

RIVER BASIN WATER QUALITY STATUS REPORT

Kenai—Knik and Susitna Basins

ENVIRONMENTAL PROTECTION AGENCY

SURVEILLANCE AND ANALYSIS DIVISION

REGION X SEATTLE WASHINGTON

1975

PROFILE SUMMARY

FORWARD

This basin status report is one of 27 scheduled for completion in Region X of EPA for the calendar year 1975. The information presented herein is based upon all of the documented data available to EPA at the time of the report distribution.

Several of these reports include a minimal amount of information which may not be enough to adequately evaluate the water quality status of the basin. We feel that it is important to distribute these reports regardless of the availability of data since the knowledge of a lack of data is also important to the decision makers.

A report update is scheduled annually, therefore, additional data made available in 1975 will be included in the next report.

We welcome comments on this report as well as information concerning additional data and/or sources where additional data might be obtained. Any correspondence can be addressed to Bill Schmidt, Chief, Water Quality Monitoring Section, 1200 Sixth Avenue, Seattle, Washington, 98101. Telephone (206) (442-1193).

Prepared by:

Philip A. Kary

Reviewed by:

William B. Schmidt

SUSITNA AND KENAI-KNIK BASIN SUMMARY
ALASKA BASINS 07 & 08

ANCHORAGE SUB-BASIN

1. Chester Creek at Arctic Blvd.
(a) Total Nitrate values exceed the Limiting Algal Productivity Concentration of 1.34 mg/l throughout much of the year.
2. Campbell Creek near Spenard
(a) During periods of high flow, a significant decrease in values for Conductivity, Total Hardness, and Total Nitrate is observed. Thus indicating a groundwater influx to the river.
3. South Fork Campbell Creek (Rivermile Plot)
(a) Total nitrate values increase as the mouth of the creek is approached.
4. Eagle River at Eagle River
(a) During periods of high flow, a significant decrease in values for Conductivity, Total Hardness, and Total Nitrate is observed. Thus indicating a groundwater influx to the river.
5. Ship Creek at Elmendorf AFB
(a) During periods of high flow a significant decrease in values for Conductivity, Total Hardness, and Total Nitrate is observed. Thus, indicating a groundwater influx to the river.
6. Matanuska River at Palmer
(a) Total Nitrate values occasionally exceed the Limiting Algal Productivity Concentration of 1.34 mg/l, particularly during periods of low flow.
(b) During periods of high flow, a significant decrease in values for Conductivity, Total Hardness, and Total Nitrate is observed. Thus indicating a groundwater influx to the river.
7. Resurrection Creek near Hope
(a) Total Nitrate values occasionally exceed the Limiting Algal Productivity Concentration of 1.34 mg/l, particularly during periods of low flow.
8. Chester Creek (Rivermile Plot)
(a) Total Nitrate values increase as the mouth of the river is approached.

KENAI SUB-BASIN

1. Kenai River at Soldotna
(a) Total Nitrate values occasionally exceed the Limiting Algal Productivity Concentration of 1.34 mg/l, particularly during periods of low flow.

2. Trail River near Lawing (Trend Plot)
 - (a) Total Nitrate values continue to occasionally exceed the Limiting Algal Productivity Concentration of 1.34 mg/l, particularly during periods of low flow.

POINT SOURCE SUMMARY

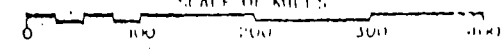
The majority of industrial and municipal point source discharges are recieved by marine waters without any significant associated water quality problems. Seafood processing plants discharging to the Kenai River near it's mouth could cause an adverse effect on water quality. However, at the present time there is no data available to assess the impact of these discharges.

ARCTIC OCEAN

STATE OF ALASKA

(MAJOR BASIN IC)

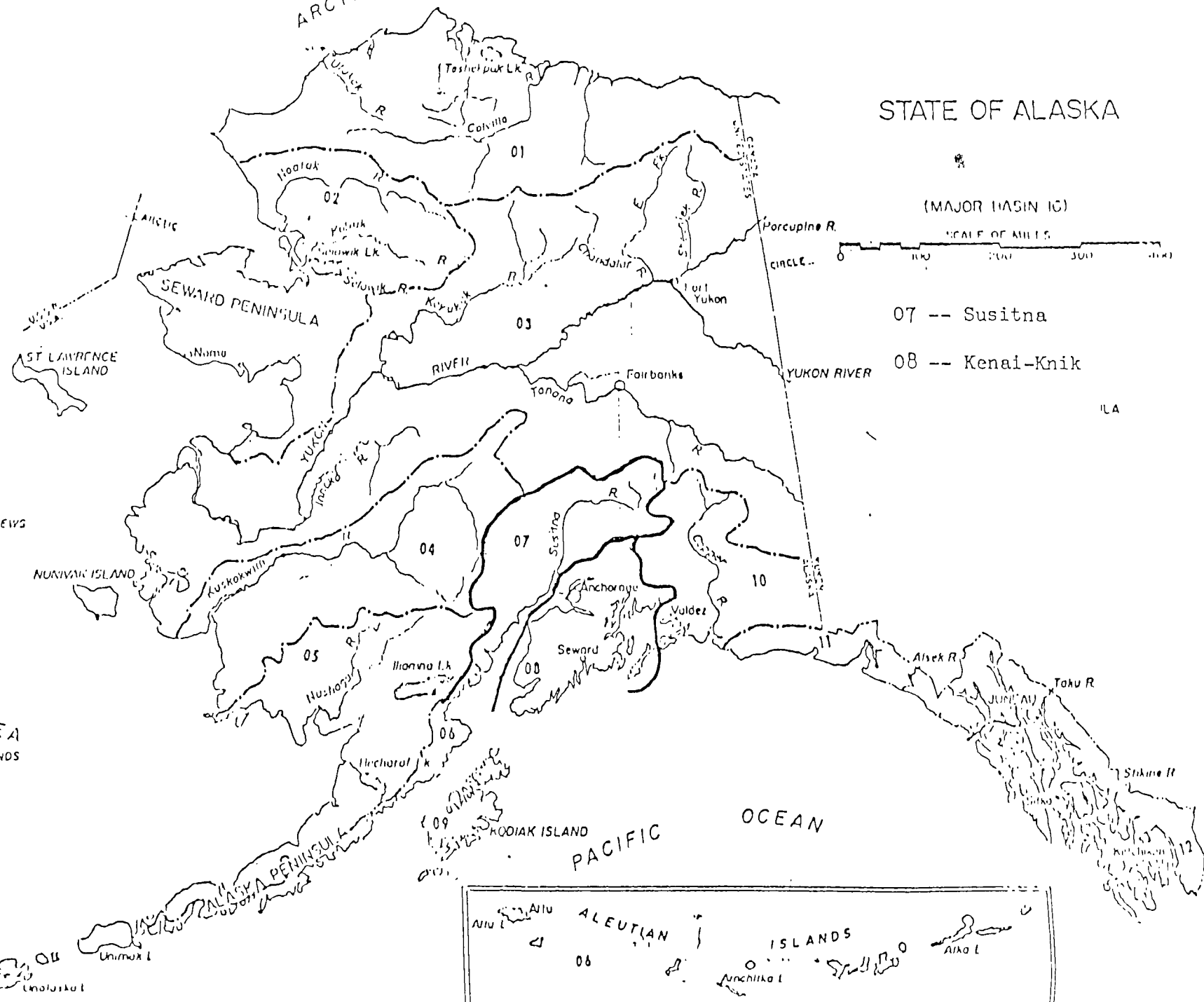
SCALE OF MILES



07 -- Susitna

08 -- Kenai-Knik

ILA



ALEUTIAN ISLANDS

PACIFIC OCEAN

ALEUTIAN ISLANDS

BASIN DESCRIPTION

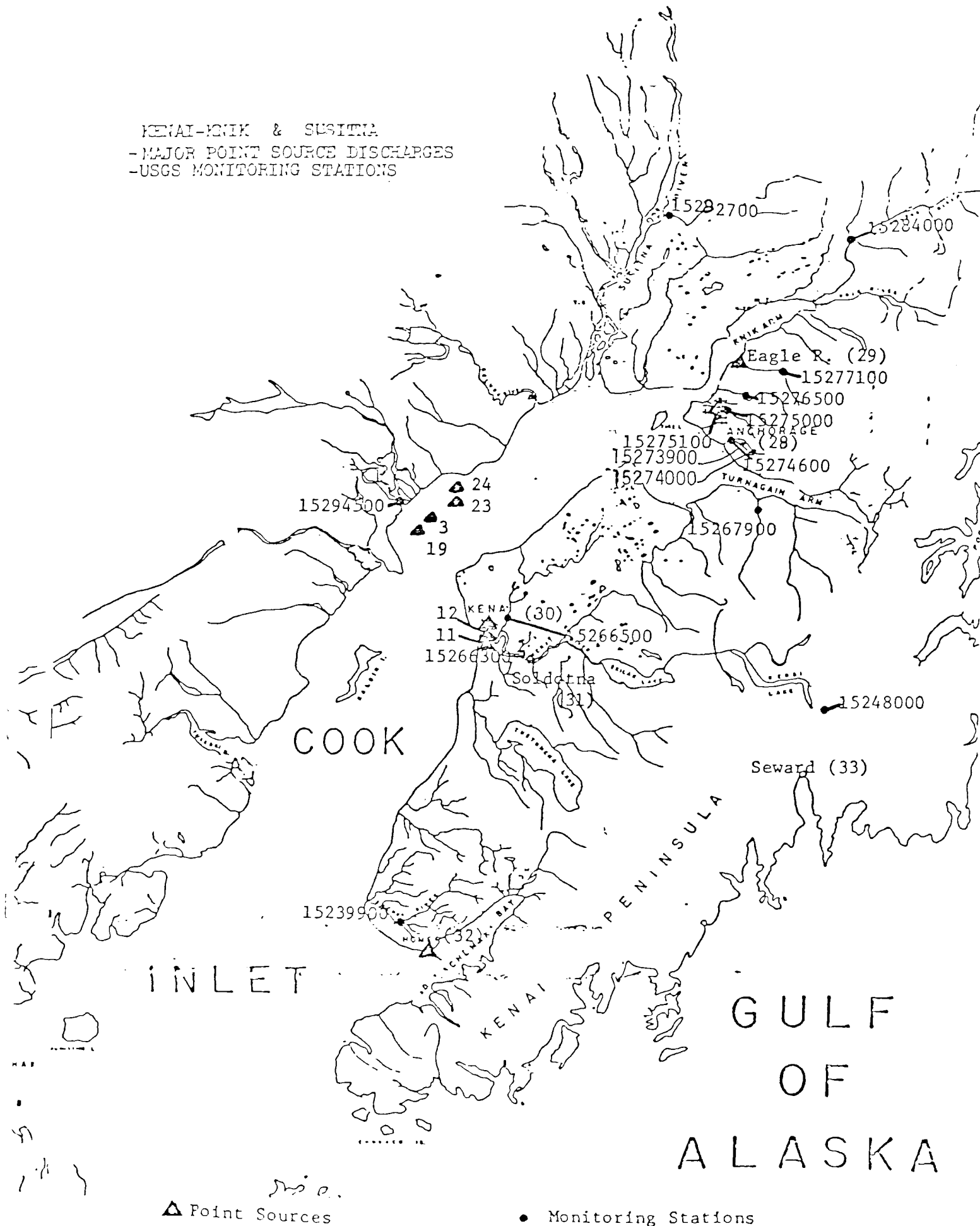
INTRODUCTION

The Alaskan Basins of Susitna (07) and Kenai-Knik (08) have been combined for the purposes of this report. This is due to the small amount of data available and the desirability of treating Cook Inlet estuary as a single unit.

Sub-basins have been established within these two basins to aid in the examination of water quality. These sub-basins should not be considered as fixed, but rather defined with reference to the available point source data and as the data base for the study area increases revisions may be applicable.

Additional data concerning the water quality of Cook Inlet estuary, collected mainly by the Institute of Marine Science at the University of Alaska, will be available soon to further define the status and water quality trends within these basins.

KENAI-PENIN & SUSITNA
 - MAJOR POINT SOURCE DISCHARGES
 - USGS MONITORING STATIONS



▲ Point Sources

● Monitoring Stations

COOK INLET, ALASKA 1/

INTRODUCTION

Cook Inlet is largely underdeveloped and does not have major pollution problems at the present time. Increased industrialization through resource exploitation is expected to cause localized pollution in the very near future. Sewage discharge from Anchorage, industrial waste discharge from petrochemical industries, and oil spills from pipeline breaks and platforms are causing minor problems at present. These possibly could have a much greater influence in the future. The major industries now present in the Inlet are commercial fishing, petroleum production, and petrochemical industries. Multiple use of water resources in the Cook Inlet area requires that more knowledge about the environmental conditions of the Inlet be developed. There is very little information available describing the ecology or physical conditions of the Inlet which would allow judicious management of the water resources of Cook Inlet.

LOCATION

Cook Inlet is a tidal estuary of the Gulf of Alaska and is surrounded by glacier covered mountains on three sides, as well as more than 100 square miles of tidal marsh.

The estuary lies between 59 degrees and 61 degrees thirty minutes north latitude and longitude 149 degrees and 154 degrees west. The Inlet itself is more than 150 miles long and 50 miles wide at the mouth. The Inlet divides at the head into two arms, Turnagain Arm and Knik Arm, being 43 nautical miles and 45 nautical miles long respectively. Bordering Cook Inlet on the east are the Kenai Peninsula and the Kenai Mountains. To the northeast at the head of the inlet lies Anchorage, the largest city in Alaska, at the base of the Chugach Mountains, and situated at the junction of the two arms of Cook Inlet. To the west and southwest, the Aleutian chain borders Cook Inlet and extends down the Alaska Peninsula to form the Aleutian Islands.

STRUCTURE

The estuary can be divided into two natural regions, a northern portion and a southern portion, by a natural topographic feature, the West and East Forelands. The bottom of the Inlet is extremely rugged containing many shoals and deep areas. The average depth at the mouth is 300 feet. The area between Cape Elizabeth and Cape Douglas at the Inlet mouth is similar to an oceanic environment. The depth of the area near the Forelands averages 120 feet while the head of the Inlet rapidly shallows to a mud bank. Turnagain arm shallows within the first 10 nautical miles to a large mud flat cut by many tidal channels.

The waters of Knik and Turnagain Arms, and in turn the waters of upper Cook Inlet are influenced seasonally by the great variation of freshwater inflow. The Sustina and Knik Rivers probably contribute 70 - 80% of the total freshwater entering the Inlet. The maximum period of runoff occurs during the months of July and August. During this high runoff period much silt is carried into the head of Cook Inlet and the Marine environment of Knik arm approaches that of a freshwater regime. During winter months there is little or no flow and the waters become more oceanic.

Oceanographic cruises of the State of Alaska Institute of Marine Science during July of 1966 and 1967 indicated the characteristic salinity feature is a bending of the isohalines as a result of high salinity water on the eastern side and low salinity water on the western side of the Inlet. This is attributed to a greater flow of fresh water prevalent at this time of year and to the coriolis force.

In general, the amount of total nutrients increases near the oceanic regions of the Inlet resulting in higher productivity. The low nutrient values in the upper Inlet may be cause for the absence of plankton, although sediments may have a large effect in reducing the light penetration in this region.

AMBIENT PROFILE

AMBIENT PROFILE TABLE OF CONTENTS

<u>Sub-basin</u>	<u>Receiving Water</u>	<u>USGS Station No.</u>
ANCHORAGE		
	Chester Cr. at Arctic Blvd.	15275100
	Campbell Cr. near Spenard	15274600
	South Fork Campbell Creek (Rivermile Plot)	15273900 15274000
	Eagle River at Eagle River	15277100
	Ship Cr. at Elmendorf AFB	15276500
	Matanuska River at Palmer	15284000
	Talkeetna River at Talkeetna	15282700
	Resurrection Cr. near Hope	15267900
	Chester Creek (Rivermile Plot)	15275000 15275100
KENAI		
	Kenai River at Soldotna	15266300
	Trail River near Lawing	15248000
EAST COOK INLET		
	Chakachatna River near Tyonek	15294500

