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# Phytoplankton Productivity Experiments and Nutrient Measurements in Ungava Bay NWT from August 1 to September 3, 1979

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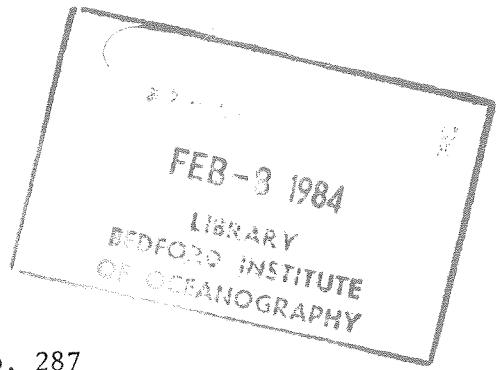
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Fisheries and Aquatic Sciences No. 287

PHYTOPLANKTON PRODUCTIVITY EXPERIMENTS AND NUTRIENT MEASUREMENTS IN  
UNGAVA BAY NWT FROM AUGUST 1 TO SEPTEMBER 3, 1979

by

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## CONTENTS

	<u>Page</u>
Abstract/Résumé .....	iv
Introduction .....	1
Sampling .....	1
Methods .....	1
PRODUCTIVITY .....	1
CHLOROPHYLL A .....	2
INCUBATION LIGHT INTENSITY .....	2
NUTRIENTS .....	3
CELL COUNTS .....	3
NUCLEIC ACIDS .....	3
PROTEINS .....	4
ADENOSINE TRIPHOSPHATE(ATP) .....	4
PARTICULATE CARBON .....	5
Estimation of Photosynthetic Parameters .....	5
Acknowledgements .....	6
References .....	6
Table Legend .....	8
LIGHT SATURATION PARAMETERS AND CONFIDENCE INTERVALS .....	9
LIGHT SATURATION DATA, PARTICULATES & NUTRIENTS .....	109
Figure .....	208

**Abstract**

IRWIN, B., T. PLATT, W.G. HARRISON, C.L. GALLEGOS and P. LINDLEY. 1982.

Phytoplankton productivity experiments and nutrient measurements in Ungava Bay NWT from August 1 to September 3, 1979. Can. Data Rept. Fish. Aquat. Sci. No. 287: 208 p.

During the period of August 1 to September 3, 1979 a series of primary productivity experiments was conducted on board CSS Baffin in Ungava Bay, NWT. Samples were collected every 4 hours around the clock, Corresponding nutrient and physical parameters were measured in the same samples. In this report both the raw data and the fitted light saturation parameters, with confidence limits, are presented.

**Resume**

IRWIN, B., T. PLATT, W.G. HARRISON, C.L. GALLEGOS and P. LINDLEY. 1982.

Phytoplankton productivity experiments and nutrient measurements in Ungava Bay NWT from August 1 to September 3, 1979. Can. Data Rept. Fish. Aquat. Sci. No. 287: 208 p.

Pendant la période du 1<sup>er</sup> août au 3 septembre 1979 une série d'expériences de productivité primaire ont été effectuées à bord du CSS Baffin dans la baie d'Ungava (T.N.-O.). Des échantillons ont été prélevés toutes les 4 heures pendant toute la période. Les éléments nutritifs et les paramètres physiques correspondants ont été mesurés sur les mêmes échantillons. Le présent rapport contient les données brutes et les paramètres lissés de saturation lumineuse, avec les niveaux de confiance.

### Introduction

This is the fifth in a series of data reports giving the results of experiments on photosynthetic production versus light intensity for natural phytoplankton populations in the North Atlantic and adjacent waters north of 50°N. Samples were collected from CSS Baffin during a cruise in Ungava Bay, N.W.T. over a period from August 1, 1979 to September 3, 1979. This was a joint cruise with the Hydrographic Division, Ocean and Aquatic Sciences, Atlantic.

### Sampling

Water samples for light saturation experiments, nutrient and biomass determinations were collected from one depth with a 30 litre Niskin bottle at a total of 86 stations. The majority (82) of the samples were taken from 10 m. At two stations vertical profiles were taken from 30 m to the surface for salinity, nutrient and temperature measurements. At day-light stations secchi disc readings were taken, and vertical plankton net tows (mesh size 20 $\mu$ ) were done at 24 stations. Station locations are shown in Fig. 1.

### Methods

#### PRODUCTIVITY

Primary production was measured using the  $^{14}\text{C}$  method as described in Strickland and Parsons (1972). For each light saturation experiment, 7 litres of sample was innoculated with sodium bicarbonate  $^{14}\text{C}$  solution to yield an approximate activity of 5  $\mu\text{ci}$  per 100 ml of sample. Each of sixty light and four dark bottles was filled with a 100 ml aliquot of innoculated sample water and placed in a temperature controlled incubator (Irwin et al. 1982,

Fig. 2B). Illumination in the incubators was provided by a 2000 w tungsten-halogen lamp (New Haline OHS 2000) having a maximum light intensity of approximately  $1000 \text{ Wm}^{-2}$  (photosynthetically active radiation - PAR).

Temperature control was achieved by continuously pumping sea water from 3 m through the incubator.

For eighty of the experiments, incubations were terminated after 2 hours. In two experiments a time series was run with one quarter of the light bottles and one dark bottle being removed after 1/2, 1, 2 and 4 hr periods. All samples were immediately filtered onto 2.5 cm diameter membrane filters (Millipore) having a pore size of  $0.45 \mu$  and stored frozen in a dessicator at  $-20^{\circ}\text{C}$ . The filters were later thawed in the lab, exposed to HCl fumes, and counted in a liquid Scintillation Counter.

#### CHLOROPHYLL A

Replicate one litre samples were filtered onto 5.5 cm glass fibre (GF/C) filters and stored frozen at  $-20^{\circ}\text{C}$  in a dessicator. Chlorophyll a and phaeophytin measurements were made using the fluorometric technique of Yentsch and Menzel (1963) as modified by Holm-Hansen et al. (1965). Acetone extracts of pure chlorophyll a (Sigma Chemical Co.) were used to calibrate the fluorometer.

#### INCUBATION LIGHT INTENSITY

Photosynthetically active radiation (PAR) was measured at each bottle position using a Licor Li 185A Quantum meter fitted with a 190S under-water quantum sensor.

#### NUTRIENTS

Four inorganic nutrients were routinely measured from each sample. Three separate aliquots of filtered sample water were frozen at -20°C and stored on board. All analyses were carried out later in the laboratory using the following methods:

Nitrate - industrial method 155-71W (Technicon)

Silicate - industrial method 158-71W (Technicon)

Phosphate was measured using the Murphy and Riley (1962) single solution method and ammonia was measured by the phenolphthalein method of Solorzano (1969).

#### CELL COUNTS

Approximately 500 ml of sample water was preserved with 2 ml Lugols solution for species identifications and enumeration.

#### NUCLEIC ACIDS

Replicate 1 litre samples were filtered onto 5.5 cm glass fibre filters (Reeve Angel 934H) and stored at -20°C in a desiccator. The frozen filters were homogenized in buffered sodium chloride solution at 0°C and then centrifuged. The clear supernatant was transferred to a test tube and an equal volume of the dye Ethidium Bromide was added with vigorous mixing. The fluorescence of this mixture was measured on a Model III Turner fluorometer (Excitation filter Corning 7-60, Emission filter Wratten 23A). This was a measure of Ribonucleic acid (RNA) and Deoxyribonucleic acid (DNA). RNase solution, 0.04 ml, was added to the test tube, mixed and incubated at

50°C for 60 min. The fluorescence was remeasured. This second reading was a measure of DNA concentration only.

#### PROTEINS

Replicate 500 ml samples were filtered onto previously baked 2.4 cm glass fibre filters (Whatman GF/C) and stored at -20°C in a desiccator. A fluorometric method based on the fluorescamine reaction described by Packard and Dortch (1975) was used to estimate particulate protein. The frozen filter was transferred to a grinding tube and 5.0 ml of 1% Triton X-100 (Sigma Chemical Co.) solution was added. The filter was homogenized for 60 seconds and homogenate transferred to a 10 ml centrifuge tube. The glass fibres were centrifuged down at 2000 rpm for 5 minutes, 1.0 ml of the clear supernatant was pipetted into a 50 ml boiling tube, containing 3.0 ml of borate buffer, and finally 1.0 ml of Fluram (4 phenylspiro[Furan-2(3H), 1'-phthalan]-3,3 dione) was added dropwise with vigorous mixing. After 5 minutes, the fluorescence was measured on a Turner III fluorometer (Excitation filter Corning 7-60, emission filters Wratten 2A and 48). The method was standardized with solutions of Bovine Serum Albumen.

#### ADENOSINE TRIPHOSPHATE (ATP)

Replicate 100 ml samples were filtered onto previously baked 2.4 cm glass fibre filters (Whatman GF/C) and immediately placed into 10 ml test tubes containing 5 ml of boiling tris buffer. After 3 minutes the tubes were cooled to room temperature then stored at -20°C. ATP concentrations were estimated using the technique described in Strickland and Parsons (1972) using an SAI Model 2000 integrating photometer.

## PARTICULATE CARBON

Replicate 500 ml samples were filtered onto previously baked 2.4 cm glass fibre filters (Whatman GF/C) and sucked dry. Filters were then folded, placed in aluminum foil wrappers, and stored at -20°C. Filters were freeze dried overnight before combustion in a Hewlett-Packard Model 185B CHN analyzer.

### Estimation of Photosynthetic Parameters

Measurements of specific production,  $P^B$ , and irradiance,  $I$ , were used to estimate parameters in the equation of Platt *et al.* 1981,

$$P^B = P_s (1 - e^{-\alpha I / P_s}) e^{-\beta I / P_s} \quad (1)$$

$P_s$  ( $\text{mg C mg Chl}^{-1} \text{ h}^{-1}$ ) is the light-saturated rate of specific production in the absence of photo-inhibition,  $\alpha$  ( $\text{mg C} [\text{mg Chl}]^{-1} \text{ h}^{-1} \text{ W}^{-1} \text{ m}^2$ ) is the initial slope of the P-I curve, and  $\beta$  (same units as  $\alpha$ ) is a parameter that characterizes the photo-inhibition. All three parameters were estimated simultaneously using the modified Gauss-Newton method (Bard 1974). The method requires initial or trial estimates of the parameters, which were obtained as follows. The initial slope,  $\alpha$ , was estimated by a linear regression of those points with  $I \leq 25 \text{ W m}^{-2}$ .  $P_s$  was estimated as the highest observed value of  $P^B$ , and  $\beta$  was initially set to  $10^{-5}$ . All three parameters were then fitted simultaneously.

A complete discussion of the mathematical basis for this technique of parameter estimation is given in Irwin *et al.* (1980).

#### Acknowledgements

We wish to thank Mark Hodgson, Paul Dickie, Leslie Harris, Stella Sirois, Jill Gibbons and Anne Marie Burzynski for their technical assistance on the cruise and in the laboratory. We also wish to thank Dave Rudderham for his assistance in the calculation of the light saturation parameters.

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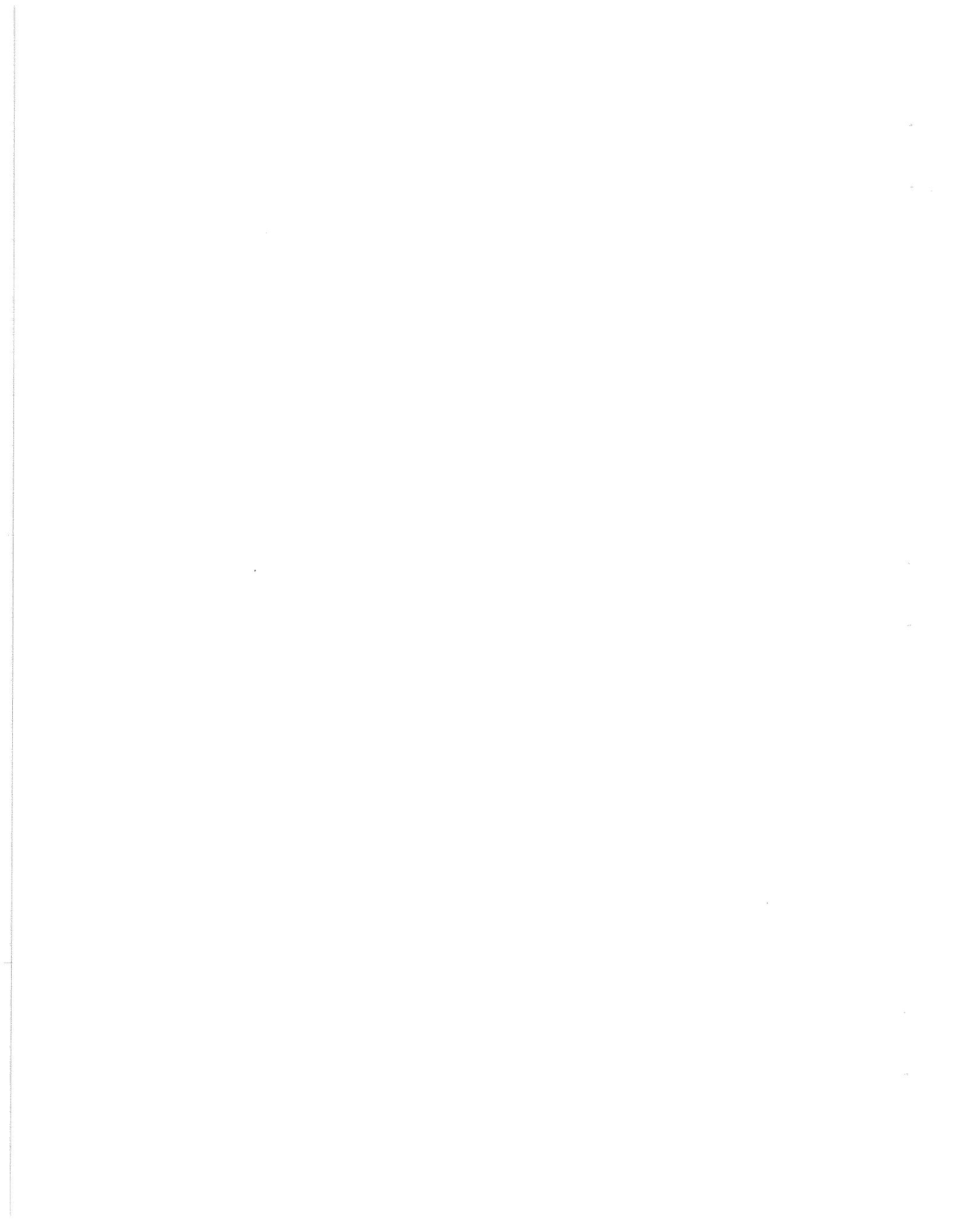
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## Table Legend

I = Light intensity(PAR):watts  $m^{-2}$

P = Specific production:mg C(mg Chl a) $^{-1}h^{-1}$

## LIGHT SATURATION PARAMETERS AND CONFIDENCE INTERVALS



## UNGAVA BAY

STATION NO.: 1

DEPTH: 5 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	4.792	4.039	5.545
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.073	0.061	0.085
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.006	-0.0013	0.0025

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$1.859 \times 10$	$3.742 \times 10^2$	$-1.272 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$9.341 \times 10^3$	$-7.317 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$2.493 \times 10^6$

SUM OF SQUARED ERRORS:  $1.284 \times 10$ 

NO. OF POINTS: 50

## UNGAVA BAY

STATION NO.: 2

DEPTH: 5 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	6.802	5.939	7.665
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.097	0.086	0.108
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0011	-0.0011	0.0032

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$1.638 \times 10$	$4.057 \times 10^2$	$-1.136 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$1.216 \times 10^4$	$-8.202 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$2.223 \times 10^6$

SUM OF SQUARED ERRORS:  $1.273 \times 10$ 

NO. OF POINTS: 50

## UNGAVA BAY

STATION NO.: 3

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	1.767	1.607	1.927
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.039	0.034	0.044
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0000	-0.0004	0.0005

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.232 \times 10^0$	$2.711 \times 10^2$	$-1.380 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$5.014 \times 10^3$	$-3.658 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$2.662 \times 10^6$
			0.218

SUM OF SQUARED ERRORS: 1.310

NO. OF POINTS: 54

## UNGAVA BAY

STATION NO.: 4

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

	Parameter Value	Lower Limit	Upper Limit
$P_s$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$	3.613	3.292	3.934
$\alpha$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.075	0.067	0.083
$\beta$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0005	-0.0005	0.0014

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

	$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.167 \times 10$	$2.863 \times 10^2$	$-1.233 \times 10^4$	
$(\alpha - \hat{\alpha})$	-	$5.635 \times 10^3$	$-4.155 \times 10^4$	
$(\beta - \hat{\beta})$	-	-	$2.091 \times 10^6$	0.703

SUM OF SQUARED ERRORS: 4.210

NO. OF POINTS: 54

## UNGAVA BAY

STATION NO.: 5

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	3.715	3.336	4.095
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.124	0.104	0.143
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0007	-0.0005	0.0019

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.147 \times 10^0$	$1.568 \times 10^2$	$-1.061 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$1.977 \times 10^3$	$-1.369 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$1.744 \times 10^6$
			1.580

SUM OF SQUARED ERRORS: 8.719

NO. OF POINTS: 50

## UNGAVA BAY

STATION NO.: 6

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	3.600	3.247	3.953
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.117	0.099	0.135
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0001	-0.0010	0.0012

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.407 \times 10$	$1.856 \times 10^2$	$-1.260 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$2.428 \times 10^3$	$-1.683 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$2.201 \times 10^6$
			1.526

SUM OF SQUARED ERRORS: 9.318

NO. OF POINTS: 55

## UNGAVA BAY

STATION NO.: 7

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s \text{ mg C}(\text{mg Chl } \alpha)^{-1} \text{ h}^{-1}$	3.136	2.849	3.423
$\alpha \text{ mg C}(\text{mg Chl } \alpha)^{-1} \text{ h}^{-1}/\text{W}^{-2}$	0.098	0.085	0.112
$\beta \text{ mg C}(\text{mg Chl } \alpha)^{-1} \text{ h}^{-1}/\text{W}^{-2}$	0.0000	-0.0009	0.0009

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.075 \times 10^0$	$1.860 \times 10^2$	$-9.988 \times 10^3$
$(\alpha - \hat{\alpha})$	-	$2.436 \times 10^3$	$-1.791 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$1.634 \times 10^6$
			0.918

SUM OF SQUARED ERRORS: 5.175

NO. OF POINTS: 51

## UNGAVA BAY

STATION NO.: 8

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	3.698	3.272	4.124
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.099	0.082	0.116
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0000	-0.0013	0.0013

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.389 \times 10^0$	$2.315 \times 10^2$	$-1.296 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$3.443 \times 10^3$	$-2.641 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$2.275 \times 10^6$
			1.970

SUM OF SQUARED ERRORS:  $1.202 \times 10^0$ 

NO. OF POINTS: 55

## UNGAVA BAY

STATION NO.: 9

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s \text{ mg C}(\text{mg Chl } \alpha)^{-1} \text{ h}^{-1}$	5.151	4.582	5.720
$\alpha \text{ mg C}(\text{mg Chl } \alpha)^{-1} \text{ h}^{-1}/\text{W}^{-2}$	0.091	0.080	0.101
$\beta \text{ mg C}(\text{mg Chl } \alpha)^{-1} \text{ h}^{-1}/\text{W}^{-2}$	0.0004	-0.0011	0.0019

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s) 1.931 \times 10$	$3.504 \times 10^2$	$-1.259 \times 10^4$	
$(\alpha - \hat{\alpha})$	$8.988 \times 10^3$	$-5.850 \times 10^4$	
$(\beta - \hat{\beta})$	-	$2.405 \times 10^6$	1.666

SUM OF SQUARED ERRORS:  $1.036 \times 10$ 

NO. OF POINTS: 56

## UNGAVA BAY

STATION NO.: 10

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	4.320	3.804	4.835
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.089	0.077	0.100
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0016	0.0001	0.0032

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$1.940 \times 10$	$2.771 \times 10^2$	$-1.107 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$6.121 \times 10^3$	$-3.729 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$1.871 \times 10^6$
			1.483

SUM OF SQUARED ERRORS: 8.705

NO. OF POINTS: 53

## UNGAVA BAY

STATION NO.: 11

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$	2.903	2.596	3.209
$\alpha$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.073	0.062	0.085
$\beta$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0006	-0.0003	0.0016

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.272 \times 10^0$	$2.506 \times 10^2$	$-1.168 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$3.888 \times 10^3$	$-2.925 \times 10^4$
$(\beta - \hat{\beta})$	-		$1.938 \times 10^6$
			0.957

SUM OF SQUARED ERRORS: 5.729

NO. OF POINTS: 54

## UNGAVA BAY

STATION NO.: 12

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	2.604	2.316	2.892
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.058	0.051	0.066
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0017	0.007	0.0028

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.127 \times 10$	$2.794 \times 10^2$	$-1.005 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$4.819 \times 10^3$	$-3.380 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$1.417 \times 10^6$
			0.515

SUM OF SQUARED ERRORS: 3.146

NO. OF POINTS: 55

## UNGAVA BAY

STATION NO.: 13

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $a$ ) $^{-1}$ h $^{-1}$	3.588	3.133	4.042
$\alpha$ mg C(mg Chl $a$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.080	0.068	0.092
$\beta$ mg C(mg Chl $a$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0016	0.0001	0.0032

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.232 \times 10$	$2.819 \times 10^2$	$-1.088 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$4.970 \times 10^3$	$-3.539 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$1.559 \times 10^6$
			1.260

SUM OF SQUARED ERRORS: 7.841

NO. OF POINTS: 56

## UNGAVA BAY

STATION NO.: 14

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

	Parameter Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	3.765	3.386	4.145
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.92	0.079	0.104
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0000	-0.0011	0.0011

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

	$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.205 \times 10$	$2.605 \times 10^2$	$-1.216 \times 10^4$	
$(\alpha - \hat{\alpha})$	-	$4.401 \times 10^3$	$-3.211 \times 10^4$	
$(\beta - \hat{\beta})$	-	-	$2.125 \times 10^6$	1.299

SUM OF SQUARED ERRORS: 7.931

NO. OF POINTS: 55

## UNGAVA BAY

STATION NO.: 15

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

	Parameter Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	4.164	3.812	4.516
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.083	0.075	0.090
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0000	-0.0009	0.0009

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

	$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$1.887 \times 10$	$3.029 \times 10^2$	$-1.239 \times 10^4$	
$(\alpha - \hat{\alpha})$	-	$6.902 \times 10^3$	$-4.472 \times 10^4$	
$(\beta - \hat{\beta})$	-	-	$2.484 \times 10^6$	0.768

SUM OF SQUARED ERRORS: 4.600

NO. OF POINTS: 54

## UNGAVA BAY

STATION NO.: 16

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

	Parameter Value	Lower Limit	Upper Limit
$P_s$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$	6.806	5.355	8.257
$\alpha$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.065	0.060	0.070
$\beta$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0090	0.0039	0.0141

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

	$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$1.023 \times 10$	$4.904 \times 10^2$	$-5.410 \times 10^3$	
$(\alpha - \hat{\alpha})$	-	$2.478 \times 10^4$	$-1.024 \times 10^5$	
$(\beta - \hat{\beta})$	-	-	$7.363 \times 10^5$	0.905

SUM OF SQUARED ERRORS: 5.526

NO. OF POINTS: 55

## UNGAVA BAY

STATION NO.: 17

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	3.501	2.970	4.032
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.053	0.047	0.058
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0031	0.0013	0.0049

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$1.318 \times 10$	$3.146 \times 10^2$	$-6.905 \times 10^3$
$(\alpha - \hat{\alpha})$	-	$1.084 \times 10^4$	$-5.052 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$9.904 \times 10^5$
			0.576

SUM OF SQUARED ERRORS: 3.318

NO. OF POINTS: 52

## UNGAVA BAY

STATION NO.: 18

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$	3.310	3.003	3.617
$\alpha$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.067	0.059	0.074
$\beta$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0006	-0.0003	0.0014

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.160 \times 10$	$3.086 \times 10^2$	$-1.280 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$6.601 \times 10^3$	$-4.501 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$2.308 \times 10^6$
			0.719

SUM OF SQUARED ERRORS:  $4.646 \times 10$ 

NO. OF POINTS: 58

## UNGAVA BAY

STATION NO.: 19

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$	3.101	2.844	3.358
$\alpha$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.078	0.068	0.087
$\beta$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.000	-0.0007	0.0007

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

29

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.112 \times 10$	$2.334 \times 10^2$	$-1.208 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$3.883 \times 10^3$	$-2.834 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$2.330 \times 10^6$
			0.751

SUM OF SQUARED ERRORS: 4.490

NO. OF POINTS: 54

## UNGAVA BAY

STATION NO.: 20

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s \text{ mg C}(\text{mg Chl } a)^{-1} \text{ h}^{-1}$	3.633	3.165	4.102
$\alpha \text{ mg C}(\text{mg Chl } a)^{-1} \text{ h}^{-1}/\text{W}^{-2}$	0.085	0.072	0.098
$\beta \text{ mg C}(\text{mg Chl } a)^{-1} \text{ h}^{-1}/\text{W}^{-2}$	0.0011	-0.0005	0.0027

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.121 \times 10$	$2.566 \times 10^2$	$-1.080 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$4.674 \times 10^3$	$-3.115 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$1.643 \times 10^6$
			1.407

SUM OF SQUARED ERRORS: 8.589

NO. OF POINTS: 55

## UNGAVA BAY

STATION NO.: 21

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	4.615	4.028	5.202
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.071	0.064	0.079
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0015	-0.0002	0.0032

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$1.562 \times 10$	$3.423 \times 10^2$	$-9.602 \times 10^3$
$(\alpha - \hat{\alpha})$	-	$1.085 \times 10^4$	$-6.088 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$1.643 \times 10^6$
			0.973

SUM OF SQUARED ERRORS: 5.714

NO. OF POINTS: 53

## UNGAVA BAY

STATION NO.: 22

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	4.356	3.788	4.923
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.065	0.058	0.072
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0012	-0.0004	0.0028

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$1.638 \times 10$	$4.175 \times 10^2$	$-9.961 \times 10^3$
$(\alpha - \hat{\alpha})$	-	$1.222 \times 10^4$	$-7.880 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$1.703 \times 10^6$

SUM OF SQUARED ERRORS: 6.054

NO. OF POINTS: 54

## UNGAVA BAY

STATION NO.: 23

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	2.864	2.629	3.299
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.069	0.058	0.079
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0002	-0.0008	0.0011

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.388 \times 10$ <sup>2</sup>	$2.569 \times 10$ <sup>2</sup>	$-1.430 \times 10$ <sup>4</sup>
$(\alpha - \hat{\alpha})$	$-$	$4.661 \times 10$ <sup>3</sup>	$-3.331 \times 10$ <sup>4</sup>
$(\beta - \hat{\beta})$	$-$	$-$	$2.657 \times 10$ <sup>6</sup>
			1.051

SUM OF SQUARED ERRORS: 6.665

NO. OF POINTS: 57

## UNGAVA BAY

STATION NO.: 24

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$	4.116	3.665	4.567
$\alpha$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.087	0.076	0.097
$\beta$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0012	-0.0002	0.0026

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$1.815 \times 10^0$	$2.700 \times 10^2$	$-1.001 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$5.904 \times 10^3$	$-3.605 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$1.649 \times 10^6$
			1.121

SUM OF SQUARED ERRORS: 6.579

NO. OF POINTS: 53

## UNGAVA BAY

STATION NO.: 25

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C( $\text{mg Chl } a$ ) $^{-1}$ h $^{-1}$	3.815	3.406	4.225
$\alpha$ mg C( $\text{mg Chl } a$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.101	0.085	0.117
$\beta$ mg C( $\text{mg Chl } a$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0004	-0.0008	0.0015

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.327 \times 10^0$	$2.246 \times 10^2$	$-1.305 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$3.525 \times 10^3$	$-2.502 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$2.355 \times 10^6$
			1.740

SUM OF SQUARED ERRORS:  $1.082 \times 10^0$ 

NO. OF POINTS: 56

## UNGAVA BAY

STATION NO.: 26

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

	Parameter Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $a$ ) $^{-1}$ h $^{-1}$	3.647	3.031	4.264
$\alpha$ mg C(mg Chl $a$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.076	0.062	0.090
$\beta$ mg C(mg Chl $a$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0000	-0.0017	0.0017

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

	$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.020 \times 10$	$2.870 \times 10^2$	$-1.217 \times 10^4$	
$(\alpha - \hat{\alpha})$	-	$6.114 \times 10^3$	$-4.102 \times 10^4$	
$(\beta - \hat{\beta})$	-	-	$2.177 \times 10^6$	2.200

SUM OF SQUARED ERRORS:  $1.317 \times 10$ 

NO. OF POINTS: 54

## UNGAVA BAY

STATION NO.: 27

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	3.852	3.488	4.216
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.080	0.071	0.088
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0006	-0.0005	0.0017

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$1.615 \times 10^0$	$2.884 \times 10^2$	$-9.024 \times 10^3$
$(\alpha - \hat{\alpha})$	-	$6.024 \times 10^3$	$-3.961 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$1.561 \times 10^6$
			0.723

SUM OF SQUARED ERRORS: 3.990

NO. OF POINTS: 50

## UNGAVA BAY

STATION NO.: 28

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	3.101	2.832	3.371
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.064	0.057	0.070
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0002	-0.0005	0.0010

