PUGET2 DM 941 | ACCESSION NUMBER 76-1414

DDF-B:1:03

TRO681
F028

DATA DOCUMENTATION FORM

NOAA FORM 24-13 (4-72)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
ROCKVILLE, MARYLAND 20852

FORM APPROVED O.M.B. No. 41-R2651

This form should accompany all data submissions to NODC. Section A, Originator Identification, must be completed when the data are submitted. It is highly desirable for NODC to also receive the remaining pertinent information at that time. This may be most easily accomplished by attaching reports, publications, or manuscripts which are readily available describing data collection, analysis, and format specifics. Readable, handwritten submissions are acceptable in all cases. All data shipments should be sent to the above address.

A. ORIGINATOR IDENTIFICATION

THIS SECTION MUST BE COMPLETED BY DONOR FOR ALL DATA TRANSMITTALS

1. NAME AND ADDRESS OF INSTITUTION, LABORATORY, OR ACTIVITY WITH WHICH SUBMITTED DATA ARE ASSOCIATED

Pacific Marine Environmental Laboratory
3711 15th Avenue N.E.
Seattle, Washington 98105

2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED

Puget Sound Energy Research Program (MESA)

3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT

SF 7601 (also=File ID)

4. PLATFORM NAME(S)

m/v Commando

5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)

Ship

6. PLATFORM AND OPERATOR NATIONALITY(IES)

PLATFORM	OPERATOR
Univ of Wash. (USA)	Univ of Wash. (USA)

7. DATES

FROM: MO/DAY/YR	TO: MO/DAY/YR
2/23/76	2/24/76

8. ARE DATA PROPRIETARY?

☑ NO ☐ YES

IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR ____ MONTH ____

9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)?
(I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?)

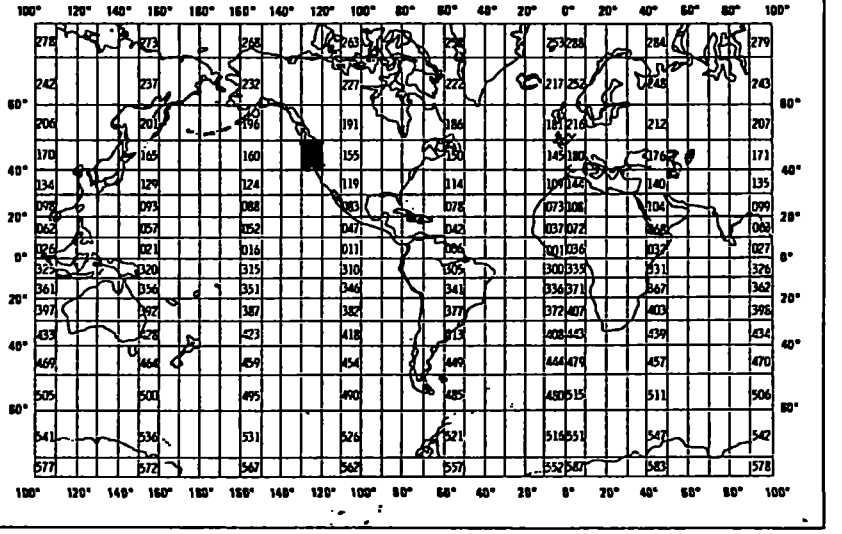
☑ NO ☐ YES ☐ PART (SPECIFY BELOW)

10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1)

Patricia Ruffo
206-442-4903

11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.

GENERAL AREA



NOAA FORM 24-13

USCOMM-DC 44289-P72

B. SCIENTIFIC CONTENT

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Sample count	Absolute number of cells counted	Zeiss Invertroscope D	Utermöl Inverted Microscope Method	
Cells per liter	Number of cells per liter	"	"	
Phytoplankton taxonomic code	10-digit numerical OCSEP code	"	"	

USCOMM-DC 44289-1-72

C. DATA FORMAT

COMPLETE THIS SECTION FOR PUNCHED CARDS OR TAPE, MAGNETIC TAPE, OR DISC SUBMISSIONS.

1. LIST RECORD TYPES CONTAINED IN THE TRANSMITTAL OF YOUR FILE
GIVE METHOD OF IDENTIFYING EACH RECORD TYPE

Two (2) record types: Station Header Cards and Detail Cards, differentiated by byte 10.

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

There are one Station Header Card and several Detail Cards per Niskin cast. Each Detail Card contains the taxonomic code (identifier) and the count data for a single taxonomic group.

(Converted to tape at NODC)

3. ATTRIBUTES AS EXPRESSED IN ☐ PL-1 ☐ ALGOL ☐ COBOL ☑ FORTRAN ☐ _____ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:
NAME AND PHONE NUMBER Pat Ruffo
ADDRESS 3711 15th Ave N.E., Seattle, Wa 98105

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

5. RECORDING MODE ☐ BCD ☐ BINARY ☐ ASCII ☑ EBCDIC ☐ _____

6. NUMBER OF TRACKS (CHANNELS) ☐ SEVEN ☑ NINE ☐ _____

7. PARITY ☑ ODD ☐ EVEN

8. DENSITY ☐ 200 BPI ☑ 1600 BPI ☐ 556 BPI ☐ 800 BPI ☐ _____

9. LENGTH OF INTER-RECORD GAP (IF KNOWN) ☑ 3/4 INCH ☐ _____

10. END OF FILE MARK ☐ OCTAL 17 ☐ _____

11. PASTE-ON-PAPER LABEL DESCRIPTION *(INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)*
Tape No. 7415
DSN = PUGET2

12. PHYSICAL BLOCK LENGTH IN BYTES
4000

13. LENGTH OF BYTES IN BITS
8

RECORD FORMAT DESCRIPTION

2-72 76

RECORD NAME MASTER RECORD Phytoplankton Species

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN Bytes (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	Bytes	A3	Always '028'
File Identifier	4	6	Bytes	A6	
Record Type	10	1	Bytes	I1	Always '1'
Station Number	11	5	Bytes	A5	
Latitude,					
Degrees	16	2	Bytes	I2	
Minutes	18	2	Bytes	I2	
Seconds	20	2	Bytes	I2	
Hemisphere	22	1	Bytes	A1	
Longitude,					
Degrees	23	3	Bytes	I3	
Minutes	26	2	Bytes	I2	
Seconds	28	2	Bytes	I2	
Hemisphere	30	1	Bytes	A1	
Year	31	2	Bytes	I2	Last two digits of year
Month	33	2	Bytes	I2	1-12
Day	35	2	Bytes	I2	1-31
Hour	37	2	Bytes	I2	0-23
Minutes	39	2	Bytes	I2	0-59
Time Zone	41	1	Bytes	A1	Always '+' or '-'
Time Zone	42	2	Bytes	A2	01-12
Depth to Bottom	44	5	Bytes	I5	To whole meters
Blank	49	32	Bytes	32X	

GMT

RECORD FORMAT DESCRIPTION

RECORD NAME DETAIL RECORD) Phytoplankton Species

14. FIELD NAME	15. LOCATION FROM-1 MEASURED IN Bytes (or L, Bits, Bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	Bytes	A3	Always '028'
File Identifier	4	6	Bytes	A6	
Record	10	1	Bytes	I1	Always '3'
Station Number	11	5	Bytes	A5	
Sample Number	16	4	Bytes	A4	Originator's internal use
Sample Depth	20	4	Bytes	I4	In tenths of meters
Taxonomic Code	24	10	Bytes	I10	
Blank	34	3	Bytes	3X	
Count	37	5	Bytes	I5	Of species identified in previous field
Number of Cells/Liter	42	9	Bytes	I9	Of species identified in previous field
Wet Weight	51	7	Bytes	I7	To thousandths of grams
Dry Weight	58	7	Bytes	I7	To thousandths of grams
Volume of Water Filtered	65	5	Bytes	I5	Whole milliliters
Blank	70	8	Bytes	8X	
Sequence Number	78	3	Bytes	I3	Ascending numeric order for sorting*

* The Sequence Number may be used to structure the data in such a way that the Text Record could precede or follow the corresponding taxonomic code on the Detail Record. An example would be two organisms named on two Text Records with Sequence Numbers of '002' and '004' and corresponding Detail Records with Sequence Numbers of '001' and '003' (NOTE: The Sequence Number need not be a consecutive number, but a number that is ascending numerically.) If the data were to be sorted, within a station, by Sequence Number, the Master Record (blanks in bytes 78-80) would be first followed by Detail Record '001', Text Record '002', Detail Record '003' and Text Record '004'.

