

THE UNIVERSITY OF THE STATE OF NEW YORK
THE STATE EDUCATION DEPARTMENT
ALBANY, NEW YORK 12230

NEW YORK STATE MUSEUM, SCIENCE SERVICE

October 26, 1981

GEOLOGICAL SURVEY

Mr. Kellogg V. Morton, Chief
Research Contracts Branch
Division of Contracts
Office of Administration, AR-2223
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Morton,

The New York State Geological Survey has been involved with studies of the Western New York Nuclear Service Center since 1975. During this time a large amount of data has been gathered as part of our efforts to characterize the geology and hydrology of the West Valley area. This data addresses many aspects of the site including the depths of drill holes and the layers of sediment and water levels within them, meteorological records, elevation of water in the low-level waste burial trenches, stream flow data, and water quality records.

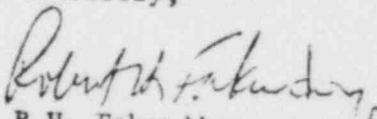
To aid our interpretation of this data, we have begun their analysis using an IBM 370/3033 computer located at Rensselaer Polytechnic Institute. We access this computer through the terminals belonging to the New York State Science Service. As the rate of data analysis by the West Valley Project staff increases, the demands for terminal time will increase, conflicting with the demands placed on the terminals by the Science Service. To alleviate this overlap in demand, we are requesting permission to apply funds from the existing contract, NRC-04-79-205, to the rental of a computer terminal for the remainder of this contract.

The contract for the West Valley Project has required to NYSGS to hire six additional staff members to date. The execution of the planned computer analyses will involve at least three of the West Valley staff scientists and a technician working at the terminal. These additional people using the existing terminals represent a 100 percent increase in the use of the facilities of the Science Service. The rental of an additional terminal to handle this increased use will assure the timely completion of the West Valley research while permitting the more equitable distribution of the existing computer facilities.

The terminal required for the type of computing undertaken by the West Valley Project can be met using a fairly simple device. Informal discussions of our needs with vendors providing computer terminal rental services have resulted in cost estimates in the range of \$200 per month, which will be accommodated within our existing budgetary allotment.

I am looking forward to your approval of this expenditure so that the rental process may be completed and the rate of data analysis increased.