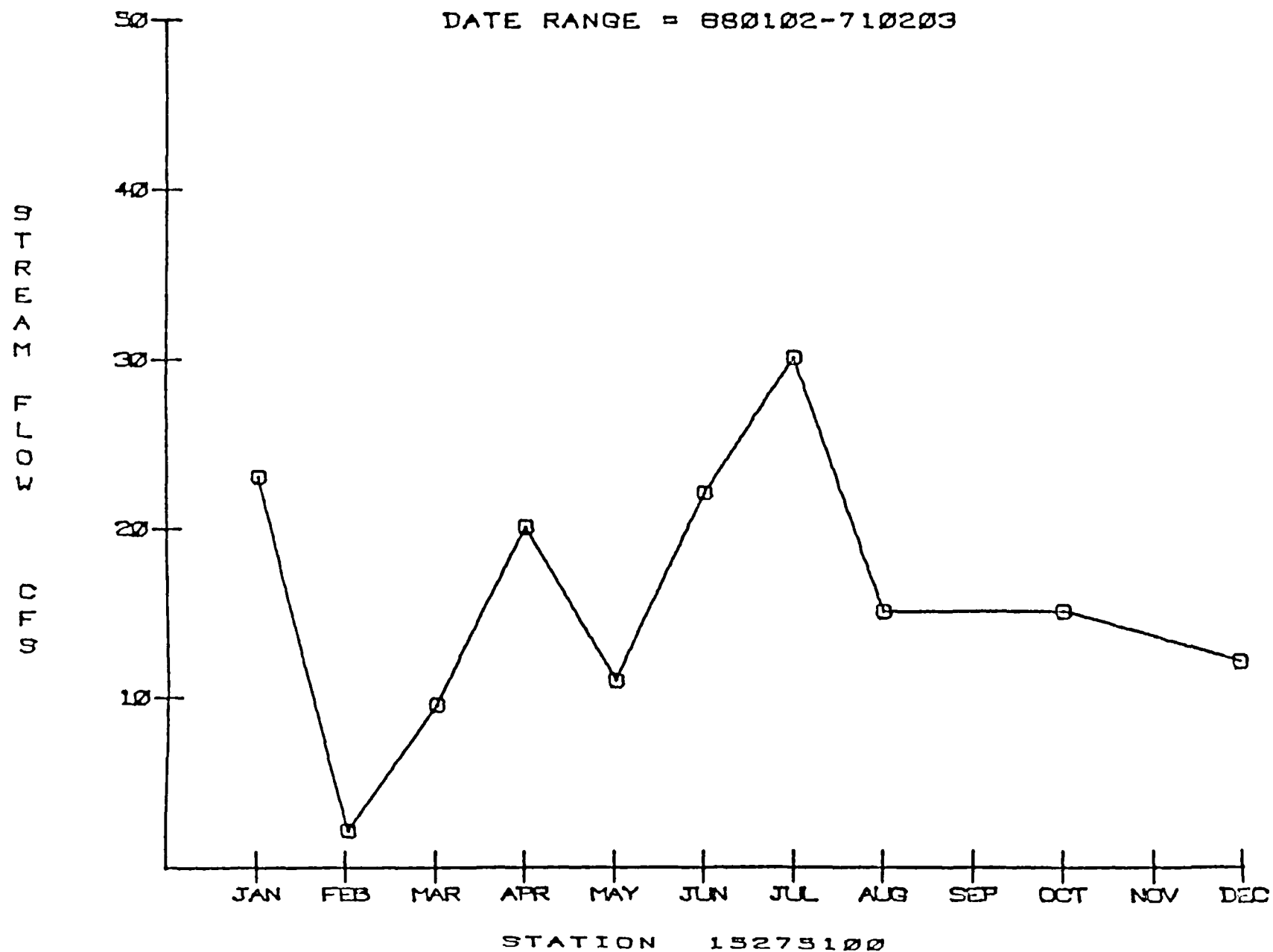
ANCHORAGE SUB-BASIN

CHESTER CREEK AT ARCTIC BLVD

CHESTER CREEK AT ARCTIC BLVD

U.S.G.S. DATA MEAN VALUES

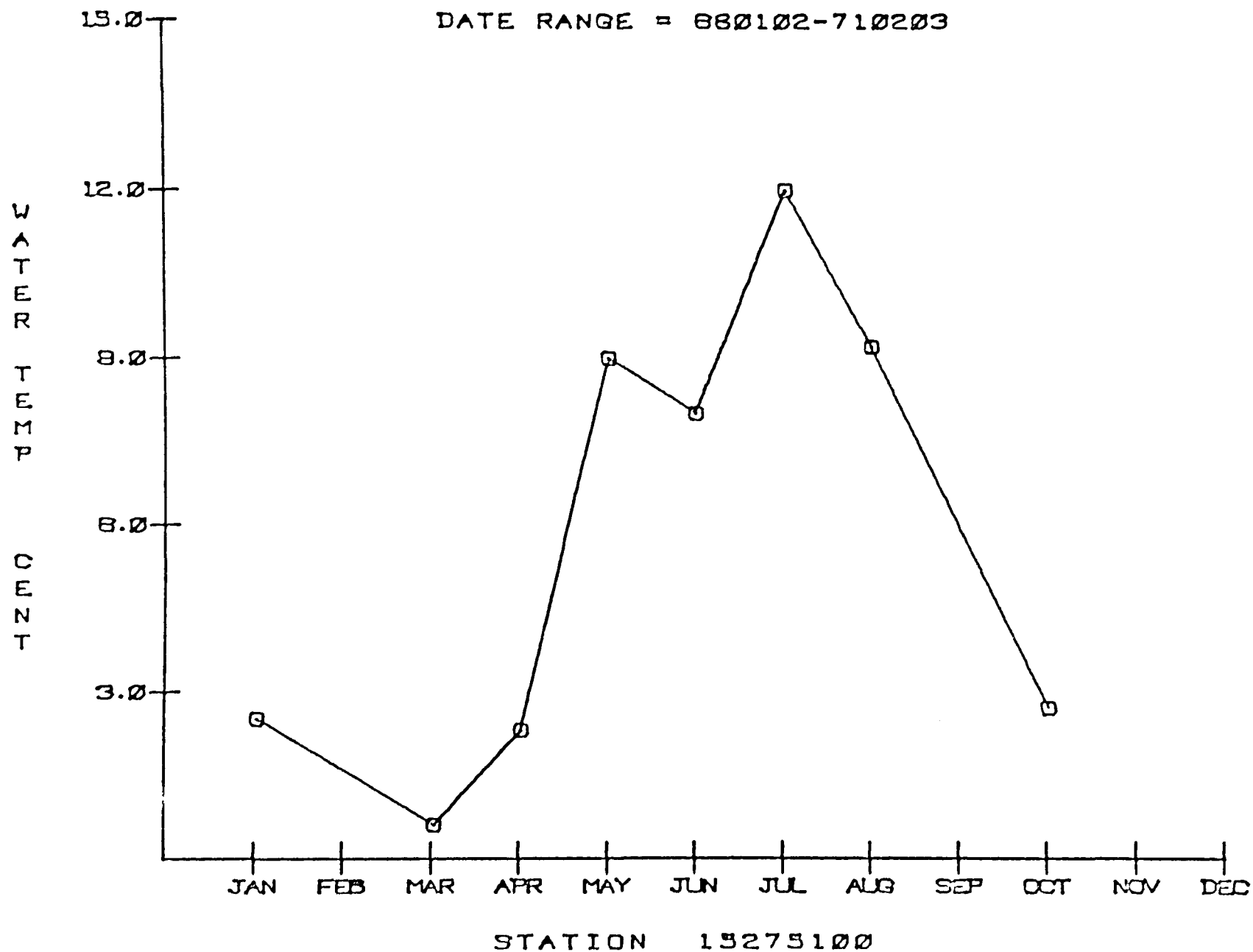
DATE RANGE = 680102-710203



CHESTER CREEK AT ARCTIC BLVD

U.S.G.S. DATA MEAN VALUES

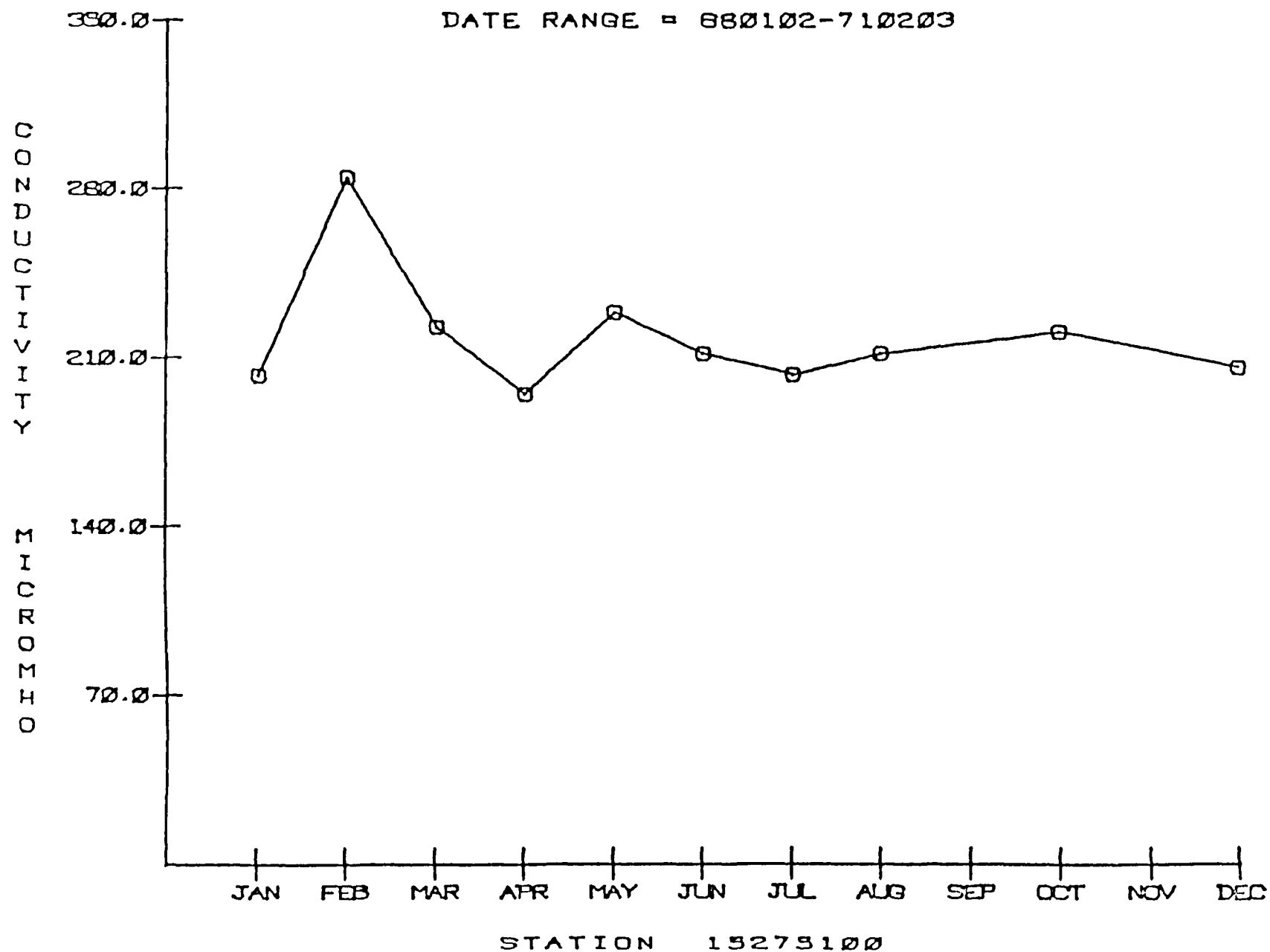
DATE RANGE = 680102-710203



CHESTER CREEK AT ARCTIC BLVD

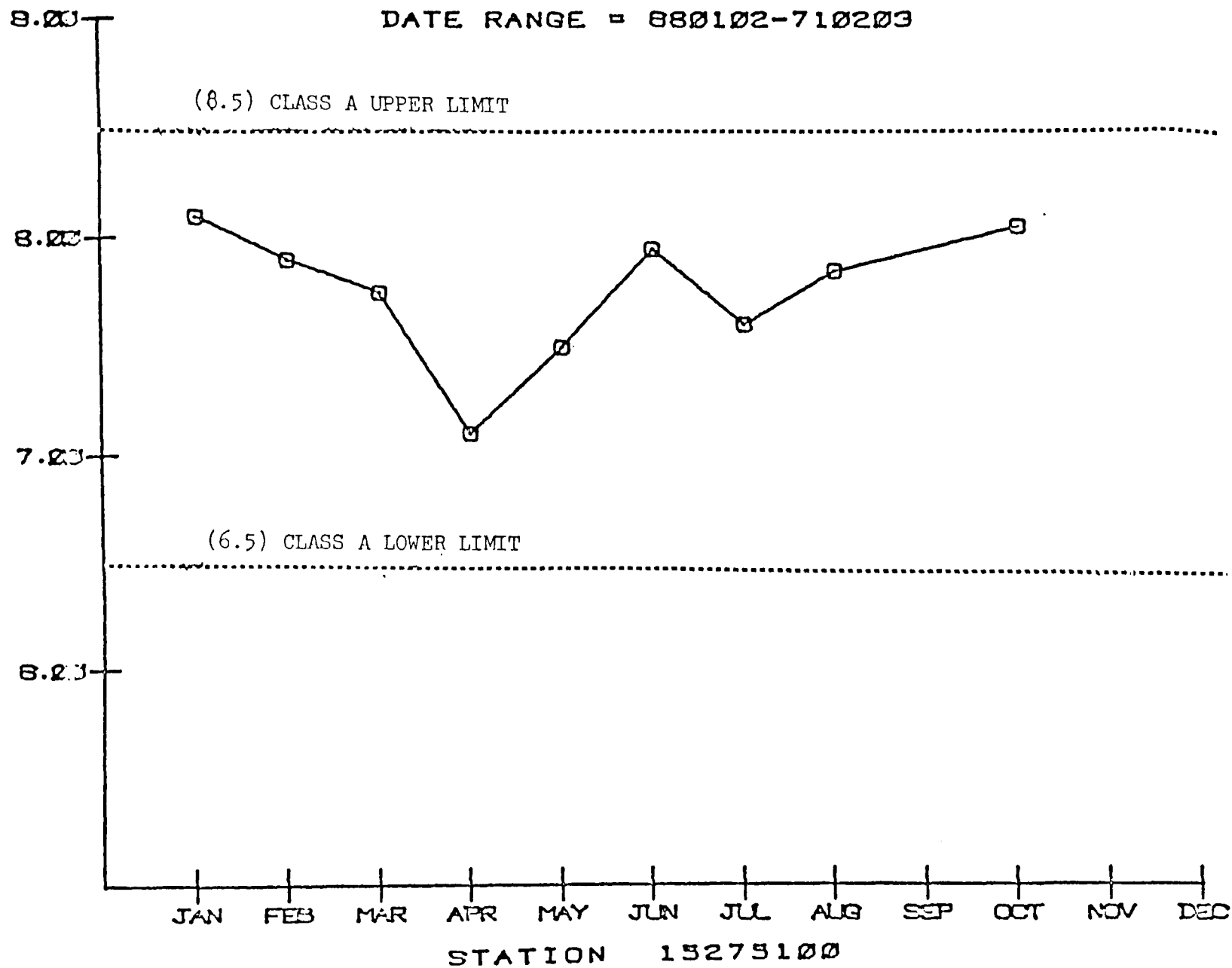
U.S.G.S. DATA MEAN VALUES

DATE RANGE = 680102-710203



U.S.G.S. DATA MEAN VALUES

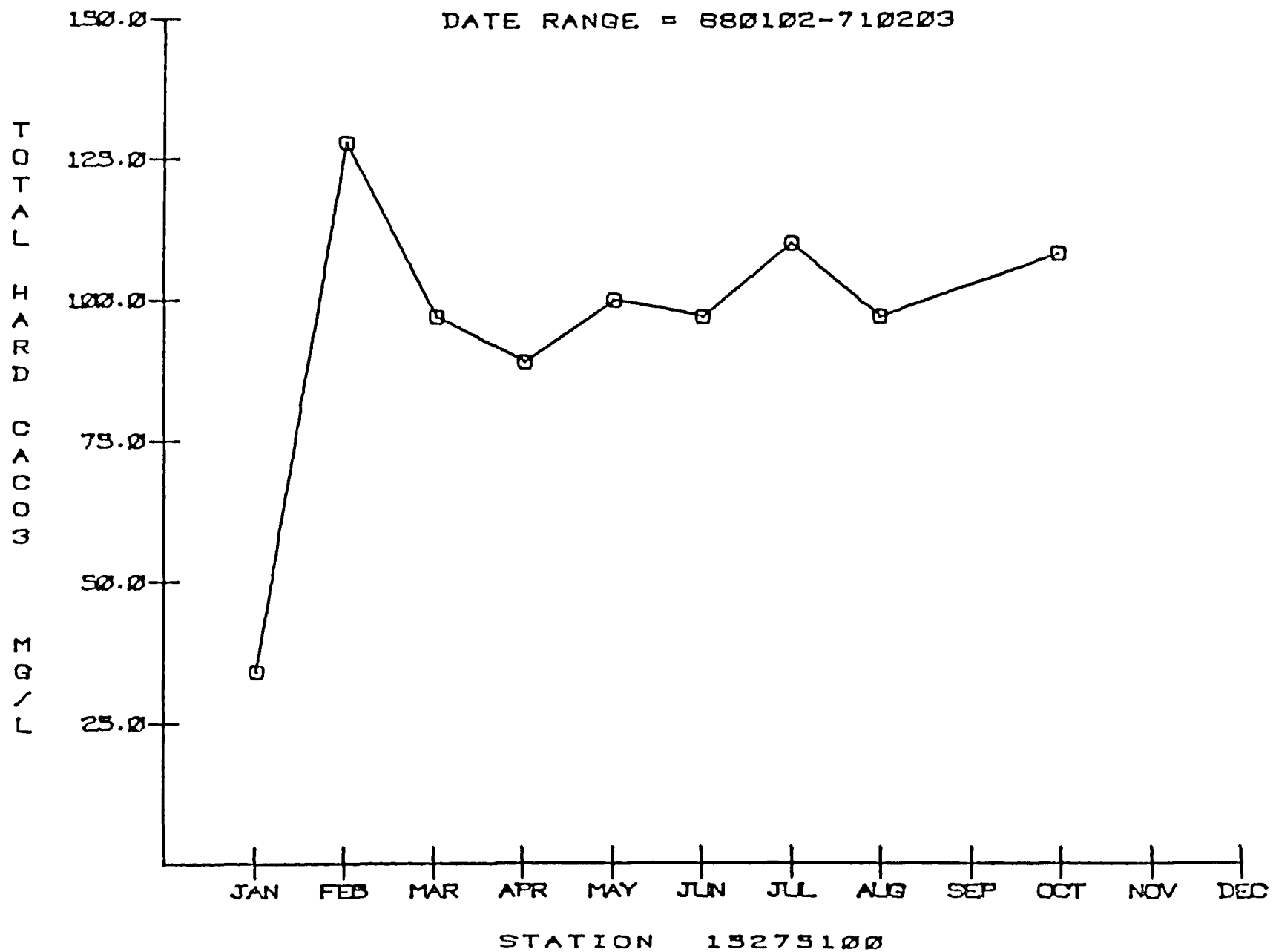
DATE RANGE = 880102-710203



CHESTER CREEK AT ARCTIC BLVD

U.S.G.S. DATA MEAN VALUES

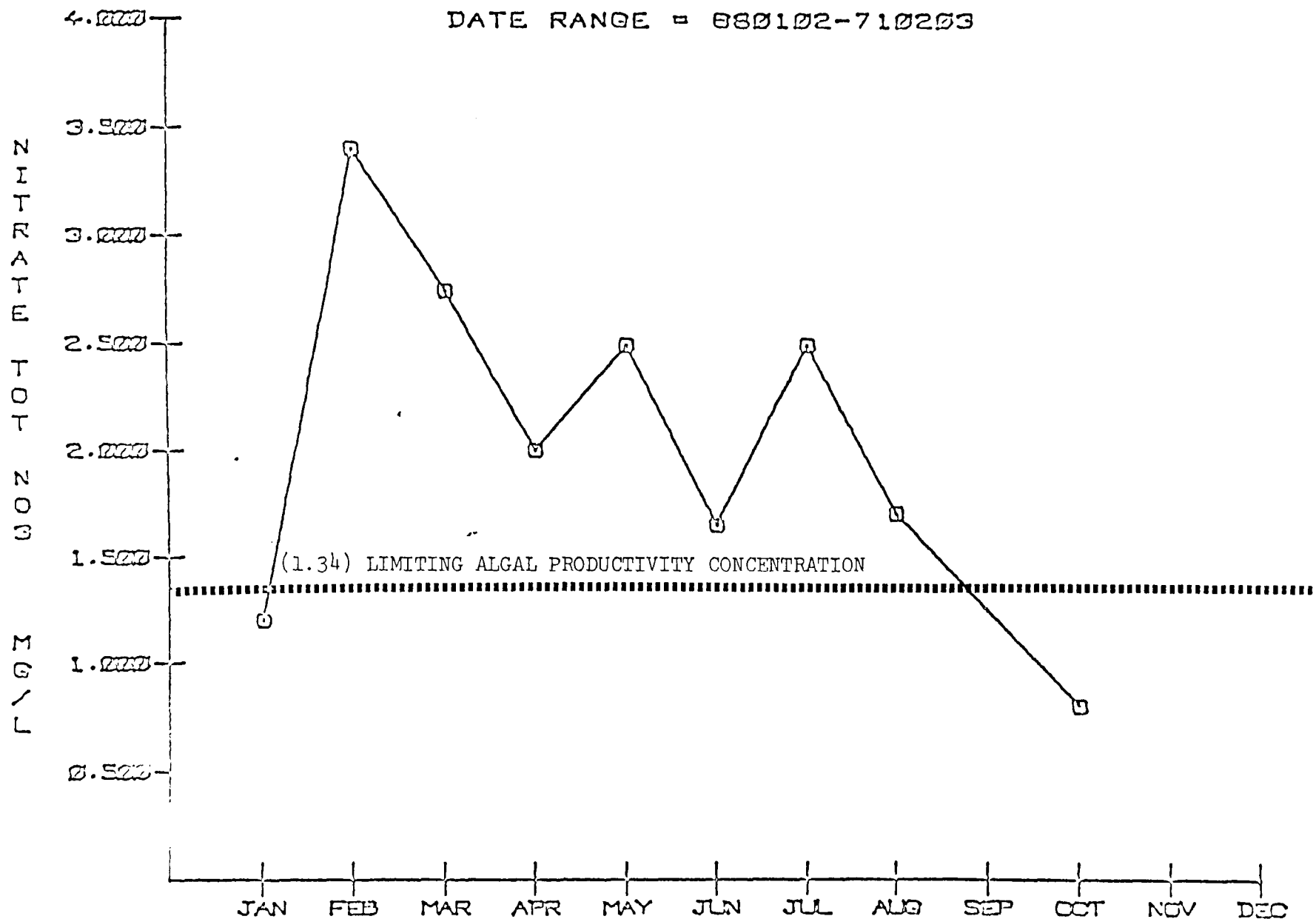
DATE RANGE = 880102-710203



CHESTER CREEK .T ARCTIC BLVD

U.S.G.S. DATA MEAN VALUES

DATE RANGE = 680102-710203



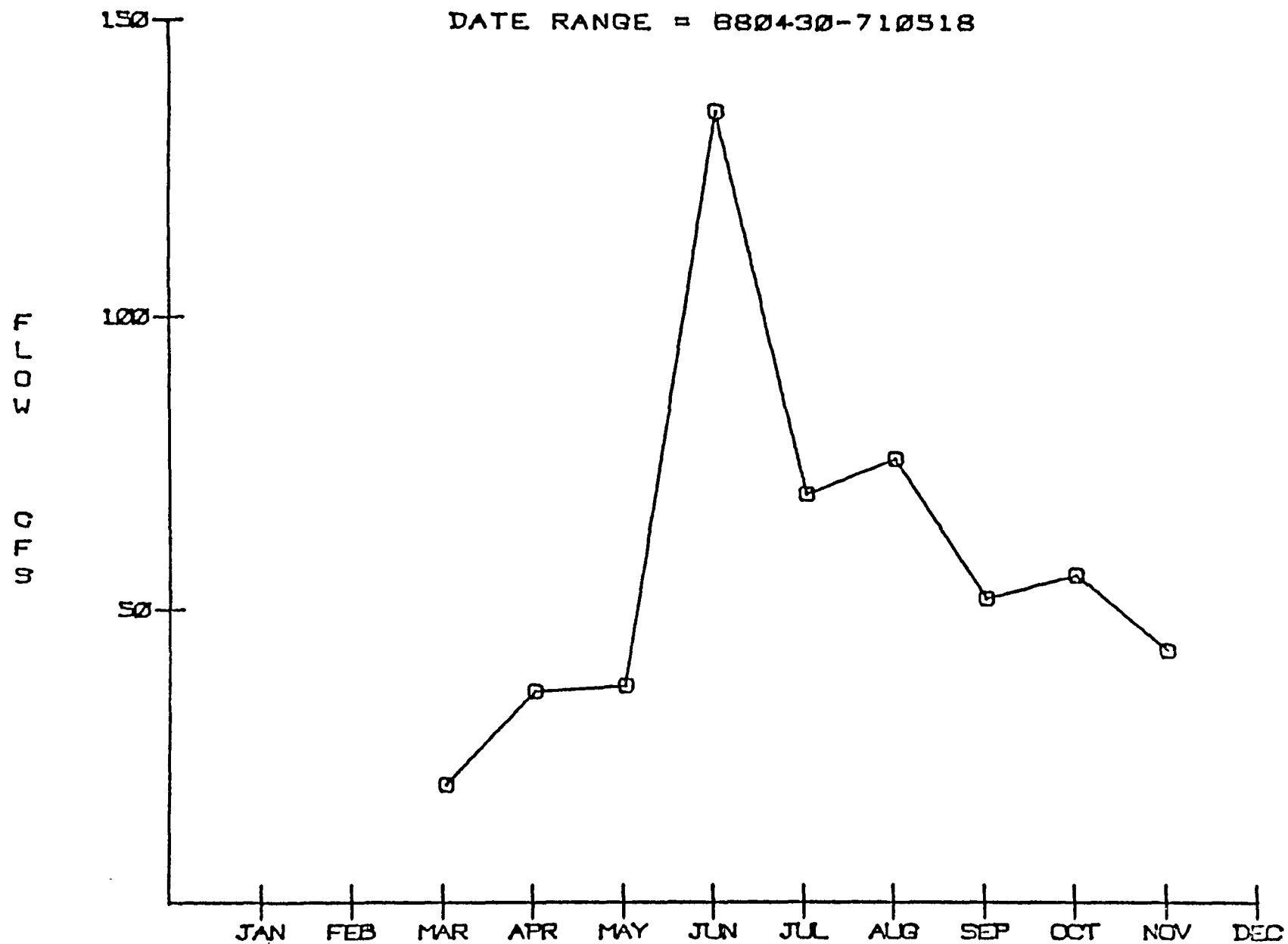
STATION 15275100

CAMPBELL CREEK NEAR SPENARD

CAMPBELL CREEK NEAR SPENARD

U.S.G.S. DATA MEAN VALUES

DATE RANGE = 680430-710518

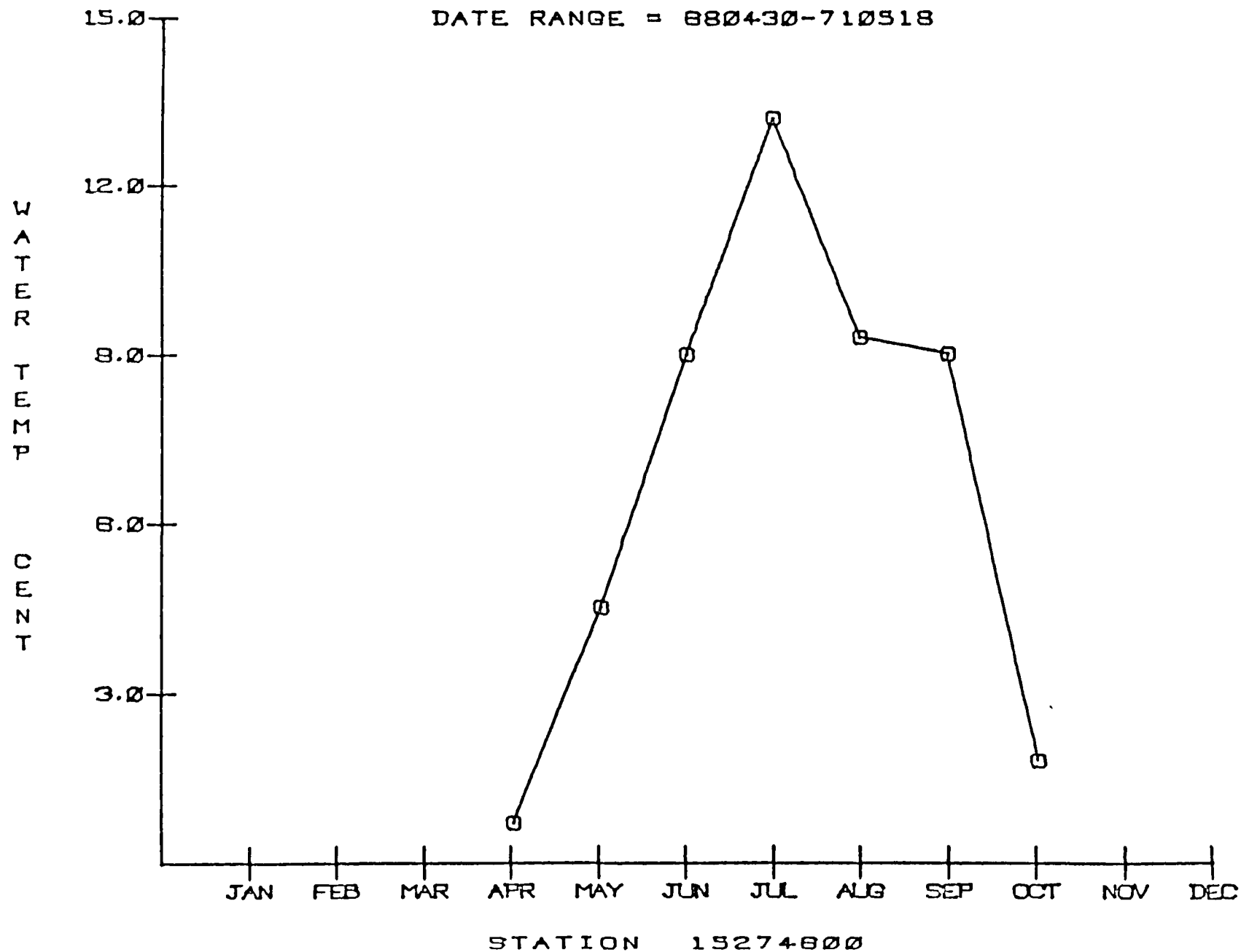


STATION 15274800

CAMPBELL CREEK NEAR SPENARD

U.S.G.S. DATA MEAN VALUES

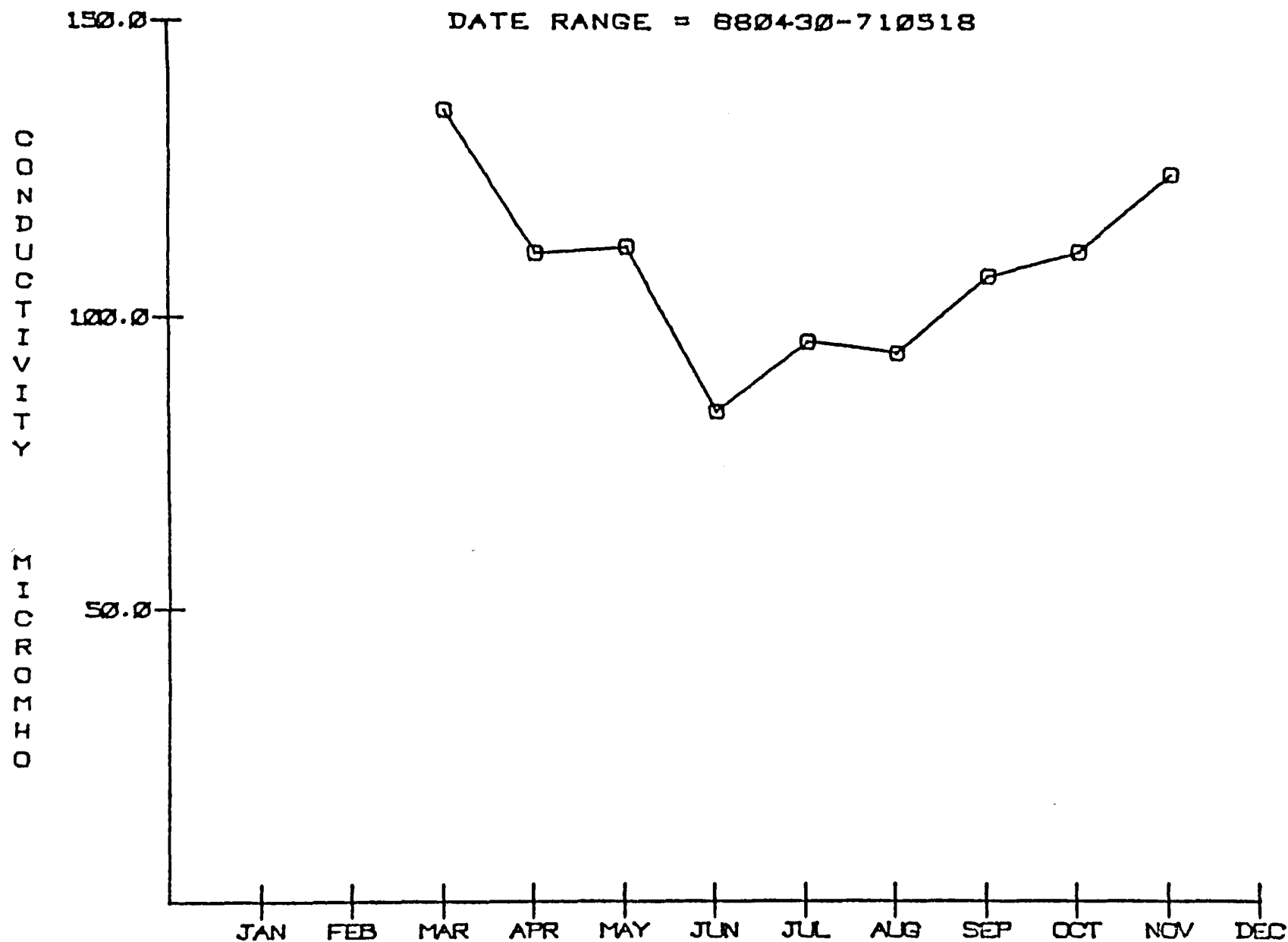
DATE RANGE = 880430-710518



CAMPBELL CREEK NEAR SPENARD

U.S.G.S. DATA MEAN VALUES

DATE RANGE = 880430-710518

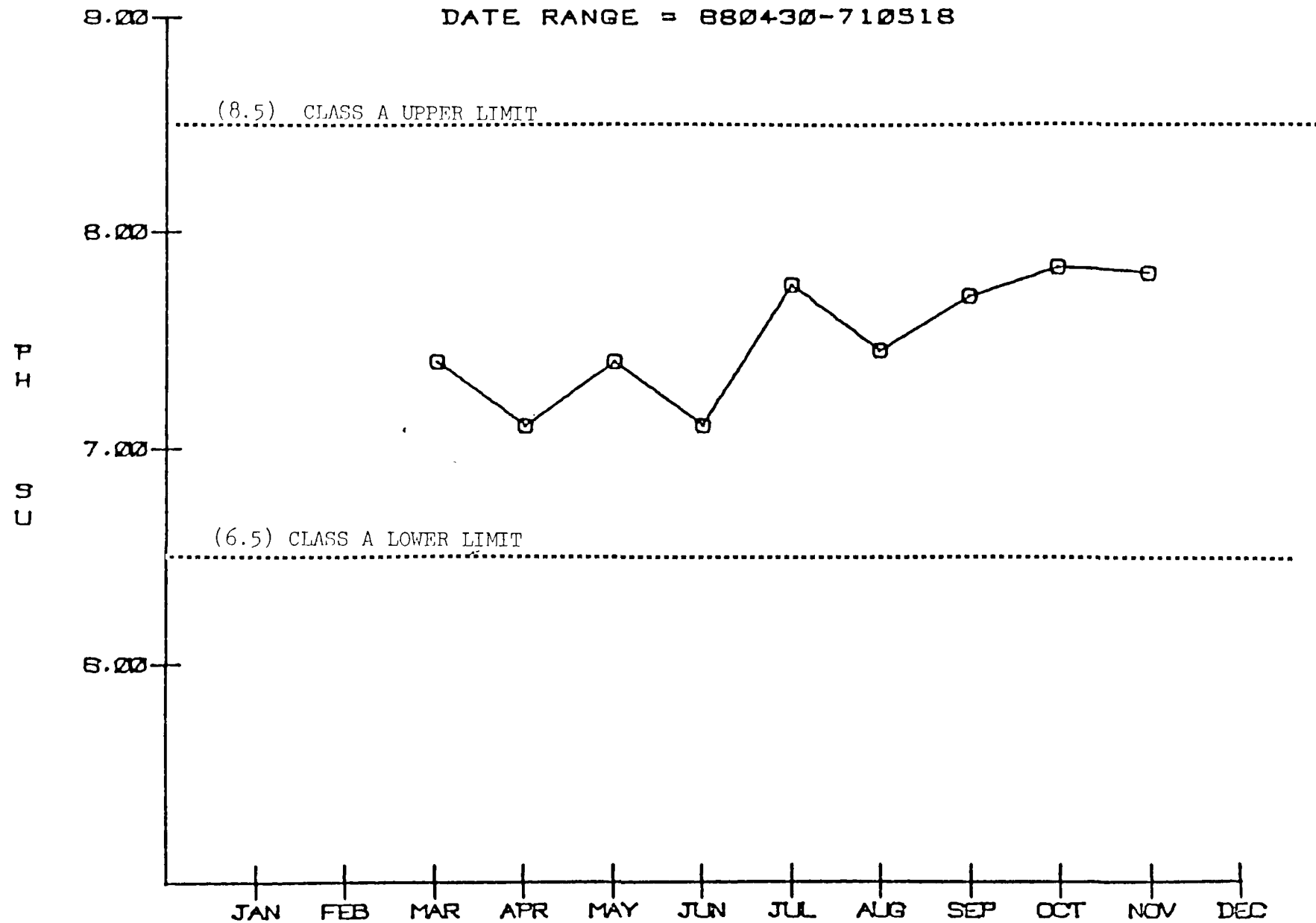


STATION 15274800

CAMPBELL CREEK NEAR S. ENARD

U.S.G.S. DATA MEAN VALUES

DATE RANGE = 880430-710518

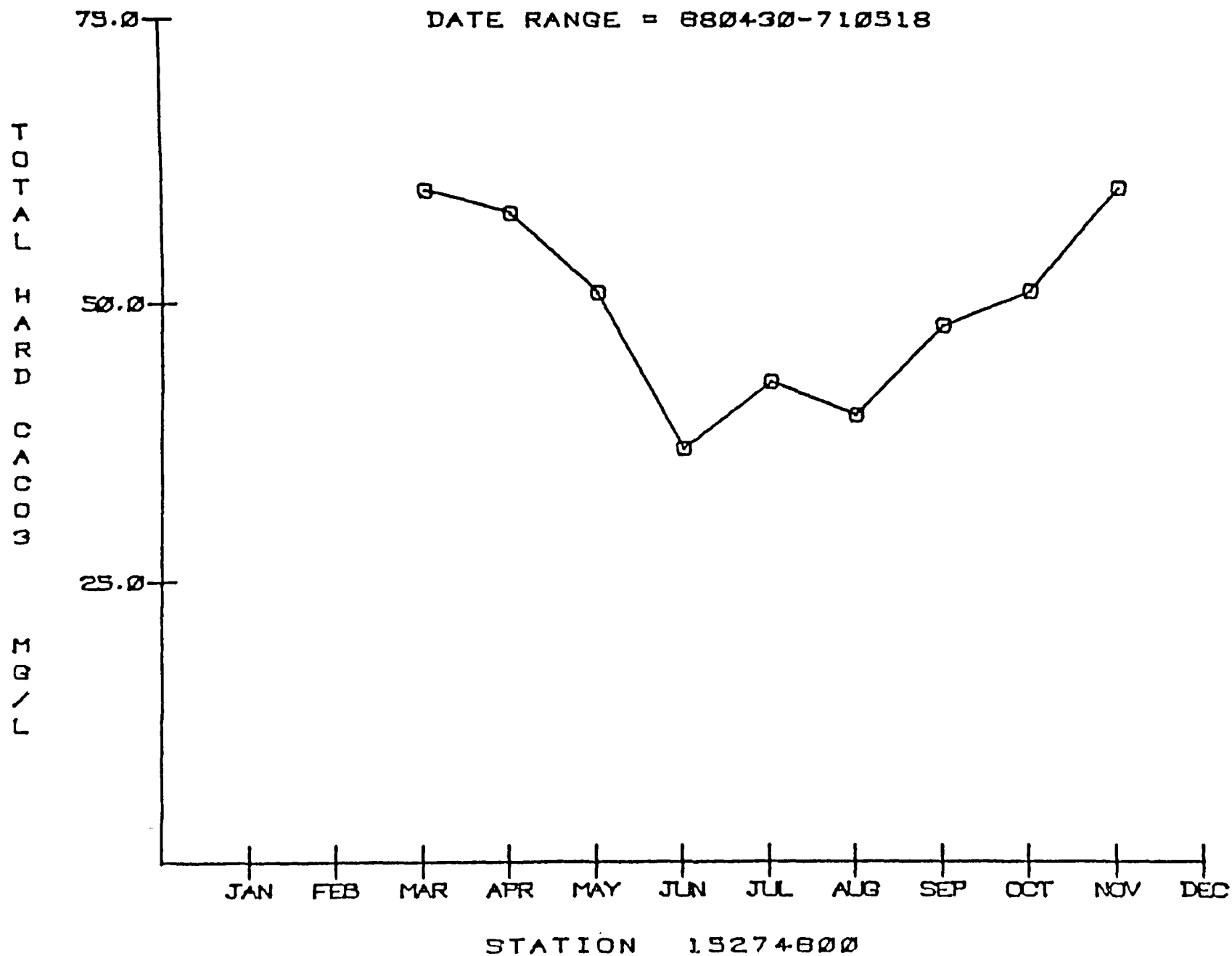


STATION 15274800

CAMPBELL CREEK NEAR SPENARD

U.S.G.S. DATA MEAN VALUES