D. INSTRUMENT CALIBRATION

This calibration information will be utilized by NOAA's National Oceanographic Instrumentation Center in their efforts to develop calibration standards for voluntary acceptance by the oceanographic community. Identify the instruments used by your organization to obtain the scientific content of the DDF (i.e., STD, temperature and pressure sensors, salinometers, oxygen meters, velocimeters, etc.) and furnish the calibration data requested by completing and/or checking ("✓") the appropriate spaces. Add the interval time (i.e., 3 months, 6 months, 9 months, etc.) if the fixed interval calibration cycle is checked.

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALIBRATED
		YOUR ORGANIZATION (√)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (√)	BEFORE OR AFTER USE (√)	BEFORE AND AFTER USE (√)	ONLY AFTER REPAIR (√)	ONLY WHEN NEW (√)	(√)
Zeiss Invertoscope	6-9-76	✓					✓ (after moving)		

NOAA FORM 24-13

USCOMM-DC 44289-P72

PUGET 3 | ACCESSION NUMBER 76-1414

TR0682

DATA DOCUMENTATION FORM

NOAA FORM 24-13 (4-72)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
ROCKVILLE, MARYLAND 20852

FORM APPROVED O.M.B. No. 41-R2651

This form should accompany all data submissions to NODC. Section A, Originator Identification, must be completed when the data are submitted. It is highly desirable for NODC to also receive the remaining pertinent information at that time. This may be most easily accomplished by attaching reports, publications, or manuscripts which are readily available describing data collection, analysis, and format specifics. Readable, handwritten submissions are acceptable in all cases. All data shipments should be sent to the above address.

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THIS SECTION MUST BE COMPLETED BY DONOR FOR ALL DATA TRANSMITTALS

1. NAME AND ADDRESS OF INSTITUTION, LABORATORY, OR ACTIVITY WITH WHICH SUBMITTED DATA ARE ASSOCIATED

Pacific Marine Environmental Laboratory
3711 15th N.E.
Seattle, Wa 98105

2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED

Puget Sound Energy Research Program (MESA)

3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT

SF 7602 (also=File ID)

4. PLATFORM NAME(S)

M/V Commando

5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)

Ship

6. PLATFORM AND OPERATOR NATIONALITY(IES)

PLATFORM	OPERATOR
Univ. of Washington (USA)	Univ. of Washington (USA)

7. DATES

FROM: MO/DAY/YR	TO: MO/DAY/YR
4/5/76	4/6/76

8. ARE DATA PROPRIETARY?

☑ NO ☐ YES

IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR____ MONTH____

9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)?

(I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?)

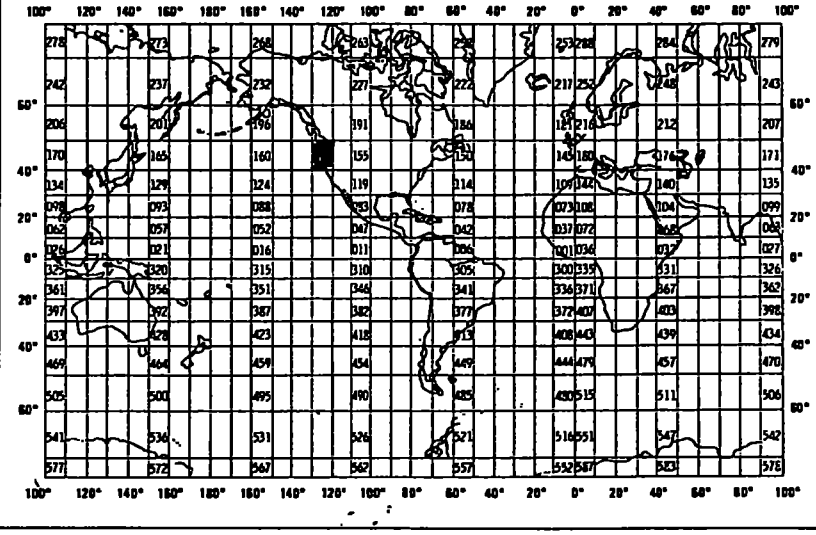
☑ NO ☐ YES ☐ PART *(SPECIFY BELOW)*

10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER *(AND ADDRESS IF OTHER THAN IN ITEM-1)*

Btricia Ruffo
206-442-4903

11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.

GENERAL AREA



NOAA FORM 24-13

USCOMM-DC 44289-P72

B. SCIENTIFIC CONTENT

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Sample count	Absolute number of cells counted	Zeiss Invertroscope D	Utermöl Inverted Microscope Method	
Cells per liter	Number of cells per liter	"	"	
Phytoplankton taxonomic code	10-digit numerical OCSEP code	"	"	

C. DATA FORMAT

COMPLETE THIS SECTION FOR PUNCHED CARDS OR TAPE, MAGNETIC TAPE, OR DISC SUBMISSIONS.

1. LIST RECORD TYPES CONTAINED IN THE TRANSMITTAL OF YOUR FILE
GIVE METHOD OF IDENTIFYING EACH RECORD TYPE

Two (2) record types: Station Header Cards and Detail Cards, differentiated by byte 10.

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

There are one Station Header Card and several Detail Cards per Niskin cast. Each Detail Card contains the taxonomic code (identifier) and the count data for a single taxonomic group.

(converted to tape at NODC)

3. ATTRIBUTES AS EXPRESSED IN ☐ PL-1 ☐ ALGOL ☐ COBOL ☑ FORTRAN ☐ _____ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:
NAME AND PHONE NUMBER Pat Ruffo
ADDRESS 3711 15th Ave N.E., Seattle, Wa 98105

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

5. RECORDING MODE
☐ BCD ☐ BINARY
☐ ASCII ☑ EBCDIC
☐ _____

6. NUMBER OF TRACKS (CHANNELS)
☐ SEVEN
☑ NINE
☐ _____

7. PARITY
☑ ODD
☐ EVEN

8. DENSITY
☐ 200 BPI ☑ 1600 BPI
☐ 556 BPI
☐ 800 BPI
☐ _____

9. LENGTH OF INTER-RECORD GAP (IF KNOWN)
☑ 3/4 INCH
☐ _____

10. END OF FILE MARK
☐ OCTAL 17
☐ _____

11. PASTE-ON-PAPER LABEL DESCRIPTION (*INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER*)
Tape #7415
DSN = PUGET3

12. PHYSICAL BLOCK LENGTH IN BYTES
4000

13. LENGTH OF BYTES IN BITS
8

RECORD FORMAT DESCRIPTION

2-72 76

RECORD NAME MASTER RECORD Phytoplankton Species

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN Bytes (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	Bytes	A3	Always '028'
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Latitude,					
Degrees	16	2	Bytes	I2	
Minutes	18	2	Bytes	I2	
Seconds	20	2	Bytes	I2	
Hemisphere	22	1	Bytes	A1	
Longitude,					
Degrees	23	3	Bytes	I3	
Minutes	26	2	Bytes	I2	
Seconds	28	2	Bytes	I2	
Hemisphere	30	1	Bytes	A1	
Year	31	2	Bytes	I2	Last two digits of year
Month	33	2	Bytes	I2	1-12
Day	35	2	Bytes	I2	1-31
Hour	37	2	Bytes	I2	0-23
Minutes	39	2	Bytes	I2	0-59
Time Zone	41	1	Bytes	A1	Always '+' or '-'
Time Zone	42	2	Bytes	A2	01-12
Depth to Bottom	44	5	Bytes	I5	To whole meters
Blank	49	32	Bytes	32X	