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$1.949 \times 10$	$2.847 \times 10^2$	$-1.167 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$5.970 \times 10^3$	$-4.108 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$2.112 \times 10^6$
			0.458

SUM OF SQUARED ERRORS: 2.688

NO. OF POINTS: 53

## UNGAVA BAY

STATION NO.: 29

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

	Parameter Value	Lower Limit	Upper Limit
$P_s$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$	3.428	2.918	3.937
$\alpha$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.063	0.054	0.072
$\beta$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0022	0.0004	0.0040

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

	$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$1.935 \times 10$	$3.338 \times 10^2$	$-9.592 \times 10^3$	
$(\alpha - \hat{\alpha})$	-	$7.616 \times 10^3$	$-4.833 \times 10^4$	
$(\beta - \hat{\beta})$	-	-	$1.344 \times 10^6$	1.045

SUM OF SQUARED ERRORS: 6.625

NO. OF POINTS: 57

## UNGAVA BAY

STATION NO.: 50

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

	Parameter Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	3.681	3.400	3.962
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.084	0.760	0.092
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0012	0.0003	0.0021

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

	$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.090 \times 10$	$2.606 \times 10^2$	$-1.097 \times 10^4$	
$(\alpha - \hat{\alpha})$	-	$4.981 \times 10^3$	$-3.265 \times 10^4$	
$(\beta - \hat{\beta})$	-	-	$1.756 \times 10^6$	0.588

SUM OF SQUARED ERRORS: 3.662

NO. OF POINTS: 56

## UNGAVA BAY

STATION NO.: 31

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	2.814	2.595	3.033
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.071	0.063	0.078
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0000	-0.0006	0.0006

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.118 \times 10^0$	$2.368 \times 10^2$	$-1.186 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$3.991 \times 10^3$	$-2.813 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$2.131 \times 10^6$
			0.442

SUM OF SQUARED ERRORS: 2.646

NO. OF POINTS: 54

## UNGAVA BAY

STATION NO.: 32

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$	2.225	1.953	2.497
$\alpha$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.050	0.043	0.058
$\beta$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0002	-0.0006	0.0010

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$1.807 \times 10$	$2.452 \times 10^2$	$-1.015 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$4.733 \times 10^3$	$-3.174 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$1.754 \times 10^6$
			0.469

SUM OF SQUARED ERRORS: 2.587

NO. OF POINTS: 50

## UNGAVA BAY

STATION NO.: 33

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$	2.997	2.667	3.327
$\alpha$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.061	0.054	0.068
$\beta$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0000	-0.0009	0.0009

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$1.791 \times 10^0$	$2.983 \times 10^2$	$-1.068 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$6.736 \times 10^5$	$-4.330 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$1.909 \times 10^6$
			0.573

SUM OF SQUARED ERRORS: 3.300

NO. OF POINTS: 52

## UNGAVA BAY

STATION NO.: 34A

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$	2.746	2.258	3.234
$\alpha$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.056	0.045	0.067
$\beta$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0000	-0.0014	0.0014

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$6.692 \times 10^{-3}$	$-3.017 \times 10^3$	
$(\alpha - \hat{\alpha})$	$1.610 \times 10^3$	$-1.016 \times 10^4$	
$(\beta - \hat{\beta})$	-	$5.245 \times 10^5$	0.381

SUM OF SQUARED ERRORS: 0.626

NO. OF POINTS: 17

## UNGAVA BAY

STATION NO.: 34B

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $a$ ) $^{-1}$ h $^{-1}$	2.222	1.828	2.617
$\alpha$ mg C(mg Chl $a$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.061	0.049	0.073
$\beta$ mg C(mg Chl $a$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0009	-0.0004	0.0022

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$5.024$	$2.772 \times 10$	$-2.758 \times 10^3$
$(\alpha - \hat{\alpha})$	$-$	$7.604 \times 10^2$	$-2.762 \times 10^3$
$(\beta - \hat{\beta})$	$-$	$-$	$4.414 \times 10^5$
			0.279

SUM OF SQUARED ERRORS: 0.393

NO. OF POINTS: 15

## UNGAVA BAY

STATION NO.: 34C

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	2.141	1.751	2.531
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.070	0.052	0.088
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0009	-0.0006	0.0025

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

	$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	6.915	$4.777 \times 10$	$-2.887 \times 10^3$	
$(\alpha - \hat{\alpha})$	-	$6.581 \times 10^2$	$-4.292 \times 10^3$	
$(\beta - \hat{\beta})$	-	-	$3.795 \times 10^5$	0.478

SUM OF SQUARED ERRORS: 0.843

NO. OF POINTS: 18.

## UNGAVA BAY

STATION NO.: 54D

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	1.685	1.479	1.890
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.077	0.061	0.093
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0008	-0.0000	0.0015

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$3.048 \times 10^{-3}$	$-3.147 \times 10^{-3}$	
$(\alpha - \hat{\alpha})$	$3.286 \times 10^{-2}$	$-1.930 \times 10^{-3}$	
$(\beta - \hat{\beta})$	-	$4.592 \times 10^{-5}$	0.200

SUM OF SQUARED ERRORS: 0.329

NO. OF POINTS: 17

## UNGAVA BAY

STATION NO.: 35A

DEPTH: 30 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

	Parameter Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	2.076	1.788	2.364
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.061	0.050	0.071
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0007	-0.0002	0.0017

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$5.058$	$4.1 \times 10^{-2}$	$-2.667 \times 10^3$
$(\alpha - \hat{\alpha})$	$-$	$7.115 \times 10^{-2}$	$-3.952 \times 10^3$
$(\beta - \hat{\beta})$	$-$	$-$	$4.296 \times 10^5$
			0.153

SUM OF SQUARED ERRORS: 0.234

NO. OF POINTS: 16

## UNGAVA BAY

STATION NO.: 35B

DEPTH: 30 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$	1.382	1.186	1.578
$\alpha$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.037	0.050	0.043
$\beta$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0012	0.0005	0.0019

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	5.137	$4.631 \times 10^{-3}$	$-2.369 \times 10^{-3}$
$(\alpha - \hat{\alpha})$	-	$7.321 \times 10^{-2}$	$-4.646 \times 10^{-3}$
$(\beta - \hat{\beta})$	-	-	$3.279 \times 10^{-5}$
			0.064

SUM OF SQUARED ERRORS: 0.097

NO. OF POINTS: 16

## UNGAVA BAY

STATION NO.: 35C

DEPTH: 30 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$	2.544	1.666	3.422
$\alpha$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.051	0.040	0.063
$\beta$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0054	0.0004	0.0103

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$3.369$	$5.089 \times 10^3$	$-1.098 \times 10^3$
$(\alpha - \hat{\alpha})$	$-$	$1.341 \times 10^3$	$-5.517 \times 10^3$
$(\beta - \hat{\beta})$	$-$	$-$	$9.569 \times 10^4$
			0.332

SUM OF SQUARED ERRORS: 0.507

NO. OF POINTS: 16

## UNGAVA BAY

STATION NO.: 35D

DEPTH: 30 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

	Parameter Value	Lower Limit	Upper Limit
$P_s \text{ mg C}(\text{mg Chl } \alpha)^{-1} \text{ h}^{-1}$	2.011	1.311	2.711
$\alpha \text{ mg C}(\text{mg Chl } \alpha)^{-1} \text{ h}^{-1} / \text{W}^{-2}$	0.037	0.026	0.049
$\beta \text{ mg C}(\text{mg Chl } \alpha)^{-1} \text{ h}^{-1} / \text{W}^{-2}$	0.0016	-0.0008	0.0039

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$4.273$	$6.212 \times 10^{-3}$	$-2.255 \times 10^{-3}$
$(\alpha - \hat{\alpha})$	$-$	$1.595 \times 10^{-3}$	$-8.593 \times 10^{-3}$
$(\beta - \hat{\beta})$	$-$	$-$	$3.294 \times 10^{-5}$
			0.352

SUM OF SQUARED ERRORS: 0.496

NO. OF POINTS: 15

## UNGAVA BAY

STATION NO.: 36

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	2.175	1.974	2.375
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.101	0.083	0.119
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0007	-0.0001	0.0015

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.497 \times 10$	$1.108 \times 10^2$	$-1.012 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$8.876 \times 10^2$	$-7.123 \times 10^3$
$(\beta - \hat{\beta})$	-	-	$1.451 \times 10^6$
			0.632

SUM OF SQUARED ERRORS: 3.486

NO. OF POINTS: 50

## UNGAVA BAY

STATION NO.: 37

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

	Parameter Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	2.347	2.055	2.640
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.058	0.050	0.066
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0016	0.0006	0.0027

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

	$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$1.814 \times 10$	$2.031 \times 10^2$	$-8.452 \times 10^3$	
$(\alpha - \hat{\alpha})$	-	$3.656 \times 10^3$	$-2.172 \times 10^4$	
$(\beta - \hat{\beta})$	-	-	$1.162 \times 10^6$	0.437

SUM OF SQUARED ERRORS: 2.308

NO. OF POINTS: 48

## UNGAVA BAY

STATION NO.: 38

DEPTH: 20 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

	Parameter Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	3.246	2.909	3.582
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.075	0.064	0.085
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0006	-0.0004	0.0016

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

	$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.174 \times 10$	$2.542 \times 10^2$	$-1.214 \times 10^4$	
$(\alpha - \hat{\alpha})$	-	$4.395 \times 10^3$	$-3.259 \times 10^4$	
$(\beta - \hat{\beta})$	-	-	$2.116 \times 10^6$	0.962

SUM OF SQUARED ERRORS: 5.646

NO. OF POINTS: 53

## UNGAVA BAY

STATION NO.: 39

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $a$ ) $^{-1}$ h $^{-1}$	2.272	2.047	2.498
$\alpha$ mg C(mg Chl $a$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.058	0.050	0.066
$\beta$ mg C(mg Chl $a$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0007	0.0000	0.0015

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$1.830 \times 10$	$1.801 \times 10^2$	$-9.167 \times 10^3$
$(\alpha - \hat{\alpha})$	-	$3.147 \times 10^3$	$-2.053 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$1.416 \times 10^6$
			3.724

SUM OF SQUARED ERRORS: 1.967

NO. OF POINTS: 48

## UNGAVA BAY

STATION NO.: 40

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

	Parameter Value	Lower Limit	Upper Limit
$P_s$ mg C( $\text{mg Chl } a$ ) $^{-1}$ h $^{-1}$	3.012	2.651	3.373
$\alpha$ mg C( $\text{mg Chl } a$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.073	0.063	0.083
$\beta$ mg C( $\text{mg Chl } a$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0022	0.0010	0.0034

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

	$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$1.739 \times 10$	$2.156 \times 10^2$	$-8.511 \times 10^3$	
$(\alpha - \hat{\alpha})$	-	$4.206 \times 10^3$	$-2.302 \times 10^4$	
$(\beta - \hat{\beta})$	-	-	$1.264 \times 10^6$	0.749

SUM OF SQUARED ERRORS: 4.220

NO. OF POINTS: 51

## UNGAVA BAY

STATION NO.: 41

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s \text{ mg C}(\text{mg Chl } \alpha)^{-1} \text{ h}^{-1}$	3.871	3.186	4.557
$\alpha \text{ mg C}(\text{mg Chl } \alpha)^{-1} \text{ h}^{-1}/W^{-2}$	0.057	0.051	0.064
$\beta \text{ mg C}(\text{mg Chl } \alpha)^{-1} \text{ h}^{-1}/W^{-2}$	0.0045	0.0017	0.0072

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s) 1.278 \times 10$	$3.429 \times 10^2$	$-5.734 \times 10^3$	
$(\alpha - \hat{\alpha}) -$	$1.058 \times 10^4$	$-5.396 \times 10^4$	
$(\beta - \hat{\beta}) -$	-	$6.875 \times 10^5$	0.661

SUM OF SQUARED ERRORS: 3.803

NO. OF POINTS: 52

## UNGAVA BAY

STATION NO.: 42

DEPTH: 31 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	2.890	2.634	3.145
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.080	0.070	0.090
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0002	-0.0006	0.0010

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.196 \times 10$	$1.951 \times 10^2$	$-1.205 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$3.111 \times 10^3$	$-2.095 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$2.143 \times 10^6$
			0.689

SUM OF SQUARED ERRORS: 4.047

NO. OF POINTS: 53

## UNGAVA BAY

STATION NO.: 43

DEPTH: 43 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

	Parameter Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	1.996	1.753	2.238
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.055	0.046	0.063
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0000	-0.0007	0.0007

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$1.944 \times 10$	$1.684 \times 10^2$	$-1.195 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$3.001 \times 10^3$	$-1.767 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$2.269 \times 10^6$

SUM OF SQUARED ERRORS: 2.357

NO. OF POINTS: 49

## UNGAVA BAY

STATION NO.: 44

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

	Parameter Value	Lower Limit	Upper Limit
$P_s$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$	1.974	1.749	2.199
$\alpha$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.060	0.050	0.070
$\beta$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0000	-0.0007	0.0007

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

	$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$1.998 \times 10$	$1.503 \times 10^2$	$-1.102 \times 10^4$	
$(\alpha - \hat{\alpha})$	-	$2.280 \times 10^3$	$-1.464 \times 10^4$	
$(\beta - \hat{\beta})$	-	-	$1.920 \times 10^6$	0.435

SUM OF SQUARED ERRORS: 2.349

NO. OF POINTS: 49

## UNGAVA BAY

STATION NO.: 45

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	2.436	2.089	2.782
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.053	0.044	0.063
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0007	-0.0003	0.0017

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.138 \times 10$	$2.314 \times 10^2$	$-1.289 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$4.943 \times 10^3$	$-3.003 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$2.323 \times 10^6$
			0.852

SUM OF SQUARED ERRORS: 5.102

NO. OF POINTS: 54

## UNGAVA BAY

STATION NO.: 46

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$	2.416	2.200	2.632
$\alpha$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.071	0.061	0.080
$\beta$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0005	-0.0002	0.0012

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.223 \times 10$	$1.918 \times 10^2$	$-1.101 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$2.675 \times 10^3$	$-1.947 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$1.796 \times 10^6$
			0.517

SUM OF SQUARED ERRORS: 3.039

NO. OF POINTS: 53

## UNGAVA BAY

STATION NO.: 47

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $a$ ) $^{-1}$ h $^{-1}$	2.735	2.381	3.089
$\alpha$ mg C(mg Chl $a$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.090	0.069	0.110
$\beta$ mg C(mg Chl $a$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0005	-0.0006	0.0016

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.766 \times 10$	$1.749 \times 10^2$	$-1.431 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$2.065 \times 10^3$	$-1.595 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$2.467 \times 10^6$
			1.849

SUM OF SQUARED ERRORS:  $1.193 \times 10$ 

NO. OF POINTS: 58

## UNGAVA BAY

STATION NO.: 48

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	2.361	2.019	2.902
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.056	0.045	0.067
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0000	-0.0010	0.0010

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.130 \times 10$	$2.244 \times 10^2$	$-1.280 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$4.276 \times 10^3$	$-2.848 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$2.397 \times 10^6$
			1.025

SUM OF SQUARED ERRORS: 6.135

NO. OF POINTS: 54

## UNGAVA BAY

STATION NO.: 49

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

	Parameter Value	Lower Limit	Upper Limit
$P_s$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$	2.357	2.131	2.584
$\alpha$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.071	0.061	0.082
$\beta$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0007	-0.0001	0.0015

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

	$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.191 \times 10$	$1.900 \times 10^2$	$-1.009 \times 10^4$	
$(\alpha - \hat{\alpha})$	-	$2.492 \times 10^3$	$-1.835 \times 10^4$	
$(\beta - \hat{\beta})$	-	-	$1.517 \times 10^6$	0.529

SUM OF SQUARED ERRORS: 3.108

NO. OF POINTS: 53

## UNGAVA BAY

STATION NO.: 50

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

	Parameter Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $a$ ) $^{-1}$ h $^{-1}$	2.694	2.360	3.027
$\alpha$ mg C(mg Chl $a$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.076	0.063	0.090
$\beta$ mg C(mg Chl $a$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0000	-0.0009	0.0009

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

	$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.167 \times 10$	$1.435 \times 10^2$	$-1.347 \times 10^4$	
$(\alpha - \hat{\alpha})$	-	$2.645 \times 10^3$	$-1.496 \times 10^4$	
$(\beta - \hat{\beta})$	-	-	$2.631 \times 10^6$	1.131

SUM OF SQUARED ERRORS: 6.373

NO. OF POINTS: 51

## UNGAVA BAY

STATION NO.: 51

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

	Parameter Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	3.533	3.123	3.942
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.111	0.091	0.130
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0000	-0.0013	0.0013

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.288 \times 10$	$1.753 \times 10^2$	$-1.187 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$2.463 \times 10^3$	$1.673 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$2.013 \times 10^6$
			1.897

SUM OF SQUARED ERRORS:  $1.135 \times 10$ 

NO. OF POINTS: 54

## UNGAVA BAY

STATION NO.: 52

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

	Parameter Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	3.576	3.121	4.030
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.078	0.068	0.088
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0021	0.0003	0.0038

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$1.716 \times 10$	$2.625 \times 10^2$	$-7.717 \times 10^3$
$(\alpha - \hat{\alpha})$	-	$5.258 \times 10^3$	$-3.289 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$1.005 \times 10^6$
			0.889

SUM OF SQUARED ERRORS: 5.219

NO. OF POINTS: 53

## UNGAVA BAY

STATION NO.: 53

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	3.447	2.874	4.021
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.087	0.073	0.102
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0031	0.0007	0.0054

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$9.874 \times 10^{-3}$	$-3.140 \times 10^{-3}$	
$(\alpha - \hat{\alpha})$	$1.942 \times 10^{-3}$	$-9.821 \times 10^{-3}$	
$(\beta - \hat{\beta})$	-	$3.892 \times 10^{-5}$	0.658

SUM OF SQUARED ERRORS: 1.700

NO. OF POINTS: 25

## UNGAVA BAY

STATION NO.: 54

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

	Parameter Value	Lower Limit	Upper Limit
$P_s$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$	4.524	3.591	5.457
$\alpha$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.069	0.058	0.081
$\beta$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0031	0.0002	0.0059

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$8.536$	$1.858 \times 10^2$	$-4.938 \times 10^3$
$(\alpha - \hat{\alpha})$	-	$5.731 \times 10^3$	$-3.039 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$7.887 \times 10^5$
			1.127

SUM OF SQUARED ERRORS: 3.308

NO. OF POINTS: 28

## UNGAVA BAY

STATION NO.: 55

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

	Parameter Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	3.428	3.020	3.825
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.117	0.093	0.141
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0005	-0.0009	0.0018

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

	$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.345 \times 10$	$1.423 \times 10^2$	$-1.160 \times 10^4$	
$(\alpha - \hat{\alpha})$	-	$1.706 \times 10^3$	$-1.247 \times 10^4$	
$(\beta - \hat{\beta})$	-	-	$1.893 \times 10^6$	2.047

SUM OF SQUARED ERRORS:  $1.153 \times 10$ 

NO. OF POINTS: 51

## UNGAVA BAY

STATION NO.: 56

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$	4.246	3.517	4.974
$\alpha$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.084	0.071	0.096
$\beta$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0026	0.0001	0.0052

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

	$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	7.464	$1.356 \times 10^2$	$-3.659 \times 10^3$	
$(\alpha - \hat{\alpha})$	-	$3.341 \times 10^3$	$-1.789 \times 10^4$	
$(\beta - \hat{\beta})$	-	-	$5.120 \times 10^5$	0.850

SUM OF SQUARED ERRORS: 2.296

NO. OF POINTS: 26

## UNGAVA BAY

STATION NO.: 58

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$	2.484	2.196	2.772
$\alpha$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.076	0.063	0.089
$\beta$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0004	-0.0006	0.0013

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$1.023 \times 10$	$9.233 \times 10^3$	$-5.023 \times 10^3$
$(\alpha - \hat{\alpha})$	$-$	$1.315 \times 10^3$	$-8.849 \times 10^3$
$(\beta - \hat{\beta})$	$-$	$-$	$8.294 \times 10^5$
			0.451

SUM OF SQUARED ERRORS: 1.217

NO. OF POINTS: 26

## UNGAVA BAY

STATION NO.: 59

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s \text{ mg C}(\text{mg Chl } \alpha)^{-1} \text{ h}^{-1}$	4.356	3.749	4.962
$\alpha \text{ mg C}(\text{mg Chl } \alpha)^{-1} \text{ h}^{-1}/W^{-2}$	0.093	0.078	0.107
$\beta \text{ mg C}(\text{mg Chl } \alpha)^{-1} \text{ h}^{-1}/W^{-2}$	0.0000	-0.0017	0.0017

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$1.709 \times 10$	$2.772 \times 10^2$	$-9.797 \times 10^3$
$(\alpha - \hat{\alpha})$	-	$6.104 \times 10^3$	$-3.831 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$1.754 \times 10^6$
			2.425

SUM OF SQUARED ERRORS:  $1.394 \times 10$ 

NO. OF POINTS: 52

## UNGAVA BAY

STATION NO.: 60

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	2.815	2.528	3.102
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.066	0.570	0.076
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0000	-0.0008	0.0008

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$1.988 \times 10$	$2.291 \times 10^2$	$-1.238 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$4.583 \times 10^3$	$-2.909 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$2.506 \times 10^6$
			0.796

SUM OF SQUARED ERRORS: 4.767

NO. OF POINTS: 54

## UNGAVA BAY

STATION NO.: 61

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

	Parameter Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	2.581	2.259	2.903
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.069	0.057	0.081
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0011	-0.0000	0.0022

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

	$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.158 \times 10$	$2.143 \times 10^2$	$-1.033 \times 10^4$	
$(\alpha - \hat{\alpha})$	-	$3.488 \times 10^3$	$-2.272 \times 10^4$	
$(\beta - \hat{\beta})$	-	-	$1.552 \times 10^6$	0.926

SUM OF SQUARED ERRORS: 5.657

NO. OF POINTS: 55

## UNGAVA BAY

STATION NO.: 62

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

	Parameter Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	2.083	1.915	2.252
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.073	0.063	0.083
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0000	-0.0005	0.0005

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.608 \times 10$	$1.576 \times 10^2$	$-1.388 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$1.928 \times 10^5$	$-1.350 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$2.513 \times 10^6$
			0.429

SUM OF SQUARED ERRORS: 2.674

NO. OF POINTS: 56

## UNGAVA BAY

STATION NO.: 63

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

	Parameter Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	2.169	1.932	2.406
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.068	0.056	0.079
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0000	-0.0007	0.0007

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

	$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.057 \times 10$	$1.802 \times 10^2$	$-1.053 \times 10^4$	
$(\alpha - \hat{\alpha})$	-	$2.458 \times 10^3$	$-1.723 \times 10^4$	
$(\beta - \hat{\beta})$	-	-	$1.829 \times 10^6$	0.620

SUM OF SQUARED ERRORS: 3.566

NO. OF POINTS: 52

## UNGAVA BAY

STATION NO.: 64

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

	Parameter Value	Lower Limit	Upper Limit
$P_s$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$	2.523	2.265	2.780
$\alpha$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.067	0.058	0.075
$\beta$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0015	0.0005	0.0024

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$1.948 \times 10$	$1.798 \times 10^2$	$-8.888 \times 10^3$
$(\alpha - \hat{\alpha})$	-	$3.257 \times 10^3$	$-1.897 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$1.214 \times 10^6$
			0.454

SUM OF SQUARED ERRORS: 2.614

NO. OF POINTS: 52

## UNGAVA BAY

STATION NO.: 65

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

	Parameter Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	4.311	3.644	4.978
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.080	0.071	0.089
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0034	0.0009	0.0059

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

80

	$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$1.064 \times 10$	$2.320 \times 10^2$	$-4.966 \times 10^2$	
$(\alpha - \hat{\alpha})$	-	$6.666 \times 10^3$	$-3.118 \times 10^4$	
$(\beta - \hat{\beta})$	-	-	$6.535 \times 10^5$	0.939

SUM OF SQUARED ERRORS: 4.852

NO. OF POINTS: 47

## UNGAVA BAY

STATION NO.: 66

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$	2.840	2.548	3.131
$\alpha$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.092	0.077	0.107
$\beta$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0003	-0.0006	0.0013

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.401 \times 10$	$1.802 \times 10^2$	$-1.221 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$2.235 \times 10^3$	$-1.638 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$2.063 \times 10^6$
			1.037

SUM OF SQUARED ERRORS: 6.455

NO. OF POINTS: 56

## UNGAVA BAY

STATION NO.: 67

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	3.561	3.047	4.075
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.099	0.079	0.119
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0005	-0.0011	0.0021

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.315 \times 10$	$2.117 \times 10^2$	$-1.216 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$3.316 \times 10^3$	$-2.228 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$2.037 \times 10^6$

SUM OF SQUARED ERRORS:  $1.707 \times 10$ 

NO. OF POINTS: 57

## UNGAVA BAY

STATION NO.: 68

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	2.382	2.046	2.718
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.061	0.051	0.072
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0015	0.0003	0.0028

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.238 \times 10$	$2.380 \times 10^2$	$-1.030 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$4.025 \times 10^3$	$-2.515 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$1.443 \times 10^6$
			0.882

SUM OF SQUARED ERRORS: 5.697

NO. OF POINTS: 58

## UNGAVA BAY

STATION NO.: 69

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

	Parameter Value	Lower Limit	Upper Limit
$P_s$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$	2.183	2.012	2.355
$\alpha$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.074	0.065	0.082
$\beta$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0014	0.0007	0.0020

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

	$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$1.979 \times 10$	$1.404 \times 10^2$	$-8.549 \times 10^3$	
$(\alpha - \hat{\alpha})$	-	$1.761 \times 10^3$	$-1.175 \times 10^4$	
$(\beta - \hat{\beta})$	-	-	$1.215 \times 10^6$	0.295

SUM OF SQUARED ERRORS: 1.597

NO. OF POINTS: 49

## UNGAVA BAY

STATION NO.: 70

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	1.903	1.729	2.078
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.078	0.064	0.092
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0004	-0.0002	0.0010

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.783 \times 10$	$1.173 \times 10^2$	$-1.338 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$1.205 \times 10^3$	$-8.563 \times 10^3$
$(\beta - \hat{\beta})$	-	-	$2.204 \times 10^6$
			0.531

SUM OF SQUARED ERRORS: 3.308

NO. OF POINTS: 56

## UNGAVA BAY

STATION NO.: 71

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	2.833	2.533	3.132
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.114	0.092	0.136
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0011	0.0001	0.0022

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.653 \times 10$	$1.383 \times 10^2$	$-1.205 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$1.378 \times 10^3$	$-9.995 \times 10^3$
$(\beta - \hat{\beta})$	-	-	$1.892 \times 10^6$
			1.420

SUM OF SQUARED ERRORS: 9.003

NO. OF POINTS: 57

## UNGAVA BAY

STATION NO.: 72

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

	Parameter Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	2.217	1.985	2.450
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.056	0.049	0.064
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0009	0.0001	0.0017

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.139 \times 10$	$2.387 \times 10^2$	$-1.087 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$4.199 \times 10^3$	$-2.637 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$1.720 \times 10^6$
			0.447

SUM OF SQUARED ERRORS: 2.838

NO. OF POINTS: 57

## UNGAVA BAY

STATION NO.: 73

DEPTH: 10m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	1.901	1.738	2.064
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.056	0.048	0.064
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0002	-0.0002	0.0007

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

	$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.497 \times 10$	$1.896 \times 10^2$	$-1.382 \times 10^4$	
$(\alpha - \hat{\alpha})$	-	$2.824 \times 10^3$	$-1.918 \times 10^4$	
$(\beta - \hat{\beta})$	-	-	$2.520 \times 10^6$	0.349

SUM OF SQUARED ERRORS: 2.213

NO. OF POINTS: 57

## UNGAVA BAY

STATION NO.: 74

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

	Parameter Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	2.369	2.170	2.567
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.062	0.055	0.069
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0012	0.0005	0.0019

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.125 \times 10$	$2.173 \times 10^2$	$-1.004 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$3.482 \times 10^3$	$-2.354 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$1.487 \times 10^6$
			0.346

SUM OF SQUARED ERRORS: 2.071

NO. OF POINTS: 54

## UNGAVA BAY

STATION NO.: 75

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

	Parameter Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	2.308	2.004	2.612
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.068	0.054	0.082
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0001	-0.0008	0.0010

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

	$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.490 \times 10$	$2.038 \times 10^2$	$-1.384 \times 10^4$	
$(\alpha - \hat{\alpha})$	-	$2.900 \times 10^3$	$-2.064 \times 10^4$	
$(\beta - \hat{\beta})$	-	-	$2.540 \times 10^6$	1.158

SUM OF SQUARED ERRORS: 7.344

NO. OF POINTS: 57

## UNGAVA BAY

STATION NO.: 76

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

	Parameter Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	2.641	2.346	2.937
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.081	0.068	0.093
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0007	-0.0002	0.0017

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.139 \times 10$	$1.818 \times 10^2$	$-1.053 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$2.664 \times 10^3$	$-1.693 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$1.671 \times 10^6$
			0.851

SUM OF SQUARED ERRORS: 5.095

NO. OF POINTS: 54

## UNGAVA BAY

STATION NO.: 77

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	2.377	2.185	2.569
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.065	0.057	0.074
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0000	-0.0006	0.0006

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.438 \times 10^0$	$2.137 \times 10^2$	$-1.310 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$3.253 \times 10^3$	$-2.380 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$2.327 \times 10^6$
			0.472

