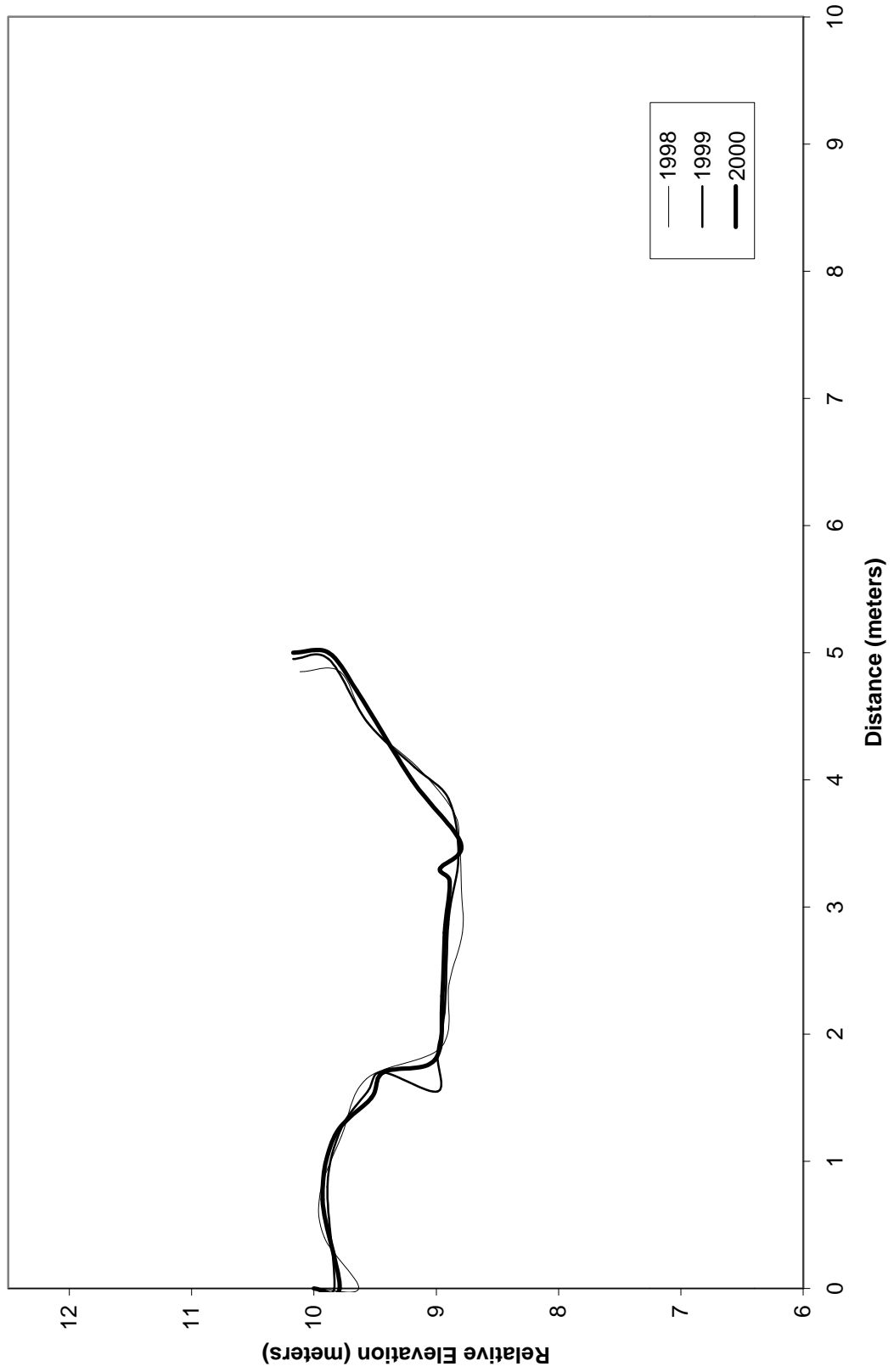


Appendix A

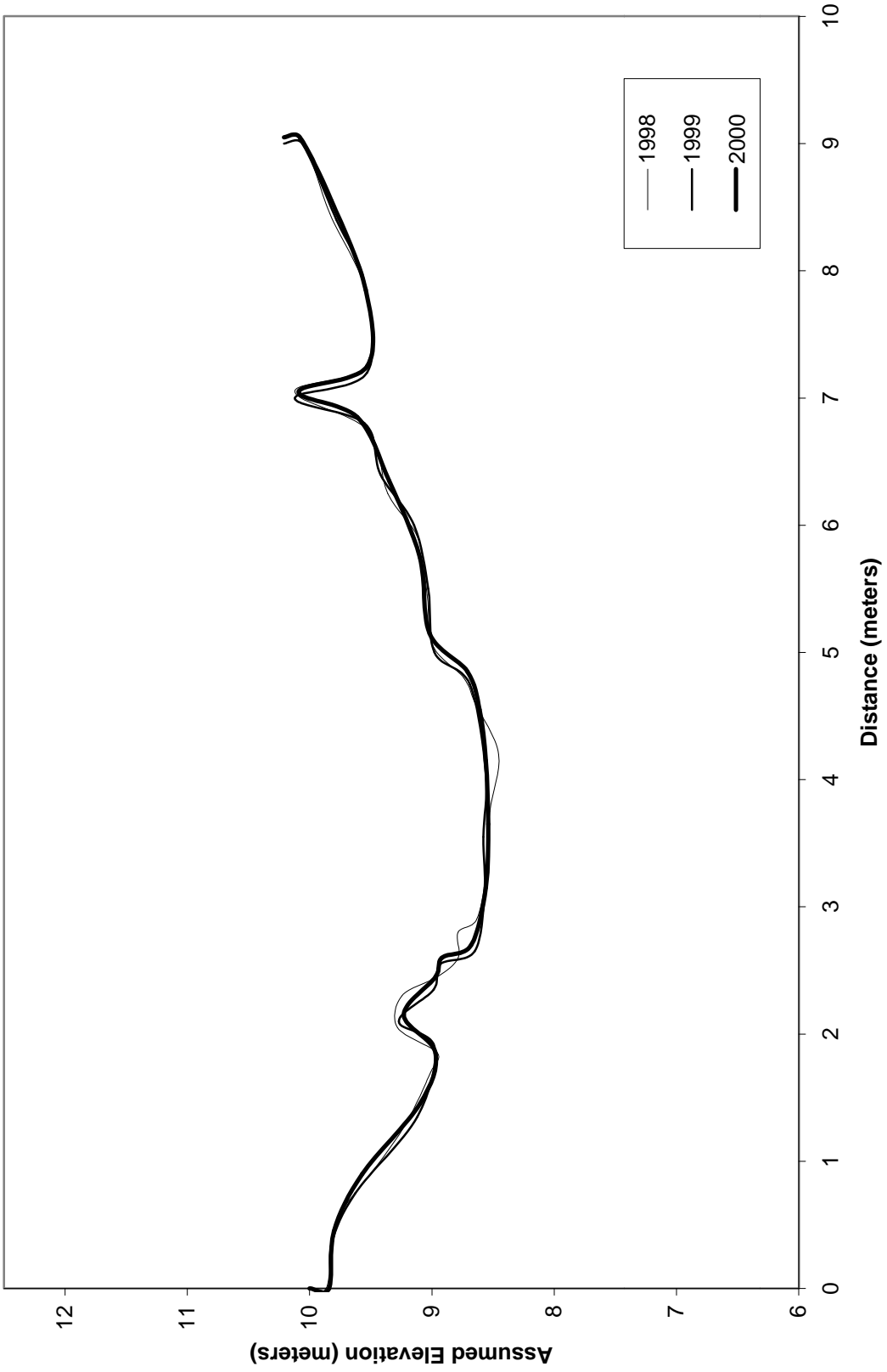
Channel Cross-section Graphs

Data collected by GeoEngineers, Inc. (1991 and 1992 surveys) and
Center for Urban Water Resources Management (1998, 1999, and 2000 surveys)