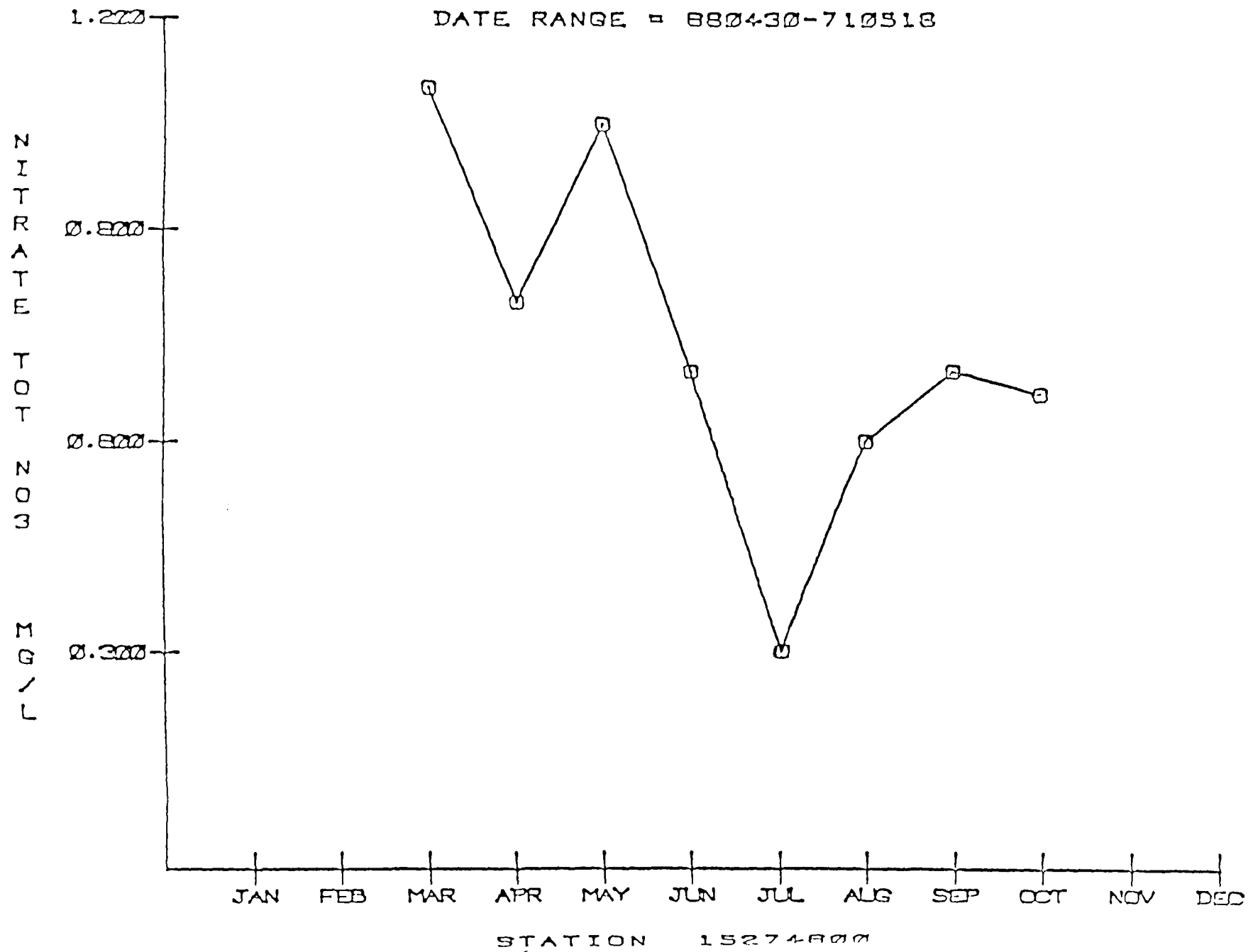
DATE RANGE = 880430-710518



AM. BELL CREEK YEAR SPENARD

U.S.G.S. DATA MEAN VALUES

DATE RANGE = 880430-710518

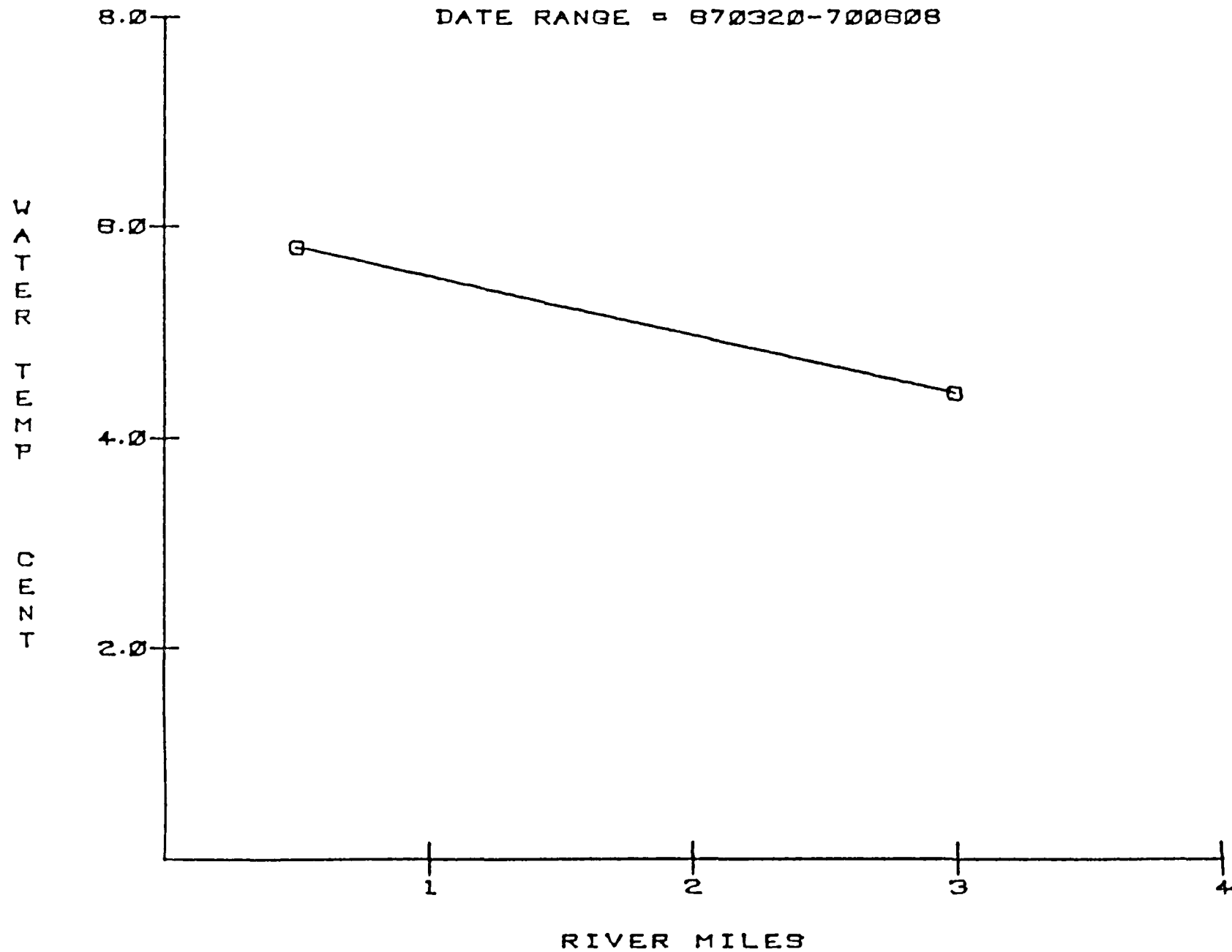


SOUTH FORK CAMPBELL CREEK

SOUTH FORK LA BEL REEK

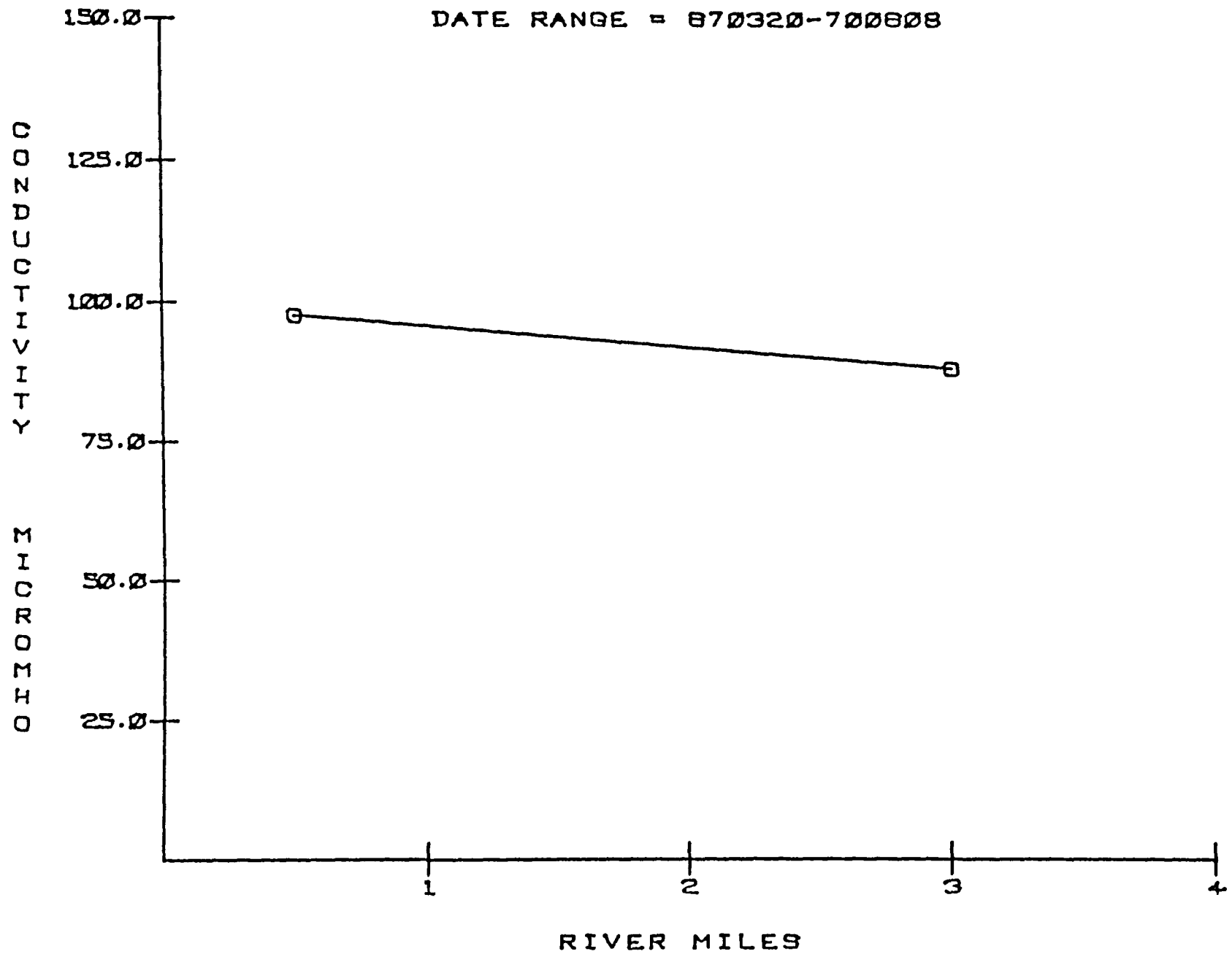
U.S.G.S. DATA MEAN VALUES

DATE RANGE = 870320-700808



U.S.G.S. DATA MEAN VALUES

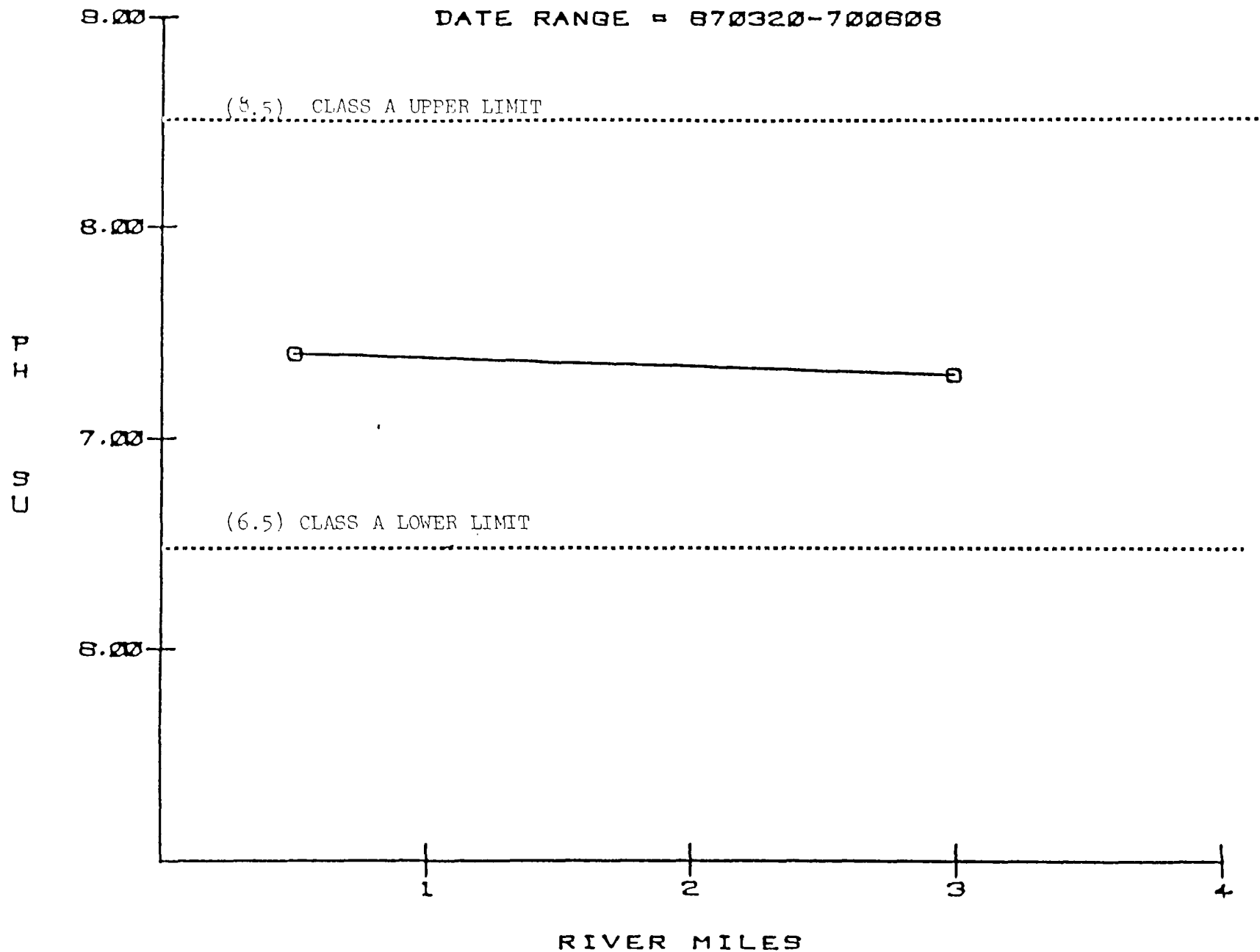
DATE RANGE = 870320-700808



SOUTH FORK CAMPBELL CREEK

U.S.G.S. DATA MEAN VALUES

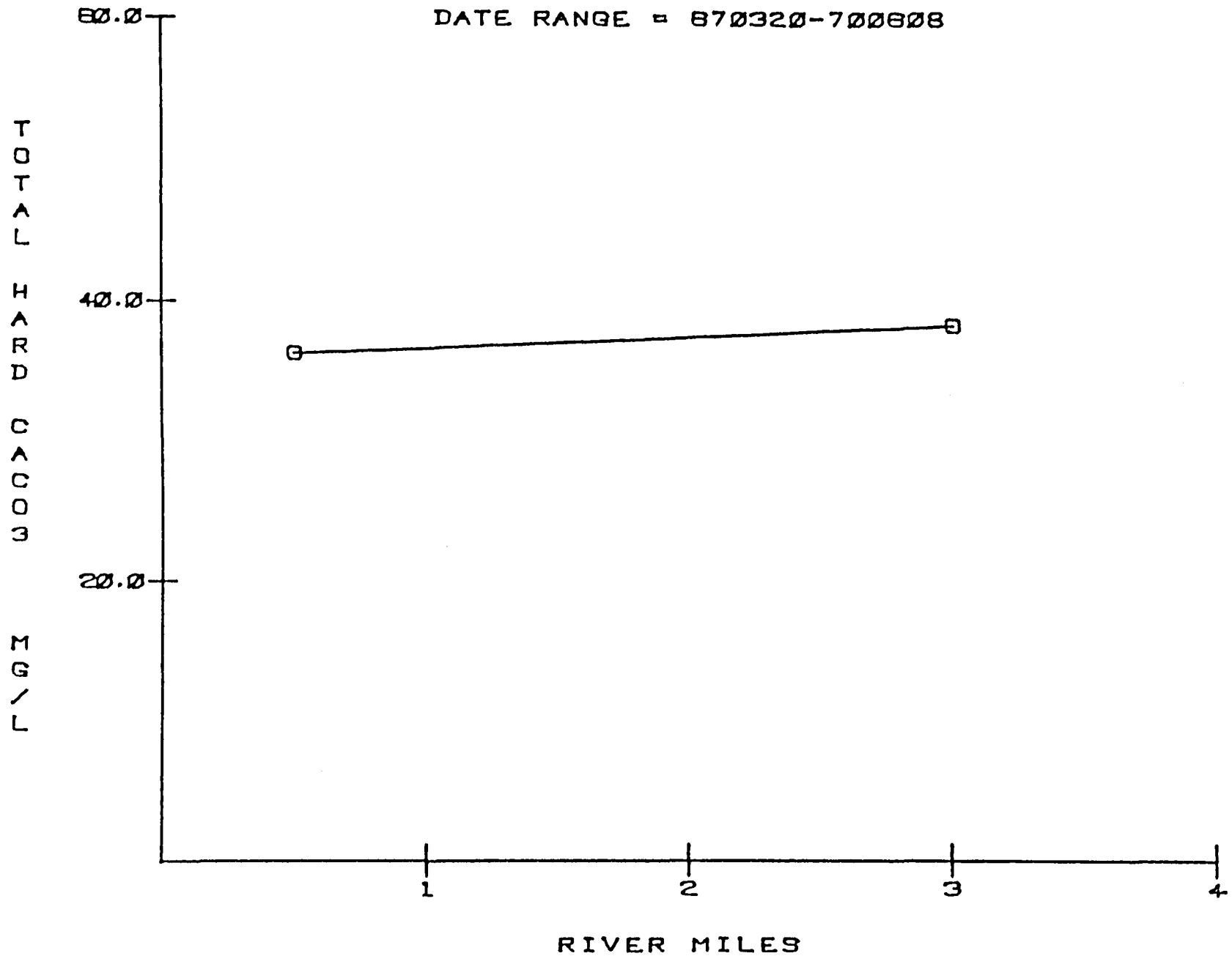
DATE RANGE = 870320-700608



SOUTH FORK CAMPBELL CREEK

U.S.G.S. DATA MEAN VALUES

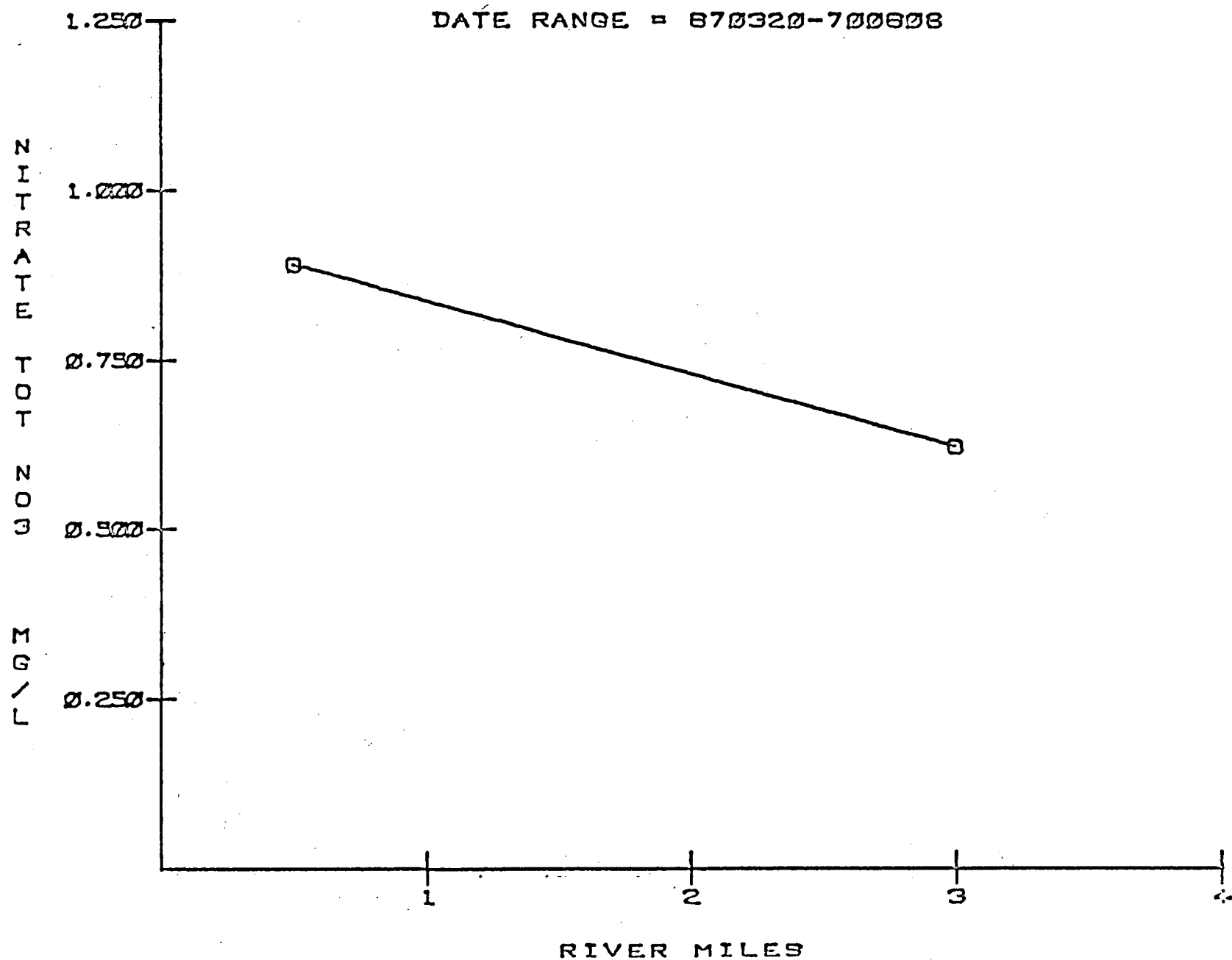
DATE RANGE = 870320-700808



SOUTH FORK C 1PBELL CREEK

U.S.G.S. DATA MEAN VALUES

DATE RANGE = 870320-700608

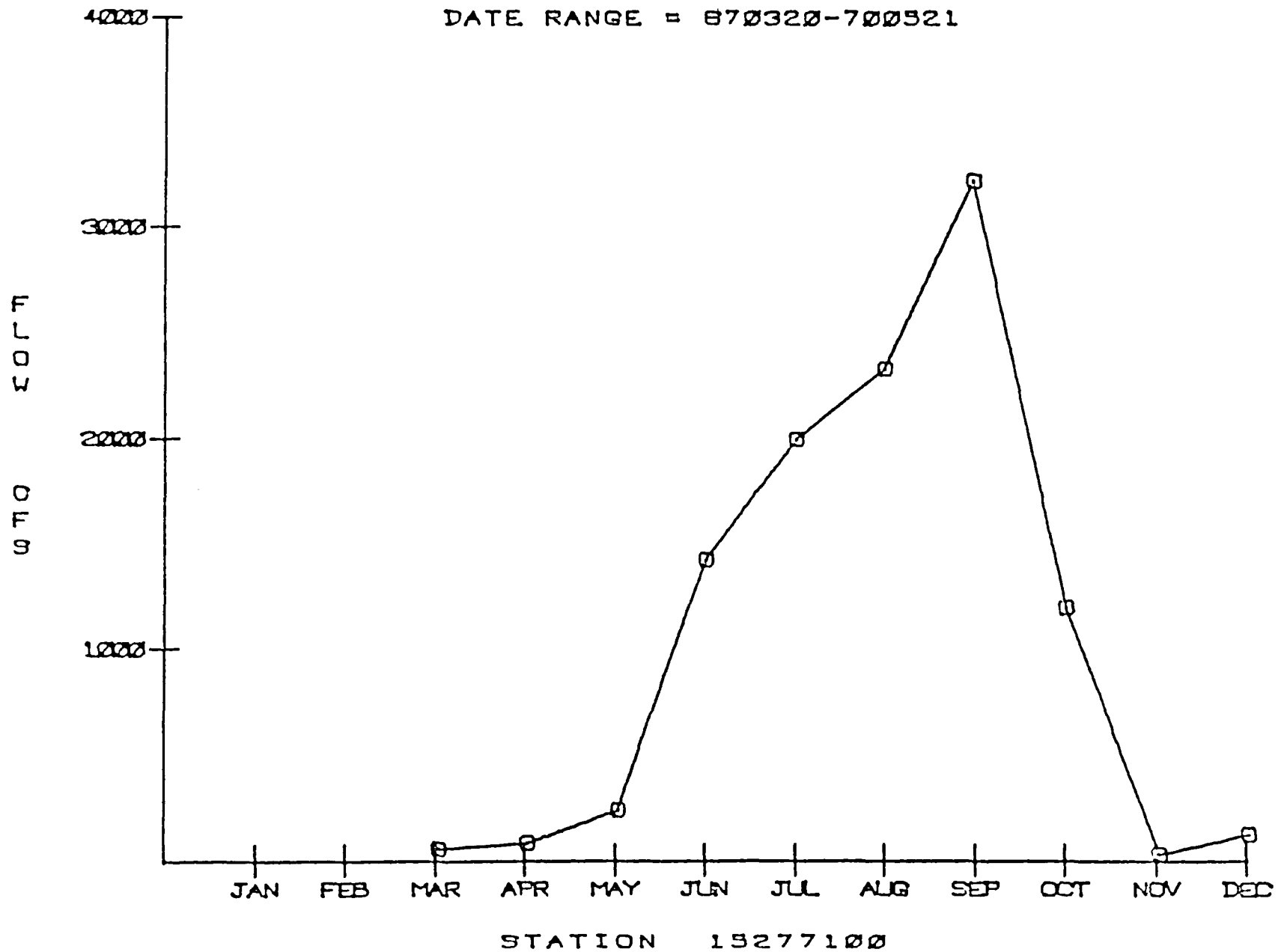


EAGLE RIVER AT EAGLE RIVER

EAGLE RIVER AT EAGLE RIVER

U.S.G.S. DATA MEAN VALUES

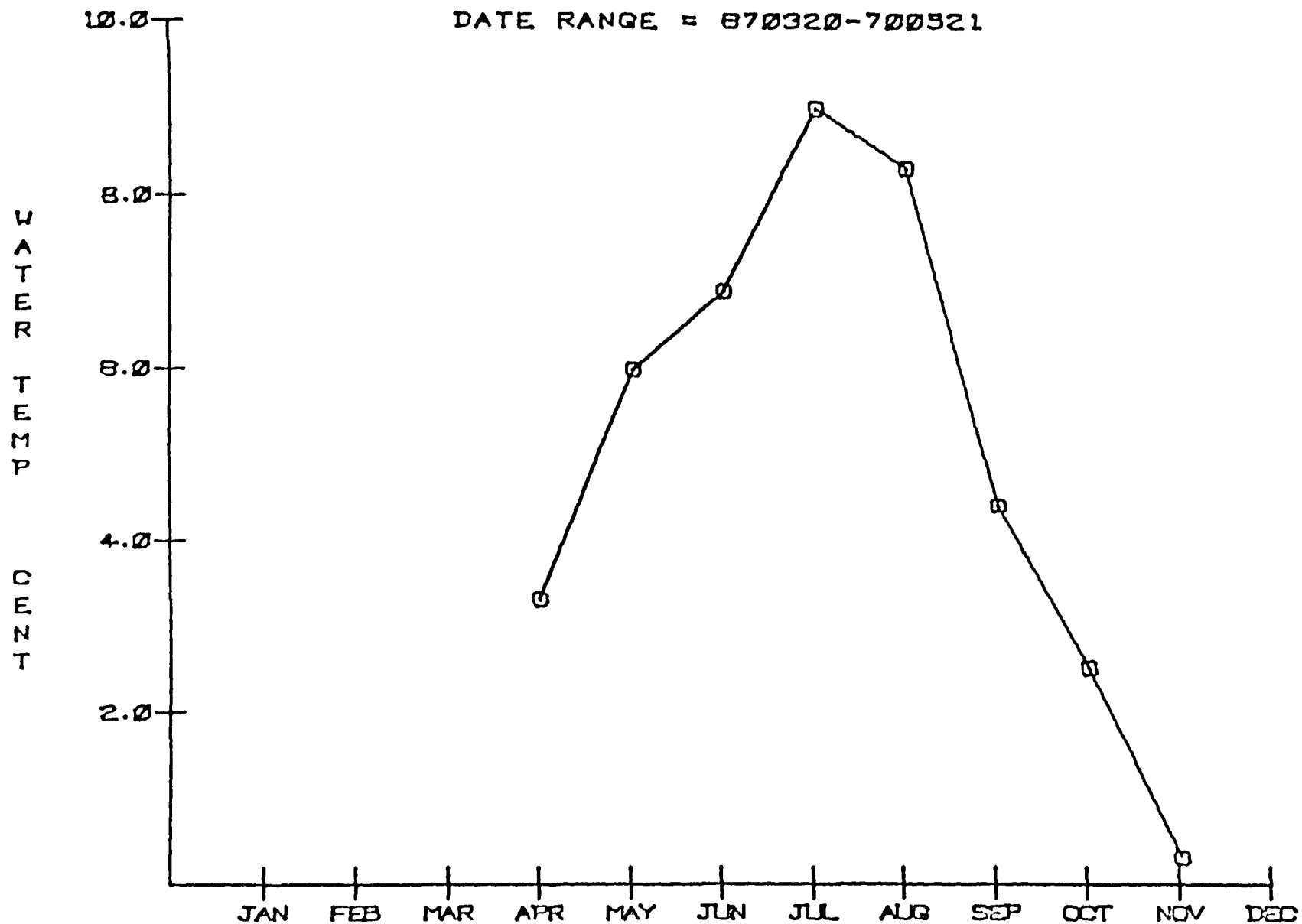
DATE RANGE = 870320-700521



EAGLE RIVER AT EAGLE RIVER

U.S.G.S. DATA MEAN VALUES

DATE RANGE = 670320-700521



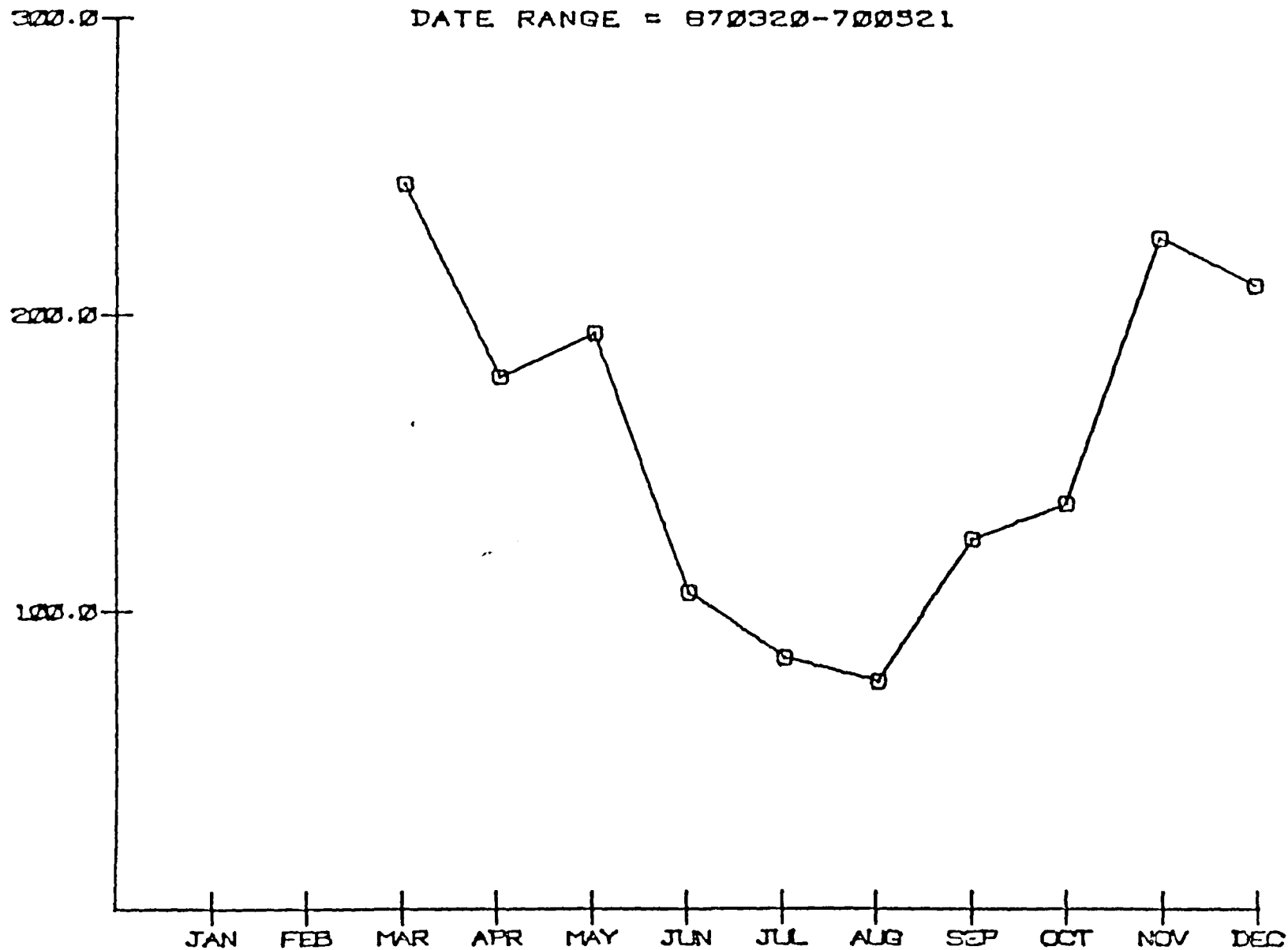
STATION 15277100

EAGLE RIVER AT EAGLE RIVER

U.S.G.S. DATA MEAN VALUES

DATE RANGE = 870320-700521

WATER TEMPERATURE

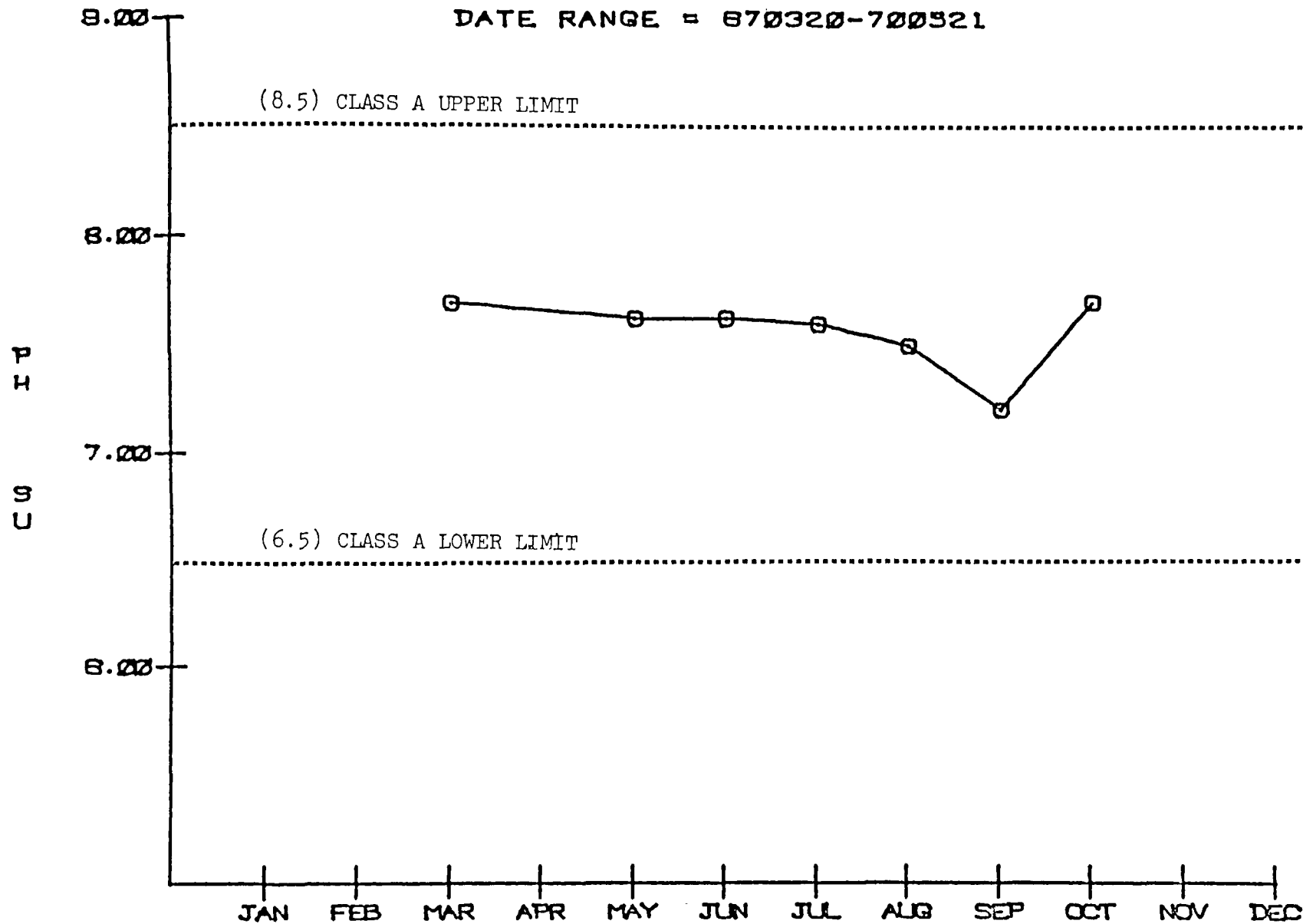


STATION 15277100

EAGLE RIVER AT EAGLE RIVER

U.S.G.S. DATA MEAN VALUES

DATE RANGE = 670320-700521



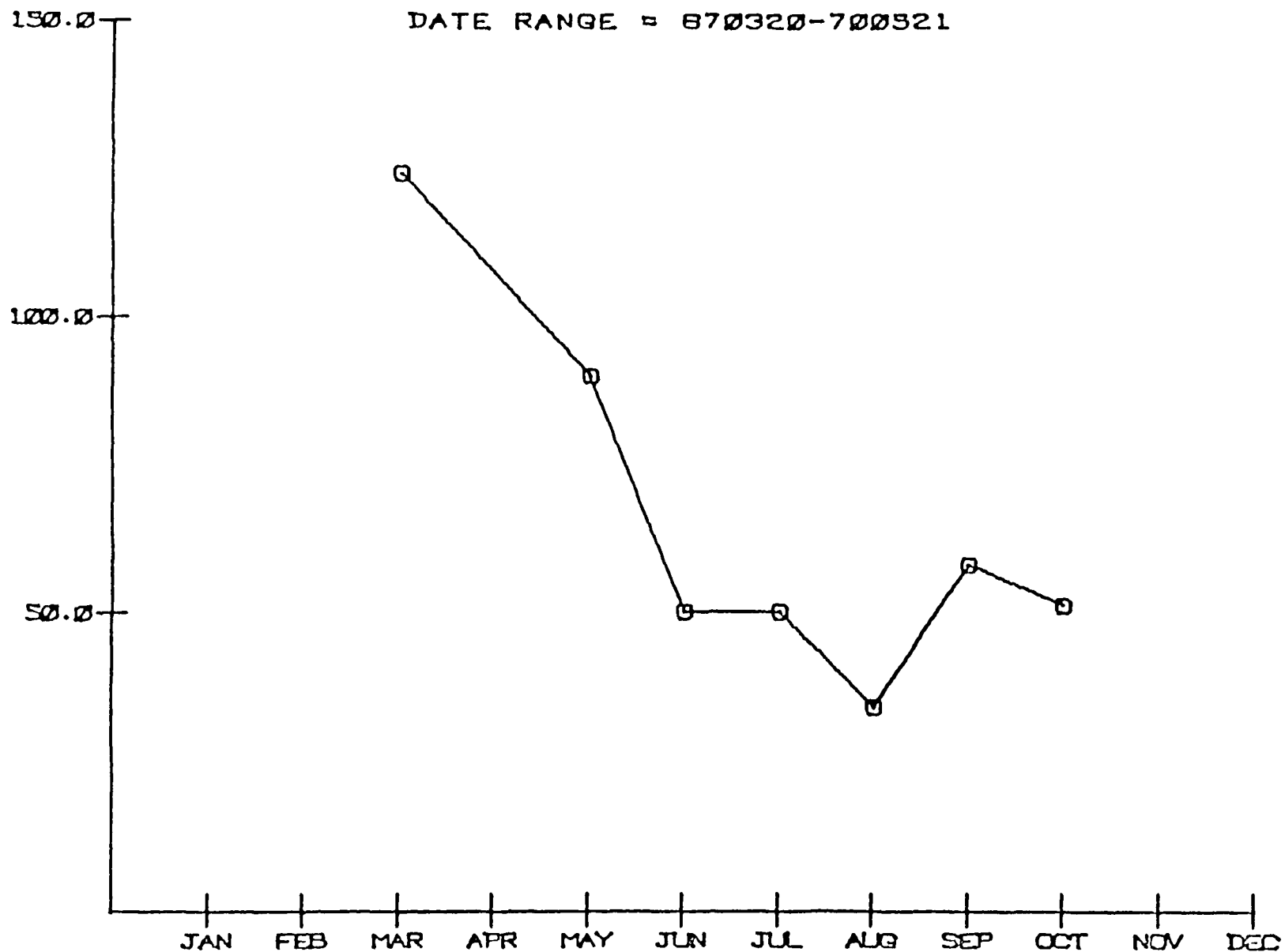
STATION 15277100

EAGLE RIVER AT LAGLE RIVER

U.S.G.S. DATA MEAN VALUES

DATE RANGE = 670320-700921

TOTAL
HARD