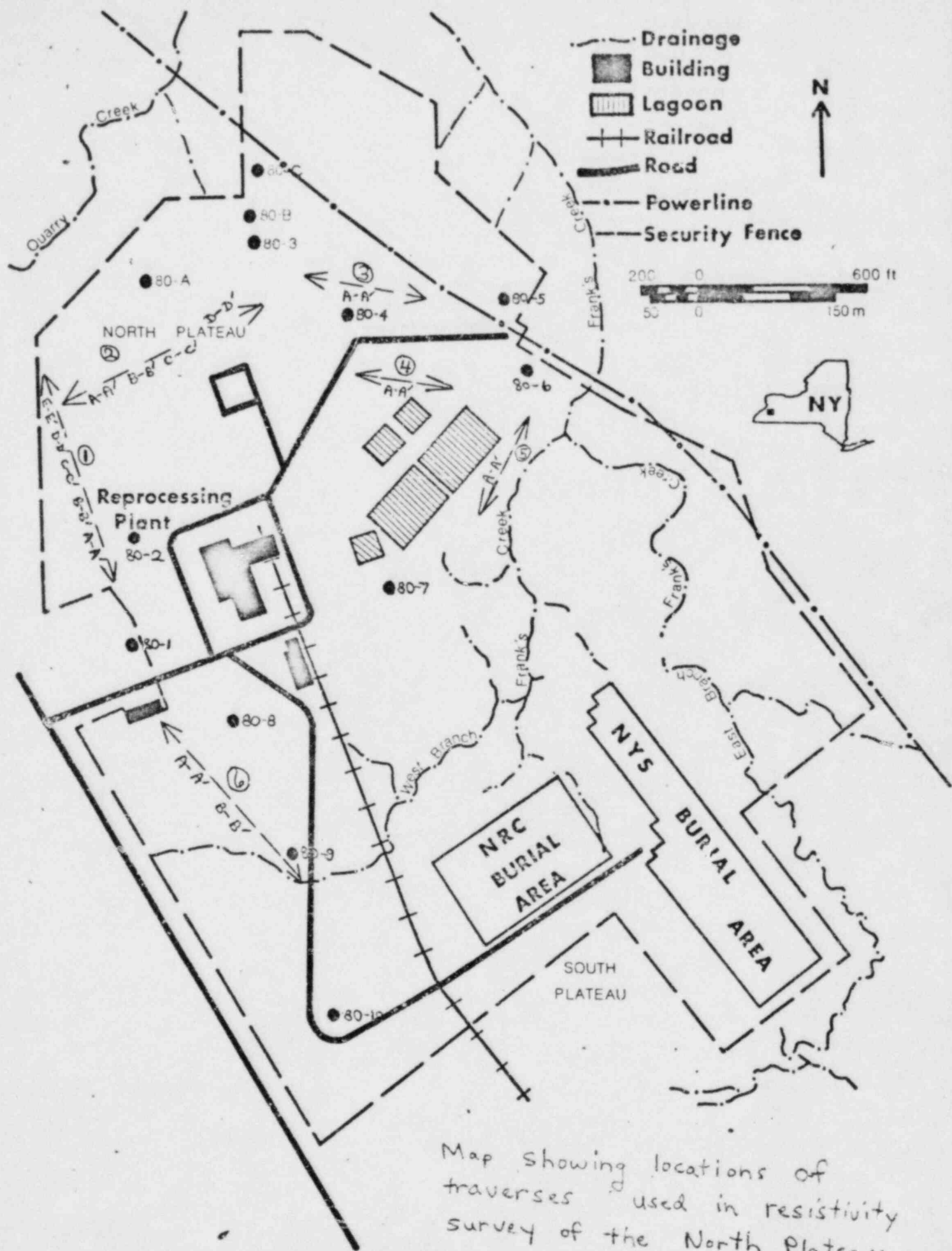
Sincerely,



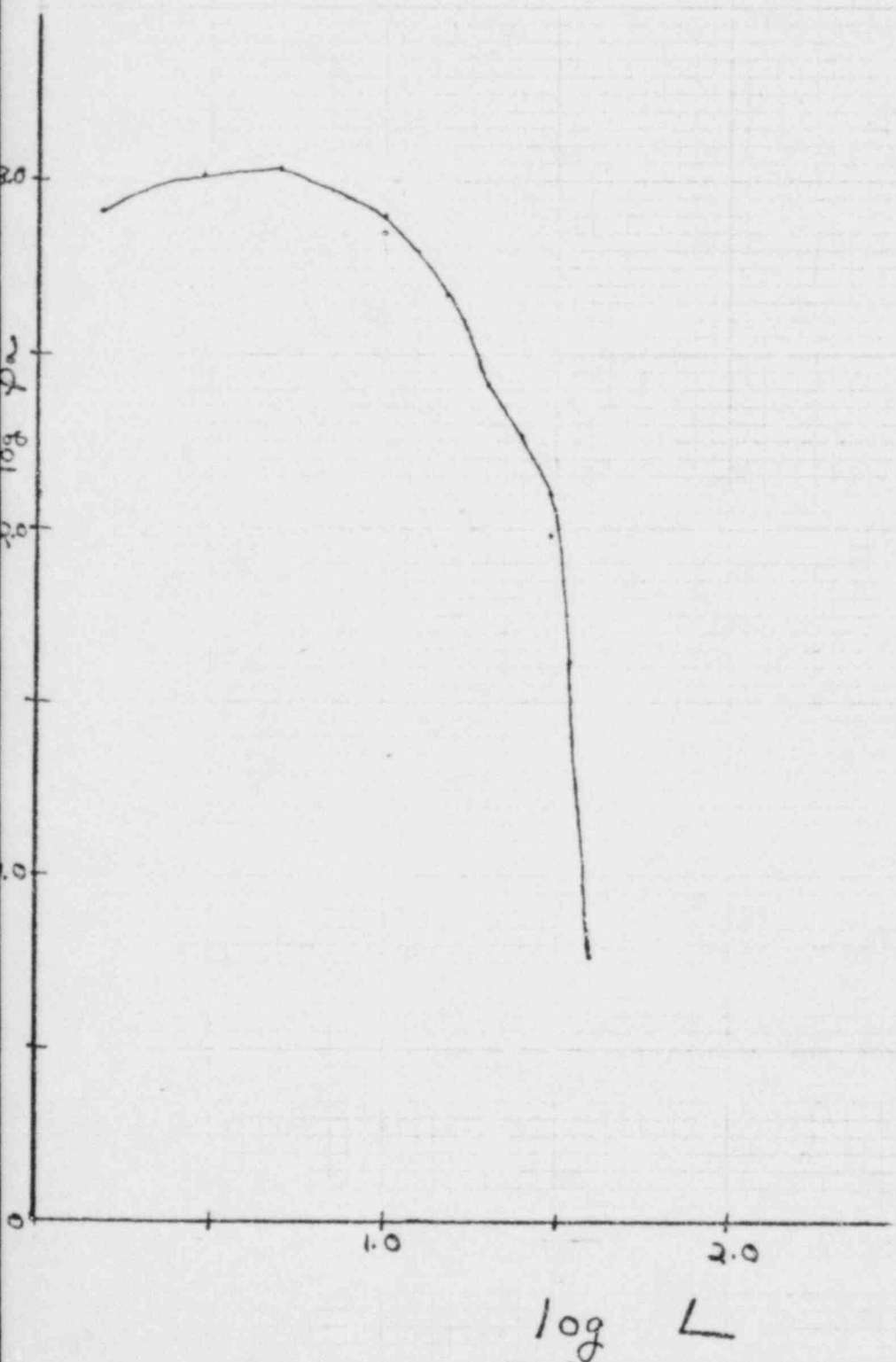
R.H. Fakundiny
State Geologist

8201050111 811204
PDR REVGP EEC*****
PDR

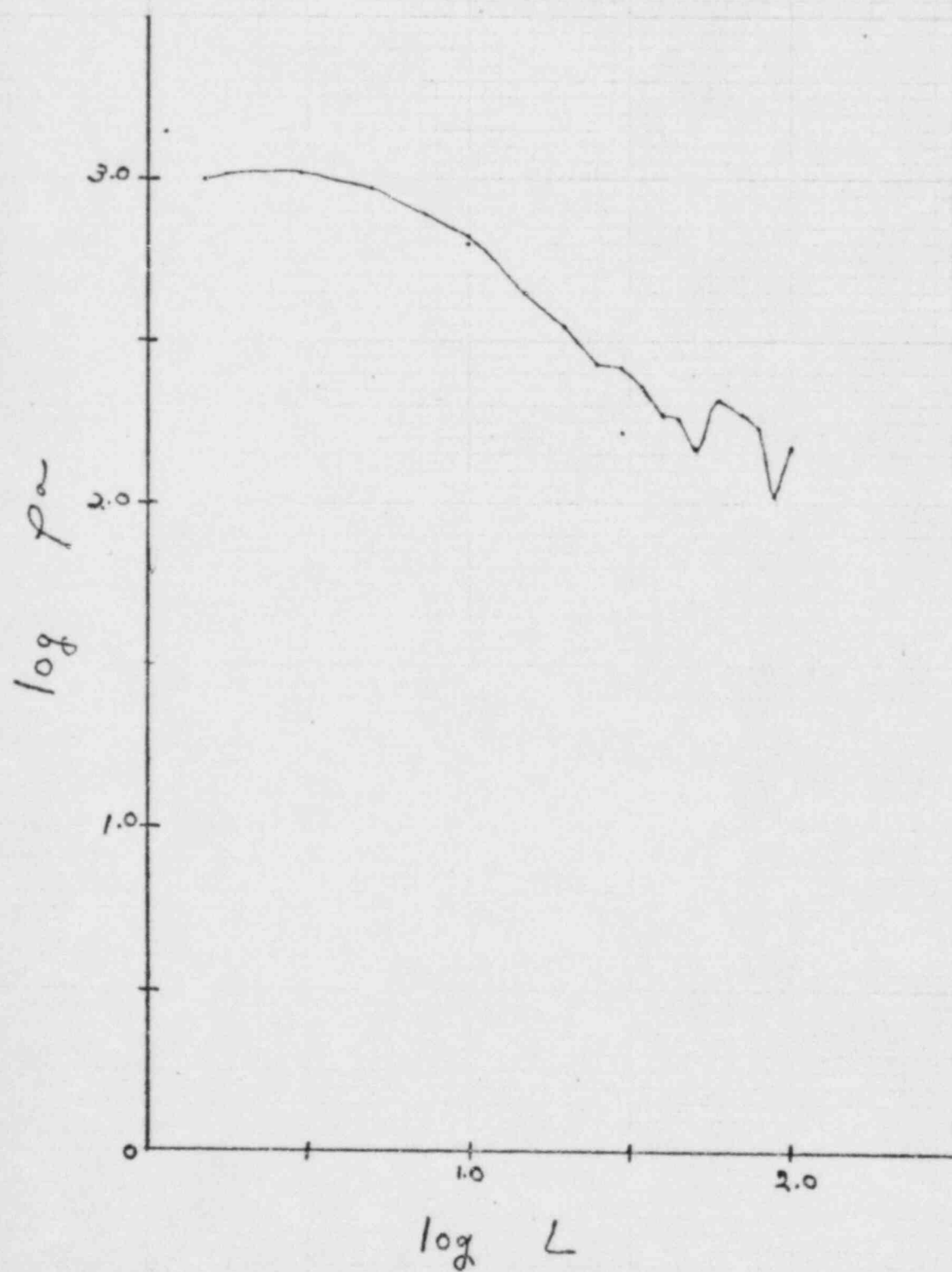
RHF/kl



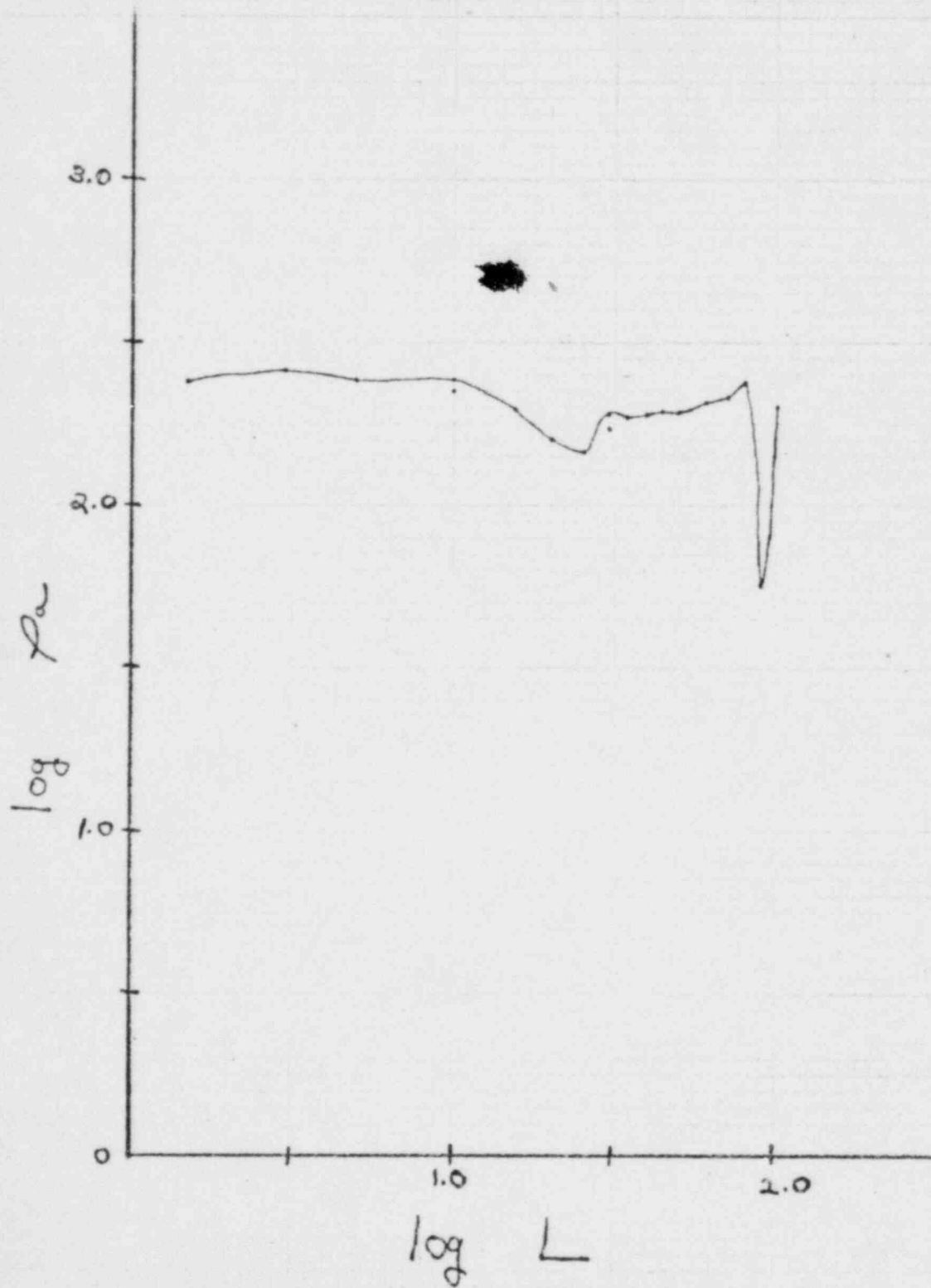
Traverse / A-A'



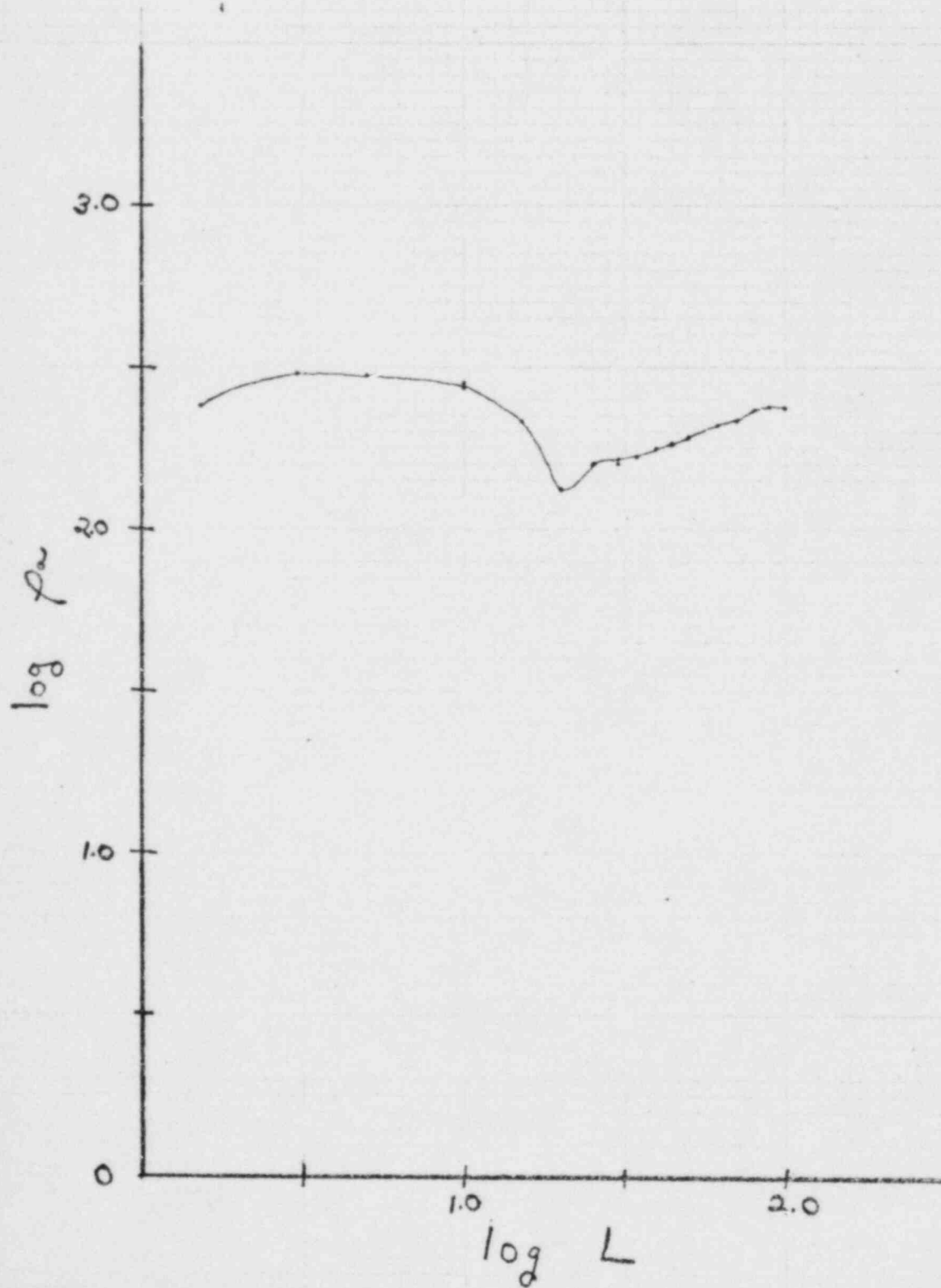
Traverse / 0-B'



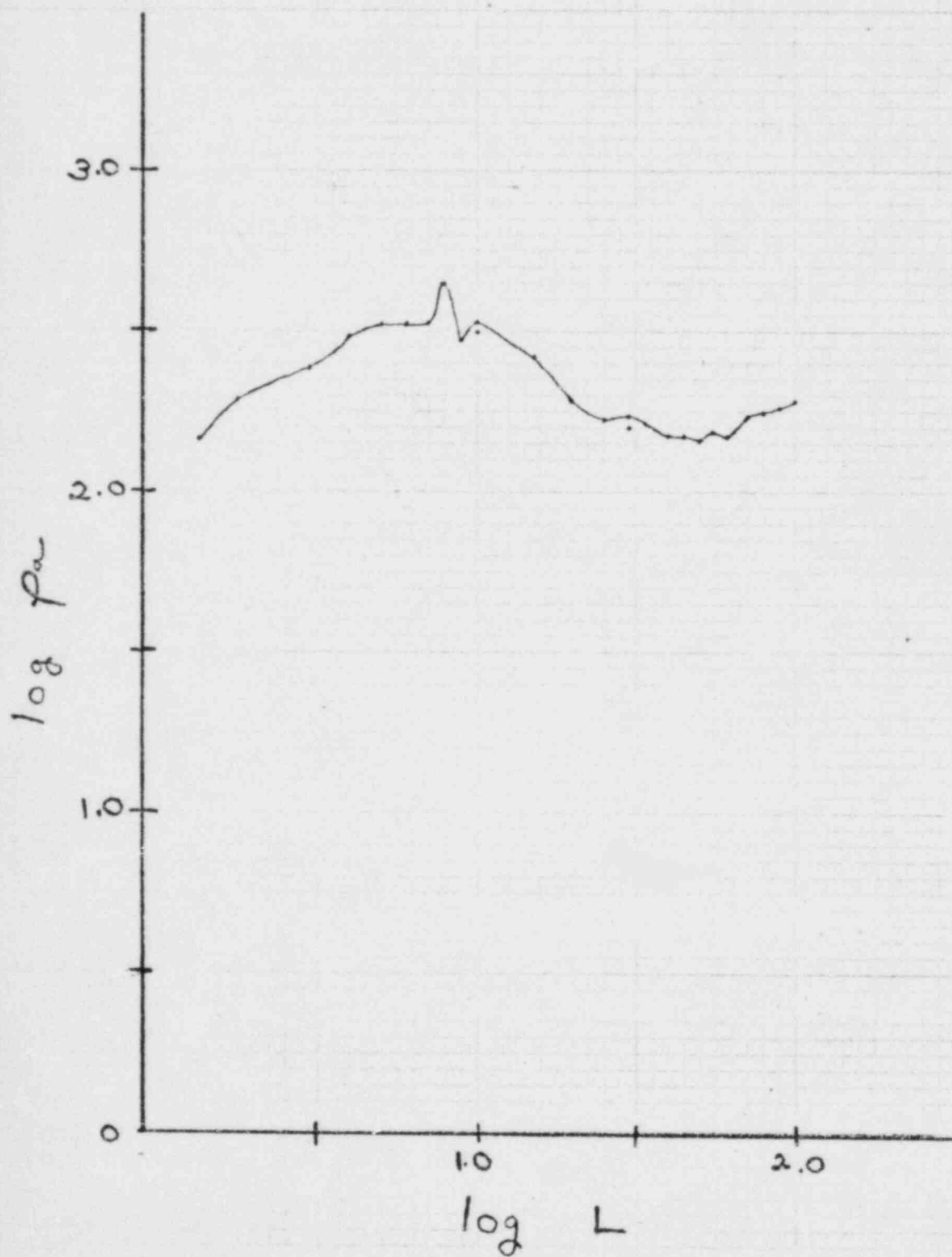
Traverse 1 C-C'



