

REC'D 5/3/78

DATA DOCUMENTATION FORM

VCN418

78-0340

NO. 1 FORM 24-13

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-R-051

FISHAB. 090. BLM07T

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.

FISH ABUNDANCE file 090

A. ORIGINATOR IDENTIFICATION

NODC CR. TR 302c

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

Virginia Institute of Marine Science
Gloucester Point, Virginia 23062

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

BLM

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

BLM07T

4. PLATFORM NAME(S)

Cape Henlopen

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

Ship

6. PLATFORM AND OPERATOR NATIONALITY(IES)

Cape
Henlopen

Univ. of
Delaware

7. DATES

FROM: MO/DAY/YR TO: MO/DAY/YR

05/16/77

05/21/77

8. ARE DATA PROPRIETARY?

☒ NO ☐ YES

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

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

GENERAL AREA

9. ARE DATA DECLARED NATIONAL PROGRAM (NPD)?

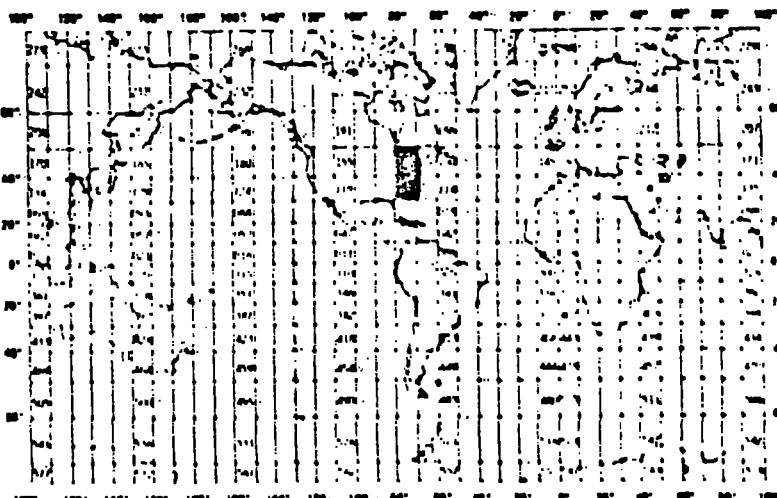
(I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?)

☒ NO ☐ YES ☐ PART (SPECIFY BELOW)

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

Dr. Gerald L. Engel
Va. Institute of Marine Science
Gloucester Pt., Va. 23062

804-642-2111



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
Latitude & Long.	Degrees, mins., seconds	Loran C SIMRAD Model LC 101		Program used to convert from Loran C coordinates to Latitude & Longitude
Latitudinal hem.	N or S			
Longitudinal hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	Fathometer		
Water sample depth	to nearest meter	G. M. Meter Wheel		
Surface water temperature	to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Wet-bulb air temperature	to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Dry-bulb air temperature	to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees IMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	Knots	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees IMO Code 0877	Ship's Compass		
Wave height	1/2 meters IMO Code 1555	Visual estimate		
Swell direction	Tens of degrees IMO Code 0877	Ship's Compass		
Swell height	1/2 meters IMO Code 1555	Visual estimate		
Weather	IMO Code 4077	Visual estimate		
Cloud type	IMO Codes 0513, 0515, 0509	Visual estimate		

B. SCIENTIFIC CONTENT

[illegible]

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

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Sample Header 2 Positions 1-10 identical to the last sample header "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for each sample Positions 1-10 identical to last data record, "998" in positions 11-13
8. File terminator Positions 1-10 identical to last data record, "999" in positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record. Following this are Data Records for that sample followed by Terminator record. Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

3. ATTRIBUTES AS EXPRESSED IN

☐ PL-1 ☐ ALGOL ☐ COBOL
☒ FORTRAN ☐ _____ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER: Gerald L. Engel
ADDRESS: Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/8 inch</p> <p><input checked="" type="checkbox"/> 0.6 inch</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK</p> <p><input type="checkbox"/> OCTAL 17</p> <p><input type="checkbox"/> _____</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME KEY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p>VCM418</p> <p>Virginia Institute of Marine Science</p> <p>Fish Abundance</p> <p>File Label = 'FISHAB.090.BLM07T'</p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 SPI <input checked="" type="checkbox"/> 1600 SPI</p> <p><input type="checkbox"/> 356 SPI</p> <p><input type="checkbox"/> 800 SPI</p> <p><input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>85</p> <p>13. LENGTH OF BYTES IN BITS</p> <p>8</p>

RECORD FORMAT DESCRIPTION

RECORD NAME: FILE HEADER

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., 310, 6 bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"090" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I2	xx/xx/xx-xx/xx/xx Beginning year, month, day- ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigators & Institution - responsible for data.
Investigator	64	22	Chars	22A1	

RECORD FORMAT DESCRIPTION

RECORD NAME SAMPLE HEADER 1

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN BYTES (e.g., 000, bytes)	16. LENGTH		17. ATTRIBUTES FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"090" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab sample no.	14	5	Chars	5A1	Sample identifier
Latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Lat hem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	13,2I2	Degrees, minutes, seconds
Lon hem	33	1	Char	A1	Hemisphere "E" or "W"
Time	34	3	Byte	F3.1*	Sample time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
Time	42	3	Bytes	F3.1*	GMT in hours & tenths
Temperature	45	3	Bytes	F3.1*	Bottom temperature (°C to nearest tenth)
Salinity	48	3	Bytes	F3.1*	Salinity (PPT to nearest tenth)
D.O.	51	3	Bytes	F3.1*	Dissolved Oxygen (PPM to nearest tenth)
TDepth	54	4	Bytes	I4	Total depth (meters)
Tow Max	58	4	Bytes	I4	Tow maximum depth (meters)
Tow min.	62	4	Bytes	I4	Tow minimum depth (meters)
NSpec	66	3	Bytes	I3	Number of species
NInd	69	5	Bytes	I5	Number of individuals
Order	74	1	Bytes	I1	Order of magnitude
Weight	75	4	Bytes	F4.1*	Total weight of fish (kg to nearest tenth)
Order	79	1	Bytes	I1	Order of magnitude
Weight	80	4	Bytes	F4.1*	Total weight of invertebrates (kg to nearest tenth)
Navigation	84	2	Bytes	I2	Navigation: (see attached codes)

*Decimal place is IMPLIED: "period" is not present

RECORD NAME

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2" Terminators					
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	72	Bytes	72 x	Blank
Sample Header Record 2:					
File type	1	3	Chars	A3	"090" (constant)
File Date	4	6	Bytes	3I2	Year, month, day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Riometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513, 0515, 0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1x	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	30	Bytes	30X	Blank

*Decimal place is IMPLIED; "period" is not present

*Decimal place is IMPLIED; "period" is not present

RECORD NAME

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN FILE (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
<u>Record Type "3" Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record 2
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	72	Bytes	72x	Blank
<u>Data Record</u>					
File type	1	3	Chars	A3	"090" (constant)
File date	4	6	Bytes	3I2	year, month day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample identifier
Species	19	10	Chars	10A1	Species (first 10 digits of NOBC code)
Count	29	5	Bytes	I5	Count (number of Individuals)
Weight	34	5	Bytes	I5	Total weight (gm)
Blank	40	46	Bytes	46X	Blank
<u>Data Record Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as Data Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	72	Bytes	72x	Blank
<u>File Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	72	Bytes	72x	Blank

*Decimal place is IMPLIED: "period" is not present

NAVIGATION:

- 01 = Loran (mixed or unspecified)
- 02 = Radar and/or fixes
- 03 = Raydist without complications
- 04 = Raydist with errors, drifting, etc.
- 05 = Satellite
- 06 = Omega
- 07 = Loran A only
- 08 = Loran C only

TURBIDITY MEASUREMENT TECHNIQUE

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 cm. path.
- 3 = Fluorometer; suspended solids calibration
- 4 = Nephelometer

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.

BLM07T

INSTRUMENT TYPE (TYPE, MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
Guildline Autosac MOD8400	May, 1977	✓			✓				

REC'D 5/3/78

DATA DOCUMENTATION FORM

ACCESSION
NUMBER

78-0340

NOAA FORM 24-13
(4-72)U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
ROCKVILLE, MARYLAND 20852FORM APPROVED
O.M.B. No. 41-R2651

FISHAB. 090. BLMOST

VIM3

FISH ABUNDANCE file 090

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

NODC CR. TR3021

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			
Virginia Institute of Marine Science Gloucester Point, Virginia 23062			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT	
BLM		BLMOST	
4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)	
Cape Henlopen	Ship	PLATFORM OPERATOR	
		Cape Henlopen	Univ. of Delaware
7. DATES		FROM: MO/DAY/YR TO: MO/DAY/YR	
		09/07/77 09/15/77	
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR MONTH		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED. GENERAL AREA	
9. ARE DATA DECLARED NATIONAL PROGRAM (NP)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)			
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1) Dr. Gerald L. Engel Va. Institute of Marine Science Gloucester Pt., Va. 23062 804-642-2111			

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
Latitude & Long.	Degrees, mins., seconds	Loran C SIMRAD Model LC 101		Program used to convert from Loran C coordinates to Latitude & Longitude
Latitudinal Hemisphere	N or S			
Longitudinal Hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with W/V		
Water depth	To nearest tenth of a meter	Fathometer		
Water sample depth	to nearest meter	G. M. Meter Wheel		
Surface water temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees WMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	Knots	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees WMO Code 0877	Ship's Compass		
Wave height	1/2 meters WMO Code 1555	Visual estimate		
Swell direction	Tens of degrees WMO Code 0877	Ship's Compass		
Swell height	1/2 meters WMO Code 1555	Visual estimate		
Weather	WMO Code 4677	Visual estimate		
Cloud type	WMO Codes 0513, 0515, 0509	Visual estimate		

8

[illegible]

CORRECTIONS

78-034 D

File types 090

records with 798 or 999 in cols 11-13
removed from data.

File ID (cols 4-7) changed to 777775

Dry Bulb and Wet Bulb Record type '3'
corrected to $+\phi$ or $-\phi$ if $+\frac{1}{2}$ or $-\frac{1}{2}$
appeared in data - filled inbedded
blanks with ϕ .

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

090

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Positions 1-10 identical to the last sample header Sample Header 2 "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for Positions 1-10 identical to last data record, each sample "998" - position 11-13
8. File Terminator Positions 1-10 Identical to last data record, "999" in Positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record.
Following this are Data Records for that sample followed by Terminator record.
Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

3. ATTRIBUTES AS EXPRESSED IN

☐ PL-1 ☐ ALGOL ☐ COBOL
☒ FORTRAN ☐ _____ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel
ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> 0.6 inch</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK <input type="checkbox"/> OCTAL 17 <input type="checkbox"/> _____</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p>VCM493 Virginia Institute of Marine Science Fish Abundance File Label = 'FISHAB.090.BLM08T'</p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 DPI <input checked="" type="checkbox"/> 1600 DPI</p> <p><input type="checkbox"/> 356 DPI</p> <p><input type="checkbox"/> 800 DPI</p> <p><input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES 85</p> <p>13. LENGTH OF BYTES IN BITS 8</p>

RECORD FORMAT DESCRIPTION

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"090" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (file header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I2	xx/xx/xx-xx/xx/xx Beginning year, month, day-ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigators & Institution - responsible for data.
Investigator	64	22	Chars	22A1	

RECORD FORMAT DESCRIPTION

RECORD NAME SAMPLE HEADER 1

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN Bytes (e.g., 000, 001, 002)	16. LENGTH		17. ATTRIBUTES FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"090" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab sample no.	14	5	Chars	5A1	Sample identifier
Latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Lat hem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	13,2I2	Degrees, minutes, seconds
Lon hem	33	1	Char	A1	Hemisphere "E" or "W"
Time	34	3	Byte	F3.1*	Sample time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
Time	42	3	Bytes	F3.1*	GMT in hours & tenths
Temperature	45	3	Bytes	F3.1*	Bottom temperature (°C to nearest tenth)
Salinity	48	3	Bytes	F3.1*	Salinity (PPT to nearest tenth)
D.O.	51	3	Bytes	F3.1*	Dissolved Oxygen (PPM to nearest tenth)
TDepth	54	4	Bytes	I4	Total depth (meters)
Tow Max	58	4	Bytes	I4	Tow maximum depth (meters)
Tow min.	62	4	Bytes	I4	Tow minimum depth (meters)
NSpec	66	3	Bytes	I3	Number of species
NInd	69	5	Bytes	I5	Number of individuals
Order	74	1	Bytes	I1	Order of magnitude
Weight	75	4	Bytes	F4.1*	Total weight of fish (kg to nearest tenth)
Order	79	1	Bytes	I1	Order of magnitude
Weight	80	4	Bytes	F4.1*	Total weight of invertebrates (kg to nearest tenth)
Navigation	84	2	Bytes	I2	Navigation: (see attached codes)
*Decimal place is IMPLIED: "period" is not present					

RECORD FORMAT DESCRIPTION

11/18/61

RECORD NAME

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BY IL (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2"	Terminators				
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	72	Bytes	72 x	Blank
Sample Header Record 2					
File type	1	3	Chars	A3	"090" (constant)
File Date	4	6	Bytes	3I2	Year,month,day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513,0515,0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1x	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	30	Bytes	30X	Blank

*Decimal place is IMPLIED; "period" is not present

RECORD FORMAT DESCRIPTION

Plan ab.

RECORD NAME

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BITS (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "3" Terminator					
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record 2
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	72	Bytes	72x	Blank
Data Record					
File type	1	3	Chars	A3	"090" (constant)
File date	4	6	Bytes	3I2	year, month day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample identifier
Species	19	10	Chars	10A1	Species (first 10 digits of NODC code)
Count	29	5	Bytes	I5	Count (number of Individuals)
Weight	34	5	Bytes	I5	Total weight (gm)
Blank	40	46	Bytes	46X	Blank
Data Record Terminator					
Ident	1	10	Bytes	A3,3I2,A1	Same as Data Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	72	Bytes	72x	Blank
File Terminator					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	72	Bytes	72x	Blank

*Decimal place is IMPLIED: "period" is not present

NAVIGATION:

- 01 = Loran (mixed or unspecified)
- 02 = Radar and/or fixes
- 03 = Raydist without complications
- 04 = Raydist with errors, drifting, etc.
- 05 = Satellite
- 06 = Omega
- 07 = Loran A only
- 08 = Loran C only

TURBIDITY MEASUREMENT TECHNIQUE

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 cm. path
- 3 = Fluorometer; suspended solids calibration
- 4 = Nephelometer

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.

BLM08T

INSTRUMENT TYPE (SER., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY B-E-N NEE (✓)	
Guildline Autosac MOD8400	July, 1977	✓			✓				

REC'D 5/3/78

VCM 411

ACCESSION
NUMBER

78-0340

DOF 11:18

DATA DOCUMENTATION FORM

VIMS

FISHST. 092. DLM057

NO. 24-13

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
ROCKVILLE, MARYLAND 20852FORM APPROVED
O.M.B. No. 41-R2651

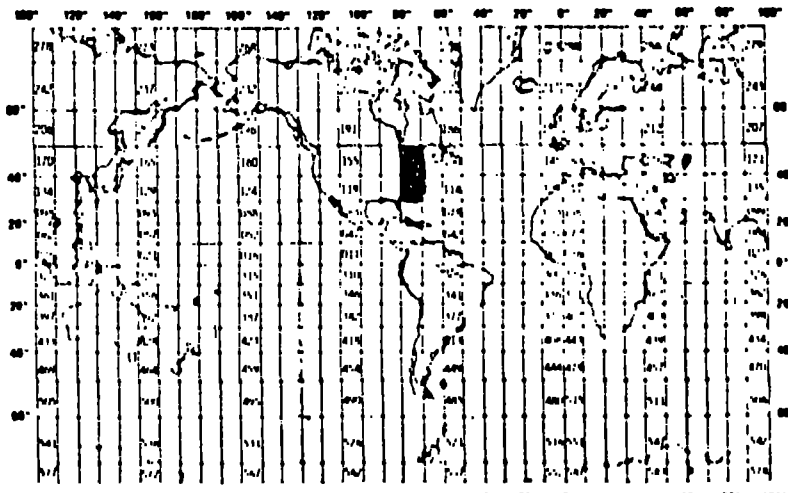
FISH STOMACHS

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

NODC CR. TR3022

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			
Virginia Institute of Marine Science Gloucester Point, Virginia 23062			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT	
BIM		BLM057	
4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)	7. DATES
Cape Henlopen	Ship	PLATFORM OPERATOR	FROM: MO/DAY/YR TO: MO/DAY/YR
		Cape Henlopen Univ. of Delaware	11/08/76 11/18/76
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR MONTH		9. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.	
10. ARE DATA DECLARED NATIONAL PROGRAM (DNPI)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)		GENERAL AREA	
11. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN 11-1)			
Dr. Gerald L. Engel Va. Institute of Marine Science Gloucester Pt., Va. 23062 804-642-2111			

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
Latitude & Long.	Degrees, mins., seconds	Loran C SIMRAD Model LC 101		Program used to convert from Loran C coordinates to Latitude & Longitude
Latitudinal Hemisphere	N or S			
Longitudinal Hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	Fathometer		
Water sample depth	to nearest meter	G. M. Meter Wheel		
Surface water temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees WMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	Knots	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees WMO Code 0877	Ship's Compass		
Wave height	1/2 meters WMO Code 1555	Visual estimate		
Swell direction	Tens of degrees WMO Code 0877	Ship's Compass		
Swell height	1/2 meters WMO Code 1555	Visual estimate		
Weather	WMO Code 4577	Visual estimate		
Cloud type	WMO Codes 0513, 0515, 0509	Visual estimate		

B. SCIENTIFIC CONTENT

[illegible]

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**

1. File Header "1" in position 10
2. Sample Header "2" in position 10
3. Terminator for Sample Header 1 Position 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header "3" in position 10
5. Terminator for Positions 1-10 identical to the last sample header
Sample Header "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator of data for Positions 1-10 identical to last data record,
Each sample "99" - position 11-13
8. File Terminator Positions 1-10 identical to last data record, "998" in
positions 11-13.

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 and 2, each followed by a Terminator record. Following this are Data Records for that sample followed by Terminator record. Sample Headers, terminators, data records, terminator sequence is repeated until final terminator record.

3. ATTRIBUTES AS EXPRESSED IN

☐ PL-1 ☐ ALGOL ☐ COBOL
☒ FORTRAN ☐ _____ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel
 ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p> <input type="checkbox"/> BCD <input type="checkbox"/> BINARY <input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC <input type="checkbox"/> _____ </p> <p>6. NUMBER OF TRACKS (CHANNELS)</p> <p> <input type="checkbox"/> SEVEN <input checked="" type="checkbox"/> NINE <input type="checkbox"/> _____ </p> <p>7. PARITY</p> <p> <input checked="" type="checkbox"/> ODD <input type="checkbox"/> EVEN </p> <p>8. DENSITY</p> <p> <input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI <input type="checkbox"/> 556 BPI <input type="checkbox"/> 800 BPI <input type="checkbox"/> _____ </p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN)</p> <p> <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> 0.6 inch </p> <p>10. END OF FILE MARK</p> <p> <input type="checkbox"/> OCTAL 17 <input type="checkbox"/> _____ </p> <p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p>VCM411 Virginia Institute of Marine Science Fish Stomachs File Label = 'FISHST.092.BLM05T'</p> <p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p style="text-align: center;">91</p> <p>13. LENGTH OF BYTES IN BITS</p> <p style="text-align: center;">8</p>
--	---

RECORD FORMAT DESCRIPTION

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN BYTES (e.g., data, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"092" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I2	xx/xx/xx-xx/xx/xx Beginning year, month, day- ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigators & Institution responsible for data.
Investigator	64	28	Chars	28A1	

RECORD FORMAT DESCRIPTION

Fish stom

RECORD NAME

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN Bytes (e.g., 5th, bytes)	16. LENGTH		17. ATTRIBUTES FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"092" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab sample no.	14	5	Chars	5A1	Sample identifier
Latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Lathem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3, 2I2	Degrees, minutes, seconds
Lonhem	33	1	Char	A1	Hemisphere "E" or "W"
DATE	34	8	Byte	2(I2,A1)I2	Sample date (GMT to nearest tenth of an hour)
Date	34	8	Byte	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
Tow start time	42	3	Bytes	F3.1*	GMT in hours & tenths
Temperature	45	3	Bytes	F3.1*	Bottom temperature (°C to nearest tenth)
Salinity	48	3	Bytes	F3.1*	Salinity (PPT to nearest tenth)
D.O.	51	3	Bytes	F3.1*	Dissolved oxygen (PPM to nearest tenth)
Depth	54	4	Bytes	I4	Total depth (meters)
Tow max.	58	4	Bytes	I4	Tow maximum depth (meters)
Tow min.	62	4	Bytes	I4	Tow minimum depth (meters)
Length	66	4	Bytes	I4	Length of fish (mm)
Weight	70	5	Bytes	I5	Weight of fish (g)
CC	75	1	Bytes	I1	Stomach condition code: 1=food present 2=stomach damaged on dissection 3=regurgitated 4=empty
Sex	76	1	Bytes	I1	Sex 1=male 3=immature 2=female 4=unknown
Number	77	4	Bytes	I4	Number of individuals in stomach
NSpecies	81	3	Bytes	I3	Number of species in stomach
Vol.	84	5	Bytes	F5.2*	Total volume of stomach contents (ml & hundredths)
Species	89	1	Char	A1	Fish species code (see attached codes)
Navigation	90	2	Bytes	I2	Navigation: (see attached codes)

*Decimal place is IMPLIED: "period" is not present

RECORD FORMAT DESCRIPTION

Fish 410m

RECORD NAME

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2"	Terminators				
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	78	Bytes	78 x	Blank
Sample Header Record 2					
File type	1	3	Chars	A3	"092" (constant)
File Date	4	6	Bytes	3I2	Year, month, day of file generation
Recprd Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513, 0515, 0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1x	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	31	Bytes	31X	Blank

*Decimal place is IMPLIED; "period" is not present

RECORD FORMAT DESCRIPTION

File 3100

RECORD NAME

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
<u>Record Type "3"</u>	<u>Terminator</u>				
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	78	Bytes	78 x	Blank
<u>Data Record</u>					
File type	1	3	Chars	A3	"092" (constant)
File date	4	6	Bytes	3I2	year, month day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample identifier
Species	19	10	Chars	10A1	Species (first 10 digits of NODC code)
Count	29	5	Bytes	I5	Count (number of individuals)
Vol	34	6	Bytes	F6.2*	Volume (ml & hundredths)
Blank	35	52	Bytes	52X	Blank
<u>Data Record Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as Data Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	78	Bytes	78 x	Blank
<u>File Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	78	Bytes	78 x	Blank

*Decimal place is IMPLIED: "period" is not present

Fish stom.

NAVIGATION:

- 01 = Loran (mixed or unspecified)
- 02 = Radar and/or fixes
- 03 = Raydist without complications
- 04 = Raydist with errors, drifting, etc.
- 05 = Satellite
- 06 = Omega
- 07 = Loran A only
- 08 = Loran C only

TURBIDITY MEASUREMENT TECHNIQUE

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 cm. path
- 3 = Fluorometer; suspended solids calibration
- 4 = Nephelometer

FISH SPECIES CODE:

- R = Raja erinacea (little skate)
- L = Lophius americanus (goose fish)
- U = Urophycis chuss (red hake)
- B = Urophycis regius (spotted hake)
- M = Merluccius bilinearis (silver hake)
- A = Macrozoarces americanus (ocean pout)
- S = Stenotomus chrysops (scup)
- C = Citharichthys arctifions (Gulf Stream flounder)
- H = Hippoglossine oblonga (fourspot flounder)

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 BDF (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.

BLMOST,

INSTRUMENT TYPE (INSTR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
Guildline Autosac MOE8400	Oct., 1976	✓			✓				

RECORD FORMAT DESCRIPTION

RECORD NAME

78-0340

VIMS

Fish STOMACHS

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN (e.g., bits, bytes)	16. LENGTH NUMBER UNITS		17. ATTRIBUTES	18. USE AND MEANING
TR 3022 F(092.)				<p>(1) SEQ 001 LAB SAMPLE # B2619 ZERO IN COL. 76 ELIMINATED - SEX CODE NOT MEASURED IN THIS SAMPLE</p> <p>(2) SEE 'OLD NSD' IN RECORD '2' IN FISH LENGTH (66 FOR) AND FISH WT (70 FOR) ZERO(S) FOLLOWED BY BLANKS WERE ELIMINATED - THESE FIELDS WERE NOT MEASURED</p> <p>(3) TAX CODE 531702010 CHANGED TO 53170202 SEQ 7 STATION B2153 TAX CODE 53192 CHANGED TO 531920 SEQ 12 STATION B7307 TAX CODE 5317260201 CHANGED TO 5317260102 SEQ 11 STATION B2153 SEQ 12 STATION B7307 TAX CODE 5317710 CHANGED TO 531771 SEQ 1 STATION B2153</p>	

DATA DOCUMENTATION FORM

VCM412

NO. 14 FORM 24-13
(1-77)

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

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

VIMS

FISHST.092. BLM06T

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.

FISH STOMACHS

A. ORIGINATOR IDENTIFICATION

NODC CR. TR 3023

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			
Virginia Institute of Marine Science Gloucester Point, Virginia 23062			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT	
BLM		BLM06T	
4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)	7. DATES
James M. Gilliss	Ship	James M. Gilliss Univ. of Miami	FROM: MO/DAY/YR TO: MO/DAY/YR 03/18/77 03/28/77
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR MONTH		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED. GENERAL AREA	
9. ARE DATA DECLARED NATIONAL PROGRAM (NRP)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)			
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN 11.4-1) Dr. Gerald L. Engel Va. Institute of Marine Science Gloucester Pt., Va. 23062 804-642-2111			

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
Latitude & Long.	Degrees, mins., seconds	Loran C SIMRAD Model LC 101		Program used to convert from Loran C coordinates to Latitude & Longitude
Latitudinal Pers.	N or S			
Longitudinal Hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist watch checked daily with WWV		
Water depth	to nearest tenth of a meter	Precision Depth Recorder		
Water sample depth	to nearest meter	G.M. Meter Wheel		
Surface water temperature	°C to nearest tenth	Mercury in glass stem Thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees WMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	Knots	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees WMO Code 0877	Ship's compass		
Wave height	1/2 meters WMO Code 1555	Visual estimate		
Swell direction	Tens of degrees WMO Code 0877	Ship's compass		
Swell height	1/2 meters WMO Code 1555	Visual estimate		
Weather	WMO Code 4877	Visual estimate		
Cloud type	WMO Codes 0513, 0515, 0509	Visual estimate		

B. SCIENTIFIC CONTENT

[illegible]

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**

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Position 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Positions 1-10 identical to the last sample header Sample Header 2 "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator of data for Positions 1-10 identical to last data record, Each sample "99" - position 11-13
8. File Terminator Positions 1-10 identical to last data record, "998" in positions 11-13.

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 and 2, each followed by a Terminator record. Following this are Data Records for that sample followed by Terminator record. Sample Headers, terminators, data records, terminator sequence is repeated until final terminator record.

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

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel
 ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

5. RECORDING MODE <input type="checkbox"/> BCD <input type="checkbox"/> BINARY <input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC <input type="checkbox"/> _____	9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> 0.6 inch
6. NUMBER OF TRACKS (CHANNELS) <input type="checkbox"/> SEVEN <input checked="" type="checkbox"/> NINE <input type="checkbox"/> _____	10. END OF FILE MARK <input type="checkbox"/> OCTAL 17 <input type="checkbox"/> _____
7. PARITY <input checked="" type="checkbox"/> ODD <input type="checkbox"/> EVEN	11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER) VCM412 Virginia Institute of Marine Science Fish Stomachs File Label = 'FISHST.092.BLM06T'
8. DENSITY <input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI <input type="checkbox"/> 556 BPI <input type="checkbox"/> 800 BPI <input type="checkbox"/> _____	12. PHYSICAL BLOCK LENGTH IN BYTES 91
	13. LENGTH OF BYTES IN BITS 8

RECORD FORMAT DESCRIPTION

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"092" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I2	xx/xx/xx-xx/xx/xx Beginning year, month, day- ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigators & Institution responsible for data.
Investigator	64	28	Chars	28A1	

RECORD FORMAT DESCRIPTION

RECORD NAME

Fish stom

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN Bytes (e.g., 010, bytes)	16. LENGTH		17. ATTRIBUTES FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"092" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab sample no.	14	5	Chars	5A1	Sample identifier
Latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Lathem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3, 2I2	Degrees, minutes, seconds
Lonhem	33	1	Char	A1	Hemisphere "E" or "W"
DATE	34	8	Byte	2(I2,A1)I2	Sample time (GMT to nearest tenth of an hour)
DATE	34	8	Bytes	2(I2,A1)I2	Sample date in form ^{xx} / _{xx} / _{xx} (year, month, day)
Tow start time	42	3	Bytes	F3.1*	GMT in hours & tenths
Temperature	45	3	Bytes	F3.1*	Bottom temperature (°C to nearest tenth)
Salinity	48	3	Bytes	F3.1*	Salinity (PPT to nearest tenth)
D.O.	51	3	Bytes	F3.1*	Dissolved oxygen (PPM to nearest tenth)
Depth	54	4	Bytes	I4	Total depth (meters)
Tow max.	58	4	Bytes	I4	Tow maximum depth (meters)
Tow min.	62	4	Bytes	I4	Tow minimum depth (meters)
Length	66	4	Bytes	I4	Length of fish (mm)
Weight	70	5	Bytes	I5	Weight of fish (g)
Stom	75	1	Bytes	I1	Stomach condition code: 1=food present 2=stomach damaged on dissection 3=regurgitated 4=empty
Sex	76	1	Bytes	I1	Sex 1=male 3=immature 2=female 4=unknown
Number	77	4	Bytes	I4	Number of individuals in stomach
NSpecies	81	3	Bytes	I3	Number of species in stomach
Vol.	84	5	Bytes	F5.2*	Total volume of stomach contents (ml & hundredths)
Species	89	1	Char	A1	Fish species code (see attached codes)
Navigation	90	2	Bytes	I2	Navigation: (see attached codes)

*Decimal place is IMPLIED: "period" is not present

RECORD FORMAT DESCRIPTION

Final Form

RECORD NAME

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2" Terminators					
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	78	Bytes	78 x	Blank
Sample Header Record 2					
File type	1	3	Chars	A3	"092" (constant)
File Date	4	6	Bytes	3I2	Year,month,day of file generation
Recprd Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513,0515,0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1x	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	31	Bytes	31X	Blank

*Decimal place is IMPLIED; "period" is not present

RECORD FORMAT DESCRIPTION

Fish Form

RECORD NAME

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "3"	Terminator				
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	78	Bytes	78 x	Blank
<u>Data Record</u>					
File type	1	3	Chars	A3	"C92" (constant)
File date	4	6	Bytes	3I2	year, month day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample identifier
Species	19	10	Chars	10A1	Species (first 10 digits of NODC code)
Count	29	5	Bytes	I5	Count (number of Individuals)
Vol	34	6	Bytes	F6.2*	Volume (ml & hundredths)
Blank	37 40	52	Bytes	52X	Blank
<u>Data Record Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as Data Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	78	Bytes	78 x	Blank
<u>File Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	78	Bytes	78 x	Blank

*Decimal place is IMPLIED: "period" is not present

Fish stom

NAVIGATION:

- 01 = Loran (mixed or unspecified)
- 02 = Radar and/or fixes
- 03 = Raydist without complications
- 04 = Raydist with errors, drifting, etc.
- 05 = Satellite
- 06 = Omega
- 07 = Loran A only
- 08 = Loran C only

TURBIDITY MEASUREMENT TECHNIQUE

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 cm. path
- 3 = Fluorometer; suspended solids calibration
- 4 = Nephelometer

FISH SPECIES CODE:

- R = Raja erinacea (little skate)
- L = Lophius americanus (goose fish)
- U = Urophycis chuss (red hake)
- B = Urophycis regius (spotted hake)
- M = Merluccius bilinearis (silver hake)
- A = Macrozoarces americanus (ocean pout)
- S = Stenotomus chrysops (scup)
- C = Citharichthys arctifions (Gulf Stream flounder)
- H = Hippoglossine oblonga (fourspot flounder)

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.

BLM06T

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
Guildline Autosac MDS400	Jan., 1977	✓			✓				

RECORD FORMAT DESCRIPTION

RECORD NAME

78-0340

FILE 092

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
TR 3023				(1) DRY BUILD AND WET BUILD TEMAS ZERO FILLED EX +018 to +018 (2) TAX CODE OF TEN ZEROS CHANGED TO FOUR NINES - CODE STOOD FOR UNIDENTIFIABLE ORGANISMS	

REC'D 5/3/78

VCM 413
DATA DOCUMENTATION FORM

FISH ST. 092.0LM 07 T

NOAA FORM 24-13
(10-7-71)

VIMS

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
ROCKVILLE, MARYLAND 20852FORM APPROVED
O.N.B. No. 41-R2651

FISH STOMACHS

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

NODC CR. TR 3024

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			
Virginia Institute of Marine Science Gloucester Point, Virginia 23062			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT	
BLM		BLM07T	
4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)	
Cape Henlopen	Ship	PLATFORM OPERATOR	
		Cape Henlopen	Univ. of Delaware
7. DATES		FROM: MO/DAY/YR TO: MO/DAY/YR	
		05/16/77 05/21/77	
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR MONTH		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.	
9. ARE DATA DECLARED NATIONAL PROGRAM IDENTIFI? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)		GENERAL AREA	
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM 1) Dr. Gerald L. Engel Va. Institute of Marine Science Gloucester Pt., Va. 23062 804-642-2111			

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
Latitude & Long.	Degrees, mins., seconds	Loran C SIMRAD Model LC 101		Program used to convert from Loran C coordinates to Latitude & Longitude
Latitudinal Hemisphere	N or S			
Longitudinal Hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	Fathometer		
Water sample depth	to nearest meter	C. M. Meter Wheel		
Surface water temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees WMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	Knots	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees WMO Code 0877	Ship's Compass		
Wave height	1/2 meters WMO Code 1555	Visual estimate		
Swell direction	Tens of degrees WMO Code 0877	Ship's Compass		
Swell height	1/2 meters WMO Code 1555	Visual estimate		
Weather	WMO Code 4577	Visual estimate		
Cloud type	WMO Codes 0513, 0515, 0509	Visual estimate		

B. SCIENTIFIC CONTENT

[illegible]

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

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Position 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Positions 1-10 identical to the last sample header Sample Header 2 "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator of data for Positions 1-10 identical to last data record, Each sample "99" - position 11-13
8. File Terminator Positions 1-10 identical to last data record, "998" in positions 11-13.