CACCO3
MG/L



STATION 15277100

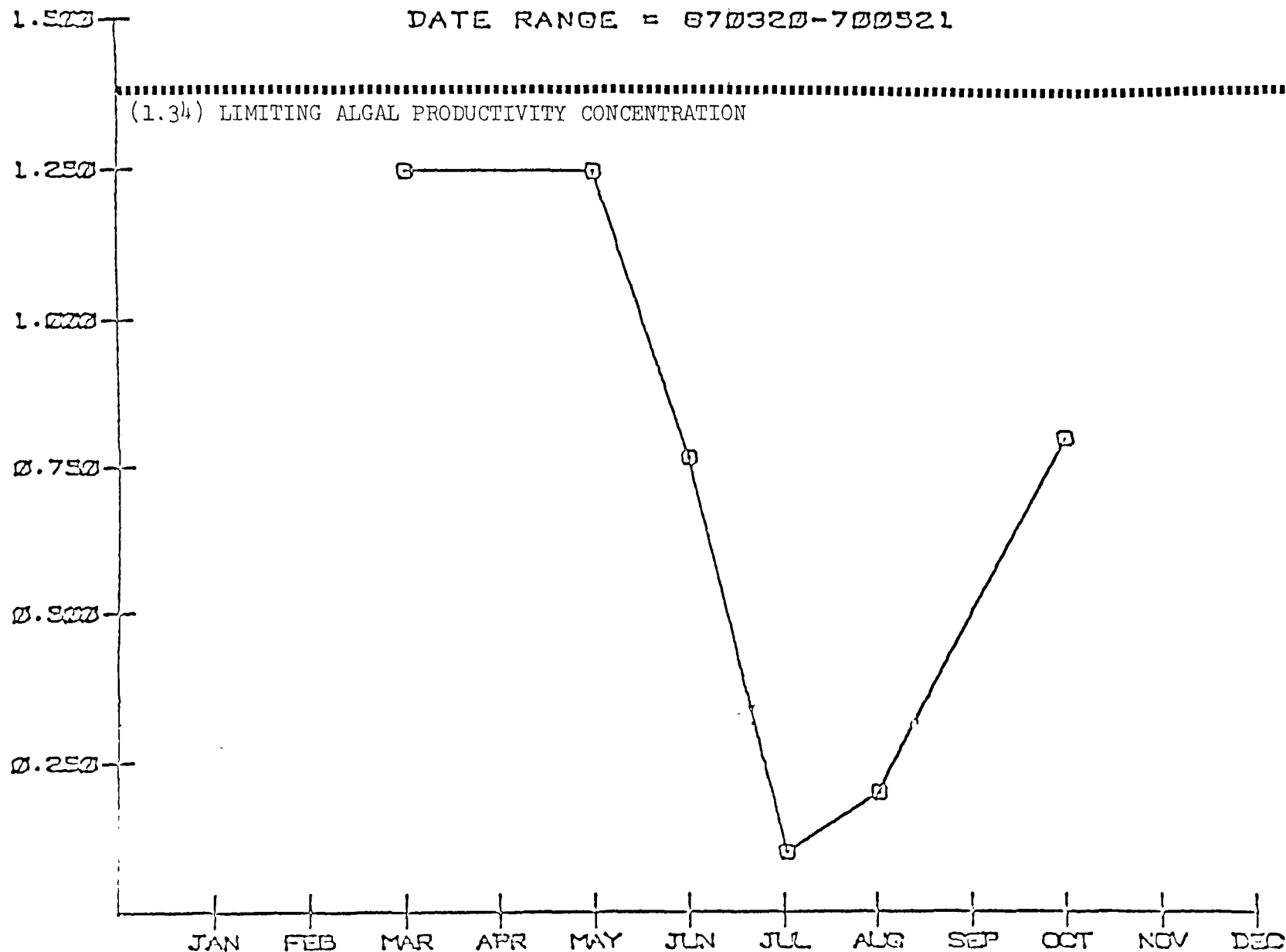
EAGLE RIVER AT EAGLE RIVER

U.S.G.S. DATA MEAN VALUES

DATE RANGE = 670320-700521

(1.34) LIMITING ALGAL PRODUCTIVITY CONCENTRATION

NITRATE
TOT
NO3
/L



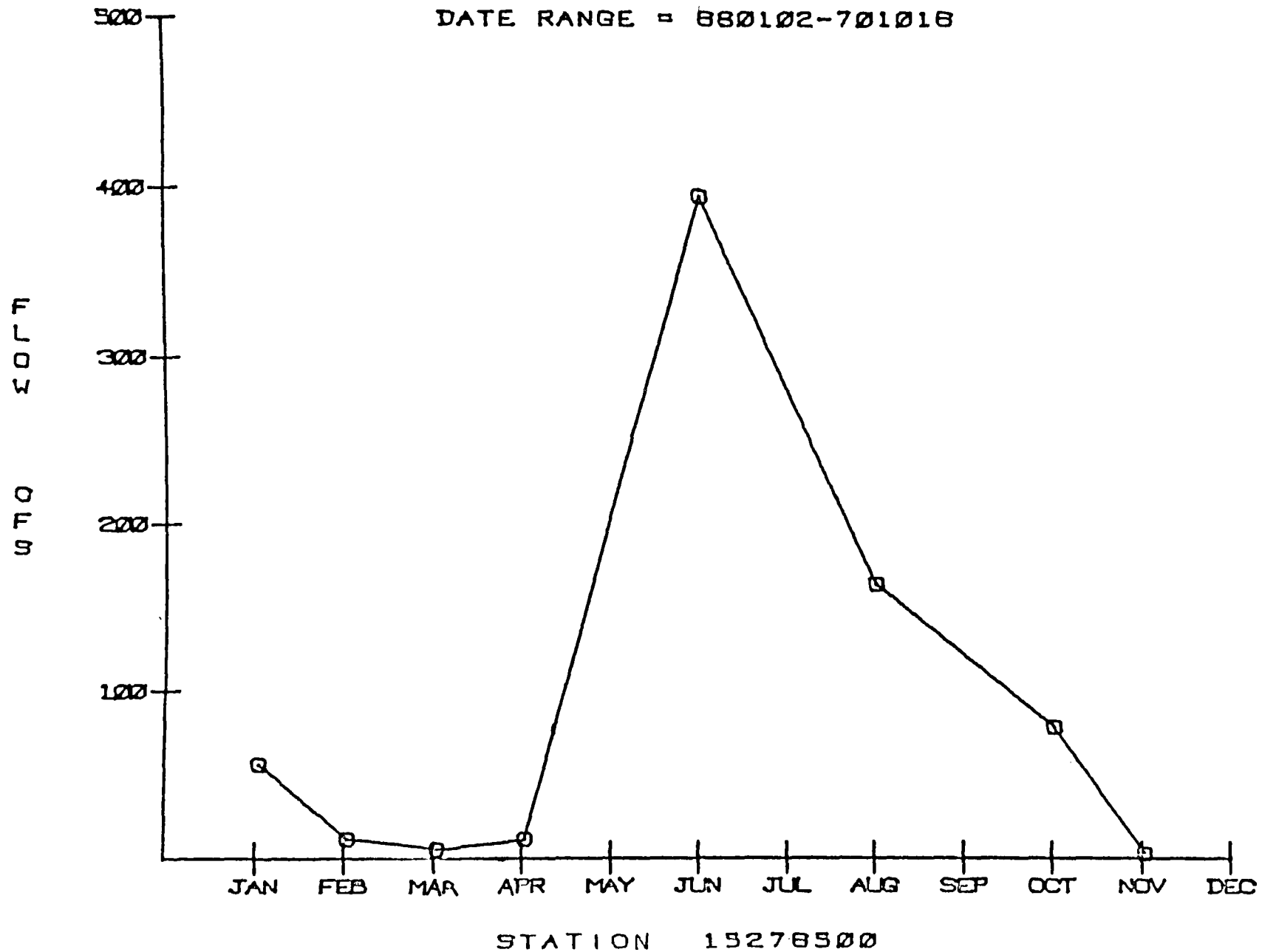
STATION 15277100

SHIP CREEK AT ELMENDORF AIR FORCE BASE

SHIP CREEK AT ELMENDORF AFB

U.S.G.S. DATA MEAN VALUES

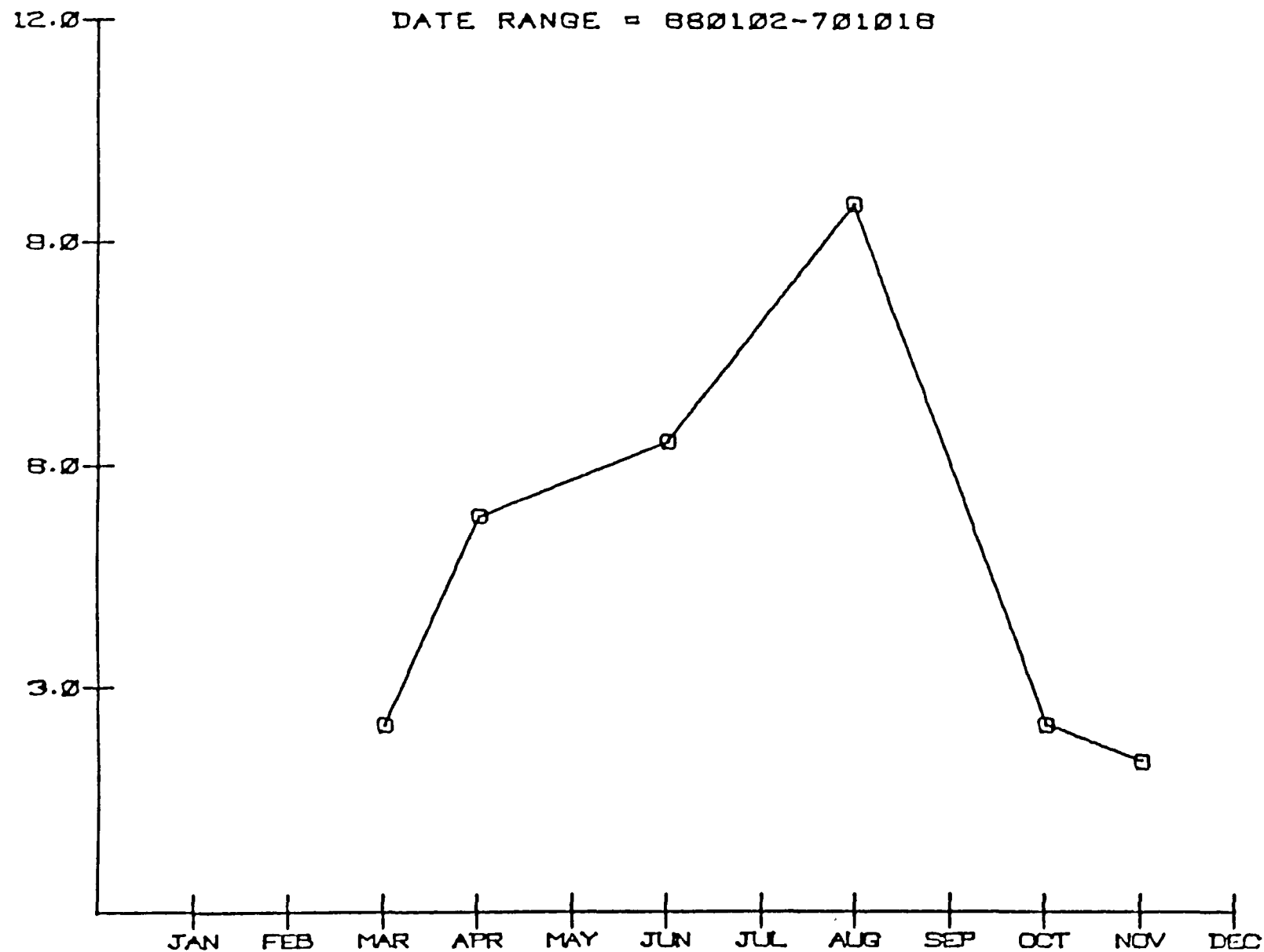
DATE RANGE = 680102-701018



SHIP CREEK AT ELIENDORF AFB

U.S.G.S. DATA MEAN VALUES

DATE RANGE = 680102-701018

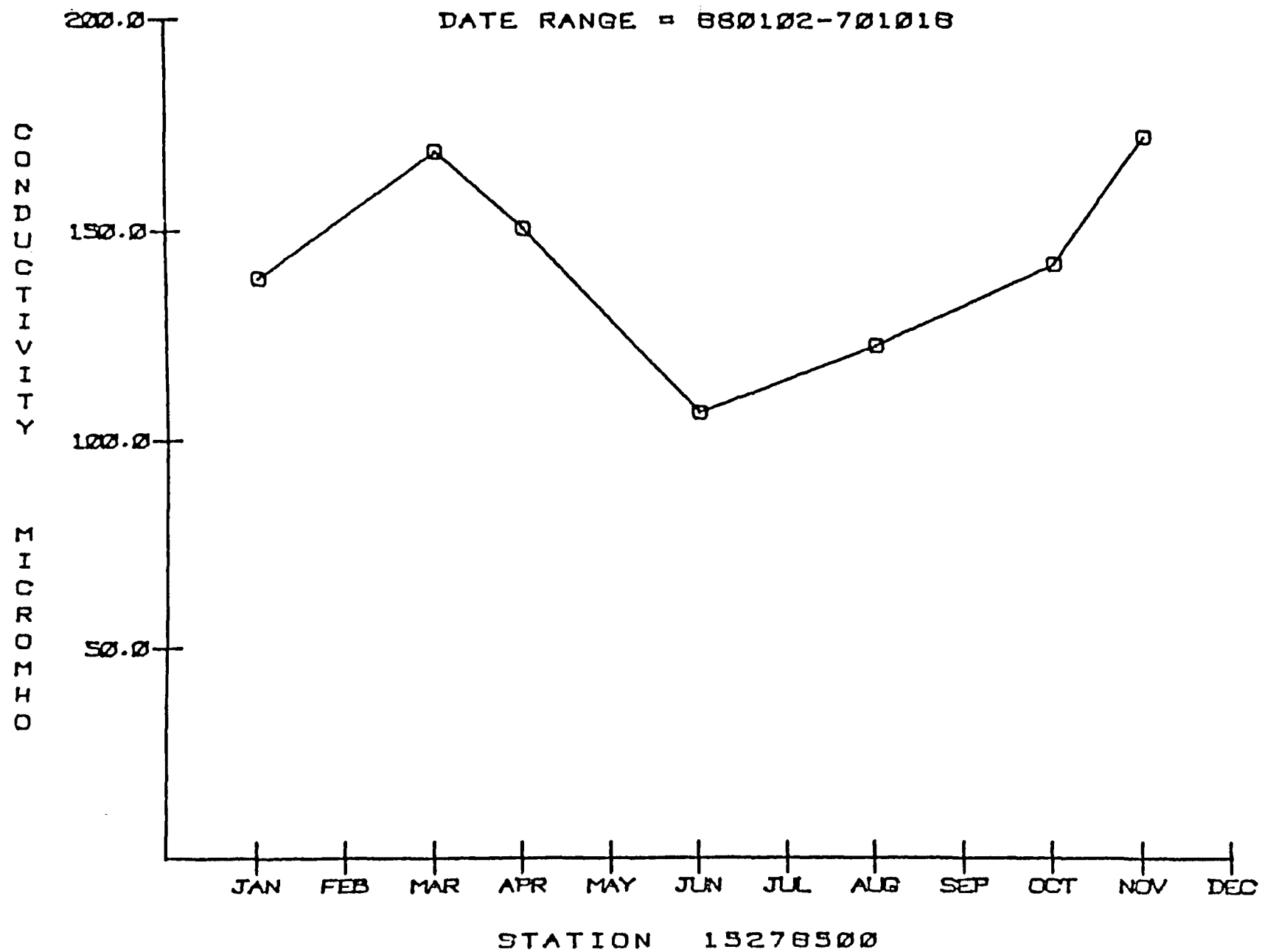


STATION 15276500

SHIP CREEK AT ELMENDORF AFB

U.S.G.S. DATA MEAN VALUES

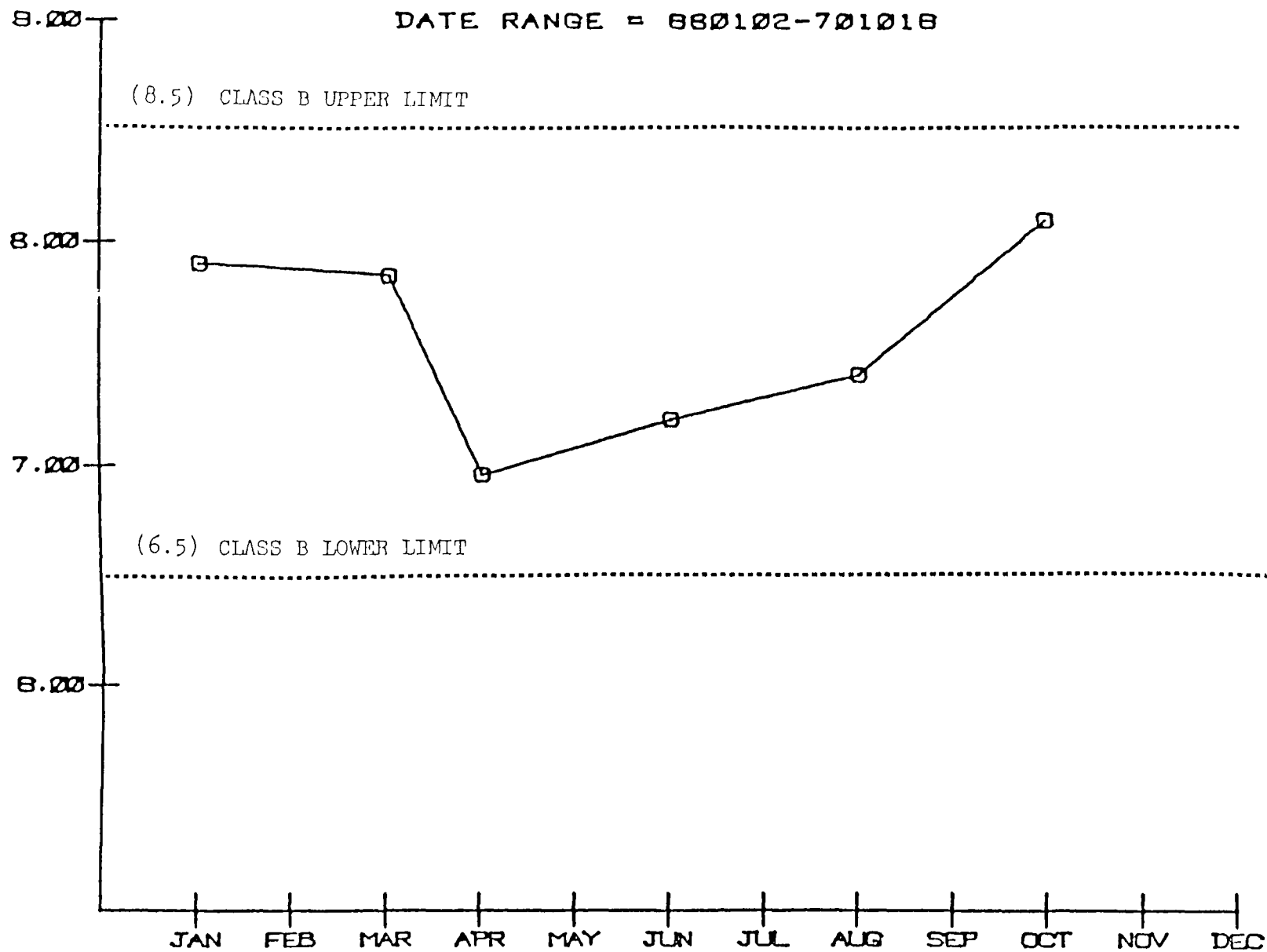
DATE RANGE = 880102-701018



SHIP CREEK AT EL.1ENDORF AFB

U.S.G.S. DATA MEAN VALUES

DATE RANGE = 880102-701018

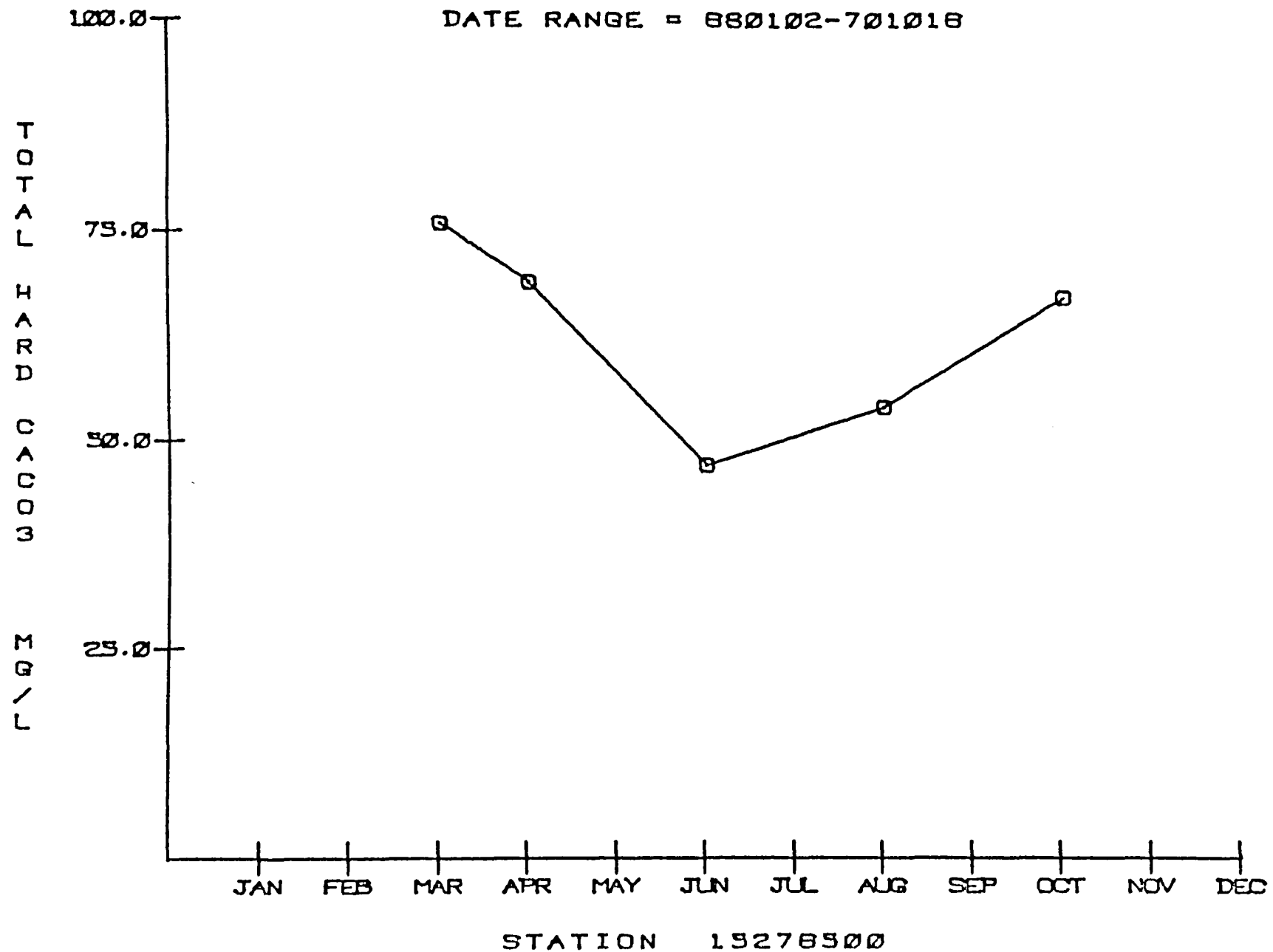


STATION 15278500

SHIP CREEK AT ELMENDORF AFB

U.S.G.S. DATA MEAN VALUES

DATE RANGE = 680102-701018



SHIP CREEK AT ELMENDORF AFB

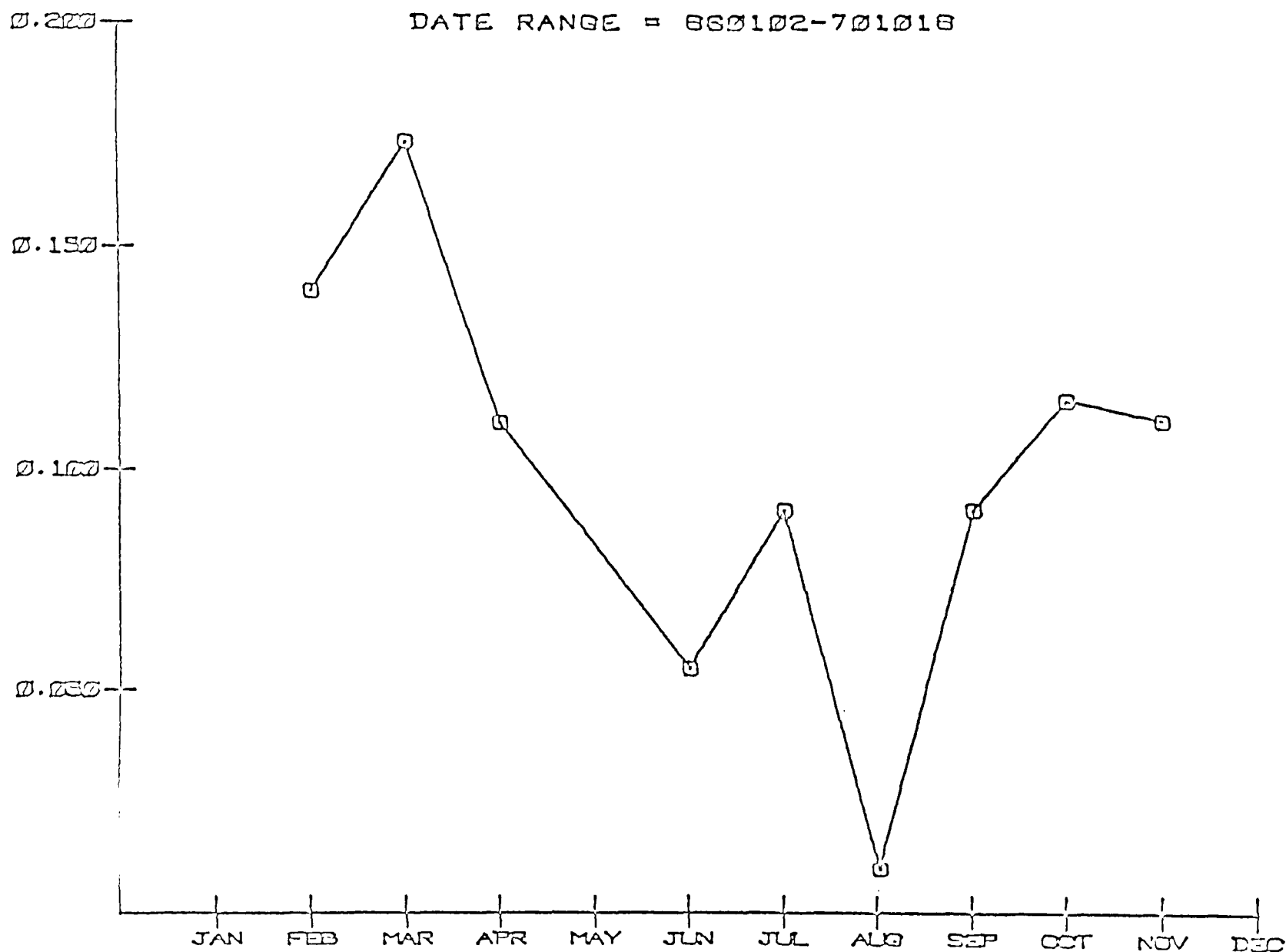
U.S.G.S. DATA MEAN VALUES

DATE RANGE = 660102-701018

N
I
T
R
A
T
E

D
I
S
S
O
N
O
N
/
N

M
O
/
L



STATION 15276500

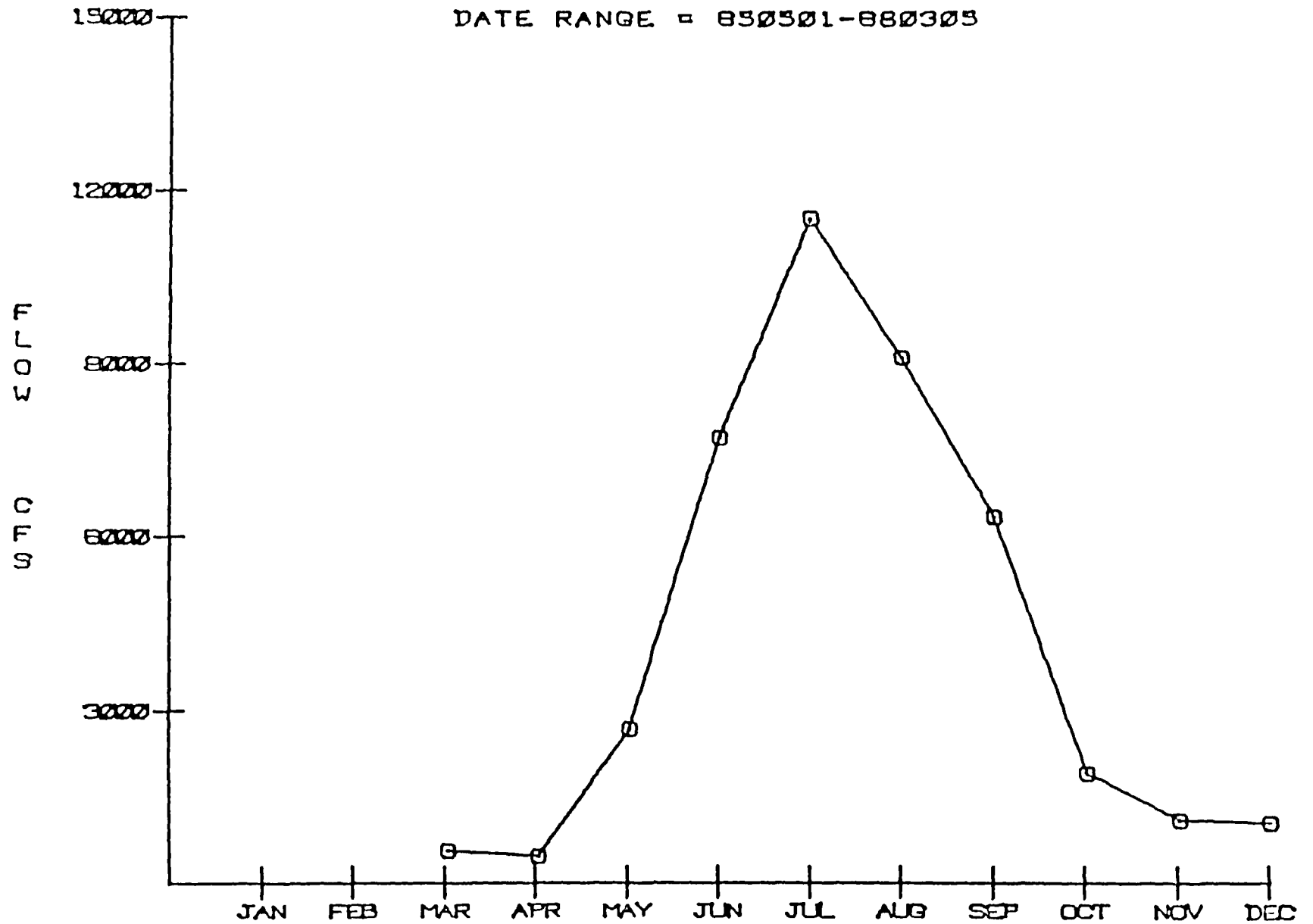
MATANUSKA RIVER AT PALMER

1 2 3 4 5 6 7 8 9 10 11 12

MATANUSKA RIV' R AT PALMER

U.S.G.S. DATA MEAN VALUES

DATE RANGE = 850501-880305

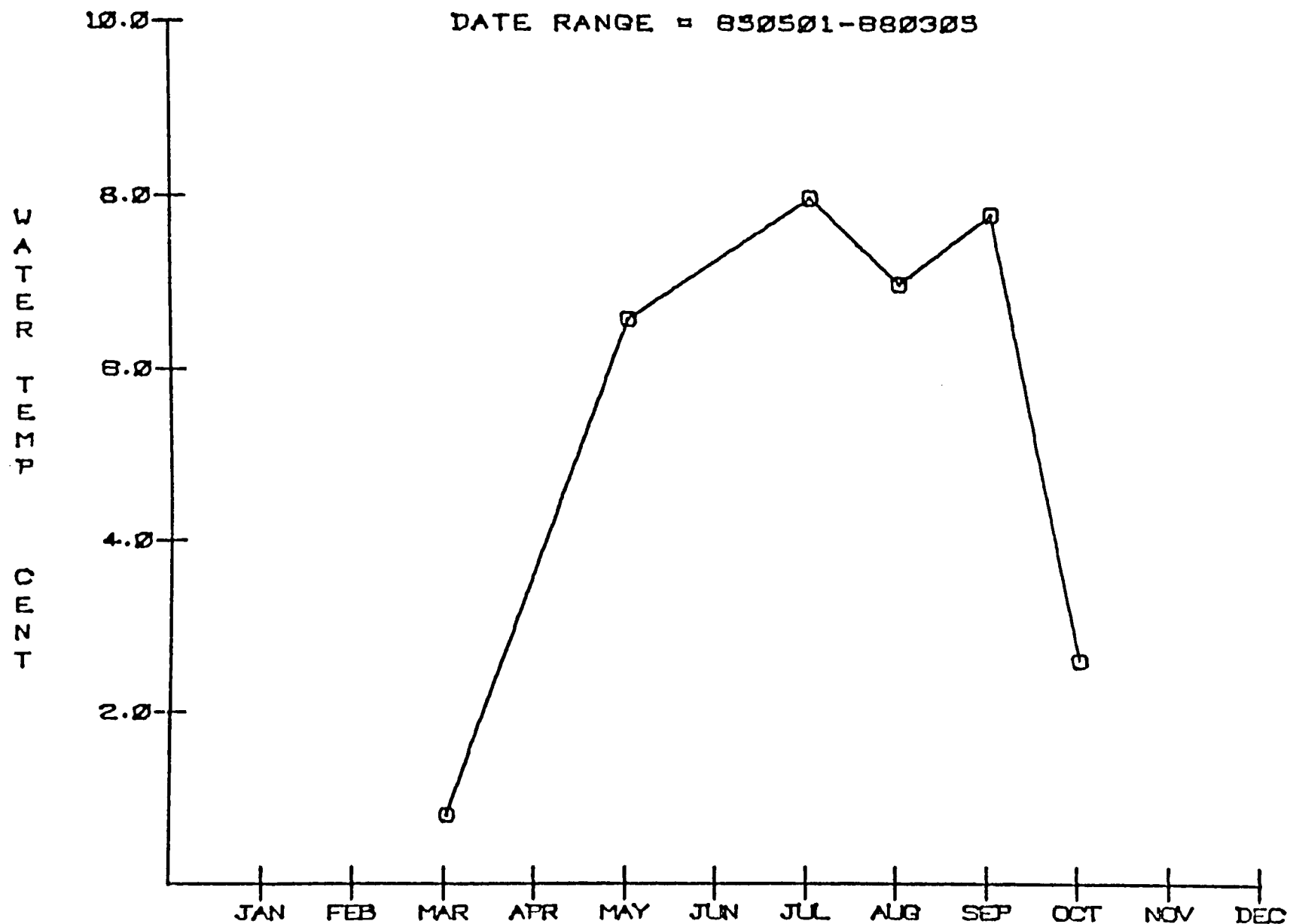


STATION 15284000

MATANUSKA RIVER AT PALMER

U.S.G.S. DATA MEAN VALUES

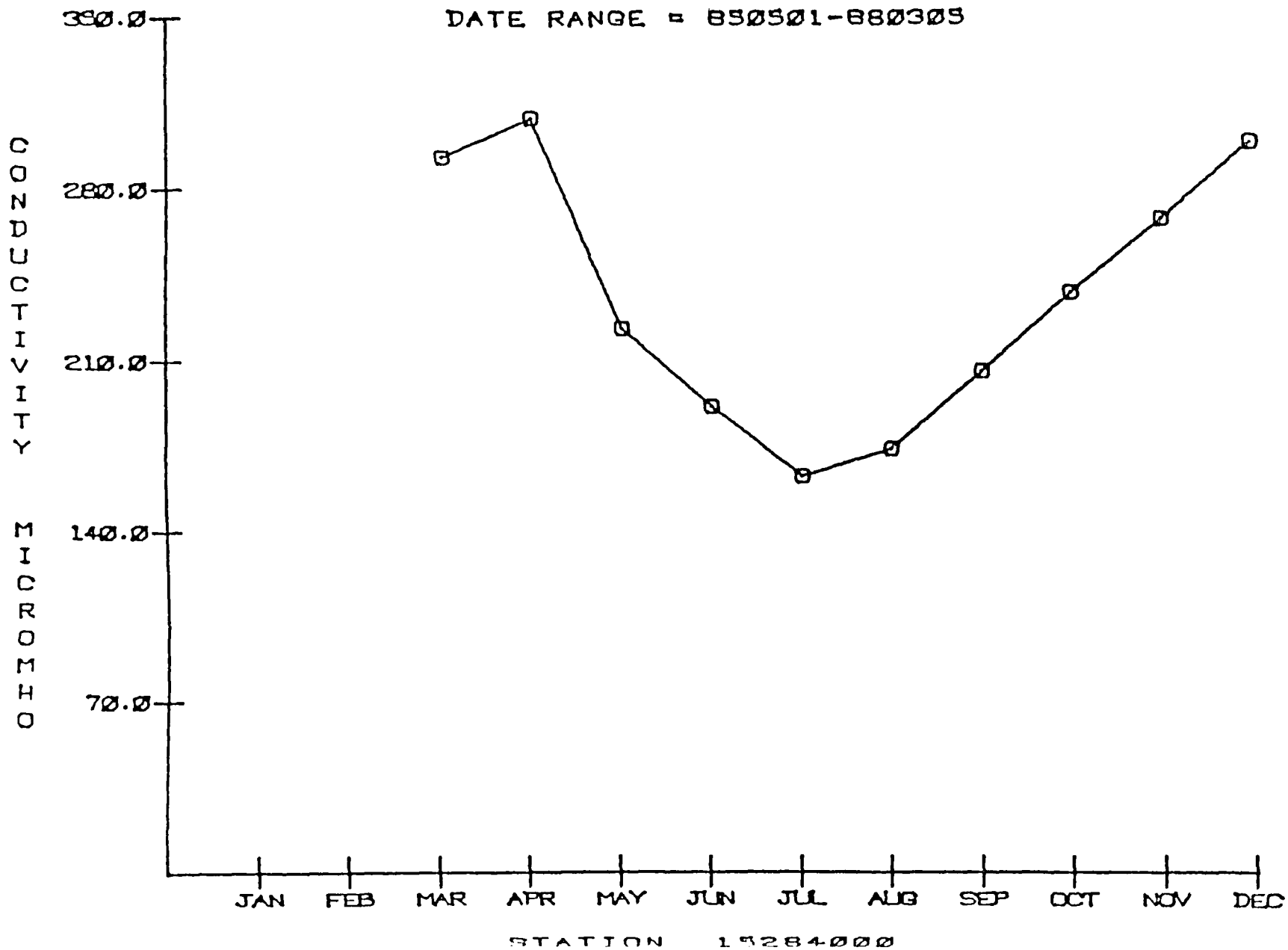
DATE RANGE = 850501-880305