SUM OF SQUARED ERRORS: 2.995

NO. OF POINTS: 57

## UNGAVA BAY

STATION NO.: 78

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	1.727	1.539	1.915
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.048	0.040	0.056
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.000	-0.0006	0.0000

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.391 \times 10$	$2.316 \times 10^2$	$-1.286 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$3.441 \times 10^3$	$-2.537 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$2.333 \times 10^6$

SUM OF SQUARED ERRORS: 2.835

NO. OF POINTS: 56

## UNGAVA BAY

STATION NO.: 79

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

	Parameter Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	1.640	1.469	1.810
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.042	0.036	0.048
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0000	-0.0005	0.0005

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

	$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.169 \times 10$	$2.299 \times 10^2$	$-1.257 \times 10^4$	
$(\alpha - \hat{\alpha})$	-	$4.173 \times 10^3$	$-2.651 \times 10^4$	
$(\beta - \hat{\beta})$	-	-	$2.337 \times 10^6$	0.285

SUM OF SQUARED ERRORS: 1.740

NO. OF POINTS: 55

## UNGAVA BAY

STATION NO.: 80

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

	Parameter Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	1.665	1.440	1.890
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.033	0.029	0.038
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0008	0.0000	0.0015

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

	$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$1.677 \times 10$	$2.427 \times 10^2$	$-9.170 \times 10^3$	
$(\alpha - \hat{\alpha})$	-	$6.159 \times 10^3$	$-3.306 \times 10^4$	
$(\beta - \hat{\beta})$	-	-	$1.446 \times 10^6$	0.220

SUM OF SQUARED ERRORS: 1.266

NO. OF POINTS: 52

## UNGAVA BAY

STATION NO.: 81

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	1.943	1.679	2.208
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.056	0.045	0.066
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0012	0.0001	0.0022

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.105 \times 10$	$1.904 \times 10^2$	$-9.060 \times 10^3$
$(\alpha - \hat{\alpha})$	-	$2.639 \times 10^3$	$-1.857 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$1.190 \times 10^6$
			0.510

SUM OF SQUARED ERRORS: 3.058

NO. OF POINTS: 54

## UNGAVA BAY

STATION NO.: 82

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $a$ ) $^{-1}$ h $^{-1}$	2.031	1.776	2.286
$\alpha$ mg C(mg Chl $a$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.049	0.043	0.055
$\beta$ mg C(mg Chl $a$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0023	0.0011	0.0035

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$1.551 \times 10$	$2.288 \times 10^2$	$-5.699 \times 10^3$
$(\alpha - \hat{\alpha})$	-	$4.134 \times 10^3$	$-2.393 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$6.136 \times 10^5$
			0.274

SUM OF SQUARED ERRORS: 1.578

NO. OF POINTS: 52

## UNGAVA BAY

STATION NO.: 83

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$	2.478	2.198	2.759
$\alpha$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.066	0.056	0.076
$\beta$ mg C( $\text{mg Chl } \alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0005	-0.0004	0.0014

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.026 \times 10$	$2.351 \times 10^2$	$-1.004 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$3.684 \times 10^3$	$-2.545 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$1.592 \times 10^6$

SUM OF SQUARED ERRORS: 4.071

NO. OF POINTS: 56

## UNGAVA BAY

STATION NO.: 84A

DEPTH: 10 m

## - PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	3.108	2.270	3.946
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.068	0.050	0.086
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0003	-0.0019	0.0025

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	5.143	$6.953 \times 10^3$	$-3.378 \times 10^3$
$(\alpha - \hat{\alpha})$	-	$1.811 \times 10^3$	$-8.793 \times 10^3$
$(\beta - \hat{\beta})$	-	-	$6.668 \times 10^5$
			1.172

SUM OF SQUARED ERRORS: 2.063

NO. OF POINTS: 18

## UNGAVA BAY

STATION NO.: 84B

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

	Parameter Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	3.776	2.712	4.840
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.052	0.042	0.063
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0035	0.0000	0.0070

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

	$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	3.263	$9.693 \times 10$	$-1.756 \times 10^3$	
$(\alpha - \hat{\alpha})$	-	$3.307 \times 10^3$	$1.645 \times 10^4$	
$(\beta - \hat{\beta})$	-	-	$2.599 \times 10^5$	0.532

SUM OF SQUARED ERRORS: 0.874

NO. OF POINTS: 17

## UNGAVA BAY

STATION NO.: 84C

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	2.418	1.600	3.237
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.068	0.047	0.088
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0000	-0.0038	0.0038

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	4.608	$5.892 \times 10^{-3}$	$-1.727 \times 10^3$
$(\alpha - \hat{\alpha})$	-	$9.880 \times 10^{-2}$	$-6.321 \times 10^3$
$(\beta - \hat{\beta})$	-	-	$1.859 \times 10^5$
			0.738

SUM OF SQUARED ERRORS: 1.126

NO. OF POINTS: 16

## UNGAVA BAY

STATION NO.: 84D

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	2.332	2.015	2.649
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.061	0.050	0.073
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0004	-0.0005	0.0012

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	6.592	$6.002 \times 10^{-3}$	$-4.067 \times 10^{-3}$
$(\alpha - \hat{\alpha})$	-	$1.180 \times 10^{-3}$	$-6.574 \times 10^{-3}$
$(\beta - \hat{\beta})$	-	-	$8.051 \times 10^{-5}$
			0.318

SUM OF SQUARED ERRORS: 0.597

NO. OF POINTS: 19

## UNGAVA BAY

STATION NO.: 85D

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	3.262	2.616	3.909
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.054	0.047	0.061
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0045	0.0019	0.0072

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$3.920$	$6.711 \times 10^3$	$-1.781 \times 10^3$
$(\alpha - \hat{\alpha})$	-	$2.402 \times 10^3$	$-9.194 \times 10^3$
$(\beta - \hat{\beta})$	-	-	$2.178 \times 10^5$
			0.233

SUM OF SQUARED ERRORS: 0.410

NO. OF POINTS: 18

## UNGAVA BAY

STATION NO.: 85A

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

	Parameter Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	3.025	2.549	3.501
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.068	0.055	0.080
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0000	-0.0013	0.0013

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

	$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	5.226	$7.333 \times 10$	$-3.116 \times 10^3$	
$(\alpha - \hat{\alpha})$	-	$1.671 \times 10^2$	$-9.729 \times 10^3$	
$(\beta - \hat{\beta})$	-	-	$5.914 \times 10^5$	0.536

SUM OF SQUARED ERRORS: 1.007

NO. OF POINTS: 19

## UNGAVA BAY

STATION NO.: 85B

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	2.402	1.967	2.836
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.052	0.044	0.060
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0000	-0.0011	0.0011

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$4.028$	$4.984 \times 10^3$	$-2.808 \times 10^3$
$(\alpha - \hat{\alpha})$	$-$	$1.600 \times 10^3$	$-6.352 \times 10^3$
$(\beta - \hat{\beta})$	$-$	$-$	$5.682 \times 10^5$
			0.213

SUM OF SQUARED ERRORS: 0.350

NO. OF POINTS: 17

## UNGAVA BAY

STATION NO.: 85C

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

Parameter	Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	3.443	2.240	4.647
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.045	0.035	0.056
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0000	-0.0024	0.0024

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$8.828 \times 10^3$	$-2.138 \times 10^3$	
$(\alpha - \hat{\alpha})$	$4.626 \times 10^3$	$-1.822 \times 10^4$	
$(\beta - \hat{\beta})$	-	$5.288 \times 10^5$	0.820

SUM OF SQUARED ERRORS: 1.348

NO. OF POINTS: 17

## UNGAVA BAY

STATION NO.: 86

DEPTH: 10 m

## PARAMETERS AND APPROXIMATE 90% CONFIDENCE LIMITS

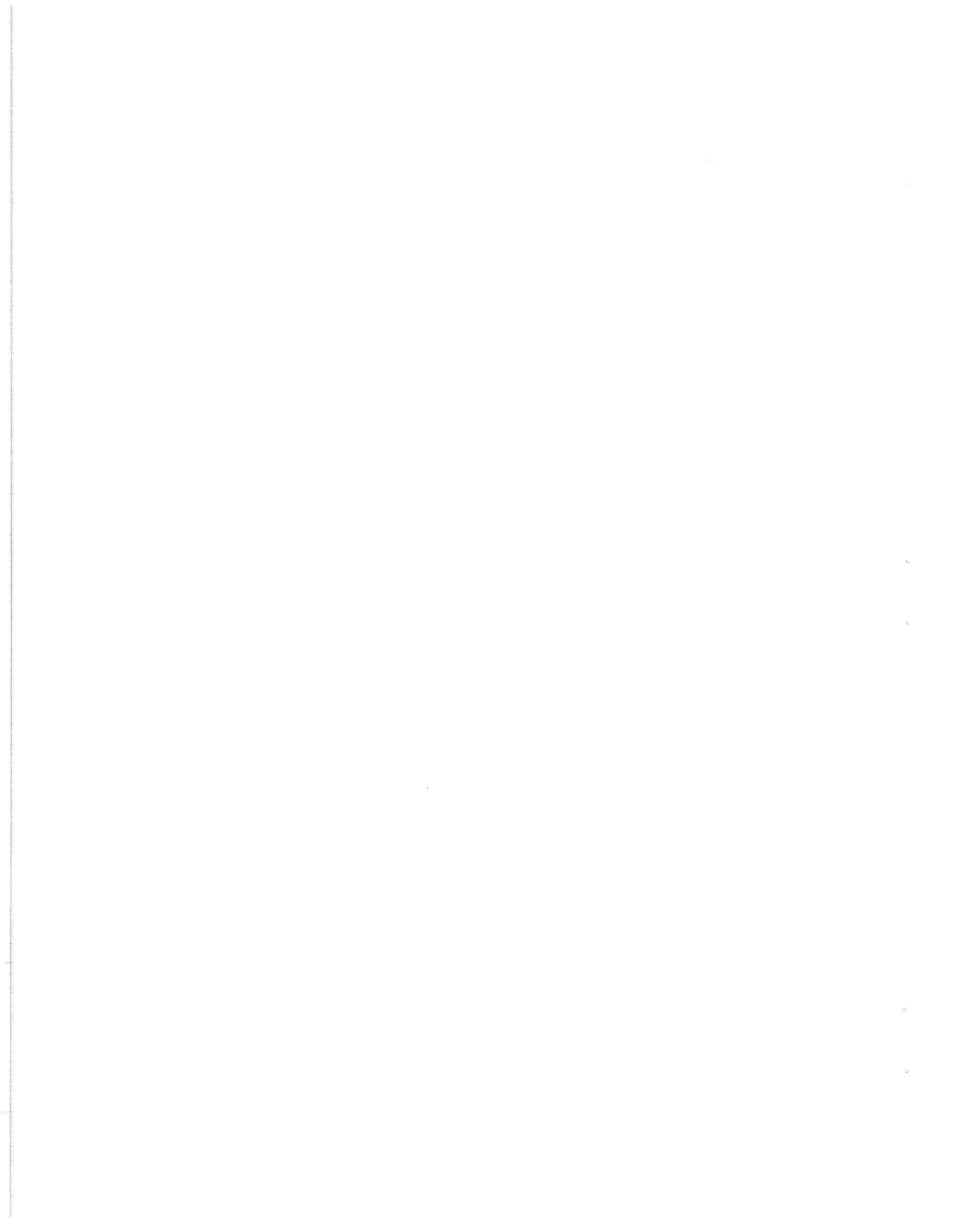
	Parameter Value	Lower Limit	Upper Limit
$P_s$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$	2.576	2.340	2.812
$\alpha$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.071	0.063	0.080
$\beta$ mg C(mg Chl $\alpha$ ) $^{-1}$ h $^{-1}$ /W $^{-2}$	0.0015	0.0007	0.0023

## COEFFICIENTS IN EQUATION FOR ELLIPSOIDAL JOINT CONFIDENCE REGION

$(P_s - \hat{P}_s)$	$(\alpha - \hat{\alpha})$	$(\beta - \hat{\beta})$	Constant
$(P_s - \hat{P}_s)$	$2.233 \times 10$	$1.919 \times 10^2$	$-1.116 \times 10^4$
$(\alpha - \hat{\alpha})$	-	$3.295 \times 10^3$	$-1.892 \times 10^4$
$(\beta - \hat{\beta})$	-	-	$1.721 \times 10^6$
			0.492

SUM OF SQUARED ERRORS: 3.124

NO. OF POINTS: 57



LIGHT SATURATION DATA, PARTICULATES & NUTRIENTS



## UNGAVA BAY

LATITUDE: 58°37.2'N

LONGITUDE: 68°10.1'W

STATION NO.: 1

DATE: 1/8/79

DEPTH: 5 m

TIME(ADT): 0730

SECCHI DEPTH: 5 m

I	P	I	P	I	P	I	P
630	3.63	49	2.26	4.4	0.10	97	3.60
583	3.77	46	2.52	3.4	0.11	64	3.10
461	4.48	30	2.08	3.3	0.05	70	3.41
469	3.69	25	1.96	490	5.14	50	2.12
359	4.85	21	1.22	583	5.43	54	2.06
327	3.47	18	1.15	478	6.07		
262	4.34	15	0.68	266	3.93		
239	4.22	13	0.91	332	3.78		
243	5.33	12	0.60	203	4.81		
167	4.91	11	0.54	243	5.05		
141	3.64	7.5	0.39	151	4.14		
131	3.30	6.6	0.34	179	4.59		
119	3.80	5.6	0.19	115	4.39		
90	3.91	5.6	0.10	130	4.01		
71	3.97	4.5	0.18	91	3.50		

SAMPLE TEMPERATURE: 4.0 °C

INCUBATION TEMPERATURE: 4.5 °C

INCUBATION TIME: 3 HRS.

	mg m <sup>-3</sup>	mg m <sup>-3</sup>	mg at-m <sup>-3</sup>
CHLOROPHYLL:	2.27	RNA: 16.17	PHOSPHATE: 0.60
CARBON:	-	DNA: 2.74	NITRATE: 0.07
NITROGEN:	22.00	ATP: 0.575	SILICATE: 5.45
PROTEIN:	47.40		AMMONIA: 2.22

## UNGAVA BAY

LATITUDE: 58°37.2'N

LONGITUDE: 68°10'W

STATION NO.: 2

DATE: 1/8/79

DEPTH: 5 m

TIME(ADT): 1200

SECCHI DEPTH: -

I	P	I	P	I	P	I	P
537	6.29	47	3.23	2.9	0.00	66	4.22
465	6.09	30	1.79	2.4	0.02	52	3.37
376	7.50	27	1.61	634	7.05	54	3.41
291	6.06	21	1.15	376	5.84		
253	5.61	18	1.11	486	5.17		
198	6.67	16	0.61	255	6.15		
186	7.02	13	0.78	340	6.07		
152	5.40	11	0.39	200	5.85		
129	5.51	10	0.45	239	5.89		
112	6.30	7.0	0.01	165	5.72		
93	5.56	6.6	0.00	109	5.75		
76	4.81	4.5	0.02	119	5.95		
66	4.43	4.4	0.03	92	4.82		
61	3.96	3.8	0.02	90	5.35		
52	3.36	3.4	0.02	70	4.69		

SAMPLE TEMPERATURE: 5.0 °C

INCUBATION TEMPERATURE: 6.0 °C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.40

RNA: 10.38

PHOSPHATE: 0.42

CARBON: -

DNA: 4.72

NITRATE: 0.24

NITROGEN: 16.00

ATP: 0.674

SILICATE: 10.53

PROTEIN: 43.60

AMMONIA: 0.84

## UNGAVA BAY

LATITUDE: 58°53.2'N

LONGITUDE: 67°23.6'W

STATION NO.: 3

DATE: 1/8/79

DEPTH: 10 m

TIME(ADT): 1600

SECCHI DEPTH: 11 m

I	P	I	P	I	P	I	P
617	1.73	53	1.31	4.4	0.06	124	1.86
528	2.01	46	1.11	3.3	0.08	115	1.63
473	1.97	41	1.03	3.5	0.03	88	1.53
373	1.71	37	1.06	2.6	0.04	86	1.71
-	-	25	0.55	2.8	0.05	75	1.68
285	1.89	22	0.68	528	1.95	70	1.54
262	1.73	18	0.38	613	1.38	55	1.40
216	1.56	17	0.43	408	1.84	55	1.35
169	1.91	13	0.23	426	1.66	40	1.20
152	1.49	12	0.27	297	1.86	39	1.03
129	1.64	10.6	0.20	342	1.57		
95	1.26	10.3	1.19	215	1.67		
87	1.61	6.6	0.09	262	1.45		
70	1.37	6.6	0.07	165	1.54		
61	1.43	4.1	0.10	173	1.56		

SAMPLE TEMPERATURE: 1.6 °C

mg m<sup>-3</sup>

INCUBATION TEMPERATURE: 3.0 °C

mg m<sup>-3</sup>

INCUBATION TIME: 2 HRS.

mg at-m<sup>-3</sup>

CHLOROPHYLL: 5.92

RNA: 10.14

PHOSPHATE: 0.52

CARBON: -

DNA: 1.05

NITRATE: 0.13

NITROGEN: 26.00

ATP: -

SILICATE: 1.85

PROTEIN: 93.00

AMMONIA: 0.88

## UNGAVA BAY

LATITUDE: 58°54.3'N

LONGITUDE: 66°35.8'W

STATION NO.: 4

DATE: 1/8/79

DEPTH: 10m

TIME(ADT): 2000

SECCHI DEPTH: 7m

I	P	I	P	I	P	I	P
583	3.83	50	2.37	3.6	0.00	125	3.17
439	3.63	40	1.87	3.3	0.00	90	3.08
308	3.91	40	2.10	2.5	0.01	93	2.72
316	3.29	24	1.20	2.5	0.07	69	2.87
253	3.52	22	1.04	486	3.15	69	3.38
211	3.30	17	0.75	579	3.21	50	2.46
224	4.03	14	0.71	376	3.51	48	2.95
162	3.46	13	0.54	461	3.11	39	1.91
181	2.97	11	0.46	302	3.49	36	2.00
126	2.86	10.1	0.42	338	3.34		
121	3.22	7.7	0.29	215	3.10		
90	3.37	6.6	0.14	255	3.05		
69	3.00	5.1	0.16	169	3.61		
67	2.75	4.6	0.02	188	3.42		
52	2.23	4.1	0.07	118	3.48		

SAMPLE TEMPERATURE: 2.8 °C

INCUBATION TEMPERATURE: 4.5 °C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 2.23

RNA: 9.64

PHOSPHATE: 0.50

CARBON: -

DNA: 2.72

NITRATE: 0.10

NITROGEN: 18.00

ATP: 0.677

SILICATE: 2.10

PROTEIN: 44.80

AMMONIA: 0.72

## UNGAVA BAY

LATITUDE: 58°54.3'N

LONGITUDE: 66°35.8'W

STATION NO.: 5

DATE: 2/8/79

DEPTH: 10m

TIME(ADT): 0000

SECCHI DEPTH: -

I	P	I	P	I	P	I	P
594	3.33	33	2.36	3.2	0.02	54	3.30
465	4.02	33	1.99	3.3	0.01	39	3.22
490	3.77	27	2.80	2.6	0.06	44	3.02
332	4.17	17	1.42	2.7	0.05	33	2.61
267	3.54	17	1.70	427	3.34	35	3.17
226	3.22	13	0.84	552	3.34		
198	3.84	12	0.90	435	2.86		
157	3.44	10.7	0.68	267	3.00		
148	3.55	10.4	0.57	199	2.99		
105	3.51	8.0	0.59	241	2.76		
82	2.94	8.6	0.39	161	3.31		
74	3.56	5.4	0.25	105	3.98		
63	3.77	5.2	0.14	77	3.19		
57	4.01	4.0	0.04	68	3.09		
46	2.45	4.1	0.07	50	3.63		

SAMPLE TEMPERATURE: 3 °C INCUBATION TEMPERATURE: 4.5 °C INCUBATION TIME: 2 HRS.

	mg m <sup>-3</sup>	mg m <sup>-3</sup>	mg at-m <sup>-3</sup>
CHLOROPHYLL:	1.850	RNA: 11.50	PHOSPHATE: 0.48
CARBON:	-	DNA: 2.06	NITRATE: 0.040
NITROGEN:	16.00	ATP: 0.767	SILICATE: 2.100
PROTEIN:	37.50		AMMONIA: 1.96

## UNGAVA BAY

LATITUDE: 58°54.3'N

LONGITUDE: 66°35.8'W

STATION NO.: 6

DATE: 2/8/79

DEPTH: 10m

TIME(ADT): 0400

SECCHI DEPTH: -

I	P	I	P	I	P	I	P
549	4.05	40	3.16	4	0.10	83	3.66
461	3.96	36	2.49	4	0.02	106	3.13
427	4.41	30	2.08	3	0.02	48	3.56
287	3.97	31	1.88	3	0.00	50	3.71
285	3.38	19	1.33	3	0.03	48	3.28
243	3.57	17	1.62	456	3.49	48	3.42
200	3.24	12	0.93	613	3.41	38	2.82
160	4.09	14	1.01	347	3.39	44	2.77
114	3.35	11	0.68	439	3.02	30	2.69
115	2.88	10	0.60	283	3.07	35	2.39
85	2.74	9	0.49	316	2.79		
78	3.54	4	0.50	190	2.76		
66	3.40	6	0.22	228	2.94		
52	2.68	5	0.23	110	3.87		
47	2.56	5	0.10	137	3.58		

SAMPLE TEMPERATURE: 2.8 °C

INCUBATION TEMPERATURE: 3.2 °C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 2.180

RNA: 12.98

PHOSPHATE: 0.47

CARBON: -

DNA: 2.65

NITRATE: 0.17

NITROGEN: 14.00

ATP: 0.554

SILICATE: 2.85

PROTEIN: 49.40

AMMONIA: 0.78

## UNGAVA BAY

LATITUDE: 58°54.3'N

LONGITUDE: 66°35.8'W

STATION NO.: 7

DATE: 2/8/79

DEPTH: 10m

TIME(ADT): 0800

SECCHI DEPTH: 8m

I	P	I	P	I	P	I	P
465	3.25	37	2.05	2.9	0.07	53	2.65
448	2.93	28	1.82	3.2	0.05	62	2.59
346	3.45	27	2.15	2.8	0.00	41	2.24
310	3.45	17	1.62	2.8	0.09	46	2.27
245	3.38	18	1.33	422	3.69	32	1.81
180	3.22	14	0.80	549	2.88	36	1.88
178	3.07	14	0.97	444	2.83		
140	2.80	11	0.75	181	3.37		
126	2.54	11	0.74	148	2.49		
100	2.74	8.8	0.33	208	3.01		
90	2.43	8.6	0.47	113	2.80		
71	2.61	5.5	0.13	79	3.17		
48	3.39	4.8	0.14	110	3.09		
48	2.82	3.7	0.10	64	3.00		
38	2.62	4.0	0.05	79	3.43		

SAMPLE TEMPERATURE: 3.5 °C

INCUBATION TEMPERATURE: 3.7 °C

INCUBATION TIME: 2 HRS.

	mg m <sup>-3</sup>		mg m <sup>-3</sup>		mg at-m <sup>-3</sup>	
CHLOROPHYLL:	1.76		RNA:	6.59	PHOSPHATE:	0.48
CARBON:	-		DNA:	2.19	NITRATE:	0.08
NITROGEN:	13.00		ATP:	0.532	SILICATE:	2.14
PROTEIN:	40.50				AMMONIA:	0.94

## UNGAVA BAY

LATITUDE: 58°54.3'N

LONGITUDE: 66°35.8'W

STATION NO.: 8

DATE: 2/8/79

DEPTH: 10m

TIME(ADT): 1200

SECCHI DEPTH: 9m

I	P	I	P	I	P	I	P
541	4.63	47	3.42	4.1	0.10	100	4.13
423	4.42	44	2.04	3.7	0.00	112	3.12
346	3.82	35	2.13	3.5	0.04	76	3.12
325	4.15	34	1.98	2.8	0.00	83	3.28
258	3.63	22	1.39	2.9	0.02	62	2.70
220	3.31	19	1.28	486	3.70	60	3.98
200	2.92	16	1.07	613	3.89	44	3.09
154	4.04	14	0.95	329	3.56	45	3.10
139	3.25	14	0.66	486	3.06	35	2.11
113	2.82	11	0.81	279	3.36	34	2.29
107	2.84	10.8	0.38	355	3.02		
89	3.11	9.9	0.55	192	3.95		
85	4.26	6.6	0.27	246	2.89		
66	3.33	5.4	0.15	143	3.47		
61	3.57	4.5	0.08	165	4.29		

SAMPLE TEMPERATURE: 3.3 °C

INCUBATION TEMPERATURE: 4.3 °C

INCUBATION TIME: 2 HRS.

	mg m <sup>-3</sup>		mg m <sup>-3</sup>		mg at-m <sup>-3</sup>	
CHLOROPHYLL:	1.36		RNA:	7.17	PHOSPHATE:	0.52
CARBON:	-		DNA:	1.83	NITRATE:	0.08
NITROGEN:	15.00		ATP:	0.467	SILICATE:	1.61
PROTEIN:	57.2				AMMONIA:	1.63

## UNGAVA BAY

LATITUDE: 58°54.3'N

LONGITUDE: 66°35.8'W

STATION NO.: 9

DATE: 2/8/79

DEPTH: 10m

TIME(ADT): 1600

SECCHI DEPTH: 7m

I	P	I	P	I	P	I	P
575	5.11	56	3.38	4.4	0.07	148	4.70
486	5.40	51	2.32	4.7	0.00	105	4.86
444	5.34	44	2.78	3.3	0.00	107	4.80
359	4.92	38	1.98	3.4	0.00	76	4.66
308	5.27	33	1.84	2.2	0.00	77	3.82
266	5.80	18	1.36	2.4	0.00	55	3.81
234	4.73	22	1.18	537	5.29	57	3.61
186	4.43	14	0.76	592	4.29	41	2.97
155	4.28	15	0.80	384	5.52	41	3.36
135	4.68	11	0.46	482	4.70	32	2.07
119	5.08	12	0.54	283	4.59	30	2.60
94	4.21	8.7	0.30	342	4.38		
88	3.63	9.7	0.34	215	4.34		
71	3.60	5.7	0.20	198	4.12		
68	3.56	5.9	0.90	152	4.93		

SAMPLE TEMPERATURE: 3.8 °C

INCUBATION TEMPERATURE: 4.5°C

INCUBATION TIME: 2 HRS.

	mg m <sup>-3</sup>		mg m <sup>-3</sup>		mg at-m <sup>-3</sup>	
CHLOROPHYLL:	0.90		RNA:	6.43	PHOSPHATE:	0.46
CARBON:	-		DNA:	2.38	NITRATE:	0.20
NITROGEN:	14.00		ATP:	0.365	SILICATE:	1.77
PROTEIN:	33.50				AMMONIA:	1.52

## UNGAVA BAY

LATITUDE: 58°54.4'N

LONGITUDE: 66°40.5'W

STATION NO.: 10

DATE: 2/8/79

DEPTH: 10m

TIME(ADT): 2000

SECCHI DEPTH: 7m

I	P	I	P	I	P	I	P
634	2.86	55	2.72	6.8	0.19	116	3.64
507	3.74	52	2.52	5.3	0.03	79	3.80
478	4.07	40	2.67	4.4	0.10	81	3.38
444	3.76	42	2.16	3.6	0.00	60	3.57
329	4.46	32	2.24	3.7	0.08	64	3.96
325	4.06	25	1.75	3.0	0.00	44	3.41
233	3.69	23	1.64	3.1	0.04	47	3.06
181	3.15	18	1.10	478	3.41	35	2.32
165	3.51	15	1.17	613	2.83	36	2.37
139	3.64	14	0.52	342	4.50		
121	3.52	-	-	448	4.20		
105	3.59	12	0.63	257	4.55		
88	3.20	11	0.32	317	3.37		
74	2.99	10.4	0.60	151	3.24		
66	2.89	7.2	0.18	1696	4.06		

SAMPLE TEMPERATURE: 4.0 °C

INCUBATION TEMPERATURE: 5.0 °C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.15

RNA: 5.07

PHOSPHATE: 0.50

CARBON: 141.00

DNA: 0.64

NITRATE: 0.80

NITROGEN: 14.00

ATP: 0.748

SILICATE: 1.38

PROTEIN: 37.20

AMMONIA: 0.94

## UNGAVA BAY

LATITUDE: 58°53'N

LONGITUDE: 67°37'W

STATION NO.: 11

DATE: 3/8/79

DEPTH: 10m

TIME(ADT): 0015

SECCHI DEPTH: -

I	P	I	P	I	P	I	P
636.1	2.44	57.3	2.26	5.8	0.08	85.9	1.74
497.1	2.48	51.4	2.40	4.8	0.05	87.2	2.61
446.6	3.18	46.3	2.45	4.5	0.00	70.4	2.22
425.5	2.53	40.4	1.98	4.0	0.02	66.1	2.75
345.5	2.94	35.4	1.62	3.3	0.01	50.1	1.91
292.8	2.41	24.9	1.34	3.2	0.00	50.6	2.18
265.4	2.40	21.9	0.96	648.8	2.61	38.3	1.79
198.0	2.38	18.9	0.69	438.1	2.88	35.4	2.06
205.2	2.46	16.0	0.81	286.5	2.66		( )
156.7	2.29	15.2	0.49	201.8	2.91		
138.2	2.25	13.5	0.57	207.3	2.54		
116.7	2.94	11.8	0.27	210.2	2.45		
106.2	2.39	-	-	-	-		
89.3	3.12	8.8	0.38	149.6	3.01		
77.9	2.66	7.5	0.16	106.2	3.14		
66.6	2.99	6.1	0.19	122.6	3.13		