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 and 2, each followed by a Terminator record. Following this are Data Records for that sample followed by Terminator record. Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

3. ATTRIBUTES AS EXPRESSED IN

☐ PL-1 ☐ ALGOL ☐ COBOL
☒ FORTRAN ☐ _____ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel
ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

5. RECORDING MODE <input type="checkbox"/> BCD <input type="checkbox"/> BINARY <input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC <input type="checkbox"/> _____	9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> 0.6 inch
6. NUMBER OF TRACKS (CHANNELS) <input type="checkbox"/> SEVEN <input checked="" type="checkbox"/> NINE <input type="checkbox"/> _____	10. END OF FILE MARK <input type="checkbox"/> OCTAL 17 <input type="checkbox"/> _____
7. PARITY <input checked="" type="checkbox"/> ODD <input type="checkbox"/> EVEN	11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER) VCM413 Virginia Institute of Marine Science Fish Stomachs File Label = 'FISHST.092.BLM07T'
8. DENSITY <input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI <input type="checkbox"/> 336 BPI <input type="checkbox"/> 800 BPI <input type="checkbox"/> _____	
12. PHYSICAL BLOCK LENGTH IN BYTES 91	
13. LENGTH OF BYTES IN BITS 8	

RECORD FORMAT DESCRIPTION

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"092" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I2	xx/xx/xx-xx/xx/xx Beginning year, month, day- ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigators & Institution responsible for data.
Investigator	64	28	Chars	28A1	

RECORD FORMAT DESCRIPTION

Fish stom

RECORD NAME

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN Bytes (e.g., 10m, bytes)	16. LENGTH		17. ATTRIBUTES FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"092" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab sample no.	14	5	Chars	5A1	Sample identifier
Latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Lathem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3, 2I2	Degrees, minutes, seconds
Lonhem	33	1	Char	A1	Hemisphere "E" or "W"
DATE	34	8	Byte	2(I2,A1)I2	Sample time (GMT to nearest tenth of an hour)
DATE	34	8	Byte	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
Tow start time	42	3	Bytes	F3.1*	GMT in hours & tenths
Temperature	45	3	Bytes	F3.1*	Bottom temperature (°C to nearest tenth)
Salinity	48	3	Bytes	F3.1*	Salinity (PPT to nearest tenth)
D.O.	51	3	Bytes	F3.1*	Dissolved oxygen (PPM to nearest tenth)
Depth	54	4	Bytes	I4	Total depth (meters)
Tow max.	58	4	Bytes	I4	Tow maximum depth (meters)
Tow min.	62	4	Bytes	I4	Tow minimum depth (meters)
Length	66	4	Bytes	I4	Length of fish (mm)
Weight	70	5	Bytes	I5	Weight of fish (g)
CC	75	1	Bytes	I1	Stomach condition code: 1=food present 2=stomach damaged on dissection 3=regurgitated 4=empty
Sex	76	1	Bytes	I1	Sex 1=male 3=immature 2=female 4=unknown
Number	77	4	Bytes	I4	Number of individuals in stomach
NSpecies	81	3	Bytes	I3	Number of species in stomach
Vol.	84	5	Bytes	F5.2*	Total volume of stomach contents (ml & hundredths)
Species	89	1	Char	A1	Fish species code (see attached codes)
Navigation	90	2	Bytes	I2	Navigation: (see attached codes)

*Decimal place is IMPLIED: "period" is not present

RECORD FORMAT DESCRIPTION

Fish store

RECORD NAME

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2"	Terminators				
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	78	Bytes	78 x	Blank
Sample Header Record 2					
File type	1	3	Chars	A3	"092" (constant)
File Date	4	6	Bytes	3I2	Year,month,day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513,0515,0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1x	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	31	Bytes	31X	Blank

*Decimal place is IMPLIED; "period" is not present

RECORD FORMAT DESCRIPTION

Fish Form

RECORD NAME

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
<u>Record Type "3"</u>	<u>Terminator</u>				
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	78	Bytes	78 x	Blank
<u>Data Record</u>					
File type	1	3	Chars	A3	"C92" (constant)
File date	4	6	Bytes	3I2	year, month day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample identifier
Species	19	10	Chars	10A1	Species (first 10 digits of NODC code)
Count	29	5	Bytes	I5	Count (number of Individuals)
Vol	34	6	Bytes	F6.2*	Volume (ml & hundredths)
Blank	35	52	Bytes	52X	Blank
<u>Data Record Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as Data Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	78	Bytes	78 x	Blank
<u>File Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	78	Bytes	78 x	Blank

*Decimal place is IMPLIED: "period" is not present

Fish stom

NAVIGATION:

- 01 = Loran (mixed or unspecified)
- 02 = Radar and/or fixes
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- 04 = Raydist with errors, drifting, etc.
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- 06 = Omega
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- 08 = Loran C only

TURBIDITY MEASUREMENT TECHNIQUE

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 cm. path
- 3 = Fluorometer; suspended solids calibration
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FISH SPECIES CODE:

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- L = Lophius americanus (goose fish)
- U = Urophycis chuss (red hake)
- B = Urophycis regius (spotted hake)
- M = Merluccius bilinearis (silver hake)
- A = Macrozoarces americanus (ocean pout)
- S = Stenotomus chrysops (scup)
- C = Citharichthys arctifions (Gulf Stream flounder)
- H = Hippoglossine oblonga (fourspot flounder)

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.

BLM07T

INSTRUMENT TYPE (SERIAL, MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
Guildline Autosac MOD8400	May, 1977	✓			✓				

RECORD FORMAT DESCRIPTION

RECORD NAME

78-0340

TR 3204

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
TR 3204 F(092)				(1) SAMPLES B2I01 to B2I38 LAT. CHANGED FROM 01 to 39 Long. CHANGED FROM 000 to 073 (2) TAX. CODE OF TEN ZEROS CHANGED to FOUR NINES - USED FOR UNIDENTIFIABLE ORGANISMS (3) TAX CODE 480215020 CHANGED to 48021502 IN SEQ 2 LAB SAMPLE# E2612	

REC'D 5/3/78

VLM 414

ACCESSION
NUMBER

78-0340

DATA DOCUMENTATION FORM

VIMS

FISH ST. 092, BLM 08T

NOAA FORM 24-13

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
ROCKVILLE, MARYLAND 20852FORM APPROVED
O.M.B. No. 41-R2651

FISH STOMACHS

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

NODC CR. TR 3025

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			
Virginia Institute of Marine Science Gloucester Point, Virginia 23062			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT	
BLM		BLM08T	
4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)	
Cape Henlopen	Ship	Cape Henlopen Univ. of Delaware	
		7. DATES	
		FROM: MO/DAY/YR	TO: MO/DAY/YR
		09/07/77	09/15/77
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR MONTH		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.	
9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)		GENERAL AREA	
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1) Dr. Gerald L. Engel Va. Institute of Marine Science Gloucester Pt., Va. 23062 804-642-2111			

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
Latitude & Long.	Degrees, mins., seconds	Loran C SIMRAD Model LC 101		Program used to convert from Loran C coordinates to Latitude & Longitude
Latitudinal Hemisphere	N or S			
Longitudinal Hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	Fathometer		
Water sample depth	to nearest meter	G. M. Meter Wheel		
Surface water temperature	to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Dry-bulb air temperature	to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees IMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	Knots	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees IMO Code 0877	Ship's Compass		
Wave height	1/2 meters IMO Code 1555	Visual estimate		
Swell direction	Tens of degrees IMO Code 0877	Ship's Compass		
Swell height	1/2 meters IMO Code 1555	Visual estimate		
Weather	IMO Code 4677	Visual estimate		
Cloud type	IMO Codes 0513, 0515, 0509	Visual estimate		

?

?

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

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Positions 1-10 identical to the last sample header Sample Header 2 "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for Positions 1-10 identical to last data record, each sample "998" - position 11-13
8. File terminator Positions 1-10 Identical to last data record, "999" in Positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record.
Following this are Data Records for that sample followed by Terminator record.
Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

3. ATTRIBUTES AS EXPRESSED IN

☐ PL-1 ☐ ALGOL ☐ COBOL
☒ FORTRAN ☐ _____ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel
ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> 0.6 inch</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK <input type="checkbox"/> OCTAL 17 <input type="checkbox"/> _____</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p>VCM414 Virginia Institute of Marine Science Fish Stomachs File Label = 'FISHST.092.BLM08T'</p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 336 BPI</p> <p><input type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES 91</p> <p>13. LENGTH OF BYTES IN BITS 8</p>

RECORD FORMAT DESCRIPTION

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"092" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I2	xx/xx/xx-xx/xx/xx Beginning year, month, day- ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigators & Institution responsible for data.
Investigator	64	28	Chars	28A1	

RECORD FORMAT DESCRIPTION

Fish stom

RECORD NAME

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN Bytes (e.g., 101, 102, 103)	16. LENGTH		17. ATTRIBUTES FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"092" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab sample no.	14	5	Chars	5A1	Sample identifier
Latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Lathem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3, 2I2	Degrees, minutes, seconds
Lonhem	33	1	Char	A1	Hemisphere "E" or "W"
DATE DATE	34	8	Byte	I3, 2I2	Sample date (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
Tow start time	42	3	Bytes	F3.1*	GMT in hours & tenths
Temperature	45	3	Bytes	F3.1*	Bottom temperature (°C to nearest tenth)
Salinity	48	3	Bytes	F3.1*	Salinity (PPT to nearest tenth)
D.O.	51	3	Bytes	F3.1*	Dissolved oxygen (PPM to nearest tenth)
Depth	54	4	Bytes	I4	Total depth (meters)
Tow max.	58	4	Bytes	I4	Tow maximum depth (meters)
Tow min.	62	4	Bytes	I4	Tow minimum depth (meters)
Length	66	4	Bytes	I4	Length of fish (mm)
Weight	70	5	Bytes	I5	Weight of fish (g)
CC	75	1	Bytes	I1	Stomach condition code: 1=food present 2=stomach damaged on dissection 3=regurgitated 4=empty
Sex	76	1	Bytes	I1	Sex 1=male 3=immature 2=female 4=unknown
Number	77	4	Bytes	I4	Number of individuals in stomach
NSpecies	81	3	Bytes	I3	Number of species in stomach
Vol.	84	5	Bytes	F5.2*	Total volume of stomach contents (ml & hundredths)
Species	89	1	Char	A1	Fish species code (see attached codes)
Navigation	90	2	Bytes	I2	Navigation: (see attached codes)

*Decimal place is IMPLIED: "period" is not present

RECORD FORMAT DESCRIPTION

Fish stom

RECORD NAME

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2"	Terminators				
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	78	Bytes	78 x	Blank
Sample Header Record 2					
File type	1	3	Chars	A3	"092" (constant)
File Date	4	6	Bytes	3I2	Year,month,day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513,0515,0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1x	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	31	Bytes	31x	Blank

*Decimal place is IMPLIED; "period" is not present

RECORD FORMAT DESCRIPTION

Fish 210m

RECORD NAME

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
<u>Record Type "3"</u>	<u>Terminator</u>				
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record 2
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	78	Bytes	78 x	Blank
<u>Data Record</u>					
File type	1	3	Chars	A3	"C92 " (constant)
File date	4	6	Bytes	3I2	year, month day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample identifier
Species	19	10	Chars	10A1	Species (first 10 digits of NODC code)
Count	29	5	Bytes	I5	Count (number of Individuals)
Vol	34	6	Bytes	F6.2*	Volume (ml & hundredths)
Blank	35	52	Bytes	52X	Blank
<u>Data Record Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as Data Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	78	Bytes	78 x	Blank
<u>File Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	78	Bytes	78 x	Blank

*Decimal place is IMPLIED: "period" is not present

Fish stom

NAVIGATION:

- 01 = Loran (mixed or unspecified)
- 02 = Radar and/or fixes
- 03 = Raydist without complications
- 04 = Raydist with errors, drifting, etc.
- 05 = Satellite
- 06 = Omega
- 07 = Loran A only
- 08 = Loran C only

TURBIDITY MEASUREMENT TECHNIQUE

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 cm. path
- 3 = Fluorometer; suspended solids calibration
- 4 = Nephelometer

FISH SPECIES CODE:

- R = Raja erinacea (little skate)
- L = Lophius americanus (goose fish)
- U = Urophycis chuss (red hake)
- B = Urophycis regius (spotted hake)
- M = Merluccius bilinearis (silver hake)
- A = Macrozoarces americanus (ocean pout)
- S = Stenotomus chrysops (scup)
- C = Citharichthys arctifrons (Gulf Stream flounder)
- H = Hippoglossus oblonga (fourspot flounder)

D. INSTRUMENT CALIBRATION

This calibration information will be utilized by NCAA'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.

BLM08T

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
Guildline Autosac MOD8400	July, 1977	✓			✓				

RECORD FORMAT DESCRIPTION

RECORD NAME

78-0340

Fish STOMACHS

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN (e.g., bits, bytes)	16. LENGTH NUMBER UNITS		17. ATTRIBUTES	18. USE AND MEANING
FILE 092 TR 3025				<p>(1) IN SAMPLES B6606, B7H05 AND B7H06 A ZERO WAS ELIMINATED IN COLUMN 66</p> <p>(2) TAX CODE OF TEN ZEROS WAS CHANGED TO FOUR NINES - WAS FOR UNIDENTIFIABLE ORGANISMS</p> <p>(3) TAX CODE 1531715030 CHANGED TO 5317150303 IN SEQ 1 STATION B6625</p> <p>TAX CODE 1531919010 CHANGED TO 5319190101 IN SEQ 2 STATION B6625</p> <p>TAX CODE 5317260201 CHANGED TO 5317260102 IN SEQ 3 STATION E5J08</p> <p>TAX CODE 531905 CHANGED TO 531705 IN SEQ 8 STATION E1K31</p>	

VCM 351

DDF A:1:18

ACCESSION
NUMBER

7800340

ZOOPLK.006. BLM05W DATA DOCUMENTATION FORM

TR 3013

NOAA FORM 24-13
(4-77)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
WASHINGTON, DC 20235

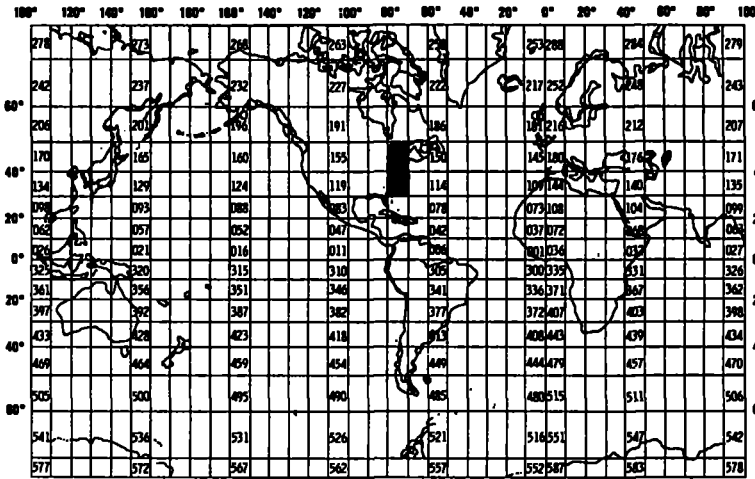
FORM APPROVED
O.M.B. No. 41-R2651
EXPIRES 1-81

(While you are not required to use this form, it is the most desirable mechanism for providing the required ancillary information enabling the NODC and users to obtain the greatest benefit from your data.)

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 <i>Virginia Institute of Marine Sciences Gloucester Point, Virginia 23062</i>			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED <i>BLM</i>		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT <i>BLM05W</i>	
4. PLATFORM NAME(S) <i>Va. Sea</i>	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.) <i>Ship</i>	6. PLATFORM AND OPERATOR NATIONALITY(IES) PLATFORM OPERATOR <i>USA USA</i>	7. DATES FROM: MO/DAY/YR TO: MO/DAY/YR <i>11/4/76 11/29/76</i>
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR MONTH		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED. GENERAL AREA 	
9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)			
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1) <i>Dr. Gerald L. Engel VIMS Gloucester Pt., Va. 23062</i>			

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 S510)	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
Latitude & Long.	Degrees, mins., seconds	Loran C SIMRAD Model LC 101		Program used to convert from Loran C coordinates to latitude & Longitude
Latitudinal Hemisphere	N or S			
Longitudinal Hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist watch checked daily with WWV		
Water depth	to nearest tenth of a meter	EDO Model 55A Recorder EDO Model 444 Tranceiver		
Water sample depth	to nearest meter	CTD Neil Brown MK III		
Surface water temperature	to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Dry-bulb air temperature	to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees WMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	knots	Ship's Anemometer Bendix Model 128/135		
Wave direction	Tens of degrees WMO Code 0877	Ship's compass		
Wave height	1/2 meters WMO Code 1555	Visual estimate		
Swell direction	Tens of degrees WMO Code 0877	Ship's compass		
Swell height	1/2 meters WMO Code 1555	Visual estimate		
Weather	WMO Code 4677	Visual estimate		
Cloud type	WMO Codes 0513, 0515, 0509	Visual estimate		

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
Cell period	seconds	Wrist watch - visual observation		
Salinity	Parts per thousand to nearest 0.01%	Hiskin bottles on rosette CTD - Bissett Bernan Model 9040	Inductive Salinometer Beckman RS 7-B N/A	N/A Values averaged over 1/2 meter depth increments

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

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Sample Header 2 Positions 1-10 identical to the last sample header, "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for each sample Positions 1-10 identical to last data record, "998" - position 11-13
8. File terminator Positions 1-10 identical to last data record, "999" in positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record. Following this are Data Records for that sample followed by Terminator record. Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

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

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel
ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> 0.5 inch</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK <input type="checkbox"/> OCTAL 17 <input type="checkbox"/> _____</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p>VCM354</p> <p>Virginia Institute of Marine Science</p> <p>Zooplankton</p> <p>File Label = 'ZCOPLK.008.ELMCSW'</p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 556 BPI</p> <p><input type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>86</p> <p>13. LENGTH OF BYTES IN BITS</p> <p>8</p>

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g. 500, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"008" file type (zooplankton)
File Date	4	6	Bytes	3I2	Year, month, day of file generation
Record Type	10	1	Chars	A1	"1" (File Header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise Dates	28	17	Bytes	5 (I2,A1) I2	XX/XX/XX-XX/XX/XX Beginning year, month, day- Ending year, month, day
Senior Scientist	45	19	Chars	19A1	(left-justified)
Investigator	64	23	Chars	23A1	Investigators & Institution responsible for data.

RECORD NAME Sample Header 1

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN BYTES (e.g., 312, 412, 512)	16. LENGTH		17. ATTRIBUTES (Fortran)	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"008" file-type (Zooplankton)
File Date	4	6	Bytes	3I2	Year, month, day of file generation
Record Type	10	1	Char	A1	"?" (first sample header record!)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab Sample No.	14	5	Chars	5A1	Sample identifier
Latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Lat hem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3, 2I2	Degrees, minutes, seconds
Lon hem	33	1	Char	A1	Hemisphere, "E" or "W"
Date	34	8	Bytes	2(I2,A1)I2	xx/xx/xx Sample date, (year, month, day)
Tow Start Time	42	3	Bytes	F3.1*	GMT in hours
Tow Duration	45	3	Bytes	I3	minutes
STEMP	48	3	Bytes	F3.1*	Surface water Temperature (°C)
SSALIN	51	3	Bytes	F3.1*	Surface Salinity (parts per thou)
Tow Max. Depth	54	4	Bytes	I4	Maximum depth of sampling gear (meters)
Gear	58	2	Bytes	I2	Code of gear used (see attached codes)
Replicates	60	2	Bytes	I2	Number of replicates in the Samples
Mesh	62	4	Bytes	I4	Net mesh size (microns)
Type Tow	66	1	Bytes	I1	Type of Tow: 1-Vertical, 2-oblique, 3-stepped oblique, 4-horizontal, discrete, 5-horizontal, open on descent and/or ascent
Flow	67	5	Bytes	F5.1*	Volume of water sampled (cubic meters)
Navigation	72	2	Bytes	I2	Navigation method (see attached codes)
Depth	74	4	Bytes	I4.1*	Total water column depth at start of tow (meters)
Individuals	78	6	Bytes	I6	Number of individuals (blank if not given)
Species	84	3	Bytes	I3	Number of species (blank if not given)

*Decimal place is IMPLIED; "period" is not present.

RECORD NAME _____

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bhu, bytes)	16. LENGTH		17. ATTRIBUTES (Fortran)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2" Terminators					
Ident	1	10	Bytes	A3, 3I2, A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	73	Bytes	73X	Blank
Sample Header Record 2					
File Type	1	3	Chars	A3	"003" (constant)
File Date	4	6	Bytes	3I2	year, month, day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513, 0515, 0509
Cloud cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1X	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	31	Bytes	31X	Blank
*Decimal place is IMPLIED; "period" is not present					

*Decimal place is IMPLIED; "period" is not present

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		
<u>Record Type "3" Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as sample header record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	73	Bytes	73X	Blank
<u>Data Record</u>					
File type	1	3	Chars	A3	"008" (constant)
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample identifier
Species	19	10	Chars	10A1	Species (NODC code)
Count	29	5	Bytes	I5	Count (number of individuals)
Order of magnitude	34	1	Bytes	I1	Order of magnitude
Blank	35	52	Bytes	52X	Blank
<u>Data Record Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	73	Bytes	73X	Blank
<u>File Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"999" (constant)
Blank	14	73	Bytes	73X	Blank

Navigation:

- 01 = Loran (mixed or unspecified)
- 02 = Radar and/or fixes
- 03 = Raydist without complications
- 04 = Raydist with errors, drifting, etc.
- 05 = Satellite
- 06 = Omega
- 07 = Loran A only
- 08 = Loran C only

Turbidity Measurement Technique:

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 cm path
- 3 = Fluorometer; suspended solids calibration
- 4 = Nephelometer

Gear:

- 01-one meter conical net
- 02-1/2 meter conical net
- 03-Clark-Bumpus (5")
- 04-Miller High-Speed sampler (5")
- 05-Bongo sampler (8")
- 06-Bongo sampler (1/2 meter)
- 07-Bongo sampler (24")
- 08-Neuston net, PNS (Zaitsev-type)
- 09-Neuston net, simple rectangular
- 10-Neuston net, WHCI-type
- 11-Clarke-Bumpus 12"

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 CALI- BRATED (✓)
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	

ERROR CORRECTION DOCUMENTATION FORM

DATE:

TO: OC12

FROM: OC13

SUBJECT: Error Correction in Processing of Data Set - Accession # 7800340

- 1) File Type: F124 (conversion of F008)
- 2) Project Ident.: VIMS-OCS
- 3) Track Nos.: TR3013

I. Error Corrections as reported to Principal Investigator:

Error

Correction Completed (Check)

II. Additional error corrections:

Error

Correction Completed (Check)

III. Processor Name: _____

TAPE ASSIGNMENT SHEET

ACCESSION NO.: 7800340

TRACK NO(s): TR 3013

Type of Tape	Tape Number	Label	LRECL	BLKSIZE	RECFM	Remarks
Originator	VCM351	SL	86	86	9-tu 1600 BPI EBCDIC	(F008)
Duplicate	01753	SL	86	86	9-tu 1600 BPI ASCII	(conversion to F124)
Reformatted						
First User						
Final User						

DATA SET ROUTE SHEET

ACCESSION/TRACK # 7800340/TR3013

Step	Completion Date/Init.		Tape # or DSN	# of Files	BLKSIZE	LRECL	# RECORDS
ORIGINATOR TAPE	2/22/83	878R	1CM351	3	86	86	
QUADI/SCAN TAPE	2/22/83	878R	01753	3	86	86	
ASSIGNED FOR PROCESS.							
DDF EVALUATION							
QUALITY REVIEW							
PRELIMINARY DATA SORT							
PRELIMINARY MULCHEK							
FIRST USER TAPE							
WORK DISK FILE							
FINAL USER TAPE							
FINAL MULCHEK							
EDITED DISK FILE							
DATA SET "FINALIZED"							

Rec'd 5/3/78

VCM 352 DDF A: 1: 18

ACCESSION
NUMBER

78-0340

VIM 3

DATA DOCUMENTATION FORM

200PLK. 008. BLM 06W

NOAA FORM 24-13
(4-72)U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
HEC001.3 SECTION
ROCKVILLE, MARYLAND 20862FORM APPROVED
O.M.B. No. 41-R2651

DUP = 013676

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

NODC CR. TR 3015

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			
Virginia Institute of Marine Science Gloucester Point, Virginia 23062			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT	
BLM		BLM06W	
4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)	7. DATES
H.J.W. Fay	Ship	PLATFORM OPERATOR	FROM: MO/DAY/YR TO: MO/DAY/YR
		H.J.W. Fay Tracor Marine	02/19/77 03/06/77
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR MONTH		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.	
9. ARE DATA DECLARED NATIONAL PROGRAM (DNPI)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNA- TIONAL EXCHANGE?) <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)		GENERAL AREA	
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELE- PHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1) Dr. Gerald L. Engel V.I. Institute of Marine Science Gloucester Pt., Va. 23062 804-642-2111			

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
Latitude & Long.	Degrees, mins., seconds	Loran C SIMRAD Model LC 101		Program used to convert from Loran C Coordinates to Latitude & Longitude
Latitudinal Hemisphere	N or S			
Longitudinal Hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	EDO Model 55A Recorder EDO Model 444D/248D Tranceiver		
Water sample depth	to nearest meter	CTD Neil Brown MK III		
Surface water temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees WMO Code 0877	Ship's anemometer Bendix Model 120/135		
Wind Speed	Knots	Ship's anemometer Bendix Model 120/135		
Wave direction	Tens of degrees WMO Code 0877	Ship's compass		
Wave height	1/2 meters WMO Code 1555	Visual estimate		
Swell direction	Tens of degrees WMO Code 0877	Ship's compass		
Swell height	1/2 meters WMO Code 1555	Visual estimate		
Weather	WMO Code 4677	Visual estimate		
Cloud type	WMO Codes 0513, 0515, 0509	Visual estimate		

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
Swell period	seconds	Wrist watch - visual observation		
Salinity	Parts per thousand to nearest 0.01%	Niskin bottles on rosette	Inductive Salinometer Beckman RS 7-B	N/A
		CTD - Bissett Berman Model 9040	N/A	Values averaged over 1/2 meter depth increments

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

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Positions 1-10 identical to the last sample header Sample Header 2 "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for Positions 1-10 identical to last data record, each sample "998" - position 11-13
8. File terminator Positions 1-10 Identical to last data record, "999" in Positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record.
Following this are Data Records for that sample followed by Terminator record.
Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

3. ATTRIBUTES AS EXPRESSED IN

☐ PL-1 ☐ ALGOL ☐ COBOL
☒ FORTRAN ☐ _____ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel
ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> 0.6 inch</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK</p> <p><input type="checkbox"/> OCTAL 17</p> <p><input type="checkbox"/> _____</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p>VCM352 Virginia Institute of Marine Science Zooplankton File Label = 'ZOOPLK.008.BLM06W'</p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 556 BPI</p> <p><input type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>86</p> <p>13. LENGTH OF BYTES IN BITS</p> <p>8</p>

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., 50m, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"008" file type (zooplankton)
File Date	4	6	Bytes	3I2	Year, month, day of file generation
Record Type	10	1	Chars	A1	"1" (File Header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise Dates	28	17	Bytes	5 (I2,A1) I2	XX/XX/XX-XX/XX/XX Beginning year, month, day- Ending year, month, day
Senior Scientist	45	19	Chars	19A1	(left-justified)
Investigator	64	23	Chars	23A1	Investigators & Institution responsible for data.

RECORD NAME Sample Header 1

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (Fortran)	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"008" file-type (Zooplankton)
File Date	4	6	Bytes	3I2	Year, month, day of file generation
Record Type	10	1	Char	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab Sample No.	14	5	Chars	5A1	Sample identifier
Latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Lat hem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3, 2I2	Degrees, minutes, seconds
Lon hem	33	1	Char	A1	Hemisphere, "E" or "W"
Date	34	8	Bytes	2(I2,A1)I2	xx/xx/xx Sample date, (year, month, day)
Tow Start Time	42	3	Bytes	F3.1*	GMT in hours
Tow Duration	45	3	Bytes	I3	minutes
STEMP	48	3	Bytes	F3.1*	Surface water Temperature (°C)
SSALIN	51	3	Bytes	F3.1*	Surface Salinity (parts per thou)
Tow Max. Depth	54	4	Bytes	I4	Maximum depth of sampling gear (meters)
Gear	58	2	Bytes	I2	Code of gear used (see attached codes)
Replicates	60	2	Bytes	I2	Number of replicates in the Samples
Mesh	62	4	Bytes	I4	Net mesh size (microns)
Type Tow	66	1	Bytes	I1	Type of Tow: 1-Vertical, 2-oblique, 3-stepped oblique, 4-horizontal, discrete, 5-horizontal, open on descent and/or ascent
Flow	67	5	Bytes	F5.1*	Volume of water sampled (cubic meters)
Navigation	72	2	Bytes	I2	Navigation method (see attached codes)
Depth	74	4	Bytes	I4.1*	Total water column depth at start of tow (meters)
Individuals	78	6	Bytes	I6	Number of individuals (blank if not given)
Species	84	3	Bytes	I3	Number of species (blank if not given)

*Decimal place is IMPLIED; "period" is not present.

RECORD NAME

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN bytes (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (Fortran)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2" Terminators					
Ident	1	10	Bytes	A3, 3I2, A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	73	Bytes	73X	Blank
Sample Header Record 2					
File Type	1	3	Chars	A3	"003" (constant)
File Date	4	6	Bytes	3I2	year, month, day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513, 0515, 0509
Cloud cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1X	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	31	Bytes	31X	Blank

*Decimal place is IMPLIED; "period" is not present

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 Type "3" Terminator					
Ident	1	10	Bytes	A3,3I2,A1	Same as sample header record "998" (constant) Blank
Sequence	11	3	Chars	A3	
Blank	14	73	Bytes	73X	
Data Record					
File type	1	3	Chars	A3	"008" (constant)
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample identifier
Species	19	10	Chars	10A1	Species (NODC code)
Count	29	5	Bytes	I5	Count (number of individuals)
Order of magnitude	34	1	Bytes	I1	Order of magnitude
Blank	35	52	Bytes	52X	Blank
Data Record Terminator					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record "998" (constant) Blank
Sequence	11	3	Chars	A3	
Blank	14	73	Bytes	73X	
File Terminator					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record "999" (constant) Blank
Sequence	11	3	Chars	A3	
Blank	14	73	Bytes	73X	

Navigation:

- 01 = Loran (mixed or unspecified)
- 02 = Radar and/or fixes
- 03 = Raydist without complications
- 04 = Raydist with errors, drifting, etc.
- 05 = Satellite
- 06 = Omega
- 07 = Loran A only
- 08 = Loran C only

Turbidity Measurement Technique:

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 cm path
- 3 = Fluorometer; suspended solids calibration
- 4 = Nephelometer

Gear:

- 01-one meter conical net
- 02-1/2 meter conical net
- 03-Clark-Bumpus (5")
- 04-Miller High-Speed sampler (5")
- 05-Bongo sampler (8")
- 06-Bongo sampler (1/2 meter)
- 07-Bongo sampler (24")
- 08-Neuston net, PNS (Zaitsev-type)
- 09-Neuston net, simple rectangular
- 10-Neuston net, WHOI-type
- 11-Clarke-Bumpus 12"

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.

