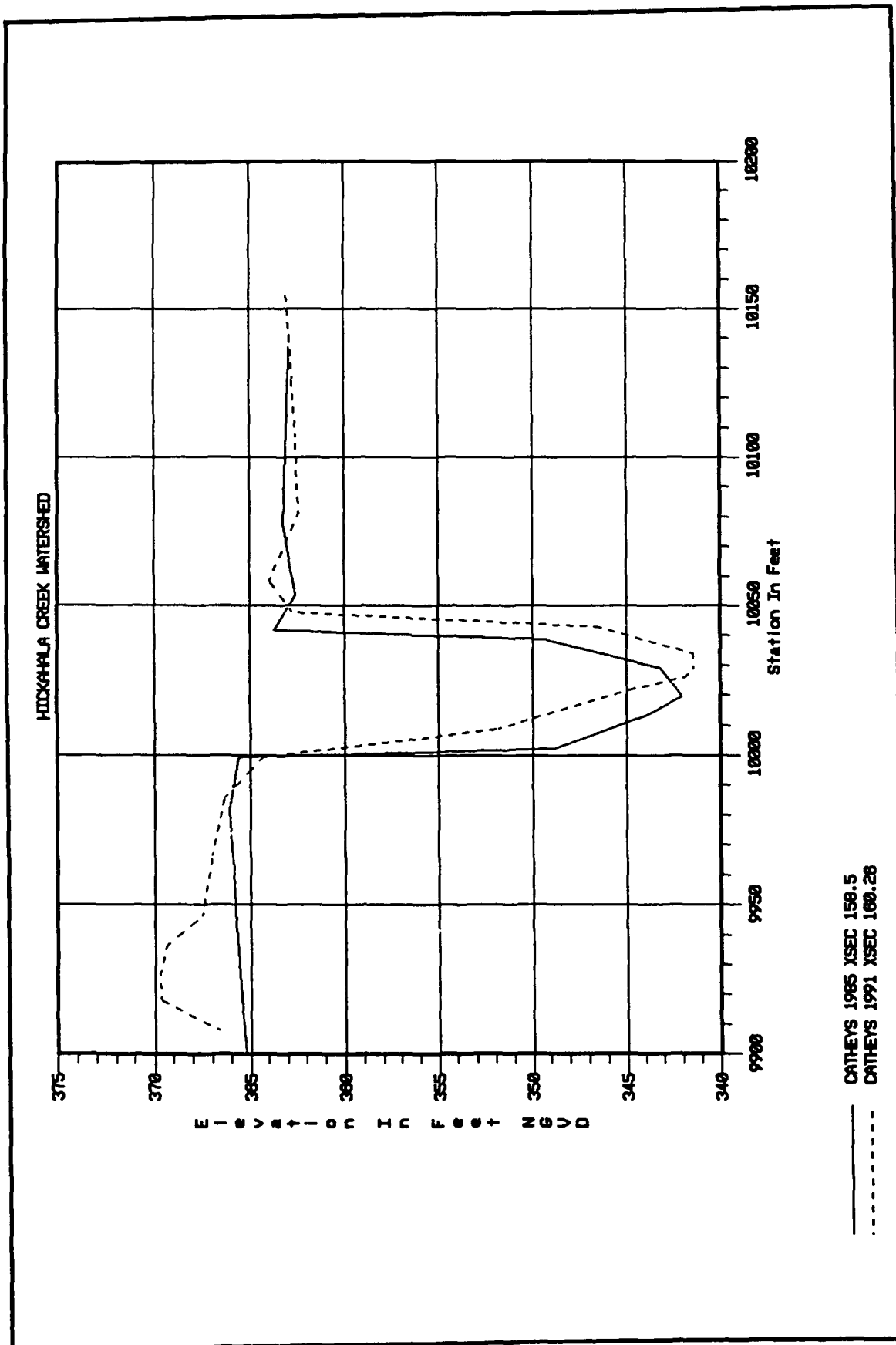
PLATE A92



HICKAHALA CREEK WATERSHED



— CATHEYS 1985 XSEC 111.0
 - - - CATHEYS 1991 XSEC 111.74



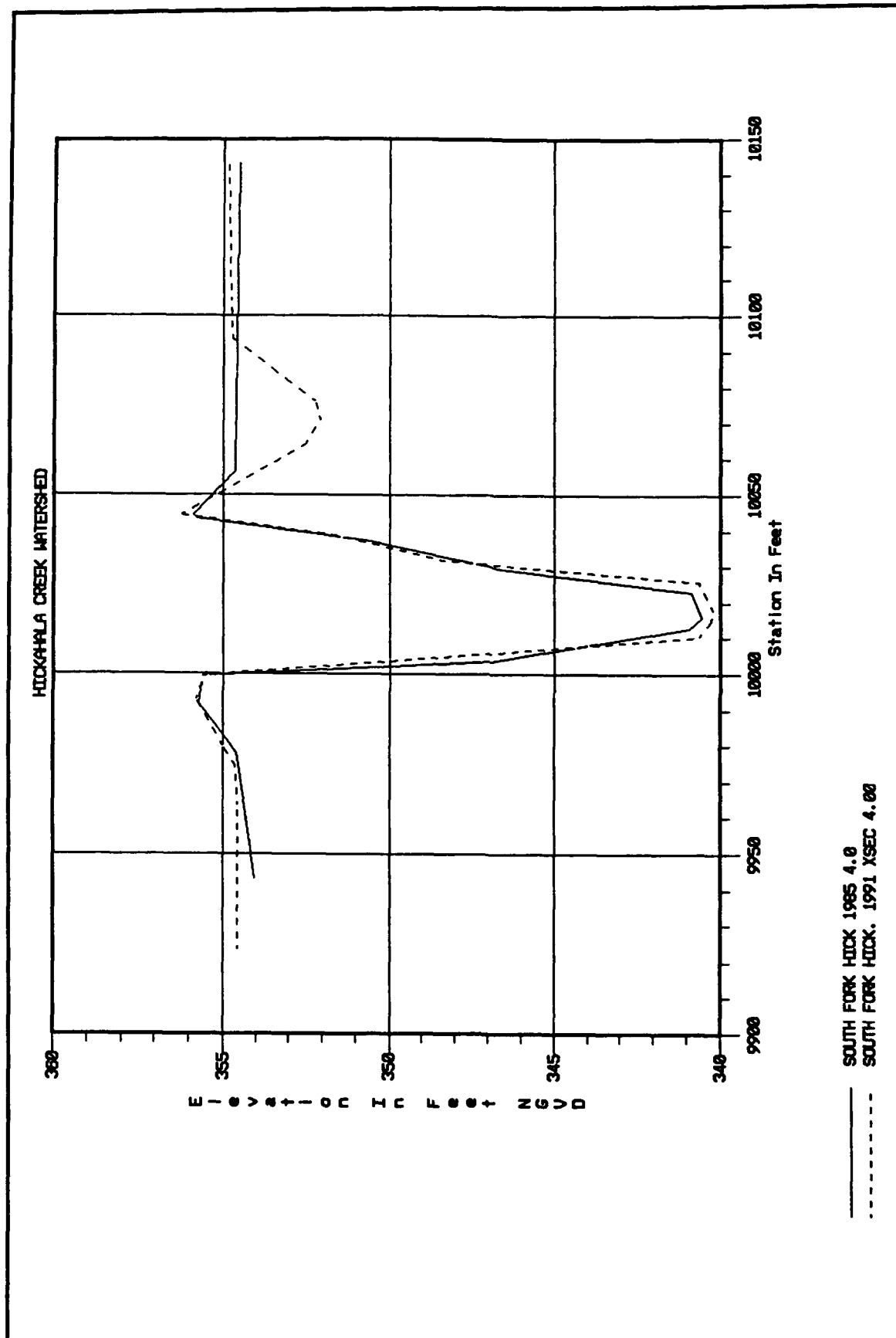


PLATE A96

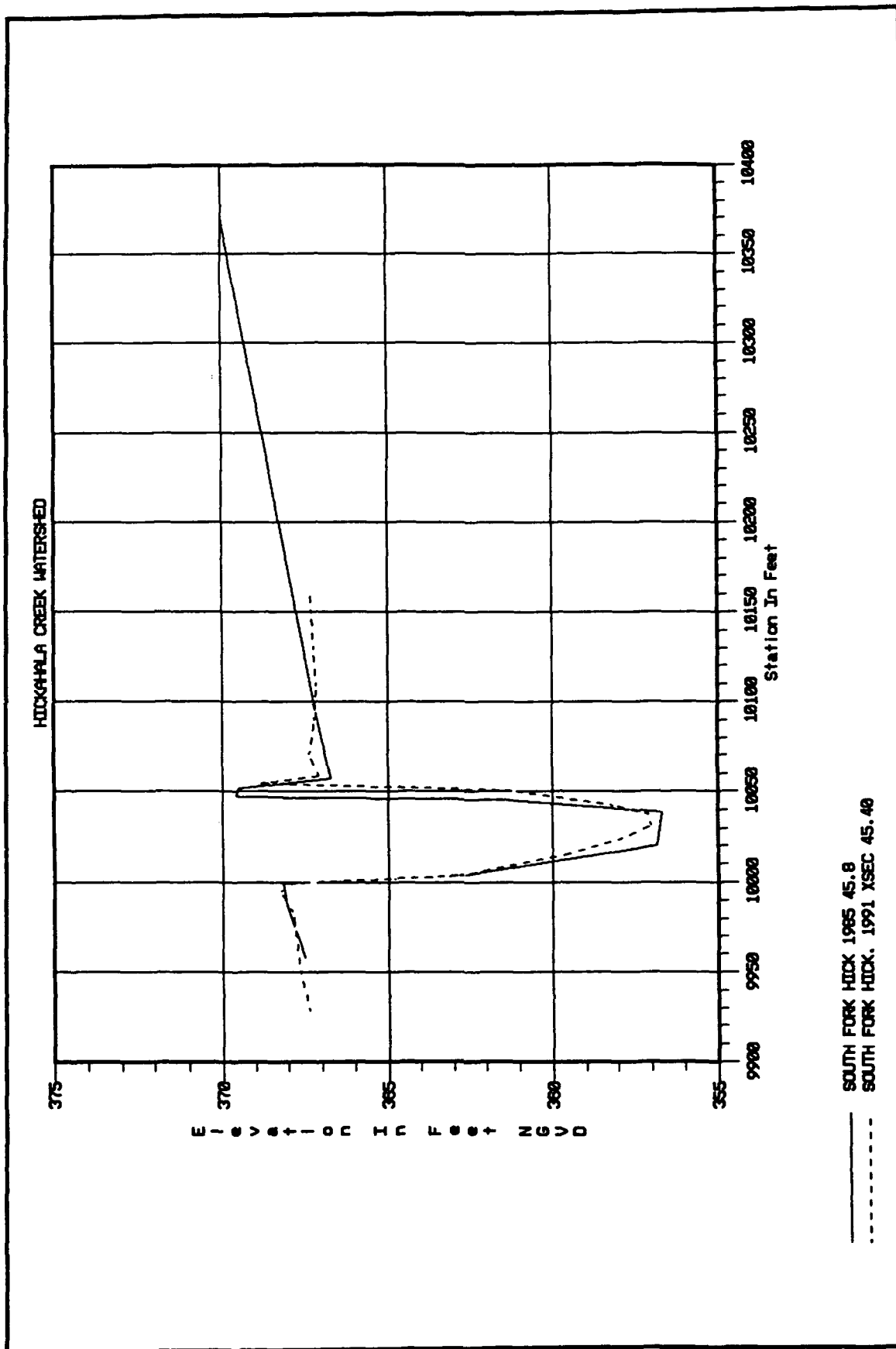
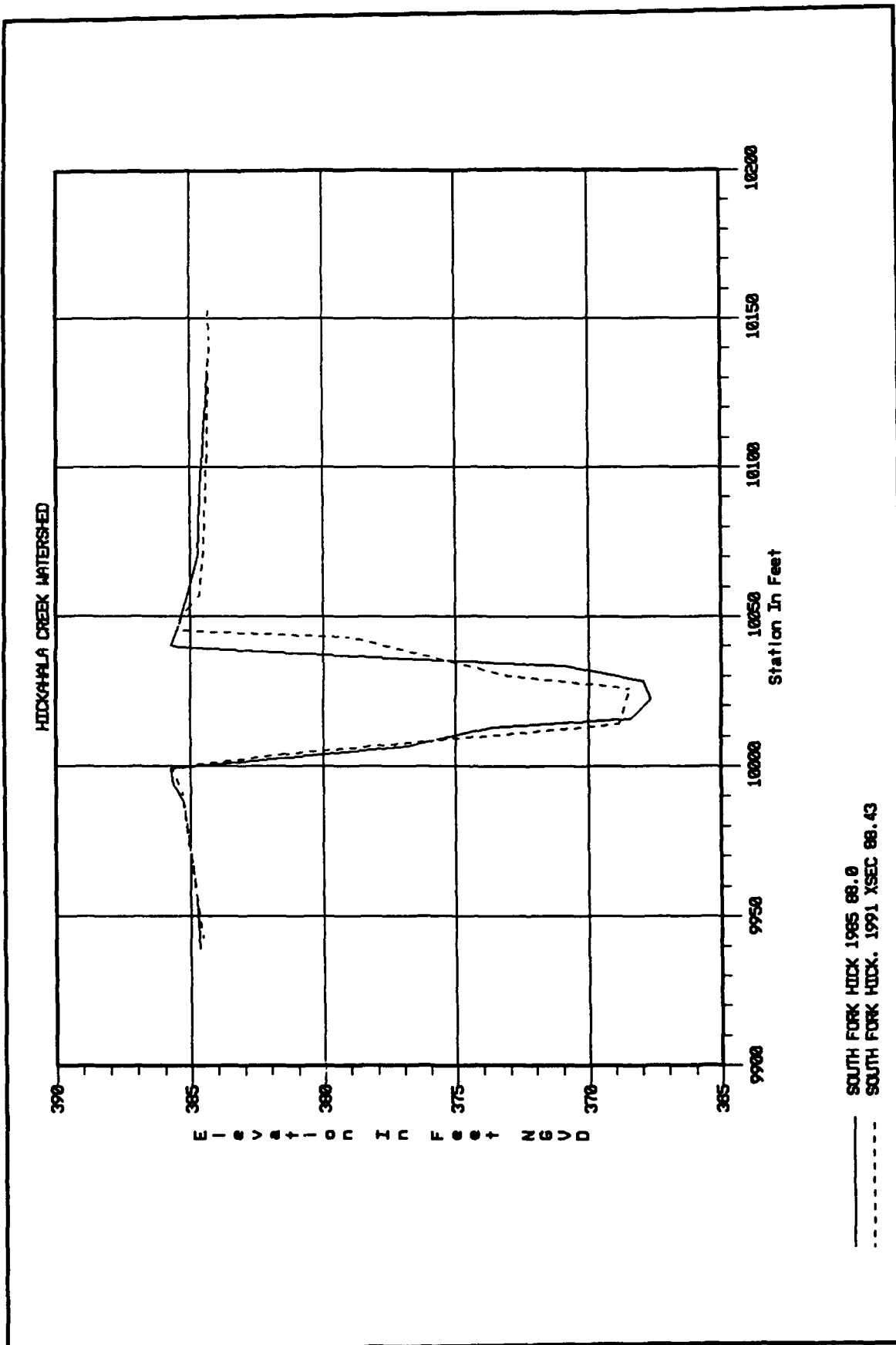
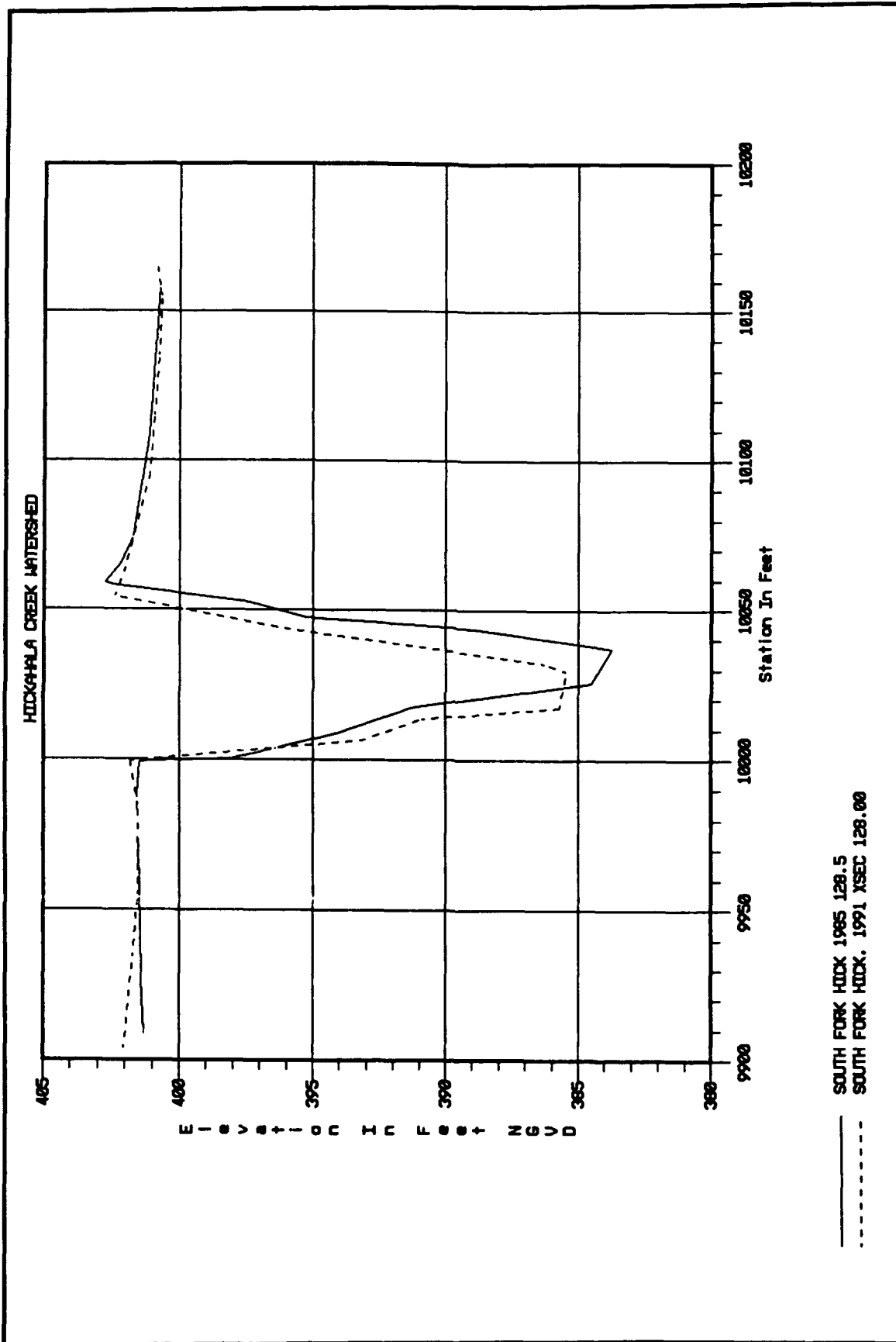
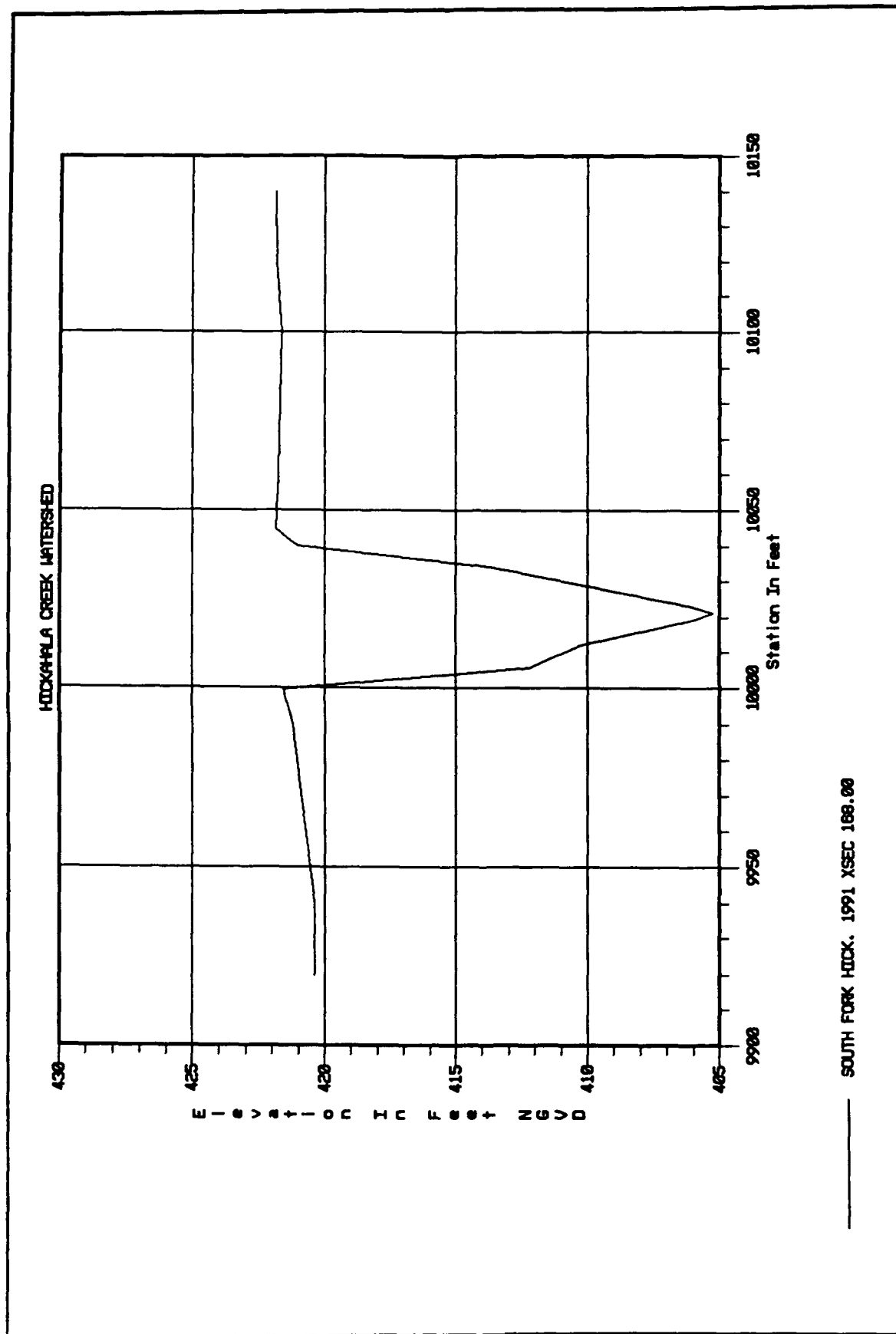


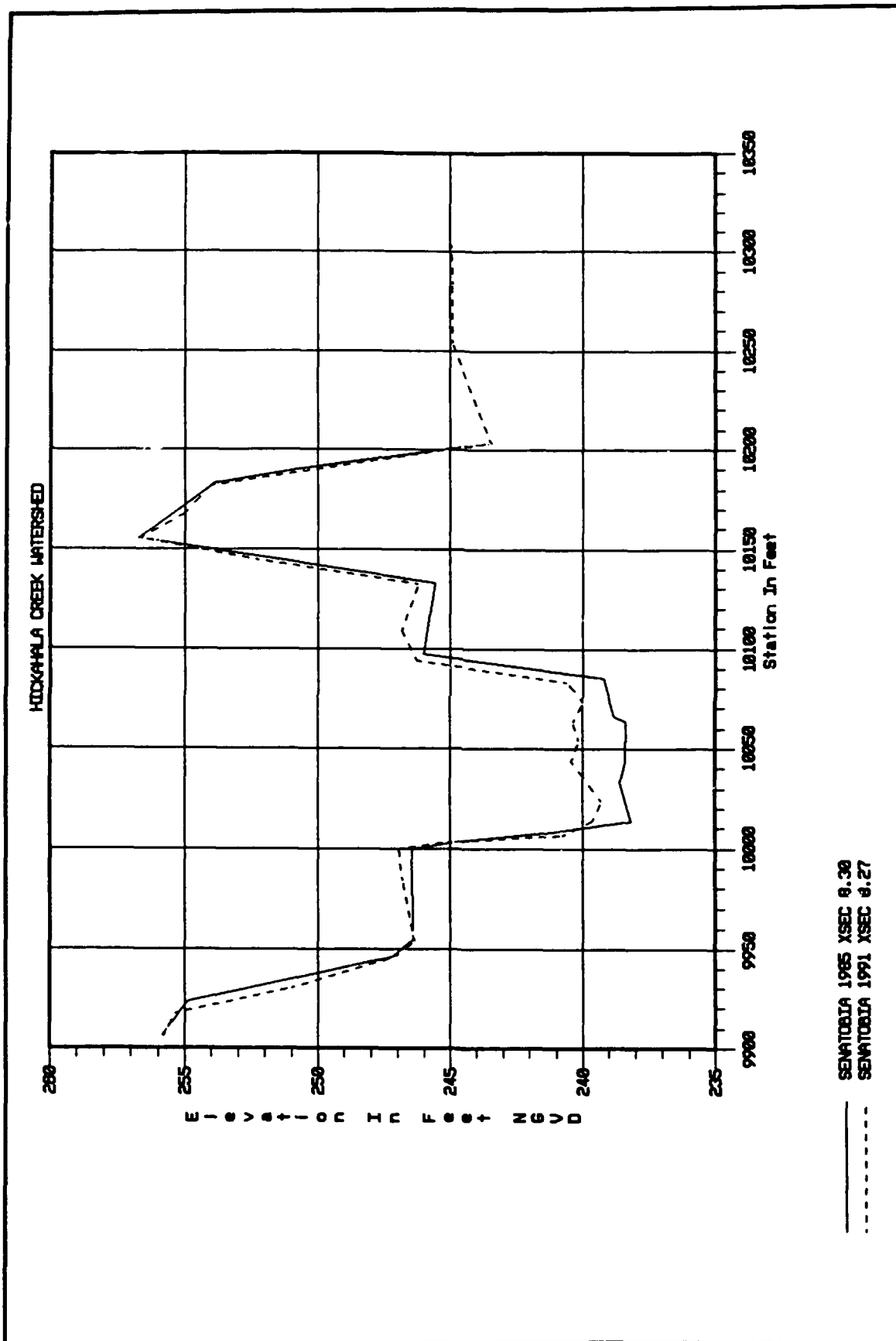
PLATE A97

PLATE A98









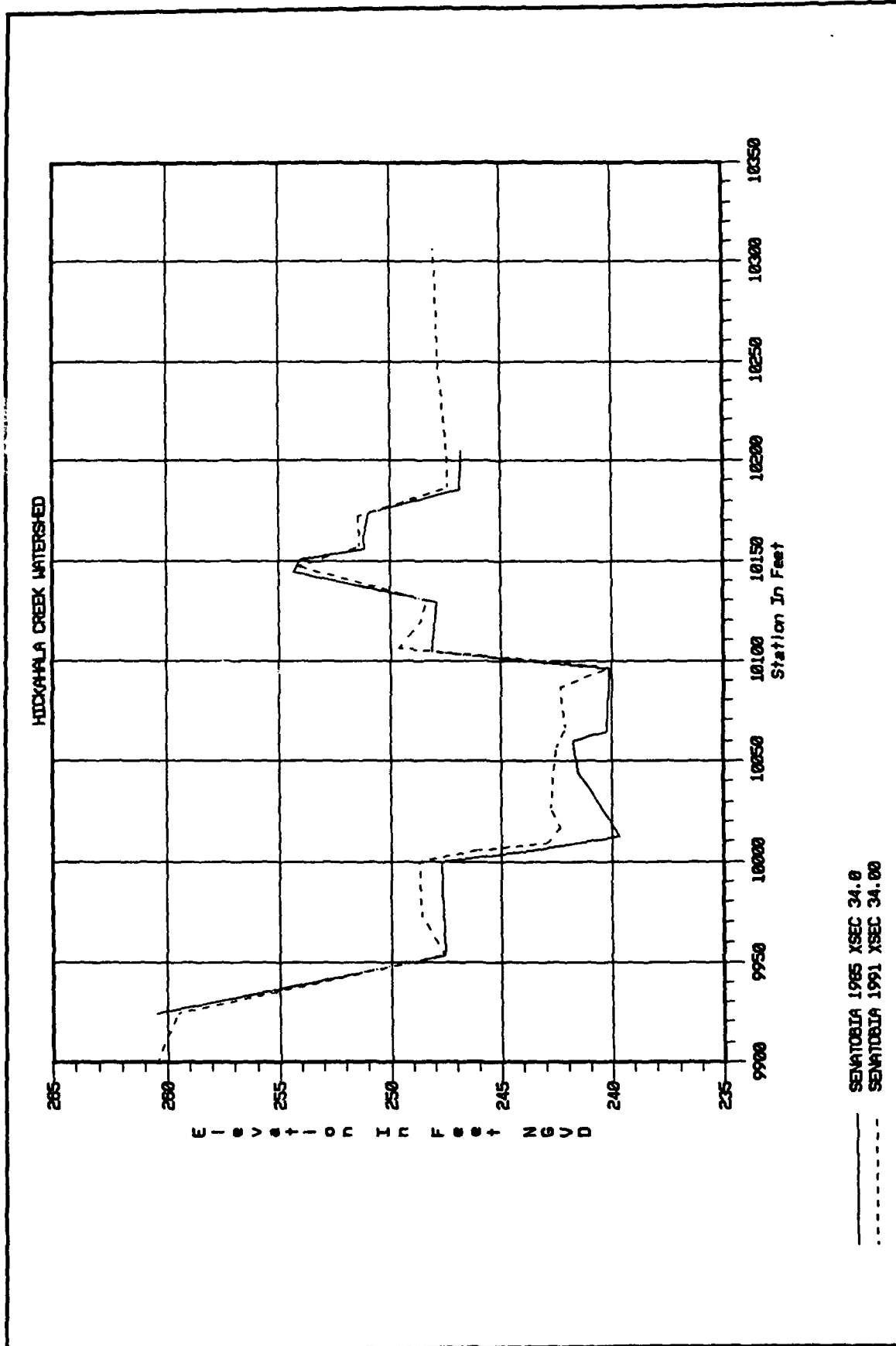
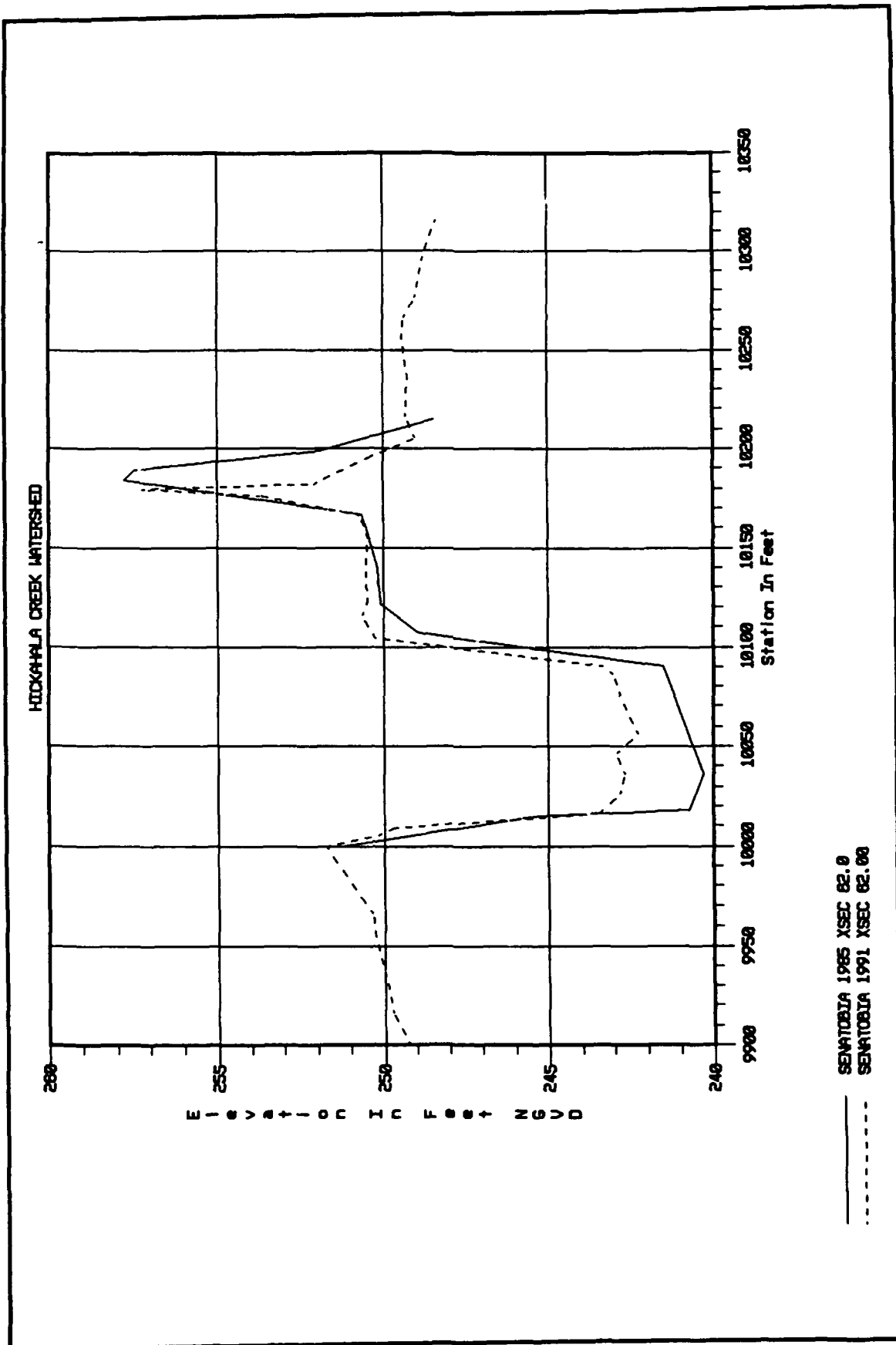


PLATE A102



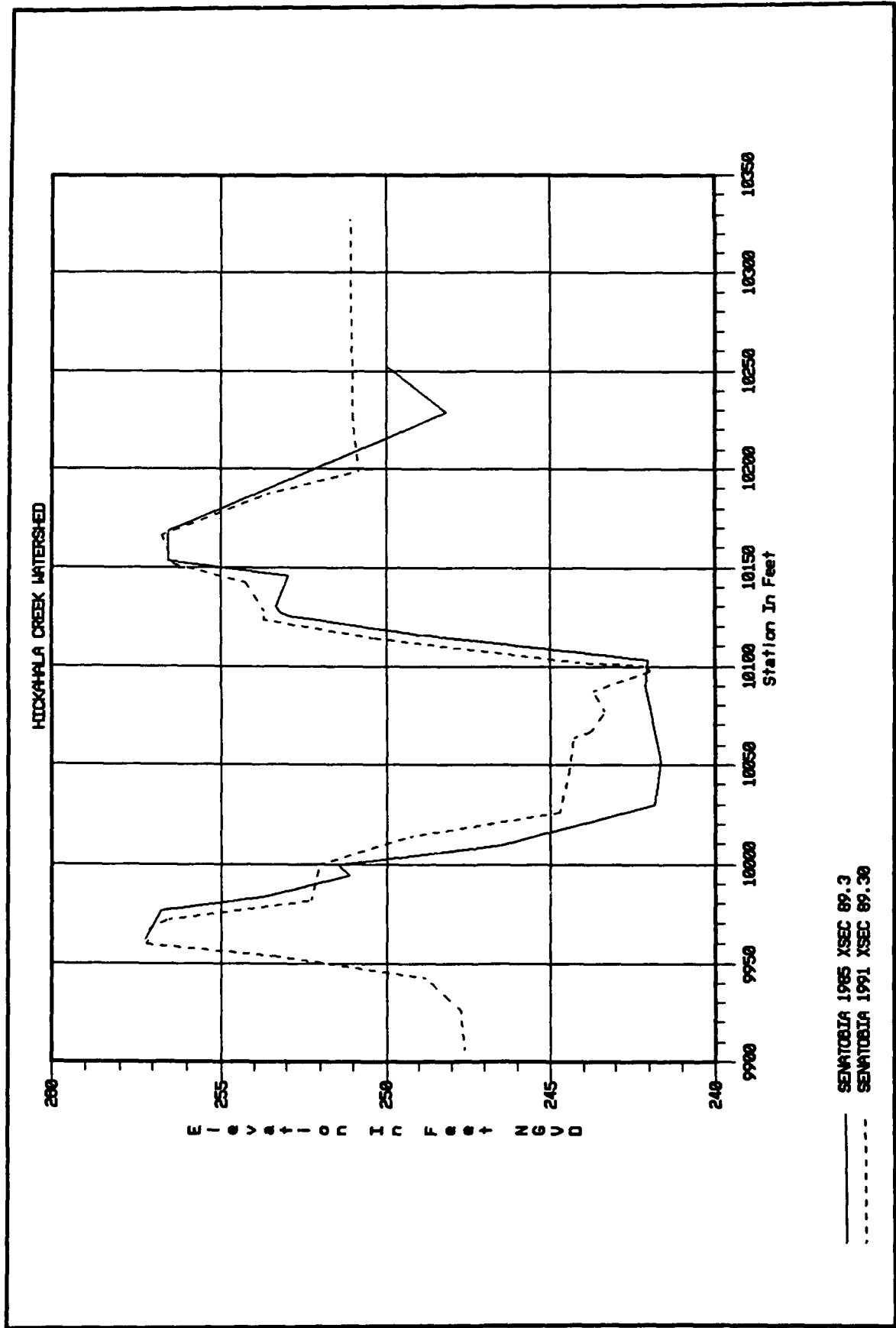
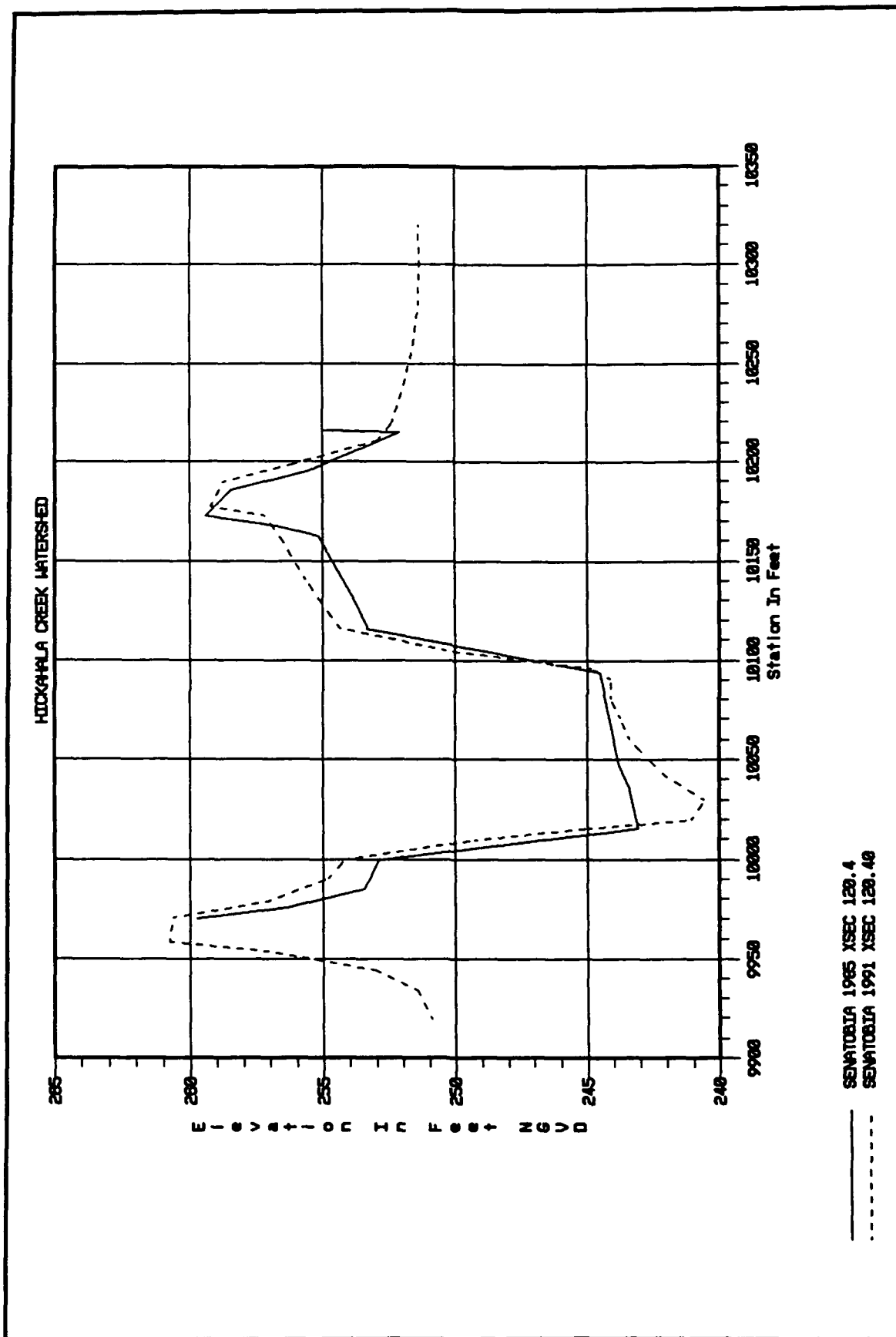


PLATE A104



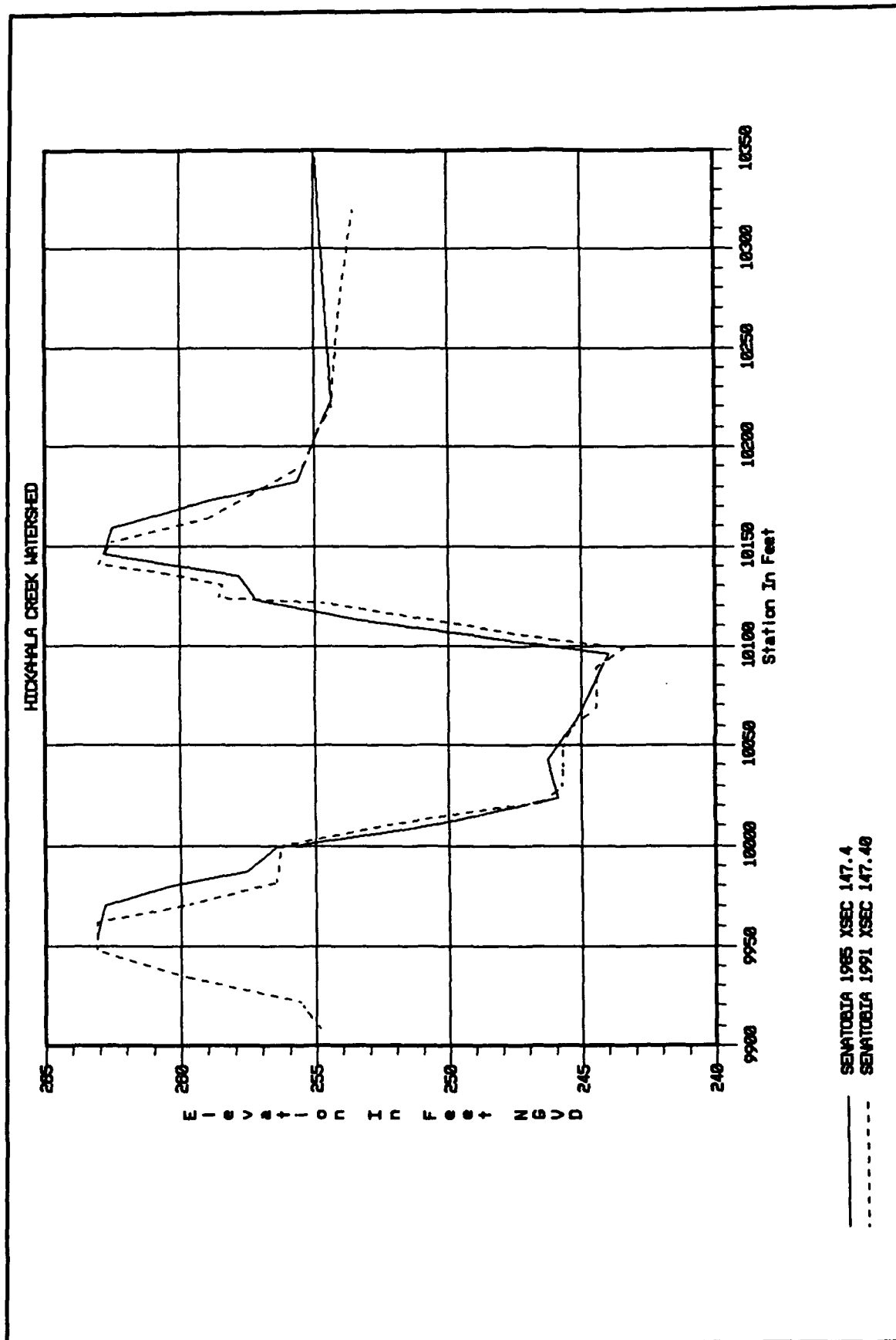
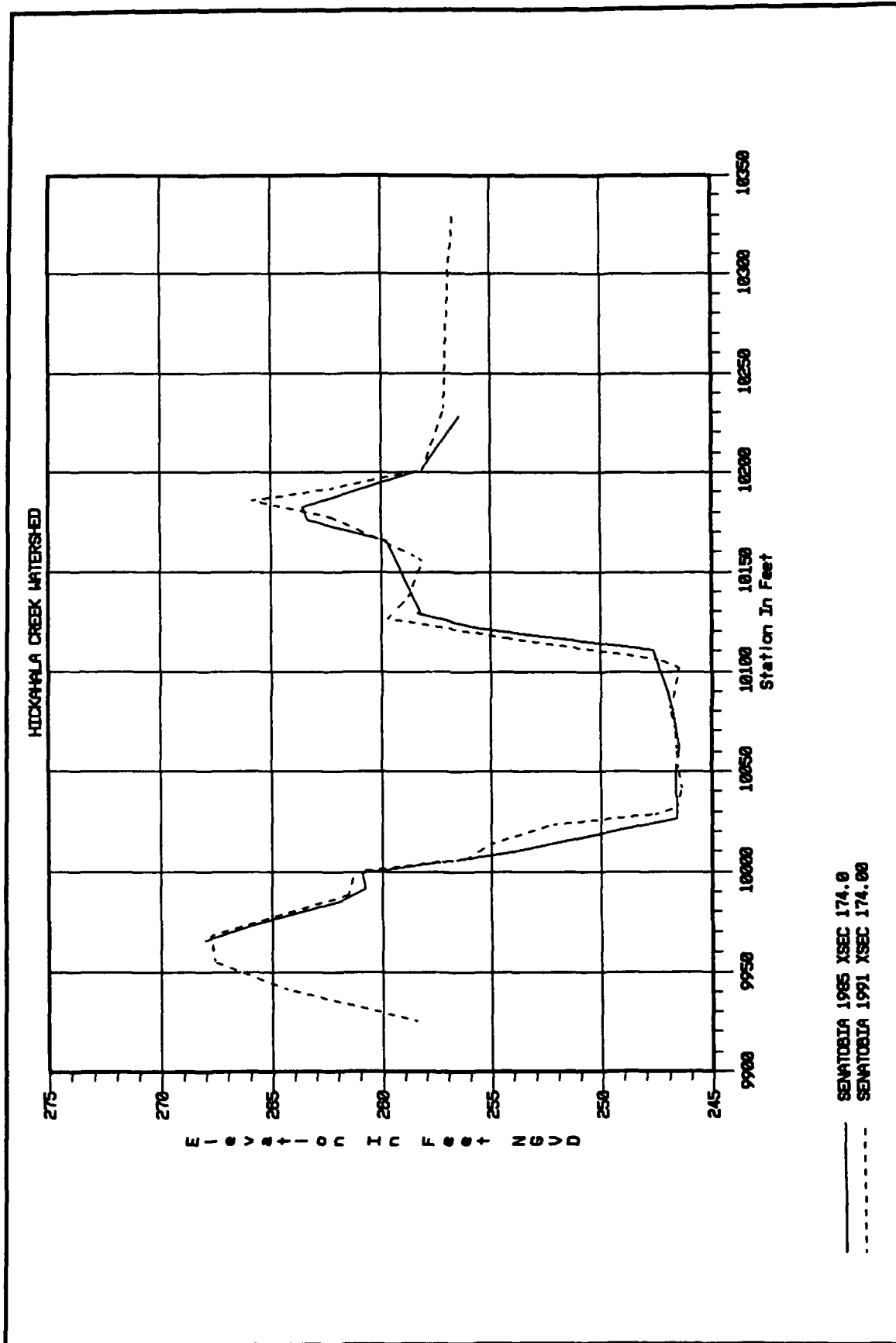


PLATE A106



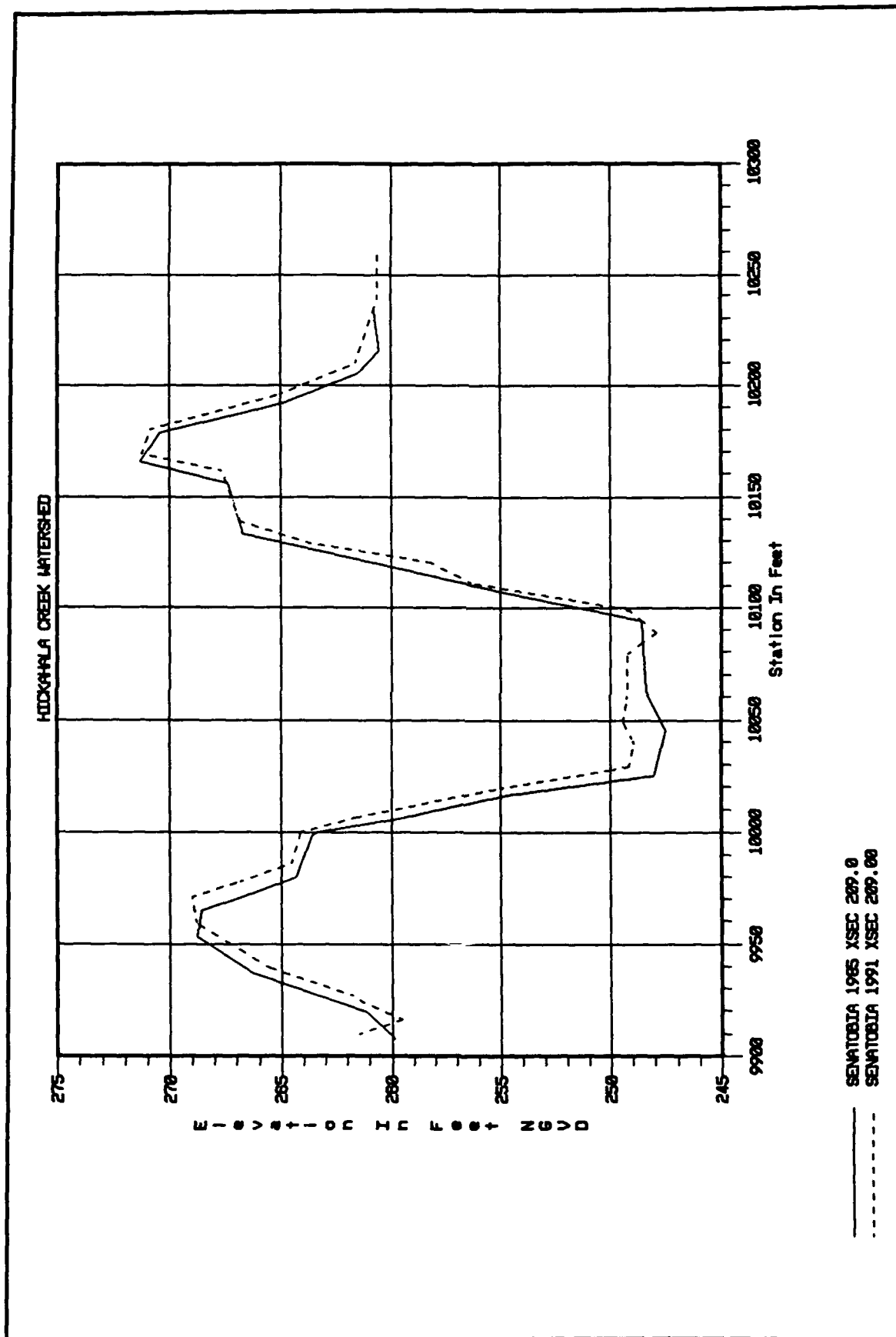
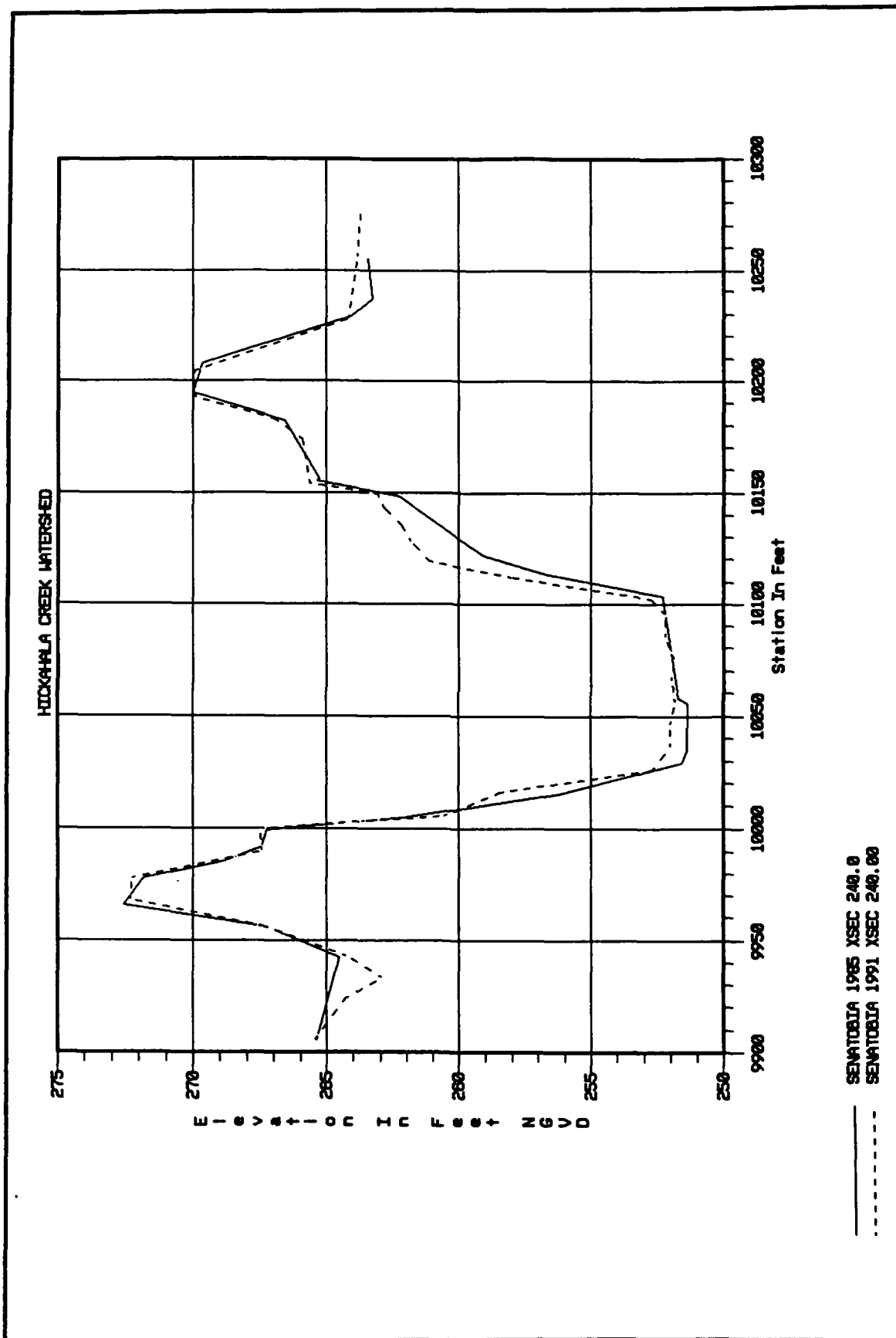
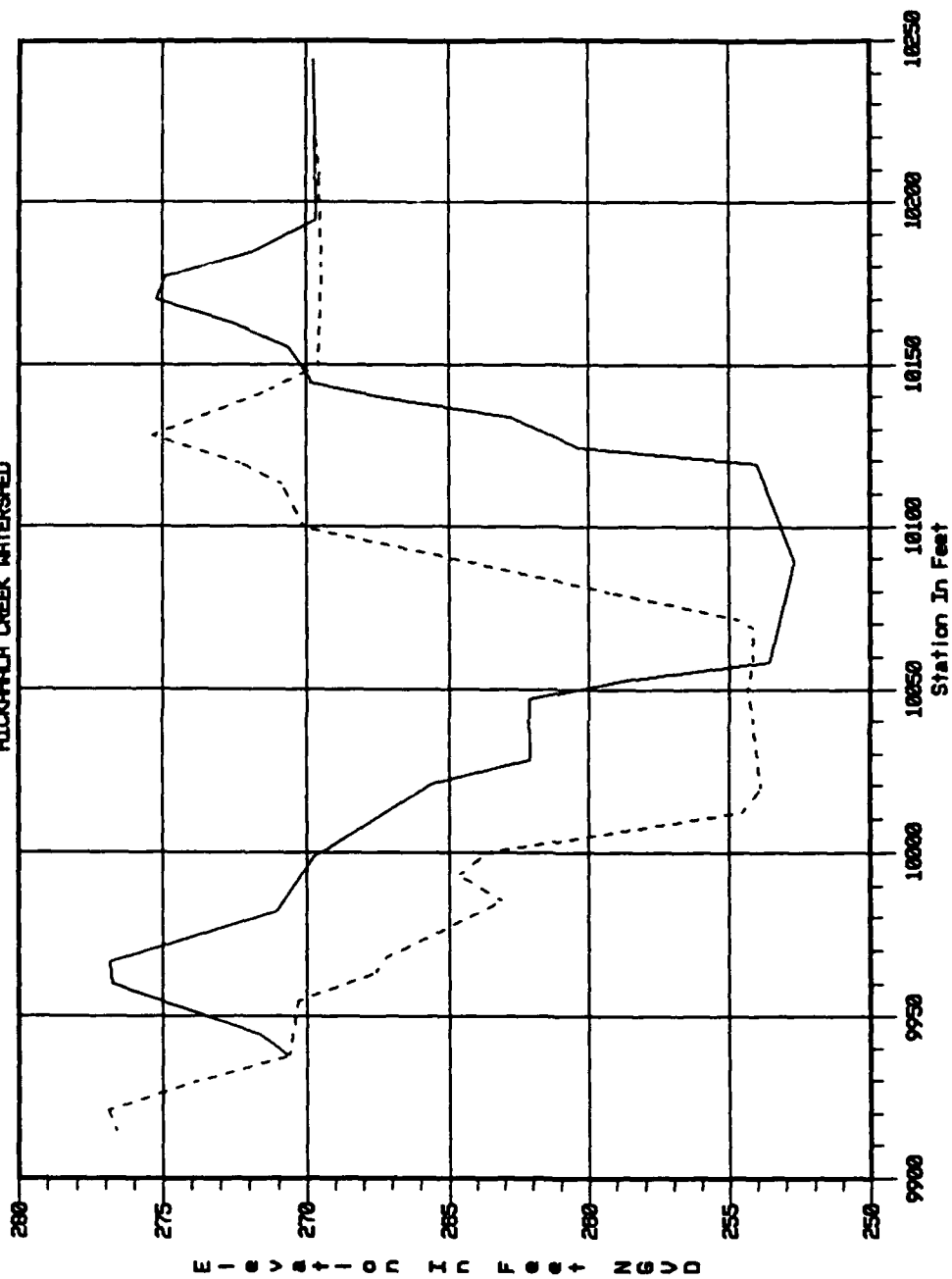