MATANUSKA RIVER AT PALMER

U.S.G.S. DATA MEAN VALUES

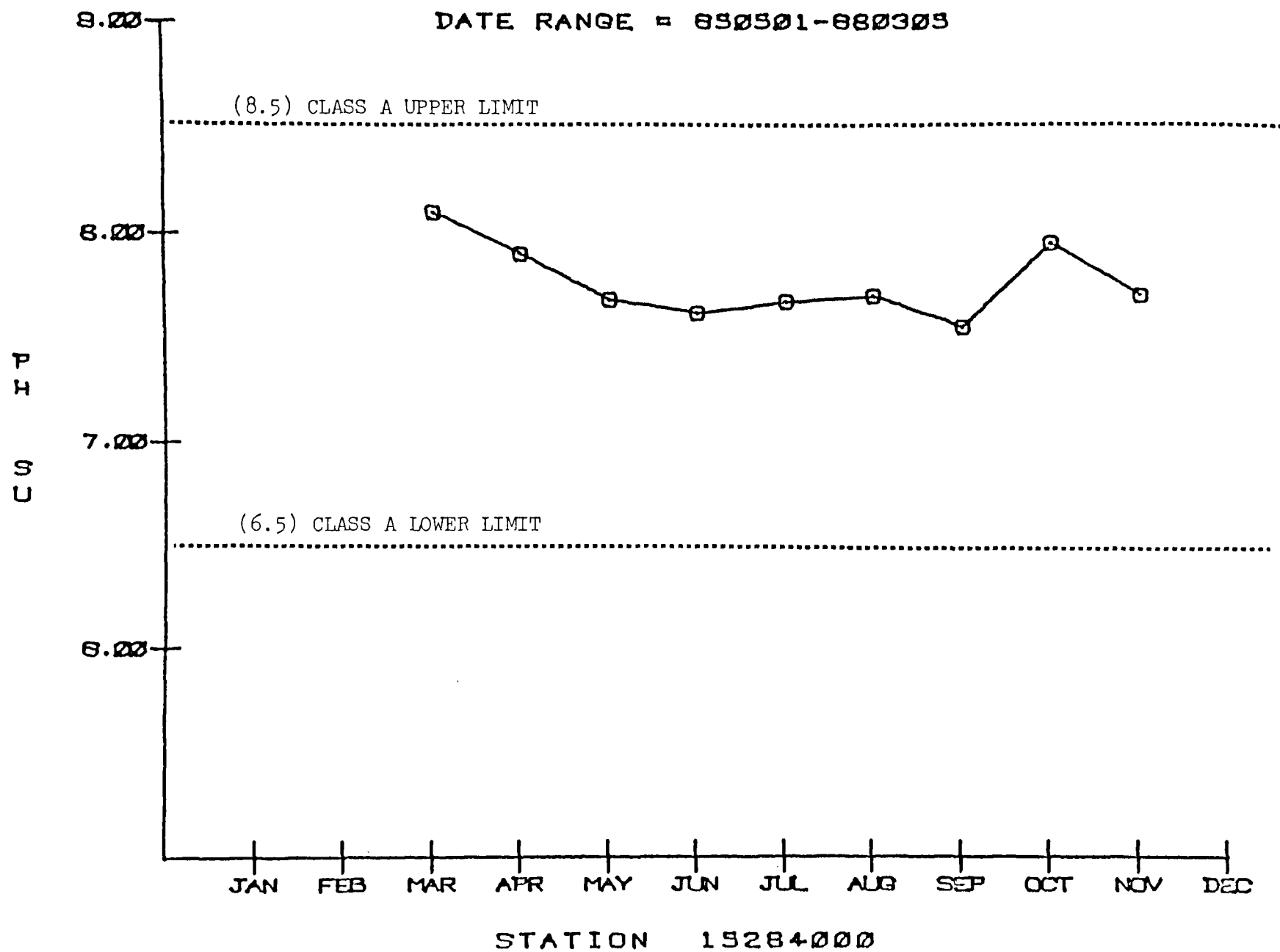
DATE RANGE = 850501-880305



MATANUSKA RIVER AT PALMER

U.S.G.S. DATA MEAN VALUES

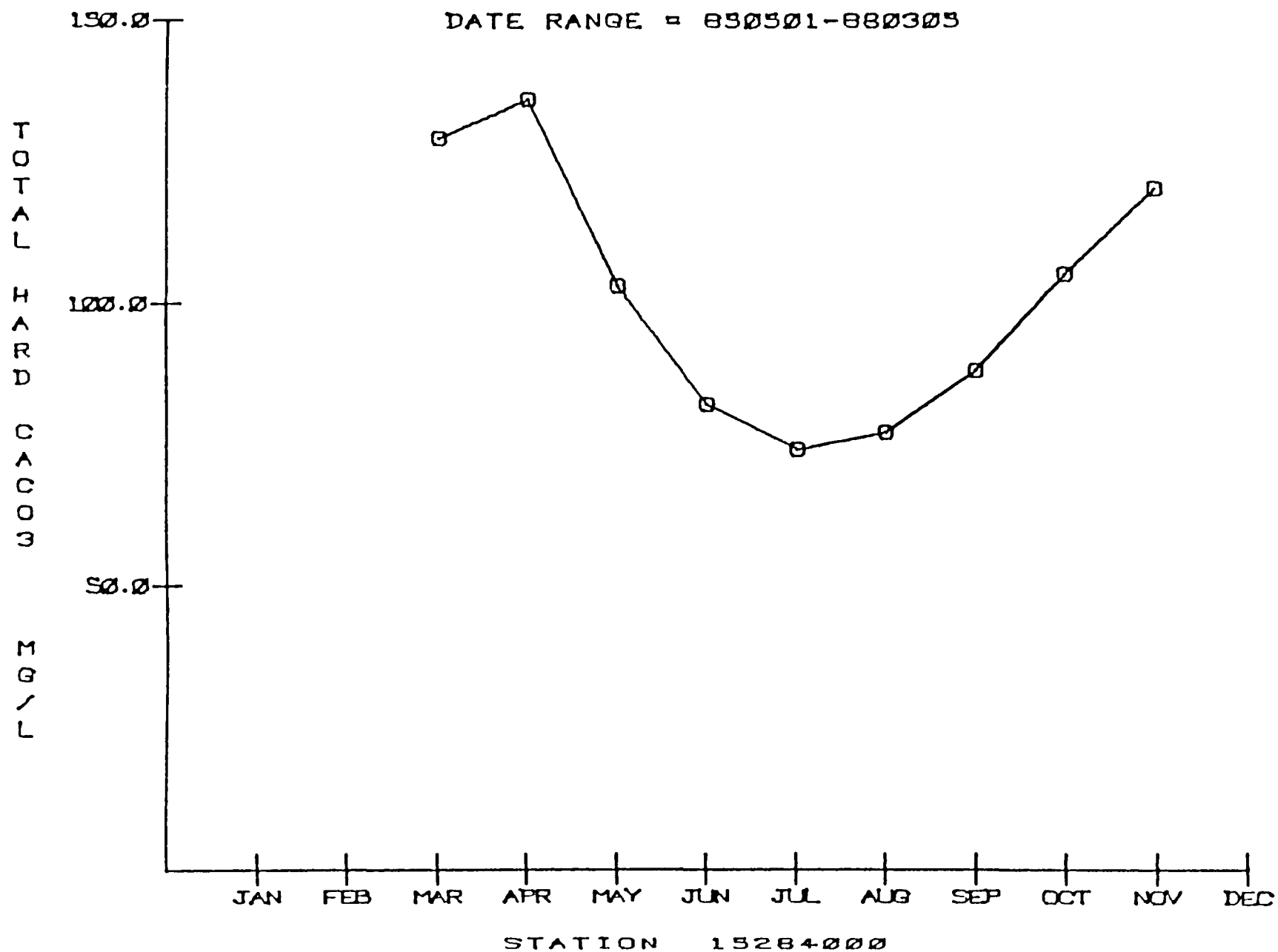
DATE RANGE = 850501-880303



MATANUSKA RIVER AT PALMER

U.S.G.S. DATA MEAN VALUES

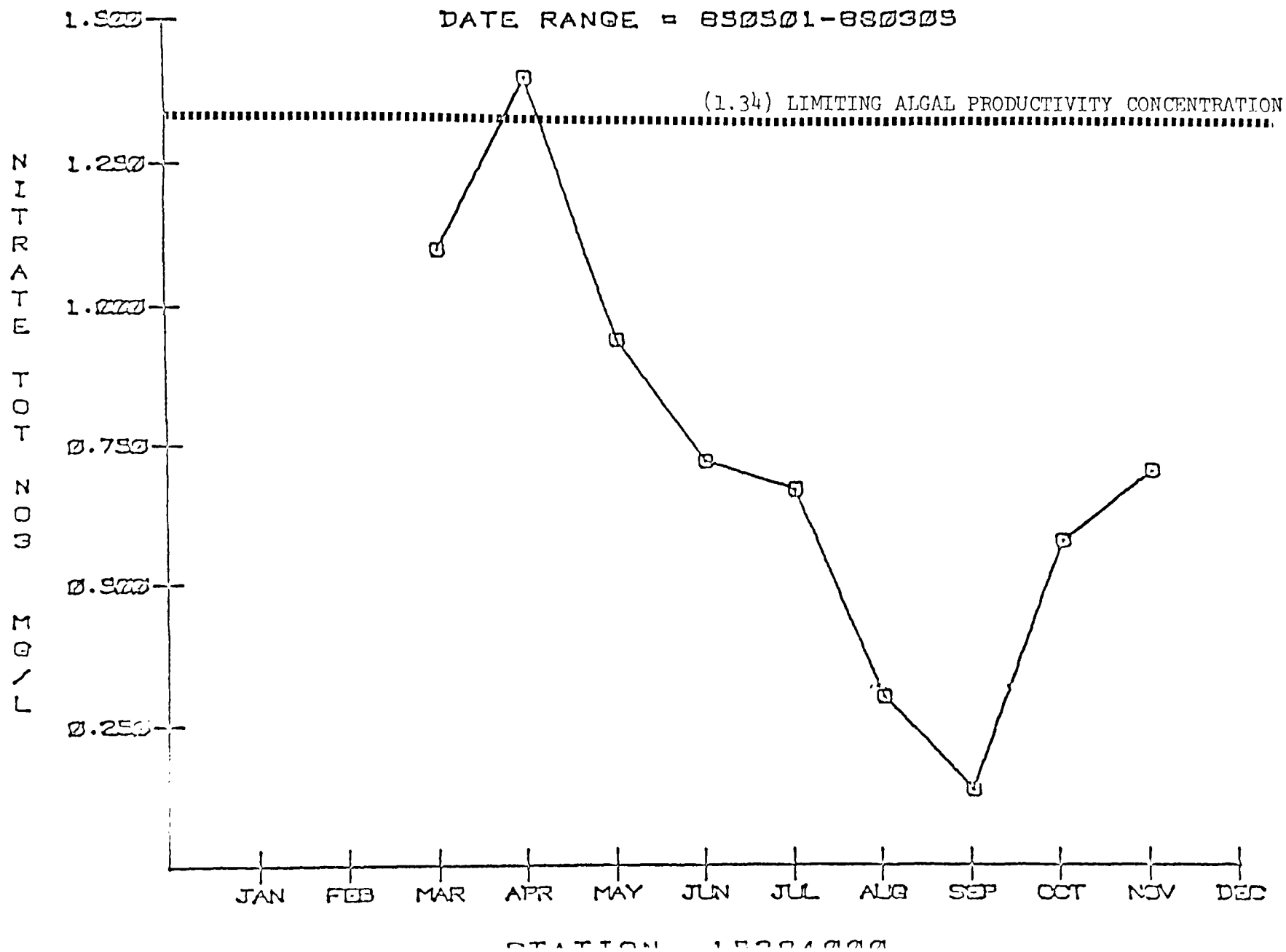
DATE RANGE = 850501-880305



MATANUSKA RIVER AT PALMER

U.S.G.S. DATA MEAN VALUES

DATE RANGE = 850301-880305



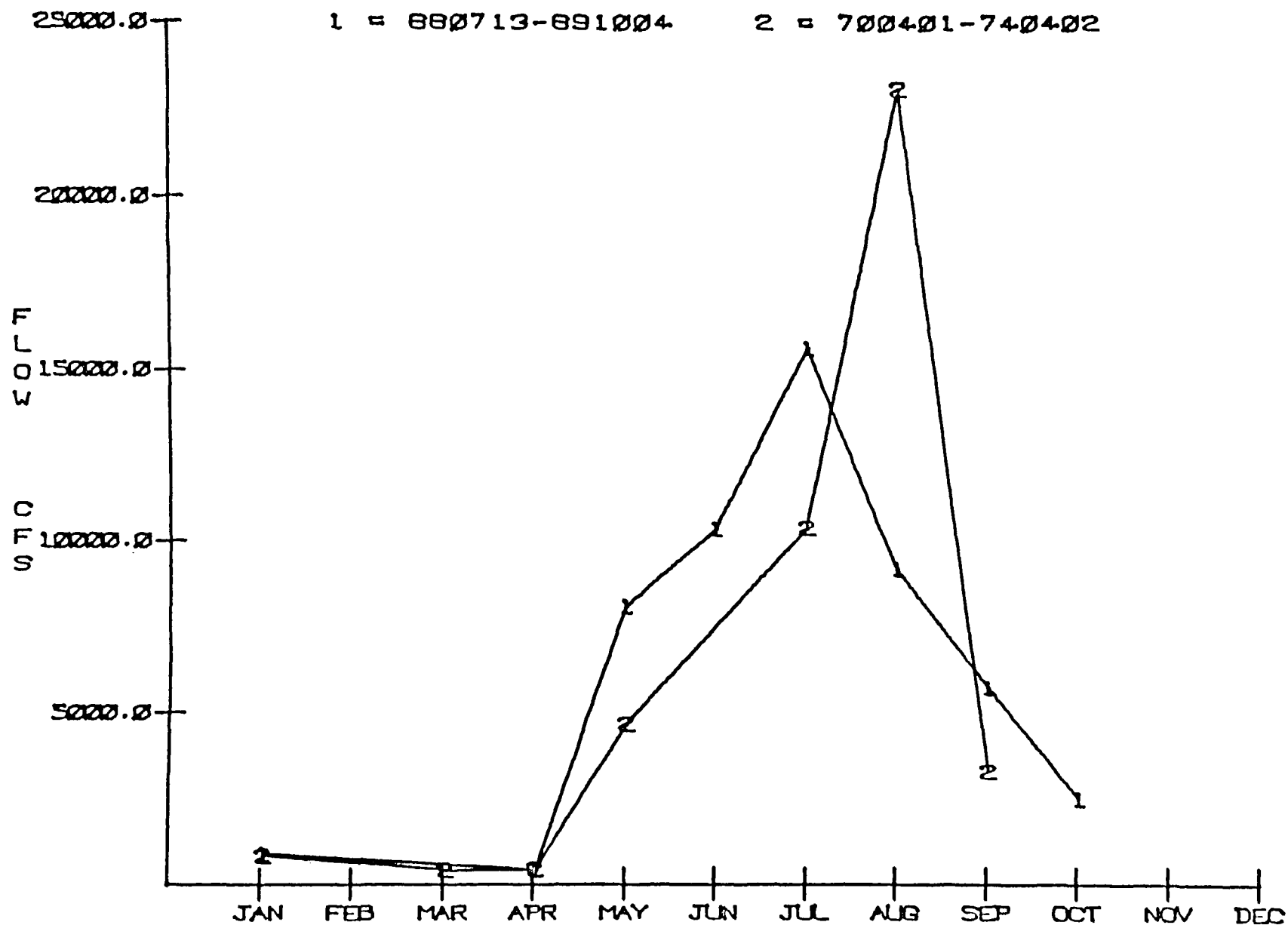
TALKEETNA RIVER AT TALKEETNA

TALKEETNA RIVER NEAR TALKEETNA

U.S.G.S. DATA MEAN VALUES

1 = 680713-691004

2 = 700401-740402

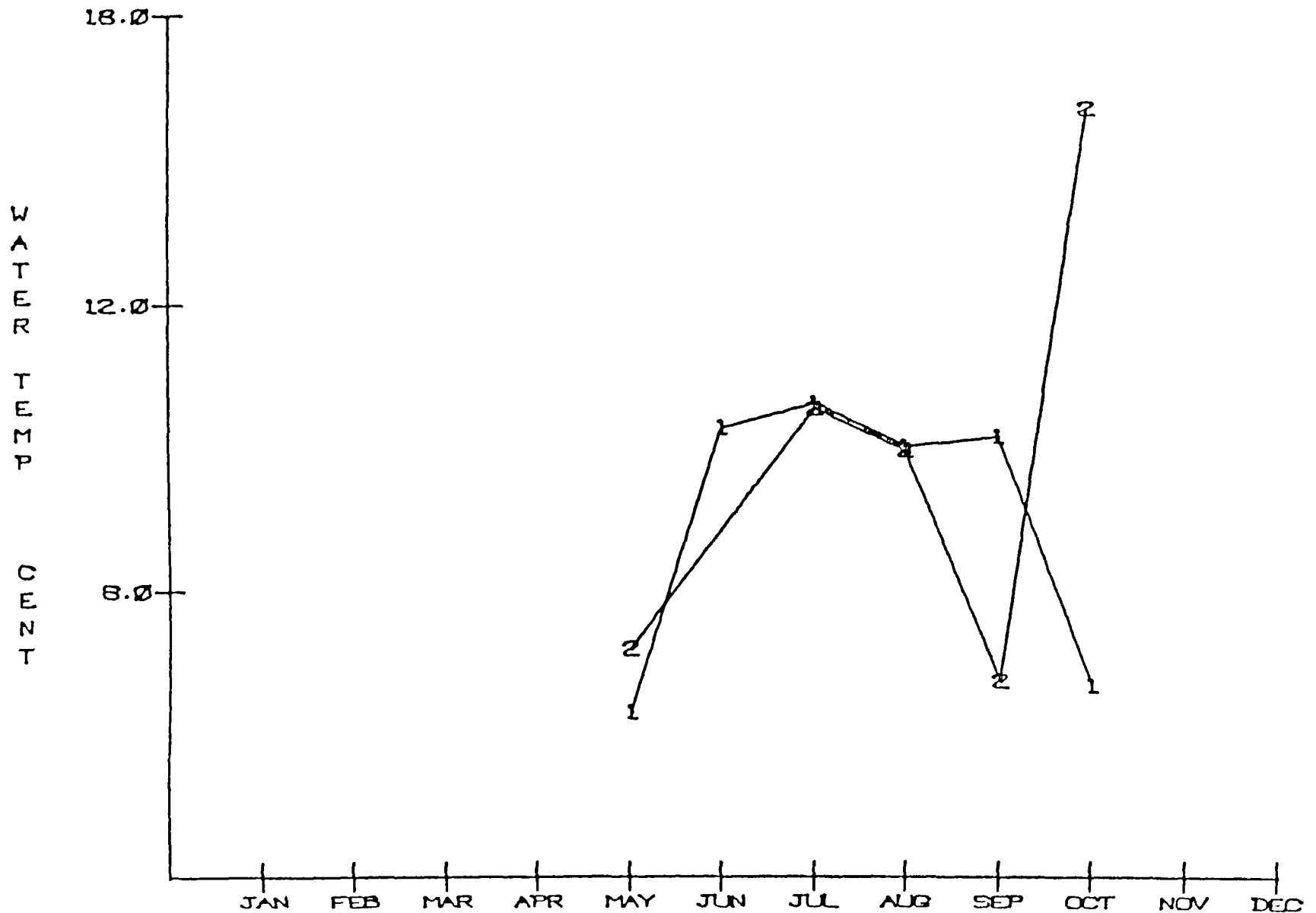


STATION 10000000

TALKEETNA RIVER NEAR TALKEETNA

U.S.G.S. DATA MEAN VALUES

1 = 680713-681004 2 = 700401-740402

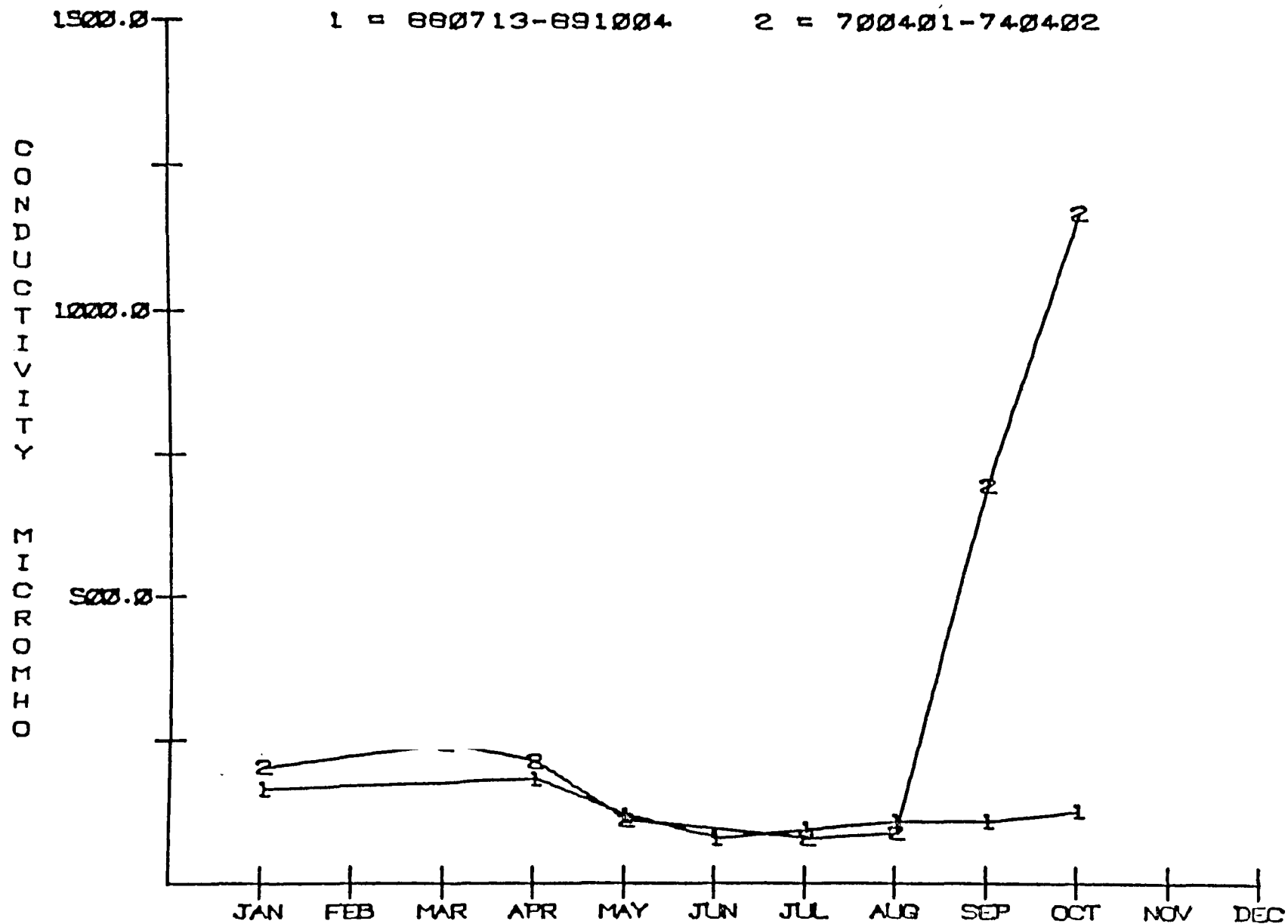


TALKEETNA RIVER NEAR TALKEETNA

U.S.G.S. DATA MEAN VALUES

1 = 680713-691004

2 = 700401-740402

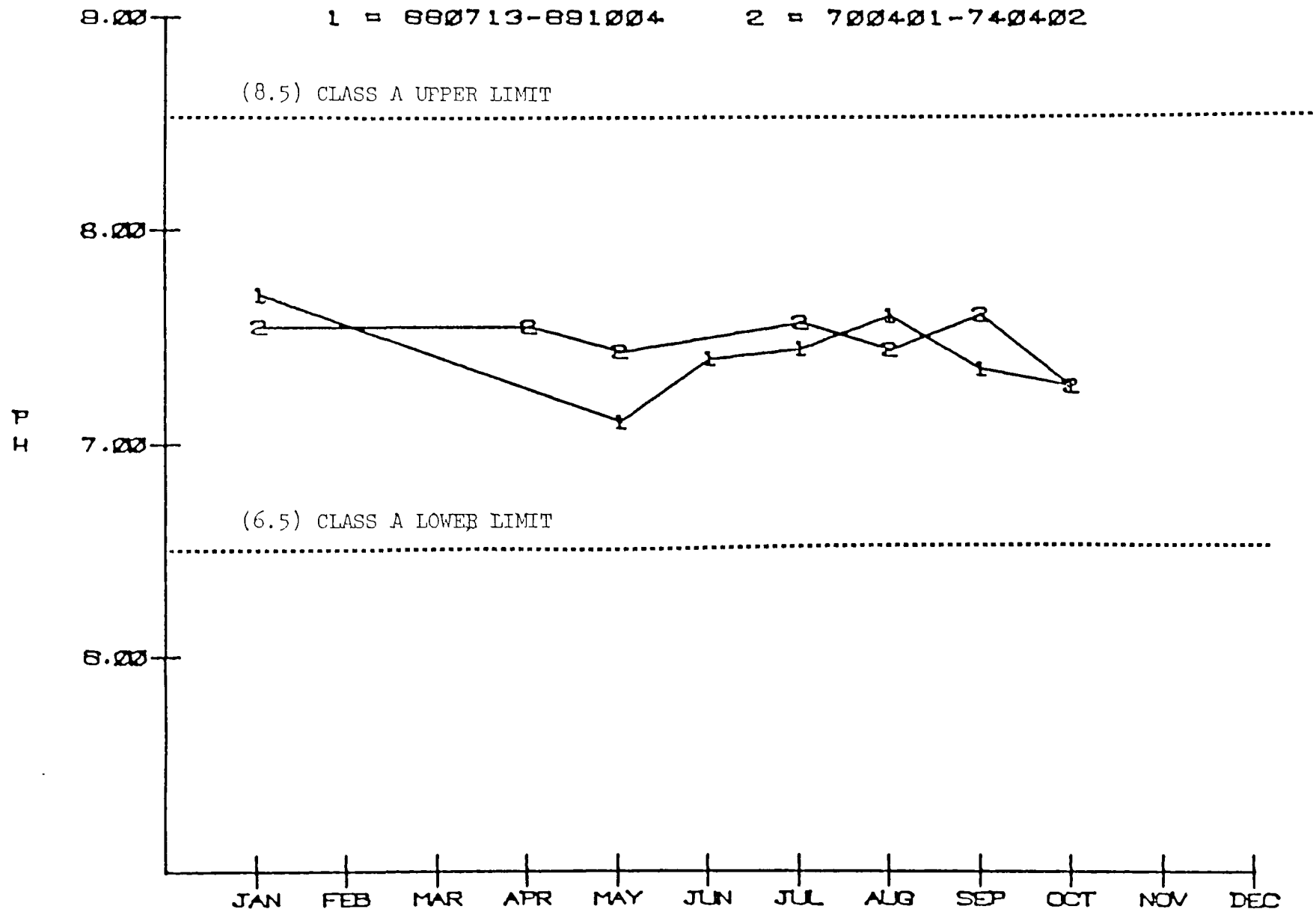


TALKEETNA RIVER NEAR TALKEETNA

U.S.G.S. DATA MEAN VALUES

1 = 680713-681004

2 = 700401-740402

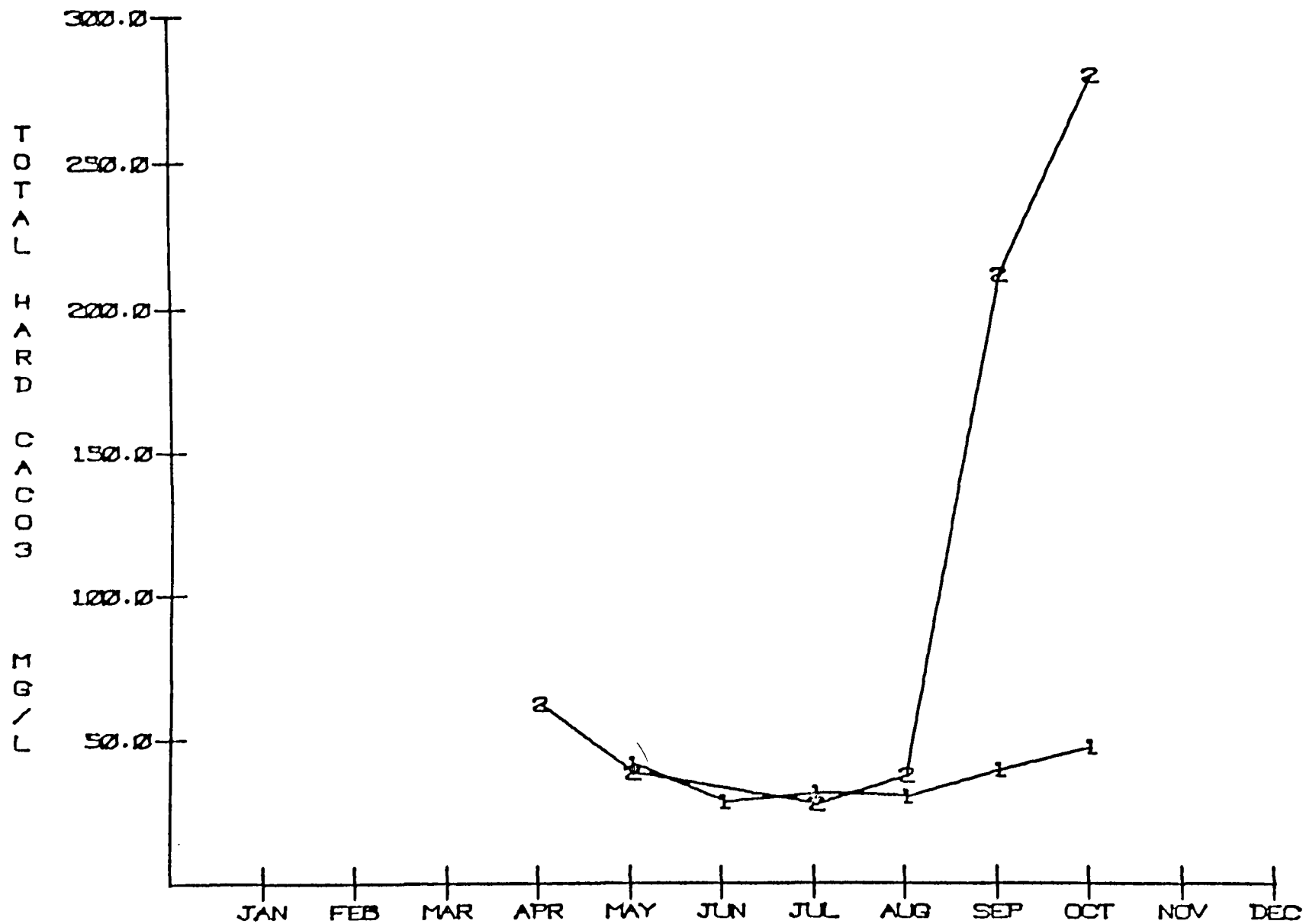


STATION 15282700

TALKEETNA RIVER NEAR TAZEWELL

U.S.G.S. DATA MEAN VALUES

1 = 660713-681004 2 = 700401-740402



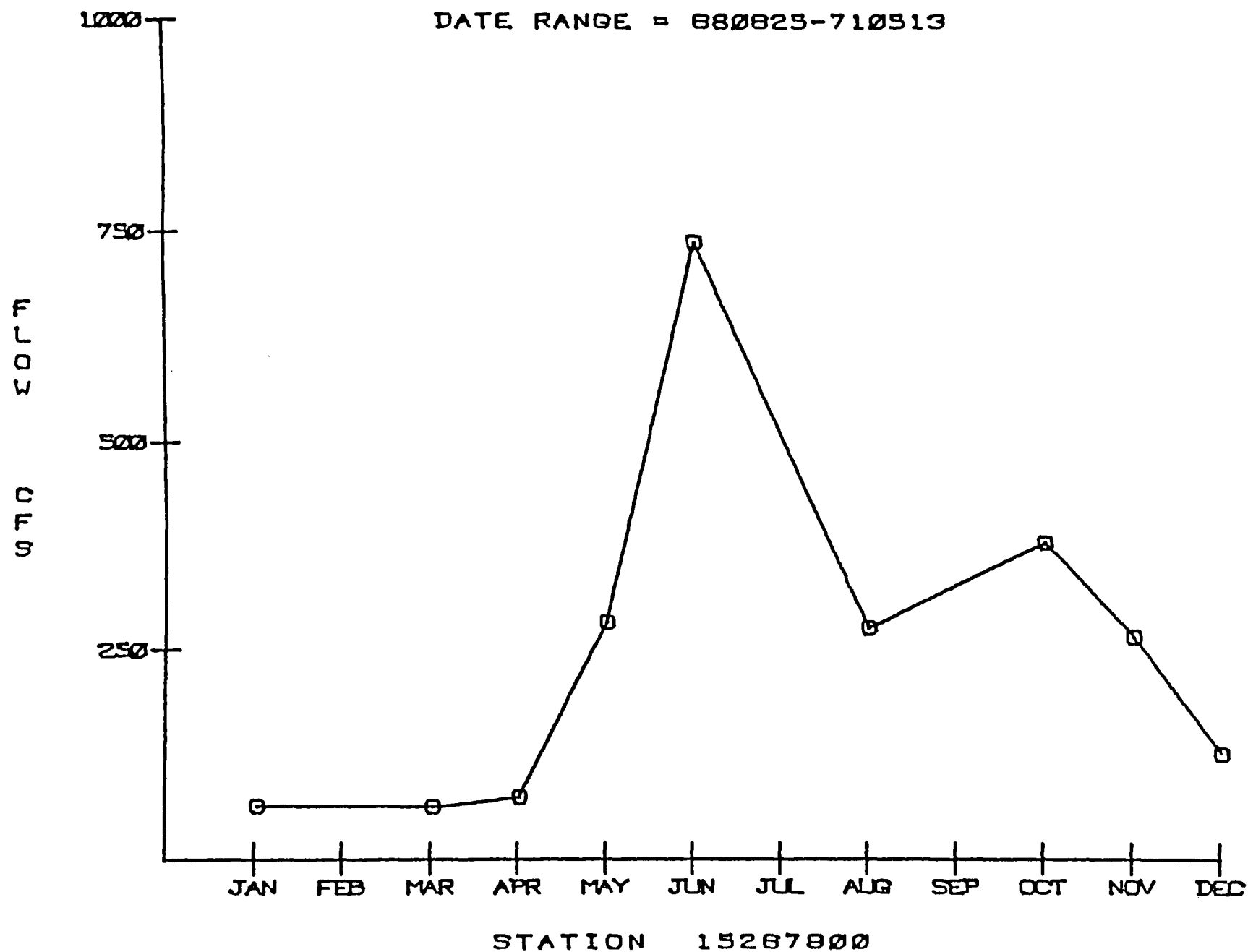
STATION 18202700

RESURRECTION CREEK NEAR HOPE

RESURRECTION I. NEAR HOPE

U.S.G.S. DATA MEAN VALUES

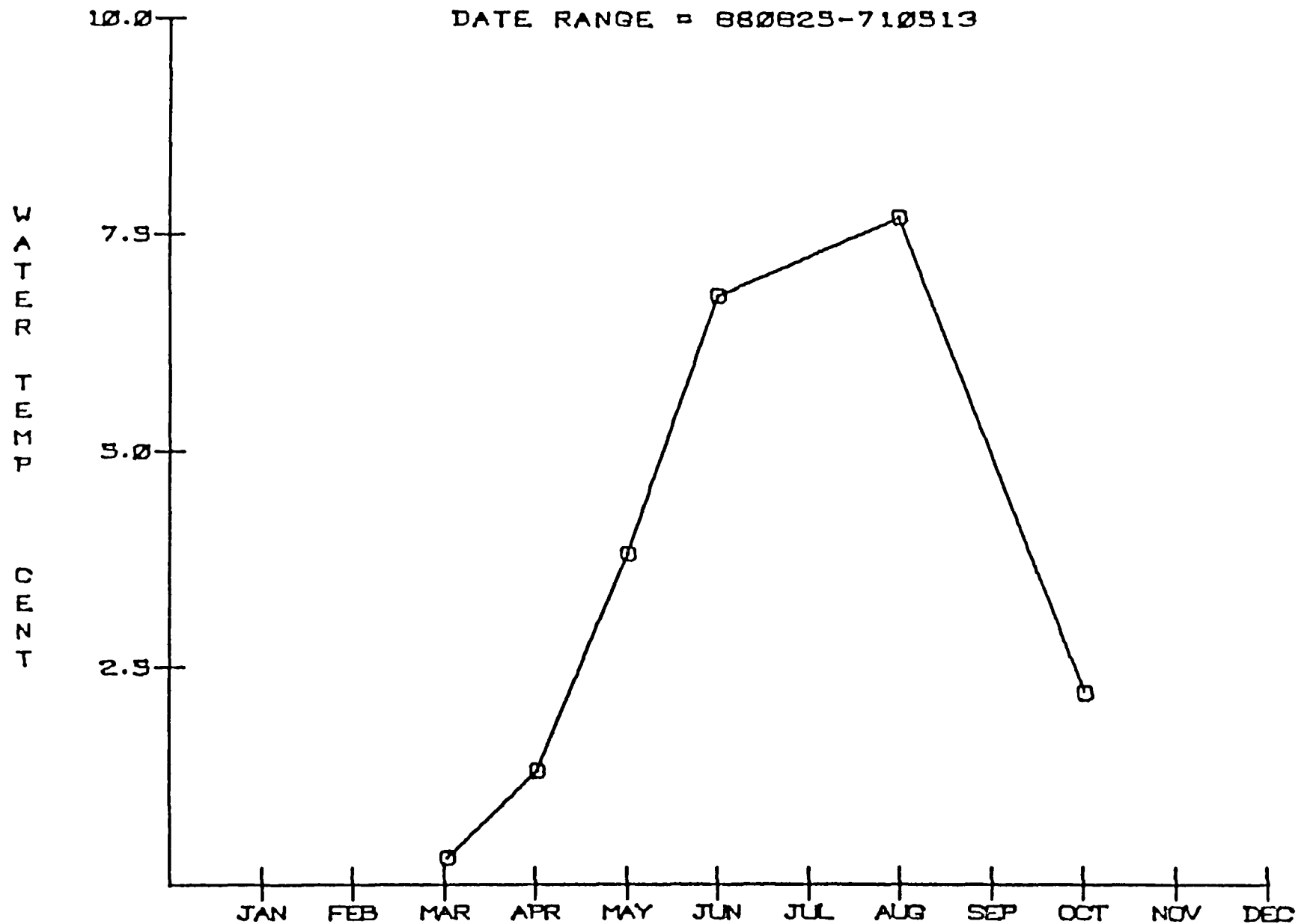
DATE RANGE = 680825-710513



RESURRECTION C. . NEAR HOPE

U.S.G.S. DATA MEAN VALUES