BLM06B, BLM06W

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY B-E-N NEE (✓)	
Neil Brown Inst. CTD MK III	Jan., 1977	✓			✓				
Beckman Minds D.O. Sensor	Jan., 1977	✓			✓				
Guildline Autosac MOD8400	Jan., 1977	✓			✓				

ERROR CORRECTION DOCUMENTATION FORM

DATE:

TO:

FROM:

SUBJECT: Error Correction in Processing of Data Set - Accession # 7800340

- 1) File Type: F008 (converted to F124)
- 2) Project Ident.: VIMS-OCS
- 3) Track Nos.: TR3015

I. Error Corrections as reported to Principal Investigator:

Error

Correction Completed (Check)

II. Additional error corrections:

Error

Correction Completed (Check)

III. Processor Name: _____

TAPE ASSIGNMENT SHEET

ACCESSION NO.: 7800340

TRACK NO(s): TR 3015

Type of Tape	Tape Number	Label	LRECL	BLKSIZE	RECFM	Remarks
Originator	VCM352	SL	86	86	9-tr 1600 BPI EBCDIC	
Duplicate	001864	SL	86	86	9-tr 1600 BPI ASCII	
Reformatted						
First User						
Final User						

DATA SET ROUTE SHEET

ACCESSION/TRACK # 7800340 / TR 3015

Step	Completion Date/Init.		Tape # or DSN	# of Files	BLKSIZE	LRECL	# RECORDS
ORIGINATOR TAPE	2/23/83	886	VC M 352	3	86	86	
QUADI/SCAN TAPE	2/23/83	886	001864	3	86	86	
ASSIGNED FOR PROCESS.							
DDF EVALUATION							
QUALITY REVIEW							
PRELIMINARY DATA SORT							
PRELIMINARY MULCHEK							
FIRST USER TAPE							
WORK DISK FILE							
FINAL USER TAPE							
FINAL MULCHEK							
EDITED DISK FILE							
DATA SET "FINALIZED"							

DATE:

A11118

TO:

FROM:

SUBJECT: Error Correction in Processing of Data Set - Accession # 7800340

- 1) File Type: F008 (converted to F124)
- 2) Project Ident.: VIMS-OCS
- 3) Track Nos.: TR3015

I. Error Corrections as reported to Principal Investigator:

Error

Correction Completed (Check)

II. Additional error corrections:

Error

Correction Completed (Check)

No errors

III. Processor Name:

Mary R Lewis

TAPE ASSIGNMENT SHEET

ACCESSION NO.: 7800340

TRACK NO(s): TR 3015

Type of Tape	Tape Number	Label	LRECL	BLKSIZE	RECFM	Remarks
Originator	VCM352	SL	86	86	9-tr 1600 BPI EBCDIC	
Duplicate	001864	SL	86	86	9-tr 1600 BPI ASCII	
Reformatted						
First User						
Final User						
Disk File	DNO DC * MARY, TR 3015A / F124					3,464 records

Step	Completion Date/Init.		Tape # or DSN	# of Files	BLKSIZE	LRECL	# RECORDS
OR TAPE	2/23/83	(882)	VC M352	3	86	86	
AN TAPE	2/23/83	(882)	001864	3	86	86	
D FOR PROCESS.							
LUATION	2/3/84						
REVIEW	2/3/84						
INARY DATA SORT							
INARY MULCHEK	2/3/84	DNO DC * MARY. TR3015A/F124					3464
USER TAPE							
DISK FILE	2/3/84						
USER TAPE							
MULCHEK	2/7/84						
ED DISK FILE							
SET "FINALIZED"							

Rec'd 5/3/78

VCM 416

ACCESSION
NUMBER

78-0340

VIMS

DATA DOCUMENTATION FORM

FISHAB.090.BLM05T

NO. 1, RM 24-13

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
ROCKVILLE, MARYLAND 20852FORM APPROVED
O.M.B. No. 41-R-2611

DDF A:1:1P

FISH ABUNDANCE file 090

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

NODC CR. TR 3018

SECTION MUST BE COMPLETED BY DONOR FOR ALL DATA TRANSMITTALS

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

Virginia Institute of Marine Science
Gloucester Point, Virginia 23062

EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED

VIM

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

BLM05T

PLATFORM NAME(S)

Cape Henlopen

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

Ship

PLATFORM AND OPERATOR NATIONALITY(IES)

PLATFORM

Cape
Henlopen

OPERATOR

Univ. of
Delaware

DATES

FROM: MO/DAY/YR

11/08/76

TO: MO/DAY/YR

11/18/76

ARE DATA PROPRIETARY?

☒ NO ☐ YESIF YES, WHEN CAN THEY BE RELEASED
FOR GENERAL USE? YEAR MONTH

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

GENERAL AREA

ARE DATA DECLARED NATIONAL PROGRAM (CNP)?

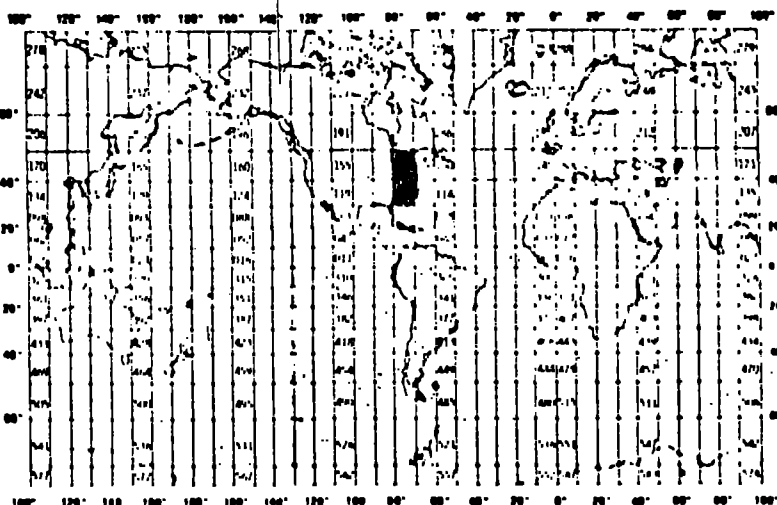
(I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?)

☒ NO ☐ YES ☐ PART (SPECIFY BELOW)

PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN U.S.)

Dr. Gerald L. Engel
Va. Institute of Marine Science
Gloucester Pt., Va. 23062

804-642-2111



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
Latitude & Long.	Degrees, mins., seconds	Loran C SIMRAD Model LC 101		Program used to convert from Loran C coordinates to Latitude & Longitude
Latitudinal hemi.	N or S			
Longitudinal Hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	Fathometer		
Water sample depth	to nearest meter	G. M. Meter Wheel		
Surface water temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees WMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	Knots	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees WMO Code 0877	Ship's Compass		
Wave height	1/2 meters WMO Code 1555	Visual estimate		
Swell direction	Tens of degrees WMO Code 0877	Ship's Compass		
Swell height	1/2 meters WMO Code 1555	Visual estimate		
Weather	WMO Code 4677	Visual estimate		
Cloud type	WMO Codes 0513, 0515, 0509	Visual estimate		

3. SCIENTIFIC CONTENT

[illegible]

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

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Positions 1-10 identical to the last sample header Sample Header 2 "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for Positions 1-10 identical to last data record, each sample "998" - position 11-13
8. File terminator Positions 1-10 identical to last data record, "999" in Positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record.
Following this are Data Records for that sample followed by Terminator record.
Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

3. ATTRIBUTES AS EXPRESSED IN

☐ PL-1 ☐ ALGOL ☐ COBOL
☒ FORTRAN ☐ _____ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel
ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> 0.6 inch</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK <input type="checkbox"/> OCTAL 17 <input type="checkbox"/> _____</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p>VCM416 Virginia Institute of Marine Science Fish Abundance File Label = 'FISHAB.090.BLM05T'</p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 556 BPI</p> <p><input type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>	
<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>85</p>	
<p>13. LENGTH OF BYTES IN BITS</p> <p>8</p>	

RECORD FORMAT DESCRIPTION

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN BYTES (e.g., bfr, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"090" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I2	xx/xx/xx-xx/xx/xx Beginning year, month, day- ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigators & Institution -responsible for data.
Investigator	64	22	Chars	22A1	

RECORD FORMAT DESCRIPTION

RECORD NAME SAMPLE HEADER 1

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN Bytes (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"090" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab sample no.	14	5	Chars	5A1	Sample identifier
Latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Lat hem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	13,2I2	Degrees, minutes, seconds
Lon hem	33	1	Char	A1	Hemisphere "E" or "W"
Time	34	3	Byte	F3.1*	Sample time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
Time	42	3	Bytes	F3.1*	GMT in hours & tenths
Temperature	45	3	Bytes	F3.1*	Bottom temperature (°C to nearest tenth)
Salinity	48	3	Bytes	F3.1*	Salinity (PPT to nearest tenth)
D.O.	51	3	Bytes	F3.1*	Dissolved Oxygen (PPM to nearest tenth)
TDepth	54	4	Bytes	I4	Total depth (meters)
Tow Max	58	4	Bytes	I4	Tow maximum depth (meters)
Tow min.	62	4	Bytes	I4	Tow minimum depth (meters)
NSpec	66	3	Bytes	I3	Number of species
NInd	69	5	Bytes	I5	Number of individuals
Order	74	1	Bytes	I1	Order of magnitude
Weight	75	4	Bytes	F4.1*	Total weight of fish (kg to nearest tenth)
Order	79	1	Bytes	I1	Order of magnitude
Weight	80	4	Bytes	F4.1*	Total weight of invertebrates (kg to nearest tenth)
Navigation	84	2	Bytes	I2	Navigation: (see attached codes)

*Decimal place is IMPLIED: "period" is not present

fish Count
hairs

RECORD FORMAT DESCRIPTION

Fish ab.

RECORD NAME

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2" Terminators					
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	72	Bytes	72 x	Blank
Sample Header Record 2					
File type	1	3	Chars	A3	"090" (constant)
File Date	4	6	Bytes	3I2	Year,month,day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513,0515,0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1x	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	30	Bytes	30X	Blank

*Decimal place is IMPLIED; "period" is not present

RECORD FORMAT DESCRIPTION

Page 45.

	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
<u>Record Type "3" Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record 2
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	72	Bytes	72x	Blank
<u>Data Record</u>					
File type	1	3	Chars	A3	"090" (constant)
File date	4	6	Bytes	3I2	year, month day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample identifier
Species	19	10	Chars	10A1	Species (first 10 digits of NODC code)
Count	29	5	Bytes	I5	Count (number of Individuals)
Weight	34	5	Bytes	I5	Total weight (gm)
Blank	40	46	Bytes	46X	Blank
<u>Data Record Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as Data Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	72	Bytes	72x	Blank
<u>File Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	72	Bytes	72x	Blank

*Decimal place is IMPLIED: "period" is not present

NAVIGATION:

- 01 = Loran (mixed or unspecified)
- 02 = Radar and/or fixes
- 03 = Raydist without complications
- 04 = Raydist with errors, drifting, etc.
- 05 = Satellite
- 06 = Omega
- 07 = Loran A only
- 08 = Loran C only

TURBIDITY MEASUREMENT TECHNIQUE

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 cm. path
- 3 = Fluorometer; suspended solids calibration
- 4 = Nephelometer

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.

BLM05T,

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
Guildline Autosac MOES400	Oct., 1976	✓			✓				

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
Cloud cover	NMC Code 2700	Visual observation		
Visibility	NMC Code 4300	Visual observation		
Wave period	Seconds	Wrist watch - visual observation		
Swell period	Seconds	Wrist watch - visual observation		
Salinity	Parts per thousand to 0.01%	Niskin bottles on rosette	Guildline Auto sac Model 8400	N/A
Dissolved oxygen	Milligrams per liter	Niskin bottles on rosette	Azide modification to Winkler Titration	N/A
Water temperature	°C to 0.1	XBT	N/A	Depth and temp at local max, min, inflection points

RECORD FORMAT DESCRIPTION

RECORD NAME **FILE HEADER**

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"090" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) .I2	xx/xx/xx-xx/xx/xx Beginning year, month, day- ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigators & Institution - responsible for data.
Investigator	64	22	Chars	22A1	

VCM 417

ACCESSION
NUMBER

78-0340

Rec'd 5/3/78

DATA DOCUMENTATION FORM

FISHAB. 090. BLMOBT

NOAA FORM 24-13
(4-77)U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
ROCKVILLE, MARYLAND 20852FORM APPROVED
O.M.B. No. 41-R2651

VIMS

FISH ABUNDANCE file 090

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

NODC CR. TR 3019

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			
Virginia Institute of Marine Science Gloucester Point, Virginia 23062			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT	
BIM		BLM06T	
4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)	7. DATES
James M. Gilliss	Ship	PLATFORM OPERATOR	FROM: MO, DAY, YR TO: MO, DAY, YR
		James M. Gilliss Univ. of Miami	03/18/77 03/28/77
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR MONTH		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED. GENERAL AREA	
9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)			
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM 1) Dr. Gerald L. Engel Va. Institute of Marine Science Gloucester Pt., Va. 23062 804-642-2111			

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
Latitude & Long.	Degrees, mins., seconds	Loran C SIMRAD Model LC 101		Program used to convert from Loran C coordinates to Latitude & Longitude
Latitudinal Hemisphere	N or S			
Longitudinal Hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist watch checked daily with WWV		
Water depth	to nearest tenth of a meter	Precision Depth Recorder		
Water sample depth	to nearest meter	G.M. Meter Wheel		
Surface water temperature	°C to nearest tenth	Mercury in glass stem Thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees WMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	Knots	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees WMO Code 0877	Ship's compass		
Wave height	1/2 meters WMO Code 1555	Visual estimate		
Swell direction	Tens of degrees WMO Code 0877	Ship's compass		
Swell height	1/2 meters WMO Code 1555	Visual estimate		
Weather	WMO Code 4677	Visual estimate		
Cloud type	WMO Codes 0513, 0515, 0509	Visual estimate		

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

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Positions 1-10 identical to the last sample header Sample Header 2 "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for Positions 1-10 identical to last data record, each sample "998" - position 11-13
8. File terminator Positions 1-10 identical to last data record, "999" in positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record.
Following this are Data Records for that sample followed by Terminator record.
Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

3. ATTRIBUTES AS EXPRESSED IN

☐ PL-1 ☐ ALGOL ☐ COBOL
☒ FORTRAN ☐ _____ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel
ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>		<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN): <input type="checkbox"/> 3/8 INCH</p> <p><input checked="" type="checkbox"/> 0.6 inch</p>	
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>		<p>10. END OF FILE MARK</p> <p><input type="checkbox"/> OCTAL 17</p> <p><input type="checkbox"/> _____</p>	
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>		<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME KEY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p>VCM417</p> <p>Virginia Institute of Marine Science</p> <p>Fish Abundance</p> <p>File Label = 'FISHAB.090.BLM06T'</p>	
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 SPI <input checked="" type="checkbox"/> 1600 SPI</p> <p><input type="checkbox"/> 356 SPI</p> <p><input type="checkbox"/> 800 SPI</p> <p><input type="checkbox"/> _____</p>			
		<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>85</p>	
		<p>13. LENGTH OF BYTES IN BITS</p> <p>8</p>	

RECORD FORMAT DESCRIPTION

RECORD NAME SAMPLE HEADER 1

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN <u>Bytes</u> (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"090" file type
File date	4	6	Bytes	3I2	Year..month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab sample no.	14	5	Chars	5A1	Sample identifier
Latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Lat hem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	13,2I2	Degrees, minutes, seconds
Lon hem	33	1	Char	A1	Hemisphere "E" or "W"
Time	34	3	Byte	F3.1*	Sample time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
Time	42	3	Bytes	F3.1*	GMT in hours & tenths
Temperature	45	3	Bytes	F3.1*	Bottom temperature (°C to nearest tenth)
Salinity	48	3	Bytes	F3.1*	Salinity (PPT to nearest tenth)
D.O.	51	3	Bytes	F3.1*	Dissolved Oxygen (PPM to nearest tenth)
TDepth	54	4	Bytes	I4	Total depth (meters)
Tow Max	58	4	Bytes	I4	Tow maximum depth (meters)
Tow min.	62	4	Bytes	I4	Tow minimum depth (meters)
NSpec	66	3	Bytes	I3	Number of species
NInd	69	5	Bytes	I5	Number of individuals
Order	74	1	Bytes	I1	Order of magnitude
Weight	75	4	Bytes	F4.1*	Total weight of fish (kg to nearest tenth)
Order	79	1	Bytes	I1	Order of magnitude
Weight	80	4	Bytes	F4.1*	Total weight of invertebrates (kg to nearest tenth)
Navigation	84	2	Bytes	I2	Navigation: (see attached codes)

*Decimal place is IMPLIED: "period" is not present

RECORD FORMAT DESCRIPTION

fish ab.

RECORD NAME _____

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2"	Terminators				
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	72	Bytes	72 x	Blank
Sample Header Record 2					
File type	1	3	Chars	A3	"090" (constant)
File Date	4	6	Bytes	3I2	Year,month,day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513,0515,0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1x	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	30	Bytes	30X	Blank

*Decimal place is IMPLIED; "period" is not present

RECORD FORMAT DESCRIPTION

Plat 4b.

RECORD NAME

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "3"	Terminator				
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record 2
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	72	Bytes	72x	Blank
<u>Data Record</u>					
File type	1	3	Chars	A3	"090" (constant)
File date	4	6	Bytes	3I2	year, month day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample identifier
Species	19	10	Chars	10A1	Species (first 10 digits of NODC code)
Count	29	5	Bytes	I5	Count (number of Individuals)
Weight	34	5	Bytes	I5	Total weight (gm)
Blank	40	46	Bytes	46X	Blank
<u>Data Record Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as Data Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	72	Bytes	72x	Blank
<u>File Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	72	Bytes	72x	Blank

*Decimal place is IMPLIED: "period" is not present

NAVIGATION:

- 01 = Loran (mixed or unspecified)
- 02 = Radar and/or fixes
- 03 = Raydist without complications
- 04 = Raydist with errors, drifting, etc.
- 05 = Satellite
- 06 = Omega
- 07 = Loran A only
- 08 = Loran C only

TURBIDITY MEASUREMENT TECHNIQUE

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 cm. path
- 3 = Fluorometer; suspended solids calibration
- 4 = Nephelometer

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.

BLM06T

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
Guildline Autosac MDC400	Jan., 1977	✓			✓				

5/3/78

VCM353

ACCESSION
NUMBER

78-0340

DATA DOCUMENTATION FORM

VIMS

200P-K-008-BLM07W

NAA 1-24-73

NATIONAL OCEANOGRAPHIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
NODC VILLAGE, APO SAN FIDELINO 96352FORM APPROVED
OMB No. 41-R-73-1

DDF A: 1:18

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

NODC CR. TK 3016

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			
Virginia Institute of Marine Science Gloucester Point, Virginia 23062			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT	
		BLM07W	
4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)	7. DATES
Blm07W	Ship	PLATFORM OPERATOR FROM MO/YEAR TO MO/YEAR	
		U.S. Navy	05/1/77
8. ARE DATA PRELIMINARY?		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED	
YES <input type="checkbox"/> NO <input type="checkbox"/>		GENERAL AREA	
IF YES, WHEN CAN THEY BE RELEA TO FOR USE? YEAR MONTH			
9. ARE DATA NATIONAL PROGRAM?			
YES <input type="checkbox"/> NO <input type="checkbox"/>			
10. ARE DATA INCLUDED IN WORLD DATA CENTER FOR INTERNATIONAL RESEARCH?			
YES <input type="checkbox"/> NO <input type="checkbox"/>			
12. IF YES, WHERE CAN BE REACHED WITH TELEPHONE AND ADDRESS IF OTHER			
YES <input type="checkbox"/> NO <input type="checkbox"/>			
13. IF YES, WHERE CAN BE REACHED WITH TELEPHONE AND ADDRESS IF OTHER			
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99. IF YES, WHERE CAN BE REACHED WITH TELEPHONE AND ADDRESS IF OTHER			
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100. IF YES, WHERE CAN BE REACHED WITH TELEPHONE AND ADDRESS IF OTHER			
YES <input type="checkbox"/> NO <input type="checkbox"/>			

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
Latitude & Long.	Degrees, mins., seconds	Loran C RAD Model 10 101		Program used to convert from Loran C coordinates to latitude & longitude
Latitudinal Period	N or S			
Longitudinal Hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	EPC Model 4600 Recorder CRE 12 KHz Transducer		
Water sample depth	to nearest meter	STD Neil Brown M- III		
Surface water temperature	to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tenths to tenths	Danförlth Aneroid Barometer Model 312		
Dry-bulb air temperature	to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees IMO Code 1877	Ship's Anemometer Bendix Model 120 135		
Wind Speed	knots	Ship's Anemometer Bendix Model 120 135		
Wave direction	Tens of degrees IMO Code 1877	Ship's compass		
Wave height	1/2 meters IMO Code 1888	Visual estimate		
Swell direction	Tens of degrees IMO Code 1877	Ship's compass		
Swell height	1/2 meters IMO Code 1888	Visual estimate		
Seas	IMO Code 1888	Visual estimate		
Cloud type	IMO Codes 8013, 8015, 8009	Visual estimate		

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
Well period	seconds	Wrist watch - visual observation		
Salinity	Parts per thousand to nearest 0.01	Diskin, Lot 1, 15 on rosette	Inductive Salinometer: Beckman IS 7-B	N/A
		CID - Hissner, German Model 9040	N/A	Values averaged over 1/2 meter depth in presents

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

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Sample Header 2 Positions 1-10 identical to the last sample header "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for Positions 1-10 identical to last data record, "998" in positions 11-13
8. File Terminator Positions 1-10 identical to last data record, "998" in positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record. Following this are Data Records for that sample followed by Terminator record. Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

3. ATTRIBUTES AS EXPRESSED IN

☐ PL-1 ☐ ALGOL ☐ COBOL
☒ FORTRAN ☐ _____ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER

Gerald L. Engel

ADDRESS

Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC</p>	<p>9. LENGTH OF RECORD (RECORD GAP IF KNOWN)</p> <p><input type="checkbox"/> 1/8 INCH</p> <p><input checked="" type="checkbox"/> 0.6 inch</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p>	<p>10. END OF FILE MARK</p> <p><input type="checkbox"/> OCTAL 17</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME KEY SPECIFICATIONS OF DATA, INCLUDING VOLUME NUMBER)</p> <p>VM453</p> <p>Virginia Institute of Marine Science</p> <p>Zooplankton</p> <p>File Label = 'ZOOPLK.008.BLM07W'</p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 700 BPI <input checked="" type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 556 BPI</p> <p><input type="checkbox"/> 800 BPI</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>16</p> <p>13. LENGTH OF BYTES IN BITS</p> <p>8</p>

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM - 1 MEASURED INITIALS (e.g. 300, 400)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"008" file type (explanation)
File Date	4	6	Bytes	3I2	Year, month, day of file generation
Record Type	10	1	Chars	A1	"1" (File Header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise Dates	28	17	Bytes	5 (I2,A1) I2	XX/XX/XX-XX/XX/XX Beginning year, month, day- Ending year, month, day
Senior Scientist	45	19	Chars	19A1	(left-justified)
Investigator	64	23	Chars	23A1	Investigators & Institution responsible for data.

RECORD NAME Sample Header 1

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN FILES (e.g., 5file, bytes)	16. LENGTH		17. ATTRIBUTES (Fortran)	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"000" file-type (Zooplankton)
File Date	4	6	Bytes	3I2	Year, month, day of file generation
Record Type	10	1	Char	A1	"1" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab Sample No.	14	5	Chars	A1	Sample identifier
Latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Lat hem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3, 2I2	Degrees, minutes, seconds
Lon hem	33	1	Char	A1	Hemisphere, "E" or "W"
Date	34	8	Bytes	2(I2,A1)I2	xx/xx/xx Sample date, (year, month, day)
Tow Start Time	42	3	Bytes	F3.1*	GHT in hours
Tow Duration	45	3	Bytes	I3	minutes
STEMP	48	3	Bytes	F3.1*	Surface water Temperature(°C)
SSALIN	51	3	Bytes	F3.1*	Surface Salinity(parts per thou)
Tow Max. Depth	54	4	Bytes	I4	Maximum depth of sampling gear (meters)
Gear	58	2	Bytes	I2	Code of gear used (see attached codes)
Replicates	60	2	Bytes	I2	Number of replicates in the Samples
Mesh	62	4	Bytes	I4	Net mesh size (microns)
Type Tow	66	1	Bytes	I1	Type of Tow: 1-Vertical, 2-oblique, 3-stepped oblique, 4-horizontal, discrete, 5-horizontal, open on descent and/or ascent
Flow	67	5	Bytes	F5.1*	Volume of water sampled(cubic meters)
Navigation	72	2	Bytes	I2	Navigation method (see attached codes)
Depth	74	4	Bytes	I4.1*	Total water column depth at start of tow (meters)
Individuals	78	6	Bytes	I6	Number of individuals (blank if not given)
Species	84	3	Bytes	I3	Number of species (blank if not given)

*Decimal place is IMPLIED; "period" is not present.

RECORD NAME _____

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN VALUE (e.g., Min, Bytes)	16. LENGTH		17. ATTRIBUTES (Fortran)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2" Terminators					
Ident	1	10	Bytes	A3, 3I2, A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"999" (constant)
Blank	14	73	Bytes	73X	Blank
Sample Header Record 2					
File Type	1	3	Chars	A3	"003" (constant)
File Date	4	6	Bytes	3I2	year, month, day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WHO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	knots
Wave Direction	34	2	Bytes	I2	WHO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WHO code 1555
Swell Direction	37	2	Bytes	I2	WHO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WHO code 1555
Weather	40	2	Bytes	I2	WHO code 4677
Cloud type	42	3	Bytes	I3	WHO codes 0513, 0515, 0509
Cloud cover	45	1	Bytes	I1	WHO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WHO code 4300
Blank	47	1	Byte	1X	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	31	Bytes	31X	Blank

*Decimal place is IMPLIED; "period" is not present

*Decimal place is IMPLIED; "period" is not present

RECORD FORMAT DESCRIPTION

RECORD NAME

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN (e.g., bNo, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "3"	Terminator				
Ident	1	10	Bytes	A3,3I2,A1	Same as sample header record
Sequence	11	3	Chars	A3	"000" (constant)
Blank	14	73	Bytes	73X	Blank
Data Record					
File type	1	3	Chars	A3	"008" (constant)
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	1A1	Sample identifier
Species	19	10	Chars	10A1	Species (NODC code)
Count	29	5	Bytes	I5	Count (number of individuals)
Order of magnitude	34	1	Bytes	I1	Order of magnitude
Blank	35	52	Bytes	52X	Blank
Data Record Terminator					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"000" (constant)
Blank	14	73	Bytes	73X	Blank
File Terminator					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"999" (constant)
Blank	14	73	Bytes	73X	Blank

Navigation:

- 01 = Loran (mixed or unspecified)
- 02 = Fixlist and/or fixes
- 03 = Raydist without complications
- 04 = Fixlist with errors, drifting, etc.
- 05 = Satellite
- 06 = Omega
- 07 = Loran A only
- 08 = Loran C only

Turbidity Measurement Technique:

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 cm path
- 3 = Fluorometer; suspended solids calibration
- 4 = Nephelometer

Gear:

- 01-one meter conical net
- 02-1/2 meter conical net
- 03-Clark-Bumpus (5")
- 04-Miller High-Speed sampler (5")
- 05-Bongo sampler (8")
- 06-Bongo sampler (1/2 meter)
- 07-Bongo sampler (24")
- 08-Neuston net, PHS (Zaitsev-type)
- 09-Neuston net, simple rectangular
- 10-Neuston net, WHOI-type
- 11-Clarke-Bumpus 12"

D. INSTRUMENT CALIBRATION

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.

NOTE

TYPE (L NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
10st.	May. 1977	✓			✓				
10st.	May. 1977	✓			✓				
8400	May. 1977	✓			✓				

5/3/78	VCN354	ACCESSION NUMBER	78-0340
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VIMS	DATA DOCUMENTATION FORM	ZOOPLK. 008. BLM08W
NOAA FORM 24-13 (4-77)	U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEANOGRAPHIC DATA CENTER RECORDS SECTION ROCKVILLE, MARYLAND 20852	FORM APPROVED O.N.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

NODC CR. TR 3017

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			
Virginia Institute of Marine Science Gloucester Point, Virginia 23062			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT	
BIM		BLM08W	
4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)	7. DATES
H.J.W. Fay	Ship	PLATFORM OPERATOR	FROM: MO/DAY/YR TO: MO/DAY/YR
		H.J.W. Fay Tracor Marine	08/19/77 08/31/77
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR MONTH		9. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED. GENERAL AREA	
10. ARE DATA DECLARED NATIONAL PROGRAM (ONP)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTER'S HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)		11. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN 111.M-1) Dr. Gerald L. Engel Va. Institute of Marine Science Gloucester Pt., Va. 23062 804-642-2111	

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
Latitude & Long.	Degrees, mins., seconds	Loran C SIMRAD Model LC 101		Program used to convert from Loran C coordinates to Latitude & Longitude
Longitudinal Hemisphere	N or S			
Station time	GMT to nearest tenth of an hr.	Wrist watch checked daily with WWV		
Water depth	to nearest tenth of a meter	EDO Model 55A Recorder EDO Model 444 Tranceiver		
Water sample depth	to nearest meter	STD Neil Brown MK III		
Surface water temperature	to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tenths to tenths	Lanforn, Aneroid Barometer Model 310		
Wet-bulb air temperature	to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Dry-bulb air temperature	to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees IMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	knots	Ship's Anemometer Bendix Model 128/135		
Wave direction	Tens of degrees IMO Code 0877	Ship's compass		
Wave height	1-2 meters IMO Code 1500	Visual estimate		
Swell direction	Tens of degrees IMO Code 0877	Ship's compass		
Swell height	1-2 meters IMO Code 1500	Visual estimate		
Weather	IMO Code 4077	Visual estimate		
Cloud type	IMO Codes 1011, 1013, 0109	Visual estimate		

B. SCIENTIFIC CONTENT

C ELO	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
	seconds	Wrist watch - visual observation		
	Knots per thousand to nearest 0.01%	1/2 in bottles on rosette	Inductive Salinometer: Berman PS 7-B	N/A
		CTD - Bissett Berman Model 9040	N/A	Values averaged over: 1/2 meter depth increments

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Sample Header 2 Positions 1-10 identical to the last sample header, "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for Positions 1-10 identical to last data record, each sample "998" - position 11-13
8. File Terminator Positions 1-10 identical to last data record, "999" in positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record. Following this are Data Records for that sample followed by Terminator record. Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

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

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel

ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC</p>	<p>9. LENGTH OF RECORD RECORD GAP (IF ANY) <input type="checkbox"/> 3/4 inch <input checked="" type="checkbox"/> 0.4 inch</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p>	<p>10. END OF FILE MARK <input type="checkbox"/> OCTAL 17</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE ON LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME KEY SPECIFICATIONS OF DATA TYPE AND VOLUME NUMBER)</p> <p>VIMS Virginia Institute of Marine Science Zooplankton File Label - "ZOOPLK.C08.BLM08W"</p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 356 BPI</p> <p><input type="checkbox"/> 800 BPI</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES 86</p> <p>13. LENGTH OF BYTES IN BITS 8</p>

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM - 1 MEASURED (IN BYTES) (e.g. 876, bytes)	16. LENGTH		17. ATTRIBUTES (PORTMAN)	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"008" file type (zooplankton)
File Date	4	6	Bytes	3I2	Year, month, day of file generation
Record Type	10	1	Chars	A1	"1" (File Header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise Dates	28	17	Bytes	5 (I2,A1) I2	XX/XX/XX-XX/XX/XX Beginning year, month, day- Ending year, month, day
Senior Scientist	45	19	Chars	19A1	(left-justified)
Investigator	64	23	Chars	23A1	Investigators & Institution responsible for data.

RECORD NAME Sample Header 1

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN FILES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (Fortran)	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"000" file-type (Zooplankton)
File Date	4	6	Bytes	3I2	Year, month, day of file generation
Record Type	10	1	Char	A1	"1" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab Sample No.	14	5	Chars	A1	Sample identifier
Latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Lat hem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3, 2I2	Degrees, minutes, seconds
Lon hem	33	1	Char	A1	Hemisphere, "E" or "W"
Date	34	8	Bytes	2(I2,A1)I2	xx/xx/xx Sample date, (year, month, day)
Tow Start Time	42	3	Bytes	F3.1*	GMT in hours
Tow Duration	45	3	Bytes	I3	minutes
STEMP	48	3	Bytes	F3.1*	Surface water Temperature ("C")
SSALIN	51	3	Bytes	F3.1*	Surface Salinity (parts per thou)
Tow Max. Depth	54	4	Bytes	I4	Maximum depth of sampling gear (meters)
Gear	58	2	Bytes	I2	Code of gear used (see attached codes)
Replicates	60	2	Bytes	I2	Number of replicates in the samples
Mesh	62	4	Bytes	I4	Net mesh size (microns)
Type Tow	66	1	Bytes	I1	Type of Tow: 1-Vertical, 2-oblique, 3-stepped oblique, 4-horizontal, discrete, 5-horizontal, open on descent and/or ascent
Flow	67	5	Bytes	F5.1*	Volume of water sampled (cubic meters)
Navigation	72	2	Bytes	I2	Navigation method (see attached codes)
Depth	74	4	Bytes	I4.1*	Total water column depth at start of tow (meters)
Individuals	78	6	Bytes	I6	Number of individuals (blank if not given)
Species	84	3	Bytes	I3	Number of species (blank if not given)

*Decimal place is IMPLIED; "period" is not present.

RECORD NAME _____

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (Fortran)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2" Terminators					
Ident	1	10	Bytes	A3, 3I2, A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"999" (constant)
Blank	14	73	Bytes	73X	Blank
Sample Header Record 2					
File Type	1	3	Chars	A3	"003" (constant)
File Date	4	6	Bytes	3I2	year, month, day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WHO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WHO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WHO code 1555
Swell Direction	37	2	Bytes	I2	WHO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WHO code 1555
Weather	40	2	Bytes	I2	WHO code 4677
Cloud type	42	3	Bytes	I3	WHO codes 0513, 0515, 0509
Cloud cover	45	1	Bytes	I1	WHO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WHO code 4300
Blank	47	1	Byte	1X	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	31	Bytes	31X	Blank
*Decimal place is IMPLIED; "period" is not present					

*Decimal place is IMPLIED; "period" is not present

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 Type "3"	Terminator				
Ident	1	10	Bytes	A3,3I2,A1	Same as sample header record
Sequence	11	3	Chars	A3	"000" (constant)
Blank	14	73	Bytes	73X	Blank
Data Record					
File type	1	3	Chars	A3	"008" (constant)
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	A1	Sample identifier
Species	19	10	Chars	10A1	Species (NODC code)
Count	29	5	Bytes	I5	Count (number of individuals)
Order of magnitude	34	1	Bytes	I1	Order of magnitude
Blank	35	52	Bytes	52X	Blank
Data Record Terminator					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"000" (constant)
Blank	14	73	Bytes	73X	Blank
File Terminator					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"999" (constant)
Blank	14	73	Bytes	73X	Blank

Navigation:

- 01 = Loran (mixed or unspecified)
- 02 = Radar and/or fixes
- 03 = Raydist without complications
- 04 = Raydist with errors, drifting, etc.
- 05 = Satellite
- 06 = Omega
- 07 = Loran A only
- 08 = Loran C only

Turbidity Measurement Technique:

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 cm path
- 3 = Fluorometer; suspended solids calibration
- 4 = Nephelometer

Gear:

- 01-one meter conical net
- 02-1/2 meter conical net
- 03-Clark-Bumpus (5")
- 04-Miller High-Speed sampler (5")
- 05-Bongo sampler (8")
- 06-Bongo sampler (1/2 meter)
- 07-Bongo sampler (24")
- 08-Neuston net, PMS (Zaitsev-type)
- 09-Neuston net, simple rectangular
- 10-Neuston net, WHOI-type
- 11-Clarke-Bumpus 12"

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.