PLATE A108

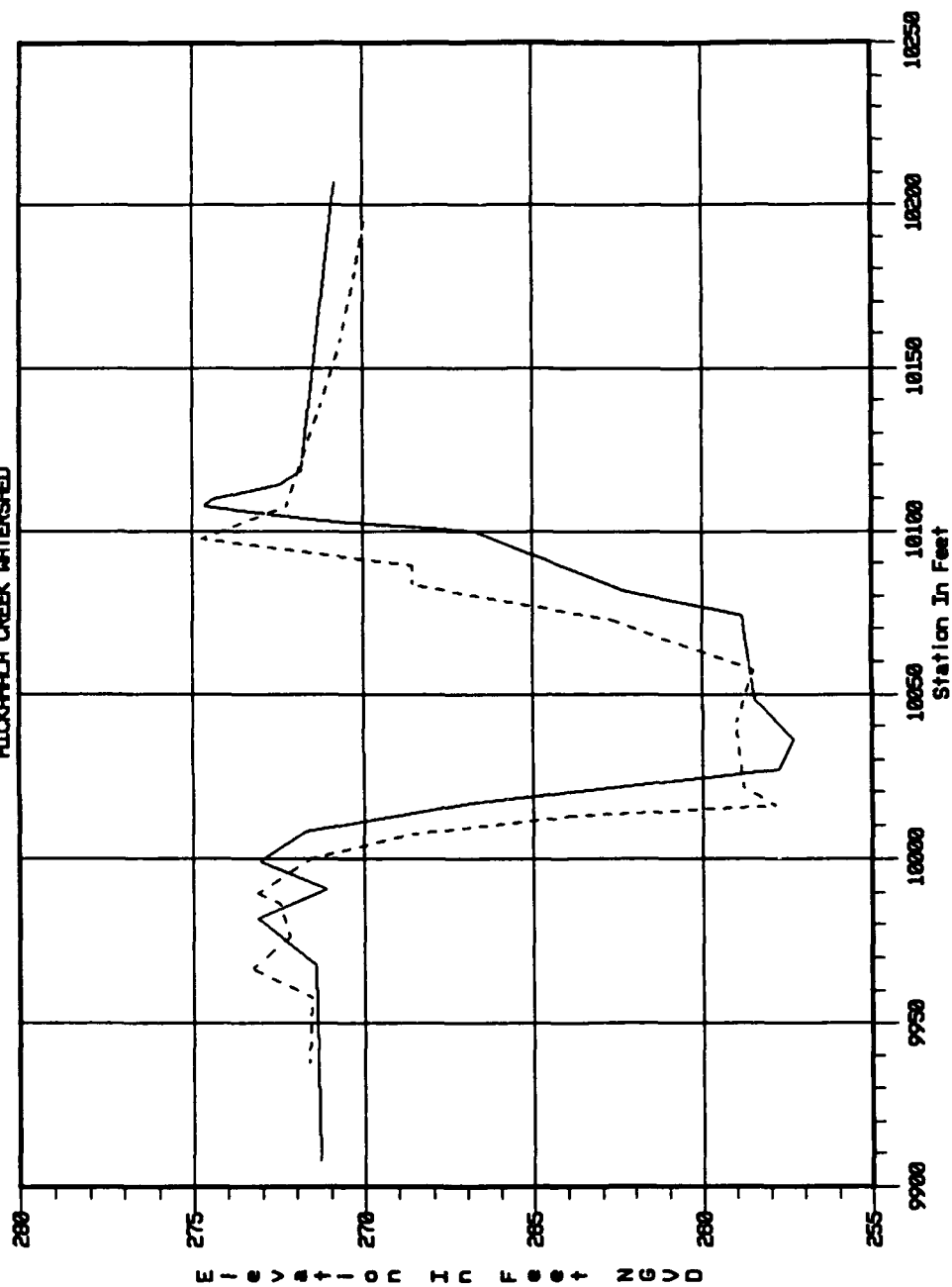


HICKOKLA CREEK WATERSHED

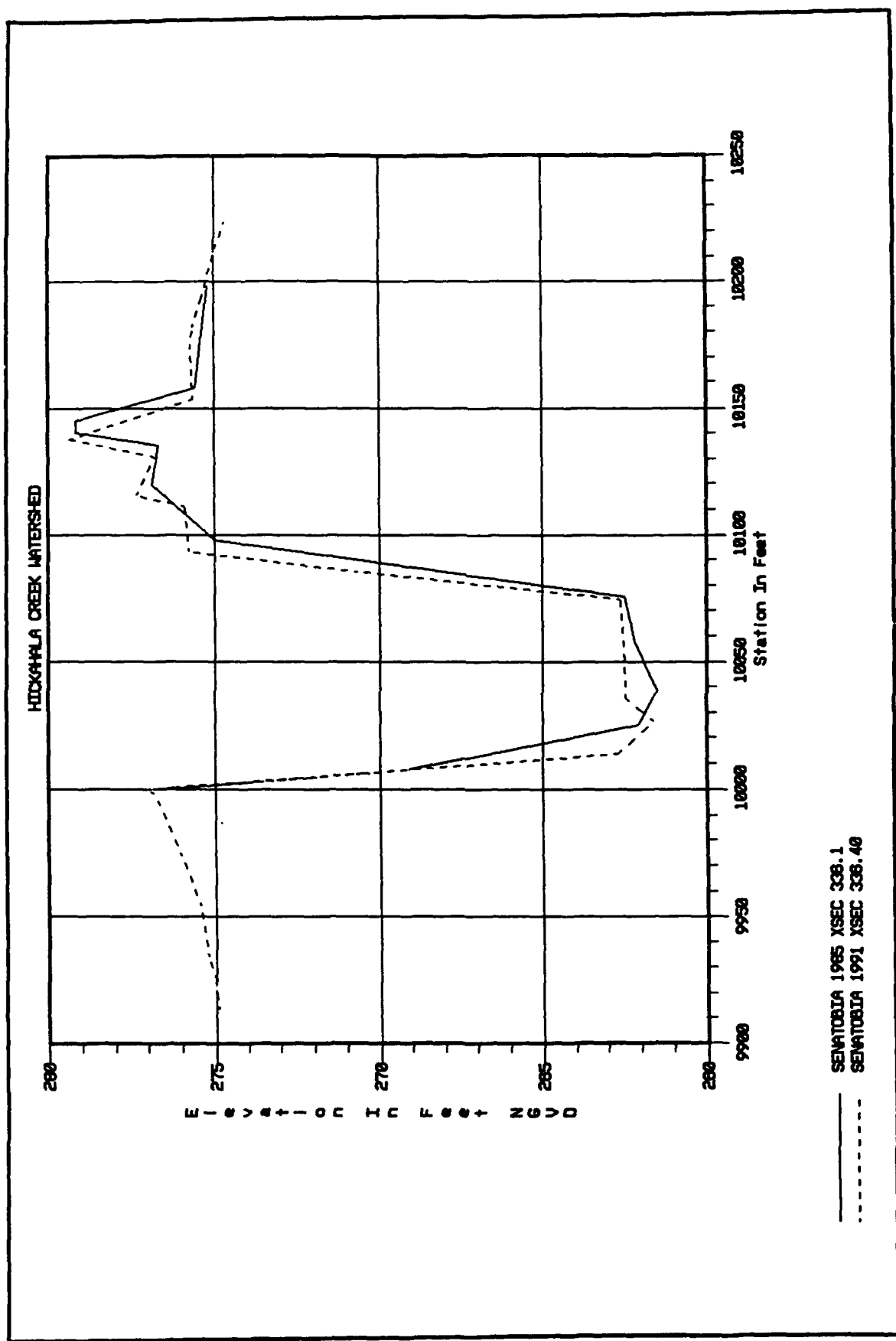


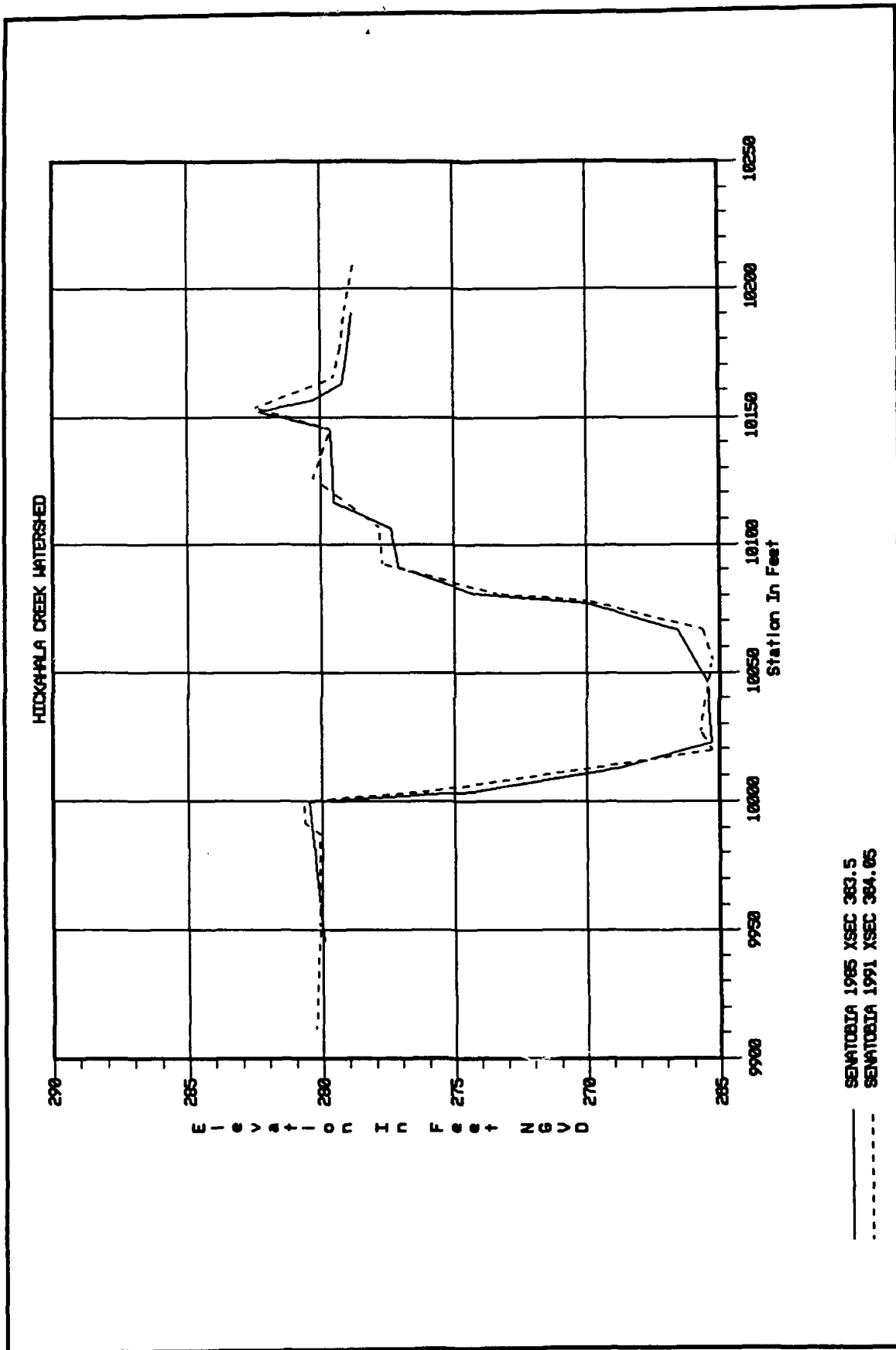
— 1985 XSEC 281.0
 - - - 1991 XSEC 281.00

HICKAHULA CREEK WATERSHED



SENATORIA 1965 XSEC 305.0
 SENATORIA 1991 XSEC 305.00





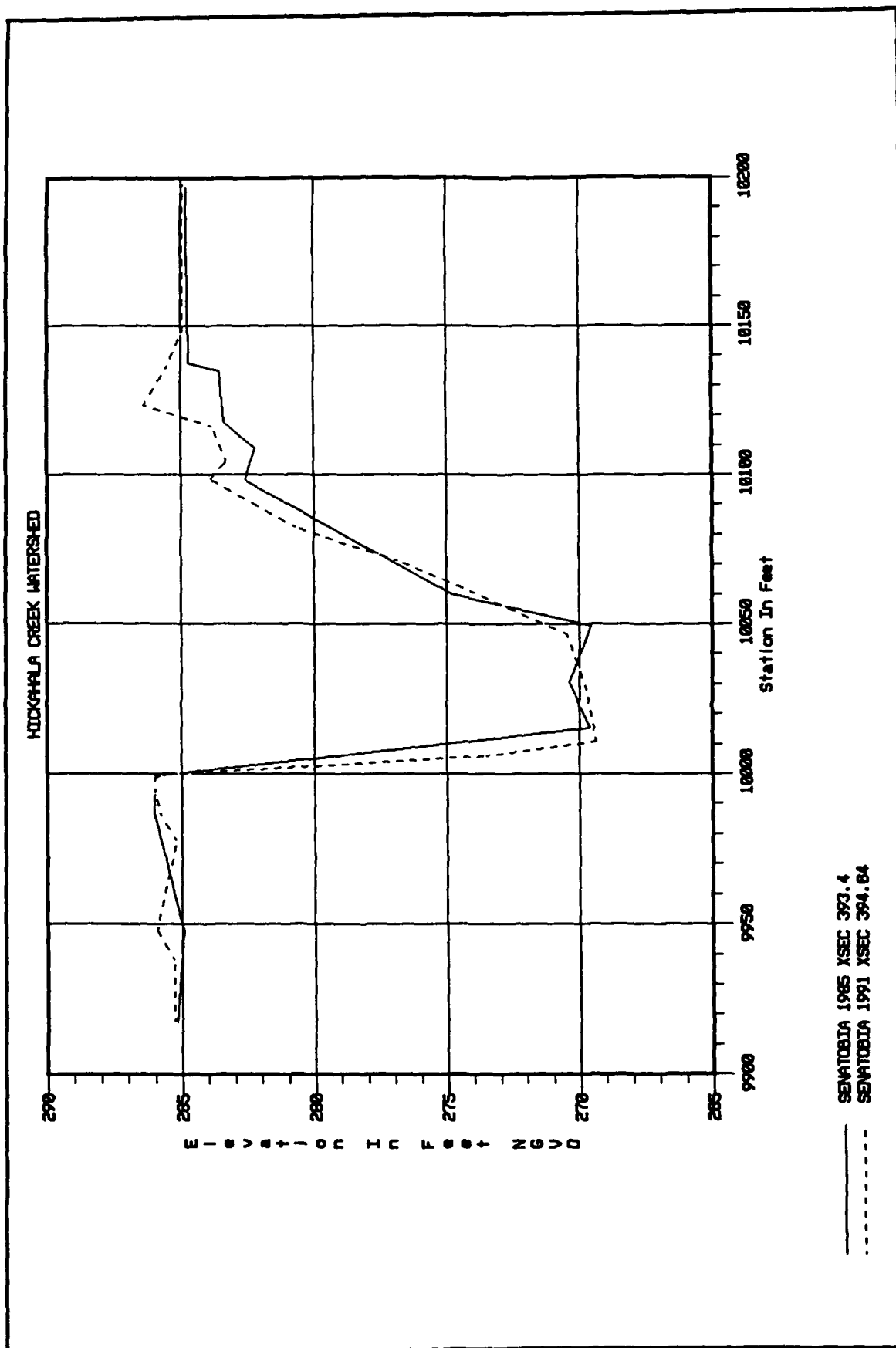
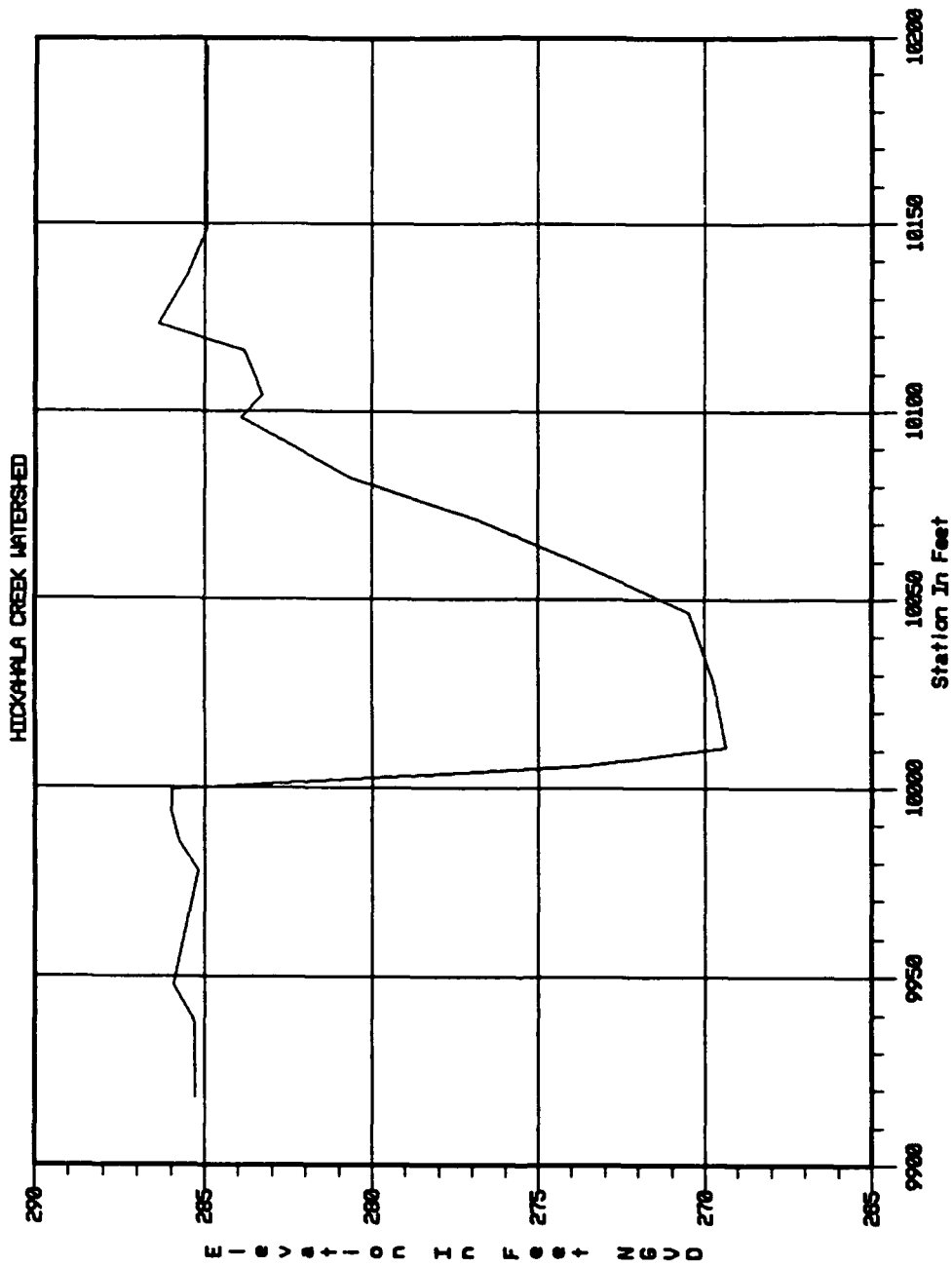


PLATE A114



SENATORIA 1991 XSEC 394.64

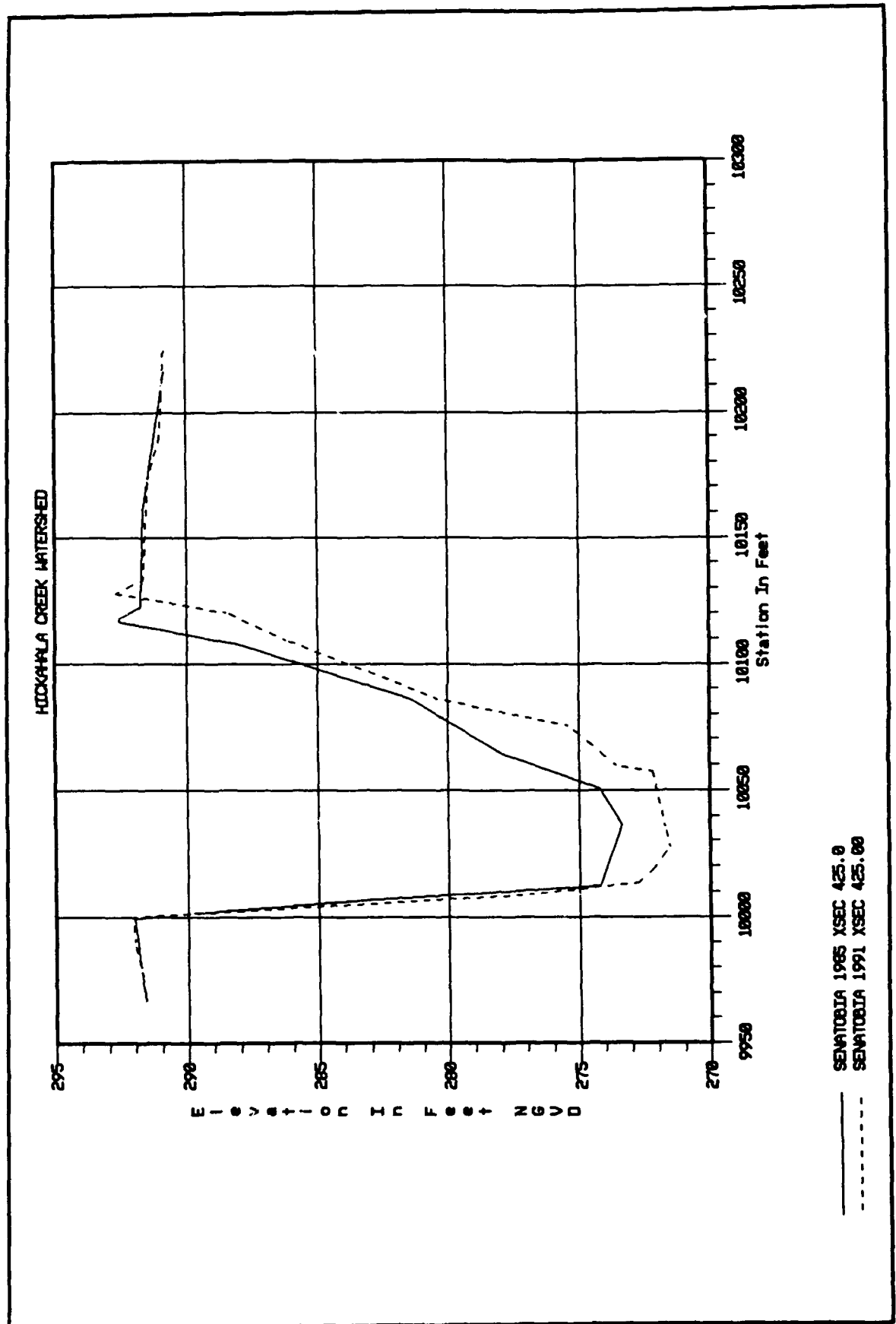
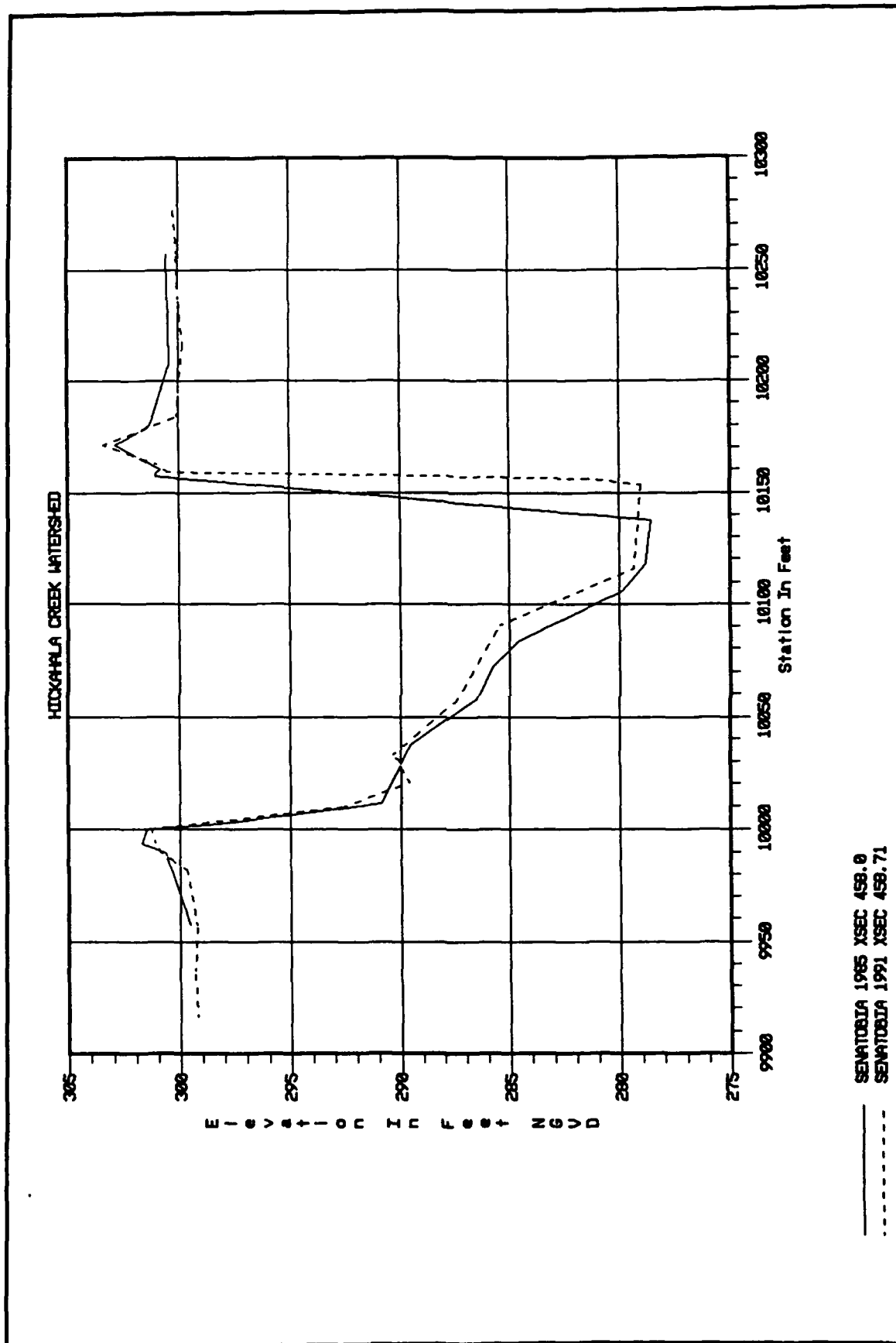


PLATE A116



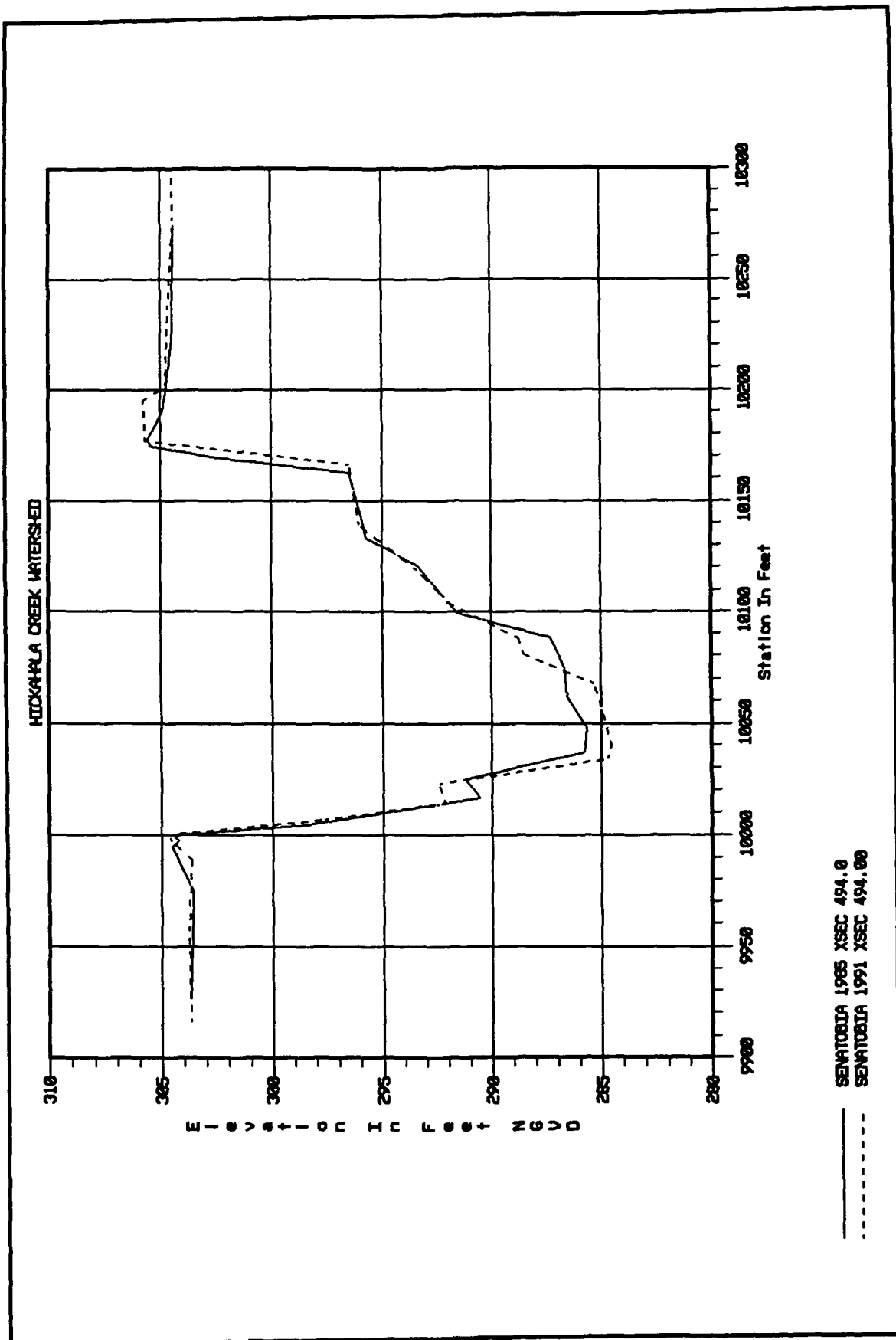
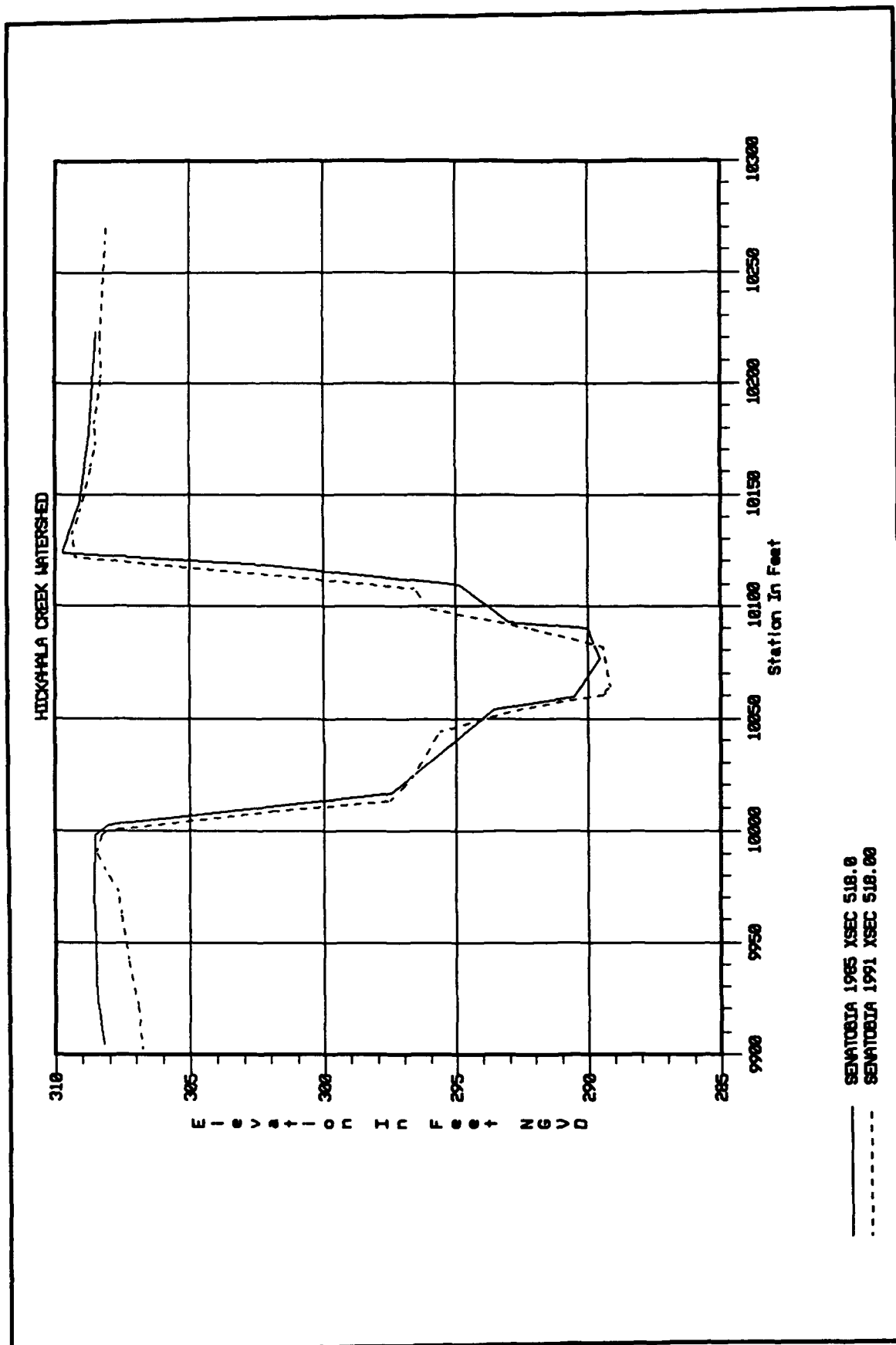


PLATE A118



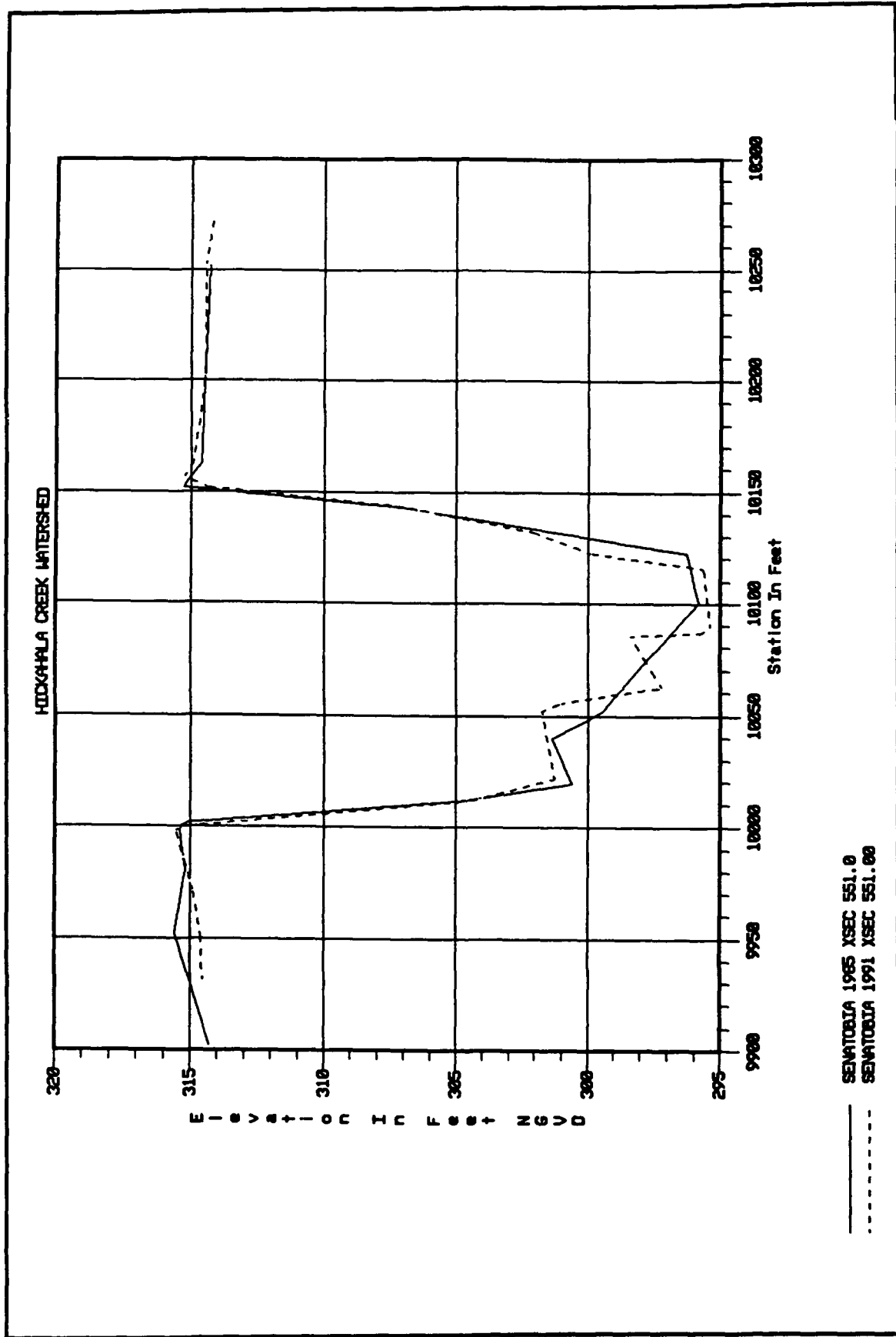
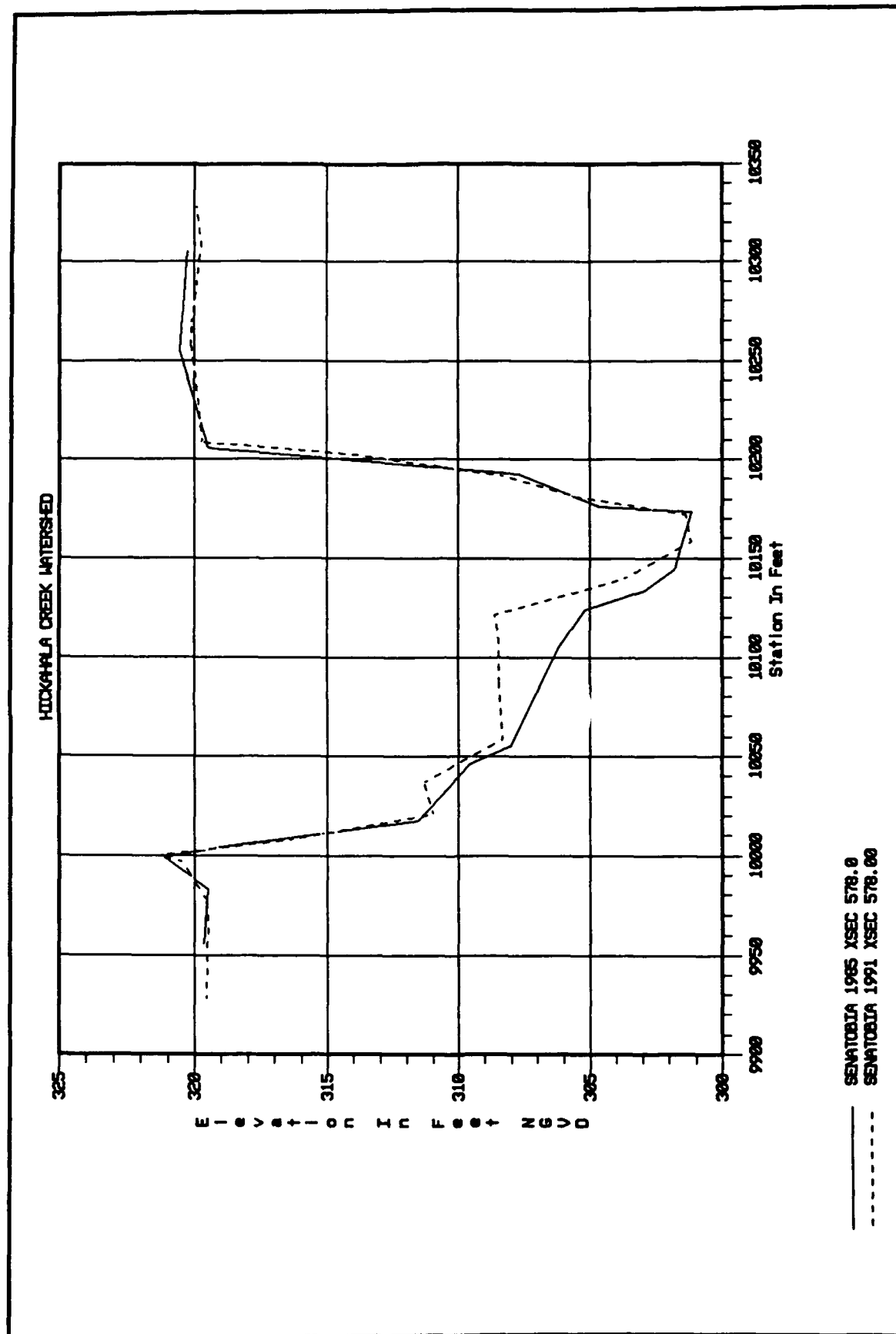


PLATE A120



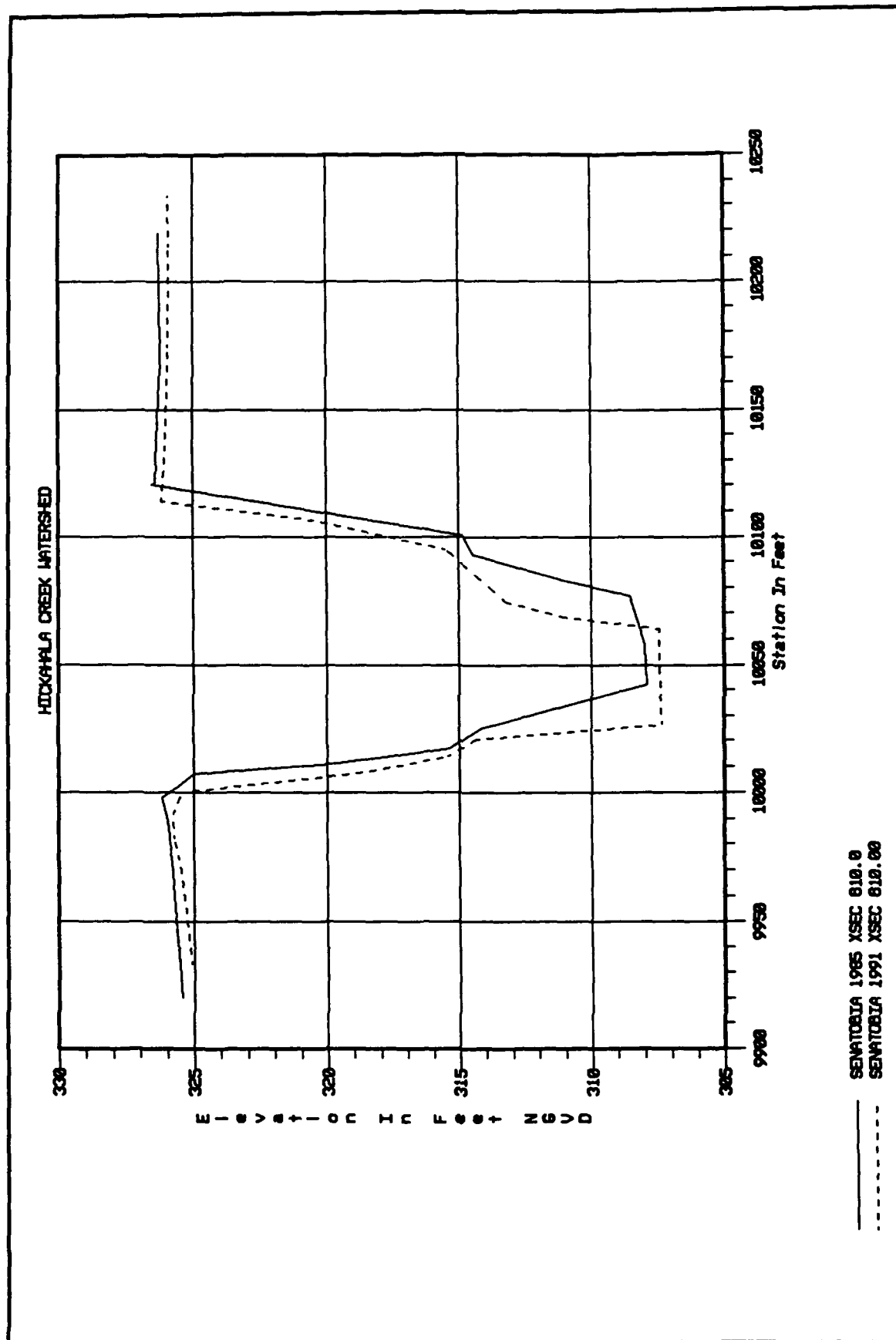
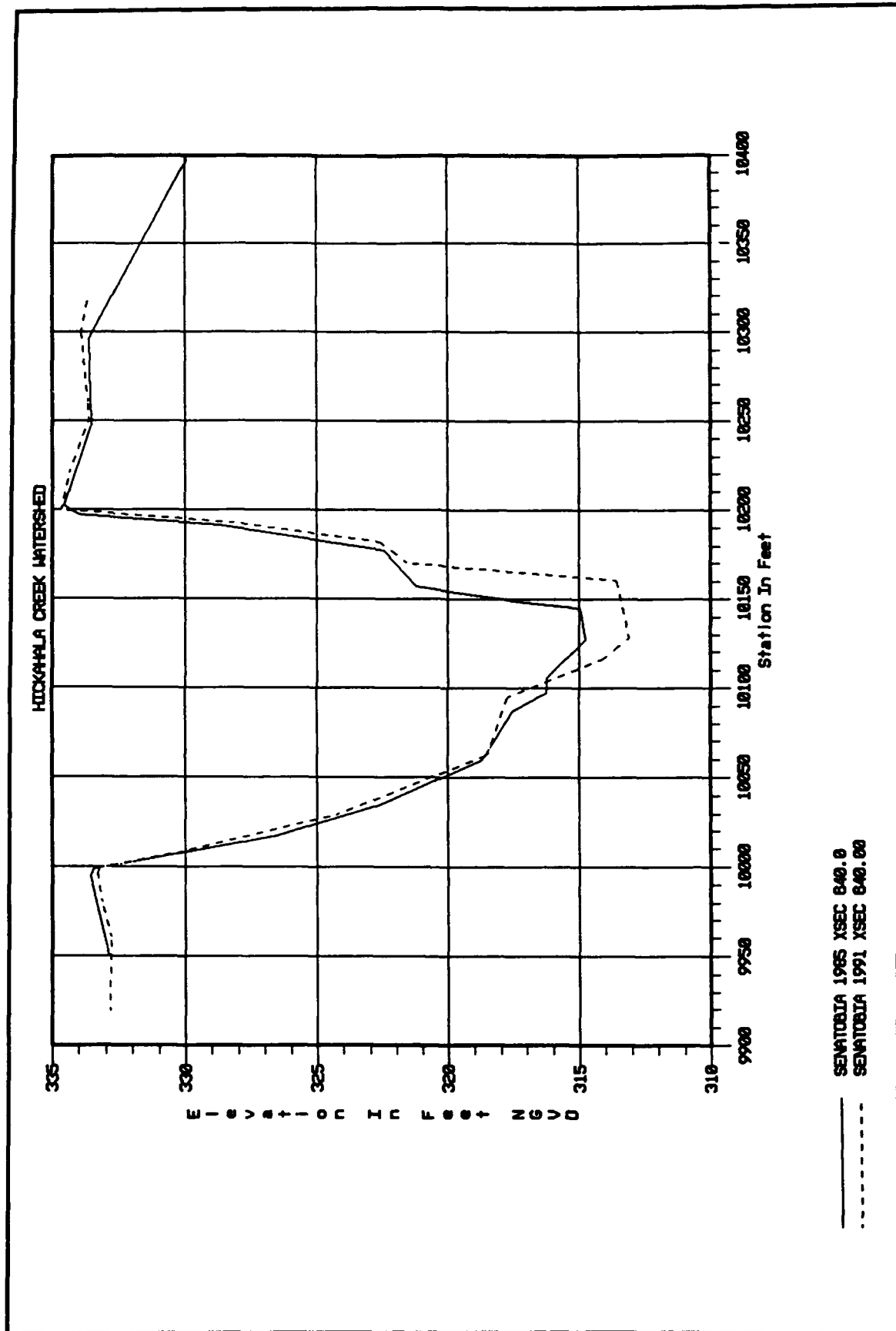