SAMPLE TEMPERATURE: 2.8 °C

INCUBATION TEMPERATURE: 2.8 °C

INCUBATION TIME: 2 HRS.

	mg m <sup>-3</sup>		mg m <sup>-3</sup>		mg at-m <sup>-3</sup>	
CHLOROPHYLL:	4.66		RNA:	8.16	PHOSPHATE:	0.44
CARBON:	-		DNA:	4.24	NITRATE:	0.06
NITROGEN:	21.00		ATP:	1.242	SILICATE:	1.42
PROTEIN:	91.70				AMMONIA:	1.30

## UNGAVA BAY

LATITUDE: 58°47'N

LONGITUDE: 67°50'W

STATION NO.: 12

DATE: 3/8/79

DEPTH: 10m

TIME(ADT): 0400

SECCHI DEPTH: -

I	P	I	P	I	P	I	P
526.6	2.30	51.4	1.78	5.0	0.07	102.8	1.98
480.3	2.10	45.1	1.66	3.6	0.02	115.0	2.05
438.1	2.05	36.2	1.56	3.8	0.02	81.7	2.05
278.9	1.93	34.1	1.27	2.9	0.01	85.9	1.09
235.9	2.12	22.3	0.92	3.1	0.00	62.3	2.34
209.4	1.82	18.9	0.92	627.7	1.28	66.1	1.96
191.7	2.54	15.6	0.55	476.1	2.22	50.6	1.61
152.5	2.34	14.7	0.62	568.7	1.42	48.9	2.07
141.1	1.75	13.1	0.40	358.1	2.39	39.6	1.57
111.6	2.18	11.8	0.44	429.7	2.02	37.1	1.58
109.9	2.35	9.6	0.36	274.7	2.06		
88.5	1.95	9.7	0.29	290/7	1.85		
77.9	2.38	6.1	0.12	223.3	1.93		
69.1	2.09	6.0	0.14	130.2	2.72		
59.8	1.75	4.8	0.06	151.7	2.55		

SAMPLE TEMPERATURE: 2.7 °C

INCUBATION TEMPERATURE: 4.8°C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 3.74

RNA: 12.61

PHOSPHATE: 0.52

CARBON: -

DNA: 1.86

NITRATE: 0.210

NITROGEN: 16.00

ATP: 0.611

SILICATE: 2.94

PROTEIN: 66.20

AMMONIA: 1.72

## UNGAVA BAY

LATITUDE: 58°47'N

LONGITUDE: 67°50'W

STATION NO.: 13

DATE: 3/8/79

DEPTH: 10m

TIME(ADT): 0745

SECCHI DEPTH: 6.5m

I	P	I	P	I	P	I	P
547.7	3.34	52.7	3.50	4.5	0.06	165.1	3.77
438.1	3.35	48.9	2.65	4.5	0.05	109.5	2.94
378.3	3.19	42.1	2.08	3.3	0.03	129.8	3.15
311.8	3.95	37.9	2.20	3.4	0.01	87.2	3.33
294.5	3.63	34.1	1.50	2.4	0.00	86.4	2.56
260.8	3.20	20.2	1.20	2.6	0.02	66.6	2.81
202.2	2.90	20.2	1.10	488.7	2.81	62.4	2.51
192.1	2.66	15.2	1.06	556.1	2.20	51.4	3.15
142.4	3.22	13.1	0.80	343.4	2.40	47.6	2.32
129.8	2.69	12.2	0.63	438.1	2.73	40.9	2.01
112.5	3.06	10.7	0.51	261.2	3.00	36.6	2.47
89.3	2.81	9.3	0.39	329.5	2.58		
82.6	2.66	8.6	0.33	190.4	3.11		
62.4	2.60	5.9	0.13	230.9	3.25		
68.6	2.22	5.5	0.10	139.0	3.89		

SAMPLE TEMPERATURE: 2.7 °C

INCUBATION TEMPERATURE: 4.0 °C

INCUBATION TIME: 2 HRS.

	mg m <sup>-3</sup>		mg m <sup>-3</sup>		mg at-m <sup>-3</sup>	
CHLOROPHYLL:	3.80		RNA:	13.19	PHOSPHATE:	0.52
CARBON:	-		DNA:	2.04	NITRATE:	0.90
NITROGEN:	18.00		ATP:	0.842	SILICATE:	2.18
PROTEIN:	68.20				AMMONIA:	1.26

## UNGAVA BAY

LATITUDE: 58°38.7'N

LONGITUDE: 68°11.6'W

STATION NO.: 14

DATE: 3/8/79

DEPTH: 10m

TIME(ADT): 1200

SECCHI DEPTH: 7m

I	P	I	P	I	P	I	P
484.5	3.92	40.8	2.81	3.6	0.07	96.1	3.12
421.3	4.14	36.2	2.41	3.4	0.03	100.3	3.15
303.3	4.14	31.6	1.87	2.8	0.06	72.9	4.21
254.9	3.81	22.8	1.20	2.9	0.10	71.6	3.36
227.5	3.22	17.7	1.80	602.4	4.07	59.8	2.96
193.8	3.46	16.0	0.77	400.2	3.34	63.2	2.76
172.7	3.41	13.1	0.91	526.6	3.33	44.7	2.45
139.0	3.75	12.0	0.58	307.5	3.17	45.5	2.45
119.2	3.95	11.2	0.58	442.3	4.19	33.7	1.97
97.7	3.65	10.3	0.48	244.4	3.61	35.8	2.10
87.6	3.07	9.1	0.39	316.0	4.01		
68.3	3.26	6.0	0.18	168.5	3.20		
64.5	3.91	5.9	0.25	208.5	3.65		
54.7	2.83	4.3	0.07	125.5	4.48		
45.5	3.23	4.4	0.07	145.3	3.03		

SAMPLE TEMPERATURE: 4.0°C

INCUBATION TEMPERATURE: 5.5 °C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.81

RNA: 6.35

PHOSPHATE: 0.48

CARBON: -

DNA: 3.93

NITRATE: 0.21

NITROGEN: 15.00

ATP: 0.866

SILICATE: 3.44

PROTEIN: 46.50

AMMONIA: 0.56

124

## UNGAVA BAY

LATITUDE: 58°42.6'N

LONGITUDE: 68°01.2'W

STATION NO.: 15

DATE: 3/8/79

DEPTH: 10m

TIME(ADT): 1600

SECCHI DEPTH: 7m

I	P	I	P	I	P	I	P
636.2	4.48	45.1	2.57	3.4	0.05	120.1	3.50
514.0	4.35	40.0	2.22	3.2	0.02	82.6	3.62
450.7	4.59	34.5	1.98	2.7	0.01	85.1	3.08
379.2	4.77	29.5	1.89	2.0	0.04	62.4	2.82
286.5	4.25	19.0	1.39	1.8	0.15	67.8	2.97
240.1	4.18	18.1	1.22	513.9	4.21	47.2	2.36
181.2	3.77	14.1	0.81	581.4	3.84	51.8	2.57
141.1	3.83	12.6	0.78	358.1	4.35	34.1	1.87
127.2	3.65	10.6	0.52	442.4	3.85	39.6	1.99
94.8	3.68	9.5	0.45	260.4	3.92		
90.2	3.95	8.4	0.30	326.5	4.08		
68.3	3.34	7.4	0.30	257.8	3.58		
67.4	3.71	4.8	0.07	143.2	3.68		
54.8	3.05	4.6	0.08	170.6	3.58		
48.9	3.50	4.0	0.02	109.5	3.68		

SAMPLE TEMPERATURE: 3.8 °C

INCUBATION TEMPERATURE: 5.0 °C

INCUBATION TIME: 2 HRS.

	mg m <sup>-3</sup>		mg m <sup>-3</sup>		mg at-m <sup>-3</sup>	
CHLOROPHYLL:	1.30		RNA:	4.88	PHOSPHATE:	0.46
CARBON:	-		DNA:	3.24	NITRATE:	0.29
NITROGEN:	14.00		ATP:	0.78	SILICATE:	4.29
PROTEIN:	35.2				AMMONIA:	1.48

## UNGAVA BAY

LATITUDE: 58°42.6'N

LONGITUDE: 68°01.2'W

STATION NO.: 16

DATE: 3/8/79

DEPTH: 10m

TIME(ADT): 2000

SECCHI DEPTH: 6m

I	P	I	P	I	P	I	P
610.9	2.35	41.7	1.90	3.2	0.03	95.2	4.14
433.9	3.99	40.4	2.09	2.7	0.00	112.5	4.00
379.2	4.30	32.0	1.59	2.4	0.00	73.7	3.91
316.0	4.50	29.9	1.63	1.7	0.03	81.3	3.50
269.6	3.94	20.2	0.81	1.8	0.06	52.7	2.68
235.9	4.84	18.1	0.74	568.7	3.52	66.6	2.76
176.9	4.45	13.9	0.50	463.4	3.95	43.4	2.39
139.0	3.81	12.2	0.51	547.7	3.38	49.7	2.77
130.6	3.47	10.3	0.24	374.9	4.13	32.9	1.71
94.8	3.92	9.8	0.25	442.4	3.94	34.8	1.59
96.9	3.98	7.7	0.13	278.1	3.89		
74.9	3.20	7.0	0.14	324.4	3.49		
69.5	3.19	4.5	0.03	193.8	4.58		
54.3	2.24	4.3	0.07	134.8	4.02		
51.8	2.33	3.5	0.03	149.6	4.04		

SAMPLE TEMPERATURE: 3.9°C

INCUBATION TEMPERATURE: 8.0 °C

INCUBATION TIME: 2 HRS.

	mg m <sup>-3</sup>		mg m <sup>-3</sup>		mg at-m <sup>-3</sup>
CHLOROPHYLL:	2.12	RNA:	7.28	PHOSPHATE:	0.44
CARBON:	120.00	DNA:	2.82	NITRATE:	0.10
NITROGEN:	20.00	ATP:	0.864	SILICATE:	5.28
PROTEIN:	51.80			AMMONIA:	1.34

126

## UNGAVA BAY

LATITUDE: 58°42.6'N

LONGITUDE: 68°01.2'W

STATION NO.: 17

DATE: 4/8/79

DEPTH: 10m

TIME (ADT): 0000

SECCHI DEPTH: -

I	P	I	P	I	P	I	P
488.7	2.89	32.0	1.16	2.4	0.01	67.4	2.14
408.6	2.20	29.1	1.27	2.6	0.00	48.4	1.72
309.6	2.55	21.5	0.76	2.1	0.08	55.6	1.85
242.2	2.72	16.9	0.69	640.4	1.80	39.2	1.68
174.8	2.44	15.6	0.50	631.9	1.74	42.1	1.73
128.5	2.37	12.6	0.46	400.2	2.68	29.5	1.21
124.3	2.22	12.6	0.32	488.7	1.90	32.4	1.48
92.7	2.07	9.3	0.35	292.8	2.64		
85.1	1.96	9.7	0.18	387.6	2.90		
67.4	2.42	7.6	0.21	280.2	2.70		
64.0	2.58	6.3	0.08	160.1	3.06		
48.4	1.95	4.4	0.05	195.9	3.03		
38.8	2.05	4.6	0.05	114.6	2.77		
39.6	1.34	3.1	0.00	130.6	2.38		
36.6	1.38	3.5	0.00	64.0	2.35		

SAMPLE TEMPERATURE: 4.2 °C

INCUBATION TEMPERATURE: 8.2 °C

INCUBATION TIME: 2 HRS.

	mg m <sup>-3</sup>		mg m <sup>-3</sup>		mg at-m <sup>-3</sup>
CHLOROPHYLL:	2.00	RNA:	16.60	PHOSPHATE:	0.50
CARBON:	-	DNA:	3.82	NITRATE:	0.24
NITROGEN:	19.00	ATP:	0.714	SILICATE:	5.81
PROTEIN:	55.20			AMMONIA:	0.97

## UNGAVA BAY

LATITUDE: 58°42.6'N

LONGITUDE: 68°01.2'W

STATION NO.: 18

DATE: 4/8/79

DEPTH: 10m

TIME(ADT): 0400

SECCHI DEPTH: -

I	P	I	P	I	P	I	P
627.7	3.49	61.9	2.23	5.2	0.09	214.9	2.99
627.7	2.89	53.1	2.30	4.4	0.04	145.3	2.98
480.3	3.44	43.0	2.34	3.5	0.01	153.8	2.77
396.0	3.44	39.2	1.86	3.5	0.00	109.5	2.57
347.6	3.13	37.1	1.65	2.7	0.00	107.4	2.89
269.6	3.32	29.5	1.34	2.6	0.00	71.6	2.87
265.4	3.07	23.6	1.60	2.3	0.00	72.9	2.55
231.7	2.68	19.0	0.86	2.2	0.03	56.9	2.45
185.4	2.75	13.1	0.77	615.1	2.47	54.3	2.29
149.6	3.44	13.9	0.46	452.9	2.69	44.7	1.49
126.4	3.18	10.1	0.50	307.5	3.52	33.3	1.40
109.5	2.98	10.9	0.28	377.1	2.89	28.6	1.30
99.8	2.87	8.2	0.31	244.4	2.63		
86.4	3.17	8.6	0.17	290.7	3.28		
75.8	2.24	6.5	0.20	185.4	3.46		

SAMPLE TEMPERATURE: 3.6 °C

INCUBATION TEMPERATURE: 6.8 °C

INCUBATION TIME: 2 HRS.

	mg m <sup>-3</sup>		mg m <sup>-3</sup>		mg at-m <sup>-3</sup>	
CHLOROPHYLL:	1.98		RNA:	15.73	PHOSPHATE:	0.42
CARBON:	-		DNA:	2.89	NITRATE:	0.31
NITROGEN:	109.00		ATP:	1.119	SILICATE:	5.18
PROTEIN:	58.70				AMMONIA:	1.24

## UNGAVA BAY

LATITUDE: 58°38.9'N

LONGITUDE: 68°11.5'W

STATION NO.: 19

DATE: 4/8/79

DEPTH: 10m

TIME(ADT): 0745

SECCHI DEPTH: 6m

I	P	I	P	I	P	I	P
642.5	3.43	52.7	2.10	3.75	0.13	111.2	2.66
642.5	3.57	48.4	2.55	3.75	0.05	71.2	2.71
509.8	3.21	38.3	1.80	2.78	0.06	80.5	3.04
431.8	3.41	36.2	1.59	2.78	0.06	56.0	2.69
301.2	2.95	30.8	1.40	2.49	0.03	61.5	2.55
271.7	2.69	27.8	1.63	1.90	0.05	42.1	2.41
231.7	2.67	18.9	0.91	2.19	0.05	41.3	1.92
198.8	2.68	13.5	0.88	446.6	3.44	32.9	1.52
166.4	2.70	13.5	0.64	514.0	2.68	25.3	1.47
141.1	3.06	11.0	0.65	219.1	2.67		
126.4	2.68	10.3	0.39	275.9	2.89		
109.5	3.52	8.2	0.44	168.5	3.70		
118.0	2.63	7.6	0.27	204.3	2.83		
75.8	2.89	6.4	0.22	147.5	3.24		
63.2	2.98	4.8	0.12	99.0	2.82		

SAMPLE TEMPERATURE: 4.0 °C

INCUBATION TEMPERATURE: 5.2 °C

INCUBATION TIME: 2 HRS.

	mg m <sup>-3</sup>		mg m <sup>-3</sup>		mg at-m <sup>-3</sup>
CHLOROPHYLL:	2.27	RNA:	15.14	PHOSPHATE:	0.50
CARBON:	-	DNA:	2.48	NITRATE:	0.32
NITROGEN:	16.00	ATP:	0.57	SILICATE:	4.41
PROTEIN:	51.40			AMMONIA:	1.56

## UNGAVA BAY

LATITUDE: 58°38.9'N

LONGITUDE: 68°11.5'W

STATION NO.: 20

DATE: 4/8/79

DEPTH: 10m

TIME(ADT): 1200

SECCHI DEPTH: 5m

I	P	I	P	I	P	I	P
518.2	3.14	53.1	2.34	4.0	0.05	97.7	2.95
412.9	3.19	41.3	3.17	3.9	0.06	102.8	2.77
389.7	3.87	39.6	2.46	2.5	0.01	75.0	2.74
320.2	4.07	31.2	1.43	3.5	0.00	77.1	2.79
282.3	2.60	29.5	1.90	2.0	0.02	56.0	2.49
263.3	3.37	19.8	1.00	2.3	0.11	59.8	3.35
189.6	2.79	19.4	1.21	471.9	3.53	38.7	2.20
181.2	3.45	13.5	0.88	568.7	3.12	47.2	2.62
134.8	3.91	13.9	0.61	320.2	3.30	27.8	1.88
134.8	2.96	10.6	0.53	442.4	2.49	34.5	1.67
97.7	3.49	10.6	0.37	254.9	3.13		
96.0	3.12	8.7	0.28	292.8	2.93		
71.6	2.94	8.5	0.27	185.4	3.90		
69.5	2.82	5.7	0.11	219.1	2.71		
56.4	3.52	5.8	0.12	130.6	3.76		

SAMPLE TEMPERATURE: 3.4 °C

INCUBATION TEMPERATURE: 6.7 °C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.95

RNA: 13.59

PHOSPHATE: 0.54

CARBON: -

DNA: 3.16

NITRATE: 0.26

NITROGEN: 18.00

ATP: 0.782

SILICATE: 2.23

PROTEIN: 55.20

AMMONIA: 2.26

## UNGAVA BAY

LATITUDE: 58°42.1'N

LONGITUDE: 68°01.2'W

STATION NO.: 21

DATE: 4/8/79

DEPTH: 10m

TIME(ADT): 1600

SECCHI DEPTH: 7m

I	P	I	P	I	P	I	P
589.8	4.16	41.3	2.05	4.0	0.00	76.6	3.54
484.5	3.85	40.0	1.68	3.0	0.00	75.8	3.05
446.6	3.99	29.4	1.66	3.2	0.00	52.7	2.85
349.7	4.49	30.3	1.52	2.4	0.00	57.3	3.07
307.5	4.31	17.7	0.89	2.5	0.00	41.3	2.40
248.6	4.56	19.8	0.94	463.4	4.05	45.1	2.25
198.0	3.99	13.1	0.54	547.7	3.58	34.1	1.65
176.9	3.97	13.5	0.39	332.8	3.77	33.3	1.61
134.8	3.92	10.4	0.37	421.3	3.61		
101.9	4.11	10.4	0.35	303.3	4.36		
91.8	3.28	8.7	0.13	181.2	3.68		
75.0	3.45	8.8	0.21	231.7	4.08		
68.3	3.55	5.7	0.09	130.6	3.27		
56.0	3.51	5.9	0.03	160.1	3.66		
52.2	2.67	3.5	0.00	114.6	3.23		

SAMPLE TEMPERATURE: 3.9 °C

INCUBATION TEMPERATURE: 8.0 °C

INCUBATION TIME: 2 HRS.

	mg m <sup>-3</sup>		mg m <sup>-3</sup>		mg at-m <sup>-3</sup>
CHLOROPHYLL:	1.98	RNA:	15.98	PHOSPHATE:	0.46
CARBON:	-	DNA:	4.07	NITRATE:	0.25
NITROGEN:	28.00	ATP:	0.876	SILICATE:	5.61
PROTEIN:	61.70			AMMONIA:	1.80

## UNGAVA BAY

LATITUDE: 58°43.5'N

LONGITUDE: 67°59.6'W

STATION NO.: 22

DATE: 4/8/79

DEPTH: 10m

TIME(ADT): 2000

SECCHI DEPTH: 7m

I	P	I	P	I	P	I	P
547.7	4.15	46.8	1.86	4.5	0.01	120.9	3.81
455.0	3.66	41.7	1.83	3.7	0.00	115.9	3.62
307.6	4.39	35.0	1.44	3.7	0.00	94.8	3.65
294.9	4.29	33.3	1.93	3.1	0.00	66.1	3.59
235.9	3.47	23.2	0.96	2.6	0.00	70.8	3.43
210.6	3.54	21.9	0.92	480.3	3.66	46.3	2.00
172.7	3.44	16.9	0.68	615.1	3.38	50.6	2.68
151.6	3.65	15.6	0.68	345.5	4.41	36.3	1.77
120.1	3.83	14.3	0.44	463.4	4.03	38.8	1.95
114.6	3.12	12.4	0.35	282.3	3.54		
100.3	2.96	10.2	0.16	337.0	3.76		
90.1	2.88	9.3	0.18	204.3	3.87		
77.9	3.28	6.9	0.07	235.9	3.64		
64.4	2.44	6.3	0.03	160.1	3.78		
59.8	2.96	4.9	0.00	168.5	3.92		

SAMPLE TEMPERATURE: 3.8 °C

INCUBATION TEMPERATURE: 8.0 °C

INCUBATION TIME: 2 HRS.

	mg m <sup>-3</sup>		mg m <sup>-3</sup>		mg at-m <sup>-3</sup>	
CHLOROPHYLL:	1.76		RNA:	12.43	PHOSPHATE:	0.52
CARBON:	-		DNA:	1.79	NITRATE:	0.19
NITROGEN:	16.00		ATP:	0.806	SILICATE:	4.20
PROTEIN:	50.9				AMMONIA:	1.77

## UNGAVA BAY

LATITUDE: 58°43'5"N

LONGITUDE: 67°59.6'W

STATION NO.: 23

DATE: 5/8/79

DEPTH: 10m

TIME(ADT): 0000

SECCHI DEPTH: -

I	P	I	P	I	P	I	P
615.1	3.12	48.4	1.85	4.8	0.07	130.6	3.17
473.9	2.64	45.1	1.62	3.5	0.04	155.8	2.70
410.8	3.14	36.7	1.81	3.8	0.00	104.1	3.21
393.9	3.10	32.0	1.17	2.6	0.00	110.4	2.54
316.0	3.02	27.8	1.90	2.8	0.00	75.8	2.73
307.5	2.33	20.6	0.95	2.3	0.02	83.4	2.29
238.0	2.63	18.1	1.08	640.4	2.36	53.5	2.67
198.0	2.48	15.2	0.50	452.9	3.52	64.0	2.80
174.8	2.63	13.0	0.60	516.1	2.61	38.8	1.85
173.2	2.44	12.0	0.35	332.8	3.67	44.4	1.96
120.1	2.45	10.1	0.37	419.2	3.41	29.5	1.48
105.3	2.51	9.1	0.21	261.2	3.12	35.8	1.79
88.1	2.73	7.7	0.25	309.7	2.32		
78.4	2.50	6.5	0.06	193.8	2.64		
63.2	2.38	4.5	0.05	214.9	2.37		

SAMPLE TEMPERATURE: 4.0 °C

INCUBATION TEMPERATURE: 9.2 °C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 2.18

RNA: 15.44

PHOSPHATE: 0.52

CARBON: -

DNA: 2.38

NITRATE: 0.26

NITROGEN: 16.00

ATP: 0.941

SILICATE: 6.38

PROTEIN: 44.30

AMMONIA: 1.68

## UNGAVA BAY

LATITUDE: 58°43.5'N

LONGITUDE: 67°59.6'W

STATION NO.: 24

DATE: 5/8/79

DEPTH: 10m

TIME(ADT): 0400

SECCHI DEPTH: -

I	P	I	P	I	P	I	P
598.2	4.07	42.1	2.24	3.5	0.09	74.1	3.23
488.7	4.01	34.1	2.17	3.2	0.07	77.5	3.37
406.6	4.12	32.0	1.78	2.5	0.01	57.7	2.61
307.5	3.72	27.4	1.78	2.7	0.07	52.7	2.89
286.5	3.43	20.2	1.33	2.2	0.04	42.1	1.86
248.6	3.56	15.6	1.03	467.6	2.75	40.9	2.24
217.0	3.87	14.7	0.82	547.7	3.34	33.3	2.16
168.5	3.36	11.8	0.82	332.8	3.46	32.4	1.69
149.6	3.78	11.8	0.63	442.4	3.72		
103.2	3.69	9.5	0.46	252.8	3.69		
87.6	4.25	9.1	0.38	189.6	3.65		
72.5	3.43	7.4	0.37	132.7	3.26		
64.0	3.67	5.9	0.18	145.3	3.24		
56.8	2.91	4.9	0.14	97.3	4.53		
48.5	3.59	4.3	0.12	109.1	4.08		

SAMPLE TEMPERATURE: 3.8 °C

INCUBATION TEMPERATURE: 7.5 °C

INCUBATION TIME: 2 HRS.

	mg m <sup>-3</sup>		mg m <sup>-3</sup>		mg at-m <sup>-3</sup>
CHLOROPHYLL:	1.89	RNA:	13.69	PHOSPHATE:	0.50
CARBON:	-	DNA:	1.44	NITRATE:	0.25
NITROGEN:	16.00	ATP:	0.705	SILICATE:	5.21
PROTEIN:	49.4			AMMONIA:	1.66

## UNGAVA BAY

LATITUDE: 58°41.5'N

LONGITUDE: 67°55.4'W

STATION NO.: 25

DATE: 5/8/79

DEPTH: 10m

TIME(ADT): 0815

SECCHI DEPTH: 6m

I	P	I	P	I	P	I	P
606.7	3.48	72.5	3.13	4.4	0.14	153.8	2.99
640.4	3.29	51.4	3.52	4.0	0.22	92.7	3.47
488.7	3.74	54.3	2.66	2.8	0.11	109.5	3.08
410.8	3.66	38.8	2.08	2.7	0.14	61.1	3.02
400.2	3.63	41.7	2.23	1.9	0.05	68.3	3.24
309.7	4.72	26.5	3.32	1.8	0.07	51.4	2.87
261.2	3.34	30.3	2.00	1.6	0.06	53.1	3.71
250.7	4.45	15.2	1.18	1.5	0.08	37.9	2.59
193.8	4.68	17.3	1.27	410.7	3.59	46.3	2.55
187.5	3.83	11.9	0.80	510.3	3.48	29.0	1.94
139.0	4.66	12.6	1.04	417.1	4.06	33.3	2.00
134.0	3.34	9.0	0.65	240.1	3.56		
92.7	2.85	9.3	0.54	309.7	3.52		
94.8	2.88	6.8	0.48	189.6	3.21		
67.4	2.74	6.8	0.42	134.8	2.86		

SAMPLE TEMPERATURE: 3.4 °C

INCUBATION TEMPERATURE: 5.2 °C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.94

RNA: 10.09

PHOSPHATE: 0.50

CARBON: 121.00

DNA: 1.31

NITRATE: 0.09

NITROGEN: 16.00

ATP: 0.73

SILICATE: 3.09

PROTEIN: 48.10

AMMONIA: 1.10

## UNGAVA BAY

LATITUDE: 58°53.3'N      LONGITUDE: 67°54.5'W      STATION NO.: 26  
 DATE: 5/8/79      DEPTH: 10m      TIME(ADT): 1200      SECCHI DEPTH: 11m

I	P	I	P	I	P	I	P
497.1	4.16	56.0	2.30	4.1	0.03	115.4	2.77
433.9	4.21	48.4	2.14	4.4	0.03	80.9	3.82
442.4	4.86	43.8	1.94	3.1	0.02	88.5	3.98
328.6	3.73	35.8	1.63	3.4	0.00	64.0	2.54
324.4	2.92	32.0	1.62	2.6	0.01	64.0	2.92
240.1	3.67	22.8	1.04	2.7	0.01	47.6	2.68
226.6	3.21	19.8	1.12	442.4	2.82	44.2	2.09
198.0	3.65	15.6	0.75	568.7	2.77	38.3	1.81
158.9	4.09	14.3	0.67	337.0	4.49	32.0	1.81
143.2	2.73	11.6	0.54	455.0	4.46		
108.7	3.13	11.5	0.45	254.9	3.02		
94.4	3.47	9.9	0.33	303.3	2.79		
87.2	3.18	9.1	0.34	190.4	3.00		
73.3	3.60	6.1	0.13	223.3	2.91		
67.4	3.10	5.3	0.11	103.2	3.90		

SAMPLE TEMPERATURE: 2.2 °C      INCUBATION TEMPERATURE: 4.5 °C      INCUBATION TIME: 2 HRS.

	mg m <sup>-3</sup>		mg m <sup>-3</sup>		mg at-m <sup>-3</sup>
CHLOROPHYLL:	1.82	RNA:	8.74	PHOSPHATE:	0.56
CARBON:	126.00	DNA:	1.04	NITRATE:	0.16
NITROGEN:	15.00	ATP:	1.063	SILICATE:	1.69
PROTEIN:	71.60			AMMONIA:	1.06