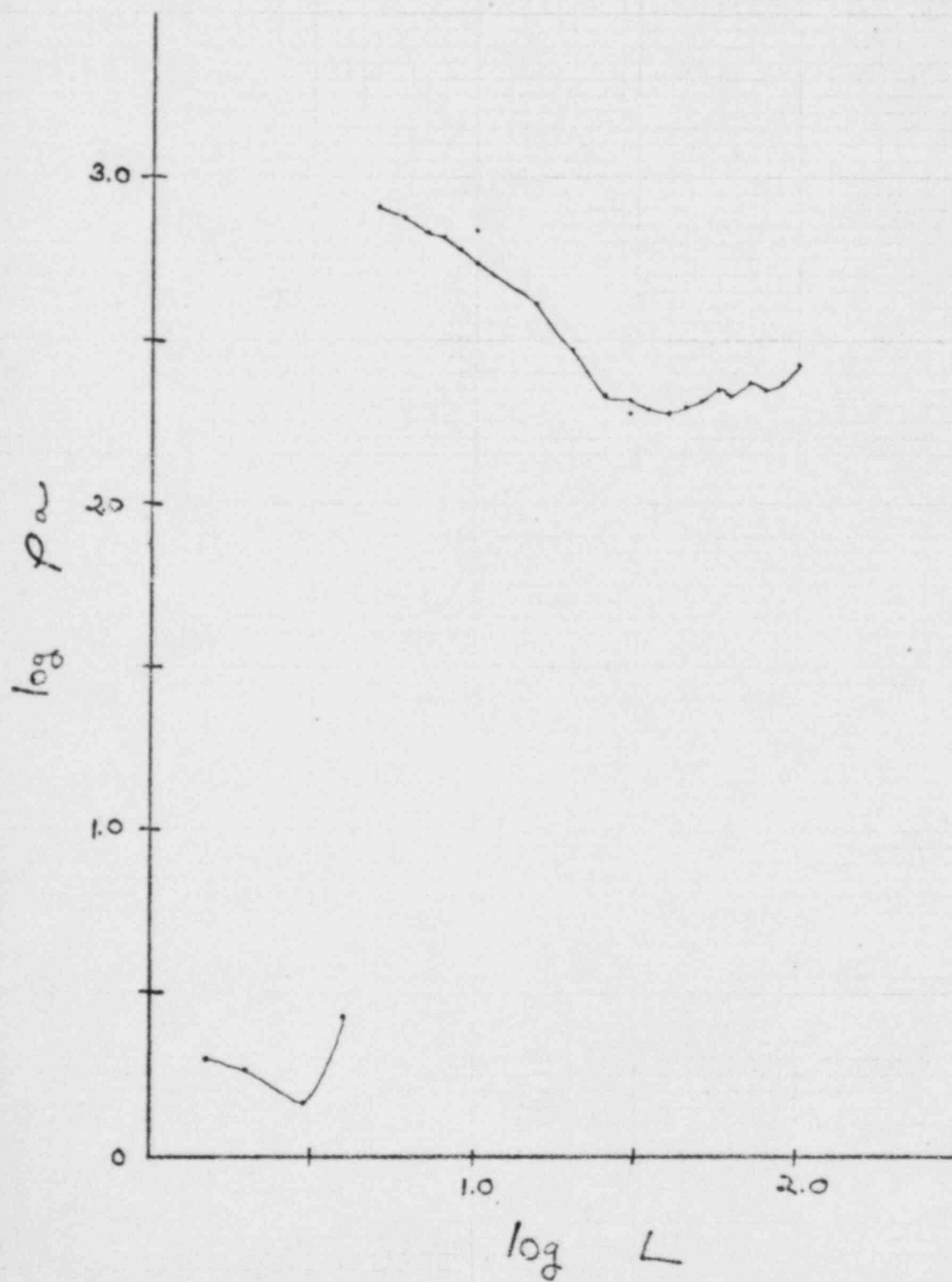
Traverse 1 D-D'