BLM08B, BLM08W

INSTRUMENT TYPE (SERIAL, MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
Neil Brown Inst. CTD MK III	July, 1977	✓			✓				
Beckman Minis D.O. Sensor	July, 1977	✓			✓				
Guildline Autosac MDS400	July, 1977	✓			✓				

NODC CR

TR 3000

Rec'd 5/3/78

VCM 579

ACCESSION
NUMBER

78-0340

VIMS

DATA DOCUMENTATION FORM

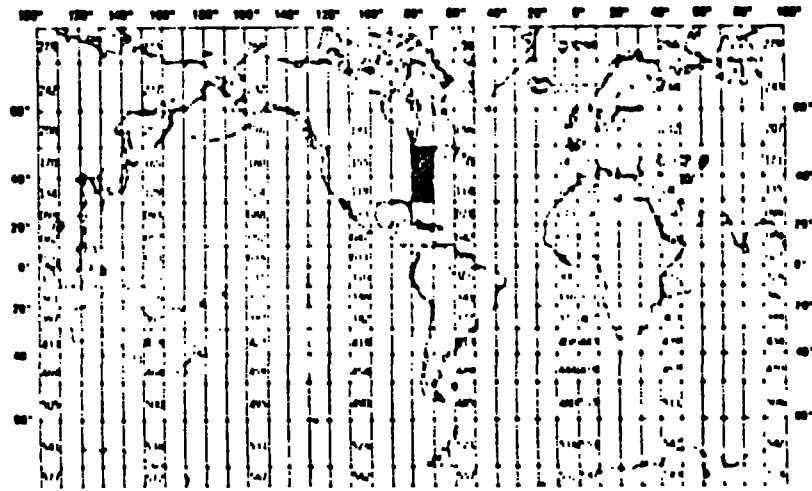
WPHYSES. 014. BLM 06B

NOAA FORM 74-13
(4-77)U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
ROCKVILLE, MARYLAND 20852FORM 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			
Virginia Institute of Marine Science Gloucester Point, Virginia 23062			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT	
BIM		BLM06B	
4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)	7. DATES
H.J.W. Fay	Ship	PLATFORM OPERATOR	FROM MO/DAY/YR TO MO/DAY/YR
		H.J.W. Fay Tracor Marine	02/04/77 02/17/77 03/06/77 03/13/77
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR MONTH		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.	
		GENERAL AREA	
9. ARE DATA DECLARED NATIONAL PROGRAM IDENTITY? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)			
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER AND ADDRESS IF OTHER THAN IN ITEM 1			
Dr. Gerald L. Engel V.I. Institute of Marine Science Gloucester Pt., Va. 23062 804-442-2111			

BLM006B

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 FEEDBACK AND AVERAGING
Latitude & Long.	Degrees, mins., seconds	Loran C SIMRAD Model LC 101		Program used to convert from Loran C coordinates to Latitude & Longitude
Latitudinal Hemisphere	N or S			
Longitudinal Hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	EDO Model 55A Recorder EDO Model 444D/248D Tranceiver		
Water sample depth	to nearest meter	CTD Neil Brown MK III		
Surface water temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Sediment temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees IMO Code 0877	Ship's Anemometer Bendix Model 120/135		

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
Cloud cover	WMO Code 2700	Visual observation		
Visibility	WMO Code 4300	Visual observation		
Wave period	Seconds	Wrist watch - visual observation		
Swell period	Seconds	Wrist watch - visual observation		
Salinity	Parts per thousand to 0.01%	Niskin bottles on rosette	Guildline Auto sac Model 8400	N/A
	Parts per thousands to 0.001ppt	Neil Brown CTD model MK III	N/A	Values averaged over .5 meter intervals
Dissolved Oxygen	Milligrams per liter	Niskin bottles on rosette	Azide Modification to Winkler Titration	N/A
		Beckman minos D.O. Sensor	Corrected to computed D.O. Winkler Titrations	Values averaged over .5 depth intervals
Water temperature	°C to .001	Neil Brown CTD MK III	N/A	Values averaged over .5m
	°C to 0.1	XBT	N/A	Depth and temp at local max, min, inflection points
NO ₂	u gm. atoms/liter	Niskin bottles on rosette	Technicon industrial method #158-71W AAII	N/A
NO ₃	u gm. atoms/liter	Niskin bottles on rosette	Technicon industrial method #158-71W AAII	N/A
Dissolved organic phosphate	u gm. atoms/liter	Niskin bottles on rosette	Technicon industrial method #155-71W AAII	N/A

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

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Sample Header 2 Positions 1-10 identical to the last sample header "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for Positions 1-10 identical to last data record, "998" in positions 11-13
8. File Terminator Positions 1-10 identical to last data record, "998" in positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record.
Following this are Data Records for that sample followed by Terminator record.
Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

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

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel
ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>		<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH</p> <p><input checked="" type="checkbox"/> 0.6 inch</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>		<p>10. END OF FILE MARK <input type="checkbox"/> OCTAL 17</p> <p><input type="checkbox"/> _____</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>		<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p>VCM579</p> <p>Virginia Institute of Marine Science</p> <p>Water Physics & Chemistry</p> <p>File Label = 'WPHYSC.014.BLM06B'</p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 356 BPI</p> <p><input type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>		
		<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>80</p>
		<p>13. LENGTH OF BYTES IN BITS</p> <p>8</p>

RECORD FORMAT DESCRIPTION

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM 1 MEASURED IN BYTES (e.g., bit, byte)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"014" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I2	xx/xx/xx-xx/xx/xx beginning year, month, day- ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigator's & Institution Responsible for data.
Investigator	64	17	Chars	16A1	

RECORD FORMAT DESCRIPTION

RECORD NAME SAMPLE HEADER 1

14. FIELD NAME	15. POSITION FROM -1 MLA'INLED IN BYTES (e.g., 5th, bytes)	16. LENGTH		17. ATTRIBUTES FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"014" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab sample no.	14	5	Chars	5A1	Sample identifier
Latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Lat hem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3,2I2	Degrees, minutes, seconds
Lon hem	33	1	Char	A1	Hemisphere "E" or "W"
Time	34	3	Byte	F3.1*	Sample time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
WDepth	45	5	Bytes	F5.1*	Water depth (to nearest tenth of a meter)
Navigation	50	2	Bytes	I2	Navigation: 01=Loran (mixed or unspecified) 02=Radar and/or fixes 03=Raydist without complications 04=Raydist with errors, drifting etc. 05=Satellite 06=Omega 07=Loran A only 08=Loran C only Sampling method: 1=CTD 2=XBT 3=Water bottles 4=CTD & water bottles 5=CTD, water bottles, & XBT 6=GRAB 7=Meteorological
Method	52	1	Bytes	I1	Blank
Blank	53	28	Bytes	28X	

*Decimal place is implied: "period" is not present

RECORD FORMAT DESCRIPTION

RECORD NAME

1. FIELD NAME	15. POSITION FROM -1 MEASURED IN BITS (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2" Terminators					
Isent	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67 X	Blank
Sample Header Record 2					
File type	1	3	Chars	A3	"014" (constant)
File Date	4	6	Bytes	3I2	Year,month,day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	SA1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513,0515,0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1x	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	25	Bytes	25 X	Blank

*Decimal place is IMPLIED; "period" is not present

RECORD FORMAT DESCRIPTION

RECORD NAME

14. RECORD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "3"	Terminator				
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record 2
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67X	Blank
Data Record					
File Type	1	3	Chars	A3	"014" (constant)
File Date	4	6	Bytes	3I2	year, month, day of file generation
Record Type	10	1	Chars	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of rec. type w/in sample
Sample	14	5	Chars	5A1	Sample identifier
Depth	19	4	Bytes	I4	Sample depth (meters)
Pressure	23	5	Bytes	F5.1*	Pressure (decibars)
Conduct	28	5	Bytes	F5.3*	Conductivity (mmho/cm)
Temp.	33	5	Bytes	F5.3*	Water Temperature (°C)
Salin	38	4	Bytes	F4.2*	Salinity (PPT)
D.O.	42	4	Bytes	F4.2*	Dissolved Oxygen (MG/L)
NO ₂	46	4	Bytes	F4.2*	Nitrite (microgram - atom/L)
NO ₃	50	4	Bytes	F4.2*	Nitrate (microgram - atom/L)
NH ₄	54	4	Bytes	F4.3*	Amonia (ppm)
O-PO ₄	58	4	Bytes	F4.2*	Ontho-Phosphate (microgram - atom/L)
DOC	62	4	Bytes	F4.2*	Dissolved organic carbom (mg/L)
PCC	66	4	Bytes	F4.2*	Particulate organic carbon(mg/L)
CSALI:	70	5	Bytes	F5.3*	Calculated salinity (ppt to nearest 0.003)**
C.D.O.	75	4	Bytes	F4.2*	Calculated dissolved oxygen (mg/L)**
Blank	79	2	Bytes	2X	Blank
Data Record Terminator					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67X	Blank
File Terminator					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67X	Blank
*Decimal place is IMPLIED: "period" is not present					
**99.0 indicates a bad reading					

NAVIGATION:

- 01 = Loran (mixed or unspecified)
- 02 = Radar and/or fixes
- 03 = Raydist without complications
- 04 = Raydist with errors, drifting, etc.
- 05 = Satellite
- 06 = Omega
- 07 = Loran A only
- 08 = Loran C only

TURBIDITY MEASUREMENT TECHNIQUE

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 cm. path
- 3 = Fluorometer; suspended solids calibration
- 4 = Nephelometer

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.

BLM06B, BLM06W

INSTRUMENT TYPE (IMFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY B-E-N NEE (✓)	
Neil Brown Inst. CTD MK III	Jan., 1977	✓			✓				
Beckman Minds D.O. Sensor	Jan., 1977	✓			✓				
Guildline Autosac MOD8400	Jan., 1977	✓			✓				

D. INSTRUMENT CALIBRATION

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BLM07B, BLM07W

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
Neil Brown Inst. CTD MK III	May, 1977	✓			✓				
Beckman Minds D.C. Sensor	May, 1977	✓			✓				
Guildline Autosac MOD 8400	May, 1977	✓			✓				

NODC CP 3001

rec'd 5/3/78

VLM 580

ACCESSION
NUMBER

78-0340

VIMS

DATA DOCUMENTATION FORM

WPHYSL 014. BLMA6W

NOAA FORM 24-13
(4-72)U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
ROCKVILLE, MARYLAND 20852FORM 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			
Virginia Institute of Marine Science Gloucester Point, Virginia 23062			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT	
BLM		BLM06W	
4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)	7. DATES
H.J.W. Fay	Ship	PLATFORM OPERATOR	FROM: MO/DAY/YR TO: MO/DAY/YR
		H.J.W. Fay Tracor Marine	02/19/77 03/06/77
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR _____ MONTH _____		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.	
9. ARE DATA DECLARED NATIONAL PROGRAM (ONPI)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)		GENERAL AREA	
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM 1) Dr. Gerald L. Engel Va. Institute of Marine Science Gloucester Pt., Va. 23062 804-642-2111			

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
Latitude & Long.	Degrees, mins., seconds	Loran C SIMRAD Model LC 101		Program used to convert from Loran C Coordinates to Latitude & Longitude
Latitudinal hemisphere	N or S			
Longitudinal hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	EDO Model 55A Recorder EDO Model 444D/248D Tranceiver		
Water sample depth	to nearest meter	CTD Neil Brown MK III		
Surface water temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees WMO Code 0877	Ship's anemometer Bendix Model 120/135		
Wind Speed	Knots	Ship's anemometer Bendix Model 120/135		
Wave direction	Tens of degrees WMO Code 0877	Ship's compass		
Wave height	1/2 meters WMO Code 1555	Visual estimate		
Swell direction	Tens of degrees WMO Code 0877	Ship's compass		
Swell height	1/2 meters WMO Code 1555	Visual estimate		
Weather	WMO Code 4677	Visual estimate		
Cloud type	WMO Codes 0513, 0515, 0509	Visual estimate		

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
Cloud cover	WMO Code 2700	Visual observation		
Visibility	WMO Code 4300	Visual observation		
Wave period	Seconds	Wrist watch - visual observation		
Swell period	Seconds	Wrist watch - visual observation		
Salinity	Parts per thousand to 0.01%	Niskin bottles on rosette	Guildline Auto sac Model 8400	N/A
	Parts per thousands to 0.001ppt	Neil Brown CTD model MK III	N/A	Values averaged over .5 meter intervals
Dissolved Oxygen	Milligrams per liter	Niskin bottles on rosette	Azide Modification to Winkler Titration	N/A
		Beckman minos D.O. Sensor	Corrected to computed D.O. Winkler Titrations	Values averaged over .5 depth intervals
Water temperature	°C to .001	Neil Brown CTD MK III	N/A	Values averaged over .5m
	°C to 0.1	XBT	N/A	Depth and temp at local max, min, inflection points
NO ₂	u gm. atoms/liter	Niskin bottles on rosette	Technicon industrial method #158-71W AAII	N/A
NO ₃	u gm. atoms/liter	Niskin bottles on rosette	Technicon industrial method #158-71W AAII	N/A
Dissolved organic phosphate	u gm. atoms/liter	Niskin bottles on rosette	Technicon industrial method #155-71W AAII	N/A

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

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Positions 1-10 identical to the last sample header Sample Header 2 "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for Positions 1-10 identical to last data record, "998" in positions 11-13
8. File Terminator Positions 1-10 identical to last data record, "998" in positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record.
Following this are Data Records for that sample followed by Terminator record.
Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

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

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel
ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/8 inch <input checked="" type="checkbox"/> 0.6 inch</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK <input type="checkbox"/> OCTAL 17 <input type="checkbox"/> _____</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER) VCM580 Virginia Institute of Marine Science Water Physics & Chemistry File Label = 'WPHYSC.014.BLM06W'</p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 356 BPI</p> <p><input type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES 80</p> <p>13. LENGTH OF BYTES IN BITS 8</p>

RECORD FORMAT DESCRIPTION

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"014" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I2	xx/xx/xx-xx/xx/xx Beginning year, month, day- ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigators & Institution
Investigator	64	17	Chars	16A1	Responsible for data.

RECORD FORMAT DESCRIPTION

RECORD NAME SAMPLE HEADER 1

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"014" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
lab sample no.	14	5	Chars	5A1	Sample identifier
latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
lat hem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3,2I2	Degrees, minutes, seconds
Lon hem	33	1	Char	A1	Hemisphere "E" or "W"
Time	34	3	Byte	F3.1*	Sample time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
WDepth	45	5	Bytes	F5.1*	Water depth (to nearest tenth of a meter)
Navigation	50	2	Bytes	I2	Navigation: 01=Loran (mixed or unspecified) 02=Radar and/or fixes 03=Raydist without complications 04=Raydist with errors, drifting etc. 05=Satellite 06=Omega 07=Loran A only 08=Loran C only
Method	52	1	Bytes	I1	Sampling method: 1=CTD 2=XBT 3=Water bottles 4=CTD & water bottles 5=CTD, water bottles, & XBT 6=GRAB 7=Meteorological
Blank	53	28	Bytes	28X	Blank

*Decimal place is implied: "period" is not present

RECORD FORMAT DESCRIPTION

RECORD NAME

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN BYTES (e.g., bfrs, bvrms)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2"	Terminators				
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67 X	Blank
Sample Header Record 2					
File type	1	3	Chars	A3	"014" (constant)
File Date	4	6	Bytes	3I2	Year, month, day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513, 0515, 0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1x	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	25	Bytes	25 X	Blank

*Decimal place is IMPLIED; "period" is not present

RECORD FORMAT DESCRIPTION

ORD NAME

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
<u>Record Type "3"</u>	<u>Terminator</u>				
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record 2
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67X	Blank
<u>Data Record</u>					
File Type	1	3	Chars	A3	"014" (constant)
File Date	4	6	Bytes	3I2	year, month, day of file generation
Record Type	10	1	Chars	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of rec. type w/in sample
Sample	14	5	Chars	5A1	Sample identifier
Depth	19	4	Bytes	I4	Sample depth (meters)
Pressure	23	5	Bytes	F5.1*	Pressure (decibars)
Conduct	28	5	Bytes	F5.3*	Conductivity (mmho/cm)
Temp.	33	5	Bytes	F5.3*	Water Temperature (°C)
Salin	38	4	Bytes	F4.2*	Salinity (PPT)
D.O.	42	4	Bytes	F4.2*	Dissolved Oxygen (MG/L)
NO ₂	46	4	Bytes	F4.2*	Nitrite (microgram - atom/L)
NO ₃	50	4	Bytes	F4.2*	Nitrate (microgram - atom/L)
NH ₄	54	4	Bytes	F4.3*	Amonia (ppm)
O-PO ₄	58	4	Bytes	F4.2*	Ontho-Phosphate (microgram - atom/L)
DOC	62	4	Bytes	F4.2*	Dissolved organic carbom (mg/L)
PCC	66	4	Bytes	F4.2*	Particulate organic carbon(mg/L)
CSALI:	70	5	Bytes	F5.3*	Calculated salinity (ppt to nearest 0.003)**
C.D.O.	75	4	Bytes	F4.2*	Calculated dissolved oxygen (mg/L)**
Blank	79	2	Bytes	2X	Blank
<u>Data Record Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67X	Blank
<u>File Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67X	Blank

*Decimal place is IMPLIED: "period" is not present
 **99.0 indicates a bad reading

NAVIGATION:

- 01 = Loran (mixed or unspecified)
- 02 = Radar and/or fixes
- 03 = Raydist without complications
- 04 = Raydist with errors, drifting, etc.
- 05 = Satellite
- 06 = Omega
- 07 = Loran A only
- 08 = Loran C only

TURBIDITY MEASUREMENT TECHNIQUE

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 cm. path
- 3 = Fluorometer; suspended solids calibration
- 4 = Nephelometer

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.

BLM06B, BLM06W

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
Neil Brown Inst. CTD MK III	Jan., 1977	✓			✓				
Beckman Minds D.O. Sensor	Jan., 1977	✓			✓				
Guildline Autosac MOD8400	Jan., 1977	✓			✓				

NODC CR 3002

REC'D 3/5/78

VCM 437

ACCESSION
NUMBER

78-0340

DATA DOCUMENTATION FORM

NOAA FORM 24-13
(4-77)

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

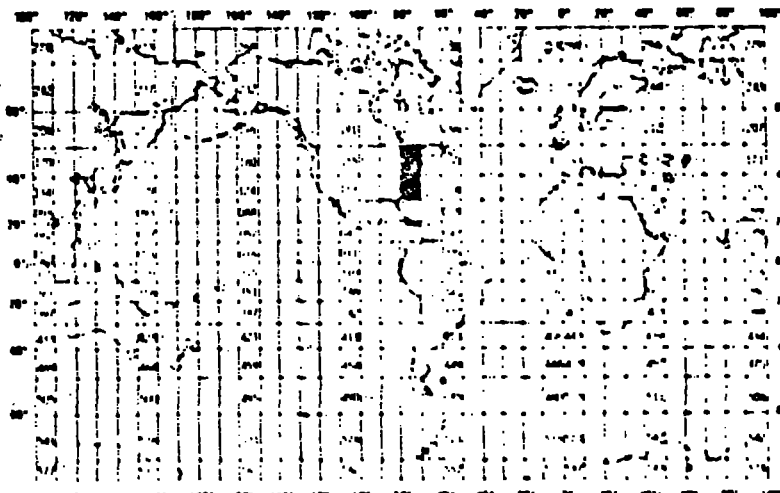
WPH 452.014 BLM05B

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			
Virginia Institute of Marine Science Gloucester Point, Virginia 23062			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT	
		BLM05B	
4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)	7. DATES
U.S. Navy	Ship	PLATFORM OPERATOR FROM MO, DAY, YR TO MO, DAY, YR	
		U.S. Navy Marine Corps	11/05/76 11/18/76
8. ARE DATA PROPRIETARY? <input type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED? FOR GENERAL USE? YEAR MONTH		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.	
9. ARE DATA DECLARED NATIONAL PROGRAM (NP)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)		GENERAL AREA	
PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN 11.4-1)			
Gerald L. Engel Virginia Institute of Marine Science Gloucester Pk., Va. 23062			

NOAA FORM 24-13

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
Latitude & Long	Degrees, min., seconds	Loran C STNRAD Model LC 101		Program used to convert from Loran C coordinates to latitude & longitude
Latitudinal Hemisphere	N or S			
Longitudinal Hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	ETC Model 4600 Recorder ORE 12Khz Transceiver		
Water sample depth	to nearest meter	CTD Neil Brown MK III		
Surface water temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Sediment temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees WMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	Knots	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees WMO Code 0877	Ship's compass		
Wave height	1/2 meters WMO Code 1555	Visual estimate		
Swell direction	Tens of degrees WMO Code 0877	Ship's compass		
Swell height	1/2 meters WMO Code 1555	Visual estimate		
Weather	WMO Code 4077	Visual estimate		
Cloud type	WMO Codes 0513, 0515, 0509	Visual estimate		

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
Cloud cover	WMO Code 2700	Visual observation		
Visibility	WMO Code 4300	Visual observation		
Wave period	Seconds	Wrist watch - visual observation		
Swell period	Seconds	Wrist watch - visual observation		
Salinity	Parts per thousand to 0.01%	Niskin bottles on rosette	Guildline Auto sac Model 6400	N/A
	Parts per thousands to 0.001ppt	Neil Brown CTD model MK III	N/A	Values averaged over .5 meter intervals
Dissolved Oxygen	Milligrams per liter	Niskin bottles on rosette Beckman minos D.O. Sensor	Azide Modification to Winkler Titration Corrected to computed D.O. Winkler Titrations	N/A Values averaged over .5 depth intervals
Water temperature	°C to .001 °C to 0.1	Neil Brown CTD MK III XBT	N/A N/A	Values averaged over .5m Depth and temp at local max, min, inflection points
NO ₂	u gm. atoms/liter	Niskin bottles on rosette	Technicon industrial method #158-71W AAII	N/A
NO ₃	u gm. atoms/liter	Niskin bottles on rosette	Technicon industrial method #158-71W AAII	N/A
Dissolved organic phosphate	u gm. atoms/liter	Niskin bottles on rosette	Technicon industrial method #155-71W AAII	N/A
<p><i>If a calculated value appears in col. 70 of card the method of observation is by STD.</i></p> <p><i>If value shown in Card, col the method is Niskin, possible.</i></p>				

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

1. File Header "1" in position 10.
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "999" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Sample Header 2 Positions 1-10 identical to the last sample header, "999" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for Positions 1-10 identical to last data record, "998" in positions 11-13
8. File Terminator Positions 1-10 identical to last data record, "999" in positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record.
Following this are Data Records for that sample followed by Terminator record.
Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

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

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER: Gerald L. Engel

ADDRESS: Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> 0.6 inch</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p>	<p>10. END OF FILE MARK <input type="checkbox"/> OCTAL 17 <input type="checkbox"/></p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD <input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME KEY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p>VCM437</p> <p>Virginia Institute of Marine Science</p> <p>Water Physics and Chemistry</p> <p>File Label = 'WPHYSC.014.BLM05B'</p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 356 BPI</p> <p><input type="checkbox"/> 800 BPI</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>80</p> <p>13. LENGTH OF BYTES IN BITS</p> <p>8</p>

RECORD FORMAT DESCRIPTION

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN FILES (e.g., bfm, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"014" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I2	xx/xx/xx-xx/xx/xx beginning year, month, day- ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	(left-justified)
Investigator	64	17	Chars	16A1	Investigators & Institution Responsible for data.

RECORD FORMAT DESCRIPTION

CORD NAME SAMPLE HEADER 1

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., 300, 400, 500)	16. LENGTH		17. ATTRIBUTES FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"014" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab sample no.	14	5	Chars	5A1	Sample identifier
Latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Lat hem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3,2I2	Degrees, minutes, seconds
Lon hem	33	1	Char	A1	Hemisphere "E" or "W"
Time	34	3	Byte	F3.1*	Sample time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
WDepth	45	5	Bytes	F5.1*	Water depth (to nearest tenth of a meter)
Navigation	50	2	Bytes	I2	Navigation: 01=Loran (mixed or unspecified) 02=Radar and/or fixes 03=Raydist without complications 04=Raydist with errors, drifting etc. 05=Satellite 06=Omega 07=Loran A only 08=Loran C only
Method	52	1	Bytes	I1	Sampling method: 1=CTD 2=XBT 3=Water bottles 4=CTD & water bottles 5=CTD, water bottles, & XBT 6=GRAB 7=Meteorological
Blank	53	28	Bytes	28X	Blank

*Decimal place is implied: "period" is not present

RECORD FORMAT DESCRIPTION

RECORD NAME

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN - 1000 (No. Bits, Bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2" Terminators					
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67 X	Blank
Sample Header Record 2					
File type	1	3	Chars	A3	"014" (constant)
File Date	4	6	Bytes	3I2	Year, month, day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	SA1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Sea Height	36	1	Byte	I1	WMO code 1555
Wave Height	37	2	Bytes	I2	WMO code 0877; tens of degrees
Weather	39	1	Byte	I1	WMO code 1555
Cloud type	40	2	Bytes	I2	WMO code 4677
Cloud Cover	42	3	Bytes	I3	WMO codes 0513, 0515, 0509
Visibility	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Blank	46	1	Byte	I1	WMO code 4300
Turbidity	47	1	Byte	1x	Blank
	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	25	Bytes	25 X	Blank

*Decimal place is IMPLIED; "period" is not present.

*Decimal place is IMPLIED; "period" is not present.

RECORD FORMAT DESCRIPTION

RECORD NAME

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., 310, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
<u>Record Type "3"</u>	<u>Terminator</u>				
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header: Record 2
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67X	Blank
<u>Data Record</u>					
File Type	1	3	Chars	A3	"014" (constant)
File Date	4	6	Bytes	3I2	year, month, day of file generation
Record Type	10	1	Chars	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of rec. type w/in sample
Sample	14	5	Chars	SA1	Sample identifier
Depth	19	4	Bytes	I4	Sample depth (meters)
Pressure	23	5	Bytes	F5.1*	Pressure (decibars)
Conduct	28	5	Bytes	F5.3*	Conductivity (mmho/cm)
Temp.	33	5	Bytes	F5.3*	Water Temperature (°C)
Salin	38	4	Bytes	F4.2*	Salinity (PPT)
D.O.	42	4	Bytes	F4.2*	Dissolved Oxygen (MG/L)
NO ₂	46	4	Bytes	F4.2*	Nitrite (microgram - atom/L)
NO ₃	50	4	Bytes	F4.2*	Nitrate (microgram - atom/L)
NH ₄	54	4	Bytes	F4.3*	Amonia (ppm)
PO ₄	58	4	Bytes	F4.2*	Ontho-Phosphate (microgram - atom/L)
DCC	62	4	Bytes	F4.2*	Dissolved organic carbon (mg/L)
POC	66	4	Bytes	F4.2*	Particulate organic carbon (mg/L)
CSALIN	70	5	Bytes	F5.3*	Calculated salinity (ppt to nearest 0.003)**
C.D.O.	75	4	Bytes	F4.2*	Calculated dissolved oxygen (mg/L)**
Blank	79	2	Bytes	2X	Blank
<u>Data Record Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67X	Blank
<u>File Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67X	Blank

*Decimal place is IMPLIED: "period" is not present
 **99.0 indicates a bad reading

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.

BLM05B, BLM05W

INSTRUMENT TYPE (INSTR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
Neil Brown Inst. CTD MK III	Oct., 1976	✓			✓				
Beckman Minds D.O. Sensor	Oct., 1976	✓			✓				
Guildline Autosac MOD8400	Oct., 1976	✓			✓				

Rec'd 5/18/78

VCM 399

ACCESSION
NUMBER

78-0340

VIMS

DATA DOCUMENTATION FORM

MACRON. 012. BLM05B

NOAA FORM 24-13
(4-72)U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
ROCKVILLE, MARYLAND 20852FORM 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			
Virginia Institute of Marine Science Gloucester Point, Virginia 23062			
NODC CR. TR 3009			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT	
BLM		BLM05B	
4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)	7. DATES
H.J.W. Fay	Ship	PLATFORM OPERATOR	FROM: MO/DAY/YR TO: MO/DAY/YR
		H.J.W. Fay Tracor Marine	11/03/76 11/18/76
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR MONTH		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.	
		GENERAL AREA	
9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)			
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1) r. Gerald L. Engel Va. Institute of Marine Science Gloucester Pt., Va. 23062 804-642-2111			

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
Latitude & Long.	Degrees, mins., seconds	Loran C SIMRAD Model LC 101		Program used to convert from Loran C coordinates to latitude & longitude
Latitudinal hemisphere	N or S			
Longitudinal Hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	ETC Model 4600 Recorder ORE 12Khz Tranceiver		
Water sample depth	to nearest meter	CTD Neil Brown MK III		
Surface water temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Sediment temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees WMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	Knots	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees WMO Code 0877	Ship's compass		
Wave height	1/2 meters WMO Code 1555	Visual estimate		
Swell direction	Tens of degrees WMO Code 0877	Ship's compass		
Swell height	1/2 meters WMO Code 1555	Visual estimate		
Weather	WMO Code 4677	Visual estimate		
Cloud type	WMO Codes 0513, 0515, 0509	Visual estimate		

B. SCIENTIFIC CONTENT

[illegible]

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

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Position 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Positions 1-10 identical to the last sample header
Sample Header 2 "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator of data for Positions 1-10 identical to last data record,
Each sample "99" - position 11-13
8. File Terminator Positions 1-10 identical to last data record, "998" in
positions 11-13.

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 and 2, each followed by a Terminator record. Following this are Data Records for that sample followed by Terminator record. Sample Headers, terminators, data records, terminator sequence is repeated until final terminator record.

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

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel
ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

5. RECORDING MODE <input type="checkbox"/> BCD <input type="checkbox"/> BINARY <input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC <input type="checkbox"/> _____	9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 1/4 INCH <input checked="" type="checkbox"/> 0.6 inch
	10. END OF FILE MARK <input type="checkbox"/> OCTAL 17 <input type="checkbox"/> _____
6. NUMBER OF TRACKS (CHANNELS) <input type="checkbox"/> SEVEN <input checked="" type="checkbox"/> NINE <input type="checkbox"/> _____	11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER) VCM399 Virginia Institute of Marine Science Macro Benthos File Label = 'MACROB.012.BLM05B'
7. PARITY <input checked="" type="checkbox"/> ODD <input type="checkbox"/> EVEN	
8. DENSITY <input type="checkbox"/> 700 BPI <input checked="" type="checkbox"/> 1600 BPI <input type="checkbox"/> 556 BPI <input type="checkbox"/> 800 BPI <input type="checkbox"/> _____	12. PHYSICAL BLOCK LENGTH IN BYTES 91
	13. LENGTH OF BYTES IN BITS 8

RECORD FORMAT DESCRIPTION

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"012" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I2	xx/xx/xx-xx/xx/xx Beginning year, month, day- ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigators & Institution
Investigator	64	28	Chars	28A1	Responsible for data.

RECORD FORMAT DESCRIPTION

RECORD NAME SAMPLE HEADER 1

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"012" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
lab sample no.	14	5	Chars	5A1	Sample identifier
latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
lat hem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3,2I2	Degrees, minutes, seconds
lon hem	33	1	Char	A1	Hemisphere "E" or "W"
Time	34	3	Byte	F3.1*	Sample time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
WDepth	45	5	Bytes	F5.1*	Water depth (to nearest tenth of a meter)
Gear	50	1	Bytes	I1	GEAR: 1=0.1 Smith-McIntyre grab 2=Shipek 3=Gravity corer 4=Box corer 5=Vibro corer 6=Ewing corer 7=Hydrostatically damped corer 8=0.2 m ² VanVeen grab
Replicate	51	2	Bytes	I2	Replicate number
Sieve	53	4	Bytes	F4.3*	Sieve size (mm, 3 decimals)
Navigation	57	2	Bytes	I2	NAVIGATION: 01=Loran (mixed or unspecified) 02=Radar and/or fixes 03=Raydist without complications 04=Raydist with errors, drifting, etc. 05=Satellite 06=Omega 07=Loran A only 08=Loran C only
Area	59	4	Bytes	F4.2*	Surface area of sample: (m ² , 2 decimals)
PDepth	63	3	Bytes	F3.1*	Depth of sample penetration: (cm, 1 decimal)
Aliquot	66	1	Byte	I1	ALIQOT Method 1=top 2-3 cm of 35mm core from grab 2=top cm from grab 3=top 8-10cm from shipek grab 4=top 3-10cm from Smith McIntyre grab

RECORD FORMAT DESCRIPTION

RECORD NAME SAMPLE HEADER 1. cont.