DATE RANGE = 880825-710513

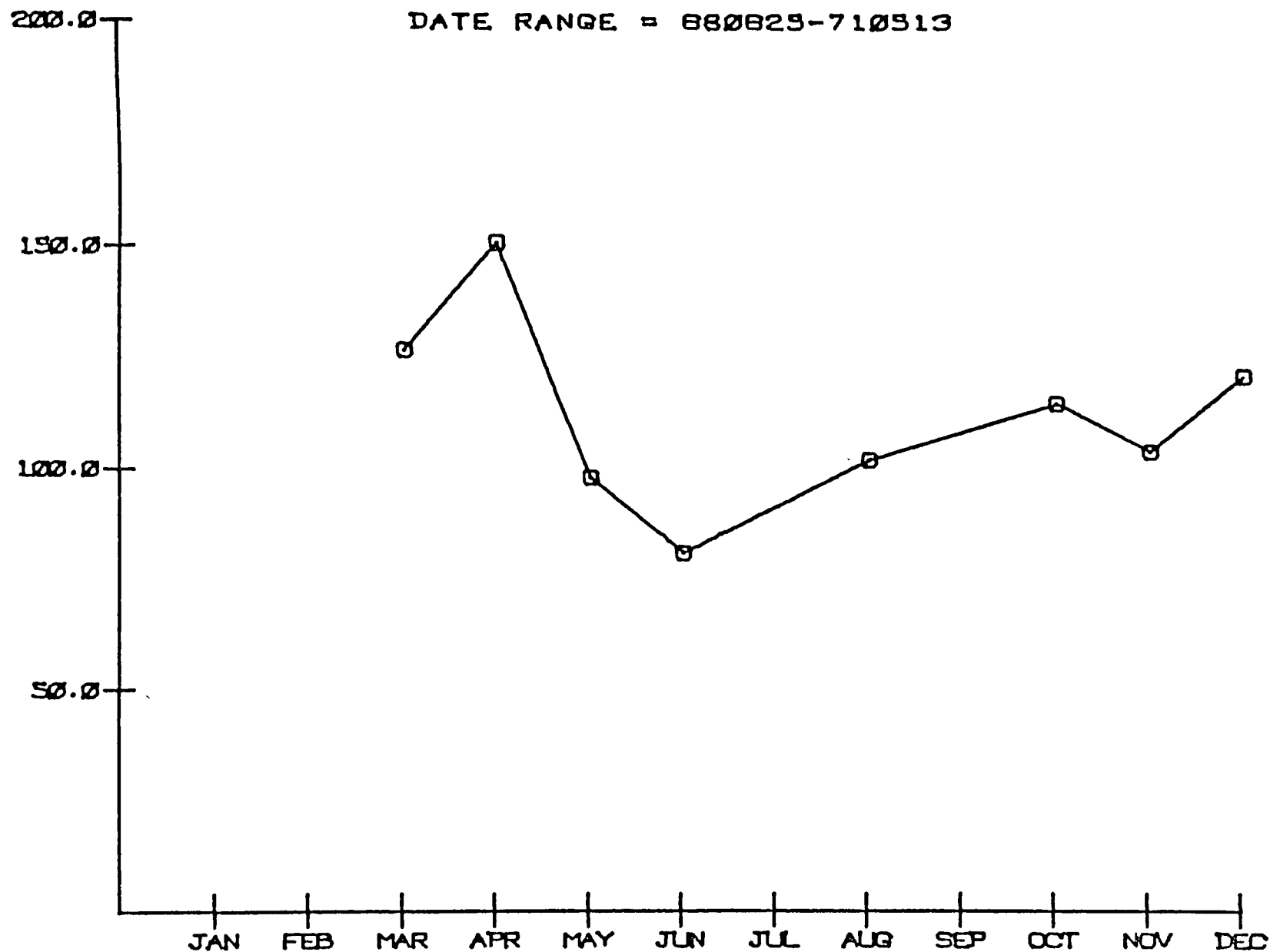


STATION 15287800

U.S.G.S. DATA MEAN VALUES

DATE RANGE = 880829-710513

CONDUCTIVITY
MICROMHO

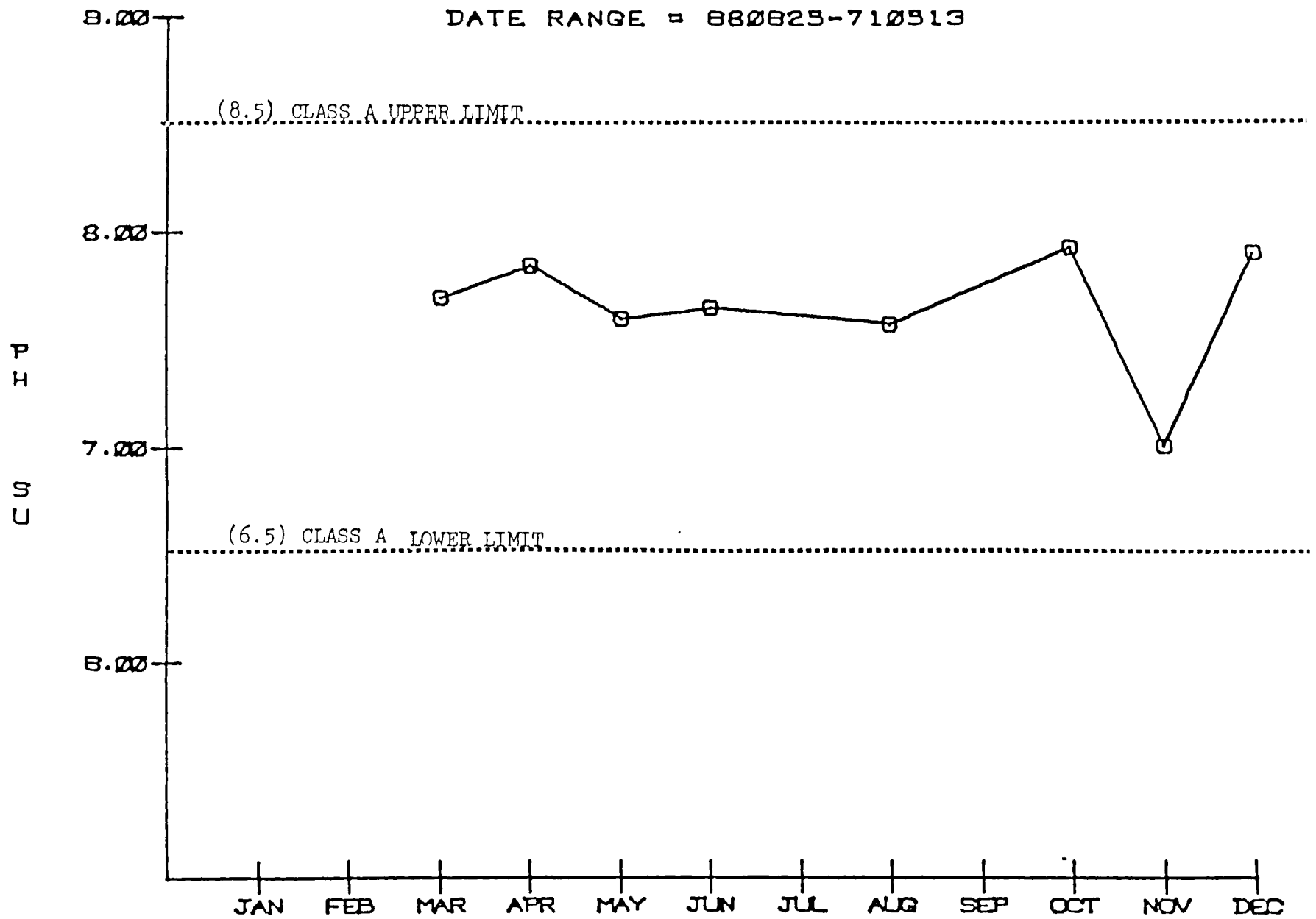


STATION 15287800

DEUR... 10... MEAN HYPE

U.S.G.S. DATA MEAN VALUES

DATE RANGE = 880825-710513

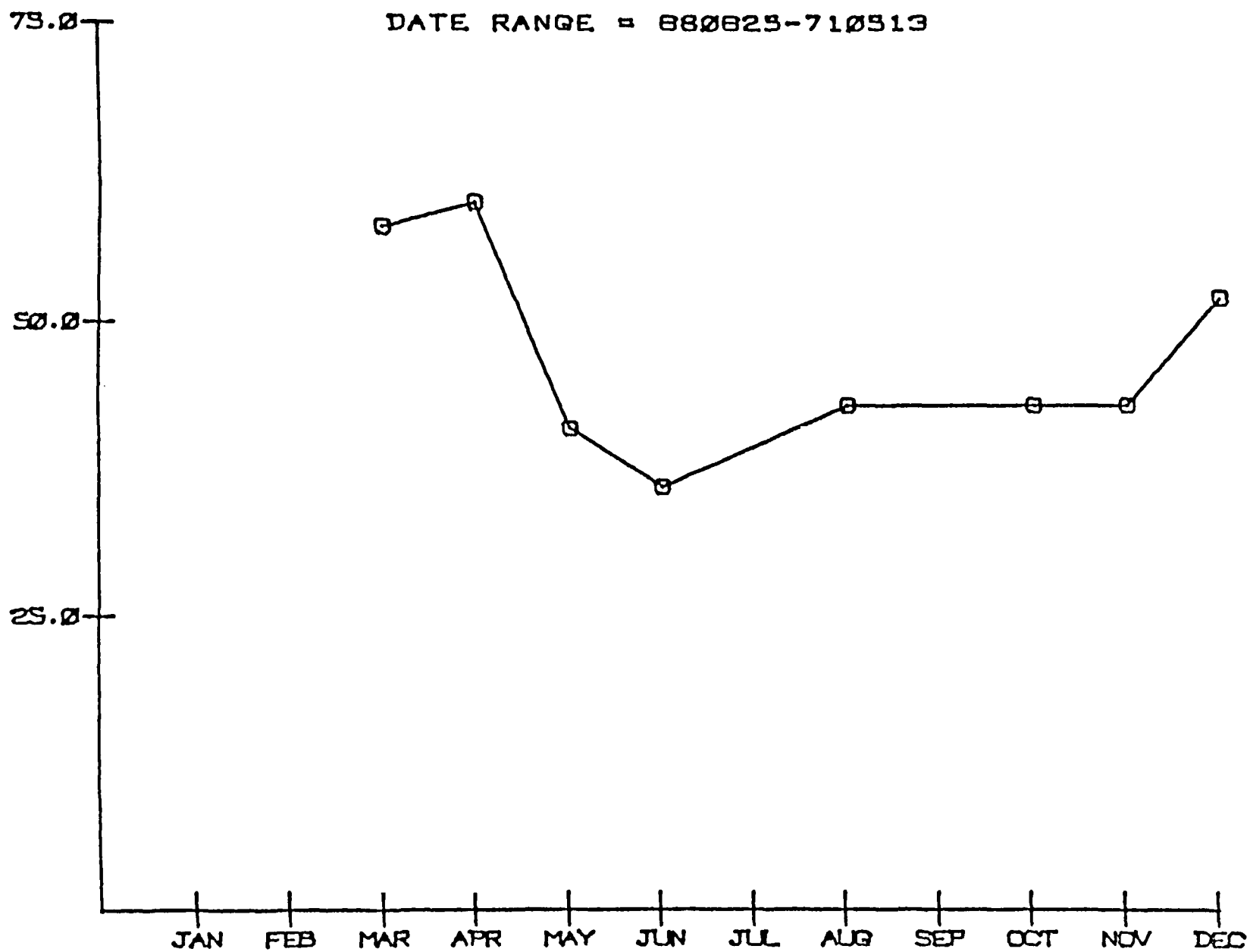


STATION 15267800

U.S.G.S. DATA MEAN VALUES

DATE RANGE = 880825-710513

TOTAL HARD CACCO3 MG/L



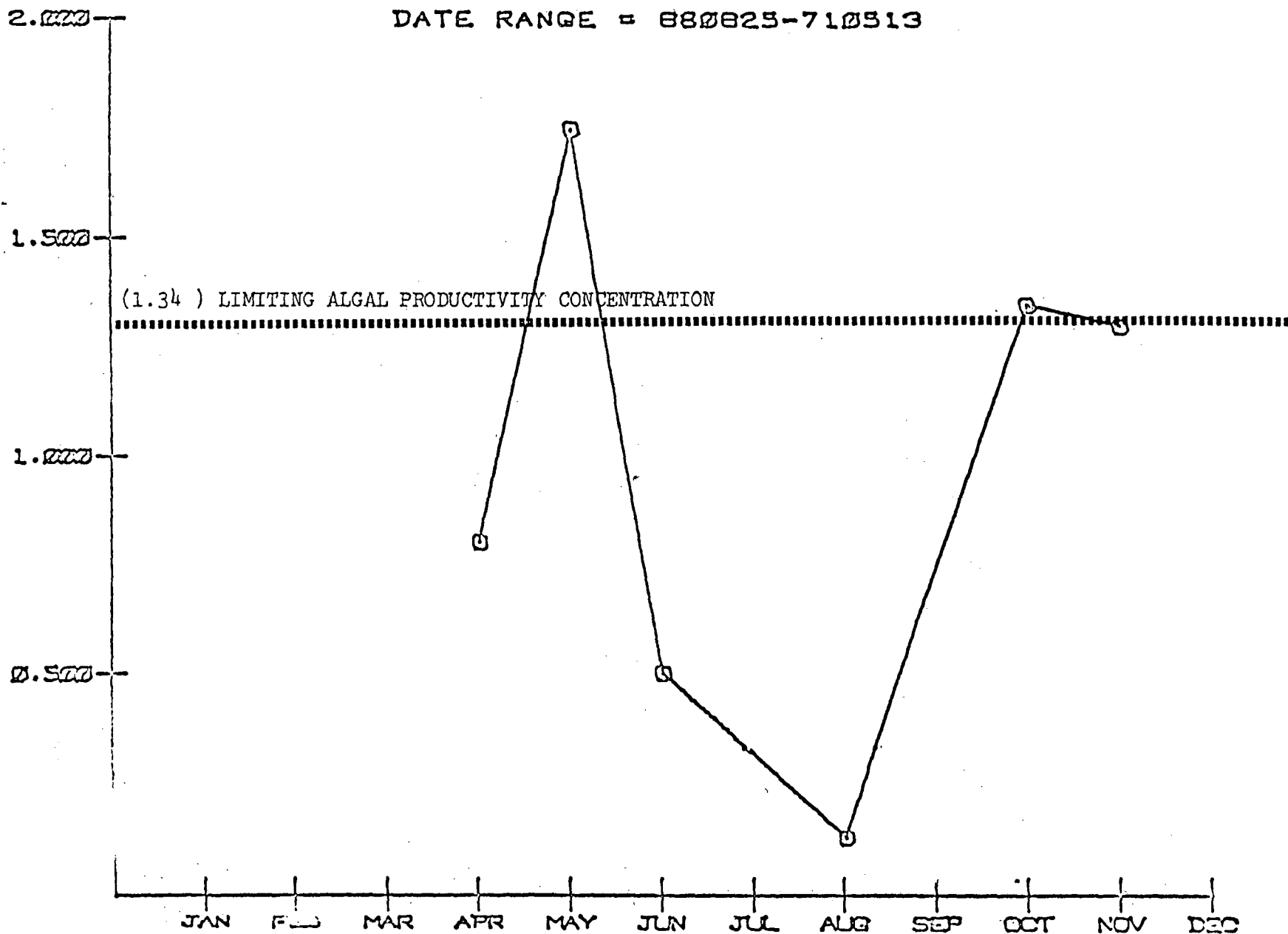
STATION 15287800

RESURRECTION C. NEAR HOPE

U.S.G.S. DATA MEAN VALUES

DATE RANGE = 880825-710513

NITRATE
TOTAL
NO3
/G/L



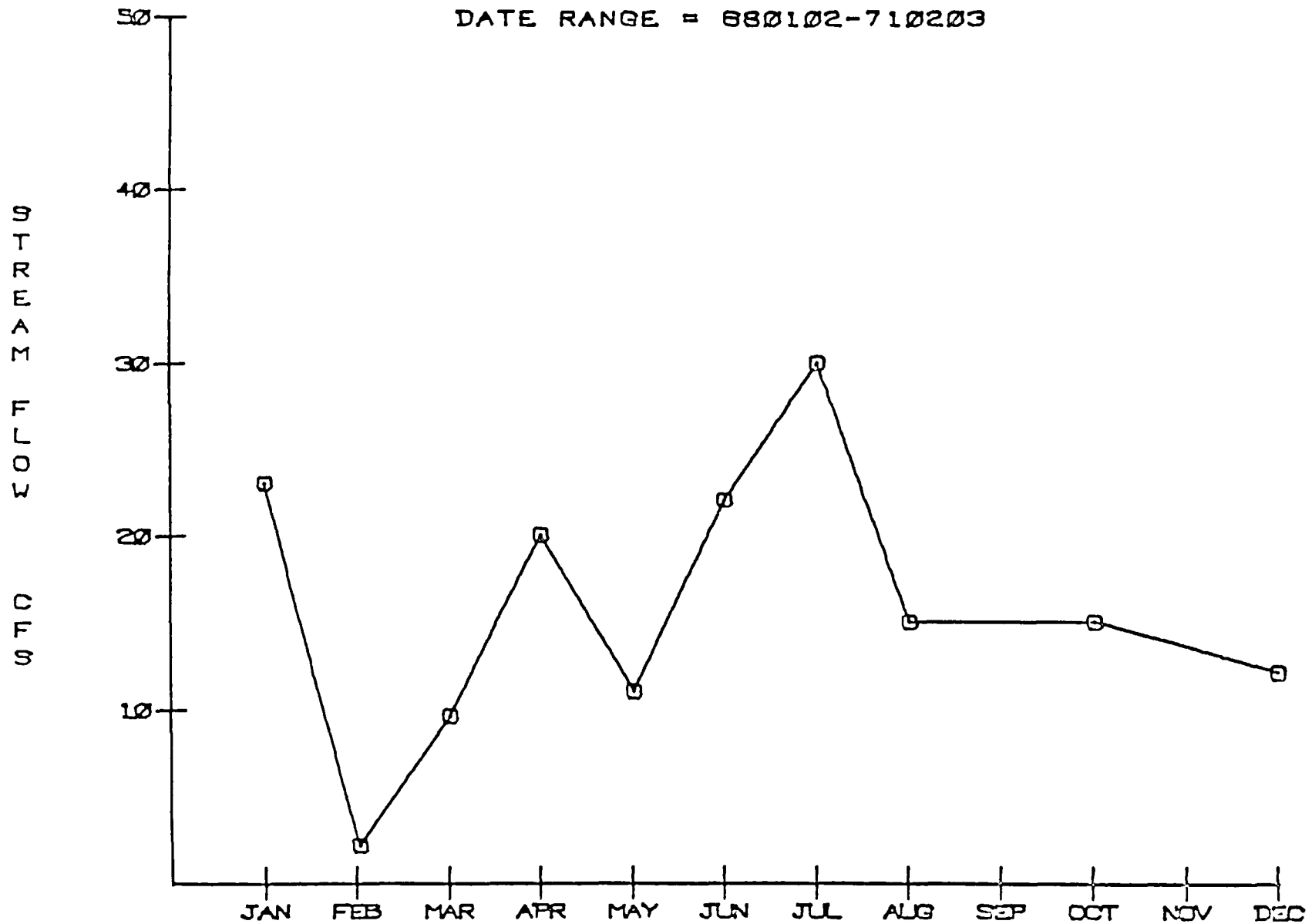
STATION 15287800

CHESTER CREEK

CHESTER CREEK AT ARCTIC BLVD

U.S.G.S. DATA MEAN VALUES

DATE RANGE = 680102-710203



STATION 15275100

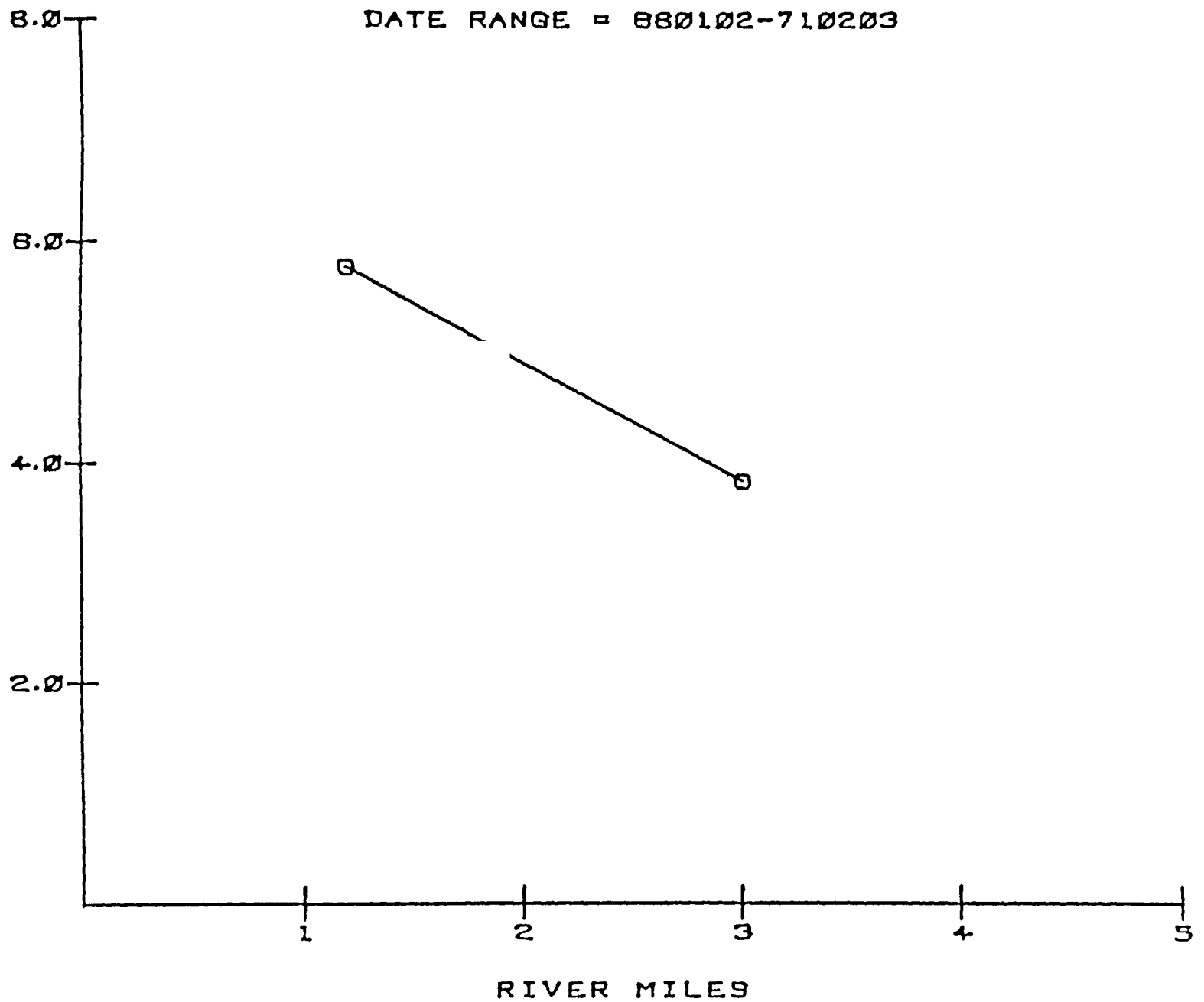
U.S.G.S. DATA MEAN VALUES

DATE RANGE = 880102-710203

W
A
T
E
R

T
E
M
P

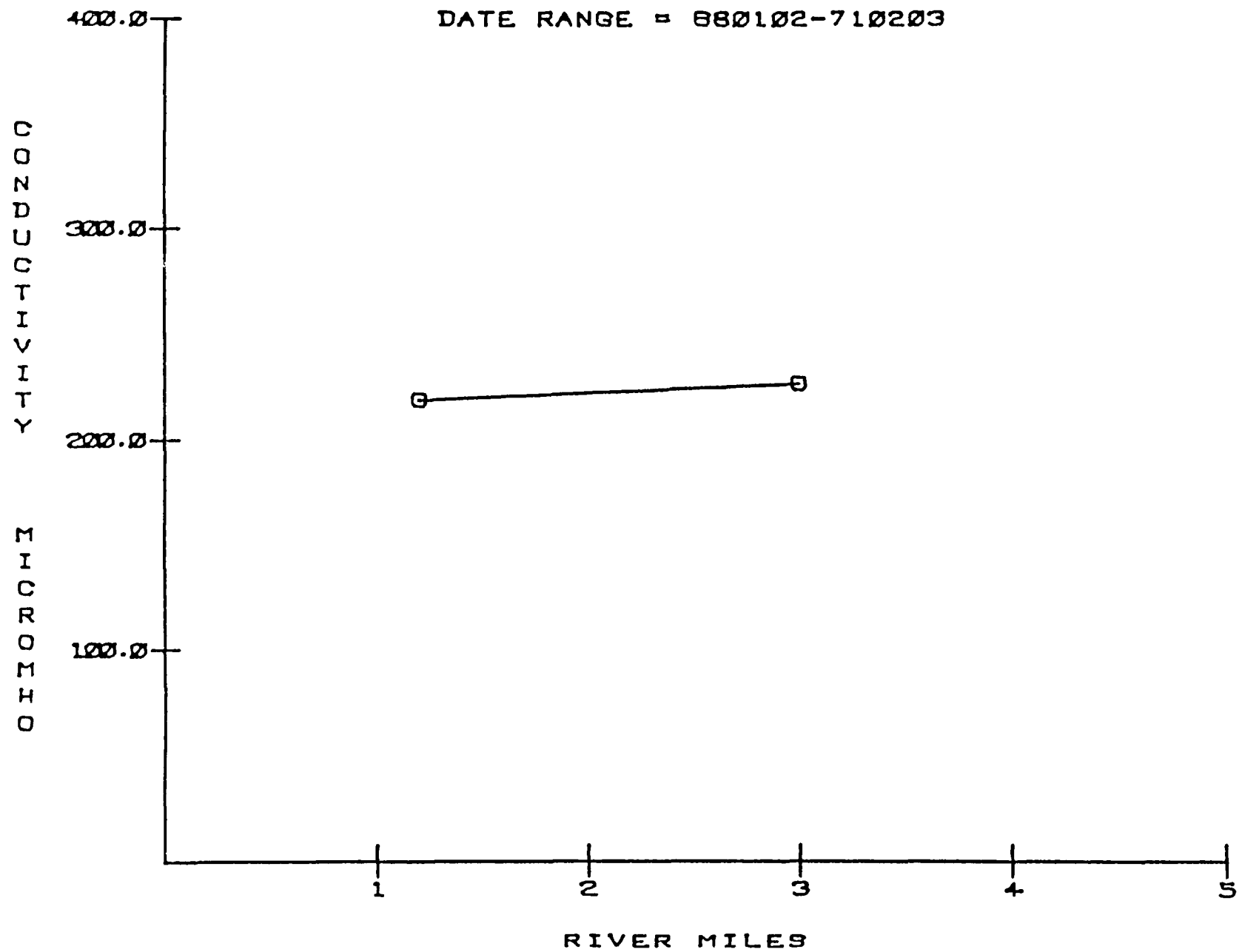
C
E
N
T



CHESTER CREEK

U.S.G.S. DATA MEAN VALUES

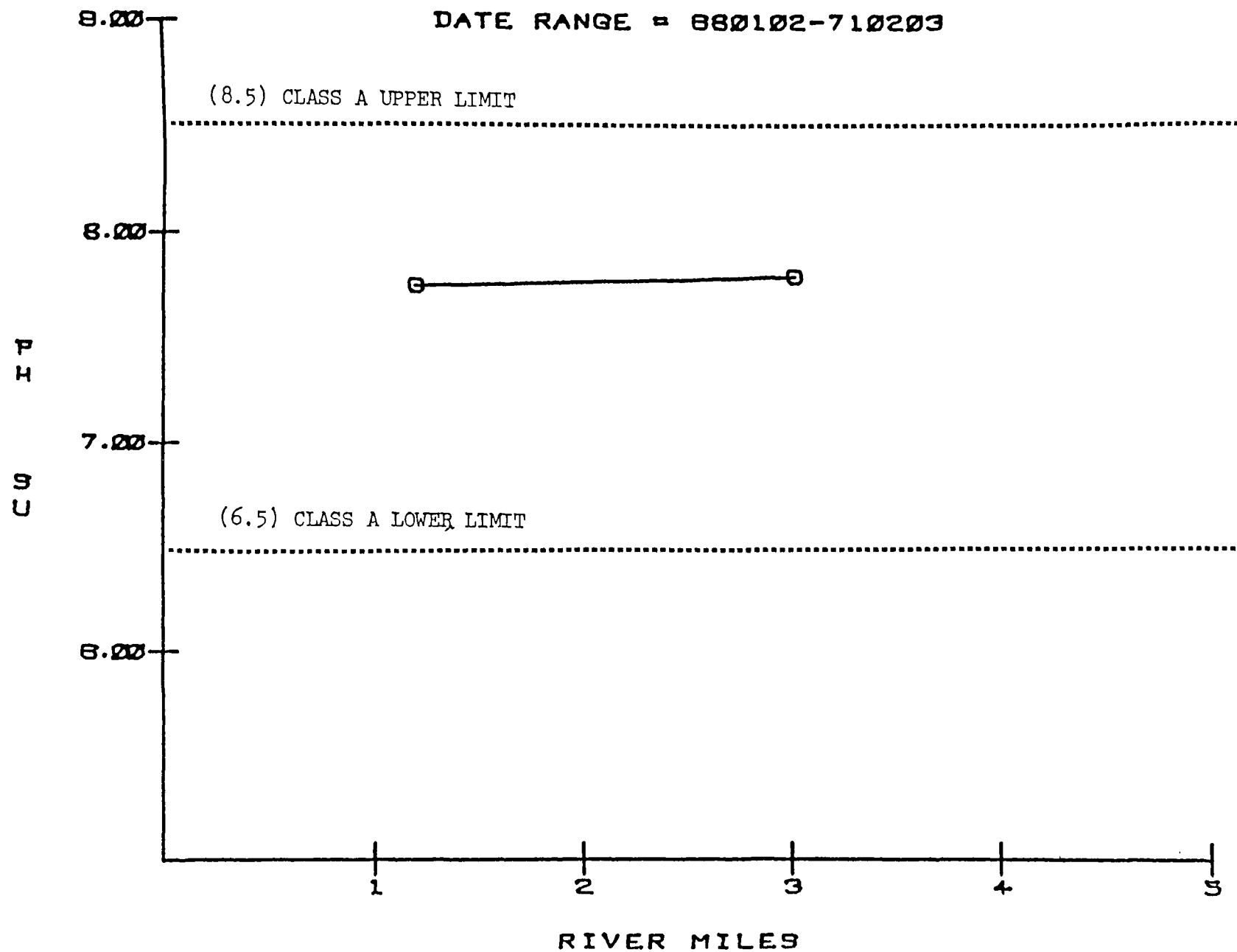
DATE RANGE = 680102-710203



CHESTER CREEK

U.S.G.S. DATA MEAN VALUES

DATE RANGE = 880102-710203



CHESTER CREEK

U.S.G.S. DATA MEAN VALUES

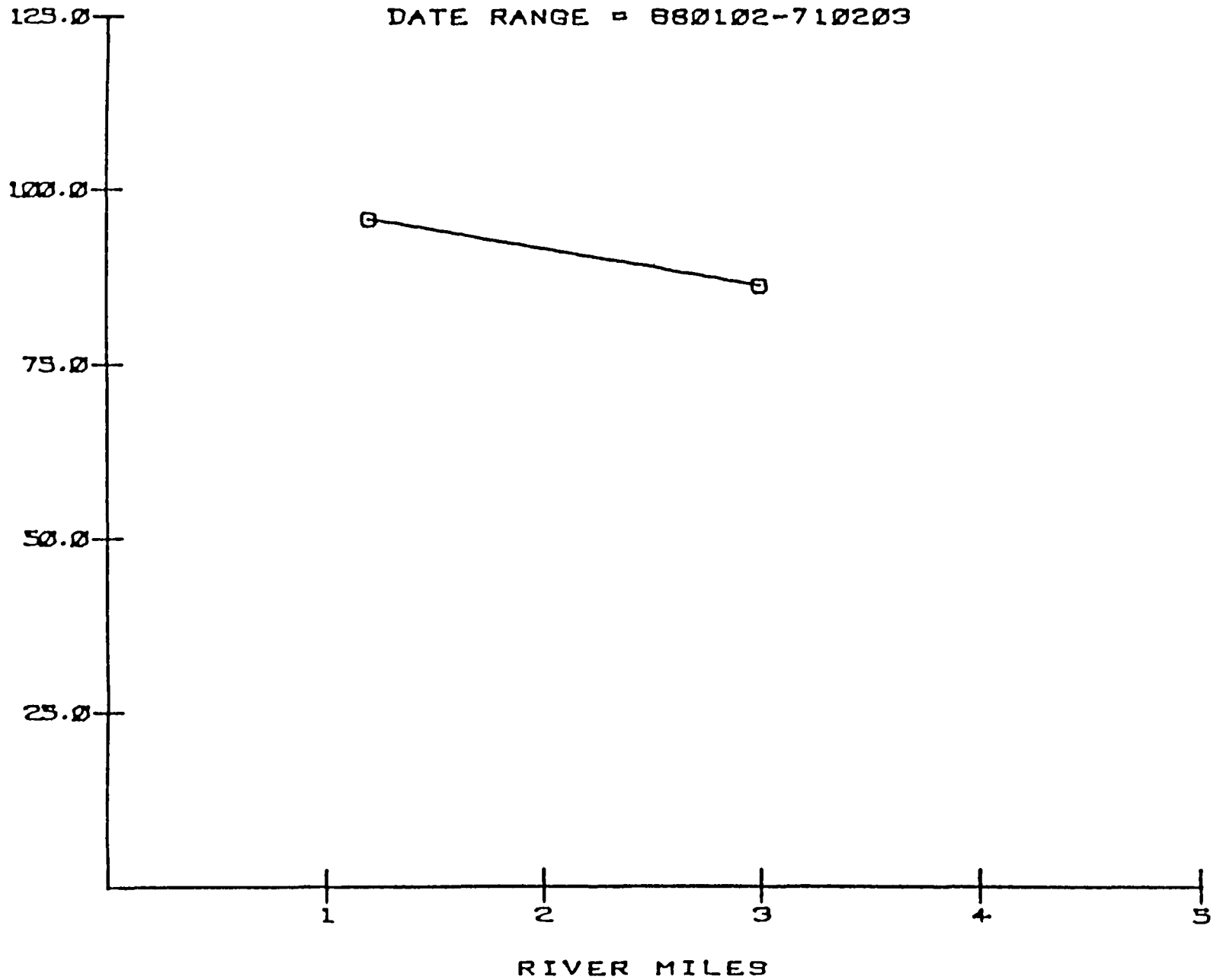
DATE RANGE = 880102-710203

T
O
T
A
L

H
A
R
D

C
A
C
O
3

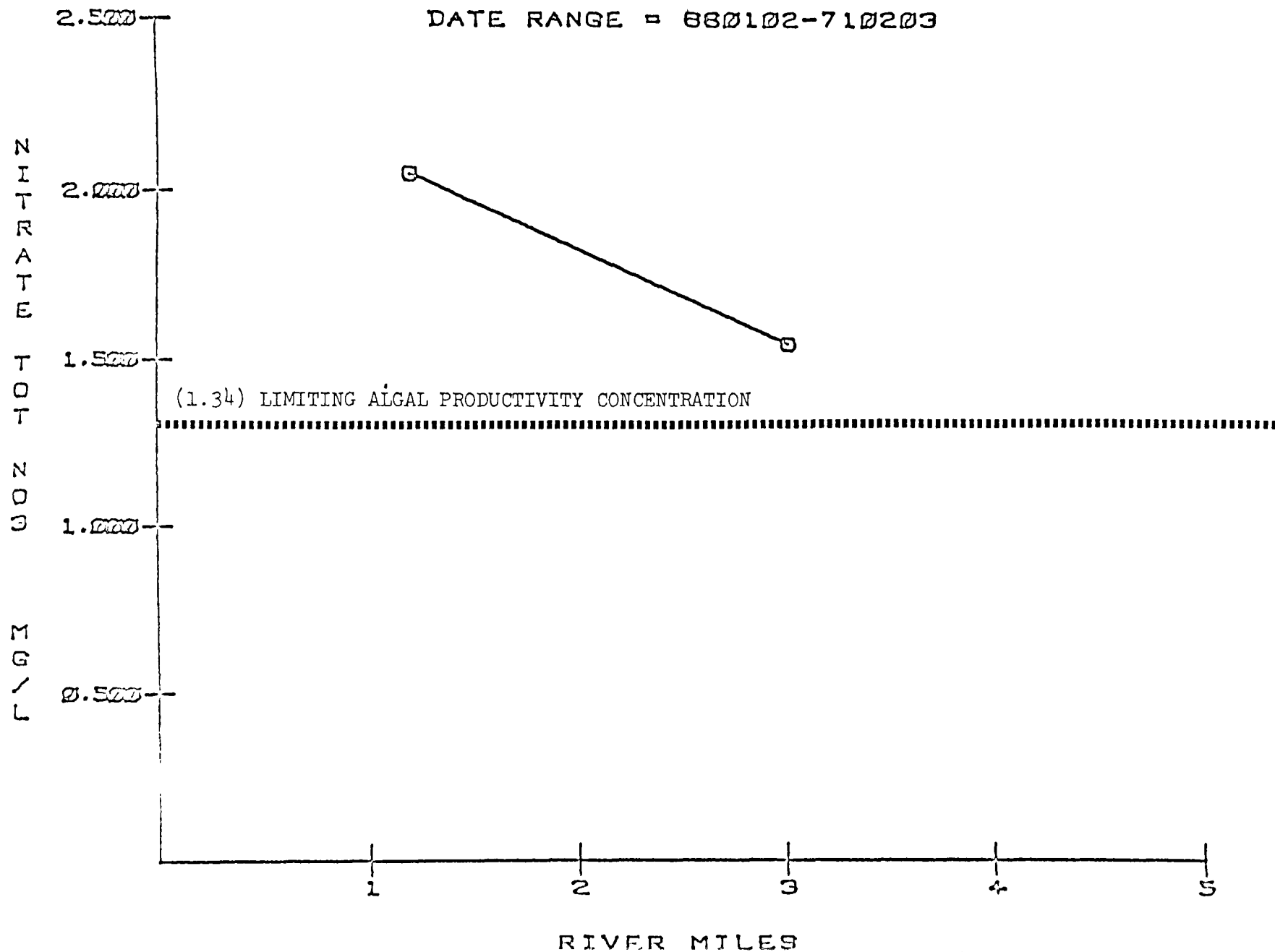
M
G
/
L



CHESTER CREEK

U.S.G.S. DATA MEAN VALUES

DATE RANGE = 680102-710203



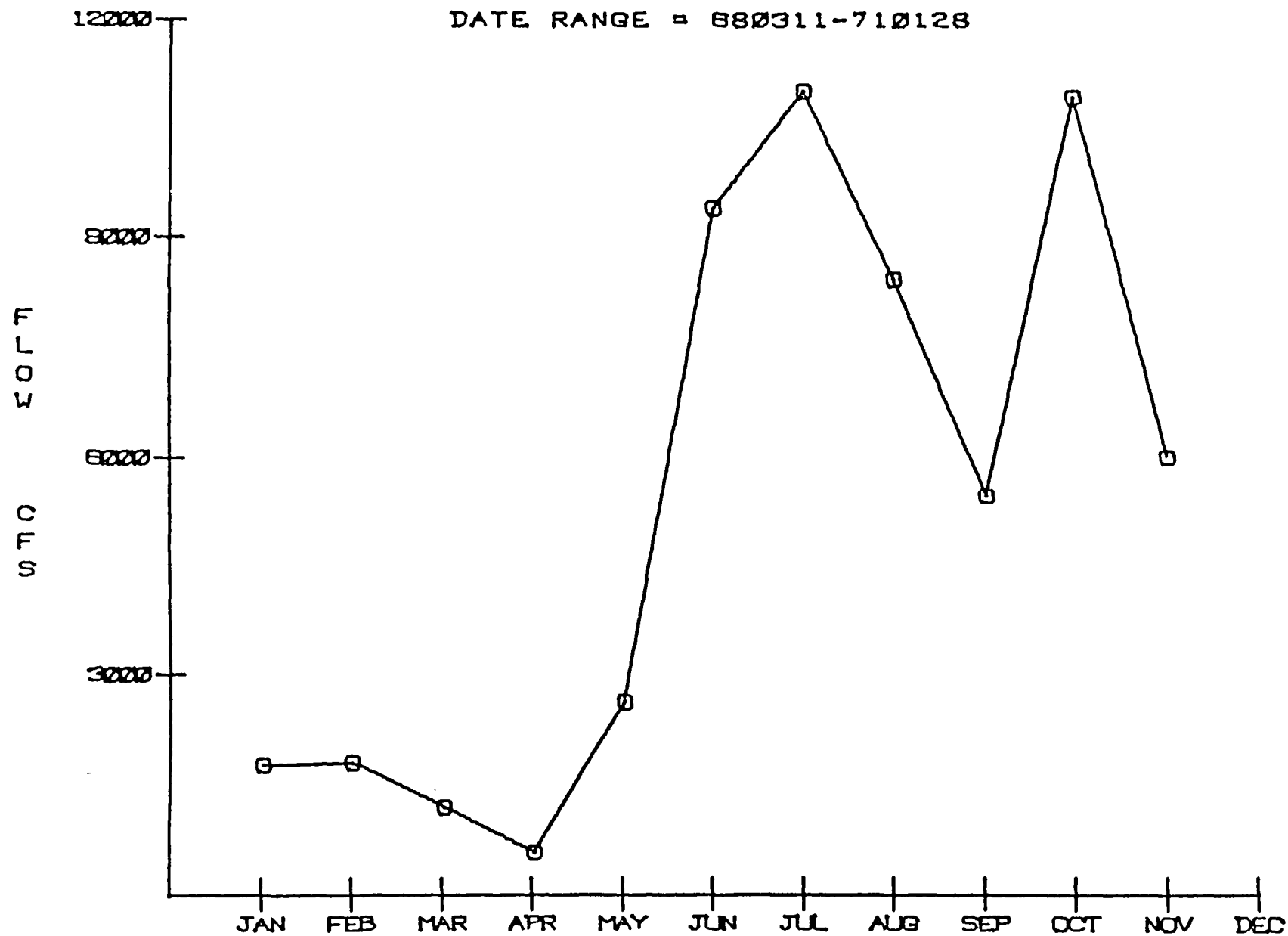
KENAI SUB-BASIN

KENAI RIVER NEAR SOLDOTNA

RENAI REVL.