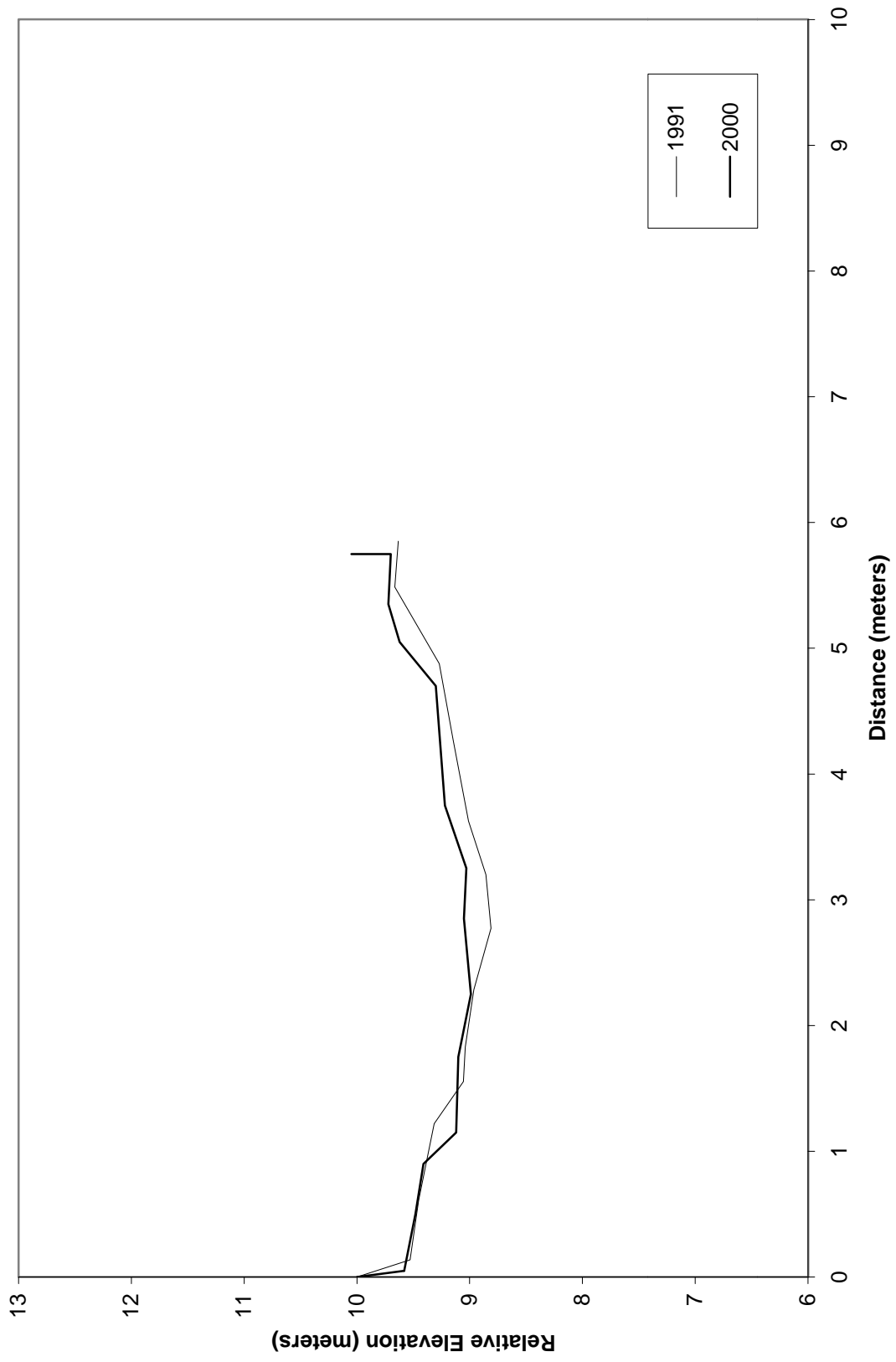
Adair Creek - Cross Section #1



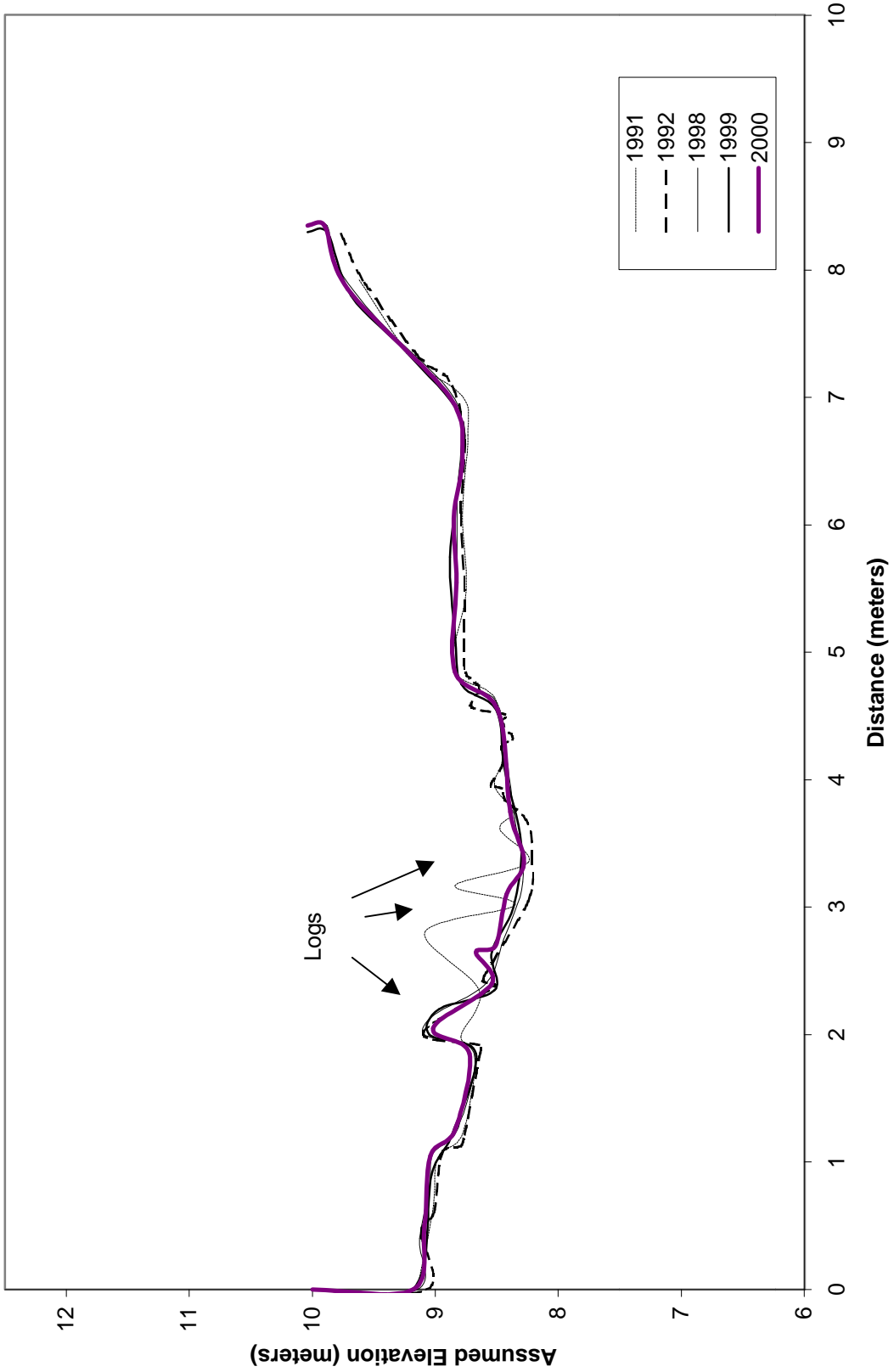
Adair Creek - Cross Section #2



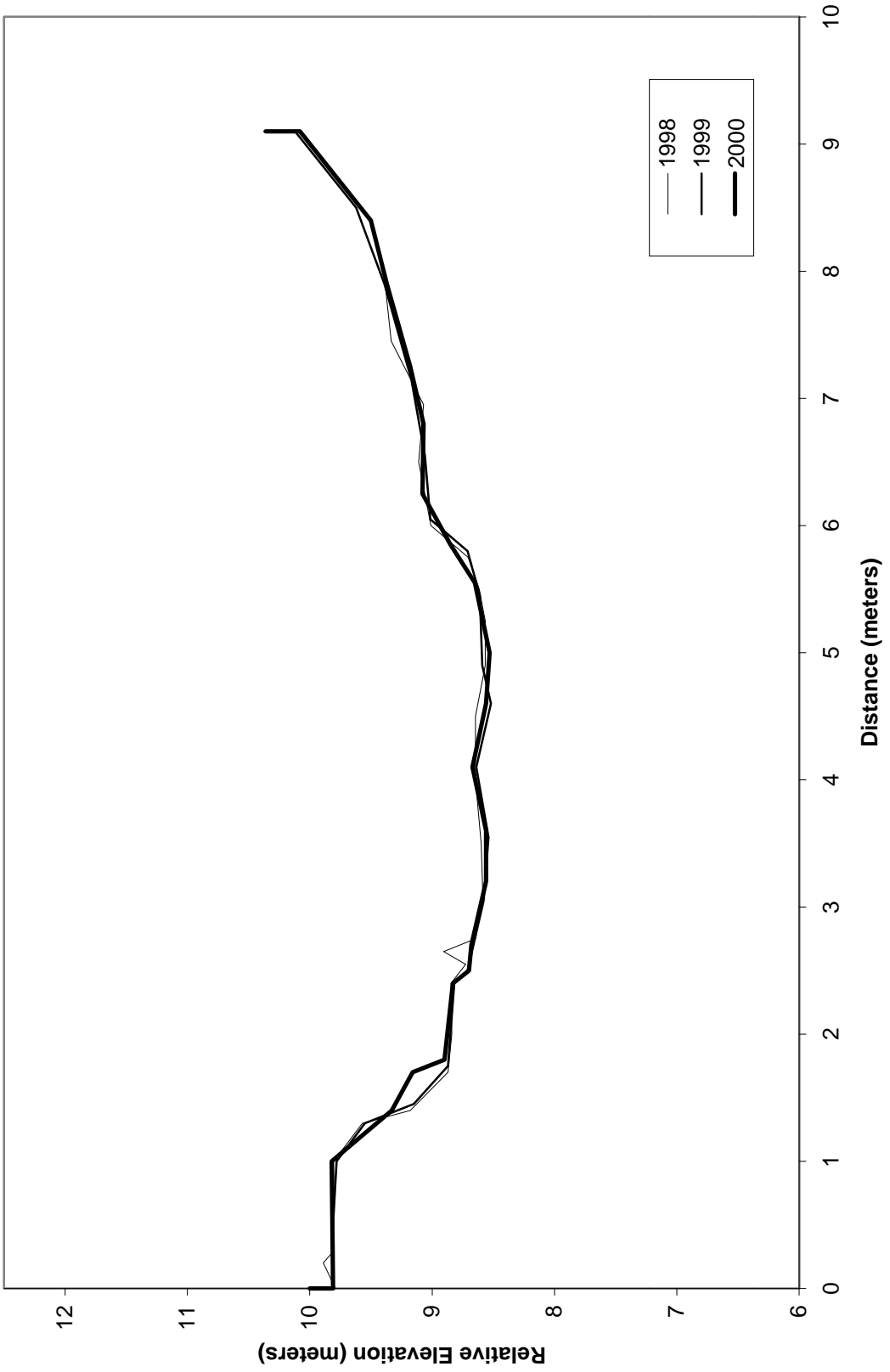
Adair Creek - Cross Section #2B



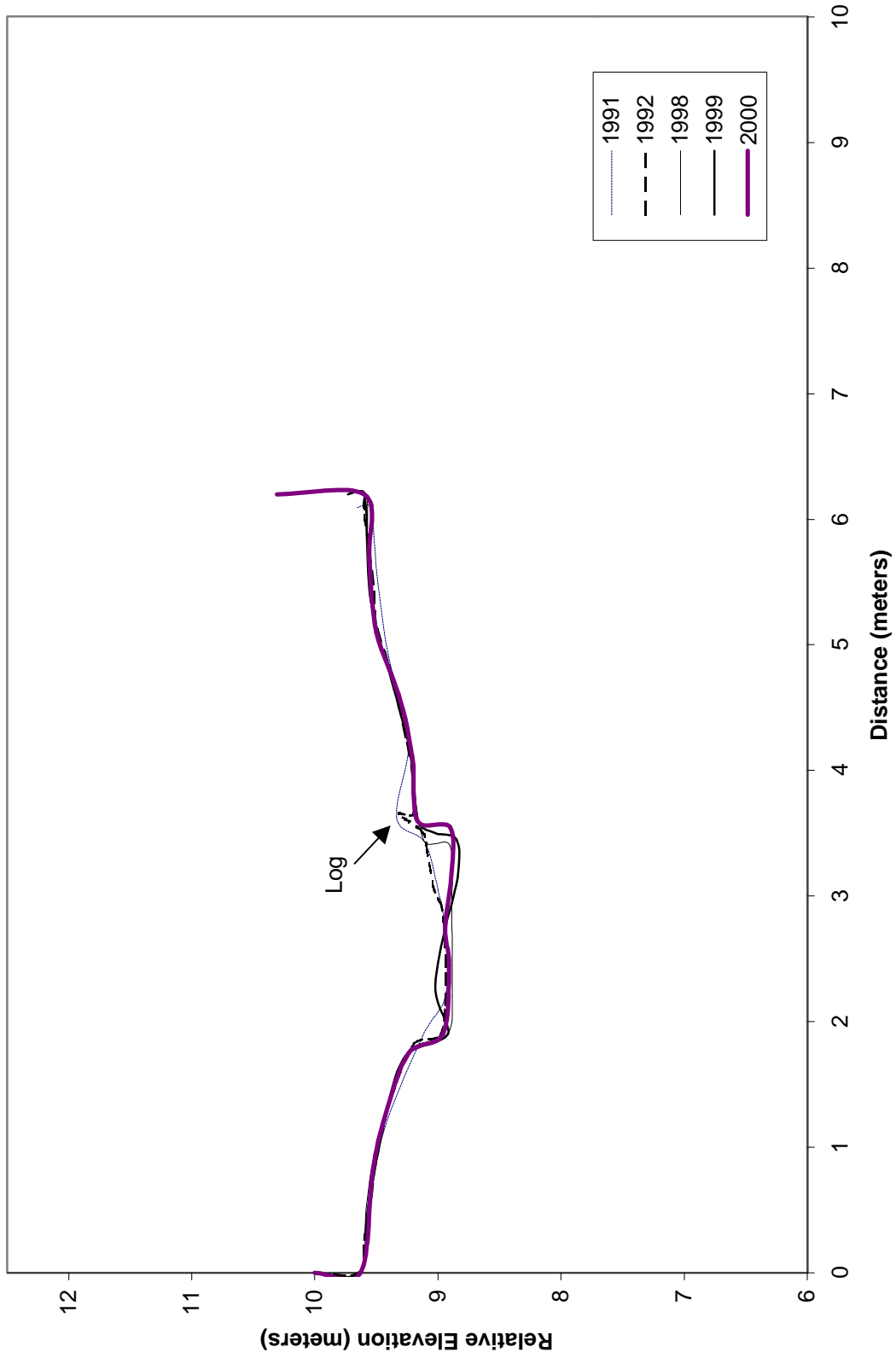
Adair Creek - Cross Section #3



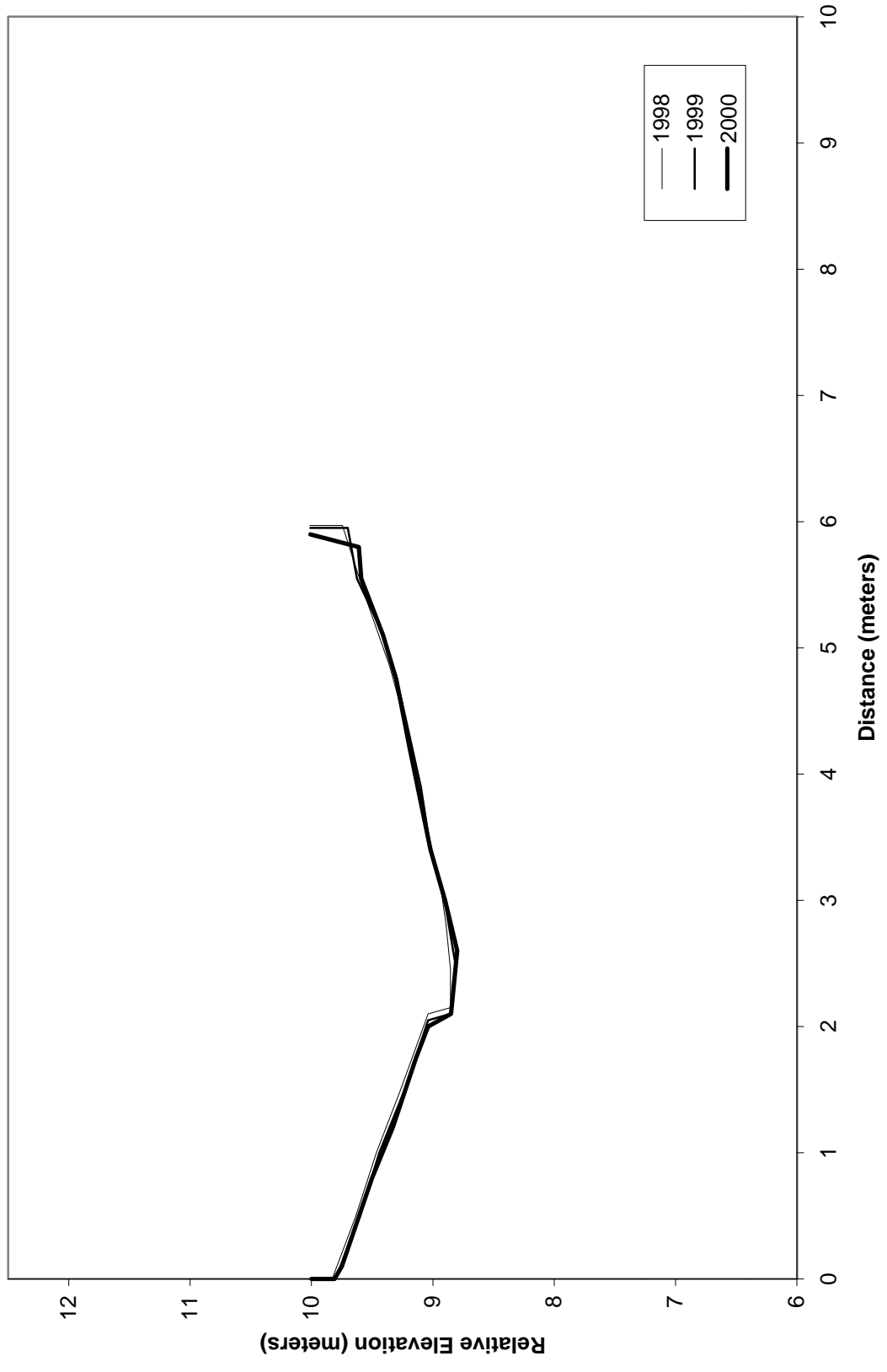
Adair Creek - Cross Section #4



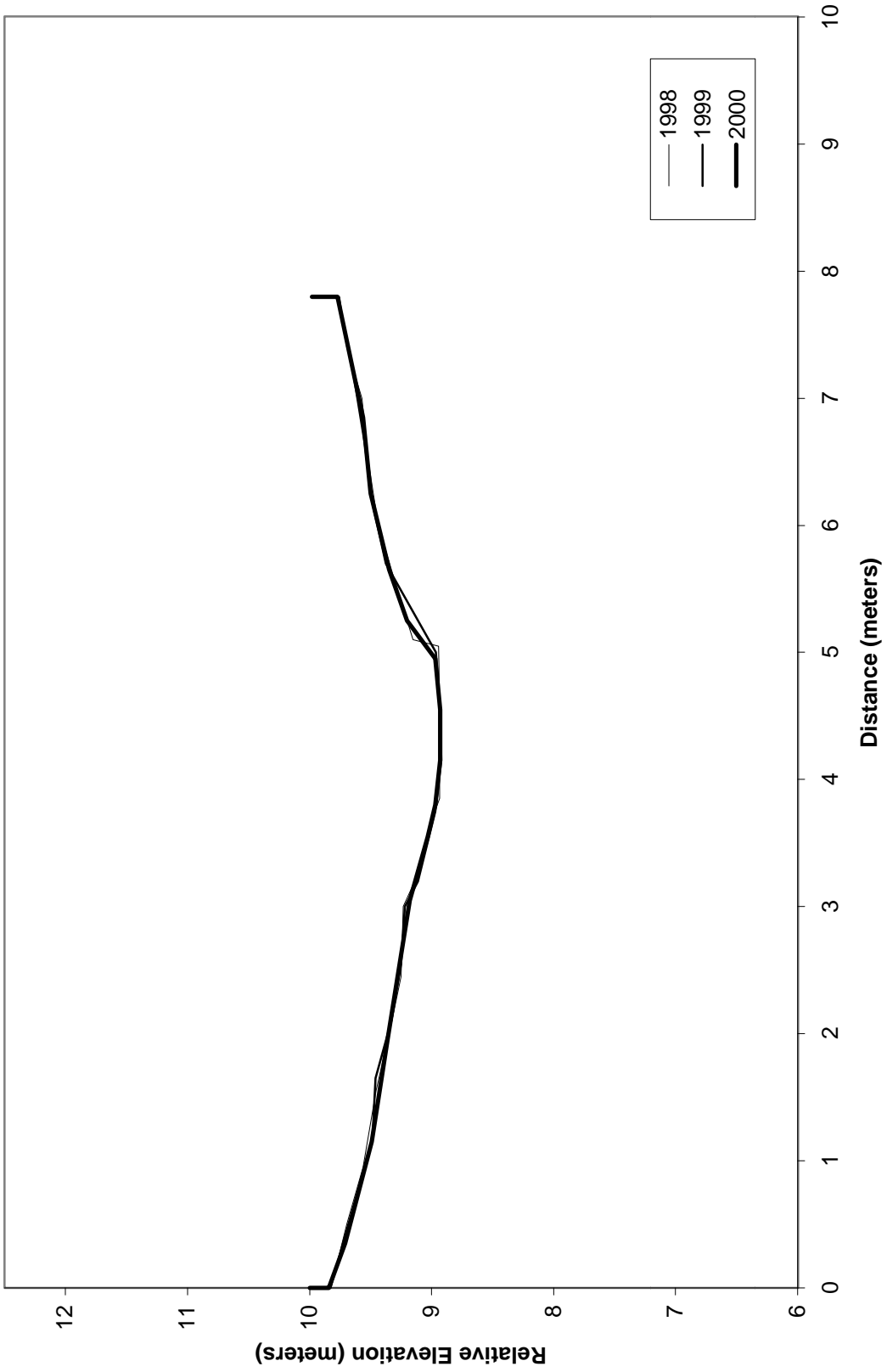
Colin North (0133) - Cross Section #1



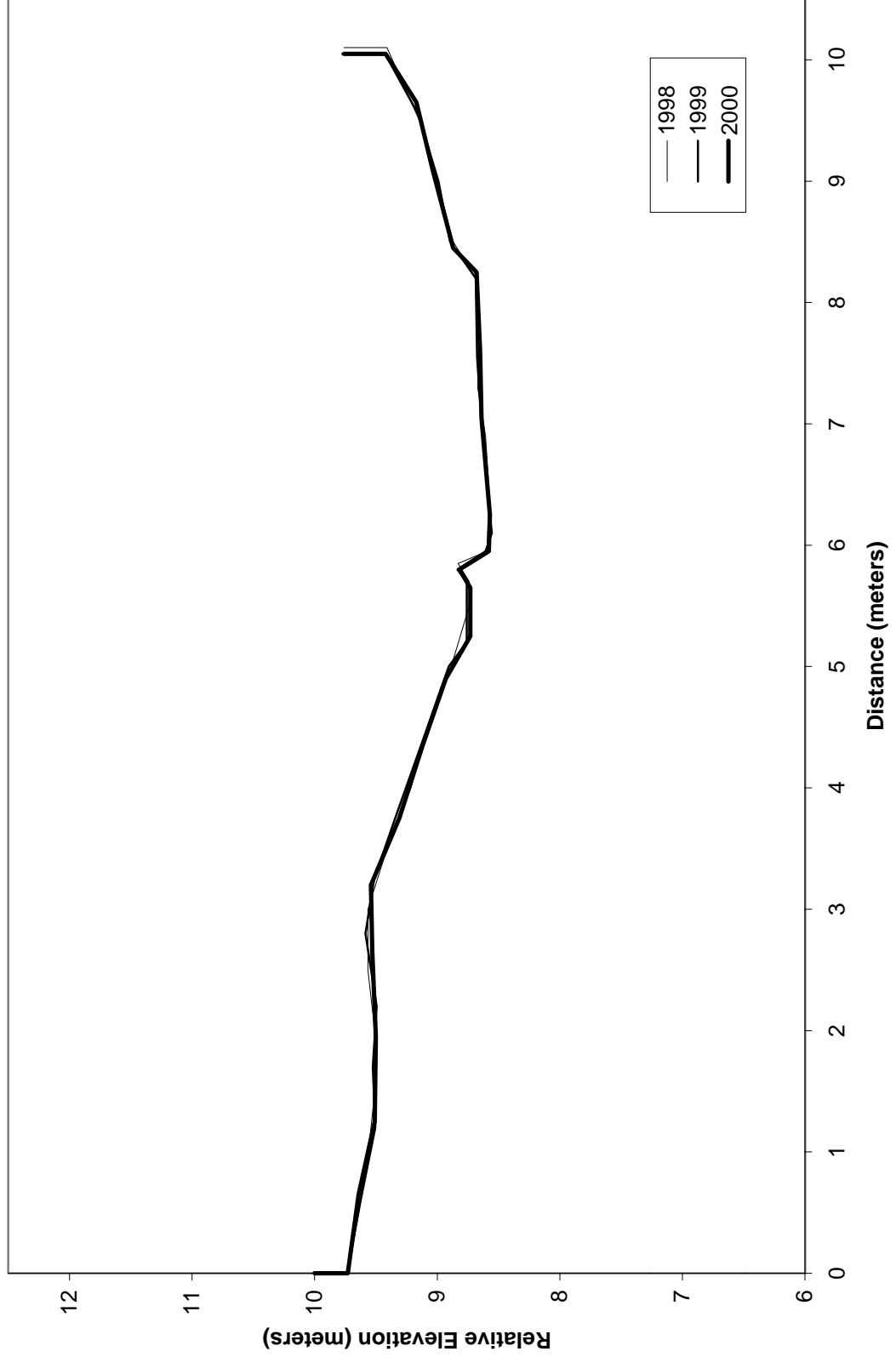
Colin North - Cross Section #2



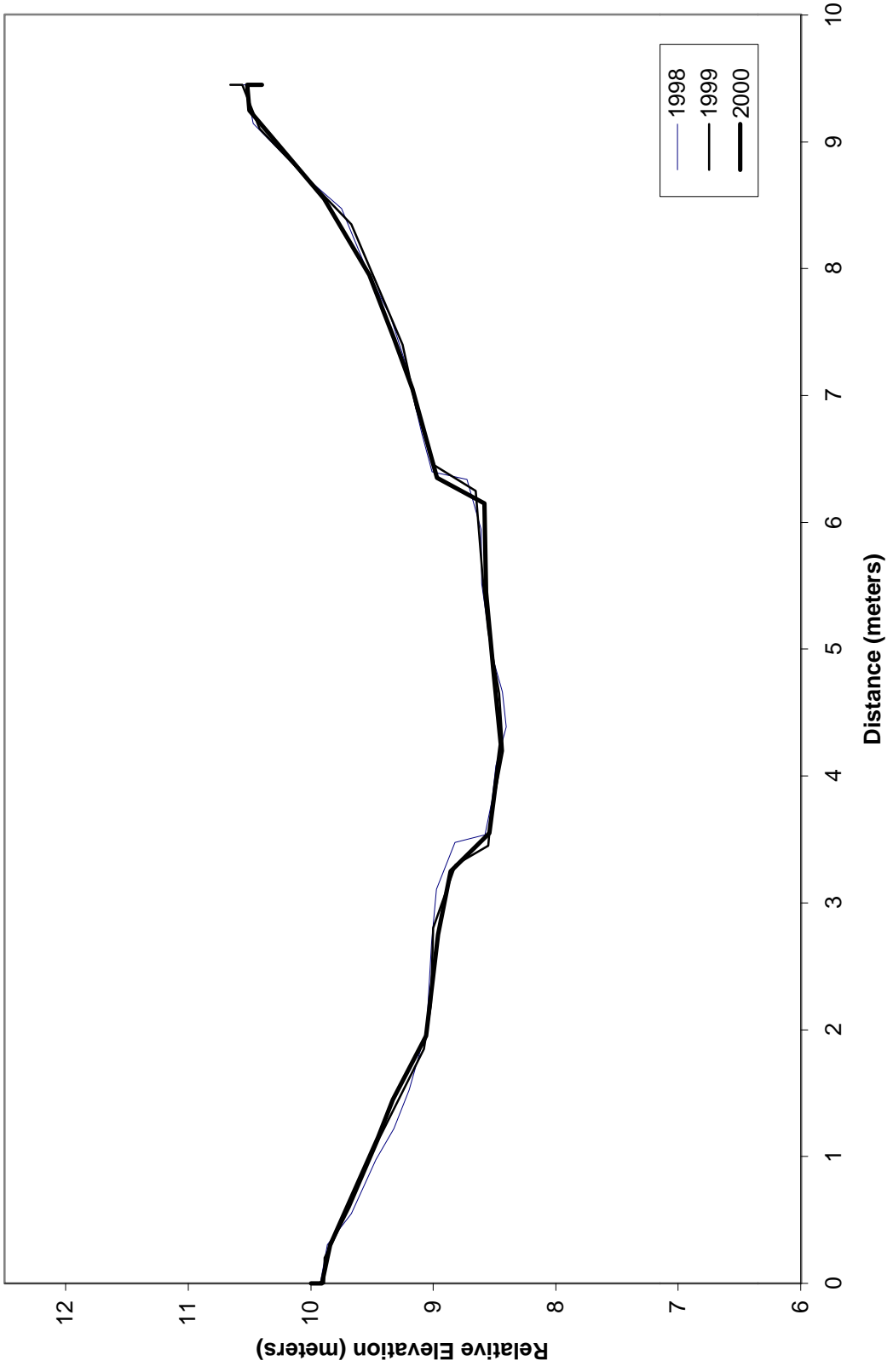
Colin North - Cross Section #3



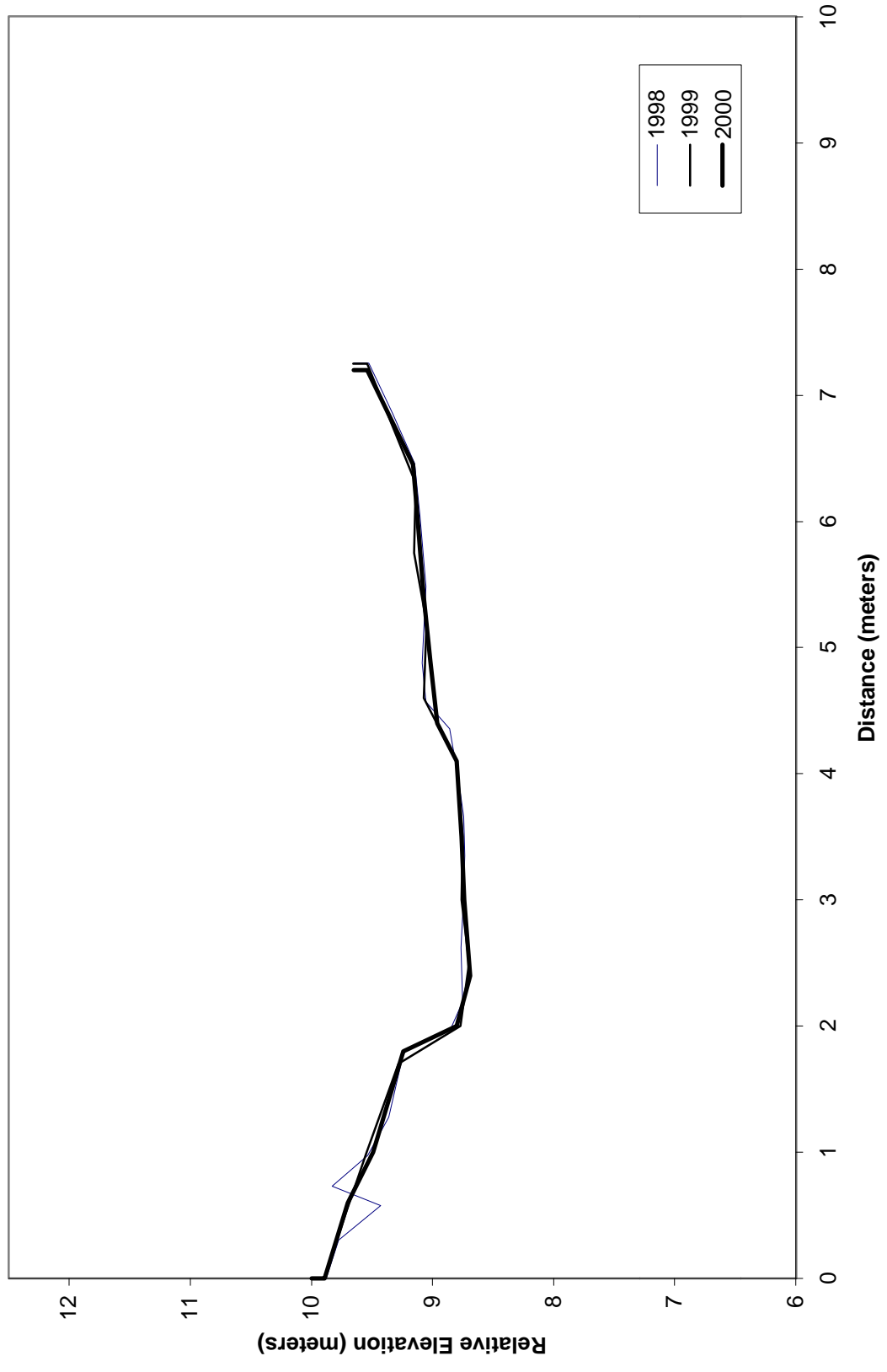
Colin North - Cross Section #4



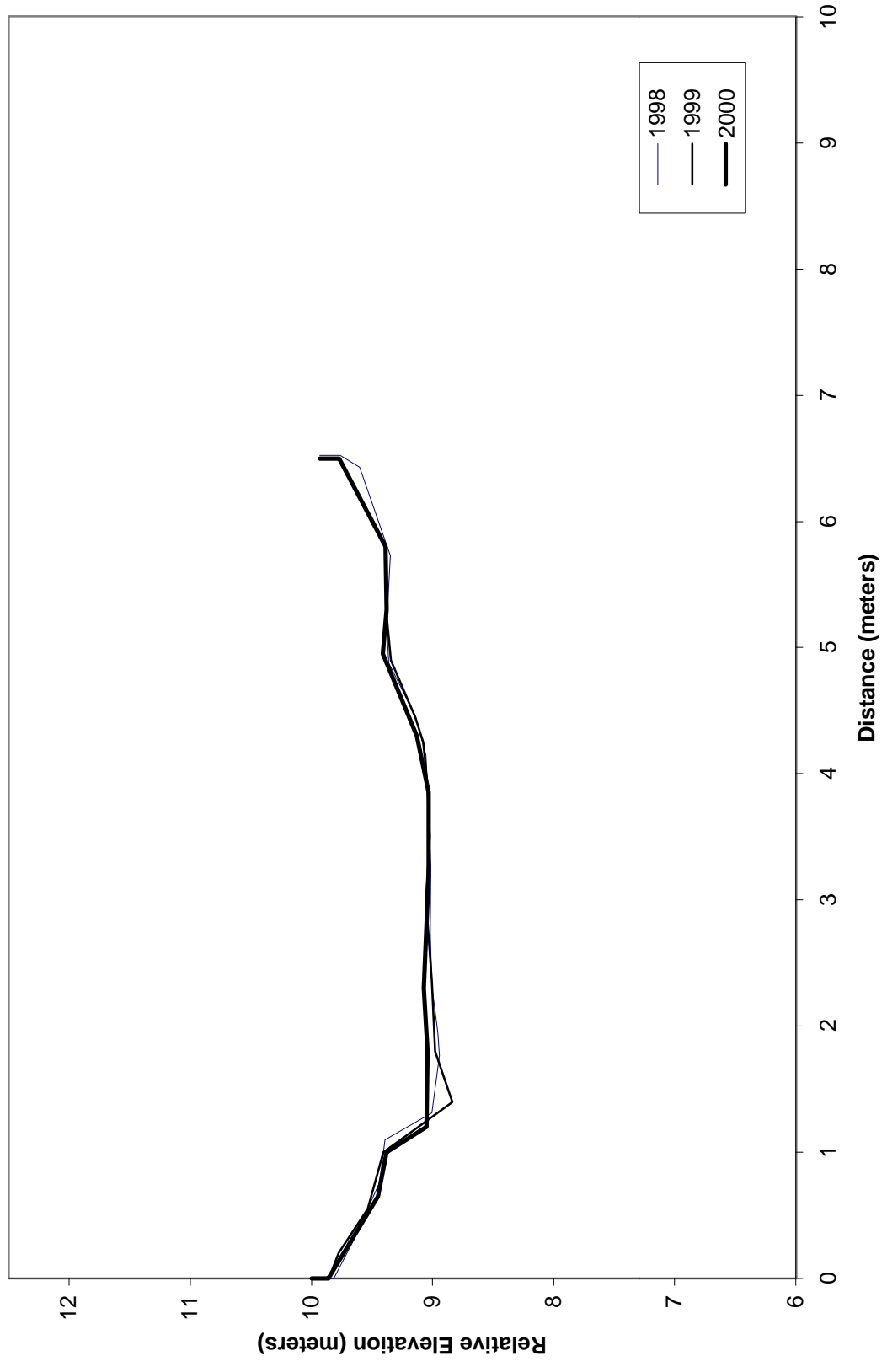
Colin South - Cross Section #1



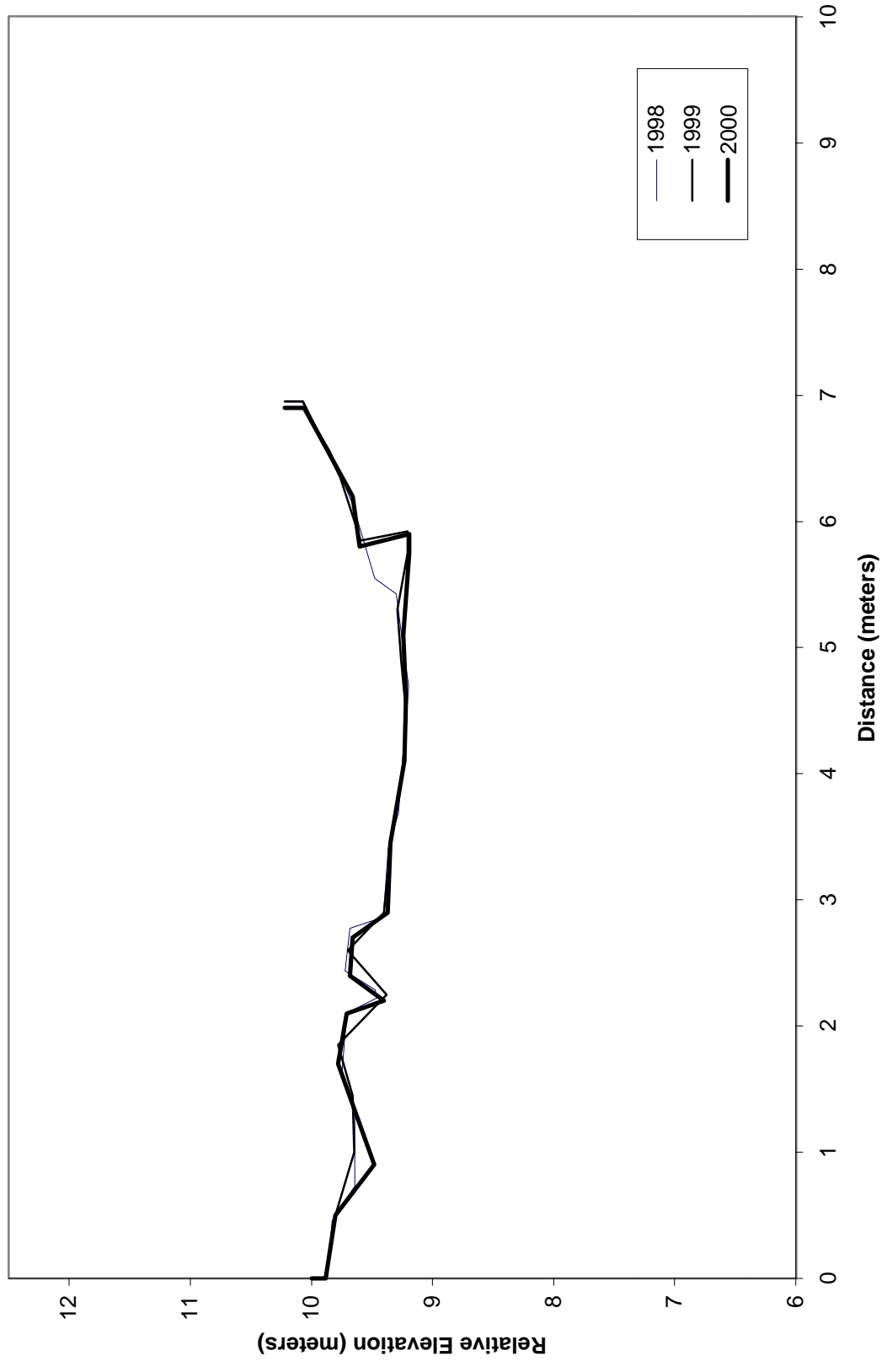
Colin South - Cross Section #2



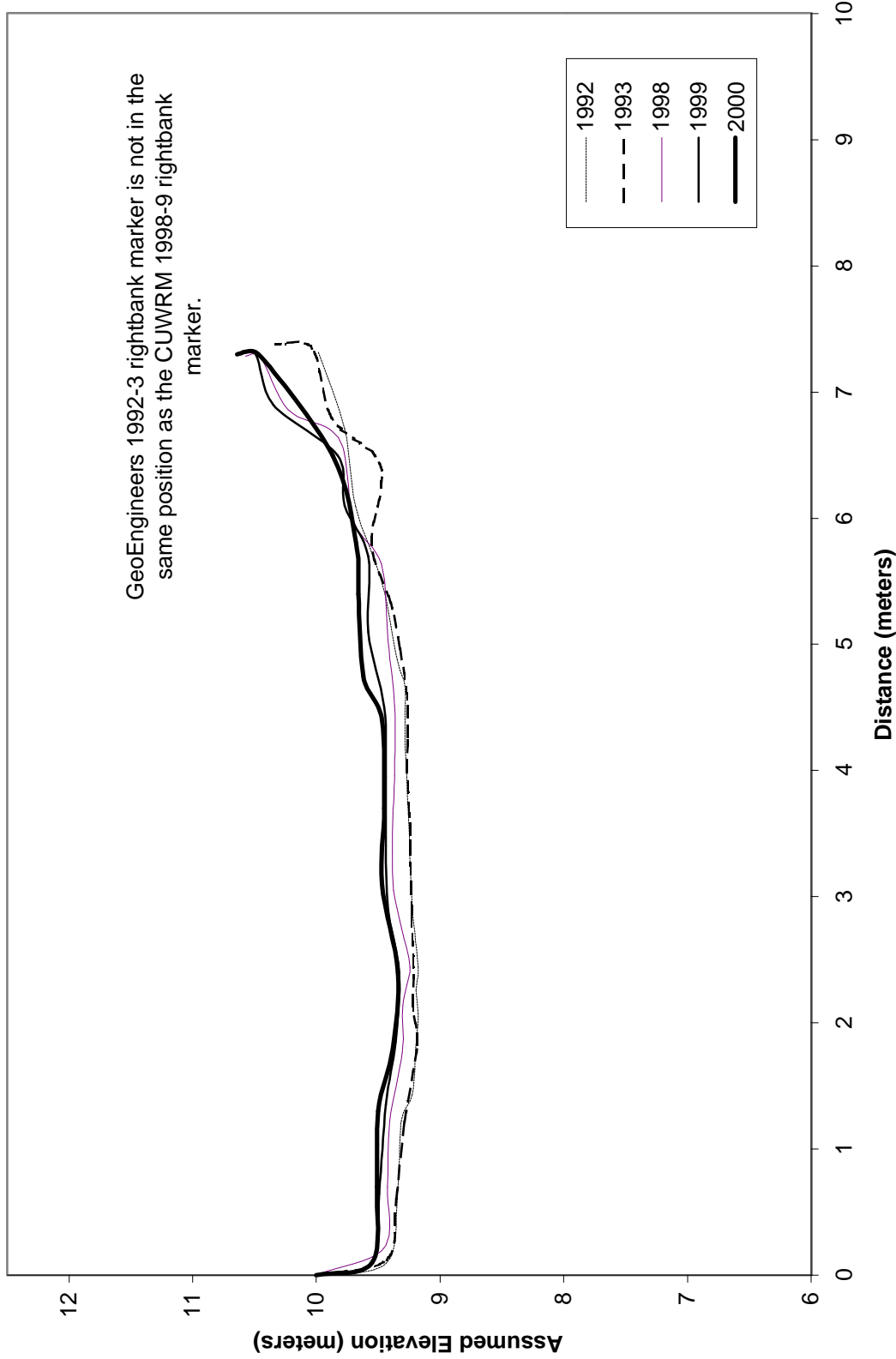
Colin South - Cross Section #3



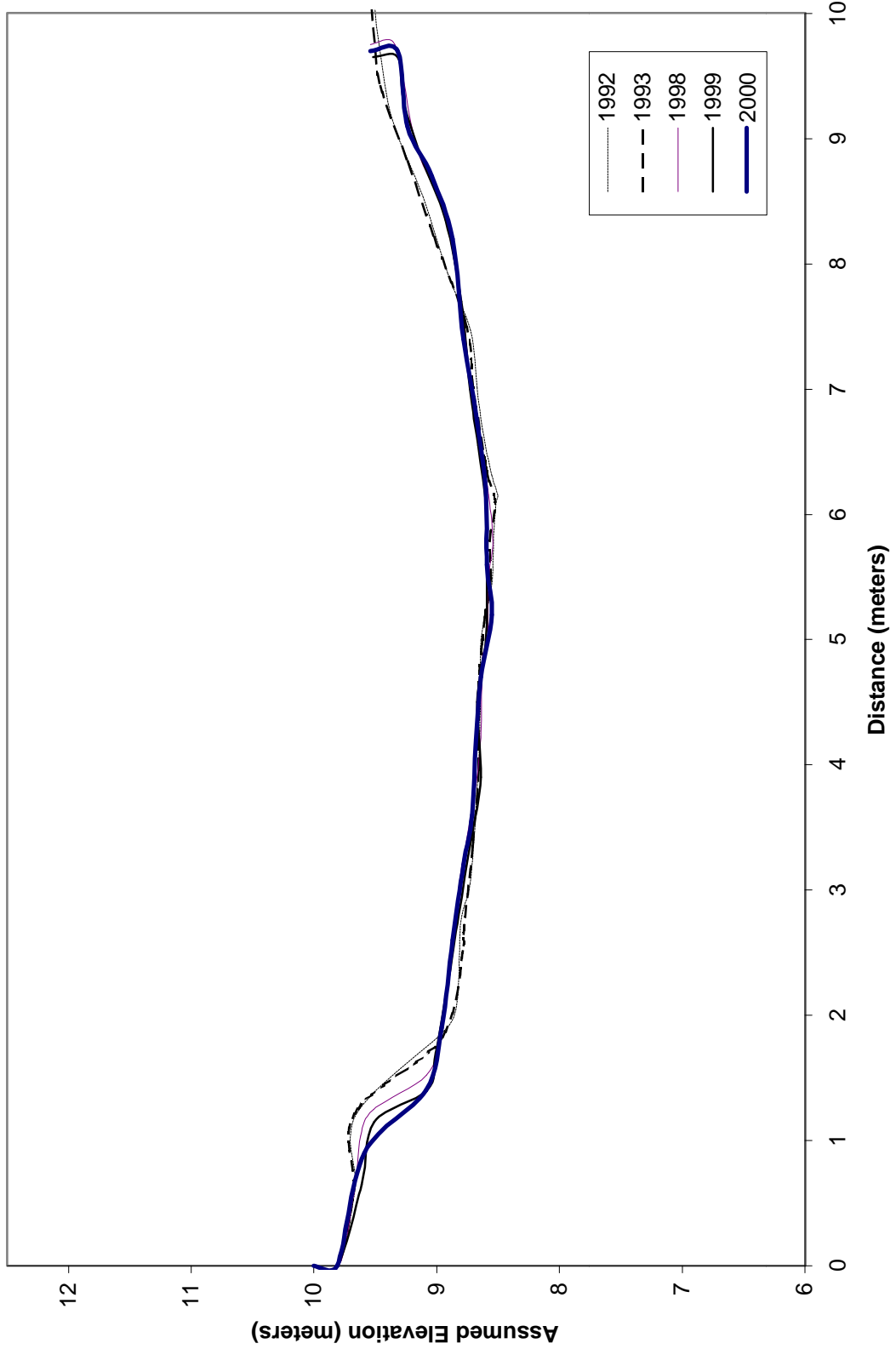
Colin South - Cross Section #4



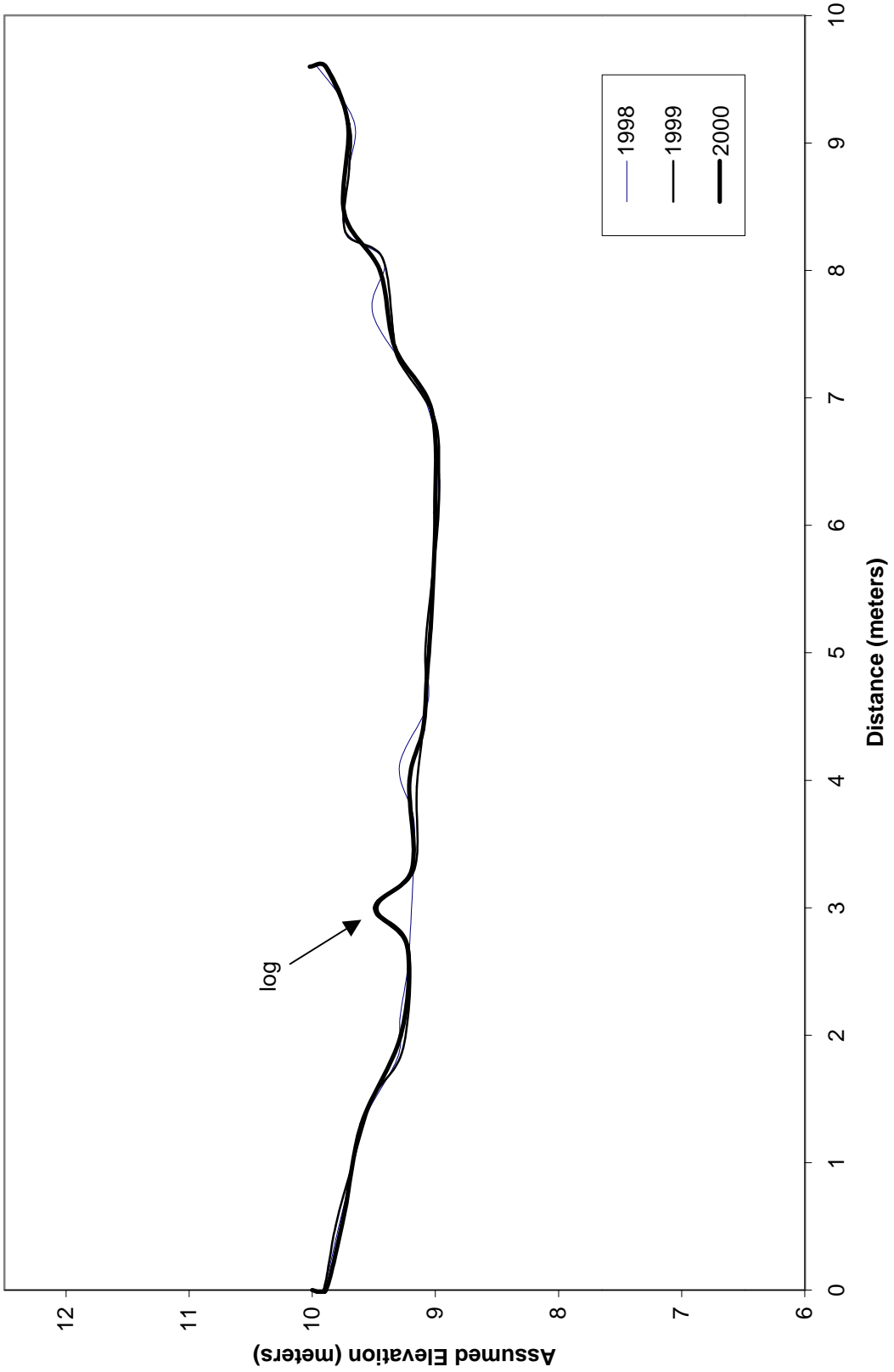
Evans Creek (0113) - Cross Section #1



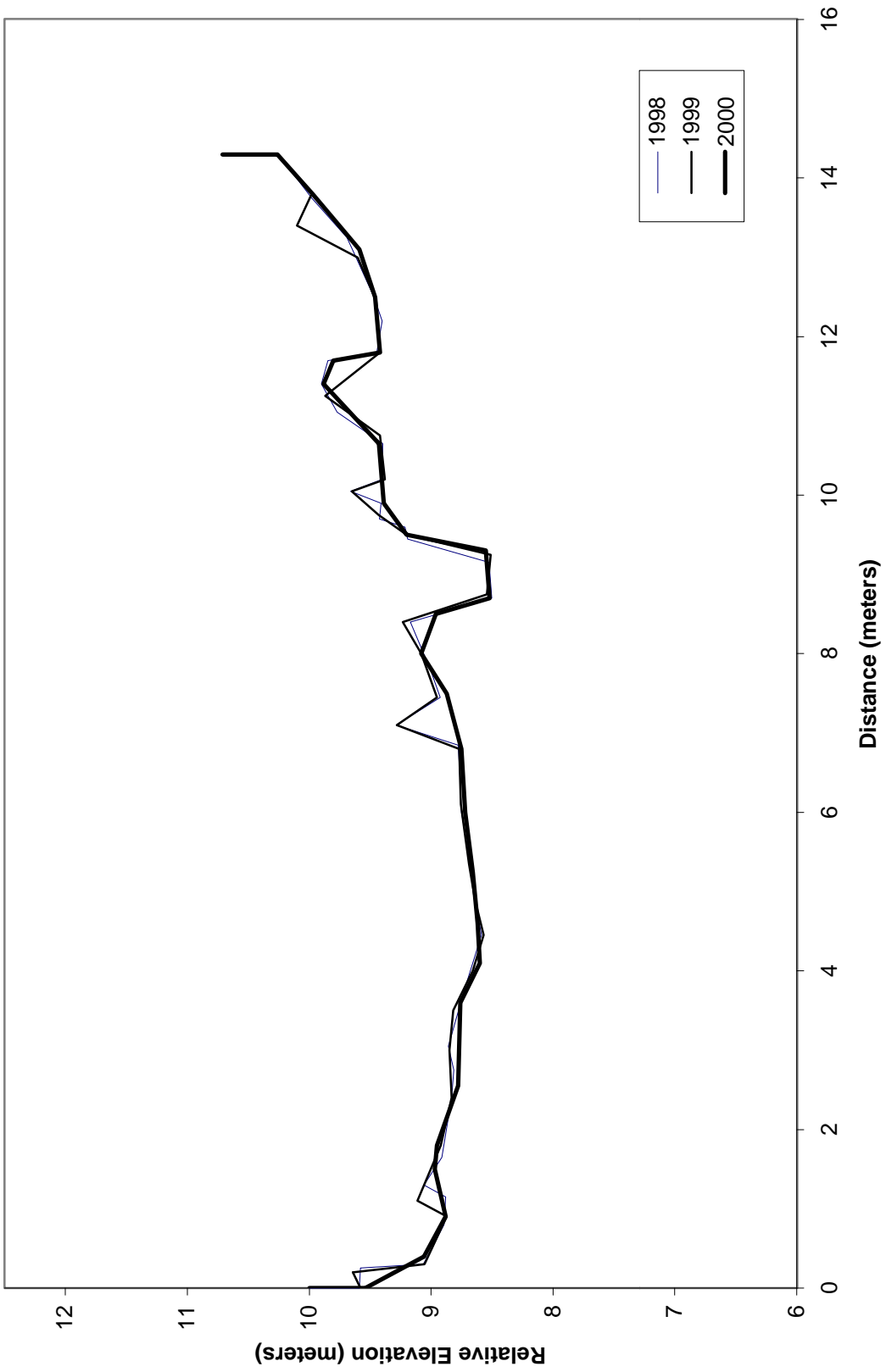
Evans Creek (0113) - Cross Section #2



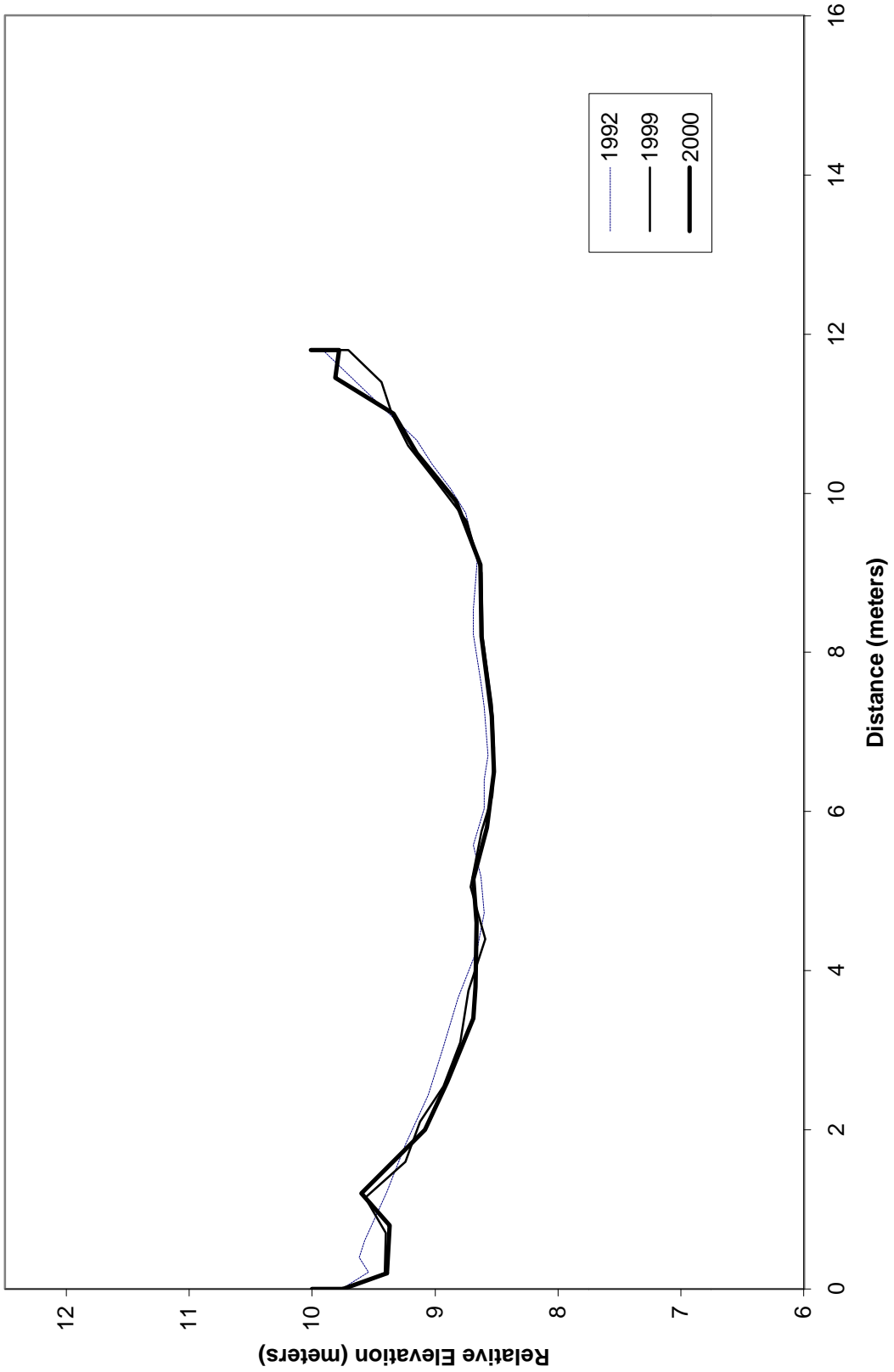
Evans Creek (0113) - Cross Section #3



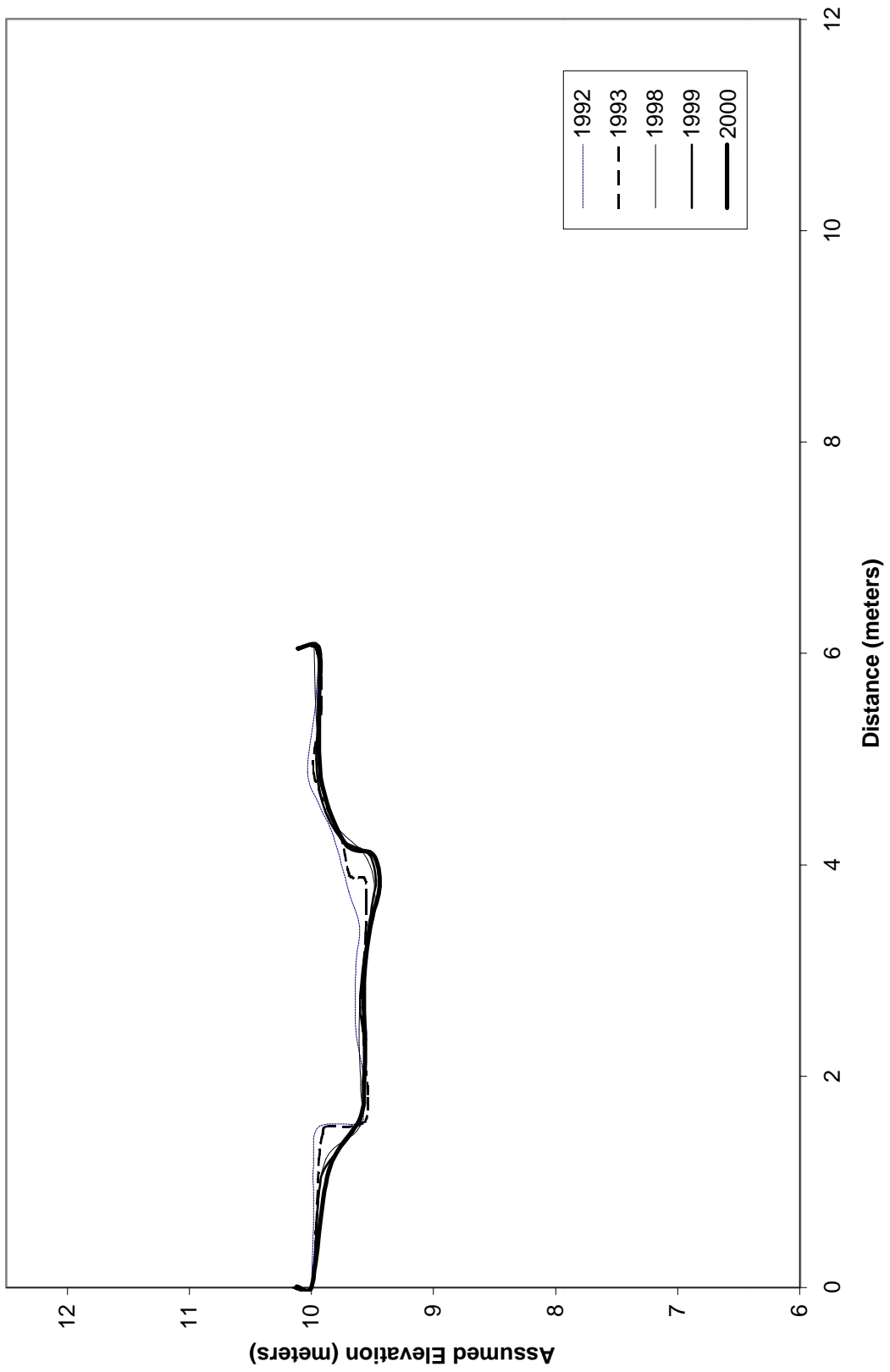
Mackey Creek - Cross Section #1