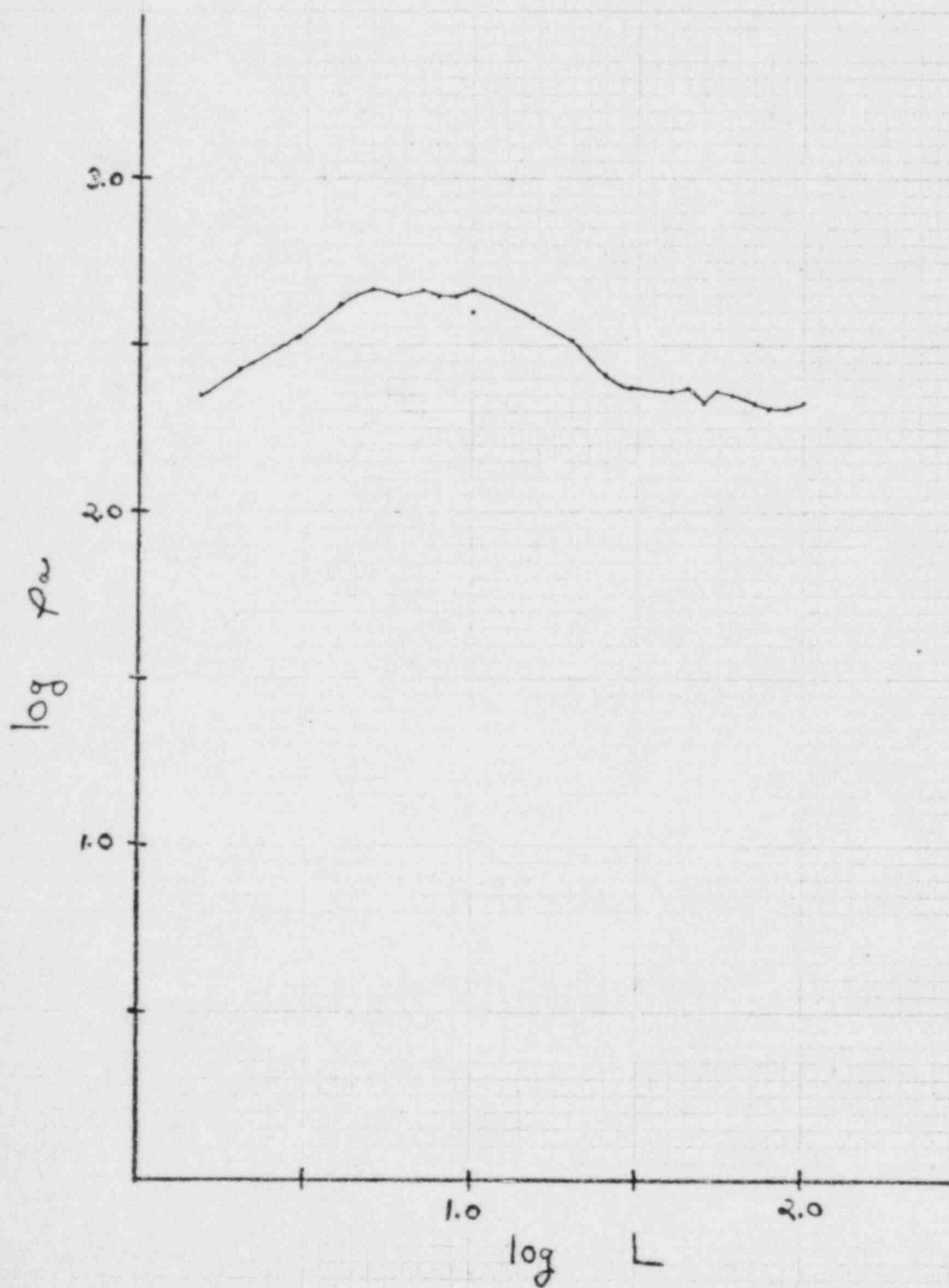
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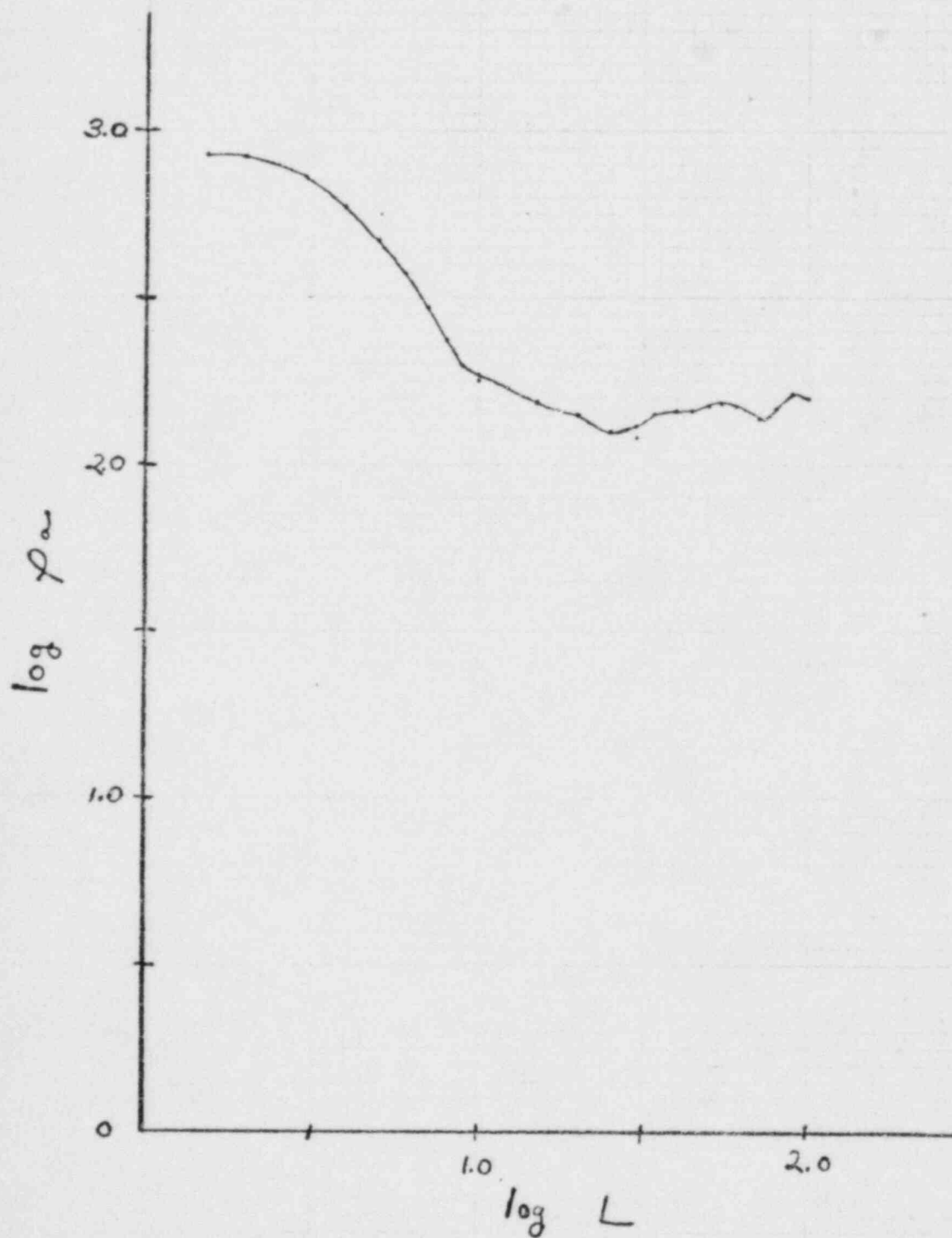
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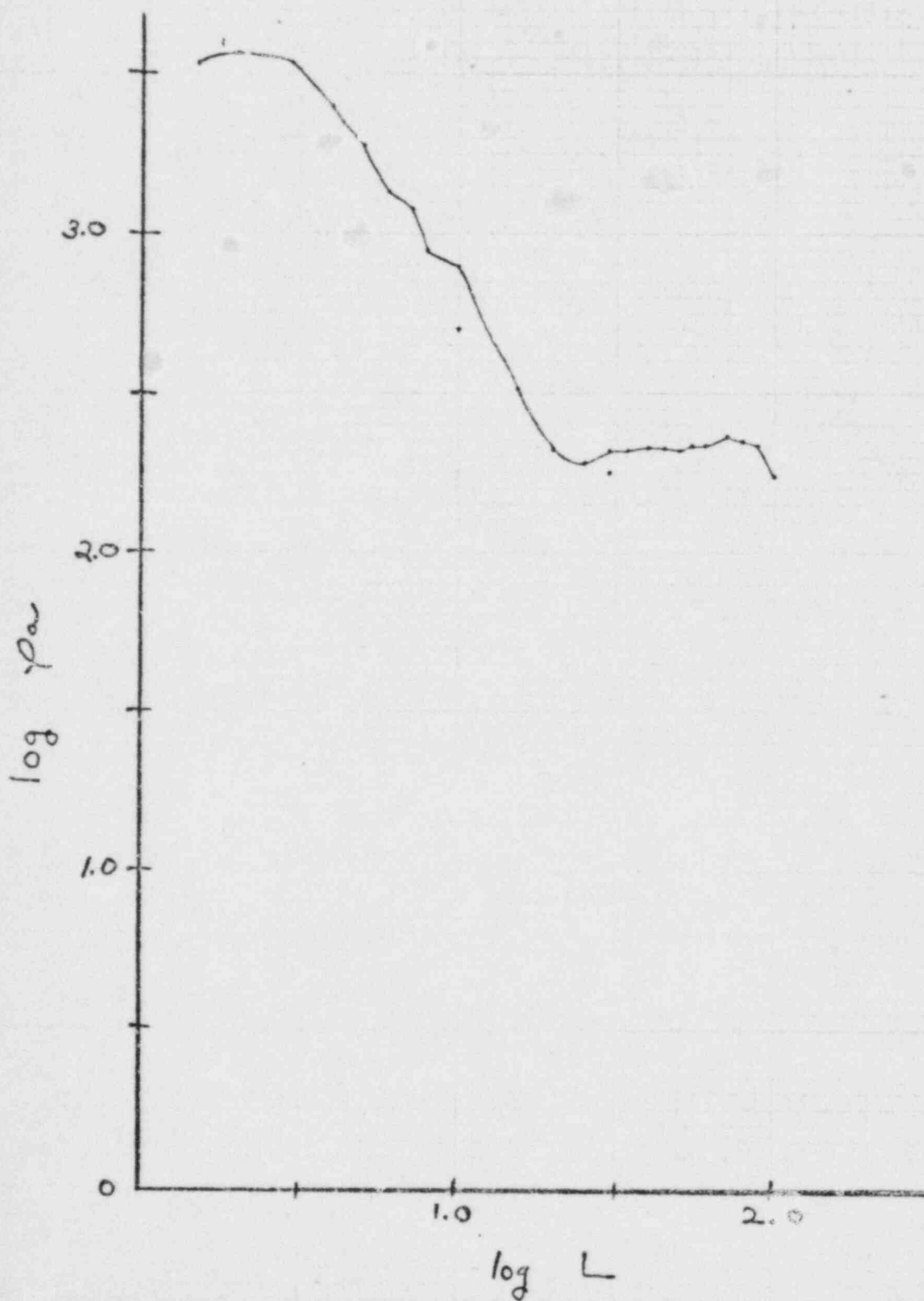
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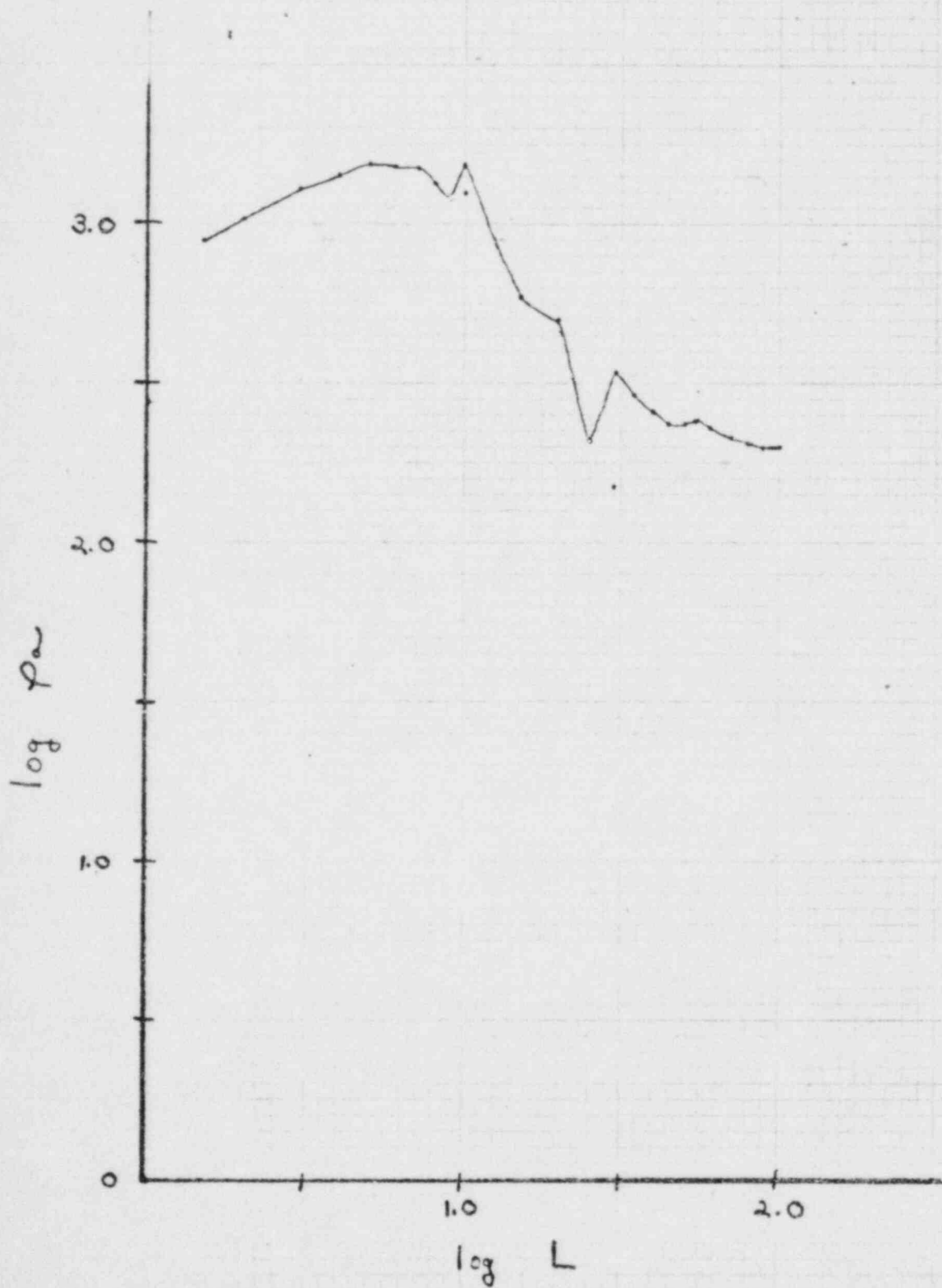
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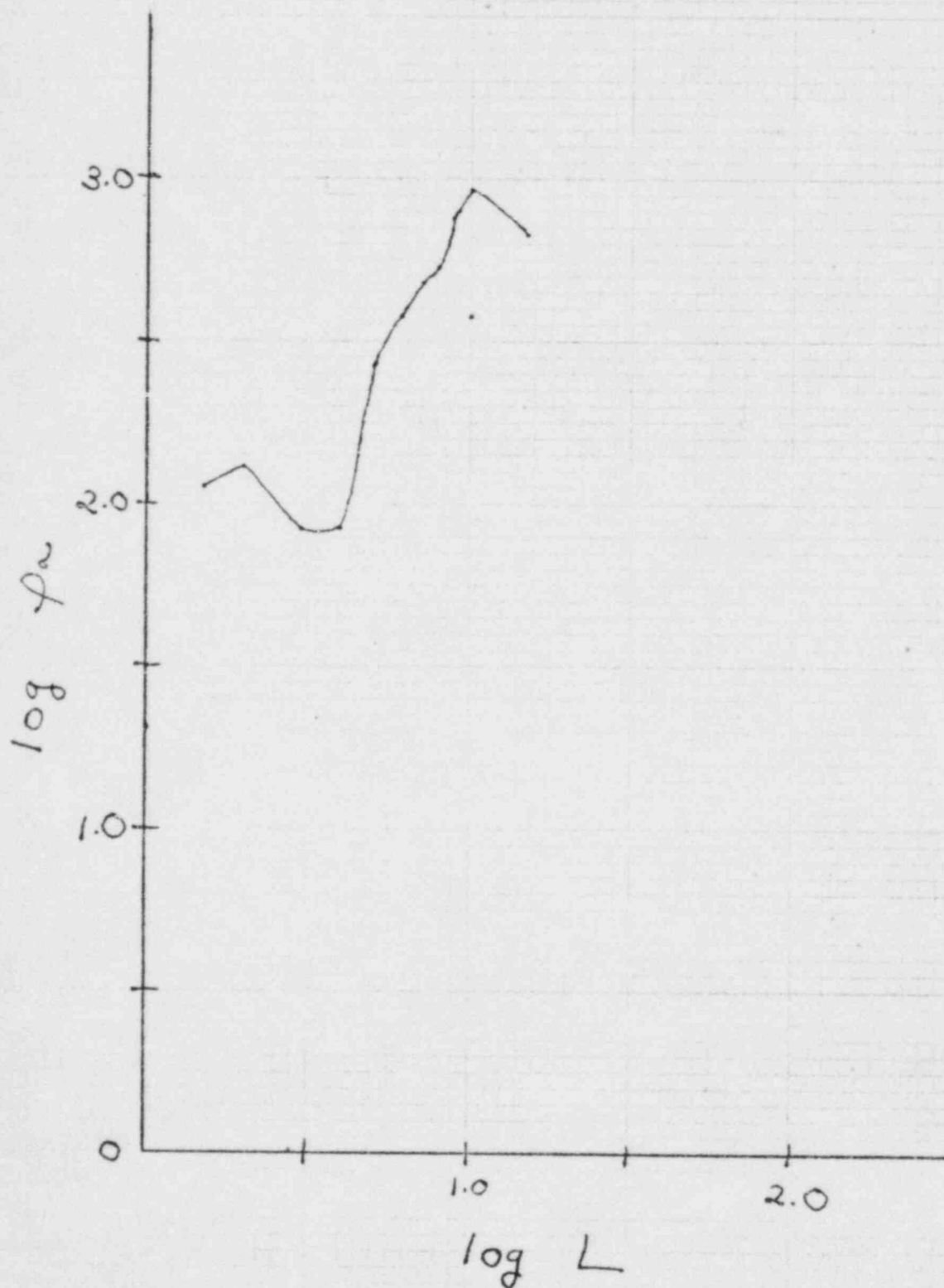
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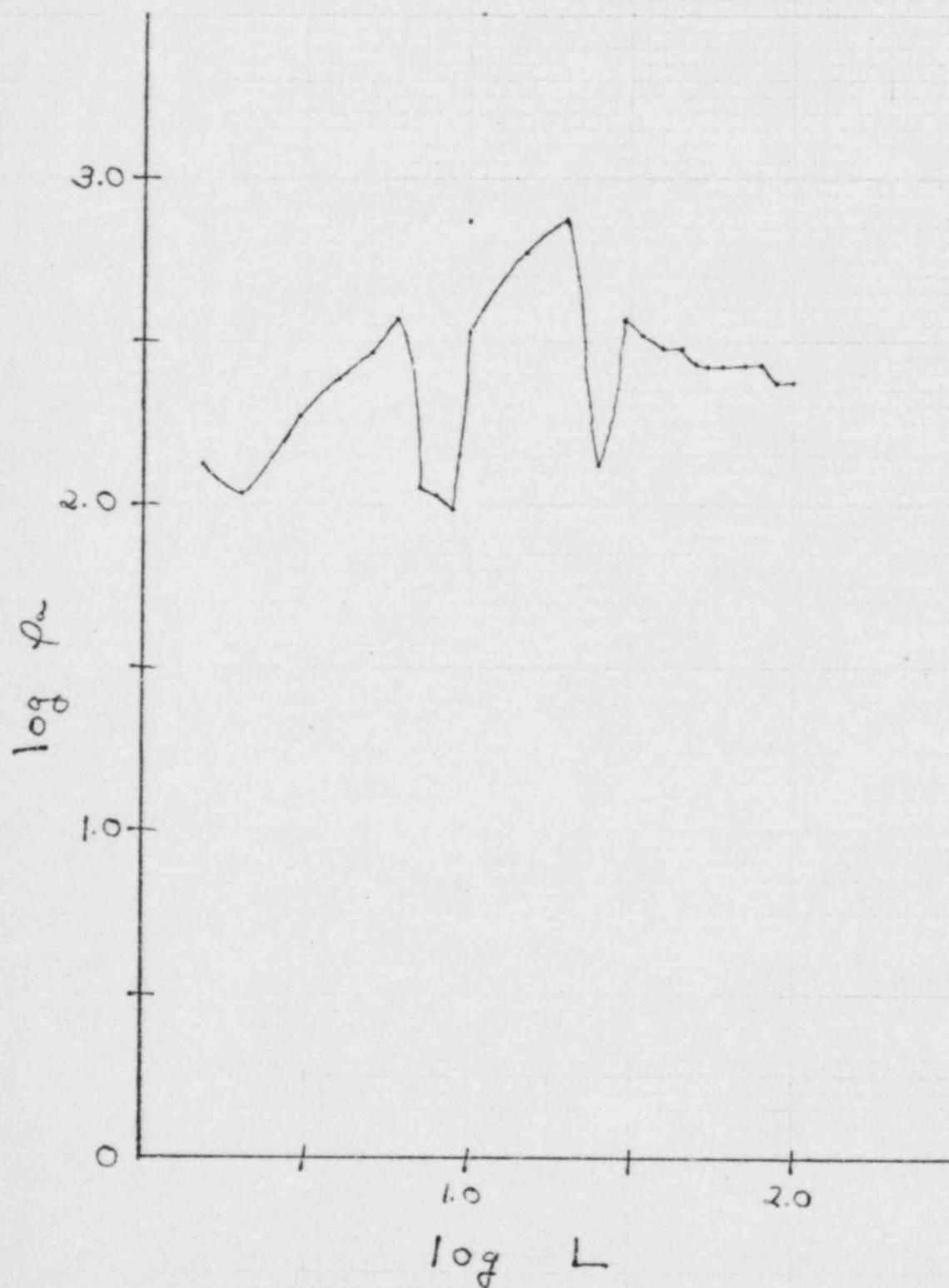
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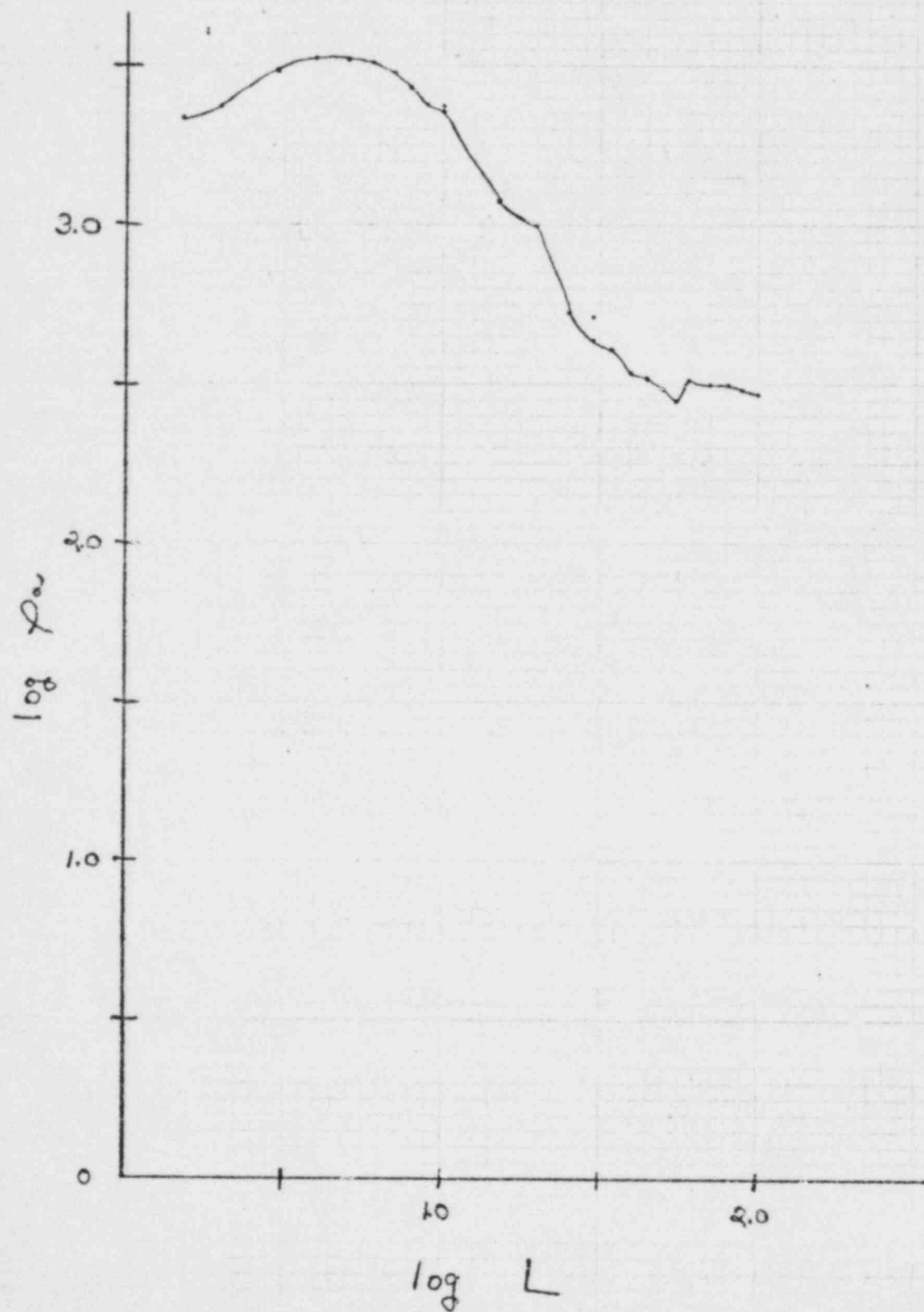
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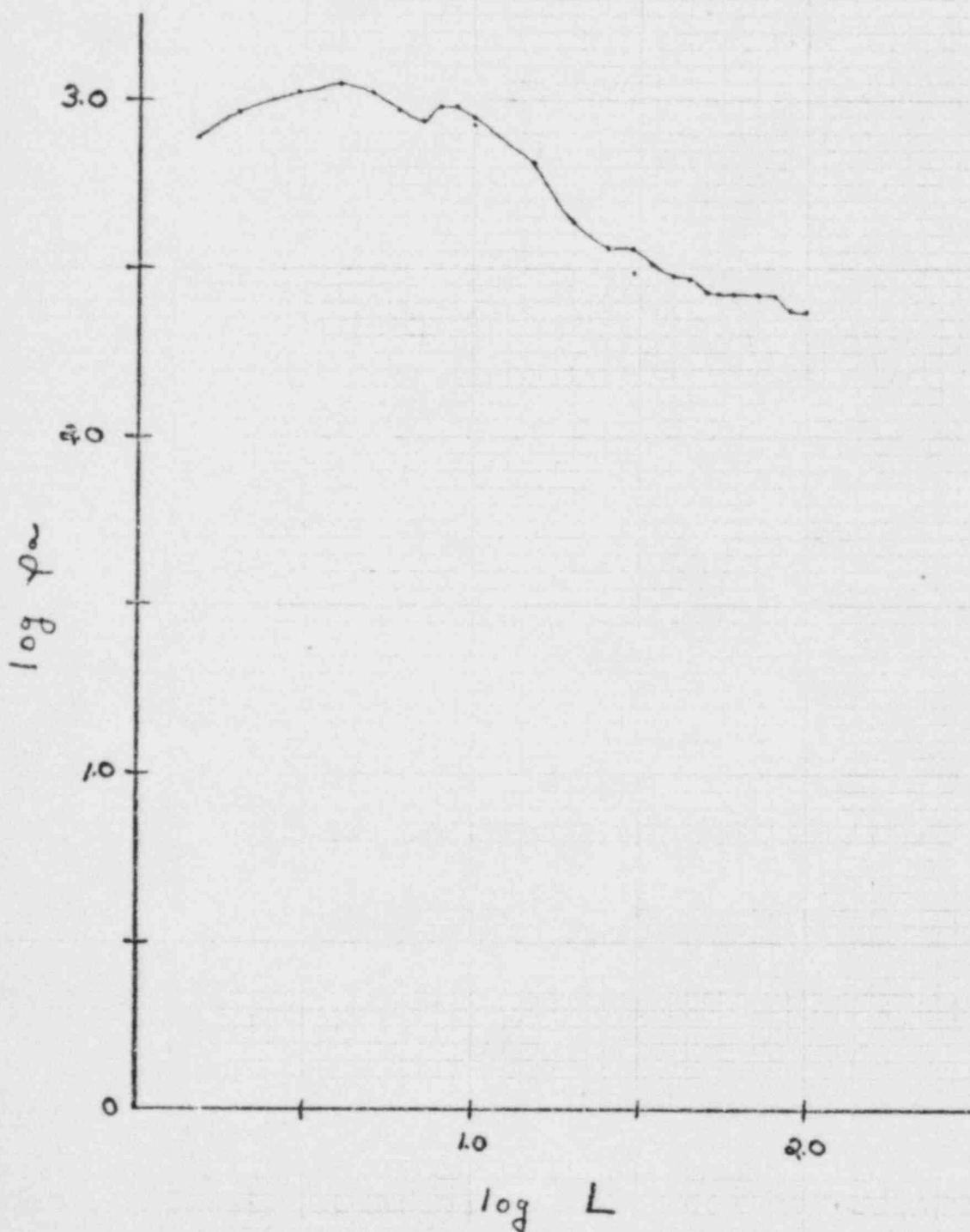
Traverse 5 A-A'