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN bytes (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
Annelida	67	5	Bytes	F5.2*	5=top 10cm from box corer 6=core below 10cm from box corer Biomass-Annelida (wet weight in hundredths of grams)**
Mollusca	72	5	Bytes	F5.2*	Biomass-Mollusca (wet weight in Hundredths of grams)**
Crustacean	77	5	Bytes	F5.2*	Biomass-Cructacean (wet weight hundredths of grams)**
Echin	82	5	Bytes	F5.2*	Biomass-Echinodermata (wet weight in hundredths of grams)**
Miscel.	87	5	Bytes	F5.2*	Biomass-Miscellaneous Taxa (wet weight in hundredths of grams)**
*Decimal place IMPLIED: "period" is not present					
**A "T" in last column of field indicates only a trace reading					

RECORD FORMAT DESCRIPTION

March 1964

RECORD NAME _____

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2"	Terminators				
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	66	Bytes	66x	Blank
Sample Header Record 2					
File type	1	3	Chars	A3	"012" (constant)
File Date	4	6	Bytes	3I2	Year, month, day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513, 0515, 0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1x	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	36	Bytes	36X	Blank

*Decimal place is IMPLIED; "period" is not present

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		
<u>Record Type "3" Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as sample header record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	78	Bytes	78 X	Blank
<u>Data Record</u>					
File type	1	3	Chars	A3	"012" (constant)
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample identifier
Replicate	19	2	Chars	A2	Replicate number
Species	21	10	Chars	10A1	Species (NODC code)
Count	31	5	Bytes	I5	Count (number of individuals)**
Blank	36	56	Bytes	56X	Blank
<u>Data Record Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	78	Bytes	78X	Blank
<u>File Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"999" (constant)
Blank	14	78	Bytes	78X	Blank
*Decimal place is IMPLIED: "period" is not present					
**"p" in cols. 31-35 indicates the organism is present but not countable					

NAVIGATION:

- 01 = Loran (mixed or unspecified)
- 02 = Radar and/or fixes
- 03 = Raydist without complications
- 04 = Raydist with errors, drifting, etc.
- 05 = Satellite
- 06 = Omega
- 07 = Loran A only
- 08 = Loran C only

TURBIDITY MEASUREMENT TECHNIQUE

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 cm. path
- 3 = Fluorometer; suspended solids calibration
- 4 = Nephelometer

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.

BLM05B, BLM05W

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
Neil Brown Inst. CTD MK III	Oct., 1976	✓			✓				
Beckman Minds D.O. Sensor	Oct., 1976	✓			✓				
Guildline Autosac MOD8400	Oct., 1976	✓			✓				

Rec'd 5/3/78

VCM 403

ACCESSION
NUMBER

78-0340

VIMS

DATA DOCUMENTATION FORM

MACROB. 012. BLM08B

NOAA FORM 24-13
(4-72)U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
ROCKVILLE, MARYLAND 20852FORM 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			
Virginia Institute of Marine Science Gloucester Point, Virginia 23062			
NODC CR. TR 3012			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT	
BLM		BLM08B	
4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)	7. DATES
H.J.W. Fay	Ship	PLATFORM OPERATOR	FROM: MO/DAY/YR TO: MO/DAY/YR
		H.J.W. Fay Tracor Marine	08/03/77 08/17/77
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR MONTH		11. PLEASE DARKEN ALL MARCOEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.	
9. ARE DATA RECLASSIFIED NATIONAL PROGRAM (CNP)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNA- TIONAL EXCHANGE?) <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)		GENERAL AREA	
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELE- PHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1) Gerald L. Engel V.I. Institute of Marine Science Gloucester Pt., Va. 23062 804-442-2111			

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
Latitude & Long.	Degrees, mins., seconds	Loran C SIMRAD Model LC 101		Program used to convert from Loran C coordinates to latitude & longitude
Latitudinal hemis.	N or S			
Longitudinal Hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	EDO Model 55A Recorder EDO Model 444 Transceiver		
Water sample depth	to nearest meter	CTD Neil Brown MK III		
Surface water temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Sediment temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	°C to nearest tenth	Ship's Anemometer Bendix Model 120/135		
Wind direction	Tens of degrees WMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	Knots	Ship's compass		
Wave direction	Tens of degrees WMO Code 0877	Visual estimate		
Wave height	1/2 meters WMO Code 1555	Visual estimate		
Swell direction	Tens of degrees WMO Code 0877	Ship's compass		
Swell height	1/2 meters WMO Code 1555	Visual estimate		
Weather	WMO Code 4877	Visual estimate		
Cloud type	WMO Codes 0513, 0515, 0509	Visual estimate		

B SCIENTIFIC CONTENT

[illegible]

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

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Positions 1-10 identical to the last sample header Sample Header 2 "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for Positions 1-10 identical to last data record, each sample "998" - position 11-13
8. File terminator Positions 1-10 identical to last data record, "999" in positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record.
Following this are Data Records for that sample followed by Terminator record.
Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

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

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel
ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>		<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> 0.6 inch</p>	
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>		<p>10. END OF FILE MARK <input type="checkbox"/> OCTAL 17 <input type="checkbox"/> _____</p>	
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>		<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p>VCM403</p> <p>Virginia Institute of Marine Science</p> <p>Macro Benthos</p> <p>File Label = 'MACROB.012.BLM08B'</p>	
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 336 BPI</p> <p><input type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>			
		<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>91</p>	
		<p>13. LENGTH OF BYTES IN BITS</p> <p>8</p>	

RECORD FORMAT DESCRIPTION

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"012" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I2	xx/xx/xx-xx/xx/xx Beginning year, month, day- ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigators & Institution Responsible for data.
Investigator	64	28	Chars	28A1	

RECORD FORMAT DESCRIPTION

RECORD NAME SAMPLE HEADER 1

14. FIELD NAME	15. POSITION FROM 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"012" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab sample no.	14	5	Chars	5A1	Sample identifier
Latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Lat hem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3,2I2	Degrees, minutes, seconds
Lon hem	33	1	Char	A1	Hemisphere "E" or "W"
Time	34	3	Byte	F3.1*	Sample time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
WDepth	45	5	Bytes	F5.1*	Water depth (to nearest tenth of a meter)
Gear	50	1	Bytes	I1	GEAR: 1=0.1 Smith-Mcintyre grab 2=Shipek 3=Gravity corer 4=Box corer 5=Vibro corer 6=Ewing corer 7=Hydrostatically damped corer 8=0.2 m ² VanVeen grab
Replicate	51	2	Bytes	I2	Replicate number
Sieve	53	4	Bytes	F4.3*	Sieve size (mm, 3 decimals)
Navigation	57	2	Bytes	I2	NAVIGATION: 01=Loran (mixed or unspecified) 02=Radar and/or fixes 03=Raydist without complications 04=Raydist with errors, drifting, etc. 05=Satellite 06=Omega 07=Loran A only 08=Loran C only
Area	59	4	Bytes	F4.2*	Surface area of sample: (m ² , 2 decimals)
PDepth	63	3	Bytes	F3.1*	Depth of sample penetration: (cm, 1 decimal)
Aliquot	66	1	Byte	I1	ALiquOT Method 1=top 2-3 cm of 35mm core from grab 2=top cm from grab 3=top 8-10cm from shipek grab 4=top 8-10cm from Smith McIntyre grab

RECORD FORMAT DESCRIPTION

RECORD NAME SAMPLE HEADER 1 cont.

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN bytes (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
Annelida	67	5	Bytes	F5.2*	5=top 10cm from box corer 6=core below 10cm from box corer Biomass-Annelida (wet weight in hundredths of grams)**
Mollusca	72	5	Bytes	F5.2*	Biomass-Mollusca (wet weight in Hundredths of grams)**
Crustacean	77	5	Bytes	F5.2*	Biomass-Cructacean (wet weight hundredths of grams)**
Echin	82	5	Bytes	F5.2*	Biomass-Echinodermata (wet weight in hundredths of grams)**
Miscel.	87	5	Bytes	F5.2*	Biomass-Miscellaneous Taxa (wet weight in hundredths of grams)**
*Decimal place IMPLIED: "period" is not present					
**A "T" in last column of field indicates only a trace reading					

RECORD FORMAT DESCRIPTION

March

RECORD NAME _____

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2"	Terminators				
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	66	Bytes	66x	Blank
Sample Header Record 2					
File type	1	3	Chars	A3	"012" (constant)
File Date	4	6	Bytes	3I2	Year, month, day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513, 0515, 0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1x	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	36	Bytes	36X	Blank

*Decimal place is IMPLIED; "period" is not present

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 Type "3" Terminator					
Ident	1	10	Bytes	A3,3I2,A1	Same as sample header record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	78	Bytes	78 X	Blank
Data Record					
File type	1	3	Chars	A3	"012" (constant)
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample identifier
Replicate	19	2	Chars	A2	Replicate number
Species	21	10	Chars	10A1	Species (NODC code)
Count	31	5	Bytes	I5	Count (number of individuals)**
Blank	36	56	Bytes	56X	Blank
Data Record Terminator					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	78	Bytes	78X	Blank
File Terminator					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"999" (constant)
Blank	14	78	Bytes	78X	Blank
<p>*Decimal place is IMPLIED: "period" is not present</p> <p>**"p" in cols. 31-35 indicates the organism is present but not countable</p>					

NAVIGATION:

- 01 = Loran (mixed or unspecified)
- 02 = Radar and/or fixes
- 03 = Raydist without complications
- 04 = Raydist with errors, drifting, etc.
- 05 = Satellite
- 06 = Omega
- 07 = Loran A only
- 08 = Loran C only

TURBIDITY MEASUREMENT TECHNIQUE

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 cm. path
- 3 = Fluorometer; suspended solids calibration
- 4 = Nephelometer

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.

BLM08B, BLM08W

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
Neil Brown Inst. CTD MK III	July, 1977	✓			✓				
Beckman Minds D.O. Sensor	July, 1977	✓			✓				
Guildline Autosac MOD8400	July, 1977	✓			✓				

RECORD FORMAT DESCRIPTION

RECORD NAME

78-0340

TR3009; 3010; 3012

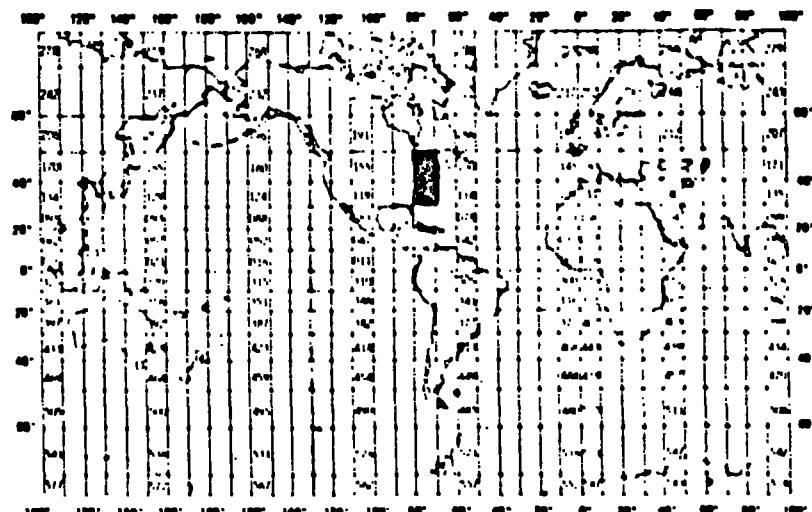
14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
F(012)		(1)			RECORD '2' water depth measured to whole meters; SIEVE SIZE to ONE DECIMAL; SURFACE AREA to ONE DECIMAL
		(2)			RECORD '4' P IN COL 31-35 INDICATE ORGANISM IS PRESENT but not COUNTABLE
		(3)			LESS THAN SIGN (<) USED IN conjunction with BIOMASS FOR ANNELIDA, MOLLUSCA, CRUSTACEA, ECHIN, AND MISCEL. IN RECORD '2'
		(4)			TR3012 STATION B2007 - B2012 246 changed to 240 IN COL 25

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

NODC CR. TR 3006

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					
Virginia Institute of Marine Science Gloucester Point, Virginia 23062					
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT			
BIM		BLM07T			
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/YR/YY	TO: MO/YR/YY
Cape Henlopen	Ship	Cape Henlopen	Univ. of Delaware	05/16/77	05/21/77
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR MONTH		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED. GENERAL AREA			
9. ARE DATA DECLARED NATIONAL PROGRAM (CNPI)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)					
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM 1)					
Dr. Gerald L. Engel Va. Institute of Marine Science Gloucester Pt., Va. 23062 804-642-2111					

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
Latitude & Long	Degrees, mins., seconds	Loran C SINRAD Model LC 101		Program used to convert from Loran C coordinates to Latitude & Longitude
Latitudinal Hemisphere	N or S			
Longitudinal Hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	Fathometer		
Water sample depth	to nearest meter	G. M. Meter Wheel		
Surface water temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees IMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	Knots	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees IMO Code 0877	Ship's Compass		
Wave height	1/2 meters IMO Code 1555	Visual estimate		
Swell direction	Tens of degrees IMO Code 0877	Ship's Compass		
Swell height	1/2 meters IMO Code 1555	Visual estimate		
Weather	IMO Code 4677	Visual estimate		
Cloud type	IMO Codes 0513, 0515, 0509	Visual estimate		

44-38861-100

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

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Sample Header 2 Positions 1-10 identical to the last sample header "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for Positions 1-10 identical to last data record, "998" in positions 11-13
8. File Terminator Positions 1-10 identical to last data record, "998" in positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record. Following this are Data Records for that sample followed by Terminator record. Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

3. ATTRIBUTES AS EXPRESSED IN

☐ PL-1 ☐ ALGOL ☐ COBOL
☒ FORTRAN ☐ _____ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel

ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/8 INCH</p> <p><input checked="" type="checkbox"/> 0.6 inch</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK <input type="checkbox"/> OCTAL 17</p> <p><input type="checkbox"/> _____</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF TAPE TYPE, VOLUME NUMBER)</p> <p>VCM408</p> <p>Virginia Institute of Marine Science</p> <p>Mega Benthos</p> <p>File Label = 'MEGABN.082.BLM07T'</p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 356 BPI</p> <p><input type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>79</p> <p>13. LENGTH OF BYTES IN BITS</p> <p>8</p>

RECORD FORMAT DESCRIPTION

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"082" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I2	xx/xx/xx-xx/xx/xx Beginning year, month, day- ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigators & Institution Responsible for data.
Investigator	64	16	Chars	16A1	

RECORD FORMAT DESCRIPTION

RECORD NAME SAMPLE HEADER 1

11. FIELD NAME	12. POSITION FROM - 1 MEASURED IN Bytes (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"082" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab sample no.	14	5	Chars	5A1	Sample identifier
Latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Lat hem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3,2I2	Degrees, minutes, seconds
Lon hem	33	1	Char	A1	Hemisphere "E" or "W"
Time	34	3	Byte	F3.1*	Sample time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
WDepth	45	5	Bytes	F5.1*	Water depth (to nearest tenth of a meter)
Gear	50	1	Byte	I1	GEAR: 1=Anchor dredge 2=Small biological trawl 3=Otter Trawl (30 ft.) 4=Rockingchair dredge
Navigation	51	2	Bytes	I2	NAVIGATION: 01=Loran (Mixed or unspecified) 02=Radar and/or fixes 03=Raydist without complications 04=Raydist with errors, drifting etc. 05=Satellite 06=Omega 07=Loran A only 08=Loran C only
Mesh	53	4	Bytes	F4.2*	Dredge mesh size (mm, 2 decimals)
Trawl	57	4	Bytes	F4.2*	Otter trawl liner (mm, 2 decimals)
Tow	61	2	Bytes	I2	Tow duration: minutes
Blank	63	17	Bytes	17X	Blank

*Decimal place IMPLIED: "period" is not present

RECORD FORMAT DESCRIPTION

Moja

RECORD NAME

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2"	Terminators				
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	66	Bytes	66x	Blank
Sample Header Record 2					
File type	1	3	Chars	A3	"082" (constant)
File Date	4	6	Bytes	3I2	Year, month, day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	SA1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513, 0515, 0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1x	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	24	Bytes	24x	Blank

*Decimal place is IMPLIED; "period" is not present

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		
<u>Record Type "3" Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as sample header record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	66	Bytes	66X	Blank
<u>Data Record</u>					
File type	1	3	Chars	A3	"082" (constant)
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample identifier
Species	19	10	Chars	10A1	Species (NODC code)
Count	29	5	Bytes	I5	Count (number of individuals)**
Weight	34	5	Bytes	I5	Weight (mg)
Order of magnitude	39	2	Bytes	I2	Order of magnitude
Blank	41	39	Bytes	39X	Blank
<u>Data Record Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	66	Bytes	66X	Blank
<u>File Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"999" (constant)
Blank	14	66	Bytes	66X	Blank

*Decimal place is IMPLIED: "period" is not present

**A "p" in col. 33 indicates the organism is present but not countable.

NAVIGATION:

- 01 = Loran (mixed or unspecified)
- 02 = Radar and/or fixes
- 03 = Raydist without complications
- 04 = Raydist with errors, drifting, etc.
- 05 = Satellite
- 06 = Omega
- 07 = Loran A only
- 08 = Loran C only

TURBIDITY MEASUREMENT TECHNIQUE

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 cm. path
- 3 = Fluorometer; suspended solids calibration
- 4 = Nephelometer

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.

BLM07T

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
Guildline Autosac MOD8400	May, 1977	✓			✓				

ERROR CORRECTION DOCUMENTATION FORM

DATE:

TO: OC12

FROM: OC13

SUBJECT: Error Correction in Processing of Data Set - Accession # 78000340

- 1) File Type: F082
- 2) Project Ident.: VIMS-OCS
- 3) Track Nos.: TR3006

I. Error Corrections as reported to Principal Investigator:

Error

Correction Completed (Check)

II. Additional error corrections:

Error

Correction Completed (Check)

III. Processor Name: _____

TAPE ASSIGNMENT SHEET

ACCESSION NO.: 7800340

TRACK NO(s): TR3006

Type of Tape	Tape Number	Label	LRECL	BLKSIZE	RECFM	Remarks
Originator	VCM408	SL	79	79	9- tr 1600 BPI EBCDIC	
Duplicate	W09999	SL	79	4740	9- tr 1600 BPI ASCII	
Reformatted						
First User						
Final User						

DATA SET ROUTE SHEET

ACCESSION/TRACK # 7800340 / TR3006

<u>Step</u>	<u>Completion Date/Init.</u>		<u>Tape # or DSN</u>	<u># of Files</u>	<u>BLKSIZE</u>	<u>LRECL</u>	<u># RECORDS</u>
ORIGINATOR TAPE	4/6/83	8100	VCM408	3	79	79	
QUADI/SCAN TAPE	4/6/83	8100	W09999	3	4740	79	
ASSIGNED FOR PROCESS.							
DDF EVALUATION							
QUALITY REVIEW							
PRELIMINARY DATA SORT							
PRELIMINARY MULCHEK							
FIRST USER TAPE							
WORK DISK FILE							
FINAL USER TAPE							
FINAL MULCHEK							
EDITED DISK FILE							
DATA SET "FINALIZED"							

DDF A: 1: 18

5/3/78

VITA 495

ACCESSION
NUMBER

78-0340

DATA DOCUMENTATION FORM

TR 7994

HYDROB. OIO. BLM05B

NOAA FORM 24-13
(4-77)U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
NECOMUS SECTION
ROCKVILLE, MARYLAND 20852FORM 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			
Virginia Institute of Marine Science Gloucester Point, Virginia 23062			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT	
BIM		BLM05B	
4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)	7. DATES
H.J.W. Fay	Ship	PLATFORM OPERATOR	FROM: MO/DAY/YR TO: MO/DAY/YR
		H.J.W. Fay Tracor Marine	11/03/76 11/18/76
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED PERIOD: GENERAL () SPECIFIC () YEAR MONTH		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.	
9. ARE DATA INCLUDED NATIONAL PROGRAM IDENTIFIER? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)		GENERAL AREA	
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1) Dr. Gerald L. Engel Va. Institute of Marine Science Gloucester Pt., Va. 23062 804-642-2111			

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
Latitude & Long.	Degrees, mins., seconds	Loran C SIMRAD Model LC 101		Program used to convert from Loran C coordinates to latitude & longitude
Latitudinal hemis.	N or S			
Longitudinal Hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	ETC Model 4600 Recorder ORE 12Khz Tranceiver		
Water sample depth	to nearest meter	CTD Neil Brown MK III		
Surface water temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Sediment temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees WMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	Knots	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees WMO Code 0877	Ship's compass		
Wave height	1/2 meters WMO Code 1555	Visual estimate		
Swell direction	Tens of degrees WMO Code 0877	Ship's compass		
Swell height	1/2 meters WMO Code 1555	Visual estimate		
Weather	WMO Code 4577	Visual estimate		
Cloud type	WMO Codes 0513, 0515, 0509	Visual estimate		

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
Cloud cover	WMO Code 2700	Visual observation		
Visibility	WMO Code 4300	Visual observation		
Wave period	Seconds	Wrist watch - visual observation		
Swell period	Seconds	Wrist watch - visual observation		
Salinity	Parts per thousand to 0.01%	Niskin bottles on rosette	Guildline Auto sac Model 8400	N/A
Dissolved oxygen	Milligrams per liter	Niskin bottles on rosette	Azide modification to Winkler Titration	N/A
Water temperature	°C to 0.1	XBT	N/A	Depth and temp at local max, min, inflection points

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

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Positions 1-10 identical to the last sample header Sample Header 2 "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for Positions 1-10 identical to last data record, each sample "998" - position 11-13
8. File Terminator Positions 1-10 identical to last data record, "999" in Positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record.
Following this are Data Records for that sample followed by Terminator record.
Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

3. ATTRIBUTES AS EXPRESSED IN

☐ PL-1 ☐ ALGOL ☐ COBOL
☒ FORTRAN ☐ _____ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel
ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> 0.6 inch</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK <input type="checkbox"/> OCTAL 17 <input type="checkbox"/> _____</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME KEY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p>VCM495 Virginia Institute of Marine Science Hydrocarbon File Label = 'HYDRCB.010.BLM05B'</p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 556 BPI</p> <p><input type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES 113</p> <p>13. LENGTH OF BYTES IN BITS 8</p>

RECORD FORMAT DESCRIPTION

RECORD NAME **FILE HEADER**

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"010" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I2	xx/xx/xx-xx/xx/xx Beginning year, month, day-ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigators & Institution
Investigator	64	16	Chars	16A1	Responsible for data.
Blank	80	34	Bytes	34X	Blank

RECORD FORMAT DESCRIPTION

RECORD NAME

Sample Header 1

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN (e.g., Min, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"010" File-type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Char	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab sample no.	14	5	Chars	5A1	Sample identifier (first 2 chars are station I.D.)
Latitude	19	6	Bytes	3I2	Latitude (degrees, minutes, seconds)
Lathem	25	1	Char	A1	Hemisphere (-N or S)
Longitude	26	7	Bytes	I3, 2I2	Longitude (degrees, minutes, seconds)
Lonhem	33	1	Char	A1	Hemisphere (-E or W)
Time	34	3	Bytes	F3.1*	Station time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
Depth	45	5	Bytes	F5.1*	Water depth (to nearest tenth of a meter)
Navigation	50	2	Bytes	I2	Navigation: 01=Loran (mixed or unspecified) 02=Radar and/or fixes 03=Raydist without complications 04=Raydist with errors, drifting, etc. 05=Satellite 06=Omega 07=Loran A only 08=Loran C only
Sample code	52	1	Byte	I1	Sample type code: 1=Sediment 7=Neuston 2=Benthic 8=Dissolved Oxygen 3=Zooplankton bottom 4=Dissolved oxygen, surface 5=Particulate, surface 6=Surface film 9=Particulate, bottom
Replicate	53	2	Chars	A2	Replicate number (sediment only)
Znumb	55	4	Bytes	I4	Zooplankton collection number
Species	59	10	Chars	10A1	Species code (NODC code)
Pris/Phy	69	5	Bytes	E5.2*	Pristane/phytane ratio (E notation 9.99+9)
Phy/C18	74	5	Bytes	E5.2*	Phytane/C18 ratio (E notation 9.99+9)
Pris/C17	79	5	Bytes	E5.2*	Pristane/C17 ratio (E notation 9.99+9)
Total extract	84	6	Bytes	E6.3*	Total extract weight** (E notation 9.999+9)
CPI	90	6	Bytes	E6.3*	(E notation 9.999+9) (C23+C25+C27+C29)/ (C24+C26+C28+C30)

*Decimal place is implied; "period" is not present

**Units are defined by sample type code 1, 2, 3, & 7 in µgm/gm; 4, 5, & 8 in µgm/liter; 6 in µgm/m²

RECORD FORMAT DESCRIPTION

RECORD NAME Sample Header 1 (continued)

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN (No. bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Blank	96	6	Bytes	6X	Blank
GC aliph	102	6	Bytes	E6.3*	Total GC aliphatic** (E notation 9 ⁹⁹⁹ +9)
GC arom	108	6	Bytes	E6.3*	Total GC aromatic** (E notation 9 ⁹⁹⁹ +9)

*Decimal place is implied; "period" is not present

**Units are defined by sample type code: 1, 2, 3 & 7 in ugm/gm
4, 5 & 8 in ugm/liter
6 in ugm/m²

RECORD FORMAT DESCRIPTION

RECORD NAME

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN FILES (e.g., bit, byte)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2" Terminators					
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	100	Bytes	100X	Blank
Sample Header Record 2					
File type	1	3	Chars	A3	"C13" (constant)
File Date	4	6	Bytes	3I2	Year,month,day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513,0515,0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1x	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	58	Bytes	58X	Blank

*Decimal place is IMPLIED; "period" is not present

RECORD FORMAT DESCRIPTION

RECORD NAME

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN (e.g., 100, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "3"	Terminator				
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record 2
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	100	Bytes	100X	Blank
Data Record					
File type	1	3	Chars	A3	"010" (constant)
File date	4	6	Bytes	3I2	year, month, day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample identifier (14-15 station code)
No.	19	2	Bytes	I2	Number of concentrations in this record (up to 10)
Extract	21	1	Char	A1	Extract Code H=Aliphatic B=Aromatic
Retention	22	4	Bytes	I4	Retention index**
Concentration	26	5	Bytes	E5.2*	Concentration (E notation 9.99-9)
Retention	31	4	Bytes	I4	Retention index**
Concentration	35	5	Bytes	E5.2*	Concentration
Retention	40	4	Bytes	I4	Retention index**
Concentration	44	5	Bytes	E5.2*	Concentration
Retention	49	4	Bytes	I4	Retention index**
Concentration	53	5	Bytes	E5.2*	Concentration
Retention	58	4	Bytes	I4	Retention index**
Concentration	62	5	Bytes	E5.2*	Concentration
Retention	67	4	Bytes	I4	Retention index**
Concentration	71	5	Bytes	E5.2*	Concentration
Retention	76	4	Bytes	I4	Retention index**
Concentration	80	5	Bytes	E5.2*	Concentration
Retention	85	4	Bytes	I4	Retention index**
Concentration	89	5	Bytes	E5.2*	Concentration
Retention	94	4	Bytes	I4	Retention index**
Concentration	98	5	Bytes	E5.2*	Concentration
Retention	103	4	Bytes	I4	Retention index**
Concentration	107	5	Bytes	E5.2*	Concentration
Blank	112	2	Bytes	2X	Blank

*Decimal place is IMPLIED; "period" is not present.

**Analytical Chemistry, Vol. 36, No. 8, July, 1964, pp 31A-41A.

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		
<u>Data Record Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as Data Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	100	Bytes	100X	Blank
<u>File Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as Data Record
Sequence	11	3	Chars	A3	"999" (constant)
Blank	14	100	Bytes	100X	Blank
					*Decimal place is IMPLIED; "period" is not present.

NAVIGATION:

- 01 = Loran (mixed or unspecified)
- 02 = Radar and/or fixes
- 03 = Raydist without complications
- 04 = Raydist with errors, drifting, etc.
- 05 = Satellite
- 06 = Omega
- 07 = Loran A only
- 08 = Loran C only

TURBIDITY MEASUREMENT TECHNIQUE

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 cm. path
- 3 = Fluorometer; suspended solids calibration
- 4 = Nephelometer

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.

BLM05B, BLM05W

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED (✓)
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
Neil Brown Inst. CTD MK III	Oct., 1976	✓			✓				
Beckman Minds D.C. Sensor	Oct., 1976	✓			✓				
Guildline Autosac MOD8400	Oct., 1976	✓			✓				

ERROR CORRECTION DOCUMENTATION FORM

DATE:

TO: OC12

FROM: OC13

SUBJECT: Error Correction in Processing of Data Set - Accession # 7800390

- 1) File Type: F010
- 2) Project Ident.: VIMS-OCS
- 3) Track Nos.: TR7994

I. Error Corrections as reported to Principal Investigator:

Error

Correction Completed (Check)

II. Additional error corrections:

Error

Correction Completed (Check)

III. Processor Name: _____

TAPE ASSIGNMENT SHEET

ACCESSION NO.: 7800340

TRACK NO(s): TR7994

Type of Tape	Tape Number	Label	LRECL	BLKSIZE	RECFM	Remarks
Originator	VCM495	SL	113	113	9-tu 1600BPI EBCDIC	
Duplicate	W10097	SL	113	4520	9-tu 1600 BPI ASCII	
Reformatted						
First User						
Final User						

DATA SET ROUTE SHEET

ACCESSION/TRACK # 7800340/TR7994

<u>Step</u>	<u>Completion Date/Init.</u>		<u>Tape # or DSN</u>	<u># of Files</u>	<u>BLKSIZE</u>	<u>LRECL</u>	<u># RECORDS</u>
ORIGINATOR TAPE	3/2/83	8810	VCMA495	3	113	113	
QUADI/SCAN TAPE	3/2/83	8810	W10097	3	4520	113	
ASSIGNED FOR PROCESS.							
DDF EVALUATION							
QUALITY REVIEW							
PRELIMINARY DATA SORT							
PRELIMINARY MULCHEK							
FIRST USER TAPE							
WORK DISK FILE							
FINAL USER TAPE							
FINAL MULCHEK							
EDITED DISK FILE							
DATA SET "FINALIZED"							

ACCESSION
NUMBER

78 0340

TR 3013 TR 3015

200PLK. 008. 01MOS W

ODE A' 1/1X

DATA DOCUMENTATION FORM

FORM 24-13

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

NODC CR. TR 3013

NODC CR. TR 3014

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

Virginia Institute of Marine Science
Gloucester Point, Virginia 230622. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH
DATA WERE COLLECTED3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY
DATA IN THIS SHIPMENT

PLMOSW

4. PLATFORM NAME(S)

H.J.W. Fay/
Virginian Sea5. PLATFORM TYPE(S)
(E.G., SHIP, BUOY, ETC.)Ship TR 3014 -
TR 3013 -6. PLATFORM AND OPERATOR
NATIONALITY(IES)PLATFORM OPERATOR
H.J.W. Fay Tracor
/Virginian Marine/
Sea VIMS

7. DATES

FROM: MO, DAY, YR TO: MO, DAY, YR
11/19/76 11/29/76
11/04/76 11/07/76
11/17/76 11/26/76

8. ARE DATA PROPRIETARY?

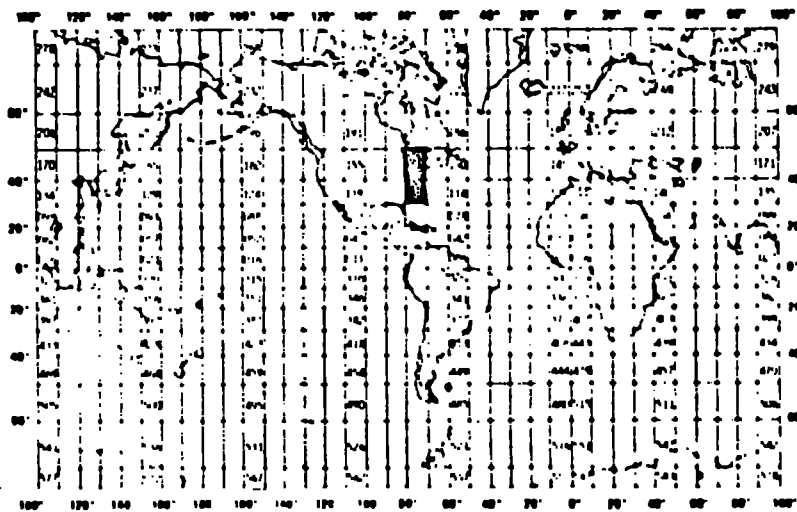
☐ NO ☐ YESIF YES, WHEN CAN THEY BE RELEASED
(FOR GENERAL USE) YEAR MONTH11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA
CONTAINED IN YOUR SUBMISSION WERE COLLECTED.

overlap 11/19 thru 11/26

GENERAL AREA

9. ARE DATA DECLARED NATIONAL
PROGRAM (DNP)?IF YES, SHOULD THEY BE INCLUDED IN WORLD
DATA CENTERS HOLDINGS FOR INTERNA-
TIONAL EXCHANGE?☐ NO ☐ YES ☐ PART (SPECIFY BELOW)10. PERSON TO WHOM INQUIRIES CONCERNING
DATA SHOULD BE ADDRESSED WITH TELE-
PHONE NUMBER AND ADDRESS IF OTHER
THAN IN ITEM 1Gerald L. Engel
Virginia Institute of Marine Science
Gloucester Pt., Va. 23062

04-642-2111



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 PROTECTION TECHNIQUES WITH FILTERING AND AVERAGING
Latitude & Long.	Degrees, mins., seconds	Loran C SINRAD Model LC 101		Program used to convert from Loran C coordinates to Latitude & Longitude
Latitudinal Hemisphere	N or S			
Longitudinal Hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	EDO Model 55A Recorder EDO Model 444 Transceiver EDO Model 415 Transducer		
Water sample depth	to nearest meter	CTD Neil Brown MK III		
Surface water temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tenths to tenths	Danforth Anneroid Barometer Model 310		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees WMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	Knots	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees WMO Code 0877	Ship's compass		
Wave height	1/2 meters WMO Code 1555	Visual estimate		
Swell direction	Tens of degrees WMO Code 0877	Ship's compass		
Swell height	1/2 meters WMO Code 1555	Visual estimate		
Weather	WMO Code 4677	Visual estimate		
Cloud type	WMO Codes 0513, 0515, 0509	Visual estimate		

B. SCIENTIFIC CONTENT

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHOD OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Period	seconds	Wrist watch - visual observation		
Salinity	Parts per thousand to nearest 0.01%	Niskin bottles on rosette CTD - Bissett Berman Model 9040	Inductive Salinometer Beckman RS 7-B N/A	N/A Values averaged over 1/2 meter depth interval

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

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Sample Header 2 Positions 1-10 identical to the last sample header "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for Positions 1-10 identical to last data record, "998" - position 11-13
8. File Terminator Positions 1-10 Identical to last data record, "998" in Positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record. Following this are Data Records for that sample followed by Terminator record. Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

3. ATTRIBUTES AS EXPRESSED IN

☐ PL-1 ☐ ALGOL ☐ COBOL
☒ FORTRAN ☐ _____ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel
ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 inch <input checked="" type="checkbox"/> 0.6 inch</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK</p> <p><input type="checkbox"/> OCTAL 17</p> <p><input type="checkbox"/> _____</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME KEY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p>VCM351</p> <p>Virginia Institute of Marine Science</p> <p>Zooplankton</p> <p>File Label = 'ZOOPLK.008.BLM05W'</p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 556 BPI</p> <p><input type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>	
<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>86</p>	
<p>13. LENGTH OF BYTES IN BITS</p> <p>8</p>	

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM 1 MEASURED IN 1100 (e.g., 0100, 0100)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"008" file type (zooplankton)
File Date	4	6	Bytes	3I2	Year, month, day of file generation
Record Type	10	1	Chars	A1	"1" (File Header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise Dates	28	17	Bytes	5 (I2,A1) I2	XX/XX/XX-XX/XX/XX Beginning year, month, day- Ending year, month, day
Senior Scientist	45	19	Chars	19A1	(left-justified)
Investigator	64	23	Chars	23A1	Investigators & Institution responsible for data.