PLATE A122



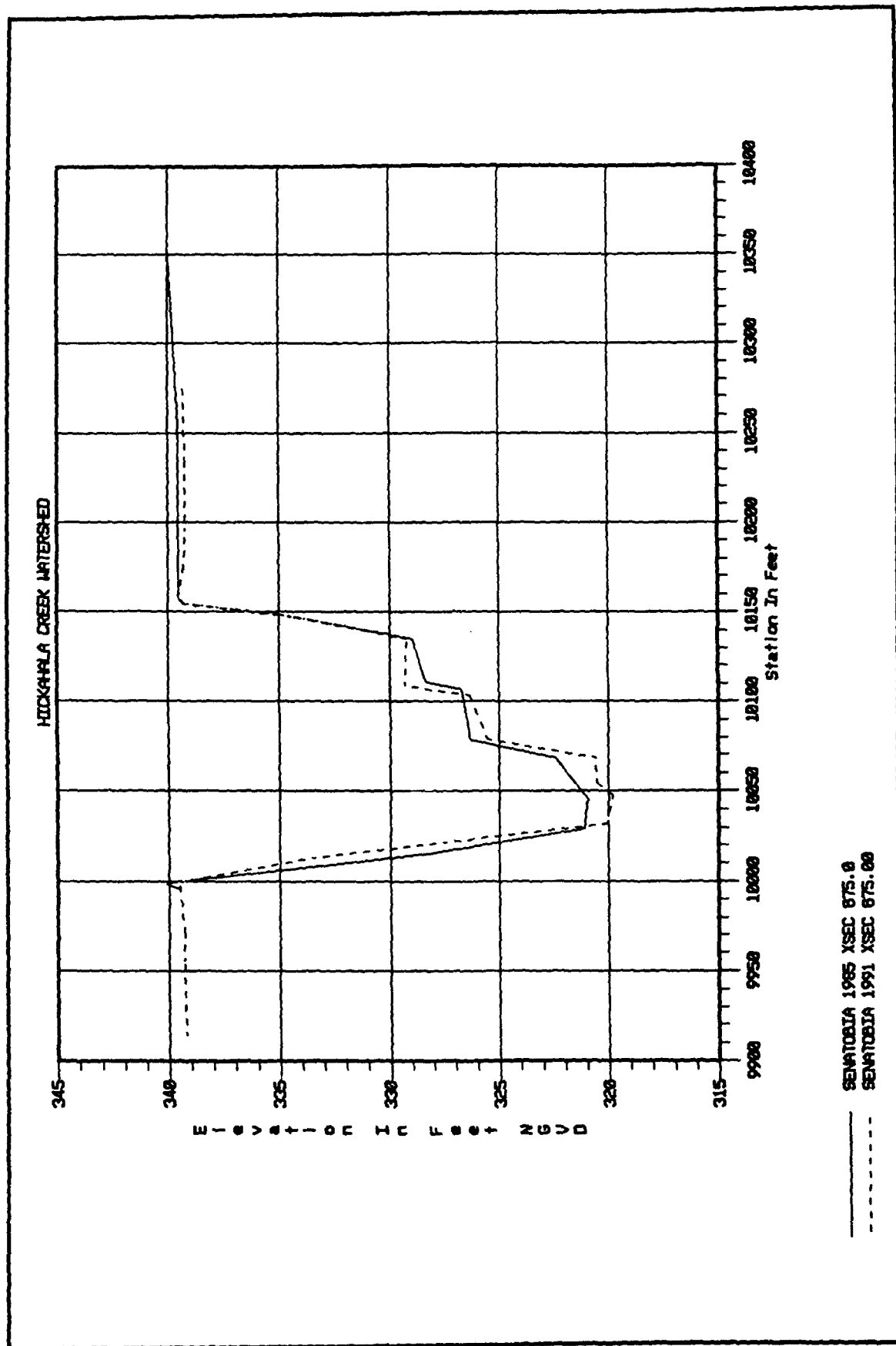
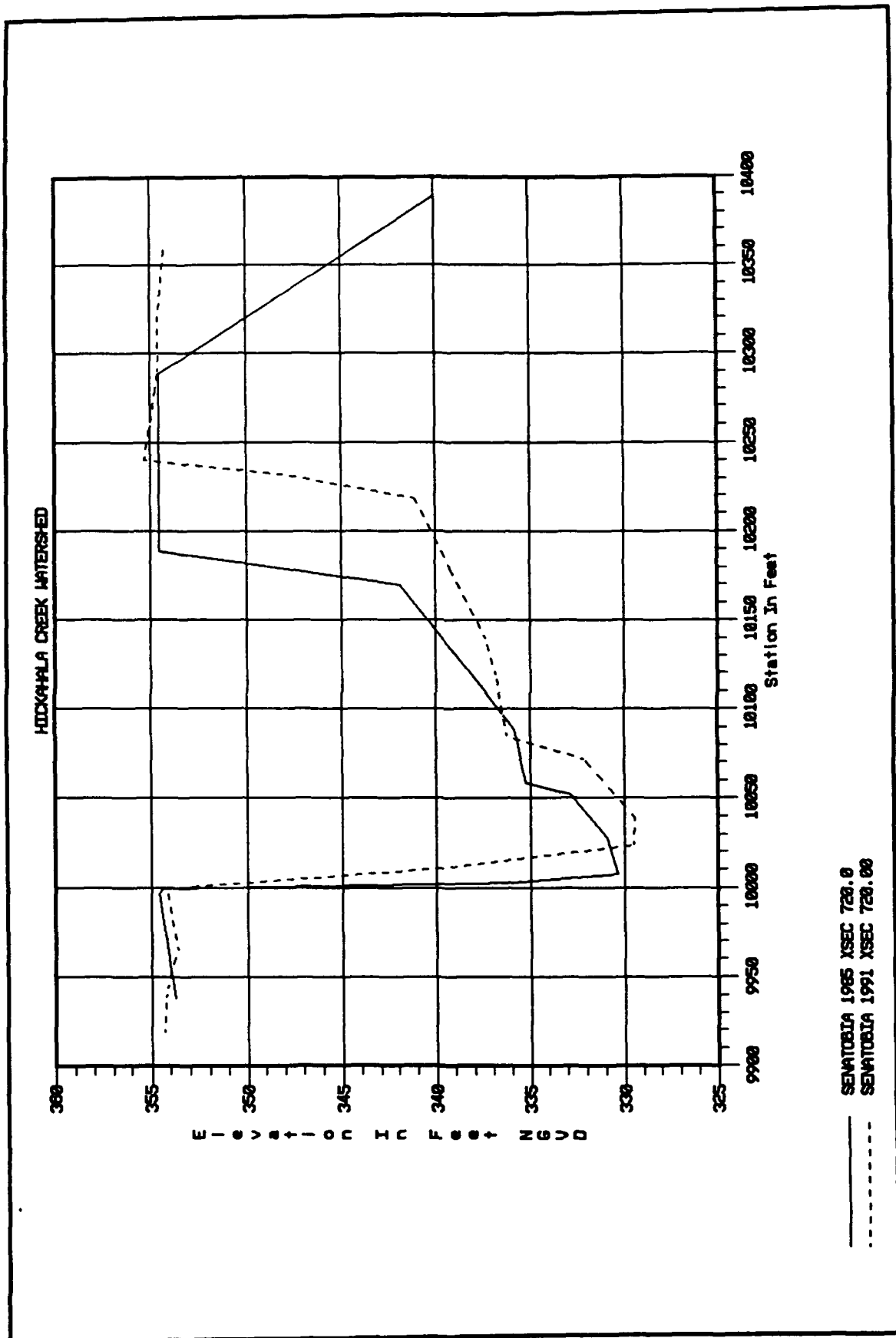
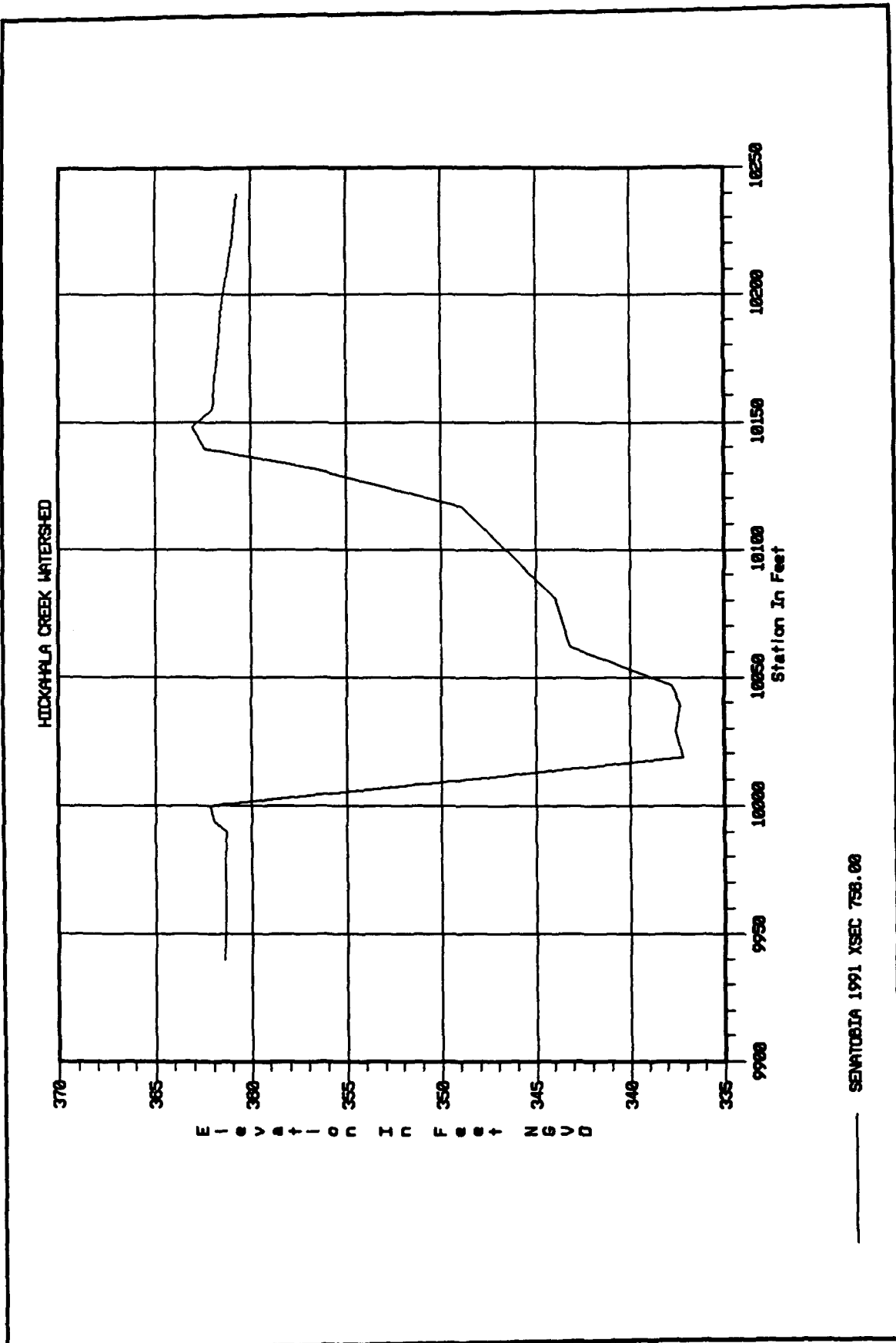
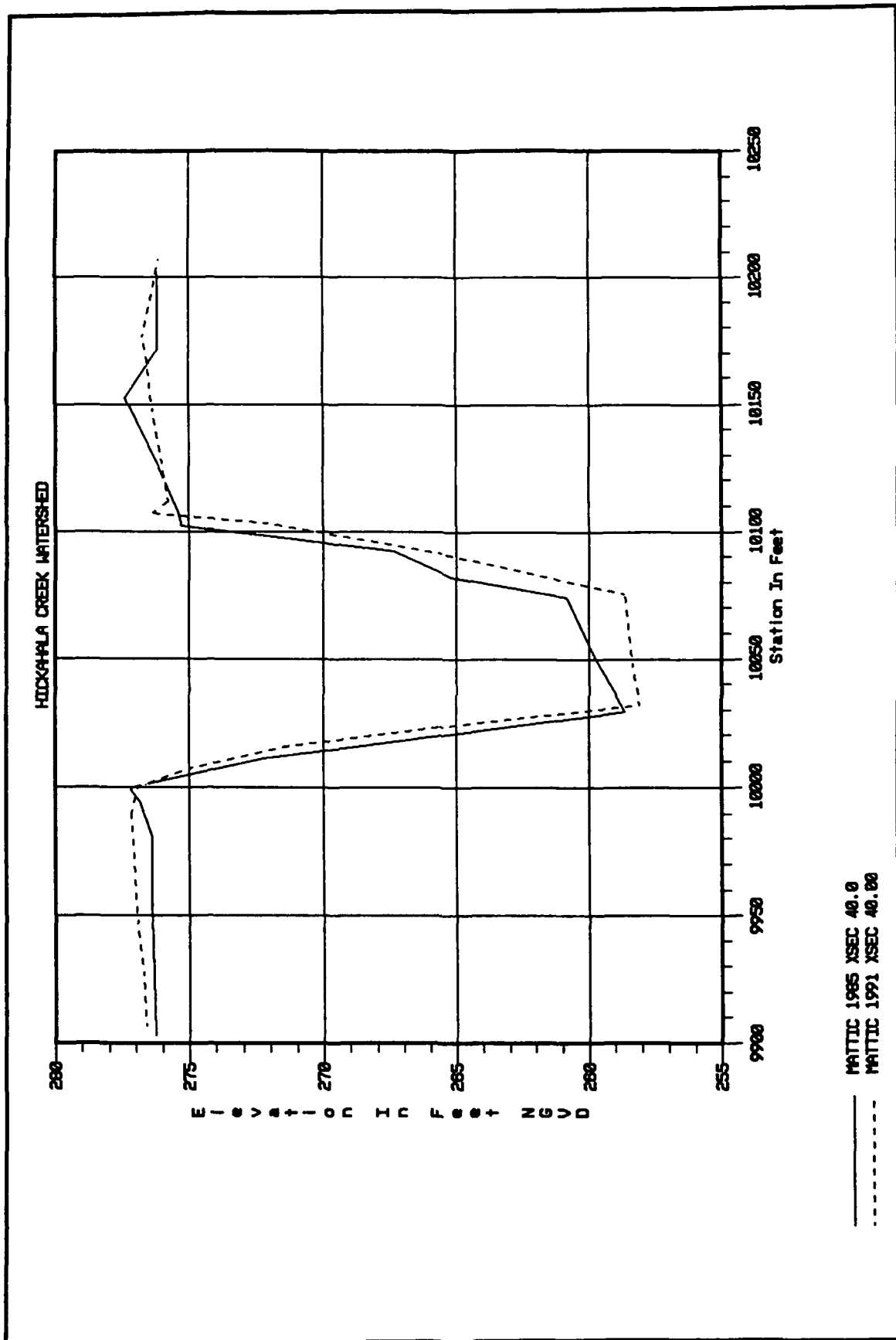


PLATE A124







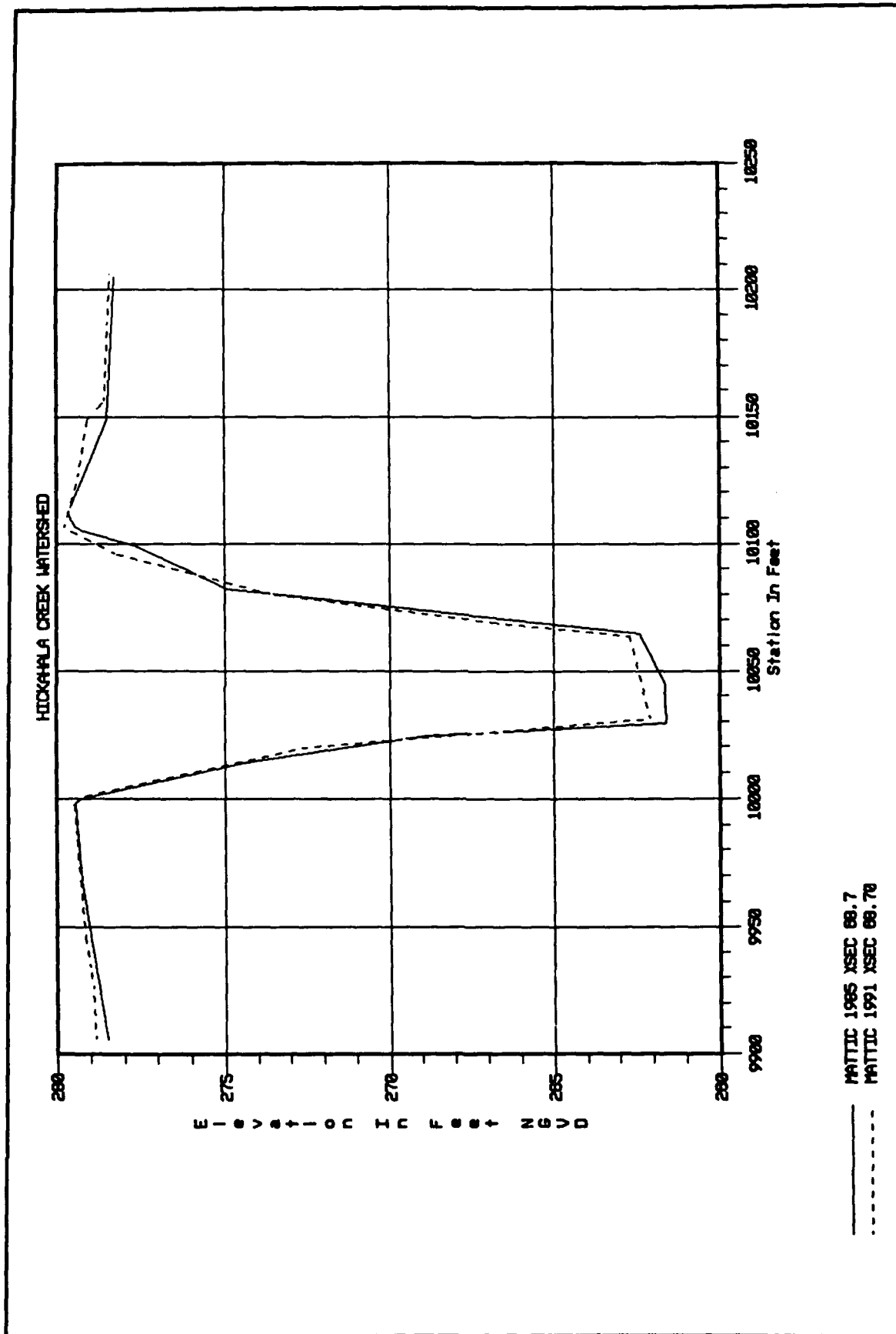
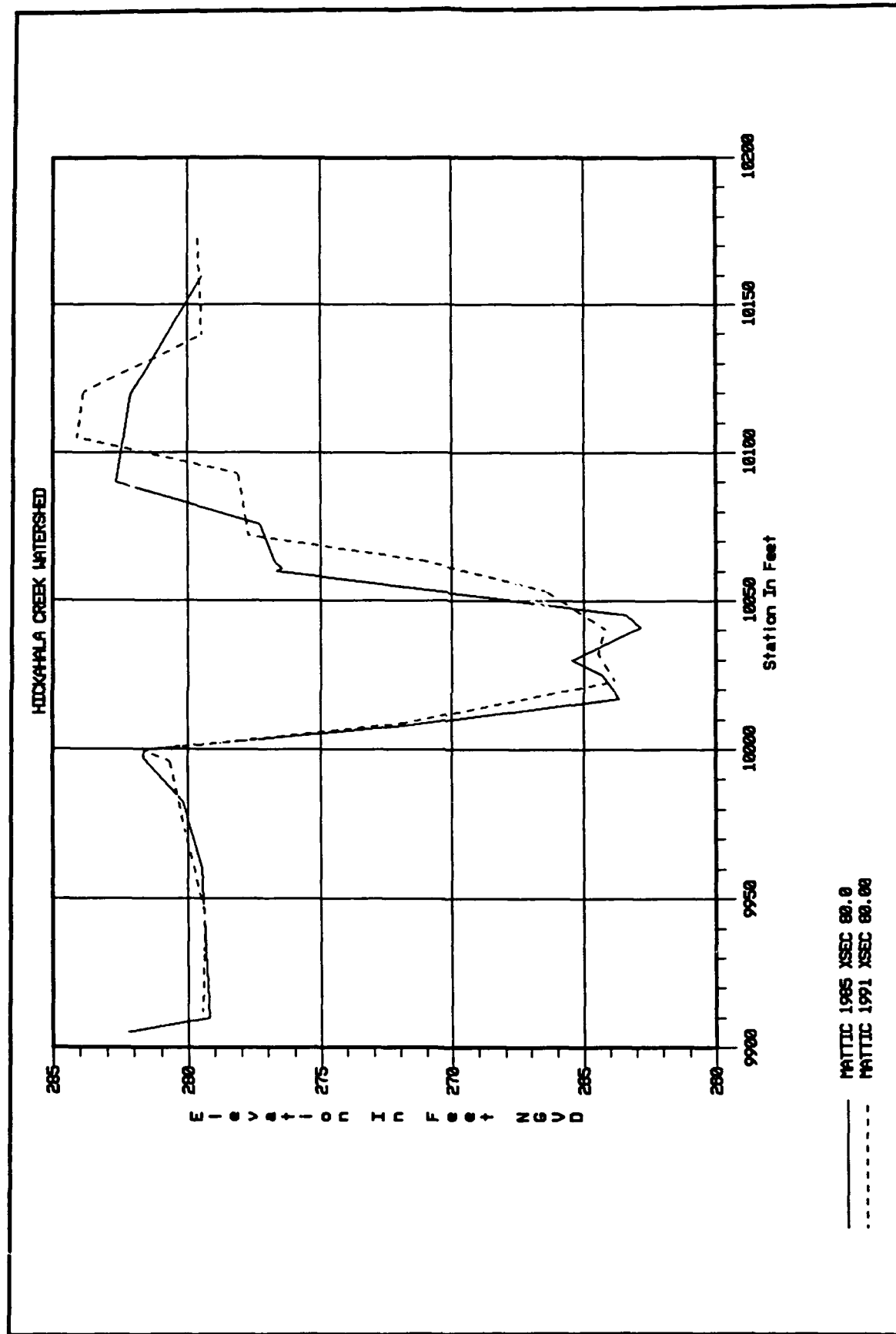


PLATE A128



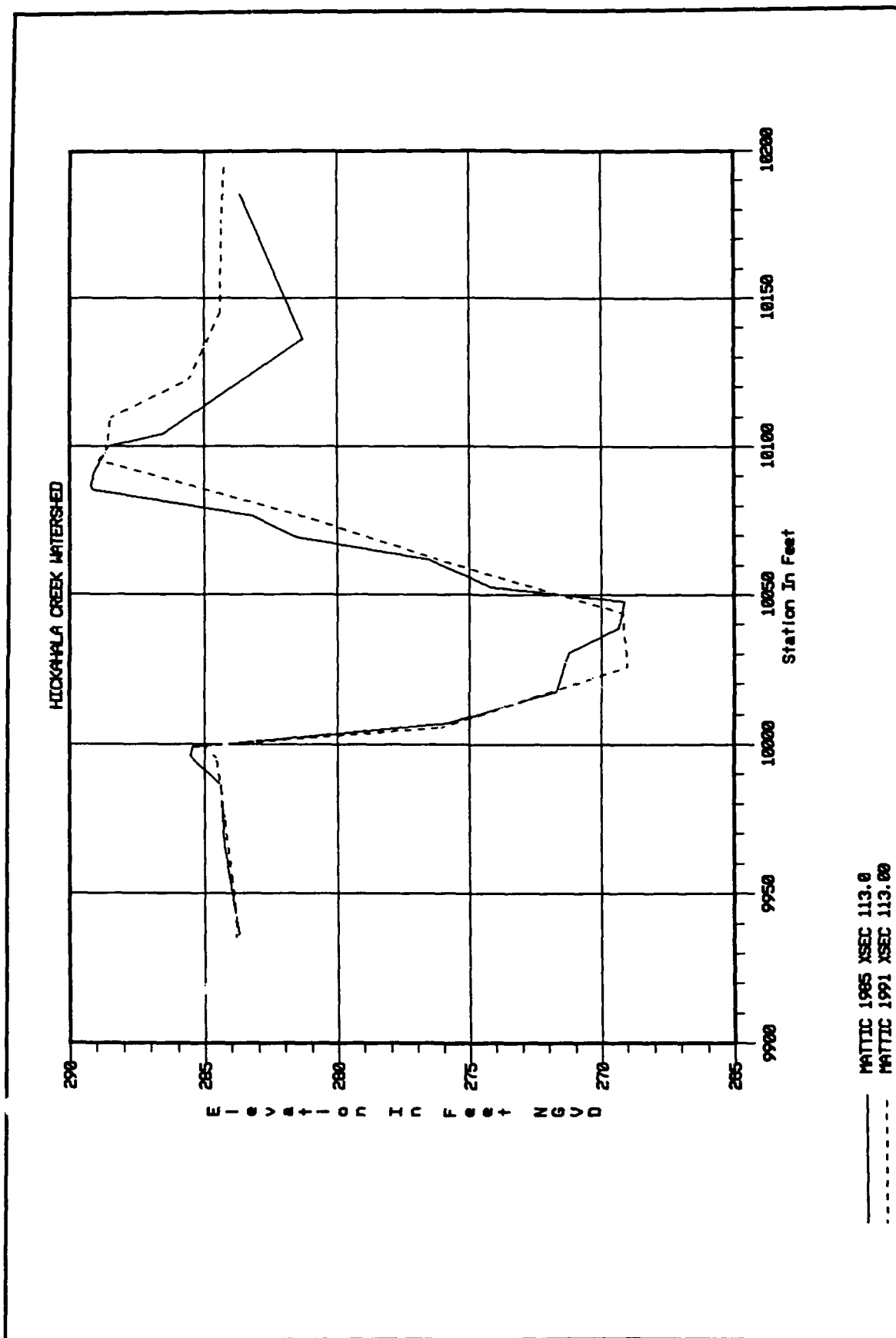
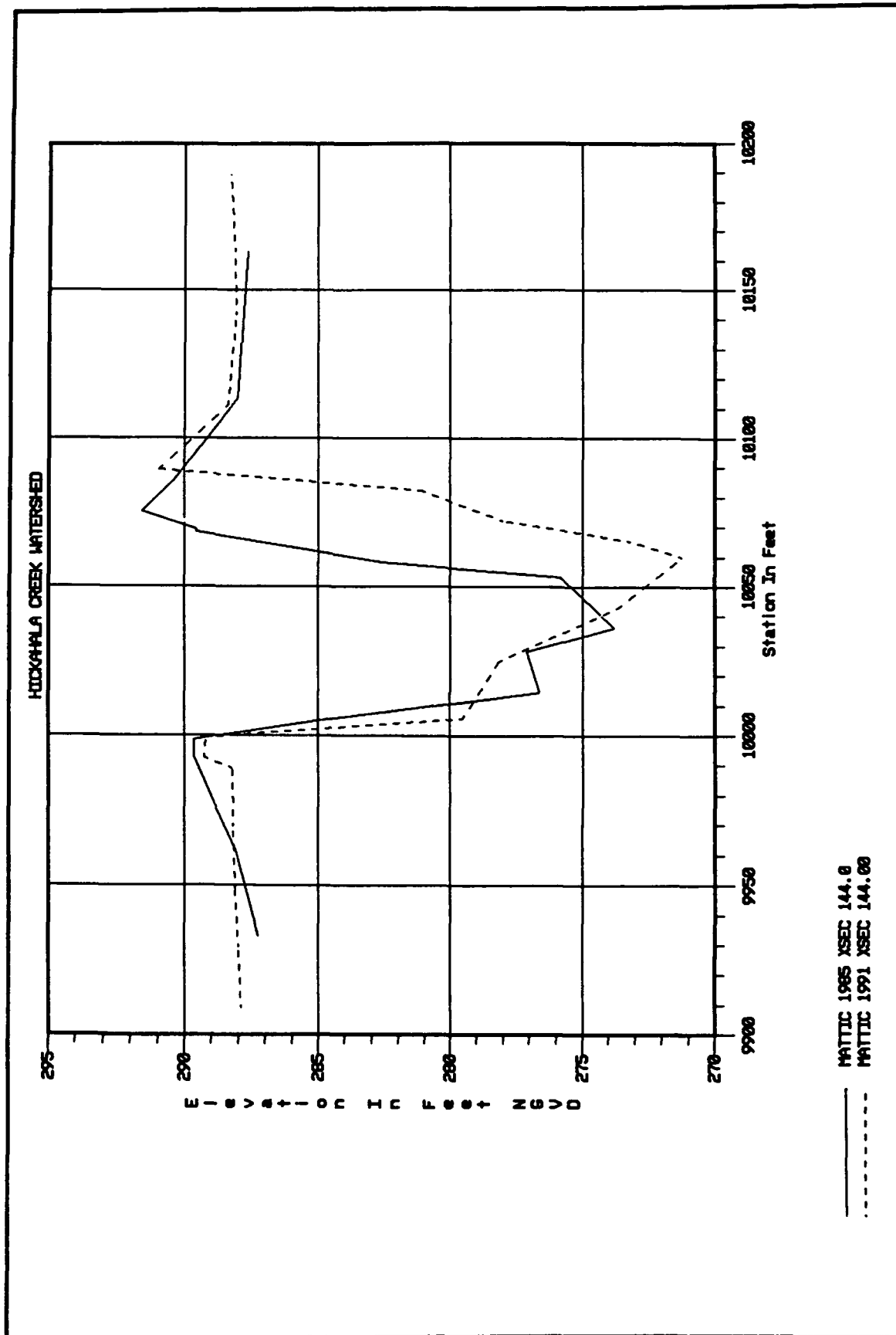


PLATE A130



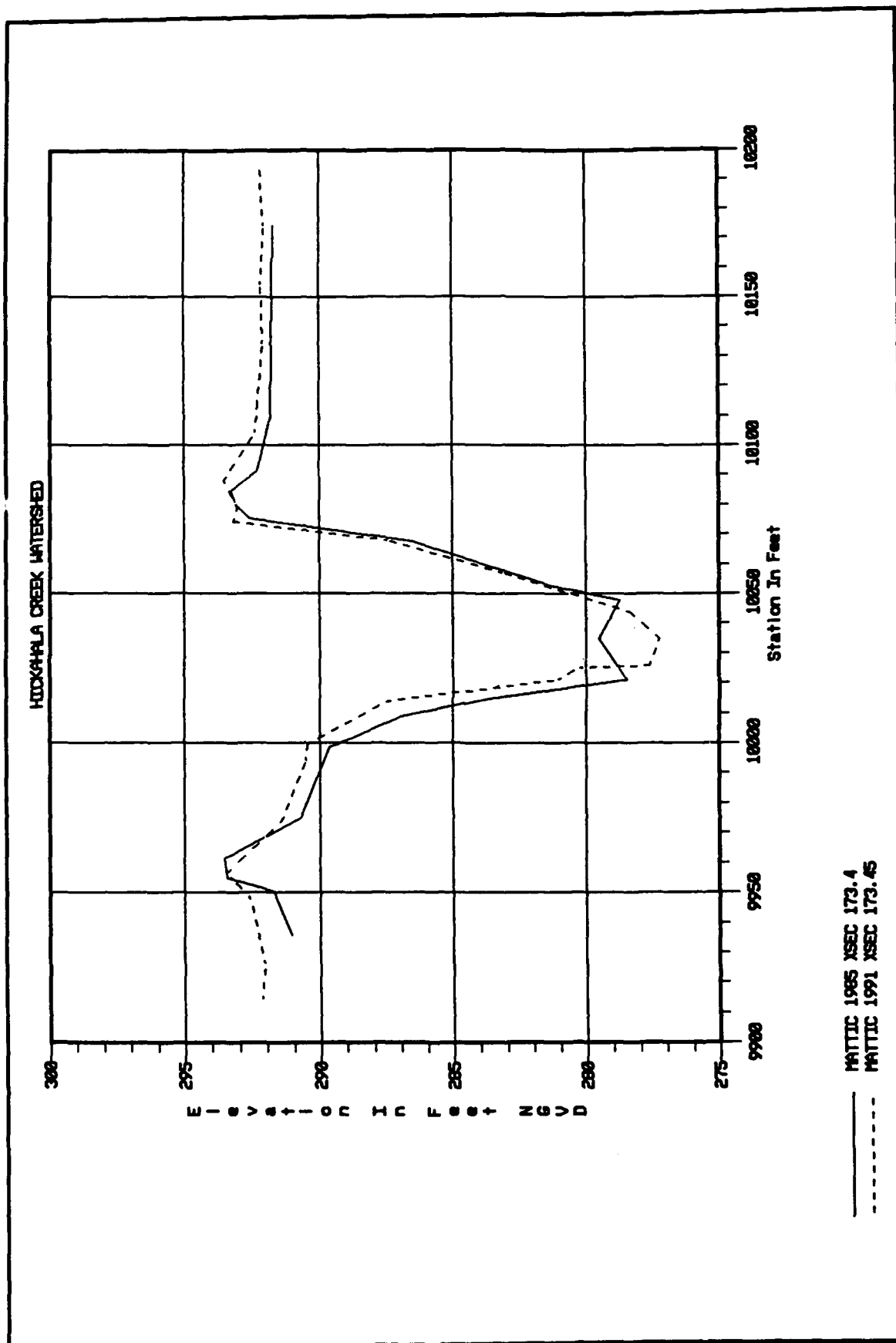
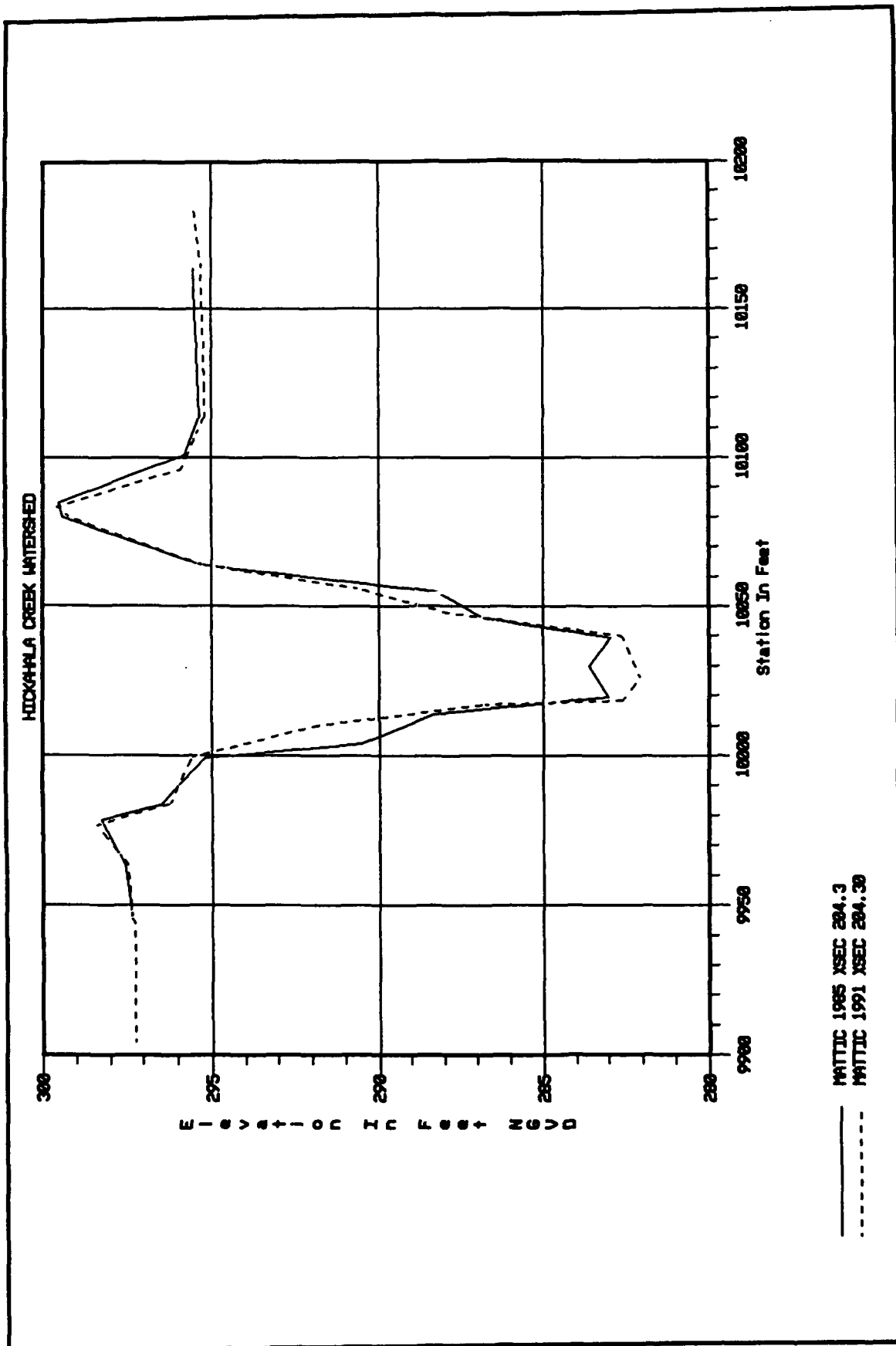


PLATE A132



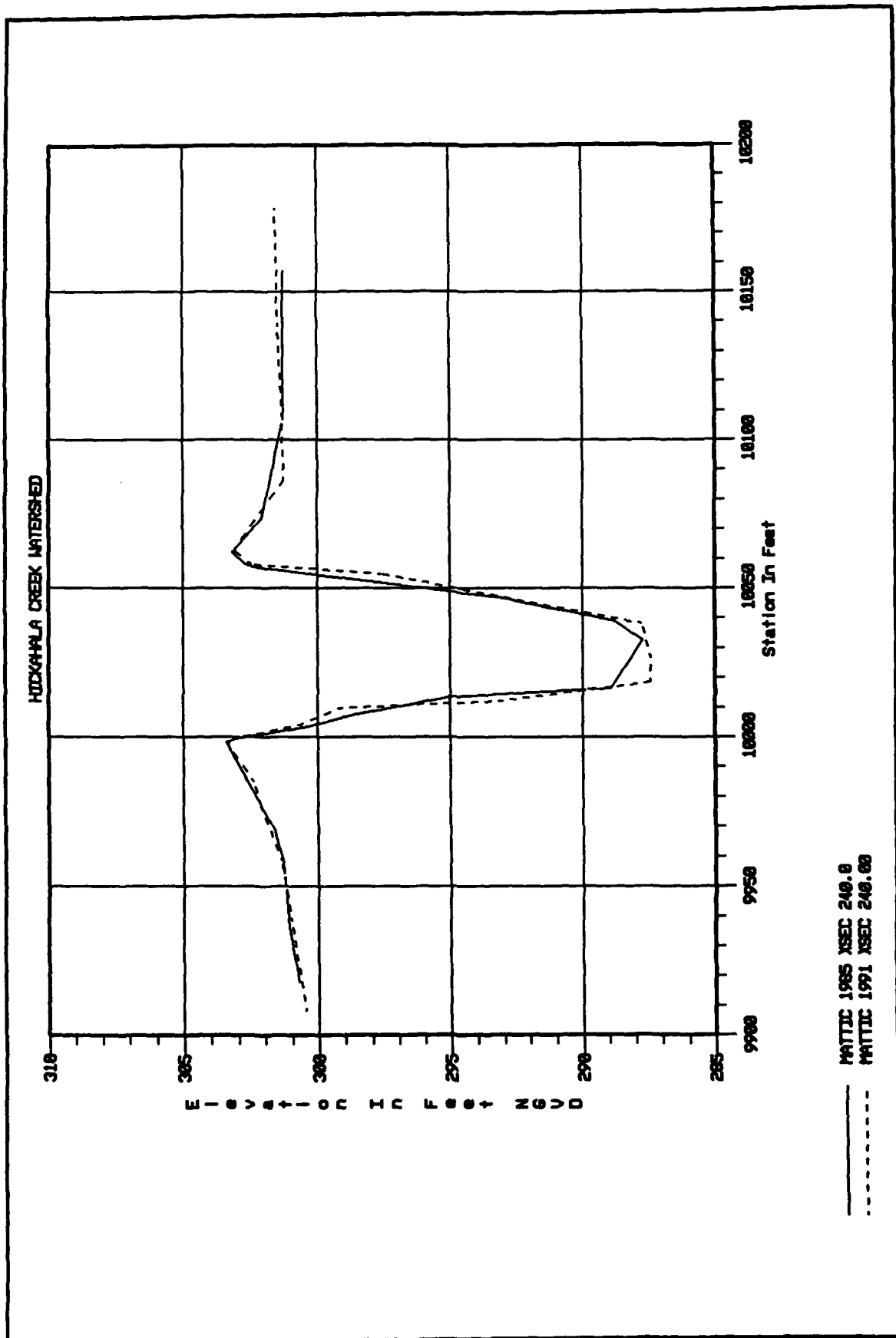
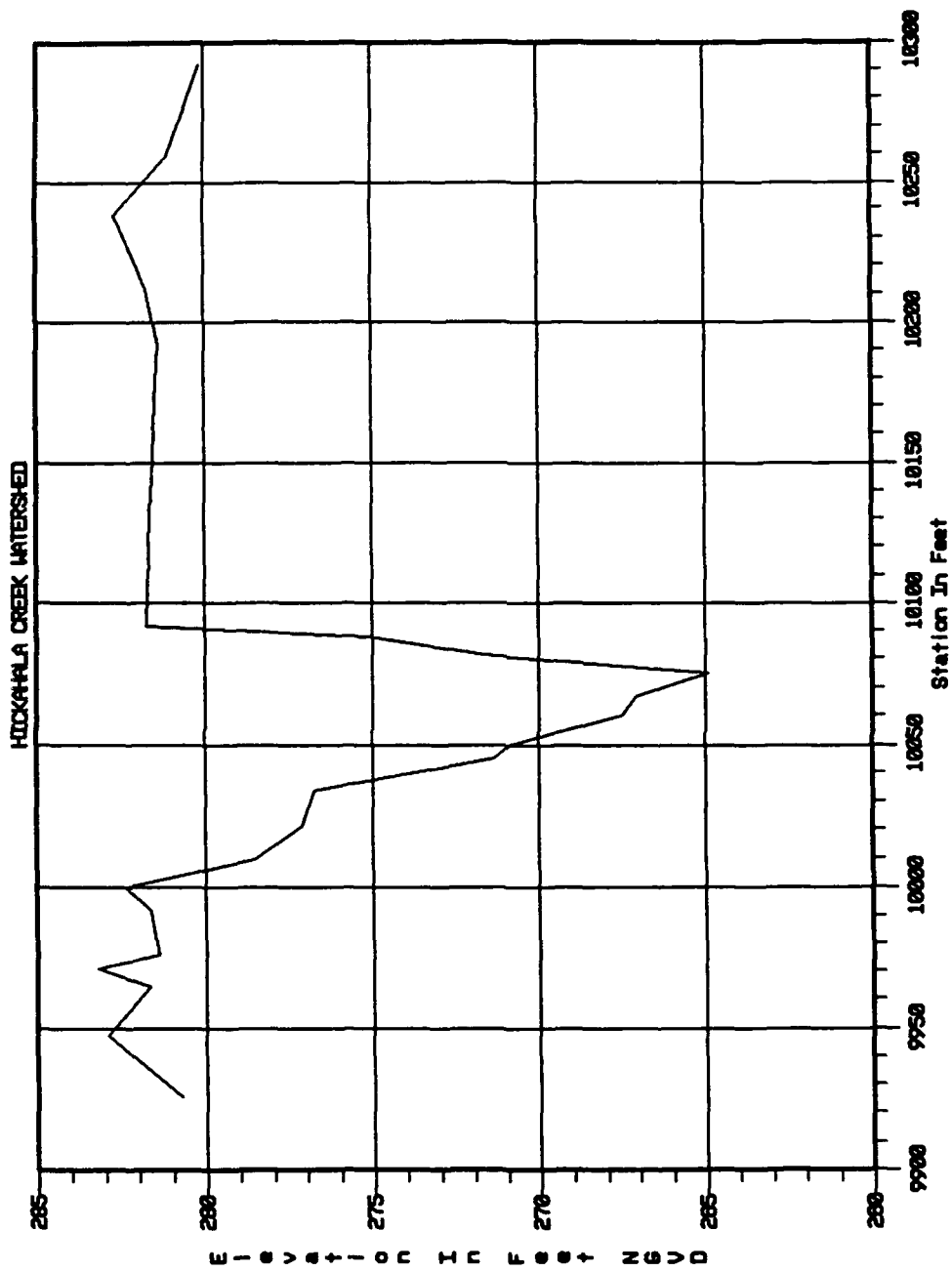


PLATE A134



—— TOLBERT-JONES 1991 XSEC 0.80

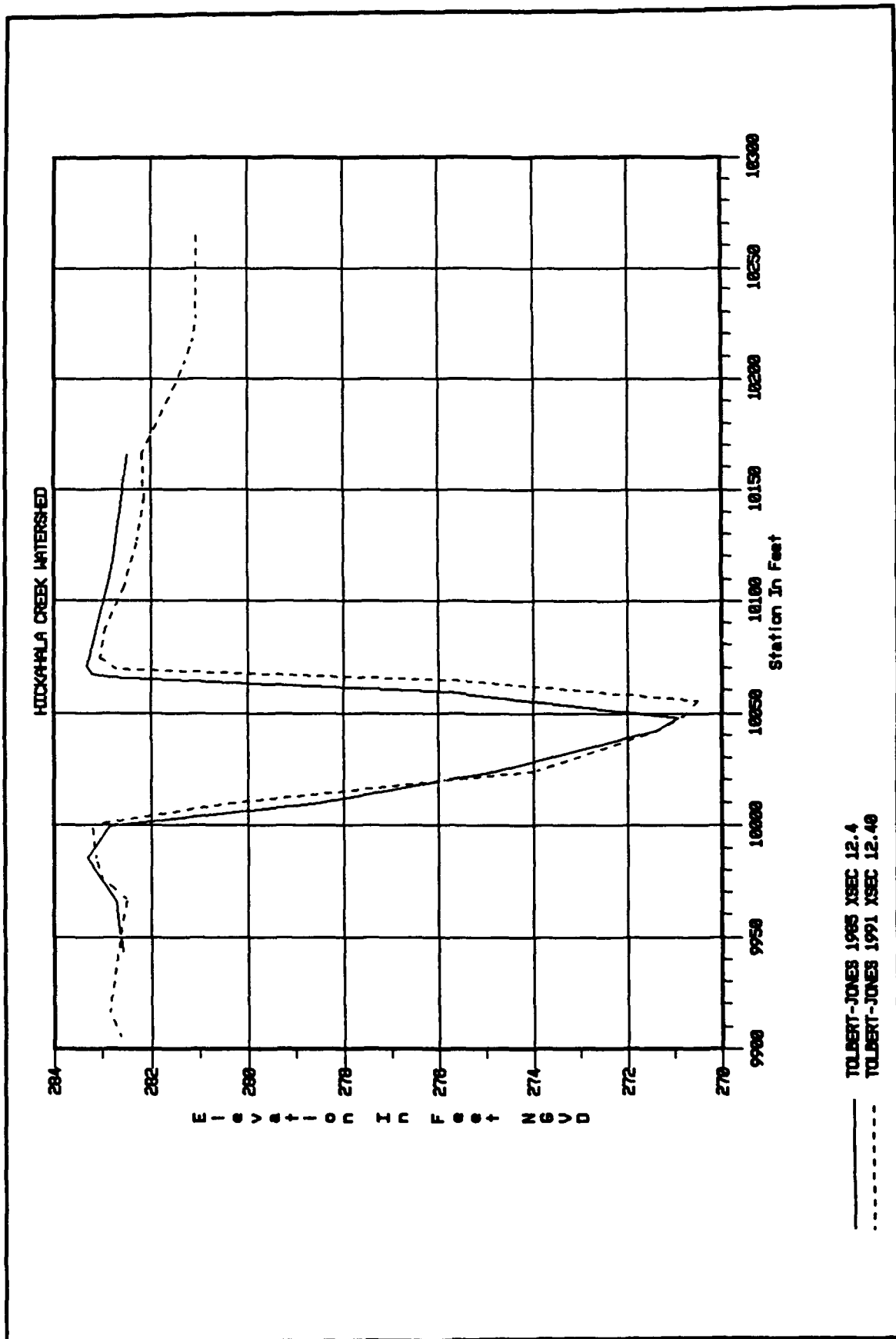
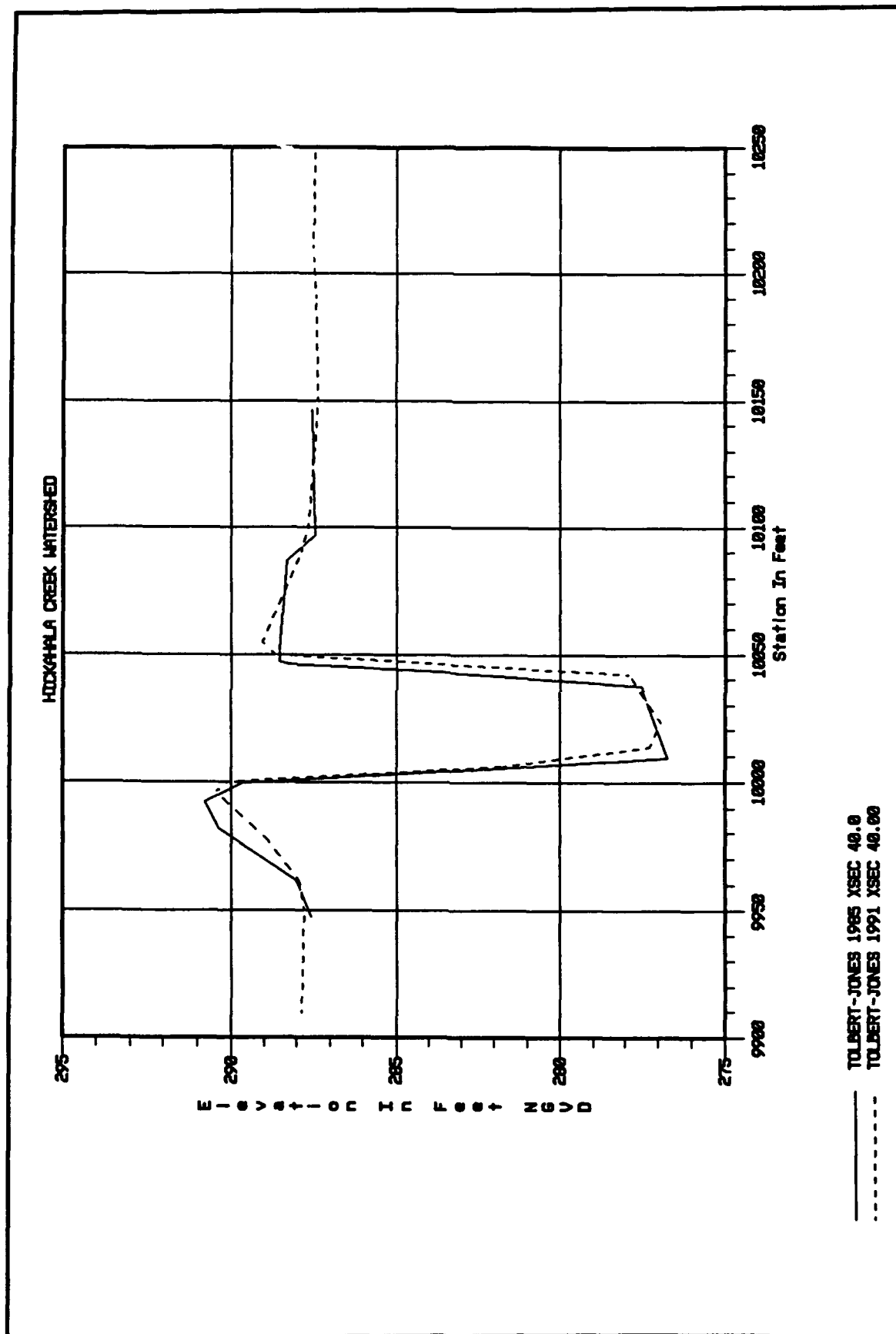


PLATE A136



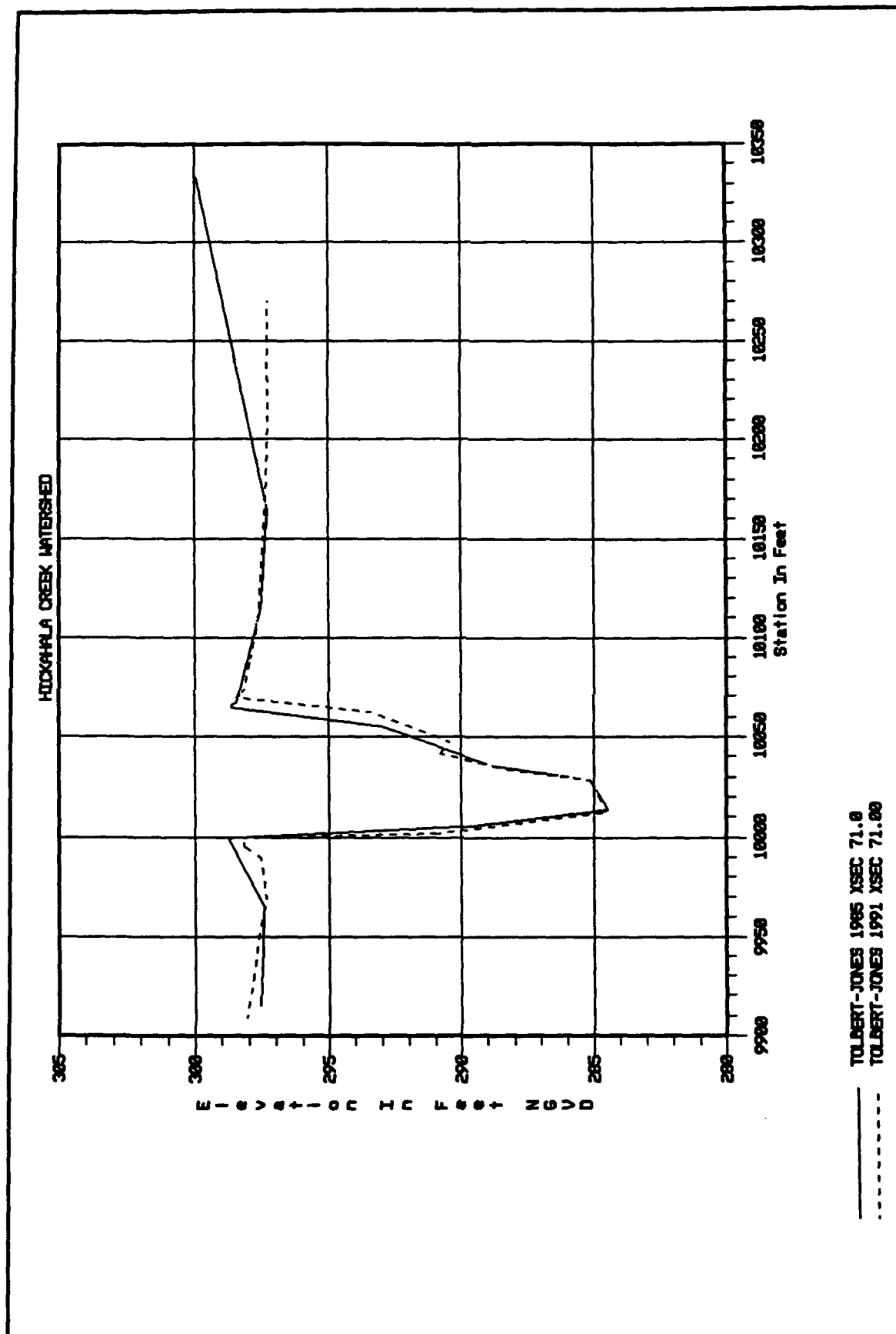
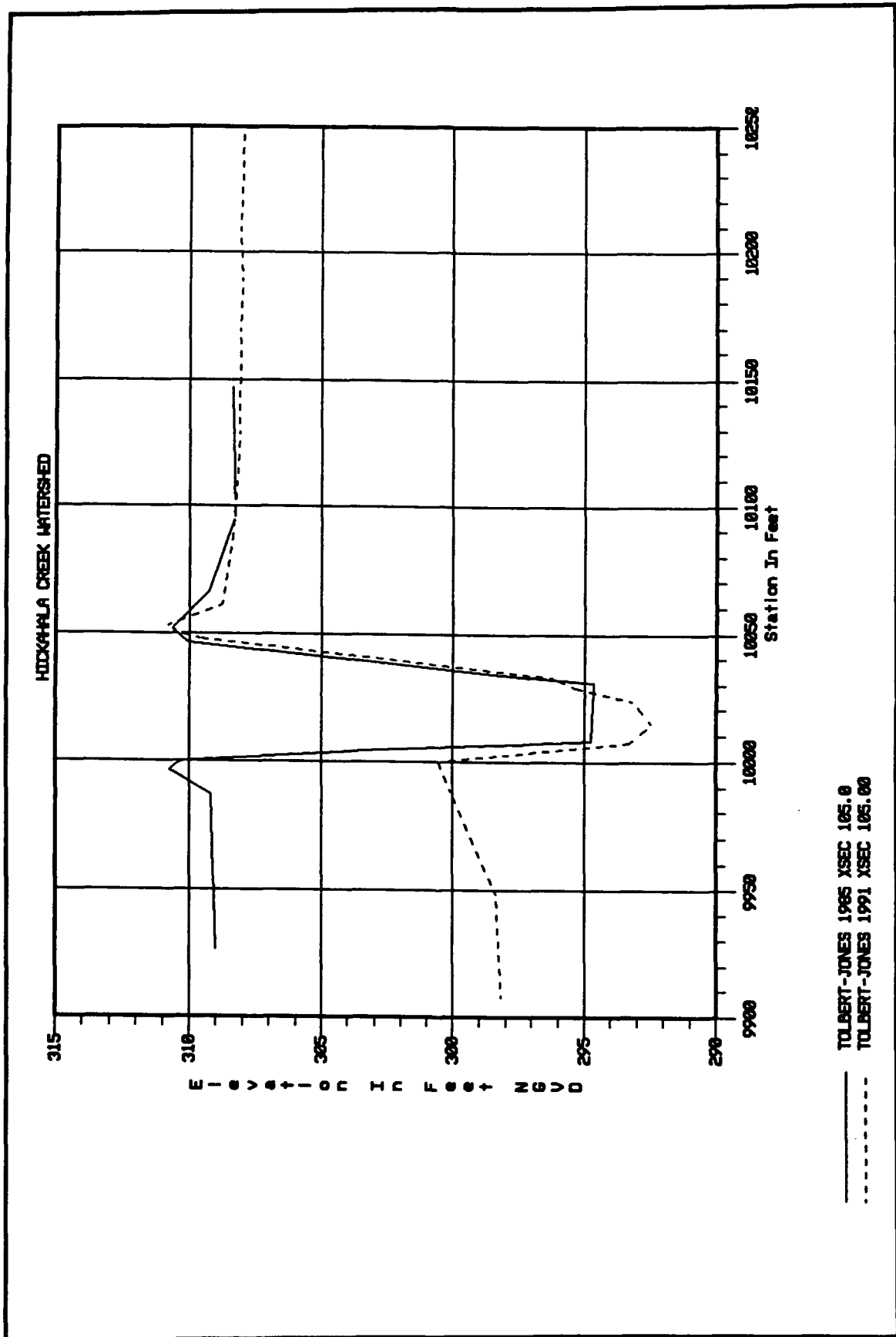