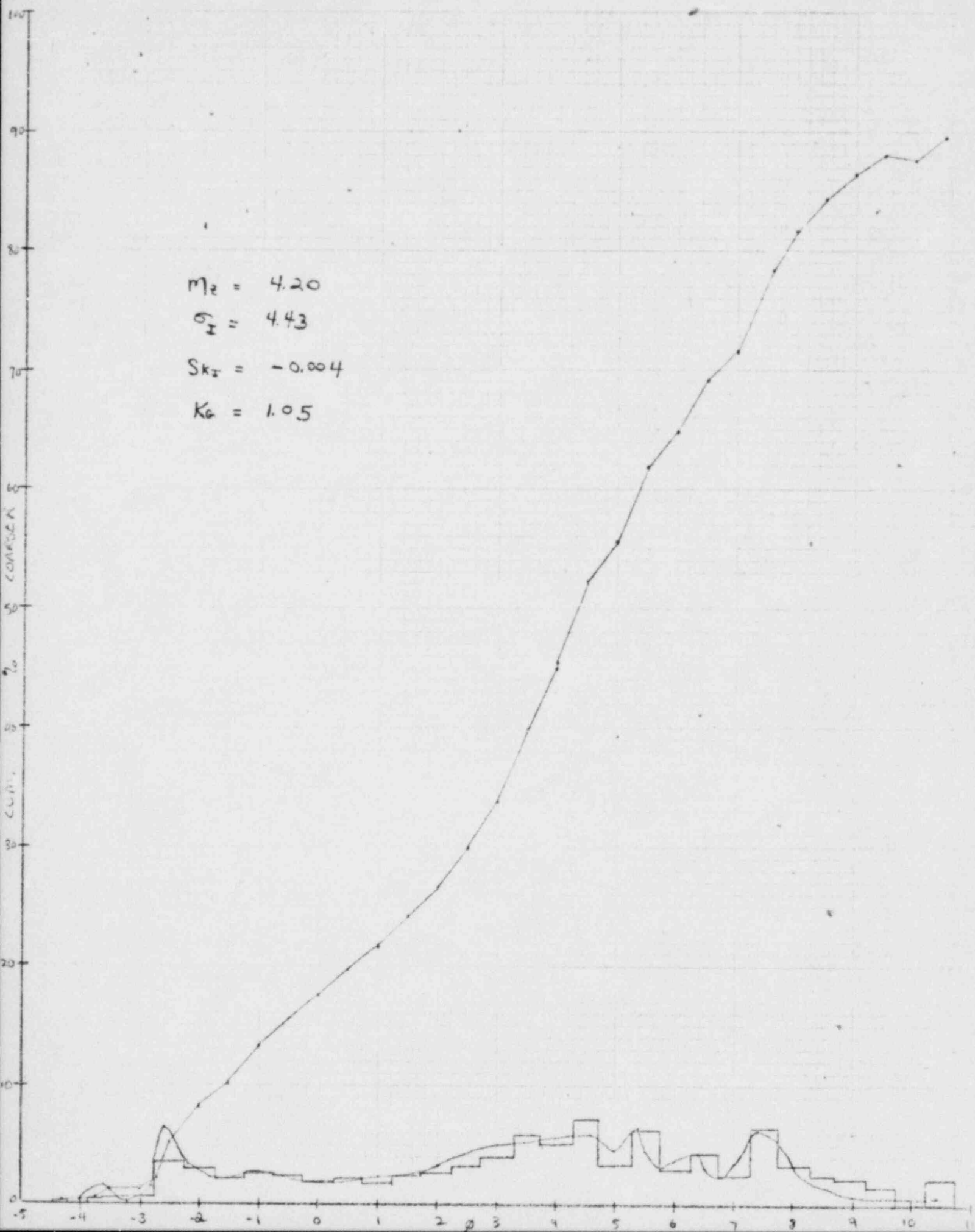


Traverse 6 A-A'