U.S.G.S. DATA MEAN VALUES

DATE RANGE = 680311-710128



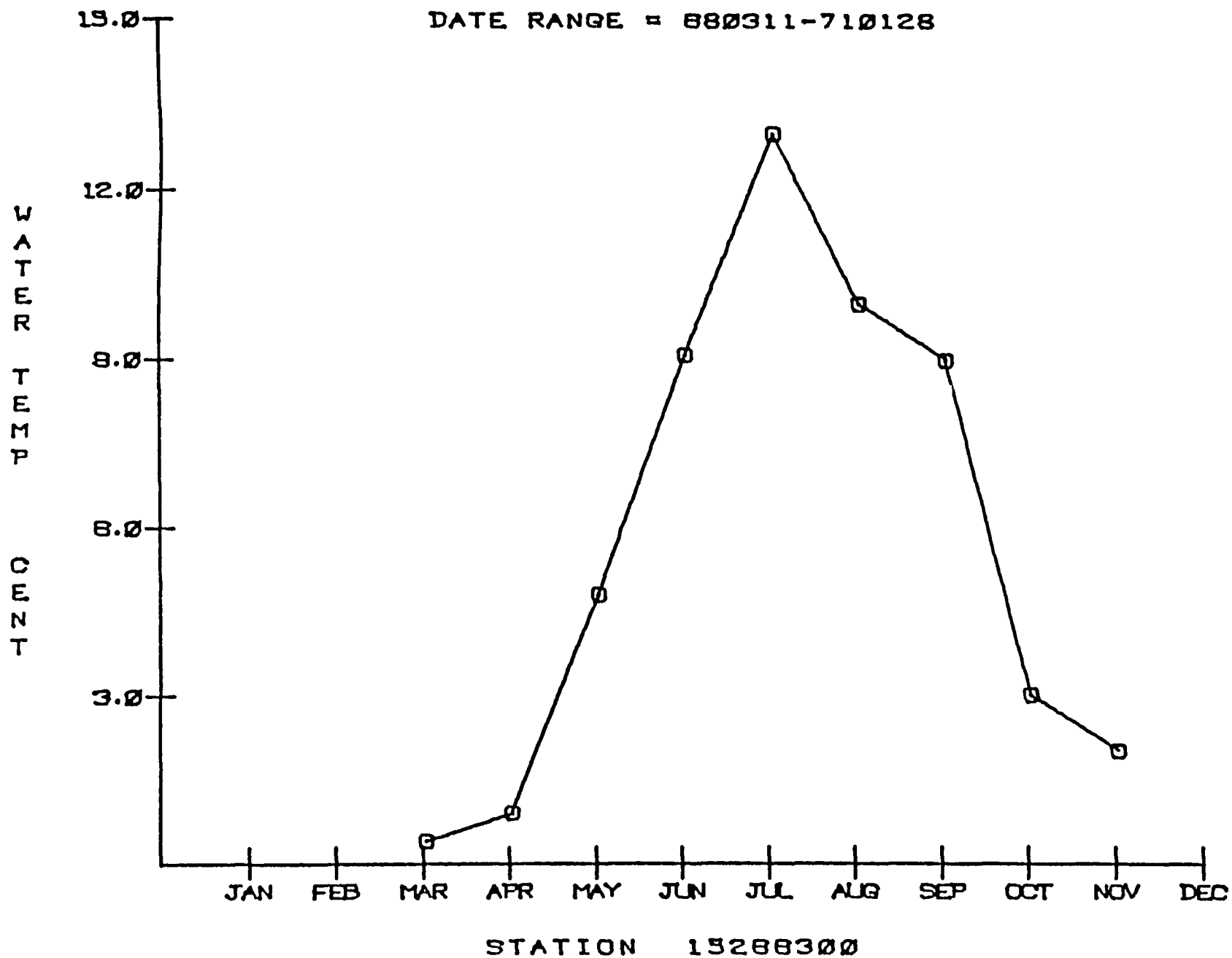
STATION 15266300

KENAI RIVER

SOLDOTNA

U.S.G.S. DATA MEAN VALUES

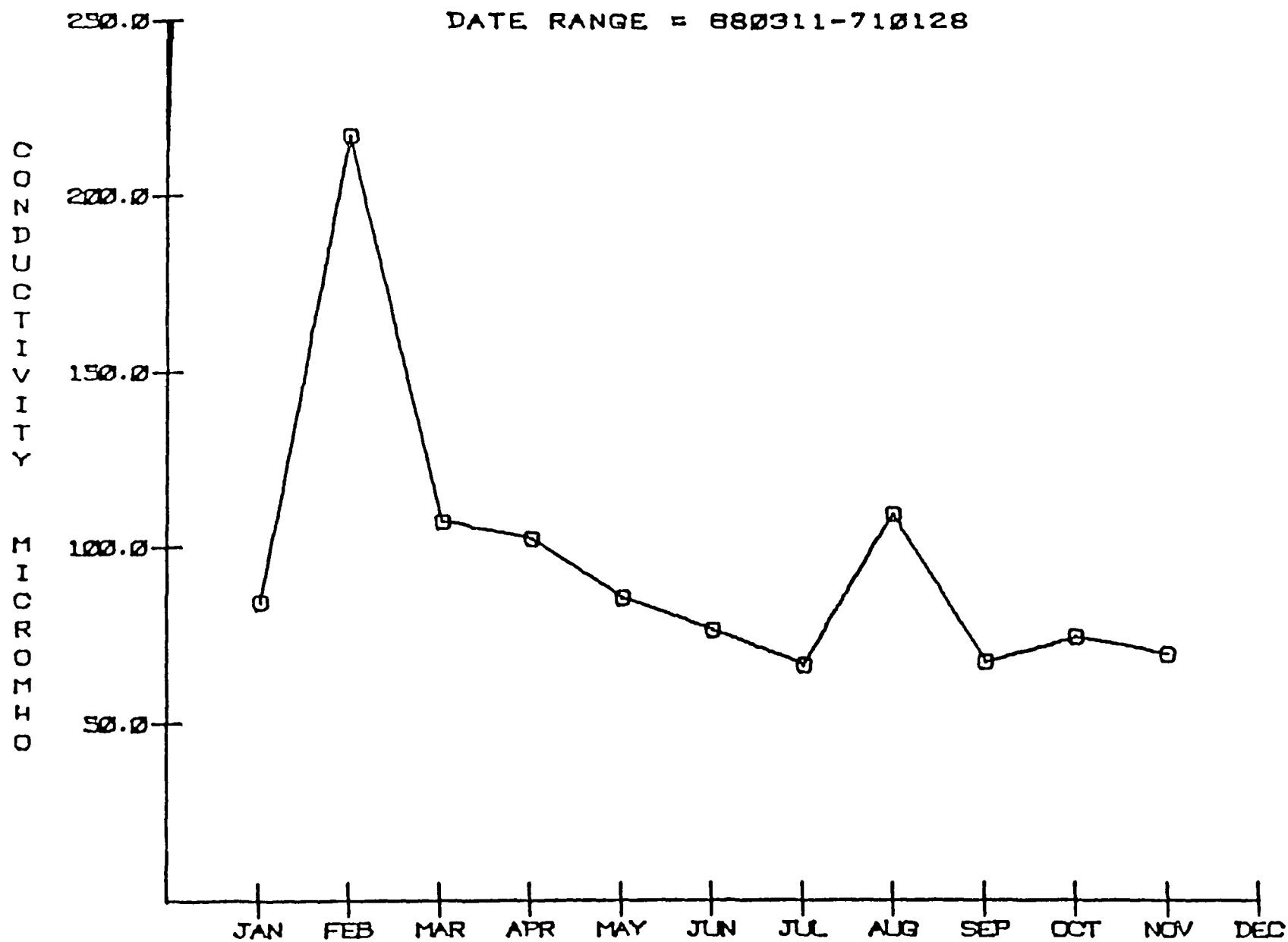
DATE RANGE = 880311-710128



KENAI RIVER SULLY TR.