PLATE A138



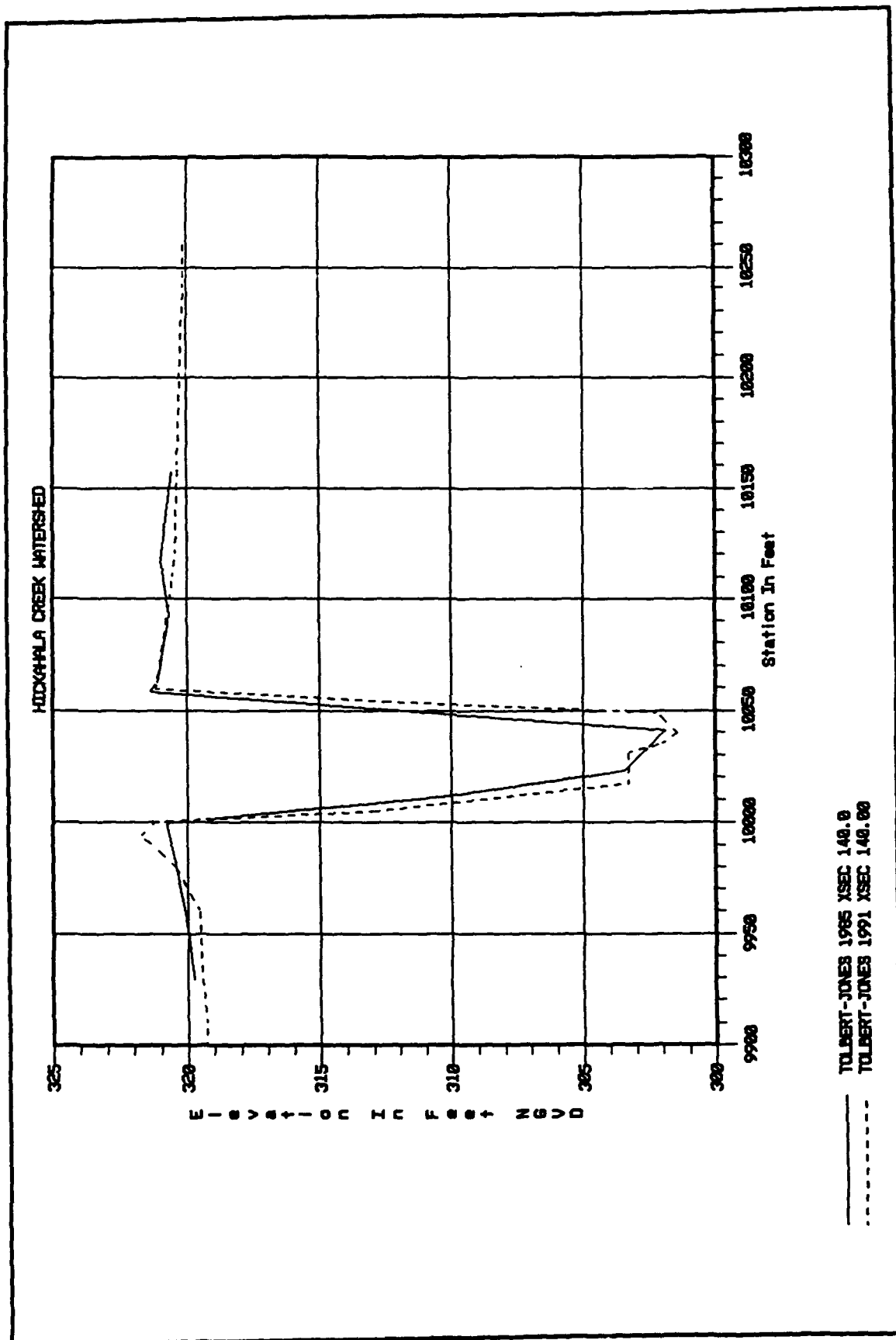
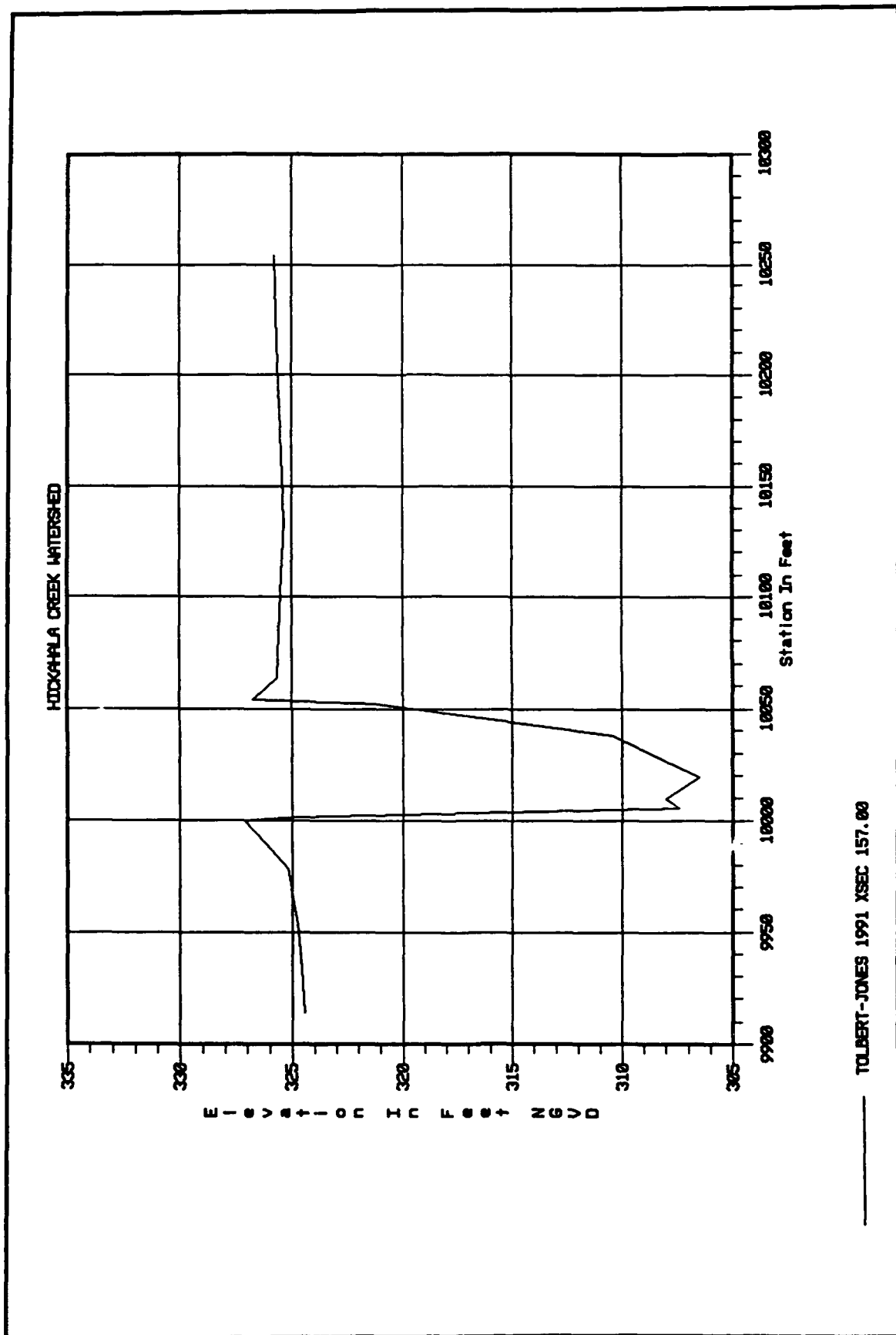


PLATE A140



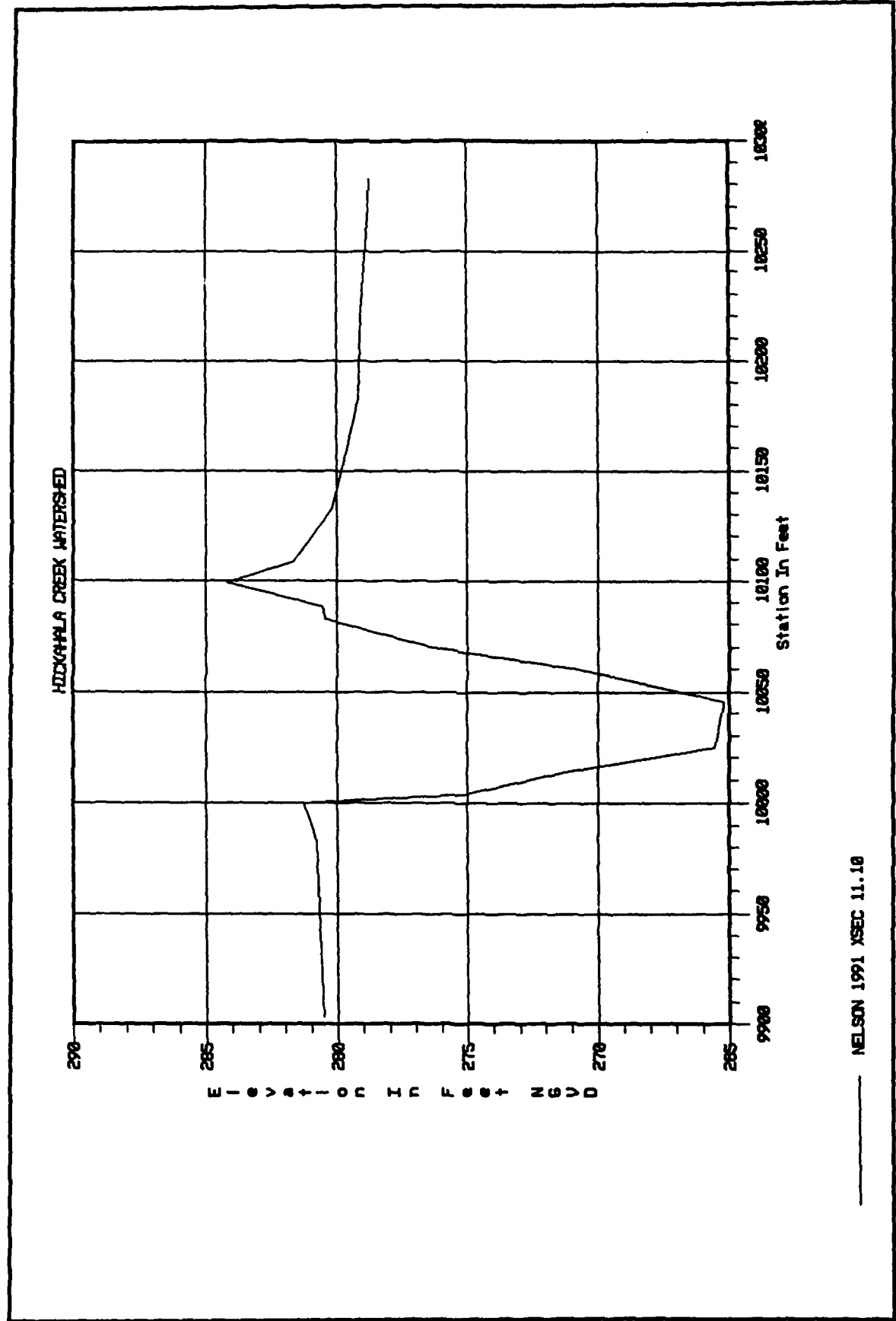
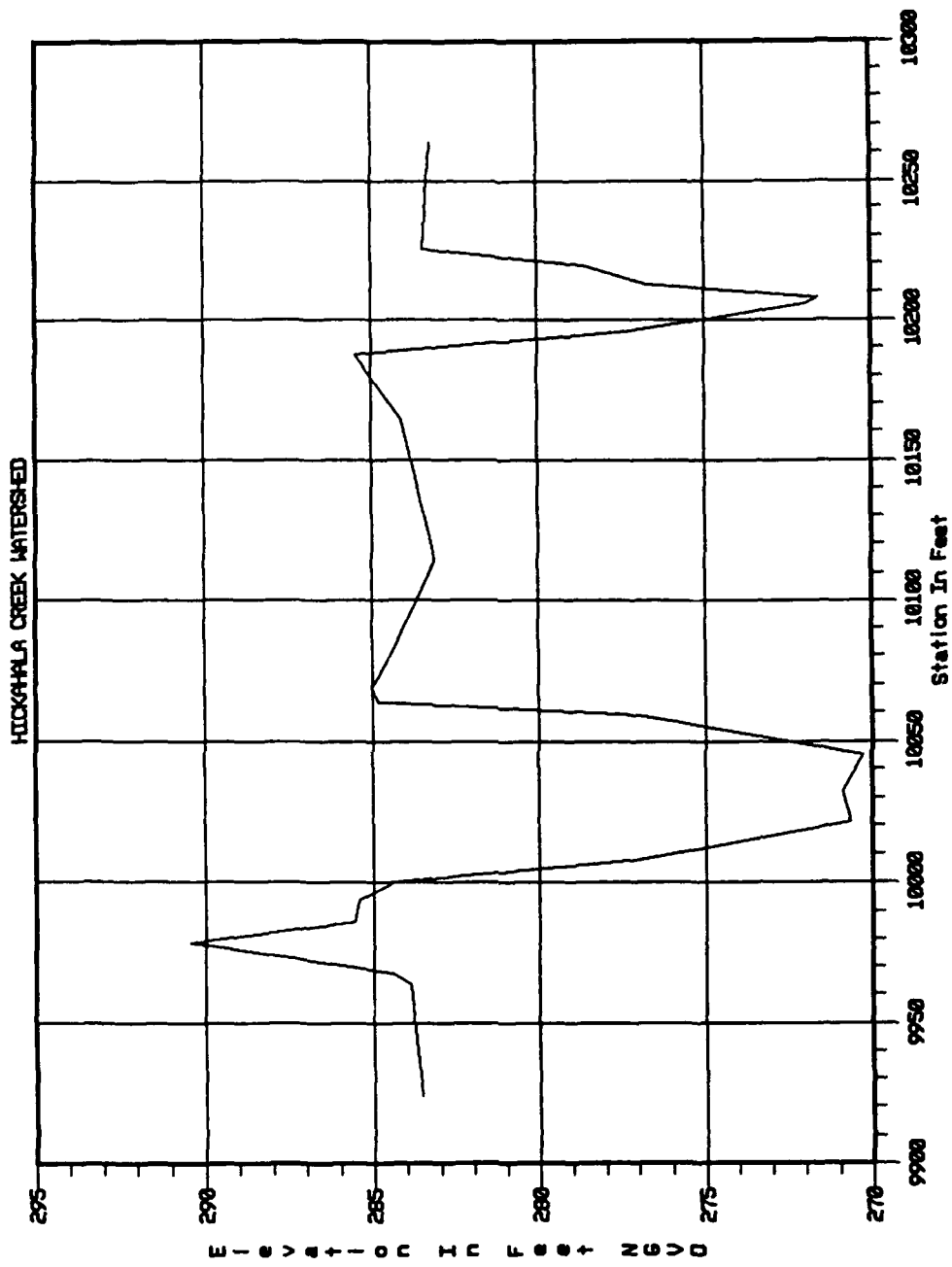


PLATE A142



NELSON 1991 XSEC 40.53

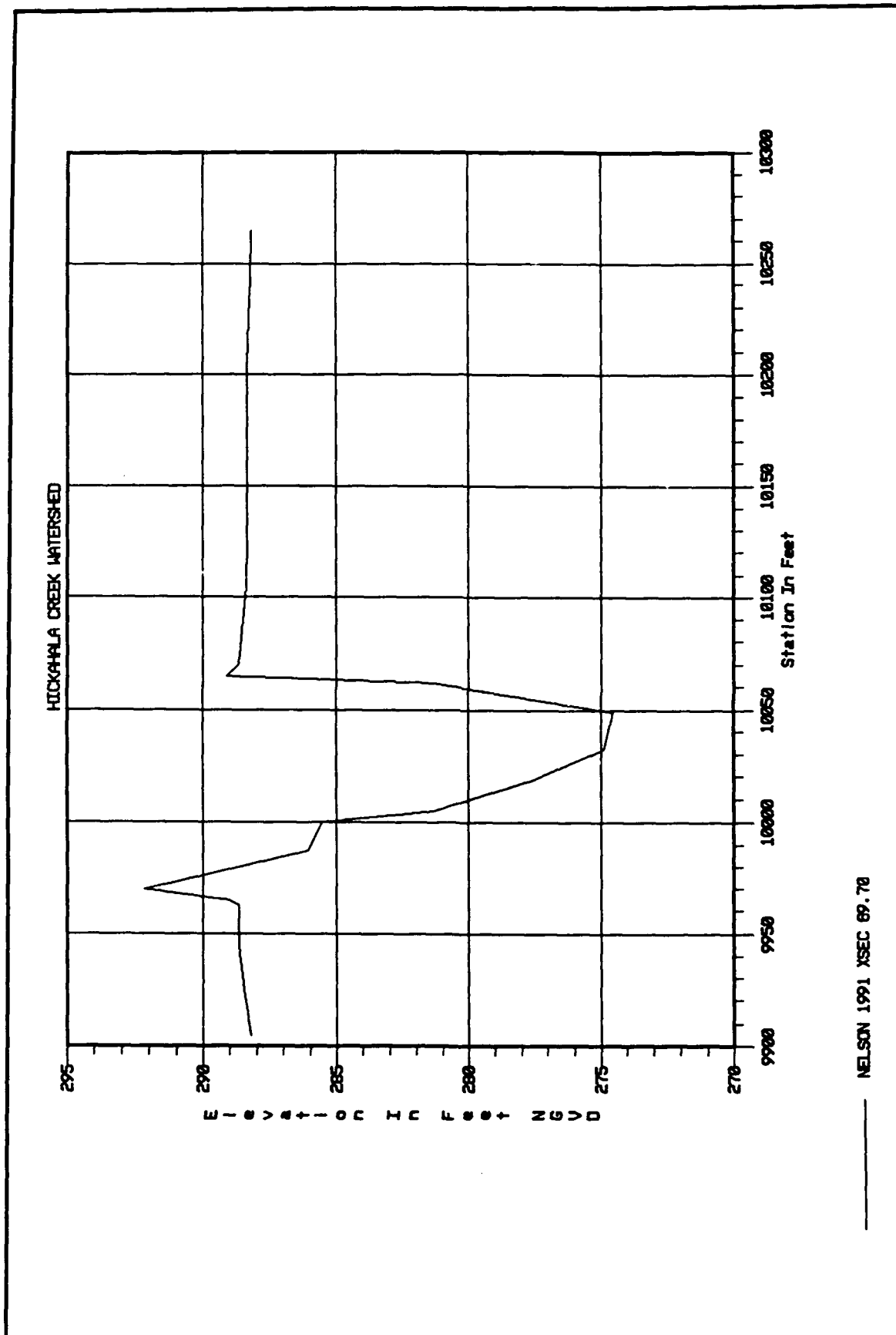
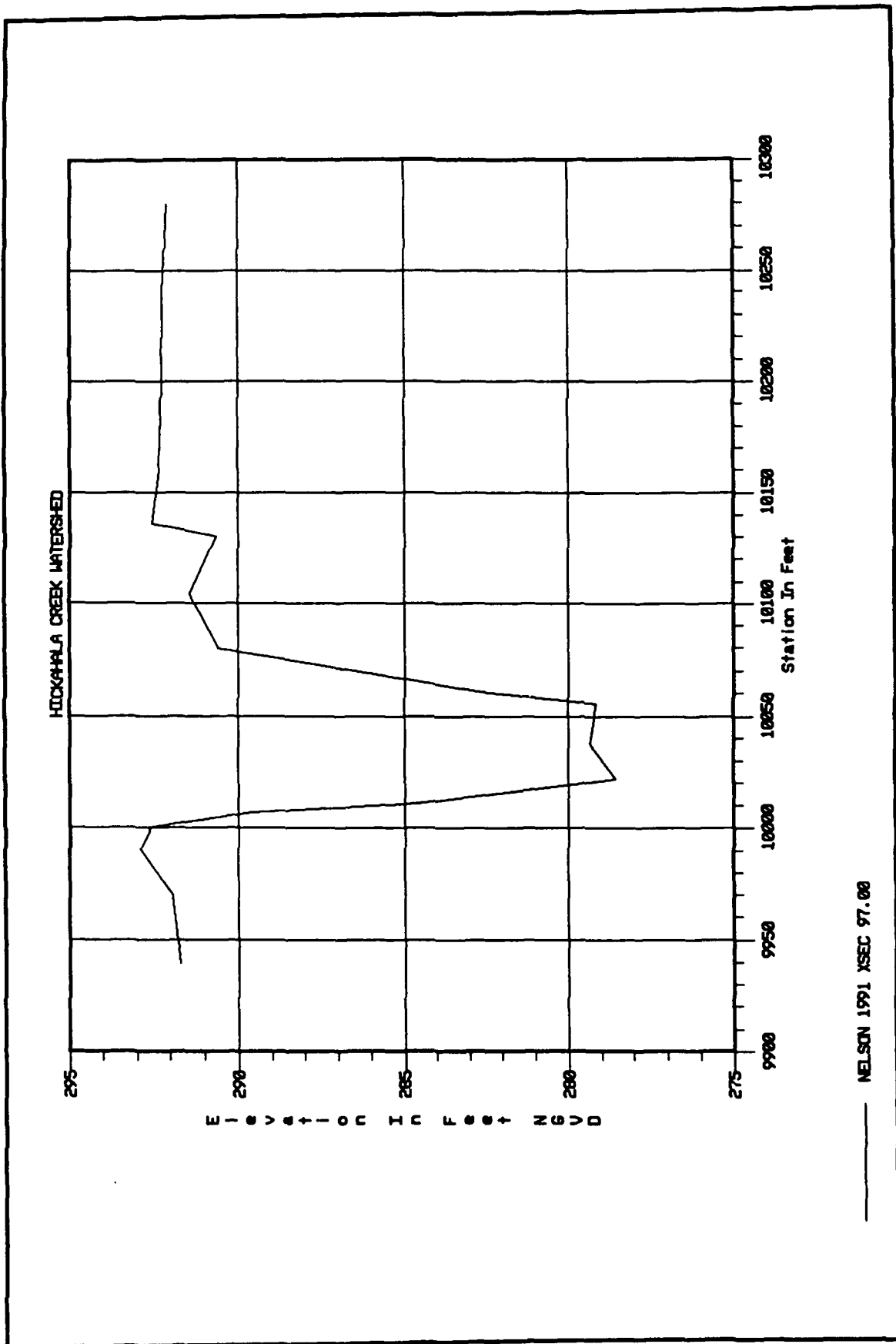
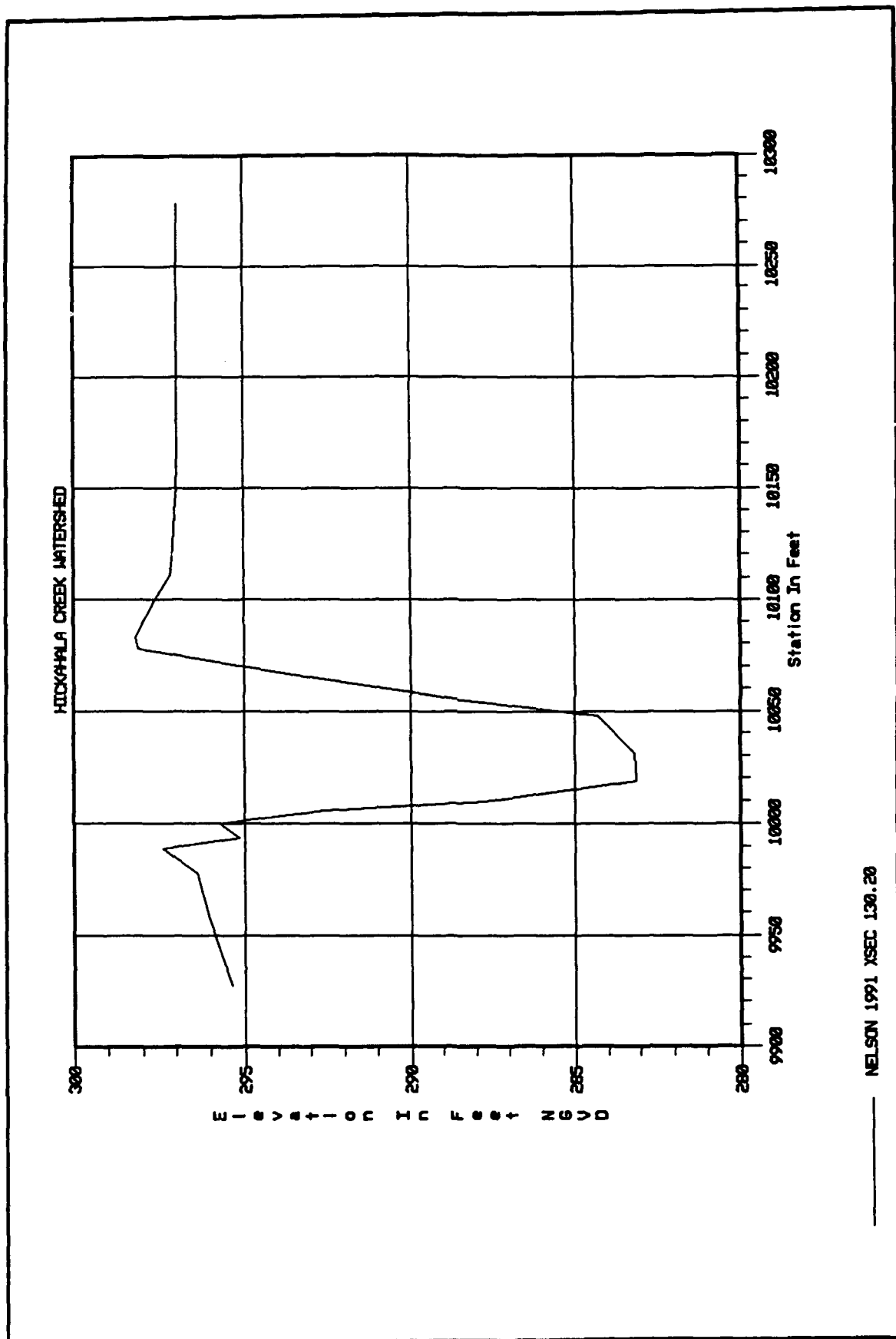
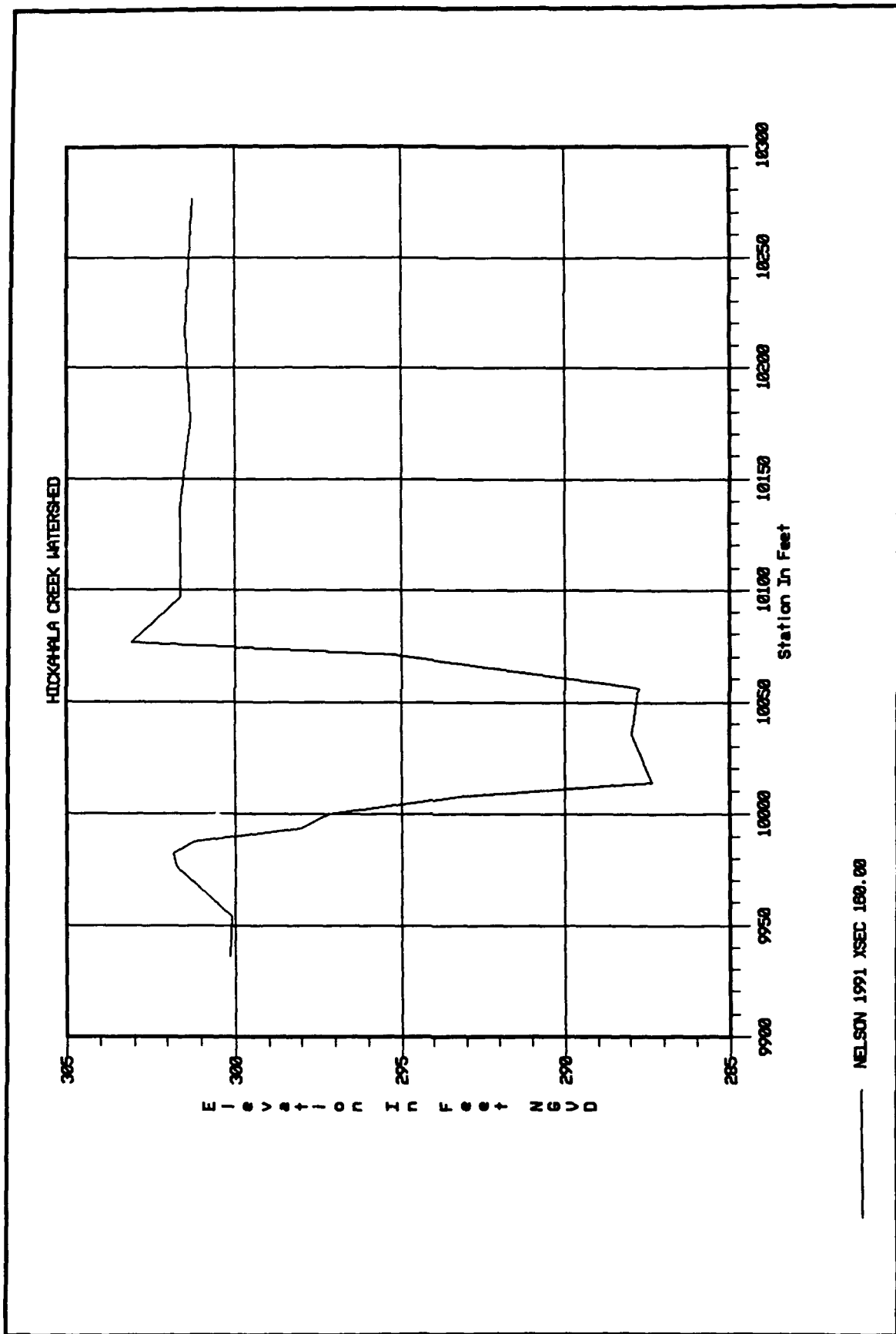


PLATE A144







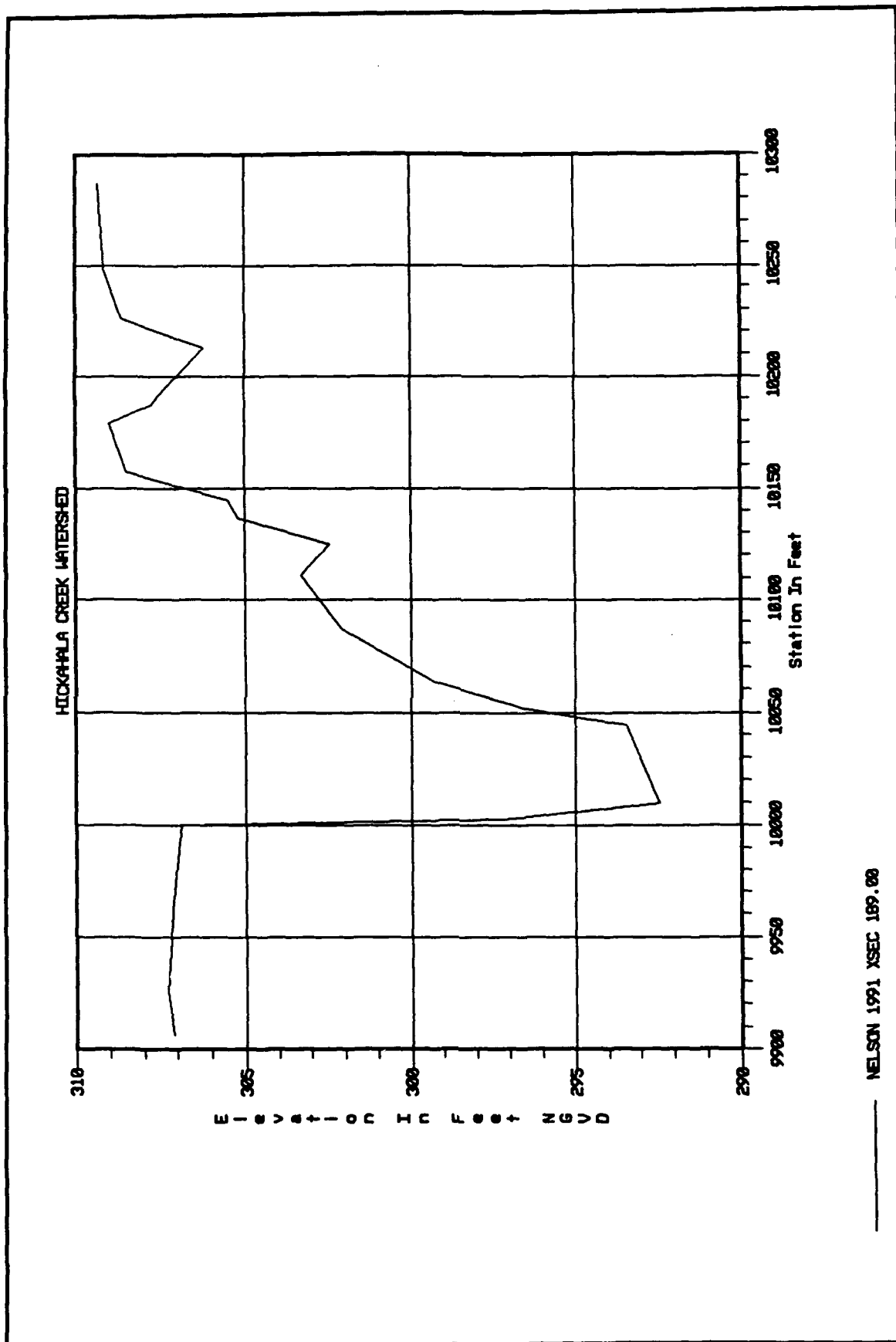
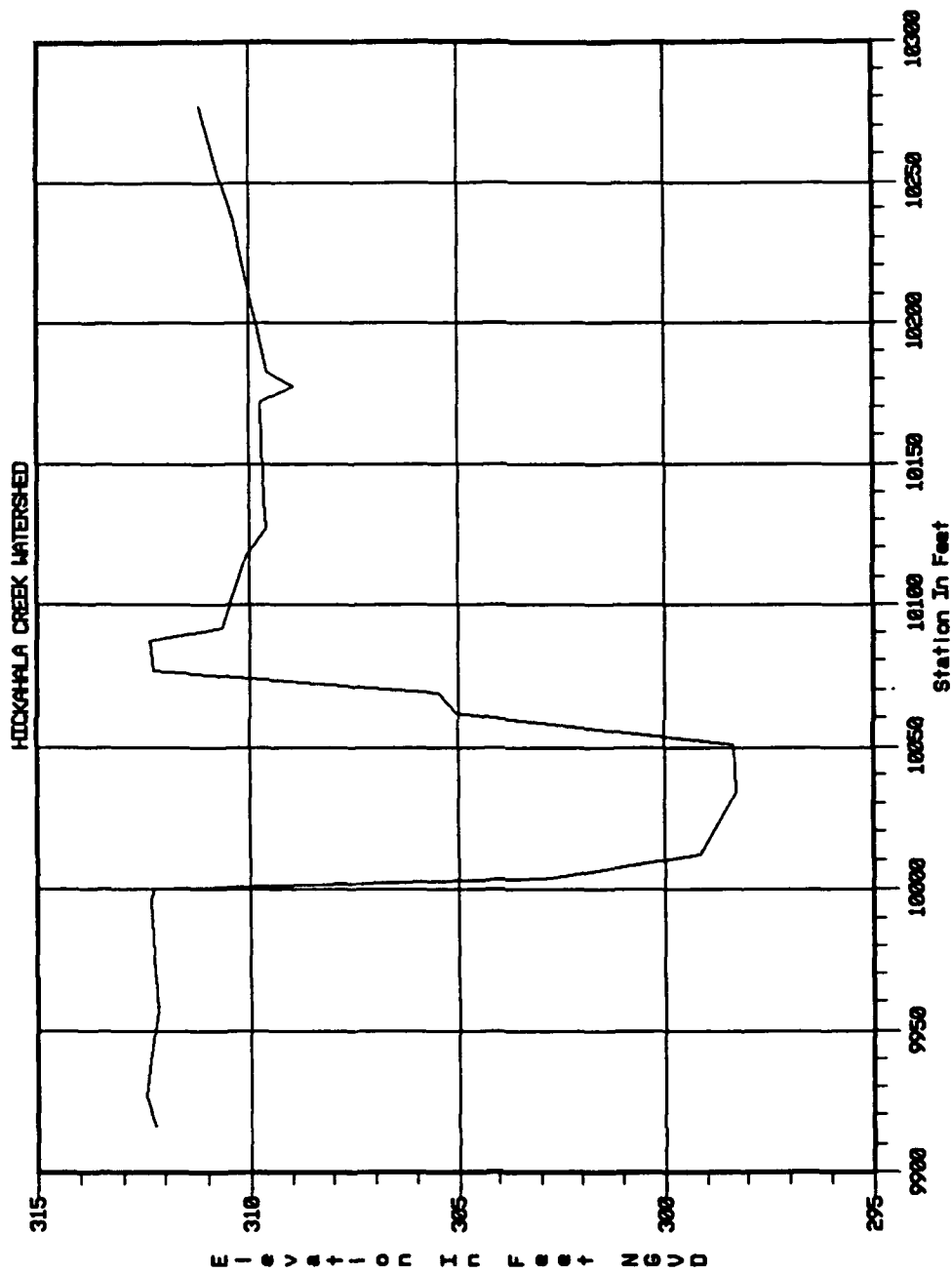
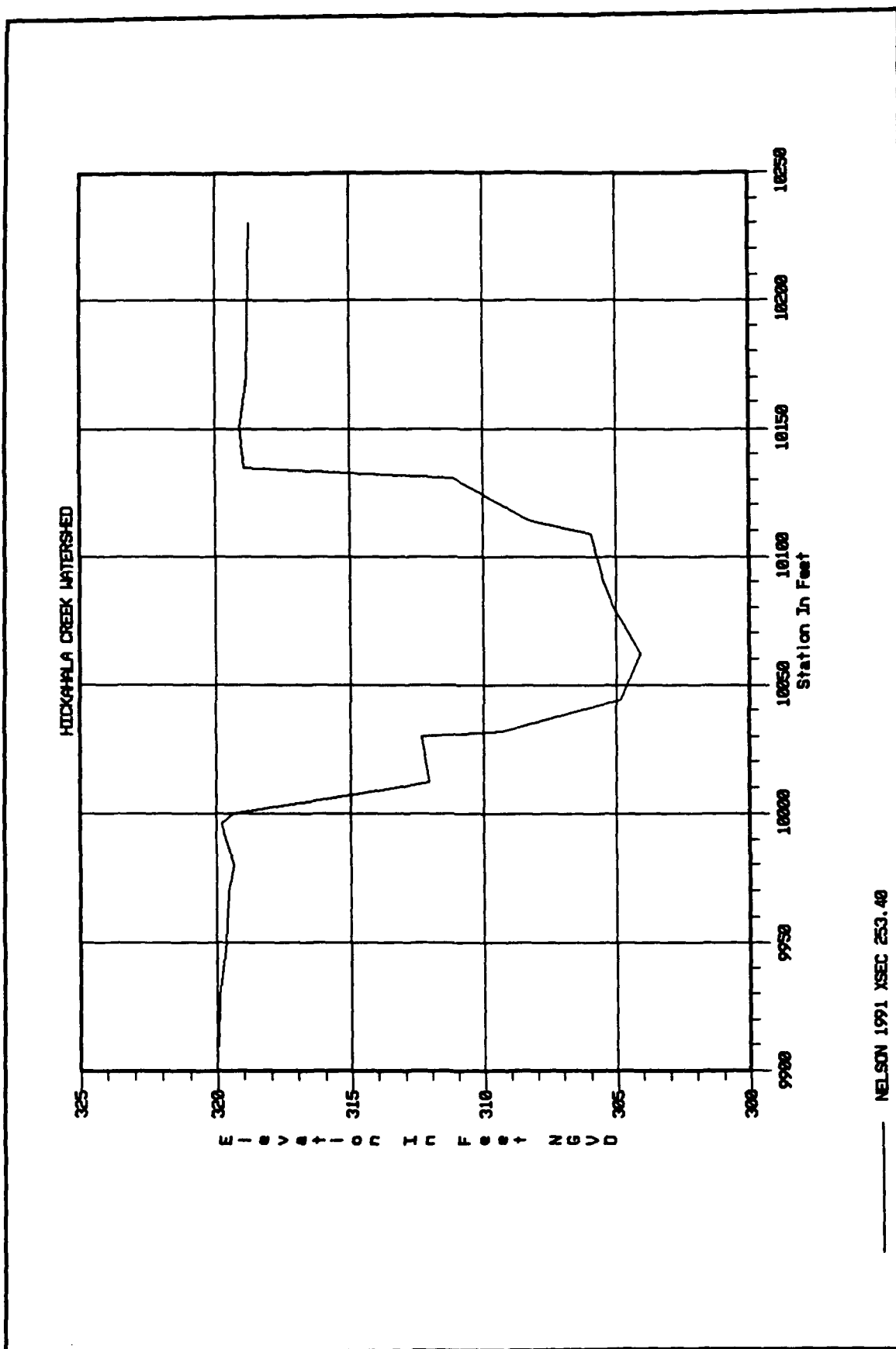


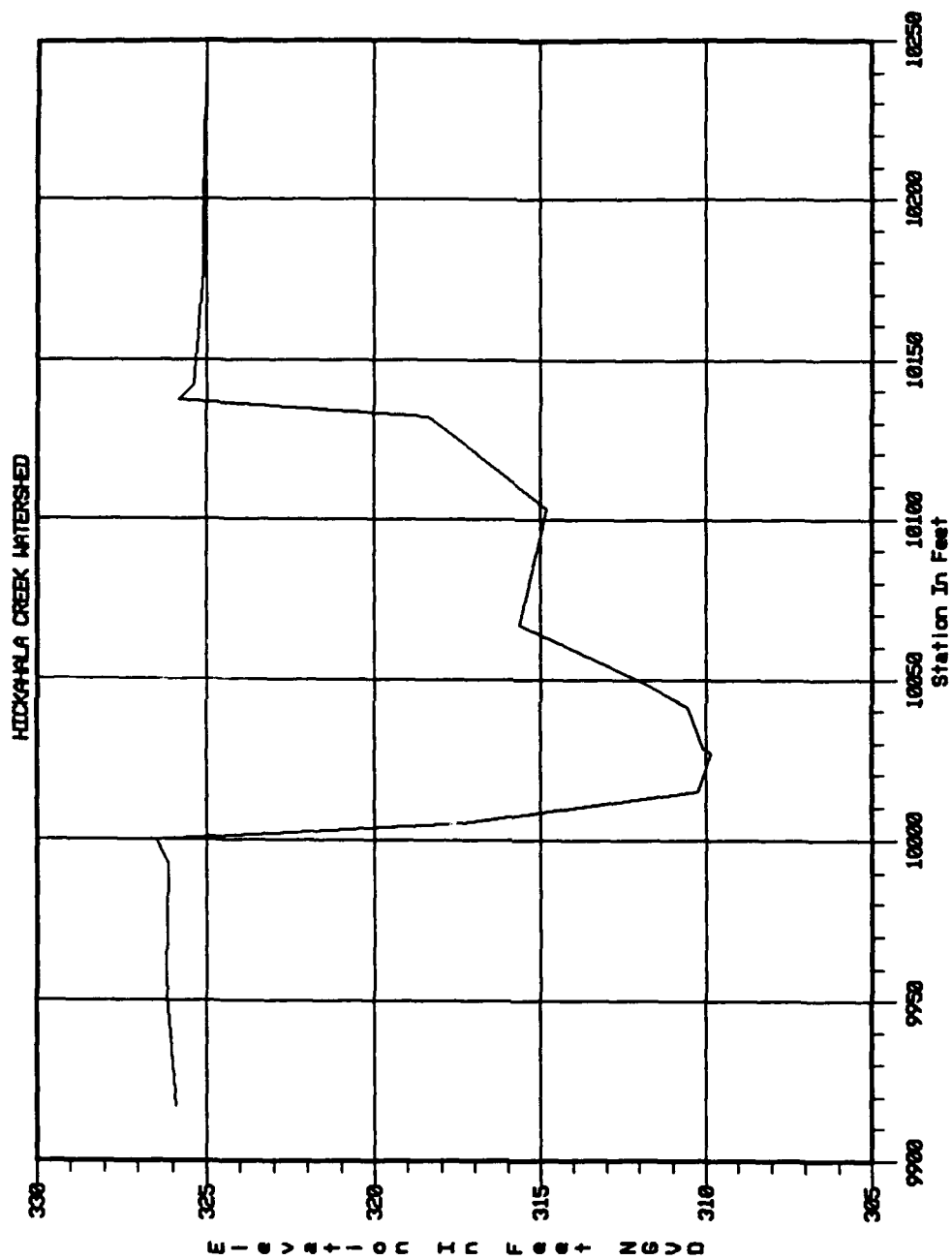
PLATE A148



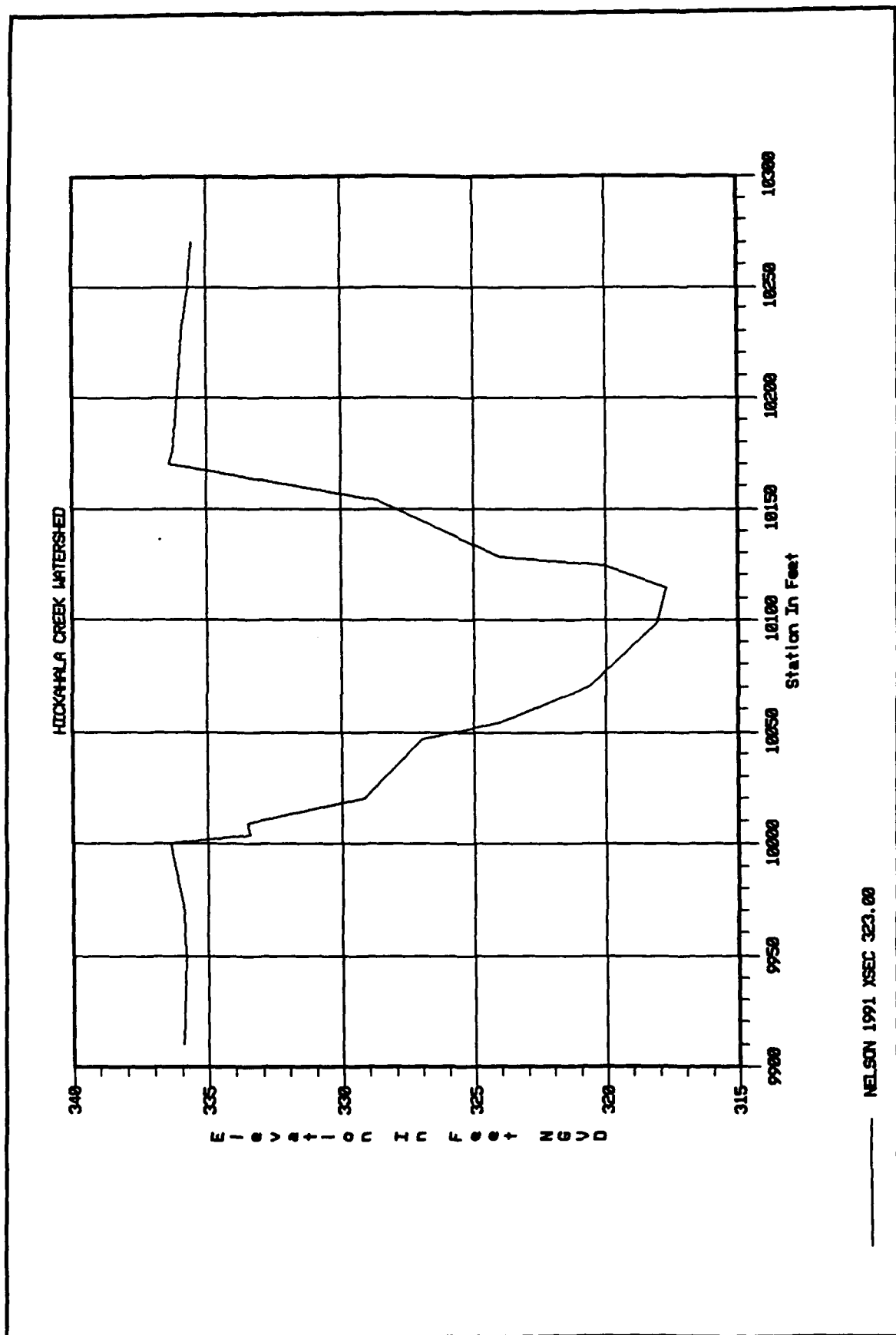
NELSON 1991 XSEC 221.20

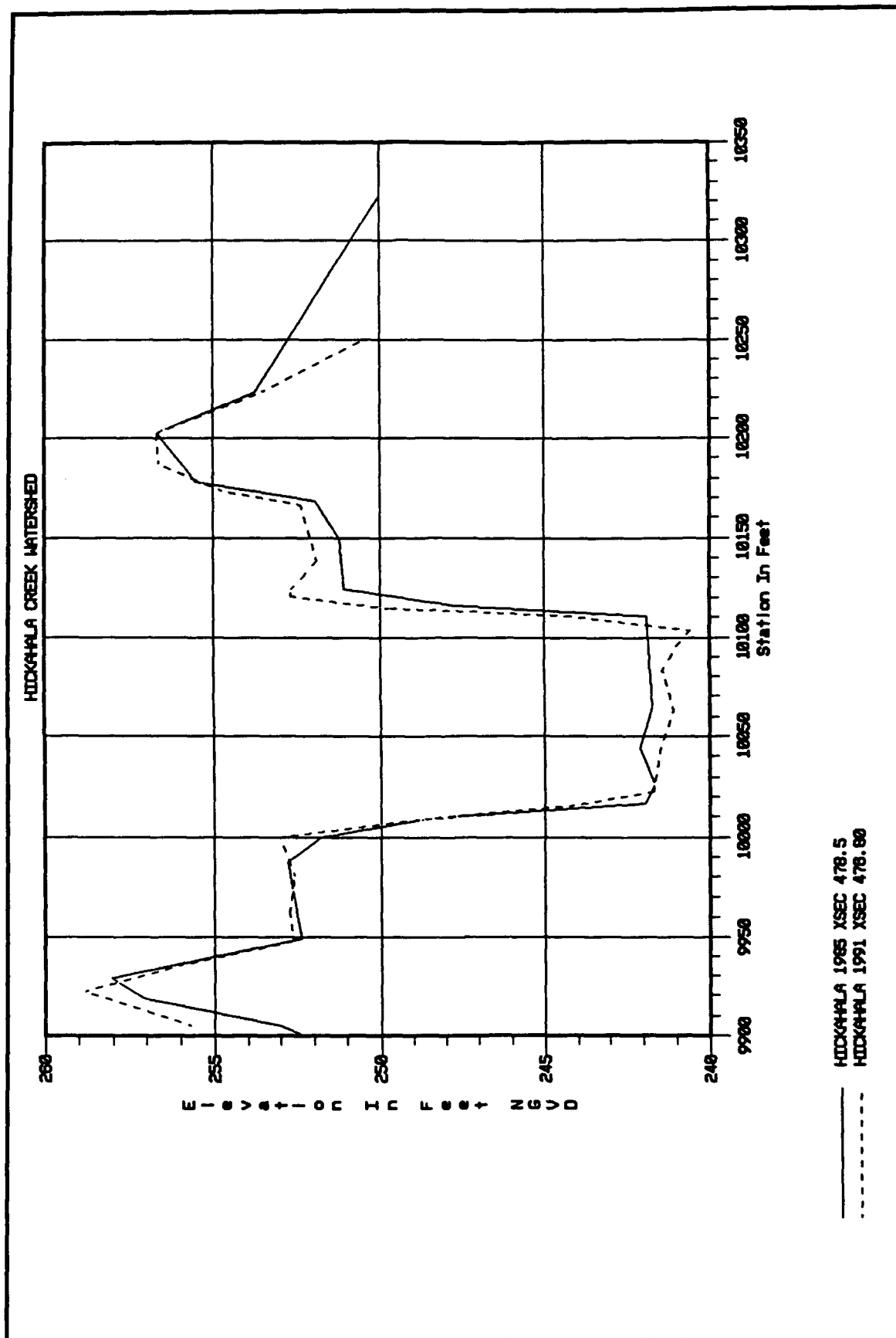
PLATE A150





— NELSON 1991 XSEC 282.00





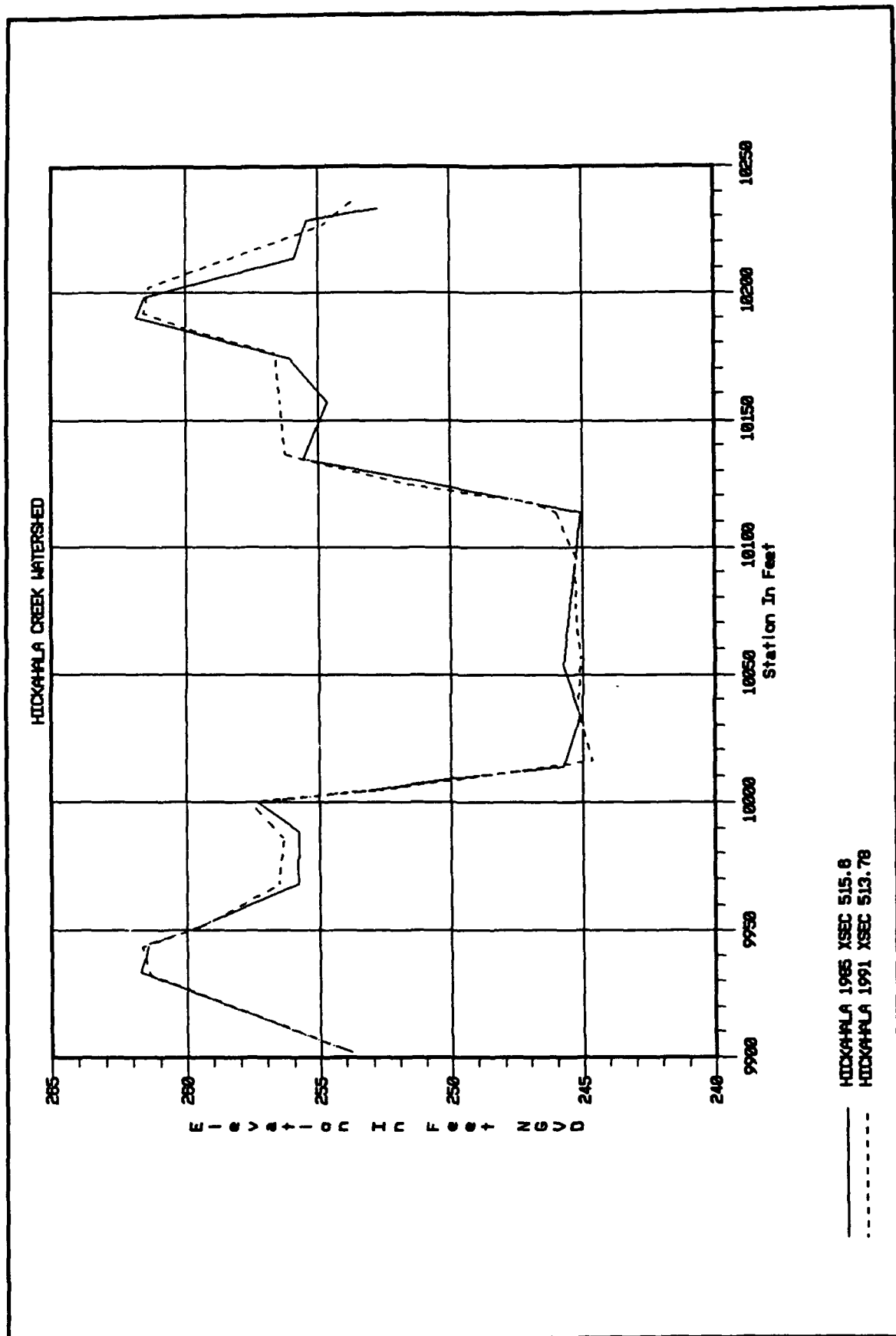
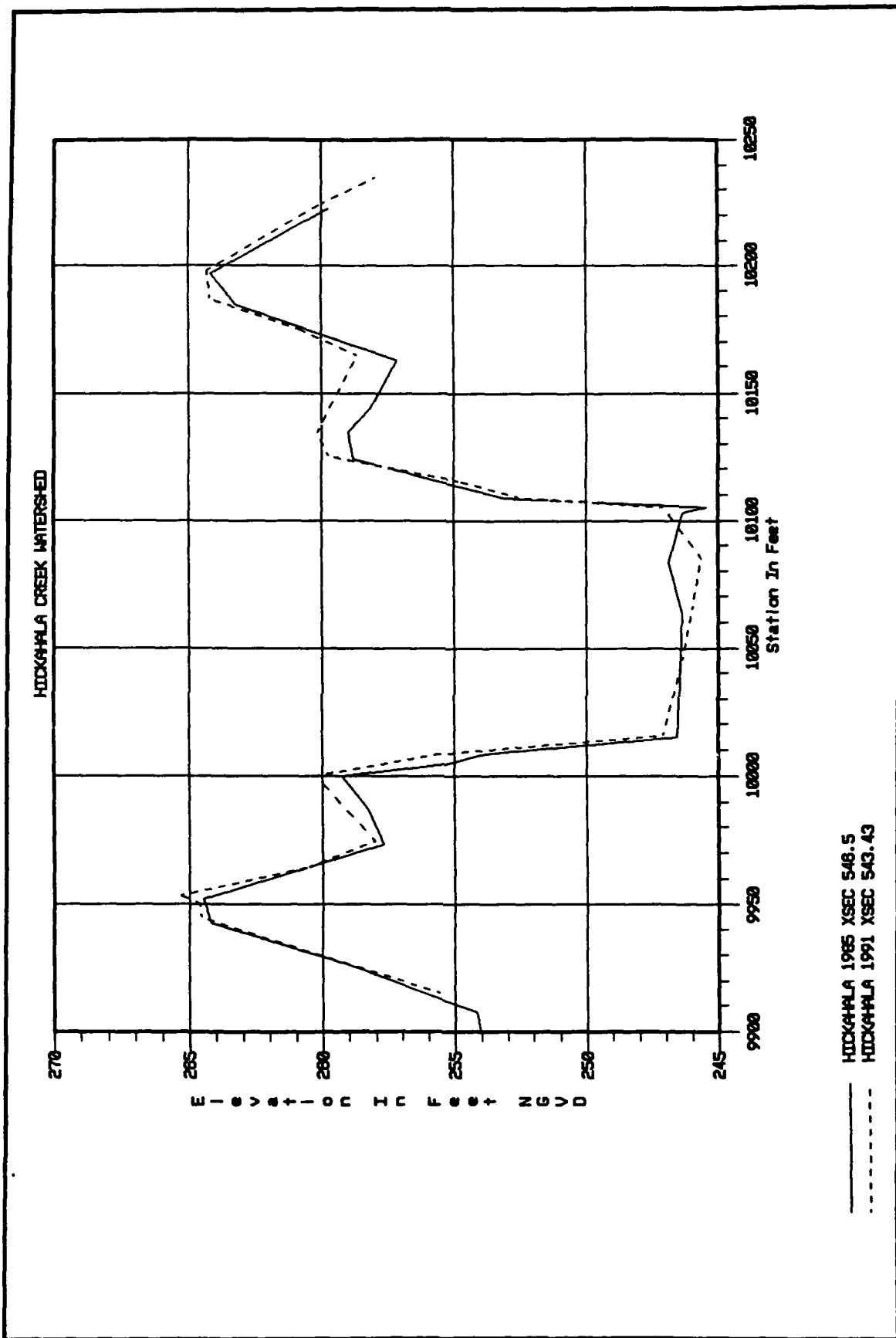