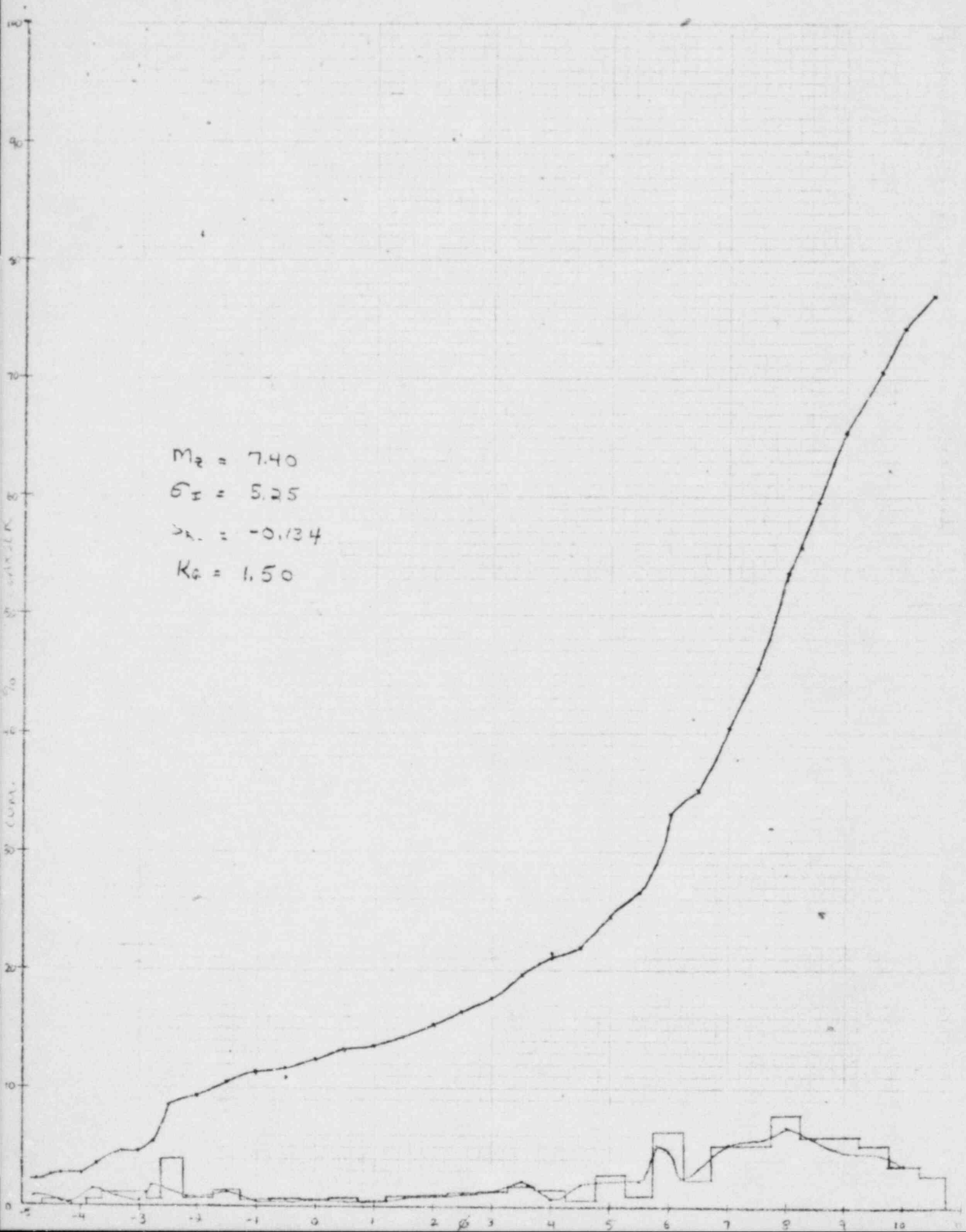


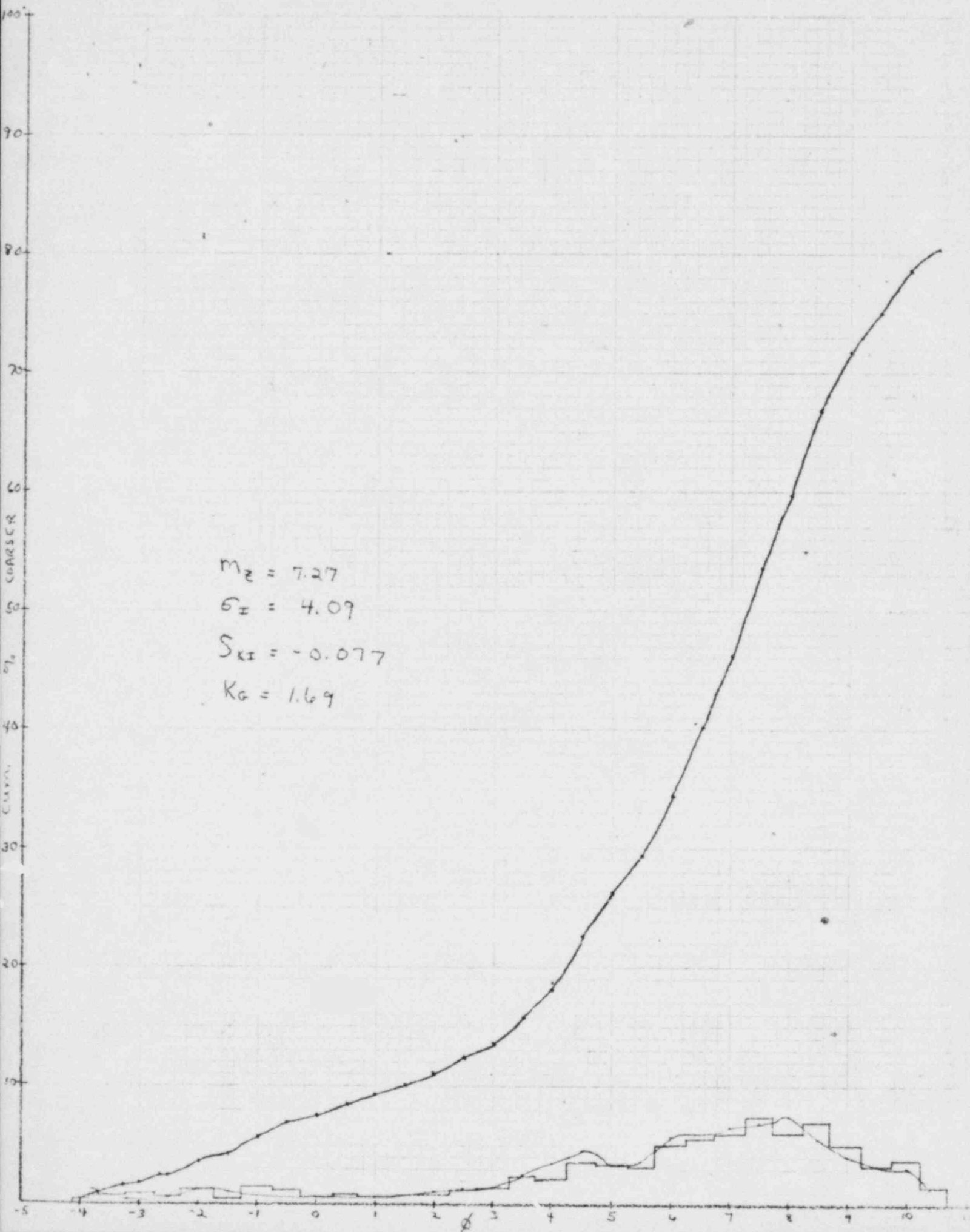
Traverse 6 B-B'





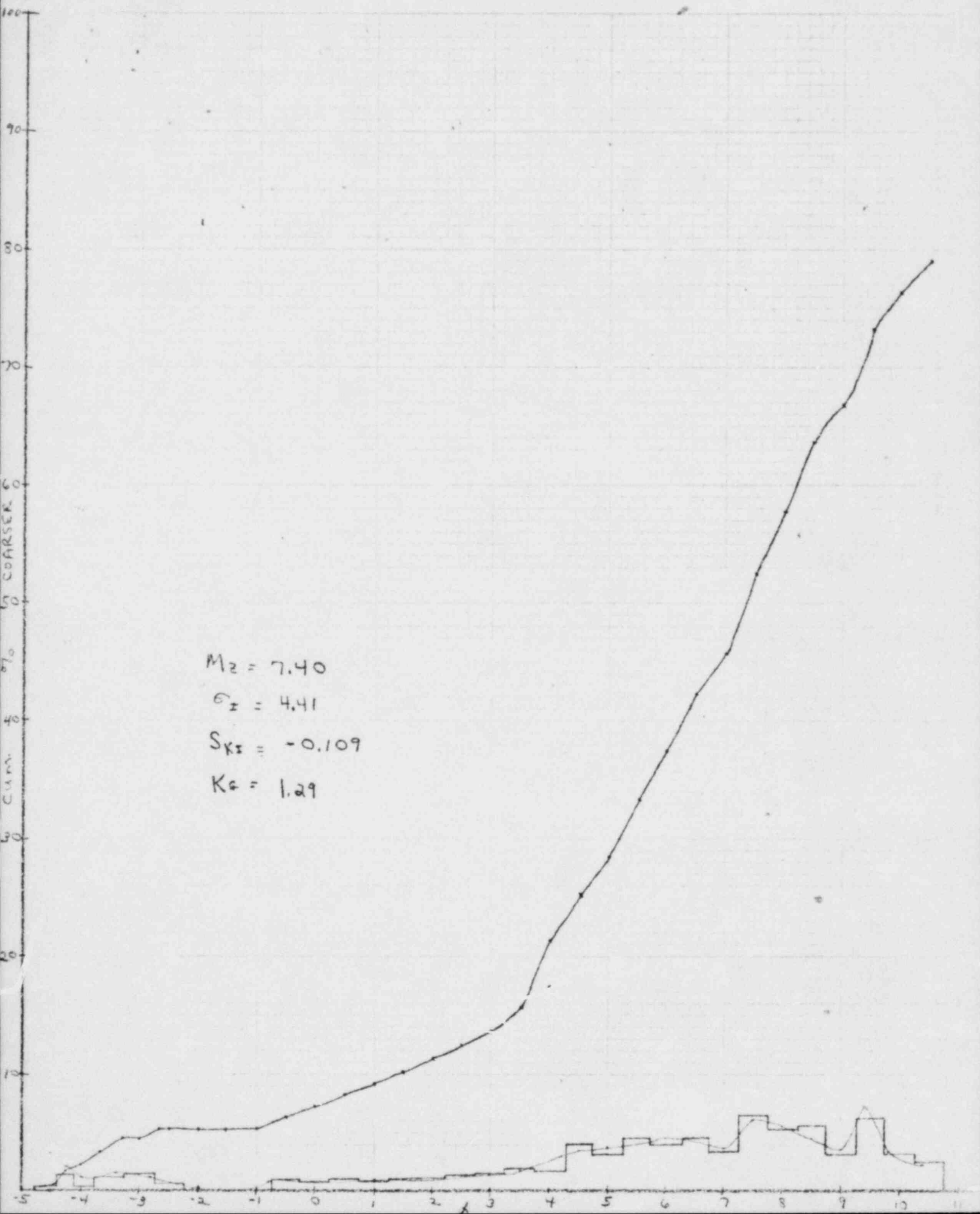
Connaissimulky Rd. (Lavery Till)





Connaisarauley Creek Rd ⑥

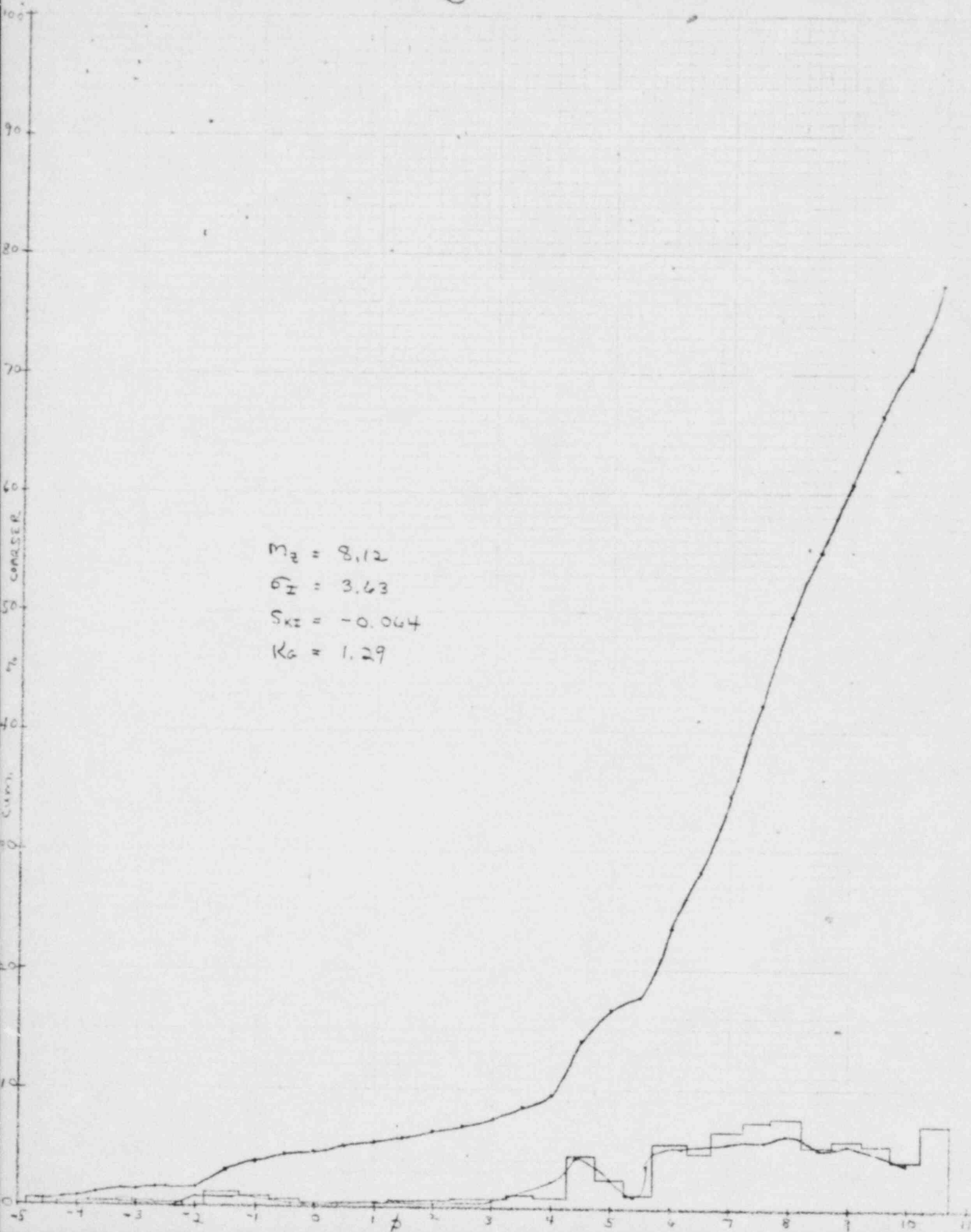
Unoxidized Till



WEST TOWN LINE RD.