RECORD NAME Sample Header 1

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN UNITS (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (Fortran)	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"008" file-type (Zooplankton)
File Date	4	6	Bytes	3I2	Year, month, day of file generation
Record Type	10	1	Char	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab Sample No.	14	5	Chars	SA1	Sample identifier
Latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Lat hem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3, 2I2	Degrees, minutes, seconds
Lon hem	33	1	Char	A1	Hemisphere, "E" or "W"
Date	34	8	Bytes	2(I2,A1)I2	xx/xx/xx Sample date, (year, month, day)
Tow Start Time	42	3	Bytes	F3.1*	GMT in hours
Tow Duration	45	3	Bytes	I3	minutes
STEMP	48	3	Bytes	F3.1*	Surface water Temperature (°C)
SSALIN	51	3	Bytes	F3.1*	Surface Salinity (parts per thou)
Tow Max. Depth	54	4	Bytes	I4	Maximum depth of sampling gear (meters)
Gear	58	2	Bytes	I2	Code of gear used (see attached codes)
Replicates	60	2	Bytes	I2	Number of replicates in the Samples
Mesh	62	4	Bytes	I4	Net mesh size (microns)
Type Tow	66	1	Bytes	I1	Type of Tow: 1-Vertical, 2-oblique, 3-stepped oblique, 4-horizontal, discrete, 5-horizontal, open on descent and/or ascent
Flow	67	5	Bytes	F5.1*	Volume of water sampled (cubic meters)
Navigation	72	2	Bytes	I2	Navigation method (see attached codes)
Depth	74	4	Bytes	I4.1*	Total water column depth at start of tow (meters)
Individuals	78	6	Bytes	I6	Number of individuals (blank if not given)
Species	84	3	Bytes	I3	Number of species (blank if not given)

*Decimal place is IMPLIED; "period" is not present.

RECORD NAME _____

14. FIELD NAME	15. POSITION FROM 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (Fortran)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2" Terminators					
Ident	1	10	Bytes	A3, 3I2, A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	73	Bytes	73X	Blank
Sample Header Record 2					
File Type	1	3	Chars	A3	"003" (constant)
File Date	4	6	Bytes	3I2	year, month, day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WHO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WHO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WHO code 1555
Swell Direction	37	2	Bytes	I2	WHO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WHO code 1555
Weather	40	2	Bytes	I2	WHO code 4677
Cloud type	42	3	Bytes	I3	WHO codes 0513, 0515, 0509
Cloud cover	45	1	Bytes	I1	WHO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WHO code 4300
Blank	47	1	Byte	1X	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	31	Bytes	31X	Blank
*Decimal place is IMPLIED; "period" is not present					

*Decimal place is IMPLIED; "period" is not present

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 Type "3" Terminator					
Ident	1	10	Bytes	A3,3I2,A1	Same as sample header record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	73	Bytes	73X	Blank
Data Record					
File type	1	3	Chars	A3	"008" (constant)
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample identifier
Species	19	10	Chars	10A1	Species (NODC code)
Count	29	5	Bytes	I5	Count (number of individuals)
Order of magnitude	34	1	Bytes	I1	Order of magnitude
Blank	35	52	Bytes	52X	Blank
Data Record Terminator					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	73	Bytes	73X	Blank
File Terminator					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"999" (constant)
Blank	14	73	Bytes	73X	Blank

Navigation:

- 01 = Loran (mixed or unspecified)
- 02 = Eddar and/or fixes
- 03 = Raydist without complications
- 04 = Raydist with errors, drifting, etc.
- 05 = Satellite
- 06 = Omega
- 07 = Loran A only
- 08 = Loran C only

Turbidity Measurement Technique:

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 cm path
- 3 = Fluorometer; suspended solids calibration
- 4 = Nephelometer

Gear:

- 01-one meter conical net
- 02-1/2 meter conical net
- 03-Clark-Bumpus (5")
- 04-Miller High-Speed sampler (5")
- 05-Bongo sampler (8")
- 06-Bongo sampler (1/2 meter)
- 07-Bongo sampler (24")
- 08-Neuston net, PNS (Zaitsev-type)
- 09-Neuston net, simple rectangular
- 10-Neuston net, WHOI-type
- 11-Clarke-Bumpus 12"

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.

BLM05B, BLM05W

INSTRUMENT TYPE (SER., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
Neil Brown Inst. CTD MK III	Oct., 1976	✓			✓				
Beckman Minds D.O. Sensor	Oct., 1976	✓			✓				
Guildline Autosac MOD8400	Oct., 1976	✓			✓				

VCM406

DATA DOCUMENTATION FORM

TR3008

NOAA FORM 24-13
(4-77)U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
WASHINGTON, DC 20235FORM APPROVED
O.M.B. No. 41-R2651
EXPIRES 1-81

(While you are not required to use this form, it is the most desirable mechanism for providing the required ancillary information enabling the NODC and users to obtain the greatest benefit from your data.)

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

Virginia Institute of Marine Science
Gloucester Point, Virginia 23062

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

BLM

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

BLM05T

4. PLATFORM NAME(S)

C. Henlopen

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

Ship

6. PLATFORM AND OPERATOR
NATIONALITY(IES)

USA

USA

7. DATES

FROM: MO, DAY, YR TO: MO, DAY, YR

11/8/76 11/18/76

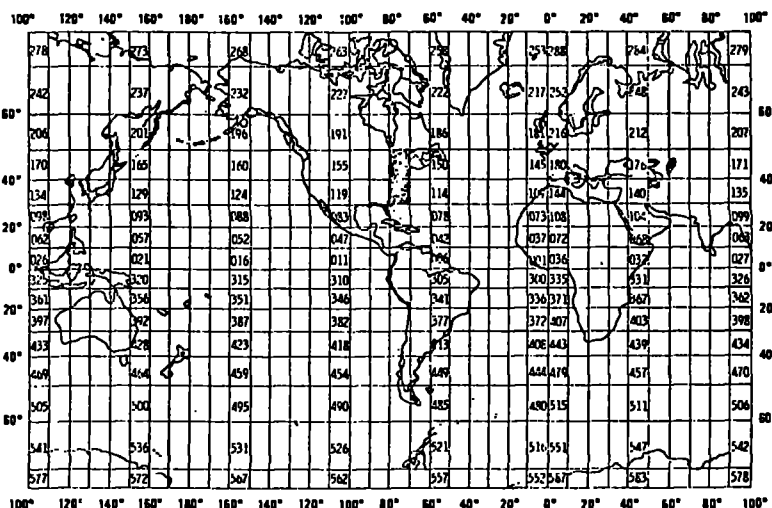
8. ARE DATA PROPRIETARY?

☒ NO ☐ YESIF YES, WHEN CAN THEY BE RELEASED
FOR GENERAL USE? YEAR MONTH9. ARE DATA DECLARED NATIONAL
PROGRAM (DNP)?(I.E., SHOULD THEY BE INCLUDED IN WORLD
DATA CENTERS HOLDINGS FOR INTERNA-
TIONAL EXCHANGE?)☒ NO ☐ YES ☐ PART (SPECIFY BELOW)10. PERSON TO WHOM INQUIRIES CONCERNING
DATA SHOULD BE ADDRESSED WITH TELE-
PHONE NUMBER (AND ADDRESS IF OTHER
THAN IN ITEM-1)

Dr. Gerald L. Engel
VIMS
Gloucester Pt., Va. 23062

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

GENERAL AREA



NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHOD OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS AND LABORATORY PROCEDURES)	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Latitude & Long.	Degrees, mins., seconds	Loran C SHEAR Model LC 101		Program used to convert from Loran C coordinates to Latitude & Longitude
Longitudinal Ref.	N or S			
Longitudinal axis here	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	Fathometer		
Water sample depth	to nearest meter	G. M. Meter Wheel		
Surface water temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 565		
Wind direction	Tens of degrees IMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	Knots	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees IMO Code 0877	Ship's Compass		
Wave height	1/2 meters IMO Code 1555	Visual estimate		
Swell direction	Tens of degrees IMO Code 0877	Ship's Compass		
Swell height	1/2 meters IMO Code 1555	Visual estimate		
Weather	IMO Code 4077	Visual estimate		
Cloud type	IMO Codes 0513, 0515, 0509	Visual estimate		

B. SCIENTIFIC CO. ENT

[illegible]

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

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "999" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Sample Header 2 Positions 1-10 identical to the last sample header "999" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for Positions 1-10 identical to last data record, each sample "998" - position 11-13
8. File Terminator Positions 1-10 identical to last data record, "999" in positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record. Following this are Data Records for that sample followed by Terminator record. Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

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

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel

ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> 0.6 inch</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK <input type="checkbox"/> OCTAL 17 <input type="checkbox"/> _____</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME KEY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p>VCM408</p> <p>Virginia Institute of Marine Science</p> <p>Mega Benthos</p> <p>File Label = 'MEGABN.082.BLMOST'</p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 556 BPI</p> <p><input type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>79</p> <p>13. LENGTH OF BYTES IN BITS</p> <p>8</p>

RECORD FORMAT DESCRIPTION

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"082" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I2	xx/xx/xx-xx/xx/xx Beginning year, month, day- ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigators & Institution
Investigator	64	16	Chars	16A1	Responsible for data.

RECORD FORMAT DESCRIPTION

RECORD NAME SAMPLE HEADER 1

FIELD NAME	13. POSITION FROM -1 MEASURED IN Bytes (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"082" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab sample no.	14	5	Chars	5A1	Sample identifier
Latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Lat hem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3,2I2	Degrees, minutes, seconds
Lon hem	33	1	Char	A1	Hemisphere "E" or "W"
Time	34	3	Byte	F3.1*	Sample time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
WDepth	45	5	Bytes	F5.1*	Water depth (to nearest tenth of a meter)
Gear	50	1	Byte	I1	GEAR: 1=Anchor dredge 2=Small biological trawl 3=Otter Trawl (30 ft.) 4=Rockingchair dredge
Navigation	51	2	Bytes	I2	NAVIGATION: 01=Loran (Mixed or unspecified) 02=Radar and/or fixes 03=Raydist without complications 04=Raydist with errors, drifting etc. 05=Satellite 06=Omega 07=Loran A only 08=Loran C only
Mesh	53	4	Bytes	F4.2*	Dredge mesh size (mm, 2 decimals)
Trawl	57	4	Bytes	F4.2*	Otter trawl liner (mm, 2 decimals)
Tow	61	2	Bytes	I2	Tow duration: minutes
Blank	63	17	Bytes	17X	Blank

*Decimal place IMPLIED: "period" is not present

RECORD NAME _____

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN FIELD (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2" Terminators					
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	66	Bytes	66x	Blank
Sample Header Record 2					
File type	1	3	Chars	A3	"082" (constant)
File Date	4	6	Bytes	3I2	Year, month, day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	SA1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513, 0515, 0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1x	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	24	Bytes	24X	Blank

*Decimal place is IMPLIED; "period" is not present

*Decimal place is IMPLIED; "period" is not present

RECORD FORMAT DESCRIPTION

RECORD NAME

4. FIELD NAME	15. POSITION FROM - 1 MEASURED IN (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
<u>Record Type "3" Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as sample header record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	66	Bytes	66X	Blank
<u>Data Record</u>					
File type	1	3	Chars	A3	"082" (constant)
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample identifier
Species	19	10	Chars	10A1	Species (NODC code)
Count	29	5	Bytes	I5	Count (number of individuals)**
Weight	34	5	Bytes	I5	Weight (mg)
Order of magnitude	39	2	Bytes	I2	Order of magnitude
Blank	41	39	Bytes	39X	Blank
<u>Data Record Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	66	Bytes	66X	Blank
<u>File Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"999" (constant)
Blank	14	66	Bytes	66X	Blank

*Decimal place is IMPLIED: "period" is not present

**A "P" in col. 33 indicates the organism is present but not countable.

NAVIGATION:

- 01 = Loran (mixed or unspecified)
- 02 = Radar and/or fixes
- 03 = Raydist without complications
- 04 = Raydist with errors, drifting, etc.
- 05 = Satellite
- 06 = Omega
- 07 = Loran A only
- 08 = Loran C only

TURBIDITY MEASUREMENT TECHNIQUE

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 cm. path
- 3 = Fluorometer; suspended solids calibration
- 4 = Nephelometer

ERROR CORRECTION DOCUMENTATION FORM

DATE:

TO: OC12

FROM: OC13

SUBJECT: Error Correction in Processing of Data Set - Accession # 7800340

- 1) File Type: F082
- 2) Project Ident.: VIMS-OCS
- 3) Track Nos.: TR3008

I. Error Corrections as reported to Principal Investigator:

Error

Correction Completed (Check)

II. Additional error corrections:

Error

Correction Completed (Check)

III. Processor Name: _____

<u>Step</u>	<u>Completion Date/Init.</u>		<u>Tape # or DSN</u>	<u># of Files</u>	<u>BLKSIZE</u>	<u>LRECL</u>	<u># RECORDS</u>
ORIGINATOR TAPE	5/18/83	(FBP)	VCMA406	3	79	79	2866
QUADI/SCAN TAPE	5/18/83	(FBP)	W11784	3	4740	79	2866
ASSIGNED FOR PROCESS.							
DDF EVALUATION							
QUALITY REVIEW							
PRELIMINARY DATA SORT							
PRELIMINARY MULCHEK							
FIRST USER TAPE							
WORK DISK FILE							
FINAL USER TAPE							
FINAL MULCHEK							
EDITED DISK FILE							
DATA SET "FINALIZED"							

TAPE ASSIGNMENT SHEET

ACCESSION NO.: 7800340

TRACK NO(s): TR3008

Type of Tape	Tape Number	Label	LRECL	BLKSIZE	RECFM	Remarks
Originator	VCM406	SL	79	79	9-tu 1600 BPI EBCDIC	
Duplicate	W11784	SL	79	4740	9-tu 1600 BPI ASCII	
Reformatted						
First User						
Final User						

DATA DOCUMENTATION FORM

78-0340

MEGABN.082.BLM06T

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

FORM APPROVED
O.M.B. No. 41-R2031

VIMS

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

NODC CR. TR 3005

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			
Virginia Institute of Marine Science Gloucester Point, Virginia 23062			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT	
BLM		BLM06T	
4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)	7. DATES
James M. Gilliss	Ship	PLATFORM OPERATOR	FROM: MONTH DAY, YR TO: MONTH DAY, YR
		James M. Gilliss Univ. of Miami	03/18/77 03/28/77
8. ARE DATA PROPRIETARY? <input type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR MONTH		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.	
9. ARE DATA RELEASED NATIONAL PROGRAM DATA? IF YES, SHOULD THEY BE INCLUDED IN WORLD DATA CENTER HOLDINGS FOR INTERNATIONAL EXCHANGE? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)		GENERAL AREA	
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER AND ADDRESS IF OTHER THAN IN ITEM 1			
Dr. Gerald L. Engel Va. Institute of Marine Science Gloucester Pt., Va. 23062			

NOA-002-2111

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
Latitude & Long.	Degrees, mins., seconds	Loran C SIMRAD Model LC 101		Program used to convert from Loran C coordinates to Latitude & Longitude
Latitudinal Hemisphere	N or S			
Longitudinal Hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist watch, checked daily with WWV		
Water depth	to nearest tenth of a meter	Precision Depth Recorder		
Water sample depth	to nearest meter	G.M. Meter Wheel		
Surface water temperature	°C to nearest tenth	Mercury in glass stem Thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 555		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 555		
Wind direction	Tens of degrees WMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	knots	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees WMO Code 0877	Ship's compass		
Wave height	1/2 meters WMO Code 1555	Visual estimate		
Swell direction	Tens of degrees WMO Code 0877	Ship's compass		
Swell height	1/2 meters WMO Code 1555	Visual estimate		
Weather	WMO Code 4677	Visual estimate		
Cloud type	WMO Codes 0513, 0515, 0509	Visual estimate		

5. SCIENTIFIC CONTENT

[illegible]

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

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "999" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Sample Header 2 Positions 1-10 identical to the last sample header, "999" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for Positions 1-10 identical to last data record, each sample "999" - position 11-13
8. File Terminator Positions 1-10 identical to last data record, "999" in positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record. Following this are Data Records for that sample followed by Terminator record. Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

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

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel
ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN): <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> 0.6 inch</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK <input type="checkbox"/> OCTAL 17 <input type="checkbox"/> _____</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME KEY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p>VCM407</p> <p>Virginia Institute of Marine Science</p> <p>Mega Benthos</p> <p>File Label = 'MEGABN.082.BLM06T'</p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 556 BPI</p> <p><input type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>79</p> <p>13. LENGTH OF BYTES IN BITS</p> <p>8</p>

RECORD FORMAT DESCRIPTION

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., 5ff, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"082." file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I2	xx/xx/xx-xx/xx/xx Beginning year, month, day- ending year, month, day (left-justified,
Senior scientist	45	19	Chars	19A1	Investigators & Institution
Investigator	64	16	Chars	16A1	Responsible for data.

RECORD FORMAT DESCRIPTION

RECORD NAME SAMPLE HEADER 1

12. FIELD NAME	13. POSITION FROM -1 MEASURED IN Bytes (e.g., b1m, b7m-e)	16. LENGTH		17. ATTRIBUTES FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"082" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab sample no.	14	5	Chars	5A1	Sample identifier
Latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Lathem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3,2I2	Degrees, minutes, seconds
Lonhem	33	1	Char	A1	Hemisphere "E" or "W"
Time	34	3	Byte	F3.1*	Sample time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
Depth	45	5	Bytes	F5.1*	Water depth (to nearest tenth of a meter)
Gear	50	1	Byte	I1	GEAR: 1=Anchor dredge 2=Small biological trawl 3=Otter Trawl (30 ft.) 4=Rockingchair dredge
Navigation	51	2	Bytes	I2	NAVIGATION: 01=Loran (Mixed or unspecified) 02=Radar and/or fixes 03=Raydist without complications 04=Raydist with errors, drifting etc. 05=Satellite 06=Omega 07=Loran A only 08=Loran C only
Mesh	53	4	Bytes	F4.2*	Dredge mesh size (mm, 2 decimals)
Trawl	57	4	Bytes	F4.2*	Otter trawl liner (mm, 2 decimals)
Tow	61	2	Bytes	I2	Tow duration: minutes
Blank	63	17	Bytes	17X	Blank

*Decimal place IMPLIED: "period" is not present

RECORD FORMAT DESCRIPTION

Page 11

RECORD NAME

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN FILE (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2" Terminators					
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	66	Bytes	66x	Blank
Sample Header Record 2					
File type	1	3	Chars	A3	"082" (constant)
File Date	4	6	Bytes	3I2	Year,month,day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	SA1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513,0515,0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1x	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	24	Bytes	24X	Blank
*Decimal place is IMPLIED; "period" is not present					

*Decimal place is IMPLIED; "period" is not present

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		
<u>Record Type "3"</u>	Terminator				
Ident	1	10	Bytes	A3,3I2,A1	Same as sample header record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	66	Bytes	66X	Blank
<u>Data Record</u>					
File type	1	3	Chars	A3	"082" (constant)
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample identifier
Species	19	10	Chars	10A1	Species (NODC code)
Count	29	5	Bytes	I5	Count (number of individuals)*
Weight	34	5	Bytes	I5	Weight (mg)
Order of magnitude	39	2	Bytes	I2	Order of magnitude
Blank	41	39	Bytes	39X	Blank
<u>Data Record Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	66	Bytes	66X	Blank
<u>File Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"999" (constant)
Blank	14	66	Bytes	66X	Blank

*Decimal place is IMPLIED: "period" is not present

**A "P" in col. 33 indicates the organism is present but not countable.

NAVIGATION:

- 01 = Loran (mixed or unspecified)
- 02 = Radar and/or fixes
- 03 = Raydist without complications
- 04 = Raydist with errors, drifting, etc.
- 05 = Satellite
- 06 = Omega
- 07 = Loran A only
- 08 = Loran C only

TURBIDITY MEASUREMENT TECHNIQUE

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 cm. path
- 3 = Flourometer; suspended solids calibration
- 4 = Nephelometer

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.

BLM06T

INSTRUMENT TYPE (SER., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED (✓)
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
Guildline Autosar MDP400	Jan., 1977	✓			✓				

ERROR CORRECTION DOCUMENTATION FORM

DATE:

TO: OC12

FROM: OC13

SUBJECT: Error Correction in Processing of Data Set - Accession # 7800340

- 1) File Type: F082
- 2) Project Ident.: VIMS-OCS
- 3) Track Nos.: TR3005

I. Error Corrections as reported to Principal Investigator:

Error

Correction Completed (Check)

II. Additional error corrections:

Error

Correction Completed (Check)

III. Processor Name: _____

Step	Completion Date/Init.		Tape # or DSN	# of Files	BLKSIZE	LRECL	# RECORDS
ORIGINATOR TAPE	5/18/83	<i>(JBR)</i>	VCM407	3	79	79	1214
QUADI/SCAN TAPE	5/18/83	<i>(JBR)</i>	W11877	3	4740	79	1214
ASSIGNED FOR PROCESS.							
PDF EVALUATION							
QUALITY REVIEW							
PRELIMINARY DATA SORT							
PRELIMINARY MULCHEK							
FIRST USER TAPE							
WORK DISK FILE							
FINAL USER TAPE							
AL MULCHEK							
EDITED DISK FILE							
DATA SET "FINALIZED"							

TAPE ASSIGNMENT SHEET

ACCESSION NO.: 7800340

TRACK NO(s): TR3005

Type of Tape	Tape Number	Label	LRECL	BLKSIZE	RECFM	Remarks
Originator	VCMA07	SL	79	79	9-tu 1600BPI EBCDIC	
Duplicate	W11877	SL	79	4740	9-tu 1600BPI ASCII	
Reformatted						
First User						
Final User						

VCM401

DATA DOCUMENTATION FORM

TR 3010

NOAA FORM 24-13
(4-77)U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
WASHINGTON, DC 20235FORM APPROVED
O.M.B. No. 41-R2651
EXPIRES 1-81

(While you are not required to use this form, it is the most desirable mechanism for providing the required ancillary information enabling the NODC and users to obtain the greatest benefit from your data.)

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

Virginia Institute of Marine Science
Gloucester Point, Virginia 23062

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

BLM

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

BLM06B

4. PLATFORM NAME(S)

H.J.W. Fay

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

Ship

6. PLATFORM AND OPERATOR
NATIONALITY(IES)

USA

USA

7. DATES

FROM: MO/DAY/YR TO: MO/DAY/YR

2/4/77 3/13/77

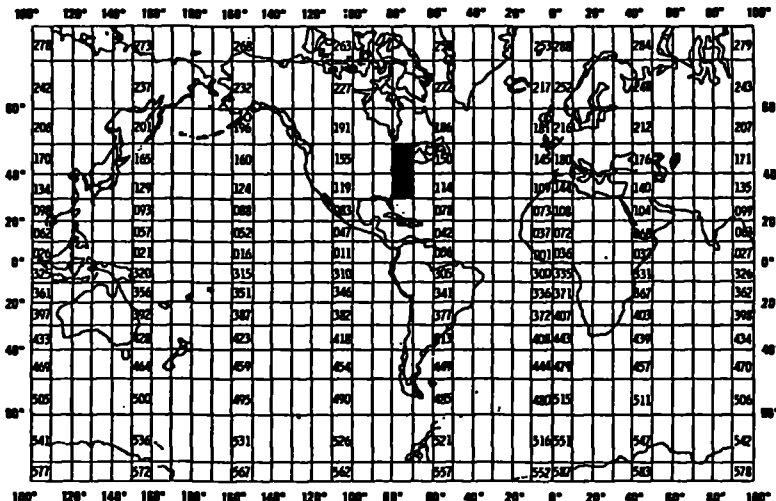
8. ARE DATA PROPRIETARY?

☒ NO ☐ YESIF YES, WHEN CAN THEY BE RELEASED
FOR GENERAL USE? YEAR MONTH9. ARE DATA DECLARED NATIONAL
PROGRAM (DNP)?(I.E., SHOULD THEY BE INCLUDED IN WORLD
DATA CENTERS HOLDINGS FOR INTERNA-
TIONAL EXCHANGE?)☒ NO ☐ YES ☐ PART (SPECIFY BELOW)10. PERSON TO WHOM INQUIRIES CONCERNING
DATA SHOULD BE ADDRESSED WITH TELE-
PHONE NUMBER (AND ADDRESS IF OTHER
THAN IN ITEM-1)

Dr. Gerald L. Engel
VIMS
Gloucester Pt., Va. 23062

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

GENERAL AREA



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 S510)	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 SCIPIFIC 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
Latitude & Long.	Degrees, min., seconds	Loran C Sikorski Model 100 101		Program used to convert from Loran C coordinates to latitude & longitude
Longitude	N or S			
Longitude	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	EDO Model 55A Recorder EDO Model 444D/248D Tranceiver		
Water sample depth	to nearest meter	CTD Neil Brown MK III		
Surface water temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Sediment temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees WMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	KNOTS	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees WMO Code 0877	Ship's compass		
Wave height	1/2 meters WMO Code 1555	Visual estimate		
Swell direction	Tens of degrees WMO Code 0877	Ship's compass		
Swell height	1/2 meters WMO Code 1555	Visual estimate		
Sea state	WMO Code 4677	Visual estimate		
Cloud type	WMO Codes 0511, 0515, 0509	Visual estimate		

NAME OF DATA FILE	REPORTING UNITS OR CODE	METHODS OF OBSERVATION OF INSTRUMENTS USED SPECIFY TYPE AND MODEL	ANALYTICAL METHODS INCLUDING MODIFICATIONS AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES INCLUDING FILTERING AND AVERAGING
Circled cover	WHO Code 3700	Visual observation		
Stability	WHO Code 4300	Visual observation		
Wave period	Seconds	Wrist watch - Visual observation		
Swell period	Seconds	Wrist watch - Visual observation		

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 AND METHOD OF IDENTIFYING EACH RECORD TYPE

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Position 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Positions 1-10 identical to the last sample header Sample Header 2 "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator of data for Positions 1-10 identical to last data record, Each sample "99" - position 11-13
8. File Terminator Positions 1-10 identical to last data record, "998" in positions 11-13.

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 and 2, each followed by a Terminator record. Following this are Data Records for that sample followed by Terminator record. Sample Headers, terminators, data records, terminator sequence is repeated until final terminator record.

3. ATTRIBUTES AS EXPRESSED IN

☐ PL-1 ☐ ALGOL ☐ COBOL
☒ FORTRAN ☐ _____ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel
ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

5. RECORDING MODE <input type="checkbox"/> BCD <input type="checkbox"/> BINARY <input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC <input type="checkbox"/> _____		9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> 0.6 inch
6. NUMBER OF TRACKS (CHANNELS) <input type="checkbox"/> SEVEN <input checked="" type="checkbox"/> NINE <input type="checkbox"/> _____		10. END OF FILE MARK <input type="checkbox"/> OCTAL 17 <input type="checkbox"/> _____
7. PARITY <input checked="" type="checkbox"/> ODD <input type="checkbox"/> EVEN		11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER) VCM401 Virginia Institute of Marine Science Macro Benthos File Label = 'MACROB.012.BLM06B'
8. DENSITY <input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI <input type="checkbox"/> 556 BPI <input type="checkbox"/> 800 BPI <input type="checkbox"/> _____		
		12. PHYSICAL BLOCK LENGTH IN BYTES 91
		13. LENGTH OF BYTES IN BITS 8

RECORD FORMAT DESCRIPTION

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"012" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I2	xx/xx/xx-xx/xx/xx Beginning year, month, day- ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigators & Institution
Investigator	64	28	Chars	28A1	Responsible for data.

RECORD FORMAT DESCRIPTION

RECORD NAME SAMPLE HEADER 1

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"012" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab sample no.	14	5	Chars	SA1	Sample identifier
Latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Lat hem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3,2I2	Degrees, minutes, seconds
Lon hem	33	1	Char	A1	Hemisphere "E" or "W"
Time	34	3	Byte	F3.1*	Sample time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
Depth	45	5	Bytes	F5.1*	Water depth (to nearest tenth of a meter)
Gear	50	1	Bytes	I1	GEAR: 1=0.1 Smith-McIntyre grab 2=Shipek 3=Gravity corer 4=Box corer 5=Vibro corer 6=Ewing corer 7=Hydrostatically damped corer 8=0.2 m ² VanVeen grab
Replicate	51	2	Bytes	I2	Replicate number
Sieve	53	4	Bytes	F4.3*	Sieve size (mm, 3 decimals)
Navigation	57	2	Bytes	I2	NAVIGATION: 01=Loran (mixed or unspecified) 02=Radar and/or fixes 03=Raydist without complications 04=Raydist with errors, drifting, etc. 05=Satellite 06=Omega 07=Loran A only 08=Loran C only
Area	59	4	Bytes	F4,2*	Surface area of sample: (m ² , 2 decimals)
Depth	63	3	Bytes	F3.1*	Depth of sample penetration: (cm, 1 decimal)
Aliquot	66	1	Byte	I1	ALiquot Method 1=top 2-3 cm of 35mm core from grab 2=top cm from grab 3=top 8-10cm from shipek grab 4=top 8-10cm from Smith McIntyre grab

RECORD FORMAT DESCRIPTION

SAMPLE HEADER 1 CONT.