GMT

RECORD FORMAT DESCRIPTION

RECORD NAME DETAIL RECORD) Phytoplankton Species

14. FIELD NAME	15. LOCATION FROM-TO MEASURED IN Bytes (Bits, Bytes)	16. LENGTH NUMBER	UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	Bytes	A3	Always '028'
File Identifier	4	6	Bytes	A6	
Record	10	1	Bytes	I1	Always '3'
Station Number	11	5	Bytes	A5	
Sample Number	16	4	Bytes	A4	Originator's internal use
Sample Depth	20	4	Bytes	I4	In tenths of meters
Taxonomic Code	24	10	Bytes	I10	
Blank	34	3	Bytes	3X	
Count	37	5	Bytes	I5	Of species identified in previous field
Number of Cells/Liter	42	9	Bytes	I9	Of species identified in previous field
Wet Weight	51	7	Bytes	I7	To thousandths of grams
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INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALIBRATED
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	(✓)
Zeiss Invertoscope	6-9-76	✓					✓ (after moving)		

NOAA FORM 24-13

USCOMM-DC 44289-P72

PUGET 4 | ACCESSION NUMBER 76-1414

TR0683

DATA DOCUMENTATION FORM

NOAA FORM 24-13 (4-72)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
ROCKVILLE, MARYLAND 20852

FORM APPROVED O.M.B. No. 41-R2651

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Seattle, Wa 98105

2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED

Puget Sound Energy Research Program (PMESA)

3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT

SF-76-03 (also=File ID)

4. PLATFORM NAME(S)

M/V Hydah

5. PLATFORM TYPE(S) *(E.G., SHIP, BUOY, ETC.)*

Ship

6. PLATFORM AND OPERATOR NATIONALITY(IES)

PLATFORM	OPERATOR
Univ. of Wash (USA)	Univ of Wash (USA)

7. DATES

FROM: MO/DAY/YR	TO: MO/DAY/YR
5/17/76	5/18/76

8. ARE DATA PROPRIETARY?

☑ NO ☐ YES

IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR ____ MONTH ____

9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)?
(I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?)

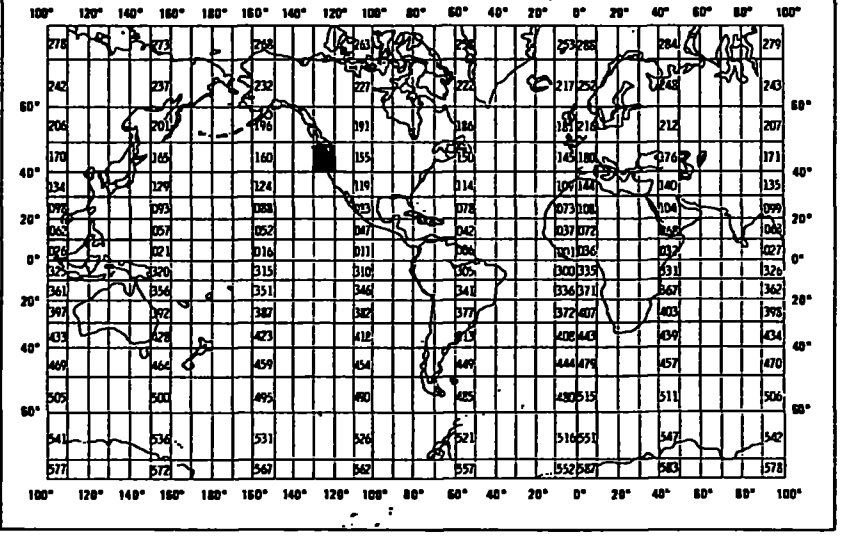
☑ NO ☐ YES ☐ PART *(SPECIFY BELOW)*

10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER *(AND ADDRESS IF OTHER THAN IN ITEM-1)*

Pat Ruffo
206-442-4903

11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.

GENERAL AREA



NOAA FORM 24-13 USCOMM-DC 44289-P72

B. SCIENTIFIC CONTENT

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Sample count	Absolute number of cells counted	Zeiss Invertroscope D	Utermöl Inverted Microscope Method	
Cells per liter	Number of cells per liter	"	"	
Phytoplankton taxonomic code	10-digit numerical OCSEP code	"	"	

USCOMM-DC 44289-P72

C. DATA FORMAT

COMPLETE THIS SECTION FOR PUNCHED CARDS OR TAPE, MAGNETIC TAPE, OR DISC SUBMISSIONS.

1. LIST RECORD TYPES CONTAINED IN THE TRANSMITTAL OF YOUR FILE
GIVE METHOD OF IDENTIFYING EACH RECORD TYPE

Two (2) record types: Station Header Cards and Detail Cards, differentiated by byte 10.

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

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(converted to tape at NODC)

3. ATTRIBUTES AS EXPRESSED IN ☐ PL-1 ☑ FORTRAN ☐ ALGOL ☐ COBOL ☐ _____ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:
NAME AND PHONE NUMBER Pat Ruffo
ADDRESS 3711 15th Ave N.E., Seattle, Wa 98105

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

5. RECORDING MODE
☐ BCD ☐ BINARY
☐ ASCII ☑ EBCDIC
☐ _____

6. NUMBER OF TRACKS (CHANNELS)
☐ SEVEN
☑ NINE
☐ _____

7. PARITY
☑ ODD
☐ EVEN

8. DENSITY
☐ 200 BPI ☑ 1600 BPI
☐ 556 BPI
☐ 800 BPI
☐ _____

9. LENGTH OF INTER-RECORD GAP (IF KNOWN) ☑ 3/4 INCH
☐ _____

10. END OF FILE MARK
☐ OCTAL 17
☐ _____

11. PASTE-ON-PAPER LABEL DESCRIPTION *(INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)*
Tape #7415
DSN = PUGET4

12. PHYSICAL BLOCK LENGTH IN BYTES

13. LENGTH OF BYTES IN BITS
8

RECORD FORMAT DESCRIPTION

2-22-76

RECORD NAME MASTER RECORD Phytoplankton Species

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN Bytes (e.g., bits, bytes)	15. LENGTH NUMBER	15. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	Bytes	A3	Always '028'
File Identifier	4	6	Bytes	A6	
Record Type	10	1	Bytes	I1	Always '1'
Station Number	11	5	Bytes	A5	
Latitude,					
Degrees	16	2	Bytes	I2	
Minutes	18	2	Bytes	I2	
Seconds	20	2	Bytes	I2	
Hemisphere	22	1	Bytes	A1	
Longitude,					
Degrees	23	3	Bytes	I3	
Minutes	26	2	Bytes	I2	
Seconds	28	2	Bytes	I2	
Hemisphere	30	1	Bytes	A1	
Year	31	2	Bytes	I2	Last two digits of year
Month	33	2	Bytes	I2	1-12
Day	35	2	Bytes	I2	1-31
Hour	37	2	Bytes	I2	0-23
Minutes	39	2	Bytes	I2	0-59
Time Zone	41	1	Bytes	A1	Always '+' or '-'
Time Zone	42	2	Bytes	A2	01-12
Depth to Bottom	44	5	Bytes	I5	To whole meters
Blank	49	32	Bytes	32X	

GMT

RECORD FORMAT DESCRIPTION

*RECORD NAME DETAIL RECORD) Phytoplankton Species

14. FIELD NAME	15. LOCATION FROM-1 MEASURED IN Bytes (e.g., bits, bytes)	16. LENGTH NUMBER	UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	Bytes	A3	Always '028'
File Identifier	4	6	Bytes	A6	
Record	10	1	Bytes	I1	Always '3'
Station Number	11	5	Bytes	A5	/
Sample Number	16	4	Bytes	A4	Originator's internal use
Sample Depth	20	4	Bytes	I4	In tenths of meters
Taxonomic Code	24	10	Bytes	I10	
Blank	34	3	Bytes	3X	
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Number of Cells/Liter	42	9	Bytes	I9	Of species identified in previous field
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Dry Weight	58	7	Bytes	I7	To thousandths of grams
Volume of Water Filtered	65	5	Bytes	I5	Whole milliliters
Blank	70	8	Bytes	8X	
Sequence Number	78	3	Bytes	I3	Ascending numeric order for sorting*

* The Sequence Number may be used to structure the data in such a way that the Text Record could precede or follow the corresponding taxonomic code on the Detail Record. An example would be two organisms named on two Text Records with Sequence Numbers of '002' and '004' and corresponding Detail Records with Sequence Numbers of '001' and '003' (NOTE: The Sequence Number need not be a consecutive number, but a number that is ascending numerically.) If the data were to be sorted, within a station, by Sequence Number, the Master Record (blanks in bytes 78-80) would be first followed by Detail Record '001', Text Record '002', Detail Record '003' and Text Record '004'.