## UNGAVA BAY

LATITUDE: 58°51.3'N

LONGITUDE: 68°05.5'W

STATION NO.: 27

DATE: 5/8/79

DEPTH: 10m

TIME(ADT): 1600

SECCHI DEPTH: 11m

I	P	I	P	I	P	I	P
484.5	3.66	31.2	1.70	2.5	0.03	67.4	3.75
429.7	3.98	23.6	1.04	2.4	0.02	45.5	2.46
282.3	3.70	18.5	1.41	539.3	3.32	51.4	2.56
244.4	3.71	16.0	0.69	606.7	3.71	34.1	1.95
160.9	3.18	13.5	0.78	446.6	3.43	39.6	2.76
141.1	3.32	12.2	0.52	265.4	3.70		
109.5	3.89	10.5	0.54	316.0	3.28		
108.3	3.19	9.1	0.29	227.5	3.55		
82.0	3.23	8.6	0.37	134.8	3.48		
79.2	2.83	5.7	0.09	164.3	3.48		
58.1	2.84	5.8	0.10	103.6	3.39		
58.1	2.52	4.6	0.45	118.8	3.57		
47.6	2.25	4.0	0.32	80.0	3.19		
43.0	2.25	3.7	0.01	89.7	3.20		
34.1	1.81	3.2	0.00	62.4	3.26		

SAMPLE TEMPERATURE: 2.5 °C

INCUBATION TEMPERATURE: 5.2 °C

INCUBATION TIME: 2 HRS.

	mg m <sup>-3</sup>		mg m <sup>-3</sup>		mg at-m <sup>-3</sup>
CHLOROPHYLL:	1.54	RNA:	9.03	PHOSPHATE:	0.52
CARBON:	145.00	DNA:	1.96	NITRATE:	0.03
NITROGEN:	14.00	ATP:	0.677	SILICATE:	1.28
PROTEIN:	50.60			AMMONIA:	1.58

## UNGAVA BAY

LATITUDE: 58°52.6'N

LONGITUDE: 67°59.4'W

STATION NO.: 28

DATE: 5/8/79

DEPTH: 10 m

TIME(ADT): 2000

SECCHI DEPTH: 9 m

I	P	I	P	I	P	I	P
568.7	2.81	54.8	2.59	4.2	0.02	105.3	2.77
480.3	3.47	46.3	2.01	4.1	0.03	86.4	2.67
446.6	2.77	43.8	2.03	3.2	0.00	63.2	2.53
349.7	2.67	35.4	1.42	3.2	0.00	69.5	2.51
286.5	2.83	32.0	1.33	2.6	0.00	46.3	2.09
231.7	2.82	20.2	0.90	2.6	0.02	48.4	1.90
202.2	3.11	18.9	1.03	484.5	3.23	35.0	1.57
176.9	2.53	15.6	0.67	560.3	3.08	35.0	1.80
139.0	2.72	13.5	0.66	345.5	3.00		
141.1	2.81	12.0	0.29	442.4	2.95		
110.4	2.72	10.5	0.36	311.8	3.02		
99.0	2.79	8.8	0.20	176.9	3.39		
82.2	2.25	8.7	0.22	227.5	2.99		
71.6	2.67	6.2	0.12	143.2	3.14		
63.2	2.03	6.0	0.06	155.9	2.89		

SAMPLE TEMPERATURE: 2.9°C

INCUBATION TEMPERATURE: 7.0 °C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 3.22

RNA: 12.42

PHOSPHATE: 1.82

CARBON: 226.00

DNA: 2.06

NITRATE: 0.13

NITROGEN: 22.00

ATP: 0.88

SILICATE: 1.36

PROTEIN: 52.60

AMMONIA: 1.86

## UNGAVA BAY

LATITUDE: 58°52.6'N

LONGITUDE: 67°59.4'W

STATION NO.: 29

DATE: 6/8/79

DEPTH: 10m

TIME(ADT): 0000

SECCHI DEPTH: -

I	P	I	P	I	P	I	P
480.3	2.31	48.4	1.79	4.4	0.04	143.2	2.39
446.6	3.10	38.3	1.49	4.1	0.03	153.8	2.33
362.3	2.53	37.1	1.49	3.5	0.02	106.2	2.35
316.0	3.10	29.9	1.20	3.3	0.01	113.7	2.32
251.9	2.44	27.0	1.28	2.8	0.00	77.9	2.48
231.3	2.41	16.4	0.70	2.7	0.00	84.3	2.62
174.8	2.80	17.7	0.77	619.3	2.22	55.2	2.89
160.1	2.21	13.1	0.53	431.8	2.60	58.1	2.42
128.5	2.76	13.1	0.54	505.6	2.36	41.3	2.25
117.1	3.52	11.2	0.34	307.5	2.62	44.7	2.25
102.8	3.15	10.1	0.32	425.5	3.09	31.2	1.51
84.3	2.96	8.2	0.13	223.3	3.56	35.0	1.53
75.0	2.37	8.4	0.26	313.9	2.32		
64.0	2.27	5.5	0.07	172.7	3.36		
54.8	1.83	5.5	0.10	219.1	3.19		

SAMPLE TEMPERATURE: 2.1°C

INCUBATION TEMPERATURE: 7.0°C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.98

RNA: 7.57

PHOSPHATE: 0.58

CARBON: 109.00

DNA: 1.45

NITRATE: 0.22

NITROGEN: 14.00

ATP: 0.661

SILICATE: 2.29

PROTEIN: 37.00

AMMONIA: 1.60

## UNGAVA BAY

LATITUDE: 58°52.6'N

LONGITUDE: 67°59.4'W

STATION NO.: 30

DATE: 6/8/79

DEPTH: 10m

TIME(ADT): 0400

SECCHI DEPTH: -

I	P	I	P	I	P	I	P
642.5	2.78	33.7	2.48	3.7	0.03	153.8	3.33
433.9	3.10	33.3	1.83	3.0	0.00	92.7	3.33
406.6	3.58	27.4	1.62	2.9	0.03	108.7	2.87
315.1	3.60	24.9	1.48	2.6	0.00	70.4	3.25
266.3	3.24	15.2	1.11	2.4	0.01	83.4	2.92
231.3	3.55	13.9	0.90	606.7	3.00	48.9	2.90
178.2	3.07	12.4	0.51	404.4	3.33	60.7	2.70
153.5	3.21	11.2	0.70	522.4	3.55	40.4	2.43
100.3	2.95	9.6	0.47	277.6	3.17	42.6	2.16
89.3	3.72	9.2	0.33	357.7	3.03	30.3	1.69
80.0	3.09	7.6	0.25	201.8	3.18	33.7	1.73
64.5	3.04	7.7	0.43	278.5	3.14		
67.8	2.92	5.3	0.08	156.7	3.68		
47.6	2.31	4.6	0.11	203.1	3.08		
48.0	2.22	4.0	0.03	130.1	3.60		

SAMPLE TEMPERATURE: 2.8°C

INCUBATION TEMPERATURE: 7.2 °C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 2.40

RNA: 8.16

PHOSPHATE: 0.60

CARBON: 216.00

DNA: 1.94

NITRATE: -

NITROGEN: 18.00

ATP: 1.147

SILICATE: 0.900

PROTEIN: 74.60

AMMONIA: 0.83

## UNGAVA BAY

LATITUDE: 58°52.6'N

LONGITUDE: 67°59.4'W

STATION NO.: 31

DATE: 6/8/79

DEPTH: 10m

TIME(ADT): 0800

SECCHI DEPTH: 9m

I	P	I	P	I	P	I	P
463.4	2.85	53.1	2.19	3.4	0.05	90.1	2.65
438.1	2.75	41.3	1.88	3.6	0.05	114.2	2.43
353.9	3.30	40.4	2.19	2.7	0.01	75.8	2.57
297.0	2.91	29.9	1.51	3.0	0.02	51.4	2.02
248.1	2.49	31.6	1.67	2.5	0.06	54.8	2.45
222.9	2.52	16.4	0.90	2.6	0.01	41.3	1.85
191.7	2.51	18.5	0.96	627.7	2.86	41.8	1.68
160.1	2.77	13.5	0.68	459.2	3.18	29.5	1.25
122.2	2.56	13.1	0.59	526.6	2.56	31.6	1.30
121.8	2.59	10.3	0.42	399.8	3.14		
86.8	2.59	10.2	0.44	235.5	2.97		
88.9	2.19	8.0	0.32	287.3	2.59		
70.4	2.19	8.2	0.25	214.9	2.75		
70.4	1.88	4.5	0.16	123.4	2.87		
57.7	2.19	5.1	0.10	149.6	2.51		

SAMPLE TEMPERATURE: 2.4°C

INCUBATION TEMPERATURE: 4.6 °C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 4.23

RNA: 9.90

PHOSPHATE: 0.50

CARBON: 156.00

DNA: 1.86

NITRATE: 0.05

NITROGEN: 19.00

ATP: 0.806

SILICATE: 1.81

PROTEIN: 65.00

AMMONIA: 1.35

## UNGAVA BAY

LATITUDE: 50°57.4'N

LONGITUDE:  $66^{\circ}59.1'W$

STATION NO.: 32

DATE: 6/8/79

DEPTH: 10m

TIME (ADT) : 1200

SECCHI DEPTH: 11m

I	P	I	P	I	P	I	P
539.3	2.00	35.0	1.07	2.9	0.00	69.1	2.29
497.1	1.80	31.2	1.05	2.8	0.00	46.3	1.76
337.0	2.29	18.5	0.70	2.6	0.00	50.6	1.86
223.3	2.12	17.3	0.63	455.0	2.50	36.6	1.35
170.6	1.95	14.3	0.39	547.7	2.07	39.6	1.59
155.9	1.94	12.6	0.44	332.8	2.66		
132.7	1.72	12.4	0.27	429.7	2.07		
110.8	1.84	11.0	0.36	263.3	2.25		
96.1	1.79	8.8	0.21	303.3	2.09		
80.9	1.56	8.9	0.25	198.0	2.18		
69.1	1.53	6.4	0.07	219.1	1.91		
66.1	1.48	6.2	0.12	155.8	2.32		
52.7	1.82	4.5	0.01	108.7	1.99		
48.4	1.35	4.1	0.02	84.3	2.10		
43.0	1.34	3.5	0.04	65.7	2.20		

SAMPLE TEMPERATURE: 3.0 °C

INCUBATION TEMPERATURE: 4.5°C

INCUBATION TIME: 3 HRS.

$\text{mg m}^{-3}$

$\text{mg m}^{-3}$

mg at-m<sup>-3</sup>

### CHLOROPHYLL: 3.36

RNA: 4.66

PHOSPHATE: 0.47

CARBON: 243.00

DNA: 0.82

NITRATE: 0.02

NITROGEN: 17.00

ATP: 0.885

SILICATE: 0.67

PROTEIN: 58.30

AMMONIA: 2.42

## UNGAVA BAY

LATITUDE: 58°55'N

LONGITUDE: 66°36'W

STATION NO.: 33

DATE: 6/8/79

DEPTH: 10m

TIME(ADT): 1600

SECCHI DEPTH: 9m

I	P	I	P	I	P	I	P
562.6	3.39	44.2	1.96	3.8	0.02	75.0	2.87
463.4	3.33	42.1	2.03	2.7	0.01	61.1	2.27
383.4	3.37	33.7	1.66	3.1	0.00	57.7	2.14
337.0	3.27	32.9	1.37	2.4	0.00	45.1	1.91
299.1	2.70	19.4	0.90	463.5	3.30	46.3	2.15
227.5	3.18	21.9	1.06	556.1	2.83	36.7	1.35
223.3	3.18	13.5	0.48	332.8	2.65	33.7	1.71
162.2	2.61	13.9	0.50	244.4	2.60		
139.0	3.03	10.7	0.29	318.1	2.42		
113.7	2.65	11.2	0.31	210.6	2.66		
86.4	2.68	7.4	0.14	126.4	2.61		
83.4	2.28	7.8	0.20	151.7	2.86		
67.4	2.36	4.8	2.09	97.7	2.31		
56.0	2.02	5.6	0.09	103.2	2.31		
51.8	1.91	3.5	0.00	77.9	2.13		

SAMPLE TEMPERATURE: 4.0°C

INCUBATION TEMPERATURE: 6.9°C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.38

RNA: 7.00

PHOSPHATE: 0.48

CARBON: 131.00

DNA: 2.65

NITRATE: 0.05

NITROGEN: 12.00

ATP: 0.506

SILICATE: 1.95

PROTEIN: 20.40

AMMONIA: 2.62

## UNGAVA BAY

I	P	I	P	I	P	I	P
505.6	3.09	2.7	0.09				
349.7	2.93	2.7	0.04				
265.4	2.71	2.4	0.04				
214.9	2.53						
147.5	2.35						
101.1	2.25						
77.9	1.88						
42.1	1.86						
33.3	1.66						
21.9	0.82						
14.7	0.76						
12.0	0.64						
9.1	0.81						
5.3	0.25						
4.6	0.16						

SAMPLE TEMPERATURE: 2.5°C INCUBATION TEMPERATURE: 4.0°C INCUBATION TIME: 0.5 HRS.

	$\text{mg m}^{-3}$		$\text{mg m}^{-3}$		$\text{mg at-m}^{-3}$
CHLOROPHYLL:	2.73	RNA:	8.41	PHOSPHATE:	0.61
CARBON:	155.00	DNA:	2.01	NITRATE:	0.25
NITROGEN:	20.00	ATP:	0.918	SILICATE:	1.39
PROTEIN:	52.60			AMMONIA:	1.84

## UNGAVA BAY

LATITUDE: 58°20.2'N

LONGITUDE: 67°55'W

STATION NO.: 34B

DATE: 22/8/79

DEPTH: 10m

TIME(ADT): 0830

SECCHI DEPTH: 7m

I	P	I	P	I	P	I	P
568.7	1.67	2.2	0.04				
383.4	2.18						
303.3	1.86						
219.1	1.85						
155.8	1.99						
54.8	1.88						
34.1	1.52						
21.1	0.90						
15.2	0.88						
12.0	0.62						
9.9	0.36						
6.5	0.15						
6.3	0.11						
3.8	0.08						
3.5	0.07						

SAMPLE TEMPERATURE: 2.5°C INCUBATION TEMPERATURE: 4.0 °C INCUBATION TIME: 1 HRS.

	mg m <sup>-3</sup>	mg m <sup>-3</sup>	mg at-m <sup>-3</sup>
CHLOROPHYLL:	2.73	RNA: 8.41	PHOSPHATE: 0.61
CARBON:	155.00	DNA: 2.01	NITRATE: 0.25
NITROGEN:	20.00	ATP: 0.918	SILICATE: 1.39
PROTEIN:	52.60		AMMONIA: 1.84

## UNGAVA BAY

LATITUDE: 58°20.2'N

LONGITUDE: 67°55'W

STATION NO.: 34C

DATE: 22/8/79

DEPTH: 10m

TIME(ADT): 0830

SECCHI DEPTH: 7m

I	P	I	P	I	P	I	P
488.7	1.35	4.2	0.15				
366.5	2.22	3.2	0.12				
257.0	2.15	2.6	0.08				
191.7	2.13						
151.7	1.77						
111.6	1.71						
82.2	1.66						
65.3	1.92						
48.4	1.88						
34.1	1.67						
20.2	1.14						
15.2	0.81						
11.3	0.48						
8.8	0.43						
5.7	0.15						

SAMPLE TEMPERATURE: 2.5°C INCUBATION TEMPERATURE: 4.0°C INCUBATION TIME: 2 HRS.

	mg m <sup>-3</sup>		mg m <sup>-3</sup>		mg at-m <sup>-3</sup>
CHLOROPHYLL:	2.73	RNA:	8.41	PHOSPHATE:	0.61
CARBON:	155.00	DNA:	2.01	NITRATE:	0.25
NITROGEN:	20.00	ATP:	0.918	SILICATE:	1.39
PROTEIN:	52.60			AMMONIA:	1.84

## UNGAVA BAY

LATITUDE: 58° 20.2'N

LONGITUDE: 67°55'W

STATION NO.: 34D

DATE: 22/8/79

DEPTH: 10m

TIME(ADT): 0830

SECCHI DEPTH: 7m

I	P	I	P	I	P	I	P
573.0	1.48	3.3	0.14				
421.3	1.36	2.7	0.06				
290.7	1.25	2.3	0.04				
217.0	1.34						
153.8	1.68						
112.5	1.61						
67.4	1.62						
52.7	1.41						
40.0	1.68						
24.0	1.20						
17.3	0.77						
11.8	0.72						
9.7	0.68						
6.1	0.25						
4.6	0.21						

SAMPLE TEMPERATURE: 2.5 °C

INCUBATION TEMPERATURE: 4.0 °C

INCUBATION TIME: 4 HRS.

	mg m <sup>-3</sup>		mg m <sup>-3</sup>		mg at-m <sup>-3</sup>
CHLOROPHYLL:	2.73	RNA:	8.41	PHOSPHATE:	0.61
CARBON:	155.00	DNA:	2.01	NITRATE:	0.25
NITROGEN:	52.60	ATP:	0.918	SILICATE:	1.39
PROTEIN:				AMMONIA:	1.84

## UNGAVA BAY

LATITUDE: 59°16.8'N

LONGITUDE: 67°53.4'W

STATION NO.: 35A

DATE: 22/8/79

DEPTH: 30m

TIME(ADT): 1345

SECCHI DEPTH: 7m

I	P	I	P	I	P	I	P
526.6	1.69	2.3	0.00				
400.2	1.89	2.1	0.04				
305.4	1.84						
187.5	1.88						
86.4	1.62						
70.4	1.92						
52.7	1.76						
29.1	1.22						
17.7	0.94						
13.1	0.66						
9.7	0.41						
7.8	0.25						
4.3	0.13						
3.5	0.05						
2.7	0.40						

SAMPLE TEMPERATURE: 0.5 °C

INCUBATION TEMPERATURE: 2.6°C

INCUBATION TIME: 0.5 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 5.86

RNA: 4.86

PHOSPHATE: 0.66

CARBON: -

DNA: 2.01

NITRATE: 1.67

NITROGEN: 22.00

ATP: 1.122

SILICATE: 3.77

PROTEIN: 83.40

AMMONIA: 3.10

## UNGAVA BAY

LATITUDE: 59°16.8'N

LONGITUDE: 67°53.4'W

STATION NO.: 35B

DATE: 22/8/79

DEPTH: 30m

TIME(ADT): 1345

SECCHI DEPTH: 7m

I	P	I	P	I	P	I	P
634.1	0.72	2.3	0.03				
417.1	1.00	2.1	0.04				
322.3	1.12						
231.7	1.10						
122.2	1.20						
75.8	1.20						
65.3	0.89						
54.8	0.98						
19.4	0.58						
13.9	0.58						
10.3	0.39						
7.6	0.20						
4.3	0.14						
3.7	0.05						
2.7	0.05						

SAMPLE TEMPERATURE: 0.5 °C

INCUBATION TEMPERATURE: 2.6°C

INCUBATION TIME: 1 HRS.

	mg m <sup>-3</sup>		mg m <sup>-3</sup>		mg at-m <sup>-3</sup>
CHLOROPHYLL:	5.86	RNA:	4.86	PHOSPHATE:	0.66
CARBON:	-	DNA:	2.01	NITRATE:	1.67
NITROGEN:	22.00	ATP:	1.122	SILICATE:	3.77
PROTEIN:	83.40			AMMONIA:	3.10

## UNGAVA BAY

LATITUDE: 59°16.8'N

LONGITUDE: 67°53.4'W

STATION NO.: 35C

DATE: 22/8/79

DEPTH: 30m

TIME(ADT): 1345

SECCHI DEPTH: 7m

I	P	I	P	I	P	I	P
459.2	1.04	2.7	0.04				
328.6	1.15	2.0	0.04				
210.6	1.61						
172.7	1.80						
101.1	1.75						
59.0	1.24						
41.7	1.64						
30.3	1.50						
18.9	0.65						
14.3	0.49						
10.9	0.36						
8.7	0.33						
6.3	0.13						
4.2	0.11						
3.3	0.09						

SAMPLE TEMPERATURE: 0.5 °C

INCUBATION TEMPERATURE: 2.6 °C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 5.86

RNA: 4.86

PHOSPHATE: 0.66

CARBON: -

DNA: 2.01

NITRATE: 1.67

NITROGEN: 22.00

ATP: 1.122

SILICATE: 3.77

PROTEIN: 83.40

AMMONIA: 3.10

## UNGAVA BAY

LATITUDE: 59°16.8'N

LONGITUDE: 67°53.4'W

STATION NO.: 35D

DATE: 22/8/79

DEPTH: 30m

TIME(ADT): 1345

SECCHI DEPTH: 7m

I	P	I	P	I	P	I	P
547.7	1.03						
421.3	1.67						
320.3	1.75						
219.1	1.83						
107.4	1.12						
84.3	1.49						
63.2	1.32						
37.9	1.01						
24.4	0.88						
11.4	0.55						
8.6	0.40						
6.0	0.26						
4.0	0.15						
3.5	0.10						
2.7	0.09						

SAMPLE TEMPERATURE: 0.5 °C

INCUBATION TEMPERATURE: 2.6 °C

INCUBATION TIME: 4 HRS.

	mg m <sup>-3</sup>		mg m <sup>-3</sup>		mg at-m <sup>-3</sup>	
CHLOROPHYLL:	5.86		RNA:	4.86	PHOSPHATE:	0.66
CARBON:	-		DNA:	2.01	NITRATE:	1.67
NITROGEN:	22.00		ATP:	1.122	SILICATE:	3.77
PROTEIN:	83.40				AMMONIA:	3.10

## UNGAVA BAY

LATITUDE: 58°49.5'N

LONGITUDE: 68°04.5'W

STATION NO.: 36

DATE: 23/8/79

DEPTH: 10m

TIME(ADT): 0730

SECCHI DEPTH: 7m

I	P	I	P	I	P	I	P
547.7	2.07	40.4	2.27	2.95	.04	52.7	2.25
463.4	2.04	32.4	2.46	3.20	.02	36.7	1.88
379.2	1.88	30.3	1.69	2.36	.02	39.2	2.09
311.8	1.99	24.0	0.97	2.44	.01	28.6	1.45
210.6	1.88	20.6	1.18	463.4	2.00	32.4	2.04
202.2	2.06	13.9	0.77	526.6	1.83		
164.3	1.56	12.6	0.80	421.3	1.68		
139.0	2.06	10.3	0.79	244.4	1.98		
113.7	2.06	10.1	0.66	299.1	2.18		
101.1	2.39	7.0	0.38	181.2	1.94		
86.4	1.92	7.4	0.52	202.2	1.65		
69.5	1.72	4.6	0.31	130.6	2.24		
63.2	1.92	5.3	0.19	92.7	1.74		
54.8	2.00	3.6	0.14	67.4	1.74		
46.3	2.14	3.9	0.12	48.4	2.48		

SAMPLE TEMPERATURE: 2.7°C

INCUBATION TEMPERATURE: 3.3°C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.60

RNA: 6.55

PHOSPHATE: 0.51

CARBON: -

DNA: 3.44

NITRATE: 0.04

NITROGEN: 16.00

ATP: 0.395

SILICATE: 1.31

PROTEIN: 24.60

AMMONIA: 1.14

## UNGAVA BAY

LATITUDE: 58°49'N

LONGITUDE: 68° 01'W

STATION NO.: 37

DATE: 23/8/79

DEPTH: 10m

TIME(ADT): 1215

SECCHI DEPTH: 8m

I	P	I	P	I	P	I	P
568.8	1.49	27.8	1.04	463.4	2.01	40.0	1.80
526.6	1.31	22.3	0.80	535.0	1.68	31.2	1.60
381.3	1.98	22.3	0.96	343.4	2.18	29.1	1.24
332.8	2.07	18.5	0.63	408.6	1.34		
290.7	1.57	9.3	0.44	250.7	2.10		
198.0	1.85	10.9	0.42	290.7	2.12		
94.8	1.61	7.4	0.26	189.6	2.07		
110.8	1.86	8.2	0.31	198.0	2.15		
73.7	2.25	5.1	0.09	147.5	2.12		
78.8	2.10	6.3	0.09	117.1	1.90		
56.9	1.30	4.8	0.14	75.8	1.90		
59.0	1.67	4.3	0.06	96.9	1.70		
40.0	1.53	3.4	0.01	54.8	1.93		
44.2	1.57	3.6	0.03	59.0	1.63		
28.6	1.39	3.2	0.07	44.2	1.83		

SAMPLE TEMPERATURE: 1.5°C

INCUBATION TEMPERATURE: 3.5 °C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 2.10

RNA: 6.92

PHOSPHATE: 0.61

CARBON: -

DNA: 4.07

NITRATE: 0.34

NITROGEN: 16.00

ATP: 0.388

SILICATE: 1.51

PROTEIN: 27.50

AMMONIA: 0.77

## UNGAVA BAY

LATITUDE: 58°37.1'N

LONGITUDE: 68° 9.7'W

STATION NO.: 38

DATE: 23/8/79

DEPTH: 20m

TIME(ADT): 1600

SECCHI DEPTH: 10m

I	P	I	P	I	P	I	P
629.8	2.78	54.8	2.69	4.0	0.03	109.5	2.90
509.8	2.93	50.6	2.35	3.1	0.00	88.5	3.00
442.4	3.17	41.7	2.44	3.0	0.00	61.1	2.40
383.4	2.52	31.2	2.23	2.5	0.03	64.0	2.12
309.7	2.71	27.0	0.93	2.2	0.05	50.6	1.94
277.2	2.98	24.0	1.08	522.4	2.75	50.6	1.91
223.3	2.48	16.0	0.84	615.1	3.50	39.2	1.88
185.4	2.77	13.5	0.82	442.4	2.85	35.0	1.90
150.4	3.37	11.6	0.48	259.1	2.75		
147.0	2.49	9.9	0.67	324.4	3.34		
108.3	2.85	9.4	0.28	202.2	2.95		
104.5	3.15	8.5	0.35	231.7	3.73		
84.3	2.90	6.6	0.09	147.5	2.89		
88.1	2.62	6.4	0.18	168.5	3.59		
59.0	2.98	4.2	0.07	104.5	3.43		

SAMPLE TEMPERATURE: 3.5°C

INCUBATION TEMPERATURE: 6.0 °C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.20

RNA: 6.51

PHOSPHATE: 0.54

CARBON: -

DNA: 4.21

NITRATE: 0.08

NITROGEN: 14.00

ATP: 0.253

SILICATE: 2.75

PROTEIN: 40.30

AMMONIA: 1.66

## UNGAVA BAY

LATITUDE: 58°37.1'N

LONGITUDE: 68°9.7'W

STATION NO.: 39

DATE: 23/8/79

DEPTH: 10m

TIME(ADT): 2000

SECCHI DEPTH: 6m

I	P	I	P	I	P	I	P
631.9	1.97	24.9	1.25	2.5	0.00	63.2	1.63
484.5	1.93	18.1	0.73	2.2	0.00	26.5	1.32
442.4	1.74	20.6	1.04	452.9	2.12	32.0	1.46
324.4	1.81	11.4	0.66	313.9	2.26		
252.8	2.05	13.1	0.55	442.4	1.88		
185.4	2.19	8.6	0.34	240.2	2.55		
179.1	1.95	10.7	0.38	290.7	1.88		
126.4	1.82	7.4	0.28	191.7	2.46		
115.9	1.81	8.8	0.28	126.5	2.41		
84.3	1.90	5.9	0.94	147.5	2.08		
61.1	1.62	5.9	0.13	94.8	1.95		
48.4	1.48	4.8	0.01	111.6	2.58		
45.9	1.38	4.6	0.03	80.0	2.31		
35.8	1.16	2.9	0.00	52.7	1.91		
26.1	1.41	2.6	0.00	37.1	1.63		

SAMPLE TEMPERATURE: 3.2°C

INCUBATION TEMPERATURE: 6.0 °C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.28

RNA: 5.19

PHOSPHATE: 0.54

CARBON: -

DNA: 3.29

NITRATE: 0.04

NITROGEN: 14.00

ATP: 0.082

SILICATE: 2.44

PROTEIN: 19.60

AMMONIA: 3.15

## UNGAVA BAY

LATITUDE: 58°37.1'N

LONGITUDE: 68°09.7'W

STATION NO.: 40

DATE: 24/8/79

DEPTH: 10m

TIME (ADT) : 0000

SECCHI DEPTH. -

I	P	I	P	I	P	I	P
631.9	2.16	31.6	1.32	2.9	0.00	50.6	2.07
526.6	1.14	31.2	1.34	2.4	0.00	47.6	1.93
446.6	2.37	19.8	1.15	2.2	0.02	39.6	2.62
400.2	2.29	18.9	0.93	648.8	2.29	38.3	2.07
252.8	2.68	13.9	0.74	648.8	1.83	29.9	1.41
269.6	2.25	13.1	0.56	316.0	2.48	32.0	1.69
225.4	2.58	10.7	0.37	421.3	2.40		
130.6	2.21	10.7	0.33	292.8	2.08		
96.9	2.64	8.8	0.23	164.3	2.49		
69.5	2.38	8.1	0.25	200.1	2.69		
67.5	2.73	5.8	0.16	130.6	2.77		
54.8	2.46	5.5	0.12	88.5	2.46		
51.8	2.52	4.2	0.04	93.1	2.46		
40.0	2.15	3.8	0.05	67.4	1.94		
40.1	1.89	3.2	0.01	69.5	1.95		