PLATE A154



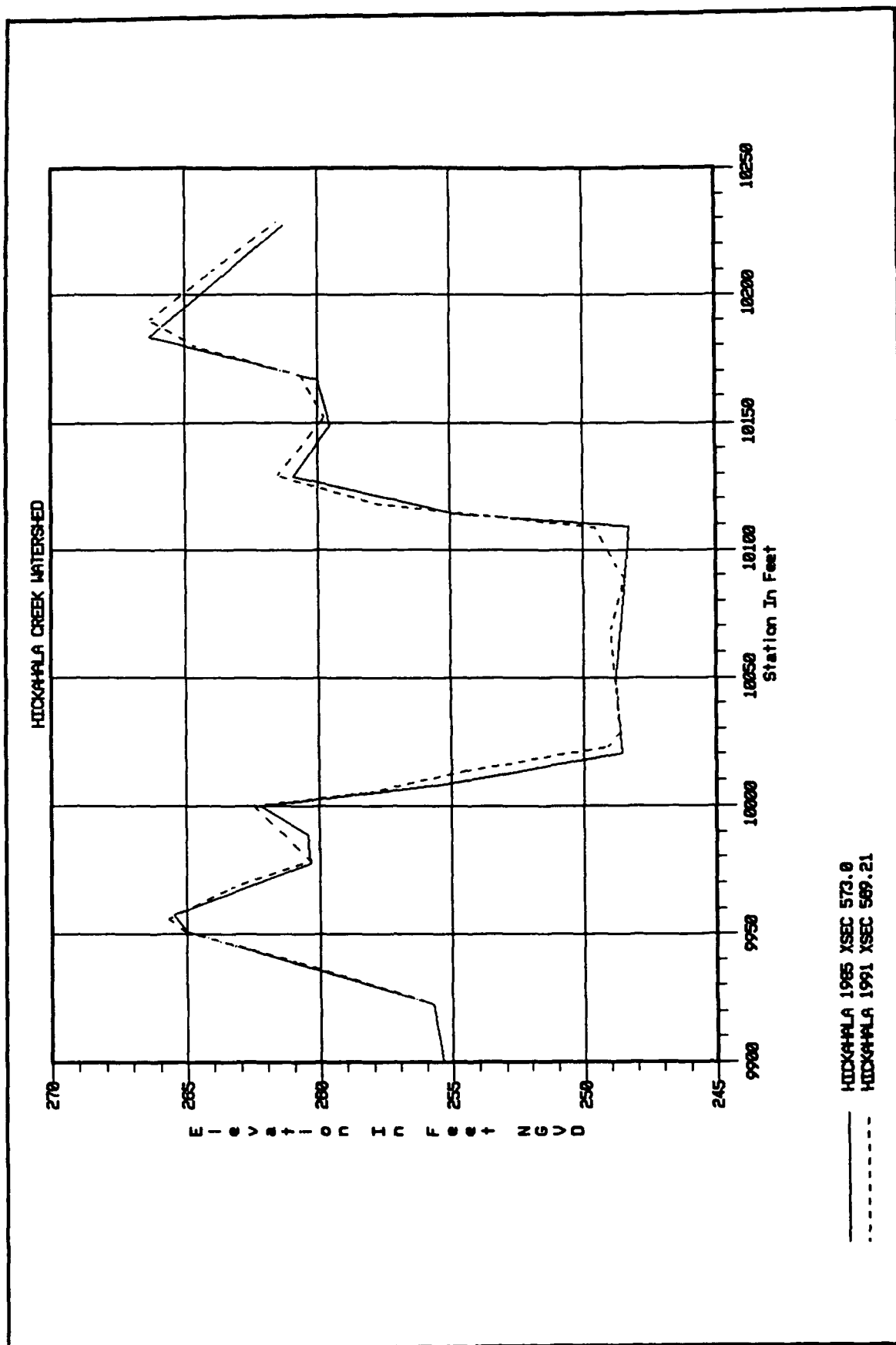
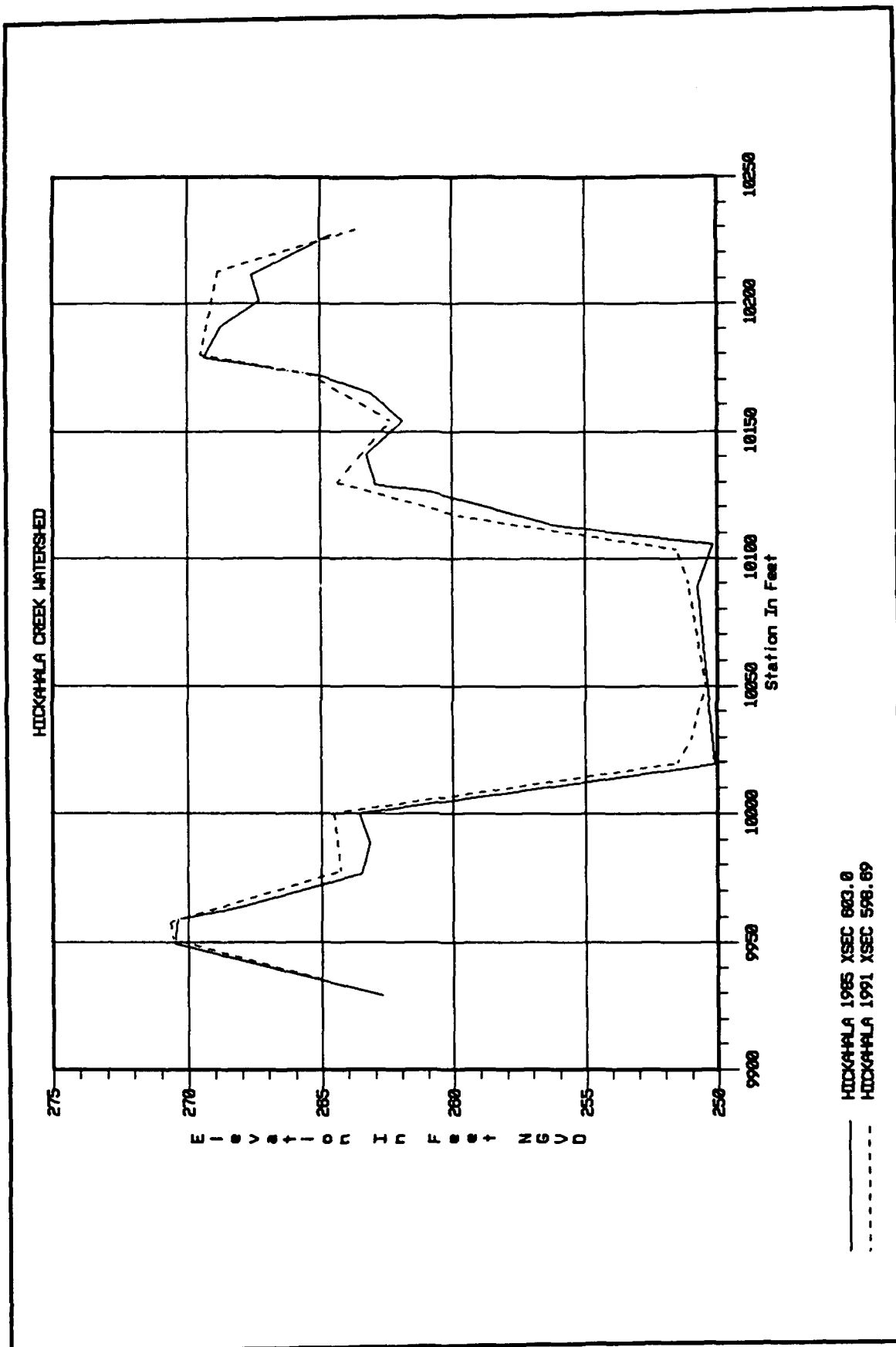


PLATE A156



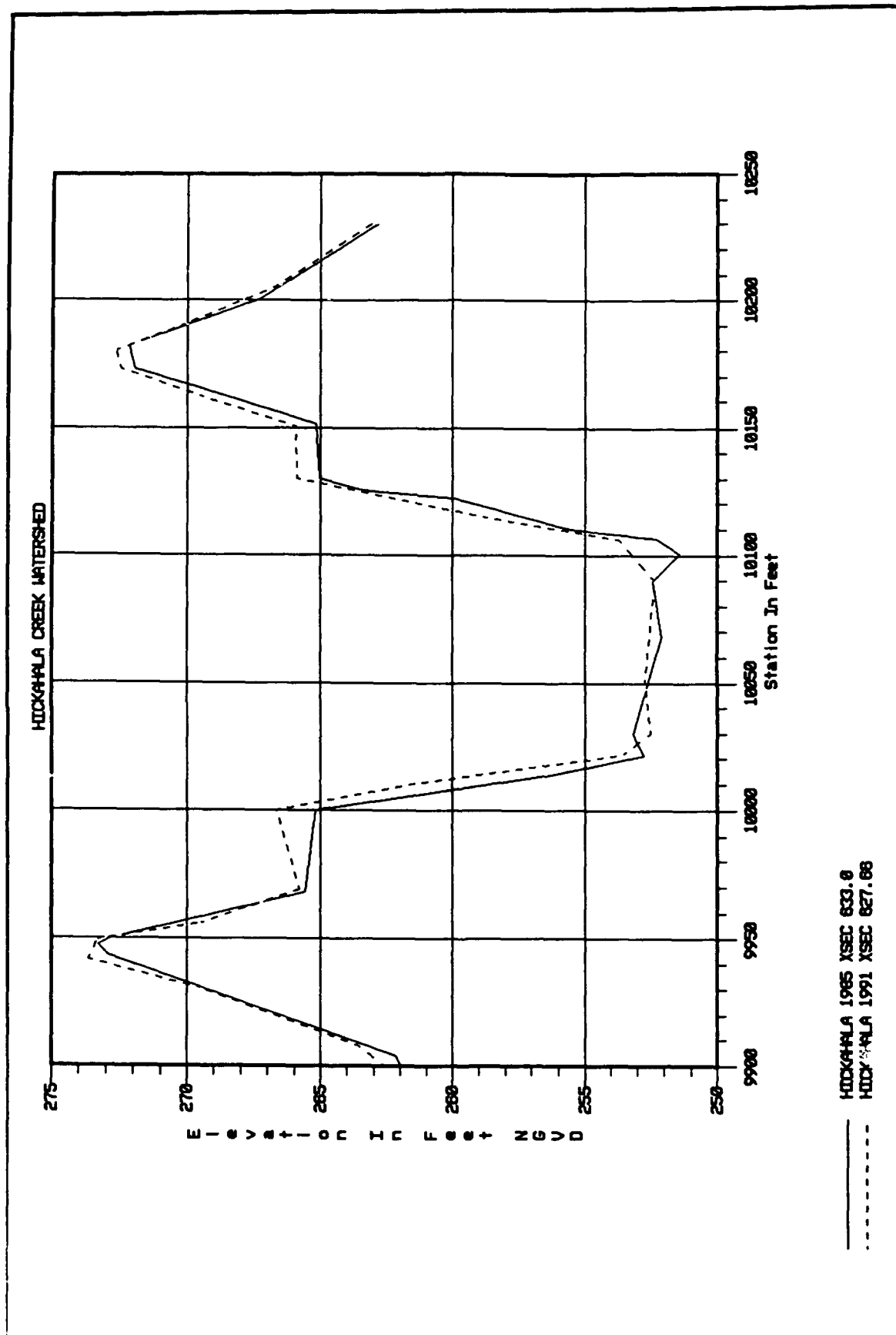
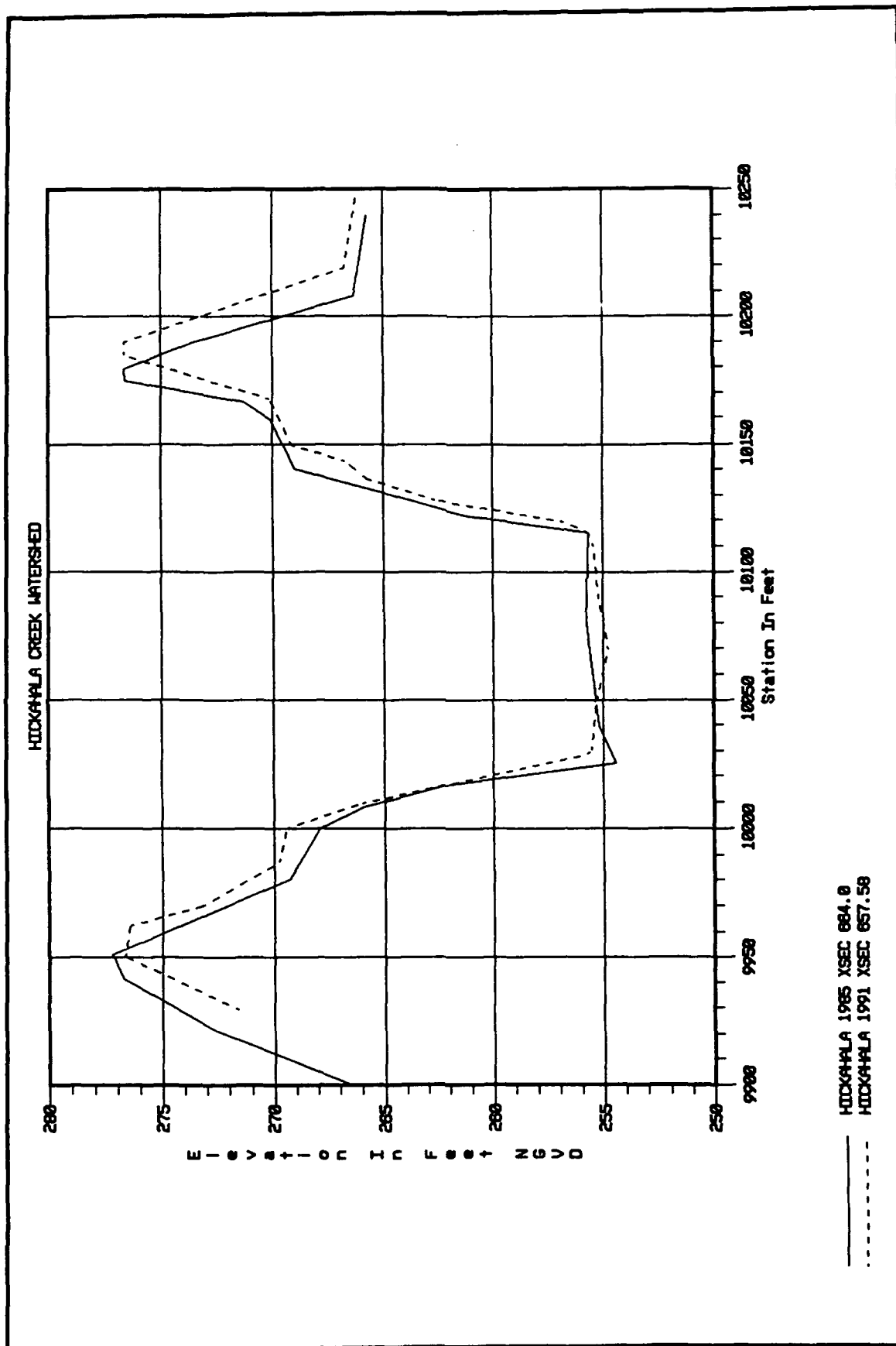


PLATE A158



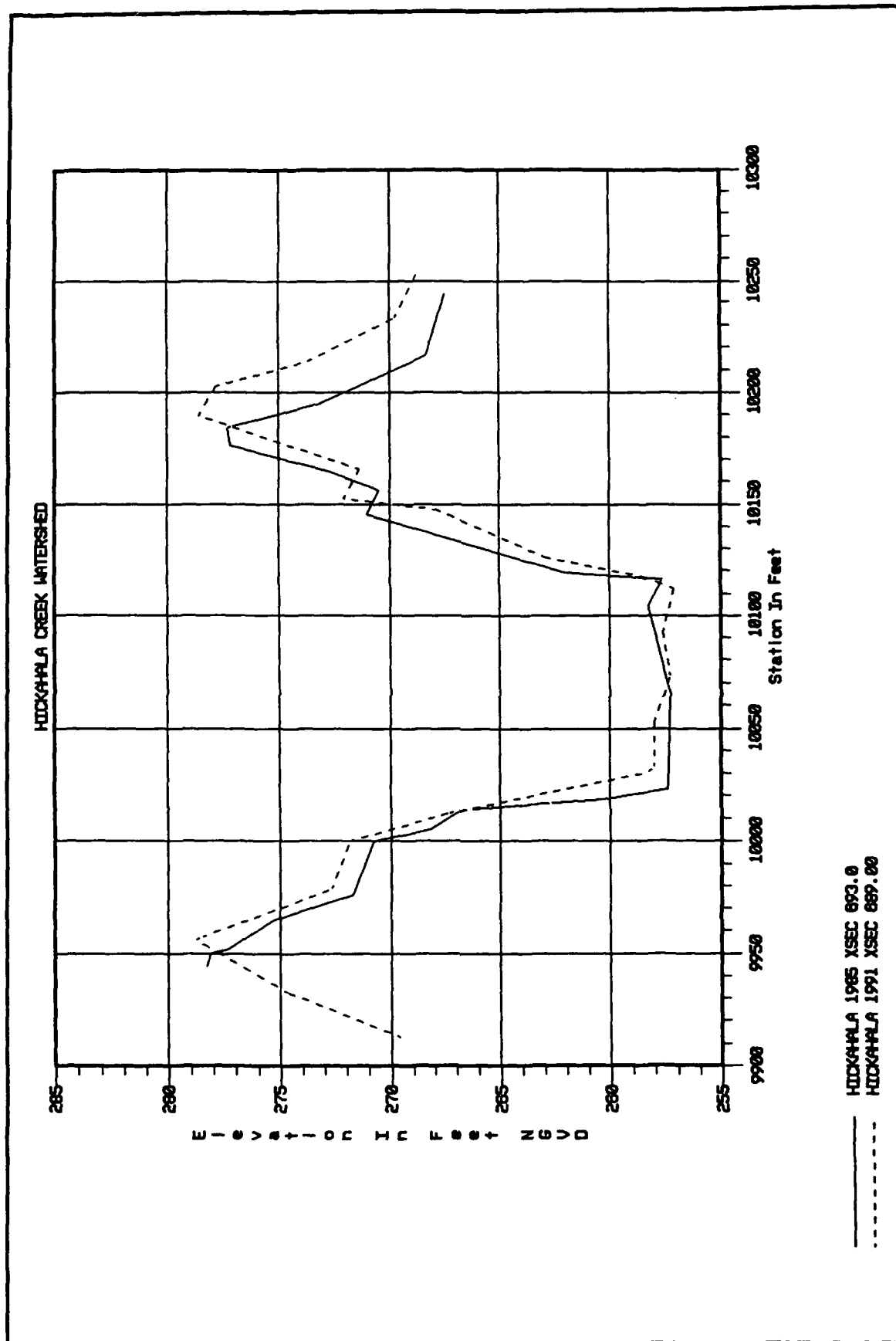
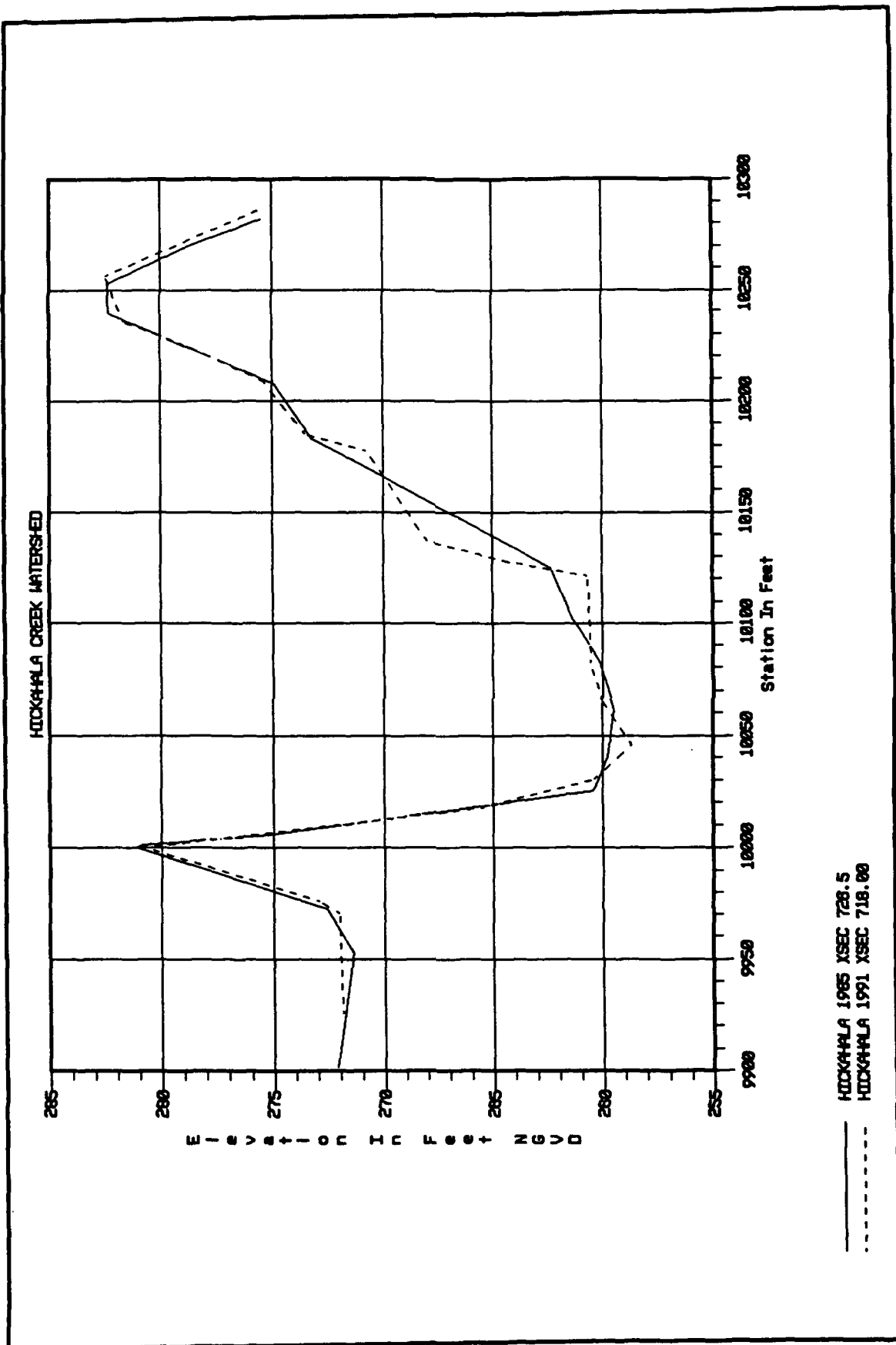


PLATE A160



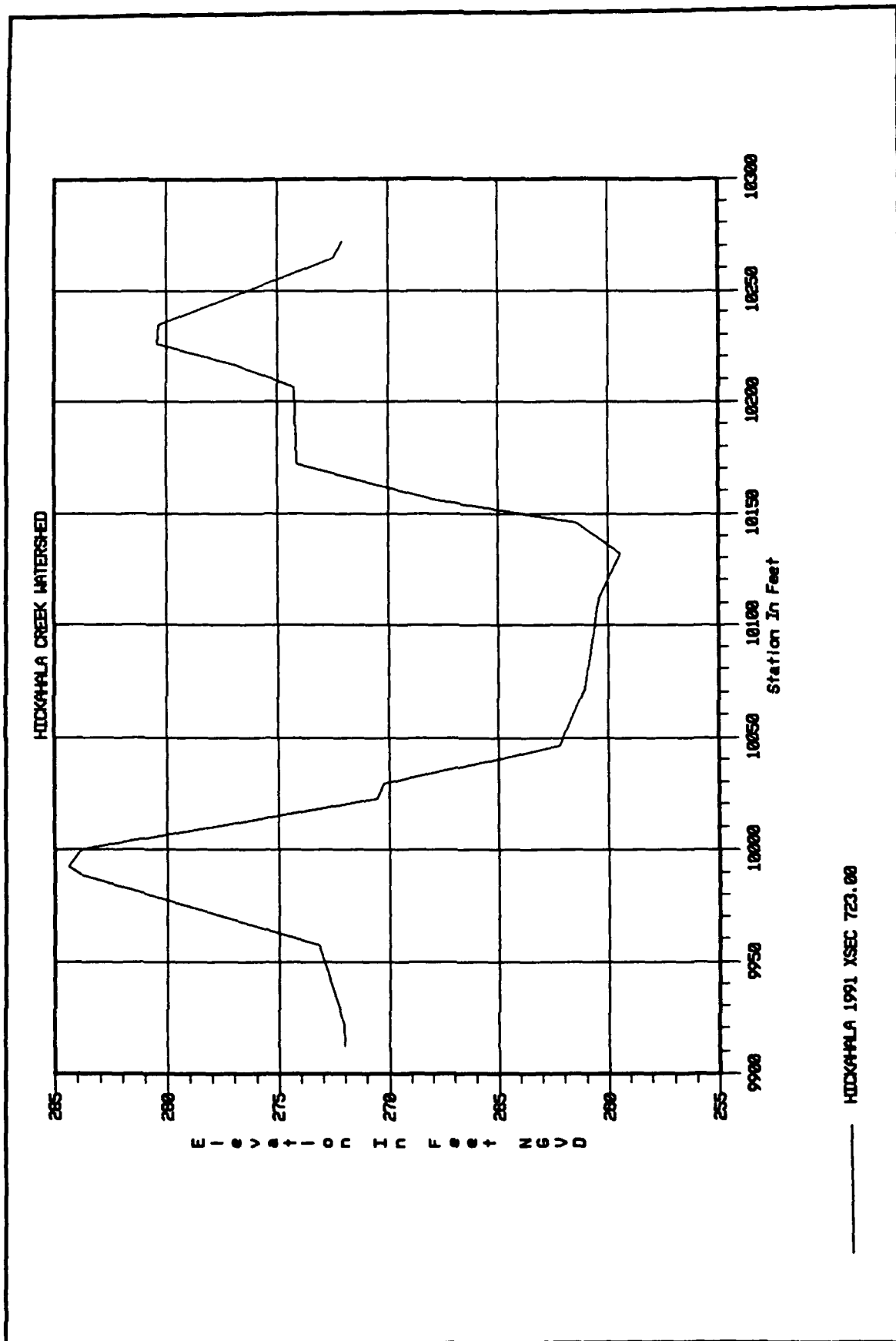
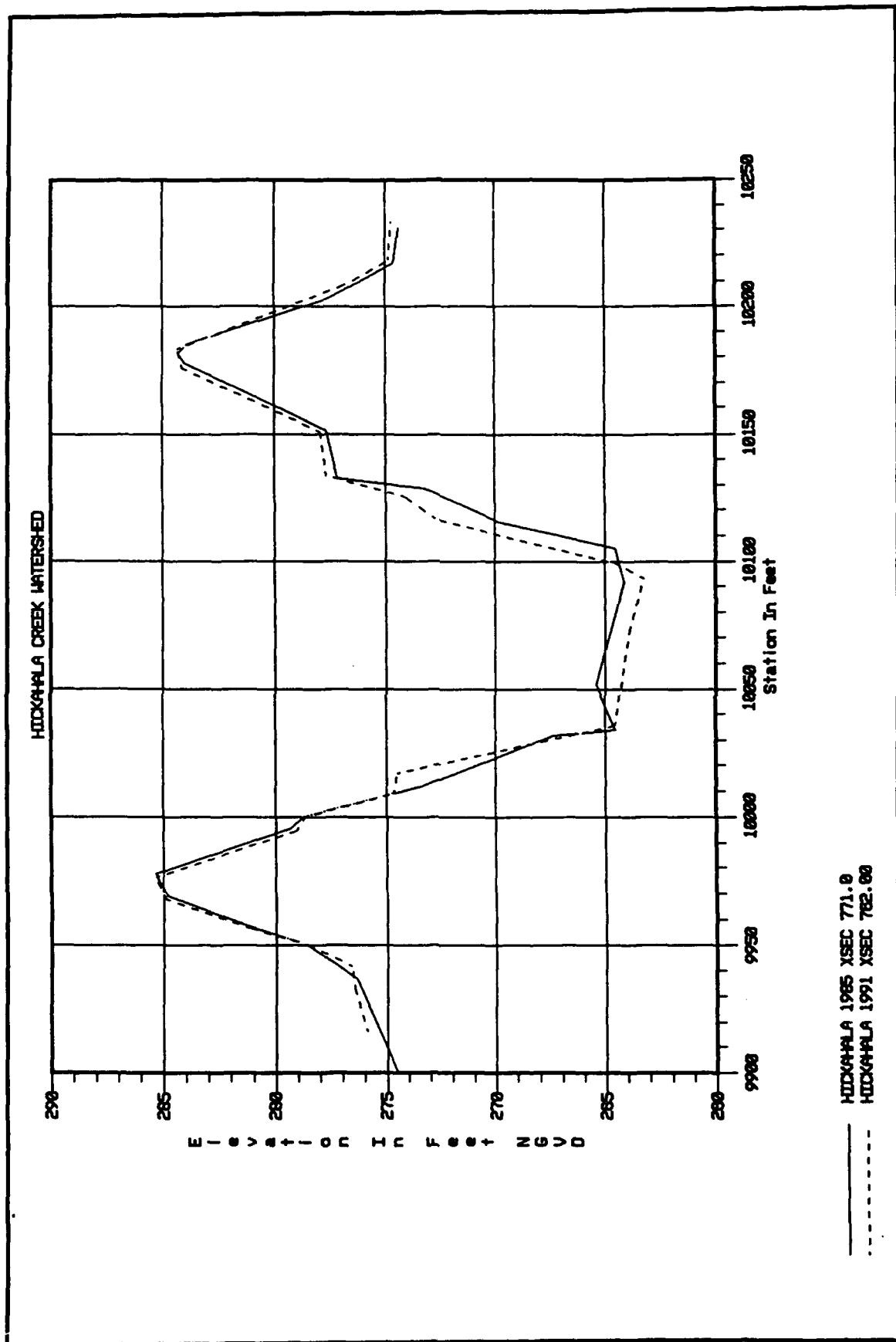


PLATE A162



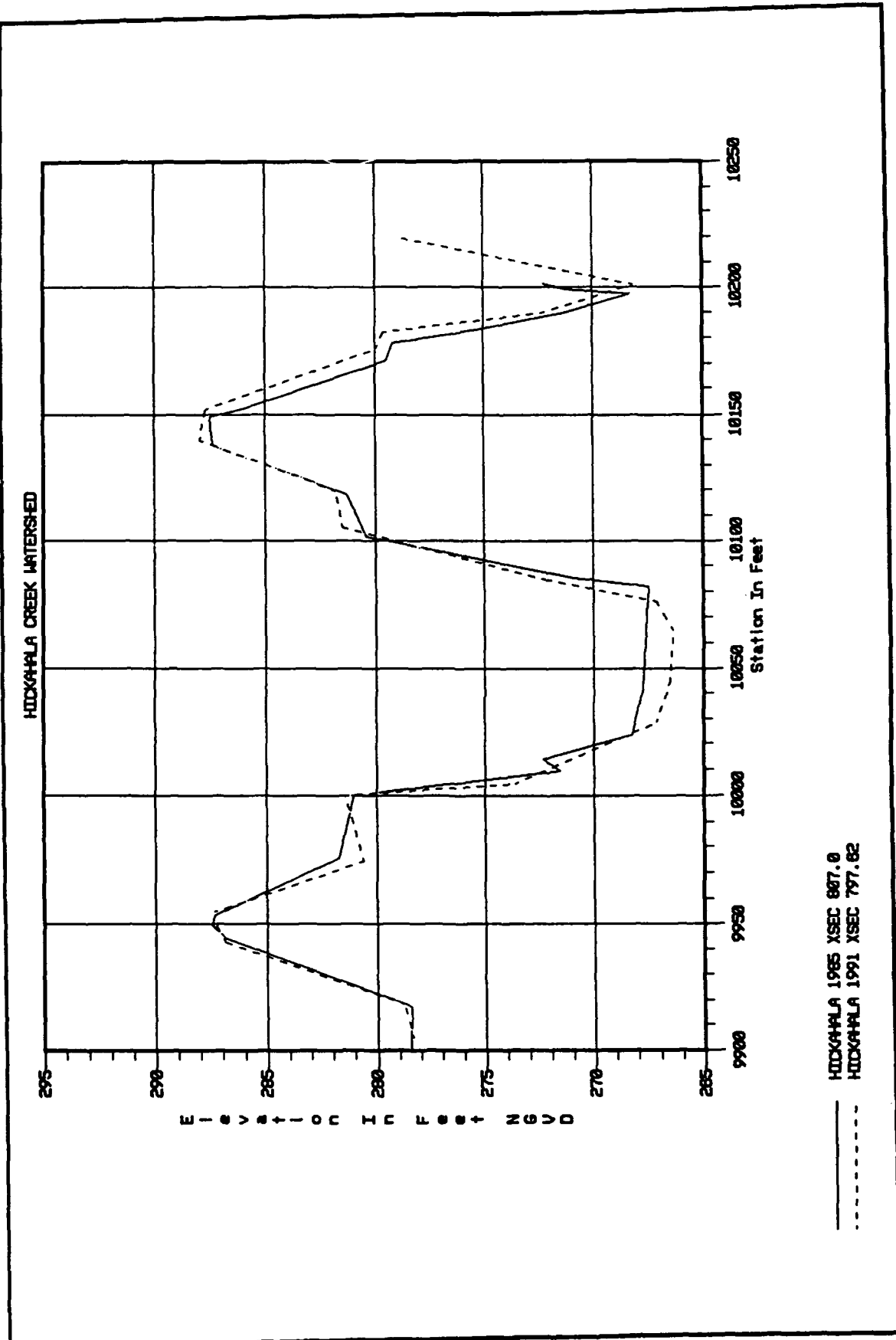
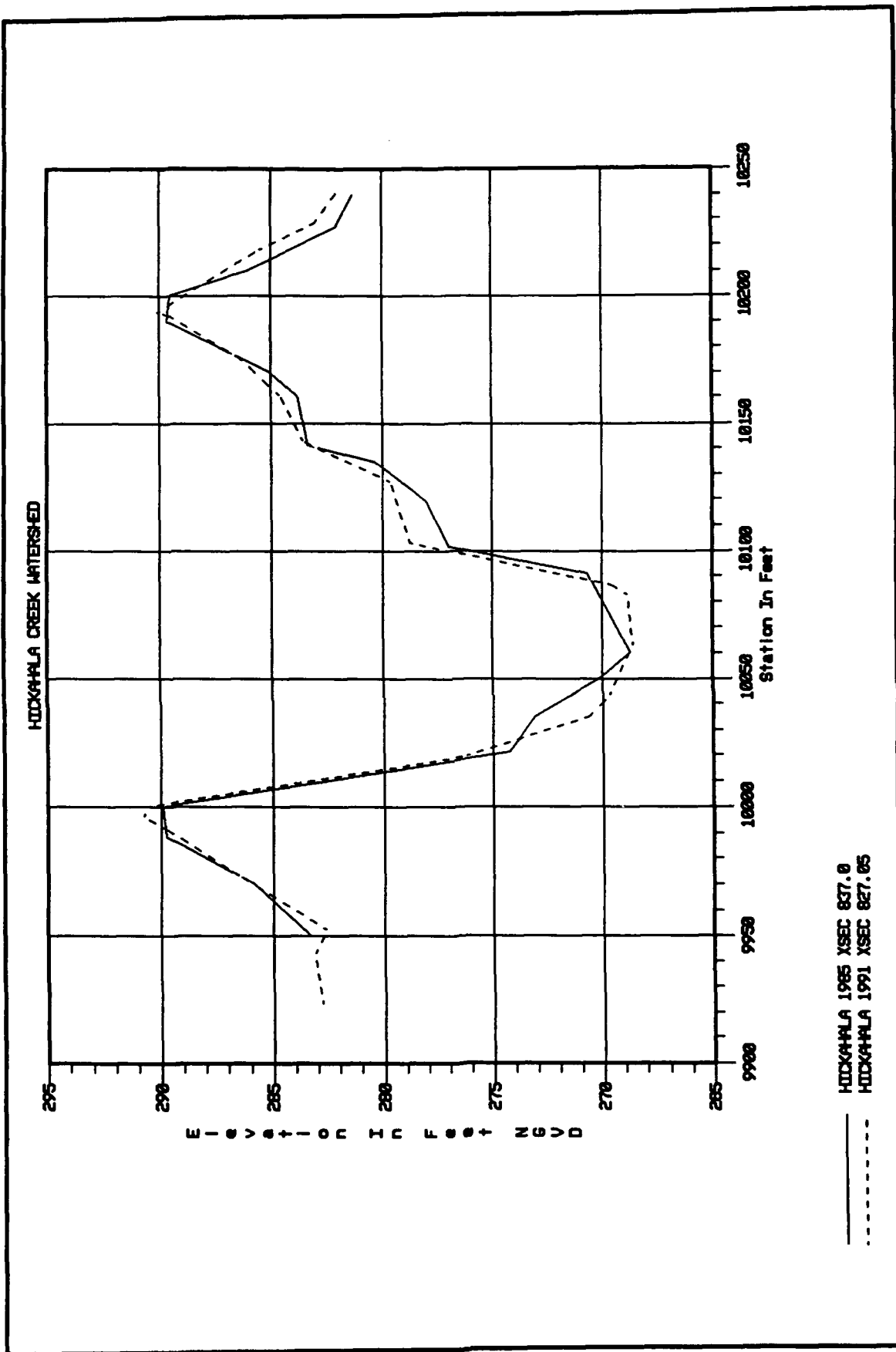


PLATE A164



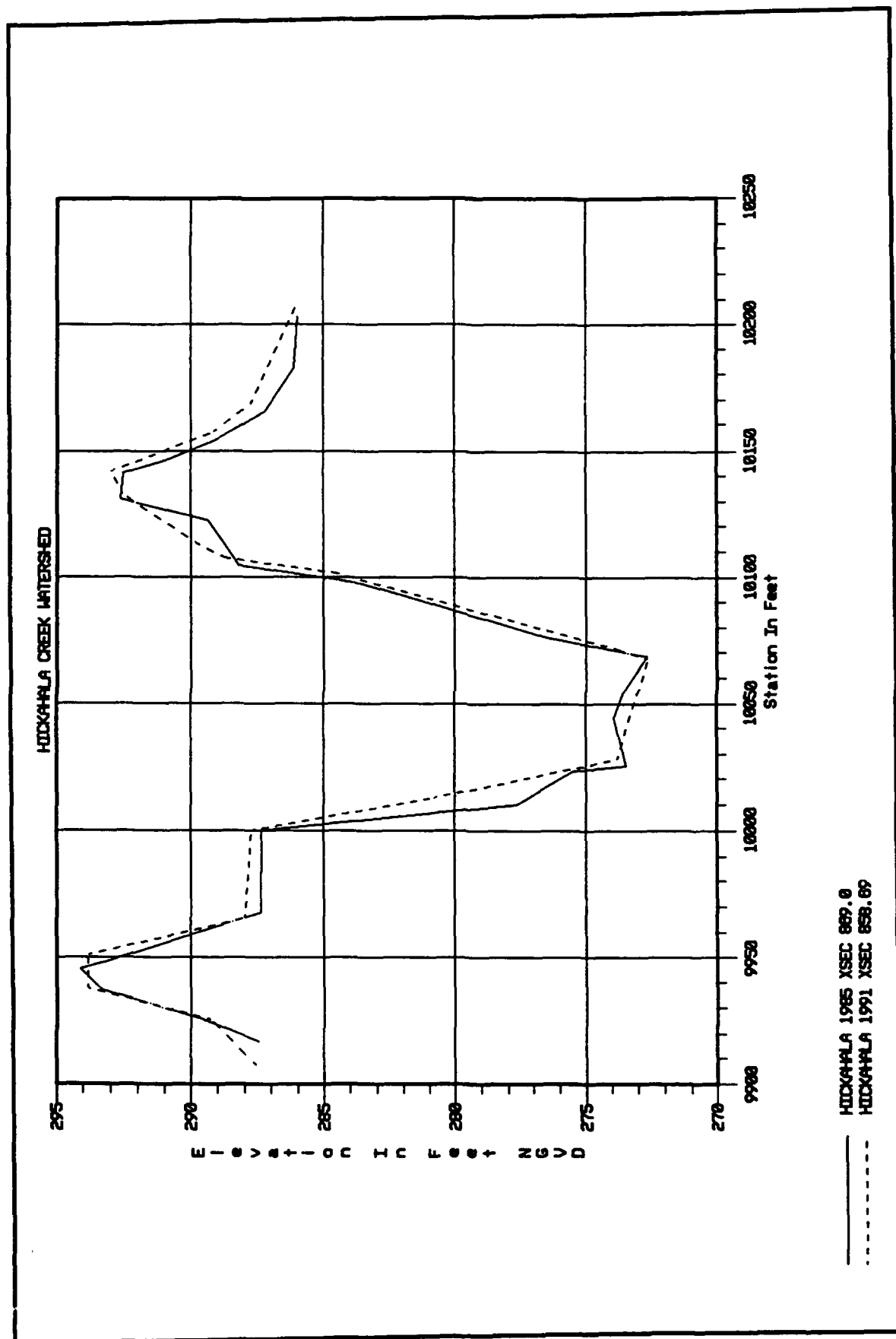
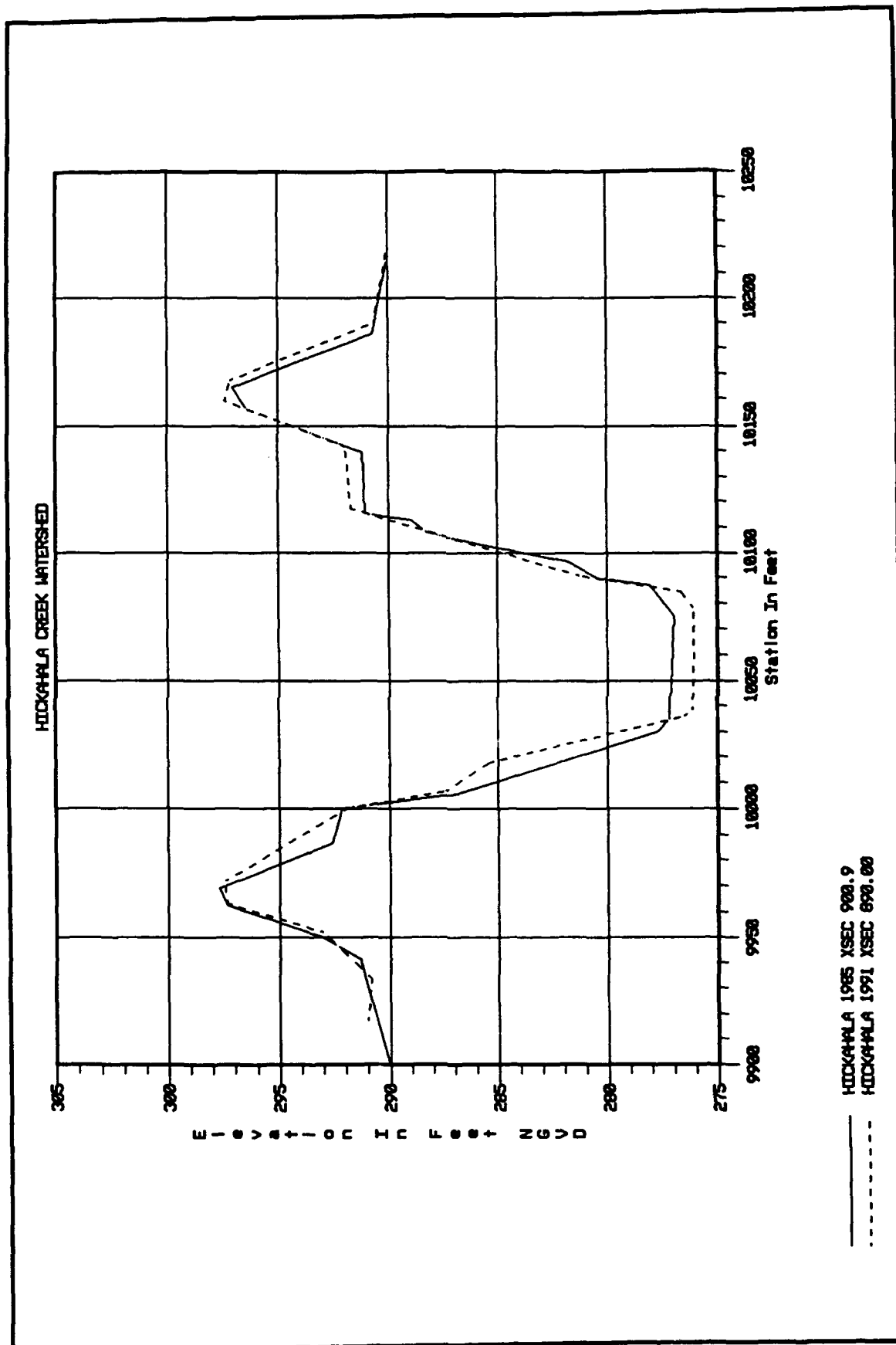
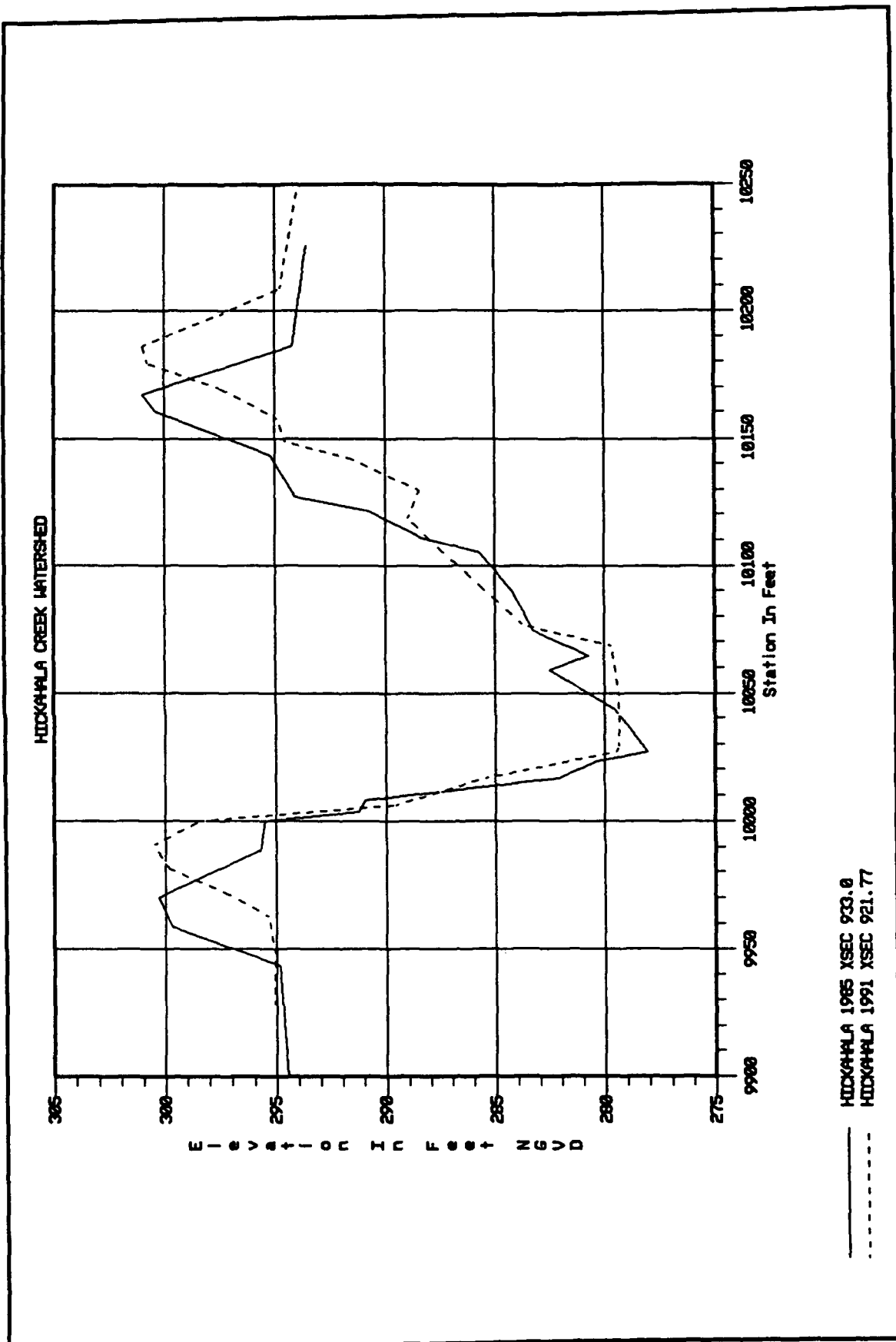
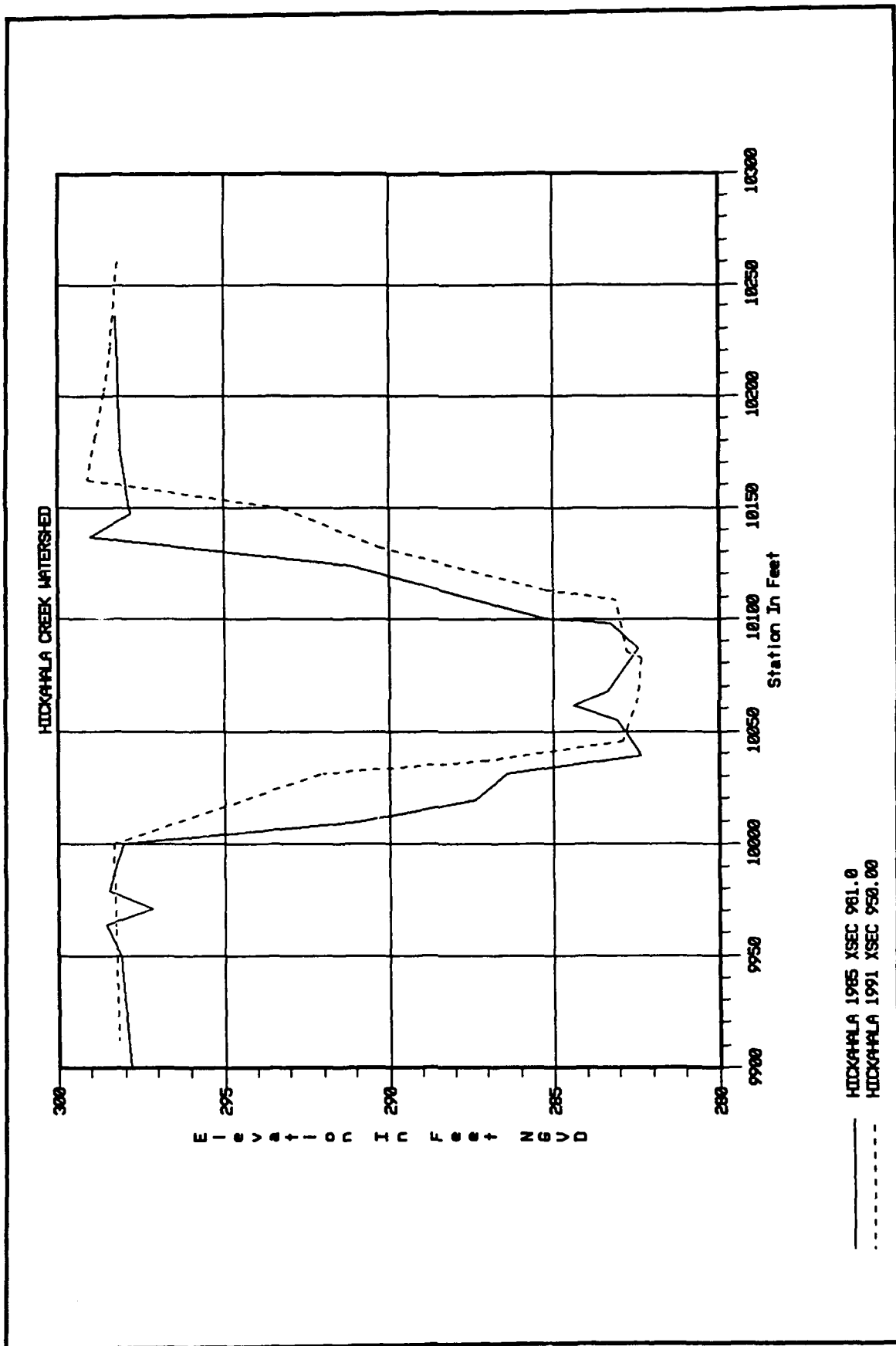