D. INSTRUMENT CALIBRATION

This calibration information will be utilized by NOAA's National Oceanographic Instrumentation Center in their efforts to develop calibration standards for voluntary acceptance by the oceanographic community. Identify the instruments used by your organization to obtain the scientific content of the DDF (i.e., STD, temperature and pressure sensors, salinometers, oxygen meters, velocimeters, etc.) and furnish the calibration data requested by completing and/or checking ("✓") the appropriate spaces. Add the interval time (i.e., 3 months, 6 months, 9 months, etc.) if the fixed interval calibration cycle is checked.

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALIBRATED
		YOUR ORGANIZATION (√)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (√)	BEFORE OR AFTER USE (√)	BEFORE AND AFTER USE (√)	ONLY AFTER REPAIR (√)	ONLY WHEN NEW (√)	(√)
Zeiss Invertoscope	6-9-76	✓					✓ (& after moving)		

USCOMM-DC 44289-P72

RECORD FORMAT DESCRIPTION

RECORD NAME '028' CORRECTIONS

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
RT '3'					
NO. CELLS PER LITER	42	9		'Ø' ADDED TO COLUMN 49 IN LAST RECORD OF STATION '2' TRØ683.	

FILE IDs CHANGED

FROM:	SF76Ø1	TO:	TRØ681
"	SF76Ø2	"	TRØ682
"	SF76Ø3	"	TRØ683

028

SDF1 002496
SDF2 002499
ANSI 002502

TR 462-464, 513, 519-521, 681-683, 701-703, 756, 910, 911, 946, 1105-1145, 1309, 1313, 1424, 1657, 1658, 1895, 1896, 2869, 2870, 2968-2970, 3955, 5055-5059, 6429

28,750

accession no: 76-1414

folder contains filetype 28 & 29

Phyto Spp. & Primary Production Mesa Puget

PUGET 5 DM941 | ACCESSION NUMBER | 76-1414

DATA DOCUMENTATION FORM

[redacted] TR1325

DDF B:1:03

NOAA FORM 24-13 (4-72)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
ROCKVILLE, MARYLAND 20852

FORM APPROVED
O.M.B. No. 41-R2651

F029

This form should accompany all data submissions to NODC. Section A, Originator Identification, must be completed when the data are submitted. It is highly desirable for NODC to also receive the remaining pertinent information at that time. This may be most easily accomplished by attaching reports, publications, or manuscripts which are readily available describing data collection, analysis, and format specifics. Readable, handwritten submissions are acceptable in all cases. All data shipments should be sent to the above address.

A. ORIGINATOR IDENTIFICATION

THIS SECTION MUST BE COMPLETED BY DONOR FOR ALL DATA TRANSMITTALS

1. NAME AND ADDRESS OF INSTITUTION, LABORATORY, OR ACTIVITY WITH WHICH SUBMITTED DATA ARE ASSOCIATED

PACIFIC MARINE ENVIRONMENTAL LABORATORY/NOAA
3711 - 15th AVE. N.E.
SEATTLE, WA. 98105

2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED

PUGET SOUND ENERGY RESEARCH PROGRAM (MESA)

3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT

SF7601 (also=File ID)

4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)		7. DATES	
		PLATFORM	OPERATOR	FROM: MO/DAY/YR	TO: MO/DAY/YR
M/V COMMANDO	SHIP	UNIV. OF WASH. (USA)	UNIV. OF WASH. (USA)	02/23/76	02/24/76

8. ARE DATA PROPRIETARY?

[X] NO [ ] YES

IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR____ MONTH____

9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)?
(I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?)

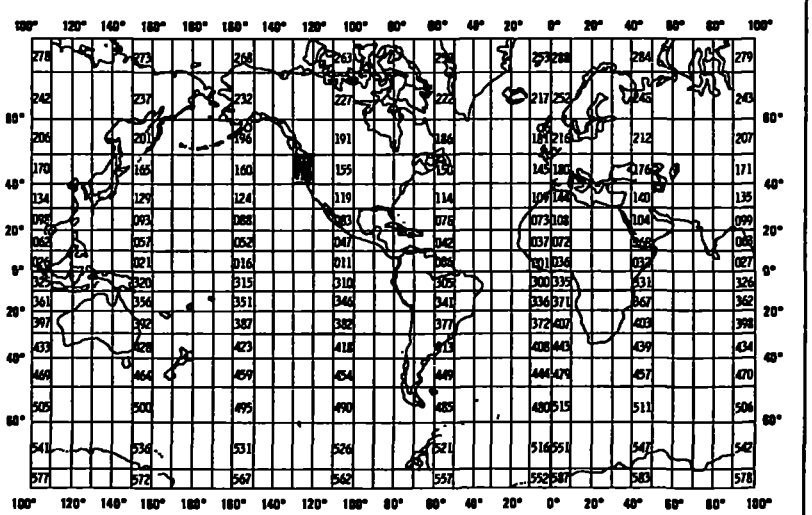
[X] NO [ ] YES [ ] PART *(SPECIFY BELOW)*

10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER *(AND ADDRESS IF OTHER THAN IN ITEM-1)*

ALEXANDER J. CHESTER
206-442-1971

11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.

GENERAL AREA



NOAA FORM 24-13

USCOMM-DC 44289-P72

B. SCIENTIFIC CONTENT

Include enough information concerning manner of observation, instrumentation, analysis, and data reduction routines to make them understandable to future users. Furnish the minimum documentation considered relevant to each data type. Documentation will be retained as a permanent part of the data and will be available to future users. Equivalent information already available may be substituted for this section of the form (i.e., publications, reports, and manuscripts describing observational and analytical methods). If you do not provide equivalent information by attachment, please complete the scientific content section in a manner similar to the one shown in the following example.

EXAMPLE (HYPOTHETICAL INFORMATION)

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Salinity	‰	Nansen bottles	Inductive salinometer (Hytech model S 510)	N/A (Not applicable)
		STD Bissett-Berman Model 9006	N/A	Values averaged over 5-meter intervals
Water color	Forel scale	Visual comparison with Forel bottles	N/A	N/A
Sediment size	ϕ units and percent by weight	Ewing corer	Standard sieves. Carbonate fraction removed by acid treatment	Same as "Sedimentary Rock Manual," Folk '65

(SPACE IS PROVIDED ON THE FOLLOWING TWO PAGES FOR THIS INFORMATION)

B. SCIENTIFIC CONTENT

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
CHLOROPHYLL-A	$mg\,m^{-3}$; $Mg\,m^{-2}$	NISKIN BOTTLES	FLUOROMETRIC (TURNER, MODEL 111)	Per m^2 values numerically integrated between 0 – 50 meters
PHEOPIGMENTS	$mg\,m^{-3}$; $Mg\,m^{-2}$	11	11	11

USCOMM-DC 44289-P72

B. SCIENTIFIC CONTENT

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING

C. DATA FORMAT

This information is requested only for data transmitted on punched cards or magnetic tape. Have one of your data processing specialists furnish answers either on the form or by attaching equivalent readily available documentation. Identify the nature and meaning of all entries and explain any codes used.

1. List the record types contained in your file transmittal (e.g., tape label record, master, detail, standard depth, etc.).

2. Describe briefly how your file is organized.

3-13. Self-explanatory.