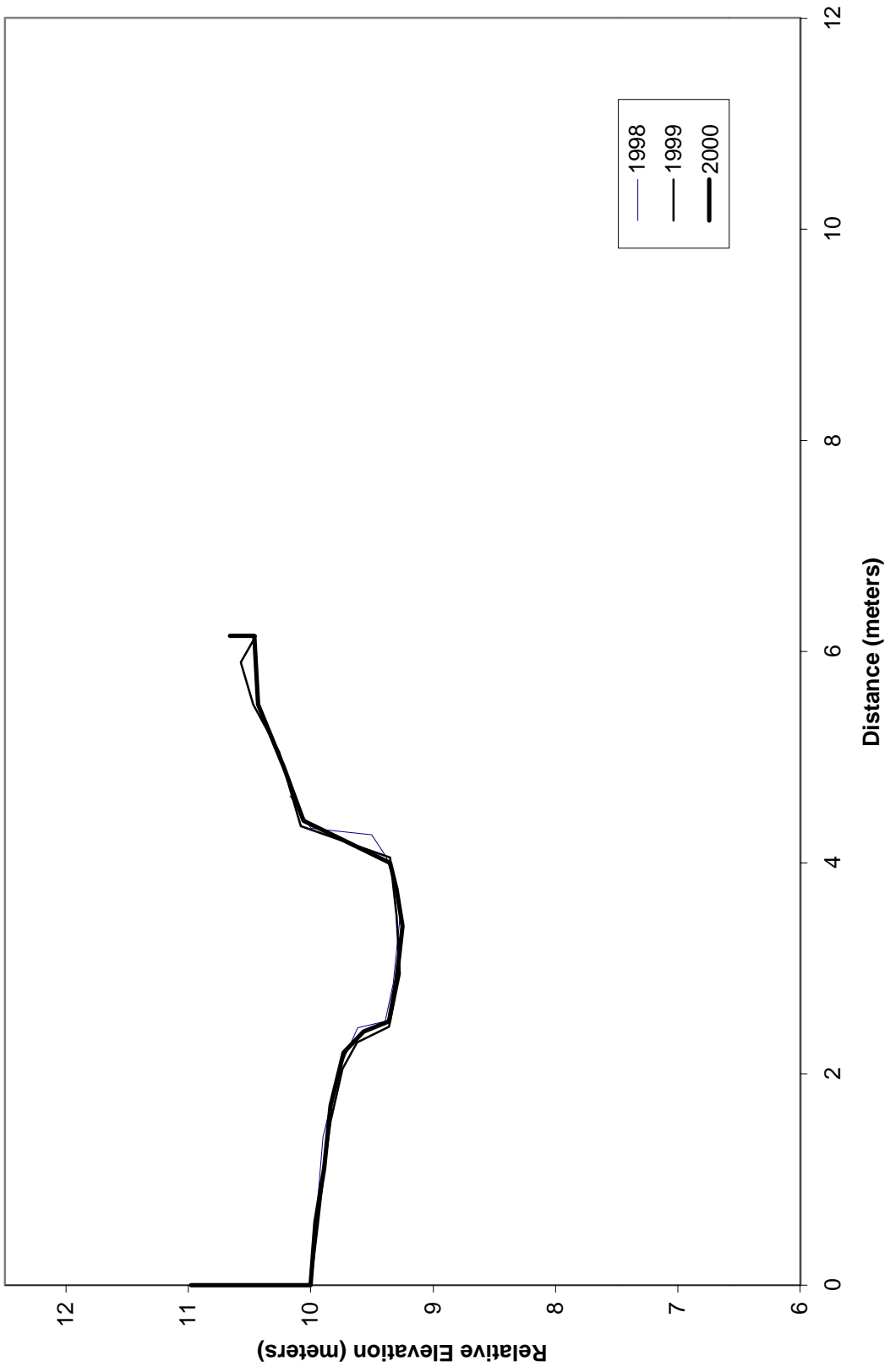
Mackey Creek - Cross Section #2



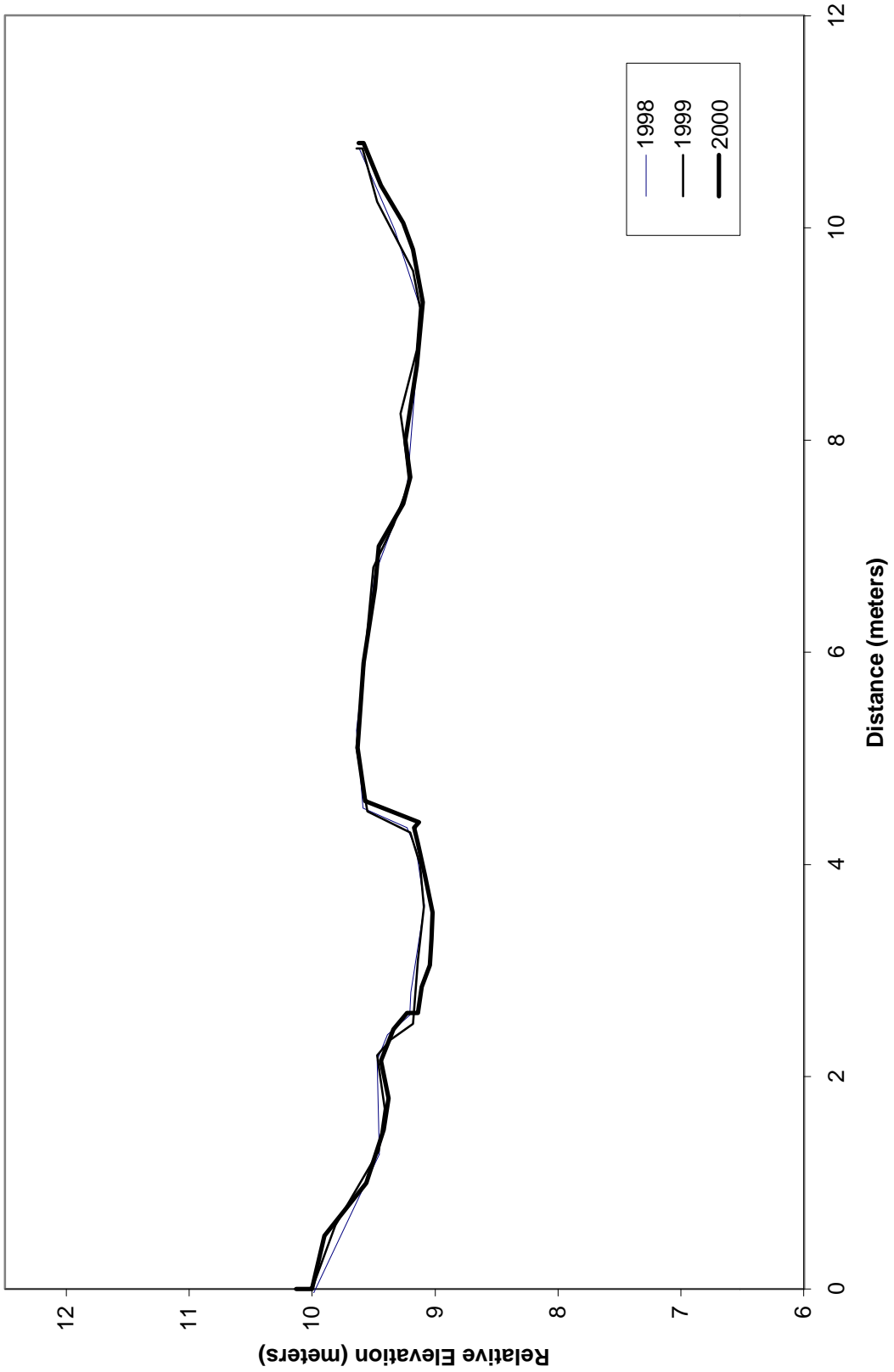
Rutherford Creek - Cross Section #0



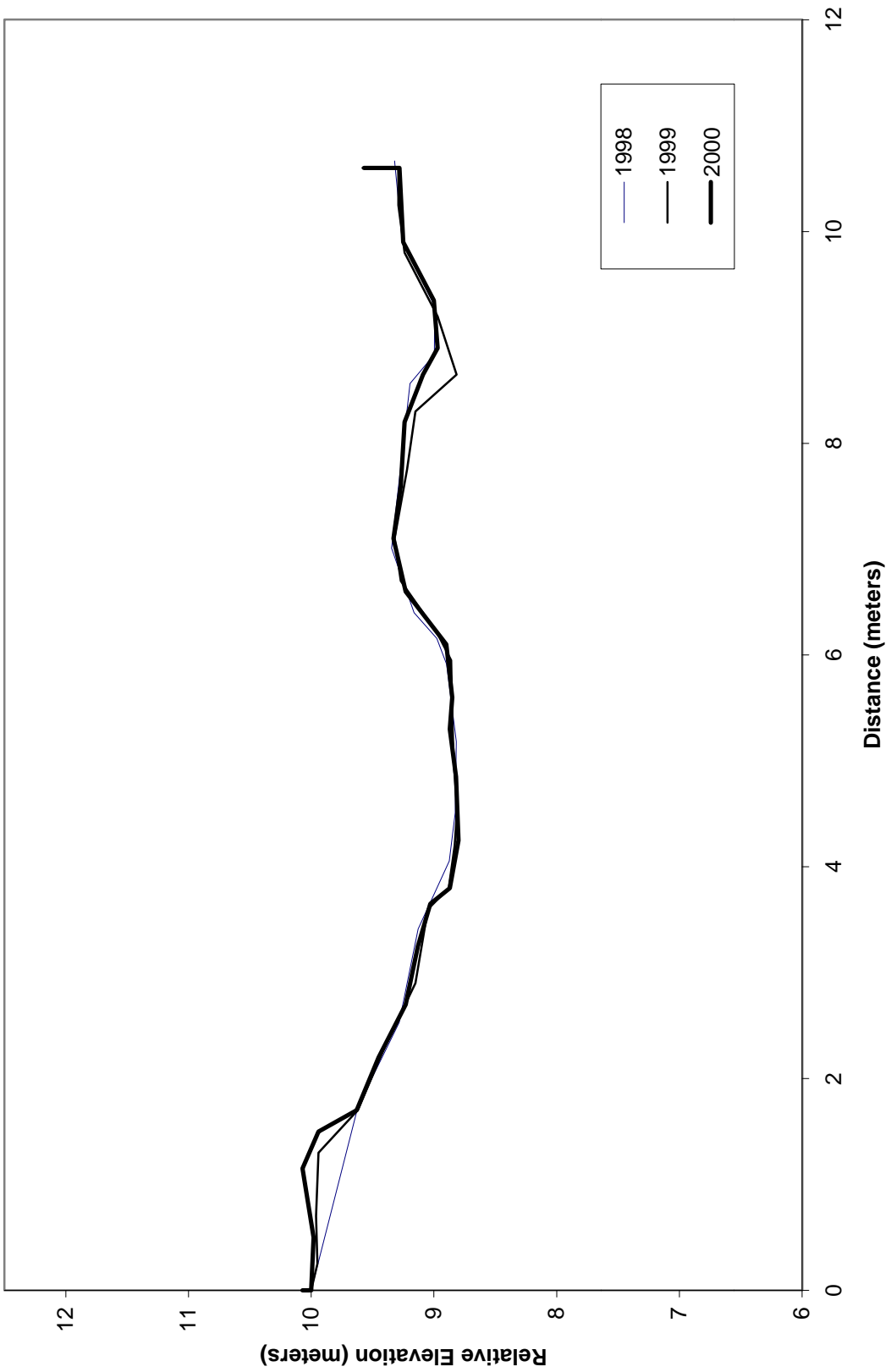
Rutherford Creek - Cross Section #1



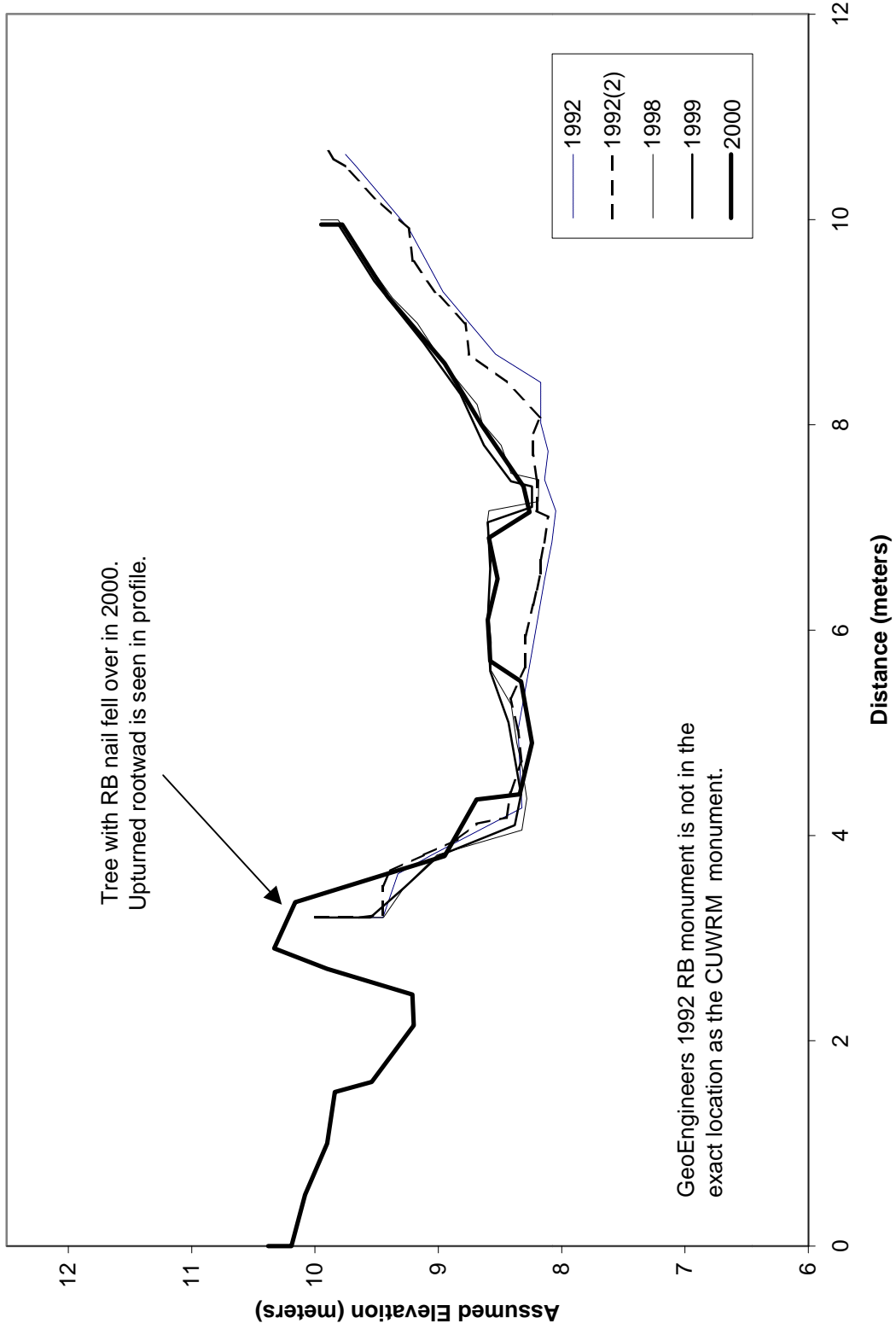
Rutherford Creek - Cross Section #2



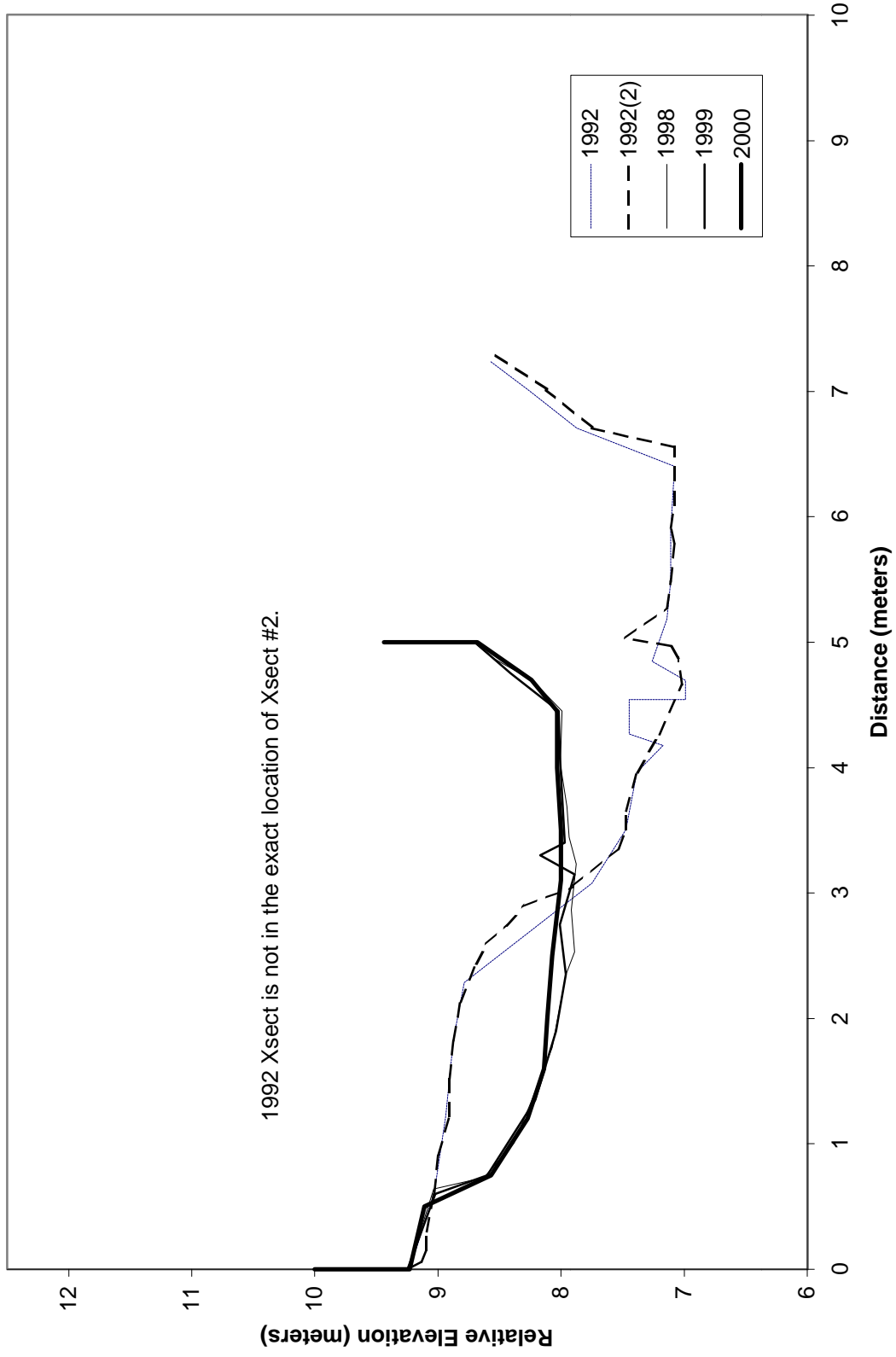
Rutherford Creek - Cross Section #3



Unnamed Creek - Cross Section #1



Unnamed Creek - Cross Section #2



Appendix B

1991 and 2000 Fish Survey Results

Cumulative Catch Curves from 2000

Excerpts from:

Blakely Ridge results from Environmental Impact Statement: Blakely Ridge Urban Planned Development (King County 1993).

Redmond Ridge (Northridge) results from Northridge (Redmond Ridge) Urban Planned Development Master Drainage Plan (Quadrant 1996)

Table 1
BLAKELY RIDGE ELECTROFISHING RESULTS

TEST SECTION LOCATION	LENGTH (ft.)	DATE SAMPLED	SPECIES*	NUMBER CAUGHT	POP. EST.	95% CON. INTERVAL	MEDIAN LENGTH (mm)	MEAN LENGTH (mm)	STD. DEV. (mm)	LENGTH RANGE (mm)
1. Colin Creek (WRIA 08-0132) Near the downstream Redmond Watershed boundary.	207	8/21/91	CT	18	18	18-18	109/116	111	29.7	65-189
2. Colin Creek Tributary 08-0133 starting upstream of middle rehab section	205	8/22/91	CT	115	115	115-115	62	66.1	18.57	50-191