EC NAME

4. FIELD NAME	15. POSITION FROM -1 MEASURED IN BYTES (e.g., 5/m, bytes)	16. LENGTH		17. ATTRIBUTES FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
Annulida	67	5	Bytes	F5.2*	5=top 10cm from box corer 6=core below 10cm from box corer Biomass-Annelida (wet weight in hundredths of grams)**
Mollusca	72	5	Bytes	F5.2*	Biomass-Mollusca (wet weight in Hundredths of grams)**
Crustacean	77	5	Bytes	F5.2*	Biomass-Cructacean (wet weight hundredths of grams)**
Echin	82	5	Bytes	F5.2*	Biomass-Echinodermata (wet weight in hundredths of grams)**
Miscel.	87	5	Bytes	F5.2*	Biomass-Miscellaneous Taxa (wet weight in hundredths of grams)**
*Decimal place IMPLIED: "period" is not present					
**A "T" in last column of field indicates only a trace reading					

RECORD FORMAT DESCRIPTION

Revision

RECORD NAME

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BITS (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2" Terminators					
Index	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	66	Bytes	66x	Blank
Sample Header Record 2					
File Type	1	3	Chars	A3	"012" (constant)
File Date	4	6	Bytes	3I2	Year, month, day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513, 0515, 0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1x	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	36	Bytes	36X	Blank

*Decimal place is IMPLIED; "period" is not present

*Decimal place is IMPLIED; "period" is not present

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 Type "T" Terminator					
Ident	1	10	Bytes	A3,3I2,A1	Same as sample header record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	78	Bytes	78 X	Blank
Data Record					
File type	1	3	Chars	A3	"012" (constant)
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample identifier
Replicate	19	2	Chars	A2	Replicate number
Species	21	10	Chars	10A1	Species (NODC code)
Count	31	5	Bytes	I5	Count (number of individuals)**
Blank	36	56	Bytes	56X	Blank
Data Record Terminator					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	78	Bytes	78X	Blank
File Terminator					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"999" (constant)
Blank	14	78	Bytes	78X	Blank
<p>*Decimal place is IMPLIED: "period" is not present</p> <p>**"p" in cols. 31-35 indicates the organism is present but not countable</p>					

NAVIGATION:

- 01 = Loran (mixed or unspecified)
- 02 = Radar and/or fixes
- 03 = Raydist without complications
- 04 = Raydist with errors, drifting, etc.
- 05 = Satellite
- 06 = Omega
- 07 = Loran A only
- 08 = Loran C only

TURBIDITY MEASUREMENT TECHNIQUE

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 cm. path
- 3 = Fluorometer; suspended solids calibration
- 4 = Nephelometer

ERROR CORRECTION DOCUMENTATION FORM

DATE:

TO:

FROM:

SUBJECT: Error Correction in Processing of Data Set - Accession # 7800340

- 1) File Type: F012.
- 2) Project Ident.: VIMS-OCS
- 3) Track Nos.: TR3010

I. Error Corrections as reported to Principal Investigator:

Error

Correction Completed (Check)

II. Additional error corrections:

Error

Correction Completed (Check)

III. Processor Name: _____

Step	Completion Date/Init.		Tape # or DSN	# of Files	BLKSIZE	LRECL	# RECORDS
ORIGINATOR TAPE	3/21/83	813P	VCM401	3	91	91	
QUADI/SCAN TAPE	3/21/83	813P	W10141	3	4550	91	
ASSIGNED FOR PROCESS.							
DDF EVALUATION							
QUALITY REVIEW							
PRELIMINARY DATA SORT							
PRELIMINARY MULCHEK							
FIRST USER TAPE							
WORK DISK FILE							
FINAL USER TAPE							
FINAL MULCHEK							
EDITED DISK FILE							
DATA SET "FINALIZED"							

TAPE ASSIGNMENT SHEET

ACCESSION NO.: 7800340

TRACK NO(s): TR3010

Type of Tape	Tape Number	Label	LRECL	BLKSIZE	RECFM	Remarks
Originator	VCM401	SL	91	91	9-tr 1600 B.B.I. EBCDIC	
Duplicate	W10141	SL	91	4550	9-tr 1600 B.P.I. ASCII	
Reformatted						
First User						
Final User						

ACCESSION
NUMBER

7800340

VCM 402

DATA DOCUMENTATION FORM

TR 3011

AA FORM 24-13
-77)U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
WASHINGTON, DC 20235FORM APPROVED
O.M.B. No. 41-R2651
EXPIRES 1-81

(While you are not required to use this form, it is the most desirable mechanism for providing the required ancillary information enabling the NODC and users to obtain the greatest benefit from your data.)

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

Virginia Institute of Marine Science
Gloucester Point, Virginia ~~23062~~ 23062

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

BLM

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

BLM 07B

4. PLATFORM NAME(S)

H. J. W. Fay

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

Ship

6. PLATFORM AND OPERATOR
NATIONALITY(IES)

USA

USA

7. DATES

FROM: MO, DAY, YR TO: MO, DAY, YR

5/30/77 6/5/77

8. ARE DATA PROPRIETARY?

☒ NO ☐ YESIF YES, WHEN CAN THEY BE RELEASED
FOR GENERAL USE? YEAR MONTH9. ARE DATA DECLARED NATIONAL
PROGRAM (DNP)?(I.E., SHOULD THEY BE INCLUDED IN WORLD
DATA CENTERS HOLDINGS FOR INTERNA-
TIONAL EXCHANGE?)☒ NO ☐ YES ☐ PART (SPECIFY BELOW)10. PERSON TO WHOM INQUIRIES CONCERNING
DATA SHOULD BE ADDRESSED WITH TELE-
PHONE NUMBER (AND ADDRESS IF OTHER
THAN IN ITEM-1)

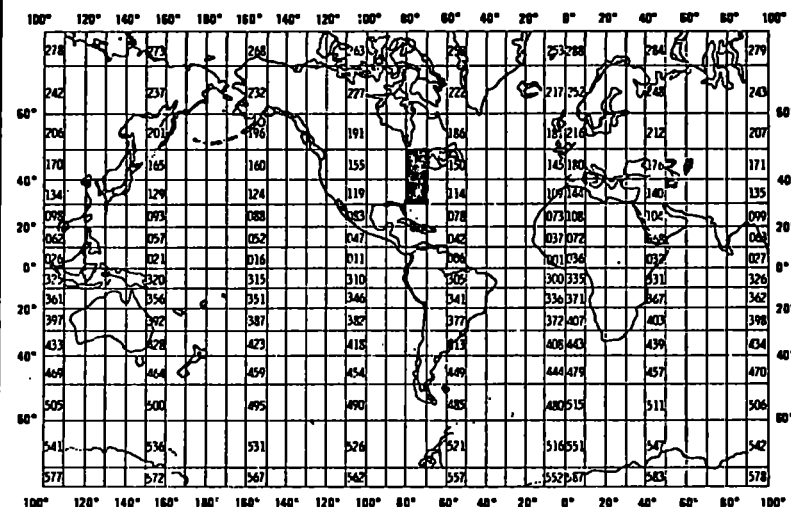
Dr. Gerald L. Engel

VIMS

Gloucester Pt., Va. 23062

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

GENERAL AREA



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 S510)	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)

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
Latitude & Long.	Degrees, min., seconds	Loran C SINRAD Model 1A-101		Program used to convert from Loran C coordinates to latitude & longitude
Latitudinal hem.	N or S			
Longitudinal Hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	EDO Model 55A Recorder EDO Model 444D/248D Tranceiver		
Water sample depth	to nearest meter	CTD Neil Brown MK III		
Surface water temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Sediment temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees IMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	Knots	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees IMO Code 0877	Ship's compass		
Wave height	1/2 meters IMO Code 1555	Visual estimate		
Swell direction	Tens of degrees IMO Code 0877	Ship's compass		
Swell height	1/2 meters IMO Code 1555	Visual estimate		
Surfacer	IMO Code 4677	Visual estimate		
Cloud type	IMO Codes 0513, 0515, 0509	Visual estimate		

C. DATA FORMAT

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

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

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Position 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Positions 1-10 identical to the last sample header Sample Header 2 "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator of data for Positions 1-10 identical to last data record, Each sample "99" - position 11-13
8. File Terminator Positions 1-10 identical to last data record, "998" in positions 11-13.

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 and 2, each followed by a Terminator record. Following this are Data Records for that sample followed by Terminator record. Sample Headers, terminators, data records, terminator sequence is repeated until final terminator record.

3. ATTRIBUTES AS EXPRESSED IN

☐ PL-1 ☐ ALGOL ☐ COBOL
☒ FORTRAN ☐ _____ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER

Gerald L. Engel

ADDRESS

Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

5. RECORDING MODE

☐ BCD ☐ BINARY
☐ ASCII ☒ EBCDIC
☐ _____

5. NUMBER OF TRACKS (CHANNELS)

☐ SEVEN
☒ NINE
☐ _____

7. PARITY

☒ ODD
☐ EVEN

DENSITY

☐ 200 BPI ☒ 1600 SPI
☐ 556 BPI
☐ 800 SPI
☐ _____

9. LENGTH OF INTER-RECORD GAP (IF KNOWN)

☐ 3/4 INCH
☒ 0.6 inch

10. END OF FILE MARK

☐ OCTAL 17
☐ _____

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

VCM401
Virginia Institute of Marine Science
Macro Benthos
File Label = 'MACROB.012.BLM07B'

12. PHYSICAL BLOCK LENGTH IN BYTES

91

13. LENGTH OF BYTES IN BITS

8

RECORD FORMAT DESCRIPTION

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN BYTES (e.g., bfr, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"012" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justif
Cruise	22	6	Chars	6A1	Originator's cruise iden (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I2	xx/xx/xx-xx/xx/xx Beginning year, month, d. ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigators & Institut
Investigator	64	28	Chars	28A1	Responsible for data.

RECORD FORMAT DESCRIPTION

RECORD NAME SAMPLE HEADER 1

FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., b10, bytes)	16. LENGTH		17. ATTRIBUTES FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"012" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab sample no.	14	5	Chars	SA1	Sample identifier
Latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Lat hem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3,2I2	Degrees, minutes, seconds
Lon hem	33	1	Char	A1	Hemisphere "E" or "W"
Time	34	3	Byte	F3.1*	Sample time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
WDepth	45	5	Bytes	F5.1*	Water depth (to nearest tenth of a meter)
Gear	50	1	Bytes	I1	GEAR: 1=0.1 Smith-Mcintyre grab 2=Shipek 3=Gravity corer 4=Box corer 5=Vibro corer 6=Ewing corer 7=Hydrostatically damped corer 8=0.2 m ² VanVeen grab
Replicate	51	2	Bytes	I2	Replicate number
Sieve	53	4	Bytes	F4.3*	Sieve size (mm, 3 decimals)
Navigation	57	2	Bytes	I2	NAVIGATION: 01=Loran (mixed or unspecified) 02=Radar and/or fixes 03=Raydist without complications 04=Raydist with errors, drifting, etc. 05=Satellite 06=Omega 07=Loran A only 08=Loran C only
Area	59	4	Bytes	F4,2*	Surface area of sample: (m ² , 2 decimals)
Depth	63	3	Bytes	F3.1*	Depth of sample penetration: (cm, 1 decimal)
Aliquot	66	1	Byte	I1	ALIQUT Method 1=top 2-3 cm of 35mm core from grab 2=top cm from grab 3=top 8-10cm from shipek grab 4=top 8-10cm from Smith McIntyre grab

RECORD FORMAT DESCRIPTION

RECORD NAME SAMPLE HEADER 1 CONT.

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., 10, 20, 30)	16. LENGTH		17. ATTRIBUTES FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
Annelida	67	5	Bytes	F5.2*	5=top 10cm from box corer 6=core below 10cm from box corer Biomass-Annelida (wet weight in hundredths of grams)**
Mollusca	72	5	Bytes	F5.2*	Biomass-Mollusca (wet weight in hundredths of grams)**
Crustacean	77	5	Bytes	F5.2*	Biomass-Crustacean (wet weight in hundredths of grams)**
Echin	82	5	Bytes	F5.2*	Biomass-Echinodermata (wet weight in hundredths of grams)**
Miscel.	87	5	Bytes	F5.2*	Biomass-Miscellaneous Taxa (wet weight in hundredths of grams)**

*Decimal place IMPLIED: "period" is not present

**A "T" in last column of field indicates only a trace reading

RECORD FORMAT DESCRIPTION

Part 1

RECORD NAME

14. RECORD NAME	15. POSITION FROM -1 MEASURED IN DEIL (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2" Terminators					
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	66	Bytes	66x	Blank
Sample Header Record 2					
File type	1	3	Chars	A3	"012" (constant)
File Date	4	6	Bytes	3I2	Year,month,day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513,0515,0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1x	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	36	Bytes	36X	Blank

*Decimal place is IMPLIED; "period" is not present

*Decimal place is IMPLIED; "period" is not present

RECORD FORMAT DESCRIPTION

RECORD NAME					
14. FIELD NAME	15. POSITION FROM -1 MEASURED IN (e.g., 5110, by 40)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
<u>Record Type "T" Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as sample header record
Sequence	11	3	Chars	A3	"999" (constant)
Blank	14	78	Bytes	78 X	Blank
<u>Data Record</u>					
File type	1	3	Chars	A3	"012" (constant)
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample identifier
Replicate	19	2	Chars	A2	Replicate number
Species	21	10	Chars	10A1	Species (NODC code)
Count	31	5	Bytes	I5	Count (number of individuals)**
Blank	36	56	Bytes	56X	Blank
<u>Data Record Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"999" (constant)
Blank	14	78	Bytes	78X	Blank
<u>File Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"999" (constant)
Blank	14	78	Bytes	78X	Blank
*Decimal place is IMPLIED: "period" is not present					
**"p" in cols. 31-35 indicates the organism is present but not countable					

NAVIGATION:

- 01 = Loran (mixed or unspecified)
- 02 = Radar and/or fixes
- 03 = Raydist without complications
- 04 = Raydist with errors, drifting, etc.
- 05 = Satellite
- 06 = Omega
- 07 = Loran A only
- 08 = Loran C only

TURBIDITY MEASUREMENT TECHNIQUE

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 cm. path
- 3 = Fluorometer; suspended solids calibration
- 4 = Nephelometer

ERROR CORRECTION DOCUMENTATION FORM

DATE:

TO:

FROM:

SUBJECT: Error Correction in Processing of Data Set - Accession # 7800340

- 1) File Type: F012
- 2) Project Ident.: VIMS-OCS
- 3) Track Nos.: TR3011

I. Error Corrections as reported to Principal Investigator:

Error

Correction Completed (Check)

II. Additional error corrections:

Error

Correction Completed (Check)

III. Processor Name: _____

<u>Step</u>	<u>Completion Date/Init.</u>		<u>Tape # or DSN</u>	<u># of Files</u>	<u>BLKSIZE</u>	<u>LRECL</u>	<u># RECORDS</u>
ORIGINATOR TAPE	5/20/83	JPB	VC M402	3	91	91	7164
QUADI/SCAN TAPE	5/20/83	JPB	W12158	3	4550	91	7164
ASSIGNED FOR PROCESS.							
DDF EVALUATION							
QUALITY REVIEW							
PRELIMINARY DATA SORT							
PRELIMINARY MULCHEK							
FIRST USER TAPE							
WORK DISK FILE							
FINAL USER TAPE							
FINAL MULCHEK							
EDITED DISK FILE							
DATA SET "FINALIZED"							

TAPE ASSIGNMENT SHEET

ACCESSION NO.: 7800340

TRACK NO(s): TR3011

Type of Tape	Tape Number	Label	IRECL	BLKSIZE	RECFM	Remarks
Originator	VCM402	SL	91	91	9-tr 1600 BPI EBCDIC	
Duplicate	W12158	SL	91	4550	9-tr 1600 BPI ASCII	
Reformatted						
First User						
Final User						

VCM342 DDF A: 1:18

ACCESSION
NUMBER

78-0340

DATA DOCUMENTATION FORM

TR 7995

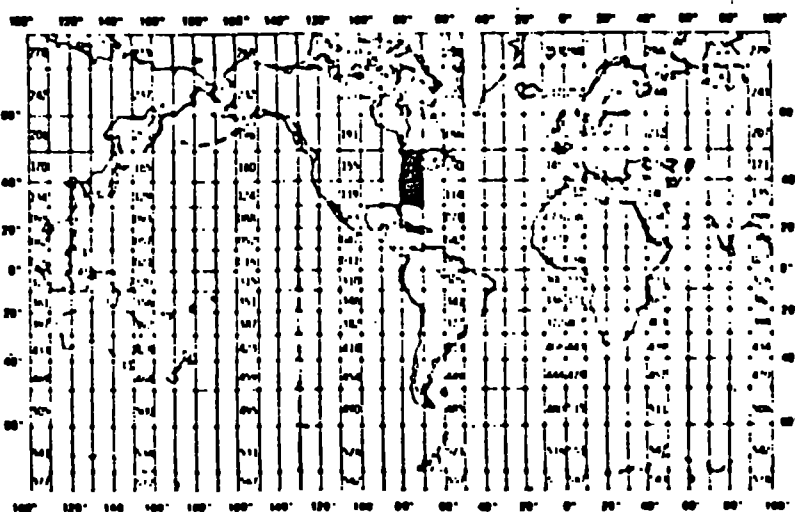
HYDREB. 010. BLM 06W

NOAA FORM 24-13
(4-72)U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
NECOM-3 SECTION
ROCKVILLE, MARYLAND 20852FORM 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			
Virginia Institute of Marine Science Gloucester Point, Virginia 23062			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT	
BLM		BLM06W	
4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)	7. DATES
H.J.W. Fay	Ship	PLATFORM OPERATOR	FROM: MO, DAY, YR TO: MO, DAY, YR
		H.J.W. Fay Tracor Marine	02/19/77 03/06/77
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR MONTH		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED. GENERAL AREA	
9. ARE DATA INCLUDED NATIONAL PROGRAM (DNPI)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)			
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM 1) Dr. Gerald L. Engel Va. Institute of Marine Science Gloucester Pt., Va. 23062 804-642-2111			

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
Latitude & Long.	Degrees, mins., seconds	Loran C SIMRAD Model LC 101		Program used to convert from Loran C Coordinates to Latitude & Longitude
Latitudinal Hemisphere	N or S			
Longitudinal Hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	EDO Model 55A Recorder EDO Model 444D/248D Tranceiver		
Water sample depth	to nearest meter	CTD Neil Brown MK III		
Surface water temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees WMO Code 0877	Ship's anemometer Bendix Model 120/135		
Wind Speed	Knots	Ship's anemometer Bendix Model 120/135		
Wave direction	Tens of degrees WMO Code 0877	Ship's compass		
Wave height	1/2 meters WMO Code 1555	Visual estimate		
Swell direction	Tens of degrees WMO Code 0877	Ship's compass		
Swell height	1/2 meters WMO Code 1555	Visual estimate		
Weather	WMO Code 4677	Visual estimate		
Cloud type	WMO Codes 0513, 0515, C509	Visual estimate		

B. SCIENTIFIC CONTENT

[illegible]

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

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Positions 1-10 identical to the last sample header Sample Header 2 "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for Positions 1-10 identical to last data record, each sample "998" - position 11-13
8. File terminator Positions 1-10 identical to last data record, "999" in Positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record. Following this are Data Records for that sample followed by Terminator record. Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

3. ATTRIBUTES AS EXPRESSED IN

☐ PL-1 ☐ ALGOL ☐ COBOL
☒ FORTRAN ☐ _____ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel
ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/8 INCH <input checked="" type="checkbox"/> 0.6 inch</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK <input type="checkbox"/> OCTAL 17 <input type="checkbox"/> _____</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME KEY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p>VCM342</p> <p>Virginia Institute of Marine Science</p> <p>Hydrocarbon</p> <p>File Label = 'HYDRCB.010.BLM06W'</p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 556 BPI</p> <p><input type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>113</p> <p>13. LENGTH OF BYTES IN BITS</p> <p>8</p>

RECORD FORMAT DESCRIPTION

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"010" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I2	xx/xx/xx-xx/xx/xx Beginning year, month, day- ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigators & Institution
Investigator	64	16	Chars	16A1	Responsible for data.
Blank	80	34	Bytes	34X	Blank

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"010" File-type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Char	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab sample no.	14	5	Chars	5A1	Sample identifier (first 2 chars are station I.D.)
Latitude	19	6	Bytes	3I2	Latitude (degrees, minutes, seconds)
Lat hem	25	1	Char	A1	Hemisphere (-N or S)
Longitude	26	7	Bytes	I3, 2I2	Longitude (degrees, minutes, seconds)
Lon hem	33	1	Char	A1	Hemisphere (-E or W)
Time	34	3	Bytes	F3.1*	Station time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
Depth	45	5	Bytes	F5.1*	Water depth (to nearest tenth of a meter)
Navigation	50	2	Bytes	I2	Navigation: 01=Loran (mixed or unspecified) 02=Radar and/or fixes 03=Raydist without complications 04=Raydist with errors, drifting, etc. 05=Satellite 06=Omega 07=Loran A only 08=Loran C only
Sample code	52	1	Byte	I1	Sample type code: 1=Sediment 7=Neuston 2=Benthic 8=Dissolved Oxygen 3=Zooplankton bottom 4=Dissolved oxygen, surface 5=Particulate, surface 6=Surface film 9=Particulate, bottom
Replicate	53	2	Chars	A2	Replicate number (sediment only)
Znumb	55	4	Bytes	I4	Zooplankton collection number
Species	59	10	Chars	10A1	Species code (NODC code)
Pris/Phy	69	5	Bytes	E5.2*	Pristane/phytane ratio (E notation 9.99+9)
Phy/C18	74	5	Bytes	E5.2*	Phytane/C18 ratio (E notation 9.99+9)
Pris/C17	79	5	Bytes	E5.2*	Pristane/C17 ratio (E notation 9.99+9)
Total extract	84	6	Bytes	E6.3*	Total extract weight** (E notation 9.999+9)
CPI	90	6	Bytes	E6.3*	(E notation 9.999+9) (C23+C25+C27+C29)/ (C24+C26+C28+C30)

*Decimal place is implied; "period" is not present

**Units are defined by sample type code 1, 2, 3, & 7 in $\mu\text{gm/gm}$; 4, 5, & 8 in $\mu\text{gm/liter}$; 6 in $\mu\text{gm/m}^2$

RECORD FORMAT DESCRIPTION

RECORD NAME

1. RECORD NAME	15. POSITION FROM -1 MEASURED IN BITS (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2" Terminators					
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	100	Bytes	100X	Blank
Sample Header Record 2					
File type	1	3	Chars	A3	"(1)" (constant)
File Date	4	6	Bytes	3I2	Year,month,day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513,0515,0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1x	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	58	Bytes	58X	Blank

*Decimal place is IMPLIED; "period" is not present

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 Type "3"	Terminator				
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record 2
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	100	Bytes	100X	Blank
Data Record					
File type	1	3	Chars	A3	"010" (constant)
File date	4	6	Bytes	3I2	year, month, day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample identifier (14-15 station code)
No.	19	2	Bytes	I2	Number of concentrations in this record (up to 10)
Extract	21	1	Char	A1	Extract Code H=Aliphatic B=Aromatic
Retention	22	4	Bytes	I4	Retention index**
Concentration	26	5	Bytes	E5.2*	Concentration (E notation 9.99-9)
Retention	31	4	Bytes	I4	Retention index**
Concentration	35	5	Bytes	E5.2*	Concentration
Retention	40	4	Bytes	I4	Retention index**
Concentration	44	5	Bytes	E5.2*	Concentration
Retention	49	4	Bytes	I4	Retention index**
Concentration	53	5	Bytes	E5.2*	Concentration
Retention	58	4	Bytes	I4	Retention index**
Concentration	62	5	Bytes	E5.2*	Concentration
Retention	67	4	Bytes	I4	Retention index**
Concentration	71	5	Bytes	E5.2*	Concentration
Retention	76	4	Bytes	I4	Retention index**
Concentration	80	5	Bytes	E5.2*	Concentration
Retention	85	4	Bytes	I4	Retention index**
Concentration	89	5	Bytes	E5.2*	Concentration
Retention	94	4	Bytes	I4	Retention index**
Concentration	98	5	Bytes	E5.2*	Concentration
Retention	103	4	Bytes	I4	Retention index**
Concentration	107	5	Bytes	E5.2*	Concentration
Blank	112	2	Bytes	2X	Blank

*Decimal place is IMPLIED; "period" is not present.

**Analytical Chemistry Vol. 36, No. 8, July, 1964, pp 31A-41A.

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		
<u>Data Record Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as Data Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	100	Bytes	100X	Blank
<u>File Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as Data Record
Sequence	11	3	Chars	A3	"999" (constant)
Blank	14	100	Bytes	100X	Blank
					*Decimal place is IMPLIED; "period" is not present.

NAVIGATION:

- 01 = Loran (mixed or unspecified)
- 02 = Radar and/or fixes
- 03 = Raydist without complications
- 04 = Raydist with errors, drifting, etc.
- 05 = Satellite
- 06 = Omega
- 07 = Loran A only
- 08 = Loran C only

TURBIDITY MEASUREMENT TECHNIQUE

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 cm. path
- 3 = Fluorometer; suspended solids calibration
- 4 = Nephelometer

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.

BLM06B, BLM06W

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
Neil Brown Inst. CTD MK III	Jan., 1977	✓			✓				
Beckman Minds D.O. Sensor	Jan., 1977	✓			✓				
Guildline Autosac MOD8400	Jan., 1977	✓			✓				

DATE:

TO: OC12FROM: OC13SUBJECT: Error Correction in Processing of Data Set - Accession 17800340

- 1) File Type: F010
- 2) Project Ident.: VIMS-OCs
- 3) Track Nos.: TR9995

I. Error Corrections as reported to Principal Investigator:

ErrorCorrection Completed (Check)

II. Additional error corrections:

ErrorCorrection Completed (Check)

III. Processor Name: _____

<u>Step</u>	<u>Completion Date/Init.</u>		<u>Tape # or DSN</u>	<u># of Files</u>	<u>BLKSIZE</u>	<u>LRECL</u>	<u># RECORDS</u>
ORIGINATOR TAPE	3/2/83	828	VCM342	3	113	113	
QUADI/SCAN TAPE	3/2/83	828	W11400	3	4520	113	
ASSIGNED FOR PROCESS.							
DDF EVALUATION							
QUALITY REVIEW							
PRELIMINARY DATA SORT							
PRELIMINARY MULCHEK							
FIRST USER TAPE							
WORK DISK FILE							
FINAL USER TAPE							
FINAL MULCHEK							
EDITED DISK FILE							
DATA SET "FINALIZED"							

TAPE ASSIGNMENT SHEET

ACCESSION NO.: 7800340

TRACK NO(s): TR7995

Type of Tape	Tape Number	Label	LRECL	BLKSIZE	RECFM	Remarks
Originator	VCM342	SL	113	113	9-tv 1600 BPI EBCDIC	
Duplicate	W11400	SL	113	4520	9-tv 1600 BPI ASCII	
Reformatted						
First User						
Final User						

Rec'd 5/3/78

DATA DOCUMENTATION FORM

VCM 341

HYDRCB. 010. BLM 06T

78-0340

TR 7997

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RESEARCH SECTION
ROCKVILLE, MARYLAND 20852FORM APPROVED
O.M.B. No. 41-R-2091

DDFA: 1/7/18

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

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1. NAME AND ADDRESS OF INSTITUTION, LABORATORY, OR ACTIVITY WITH WHICH SUBMITTED DATA ARE ASSOCIATED			
Virginia Institute of Marine Science Gloucester Point, Virginia 23062			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT	
BLM		BLMOGT	
4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)	7. DATES
James M. Gilliss	Ship	PLATFORM OPERATOR	FROM: MO/DAY/YR TO: MO/DAY/YR
		James M. Gilliss Univ. of Miami	03/18/77 03/28/77
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR MONTH		9. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.	
10. ARE DATA DECLARED NATIONAL PROGRAM (ON)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNA- TIONAL EXCHANGE?) <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)		GENERAL AREA	
11. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELE- PHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1) Dr. Gerald L. Engel Va. Institute of Marine Science Gloucester Pt., Va. 23062 804-442-2111			

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
Latitude & Long.	Degrees, mins., seconds	Loran C SIMRAD Model LC 101		Program used to convert from Loran C coordinates to Latitude & Longitude
Latitudinal Hemisphere	N or S			
Longitudinal Hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist watch checked daily with WWV		
Water depth	to nearest tenth of a meter	Precision Depth Recorder		
Water sample depth	to nearest meter	G.M. Meter Wheel		
Surface water temperature	°C to nearest tenth	Mercury in glass stem Thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees WMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	Knots	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees WMO Code 0877	Ship's compass		
Wave height	1/2 meters WMO Code 1555	Visual estimate		
Swell direction	Tens of degrees WMO Code 0877	Ship's compass		
Swell height	1/2 meters WMO Code 1555	Visual estimate		
Weather	WMO Code 4677	Visual estimate		
Cloud type	WMO Codes 0513, 0515, 0509	Visual estimate		

B. SCIENTIFIC CONTENT

[illegible]

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

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Sample Header 2 Positions 1-10 identical to the last sample header "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for Positions 1-10 identical to last data record, each sample "998" - position 11-13
8. File terminator Positions 1-10 identical to last data record, "999" in Positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record.
 Following this are Data Records for that sample followed by Terminator record.
 Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

3. ATTRIBUTES AS EXPRESSED IN

☐ PL-1 ☐ ALGOL ☐ COBOL
☒ FORTRAN ☐ _____ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel
 ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> 0.6 inch</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK</p> <p><input type="checkbox"/> OCTAL 17</p> <p><input type="checkbox"/> _____</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF PAPER TYPE, VOLUME NUMBER)</p> <p>VCM341 Virginia Institute of Marine Science Hydrocarbon File Label = 'HYDRCB.010.BLM06T'</p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 336 BPI</p> <p><input type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>113</p> <p>13. LENGTH OF BYTES IN BITS</p> <p>8</p>

RECORD FORMAT DESCRIPTION

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., b/m, b/m)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"010" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I2	xx/xx/xx-xx/xx/xx Beginning year, month, day- ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigators & Institution
Investigator	64	16	Chars	16A1	Responsible for data.
Blank	80	34	Bytes	34X	Blank

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN (e.g., 100, 1000, 10000)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"010" File-type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Char	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab sample no.	14	5	Chars	5A1	Sample identifier (first 2 chars are station I.D.)
Latitude	19	6	Bytes	3I2	Latitude (degrees, minutes, seconds)
Lathem	25	1	Char	A1	Hemisphere (-N or S)
Longitude	26	7	Bytes	I3, 2I2	Longitude (degrees, minutes, seconds)
Lonhem	33	1	Char	A1	Hemisphere (-E or W)
Time	34	3	Bytes	F3.1*	Station time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
Depth	45	5	Bytes	F5.1*	Water depth (to nearest tenth of a meter)
Navigation	50	2	Bytes	I2	Navigation: 01=Loran (mixed or unspecified) 02=Radar and/or fixes 03=Raydist without complications 04=Raydist with errors, drifting, etc. 05=Satellite 06=Omega 07=Loran A only 08=Loran C only Sample type code: 1=Sediment 7=Neuston 2=Benthic 8=Dissolved Oxygen 3=Zooplankton bottom 4=Dissolved oxygen, surface 5=Particulate, surface 6=Surface film 9=Particulate, bottom
Sample code	52	1	Byte	I1	Replicate number (sediment only)
Replicate	53	2	Chars	A2	Zooplankton collection number
Znumb	55	4	Bytes	I4	Species code (NODC code)
Species	59	10	Chars	10A1	Pristane/phytane ratio (E notation 9 ⁹⁹⁺⁹)
Pris/Phy	69	5	Bytes	E5.2*	Phytane/C18 ratio - (E notation 9 ⁹⁹⁺⁹)
Phy/C18	74	5	Bytes	E5.2*	Pristane/C17 ratio (E notation 9 ⁹⁹⁺⁹)
Pris/C17	79	5	Bytes	E5.2*	Total extract weight** (E notation 9 ⁹⁹⁹⁺⁹)
Total extract	84	6	Bytes	E6.3*	(E notation 9 ⁹⁹⁹⁺⁹)
CPI	90	6	Bytes	E6.3*	(C23+C25+C27+C29)/ (C24+C26+C28+C30)

*Decimal place is implied; "period" is not present

**Units are defined by sample type code 1, 2, 3, & 7 in $\mu\text{gm/gm}$; 4, 5, & 8 in $\mu\text{gm/liter}$; 6 in $\mu\text{gm/m}^2$

RECORD FORMAT DESCRIPTION

RECORD NAME

FIELD NAME	15. POSITION FROM -1 MEASURED IN BYTES (e.g., 576, 6768)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2"	Terminators				
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Rec
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	100	Bytes	100X	Blank
Sample Header Record 2					
File type	1	3	Chars	A3	"(1)" (constant)
File Date	4	6	Bytes	3I2	Year, month, day of file generation
Record Type	10	1	Char	A1	"3" (second sample header r
Sequence	11	3	Bytes	I3	Sequence of this record ty
					within sample
Sample	14	5	Chars	5A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Ce
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Ce
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degr
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degr
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degr
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513,0515,0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1x	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement tech (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	58	Bytes	58X	Blank

*Decimal place is IMPLIED; "period" is not present

RECORD NAME

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN (e.g., MB, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "3"	Terminator				
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record 2
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	100	Bytes	100X	Blank
Data Record					
File type	1	3	Chars	A3	"010" (constant)
File date	4	6	Bytes	3I2	year, month, day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	SA1	Sample identifier (14-15 station code)
No.	19	2	Bytes	I2	Number of concentrations in this record (up to 10)
Extract	21	1	Char	A1	Extract Code H=Aliphatic B=Aromatic
Retention	22	4	Bytes	I4	Retention index**
Concentration	26	5	Bytes	E5.2*	Concentration (E notation 9.99-9)
Retention	31	4	Bytes	I4	Retention index**
Concentration	35	5	Bytes	E5.2*	Concentration
Retention	40	4	Bytes	I4	Retention index**
Concentration	44	5	Bytes	E5.2*	Concentration
Retention	49	4	Bytes	I4	Retention index**
Concentration	53	5	Bytes	E5.2*	Concentration
Retention	58	4	Bytes	I4	Retention index**
Concentration	62	5	Bytes	E5.2*	Concentration
Retention	67	4	Bytes	I4	Retention index**
Concentration	71	5	Bytes	E5.2*	Concentration
Retention	76	4	Bytes	I4	Retention index**
Concentration	80	5	Bytes	E5.2*	Concentration
Retention	85	4	Bytes	I4	Retention index**
Concentration	89	5	Bytes	E5.2*	Concentration
Retention	94	4	Bytes	I4	Retention index**
Concentration	98	5	Bytes	E5.2*	Concentration
Retention	103	4	Bytes	I4	Retention index**
Concentration	107	5	Bytes	E5.2*	Concentration
Blank	112	2	Bytes	2X	Blank

*Decimal place is IMPLIED; "period" is not present.

**Analytical Chemistry Vol. 36, No. 8, July, 1964, pp 31A-41A.

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		
<u>Data Record Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as Data Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	100	Bytes	100X	Blank
<u>File Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as Data Record
Sequence	11	3	Chars	A3	"999" (constant)
Blank	14	100	Bytes	100X	Blank
					*Decimal place is IMPLIED; "period" is not present.

NAVIGATION:

- 01 = Loran (mixed or unspecified)
- 02 = Radar and/or fixes
- 03 = Raydist without complications
- 04 = Raydist with errors, drifting, etc.
- 05 = Satellite
- 06 = Omega
- 07 = Loran A only
- 08 = Loran C only

TURBIDITY MEASUREMENT TECHNIQUE

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 cm. path
- 3 = Fluorometer; suspended solids calibration
- 4 = Nephelometer

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.