14. Enter the field name as appropriate (e.g., header information, temperature, depth, salinity.

15. Enter starting position of the field.

16. Enter field length in number columns and unit of measurement (e.g., bit, byte, character, word) in unit column.

17. Enter attributes as expressed in the programming language specified in item 3 (e.g., "F 4.1," "BINARY FIXED (5.1)").

18. Describe field. If sort field, enter "SORT 1" for first, "SORT 2" for second, etc. If field is repeated, state number of times it is repeated.

C. DATA FORMAT

COMPLETE THIS SECTION FOR PUNCHED CARDS OR TAPE, MAGNETIC TAPE, OR DISC SUBMISSIONS.

1. LIST RECORD TYPES CONTAINED IN THE TRANSMITTAL OF YOUR FILE
GIVE METHOD OF IDENTIFYING EACH RECORD TYPE

TWO RECORD TYPES, MASTER (TYPE 1) AND DETAIL RECORD (TYPE 2) DIFFERENTIATED BY BYTE 10

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

ALL DATA IS ON KEY PUNCHED CARDS. EVERY DATA GROUP (DATA FROM A NISKIN BOTTLE CAST) IS COMPOSED OF ONE MASTER RECORD AND SEVERAL DETAIL RECORDS (ONE DETAIL RECORD PER SAMPLE DEPTH)

(converted to tape at NODC)

3. ATTRIBUTES AS EXPRESSED IN ☐ PL-1 ☐ ALGOL ☐ COBOL ☒ FORTRAN ☐ _____ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:
NAME AND PHONE NUMBER ALEXANDER J. CHESTER 206-442-1971
ADDRESS 3711 15th NE ; SEATTLE, WASH. 98105

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

5. RECORDING MODE
☐ BCD ☐ BINARY ☐ ASCII ☑ EBCDIC ☐ _____

6. NUMBER OF TRACKS (CHANNELS)
☐ SEVEN ☑ NINE ☐ _____

7. PARITY
☑ ODD ☐ EVEN

8. DENSITY
☐ 200 BPI ☑ 1600 BPI ☐ 556 BPI ☐ 800 BPI ☐ _____

9. LENGTH OF INTER-RECORD GAP (IF KNOWN) ☑ 3/4 INCH ☐ _____

10. END OF FILE MARK
☐ OCTAL 17 ☐ _____

11. PASTE-ON-PAPER LABEL DESCRIPTION *(INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)*

Tape # 7415
DSN = PUGET 5

12. PHYSICAL BLOCK LENGTH IN BYTES

13. LENGTH OF BYTES IN BITS

RECORD FORMAT DESCRIPTION

RECORD NAME _____

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN _____ (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		

USCOMM-DC 44289-P72

RECORD FORMAT DESCRIPTION

RECORD NAME _____

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN _____ *(e.g., bits, bytes)*	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		

USCOMM-DC 44289-P72

RECORD FORMAT DESCRIPTION

RECORD NAME _____

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN _____ (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		

RECORD FORMAT DESCRIPTION

RECORD NAME _____

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN _____ (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		

USCOMM-DC 44289-P72

D. INSTRUMENT CALIBRATION

This calibration information will be utilized by NOAA's National Oceanographic Instrumentation Center in their efforts to develop calibration standards for voluntary acceptance by the oceanographic community. Identify the instruments used by your organization to obtain the scientific content of the DDF (i.e., STD, temperature and pressure sensors, salinometers, oxygen meters, velocimeters, etc.) and furnish the calibration data requested by completing and/or checking ("✓") the appropriate spaces. Add the interval time (i.e., 3 months, 6 months, 9 months, etc.) if the fixed interval calibration cycle is checked.

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALIBRATED
		YOUR ORGANIZATION (√)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (√)	BEFORE OR AFTER USE (√)	BEFORE AND AFTER USE (√)	ONLY AFTER REPAIR (√)	ONLY WHEN NEW (√)	(√)
FLUOROMETER TURNER III	DEC. 1975	✓			✓				

USCOMM-DC 44289-P72

RECORD FORMAT DESCRIPTION

RECORD NAME MASTER RECORD - PRIMARY PRODUCTIVITY

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN Bytes (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	Bytes	A3	Always '029'
File Identifier	4	6	Bytes		
Record Type	10	1	Bytes	I1	Always '1'
Station Number	11	5	Bytes		
Latitude,					
Degrees	16	2	Bytes	I2	
Minutes	18	2	Bytes	I2	
Seconds	20	2	Bytes	I2	
Hemisphere	22	1	Bytes	A1	
Longitude					
Degrees	23	3	Bytes	I3	
Minutes	26	2	Bytes	I2	
Seconds	28	2	Bytes	I2	
Hemisphere	30	1	Bytes	A1	
Year	31	2	Bytes	I2	Last two digits of year (GMT)
Month	33	2	Bytes	I2	1-12 (GMT)
Day	35	2	Bytes	I2	1-31 (GMT)
Hour	37	2	Bytes	I2	0-23 (GMT)
Minutes	39	2	Bytes	I2	0-59 (GMT)
Time Zone	41	1	Bytes	A1	Always '+' or '-'
Time Zone	42	2	Bytes	A2	01-12
Depth to Bottom	44	5	Bytes	I5	To Whole Meters
Chlorophyll a (Integrated)	49	4	Bytes	I4	To Tenths (mg m^{-2})

RECORD FORMAT DESCRIPTION

RECORD NAME MASTER RECORD (CONTINUED) Primary Productivity

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN _____ (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
Phaeopigments (Integrated)	53	4	Bytes	I4	To Tenths (mg m^{-2})
Carbon Assimilation (Integrated)	57	5	Bytes	I5	To Tenths (mg C m^{-2} Day^{-1})
One Percent Light Depth	62	3	Bytes	I3	To Whole Meters
Phosphate PO_4-P Reactive time	65	2	Bytes	I2	To Whole Minutes
pH Scale	67	1	Bytes	I1	1 = NBS pH scale 2 = Sorensen pH scale 3 = Hansson pH scale
In Situ Corrections for pH measurements	68	1	Bytes	I1	1 - Temperature and pressure correction have been made. 2 - No corrections made.
SECCHI Depth	69	2	Bytes	I2	To Whole Meters
Mixed Layer Depth	71	3	Bytes	I3	To Whole Meters
Light Level (Aboard Platform)	74	3	Bytes	I3	Langleys/Day
Blank	77	4	Bytes	4X	

RECORD FORMAT DESCRIPTION

RECORD NAME DETAIL RECORD - PRIMARY PRODUCTIVITY

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN Bytes (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	Bytes	A3	Always '029'
File Identifier	4	6	Bytes		
Record Type	10	1	Bytes	I1	Always '2'
Station Number	11	5	Bytes		
Depth of Sample	16	4	Bytes	I3	To Tenths of Meters
Chlorophyll a Concentration	20	4	Bytes	I4	To Hundredths (mg m^{-3})
Phaeopigment Concentration	24	4	Bytes	I4	To Hundredths (mg m^{-3})
Carbon Assimilation	28	5	Bytes	I5	To Hundredths (mg C m^{-3} hr^{-1})
Elapsed Time of Incubation	33	4	Bytes	I4	2 bytes hours, 2 bytes minutes
Oxygen	37	4	Bytes	I4	To Hundredths (ml/l)
Phosphate, PO_4-P (inorganic)	41	3	Bytes	I3	To Hundredths (µg-at/l)
Ammonia NH_3-N	44	3	Bytes	I3	To Tenths (µg-at/l)
Nitrate NO_3-N	47	3	Bytes	I3	To Tenths (µg-at/l)
Nitrite NO_2-N	50	3	Bytes	I3	To Hundredths (µg-at/l)
Silicate SiO_3-Si	53	5	Bytes	I5	To Hundredths (µg-at/l)
pH	58	3	Bytes	I3	To Hundredths
Alkalinity, total	61	4	Bytes	I4	To Thousandths (meq/l)
Temperature	65	4	Bytes	I4	To Hundredths (°C)
Salinity	69	4	Bytes	I4	To Hundredths (°/oo)
Blank	73	4	Bytes	4X	
Sequence Number	78	3	Bytes	I3	

PUGET 6 | ACCESSION NUMBER | 76-1414

TR1326

DATA DOCUMENTATION FORM

NOAA FORM 24-13 (4-72)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
ROCKVILLE, MARYLAND 20852

FORM APPROVED
O.M.B. No. 41-R2651

This form should accompany all data submissions to NODC. Section A, Originator Identification, must be completed when the data are submitted. It is highly desirable for NODC to also receive the remaining pertinent information at that time. This may be most easily accomplished by attaching reports, publications, or manuscripts which are readily available describing data collection, analysis, and format specifics. Readable, handwritten submissions are acceptable in all cases. All data shipments should be sent to the above address.