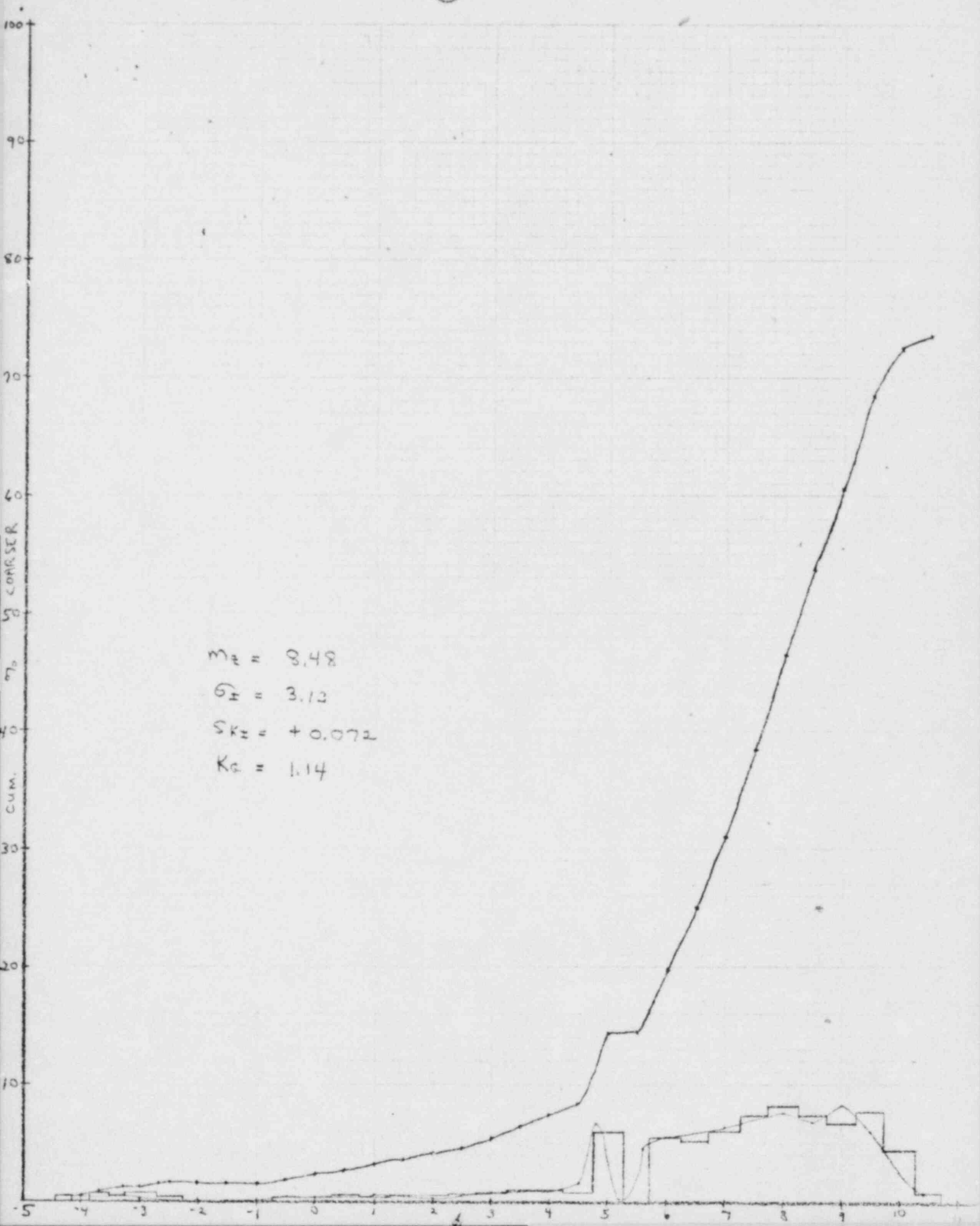
A

Oxidized Till

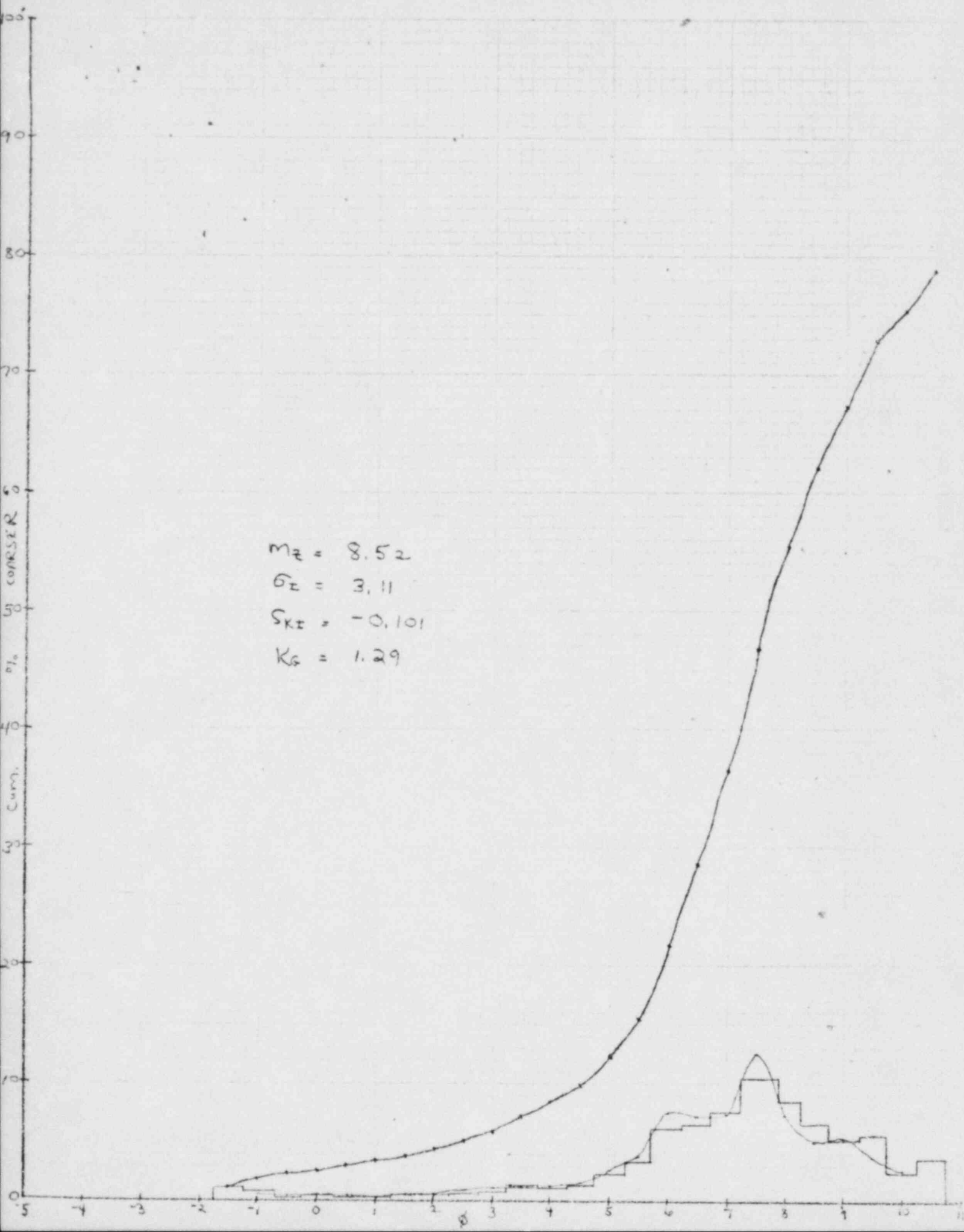


West Town Line Rd. (B)

Unoxidized Till



EARTH FLOW #1



REPORT OF USGS ACTIVITIES - OCTOBER 1981

SURFACE WATER

1. NP1 Record of 9/28 - 10/22 complete - no problems.
2. NP3 Record of 9/28 - 10/22 complete - no problems.
3. WB1 - The vertical channel walls at this site have widened (slumped) during the last month. The increased sediment load filled the gage pool and stilling well during several storm events. The channel was cleaned but the stilling well was not, therefore, the record at this site is incomplete. Channel and well cleaning will be intensified at this site. A new control weir was also installed at this site.
4. Automatic samplers and flowmeters were delivered to Steve Potter and Ted Rhoback for installation at NP1, NP3, and WB1. Samples can be taken in either flow proportional or the time mode. From our experience, we would suggest using the flowmeters to stage activate the samplers in the (overflow) time mode sequence. Final decisions will be those of the NYSGS.
5. October raingage data is enclosed.

GROUND WATER

1. Enclosed are hydrographs from observation wells 80-2, 80-4, and 80-5. The float-counterweight mechanism worked well at 80-2 and 80-5. The well at 80-4 is "out-of-vertical" and causing hang-up problems at a pipe junction. This problem is being assessed.
2. Monthly water-level measurements at the other 80-series wells were not made this month at the request of the site operator. An attempt will be made to begin these measurements next month.
3. Some observation wells near the southern low-level trenches were found during this visit. Steve Potter was very helpful in finding these based on his knowledge of the area. Other wells in the north trenches are buried and will not be recovered at this time.

RAINGAGE DATA 9/28 - 10/20/81

		RG #1	RG #2	RG #4
Sept.	28			
	29			
	30			
Oct	1	1.00	1.01	1.02
	2	0.81	0.84	0.93
	3	.10	.11	.09
	4			
	5	.05	.04	.07
	6	.23	.26	.22
	7	.37	.45	.41
	8			
	9			
	10			
	11			
	12			
	13			
	14			
	15	.10	.13	.14
	16			
	17	.20	.24	.15
	18	.52	.62	.61
	19			
	20			
TOTALS FOR				
PERIOD....		3.38	3.70	3.64