U.S.G.S. DATA MEAN VALUES

DATE RANGE = 680311-710128

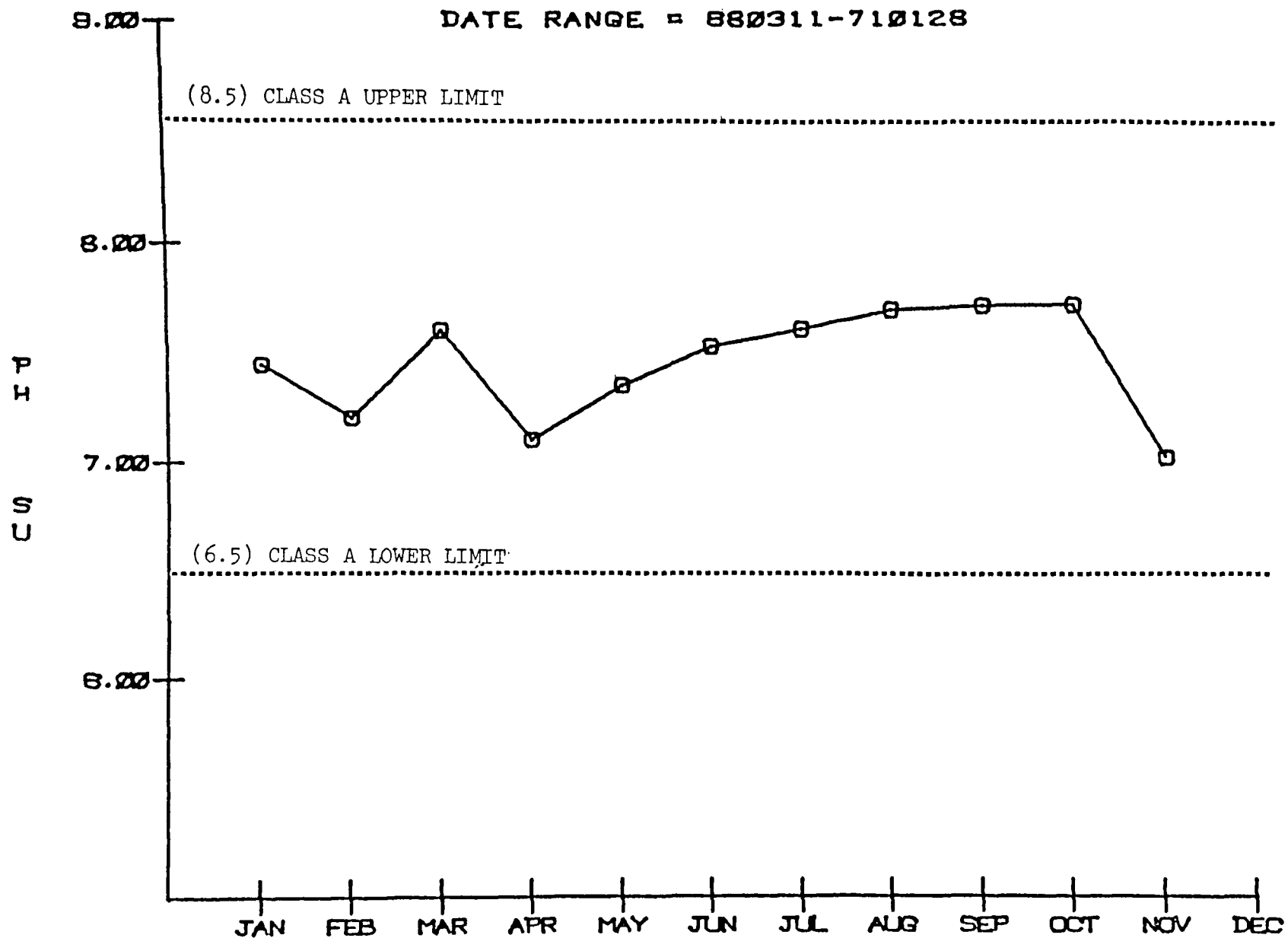


STATION 15288300

KENAL REEF, A SUNDLAND

U.S.G.S. DATA MEAN VALUES

DATE RANGE = 880311-710128



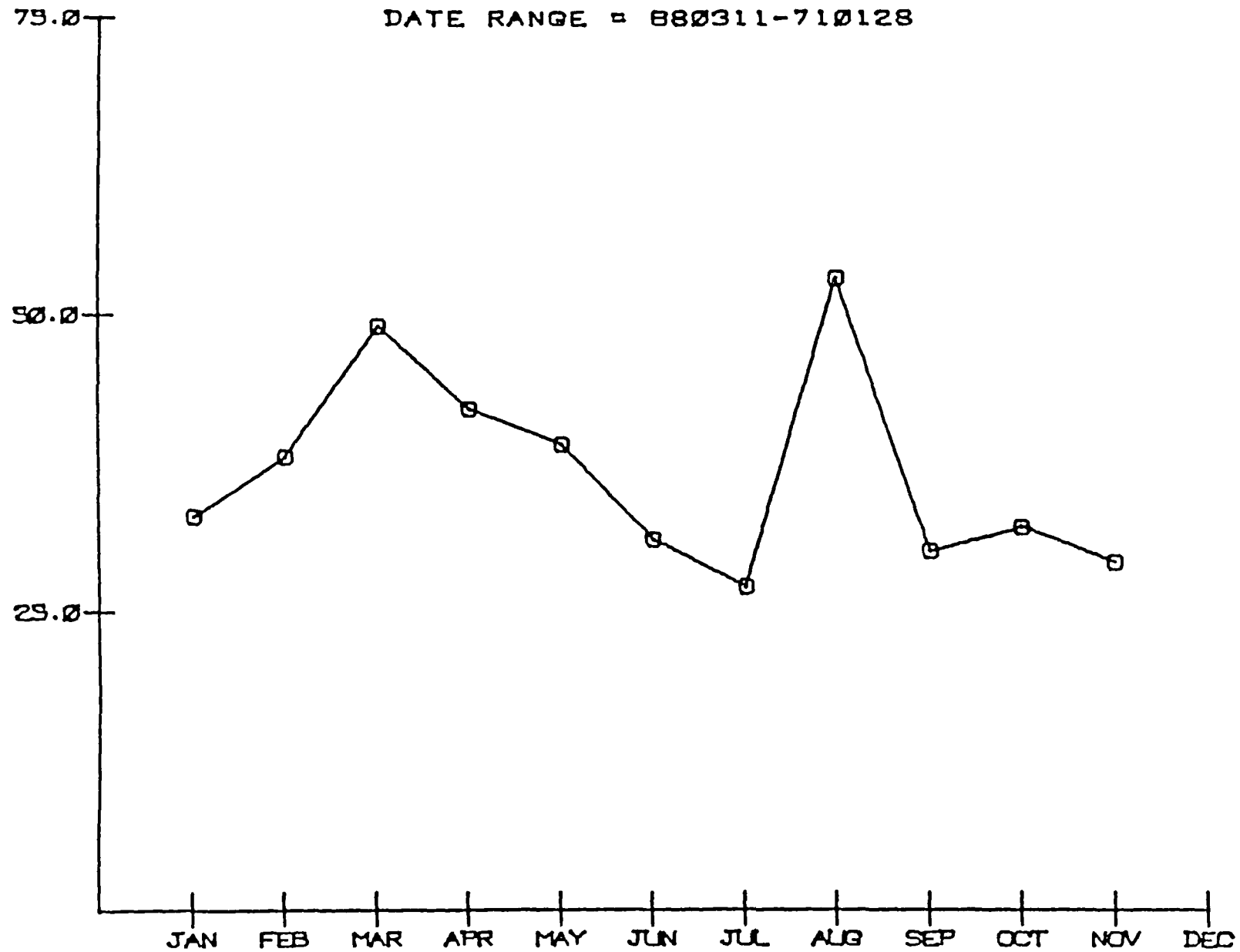
STATION 15288300

RENAI RIVER AT SOLDONA

U.S.G.S. DATA MEAN VALUES

DATE RANGE = 880311-710128

TOTAL HARD CACOD 3 MG/L

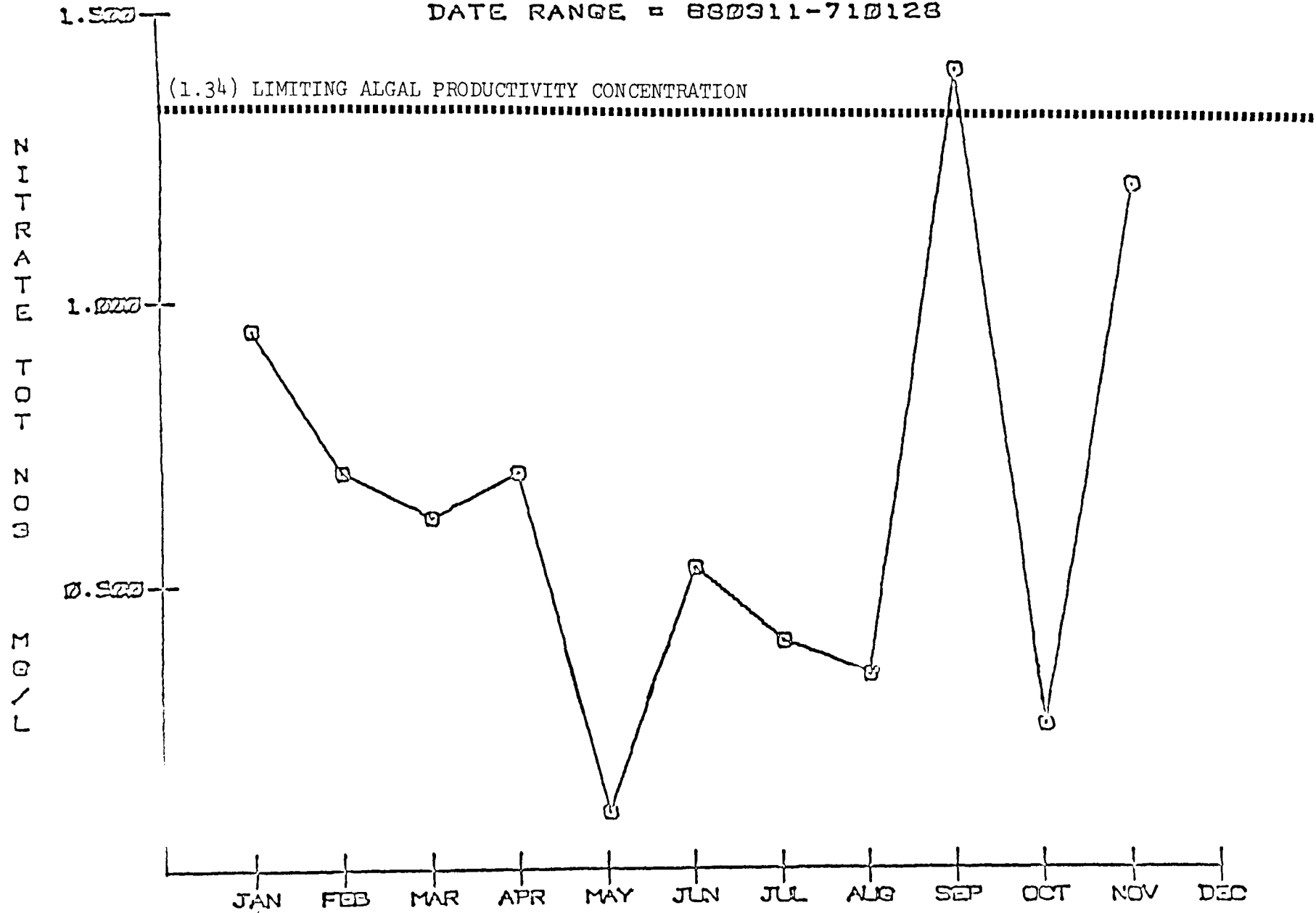


STATION 15288300

KENAI RIVER A SOLDOTNA

U.S.G.S. DATA MEAN VALUES

DATE RANGE = 880311-710128

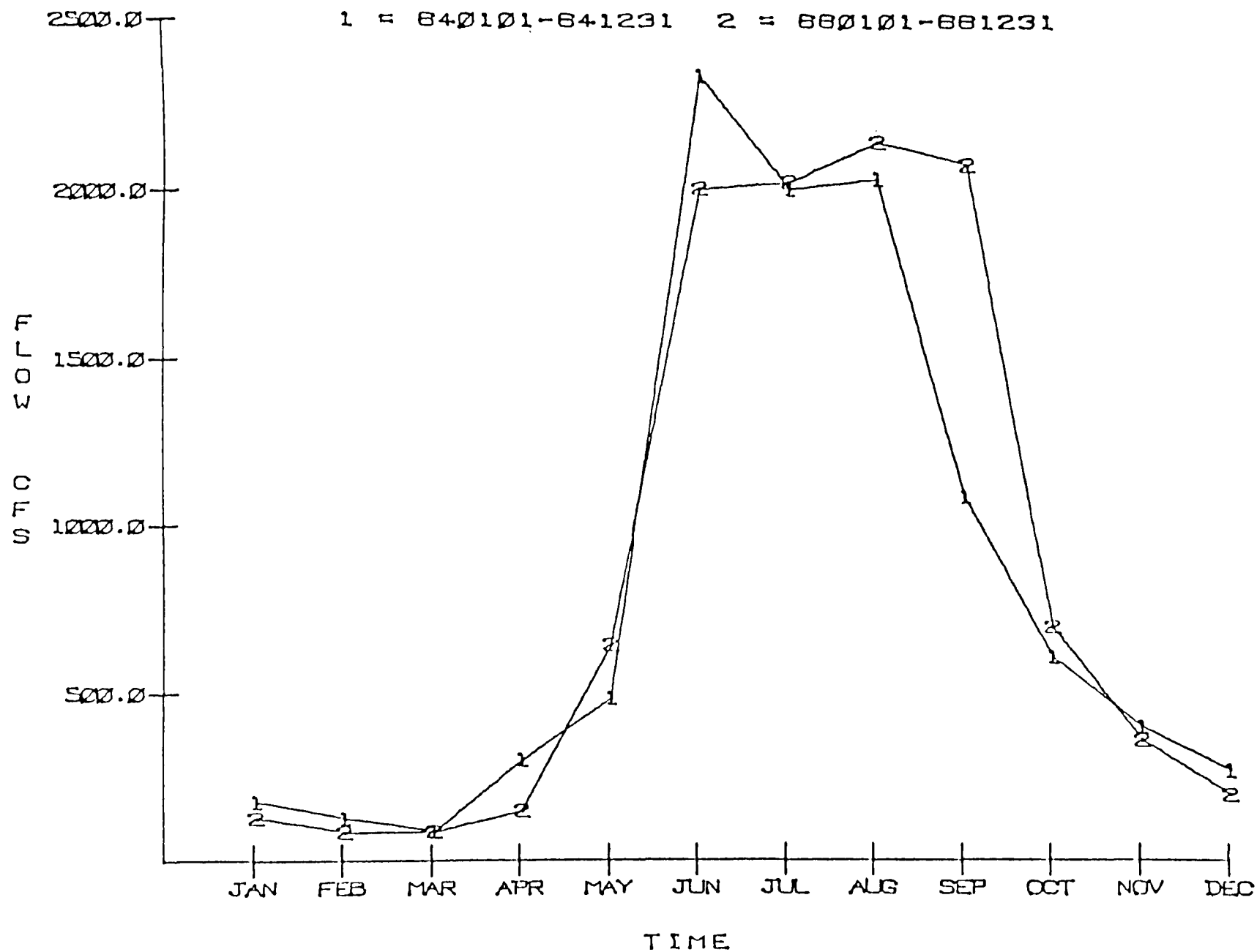


TRAIL RIVER NEAR LAWING

TRAIL RIVER NEAR LAWING

U.S.G.S. DATA MEAN VALUES

1 = 840101-841231 2 = 880101-881231



TRAIL RIVER NEAR LAWING

U.S.G.S. DATA MEAN VALUES

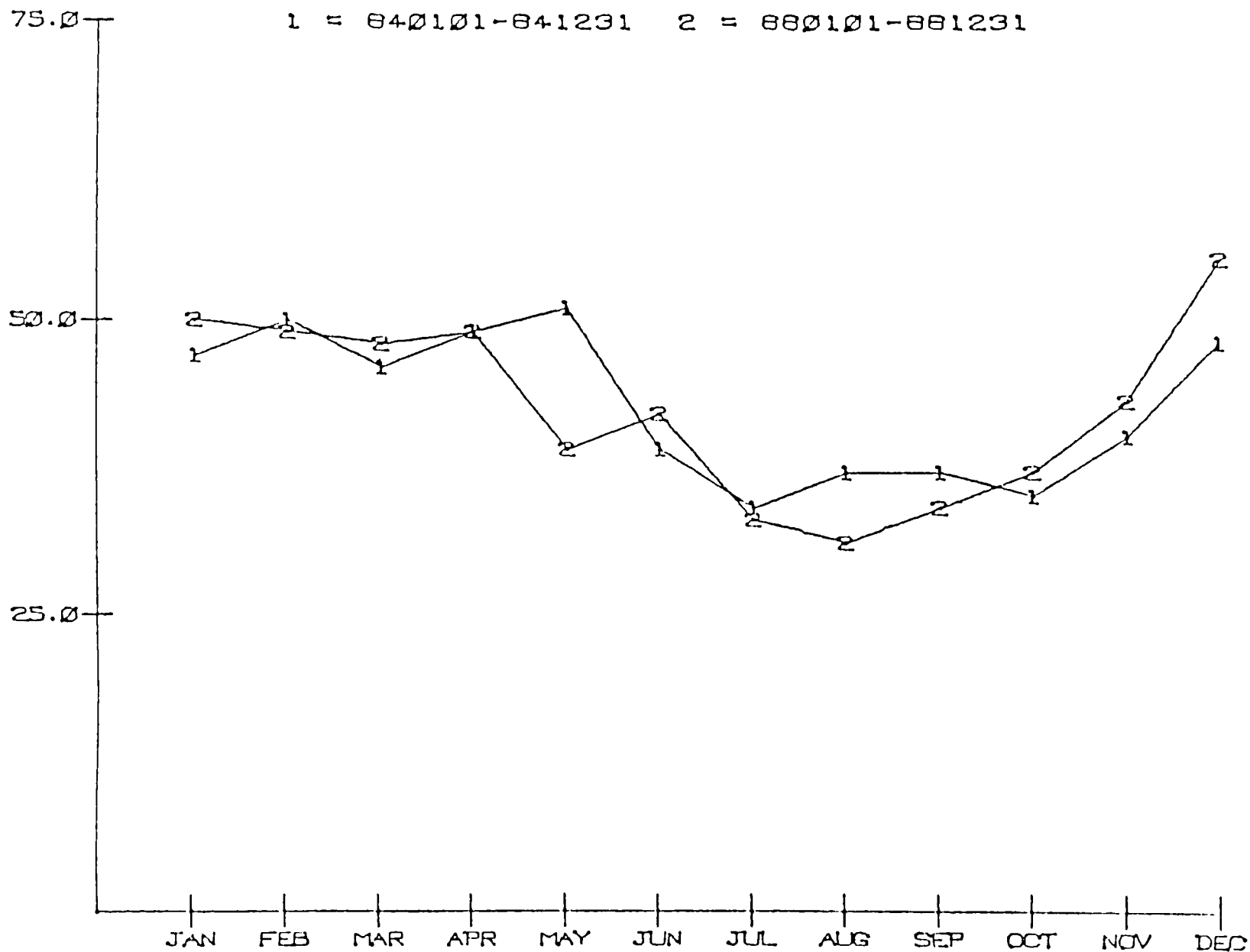
1 = 840101-841231 2 = 880101-881231

T
O
T
A
L

H
A
R
D

C
A
C
O
3

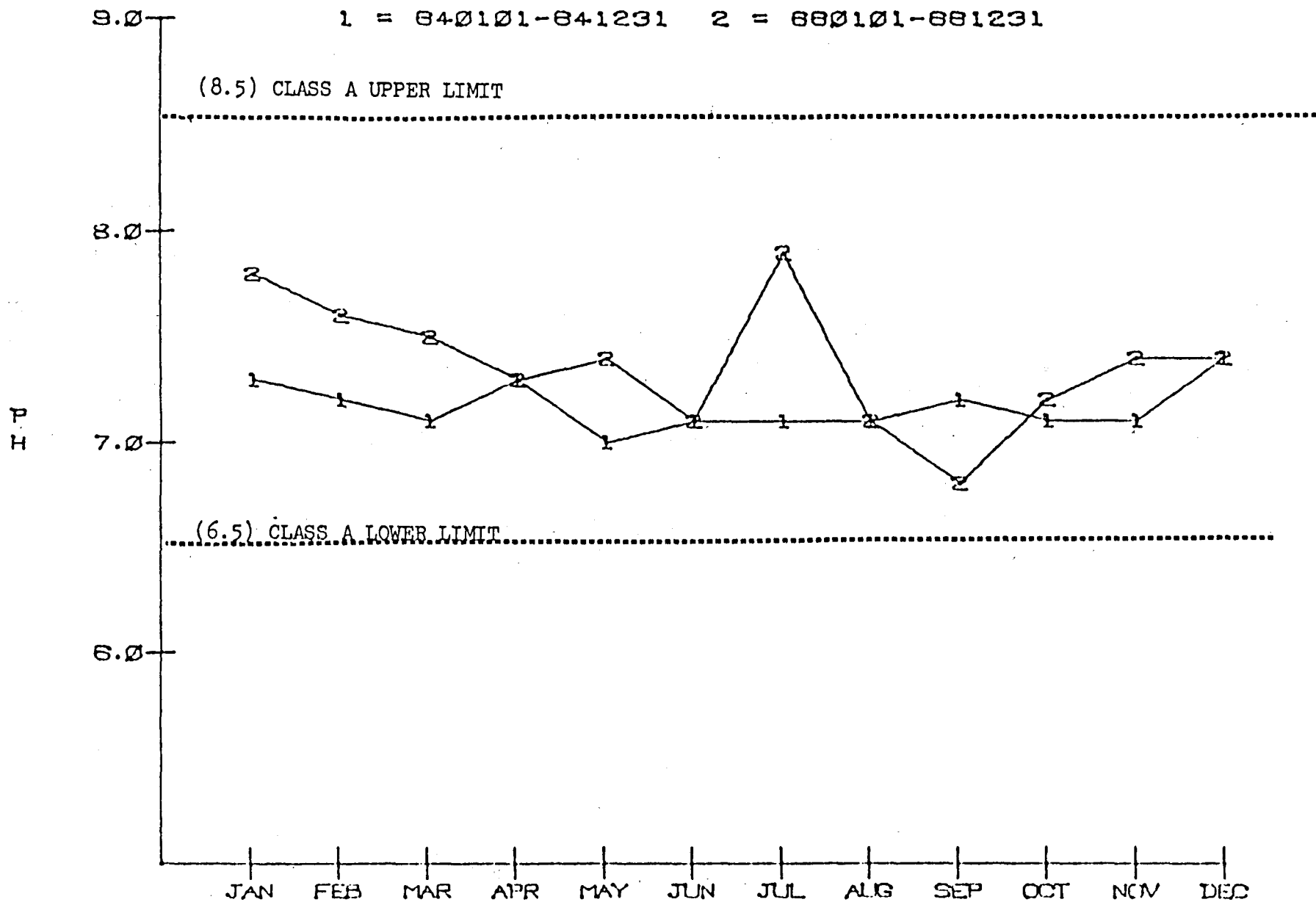
M
G
/
L



TRAIL RIVER NEAR LAWING

U.S.G.S. DATA MEAN VALUES

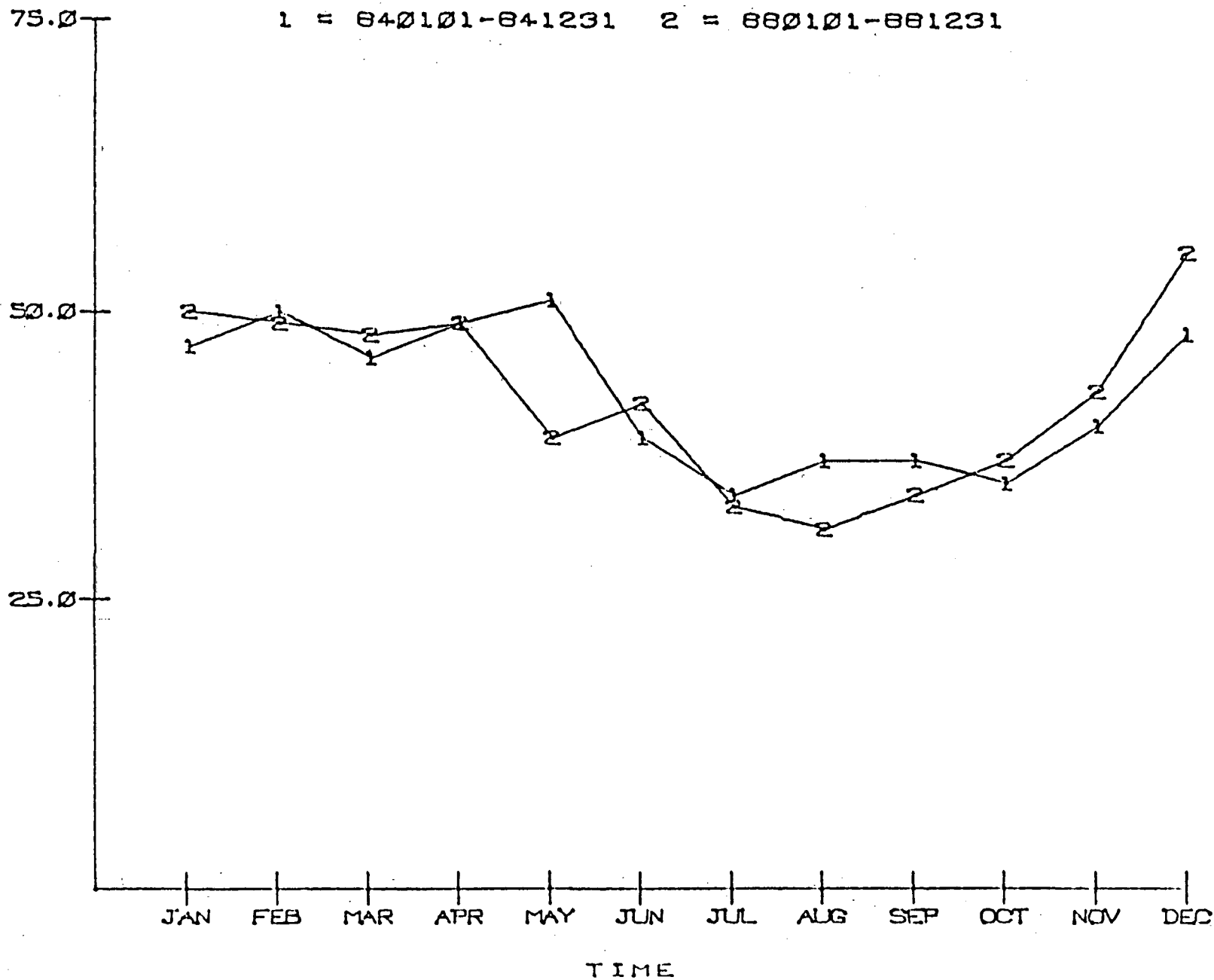
1 = 840101-841231 2 = 880101-881231



TRAIL RIVER NEAR LAWING

U.S.G.S. DATA MEAN VALUES

1 = 840101-841231 2 = 880101-881231



DATA OVER THE YEAR

U.S.G.S. DATA MEAN VALUES

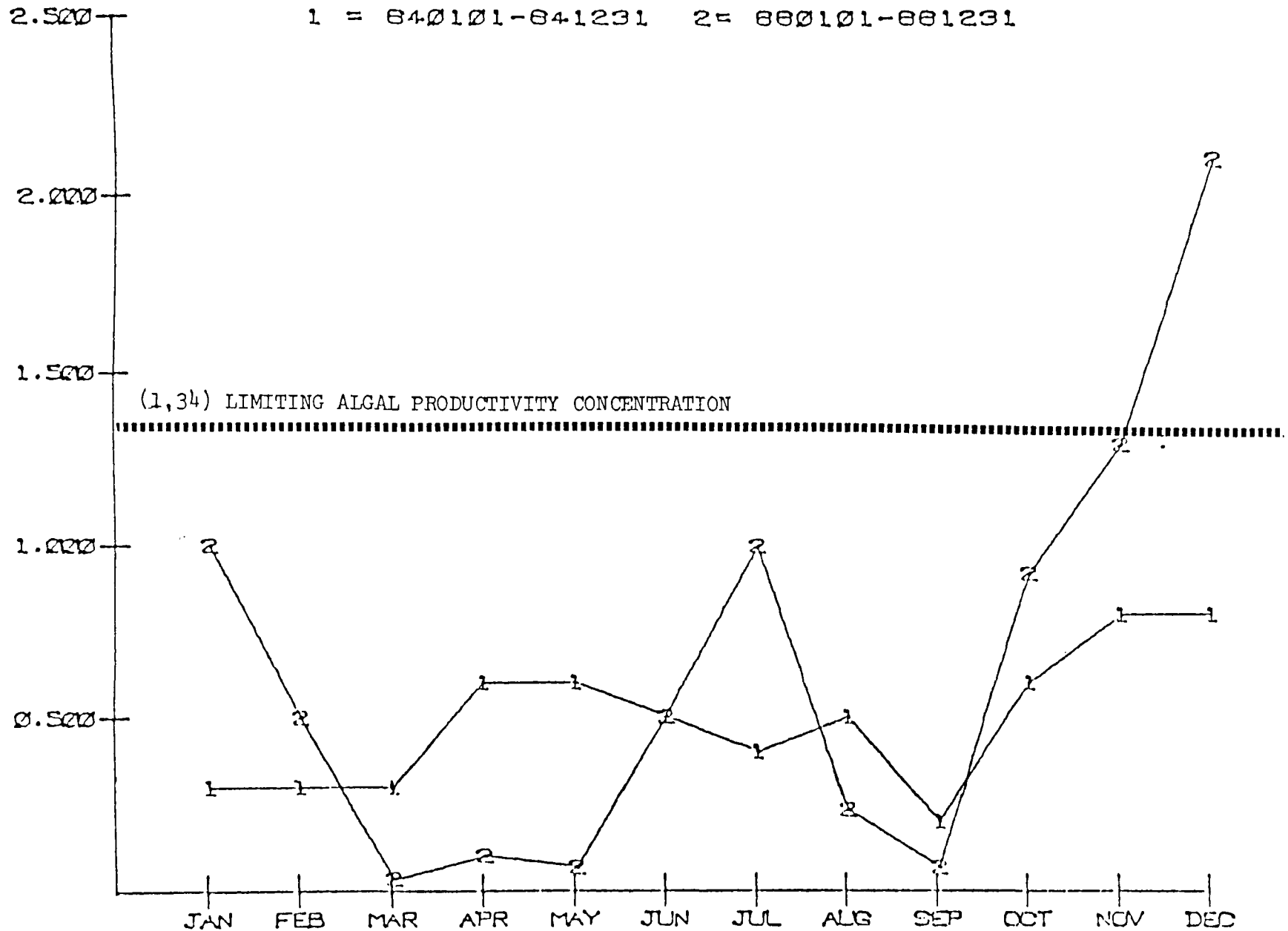
1 = 840101-841231 2 = 880101-881231

NITRATE

TOTAL

NO3

MG/L



STATION 15248000

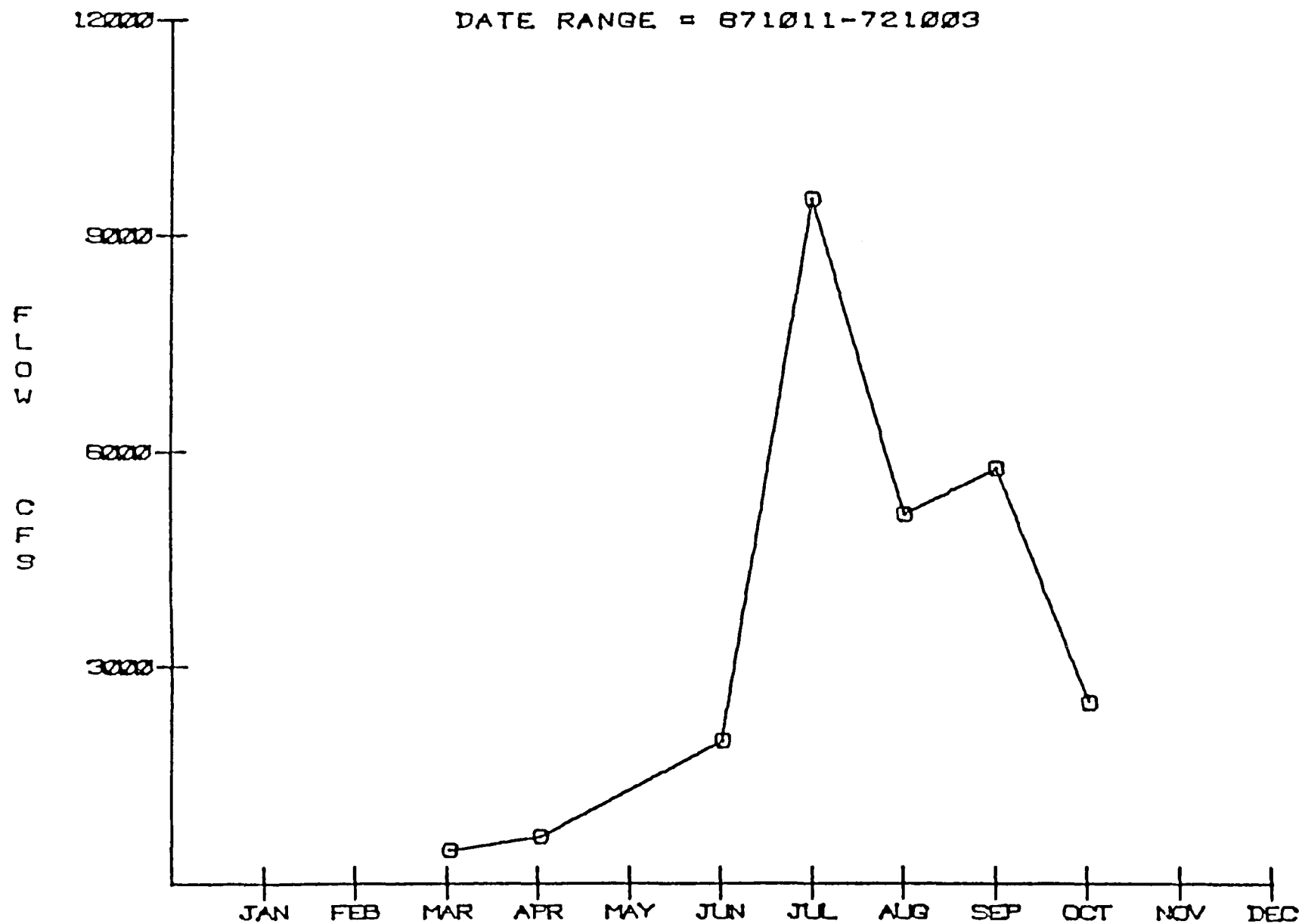
EAST COOK INLET SUB-BASIN

CHAKACHATNA RIVER NEAR TYONEK

CHARACTERIZATION OF INFORMATION

U.S.G.S. DATA MEAN VALUES

DATE RANGE = 871011-721003

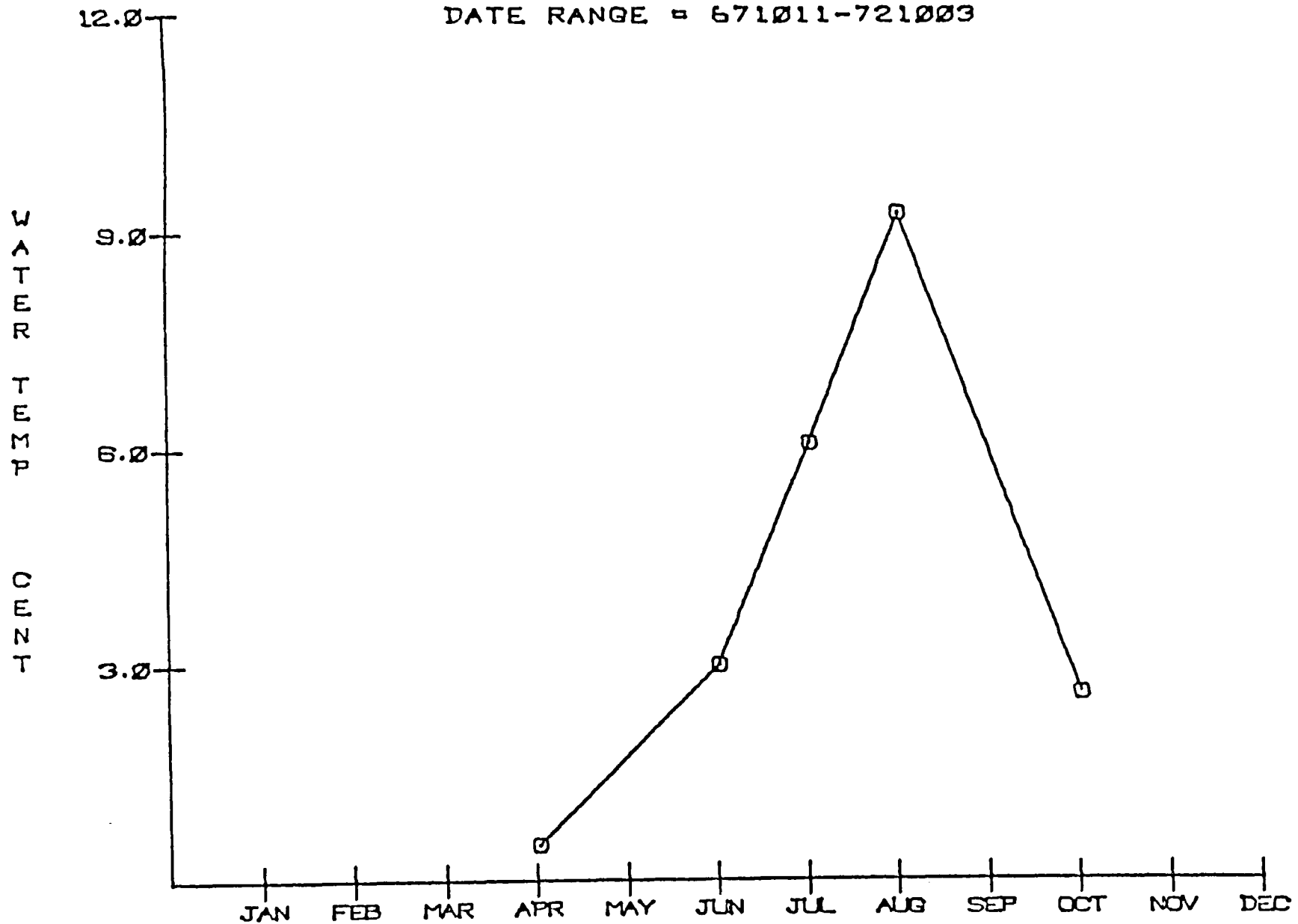


STATION 15284900

CHAKACHATNA RIVER NR TYONEK

U.S.G.S. DATA MEAN VALUES

DATE RANGE = 671011-721003



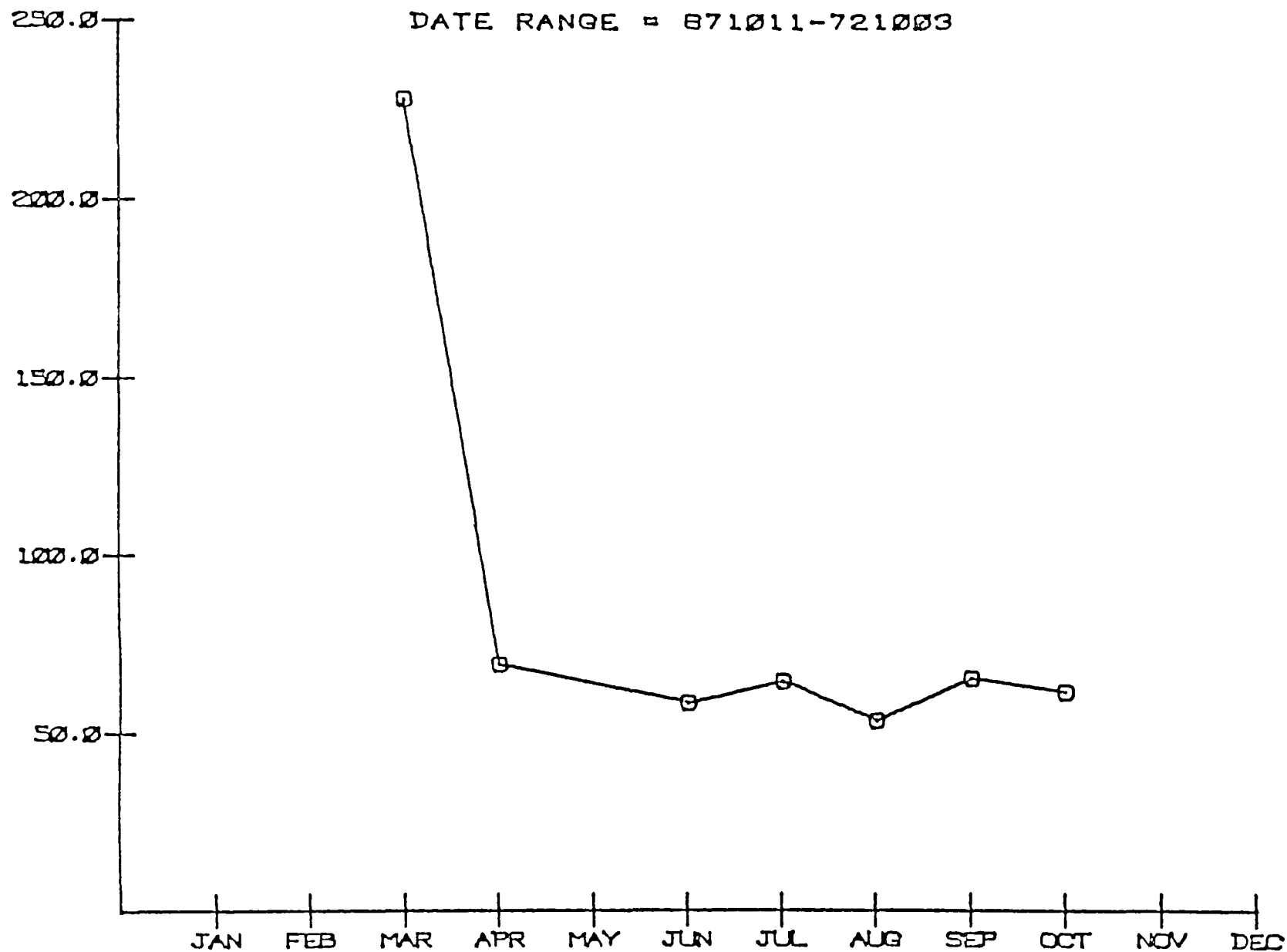
STATION 15204500

CHAKACHATNA RIVER NR TYONEK

U.S.G.S. DATA MEAN VALUES

DATE RANGE = 871011-721003

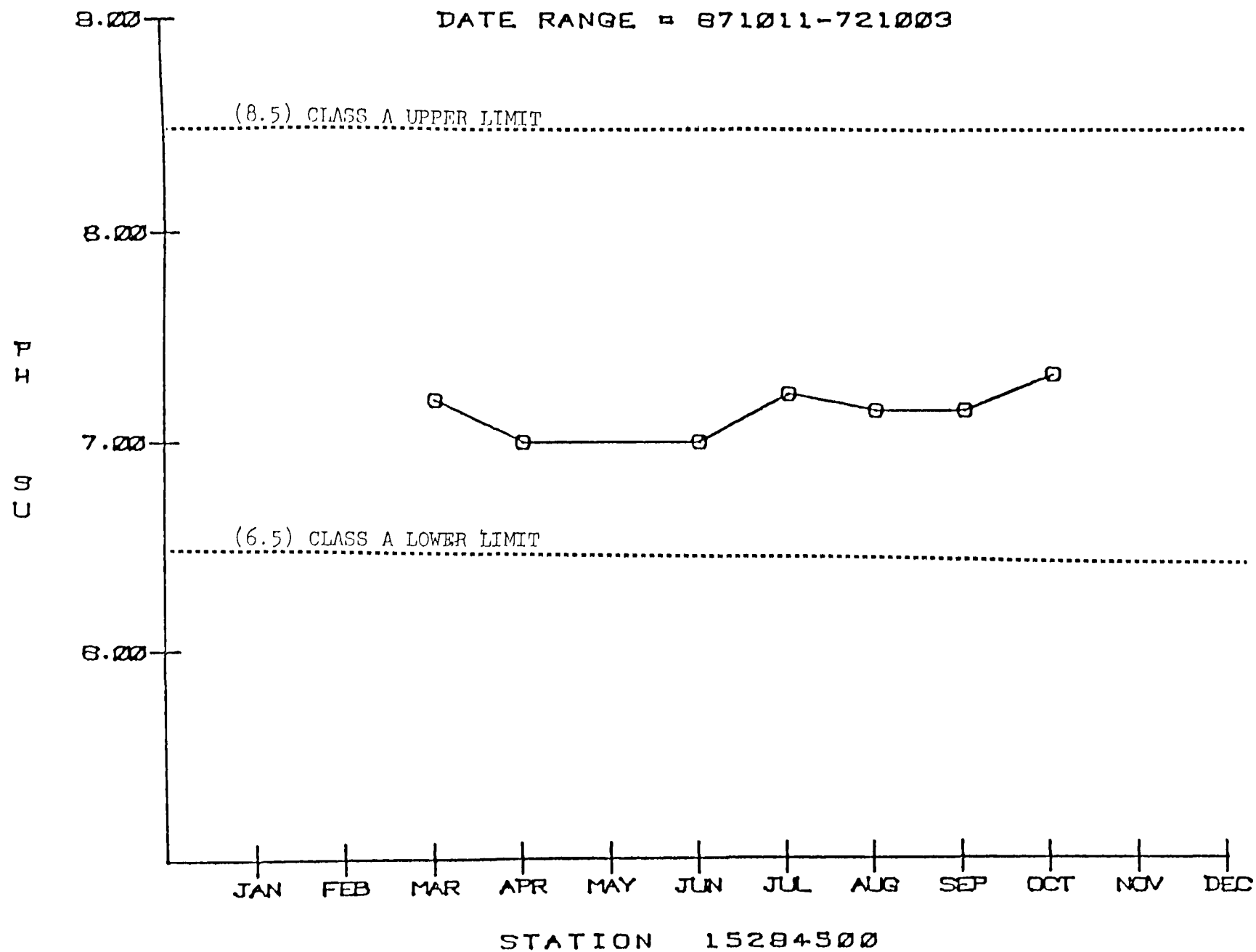
CHLOROPHYLL A



STATION 15284500

U.S.G.S. DATA MEAN VALUES

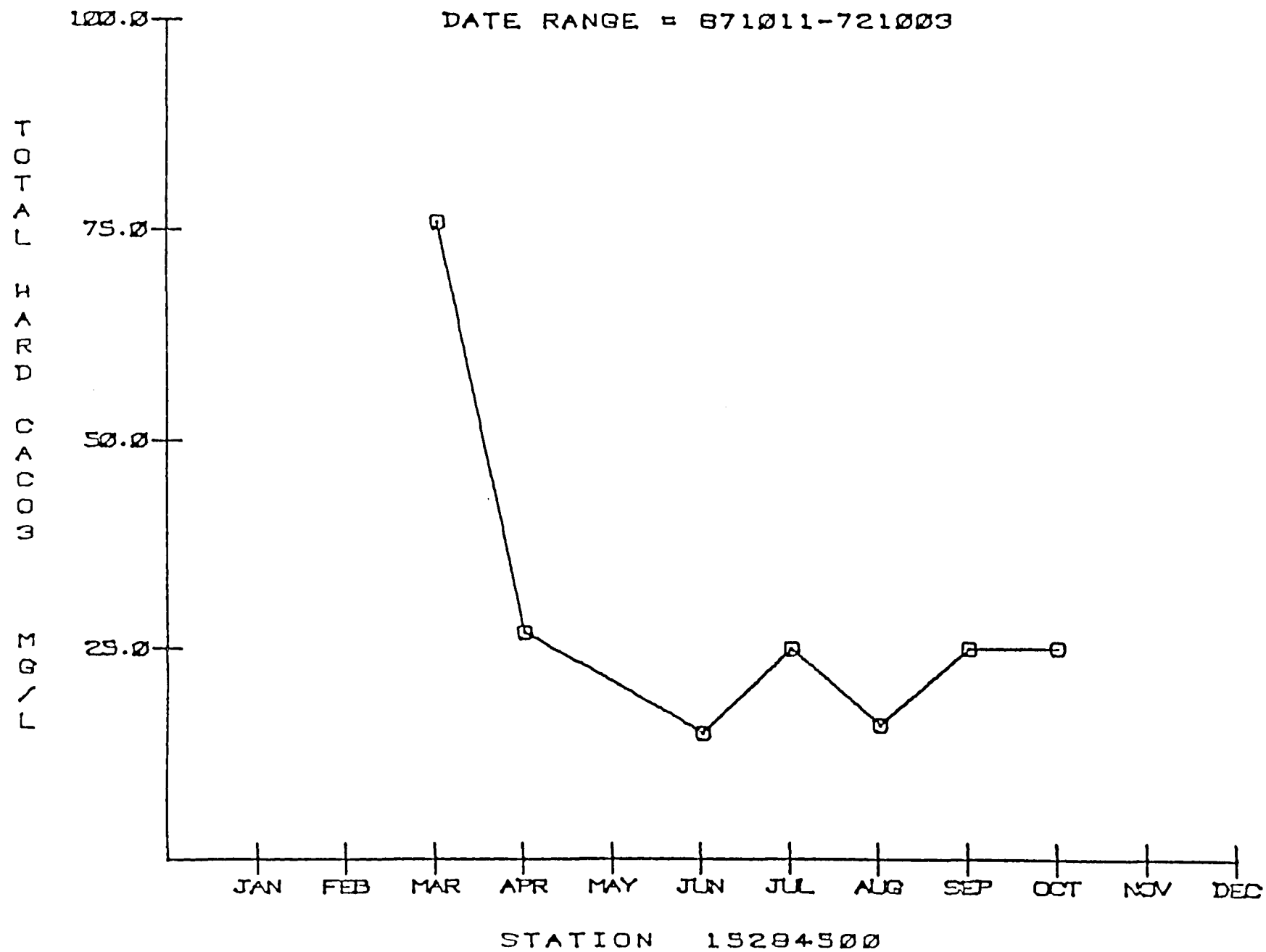
DATE RANGE = 871011-721003



CHAKACHATNA RIVER NR TYONEK

U.S.G.S. DATA MEAN VALUES

DATE RANGE = 871011-721003



- MAJOR POINT SOURCE DISCHARGES
- USGS MONITORING STATIONS

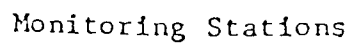


TABLE 1
POINT SOURCE SUMMARY

	BOD ₅ lb/day	% M	% I	NO ₃ -N lb/day	% M	% I	T-Phos lb/day	% M	% I
<u>ANCHORAGE BASIN</u>									
Municipal	7826.0	98.7		3024.0	99.9		1077.0	99.9	
Industrial	96.0		1.3	0.4		*	3.2		*
TOTALS	7922.0			3024.4			1080.2		
<u>KENAI BASIN</u>									
Municipal	288.0	1.1		44.0	17.3		39.0	1.3	
Industrial	28262.0		98.9	208.9		82.7	2896.7		98.7
TOTALS	28550.5			252.9			2935.7		
<u>HOMER BASIN</u>									
Municipal	123.0	23.1		27.0	100		9.0	15.2	
Industrial	409.0		76.9	-		-	50.0		84.8
TOTALS	532.0			27.0			59.0		
<u>SEWARD BASIN</u>									
Municipal	32.0	100		47.0	100		18.0	100	
Industrial	-		-	-		-	-		-
TOTALS	32.0			47.0			18.0		
<u>E. COOK INLET BASIN</u>									
Municipal	-	-	100	-	-		-	-	
Industrial	5604.7			22.6		100	3.1		100
TOTALS	5604.7			22.6			3.1		

TOTAL PERCENTAGE CONTRIBUTORS

	BOD ₅	NO ₃ -N	T-Phos
Anchorage	18.5	89.6	26.37
Kenai	66.9	7.4	71.6
Homer	1.2	*	1.4
Seward	*	1.3	*
E. Cook Inlet	13.1	*	*

- Indicates no data available

* Indicates less than 1%

TABLE II
MUNICIPAL POINT SOURCE LOADINGS

	Receiving Water	Population	Disc. #	Flow MGD	BOD ₅ lb/d	% Basin	NO ₃ -N lb/day	% Basin	T-Phos lb/day	% Basin
<u>ANCHORAGE BASIN</u>										
Greater Anchorage	Cook Inlet	119,920	28	12.8	7786	99	2998	99	1067	99
Anchorage (Eagle River)	Eagle River	1,250	29	.15	40	4	26	1	10	1
					7826	99%	3024	100%	1077	100%
<u>KENAI BASIN</u>										
Kenai	Kenai R. Est.	3,533	30	1.0	84	29	14	32	28	72
Soldotna	Cook Inlet	1,202	31	.7	204	71	30	68	11	28
					288	100%	44	100%	39	100%
<u>HOMER BASIN</u>										
Homer	Cook Inlet	1,083	32	.7	123	100	27	100	9	100
					123	100%	27	100%	9	100%
<u>SEWARD BASIN</u>										
Seward	Resurrection Bay	1,900	33	1.4	32	100	47	100	18	100
					32	100%	47	100%	18	100%
<u>E. COOK INLET BASIN</u>										
No Municipal Discharge Data										
BASIN TOTALS					8269.0		3142.0		1143.0	

TABLE III
- INDUSTRIAL POINT SOURCE LOADINGS

	DISC. #	RECEIVING WATER	FLOW	BOD ₅ lb/d	% Basin	T-Sol. Sol. lbs./day	% Basin	OIL & GREASE lbs/day	% Basin	NITRATE lbs/day	% Basin	PHOS. lb/d	% Basin
<u>ANCHORAGE BASIN</u>													
Chupach Elect. Assoc. Knik Arm Wwr. Plant.	1	Ship Creek	.6	0.0	*	0.0	*	-	-	0.2	48.8	0.0	*
Tidewater Pack. Co.	2	Knik Arm	.001	95.9	100%	29	100%	4.3	100%	0.21	51.2	3.2	100%
Basin Totals				95.9	100%	29	100%	4.3	100%	0.41	100.0%	3.2	100%
<u>KENAI BASIN</u>													
Amoco Platform Baker	3	Cook Inlet	.042	87	*	50,000	29.5	12	*	-	-	-	-
Dillon	4	Cook Inlet	.042	80	*	10	*	29.7	*	-	-	-	-
Shell Platform A	5	Cook Inlet	.080	100	*	100	*	133	4.3	<.01	*	.2	*
C	6	Cook Inlet	.080	50	*	25	*	-	-	.23	*	1.87	*
Standard Oil (Kenai)	7	Cook Inlet	.090	51	*	19	*	12	*	.07	*	.35	*
Kenai Pipeline Co.	8	Cook Inlet	.440	143	*	538	*	69.6	2.3	.48	*	.11	*
Tesoro AK Petroleum Co.	9	Cook Inlet	.12	9	*	16	*	3	*	1	*	1.1	*
Collier Carbon & Chemical (Kenai)	10	Cook Inlet	.704	1,116	4	341	*	6	*	<.6	*	24	*
Columbia Ward Fisheries Kenai Cannery	11	Kenai R. RMI=2.5	.13	2,260	7.9	6410	3.8	2740	88.7	1.42	*	239	8.3
Kenai Salmon Pack. Co.	12	Kenai R. RMI=1.5	.3	23,140	81.8	11,1000	65.5	-	-	200.3	96	2627.5	90.7
Mobile Oil Co. Union Granite Pt. Platform	13	Cook Inlet	.4	7	*	749	*	-	-	1.80	*	.01	*
Phillips Petroleum Co. Platform "A"	14	Cook Inlet	.003	2.7	*	14.4	*	24	*	.62	*	.34	*
Phillips Petroleum Co. Kenai Pt. Dragger 66	15	Cook Inlet	.062	15.5	*	11	*	1.34	*	2.07	*	1.9	*
R-Lee Seafoods, Inc. Soldotna	16	Kenai R.	.026	108.3	*	54.2	*	-	-	-	-	-	-
Shell Oil Co. Onshore	17	Cook Inlet	.160	1093	3.8	80	*	81.6	2.6	.36	*	.36	*
BASIN TOTALS				28262.5	97.5%	169367.6	98.8%	3088.5	97.9%	208.9	96%	2896.7	99%

TABLE III (CONT'D)
INDUSTRIAL POINT SOURCE LOADINGS

	DISC. #	RECEIVING WATER	FLOW	BOD ₅ lb/d	% Basin	T-Sus.Sol. lbs/day	% Basin	OIL & GREASE lbs/day	% Basin	NITRATE lbs/day	% Basin	PHOS. lb/d	% Basin
<u>HOMER BASIN</u>													
Alaska Seafoods Inc.	18	Kachemak Bay	.156	409	100%	3177	100%	235	100%	-	-	50	100%
BASIN TOTALS				409.0	100%	3177	100%	235	100%			50	100%
<u>SEWARD BASIN</u>													
NO DISCHARGES REPORTED													
<u>EAST COOK INLET BASIN</u>													
Marathon Oil Co.	19	Trading Bay	1.209	3730	66.6	2310	76.5	31.3	3.9	19.5	86.3	1.51	48.7
Dolly Varden													
Trading Bay Onshore	20	Trading Bay	.525	1230	21.9	306	10.1	51.3	6.5	2.63	11.6	.657	21.2
Production Facility													
Union Oil Co. of Calif.	21	Trading Bay	.04	3.4	*	10.2	*	1.9	*	.119	*	.044	1.4
Monopod Platform													
Union Oil Co. of Calif.	22	Trading Bay	.32	10.9	*	133	4.4	-	-	.216	*	.788	25.4
Grayling Platform													
Amaco Platform Anna	23	Cook Inlet	.42	315	5.6	105	3.5	350	44.6	-	-	-	-
Amaco Platform Bruce	24	Cook Inlet	.42	315	5.6	105	3.5	350	44.6	-	-	-	-
Arco Spark Platform	25	Cook Inlet	.007	.06	*	33.6	1.1	.134	*	.02	*	<.003	*
Arco King Salmon Platform	26	Cook Inlet	.004	.09	*	14.6	*	-	-	.076	*	.077	2.5
Arco-Texaco Platform	27	Cook Inlet	.0008	.27	*	2	*	0.0	*	.0007	*	.005	*
BASIN TOTALS				5604.72	99.7%	3019.4	99.1%	784.6	99.6%	22.6	97.9%	3.1	99.2%

* indicates less than 1%
- indicates no data available

At the present time there is insufficient data available to determine and examine any cause and effect relationship that may exist in the basins under consideration.

REFERENCES

1. A Program for Cook Inlet , Institute of Water Resources, University of Alaska. Report No. IWR-7. David G. Wagner, R. Sage Murphy, and Charles E. Behlke.