A. ORIGINATOR IDENTIFICATION

THIS SECTION MUST BE COMPLETED BY DONOR FOR ALL DATA TRANSMITTALS

1. NAME AND ADDRESS OF INSTITUTION, LABORATORY, OR ACTIVITY WITH WHICH SUBMITTED DATA ARE ASSOCIATED

PACIFIC MARINE ENVIRONMENTAL LABORATORY/NOAA
3711 - 15th AVE. N.E.
SEATTLE, WA. 98105

2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED

PUGET SOUND ENERGY RESEARCH PROGRAM (MESA)

3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT

SF7602 (also=File ID)

4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)		7. DATES	
		PLATFORM	OPERATOR	FROM: MO/DAY/YR	TO: MO/DAY/YR
M/V COMMANDO	SHIP	UNIV. OF WASH. (USA)	UNIV. OF WASH. (USA)	04/05/76	04/06/76

8. ARE DATA PROPRIETARY?

☒ NO ☐ YES

IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR ___ MONTH ___

9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)?
(I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?)

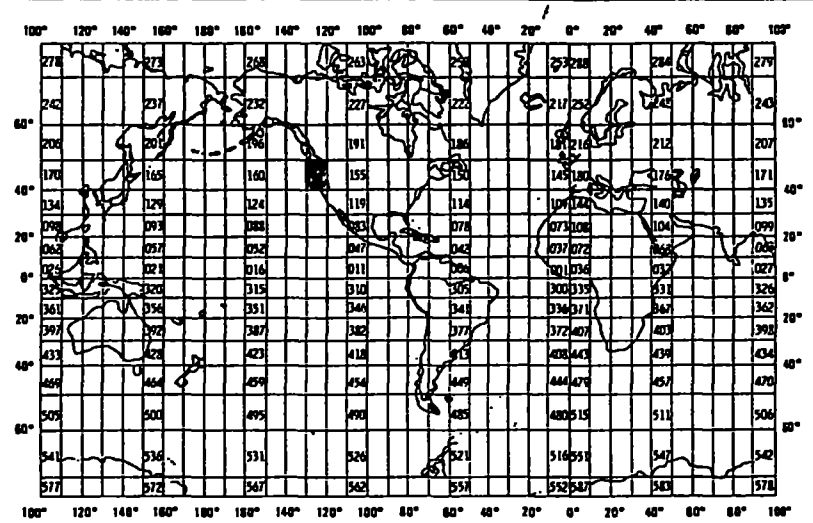
☒ NO ☐ YES ☐ PART (SPECIFY BELOW)

10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1)

ALEXANDER J. CHESTER
206-442-1971

11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.

GENERAL AREA



NOAA FORM 24-13

USCOMM-DC 44289-P72

B. SCIENTIFIC CONTENT

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
CHLOROPHYLL-A	$mg\,m^{-3}$; $mg\,m^{-2}$	NISKIN BOTTLES	FLUOROMETRIC (TURNER, MODEL 111)	Per m^2 values numerically integrated between 0-50 meters
PHEOPIGMENTS	$mg\,m^{-3}$; $mg\,m^{-2}$	NISKIN BOTTLES	FLUOROMETRIC (TURNER, MODEL 111)	Per m^2 values numerically integrated between 0-50 meters
SALINITY	‰	CSTD	DIRECT READOUT	VALUES TAKEN FOR DISCRETE DEPTHS
TEMPERATURE	°C			

C. DATA FORMAT

This information is requested only for data transmitted on punched cards or magnetic tape. Have one of your data processing specialists furnish answers either on the form or by attaching equivalent readily available documentation. Identify the nature and meaning of all entries and explain any codes used.

1. List the record types contained in your file transmittal (e.g., tape label record, master, detail, standard depth, etc.).

2. Describe briefly how your file is organized.

3-13. Self-explanatory.

14. Enter the field name as appropriate (e.g., header information, temperature, depth, salinity.

15. Enter starting position of the field.

16. Enter field length in number columns and unit of measurement (e.g., bit, byte, character, word) in unit column.

17. Enter attributes as expressed in the programming language specified in item 3 (e.g., "F 4.1," "BINARY FIXED (5.1)").

18. Describe field. If sort field, enter "SORT 1" for first, "SORT 2" for second, etc. If field is repeated, state number of times it is repeated.

C. DATA FORMAT

COMPLETE THIS SECTION FOR PUNCHED CARDS OR TAPE, MAGNETIC TAPE, OR DISC SUBMISSIONS.

1. LIST RECORD TYPES CONTAINED IN THE TRANSMITTAL OF YOUR FILE
GIVE METHOD OF IDENTIFYING EACH RECORD TYPE

TWO RECORD TYPES, MASTER (TYPE 1) AND DETAIL (TYPE 2) DIFFERENTIATED BY BYTE 10

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

ALL DATA IS ON KEY PUNCHED CARDS. EVERY DATA GROUP (DATA FROM A NISKIN BOTTLE CAST) IS COMPOSED ON ONE MASTER RECORD AND SEVERAL DETAIL RECORDS (ONE DETAIL RECORD PER SAMPLE DEPTH)

(Converted to Tape at NODC)

3. ATTRIBUTES AS EXPRESSED IN ☐ PL-1 ☐ ALGOL ☐ COBOL ☒ FORTRAN ☐ _____ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:
NAME AND PHONE NUMBER ALEXANDER J. CHESTER 206-742-1971
ADDRESS 3711 15th NE ; SEATTLE, WASH. 98105

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

5. RECORDING MODE ☐ BCD ☐ BINARY ☐ ASCII ☑ EBCDIC ☐ _____

6. NUMBER OF TRACKS (CHANNELS) ☐ SEVEN ☑ NINE ☐ _____

7. PARITY ☑ ODD ☐ EVEN

8. DENSITY ☐ 200 BPI ☑ 1600 BPI ☐ 556 BPI ☐ 800 BPI ☐ _____

9. LENGTH OF INTER-RECORD GAP (IF KNOWN) ☑ 3/4 INCH ☐ _____

10. END OF FILE MARK ☐ OCTAL 17 ☐ _____

11. PASTE-ON-PAPER LABEL DESCRIPTION *(INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)*

Tape #7415
DSN = PUGET6

12. PHYSICAL BLOCK LENGTH IN BYTES
4000

13. LENGTH OF BYTES IN BITS
8

RECORD FORMAT DESCRIPTION

RECORD NAME MASTER RECORD - PRIMARY PRODUCTIVITY

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN Bytes (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	Bytes	A3	Always '029'
File Identifier	4	6	Bytes		
Record Type	10	1	Bytes	I1	Always '1'
Station Number	11	5	Bytes		
Latitude,					
Degrees	16	2	Bytes	I2	
Minutes	18	2	Bytes	I2	
Seconds	20	2	Bytes	I2	
Hemisphere	22	1	Bytes	A1	
Longitude					
Degrees	23	3	Bytes	I3	
Minutes	26	2	Bytes	I2	
Seconds	28	2	Bytes	I2	
Hemisphere	30	1	Bytes	A1	
Year	31	2	Bytes	I2	Last two digits of year (GMT)
Month	33	2	Bytes	I2	1-12 (GMT)
Day	35	2	Bytes	I2	1-31 (GMT)
Hour	37	2	Bytes	I2	0-23 (GMT)
Minutes	39	2	Bytes	I2	0-59 (GMT)
Time Zone	41	1	Bytes	A1	Always '+' or '-'
Time Zone	42	2	Bytes	A2	01-12
Depth to Bottom	44	5	Bytes	I5	To Whole Meters
Chlorophyll a (Integrated)	49	4	Bytes	I4	To Tenths (mg m^{-2})