WELL (WEST VALLEY) - 80-2

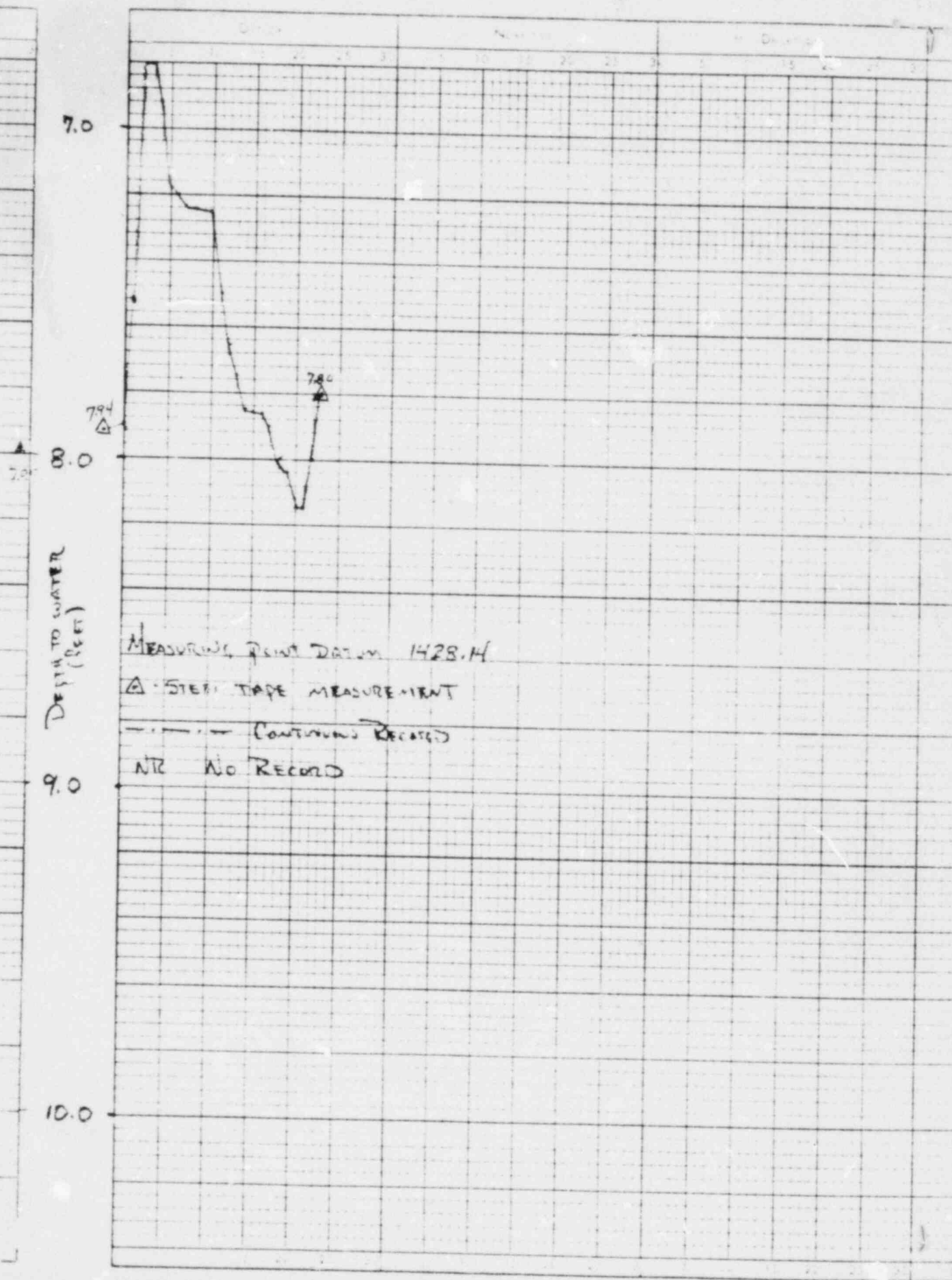


Measuring point data:

8.34 Steel tape measurement

Continuous record

NR No Record

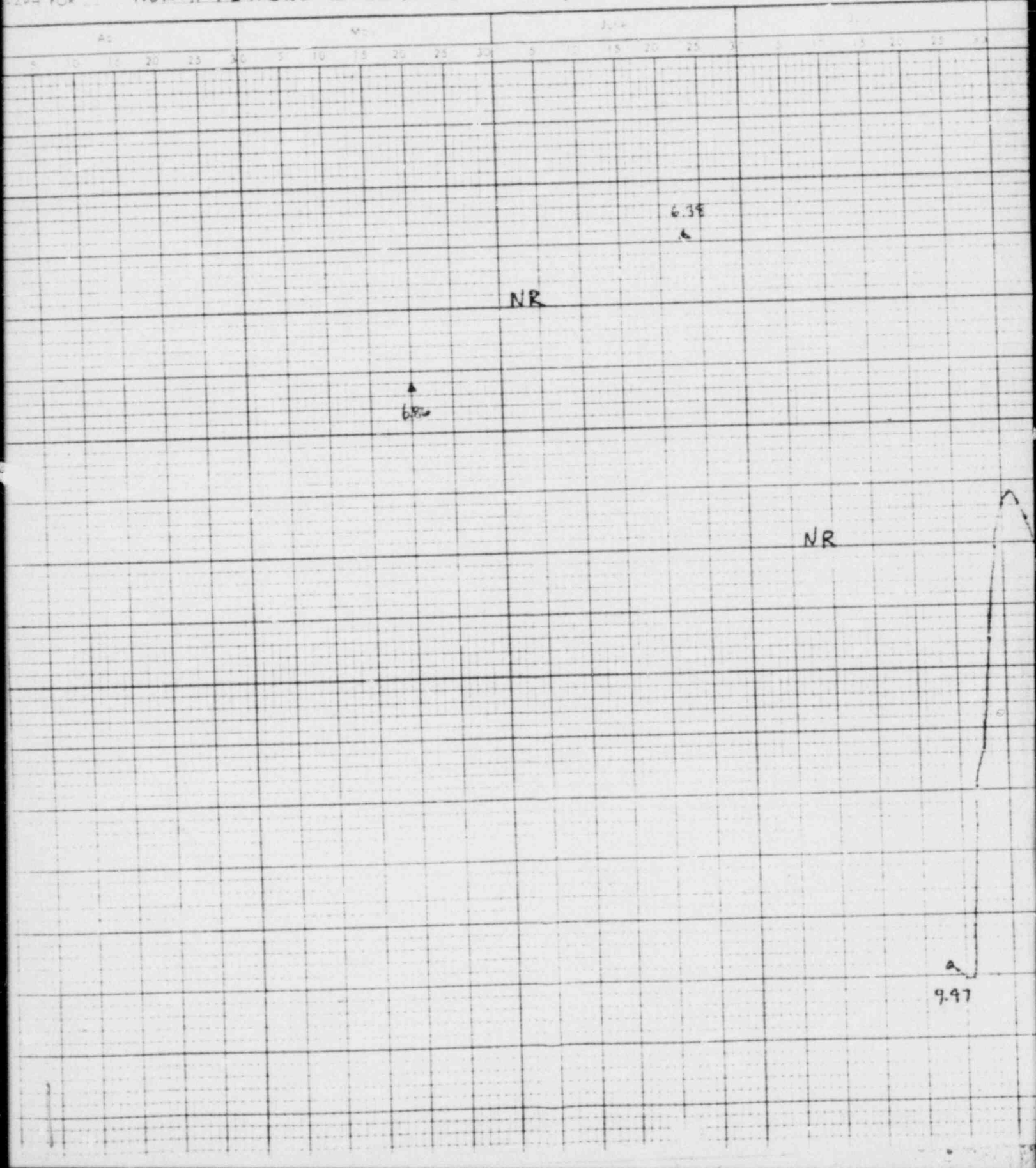


1428.14

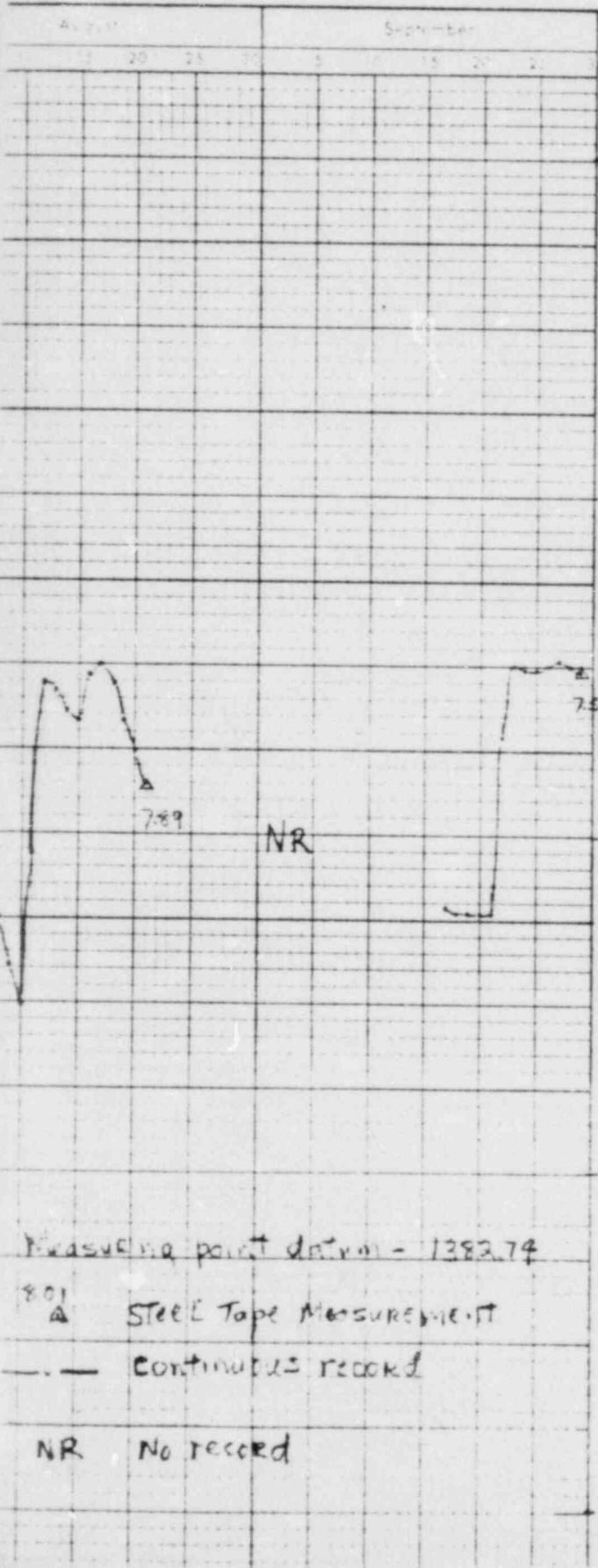
cut

GRAPH FOR

NORTH PLATEAU WELL (WEST VALLEY) - 80-4



STATION NO. _____



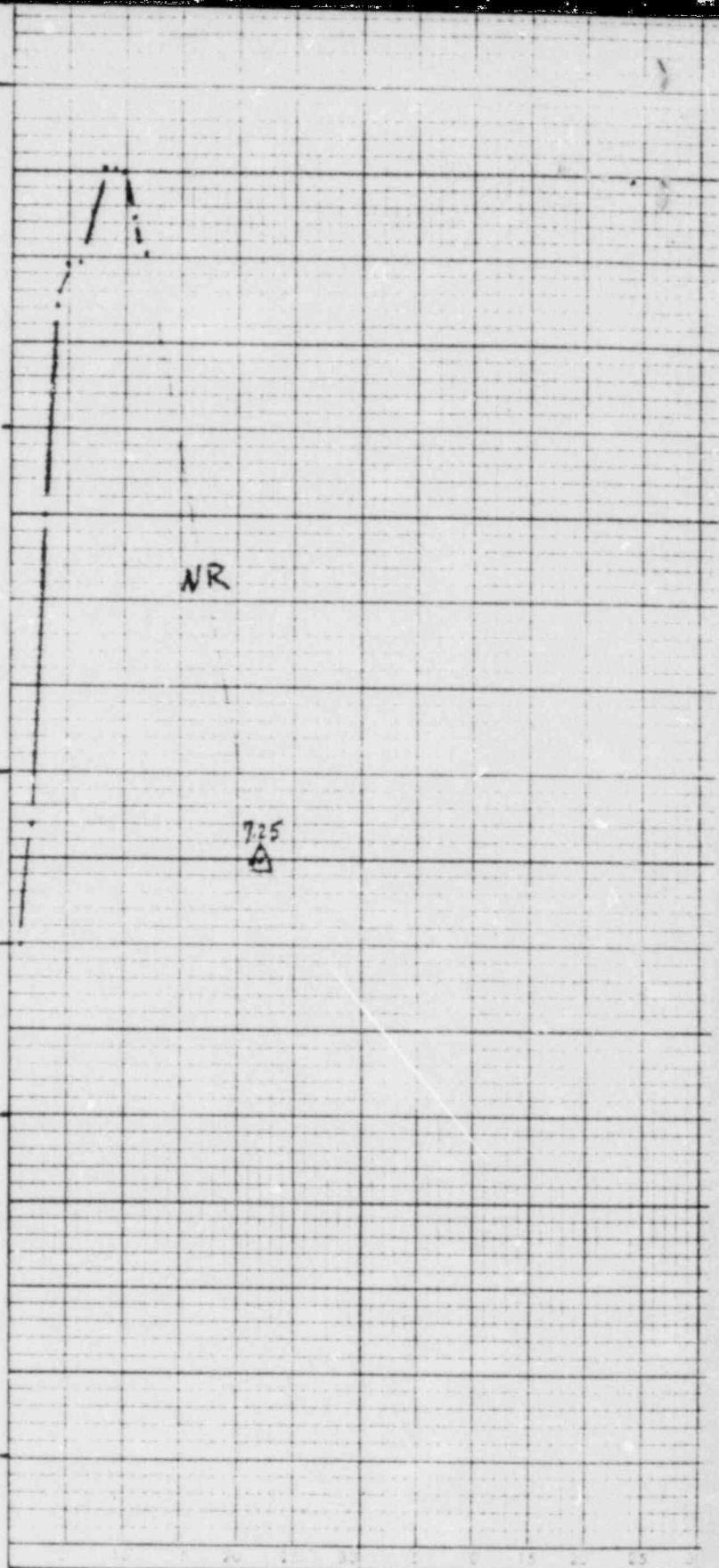
5.0

6.0

7.0

8.0

9.0



Plotted by _____

Checked by _____

Date _____

PLATEAU WELL (LAST VALLEY) - 80-5