PLATE A166







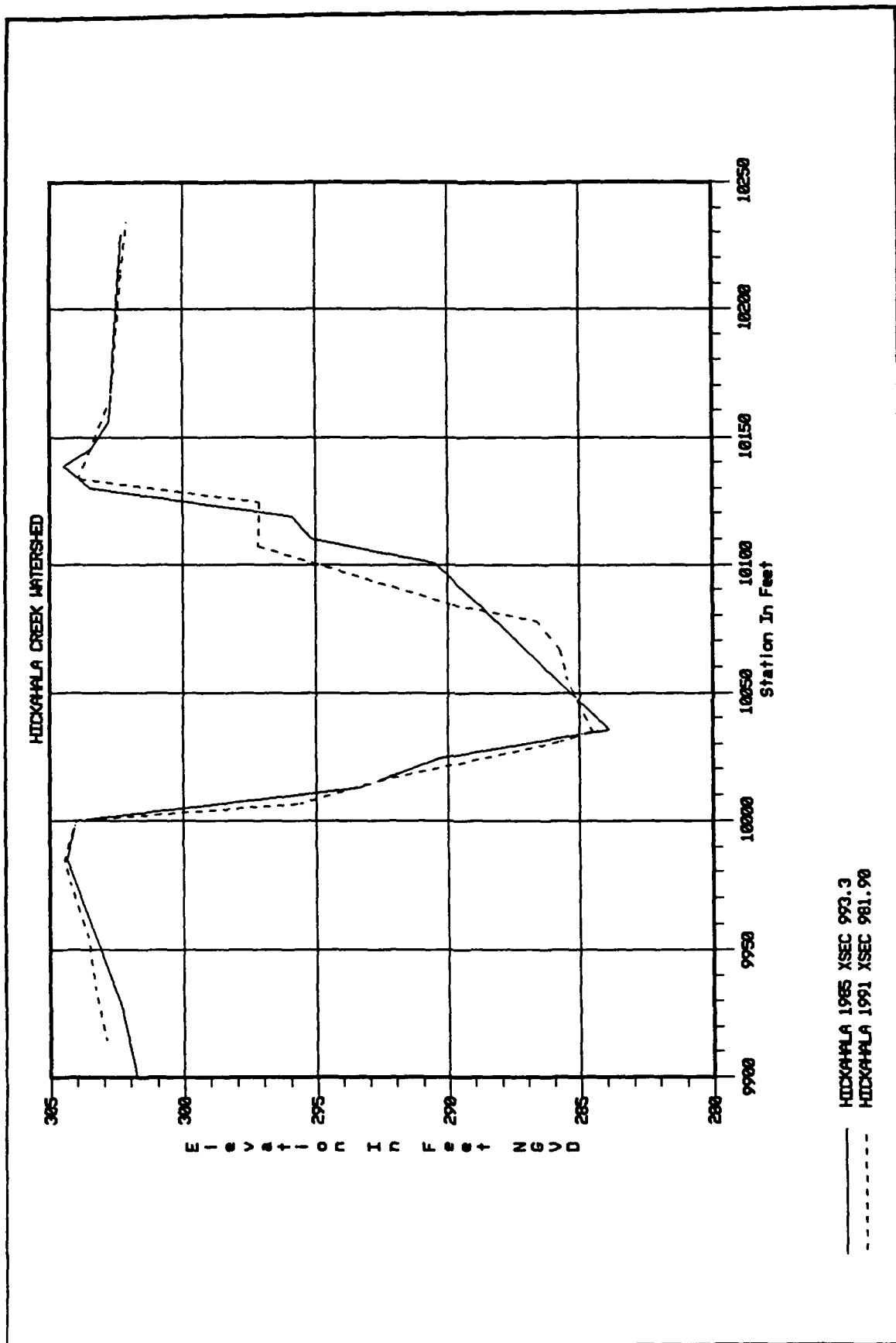
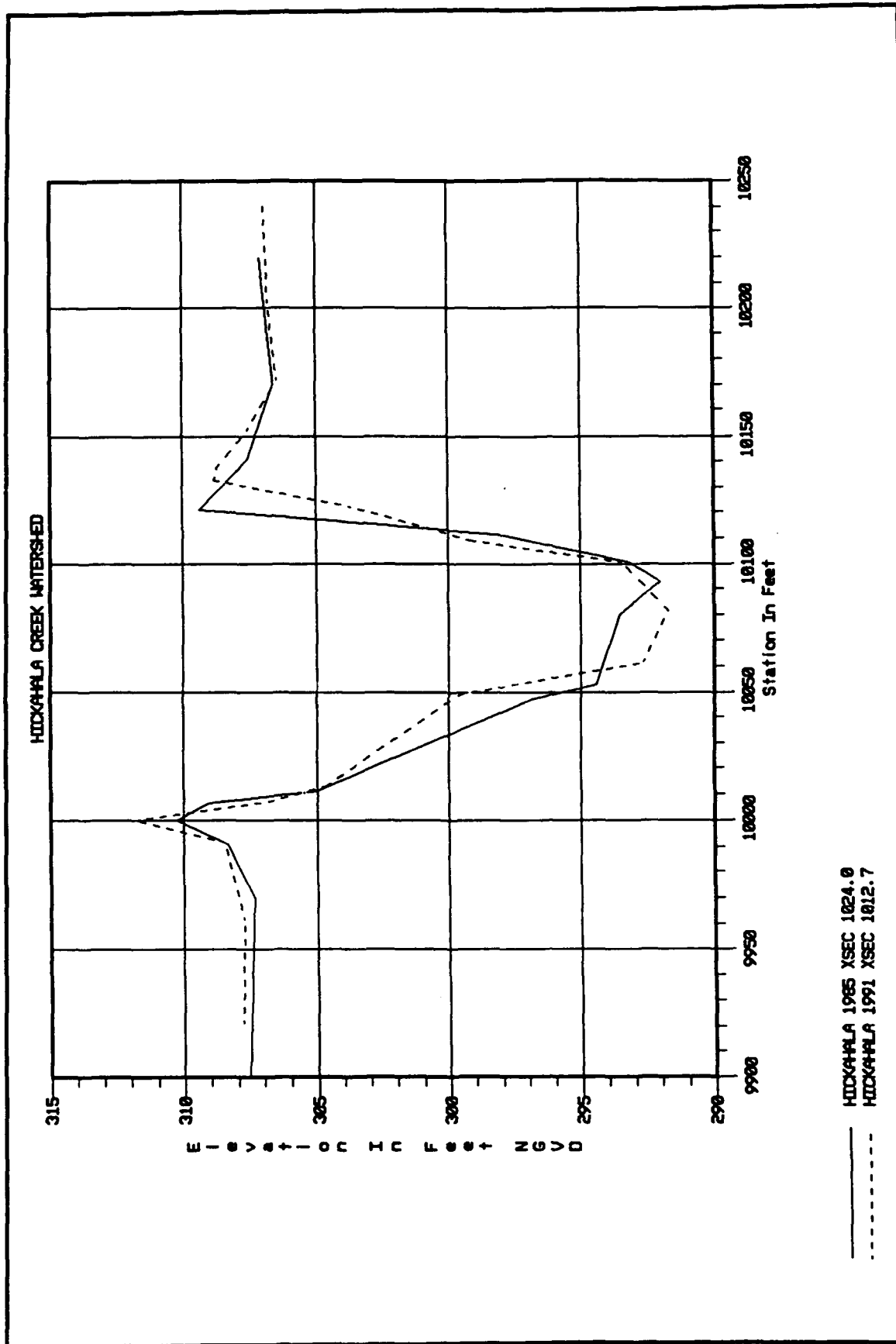


PLATE A170



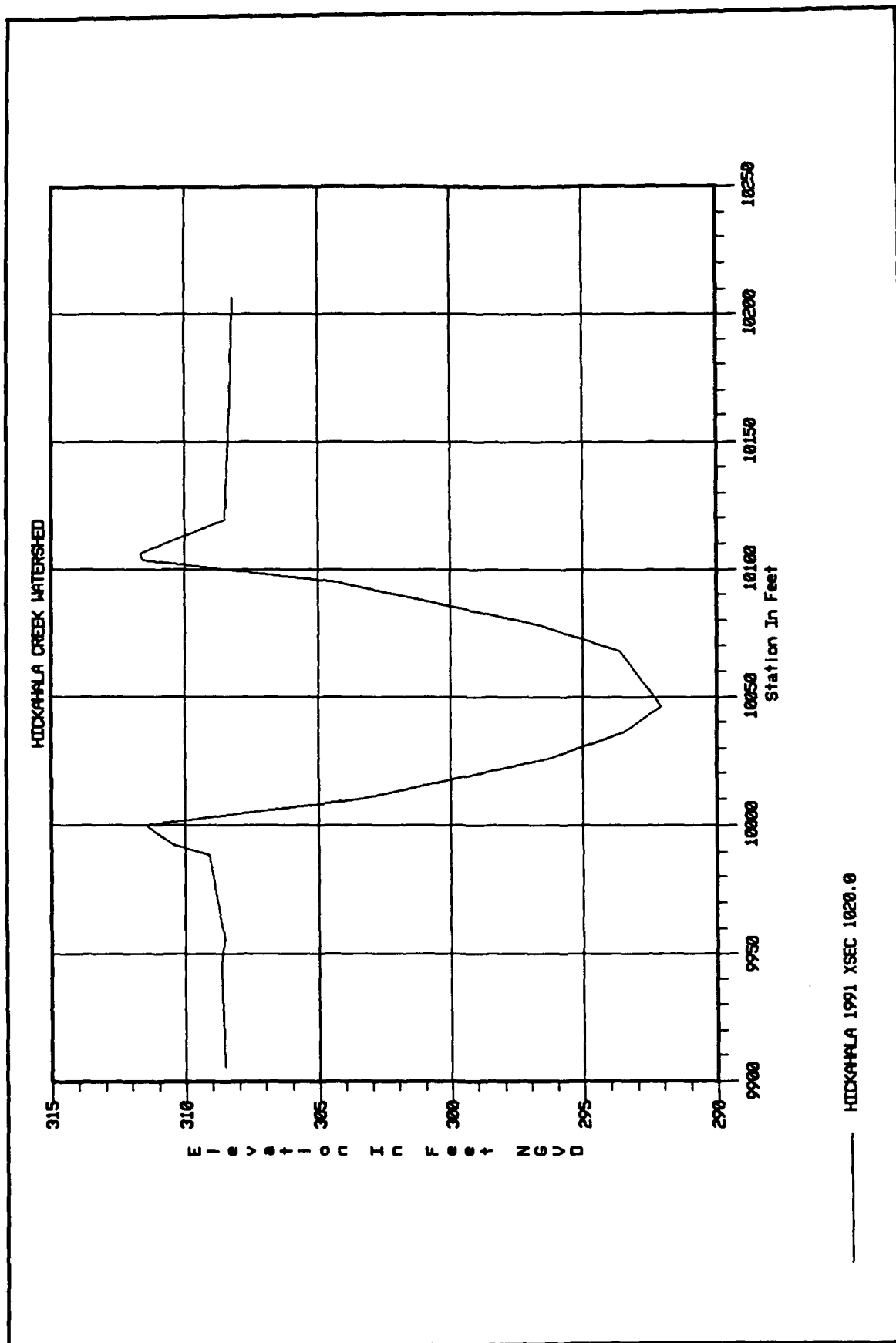
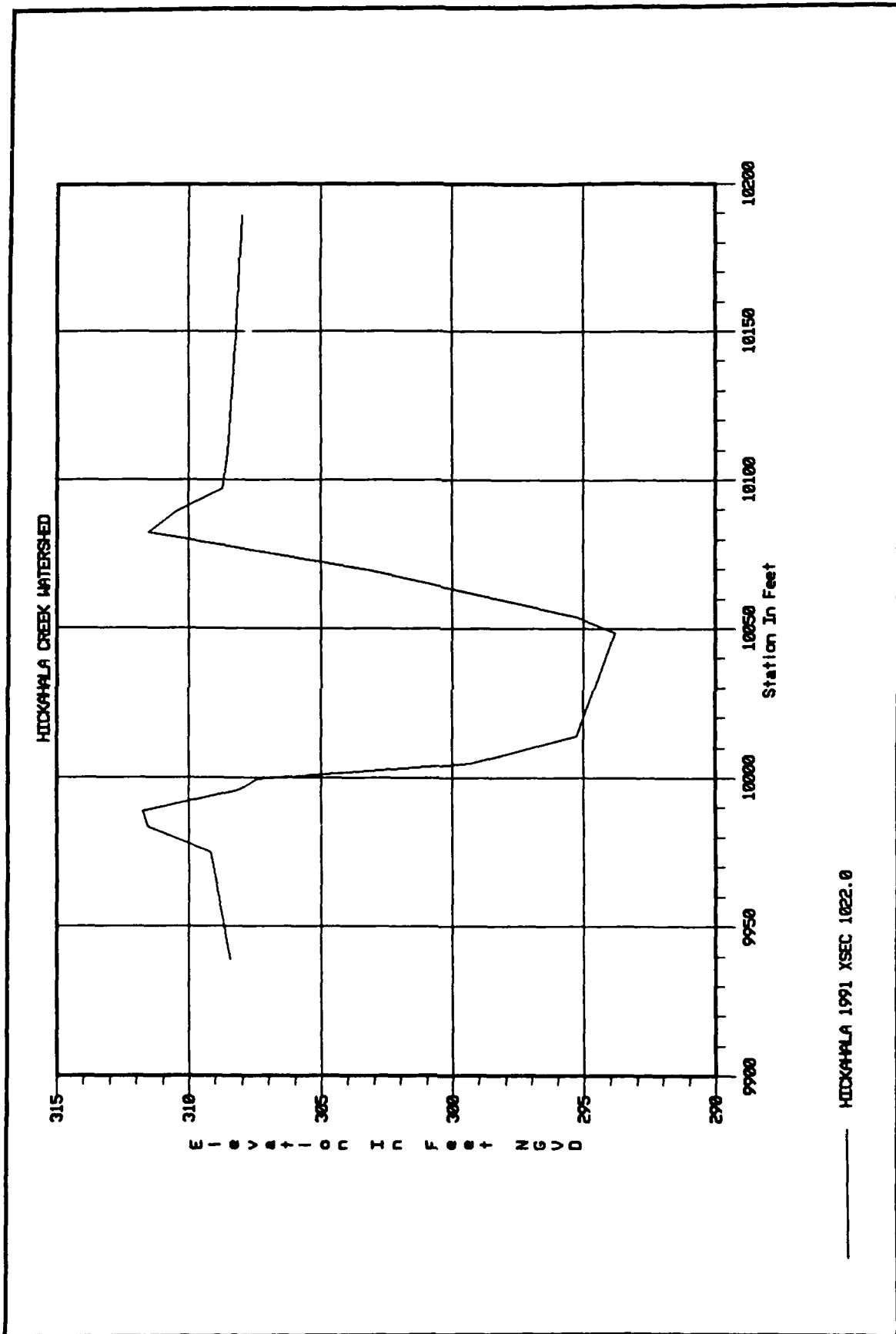
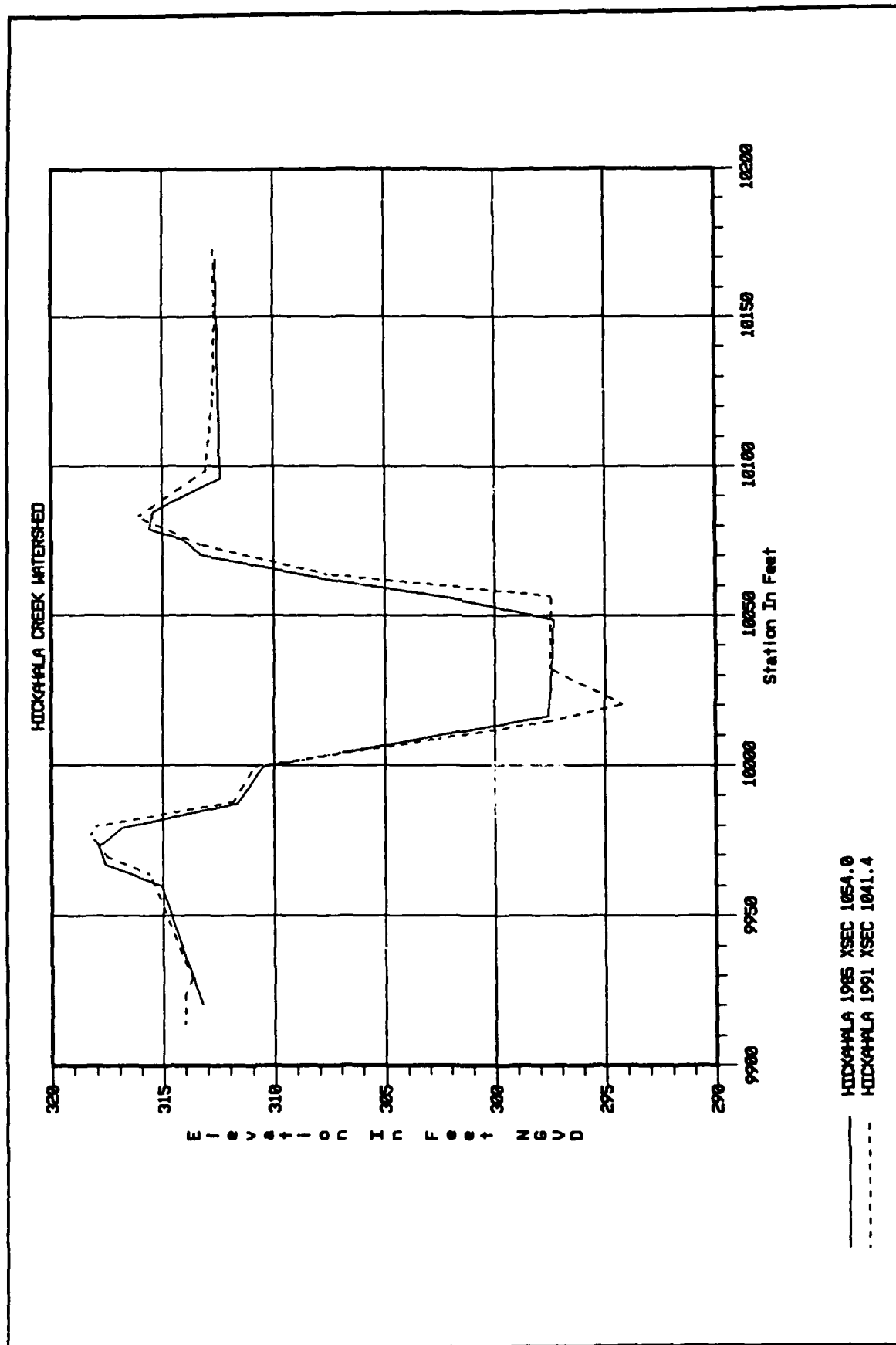
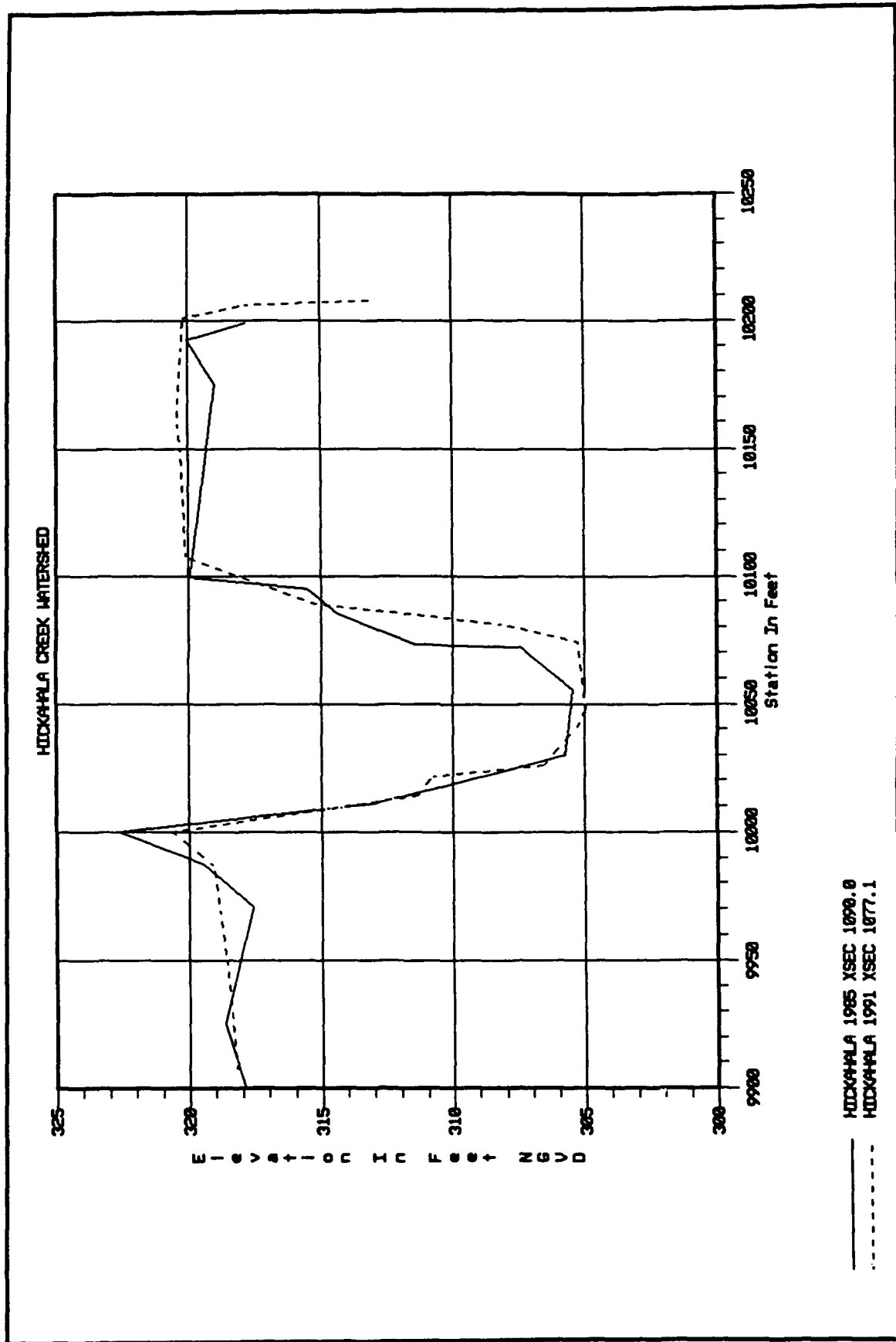
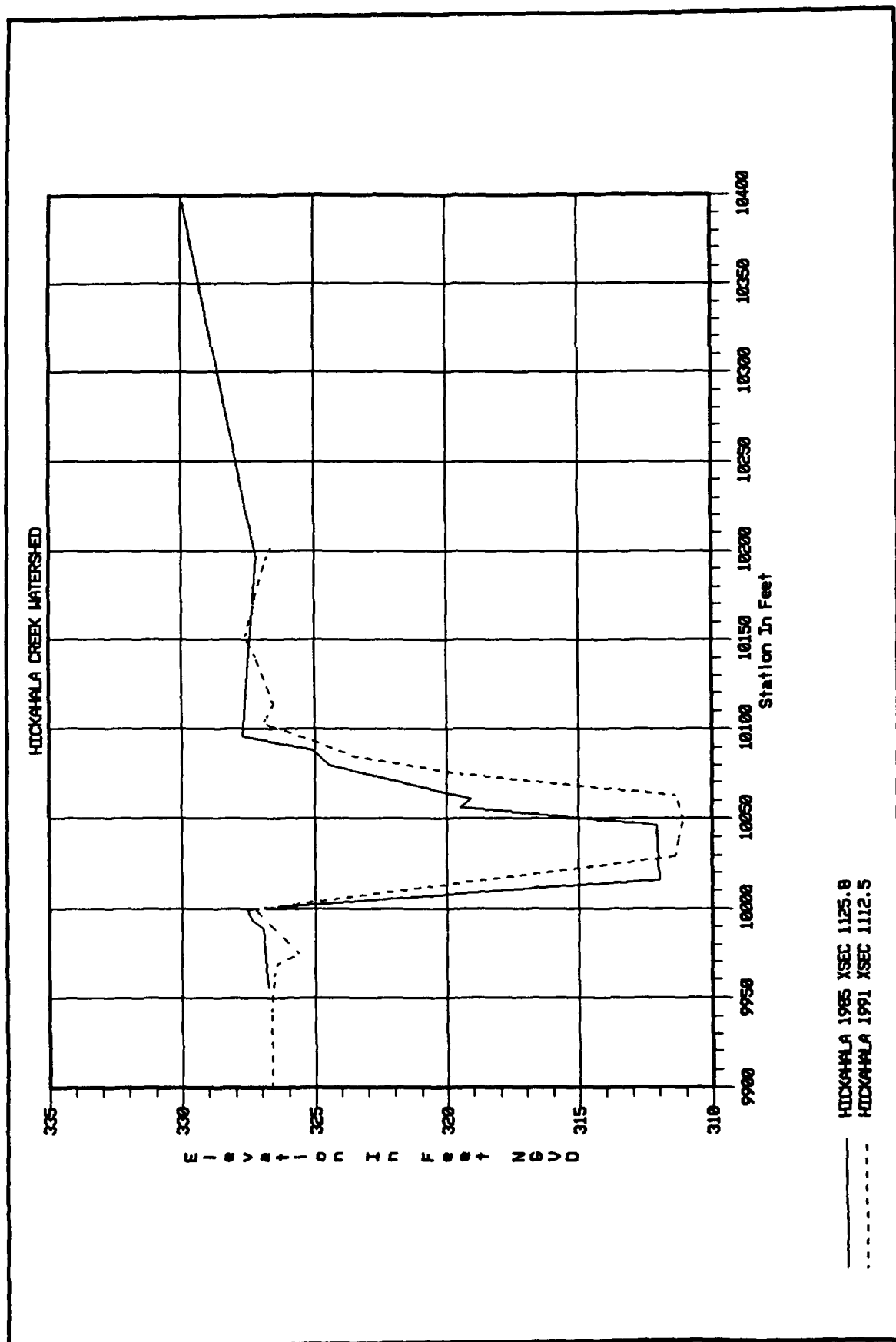


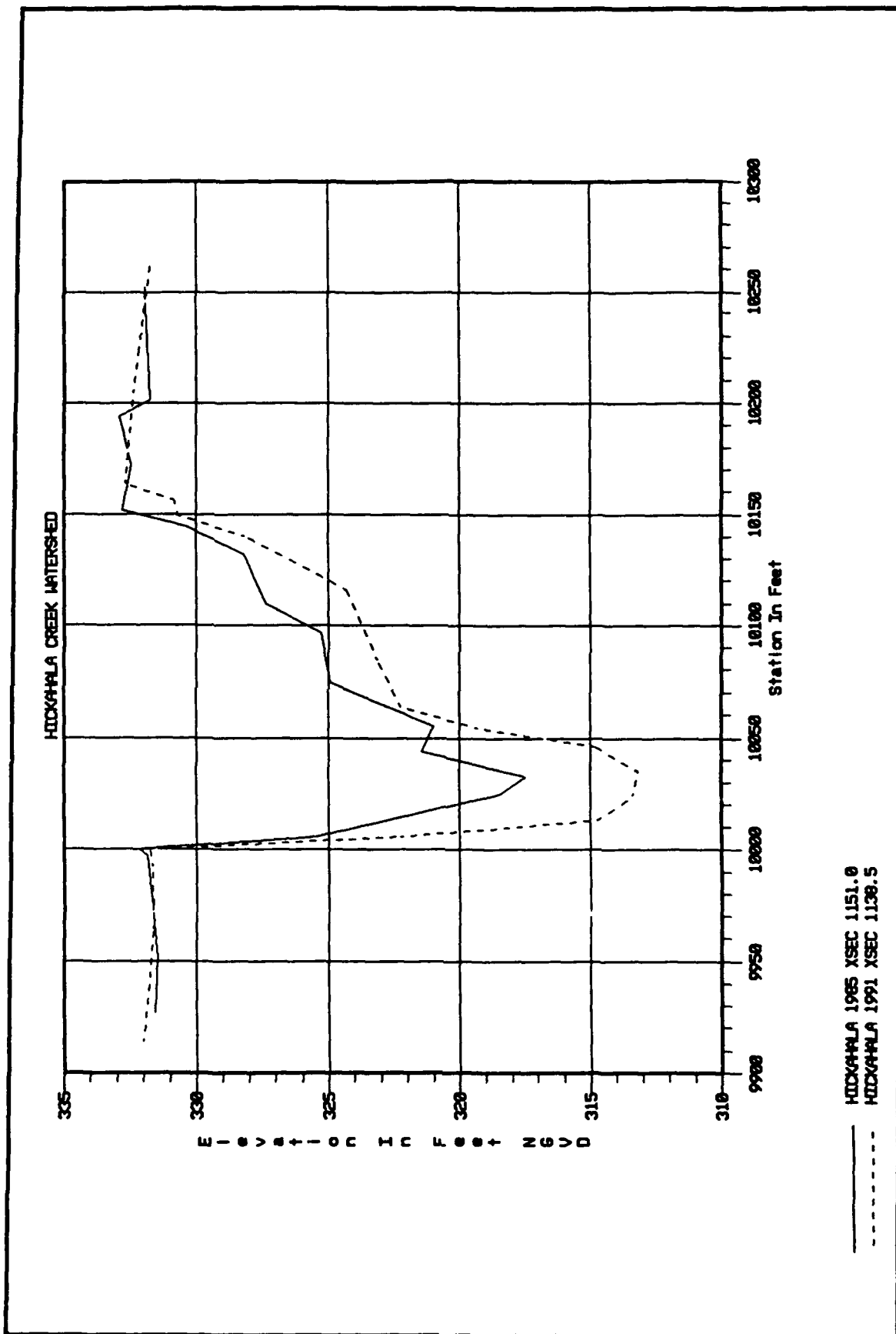
PLATE A172











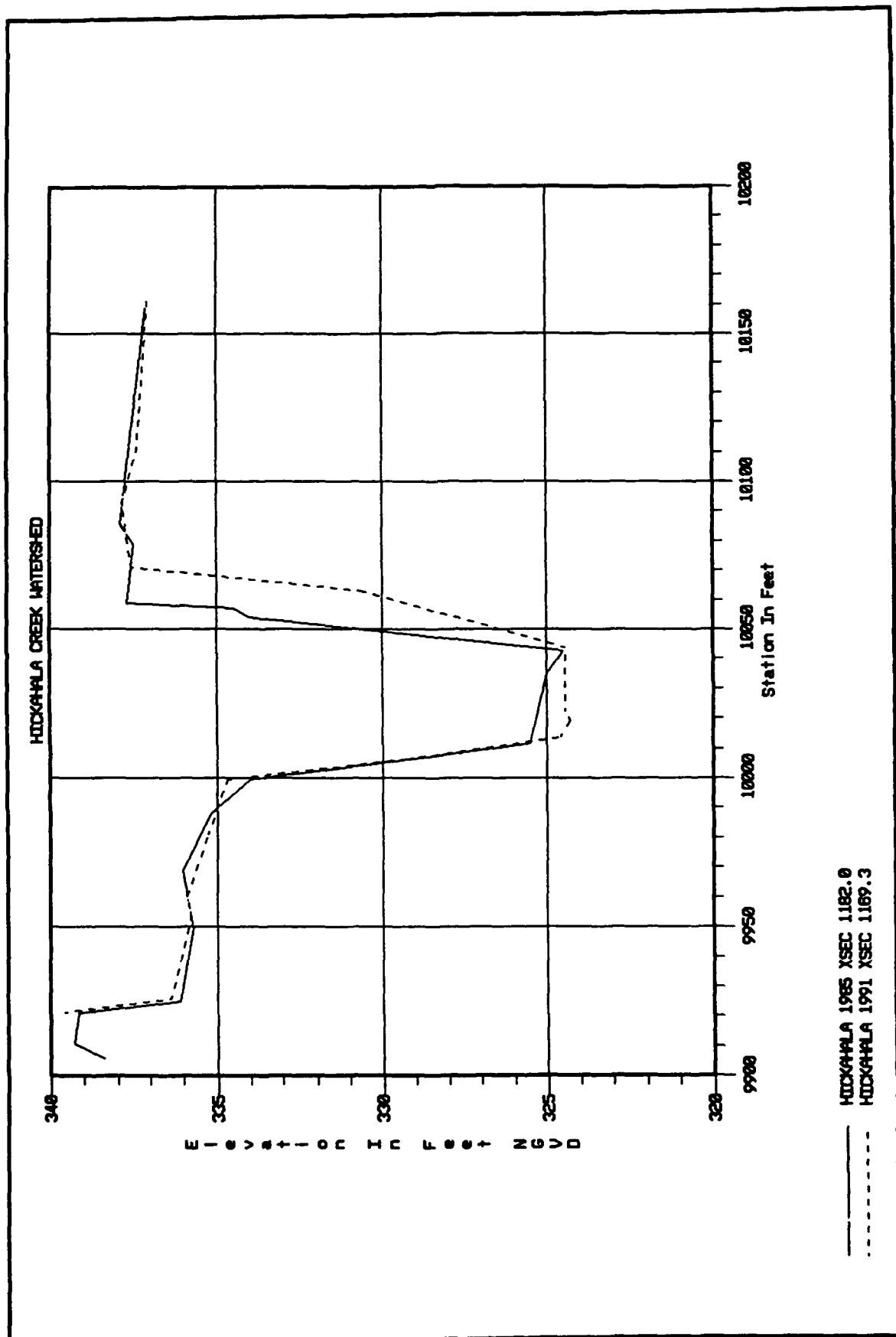
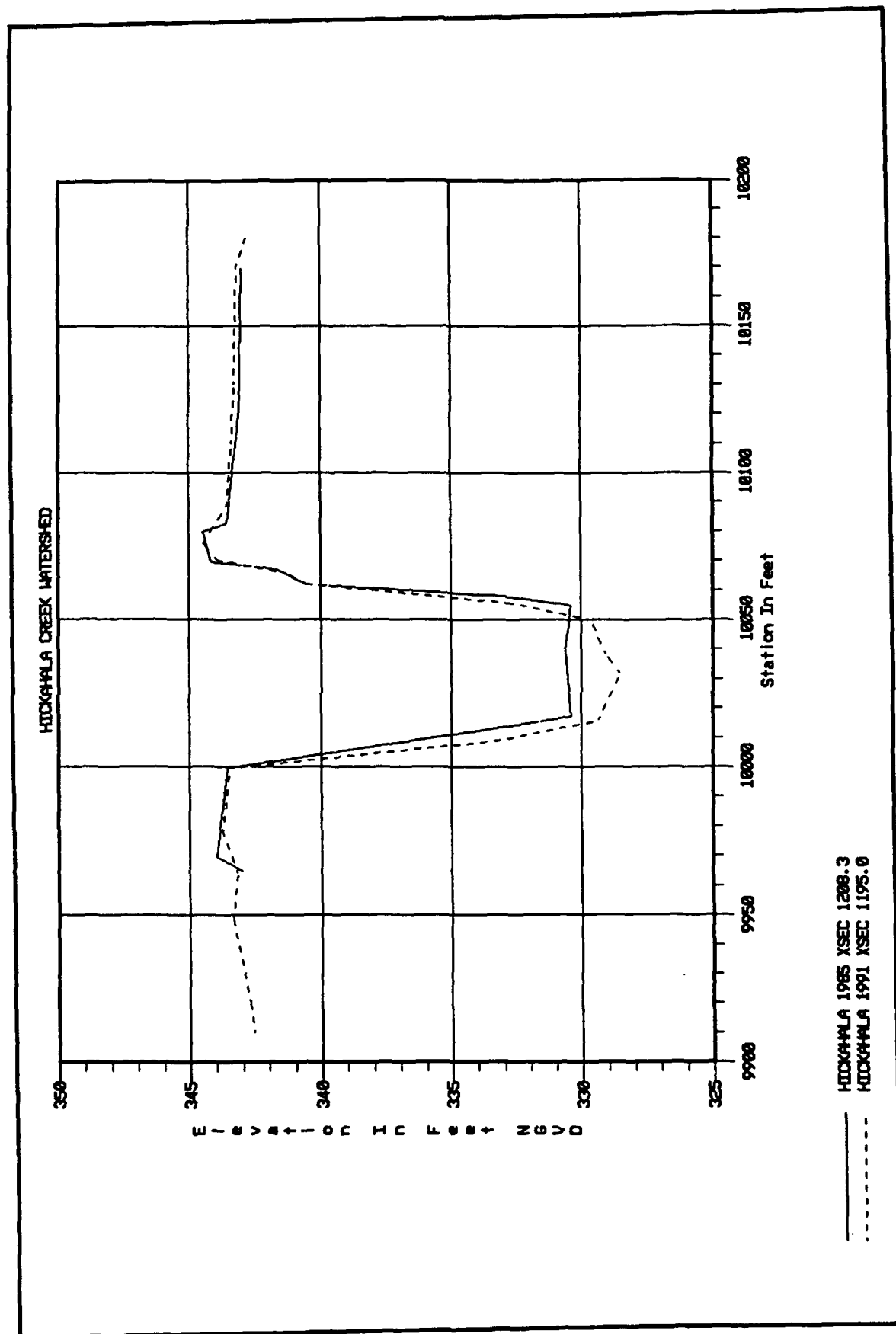
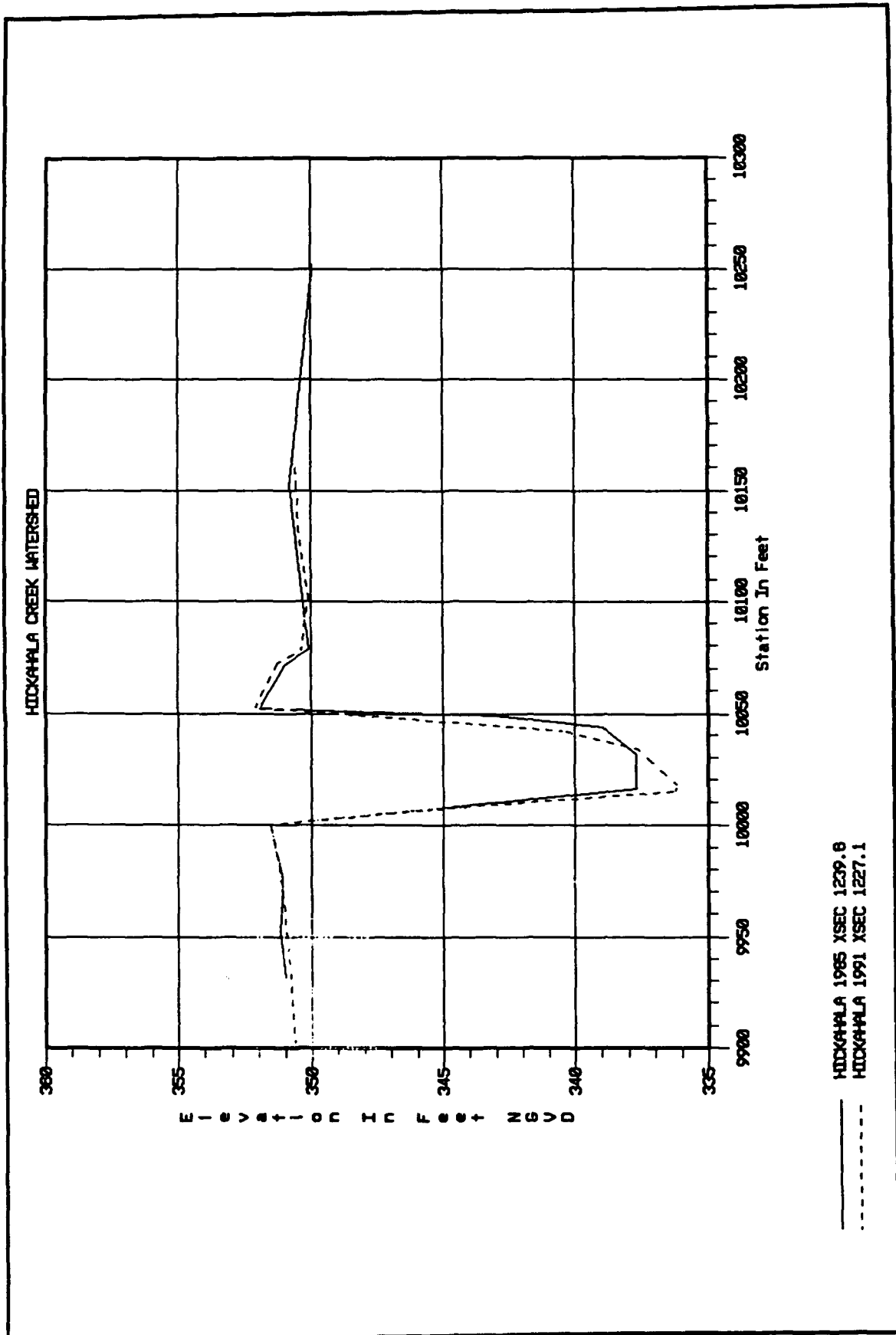
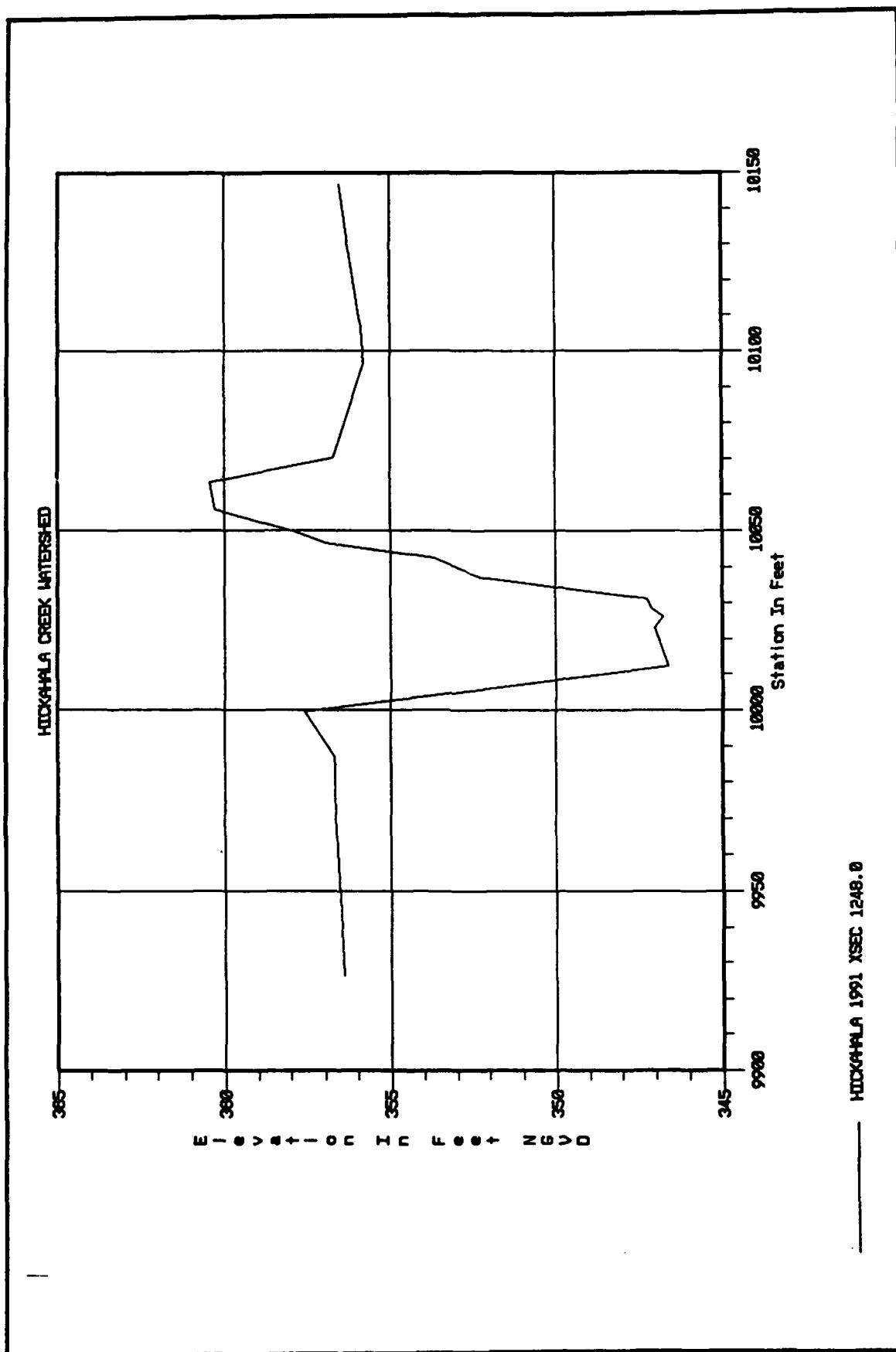
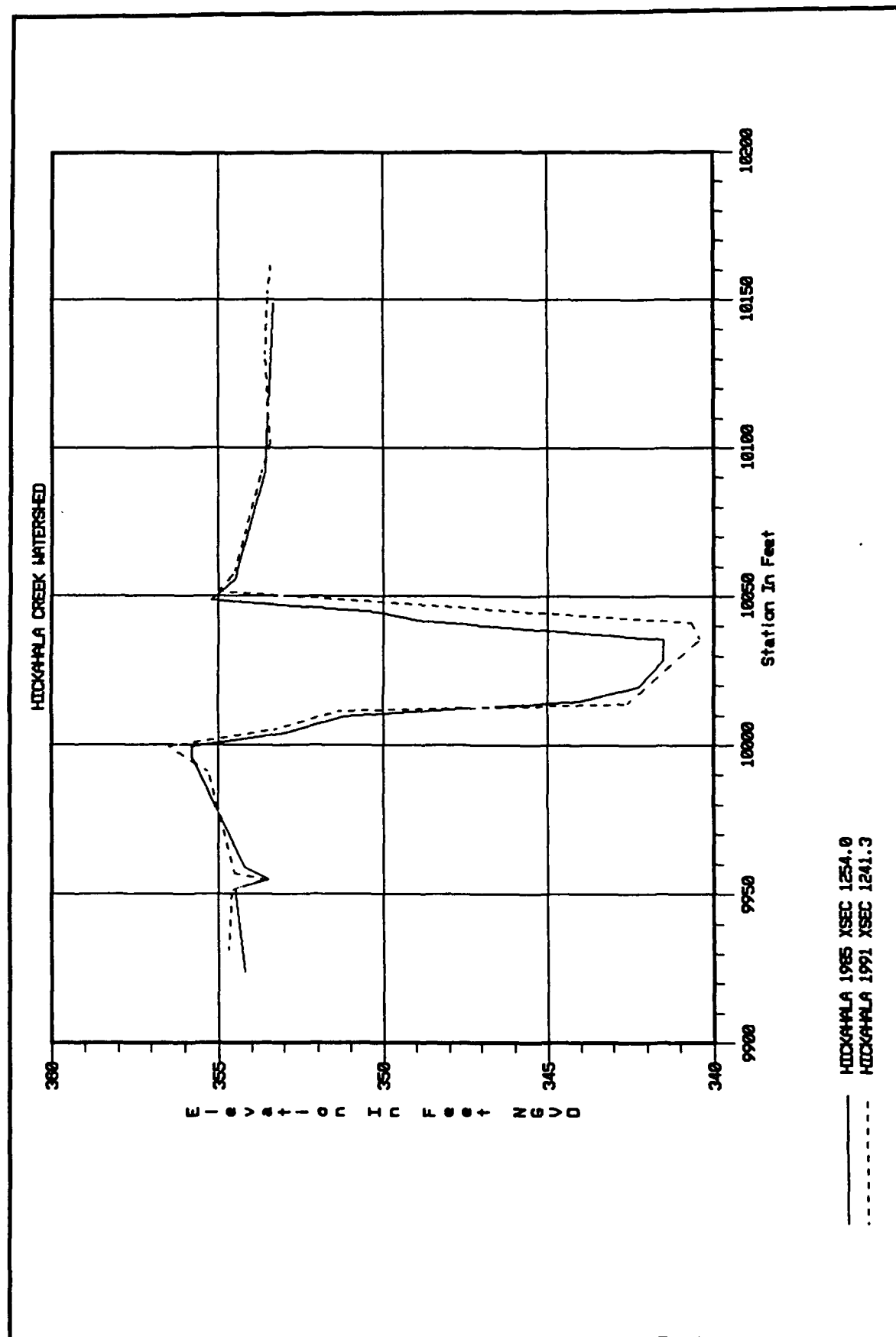


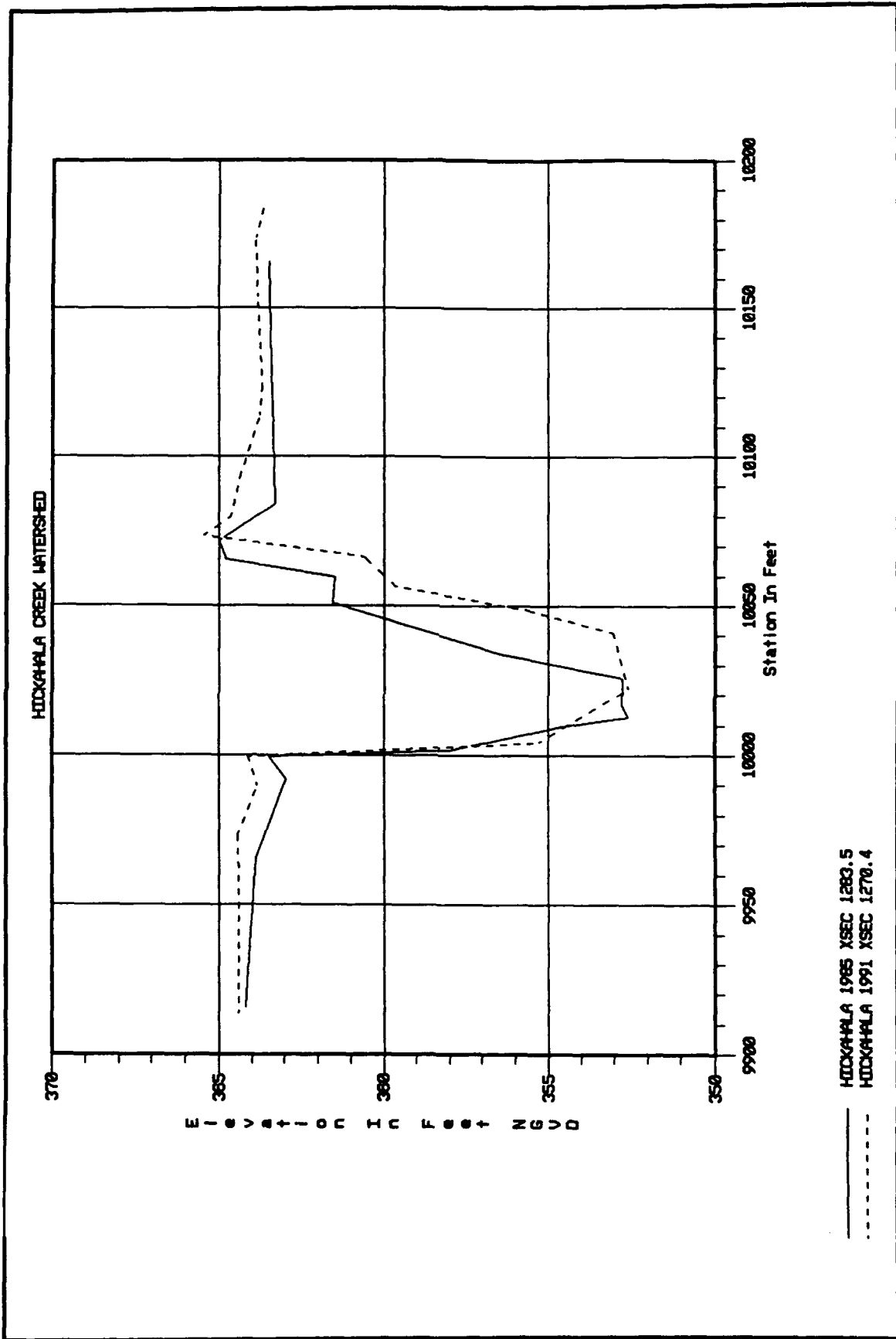
PLATE A178











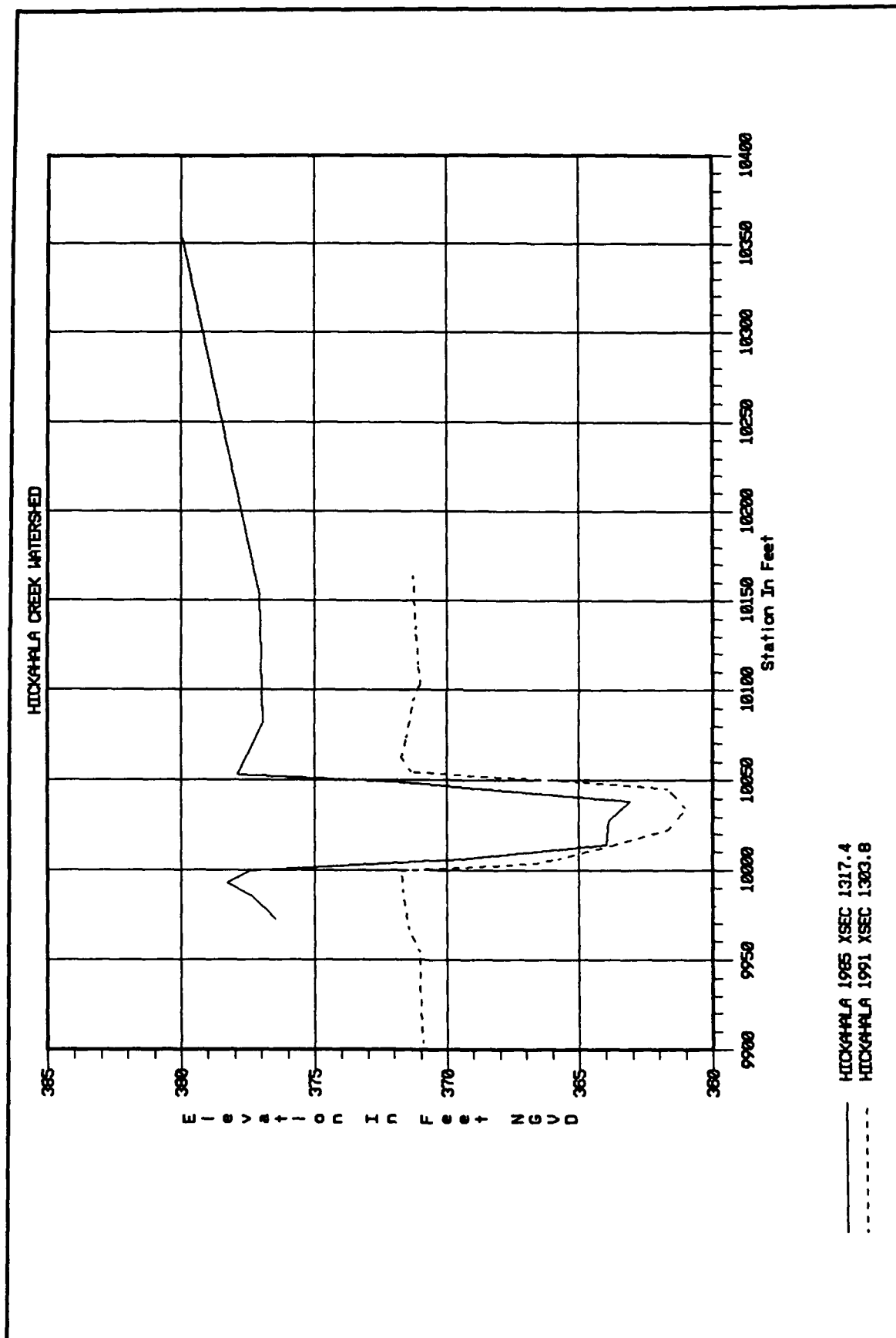
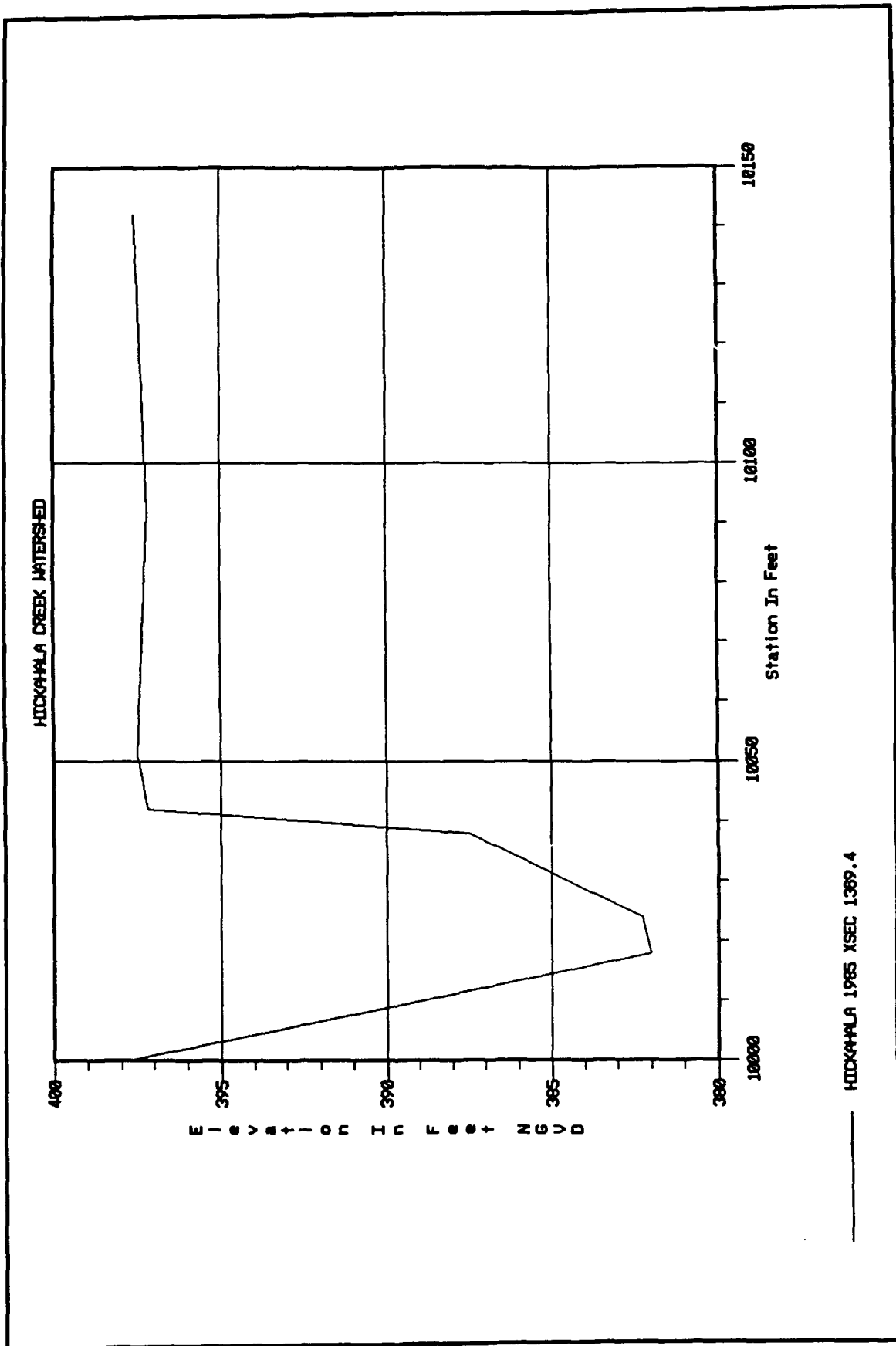