3. Colin Creek Tributary 08-0134 starting about 200 feet above confluence	200	8/19/91	(NO FISH CAUGHT IN THIS TEST SECTION)							
4. Adair Creek (WRIA 07-0275) Downstream of W. Snoqualmie Valley Road	11A	8/7/91	CT	44	44	44-44	61/62	66.5	23.4	40-173
5. Adair Creek (WRIA 07-0275) Beginning a few hundred feet upstream of the W. Snoqualmie Valley Road	195	8/14/91	CT	91	91	91-91	52	55.6	15.1	36-118

A Although it was intended to fish a 200 foot length of creek, the creek was dry except for two pools, whose combined length was 11 feet.

- * CT = Cutthroat Trout, *Salmo clarki*
- CO = Coho Salmon, *Oncorhynchus kisutch*
- SC = Sculpin, *Cottus spp.*
- LA = Lamprey, *Lampetra* or *Entsphenus spp.*

Note: 25.4 mm = 1 inch.

Table 1
 BLAKELY RIDGE ELECTROFISHING RESULTS (CONTINUED)

TEST SECTION LOCATION	LENGTH (ft.)	DATE SAMPLED	SPECIES	NUMBER CAUGHT	POP. EST. (mm)	95% CON. INTERVAL (mm)	MEDIAN LENGTH (mm)	MEAN LENGTH	STD. DEV.	LENGTH RANGE
6. Adair Creek (WRIA 07-0275) just downstream of on-site beaver ponds	200	8/14/91	CT	50	51	48-54	54	59.1	18.7	35-111
7. Snoqualmie River Tributary WRIA 07-0276 Channelized section below farm yard	200	8/26/91	SC	95	113	67-159	37	40.0	10.3	28-96
8. Snoqualmie River Tributary WRIA 07-0276 between W. Snoqualmie Road and 0277 confluence	200	8/29/91	CT	27	29	27-31	106	98.6	39.7	37-194