RECORD FORMAT DESCRIPTION

RECORD NAME MASTER RECORD (CONTINUED) Primary Productivity

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN _____ (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
Phaeopigments (Integrated)	53	4	Bytes	I4	To Tenths (mg m^{-2})
Carbon Assimilation (Integrated)	57	5	Bytes	I5	To Tenths (mg C m^{-2} Day^{-1})
One Percent Light Depth	62	3	Bytes	I3	To Whole Meters
Phosphate PO_4-P Reactive time	65	2	Bytes	I2	To Whole Minutes
pH Scale	67	1	Bytes	I1	1 = NBS pH scale 2 = Sorensen pH scale 3 = Hansson pH scale
In Situ Corrections for pH measurements	68	1	Bytes	I1	1 - Temperature and pressure correction have been made. 2 - No corrections made.
SECCHI Depth	69	2	Bytes	I2	To Whole Meters
Mixed Layer Depth	71	3	Bytes	I3	To Whole Meters
Light Level (Aboard Platform)	74	3	Bytes	I3	Langleys/Day
Blank	77	4	Bytes	4X	

RECORD FORMAT DESCRIPTION

RECORD NAME DETAIL RECORD - PRIMARY PRODUCTIVITY

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN Bytes (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	Bytes	A3	Always '029'
File Identifier	4	6	Bytes		
Record Type	10	1	Bytes	I1	Always '2'
Station Number	11	5	Bytes		
Depth of Sample	16	4	Bytes	I3	To Tenths of Meters
Chlorophyll a Concentration	20	4	Bytes	I4	To Hundredths (mg m^{-3})
Phaeopigment Concentration	24	4	Bytes	I4	To Hundredths (mg m^{-3})
Carbon Assimilation	28	5	Bytes	I5	To Hundredths (mg C m^{-3} hr^{-1})
Elapsed Time of Incubation	33	4	Bytes	I4	2 bytes hours, 2 bytes minutes
Oxygen	37	4	Bytes	I4	To Hundredths (ml/l)
Phosphate, PO_4-P (inorganic)	41	3	Bytes	I3	To Hundredths (µg-at/l)
Ammonia NH_3-N	44	3	Bytes	I3	To Tenths (µg-at/l)
Nitrate NO_3-N	47	3	Bytes	I3	To Tenths (µg-at/l)
Nitrite NO_2-N	50	3	Bytes	I3	To Hundredths (µg-at/l)
Silicate SiO_3-Si	53	5	Bytes	I5	To Hundredths (µg-at/l)
pH	58	3	Bytes	I3	To Hundredths
Alkalinity, total	61	4	Bytes	I4	To Thousandths (meq/l)
Temperature	65	4	Bytes	I4	To Hundredths (°C)
Salinity	69	4	Bytes	I4	To Hundredths (°/oo)
Blank	73	4	Bytes	4X	
Sequence Number	78	3	Bytes	I3	

D. INSTRUMENT CALIBRATION

This calibration information will be utilized by NOAA's National Oceanographic Instrumentation Center in their efforts to develop calibration standards for voluntary acceptance by the oceanographic community. Identify the instruments used by your organization to obtain the scientific content of the DDF (i.e., STD, temperature and pressure sensors, salinometers, oxygen meters, velocimeters, etc.) and furnish the calibration data requested by completing and/or checking ("✓") the appropriate spaces. Add the interval time (i.e., 3 months, 6 months, 9 months, etc.) if the fixed interval calibration cycle is checked.

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALIBRATED
		YOUR ORGANIZATION (√)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (√)	BEFORE OR AFTER USE (√)	BEFORE AND AFTER USE (√)	ONLY AFTER REPAIR (√)	ONLY WHEN NEW (√)	(√)
FLUOROMETER TURNER III	DEC. 1975	✓			✓				

PUGET 7 | ACCESSION NUMBER 761414

TR1327

DATA DOCUMENTATION FORM

NOAA FORM 24-13 (4-72)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
ROCKVILLE, MARYLAND 20852

FORM APPROVED
O.M.B. No. 41-R2651

This form should accompany all data submissions to NODC. Section A, Originator Identification, must be completed when the data are submitted. It is highly desirable for NODC to also receive the remaining pertinent information at that time. This may be most easily accomplished by attaching reports, publications, or manuscripts which are readily available describing data collection, analysis, and format specifics. Readable, handwritten submissions are acceptable in all cases. All data shipments should be sent to the above address.

A. ORIGINATOR IDENTIFICATION

THIS SECTION MUST BE COMPLETED BY DONOR FOR ALL DATA TRANSMITTALS

1. NAME AND ADDRESS OF INSTITUTION, LABORATORY, OR ACTIVITY WITH WHICH SUBMITTED DATA ARE ASSOCIATED

PACIFIC MARINE ENVIRONMENTAL LABORATORY / NOAA
3711 - 15th AVE. N.E.
SEATTLE, WA. 98105

2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED

PUGET SOUND ENERGY RESEARCH PROGRAM (MESA)

3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT

S77603 (also File ID)

4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)		7. DATES	
		PLATFORM	OPERATOR	FROM: MO/DAY/YR	TO: MO/DAY/YR
HYDAH	SHIP	USA	USA	05/17/76	05/18/76

8. ARE DATA PROPRIETARY?

☒ NO ☐ YES

IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR____ MONTH____

9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)?
(I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?)

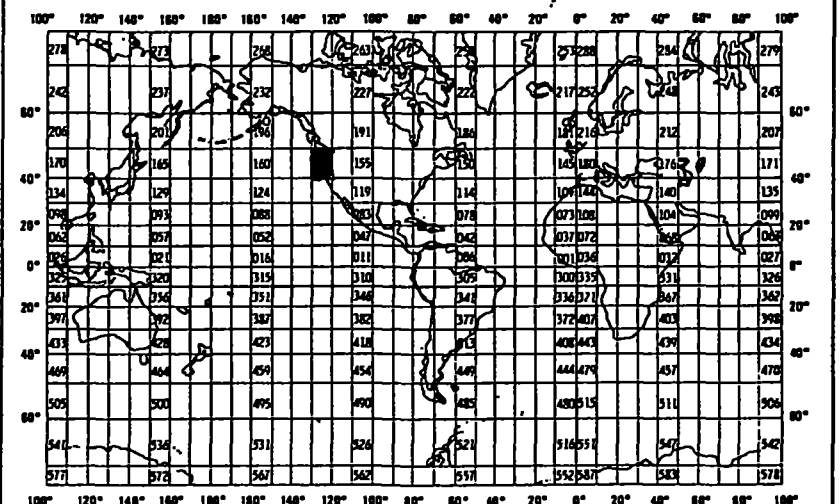
☒ NO ☐ YES ☐ PART (SPECIFY BELOW)

10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1)

ALEXANDER J. CHESTER
206-442-1971

11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.

GENERAL AREA



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B. SCIENTIFIC CONTENT

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
CHLOROPHYLL-A	$mg\ m^{-3}$; $mg\ m^{-2}$	NISKIN BOTTLES	FLUOROMETRIC (TURNER, MODEL 111)	Per m^2 values numerically integrated between 0 - 50 meters
PHEOPIGMENTS	$mg\ m^{-3}$; $mg\ m^{-2}$	11	11	11

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C. DATA FORMAT

COMPLETE THIS SECTION FOR PUNCHED CARDS OR TAPE, MAGNETIC TAPE, OR DISC SUBMISSIONS.