PLATE A184



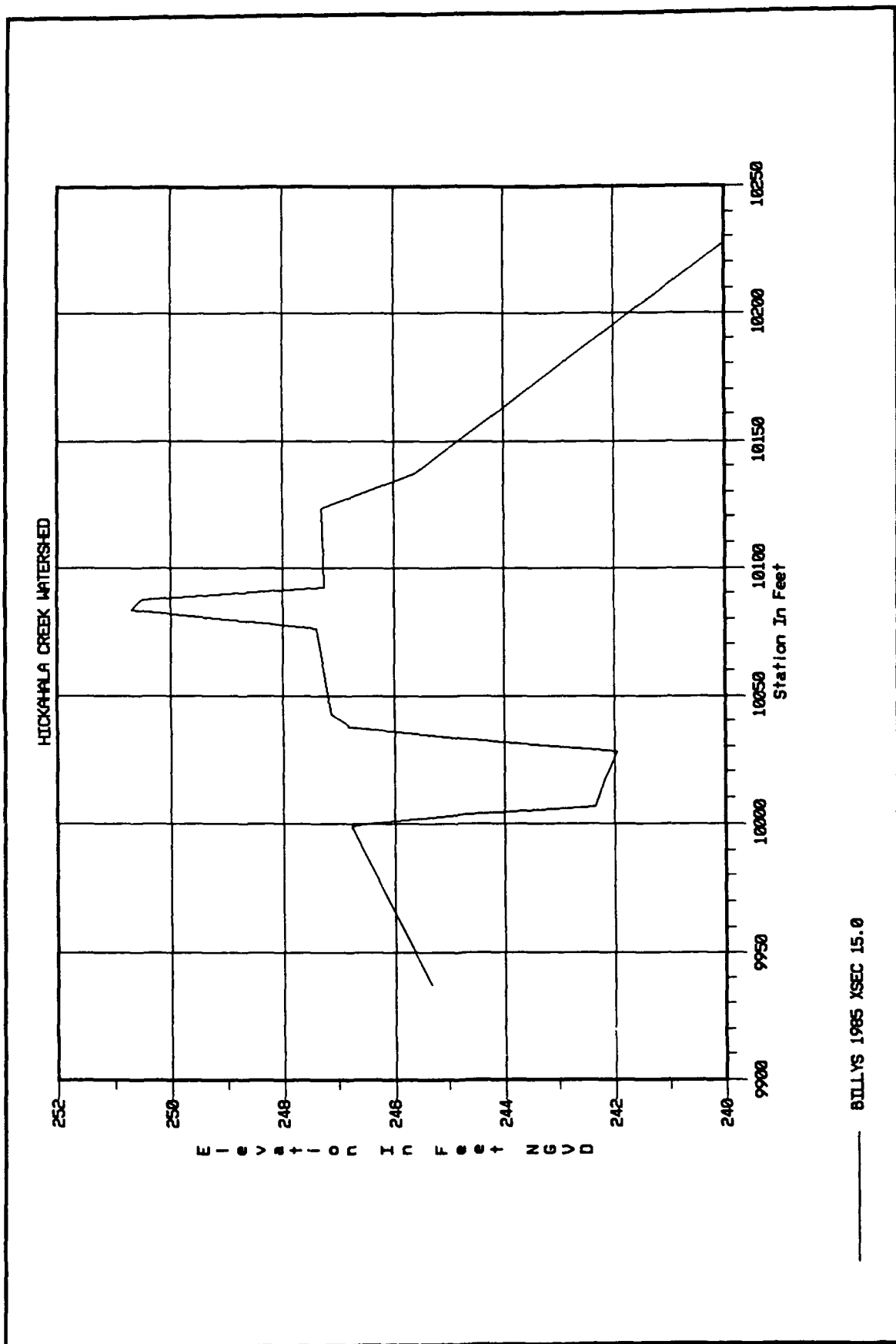
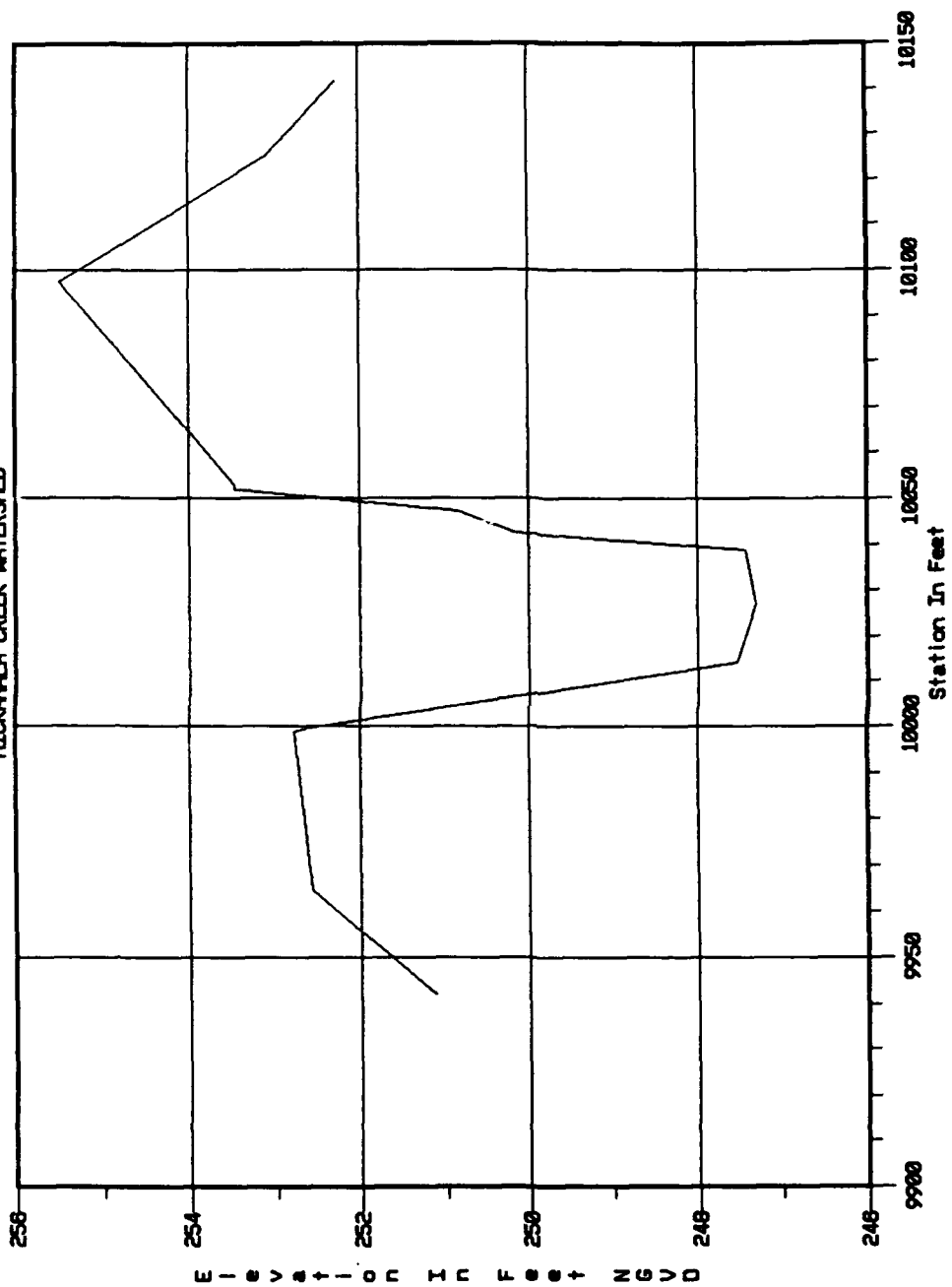


PLATE A186

HICKAHALA CREEK WATERSHED



— BILLYS 1985 XSEC 34.45

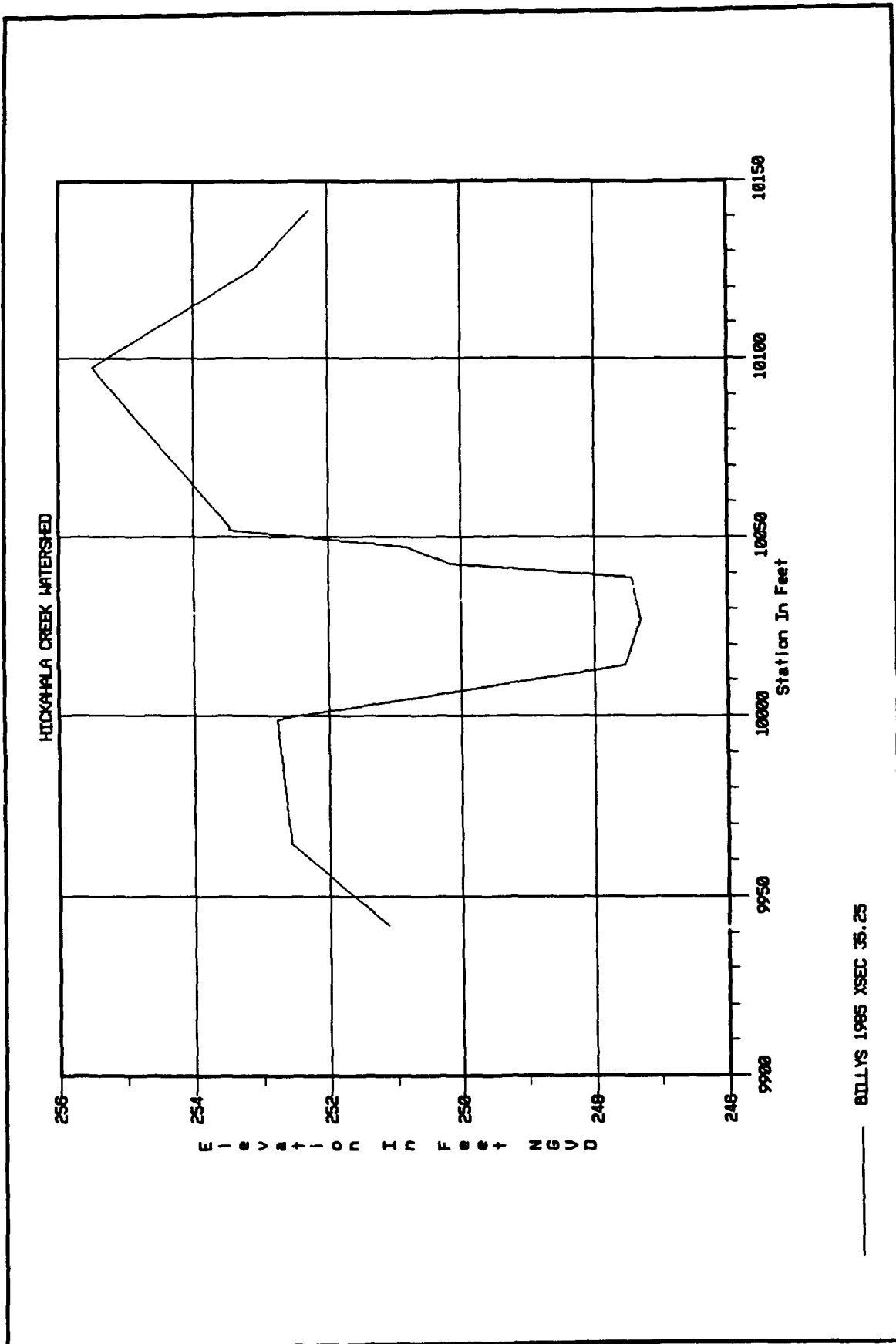
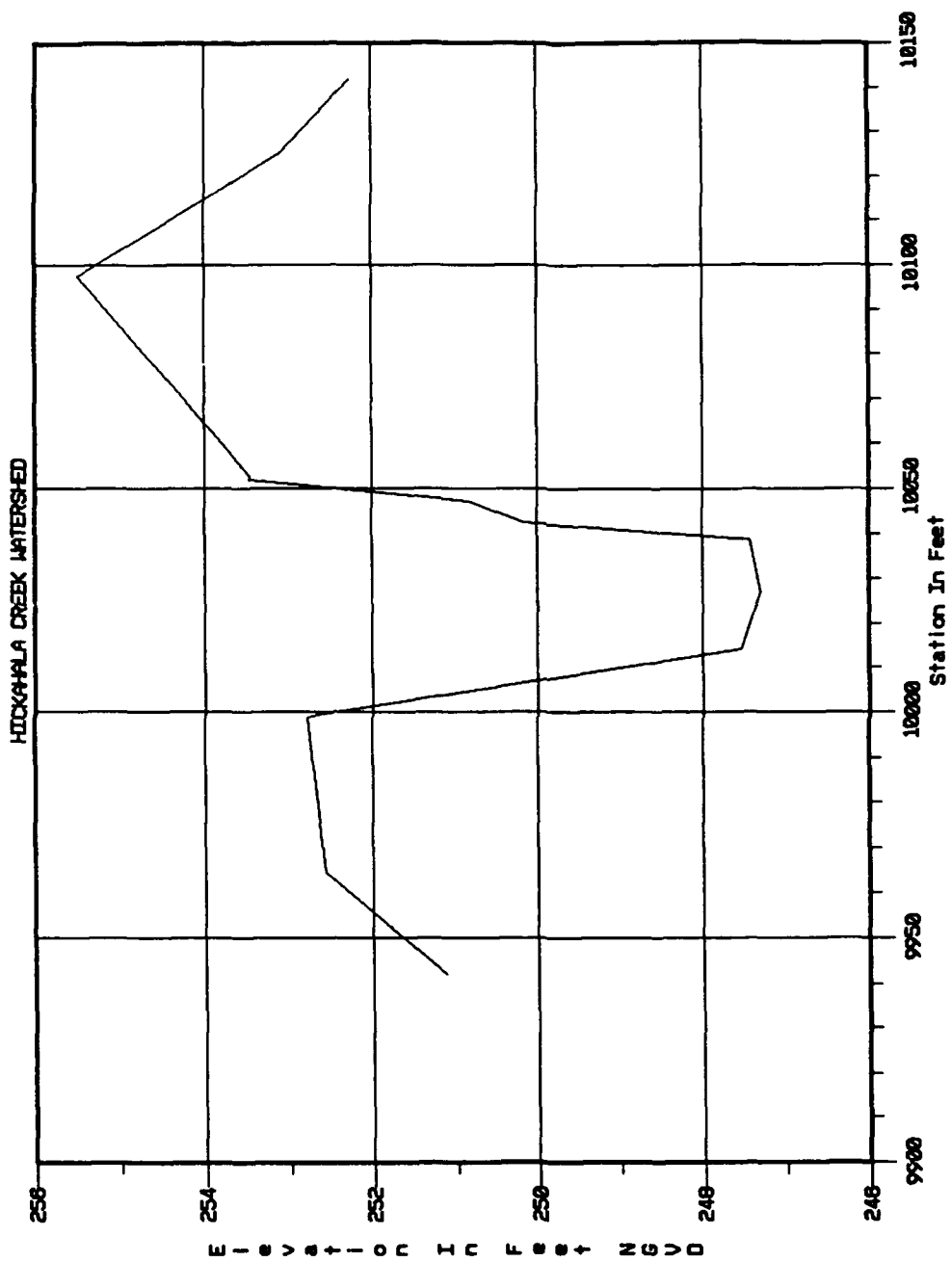
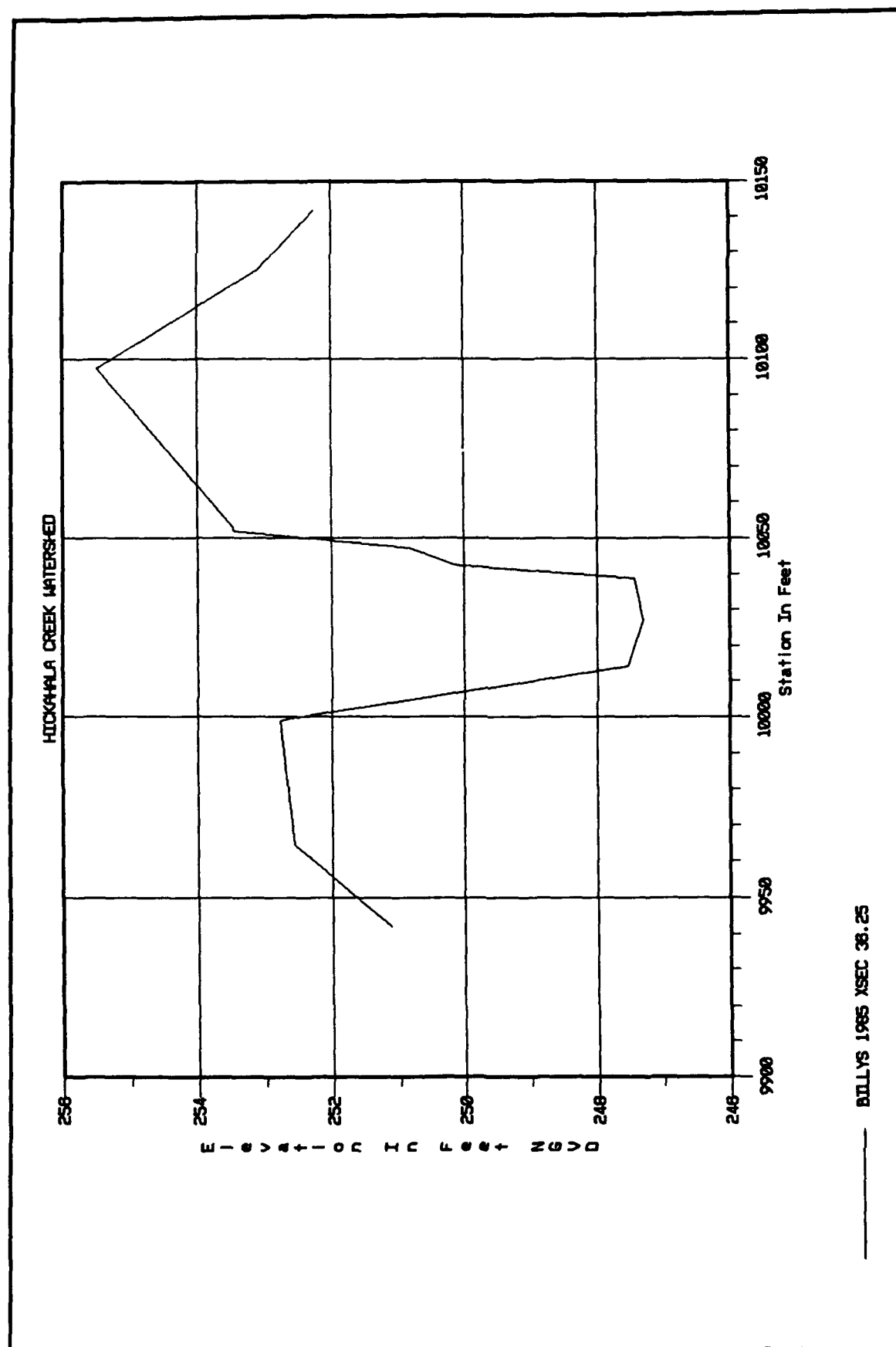


PLATE A188



BILLYS 1985 XSEC 35.55



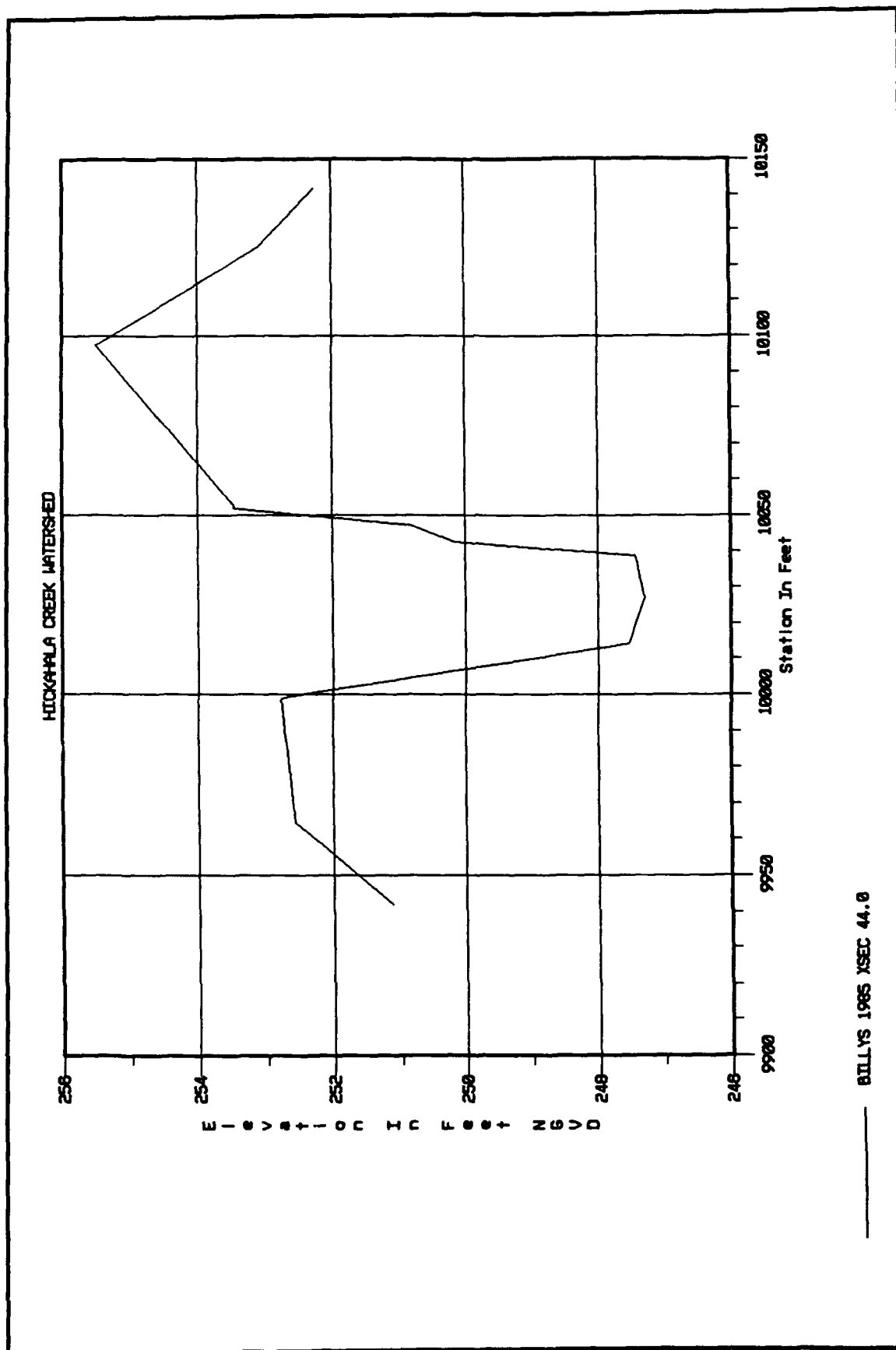
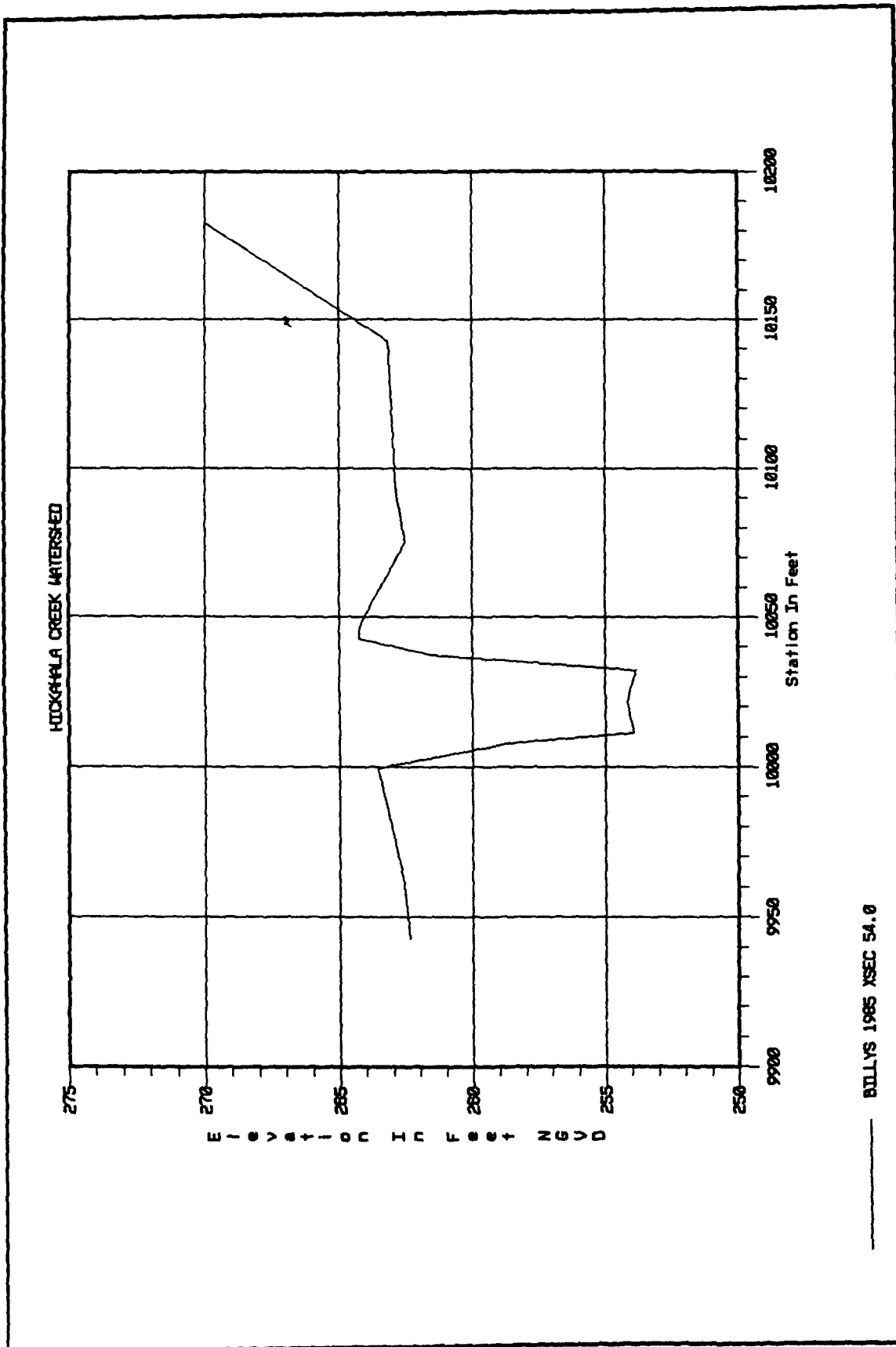
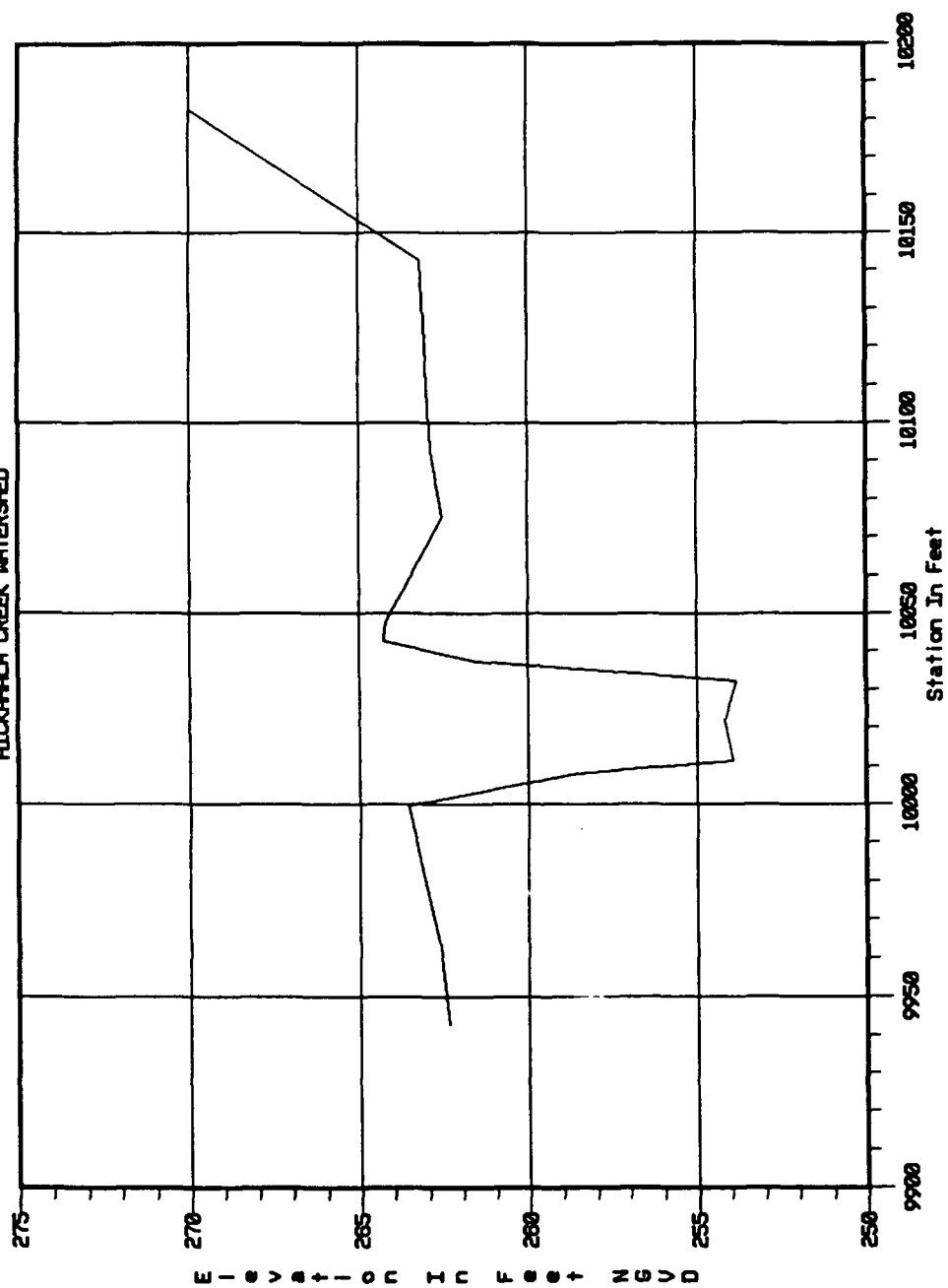


PLATE A191



HICKAHULA CREEK WATERSHED



_____ BILLYS 1985 XSEC 84.0

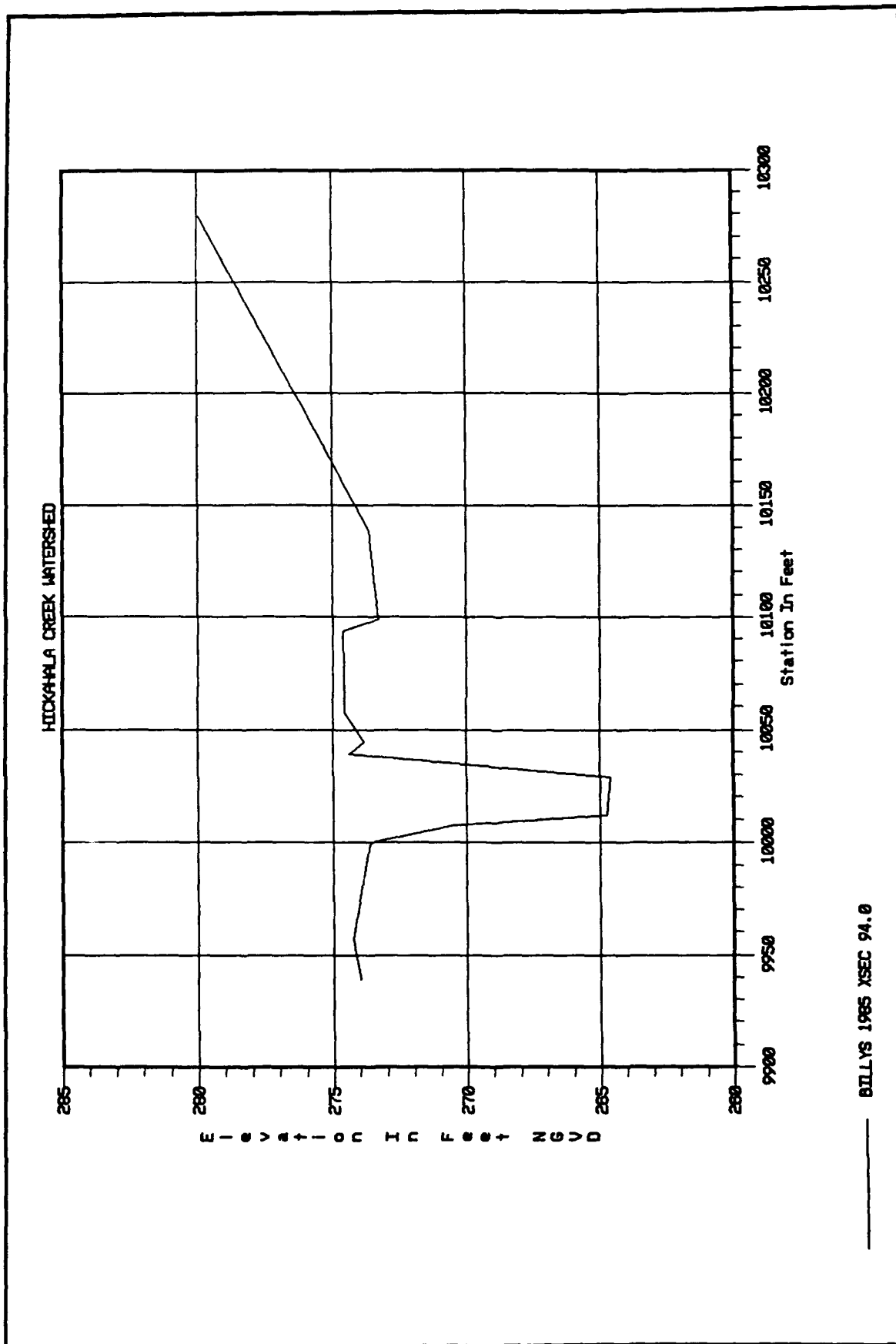
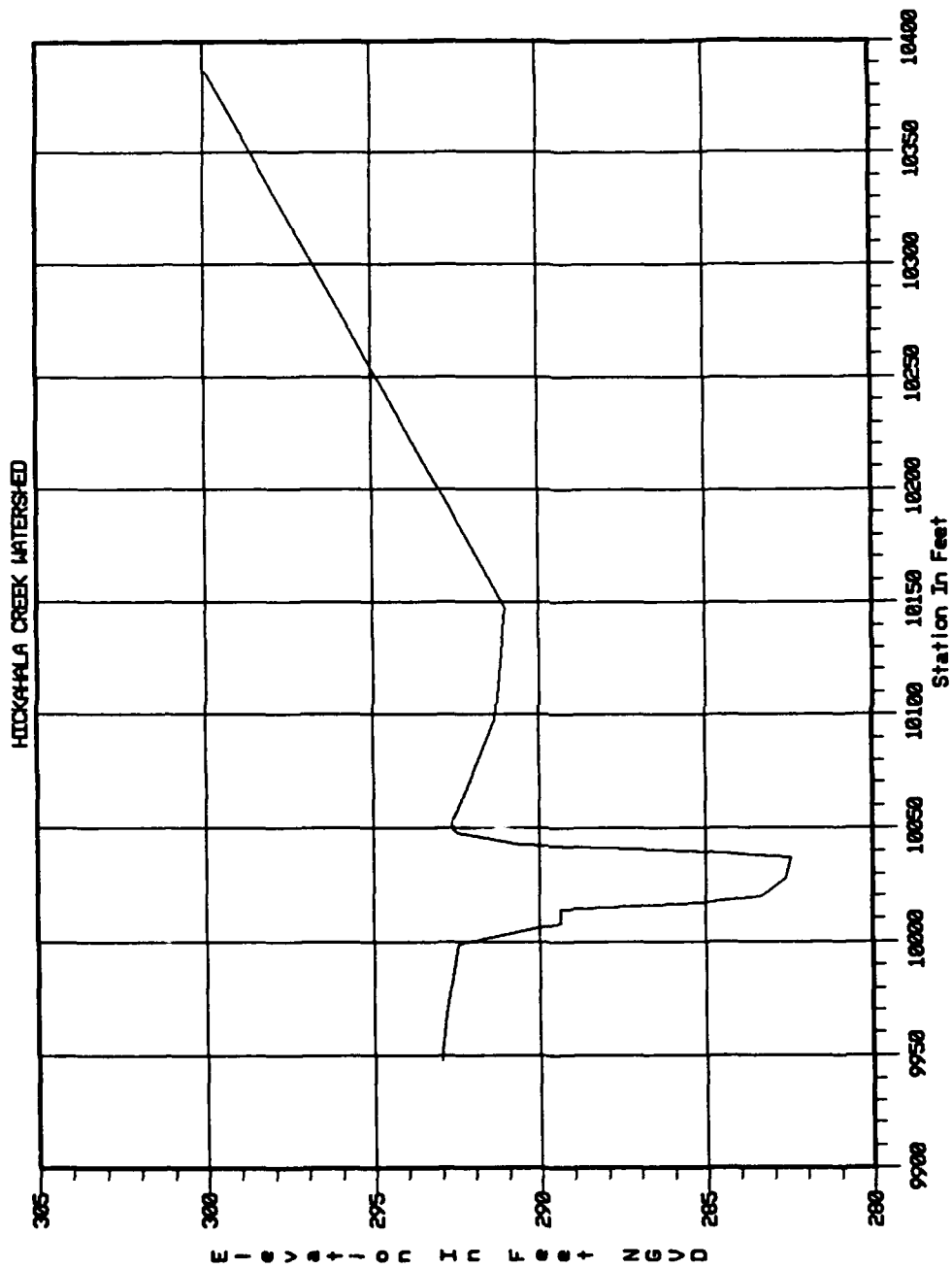
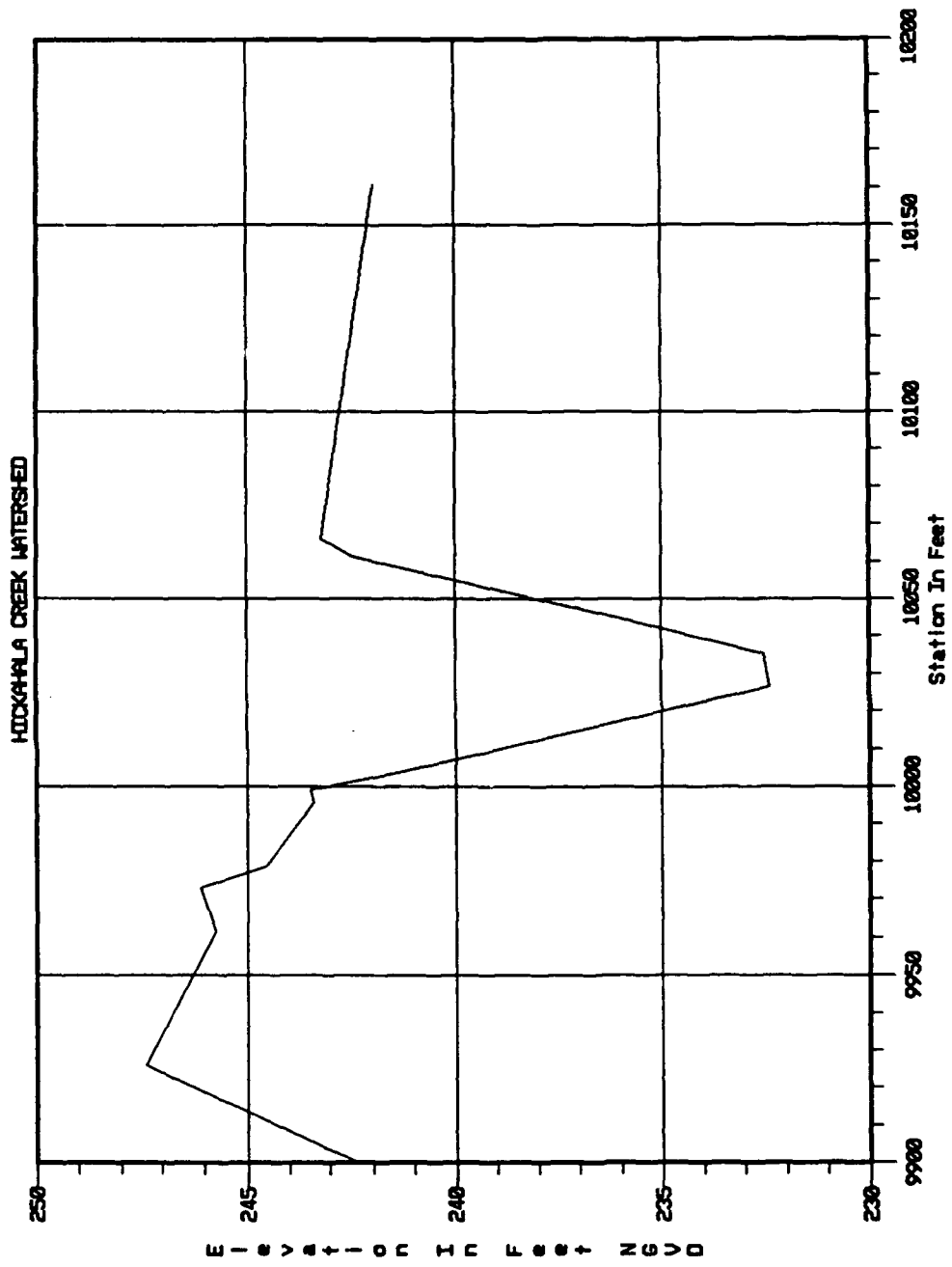