BLM06T

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
Guildline Autosac NDB400	Jan., 1977	✓			✓			—	

DATE:

TO: OC 12FROM: OC 13SUBJECT: Error Correction in Processing of Data Set - Accession # 7800340

- 1) File Type: FOIO
- 2) Project Ident.: VIMS-DCS
- 3) Track Nos.: TR 7997

I. Error Corrections as reported to Principal Investigator:

ErrorCorrection Completed (Check)

II. Additional error corrections:

ErrorCorrection Completed (Check)

III. Processor Name: _____

ACCESSION/TRACK # 7800340/TR7997

<u>Step</u>	<u>Completion Date/Init.</u>		<u>Tape # or DSN</u>	<u># of Files</u>	<u>BLKSIZE</u>	<u>LRECL</u>	<u># RECORDS</u>
ORIGINATOR TAPE	3/2/83	818R	VC M431	3	113	113	
QUADI/SCAN TAPE	3/2/83	818R	W11363	3	4520	113	
ASSIGNED FOR PROCESS.							
DDF EVALUATION							
QUALITY REVIEW							
PRELIMINARY DATA SORT							
PRELIMINARY MULCHEK							
FIRST USER TAPE							
WORK DISK FILE							
FINAL USER TAPE							
FINAL MULCHEK							
EDITED DISK FILE							
DATA SET "FINALIZED"							

TAPE ASSIGNMENT SHEET

ACCESSION NO.: 7800340

TRACK NO(s): TR7997

Type of Tape	Tape Number	Label	LRECL	BLKSIZE	RECFM	Remarks
Originator	VCMA431	SL	113	113	9-t 1600 BPI EBCDIC	
Duplicate	W11363	SL	113	4520	9-t 1600 BPI ASCII	
Reformatted						
First User						
Final User						

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			
Virginia Institute of Marine Science Gloucester Point, Virginia 23062			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT	
BLM		BLM08T	
4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)	7. DATES
Cape Henlopen	Ship	PLATFORM OPERATOR	FROM: MO/DAY/YR TO: MO/DAY/YR
		Cape Henlopen Univ. of Delaware	09/07/77 09/15/77
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR MONTH		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.	
9. ARE DATA DECLARED NATIONAL PROGRAM (DNPI)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)		GENERAL AREA	
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1) Dr. Gerald L. Engel Va. Institute of Marine Science Gloucester Pt., Va. 23062 804-642-2111			

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
Latitude & Long.	Degrees, mins., seconds	Loran C SITRAD Model LC 101		Program used to convert from Loran C coordinates to Latitude & Longitude
Latitudinal hemisphere	N or S			
Longitudinal Hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	Fathometer		
Water sample depth	to nearest meter	G. M. Meter Wheel		
Surface water temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees WMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	Knots	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees WMO Code 0877	Ship's Compass		
Wave height	1/2 meters WMO Code 1555	Visual estimate		
Swell direction	Tens of degrees WMO Code 0877	Ship's Compass		
Swell height	1/2 meters WMO Code 1555	Visual estimate		
Weather	WMO Code 4577	Visual estimate		
Cloud type	WMO Codes 0513, 0515, 0509	Visual estimate		

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

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Positions 1-10 identical to the last sample header Sample Header 2 "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for Positions 1-10 identical to last data record, each sample "998" - position 11-13
8. File terminator Positions 1-10 identical to last data record, "999" in positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record.
Following this are Data Records for that sample followed by Terminator record.
Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

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

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel
ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> 0.6 inch</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK <input type="checkbox"/> OCTAL 17 <input type="checkbox"/> _____</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p>VCM409</p> <p>Virginia Institute of Marine Science</p> <p>Mega Benthos</p> <p>File Label = 'MEGABN.082.BLM08T'</p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 700 BPI <input checked="" type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 556 BPI</p> <p><input type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES 79</p> <p>13. LENGTH OF BYTES IN BITS 8</p>

RECORD FORMAT DESCRIPTION

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"082" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I2	xx/xx/xx-xx/xx/xx Beginning year, month, day- ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigators & Institution Responsible for data.
Investigator	64	16	Chars	16A1	

RECORD FORMAT DESCRIPTION

RECORD NAME SAMPLE HEADER 1

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN Bytes (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"082" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
lab sample no.	14	5	Chars	5A1	Sample identifier
Latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Lat hem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3,2I2	Degrees, minutes, seconds
Lon hem	33	1	Char	A1	Hemisphere "E" or "W"
Time	34	3	Byte	F3.1*	Sample time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
WDepth	45	5	Bytes	F5.1*	Water depth (to nearest tenth of a meter)
Gear	50	1	Byte	I1	GEAR: 1=Anchor dredge 2=Small biological trawl 3=Otter Trawl (30 ft.) 4=Rockingchair dredge
Navigation	51	2	Bytes	I2	NAVIGATION: 01=Loran (Mixed or unspecified) 02=Radar and/or fixes 03=Raydist without complications 04=Raydist with errors, drifting etc. 05=Satellite 06=Omega 07=Loran A only 08=Loran C only
Mesh	53	4	Bytes	F4.2*	Dredge mesh size (mm, 2 decimals)
Trawl	57	4	Bytes	F4.2*	Otter trawl liner (mm, 2 decimals)
Tow	61	2	Bytes	I2	Tow duration: minutes
Blank	63	17	Bytes	17X	Blank

*Decimal place IMPLIED: "period" is not present

RECORD FORMAT DESCRIPTION

Mogath

RECORD NAME

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2"	Terminators				
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	66	Bytes	66x	Blank
Sample Header Record 2					
File type	1	3	Chars	A3	"082" (constant)
File Date	4	6	Bytes	3I2	Year,month,day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513,0515,0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1x	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	24	Bytes	24X	Blank

*Decimal place is IMPLIED; "period" is not present

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		
<u>Record Type "3"</u>	Terminator				
Ident	1	10	Bytes	A3,3I2,A1	Same as sample header record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	66	Bytes	66X	Blank
<u>Data Record</u>					
File type	1	3	Chars	A3	"082" (constant)
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample identifier
Species	19	10	Chars	10A1	Species (NODC code)
Count	29	5	Bytes	I5	Count (number of individuals)**
Weight	34	5	Bytes	I5	Weight (mg)
Order of magnitude	39	2	Bytes	I2	Order of magnitude
Blank	41	39	Bytes	39X	Blank
<u>Data Record Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	66	Bytes	66X	Blank
<u>File Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"999" (constant)
Blank	14	66	Bytes	66X	Blank
*Decimal place is IMPLIED: "period" is not present					
**A "P" in col. 33 indicates the organism is present but not countable.					

NAVIGATION:

- 01 = Loran (mixed or unspecified)
- 02 = Radar and/or fixes
- 03 = Raydist without complications
- 04 = Raydist with errors, drifting, etc.
- 05 = Satellite
- 06 = Omega
- 07 = Loran A only
- 08 = Loran C only

TURBIDITY MEASUREMENT TECHNIQUE

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 cm. path
- 3 = Flourometer; suspended solids calibration
- 4 = Nephelometer

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.

BLM08T

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
Guildline Autosac MOD8400	July, 1977	✓			✓				

5/3/78

VLM 496 DFA 11:18

ACCESSION
NUMBER

78-0346

DATA DOCUMENTATION FORM

TR 7992

VIMS

HYDRCB.D10.BLM05T

NOAA FORM 24-13

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
MLCONE SECTION
ROCKVILLE, MARYLAND 20852FORM APPROVED
O.M.B. No. 41-R-201

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

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

Virginia Institute of Marine Science
Gloucester Point, Virginia 23062

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

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

BLM05T

4. PLATFORM NAME(S)

Cape Henlopen

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

Ship

6. PLATFORM AND OPERATOR
NATIONALITY(IES)

PLATFORM

OPERATOR

Cape
HenlopenUniv. of
Delaware

7. DATES

FROM: MO/DAY/YR TO: MO/DAY/YR

11/08/76

11/18/76

8. ARE DATA PROPRIETARY?

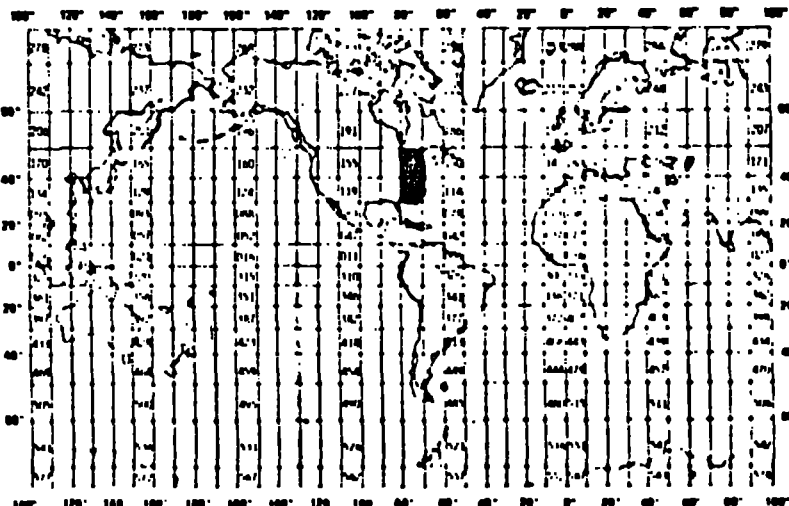
☒ NO ☐ YESIF YES, WHEN CAN THEY BE RELEASED
FOR GENERAL USE? YEAR MONTH9. ARE DATA DECLARED NATIONAL
PROGRAM (DNP)?(I.E., SHOULD THEY BE INCLUDED IN WORLD
DATA CENTERS HOLDINGS FOR INTERNA-
TIONAL EXCHANGE?)☒ NO ☐ YES ☐ PART (SPECIFY BELOW)10. PERSON TO WHOM INQUIRIES CONCERNING
DATA SHOULD BE ADDRESSED WITH TELE-
PHONE NUMBER (AND ADDRESS IF OTHER
THAN IN 11.4.1)

Dr. Gerald L. Engel
VI. Institute of Marine Science
Gloucester Pt., Va. 23062

FHA-642-2111

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

GENERAL AREA



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
Latitude & Long.	Degrees, mins., seconds	Loran C SIMRAD Model LC 101		Program used to convert from Loran C coordinates to Latitude & Longitude
Latitudinal hemis.	N or S			
Longitudinal Hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	Fathometer		
Water sample depth	to nearest meter	G. M. Meter Wheel		
Surface water temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Dry-Bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-Bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees WMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	Knots	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees WMO Code 0877	Ship's Compass		
Wave height	1/2 meters WMO Code 1555	Visual estimate		
Swell direction	Tens of degrees WMO Code 0877	Ship's Compass		
Swell height	1/2 meters WMO Code 1555	Visual estimate		
Weather	WMO Code 4677	Visual estimate		
Cloud type	WMO Codes 0513, 0515, 0509	Visual estimate		

B. SCIENTIFIC CONTENT

[illegible]

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

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Sample Header 2 Positions 1-10 identical to the last sample header "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for Positions 1-10 identical to last data record, each sample "998" - position 11-13
8. File Terminator Positions 1-10 identical to last data record, "999" in Positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record.
Following this are Data Records for that sample followed by Terminator record.
Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

3. ATTRIBUTES AS EXPRESSED IN

☐ PL-1 ☐ ALGOL ☐ COBOL
☒ FORTRAN ☐ _____ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel
ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>3. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/8 INCH <input checked="" type="checkbox"/> 0.6 inch</p>
<p>5. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK <input type="checkbox"/> OCTAL 17 <input type="checkbox"/> _____</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p>VCM496 Virginia Institute of Marine Science Hydrocarbon File Label = 'HYDRCB.010.BLM05T'</p>
<p>6. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 336 BPI</p> <p><input type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>113</p> <p>13. LENGTH OF BYTES IN BITS</p> <p>8</p>

RECORD FORMAT DESCRIPTION

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., b/m, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"010" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I2	xx/xx/xx-xx/xx/xx Beginning year, month, day- ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigators & Institution
Investigator	64	16	Chars	16A1	Responsible for data.
Blank	80	34	Bytes	34X	Blank

RECORD NAME

Sample Header 1

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN (e.g. bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"010" File-type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Char	A1	"2" (first sample header)
Sequence	11	3	Chars	A3	Sequence of this record within sample
Lab sample no.	14	5	Chars	5A1	Sample identifier (first chars are station I.D)
Latitude	19	6	Bytes	3I2	Latitude (degrees, minus seconds)
Lat hem	25	1	Char	A1	Hemisphere (-N or S)
Longitude	26	7	Bytes	I3, 2I2	Longitude (degrees, minus seconds)
Lon hem	33	1	Char	A1	Hemisphere (-E or W)
Time	34	3	Bytes	F3.1*	Station time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/(year, month, day)
Depth	45	5	Bytes	F5.1*	Water depth (to nearest of a meter)
Navigation	50	2	Bytes	I2	Navigation: 01=Loran (mixed or unsp) 02=Radar and/or fixes 03=Raydist without comp 04=Raydist with errors, etc. 05=Satellite 06=Omega 07=Loran A only 08=Loran C only
Sample code	52	1	Byte	I1	Sample type code: 1=Sediment 7=Neuston 2=Benthic 8=Dissolved 3=Zooplankton bottom 4=Dissolved oxygen, surface 5=Particulate, surface 6=Surface film 9=Particulate Replicate number (sediment) Zooplankton collection
Replicate	53	2	Chars	A2	Species code (NODC code)
Znumb	55	4	Bytes	I4	Pristane/phytane ratio (E notation 9.99+9)
Species	59	10	Chars	10A1	Phytane/C18 ratio (E notation 9.99+9)
Pris/Phy	69	5	Bytes	E5.2*	Pristane/C17 ratio (E notation 9.99+9)
Phy/C18	74	5	Bytes	E5.2*	Total extract weight** (E notation 9.999+9)
Pris/C17	79	5	Bytes	E5.2*	(E notation 9.999+9) (C23+C25+C27+C29)/(C24+C26+C28+C30)
Total extract	84	6	Bytes	E6.3*	
CPI	90	6	Bytes	E6.3*	

*Decimal place is implied; "period" is not present

**Units are defined by sample type code 1, 2, 3, & 7 in $\mu\text{gm/gm}$; 4, 5, & 6 in $\mu\text{gm/m}^2$

RECORD NAME

Sample Header 1 (continued)

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Blank	96	6	Bytes	6X	Blank
GC aliph	102	6	Bytes	E6.3*	Total GC aliphatic** (E notation 9 ⁹⁹⁹ +9)
GC arom	108	6	Bytes	E6.3*	Total GC aromatic** (E notation 9 ⁹⁹⁹ +9)
*Decimal place is implied; "period" is not present **Units are defined by sample type code: 1, 2, 3 & 7 in ugm/gm 4, 5 & 8 in ugm/liter 6 in ugm/m ²					

RECORD FORMAT DESCRIPTION

RECORD NAME _____

4. FIELD NAME	15. POSITION FROM -1 MEASURED IN BYTES (e.g. bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2" Terminators					
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	100	Bytes	100X	Blank
Sample Header Record 2					
File type	1	3	Chars	A3	"010" (constant)
File Date	4	6	Bytes	3I2	Year,month,day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Other	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513,0515,0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1x	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	58	Bytes	58X	Blank

*Decimal place is IMPLIED; "period" is not present

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 Type "3"	Terminator				
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record 2
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	100	Bytes	100X	Blank
Data Record					
File type	1	3	Chars	A3	"010" (constant)
File date	4	6	Bytes	3I2	year, month, day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample identifier (14-15 station code)
No.	19	2	Bytes	I2	Number of concentrations in this record (up to 10)
Extract	21	1	Char	A1	Extract Code H=Aliphatic B=Aromatic
Retention	22	4	Bytes	I4	Retention index**
Concentration	26	5	Bytes	E5.2*	Concentration (E notation 9,99+9)
Retention	31	4	Bytes	I4	Retention index**
Concentration	35	5	Bytes	E5.2*	Concentration
Retention	40	4	Bytes	I4	Retention index**
Concentration	44	5	Bytes	E5.2*	Concentration
Retention	49	4	Bytes	I4	Retention index**
Concentration	53	5	Bytes	E5.2*	Concentration
Retention	58	4	Bytes	I4	Retention index**
Concentration	62	5	Bytes	E5.2*	Concentration
Retention	67	4	Bytes	I4	Retention index**
Concentration	71	5	Bytes	E5.2*	Concentration
Retention	76	4	Bytes	I4	Retention index**
Concentration	80	5	Bytes	E5.2*	Concentration
Retention	85	4	Bytes	I4	Retention index**
Concentration	89	5	Bytes	E5.2*	Concentration
Retention	94	4	Bytes	I4	Retention index**
Concentration	98	5	Bytes	E5.2*	Concentration
Retention	103	4	Bytes	I4	Retention index**
Concentration	107	5	Bytes	E5.2*	Concentration
Blank	112	2	Bytes	2X	Blank

*Decimal place is IMPLIED; "period" is not present.

**Analytical Chemistry, Vol. 36, No. 8, July, 1964, pp 31A-41A.

RECORD FORMAT DESCRIPTION

CORD NAME

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
<u>Data Record Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as Data Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	100	Bytes	100X	Blank
<u>File Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as Data Record
Sequence	11	3	Chars	A3	"999" (constant)
Blank	14	100	Bytes	100X	Blank
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BLM05T,

INSTRUMENT TYPE (SER., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
Guildline Autosac MODE400	Oct., 1976	✓			✓				

ACCESSION/TRACK # 7800340 / TR 7992

<u>Step</u>	<u>Completion Date/Init.</u>		<u>Tape # or DSN</u>	<u># of Files</u>	<u>BLKSIZE</u>	<u>LRECL</u>	<u># RECORDS</u>
ORIGINATOR TAPE	3/2/83	8/2/83	VCN496	3	113	113	
QUADI/SCAN TAPE	3/2/83	8/2/83	W11250	3	4520	113	
ASSIGNED FOR PROCESS.							
DDF EVALUATION							
QUALITY REVIEW							
PRELIMINARY DATA SORT							
PRELIMINARY MULCHEK							
FIRST USER TAPE							
WORK DISK FILE							
FINAL USER TAPE							
FINAL MULCHEK							
EDITED DISK FILE							
DATA SET "FINALIZED"							

TAPE ASSIGNMENT SHEET

ACCESSION NO.: 7800340

TRACK NO(s): TR 7992

Type of Tape	Tape Number	Label	LRECL	BLKSIZE	RECFM	Remarks
Originator	VCM496	SL	113	113	9-t 1600 BPI EBCDIC	
Duplicate	W11250	SL	113	4520	9-t 1600 BPI ASCII	
Reformatted						
First User						
Final User						

DATE:

TO: OC12

FROM: OC13

SUBJECT: Error Correction in Processing of Data Set - Accession # 7800340

- 1) File Type: F010
- 2) Project Ident.: VIMS-OCS
- 3) Track Nos.: TR7992

I. Error Corrections as reported to Principal Investigator:

ErrorCorrection Completed (Check)

II. Additional error corrections:

ErrorCorrection Completed (Check)

III. Processor Name: _____

TR 3003
NODC CR

TR 3004
NODC CR

Rec'd 5/3/78

VCM 578

ACCESSION
NUMBER

78-0340

DATA DOCUMENTATION FORM

VIMS

WPHYSE.D14.BLMOSW

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-R2631

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

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1. NAME AND ADDRESS OF INSTITUTION, LABORATORY, OR ACTIVITY WITH WHICH SUBMITTED DATA ARE ASSOCIATED																		
Virginia Institute of Marine Science Gloucester Point, Virginia 23062																		
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT																
BIM		BLMOSW																
4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)	7. DATES															
H.J.W. Fay/ Virginian Sea	Ship TR 3003 - TR 3004 -	<table border="1"> <tr> <th>PLATFORM</th> <th>OPERATOR</th> <th>FROM: MO/DAY/YR</th> <th>TO: MO/DAY/YR</th> </tr> <tr> <td>H.J.W. Fay</td> <td>Tracor</td> <td>11/19/76</td> <td>11/29/76</td> </tr> <tr> <td>/Virginian</td> <td>Marine/</td> <td>11/04/76</td> <td>11/07/76</td> </tr> <tr> <td>Sea</td> <td>VIMS</td> <td>11/17/76</td> <td>11/26/76</td> </tr> </table>	PLATFORM	OPERATOR	FROM: MO/DAY/YR	TO: MO/DAY/YR	H.J.W. Fay	Tracor	11/19/76	11/29/76	/Virginian	Marine/	11/04/76	11/07/76	Sea	VIMS	11/17/76	11/26/76
PLATFORM	OPERATOR	FROM: MO/DAY/YR	TO: MO/DAY/YR															
H.J.W. Fay	Tracor	11/19/76	11/29/76															
/Virginian	Marine/	11/04/76	11/07/76															
Sea	VIMS	11/17/76	11/26/76															
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR _____ MONTH _____		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.																
9. ARE DATA DECLARED NATIONAL PROGRAM (DNPI)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNA- TIONAL EXCHANGE?) <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)		GENERAL AREA																
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELE- PHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1) Dr. Gerald L. Engel Va. Institute of Marine Science Gloucester Pt., Va. 23062 804-642-2111																		

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
Latitude & Long.	Degrees, mins., seconds	Loran C SIMRAD Model LC 101		Program used to convert from Loran C coordinates to Latitude & Longitude
Latitudinal hem.	N or S			
Longitudinal hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	EDO Model 55A Recorder EDO Model 444 Tranceiver EDO Model 415 Transducer		
Water sample depth	to nearest meter	CTD Neil Brown MK III		
Surface water temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Anneroid Barometer Model 310		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees WMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	Knots	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees WMO Code 0877	Ship's compass		
Wave height	1/2 meters WMO Code 1555	Visual estimate		
Swell direction	Tens of degrees WMO Code 0877	Ship's compass		
Swell height	1/2 meters WMO Code 1555	Visual estimate		
Weather	WMO Code 4877	Visual estimate		
Cloud type	WMO Codes 0513, 0515, 0509	Visual estimate		

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
Cloud cover	WMO Code 2700	Visual observation		
Visibility	WMO Code 4300	Visual observation		
Wave period	Seconds	Wrist watch - visual observation		
Swell period	Seconds	Wrist watch - visual observation		
Salinity	Parts per thousand to 0.01%	Niskin bottles on rosette	Guildline Auto sac Model 8400	N/A
	Parts per thousands to 0.001ppt	Neil Brown CTD model MK III	N/A	Values averaged over .5 meter intervals
Dissolved Oxygen	Milligrams per liter	Niskin bottles on rosette	Azide Modification to Winkler Titration	N/A
		Beckman minos D.O. Sensor	Corrected to computed D.O. Winkler Titrations	Values averaged over .5 depth intervals
Water temperature	°C to .001	Neil Brown CTD MK III	N/A	Values averaged over .5m
	°C to 0.1	XBT	N/A	Depth and temp at local max, min, inflection points
NO ₂	u gm. atoms/liter	Niskin bottles on rosette	Technicon industrial method #158-71W AAII	N/A
NO ₃	u gm. atoms/liter	Niskin bottles on rosette	Technicon industrial method #158-71W AAII	N/A
Dissolved organic phosphate	u gm. atoms/liter	Niskin bottles on rosette	Technicon industrial method #155-71W AAII	N/A

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

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Sample Header 2 Positions 1-10 identical to the last sample header "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for Positions 1-10 identical to last data record, "998" - position 11-13
8. File terminator Positions 1-10 identical to last data record, "998" in positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record.
Following this are Data Records for that sample followed by Terminator record.
Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

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

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel
ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>		<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> 0.6 inch</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>		<p>10. END OF FILE MARK <input type="checkbox"/> OCTAL 17 <input type="checkbox"/> _____</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>		<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p>VCM578 Virginia Institute of Marine Science Water Physics & Chemistry File Label = 'WPHYSC.014.BLM05W'</p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 336 BPI</p> <p><input type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>		
		<p>12. PHYSICAL BLOCK LENGTH IN BYTES 80</p>
		<p>13. LENGTH OF BYTES IN BITS 8</p>

RECORD FORMAT DESCRIPTION

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"014" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I2	xx/xx/xx-xx/xx/xx Beginning year, month, day- ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigator's name (left-justified)
Investigator	64	17	Chars	16A1	Investigator's Institution Responsible for data.

RECORD FORMAT DESCRIPTION

RECORD NAME SAMPLE HEADER 1

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN Bytes (e.g., bRa, bytes)	16. LENGTH		17. ATTRIBUTES FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"014" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
lab sample no.	14	5	Chars	5A1	Sample identifier
latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
lathem	25	1	Char	A1	Hemisphere "N" or "S"
longitude	26	7	Bytes	I3,2I2	Degrees, minutes, seconds
Lonhem	33	1	Char	A1	Hemisphere "E" or "W"
Time	34	3	Byte	F3.1*	Sample time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
WDepth	45	5	Bytes	F5.1*	Water depth (to nearest tenth of a meter)
Navigation	50	2	Bytes	I2	Navigation: 01=Loran (mixed or unspecified) 02=Radar and/or fixes 03=Raydist without complications 04=Raydist with errors, drifting etc. 05=Satellite 06=Omega 07=Loran A only 08=Loran C only
Method	52	1	Bytes	I1	Sampling method: 1=CTD 2=XBT 3=Water bottles 4=CTD & water bottles 5=CTD, water bottles, & XBT 6=GRAB 7=Meteorological
Blank	53	28	Bytes	28X	Blank

*Decimal place is implied: "period" is not present

RECORD FORMAT DESCRIPTION

RECORD NAME

14. FIELD NAME	15. POSITION	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
	FROM - 1	NUMBER	UNITS		
	MEASURED IN BYTES (e.g., 010, 0100)				
Record Type "2" Terminators					
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67 X	Blank
Sample Header Record 2					
File type	1	3	Chars	A3	"014" (constant)
File Date	4	6	Bytes	3I2	Year,month,day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513,0515,0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1x	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	25	Bytes	25 X	Blank

*Decimal place is IMPLIED; "period" is not present

RECORD FORMAT DESCRIPTION

RECORD NAME

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
<u>Record Type "3" Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record 2
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67X	Blank
<u>Data Record</u>					
File Type	1	3	Chars	A3	"014" (constant)
File Date	4	6	Bytes	3I2	year, month, day of file generation
Record Type	10	1	Chars	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of rec. type w/in sample
Sample	14	5	Chars	SA1	Sample identifier
Depth	19	4	Bytes	I4	Sample depth (meters)
Pressure	23	5	Bytes	F5.1*	Pressure (decibars)
Conduct	28	5	Bytes	F5.3*	Conductivity (mmho/cm)
Temp.	33	5	Bytes	F5.3*	Water Temperature (°C)
Salin	38	4	Bytes	F4.2*	Salinity (PPT)
D.O.	42	4	Bytes	F4.2*	Dissolved Oxygen (MG/L)
NO ₂	46	4	Bytes	F4.2*	Nitrite (microgram - atom/L)
NO ₃	50	4	Bytes	F4.2*	Nitrate (microgram - atom/L)
NH ₄	54	4	Bytes	F4.3*	Amonia (ppm)
O-PO ₄	58	4	Bytes	F4.2*	Ontho-Phosphate (microgram - atom/L)
DOC	62	4	Bytes	F4.2*	Dissolved organic carbom (mg/L)
PCC	66	4	Bytes	F4.2*	Particulate organic carbon(mg/L)
CSALI:	70	5	Bytes	F5.3*	Calculated salinity (ppt to nearest 0.003)**
C.D.O:	75	4	Bytes	F4.2*	Calculated dissolved oxygen (mg/L)**
Blank	79	2	Bytes	2X	Blank
<u>Data Record Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67X	Blank
<u>File Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	67	Bytes	67X	Blank

*Decimal place is IMPLIED: "period" is not present

**99.0 indicates a bad reading

NAVIGATION:

- 01 = Loran (mixed or unspecified)
- 02 = Radar and/or fixes
- 03 = Raydist without complications
- 04 = Raydist with errors, drifting, etc.
- 05 = Satellite
- 06 = Omega
- 07 = Loran A only
- 08 = Loran C only

TURBIDITY MEASUREMENT TECHNIQUE

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 cm. path
- 3 = Fluorometer; suspended solids calibration
- 4 = Nephelometer

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.

BLM05B, BLM05W

INSTRUMENT TYPE (INSTR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
Neil Brown Inst. CTD MK III	Oct., 1976	✓			✓				
Beckman Minds D.O. Sensor	Oct., 1976	✓			✓				
Guildline Autosac MOD8400	Oct., 1976	✓			✓				

Password:

accNo	fleaA	refNo	proj	inst	ship	startDate	cruise	catId
7800340	F144	TR7992	0084	3128	32CW	1976/11/08	BLM05T	306920
7800340	F144	TR7993	0084	3128	31FY	1976/11/19	BLM05W	306921
7800340	F144	TR7994	0084	3128	31FY	1976/11/03	BLM05B	306922
7800340	F144	TR7995	0084	3128	31FY	1977/02/19	BLM06W	306923
7800340	F144	TR7997	0084	3128	31GI	1977/03/18	BLM06T	306924
7800340	F004	TR3000	0084	3128	31FY	1977/02/04	BLM06B	306925
7800340	F004	TR3001	0084	3128	31FY	1977/02/19	BLM06W	306926
7800340	F004	TR3002	0084	3128	31FY	1976/11/03	BLM05B	306927
7800340	F004	TR3003	0084	3128	31FY	1976/11/19	BLM05W	306928
7800340	F004	TR3004	0084	3128	32VS	1976/11/04	BLM05W	306929
7800340	L504	TR3005	0084	3128	31GI	1977/03/18	BLM06T	306930
7800340	L504	TR3006	0084	3128	32CW	1977/05/16	BLM07T	306931
7800340	L504	TR3007	0084	3128	32CW	1977/09/07	BLM08T	306932
7800340	L504	TR3008	0084	3128	32CW	1976/11/08	BLM05T	306933
7800340	L504	TR3009	0084	3128	31FY	1976/11/03	BLM05B	306934
7800340	L504	TR3010	0084	3128	31FY	1977/02/04	BLM06B	306935
7800340	L504	TR3011	0084	3128	31FY	1977/05/30	BLM07B	306936
7800340	L504	TR3012	0084	3128	31FY	1977/08/03	BLM08B	306937
7800340	F124	TR3013	0084	3128	32VS	1976/11/05	BLM05W	306938
7800340	F124	TR3015	0084	3128	31FY	1977/02/20	BLM06W	306939
7800340	F124	TR3016	0084	3128	31FY	1977/05/18	BLM07W	306940
7800340	F124	TR3017	0084	3128	31FY	1977/08/19	BLM08W	306941
7800340	L515	TR3018	0084	3128	32CW	1976/11/08	BLM05T	306942
7800340	L515	TR3019	0084	3128	31GI	1977/03/18	BLM06T	306943
7800340	L515	TR3020	0084	3128	32CW	1977/05/16	BLM07T	306944
7800340	L515	TR3021	0084	3128	32CW	1977/09/07	BLM08T	306945
7800340	L515	TR3022	0084	3128	32CW	1976/11/08	BLM05T	306946
7800340	L515	TR3023	0084	3128	31GI	1977/03/18	BLM06T	306947
7800340	L515	TR3024	0084	3128	32CW	1977/05/16	BLM07T	306948
7800340	L515	TR3025	0084	3128	32CW	1977/09/07	BLM08T	306949

(30 rows affected)

Password:

accNo	fleA	refNo	ship	staCnt	recCnt	startDate	endDate
7800340	F144	TR7992	32CW	35	0	76/11/08	76/11/18
7800340	F144	TR7993	31FY	0	0	76/11/19	76/11/29
7800340	F144	TR7994	31FY	64	0	76/11/03	76/11/18
7800340	F144	TR7995	31FY	72	0	77/02/19	77/03/06
7800340	F144	TR7997	31GI	33	0	77/03/18	77/03/28
7800340	F004	TR3000	31FY	170	0	77/02/04	77/03/13
7800340	F004	TR3001	31FY	99	0	77/02/19	77/03/06
7800340	F004	TR3002	31FY	55	0	76/11/03	76/11/18
7800340	F004	TR3003	31FY	28	0	76/11/19	76/11/29
7800340	F004	TR3004	32VS	36	0	76/11/04	76/11/26
7800340	L504	TR3005	31GI	9	0	77/03/18	77/03/28
7800340	L504	TR3006	32CW	9	0	77/05/16	77/05/21
7800340	L504	TR3007	32CW	9	0	77/09/07	77/09/15
7800340	L504	TR3008	32CW	70	0	76/11/08	76/11/18
7800340	L504	TR3009	31FY	215	0	76/11/03	77/11/18
7800340	L504	TR3010	31FY	215	0	77/02/04	77/03/13
7800340	L504	TR3011	31FY	20	0	77/05/30	77/06/05
7800340	L504	TR3012	31FY	215	0	77/08/03	77/08/17
7800340	F124	TR3013	32VS	118	5291	76/11/05	76/11/28
7800340	F124	TR3015	31FY	96	3464	77/02/20	77/03/06
7800340	F124	TR3016	31FY	94	4150	77/05/18	77/05/28
7800340	F124	TR3017	31FY	78	6321	77/08/19	77/08/30
7800340	L515	TR3018	32CW	71	0	76/11/08	76/11/18
7800340	L515	TR3019	31GI	66	0	77/03/18	77/03/28
7800340	L515	TR3020	32CW	67	0	77/05/16	77/05/21
7800340	L515	TR3021	32CW	66	0	77/09/07	77/09/15
7800340	L515	TR3022	32CW	1833	0	76/11/08	76/11/18
7800340	L515	TR3023	31GI	1252	0	77/03/18	77/03/28
7800340	L515	TR3024	32CW	1088	0	77/05/16	77/05/21
7800340	L515	TR3025	32CW	1876	0	77/09/07	77/09/15

(30 rows affected)