* CT = Cutthroat Trout, *Salmo clarki*
 CO = Coho Salmon, *Oncorhynchus kisutch*
 SC = Sculpin, *Cottus spp.*
 LA = Lamprey, *Lampetra* or *Entosphenus spp.*

Note: 25.4 mm = 1 inch.

Table 1
NORTHRIDGE ELECTROFISHING RESULTS

REACH LOCATION	REACH LENGTH (ft.)	DATE SAMPLED	SPECIES*	NUMBER CAUGHT	POP. EST.	95% CON. INTERVAL	MEDIAN LENGTH (mm)	MEAN LENGTH (mm)	STD. DEV. (mm)	LENGTH RANGE (mm)
1. Colin Creek, WRIA 08-0132 Near the downstream Redmond Watershed boundary.	207	8/21/91	CT	18	18	18-18	109/116	111	29.7	65-189
2. Mackey Creek Trib. 0117A Begins just upstream of pond below Novelty Hill Rd.	200	8/7/91	(NO FISH CAUGHT IN THIS TEST SECTION)							
3. Evans Creek Trib. 0113 Extending downstream from 30 feet below NE 72nd St.	200	9/30/91	CT	22	23	20-26	129/130	128	41.4	61-201
4. Evans Creek, WRIA 08-0106 10 to 220 feet upstream of NE 75th St.	210	12/4/91	(NO FISH CAUGHT IN THIS TEST SECTION)							
5. Snoqualmie River Tributary WRIA 07-0276 Channelized section below farm yard	200	8/26/91	SC	95	113	67-159	37	40.0	10.3	28-96

* CT = Cutthroat Trout, *Salmo clarki*
CO = Coho Salmon, *Oncorhynchus kisutch*
SC = Sculpin, *Cottus spp.*
LA = Lamprey, *Lampetra* or *Entosphenus spp.*

Note: 25.4 mm = 1 inch.

Table 1 (cont.)