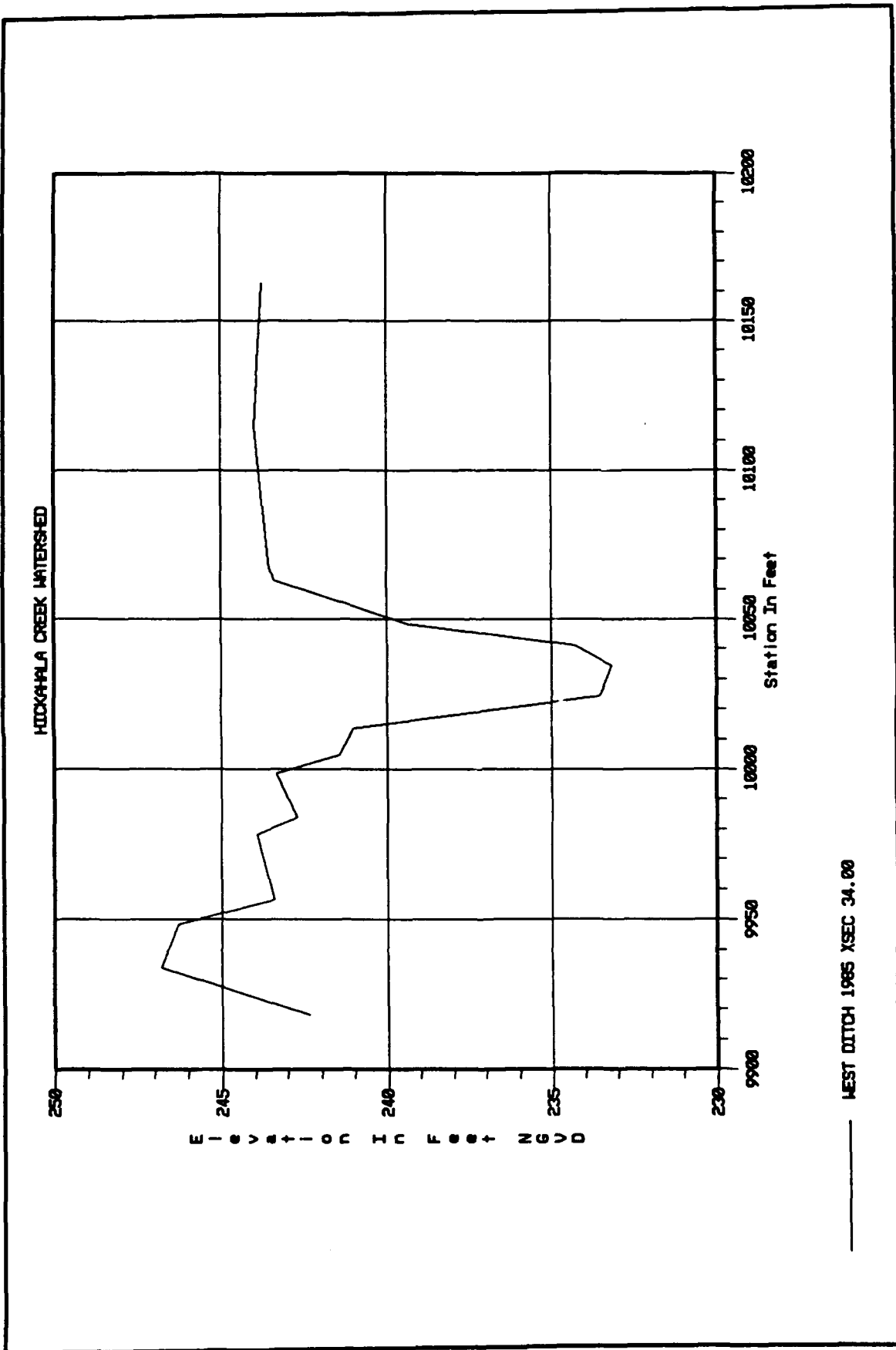
PLATE A194



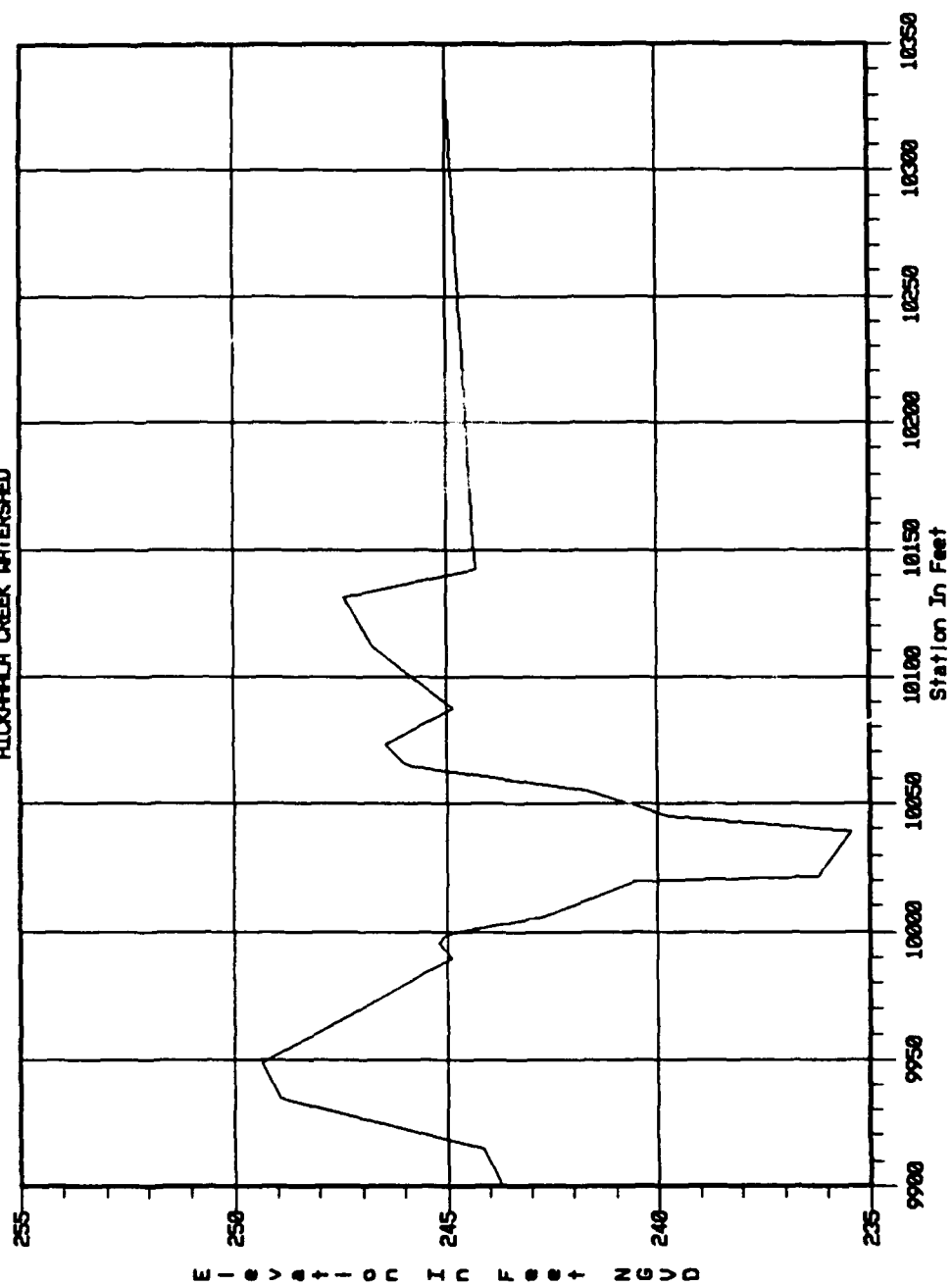
— BILLYS 1985 XSEC 131.2



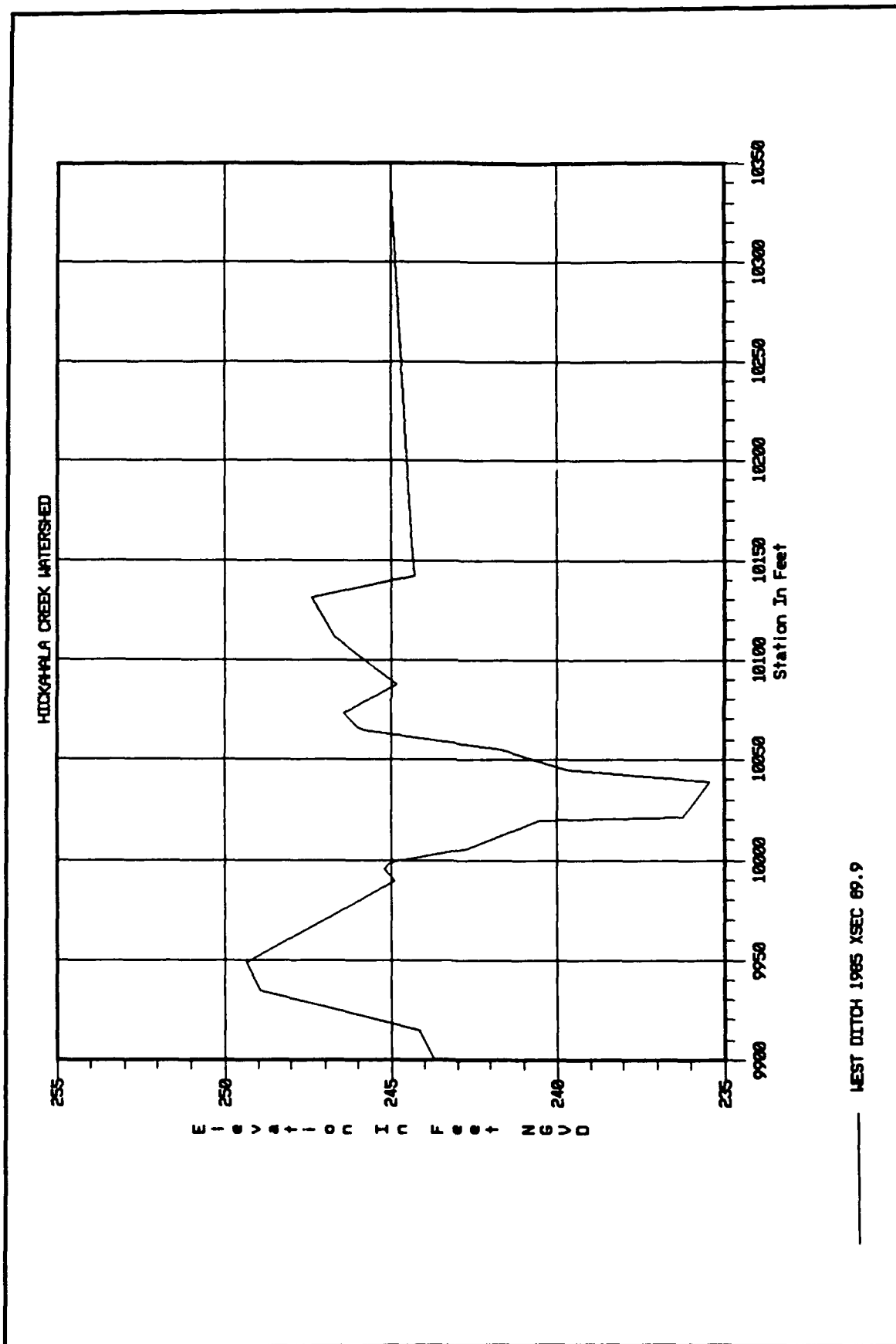
WEST DITCH 1985 XSEC 7.80

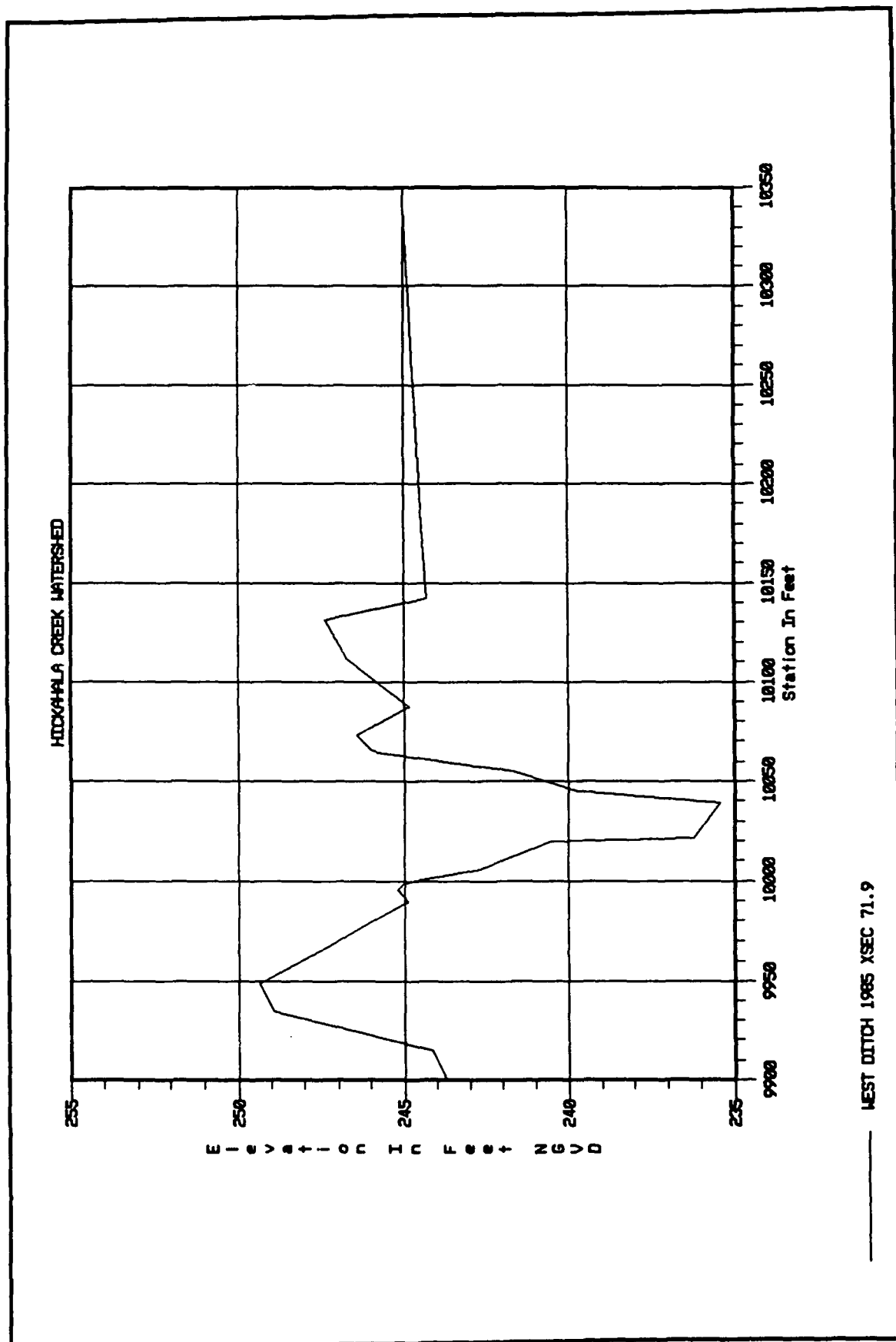


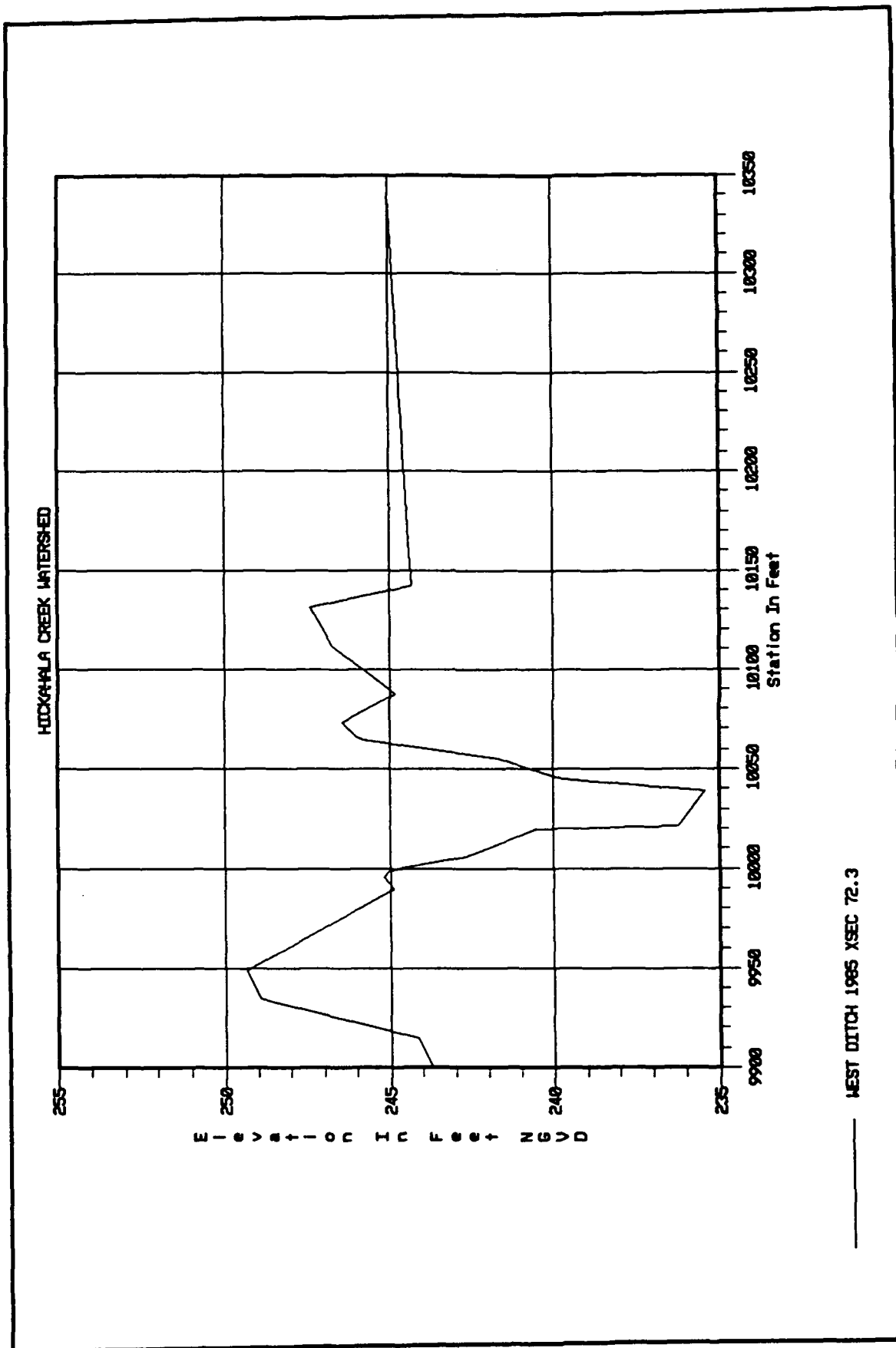
HICKAHULA CREEK WATERSHED

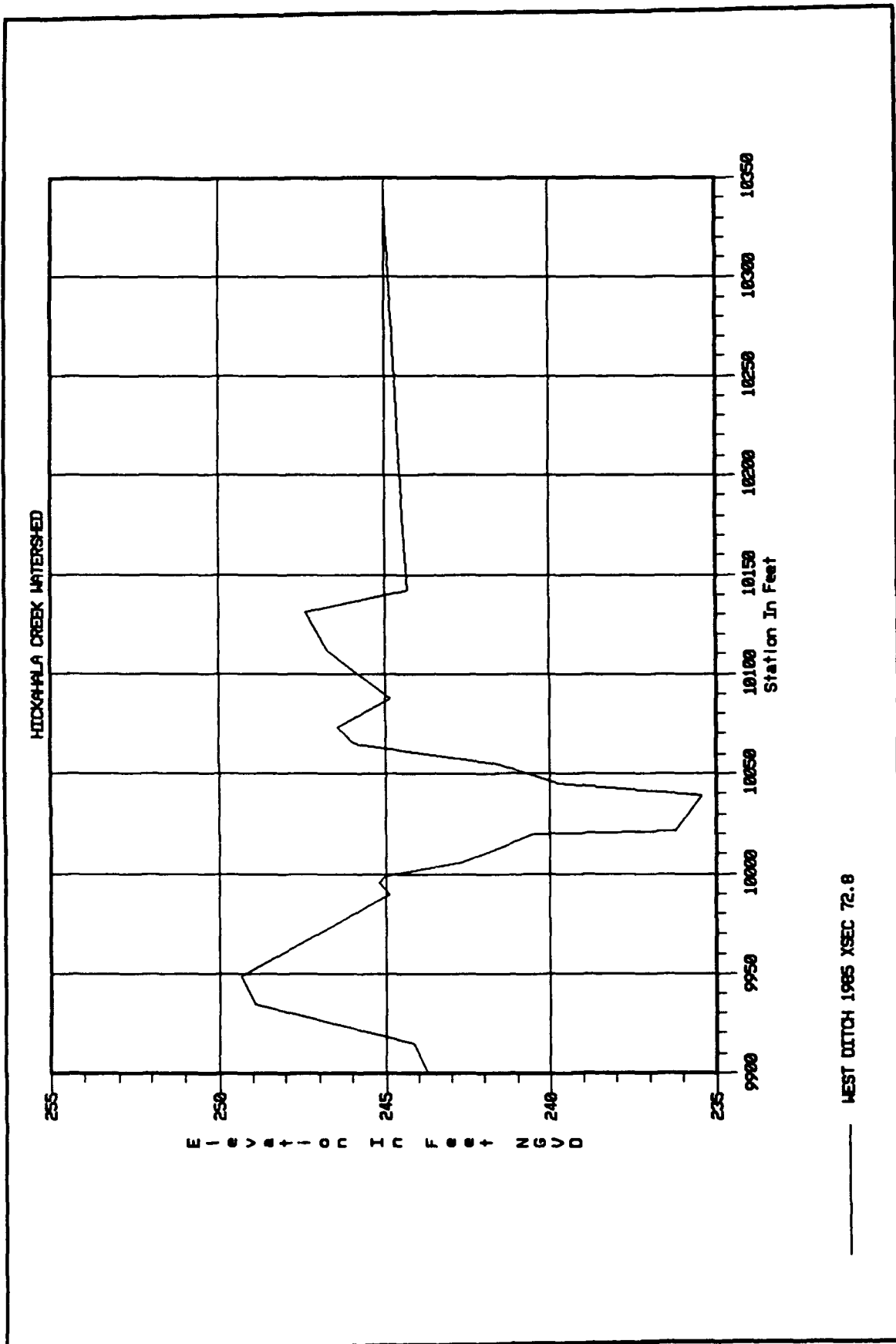


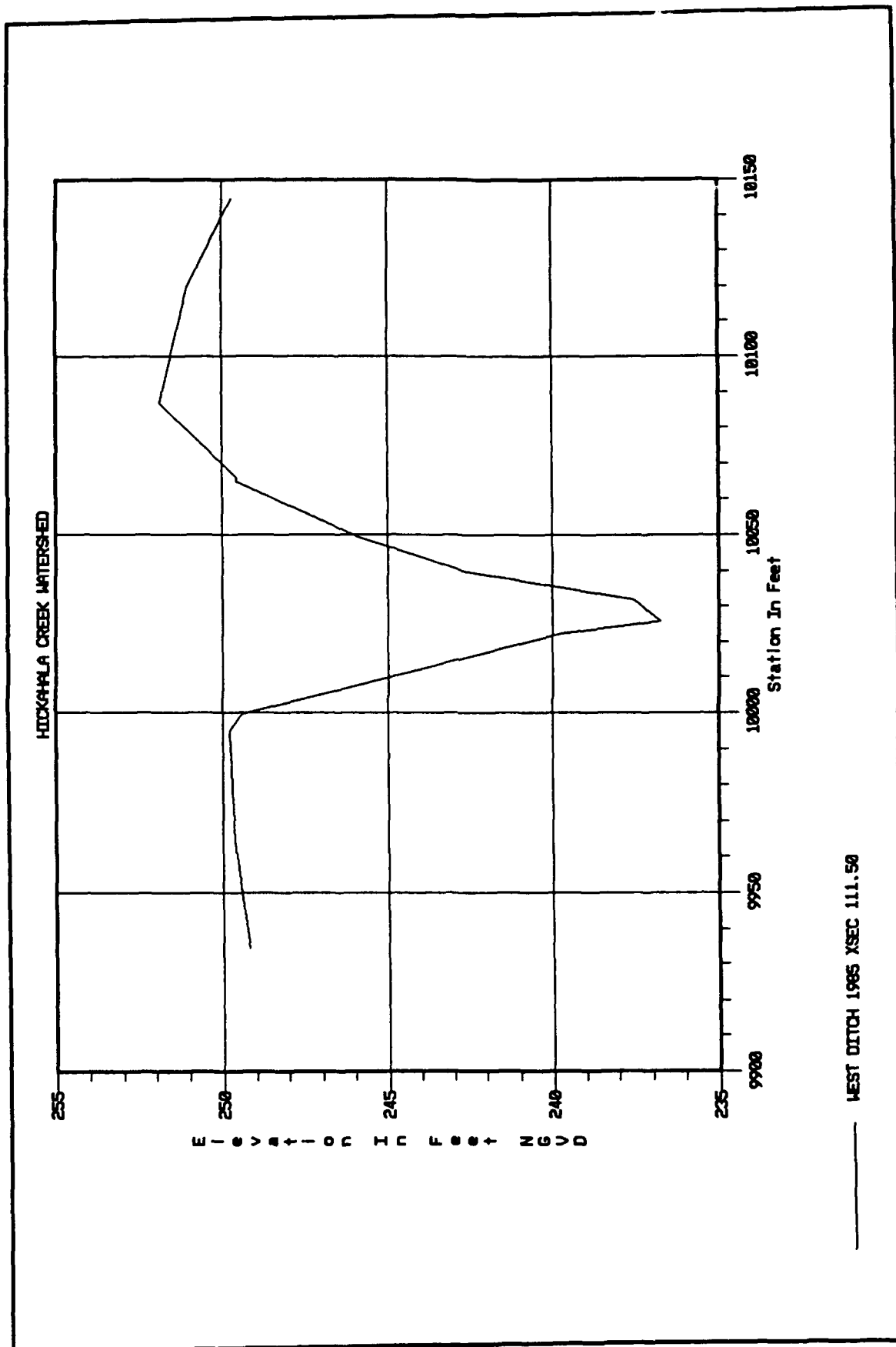
WEST DITCH 1965 XSEC 62.30

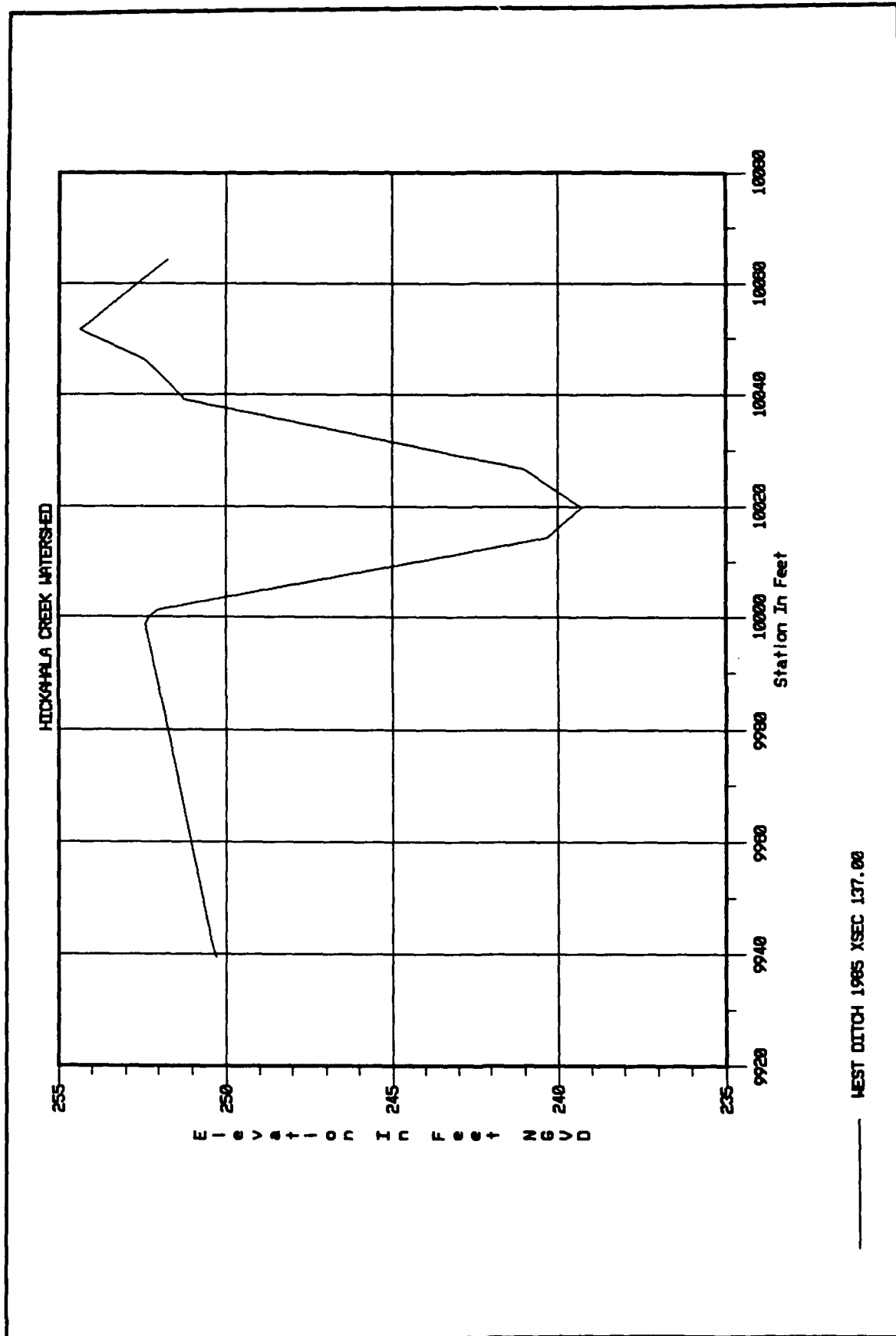


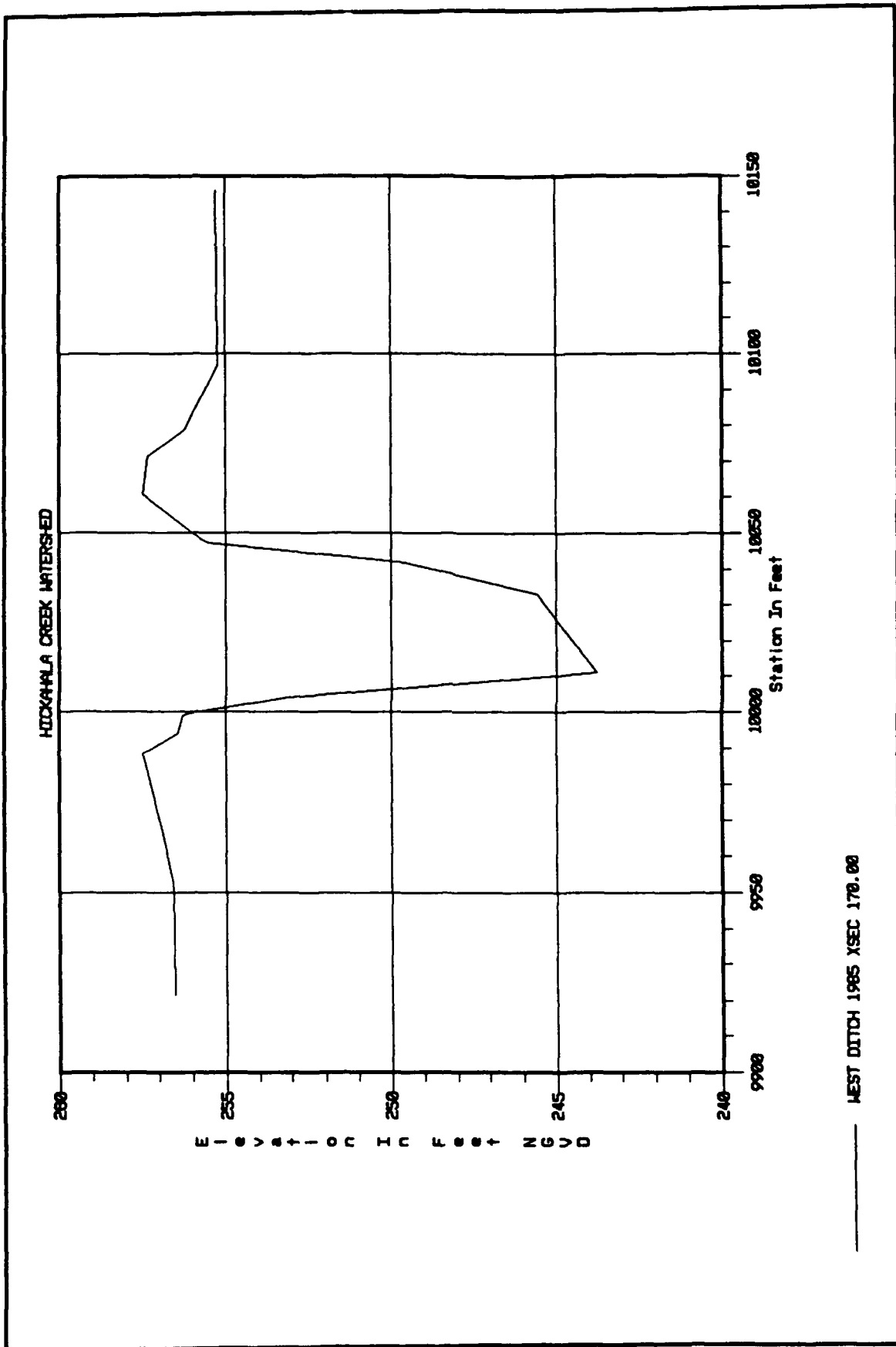


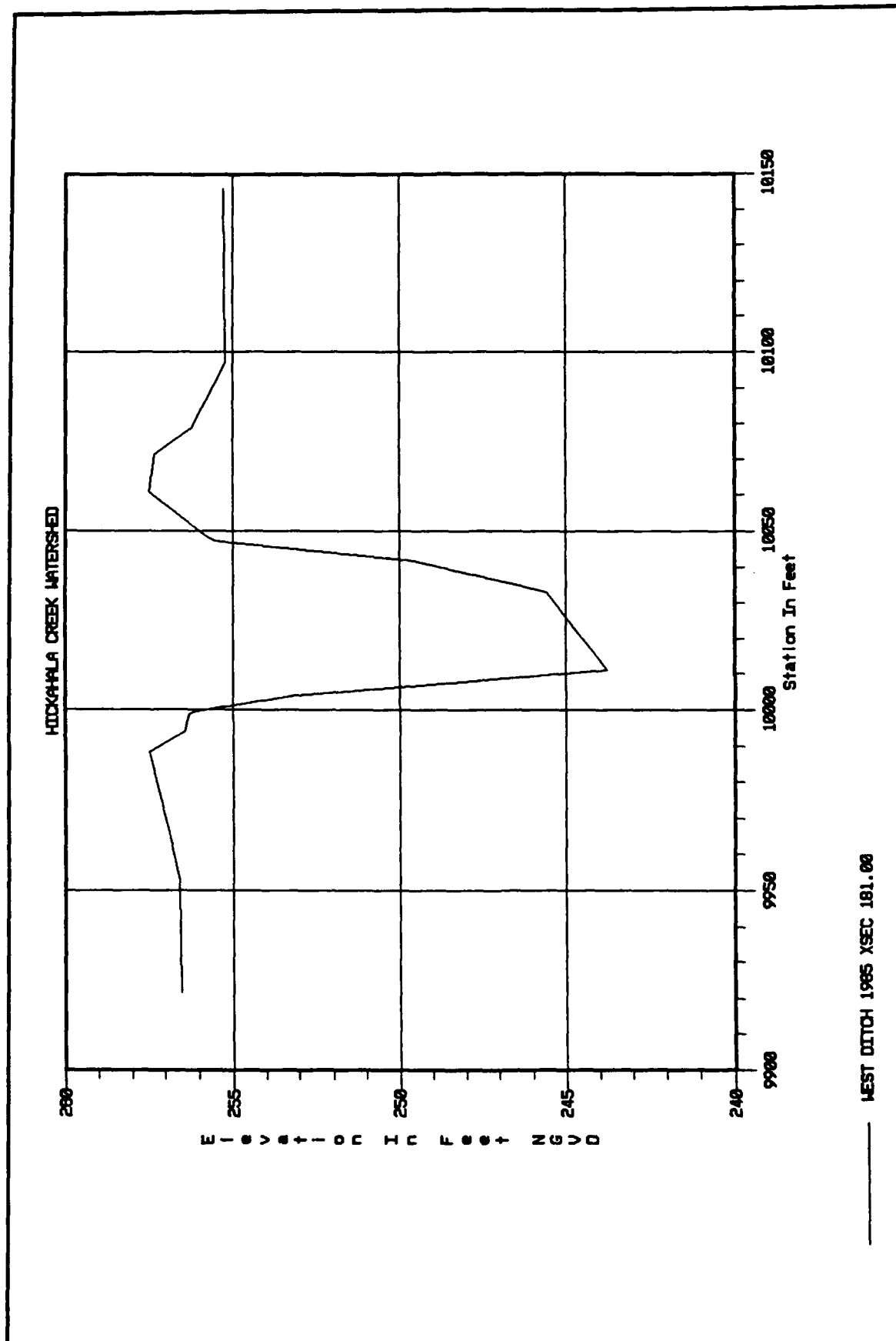


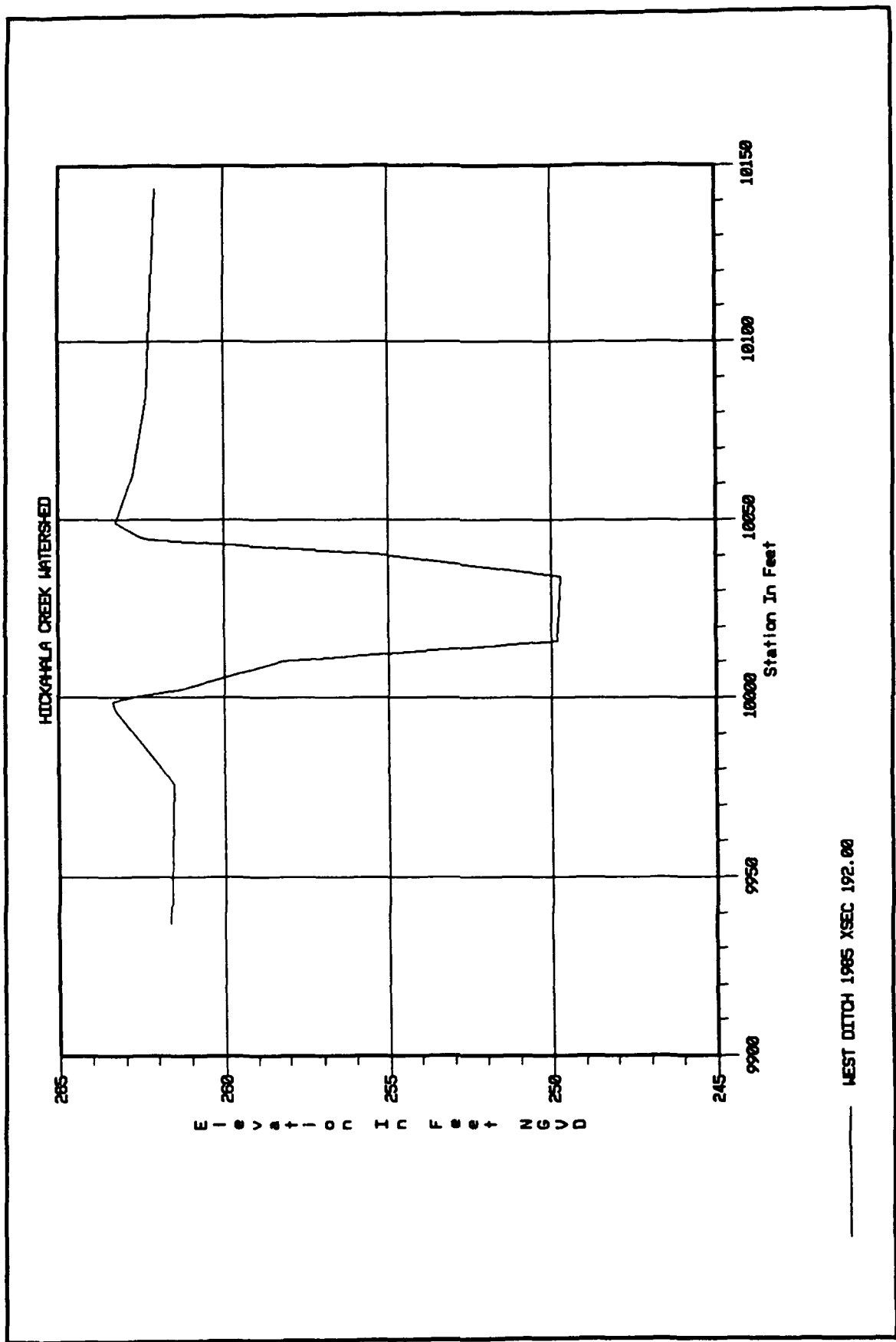


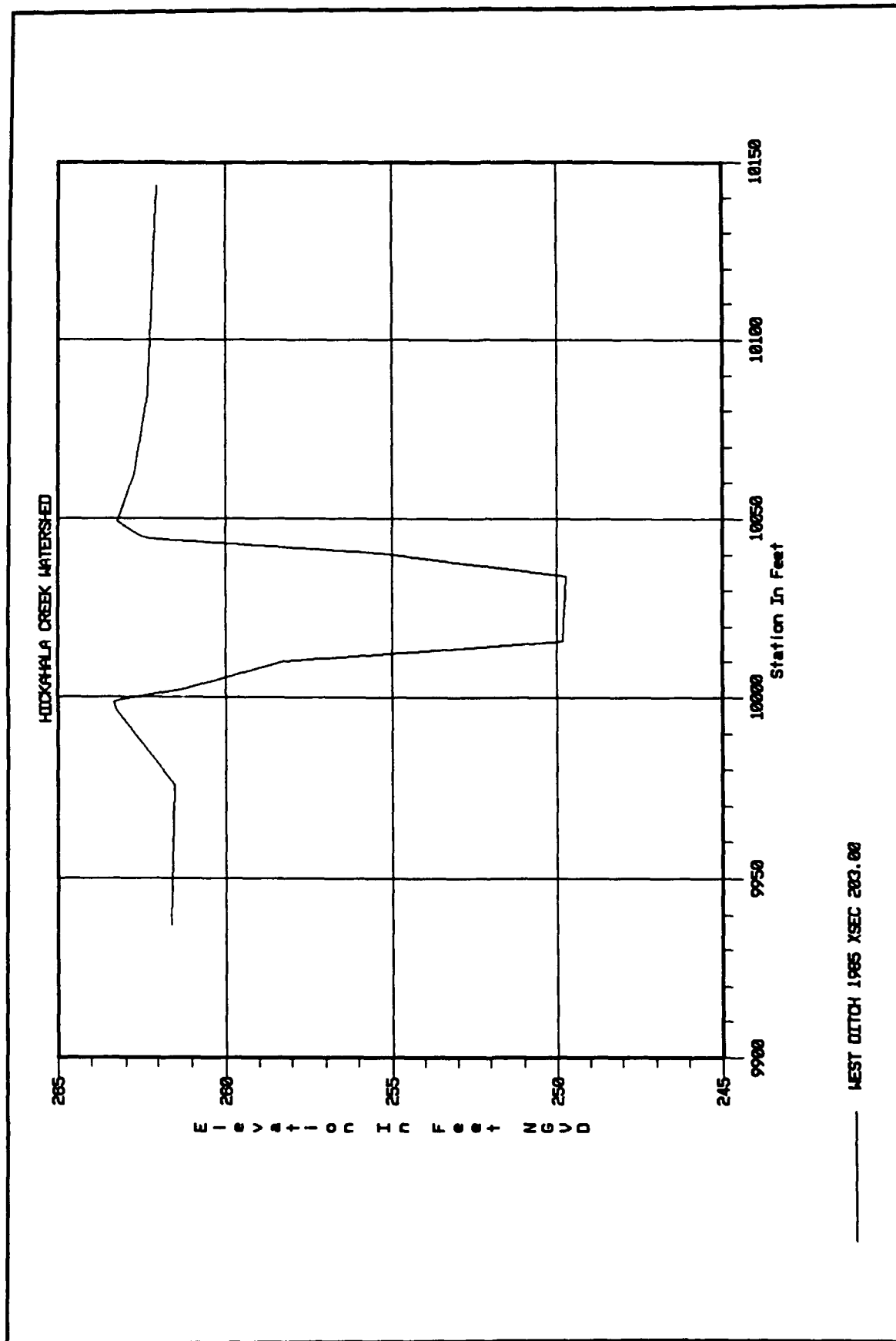


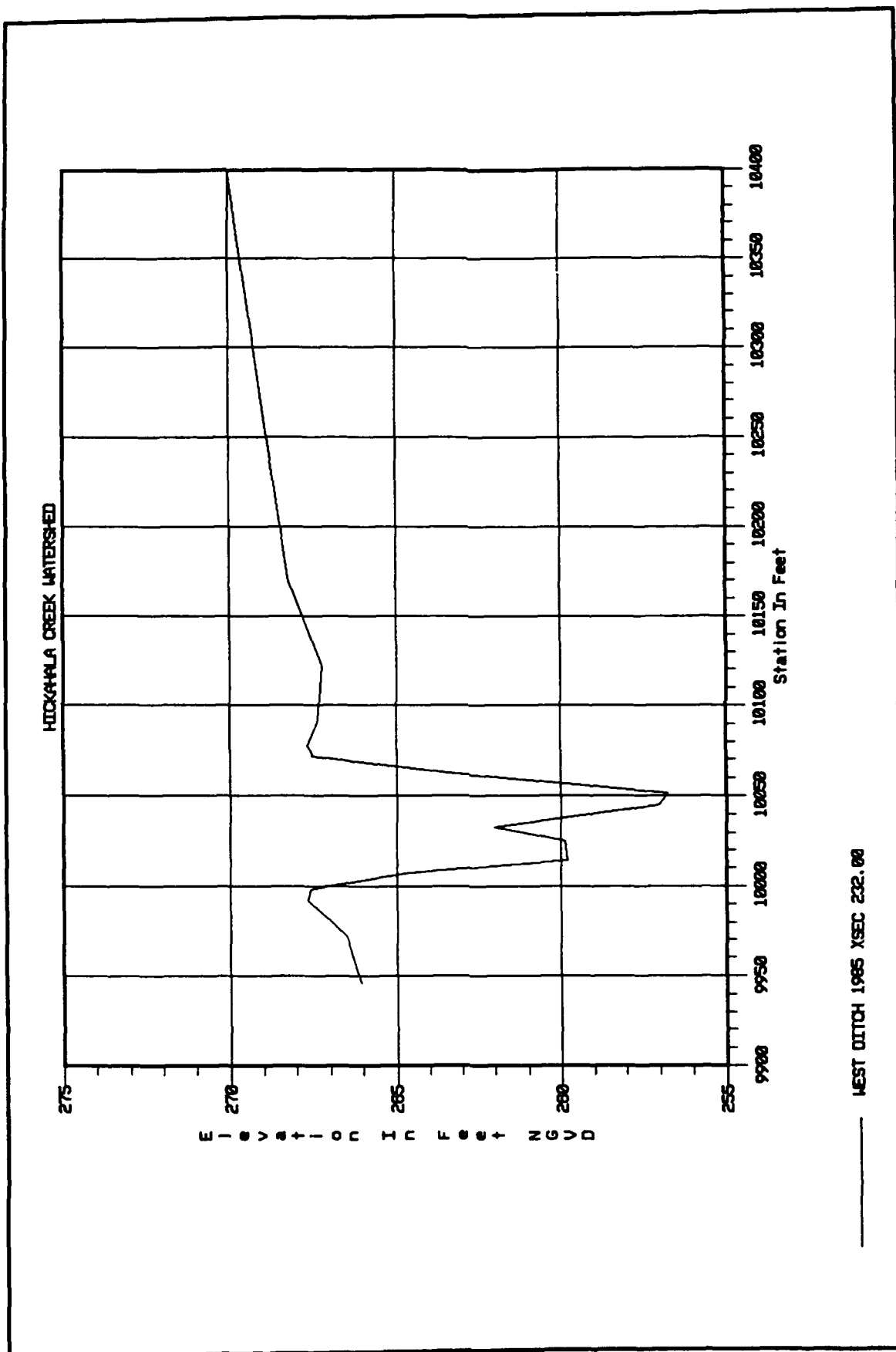












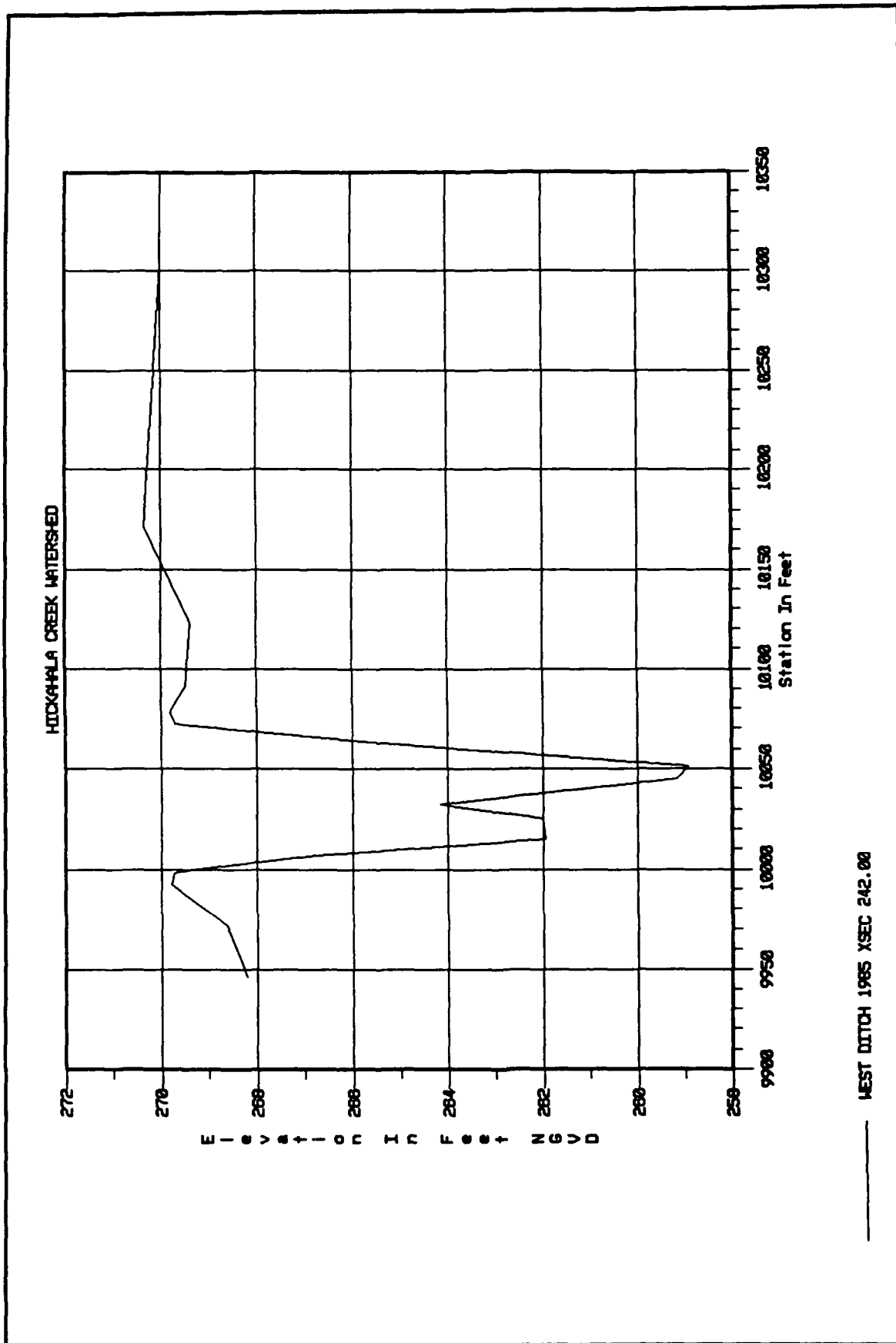
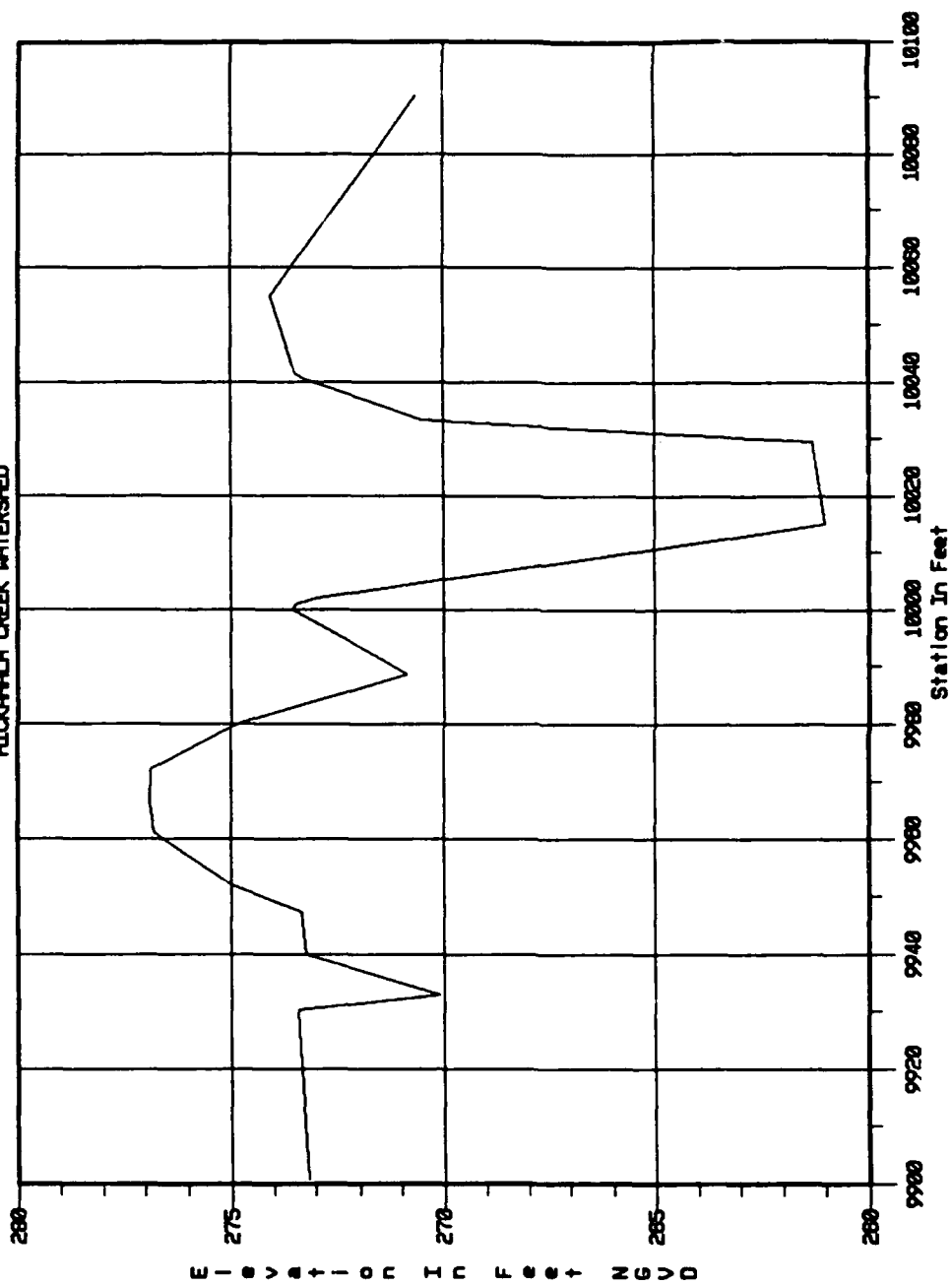
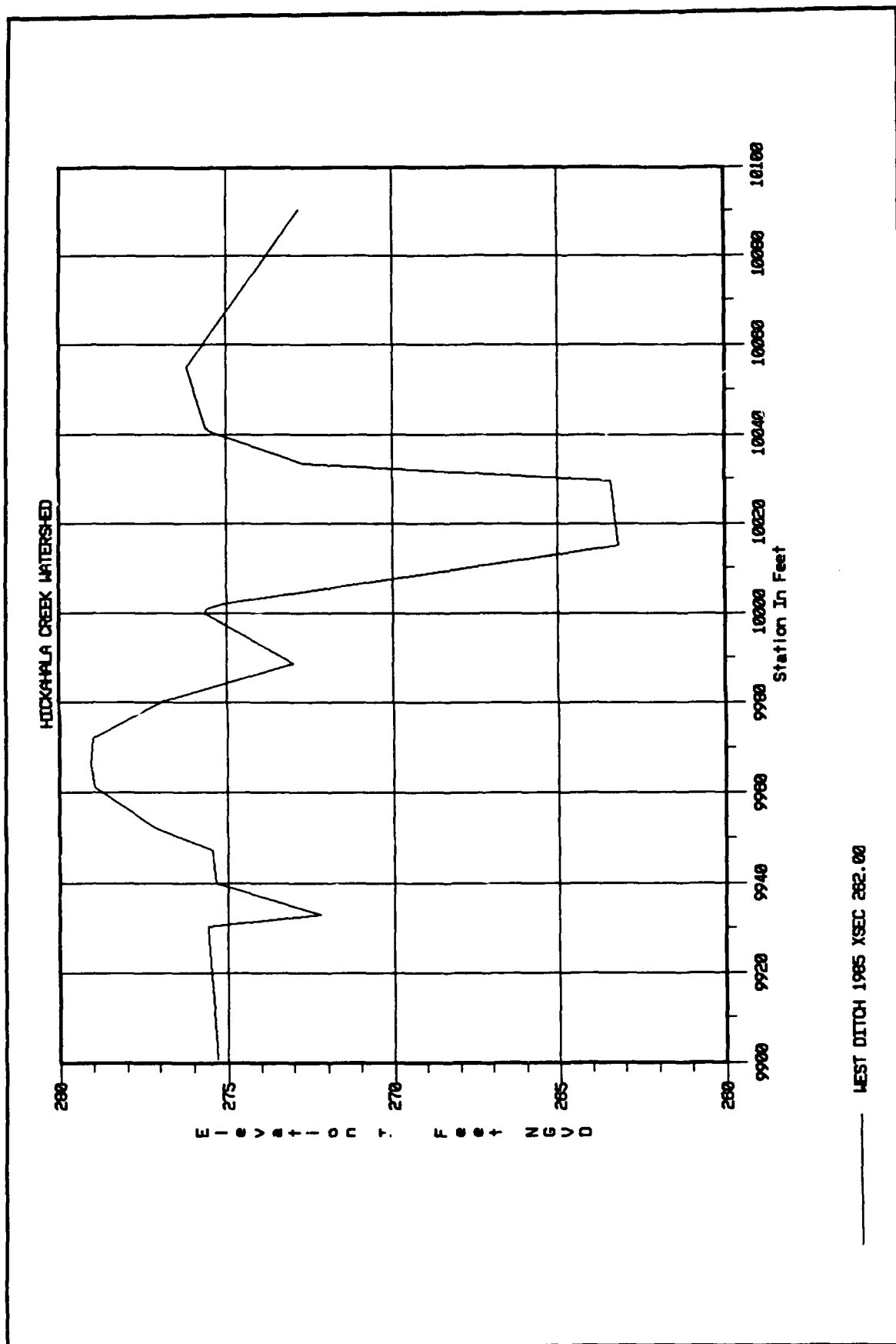


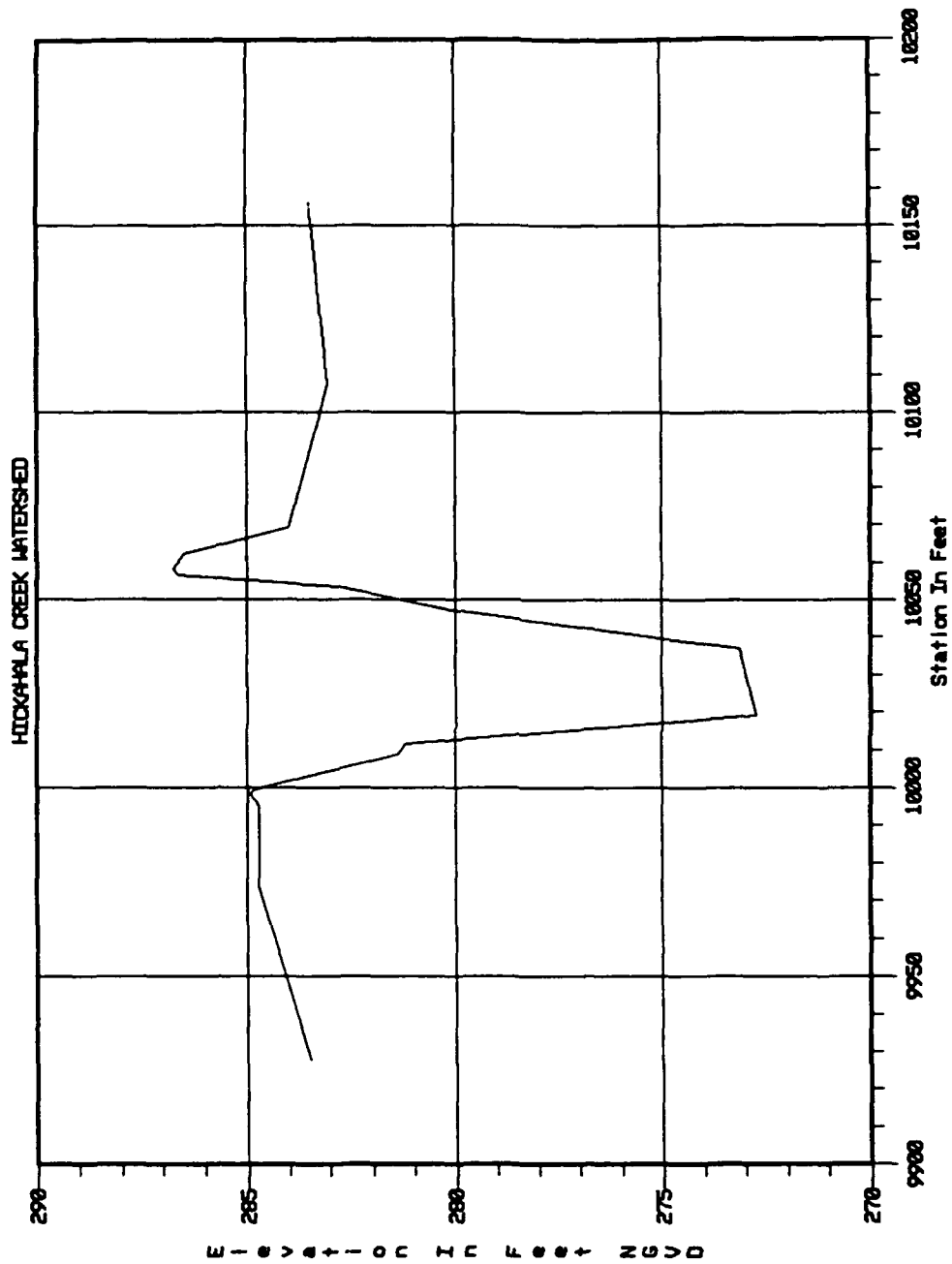
PLATE A210

HICKAHULA CREEK WATERSHED

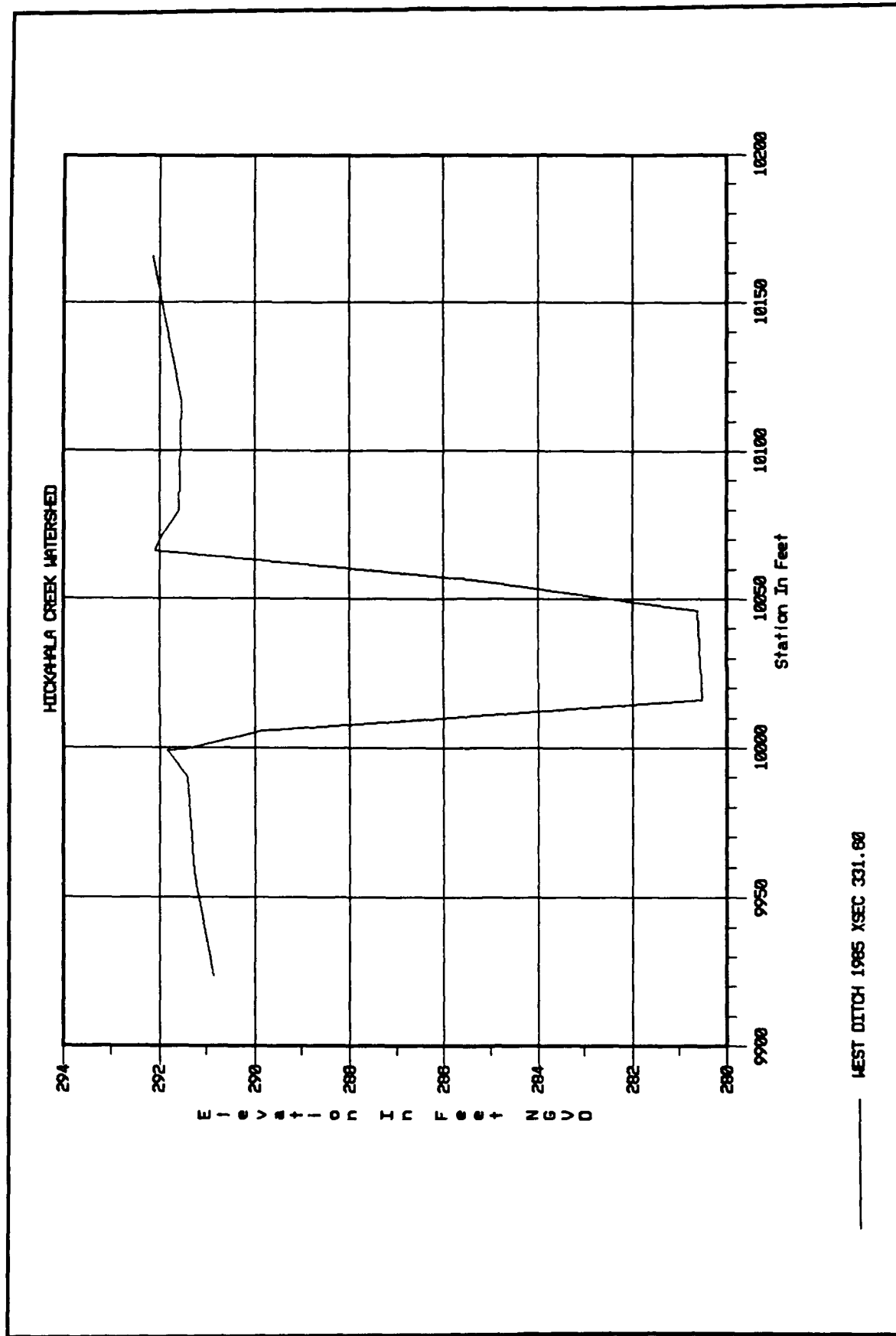


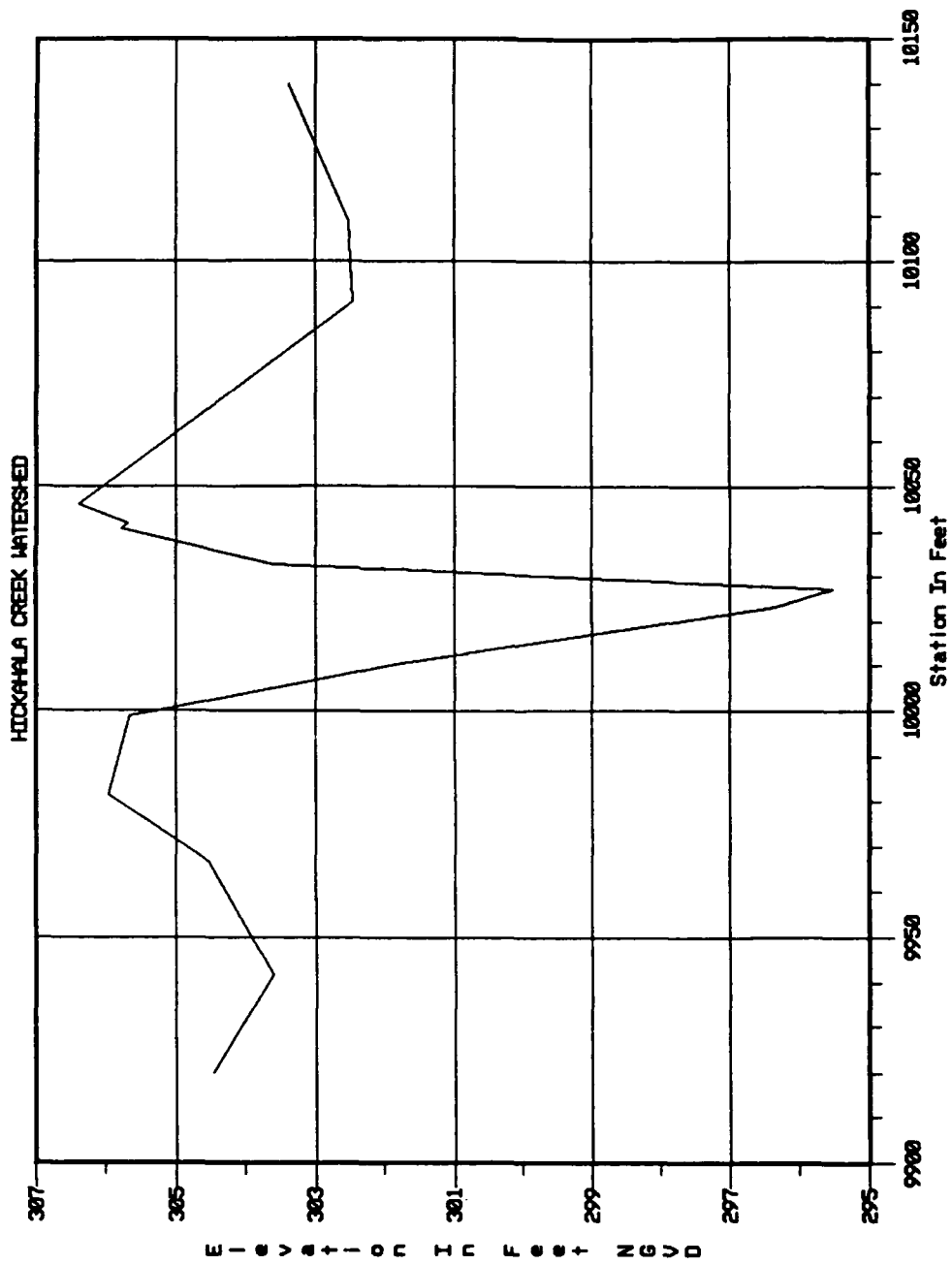
WEST DITCH 1985 XSEC 252.00





WEST DITCH 1985 XSEC 298.98





WEST DITCH 1985 XSEC 388.30

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13. ABSTRACT (Maximum 200 words) The purpose of monitoring the Demonstration Erosion Control (DEC) Project is to evaluate and document watershed response to the implemented DEC Project. Documentation of watershed responses to DEC Project features will allow the participating agencies a unique opportunity to determine the effectiveness of existing design guidance for erosion and flood control in small watersheds. The monitoring program includes 11 technical areas: stream gaging, data collection and data management, hydraulic performance of structures, channel response, hydrology, upland watersheds, reservoir sedimentation, environmental aspects, bank stability, design tools, and technology transfer. Appendix A documents the channel cross-section and profile data used in the detailed geomorphic assessment for the Hickahala-Senatobia Creek watershed that is presented in Volume I of this report.				
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