SAMPLE TEMPERATURE: 3.2°C

INCUBATION TEMPERATURE: 55°C

INCUBATION TIME: 3 HRS

$$\text{mg m}^{-3}$$

$\text{mg m}^{-3}$

mg at-m<sup>-3</sup>

CHLOROPHYLL: 1,34

RNA 7 85

PHOSPHATE: 0.52

CARBON-

DNA: 3.98

### NITRATE:

NITROGEN: 10.00

ATP: 0.422

SILICATE 2-70

PROTEIN: 20.40

AVIONICS 0.66

## UNGAVA BAY

LATITUDE: 58°37.1'N

LONGITUDE: 68°09.7'W

STATION NO.: 41

DATE: 24/8/79

DEPTH: 10m

TIME(ADT): 0400

SECCHI DEPTH: -

I	P	I	P	I	P	I	P
589.8	1.69	44.2	1.50	3.0	0.03	86.4	2.32
383.4	2.31	39.2	1.18	2.3	0.00	50.6	1.94
341.2	2.90	31.5	1.45	2.2	0.00	56.9	2.16
278.1	3.18	28.6	1.25	2.0	0.00	35.8	1.97
257.0	2.70	18.5	0.71	1.9	0.00	39.2	1.70
193.8	2.74	17.3	0.85	421.3	2.59	28.6	1.66
191.7	2.51	13.9	0.55	505.6	2.43		
132.7	3.17	11.6	0.50	379.2	2.41		
132.7	2.35	9.9	0.33	235.9	2.47		
99.0	3.04	9.7	0.34	278.0	2.83		
94.8	2.66	6.5	0.13	172.7	2.39		
71.6	2.85	6.3	0.12	195.9	2.97		
71.2	2.47	4.4	0.10	130.6	3.33		
56.9	1.95	4.1	0.07	88.5	2.97		
53.9	1.79	3.1	0.04	68.7	2.52		

SAMPLE TEMPERATURE: 3.7°C

INCUBATION TEMPERATURE: 5.5°C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.16

RNA: 7.83

PHOSPHATE: 0.54

CARBON: -

DNA: 3.75

NITRATE: -

NITROGEN: 14.00

ATP: 0.412

SILICATE: 2.58

PROTEIN: 30.6

AMMONIA: 1.44

## UNGAVA BAY

LATITUDE: 58°45'N

LONGITUDE: 68°01'W

STATION NO.: 42

DATE: 24/8/79

DEPTH: 31m

TIME(ADT): 0840

SECCHI DEPTH: 8.5m

I	P	I	P	I	P	I	P
509.8	2.59	30.8	2.17	2.6	0.05	72.5	2.14
463.4	3.20	29.1	1.68	2.4	0.05	50.6	2.02
425.5	3.29	19.8	1.06	2.2	0.05	48.9	2.48
358.1	3.36	17.3	1.20	642.5	2.79	40.0	1.78
330.7	3.06	12.6	0.84	537.2	2.63	40.0	1.84
223.3	3.06	11.8	0.61	328.6	2.44	28.6	1.43
193.8	2.51	11.0	0.41	429.7	2.27	28.2	1.89
155.9	2.86	10.7	0.52	223.3	2.41	77.9	2.95
134.8	2.61	8.6	0.30	271.7	2.71		
113.7	3.20	7.8	0.24	155.8	2.95		
75.4	2.52	5.7	0.13	202.2	2.66		
55.2	2.35	5.7	0.11	113.7	2.77		
51.4	2.56	4.0	0.09	147.5	2.35		
40.9	1.90	3.8	0.11	84.3	2.38		
37.9	2.00	3.1	0.02	100.3	3.00		

SAMPLE TEMPERATURE: 2.5°C

INCUBATION TEMPERATURE: 4.0°C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.28

RNA: 6.92

PHOSPHATE: 0.57

CARBON: -

DNA: 2.91

NITRATE: 0.04

NITROGEN: 12.00

ATP: 0.62

SILICATE: 1.38

PROTEIN: 29.20

AMMONIA: 2.29

## UNGAVA BAY

LATITUDE: 58°45.9'N

LONGITUDE: 67°45.1'W

STATION NO.: 43

DATE: 24/8/79

DEPTH: 43m

TIME(ADT): 1200

SECCHI DEPTH: 11m

I	P	I	P	I	P	I	P
589.8	2.04	25.7	1.20	2.4	0.02	46.3	1.35
463.4	2.20	26.1	0.94	2.0	0.00	44.2	1.20
480.3	1.82	19.8	0.74	1.9	0.04	28.2	1.26
378.7	1.73	20.2	1.03	446.6	2.51	32.9	1.15
328.6	1.57	12.4	0.58	547.7	2.47		
246.5	1.72	13.3	0.52	337.0	1.51		
240.1	1.93	9.7	0.43	421.3	2.24		
185.4	1.87	10.3	0.35	250.7	2.07		
92.3	2.20	7.9	0.36	334.9	1.77		
75.8	1.65	7.5	0.35	189.2	2.30		
65.3	1.48	6.1	0.18	168.5	2.13		
54.8	1.37	5.7	0.18	99.0	1.76		
50.6	1.37	3.7	0.08	76.7	2.10		
36.7	1.30	3.5	0.05	88.5	1.50		
37.5	1.51	2.4	0.01	59.0	2.12		

SAMPLE TEMPERATURE: 2.4°C

INCUBATION TEMPERATURE: 4.5°C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.68

RNA: 3.83

PHOSPHATE: 0.600

CARBON: -

DNA: 1.83

NITRATE: 0.12

NITROGEN: 15.00

ATP: 0.266

SILICATE: 1.34

PROTEIN: 35.10

AMMONIA: 1.65

## UNGAVA BAY

LATITUDE: 58°45.9'N

LONGITUDE: 67°45.1'W

STATION NO.: 44

DATE: 24/8/79

DEPTH: 10m

TIME(ADT): 1600

SECCHI DEPTH: 7m

I	P	I	P	I	P	I	P
547.7	1.95	24.0	0.90	2.1	0.04	41.3	1.39
459.2	2.43	20.6	0.58	1.9	0.03	40.9	2.00
438.1	2.24	16.4	0.78	505.6	1.87	28.6	1.65
347.6	1.63	10.5	0.50	358.1	1.98	29.5	1.32
278.9	1.76	10.7	0.38	404.4	2.29		
223.3	1.96	8.4	0.35	284.4	2.34		
122.2	1.46	7.9	0.31	353.9	2.07		
123.0	1.84	5.6	0.20	217.0	1.73		
83.4	1.98	4.8	0.28	240.1	1.88		
59.0	1.45	4.2	0.07	143.2	1.97		
52.7	1.35	4.0	0.10	158.0	1.84		
41.7	1.41	2.8	0.04	103.2	2.15		
37.5	1.52	2.9	0.10	78.8	1.51		
30.8	1.46	1.9	0.01	83.4	1.65		
26.5	1.03	1.9	0.01	57.7	1.48		

SAMPLE TEMPERATURE: 3.5°C

INCUBATION TEMPERATURE: 5.5 °C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.12

RNA: 5.07

PHOSPHATE: 0.56

CARBON: 156.00

DNA: 4.99

NITRATE: 0.05

NITROGEN: 14.00

ATP: 0.312

SILICATE: 1.76

PROTEIN: 18.40

AMMONIA: 2.14

160

## UNGAVA BAY

LATITUDE: 58°45.9'N

LONGITUDE: 67°45.1'W

STATION NO.: 45

DATE: 24/8/79

DEPTH: 10m

TIME(ADT): 2000

SECCHI DEPTH: -

I	P	I	P	I	P	I	P
648.8	1.73	40.0	1.64	2.7	0.00	96.9	1.85
568.7	2.28	28.2	1.68	2.7	0.00	70.4	1.81
488.7	2.72	27.8	1.12	2.0	0.00	72.9	1.81
429.7	2.76	21.9	0.79	2.2	0.02	52.2	1.55
353.9	2.95	21.5	0.72	598.2	1.10	54.7	1.64
278.1	2.77	13.1	0.54	501.3	2.19	40.0	1.34
223.3	2.68	12.6	0.68	522.4	1.87	46.3	1.87
210.6	2.13	10.1	0.35	332.8	2.01	27.4	1.38
160.1	2.02	10.0	0.36	404.4	2.74	34.1	1.30
118.0	1.88	8.2	0.18	265.4	2.21		
107.4	1.86	7.8	0.21	320.2	1.78		
75.8	1.83	6.1	0.08	204.3	2.02		
69.5	2.00	6.4	0.15	231.7	1.76		
59.0	1.91	3.6	0.04	126.4	2.38		
40.0	1.64	4.0	0.01	147.5	2.17		

SAMPLE TEMPERATURE: 2.2°C

INCUBATION TEMPERATURE: 4.8°C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.51

RNA: 5.69

PHOSPHATE: 0.66

CARBON: 135.00

DNA: 5.44

NITRATE: 0.04

NITROGEN: 14.00

ATP: 0.255

SILICATE: 1.17

PROTEIN: 28.20

AMMONIA: 2.18

## UNGAVA BAY

LATITUDE: 58°45.9'N

LONGITUDE: 67°45.1'W

STATION NO.: 46

DATE: 25/8/79

DEPTH: 10m

TIME(ADT): 0000

SECCHI DEPTH: -

I	P	I	P	I	P	I	P
642.5	1.81	56.0	2.23	4.6	0.07	107.4	1.99
558.2	2.46	52.7	1.77	3.6	0.05	64.8	2.15
452.9	2.52	39.6	1.37	3.4	0.03	53.1	2.12
442.4	2.31	34.5	1.65	2.6	0.00	64.5	2.07
347.6	2.48	26.5	1.36	2.7	0.05	39.2	1.83
294.9	2.46	26.5	1.66	2.0	0.01	43.4	1.58
250.7	2.37	18.5	1.07	2.2	0.03	29.9	1.42
204.3	2.14	16.4	1.17	452.9	2.28	34.1	1.31
198.0	2.61	13.1	0.82	421.3	1.69		
132.7	2.62	12.0	0.69	242.2	2.00		
136.9	2.48	9.7	0.52	176.9	1.89		
97.7	1.85	9.1	0.46	212.8	2.11		
98.2	2.75	7.2	0.35	132.7	2.39		
75.0	1.93	6.6	0.18	149.6	2.64		
69.1	1.86	5.1	0.36	92.7	1.74		

SAMPLE TEMPERATURE: 2.0°C

INCUBATION TEMPERATURE: 4.5°C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.66

RNA: 5.20

PHOSPHATE: 0.56

CARBON: 81.00

DNA: 5.85

NITRATE: -

NITROGEN: 13.00

ATP: 0.548

SILICATE: 1.28

PROTEIN: 43.60

AMMONIA: 2.33

## UNGAVA BAY

LATITUDE: 58°45.9'N

LONGITUDE: 67°45.1'W

STATION NO.: 47

DATE: 25/8/79

DEPTH: 10m

TIME(ADT): 0400

SECCHI DEPTH: -

I	P	I	P	I	P	I	P
621.4	1.52	50.6	1.96	4.0	0.12	214.9	2.53
551.9	3.01	49.3	3.09	3.3	0.03	143.2	1.96
431.8	2.91	37.5	1.73	3.0	0.09	157.9	1.81
421.3	3.19	33.7	1.97	2.6	0.02	99.8	3.16
316.0	2.69	27.4	1.87	2.4	0.00	106.2	1.98
286.5	2.82	23.6	1.87	1.9	0.00	69.5	3.02
235.9	2.86	16.1	1.30	1.9	0.07	77.1	2.06
176.9	2.13	14.7	0.94	631.9	2.10	53.1	2.27
170.6	2.06	11.8	0.56	484.5	2.67	55.6	2.05
130.6	2.04	9.9	0.65	516.1	2.10	40.9	2.17
126.4	3.00	9.3	0.53	347.6	3.47	43.4	1.49
91.8	3.08	7.8	0.40	383.4	1.95	29.0	1.70
87.2	2.62	7.6	0.25	252.8	3.54	30.3	1.56
65.3	3.00	6.2	0.36	299.1	3.37		
67.0	2.40	4.6	0.07	198.0	1.85		

SAMPLE TEMPERATURE: 3.5°C

INCUBATION TEMPERATURE: 4.9°C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.18

RNA: 6.43

PHOSPHATE: 0.55

CARBON: 127.00

DNA: 5.55

NITRATE: 0.14

NITROGEN: 24.00

ATP: 0.282

SILICATE: 2.30

PROTEIN: 23.60

AMMONIA: 2.13

## UNGAVA BAY

LATITUDE: 58°45.9'N

LONGITUDE: 67°45.1'W

STATION NO.: 48

DATE: 25/8/79

DEPTH: 10m

TIME(ADT): 0830

SECCHI DEPTH: 8m

I	P	I	P	I	P	I	P
537.2	1.94	47.6	1.45	4.0	0.00	164.3	2.28
442.4	2.36	35.0	1.52	3.4	0.05	102.4	1.80
421.3	1.97	34.1	1.87	3.1	0.00	107.4	1.59
284.4	3.24	28.2	1.18	2.6	0.00	53.9	1.76
275.9	1.83	25.7	1.21	2.4	0.00	56.9	1.89
242.2	1.64	17.3	0.57	2.0	0.03	40.4	1.48
204.3	1.95	15.6	0.71	531.9	2.14	41.3	1.44
181.2	1.76	13.5	0.54	495.0	3.03	31.2	1.42
126.4	1.97	11.8	0.50	484.5	2.27	30.3	1.43
109.5	1.89	9.8	0.39	345.5	3.03		
95.2	2.29	9.1	0.44	412.9	2.31		
82.6	1.91	7.8	0.31	265.4	2.58		
75.8	2.25	7.2	0.27	189.6	2.84		
65.7	2.07	5.3	0.03	244.4	2.56		
51.8	1.61	4.9	0.05	139.0	2.05		

SAMPLE TEMPERATURE: 3.0°C

INCUBATION TEMPERATURE: 4.0°C

INCUBATION TIME: 2 HRS.

	mg m <sup>-3</sup>		mg m <sup>-3</sup>		mg at-m <sup>-3</sup>
CHLOROPHYLL:	1.53	RNA:	5.94	PHOSPHATE:	0.52
CARBON:	49.00	DNA:	5.40	NITRATE:	-
NITROGEN:	11.00	ATP:	0.398	SILICATE:	1.53
PROTEIN:	25.30			AMMONIA:	1.20

164

## UNGAVA BAY

LATITUDE: 58°45.9'N

LONGITUDE: 67°45.1'W

STATION NO.: 49

DATE: 25/8/79

DEPTH: 10m

TIME(ADT): 1200

SECCHI DEPTH: 11m

I	P	I	P	I	P	I	P
516.1	1.87	32.4	1.62	2.8	0.01	73.7	1.83
442.4	2.28	25.3	1.09	2.5	0.03	75.8	1.83
298.3	2.25	26.1	1.22	2.3	0.01	57.7	2.03
235.9	2.37	19.0	0.99	1.9	0.00	54.3	2.06
214.9	2.58	18.5	0.79	589.8	1.68	43.4	1.85
172.7	2.50	10.7	0.57	501.3	2.15	40.0	1.99
143.2	2.08	11.4	0.56	330.7	2.32	30.3	1.44
126.4	1.89	9.0	0.42	431.8	2.20	27.8	1.51
94.4	2.28	9.1	0.44	257.8	2.15		
83.0	2.61	6.8	0.41	322.3	2.09		
66.1	1.87	7.0	0.26	181.2	2.58		
61.9	2.45	5.3	0.10	139.0	1.74		
59.0	2.35	5.4	0.07	158.0	1.79		
61.1	1.70	3.4	0.01	94.8	1.72		
32.0	1.62	3.3	0.00	110.4	1.85		

SAMPLE TEMPERATURE: 2.5 °C

INCUBATION TEMPERATURE: 4.0 °C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.51

RNA: 6.68

PHOSPHATE: 0.54

CARBON: -

DNA: 4.94

NITRATE: 0.06

NITROGEN: -

ATP: 0.522

SILICATE: 1.19

PROTEIN: 25.30

AMMONIA: 1.14

## UNGAVA BAY

LATITUDE: 58°45.9'N

LONGITUDE: 67°45.1'W

STATION NO.: 50

DATE: 25/8/79

DEPTH: 10 m

TIME(ADT): 1600

SECCHI DEPTH: 7m

I	P	I	P	I	P	I	P
606.7	3.64	35.0	1.58	3.1	0.00	92.7	2.29
497.1	2.98	34.1	1.48	2.4	0.00	52.7	2.46
429.7	2.28	24.0	1.23	2.7	0.00	36.2	2.30
396.0	3.46	24.4	1.40	2.0	0.00	37.1	2.52
273.8	2.34	17.3	0.85	2.0	0.01	28.2	1.90
281.4	3.11	16.4	1.33	631.9	2.40	27.4	1.60
249.4	2.39	11.6	0.61	455.0	3.12		
179.1	2.50	9.9	0.52	488.7	2.99		
163.9	2.27	9.4	0.32	322.3	3.27		
112.9	1.98	7.5	0.30	412.9	2.27		
113.7	2.03	6.9	0.22	229.6	2.64		
64.8	2.07	5.7	0.25	324.4	2.34		
59.0	1.79	5.3	0.11	170.6	2.53		
44.2	2.06	4.6	0.07	198.0	2.71		
41.7	1.91	3.7	0.00	117.1	2.56		

SAMPLE TEMPERATURE: 4.2°C

INCUBATION TEMPERATURE: 6.5°C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.05

RNA: 3.71

PHOSPHATE: 0.47

CARBON: 186.00

DNA: 3.94

NITRATE: 0.05

NITROGEN: 15.00

ATP: 0.320

SILICATE: 1.68

PROTEIN: 40.60

AMMONIA: 2.15

## UNGAVA BAY

LATITUDE: 58°45.9'N

LONGITUDE: 67°54.1'W

STATION NO.: 51

DATE: 25/8/79

DEPTH: 10 m

TIME(ADT): 2100

SECCHI DEPTH: -

I	P	I	P	I	P	I	P
577.2	3.77	34.1	2.87	3.4	0.00	86.8	3.54
467.6	3.50	37.5	2.65	2.6	0.00	64.9	3.20
463.4	4.28	24.0	1.70	2.7	0.01	68.3	3.51
345.5	3.32	29.5	2.25	2.0	0.00	45.5	2.44
309.6	2.73	19.0	1.08	2.0	0.00	46.3	3.27
265.4	2.97	21.1	1.02	387.6	3.83	31.2	2.97
241.0	3.02	11.1	0.69	514.0	3.28	32.0	2.15
189.6	3.99	12.1	0.79	366.5	3.64	23.2	1.70
120.1	2.97	9.0	0.51	259.1	3.14	24.4	1.90
130.6	2.72	8.8	0.46	299.1	3.21		
97.0	2.39	6.6	0.28	172.7	3.96		
88.5	3.06	6.5	0.28	193.8	4.25		
64.5	2.70	5.4	0.03	124.3	3.58		
48.0	3.85	5.1	0.07	132.7	3.74		
48.4	3.50	3.3	0.00	84.3	3.76		

SAMPLE TEMPERATURE: 4.2 °C

INCUBATION TEMPERATURE: 6.5 °C

INCUBATION TIME: 2 HRS.

	mg m <sup>-3</sup>		mg m <sup>-3</sup>		mg at-m <sup>-3</sup>
CHLOROPHYLL:	0.73		RNA:	5.68	
CARBON:	120.00		DNA:	4.08	
NITROGEN:	13.00		ATP:	0.316	
PROTEIN:	16.0				
					PHOSPHATE: 0.52
					NITRATE: 0.08
					SILICATE: 2.80
					AMMONIA: 1.29

## UNGAVA BAY

LATITUDE: 58°45.9'N

LONGITUDE: 67°45.1'W

STATION NO.: 52

DATE: 26/8/79

DEPTH: 10 m

TIME(ADT): 0830

SECCHI DEPTH: 7m

I	P	I	P	I	P	I	P
484.5	2.95	49.3	2.18	3.1	0.04	61.0	2.26
425.5	2.74	34.5	1.57	2.7	0.05	47.6	2.52
358.1	2.74	37.5	2.82	2.5	0.00	52.7	2.75
324.4	2.81	26.5	1.61	2.2	0.01	33.7	1.67
273.8	3.62	26.9	1.67	1.9	0.00	34.5	1.86
221.2	3.60	16.0	0.99	1.6	0.00	26.5	1.67
193.8	2.88	16.9	0.96	381.3	2.69	22.7	1.66
153.8	2.71	11.2	0.56	537.1	2.43		
128.5	3.50	11.6	0.57	212.8	2.53		
113.7	3.48	8.8	0.45	294.9	3.24		
101.1	2.94	8.8	0.42	143.2	2.43		
80.0	2.93	6.6	0.21	191.7	3.85		
70.3	3.13	6.6	0.28	105.3	2.73		
62.4	2.42	4.4	0.09	136.9	2.84		
53.1	1.96	4.2	0.12	77.9	2.94		

SAMPLE TEMPERATURE: 3.0°C

mg m<sup>-3</sup>

INCUBATION TEMPERATURE: 6.0°C

mg m<sup>-3</sup>

INCUBATION TIME: 4 HRS.

mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.41

RNA: 5.69

PHOSPHATE: 0.64

CARBON: 126.00

DNA: 5.28

NITRATE: 0.03

NITROGEN: 10.00

ATP: 0.228

SILICATE: 1.43

PROTEIN: 33.30

AMMONIA: 1.50

## UNGAVA BAY

LATITUDE: 58°45.9'N

LONGITUDE: 67°45.1'W

STATION NO.: 53

DATE: 26/8/79

DEPTH: 10m

TIME(ADT): 1430

SECCHI DEPTH: 11m

I	P	I	P	I	P	I	P
568.75	1.97	1.9	0.06				
421.3	2.69	1.4	0.02				
311.8	2.79	292.8	2.48				
193.8	2.70	219.1	2.57				
96.9	3.03	90.6	2.81				
63.2	2.96	75.8	2.74				
42.1	2.72	54.7	1.97				
34.1	2.46	39.2	2.01				
27.4	1.68	29.5	1.88				
17.7	1.01	21.9	1.20				
11.6	0.52						
8.0	0.38						
6.2	0.26						
4.2	0.12						
2.9	0.08						

SAMPLE TEMPERATURE: 2.5°C

INCUBATION TEMPERATURE: 3.8°C

INCUBATION TIME: 4 HRS.

	mg m <sup>-3</sup>		mg m <sup>-3</sup>		mg at-m <sup>-3</sup>	
CHLOROPHYLL:	1.51		RNA:	7.16	PHOSPHATE:	0.51
CARBON:	103.00		DNA:	2.41	NITRATE:	0.04
NITROGEN:	12.00		ATP:	0.587	SILICATE:	1.56
PROTEIN:	20.60				AMMONIA:	0.83

## UNGAVA BAY

LATITUDE: 58°45.9'N

LONGITUDE: 67°45.1'W

STATION NO.: 54

DATE: 27/8/79

DEPTH: 10m

TIME(ADT): 0830

SECCHI DEPTH: 8m

I	P	I	P	I	P	I	P
600.3	2.72	3.5	0.11				
568.7	3.46	3.1	0.08				
442.4	2.94	2.4	0.04				
324.4	2.89	474.0	3.86				
158.0	3.87	343.4	3.56				
111.6	3.94	252.8	3.95				
79.2	3.41	183.3	4.11				
63.2	2.51	117.9	2.84				
50.6	1.91	90.6	2.64				
36.7	1.73	66.6	3.10				
20.6	1.22	60.2	2.93				
12.6	0.69	44.2	2.58				
9.7	0.58	34.1	1.68				
7.6	0.48						
5.2	0.25						

SAMPLE TEMPERATURE: 3.0°C

INCUBATION TEMPERATURE: 5.1 °C

INCUBATION TIME: 4 HRS.

	mg m <sup>-3</sup>		mg m <sup>-3</sup>		mg at-m <sup>-3</sup>	
CHLOROPHYLL:	1.36		RNA:	7.17	PHOSPHATE:	0.60
CARBON:	74.00		DNA:	2.14	NITRATE:	0.07
NITROGEN:	12.00		ATP:	0.046	SILICATE:	1.76
PROTEIN:	17.60				AMMONIA:	0.79

## UNGAVA BAY

LATITUDE: 58°53'N

LONGITUDE: 66°38'W

STATION NO.: 55

DATE: 27/8/79

DEPTH: 10m

TIME(ADT): 1430

SECCHI DEPTH: 10m

I	P	I	P	I	P	I	P
568.7	2.48	42.1	3.98	3.1	0.14	67.4	2.59
484.5	2.89	41.3	3.35	2.8	0.04	46.3	2.77
484.5	3.90	28.2	1.88	2.5	0.06	57.7	3.65
337.0	3.42	28.6	1.68	2.2	0.02	32.9	3.14
328.6	3.30	17.7	1.47	2.3	0.07	41.3	2.17
252.8	4.03	16.9	1.47	480.3	3.29	26.5	2.03
235.9	3.98	11.8	0.96	526.6	3.01		
198.0	2.60	11.6	0.93	358.1	3.52		
168.5	4.00	9.3	0.64	273.8	3.27		
130.6	3.97	8.6	0.90	193.8	2.97		
122.1	2.97	6.5	0.50	223.3	3.76		
86.5	2.24	6.3	0.51	134.8	2.48		
69.5	2.83	4.8	0.26	160.1	2.78		
56.9	3.20	4.4	0.25	90.6	3.00		
54.8	2.29	3.2	0.15	103.2	3.38		

SAMPLE TEMPERATURE: 2.8°C

INCUBATION TEMPERATURE: 4.5°C

INCUBATION TIME: 4 HRS.