1. LIST RECORD TYPES CONTAINED IN THE TRANSMITTAL OF YOUR FILE
GIVE METHOD OF IDENTIFYING EACH RECORD TYPE

TWO RECORD TYPES, MASTER (TYPE 1) AND DETAIL RECORD (TYPE 2) DIFFERENTIATED BY BYTE 10

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

ALL DATA IS ON KEY PUNCHED CARDS. EVERY DATA GROUP (DATA FROM A NISKIN BOTTLE CAST) IS COMPOSED OF ONE MASTER RECORD AND SEVERAL DETAIL RECORDS (ONE DETAIL RECORD PER SAMPLE DEPTH)

(converted to tape at NODC)

3. ATTRIBUTES AS EXPRESSED IN ☐ PL-1 ☐ ALGOL ☐ COBOL ☒ FORTRAN ☐ _____ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:
NAME AND PHONE NUMBER ALEXANDER J. CHESTER 206-442-1971
ADDRESS 3711 15th NE; SEATTLE, WA. 98105

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

5. RECORDING MODE ☐ BCD ☐ BINARY ☐ ASCII ☑ EBCDIC ☐ _____

6. NUMBER OF TRACKS (CHANNELS) ☐ SEVEN ☑ NINE ☐ _____

7. PARITY ☑ ODD ☐ EVEN

8. DENSITY ☐ 200 BPI ☑ 1600 BPI ☐ 556 BPI ☐ 800 BPI ☐ _____

9. LENGTH OF INTER-RECORD GAP (IF KNOWN) ☑ 3/4 INCH ☐ _____

10. END OF FILE MARK ☐ OCTAL 17 ☐ _____

11. PASTE-ON-PAPER LABEL DESCRIPTION *(INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)*

Tape #7415

DSN = PUGET 7

12. PHYSICAL BLOCK LENGTH IN BYTES

4000

13. LENGTH OF BYTES IN BITS

8

RECORD FORMAT DESCRIPTION

RECORD NAME MASTER RECORD - PRIMARY PRODUCTIVITY

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH NUMBER	UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	Bytes	A3	Always '029'
File Identifier	4	6	Bytes		
Record Type	10	1	Bytes	I1	Always '1'
Station Number	11	5	Bytes		
Latitude,					
Degrees	16	2	Bytes	I2	
Minutes	18	2	Bytes	I2	
Seconds	20	2	Bytes	I2	
Hemisphere	22	1	Bytes	A1	
Longitude					
Degrees	23	3	Bytes	I3	
Minutes	26	2	Bytes	I2	
Seconds	28	2	Bytes	I2	
Hemisphere	30	1	Bytes	A1	
Year	31	2	Bytes	I2	Last two digits of year (GMT)
Month	33	2	Bytes	I2	1-12 (GMT)
Day	35	2	Bytes	I2	1-31 (GMT)
Hour	37	2	Bytes	I2	0-23 (GMT)
Minutes	39	2	Bytes	I2	0-59 (GMT)
Time Zone	41	1	Bytes	A1	Always '+' or '-'
Time Zone	42	2	Bytes	A2	01-12
Depth to Bottom	44	5	Bytes	I5	To Whole Meters
Chlorophyll a (Integrated)	49	4	Bytes	I4	To Tenths (mg m^{-2})

RECORD FORMAT DESCRIPTION

RECORD NAME MASTER RECORD (CONTINUED) Primary Productivity

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN _____ (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
Phaeopigments (Integrated)	53	4	Bytes	I4	To Tenths (mg m^{-2})
Carbon Assimilation (Integrated)	57	5	Bytes	I5	To Tenths (mg C m^{-2} Day^{-1})
One Percent Light Depth	62	3	Bytes	I3	To Whole Meters
Phosphate PO_4-P Reactive time	65	2	Bytes	I2	To Whole Minutes
pH Scale	67	1	Bytes	I1	1 = NBS pH scale 2 = Sorensen pH scale 3 = Hansson pH scale
In Situ Corrections for pH measurements	68	1	Bytes	I1	1 - Temperature and pressure correction have been made. 2 - No corrections made.
SECCHI Depth	69	2	Bytes	I2	To Whole Meters
Mixed Layer Depth	71	3	Bytes	I3	To Whole Meters
Light Level (Aboard Platform)	74	3	Bytes	I3	Langleys/Day
Blank	77	4	Bytes	4X	

RECORD FORMAT DESCRIPTION

RECORD NAME DETAIL RECORD - PRIMARY PRODUCTIVITY

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN Bytes (e.g., bits, bytes)	16. LENGTH NUMBER	UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	Bytes	A3	Always '029'
File Identifier	4	6	Bytes		
Record Type	10	1	Bytes	I1	Always '2'
Station Number	11	5	Bytes		
Depth of Sample	16	4	Bytes	I3	To Tenths of Meters
Chlorophyll a Concentration	20	4	Bytes	I4	To Hundredths (mg m^{-3})
Phaeopigment Concentration	24	4	Bytes	I4	To Hundredths (mg m^{-3})
Carbon Assimilation	28	5	Bytes	I5	To Hundredths (mg C m^{-3} hr^{-1})
Elapsed Time of Incubation	33	4	Bytes	I4	2 bytes hours, 2 bytes minutes
Oxygen	37	4	Bytes	I4	To Hundredths (ml/l)
Phosphate, PO_4-P (inorganic)	41	3	Bytes	I3	To Hundredths (µg-at/l)
Ammonia NH_3-N	44	3	Bytes	I3	To Tenths (µg-at/l)
Nitrate NO_3-N	47	3	Bytes	I3	To Tenths (µg-at/l)
Nitrite NO_2-N	50	3	Bytes	I3	To Hundredths (µg-at/l)
Silicate SiO_3-Si	53	5	Bytes	I5	To Hundredths (µg-at/l)
pH	58	3	Bytes	I3	To Hundredths
Alkalinity, total	61	4	Bytes	I4	To Thousandths (meq/l)
Temperature	65	4	Bytes	I4	To Hundredths (°C)
Salinity	69	4	Bytes	I4	To Hundredths (°/oo)
Blank	73	4	Bytes	4X	
Sequence Number	78	3	Bytes	I3	

D. INSTRUMENT CALIBRATION

This calibration information will be utilized by NOAA's National Oceanographic Instrumentation Center in their efforts to develop calibration standards for voluntary acceptance by the oceanographic community. Identify the instruments used by your organization to obtain the scientific content of the DDF (i.e., STD, temperature and pressure sensors, salinometers, oxygen meters, velocimeters, etc.) and furnish the calibration data requested by completing and/or checking ("✓") the appropriate spaces. Add the interval time (i.e., 3 months, 6 months, 9 months, etc.) if the fixed interval calibration cycle is checked.

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALIBRATED
		YOUR ORGANIZATION (√)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (√)	BEFORE OR AFTER USE (√)	BEFORE AND AFTER USE (√)	ONLY AFTER REPAIR (√)	ONLY WHEN NEW (√)	(√)
FLUOROMETER TURNER 111	DEC. 1975	✓			✓				

NOAA FORM 24-13

USCOMM-DC 44289-P72

```
Password:
 accNo   fleA refNo  proj inst ship    startDate  cruise   catId
 ------- ---- ------ ---- ---- ------- ---------- -------- ----------
 7601414 F028 TR0681 0082 313F 31CU    1976/02/24 SF7601       300022
 7601414 F028 TR0682 0082 313F 31CU    1976/04/06 SF7602       300023
 7601414 F028 TR0683 0082 313F 31H2    1976/05/18 SF7603       300024
 7601414 F029 TR1325 0082 313F 31CU    1976/02/24 TR1325       300025
 7601414 F029 TR1326 0082 313F 31CU    1976/04/06 TR1326       300026
 7601414 F029 TR1327 0082 313F 31H2    1976/05/18 TR1327       300027

(6 rows affected)
```

```
Password:
 accNo   fleA refNo  ship staCnt recCnt startDate  endDate
 ------- ---- ------ ---- ------ ------ ---------- ----------
 7601414 F028 TR0681 31CU 3      74     76/02/24   76/02/24
 7601414 F028 TR0682 31CU 3      69     76/04/06   76/04/06
 7601414 F028 TR0683 31H2 3      130    76/05/18   76/05/18
 7601414 F029 TR1325 31CU 3      22     76/02/24   76/02/24
 7601414 F029 TR1326 31CU 3      22     76/04/06   76/04/06
 7601414 F029 TR1327 31H2 3      22     76/05/18   76/05/18

(6 rows affected)
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