NORTHRIDGE ELECTROFISHING RESULTS

REACH LOCATION	REACH LENGTH (ft.)	DATE SAMPLED	SPECIES CAUGHT	NUMBER EST.	POP. EST.	95% CON. INTERVAL	MEDIAN LENGTH (mm)	MEAN LENGTH (mm)	STD. DEV. (mm)	LENGTH RANGE (mm)
6. Snoqualmie River Tributary WRIA 07-0276 between W. Snoqualmie Road and 0277 confluence	200	8/29/91	CT	27	29	27-31	106	98.6	39.7	37-194
7. Snoqualmie South Drainage downstream of the W. Snoqualmie Valley Road (Testing not completed due to lack of stream flow during the intended test periods in 1991 and 1992)										
8. Snoqualmie South Drainage upstream of the W. Snoqualmie Valley Road (Testing not completed due to lack of stream flow during the intended test periods in 1991 and 1992)										
9. Ames Creek tributary between Ames Creek confluence and W. Snoqualmie Valley Rd.	200	9/18/91	CO LA	1 5	1	1-1 5-5	76 51	76 67.8	-- 44.7	76-76 38-146
10. Ames Creek Tributary upstream of the W. Snoqualmie Valley Road	200	9/18/91	CT	42	42	42-42	62	63.1	17.1	42-139

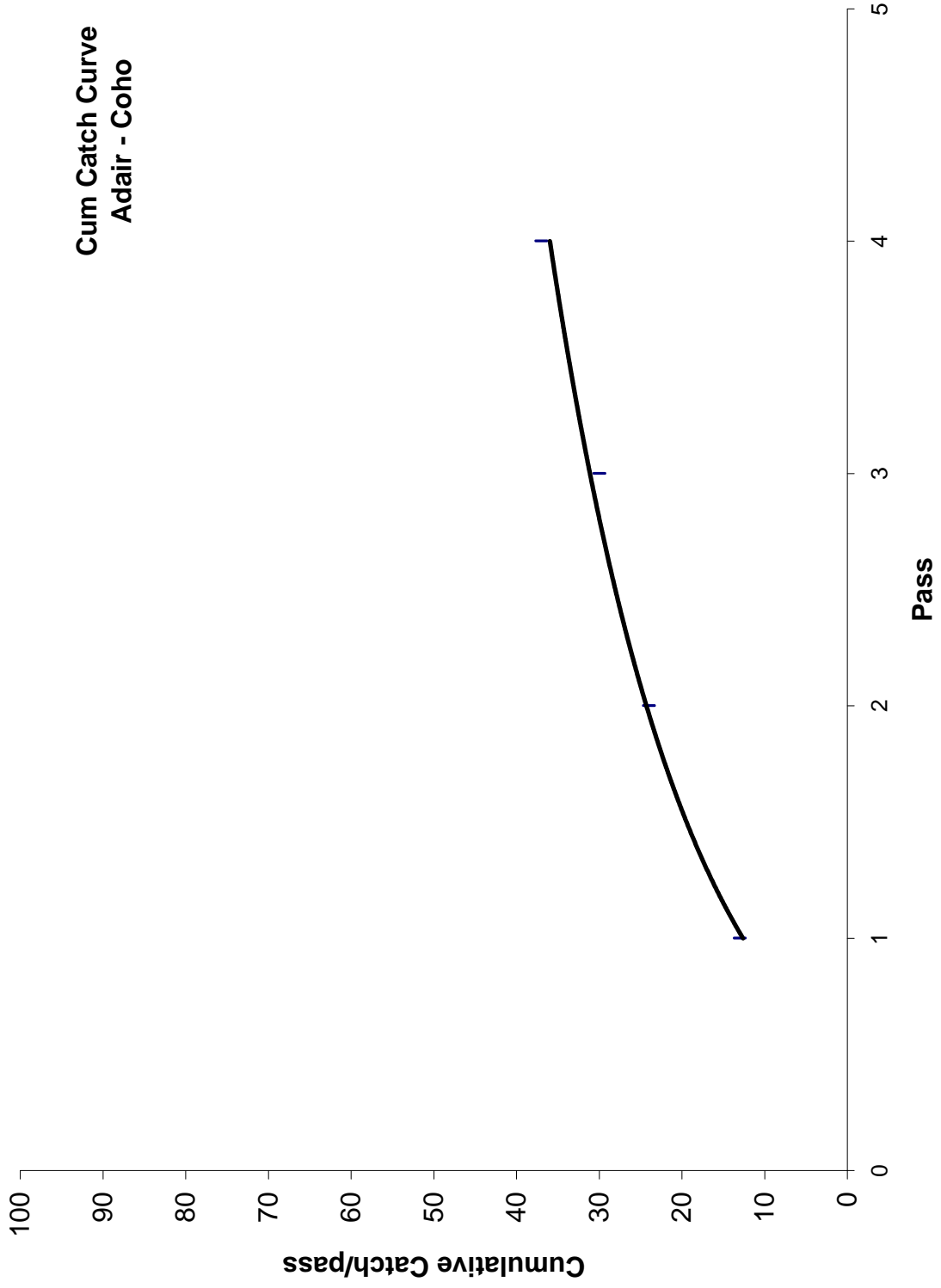
- CT = Cutthroat Trout, *Salmo clarki*
- CO = Coho Salmon, *Oncorhynchus kisutch*
- SC = Sculpin, *Cottus spp.*
- LA = Lamprey, *Lampetra* or *Entosphenus spp.*

Note: 25.4 mm = 1 inch.

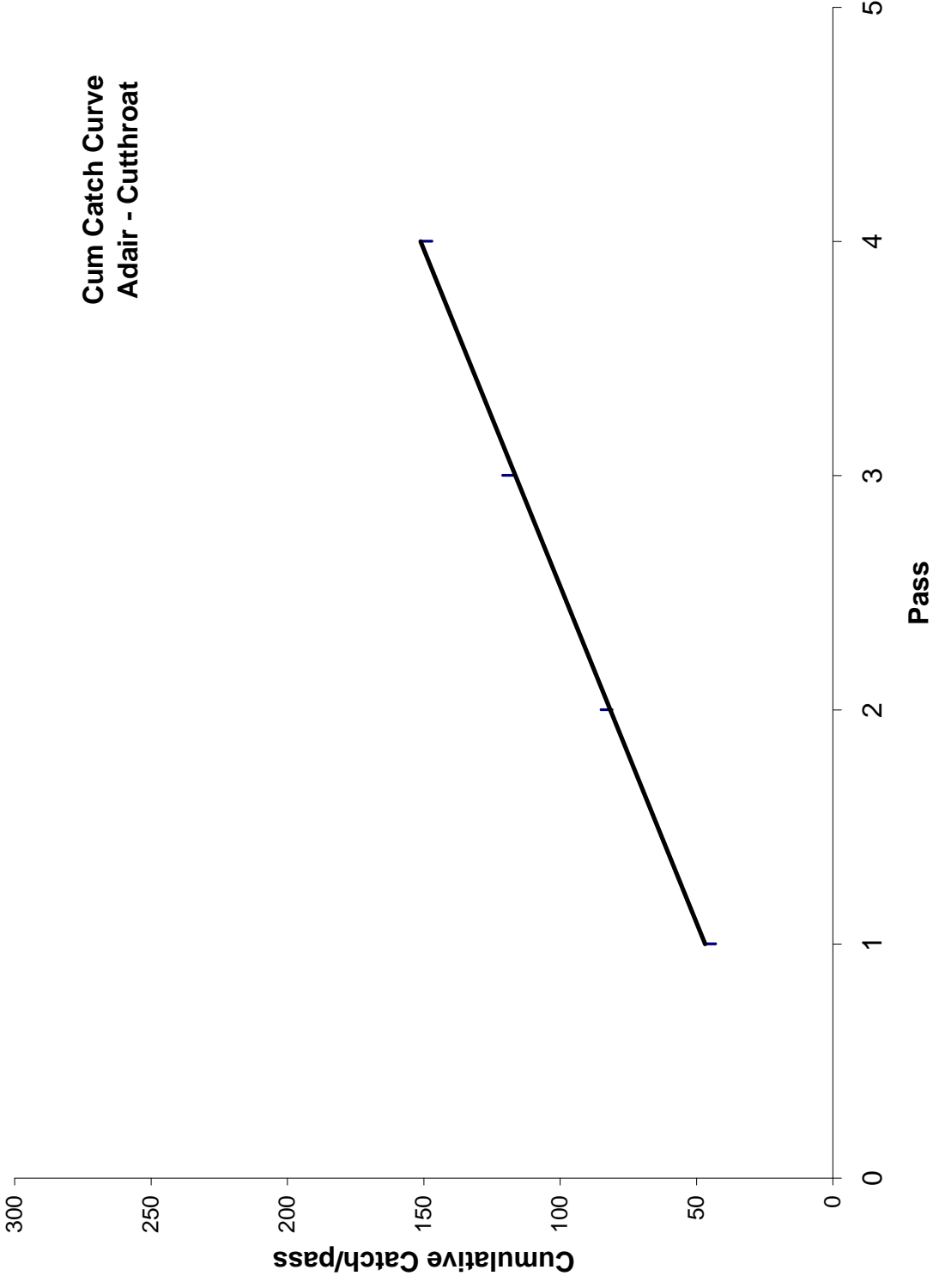
Fish Survey Results for the UPD Streams, 2000.