CHLOROPHYLL: 1.93 mg m<sup>-3</sup>RNA: 3.71 mg m<sup>-3</sup>PHOSPHATE: 0.49 mg at-m<sup>-3</sup>

CARBON: 140.00

DNA: 2.07

NITRATE: -

NITROGEN: 18.00

ATP: 0.420

SILICATE: 1.17

PROTEIN: 30.80

AMMONIA: 1.58

## UNGAVA BAY

LATITUDE: 58°45.9'N

LONGITUDE: 67°45.1'W

STATION NO.: 56

DATE: 28/8/79

DEPTH: 10m

TIME(ADT): 0800

SECCHI DEPTH: 7m

I	P	I	P	I	P	I	P
547.7	3.03	2.3	0.07				
421.3	3.72	1.6	0.05				
311.8	3.04	358.1	3.12				
130.6	3.67	252.8	3.61				
85.5	2.79	172.7	4.04				
63.2	3.42	122.2	3.46				
44.2	3.07	88.5	3.45				
34.1	2.18	65.3	2.48				
24.0	1.53	48.4	2.86				
17.3	1.02	37.9	1.99				
11.8	0.65	26.9	1.52				
9.8	0.50						
7.0	0.31						
4.8	0.17						
3.1	0.15						

SAMPLE TEMPERATURE: 3.0°C

INCUBATION TEMPERATURE: 6.0°C

INCUBATION TIME: 4 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.38

RNA: 7.58

PHOSPHATE: 0.61

CARBON: 71.00

DNA: 2.56

NITRATE: 0.04

NITROGEN: 10.00

ATP: 0.080

SILICATE: 1.76

PROTEIN: 25.40

AMMONIA: 0.70

## UNGAVA BAY

LATITUDE: 58°38'N

DATE: 28/8/79

DEPTH: 10m

LONGITUDE: 68° 03'W

TIME(ADT): 1615

STATION NO.: 58

SECCHI DEPTH: 8m

I	P	I	P	I	P	I	P
589.8	2.00	2.1	0.07				
463.4	2.40	2.1	0.04				
345.5	2.90	334.9	2.48				
147.5	2.53	227.5	2.00				
101.1	2.30	176.9	2.51				
71.6	2.13	132.7	1.94				
50.6	2.25	86.4	2.13				
40.0	1.84	61.1	2.37				
27.4	1.36	46.3	1.66				
18.5	1.11	32.0	1.64				
12.6	0.67	22.8	1.39				
10.1	0.51						
7.6	0.38						
5.7	0.12						
3.5	0.06						

SAMPLE TEMPERATURE: 5.8°C

mg m<sup>-3</sup>

INCUBATION TEMPERATURE: 5.1 °C

mg m<sup>-3</sup>

INCUBATION TIME: 4 HRS.

mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.38

RNA: 6.10

PHOSPHATE: 0.55

CARBON: 85.00

DNA: 1.77

NITRATE:

NITROGEN: 14.00

ATP: 0.591

SILICATE: 2.74

PROTEIN: 33.80

AMMONIA: 1.17

## UNGAVA BAY

LATITUDE: 58°41.8'N

LONGITUDE: 67°43.8'W

STATION NO.: 59

DATE: 29/8/79

DEPTH: 10m

TIME(ADT): 0830

SECCHI DEPTH: 7m

I	P	I	P	I	P	I	P
589.8	4.95	48.4	3.33	3.8	0.03	67.4	4.15
463.4	2.21	40.0	3.15	3.3	0.02	50.6	2.94
421.3	4.72	35.4	1.82	2.7	0.00	50.6	3.35
337.0	4.51	29.5	2.49	2.4	0.04	38.3	3.22
278.0	5.01	22.3	1.35	2.1	0.02	39.2	2.74
231.7	3.83	19.8	1.30	568.7	5.80	28.6	1.94
227.5	4.46	15.6	1.09	341.2	4.67	31.2	1.92
181.1	4.15	13.9	0.90	269.6	4.60		
141.1	3.71	12.6	0.70	181.1	3.87		
126.4	3.34	10.3	0.53	210.6	4.34		
90.6	3.38	9.3	0.36	122.2	3.47		
83.0	3.04	7.7	0.46	139.0	4.09		
71.6	3.53	6.3	0.15	84.3	3.63		
59.0	2.91	5.3	0.17	96.9	3.85		
53.5	2.84	4.4	0.12	63.2	3.51		

SAMPLE TEMPERATURE: 4.7°C

INCUBATION TEMPERATURE: 5.7°C

INCUBATION TIME: 2 HRS.

	mg m <sup>-3</sup>		mg m <sup>-3</sup>		mg at-m <sup>-3</sup>	
CHLOROPHYLL:	0.96		RNA:	5.85	PHOSPHATE:	0.36
CARBON:	108.00		DNA:	2.41	NITRATE:	-
NITROGEN:	40.00		ATP:	0.243	SILICATE:	4.79
PROTEIN:	24.70				AMMONIA:	0.68

## UNGAVA BAY

LATITUDE: 58°41.9'N

LONGITUDE: 67°43.8'W

STATION NO.: 60

DATE: 29/8/79

DEPTH: 10m

TIME(ADT): 1200

SECCHI DEPTH: 7m

I	P	I	P	I	P	I	P
636.2	2.89	54.8	1.79	5.3	0.11	86.4	2.24
644.6	3.29	48.9	1.90	3.3	0.00	57.7	2.35
564.5	3.22	37.5	1.47	2.9	0.02	66.1	2.50
421.3	2.75	35.4	1.70	2.5	0.00	41.3	2.13
419.2	3.51	25.7	1.24	2.5	0.00	45.5	2.29
309.2	3.38	25.3	1.30	1.9	0.00	31.2	1.84
263.3	3.21	20.2	0.81	2.0	0.00	32.4	1.64
211.9	2.75	19.0	0.89	454.9	3.02	25.3	1.27
174.8	2.71	12.1	0.77	486.6	2.56	22.8	1.53
170.6	2.25	11.7	0.65	330.7	2.82		
134.8	2.50	9.6	0.28	294.9	2.13		
138.2	2.41	9.6	0.36	148.3	2.78		
103.2	2.44	7.0	0.28	193.8	2.17		
93.9	2.13	6.4	0.27	122.2	2.07		
69.1	2.52	5.5	0.03	75.8	2.45		

SAMPLE TEMPERATURE: 5.8°C

INCUBATION TEMPERATURE: 6.0°C

INCUBATION TIME: 2 HRS.

	mg m <sup>-3</sup>		mg m <sup>-3</sup>		mg at-m <sup>-3</sup>
CHLOROPHYLL:	1.09		RNA:	5.11	
CARBON:	106.00		DNA:	2.41	
NITROGEN:	12.00		ATP:	0.668	
PROTEIN:	33.40				
					PHOSPHATE: 0.53
					NITRATE: 0.03
					SILICATE: 2.57
					AMMONIA: 1.71

## UNGAVA BAY

LATITUDE: 58°41.9'N

LONGITUDE: 67°43.8'W

STATION NO.: 61

DATE: 29/8/79

DEPTH: 10m

TIME(ADT): 1600

SECCHI DEPTH: 7m

I	P	I	P	I	P	I	P
568.7	1.68	37.9	1.32	3.2	0.03	97.7	2.23
484.5	2.06	27.8	1.26	2.3	0.00	89.3	2.08
380.0	2.45	28.6	1.16	2.4	0.00	77.9	2.71
307.5	1.97	23.6	1.13	1.8	0.00	66.1	2.58
231.7	1.88	23.2	0.86	1.9	0.00	52.7	2.16
210.6	1.79	16.9	0.79	648.8	1.70	47.6	2.34
176.9	1.87	13.0	0.53	455.0	2.86	40.0	1.93
149.6	2.38	10.7	0.63	471.8	2.01	37.9	2.20
126.8	1.83	9.9	0.40	303.3	2.76	27.0	1.48
93.5	2.15	8.6	0.36	320.2	2.70	29.9	1.50
92.7	1.59	7.2	0.21	267.5	2.37		
64.8	1.96	6.3	0.32	174.8	2.50		
54.8	2.21	5.1	0.08	193.8	2.95		
48.0	1.36	5.4	0.15	130.6	2.51		
40.0	1.92	2.9	0.03	132.7	2.48		

SAMPLE TEMPERATURE: 3.8°C

INCUBATION TEMPERATURE: 6.5 °C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.01

RNA: 5.60

PHOSPHATE: 0.58

CARBON: 78.00

DNA: 1.09

NITRATE: -

NITROGEN: 12.00

ATP: 0.504

SILICATE: 2.07

PROTEIN: 30.10

AMMONIA: 1.78

## UNGAVA BAY

LATITUDE: 58°41.9'N

LONGITUDE: 67°43.8'N

STATION NO.: 62

DATE: 29/8/79

DEPTH: 10m

TIME(ADT): 2015

SECCHI DEPTH: 8m

I	P	I	P	I	P	I	P
631.9	2.18	43.8	1.72	5.1	0.11	133.9	1.68
526.6	2.53	38.3	1.46	3.7	0.04	160.9	2.51
471.9	1.91	33.7	1.69	3.4	0.03	92.7	2.25
415.0	2.16	29.1	1.35	2.7	0.01	103.2	2.30
341.2	2.50	24.9	1.11	2.5	0.00	70.4	2.03
250.7	2.28	23.2	1.33	2.1	0.00	48.4	2.05
235.9	2.06	18.5	0.91	1.9	0.02	52.7	2.14
168.5	2.09	17.7	0.93	503.4	1.91	37.5	1.80
168.5	1.67	11.7	0.60	511.9	1.82	40.4	1.54
121.3	1.58	10.9	0.51	326.5	2.26	30.3	1.25
109.1	1.84	9.9	0.40	398.1	1.83	29.5	1.48
82.1	1.86	8.4	0.47	278.0	1.85		
82.6	1.89	7.7	0.37	294.9	1.81		
61.9	1.87	6.1	0.28	200.1	2.10		
59.8	1.65	5.9	0.11	223.1	2.15		

SAMPLE TEMPERATURE: 4.5 °C

INCUBATION TEMPERATURE: 6.5°C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.12

RNA: 4.86

PHOSPHATE: 0.53

CARBON: 86.00

DNA: 2.75

NITRATE: -

NITROGEN: 11.00

ATP: 0.503

SILICATE: 3.10

PROTEIN: 36.50

AMMONIA: 1.14

## UNGAVA BAY

LATITUDE: 58°41.9'N

LONGITUDE: 67°43.8'W

STATION NO.: 63

DATE: 30/8/79

DEPTH: 10m

TIME(ADT): 0015

SECCHI DEPTH: 10m

I	P	I	P	I	P	I	P
579.3	2.08	24.4	1.16	505.6	2.43	56.9	1.64
387.6	2.12	16.0	0.78	526.6	2.72	35.0	1.41
269.6	2.46	14.3	1.03	379.2	2.41	37.9	1.70
210.6	1.56	11.6	0.58	421.3	2.04	25.5	1.59
160.1	2.28	9.7	0.54	244.4	2.56	29.5	1.15
126.4	2.28	8.6	0.57	318.1	2.09	24.9	0.21
97.7	1.91	7.2	0.46	185.5	2.06		
71.6	1.58	7.2	0.36	221.2	2.40		
67.4	1.78	7.0	0.26	117.9	1.90		
63.2	2.15	4.6	0.14	147.5	1.71		
48.4	2.13	3.3	0.02	86.4	1.85		
42.1	1.64	3.2	0.18	105.3	1.79		
37.1	0.76	2.6	0.02	63.2	1.48		
31.6	1.60	2.5	0.03	80.0	1.95		
23.6	1.34	1.8	0.02	46.3	2.24		

SAMPLE TEMPERATURE: 4.0°C

INCUBATION TEMPERATURE: 6.7 °C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.16

RNA: 6.68

PHOSPHATE: 0.58

CARBON: 69.00

DNA: 2.29

NITRATE: -

NITROGEN: 11.00

ATP: 0.519

SILICATE: 2.64

PROTEIN: 24.00

AMMONIA: 0.96

## UNGAVA BAY

LATITUDE: 58°41.9'N

LONGITUDE: 67°43.8'W

STATION NO.: 64

DATE: 30/8/79

DEPTH: 10m

TIME(ADT): 0400

SECCHI DEPTH: -

I	P	I	P	I	P	I	P
610.9	2.10	31.2	1.30	2.3	0.02	65.3	2.16
452.9	1.41	27.4	1.62	2.2	0.02	44.2	1.95
400.2	2.14	23.6	1.25	1.9	0.01	48.5	1.74
278.1	2.36	19.0	0.60	1.7	0.03	33.7	1.43
240.1	2.37	15.6	0.96	421.3	1.61	34.5	1.60
176.9	2.42	12.0	0.60	516.1	1.86	23.6	1.28
168.5	1.97	10.5	0.44	307.5	2.32	24.9	1.15
117.9	2.45	8.6	0.19	400.2	2.25		
111.6	1.87	8.0	0.37	227.5	1.83		
86.4	2.03	6.3	0.15	301.2	2.19		
77.9	2.48	5.8	0.19	172.7	2.72		
57.3	2.11	4.6	0.11	206.4	1.86		
42.1	1.61	4.0	0.11	139.0	2.00		
40.0	1.48	3.1	0.08	130.6	2.27		
34.1	1.52	2.6	0.07	94.8	2.07		

SAMPLE TEMPERATURE: 4.5°C

INCUBATION TEMPERATURE: 6.1°C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.32

RNA: 8.03

PHOSPHATE: 0.57

CARBON: 26.00

DNA: 3.12

NITRATE: -

NITROGEN: 10.00

ATP: 0.405

SILICATE: 1.81

PROTEIN: 22.00

AMMONIA: 0.58

179

## UNGAVA BAY

LATITUDE: 58°41.9'N

LONGITUDE: 64°43.8'W

STATION NO.: 65

DATE: 30/8/79

DEPTH: 10m

TIME(ADT): 0740

SECCHI DEPTH: -

I	P	I	P	I	P	I	P
484.5	3.66	23.6	1.24	1.8	0.04	22.8	1.56
305.4	4.10	14.7	1.00	1.8	0.00	29.5	1.78
217.0	3.11	13.9	0.84	442.4	2.54		
195.9	3.98	10.1	0.69	526.6	2.50		
117.9	3.16	9.8	0.45	301.2	3.27		
113.7	3.05	8.2	0.34	370.7	3.07		
86.4	2.83	8.2	0.44	176.9	3.66		
109.5	4.04	6.3	0.29	130.6	3.16		
63.2	2.82	6.1	0.21	82.2	3.34		
59.0	3.65	4.4	0.04	56.9	2.46		
42.1	2.20	4.4	0.04	67.4	2.72		
41.3	2.09	3.1	0.00	40.4	2.43		
29.9	1.63	3.0	0.00	46.3	2.88		
29.0	1.90	2.2	0.00	31.2	1.96		
23.2	1.71	2.1	0.00	35.4	2.11		

SAMPLE TEMPERATURE: 4.8°C

INCUBATION TEMPERATURE: 6.1°C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 0.82

RNA: 5.85

PHOSPHATE: 0.43

CARBON: 72.00

DNA: 1.80

NITRATE: -

NITROGEN: 12.00

ATP: 0.486

SILICATE: 4.79

PROTEIN: 26.20

AMMONIA: 0.77

## UNGAVA BAY

LATITUDE: 58°37'N

LONGITUDE: 68°10'W

STATION NO.: 66

DATE: 30/8/79

DEPTH: 10m

TIME(ADT): 1205

SECCHI DEPTH: 7m

I	P	I	P	I	P	I	P
648.8	2.69	48.5	1.93	4.4	0.08	130.6	2.96
484.5	2.81	42.1	2.02	3.0	0.06	80.0	2.98
420.5	2.96	31.6	1.67	3.2	0.02	92.7	2.49
368.6	2.64	33.7	1.66	2.3	0.00	58.1	2.70
326.5	2.40	21.9	1.55	2.3	0.00	64.5	3.05
248.6	2.60	24.0	1.24	1.9	0.02	42.9	2.75
227.5	2.19	17.3	0.95	1.9	0.02	46.3	2.19
178.2	2.21	17.7	1.12	471.9	2.35	32.4	1.82
161.4	1.99	10.5	0.53	522.4	2.99	36.2	2.22
105.3	1.96	10.3	0.52	312.6	2.79	24.9	1.81
113.3	2.58	8.2	0.35	396.0	2.37	24.9	1.77
82.1	3.02	7.8	0.51	254.5	3.49		
84.2	2.58	6.8	0.23	288.6	3.14		
66.1	3.11	5.9	0.32	203.1	3.24		
59.8	2.76	4.6	0.07	118.8	2.51		

SAMPLE TEMPERATURE: 4.0 °C

INCUBATION TEMPERATURE: 6.5 °C

INCUBATION TIME: 2 HRS.

	mg m <sup>-3</sup>		mg m <sup>-3</sup>		mg at-m <sup>-3</sup>
CHLOROPHYLL:	1.20	RNA:	4.29	PHOSPHATE:	0.51
CARBON:	121.00	DNA:	1.83	NITRATE:	0.04
NITROGEN:	13.00	ATP:	0.634	SILICATE:	3.23
PROTEIN:	45.10			AMMONIA:	0.69

## UNGAVA BAY

LATITUDE: 58°40'N

LONGITUDE: 68°02'W

STATION NO.: 67

DATE: 30/8/79

DEPTH: 10m

TIME(ADT): 1600

SECCHI DEPTH: 7m

I	P	I	P	I	P	I	P
648.8	2.33	48.4	1.99	4.4	0.14	118.8	3.81
484.5	3.95	42.1	2.03	3.0	0.05	130.6	2.38
420.5	4.68	31.6	2.09	3.1	0.10	80.0	2.77
368.6	3.73	33.7	2.38	2.3	0.03	92.7	3.02
326.5	2.67	21.9	1.88	2.3	0.02	58.1	3.21
248.6	2.74	24.0	1.82	1.9	0.03	64.4	2.73
227.5	2.27	17.3	0.97	1.8	0.00	43.0	2.50
178.2	3.85	17.7	1.23	471.9	3.05	46.0	3.82
161.4	2.94	10.5	0.75	522.4	2.58	32.4	3.20
105.3	4.31	10.3	0.66	312.6	4.25	36.2	2.23
113.3	3.59	8.2	0.38	396.0	4.23	24.8	1.91
82.1	2.93	7.8	0.57	254.5	3.68	24.9	2.11
84.3	3.02	6.8	0.28	288.6	3.66		
66.1	2.45	5.9	0.42	174.8	2.74		
59.8	2.53	4.6	0.12	203.1	4.35		

SAMPLE TEMPERATURE: 3.8°C INCUBATION TEMPERATURE: 6.5°C INCUBATION TIME: 2 HRS.

	mg m <sup>-3</sup>		mg m <sup>-3</sup>		mg at-m <sup>-3</sup>
CHLOROPHYLL:	1.20	RNA:	5.56	PHOSPHATE:	0.54
CARBON:	122.00	DNA:	2.34	NITRATE:	0.04
NITROGEN:	12.00	ATP:	0.488	SILICATE:	2.96
PROTEIN:	49.80			AMMONIA:	1.11

## UNGAVA BAY

LATITUDE: 58°41.7'N

LONGITUDE: 67°54.1'W

STATION NO.: 68

DATE: 30/8/79

DEPTH: 10m

TIME(ADT): 2000

SECCHI DEPTH: 7m

I	P	I	P	I	P	I	P
585.6	1.45	47.2	1.88	5.8	0.07	172.7	1.95
589.8	1.97	47.2	2.18	3.4	0.04	99.0	2.43
467.6	1.85	36.6	1.05	3.8	0.01	111.2	1.53
358.1	2.36	35.4	1.25	2.6	0.00	71.6	1.84
356.0	1.90	30.8	1.03	2.7	0.00	87.2	1.84
282.3	2.46	26.1	1.01	2.1	0.01	56.5	1.68
261.2	1.78	23.2	0.92	2.3	0.04	62.4	1.98
168.5	1.57	18.5	0.66	619.3	1.50	42.1	1.70
164.3	1.51	13.5	0.56	406.6	1.65	44.7	1.69
115.0	2.51	12.2	0.59	429.7	1.40	32.0	1.54
112.9	2.72	9.6	0.37	271.7	2.52	32.9	1.62
85.9	2.32	9.7	0.37	320.2	1.63	24.0	1.28
86.8	1.56	7.3	0.11	202.2	2.45	24.4	1.92
65.7	1.49	7.8	0.14	240.1	2.07		
65.3	1.73	5.8	0.10	160.1	1.95		

SAMPLE TEMPERATURE: 3.5°C INCUBATION TEMPERATURE: 6.0 °C INCUBATION TIME: 2 HRS.

	mg m <sup>-3</sup>		mg m <sup>-3</sup>		mg at-m <sup>-3</sup>	
CHLOROPHYLL:	1.30		RNA:	4.95	PHOSPHATE:	0.40
CARBON:	69.00		DNA:	1.78	NITRATE:	-
NITROGEN:	11.00		ATP:	0.414	SILICATE:	1.90
PROTEIN:	48.80				AMMONIA:	0.74

## UNGAVA BAY

LATITUDE: 58°41.7'N

LONGITUDE: 67°54.1'W

STATION NO.: 69

DATE: 31/8/79

DEPTH: 10m

TIME(ADT): 0000

SECCHI DEPTH: -

I	P	I	P	I	P	I	P
610.8	1.15	35.8	1.65	3.5	0.06	48.4	1.79
610.9	1.69	32.0	1.54	2.2	0.02	31.2	1.59
463.4	1.64	25.7	1.11	2.4	0.00	38.3	2.07
337.0	1.72	24.9	1.36	1.8	0.02	24.4	1.33
269.6	2.02	14.3	0.72	1.9	0.02		
240.1	1.80	16.4	0.82	631.9	1.59		
151.7	2.12	9.7	0.73	442.4	1.60		
126.4	2.23	9.5	0.58	273.8	1.79		
109.5	1.61	7.6	0.38	341.2	1.68		
88.5	2.19	9.1	0.40	256.9	1.93		
75.8	1.61	7.0	0.35	160.1	2.17		
72.9	1.75	6.5	0.34	110.8	1.86		
58.9	1.81	4.4	0.10	132.7	1.66		
54.8	1.68	4.8	0.13	92.7	2.04		
42.1	1.35	3.1	0.04	46.3	1.74		

SAMPLE TEMPERATURE: 3.5 °C

INCUBATION TEMPERATURE: 5.7 °C

INCUBATION TIME: 2 HRS.

	mg m <sup>-3</sup>		mg m <sup>-3</sup>		mg at-m <sup>-3</sup>	
CHLOROPHYLL:	1.18		RNA:	6.10	PHOSPHATE:	0.58
CARBON:	-		DNA:	2.00	NITRATE:	-
NITROGEN:	-		ATP:	0.458	SILICATE:	2.55
PROTEIN:	35.00				AMMONIA:	1.04

## UNGAVA BAY

LATITUDE: 58° 41.7'N

LONGITUDE: 67° 54.1'W

STATION NO.: 70

DATE: 31/8/79

DEPTH: 10m

TIME(ADT): 0405

SECCHI DEPTH: -

I	P	I	P	I	P	I	P
610.9	1.75	42.1	1.72	3.6	0.02	189.6	1.74
631.9	1.68	45.5	1.58	2.7	0.00	107.4	1.72
452.9	1.88	27.8	1.16	2.1	0.00	126.4	1.54
400.2	1.84	26.9	0.97	2.1	0.00	75.8	1.43
337.0	1.82	21.5	0.92	1.9	0.00	52.7	2.00
278.1	1.42	18.5	1.47	1.4	0.00	61.1	1.77
244.4	1.58	13.5	0.97	1.6	0.00	38.3	1.51
202.2	1.57	13.9	0.56	610.9	1.38	45.5	2.03
189.6	2.00	9.7	0.45	385.5	2.19	29.1	1.80
151.7	1.81	9.3	0.44	421.3	1.54	37.5	1.65
128.5	1.51	7.6	0.39	269.6	1.64	21.1	1.15
105.3	1.69	7.4	0.29	379.2	1.71		
90.6	1.76	5.7	0.16	210.6	2.29		
80.0	1.78	5.9	0.16	265.4	2.42		
64.5	2.10	3.6	0.02	160.1	1.68		

SAMPLE TEMPERATURE: 3.0 °C

INCUBATION TEMPERATURE: 5.7 °C

INCUBATION TIME: 2 HRS.

CHLOROPHYLL: 1.30 mg m<sup>-3</sup>RNA: 6.31 mg m<sup>-3</sup>PHOSPHATE: 0.49 mg at-m<sup>-3</sup>

CARBON: 127.00

DNA: 2.79

NITRATE: 0.03

NITROGEN: 19.00

ATP: 0.602

SILICATE: 2.42

PROTEIN: 36.00

AMMONIA: 0.89

## UNGAVA BAY

LATITUDE: 58°41.7'N

LONGITUDE: 67°54.1'W

STATION NO.: 71

DATE: 31/8/79

DEPTH: 10m

TIME(ADT): 0740

SECCHI DEPTH: -

I	P	I	P	I	P	I	P
610.9	2.14	46.3	2.04	2.3	0.07	122.2	2.69
631.9	2.47	50.6	1.80	2.4	0.08	62.4	2.72
452.9	1.81	35.8	1.90	1.8	0.03	84.3	2.59
400.2	2.79	34.5	2.32	1.9	0.00	42.1	2.65
353.9	2.88	28.2	1.36	1.4	0.01	52.7	2.59
290.7	2.63	25.3	1.43	1.5	0.08	32.9	2.59
269.6	2.14	14.8	0.89	568.7	2.36	42.1	2.66
231.7	2.67	13.0	0.82	568.7	1.84	26.1	3.00
168.5	2.96	9.4	0.64	366.5	2.31	30.0	2.51
130.6	1.99	8.9	0.62	452.9	2.65	19.0	1.59
122.2	1.97	7.2	0.39	265.4	2.16	20.6	2.11
86.4	2.28	6.7	0.61	202.2	2.54		
88.5	2.24	5.3	0.38	141.1	3.15		
59.0	1.79	3.6	0.25	168.5	3.36		
63.2	3.15	3.6	0.10	111.6	3.14		

SAMPLE TEMPERATURE: 3.0 °C

INCUBATION TEMPERATURE: 4.9 °C

INCUBATION TIME: 2 HRS.

CHLOROPHYLL: 1.07  
mg m<sup>-3</sup>RNA: 5.44  
mg m<sup>-3</sup>PHOSPHATE: 0.56  
mg at-m<sup>-3</sup>

CARBON: -

DNA: 2.41

NITRATE: -

NITROGEN: -

ATP: 0.286

SILICATE: 2.43

PROTEIN: 33.80

AMMONIA: 1.05

## UNGAVA BAY

LATITUDE: 58°41'N

LONGITUDE: 67°56'W

STATION NO.: 72

DATE: 31/8/79

DEPTH: 10m

TIME(ADT): 1200

SECCHI DEPTH: 7m

I	P	I	P	I	P	I	P
615.1	1.82	40.0	1.28	3.3	0.04	93.9	1.98
471.9	2.28	36.7	1.26	3.0	0.03	118.0	1.83
421.3	1.98	29.5	1.00	2.2	0.02	69.1	1.66
353.9	1.90	29.5	0.98	2.2	0.01	77.1	2.26
278.1	2.43	25.4	1.04	1.7	0.02	56.5	1.87
244.4	1.67	19.0	0.67	1.8	0.03	59.8	2.38
191.7	1.78	19.0	0.58	610.9	1.63	39.6	1.55
147.5	1.55	11.0	0.55	570.9	1.55	43.8	1.52
136.9	1.77	11.8	0.47	378.7	2.10	32.0	1.43
101.1	2.19	8.8	0.31	433.9	1.59	35.4	1.30
103.6	2.39	9.1	0.27	252.4	1.82	23.6	1.23
81.7	1.66	6.5	0.19	318.1	1.84	26.5	1.16
70.8	1.63	6.5	0.23	231.7	1.99		
65.3	1.47	5.3	0.11	136.5	2.12		
46.3	1.48	4.8	0.07	155.0	2.26		

SAMPLE TEMPERATURE: 3.8 °C

INCUBATION TEMPERATURE: 5.0 °C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.43

RNA: 4.70

PHOSPHATE: 0.48

CARBON: 40.00

DNA: 1.28

NITRATE: 0.11

NITROGEN: 12.00

ATP: 0.484

SILICATE: 2.76

PROTEIN: 28.20

AMMONIA: 1.21

## UNGAVA BAY

LATITUDE: 58°41'N

LONGITUDE: 67°54.5'W

STATION NO.: 73

DATE: 31/8/79

DEPTH: 10m

TIME(ADT): 1600

SECCHI DEPTH: 8m

I	P	I	P	I	P	I	P
568.7	2.08	49.7	1.54	6.1	0.08	147.5	1.81
606.7	1.74	43.4	1.31	3.7	0.07	160.1	1.49
450.8	1.95	37.1	1.12	3.7	0.07	109.5	2.12
391.8	2.12	32.4	1.39	2.7	0.00	124.3	1.93
324.4	1.90	26.1	0.78	2.4	0.03	80.0	1.56
252.8	1.76	24.0	0.86	2.0	0.00	53.9	1.67
212.8	1.89	19.0	0.75	2.1	0.07	75.8	1.57
176.9	1.65	17.7	0.51	610.8	1.38	54.3	1.43
145.3	1.65	11.4	0.43	589.8	1.82	32.0	1.53
130.6	1.97	11.8	0.34	374.9	1.75	32.9	1.43
105.3	1.83	8.8	0.34	459.2	1.61	22.8	1.19
96.9	1.39	9.7	0.28	326.5	2.08	24.9	1.20
71.6	1.91	6.7	0.18	347.6	1.58		
60.2	1.89	7.4	0.18	206.4	1.68		
54.8	1.51	5.7	0.08	229.6	1.89		

SAMPLE TEMPERATURE: 3.2 °C

INCUBATION TEMPERATURE: 5.5 °C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.20

RNA: 5.93

PHOSPHATE: 0.56

CARBON: 62.00

DNA: 1.68

NITRATE: 0.09

NITROGEN: 11.00

ATP: 0.548

SILICATE: 2.57

PROTEIN: 31.80

AMMONIA: 1.32

## UNGAVA BAY

LATITUDE: 58°41'N

LONGITUDE: 67°54.5'W

STATION NO.: 74

DATE: 31/8/79

DEPTH: 10m

TIME(ADT): 1930

SECCHI DEPTH: 7m

I	P	I	P	I	P	I	P
547.7	2.04	50.6	1.55	6.7	0.10	124.3	1.89
589.8	2.00	43.4	1.50	4.4	0.06	77.9	1.98
383.4	2.20	35.4	1.46	4.2	0.05	93.5	2.05
292.8	2.19	31.2	1.53	3.5	0.02	68.7	2.10
271.7	2.04	26.5	1.09	3.1	0.02	74.6	2.00
223.3	2.26	23.6	1.30	2.9	0.03	53.9	2.16
187.5	2.09	20.6	0.55	2.4	0.09	37.5	1.85
153.8	1.97	19.0	0.74	615.1	1.61	25.7	1.07
145.3	2.23	13.5	0.62	526.6	1.42	30.3	1.48
112.9	1.94	11.4	0.54	364.4	1.87		
103.2	2.20	10.1	0.44	417.1	2.01		
87.2	2.10	9.5	0.33	254.9	2.25		
77.9	2.12	8.1	0.19	227.5	1.84		
66.6	2.10	8.2	0.24	162.2	1.88		
56.9	1.84	6.4	0.10	176.9	2.04		

SAMPLE TEMPERATURE: 3.2 °C

INCUBATION TEMPERATURE: 6.5 °C

INCUBATION TIME: 2 HRS.

	mg m <sup>-3</sup>		mg m <sup>-3</sup>		mg at-m <sup>-3</sup>
CHLOROPHYLL:	1.05	RNA:	5.44	PHOSPHATE:	0.56
CARBON:	63.00	DNA:	2.72	NITRATE:	-
NITROGEN:	10.00	ATP:	0.513	SILICATE:	2.66
PROTEIN:	31.70			AMMONIA:	1.78

## UNGAVA BAY

LATITUDE: 58°41'N

LONGITUDE: 67°54.5'W

STATION NO.: 75

DATE: 1/9/79

DEPTH: 10m

TIME(ADT): 0000

SECCHI DEPTH: -

I	P	I	P	I	P	I	P
568.7	1.36	63.2	1.89	4.0	0.10	168.5	2.30
631.9	2.94	51.4	1.67	2.7	0.09	99.0	1.90
484.5	3.24	44.2	1.54	2.8	0.05	126.4	2.07
410.8	2.24	35.4	1.43	2.6	0.00	69.5	2.13
353.9	1.81	36.7	1.30	2.5	0.00	82.1	2.42
290.7	2.08	27.8	1.15	1.8	0.08	55.6	2.01
269.6	2.01	26.5	1.38	2.2	0.00	63.2	2.33
219.1	2.20	13.5	0.80	589.8	1.50	40.9	1.95
189.6	2.02	14.7	0.71	410.8	2.14	45.5	1.86
160.1	1.87	11.8	0.45	442.3	2.25	30.3	1.51
132.7	1.64	9.9	0.71	269.6	2.27	38.8	1.75
111.6	2.48	9.5	0.35	345.5	2.93	22.3	1.54
103.2	1.75	6.5	0.19	204.3	2.83	27.8	1.08
82.2	2.15	6.1	0.33	242.2	3.36		
75.8	1.75	5.1	0.06				

SAMPLE TEMPERATURE: 4.0 °C

INCUBATION TEMPERATURE: 6.0 °C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.22

RNA: 6.43

PHOSPHATE: 0.56

CARBON: -

DNA: 1.68

NITRATE: 0.10

NITROGEN: -

ATP: 0.382

SILICATE: 3.30

PROTEIN: 35.10

AMMONIA: 2.76

190

## UNGAVA BAY

LATITUDE: 58°41'N

DATE: 1/9/79

DEPTH: 10 m

LONGITUDE: 67°54.5'W

TIME(ADT): 0400

STATION NO.: 76

SECCHI DEPTH: -

I	P	I	P	I	P	I	P
516.1	2.13	46.3	1.73	3.5	0.00	80.0	2.65
589.8	2.17	34.1	1.34	3.3	0.01	52.7	2.75
431.8	1.96	34.1	1.54	2.3	0.01	56.9	2.16
311.8	2.04	28.2	1.48	2.2	0.03	37.9	2.44
294.9	2.98	26.5	1.26	2.0	0.01	46.3	2.09
219.1	2.58	16.0	0.78	1.9	0.03	27.4	1.60
210.6	2.07	16.0	0.86	589.8	2.80	32.4	1.56
185.4	2.57	10.3	0.51	396.0	2.53	22.8	1.91
147.5	2.90	9.9	0.52	421.3	2.00	24.0	1.77
103.2	2.37	8.2	0.54	297.4	2.73		
87.6	2.01	6.6	0.32	311.8	2.19		
70.8	2.11	7.8	0.21	202.2	2.57		
69.5	1.87	5.7	0.20	147.5	2.37		
56.0	2.90	4.6	0.06	107.4	2.28		
50.6	1.84	4.4	0.10	117.9	2.34		

SAMPLE TEMPERATURE: 3.7 °C

mg m<sup>-3</sup>

INCUBATION TEMPERATURE: 5.0 °C

mg m<sup>-3</sup>

INCUBATION TIME: 2 HRS.

mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.11

RNA: 8.53

PHOSPHATE: 0.58

CARBON: 142.00

DNA: 3.75

NITRATE: 0.09

NITROGEN: 13.00

ATP: 0.429

SILICATE: 3.00

PROTEIN: 41.00

AMMONIA: 0.92

## UNGAVA BAY

LATITUDE: 58°48.5'N

LONGITUDE: 67°27.0'W

STATION NO.: 77

DATE: 1/9/79

DEPTH: 10m

TIME(ADT): 0830

SECCHI DEPTH: 9m

I	P	I	P	I	P	I	P
579.3	2.50	48.4	1.76	3.6	0.07	111.6	2.32
610.9	2.71	32.8	1.46	3.8	0.04	107.4	2.04
442.4	2.46	37.1	1.41	2.7	0.01	82.1	2.30
400.2	2.17	29.1	1.73	2.8	0.01	24.2	2.12
328.6	2.37	28.2	1.13	2.4	0.03	61.1	2.20
278.1	2.17	16.4	0.75	2.4	0.00	63.2	2.08
273.8	1.93	15.6	0.72	589.8	2.65	44.2	2.04
212.8	1.94	11.2	0.58	341.2	2.83	46.3	1.80
189.6	2.40	10.5	0.62	273.8	2.78	36.7	1.50
164.3	1.92	10.3	0.32	231.7	2.64	35.8	1.56
126.4	2.26	9.1	0.24	320.2	1.98	27.0	1.11
117.9	2.04	7.4	0.27	172.7	2.13	27.8	1.16
88.5	2.45	7.8	0.18	214.9	2.52		
84.3	2.51	4.8	0.11	134.8	2.09		
65.3	2.09	4.6	0.06	147.5	2.18		

SAMPLE TEMPERATURE: 3.0 °C

INCUBATION TEMPERATURE: 5.0 °C

INCUBATION TIME: 2 HRS.

	mg m <sup>-3</sup>		mg m <sup>-3</sup>		mg at-m <sup>-3</sup>
CHLOROPHYLL:	1.01	RNA:	4.20	PHOSPHATE:	0.40
CARBON:	36.00	DNA:	3.75	NITRATE:	0.04
NITROGEN:	8.00	ATP:	0.362	SILICATE:	2.35
PROTEIN:	25.80			AMMONIA:	1.04

## UNGAVA BAY

LATITUDE: 58°48.5'N

LONGITUDE: 67°27'W

STATION NO.: 78

DATE: 1/9/79

DEPTH: 10m

TIME(ADT): 1200

SECCHI DEPTH: 13m

I	P	I	P	I	P	I	P
526.6	2.27	45.5	1.49	5.1	0.04	143.2	1.32
610.8	2.04	41.3	1.01	4.4	0.03	109.5	1.60
379.2	2.01	35.4	1.16	3.5	0.03	102.4	1.93
391.8	1.52	31.2	0.90	3.3	0.00	72.9	1.46
273.8	1.35	28.2	1.26	2.9	0.00	76.6	1.49
223.3	2.14	24.9	0.88	2.9	0.10	61.1	1.26
200.1	1.67	22.3	0.80	636.1	1.41	63.2	1.15
164.3	1.55	15.2	0.44	480.3	1.31	46.3	1.43
143.2	1.70	13.9	0.43	280.2	1.72	47.2	1.38
115.9	1.44	12.2	0.27	379.2	1.75	35.0	1.23
106.6	1.76	10.1	0.28	223.3	1.43	35.4	1.43
83.4	1.73	9.7	0.16	284.4	2.12		
70.8	1.33	8.2	0.20	188.7	1.90		
61.5	1.70	7.8	0.07	200.1	1.58		
51.8	1.36	6.4	0.11	132.7	1.48		

SAMPLE TEMPERATURE: 3.2 °C

INCUBATION TEMPERATURE: 4.0 °C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.25

RNA: 4.75

PHOSPHATE: 0.56

CARBON: -

DNA: 0.89

NITRATE: -

NITROGEN: -

ATP: 0.596

SILICATE: 1.12

PROTEIN: 31.40

AMMONIA: 1.15

## UNGAVA BAY

LATITUDE: 58°48.5'N

LONGITUDE: 67°27'W

STATION NO.: 79

DATE: 1/9/79

DEPTH: 10m

TIME(ADT): 1615

SECCHI DEPTH: 12m

I	P	I	P	I	P	I	P
568.7	1.54	39.6	0.92	3.7	0.00	90.6	1.52
408.6	1.71	35.4	0.93	2.9	0.00	88.5	1.63
334.9	1.63	28.6	0.91	2.6	0.00	62.4	1.35
356.8	1.52	27.0	0.73	2.5	0.00	66.1	1.35
254.9	1.48	23.2	0.44	2.4	0.00	50.1	1.64
238.0	1.38	21.5	0.46	596.1	1.94	53.9	1.65
208.5	1.57	13.5	0.32	589.8	1.68	38.8	1.20
174.8	1.59	13.3	0.24	412.9	1.55	45.1	1.46
153.8	1.38	11.2	0.14	450.8	1.87	28.6	0.99
110.8	1.53	9.9	0.22	286.5	1.40	33.7	1.07
85.9	1.46	8.2	0.04	222.0	1.66		
63.2	1.22	8.0	0.12	267.5	1.81		
60.2	1.21	6.5	0.03	155.9	1.73		
53.9	1.36	6.1	0.02	163.9	1.40		
47.2	1.12	4.1	0.00	127.2	1.58		

SAMPLE TEMPERATURE: 2.8 °C

INCUBATION TEMPERATURE: 5.0 °C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.00

RNA: 5.81

PHOSPHATE: 0.54

CARBON: -

DNA: 1.46

NITRATE: -

NITROGEN: -

ATP: 0.543

SILICATE: 1.08

PROTEIN: 30.00

AMMONIA: 1.05

## UNGAVA BAY

LATITUDE: 58°48'N

LONGITUDE: 67°27'W

STATION NO.: 80

DATE: 1/9/79

DEPTH: 10m

TIME(ADT): 1940

SECCHI DEPTH: 9m

I	P	I	P	I	P	I	P
467.6	1.08	43.4	0.85	3.7	0.00	65.3	1.04
556.1	1.42	33.3	1.02	3.4	0.01	51.4	1.03
398.1	1.32	30.8	0.71	2.7	0.00	57.7	1.53
334.9	1.40	24.4	0.56	2.3	0.00	37.5	1.06
315.9	1.36	21.9	0.69	2.1	0.00	43.8	1.00
233.8	1.52	19.0	0.44	2.0	0.00	29.9	0.84
174.8	1.76	16.9	0.34	610.9	1.45	31.2	0.82
132.7	1.49	12.2	0.23	391.8	1.71		
112.9	1.54	10.5	0.23	501.3	1.27		
92.7	1.15	9.6	0.22	356.0	1.21		
83.0	1.75	8.6	0.15	219.1	1.40		
75.0	1.06	7.6	0.07	275.9	1.35		
60.7	1.07	6.7	0.07	174.8	1.40		
56.9	0.98	5.9	0.01	176.9	1.42		
45.1	0.86	5.8	0.00	130.6	1.43		

SAMPLE TEMPERATURE: 3.2°C

INCUBATION TEMPERATURE: 5.2°C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.12

RNA: 6.59

PHOSPHATE: 0.58

CARBON: 87.00

DNA: 2.06

NITRATE: 0.40

NITROGEN: 14.00

ATP: 0.677

SILICATE: 1.81

PROTEIN: 56.20

AMMONIA: 0.84

195

## UNGAVA BAY

LATITUDE: 58°48.5'N

LONGITUDE: 67°27'W

STATION NO.: 81

DATE: 2/9/79

DEPTH: 10m

TIME(ADT): 0000

SECCHI DEPTH: -

I	P	I	P	I	P	I	P
442.4	2.07	26.5	0.87	1.8	0.06	98.2	1.93
370.7	1.62	21.1	0.90	1.6	0.00	65.3	2.00
280.2	2.06	20.2	0.60	1.5	0.00	80.0	1.55
248.6	1.67	11.0	0.40	1.4	0.08	50.6	1.34
195.9	1.64	11.4	0.44	621.4	1.14	60.2	1.43
168.4	1.44	7.2	0.35	412.9	1.21	42.1	1.67
126.4	2.04	8.0	0.27	484.5	1.47	45.5	1.89
103.2	1.93	6.1	0.16	315.9	1.18	29.9	1.13
92.7	1.98	6.3	0.13	391.8	1.82	35.0	0.93
77.1	1.39	3.9	0.08	214.9	1.22		
69.5	1.99	4.0	0.08	311.8	1.74		
50.6	1.31	2.8	0.06	176.9	1.62		
40.0	1.65	2.5	0.05	210.6	1.62		
36.7	1.06	2.3	0.05	147.5	1.37		
29.4	0.96	2.0	0.04	86.4	1.44		

SAMPLE TEMPERATURE: 4.0 °C

INCUBATION TEMPERATURE: 4.9 °C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.06

RNA: 6.80

PHOSPHATE: 0.54

CARBON: -

DNA: 1.92

NITRATE: 0.21

NITROGEN: -

ATP: 0.678

SILICATE: 1.76

PROTEIN: 42.80

AMMONIA: 0.60

196

## UNGAVA BAY

LATITUDE: 58°48.5'N

LONGITUDE: 67°27'W

STATION NO.: 72

DATE: 2/9/79

DEPTH: 10m

TIME(ADT): 0400

SECCHI DEPTH: -

I	P	I	P	I	P	I	P
526.6	1.44	28.2	0.90	2.5	0.00	67.4	1.46
351.8	1.54	23.6	0.69	2.3	0.00	48.4	1.62
256.9	1.47	21.5	0.73	2.0	0.00	53.9	1.17
214.9	1.38	14.3	0.46	1.9	0.01	36.7	1.48
168.5	1.66	12.6	0.46	589.8	0.91	43.4	1.11
147.5	1.50	10.4	0.26	442.4	1.17	27.4	0.93
126.4	1.83	9.7	0.30	282.3	1.37	31.2	1.07
96.1	1.48	8.0	0.17	351.8	1.26		
82.9	1.67	7.8	0.19	202.2	1.80		
77.1	1.44	6.3	0.23	126.4	1.83		
64.5	1.23	6.3	0.14	185.4	1.32		
46.3	1.62	4.6	0.02	120.1	1.79		
35.4	1.09	4.2	0.05	76.7	1.80		
35.0	1.28	3.4	0.00	88.0	1.48		
27.8	1.17	3.0	0.01	59.0	1.83		

SAMPLE TEMPERATURE: 3.8 °C

INCUBATION TEMPERATURE: 5.2 °C

INCUBATION TIME: 2 HRS.

	mg m <sup>-3</sup>		mg m <sup>-3</sup>		mg at-m <sup>-3</sup>
CHLOROPHYLL:	1.51		RNA:	6.92	
CARBON:	78.00		DNA:	2.10	
NITROGEN:	14.00		ATP:	0.752	
PROTEIN:	45.60				
					PHOSPHATE: 0.57
					NITRATE: 0.43
					SILICATE: 1.59
					AMMONIA: 1.22

## UNGAVA BAY

LATITUDE: 58°42.5'N

LONGITUDE: 67°54.5'W

STATION NO.: 83

DATE: 2/9/79

DEPTH: 10m

TIME(ADT): 0800

SECCHI DEPTH: -

I	P	I	P	I	P	I	P
463.4	2.10	46.3	1.94	2.9	0.03	120.0	2.36
526.6	2.04	39.2	1.34	2.6	0.03	85.5	2.79
417.1	2.53	34.1	1.37	2.2	0.00	94.8	2.45
337.0	2.09	28.6	1.13	2.1	0.00	61.1	2.22
288.6	2.53	28.2	1.16	1.5	0.00	70.8	1.91
214.9	2.06	21.9	1.00	1.7	0.00	47.2	2.42
206.4	2.04	20.6	1.07	1.0	0.02	53.9	1.63
160.1	2.00	13.0	0.58	1.1	0.00	40.0	1.51
136.9	1.73	12.0	0.24	615.1	2.78	40.9	1.85
126.4	2.10	6.6	0.47	431.8	1.80	29.9	1.24
87.6	2.08	6.1	0.31	269.6	2.69	31.2	1.01
80.0	2.37	5.7	0.38	347.6	1.90		
67.4	2.45	5.9	0.22	200.1	2.50		
62.4	2.14	4.2	0.16	174.8	2.82		
51.8	1.87	4.0	0.16	105.3	2.31		

SAMPLE TEMPERATURE: 3.8 °C

INCUBATION TEMPERATURE: 5.5 °C

INCUBATION TIME: 2 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.36

RNA: 6.10

PHOSPHATE: 0.56

CARBON: 142.00

DNA: 2.62

NITRATE: 0.43

NITROGEN: 14.00

ATP: 0.617

SILICATE: 3.52

PROTEIN: 40.50

AMMONIA: 0.60

## UNGAVA BAY

LATITUDE: 58°53'N

LONGITUDE: 67°17'W

STATION NO.: 84A

DATE: 2/9/79

DEPTH: 10m

TIME(ADT): 1200

SECCHI DEPTH: 8m

I	P	I	P	I	P	I	P
564.5	2.74	4.8	0.10				
480.3	3.30	4.0	0.13				
315.9	2.91	3.0	0.13				
249.4	2.91						
117.5	2.64						
91.0	2.72						
61.5	2.09						
52.2	2.82						
39.6	1.60						
30.3	2.33						
22.8	0.80						
15.6	0.57						
12.6	0.43						
9.4	0.34						
6.5	0.21						

SAMPLE TEMPERATURE: 3.5 °C

INCUBATION TEMPERATURE: 6.0 °C

INCUBATION TIME: 0.5 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 0.86

RNA: 6.75

PHOSPHATE: 0.57

CARBON: -

DNA: 2.38

NITRATE: 0.36

NITROGEN: -

ATP: 0.752

SILICATE: 2.70

PROTEIN: 37.80

AMMONIA: 1.64

199

## UNGAVA BAY

LATITUDE: 58°53'N

LONGITUDE: 67°17'W

STATION NO.: 84B

DATE: 2/9/79

DEPTH: 10m

TIME(ADT): 1200

SECCHI DEPTH: 8m

I	P	I	P	I	P	I	P
589.8	2.48	3.2	0.05				
438.1	2.07	2.6	0.08				
229.6	3.15						
156.7	2.78						
113.3	2.43						
85.9	2.76						
71.2	2.42						
42.1	1.65						
27.4	1.34						
20.2	0.59						
12.6	0.43						
9.5	0.27						
7.6	0.27						
6.1	0.07						
4.2	0.02						

SAMPLE TEMPERATURE: 3.5 °C

INCUBATION TEMPERATURE: 6.0 °C

INCUBATION TIME: 1 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 0.86

RNA: 6.75

PHOSPHATE: 0.57

CARBON: -

DNA: 2.38

NITRATE: 0.36

NITROGEN: -

ATP: 0.752

SILICATE: 2.70

PROTEIN: 37.80

AMMONIA: 1.64

## UNGAVA BAY

LATITUDE: 58°53'N

LONGITUDE: 67°17'W

STATION NO.: 84C

DATE: 2/9/79

DEPTH: 10m

TIME(ADT): 1200

SECCHI DEPTH: 8m

I	P	I	P	I	P	I	P
309.7	3.08	2.5	0.01				
191.7	2.09						
166.4	2.01						
130.6	2.42						
83.4	2.07						
60.7	1.83						
49.3	1.80						
37.1	1.77						
27.0	1.72						
22.8	0.97						
10.0	0.63						
8.5	0.40						
5.9	0.15						
3.5	0.08						
3.2	0.35						

SAMPLE TEMPERATURE: 3.5 °C

INCUBATION TEMPERATURE: 6.0 °C

INCUBATION TIME: 2.0 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 0.86

RNA: 6.75

PHOSPHATE: 0.57

CARBON: -

DNA: 2.38

NITRATE: 0.36

NITROGEN: -

ATP: 0.752

SILICATE: 2.70

PROTEIN: 37.80

AMMONIA: 1.64

## UNGAVA BAY

LATITUDE: 58°55'N

LONGITUDE: 67°17'W

STATION NO.: 84D

DATE: 2/9/79

DEPTH: 10m

TIME(ADT): 1200

SECCHI DEPTH: 8m

I	P	I	P	I	P	I	P
644.6	2.16	6.6	0.14				
484.5	2.05	4.4	0.17				
408.7	2.41	3.3	0.10				
269.6	1.98	2.8	0.03				
179.1	1.86						
126.4	2.48						
91.8	2.33						
67.4	2.03						
47.6	1.57						
35.8	1.45						
27.4	1.31						
21.9	0.86						
14.3	0.85						
10.3	0.44						
8.6	0.35						

SAMPLE TEMPERATURE: 3.5 °C

INCUBATION TEMPERATURE: 6.0 °C

INCUBATION TIME: 4.0 HRS.

	mg m <sup>-3</sup>		mg m <sup>-3</sup>		mg at-m <sup>-3</sup>
CHLOROPHYLL:	0.86		RNA:	6.75	
CARBON:	-		DNA:	2.38	
NITROGEN:	-		ATP:	0.752	
PROTEIN:	37.80				
					PHOSPHATE: 0.57
					NITRATE: 0.36
					SILICATE: 2.70
					AMMONIA: 1.64

## UNGAVA BAY

LATITUDE: 58° 55.2'N

LONGITUDE: 66° 37'W

STATION NO.: 85A

DATE: 2/9/79

DEPTH: 10m

TIME(ADT): 1735

SECCHI DEPTH: -

I	P	I	P	I	P	I	P
568.7	3.10	5.3	0.27				
383.4	3.26	3.1	0.15				
244.4	2.48	2.4	0.13				
188.7	2.73	2.0	0.04				
126.4	2.93						
98.6	3.19						
71.6	2.80						
52.7	1.93						
40.0	1.52						
28.6	1.42						
21.5	1.18						
16.9	0.79						
11.8	0.79						
8.8	0.44						
7.2	0.26						

SAMPLE TEMPERATURE: 3.8 °C

INCUBATION TEMPERATURE: 6.0 °C

INCUBATION TIME: 0.5 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.05

RNA: 5.68

PHOSPHATE: 0.56

CARBON: 11.00

DNA: 1.37

NITRATE: 0.24

NITROGEN: 71.00

ATP: 0.683

SILICATE: 2.24

PROTEIN: 36.40

AMMONIA: 2.05

## UNGAVA BAY

LATITUDE: 58° 55.2'N

LONGITUDE: 66° 57'W

STATION NO.: 85B

DATE: 2/9/79

DEPTH: 10m

TIME(ADT): 1735

SECCHI DEPTH: -

I	P	I	P	I	P	I	P
522.4	2.64	2.82	0.09				
421.3	2.22	2.32	0.02				
305.4	2.34						
147.0	2.17						
70.8	2.00						
50.1	1.74						
37.9	1.53						
29.1	1.02						
21.9	1.01						
16.9	0.56						
11.4	0.45						
8.6	0.32						
7.0	0.19						
5.5	0.04						
3.8	0.06						

SAMPLE TEMPERATURE: 3.8°C

INCUBATION TEMPERATURE: 6.0 °C

INCUBATION TIME: 1.0 HRS.

	mg m <sup>-3</sup>		mg m <sup>-3</sup>		mg at-m <sup>-3</sup>	
CHLOROPHYLL:	1.05		RNA:	5.68	PHOSPHATE:	0.56
CARBON:	11.00		DNA:	1.37	NITRATE:	0.24
NITROGEN:	71.00		ATP:	0.683	SILICATE:	2.24
PROTEIN:	36.40				AMMONIA:	2.05

## UNGAVA BAY

LATITUDE: 58°55.2'N

LONGITUDE: 66°37'W

STATION NO.: 85C

DATE: 2/9/79

DEPTH: 10m

TIME(ADT): 1735

SECCHI DEPTH: -

I	P	I	P	I	P	I	P
619.3	3.64	2.9	0.06				
349.7	3.52	2.4	0.05				
149.6	2.43						
99.8	2.09						
73.7	2.77						
55.6	1.85						
50.1	1.64						
32.9	1.49						
27.4	0.68						
19.0	1.14						
12.2	0.69						
9.5	0.34						
7.2	0.23						
5.8	0.21						
4.0	0.07						

SAMPLE TEMPERATURE: 3.8 °C

INCUBATION TEMPERATURE: 6.0 °C

INCUBATION TIME: 2.0 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 1.05

RNA: 5.68

PHOSPHATE: 0.56

CARBON: 11.00

DNA: 1.37

NITRATE: 0.24

NITROGEN: 71.00

ATP: 0.683

SILICATE: 2.24

PROTEIN: 36.40

AMMONIA: 2.05

## UNGAVA BAY

LATITUDE: 58°55.2'N

LONGITUDE: 66°37'W

STATION NO.: 85D

DATE: 2/9/79

DEPTH: 10m

TIME(ADT): 1735

SECCHI DEPTH: -

I	P	I	P	I	P	I	P
579.3	1.50	3.4	0.04				
476.0	1.67	3.2	0.02				
318.1	1.93	2.4	0.0				
242.2	2.50						
170.6	2.33						
80.0	1.94						
56.9	1.94						
48.9	1.70						
38.8	1.81						
27.0	1.22						
21.0	0.82						
12.6	0.53						
10.1	0.33						
7.4	0.26						
5.7	0.09						

SAMPLE TEMPERATURE: 3.8 °C

INCUBATION TEMPERATURE: 6.0 °C

INCUBATION TIME: 4.0 HRS.

	mg m <sup>-3</sup>		mg m <sup>-3</sup>		mg at-m <sup>-3</sup>
CHLOROPHYLL:	1.05		RNA:	5.68	
CARBON:	11.00		DNA:	1.37	
NITROGEN:	71.00		ATP:	0.683	
PROTEIN:	36.40				
					PHOSPHATE: 0.56
					NITRATE: 0.24
					SILICATE: 2.24
					AMMONIA: 2.05

## UNGAVA BAY

LATITUDE: 58°55.2'N

LONGITUDE: 66°37'W

STATION NO.: 86

DATE: 3/9/79

DEPTH: 10m

TIME(ADT): 0800

SECCHI DEPTH: -

I	P	I	P	I	P	I	P
589.8	1.65	47.2	2.06	4.7	0.08	141.1	2.36
610.9	1.75	38.3	1.76	4.5	0.08	164.3	1.91
484.5	1.81	35.4	1.84	3.2	0.08	94.8	1.85
383.4	2.57	32.9	1.62	3.2	0.04	88.1	2.27
345.5	1.96	27.0	1.49	2.6	0.03	49.7	2.46
299.1	1.91	22.8	1.48	2.7	0.04	63.2	1.96
254.9	2.46	20.2	1.20	2.0	0.01	40.0	1.66
212.8	2.06	15.2	0.80	2.3	0.00	48.5	1.94
179.1	1.91	13.5	0.75	621.4	2.02	33.3	1.26
160.1	2.67	11.2	0.62	589.8	1.60	38.3	1.46
107.4	2.59	9.1	0.47	379.2	2.56	24.0	1.18
103.2	2.05	9.1	0.39	463.4	1.78	26.5	1.11
82.1	2.35	8.0	0.28	275.9	2.37		
72.5	1.92	7.1	0.26	353.9	2.46		
49.7	2.04	6.5	0.26	193.8	2.20		

SAMPLE TEMPERATURE: 3.2 °C

INCUBATION TEMPERATURE: 6.1 °C

INCUBATION TIME: 4 HRS.

mg m<sup>-3</sup>mg m<sup>-3</sup>mg at-m<sup>-3</sup>

CHLOROPHYLL: 0.98

RNA: 4.08

PHOSPHATE: 0.53

CARBON: 62.00

DNA: 2.06

NITRATE: 0.40

NITROGEN: 10.00

ATP: 0.456

SILICATE: 1.70

PROTEIN: 42.50

AMMONIA: 0.92

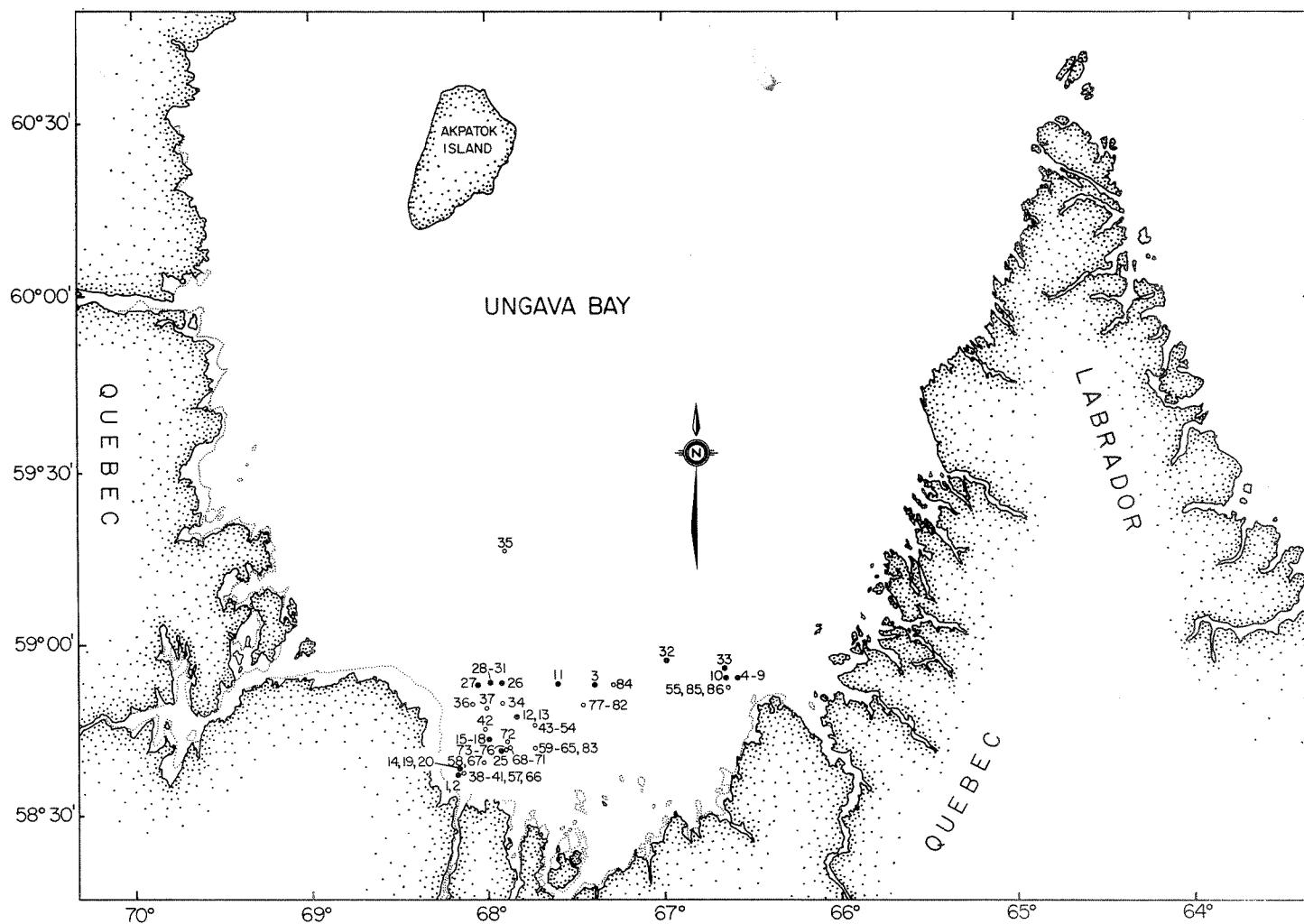


Fig. 1. Location of sampling stations in Ungava Bay.