Stream	Sp.	Catch/pass							Ttl no. Caught	Est Prop Caught	Population Estimate				Length Characteristics (mm)		
		Pass No.	1	2	3	4	5	6			7	Pop Est	SE	90% CI	Mean	SD	Median
Adair	CO	# caught	13	11	6	7		37	0.63	59	24.45	10.80	106.66	68.32	12.22	66	45-94
Adair	CT	# caught	45	38	36	30		149	0.40	373	195.55	0.00 (-10.77)	755.77	45.36	14.74	41	28-110
Colin South	CT	# caught	34	24	19	8		85	0.82	104	9.98	84.10	123.21	70.26	31.22	82	30-145
Evans East	CT	# caught	78	44	43	37		202	0.63	321	51.77	219.17	422.10	45.84	12.33	43	24-104
Unnamed	CT	# caught	37	30	23	14		104	0.70	149	8.94	131.06	166.09	79.73	37.71	81	25-203

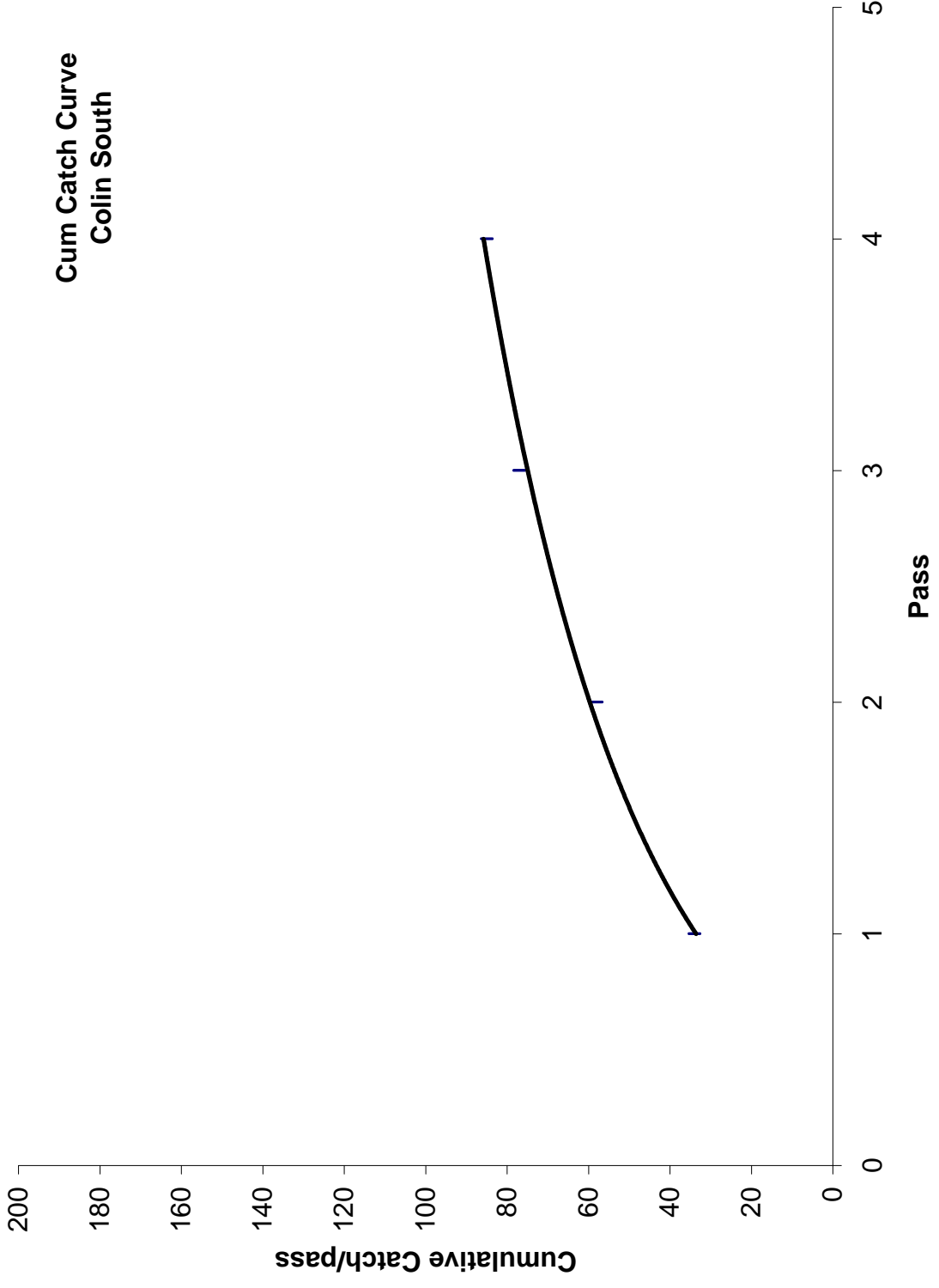
Cum Catch Curve
Adair - Coho



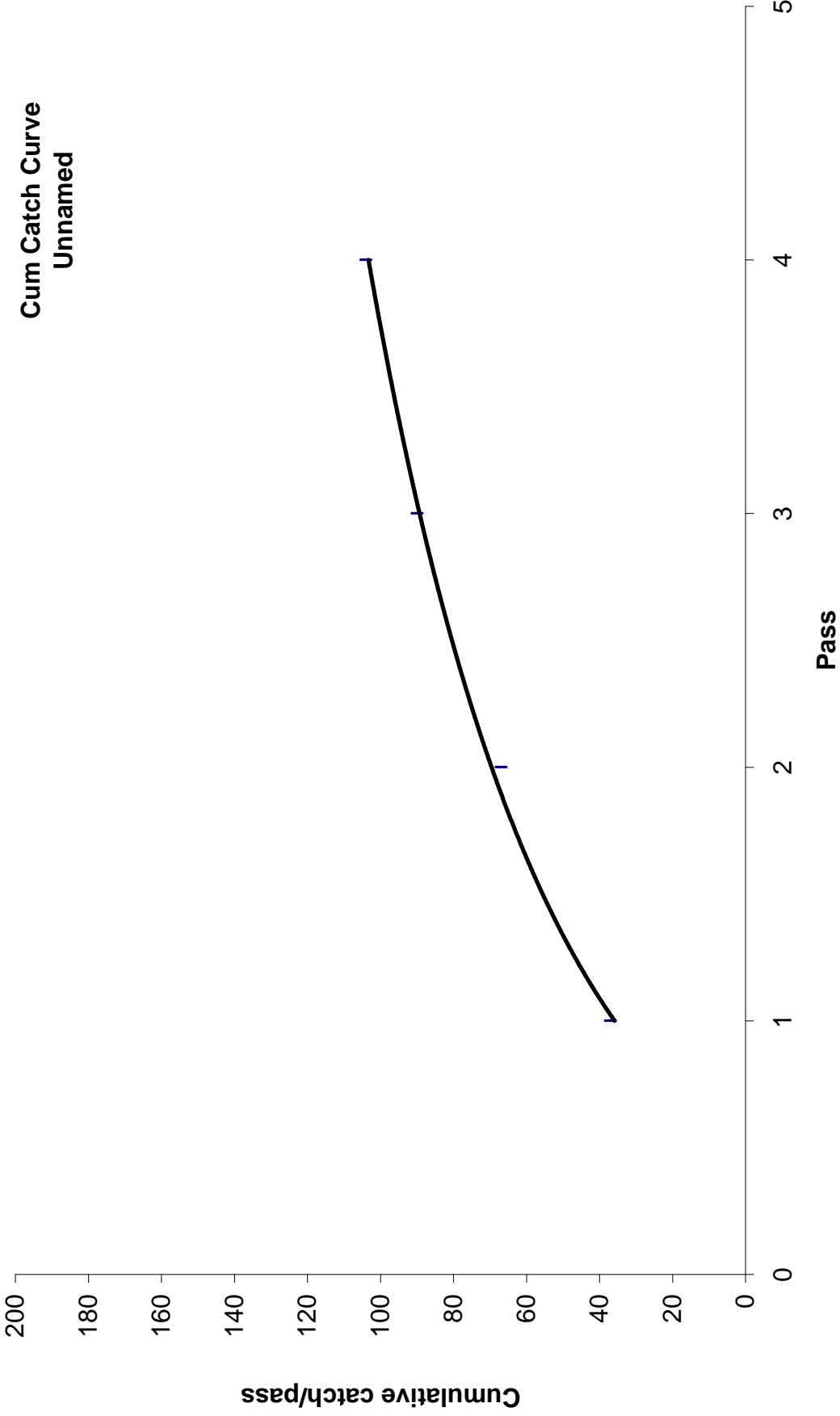
Cum Catch Curve
Adair - Cutthroat

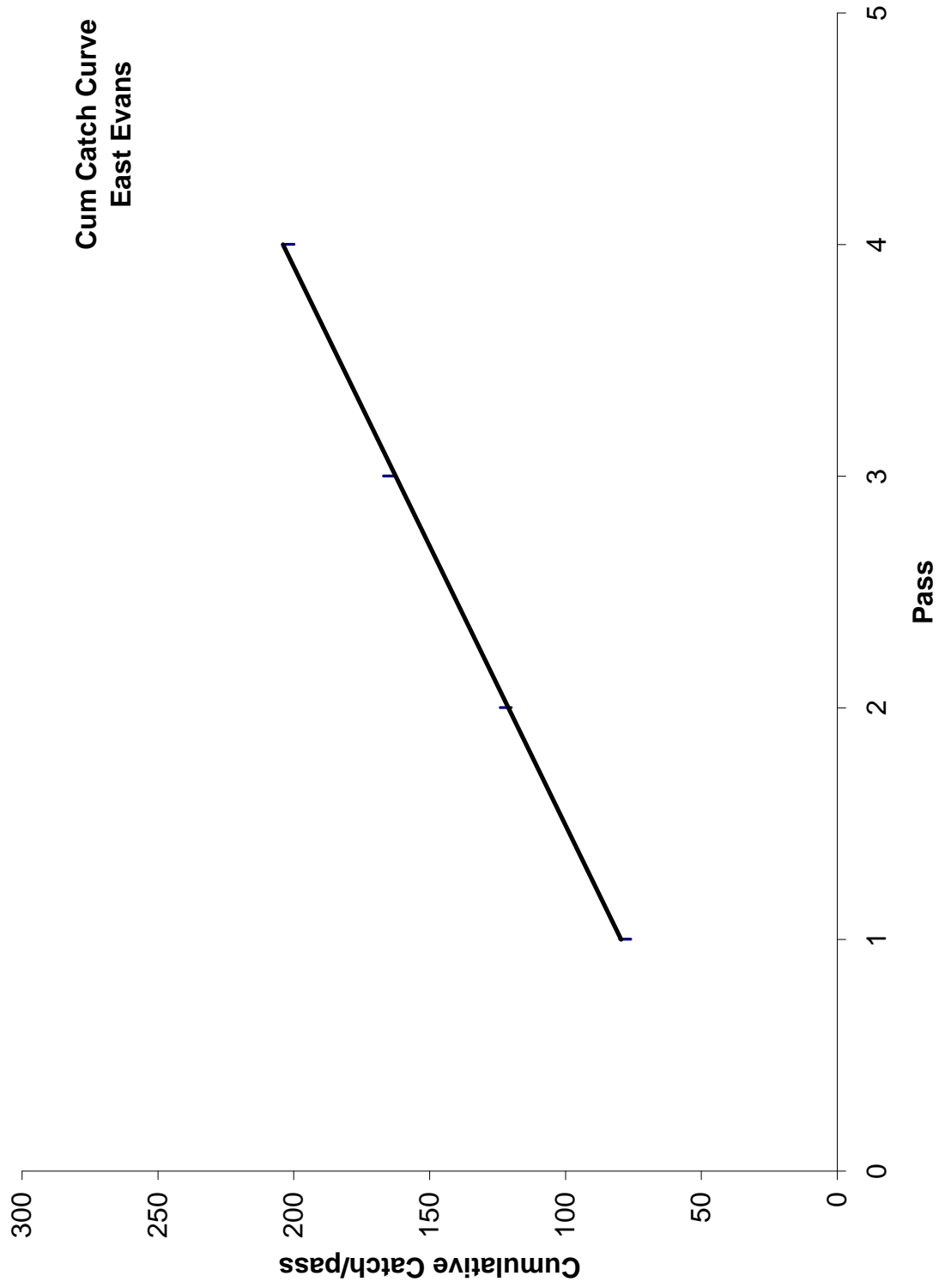


**Cum Catch Curve
Colin South**



Cum Catch Curve
Unnamed





Appendix C

Benthic Macroinvertebrate Sampling Data

Benthic Invertebrate Sampling Results for the UPD Streams, 1997-2000 (by genus)

Comparison of Benthic-Index of Biological Integrity (B-IBI) metrics for UPD and 2nd-4th order
Puget Lowland streams (by genus)

Benthic Invertebrate Sampling Results for the UPD Streams, 1997 - 2000 (by genus) (cont.)

ID	Creek	Date	Total Taxa	# Ephem (Mayfly) taxa	#Plecopt (Stonefly) taxa	#Trichopt (Caddisfly) taxa	EPT Taxa	% dom, 3 taxa	Cum # long-lived taxa	Cum # intol taxa	% individs in tol taxa	#clinger taxa	% pred indiv.
AD05991	Adair	May-99	28.70	3.70	6.30	4.30	14.30	66.80	4	6	15.80	12.70	9.70
EM09971	Evans, middle	May-99	25.00	3.70	3.70	2.00	9.40	79.60	2	2	1.70	6.70	2.10
RU05981	Rutherford	May-99	35.00	5.00	5.30	6.70	17.00	61.90	7	3	3.70	15.70	2.70
UN09981	Unnamed	May-99	29.70	4.00	5.70	6.00	15.70	69.50	4	4	0.50	11.30	9.40
CN06991	Colin, north	Jun-99	26.30	3.00	3.70	3.70	10.40	81.80	3	2	4.90	10.30	1.10
CS06991	Colin, south	Jun-99	18.67	4.00	4.00	2.70	10.70	71.10	2	2	1.50	7.70	7.50
EE06991	Evans, east	Jun-99	30.70	4.70	5.30	5.00	15.00	79.20	4	3	0.90	12.70	2.90
RU06991	Rutherford	Jun-99	25.30	6.00	3.70	3.30	13.00	50.30	1	0	0.50	8.30	4.40
UN06991	Unnamed	Jun-99	30.00	4.00	6.00	5.30	15.30	74.50	3	4	0.00	10.70	9.20
CN06001	Colin, north	Jun-00	27.00	3.00	4.00	5.50	12.50	51.30	1	0	10.41	9.00	8.33
	Colin, south-1	Jun-00	sample ID not complete										
CS06002	Colin, south-2	Jun-00	25.50	4.00	4.00	7.00	15.00	58.66	1	0	0.48	11.00	30.52
	Adair	Jun-00	sample ID not complete										
	Evans, east	Jun-00	22.00	4.00	3.50	4.50	12.00	47.75	1	0	1.11	7.50	11.08
	Evans, middle	Jun-00	sample ID not complete										
	Rutherford	Jun-00	sample ID not complete										
	Unnamed	Jun-00	sample ID not complete										

Sample identification is still in progress, results provided for 2001 are preliminary until invertebrate ID of all replicates is complete.

Comparison of Benthic-Index of Biological Integrity (B-IBI) metrics for UPD and 2nd-4th order PSL streams (by genus)

Stream	Sample Date	Total Taxa		% Dominance		Cum. No. of Long-Lived Taxa		Cum. No. of Intolerant Taxa	
		UPD Streams	Range observed in 2nd-4th order PSL (% TIA < 5.0)	UPD Streams	Range observed in 2nd-4th order PSL (% TIA < 5.0)	UPD Streams	Range observed in 2nd-4th order PSL (% TIA < 5.0)	UPD Streams	Range observed in 2nd-4th order PSL (% TIA < 5.0)
Adair	05/30/99	28.7	16.3 - 33.3	66.8	44.9 - 86.5	4	0 - 9	6	0 - 4
	06/01/00	invertebrate ID to be completed							
Colin, north	06/02/99	26.3		81.8		3		2	
	06/01/00	27.0		51.3		1		0	
Colin, south-1	06/02/99	18.7		71.1		2		2	
	06/01/00	25.5		58.7		1		0	
Unnamed	05/31/99	29.7		69.5		4		4	
	06/01/00	invertebrate ID to be completed							
Evans, east	06/02/99	30.7		79.2		4		3	
	06/01/00	22.0		47.8		1		0	
Evans, middle	05/31/99	25.0		79.6		2		2	
	06/01/00	invertebrate ID to be completed							
Rutherford	05/31/99	35.0		61.9		7		3	
	06/01/00	invertebrate ID to be completed						0	

PSL stream data provided by James Karr from Morley (2000) and Kleindl (1995).

Comparison of Benthic-Index of Biological Integrity (B-IBI) metrics for UPD and 2nd-4th order PSL streams (by genus) (cont)

Stream	Sample Date	Ephemeroptera (Mayfly) Taxa		Plecoptera (Stonefly) Taxa		Trichoptera (Caddisfly) Taxa		EPT Taxa	
		UPD Streams	Range observed in 2nd-4th order PSL (% TIA < 5.0)	UPD Streams	Range observed in 2nd-4th order PSL (% TIA < 5.0)	UPD Streams	Range observed in 2nd-4th order PSL (% TIA < 5.0)	UPD Streams	Range observed in 2nd-4th order PSL (% TIA < 5.0)
Adair	05/30/99	3.7	3.7 - 8.3	6.3	2.3 - 7.0	4.3	2.0 - 7.0	14.3	9.7 - 19.4
	06/01/00								
Colin, north	06/02/99	3.0		3.7		3.7		10.4	
	06/01/00	3.0		4.0		5.5		12.5	
Colin, south-1	06/02/99	4.0		4.0		2.7		10.7	
	06/01/00	4.0		4.0		7.0		15.0	
Unnamed	05/31/99	4.0		5.7		6.0		15.7	
	06/01/00								
Evans, east	06/02/99	4.7		5.3		5.0		15.0	
	06/01/00	4.0		3.5		4.5		12.0	
Evans, middle	05/31/99	3.7		3.7		2.0		9.4	
	06/01/00								
Rutherford	05/31/99	5.0		5.3		6.7		17.0	
	06/01/00								

PSL stream data provided by James Karr from Morley (2000) and Kleindl (1995).

Comparison of Benthic-Index of Biological Integrity (B-IBI) metrics for UPD and 2nd-4th order PSL streams (by genus) (cont)

Stream	Sample Date	% Individuals in Tolerant Taxa		Clinger Taxa		% Individuals in Predator Taxa	
		UPD Streams	Range observed in 2nd-4th order PSL (% TIA < 5.0)	UPD Streams	Range observed in 2nd-4th order PSL (% TIA < 5.0)	UPD Streams	Range observed in 2nd-4th order PSL (% TIA < 5.0)
Adair	05/30/99	15.8	3.2 - 61.4	12.7	7.3 - 19.7	9.7	7.3 - 19.7
	06/01/00						
Colin, north	06/02/99	4.9		10.3		1.1	
	06/01/00	10.4		9.0		8.3	
Colin, south-1	06/02/99	1.5		7.7		7.5	
Colin, south-2	06/01/00	0.5		11.0		30.5	
Unnamed	05/31/99	0.5		11.3		9.4	
	06/01/00						
Evans, east	06/02/99	0.9		12.7		2.9	
	06/01/00	1.1		7.5		11.1	
Evans, middle	05/31/99	1.7		6.7		2.1	
	06/01/00						
Rutherford	05/31/99	3.7		15.7		2.7	
	06/01/00						

PSL stream data provided by James Karr from Morley (2000) and Kleindl (1995).

Appendix D

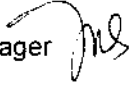
2000 Stream Sediment Metals Data



King County
Water and Land Resources Division
Environmental Laboratory
Department of Natural Resources
322 West Ewing Street
Seattle, WA 98119-1507
(206) 684-2300

January 2, 2001

TO: Kerry Thrasher, Administrative Specialist
WLRD, Regional Watershed Teams

FROM: Mary Silva, Laboratory Project Manager 
WLRD, Environmental Laboratory

SUBJECT: Attached Report for Project 421195 CU/CV, Blakely/Redmond Ridge UPD
Samples L18925-1 - 4.

Attached is the comprehensive report for the water samples delivered to the laboratory on October 13, 2000. The samples were analyzed in the metals and conventionals sections of the laboratory. QA/QC data summaries are included for your information.

Metals:

The samples were analyzed by ICP for aluminum, cadmium, copper, lead and zinc.

The sample used for QA/QC was heterogeneous. Samples are spiked prior to analysis at levels specified by the method. The matrix spike recovery for aluminum is outside of the established control limits of 75 - 125%. The QC acceptance criteria are based on the assumption that the spike level is at least 25% of the indigenous sample concentration (4X rule). In this case, the level of target analyte originally present in the sample was too high to accurately determine the spike within the precision of the method. Aluminum has been qualified with the letter "G" due to the low matrix spike recovery.

Buffalo River Sediment was used as a Laboratory Control Sample. Method 3050 is considered a strong acid digestion but not a total digestion. The certification results for Buffalo River Sediment was based on a total digestion Method. The percent recovery for Aluminum is typical for this digestion Method.

There were no anomalies associated with the preparation and analysis of these samples.

The data have passed all other QA/QC checks for accuracy and completeness and may be used without qualification, except as noted above.

Conventionals:

Sample Information

The conventionals laboratory analyzed the samples for total solids.



Sample Containers, Preservation and Holding Times

All of the samples were received in acceptable containers and sufficient volume was provided to perform all of the analyses required for this project. The samples were preserved using established protocols and were analyzed within USEPA and King County Environmental Laboratory (KCEL) established holding times.

Analytical Methods

All analyses were performed within established KCEL SOPs.

Method QC

Instrument Calibration - Where applicable, instrument calibration was performed before each analytical batch and confirmed by initial calibration verification standards and blanks. All initial and continuing calibration verification standards were within the relevant KCEL control limits. A correlation coefficient of 0.995 or greater was achieved as stated in KCEL calibration requirements. All balances have been monitored monthly and calibrated yearly as recommended by the manufacturer. Ovens, incubators, and refrigerators are monitored daily, and temperatures are noted in the logbooks before and after analysis.

Method Blank – All of the method blank results associated with the analysis of each parameter were below the method detection limit.

Laboratory Control Samples – All of the laboratory control sample results were within the acceptable range established for each reported parameter.

Sample QC

Laboratory Duplicates – All of the laboratory duplicate results were within the acceptable range established for each reported parameter.

Matrix Spike – All of the matrix spike recovery results were within the acceptable range established for each reported parameter.

Summary

There were no anomalies associated with the preparation and analysis of these samples.

The data have passed all internal QA/QC checks for accuracy and completeness and may be used without qualification.

If you have any questions or need additional information, please call me at 684-2359.

King County Environmental Lab Matrix Report

PROJECT: 421195CU

COMBINED LABS-Solid

Locator	Sample Depth	Lab ID	Aluminum, Total, ICP mg/Kg	Cadmium, Total, ICP mg/Kg	Copper, Total, ICP mg/Kg	Lead, Total, ICP mg/Kg	Zinc, Total, ICP mg/Kg	Total Solids * %
Adair-53A		L18925-1	9120		8.02	2.8	32.7	79.2
0276-53B		L18925-2	11500	0.21	8.75	6	38.8	71.4
0110-18F		L18925-3	11600		6.78	6.1	40.6	78.9
0132-02D		L18925-4	11900		9.42	7.4	38.7	72.9

Adair-53A

Unnamed - 53B

Rutherford - 18F

Clin 5 - 02D

King County Environmental Lab Analytical Report

PROJECT: 421195CU

Locator: 0275-53A
 Descrpt: ADAIR CREEK AT KC
 Sampled: Oct 13, 2000
 Lab ID: L18925-1
 Matrix: FRSHWTRSED
 % Solids: 79.2

Locator: 0276-53B
 Descrpt: UNNAMED CREEK AT K
 Sampled: Oct 13, 2000
 Lab ID: L18925-2
 Matrix: FRSHWTRSED
 % Solids: 71.4

Locator: 0110-18F
 Descrpt: RUTHERFORD CREEK A
 Sampled: Oct 13, 2000
 Lab ID: L18925-3
 Matrix: FRSHWTRSED
 % Solids: 78.9

Locator: 0132-02D
 Descrpt: COLIN CREEK AT KC
 Sampled: Oct 13, 2000
 Lab ID: L18925-4
 Matrix: FRSHWTRSED
 % Solids: 72.9

Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units		
- Dry Weight Basis																						
COMBINED LABS																						
M-CV SW2640-G (03-01-007-001)	79.2		0.005	0.01	%	71.4		0.005	0.01	%	78.9		0.005	0.01	%	72.9		0.005	0.01	%		
Total Solids *	9120	G	6.1	30.6	mg/Kg	11500	G	7	34.7	mg/Kg	11600	G	6.5	32.1	mg/Kg	11900	G	6.9	34	mg/Kg		
Aluminum, Total, ICP			<MDL	0.19	0.917	mg/Kg	0.21	<RDL	0.21	1.04	mg/Kg	<MDL	0.19	0.962	mg/Kg	<MDL	0.21	1.02	mg/Kg			
Cadmium, Total, ICP	8.02		0.24	1.22	mg/Kg	8.75		0.28	1.39	mg/Kg	6.78		0.25	1.28	mg/Kg	9.42		0.27	1.38	mg/Kg		
Copper, Total, ICP			2.8	<RDL	1.9	9.17	mg/Kg	6	<RDL	2.1	10.4	mg/Kg	6.1	<RDL	1.9	9.62	mg/Kg	7.4	<RDL	2.1	10.2	mg/Kg
Lead, Total, ICP	32.7		0.3	1.53	mg/Kg	38.8		0.35	1.74	mg/Kg	40.6		0.32	1.61	mg/Kg	38.7		0.34	1.7	mg/Kg		

* Not converted to dry weight basis for this parameter

DESCRIPTION OF COMPREHENSIVE REPORT CONTENTS

Locator

Each sampling site is assigned a unique locator code which defines a unique, specific, geographic reference for that sampling point.

Sample Date

The sample date is labeled Sampled. It is the record of the month, day, and year the sample was collected.

Lab ID

Each sample receives a unique Lab sample number, so that all samples can be referenced by their sample numbers.

Matrix.

Matrix is the Lab's designation of the type of environment from which the sample was taken. There are four groups of matrices: liquids, solids, tissues, and air. The matrices and codes follow:

LIQUID	OTHER WTR	LA
	INFLUENT	LB
	EFFLUENT	LC
	DIG SLUDGE	LD
	IW WTR	LE
	SEWER WTR	LF
	STORM WTR	LG
	DRINK WTR	LH
	GRND WTR	LJ
	FRESH WTR	LK
	SALT WTR	LL
	FILTER WTR	LM
	BLANK WTR	LN
	SEPTAGE	LP
	TCLP LEACH	LQ
	RECON WTR	LR
	SEM EXTRACT	LS
	NON WATER	LT
SOLIDS	OTHR SOLID	SA
	SOIL	SB
	COMPOST	SC
	SLUDGE	SD
	FRSHWTRSED	SE
	SALTWTRSED	SF
	IW SLUDGE	SG
	IN-LINE SED	SH
	SOLIDBLANK	SJ

Matrices Cont.

	SPMD	SK
TISSUES	OTHR TISS	TA
	ALGAE	TB
	PLANT	TC
	SHELLFISH	TD
	FISH	TE
	CRAYFISH W	TF
	CRAYFISH E	TG
	ORGANS	TH
AIR	AIR BLANK	AA
	AIR	AB
	LANDFILGAS	AC
	SEWER AIR	AD

%Solids

The percent of the non-liquid (by weight) portion of the sample. All data are calculated and stored on a wet weight basis. The % Solid value is used, if requested, to normalize and report data on a dry weight basis. Each sample will be flagged either **Wet Weight Basis** or **Dry Weight Basis** in the report. Note that the conversion to a dry weight basis is not applicable to all parameters, for example pH. Also, Particle Size Distribution is not based on moisture content.

Parameters

Parameters (analytes tested for) are reported in sub-groups corresponding to the laboratory that tested for them. The sub-groups are: **organics, metals, conventionals, and micro (microbiology) field analysis, and Aquatic Toxicology.**

Qualifiers currently used

Qualifiers give additional information about data points.

<MDL	Less than method detection limit
<RDL	Less than reporting detection limit (practical quantitation limit, PQL)
RDL	Equal to the Reporting Detection Limit

Qualifiers Cont.

AD	Adult
B	Blank
C	Confluent growth
D	Dominant
E or G	Estimated microbial count biased analyte concentration
G	Matrix spike or SRM recovery below acceptance range
H	Sample handling criteria were not met, prior to analysis.
J#	Chemist's confidence of a Tentatively Identified Compound as indicated by the value of #. The value can vary from 1 to 4, the most confident being 1.
L	Recovery of matrix spike or SRM above acceptance range
LV	Larvae
NF	Not found
P	Present
PU	Pupae
R	Data may not be usable
S	Sub-dominant
TA	Text information available
TNTC	Too Numerous to Count
X	Matrix spike or surrogate recovery <10 %
>MR	Analyte concentration exceeds capacity to measure
>###	Population count exceeds capacity to measure

Other qualifiers used before 8/16/96

CS	Composite sample
DIL	Diluted
IP	Incorrect preservation
IS	Incorrectly sampled
SL	Sample lost
TIA	Text information available
XCM	Exceeds capacity to measure (Instrument X limitation)
XHT	Exceeds holding time

Value

The value is the measurement of the parameter expressed in the appropriate units of measure. The

KING COUNTY METRO ENVIRONMENTAL LABORATORY
 Lab QC Report - 11/07/2000 03:36
 Run ID: R60304 Workgroup: WGS2095 (11/2/00)

Matrix: BLANK WTR Listtype: MTICP-SED Method: EPA3050A/6010B (06-02-004-002) Project: pKey: SED

Parameter	Mdl	Rdl	Units	MB Value	Truevalue	SB Value	% Rec.	Qual	Limits	Truevalue	Value	% Rec.	Qual	Limits	RPD/RSD	Qual	Limit
Aluminum, Total, ICP	.1	.5	mg/L	<MDL	12	11.4	95		85-115								
Cadmium, Total, ICP	.003	.015	mg/L	<MDL	1.2	1.16	96		85-115								
Copper, Total, ICP	.004	.02	mg/L	<MDL	1.2	1.19	99		85-115								
Lead, Total, ICP	.03	.15	mg/L	<MDL	4	3.85	96		85-115								
Zinc, Total, ICP	.005	.025	mg/L	<MDL	1.2	1.15	96		85-115								

Matrix: BLANK WTR Listtype: MTICP-SED Method: EPA3050A/6010B (06-02-004-002) Project: 421195CU PKey: SED

Parameter	Mdl	Rdl	Units	MB Value	Qual
Aluminum, Total, ICP	.1	.5	mg/L	<MDL	
Cadmium, Total, ICP	.003	.015	mg/L	<MDL	
Copper, Total, ICP	.004	.02	mg/L	<MDL	
Lead, Total, ICP	.03	.15	mg/L	<MDL	
Zinc, Total, ICP	.005	.025	mg/L	<MDL	

Matrix: FRSHWTRSED Listtype: MTICP-SED Method: EPA3050A/6010B (60-20-004-002) Project: pKey: SED

Parameter	Mdl	Rdl	Units	SampValue	Truevalue	SRM Value	% Rec.	Qual	Limits	RPD/RSD	Qual	Limit
Aluminum, Total, ICP	25	123	mg/Kg	61100	11500	19	120		120			
Cadmium, Total, ICP	.74	3.69	mg/Kg	3.45	3.2	94	120		120			
Copper, Total, ICP	.98	4.92	mg/Kg	98.6	95.7	97	120		120			
Lead, Total, ICP	7.4	36.9	mg/Kg	161	162	100	120		120			
Zinc, Total, ICP	1.2	6.15	mg/Kg	439	388	88	120		120			

Matrix: SOIL Listtype: MTICP-SED Method: EPA3050A/6010B (60-20-004-002) Project: pKey: SED

Parameter	Mdl	Rdl	Units	SampValue	Truevalue	SRM Value	% Rec.	Qual	Limits	RPD/RSD	Qual	Limit
Aluminum, Total, ICP	22	112	mg/Kg	4800	4610	96	120		120			
Cadmium, Total, ICP	.67	3.35	mg/Kg	151	156	103	120		120			
Copper, Total, ICP	89	4.47	mg/Kg	59.2	62.4	105	120		120			
Lead, Total, ICP	6.7	33.5	mg/Kg	97.8	104	106	120		120			
Zinc, Total, ICP	1.1	5.59	mg/Kg	123	128	104	120		120			

Matrix: FRSHWTRSED Listtype: MTICP-SED Method: EPA3050A/6010B (60-20-004-002) Project: 421195CU PKey: SED

Parameter	Mdl	Rdl	Units	SampValue	Truevalue	LD Value	% Rec.	Qual	Limits	RPD/RSD	Qual	Limit
Aluminum, Total, ICP	5	24.9	mg/Kg	8180	10000							20
Cadmium, Total, ICP	.15	.747	mg/Kg	.15	.16							20
Copper, Total, ICP	.2	.996	mg/Kg	6.25	7.45							20
Lead, Total, ICP	1.5	7.47	mg/Kg	4.3	5.2							20
Zinc, Total, ICP	.25	1.24	mg/Kg	27.7	31							20

KING COUNTY METRO ENVIRONMENTAL LABORATORY
 Lab QC Report - 11/07/2000 03:05
 Run ID: R59762 Workgroup: WGS1767 (TOTS)

LD:WGS1767-1 LT:WGS1767-3 Matrix: FRSHWTRSED ListType: CVTOTS Method: SM2540-G (03-01-007-001) Project: 421195CU PKey: SED
 Parameter Mdl Rdl Units SampValue Truevalue LD Value % Rec. Qual Limits Truevalue LT Value % Rec. Qual Limits RPD/RSD Qual Limits
 Total Solids .005 .01 \$ 79.2 81.6 81.1 2 20

MB:WGS1767-3 Matrix: OTHR SOLID ListType: CVTOTS Method: SM2540-G (03-01-007-001) Project: 421195CU PKey: SED
 Parameter Mdl Rdl Units MB Value Qual
 Total Solids .005 .01 \$ <MDL

KING COUNTY METRO ENVIRONMENTAL LABORATORY
 Lab QC Report - 11/07/2000 03:36
 Run ID: R60304 Workgroup: WGS2095 (11/2/00)

Parameter	Mdl	Rdl	Units	SampValue	Truevalue	MS-Value	% Rec	Qual	Limits	RPD/RSD	Qual	Limit
MS:WGS2095-6 Listtype: FRSHWRSED Matrix: L18925-2 Method: EPA3050A/6010B (60-20-004-002) Project: 421195CU PKey: SED												
Aluminum, Total, ICP	5.1	25.4	mg/Kg	8180	12	8490	51	G	75-125			
Cadmium, Total, ICP	.15	.762	mg/Kg	.15	1.2	58.3	95		75-125			
Copper, Total, ICP	.2	1.02	mg/Kg	6.25	1.2	66.4	99		75-125			
Lead, Total, ICP	1.5	7.62	mg/Kg	4.3	4	197	95		75-125			
Zinc, Total, ICP	25	1.27	mg/Kg	27.7	1.2	84.2	93		75-125			
SDIL:WGS2095-7 Listtype: FRSHWRSED Matrix: L18925-2 Method: EPA3050A/6010B (60-20-004-002) Project: 421195CU PKey: SED												
Parameter	Mdl	Rdl	Units	SampValue	Truevalue	SDIL-Value	% Rec	Qual	Limits	RPD/RSD	Qual	Limit